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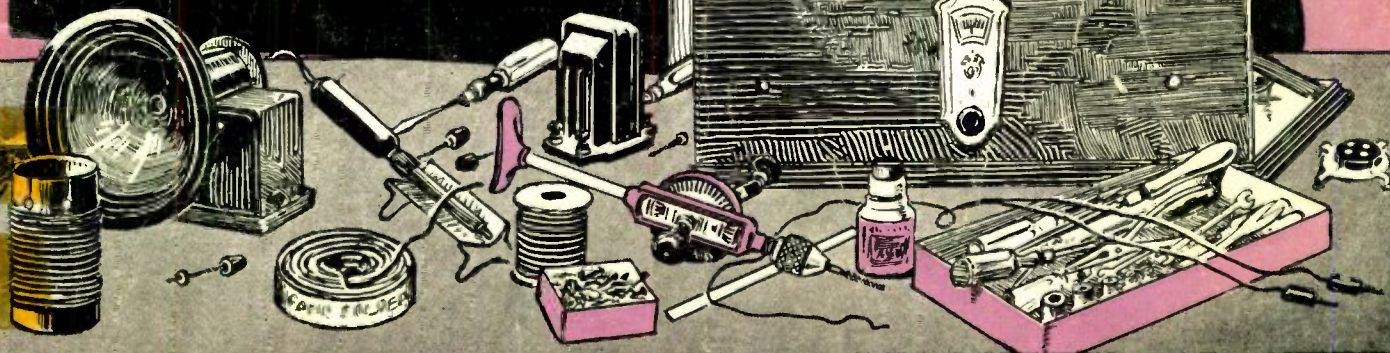
1929

RASCO RADIO PARTS

Radio Specialty Co.



96-98 PARK PLACE
NEW YORK



· RASCO HAS IT ·

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Please Read this, My Personal Message to You:

MR. RADIO PURCHASER:

I am very proud of this catalogue and I know you will treasure it highly, so I am mighty glad you wrote for it! However, please do not regard it as "just another wholesale radio mail order catalogue," for it is decidedly not that! In truth, it is a Veritable Encyclopedia of the Radio Industry. To read and digest it thoroughly is to gain a practical and valuable fundamental knowledge of the Radio Profession and Art! The catalogue descriptions are concisely compiled, and entirely devoid of "flowery" expressions, meaningless claims, exaggerated statements, etc. You can therefore make your purchases with full assurance of every satisfaction! At the same time, you will doubtless note every description is most complete—RASCO'S customers constantly compliment us for our very painstaking efforts to print a non-mistakable "worded picture" of our merchandise. For verification of this, please refer to other "similar" catalogues!

Again I repeat: I am very proud of this catalogue! For it boasts the honor of being the largest exclusive Radio Catalogue in the world! Our old friends, RASCO'S MANY, MANY THOUSANDS of customers, will recognize in this catalogue a page size more than double that of its recent predecessors. This larger page makes it very much easier for you to order from . . . a greater array of apparatus confronts you. Unlike other Radio mail order catalogues, the columns are evenly arranged—not crammed up in uneven, jumbled fashion. It is therefore MUCH EASIER (BESIDES BEING MUCH LESS EXPENSIVE) TO ORDER YOUR REQUIREMENTS FROM RASCO'S CATALOGUES!

And here are a few more EXCLUSIVE FEATURES: Wherever possible, the manufacturer's model number is listed to the right of our stock number, separated by a hyphen. Manufacturers of the apparatus we list write us they very much appreciate this courtesy, and then again, this feature makes it easier to order from RASCO. Also note that similar articles, say, coils, rheostats, etc., are carefully grouped together, certainly offering no little additional convenience to you! Then there is a double index—one part devoted to a "finely broken up" list of parts, etc., and the other part devoted to the listing of page numbers according to the names of the manufacturers whose products appear thereon. You are thus bound to easily and quickly locate any particular item you are interested in! Of course, there are many more features, but our modesty prevents us from further boasting and self praise!

Here is a thought—surely conclusive proof that you should confine all your radio purchases with Radio Specialty Co.—our first catalogue consisted of 82 single column pages measuring 3" x 6"—our most recent catalogue (No. 18) consisted of 148 DOUBLE COLUMN PAGES measuring 5" x 7". THE CATALOGUE YOU NOW HOLD IN YOUR HANDS CONSISTS OF 112 TRIPLE COLUMN PAGES measuring 7½" x 10". EQUAL TO 246 pages of the No. 18 catalogue size!! This should denote one only too logical fact to you—our customers have been so appreciative of our SQUARE DEAL POLICIES, 100 PER CENT SATISFACTORY MERCHANDISE AND LOWEST ROCK-BOTTOM PRICES, that this mail order business has grown to one of great proportions.



This House Will Give You a Square Deal!
Louis Gancher

GENERAL MANAGER
RADIO SPECIALTY CO.

Several of the personnel of this corporation have been in the mail order radio business since 1904. Surely, in that time we have gained some valuable experience, and feel quite qualified to say WE KNOW HOW TO PLEASE YOU! Next to complete satisfaction and lowest prices, we KNOW YOU WANT THE MOST PROMPT SHIPPING SERVICE POSSIBLE! ONLY RASCO CAN TOE THE MARK IN THIS RESPECT. FOR WE ARE SITUATED RIGHT IN THE CENTER OF THE WORLD'S GREATEST RADIO MARKET, and THUS OUR HUGE STOCKS CAN BE RAPIDLY REPLENISHED. Furthermore, manufacturers favor us when shipping their orders, out of respect to the very large business we give them. All our executives and their co-workers are IMBUED WITH A DOGGED DETERMINATION TO SHIP ORDERS WITHIN 3 TO 24 HOURS OF RECEIPT THEREOF.

Should we fail to maintain this schedule, the customer is immediately notified. In short, the mechanical routine of this organization is so systematized that your 100 PER CENT SATISFACTION IS ASSURED. IT IS A POSITIVE PLEASURE TO TRANSACT BUSINESS WITH RADIO SPECIALTY CO.

Radio is not only our "bread and butter," but it is also the hobbies of most of our executives and co-workers. We like to "dabble and tinker" in building sets—improving the tone quality, volume, etc.—with as much enthusiasm as our customers do. This personal contact enables us to thoroughly understand all your problems, whether they be of a technical, electrical or solely mechanical nature. Only two blind men can truthfully understand each other's plight . . . we are not "blind" to your problems—we can help you . . . please avail yourself of our ability and sincere willingness to do so!

Knowing as we do, your problems as a dealer, custom set builder and general service man, we certainly try our very best not to cause you any inconvenience. Should you feel any cause for complaint, do not for one moment hesitate to write us. Please do not address these letters to the "Complaint Department" (we have none!), but to the "Personal Attention of the Manager, who will co-operate with you personally!

This is our idea of A SQUARE DEAL: We fill your order as called for, substituting only when you give us authority to do so.

We ship your order as rapidly as possible—give you honest value, no seconds, no damaged merchandise. AND IF AFTER ALL THIS YOU ARE NOT 100 PER CENT PLEASED IN EVERY

PARTICULAR, YOUR MONEY WILL BE IMMEDIATELY REFUNDED! Is this not 100 per cent conclusive proof that you should confine all of your Radio purchases with Radio Specialty Co.

Greeting my thousands of friends and customers in this manner affords me some thrill. On the other hand, there is no thrill comparable to that of greeting in person customers (some living thousands of miles away from us) who have transacted business with us many years—then some day are ushered into my private office, and we finally meet, in reality. That handshake is one of comforting warmth indeed, for I can unflinchingly look my every customer in his eye. FOR I HAVE GIVEN ALL A SQUARE DEAL!

Yours very sincerely,

(Signed) LOUIS GANCHER, General Manager
RADIO SPECIALTY CO.

IMPORTANT INSTRUCTIONS TO BE READ BEFORE ORDERING!

Our only terms are: Net cash f.o.b. New York or city in which factory is located, if shipment is to be made from that point. Even highly rated firms prefer to send us their remittances with orders, in order to take advantage of our rock-bottom prices.

The prices quoted within this catalogue are net, and are the prices you will remit in your order. All trade and cash discounts (including a 2% cash discount) have already been deducted to save your own time. All quotations are subject to change, due to varying market conditions.

Kindly use our special order blank which has been prepared for your convenience. A postal card request will bring you a supply of them in the return mail. Or use your own letterhead, blank sheet of paper, etc. To avoid errors and delay, kindly PRINT your name and address. Always mention stock number, catalogue number, manufacturer's model number if you know it, and even the page number to further assist us to render you the service you expect.

Remittances can be made by New York Draft, Post Office or Express Money Order, personal or corporation check, or cash sent registered mail. Canadian and any foreign country remittances must include all collection charges. UNITED STATES POSTAGE STAMPS IN ANY AMOUNT, IN GOOD CONDITION, ACCEPTED FOR PAYMENT.

NO ORDER IS ACCEPTED FOR LESS THAN 50 CENTS. We seek your co-operation by requesting you to make your individual orders as large as possible, in return for the rock-bottom prices we quote you. We sell only to those who resell radio merchandise and we particularly request you NOT to divulge any of our prices to your customers.

Whereas we carry in stock a representative line of radio sets and parts, we will cheerfully obtain any items not listed in this catalogue, and with no delay, as we are situated right in the heart of the World's Greatest Radio Center.

C. O. D. SHIPMENTS

C. O. D. shipments are only made to our established customers without a deposit. If this is your first order, kindly send us a 25% deposit remittance of your total order. The C. O. D. fees are paid by the purchaser. NO C. O. D. SHIPMENTS ARE MADE FOR LESS THAN \$2.50. Please do not ask us to send your order C. O. D. for the postage charges; these must be prepaid; rates and detailed information are to be found on another page.

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Radio Mail Order House

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Radio Specialty Co.
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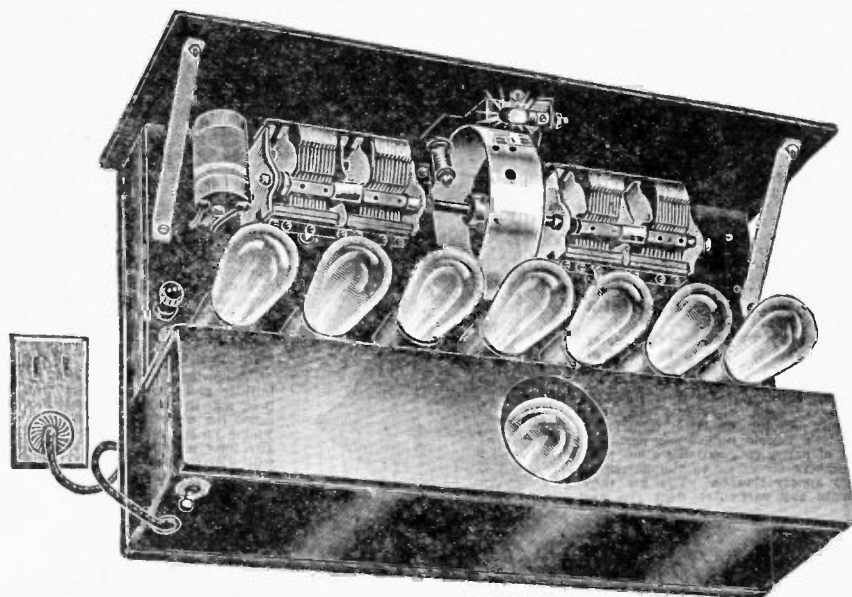
96-98 PARK PLACE

NEW YORK CITY

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THE WORLD RENOWNED PIERCE-AIRO 8 TUBE ALL ELECTRIC AC CHASSIS

Push
Pull
Power
Amplification!



Powerful
Ultra-
Sensitive
and
Selective!

REAR VIEW OF CHASSIS

In Reality a Laboratory Product, but Commercially Produced!

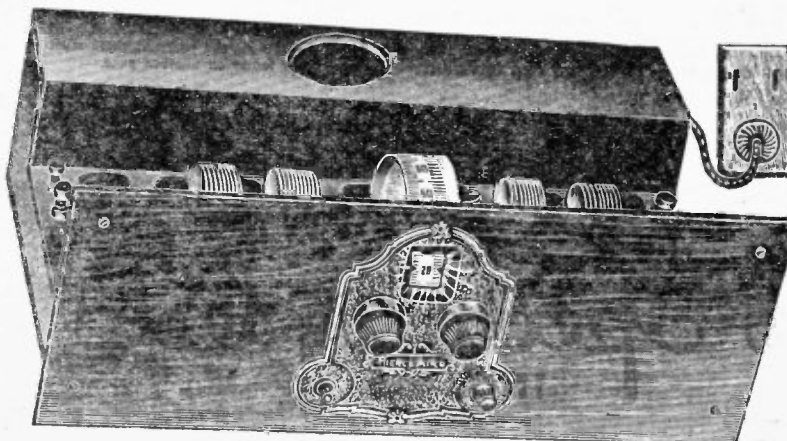
Always anticipating the need for better radio performance, there has been perfected a line of receivers which are amazing for REALISTIC TONAL QUALITY and STRIKINGLY BEAUTIFUL IN APPEARANCE. The new 1929 PIERCE-AIRO ELECTRIC RECEIVERS are the RESULT OF VAST ENGINEERING EXPERIENCE AND INTENSIVE LABORATORY RESEARCH. Neither time, effort nor expense has been spared in the development of these fine chassis in order to achieve results that will satisfy the most critical buyer. The exclusive features of construction and refinements of design will instantly make a favorable impression on both expert and layman. No "custom built set" could ever approach such absolute perfection of construction—and few commercially built receivers can equal its performance, even those that sell for TWICE THE COST OF THE PIERCE-AIRO! As the name implies, this is a true A.C. All-Electric Set, inasmuch as genuine A.C. tubes are employed instead of 201A tubes, with appropriate "A" and "B" eliminators. Please understand, we do not say the 201A tube is inferior to the A.C. tube, but the use of the A.C. tube allows a built-in ABC power pack on the chassis itself. Besides, the final cost of an electric receiver is much less when A.C. tubes are used.

A Most Powerful and Sensitive Circuit Is Employed

We want you to appreciate the fact that there are four stages of tuned radio frequency employed in this remarkable receiver. This is not to be confused with "similar" A.C. sets in which four variable condensers may be employed, but yet there are only three tuned stages. It is conceded that a tuned stage is ever so much superior to an untuned stage, and the only reason why the average A.C. receiver does not employ four separately tuned stages and four variable condensers is because of the additional cost required for this additional apparatus and the very much higher cost involved incidental to the additional labor required and very costly testing requirements which have to be met with when using four separately tuned stages. These four tuned stages will assure you maximum sensitivity on the weakest of distant stations. Where this receiver will very easily tune in stations 2,000 and 3,000 miles distant from you, other high priced A.C. sets can just about reach out 1,000 miles and then receive them in very distorted and noisy manner. Furthermore, each tuned stage acts as an effective wave trap circuit, which means that even if you live in a city where there are ten or twenty broadcasting stations operating at the one time, as in New York, Chicago, etc., you will never be disturbed by two stations overlapping each other, which is the usual case when the radio frequency circuits are at fault, either

because of poor quality apparatus used or an improperly designed tuned R. F. circuit. There is used a non-oscillating detector circuit which assures perfect rectification of the R. F. signals with no trace of disturbances incidental to another type of detector circuit. As a final happy climax, there is one regulation audio frequency amplifying stage FEEDING INTO A MOST POWERFUL PUSH-PULL AMPLIFYING STAGE EMPLOYING TWO OF THE ULTRA POWERFUL 171A POWER AMPLIFYING TUBES! It would be well enough alone to boast of the fact that this receiver employs a pair of push-pull amplifying transformers, for the superiority of this amplification system has long since been conceded, but in addition to this feature, it is well to stress the fact that there is employed a most superior form of amplifying transformer available—that is, the "A" METAL PUSH-PULL AUDIO AMPLIFICATION TRANSFORMERS! This type of transformer is generally only found in the most expensive commercial receivers and in broadcasting station transmission equipment. It is because of this superior "A" metal that it is possible to reproduce perfectly all frequencies between 30 and 6,000 cycles, which means that every delicate shading of tone and every possible note in music will be reproduced with uncanny, lifelike fidelity! Furthermore, because of this "A" metal employed, and a very novel arrangement, it is possible to use either a dynamic or magnetic speaker with equal satisfaction. In the case of most receivers, a special auxiliary equipment has to be added.

PLUGS
INTO ANY
60 CYCLE
A.C. LIGHT
SOCKET!



FRONT VIEW OF CHASSIS—WITH ALL TUBES REMOVED

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IN ANY
HOME
IN FIVE
MINUTES!

THE WORLD RENOWNED PIERCE-AIRO 8 TUBE ALL-ELECTRIC AC RECEIVER

A 100% Oversize Power Plant Is Self-Contained

Please refer to these illustrations and you will note that this marvelous A.C. receiver employs a power plant that is without doubt one of the largest and most powerful that has ever been used in any receiver, no matter how much more expensive it may be. The overall dimensions of this power plant are 17" long by 3 1/4" wide by 5 1/4" high. It is located immediately behind the row of tube sockets, to the extreme rear of the sub-panel. It will positively withstand all possible heavy overloads, and you will never be troubled by any electrical break-downs therein. There is also provided a Hi-Lo Switch for varying voltages in different locations. You simply snap the switch to either position; one way it works better than the other—that is all there is to it. A 280 type rectifier tube is employed, and as all units are carefully matched this rectifier will have an unusually long life. All requirements as to A, B and C voltages are self-contained within this power plant. The day of charging batteries, replenishing of "B" batteries and "C" batteries is now past history! As the various voltages never drop, as in the case of batteries after they are in use for a while, this receiver works at maximum efficiency at all times! TRULY THIS WILL BE THE MIRACLE RECEIVER OF 1929-1930!!

Ideal for Amplification and Electrical Reproduction of Phonograph Records
Due to the ultra powerful push-pull audio amplifier this receiver boasts of, you can enjoy the reproduction of

tionally sturdy it is built. The front panel is truly beautiful to gaze upon, a most attractive burl walnut design appearing thereon. This beauty is further enhanced by a strikingly attractive bronze highly-embossed escutcheon plate. When the receiver is turned on, the soft glow illumination on the drum dial lends further distinction to the front panel appearance, verily "completing the perfect picture." The controls are all localized to within an area of 4". Therefore, the few adjustments necessary can be effected by one hand. ALTHOUGH THERE ARE TWO KNOBS APPEARING IN THE ILLUSTRATION, ONLY ONE OF THEM IS REALLY EMPLOYED, AND THIS ONE IS THE TUNING DIAL WHICH ROTATES THE DRUM DIAL AND FOUR-GANGED CONDENSERS AT ONCE. The other knob is used to control the volume, which is certainly a most important adjunct with this receiver, as the volume must be regulated, being so tremendous! Yet, at all times it is within absolute control of your particular tastes and likes, as to how you would like the broadcast reception. The other two small controls are the on and off switch and a special adjustment, which is used only when tuning in the most elusive distant stations. It is just this additional refinement that makes the performance of the Pierce-Airo A.C. Receiver stand out far in front of all other A.C. receivers. As the front panel measures 7" x 18" x 1/16", the chassis can be mounted into any wood cabinet or radio console, as this size is the standard today. The overall depth of the chassis is only 10 1/2". The surface of the illuminated drum dial is finished in gilt and the numbers and markings are very easily discernable, being printed in heavy black—a very effective combination: black and

with attendant distortion. A very effective system of oscillation control is employed, and you will never be disturbed by radio frequency oscillation or any tendency to distortion. In fact, this is the one real perfect radio receiver. WE CERTAINLY DO HEARTILY RECOMMEND ITS PURCHASE BY YOU.

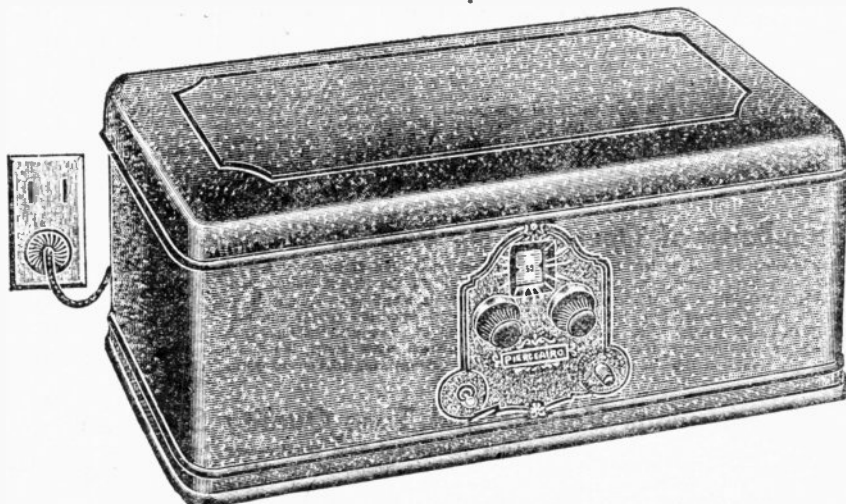
Chassis Can Be Mounted in Any Style Cabinet or Console

Throughout this catalogue are listed many consoles and cabinets, any of which can be used to house the Pierce-Airo A.C. Receiver. It is not necessary to mount the front panel apparatus on a wooden front panel, generally furnished with a console. The burl walnut finished metal panel provided with the Pierce-Airo is certainly attractive enough to be used as is. If you will use a table cabinet, this panel can be slid into the grooves provided for this purpose. If you are ingenious, you can mount the Pierce-Airo chassis into a wall, a door, or any item of furniture of suitable dimensions and shape!

Tubes Required for Operation of the Pierce-Airo Receiver

There are eight tubes required for tone, power and distastance. A smaller number would detract from the efficiency of any radio receiver, and any greater number is simply uneconomical. Each tube employed performs a definite purpose, and the same total of them all makes this one of the most powerful receivers on the market. It cannot be excelled in its ability to bring in stations

**SINGLE
DIAL
CONTROL!**
—
**ILLU-
MINATED
DRUM!**



No. 4722—Mounted in a Very Attractive Metal Cabinet

**REPRO-
DUCTION
WITHOUT
ANY
TRACE
OF DIS-
TORTION!**

your phonograph records, enormously amplified by attaching the leads from any good phonograph magnetic pick-up across the grid and filament terminals of the detector tube socket, in the same manner as afforded by the recently introduced electric orthophonic type phonographs! In fact, this reproduction is comparable to that afforded by electric phonographs now selling for around \$500.00—yet you pay not one cent additional for this extremely valuable feature!

General Construction Is a Thorough Engineering Triumph

Your first impression as you will inspect the PIERCE-AIRO SET will be that it is the most sturdily constructed of all radio receivers. Note the all-metal chassis, both panel and sub-panel; also note that the front panel is bolted to the chassis proper by means of three thick brass angle brackets. No matter what part of the panel you press, it will not yield, proving how excep-

gold. The world-famous U. S. L. brass variable condensers are employed and the various sections are electrically matched in the factory by a very elaborate, costly testing equipment process which has to pass sixteen exacting tests before the receiver is finally shipped. The antenna, ground and speaker connections are made to four insulated Eby binding posts mounted on the chassis, and properly lettered for identification. The entire chassis is finished in attractive brown enamel. You will be indeed proud to show this receiver to your friends. Wherever a wiring connection passes through the metal chassis, an insulated bushing in the metal chassis prevents any possibility of short circuits. Incidentally, all the wiring is made below the sub-panel, which means that no mischievous hands can ever do any harm to the wiring, and at the same time the receiver is made more beautiful in appearance. The radio frequency coils are automatically spaced wound on Bakelite tubes and are mounted at angular relationship to each other to thwart any inter-stage magnetic pick-up

from coast to coast! Tubes required are as follows: Four type 326 A.C. tubes, one Type 327 A.C. tube, two type 871A tubes, one type 330 rectifier tube.

Perfect Light Socket A.C. Operation

The Pierce-Airo A.C. 8 All-Electric Receiver is designed to operate from the 105-120 volt 50-60 cycle house lighting circuit. All the inconveniences and annoyances of battery-operated receivers are eliminated. Real A.C. operation is offered to you in the new A. C. tubes. The chassis is delivered to you as a complete unit that needs only the plugging into the electric light socket for instant operation. Your electric light current furnishes all the power needed, resulting in consistent performance, and the amount of current required is certainly so small an item of expense it need not even be discussed! What an harmonious combination: A Rock Bottom Cost Price and a negligible upkeep cost! Your purchase of a Pierce-Airo A.C. receiver is an INVESTMENT—NOT AN EXPENDITURE!!

AMAZING WHOLESALE PRICES

No. 4720. COMPLETELY ASSEMBLED ALL-ELECTRIC CHASSIS, INCLUDING POWER PACK, LESS ALL TUBES AND CABINET. **\$49.98**
etc. List \$85.00, Net..

No. 4723. Complete Set of 8 CUNNINGHAM A.C. Tubes, as described above. For use with any model Pierce-Airo Receiver. Your Net Cost..... **\$13.42**

No. 4721. Same as No. 4720, but INCLUDING our No. 7771 SIGNAL DE LUXE SOLID WALNUT WOOD CABINET. **\$58.80**
Your Net Cost.....
Approximate Shipping Weights 50 lbs.

NOTE

In addition to any of the above, you will require an aerial, and a suitable speaker—THAT IS ALL! We list additional equipment in this catalogue, and leave this selection to you. If you at present have an aerial, you can use it for this A.C. receiver.

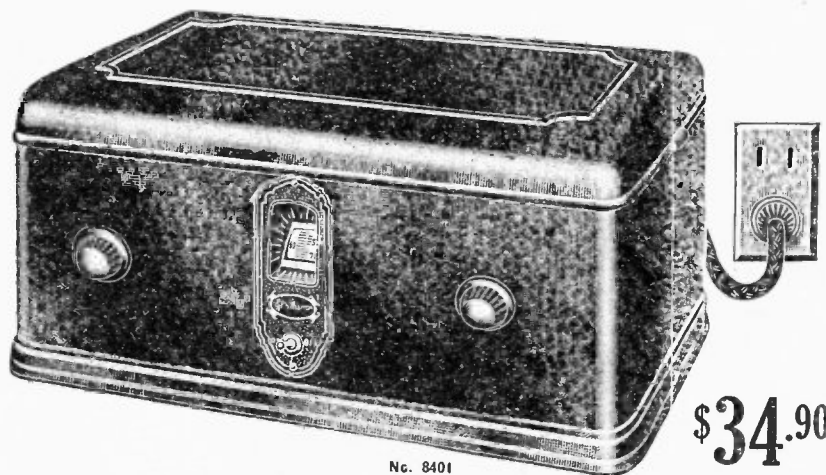
No. 4722. Same as No. 4720, but INCLUDING A BEAUTIFUL METAL CABINET (illustrated above) Attractively Finished in Crystalline Russet Bronze. **\$55.86**
Your Net Cost.....

No. 4724. Complete Set of 8 REXTRON A.C. Tubes. **\$10.4'**
Your Net Cost.....

Philharmonic All-Electric A. C. 8 TUBE RECEIVER

Plugs Into Any A.C. Socket — Eliminates Storage, "B" and "C" Batteries

A DEMONSTRATION OF ONE OF THESE RECEIVERS IN YOUR STORE OR HOME WILL RESULT IN THE IMMEDIATE SALE OF SEVERAL!



No. 8401

Equals Performance of Any \$100.00 Receiver

Doubtless some of you will be tempted to smile and even disbelieve this statement—an injustice to both yourselves and the PHILHARMONIC A.C. RECEIVER! Remember, Quality is not always judged by either a high or a seemingly ridiculously low sale price. Present-day manufacturing methods and selling facilities have placed many heretofore unapproachable luxuries in the general public's grasp. A \$400.00 automobile "gets you there" as well as a \$5,000.00 model; it just lacks a few meaningless frills, and in the same manner of logic the PHILHARMONIC A.C. RECEIVER will positively give you the same satisfactory performance as A.C. receivers selling for considerably more money. And, judging from the daily increasing influx of unsolicited testimonial letters attesting to this receiver's most wonderful performance, we are convinced that we are offering far greater QUALITY AND VALUE THAN POSSIBLE ON ANY \$100.00 RECEIVER. Remember, then, that huge production, effective distribution and good, sound business methods account for our most unusual ROCK BOTTOM PRICE on this A.C. RECEIVER.

HERE IS
A 100%
EFFICIENT
RECEIVER
MINUS
ALL MEANINGLESS
FRILLS
—
JUST
HONEST
VALUE
—
THE
"FORD" OF
THE RADIO
TRADE

Simplicity of Operation — Perfect Single Dial Control

Five years ago, an efficient radio set boasted of 5 to 6 knobs and dials—they were really necessary, then! But today, receivers like the PHILHARMONIC have dispensed with most of them, yet at no sacrifice to all-around efficiency! One single ILLUMINATED DRUM DIAL controls the hair-line tuning of the four ganged variable condensers! This knob is on the right—the

left is the volume control knob, and fortunately indeed one is provided to throttle down the terrific volume produced by this receiver's power amplifier. Volume is at all times within your control—from the merest whisper-like tones to a mighty flood of super-power volume! A toggle switch on the escutcheon plate turns the tubes and power plant completely off—nothing further to worry

about! The installation of this receiver is even simpler than its operation: Insert the tubes into the sockets. Attach aerial, ground and loud speaker. Insert cord plug into any A.C. socket—that is all there is to it! Ten minutes enjoyable work! Then settle back to enjoy Radio Reception Supreme. Close your eyes and you will surely think you are listening to a \$250.00 receiver! The PHILHARMONIC invites just such comparison!

Tremendous Volume and Tone Quality Supreme

Quality reproduction of radio reception is what we all seek—only too rarely does a receiver combine this feature with another sometimes equally as important: VOLUME. Most receivers, if they are capable of delivering volume, badly taint it with distortion. It is not a "miracle"

receiver that combines Volume and Tone Quality—any manufacturer can produce such a receiver by not skimping on the component parts used in his product. When you hear the PHILHARMONIC, you realize no skimping on its parts could have ever entered the manufac-

turer's plans! The self contained Power Plant yields 180 to 200 volts of perfectly rectified, HUMLESS D.C. current to a 171A power tube. It is this harmonious combination of high voltage, power tube, and audio transformer that assures you TREMENDOUS CONTROL-LABLE VOLUME AND TONE QUALITY SUPREME!

Unusual Distance Reception

The thrill of exploring the ether goes on seemingly unabated! By carefully engineered lay-out, and compliance to technical standards ever present in Radio Receiver construction, long distance reception is possible

—and all on one tuning dial! The dial readings could just as well be names of cities 1,000 or 2,000 miles apart—you sweep the length and breadth of this country as you rotate the drum dial over its arc of 180°. What

gigantic strides you can take to Chicago, New York, Los Angeles, New Orleans, Dallas, Pittsburgh, Denver and all other "NEIGHBORING" CITIES!!

Self Contained ABC Power Plant

Note the unusually large sized power pack furnished. It is all contained in the rear of the chassis, and extends the full length of the receiver. Overall dimensions are 14" long, 4 1/2" wide, 6" high. Compare this to other A.C. receivers, which devote a very small space to theirs and then construct it too near the receiver

itself! The filter condenser block will stand up for years, and certainly does its job well! The step-up transformer is of the most expensive manufacture, and will not burn out. It is this instrument that lights the A.C. tubes, the rectifier tube and the power tube, thus forever eliminating the messy storage battery and

attendant charging worries, costs, etc. Note the sliding cover to protect the 280 type rectifier tube and to keep out mischievous hands. All bias requirements to the 226 and 171 tubes are automatically provided for, eliminating all "C" batteries! Power plant is thoroughly shielded to prevent A.C. induction hum in receiver.

Built-in Phonograph Pick-up Connection

Here is a feature only offered on the most costly A.C. receivers—a provision for power amplification of phono-

graph records, giving them an "orthophonic" like tone, of a quality generally produced by \$1,000.00 new model

electrical phonographs! The cord tips leading from the pick-up are inserted into a pair of jacks for that purpose.

Other Exclusive Features

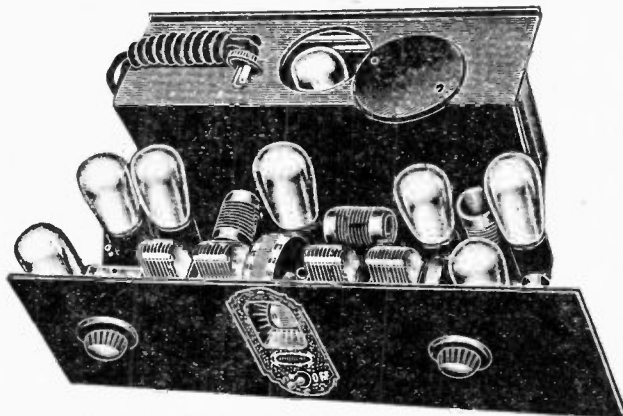
The circuit used is standard—and time proven. This set will therefore perform consistently! There are four stages of Tuned Radio Frequency Amplification, including the detector stage, and two stages of power audio frequency amplification. Tubes required are: one 280 Rectifier, five UX226 A.C. tubes, one 6Y27 A.C. tube and one 171A Power tube. We cannot emphasize too strongly that this receiver employs one additional R.F. stage, one additional condenser section (4 gang instead

of the usual 3 gang), and one additional tube. It is not to be compared with other A.C. receivers using only a 3 gang condenser and one less tube! Any length aerial may be used, as it does not affect the settings of the single control condenser, a very important feature! The first tube is in reality a ballast stage. All oscillations in the R.F. stages are permanently suppressed. The dial settings are in black, making a striking appearance against the illuminated gold colored background of the

drum itself. If the power plant is to be removed, it is simply unscrewed, connections and all, from a most convenient cable strip! All tube positions, aerial, ground, loud speaker and phonograph attachment parts are very plainly marked—every convenience, which will make the PHILHARMONIC receiver fool-proof, is provided. Machine wound and calibrated solenoid inductances are used, greatly simplifying the accurate calibration of the 4 gang condenser.

THE WORLD FAMOUS PHILHARMONIC A. C. RECEIVER

Philharmonic Receiver Available in Chassis Form



No. 8400. View of chassis. Power Plant is in the rear. Audio amplifying transformers are not visible.

For mounting in your own console, the PHILHARMONIC set can be had mounted on a durable aluminum panel, 17½" long, 6" high. The depth of the receiver in this form is 11½". If you will purchase a console from us, we will have the set compartment panel board, of such a console, cut out to accommodate the two end knobs and the escutcheon dial plate.

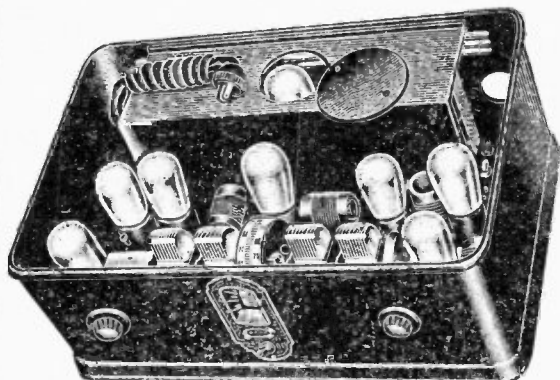
No. 8400. PHILHARMONIC CHASSIS. Completely assembled, ready to plug into any 110 volt 60 cycle A.C. socket, less metal cabinet and all tubes. Shipping weight 40 lbs.

List \$75.00

NET—

\$34.90

Philharmonic Chassis Mounted in an Aquatex Metal Cabinet



Top View of PHILHARMONIC Chassis with Metal Cabinet. Cover Removed.

Completely shields the receiver against outside interference. Note louvers in back to dissipate heat. A large hole is at each end of the back for connections to the receiver. Metal cabinet can be set on the finest furniture table, as 4 heavy felt pads on the bottom plate offer such protection. Overall dimensions of the cabinet are 19½" long, 12½" wide, 8½" high. One-piece top lifts off. Can offer absolute fire-proof protection. Exquisitely two-toned high lighted bronze crackle finish—harmonizes beautifully with the most tastefully furnished rooms! Shipping weight 55 lbs.

No. 8401. PHILHARMONIC CHASSIS and AQUATEX METAL CABINET, completely wired and assembled, ready to plug into any 110 volt 60 cycle A.C. socket, less all tubes.

List \$85.00.

Net.

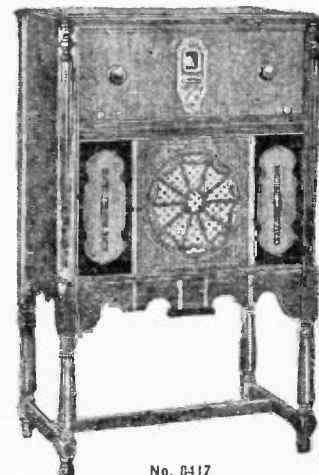
\$37.40

No. 8402. Complete with five REXTRON UX226, one 227 A.C. tubes, one 171A Power tube, one 280 Rectifier, and complete antenna equipment.

Net.

\$49.40

Traviata-Philharmonic Console and All-Electric A.C. Receiver



No. 8417

This console is decidedly better in materials, design, construction and finish than is usually offered in cabinets at this price. Made of select Walnut, two-toned and high lighted. Legs ornamented with half-round turnings on side panels. Outside dimensions: 26" wide, 16½" deep, 41" high. Panel: Accommodates any size panel up to 21" wide, 8½" high, 11" deep. Inside measurement of speaker compartment 24" wide, 14½" deep, 13½" high. Cabinet is shipped with a nicely grained wood panel on sliding pull-out mounting board. Suitable for either battery or socket power operated receivers. Very ornamental—will grace anybody's home. Shipping weight of console alone is 85 lbs. Shipped from Indiana.

No. 8416-13. Console only, with wood set panel. No speaker, no receiver. List \$42.00.

Net.

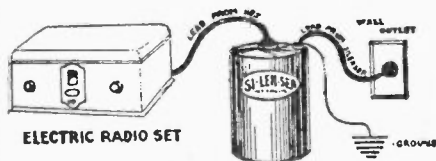
\$24.70

No. 8417-13. Console, WITH PHILHARMONIC A.C. RECEIVER AND MAGNETIC SPEAKER. No tubes. List \$134.50.

Net.

\$66.90

Trutone Senior "Si-len-ser"



Makes any electric or any electrified set play as quietly and free from hum as any battery operated receiver. Silence! all stray power line noises which enter the receiver through the power packs of electric sets and eliminators. Eliminates absolutely all hum from generators, and all bothersome knocks and noises that emanate from such sources as electric refrigerators, vacuum cleaners, oil burners and other noise-breeding electric household apparatus. Used at the source of the noise disturbing noises, the Si-len-ser will kill all offending line noises. Used at the set proper, it will stop about 75% of the offending noises. Is 5½" high by 14½" in diameter. Self-contained in a genuine Bakelite metal housing, fireproofed. 10 ft double-insulated highest type silk wire is supplied. Can be used on A.C. or D.C., any voltage. Maximum current 5.5 amperes, maximum load 650 watts. Shipping weight 6 lbs.

No. 4550. List \$12.50. Net **\$7.35**

JUNIOR "SI-LEN-SER"

4½" high, 3¾" long, 2" wide. Will stand a maximum draw of 500 watts. Maximum current is 4.5 amperes. No. 4551. List \$6.00. Net **\$3.53**

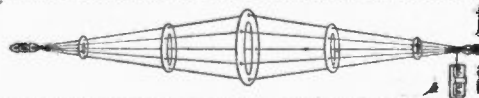
TRUTONE

DYNAMIC SPEAKER HUM ELIMINATOR

No. 4552. List \$3.50. Net **\$2.06**

Thorola "DX" Cage Aerial

LIFE-TIME DX AERIAL



Guaranteed Double Volume and Sharper Tuning

No. 8348 GQ. Length 60 Feet (Same description as above except that 300 feet of wire is used making this the most efficient and powerful aerial ever made.)

Non-corrosive. 30 ft. length. Volume of 150 feet copper aerial with selectivity of 30 feet antenna. Assembled, ready to string up. All connections soldered or riveted. Rings are heavy gauge solid zinc. Permits using a powerful aerial in 30 foot space. Duplicates in design and material the aials used by largest broadcasting stations. Sharpens tuning of any set because of short length, but has enormous pick-up because 150 feet of enameled 12 gauge wire is used. Insures more uniform reception. Non-corrosive feature insures long life and 100 per cent efficiency at all times. Shipped from Chicago.

No. 8347-30. List \$10.00. Net **\$5.88**

List \$12.50. Net **\$7.35**

Excello Combination Phonograph Radio Console



Open View

Closed View

A walnut cabinet with selected matched butt walnut veneer doors. The receiver compartment is a sliding drawer 24"x9"x14" deep. Special panel arrangements

for standard receivers will be supplied gratis. Above the receiver compartment is the phonograph equipment consisting of General Electric phonograph motor, turntable, electric pick-up with tone arm, volume control, amplifier, automatic shut-off and a switch for changing from radio to phonograph. The speaker compartment is 13" high, 15" wide, and 16" deep, with sufficient space for a cone speaker and eliminator for D.C. sets. Space is provided at each side of speaker compartment for phonograph albums. When so ordered, a plain motor board is provided on which any type of electric or spring motor and pick-up can be installed. Dimensions: Height 50", width 28", depth 19". Shipped from Chicago.

No. 7511-R44. Cabinet only (less phonograph—less speaker). List \$100.00. Net **\$58.80**

No. 7512. With Phonograph Equipment as above. Less speaker. List \$180.00. Net **105.84**

No. 7513. With Phonograph Equipment and Peerless Magnetic Cone Speaker. List \$200. Net **117.60**

No. 7514. With Phonograph Equipment and Jensen Dynamic A.C. Speaker. List \$235.00. Net **144.06**

The 1930 Model Graymore Licensed 8-Tube All Electric AC Receiver

USES TWO 245 SUPER POWER AMPLIFYING TUBES IN A PUSH-PULL AMPLIFIER

Single
Illuminated
Dial Control

Stations All
Over the
Country Are
Easily Received

Hair Line
Selectivity



Ready for
Immediate Use

Completely
Assembled

Plugs Into
Any 60 Cycle
A.C. Light
Socket

No. 3901

GIVES TERRIFIC VOLUME — PERFECT REPRODUCTION — NO DISTORTION!

Quality Built Down to a
Price!

Only the Most Efficient Component
Parts Are Used

All ABC Current Requirements
Self Contained

If you are a logical man, you will be happily impressed with the following good reasons why your logical choice of a **RADIO RECEIVER SHOULD BE NONE OTHER THAN THE GRAYMORE 8!** In the manufacture of any A.C. receiver, three factors are always considered: the circuit to be employed, the parts to be used, and the Quality of Workmanship. Let us presume that several set manufacturers decide to use the best parts and the "best" circuit, and employ the most skilled labor. Logically their receivers are bound to be somewhat the same, considering Performance, Appearance, and Durability. THEREFORE, WE MOST EMPHATICALLY STATE THAT THE GRAYMORE 8-TUBE A.C. RECEIVER WILL GIVE YOU THE SAME 100% SATISFACTION, ALL FACTORS CONSIDERED, AS OTHER A.C. RECEIVERS THAT ARE GENERALLY SOLD FOR AROUND \$150.00.

This chassis is composed of two distinct units, each self contained and complete within itself, namely: the Receiver proper and the ABC Power Pack. All of the apparatus is securely bolted to the thick steel metal chassis, and the two units themselves are bolted to each other. Should any servicing be required, every individual part is at your ready disposal—for that matter, the Power Pack unit can be detached from the receiver in a few moments! Real 100% engineering throughout—and layout! On the top of the sub-panel are mounted the following: the three-gang aluminum bath-tub construction variable condenser, with self contained compensators (fully adjusted), rotated by an aluminum cast drum dial, with a white translucent celluloid strip upon which black dial settings are printed. Behind this celluloid strip is mounted a small mazda bulb for appropriate illumination. Due to the patented construction of this dial, there is no such thing as lost motion or any other evils generally experienced on other drum dials. The other two small knobs are the volume control and the master switch. Note that these two controls are loosely held to the chassis—this is explained in detail further on. Here is an exclusive feature, only found on the most expensive receivers: there are two HUM ADJUSTERS, adjustable with a screw driver at will. However, once set, always set! Their purpose is to suppress any A.C. hum, and this THEY certainly DO! One pair of bakelite insulated tip jacks is used for the loud speaker connections, and the other pair ENABLES YOU TO REPRODUCE PHONOGRAPH RECORDS IN YOUR LOUD SPEAKER, IN A TRUE ORTHOPHONIC MANNER, DUE TO THE TREMENDOUS AMPLIFICATION QUALITIES OF THIS RECEIVER. All you need do is to insert the tips of any good electrical phonograph pick-up (listed elsewhere in this catalogue) into these tip jacks. YOU WILL BE AMAZED! If your favorite radio station signs off, start the phonograph going—all your favorite selections can thus be heard, whenever you want to hear them! And, mind you, heretofore a good phonograph amplifier used to cost more than the price of this receiver—at our price, you obtain a truly superior PHONOGRAPH AMPLIFIER AND ONE OF THE WORLD'S BEST RADIO RECEIVERS IN ADDITION! The aerial and ground are connected to two binding posts, just behind the three-gang condenser. The UX sockets are flush with the top of the metal chassis, and each socket is designated, in large white figures, as to the particular type of tube to be used therein—it is thus quite impossible to make a mistake. The power pack section is in the rear, and is thoroughly shielded. Underneath the chassis are mounted all the other parts. In fact, all of the wiring is also beneath the chassis, and a different color insulation is used for each particular circuit. Furthermore, the various wires are bunched together, using the cable principle, now the recognized practice. Incidentally, a very clever terminal strip is used, which provides for the removal of the power pack, if ever necessary.

The new 245 power tubes require 250 VOLTS on their plates. This voltage is available, and all intermediate lower plate voltages, by virtue of THE HUGE POWER PLANT THIS RECEIVER CAN WELL BOAST OF! Imagine—all you have to do is insert the A.C. tubes, and plug into any A.C. socket. No batteries to install! None to charge! None to replenish! A 280 TYPE RECTIFIER TUBE is required in this power pack, and this tube ought to give about 18 months service. The amount of electricity drawn from your light socket is very negligible indeed. This power pack measures 17" long, 3 1/4" wide, 4" high—certainly one of ample proportions!

Chassis Can Be Mounted to Any Type
Panel or in Any Style Cabinet
or Console

Note that we furnish this chassis without a front panel, although we do include an exquisitely embossed and highly decorative bronze escutcheon plate for the dial. If you wish to mount this chassis in any of our consoles, or possibly one of your own, you can use the wood panel generally furnished with all radio consoles. The escutcheon plate is mounted between the control knobs and the panel. The volume control and master switch knobs thus become rigidly mounted. It is interesting to note that the control knobs are grouped together in a space less than 5 inches wide—thus any sliding door type console can be considered. Naturally, if you prefer you can mount this chassis within a wood table cabinet (7" x 18" x 10") and then use either an appropriately grained bakelite, wood or metal front panel to measure 7" x 18". Any of the consoles listed in this catalogue can be used to house this chassis. To install same is only a matter of a few minutes enjoyable work. The entire outer surface of the chassis is tastefully finished in crackle brown, and the wood control knobs are highly polished walnut, harmonizing indeed with the bronze escutcheon plate. The overall dimensions of the chassis are: 18" long, 9 1/4" deep, 2 1/2" high, and its weight is 21 lbs. Height over all, including top of gang condenser, is 7".

A.C. Tubes Required for the Graymore 8
Receiver

Four CX326, one CX327, two CX245 and one CX380 CUNNINGHAM (or R.C.A.) tubes are used in this receiver. In addition to these tubes, you require a suitable loud speaker, but be sure to use a mighty good one to withstand the terrific volume this receiver can offer when the volume control is turned off! Either a magnetic or dynamic type speaker may be employed. No output transformers or other forms of speaker protective filters are required, as this is self contained. Of course, an aerial should be installed. This receiver can work to your entire satisfaction on either an indoor or outdoor aerial! In some localities, not even an aerial is required—simply a ground! That is all you require. Shipped express collect.

Uses Two of the Recently Introduced
245 Type Power Tubes

Many of our patrons can recall when a 201A tube was used, at 90 volts, in the last audio stage; little did we all realize then that some day this tube would be replaced by a power tube, of the 171 variety, requiring 180 volts and offering really enjoyable radio programs. The 171 tube actually gave more perfect reproduction and greater volume than had been previously possible. HERE, THEN, IS AN ASTOUNDING FACT: The 245 tube is just as superior to the 171 tube as the 171 was to the 201A—DOUBLY SO in this receiver, as two of these 245 TUBES ARE USED IN AN ULTRA-POWERFUL PUSH-PULL AMPLIFIER! With the volume control on the GRAYMORE 8 turned off, you can fill a small auditorium with ample volume, but at the same time, you can control this torrent of volume down to a whisper! Deep, fully vibrant bass note reproduction! True fidelity to every note in the tonal register! NO distortion! . . . Can any amplifier offer more!

A Most Sensitive Circuit Is Employed

To satisfactorily accomplish TRUE SINGLE DIAL CONTROL, the antenna circuit feeds through a special untuned choke inductance, to the grid of a ballast stage 226 A.C. tube. The oscillations in the two following R. F. stages are permanently suppressed by virtue of two special neutralizing condensers—not by grid resistances, so often employed for this purpose. Then follows a non-regenerative detector stage, an audio amplification and finally a push-pull audio amplifier stage, using two 245 power tubes. There are three R. F. stages, the ballast stage just referred to greatly amplifying the non-rectified high frequency impulses. As the gang condenser has been adjusted by virtue of three special compensators (located on the top cross frame on same), and as the radio frequency inductances have been very carefully matched, and then enclosed within aluminum shields, the selectivity of this receiver is not found wanting!

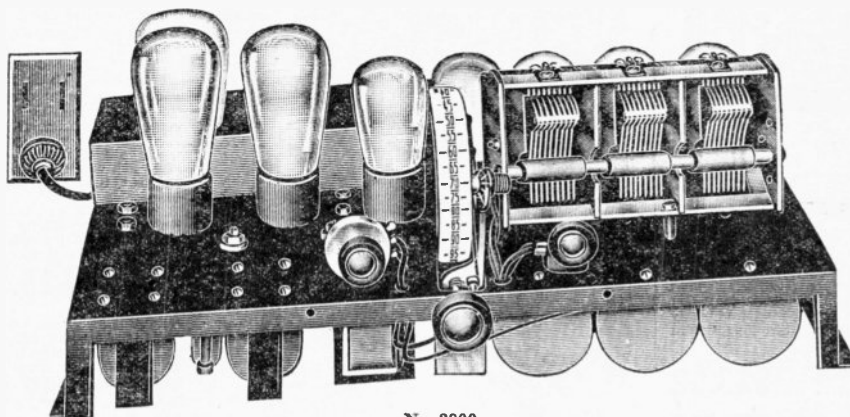
SEE OUR ASTOUNDING NET PRICES OF THIS RECEIVER ON OPPOSITE PAGE!

The 1930 Model Graymore Licensed 8-Tube All Electric AC Chassis

All Metal Chassis

Two A.C. Hum
Removers

Phonograph
Records Can Be
Played at Will



Shielded
Inductances

Aluminum
"Bath-Tub"
Three-Gang
Condenser

Never Slip
Illuminated
Drum Dial

ROCK-BOTTOM WHOLESALE PRICES

No. 3900. Completely Assembled All-Electric Chassis, including Self Contained ABC Power Pack. Less All Tubes, Speaker and Cabinet. For 110 volt, 50-60 cycle A.C. List \$99.00. Your Net Cost.....

\$55.75

No. 3901. Same as No. 3900, but including the Unusually Attractive Metal Cabinet Illustrated. Attractively Finished in Crystalline Russet Bronze. Perfectly Shields the Receiver. Your Net Cost.....

\$60.75

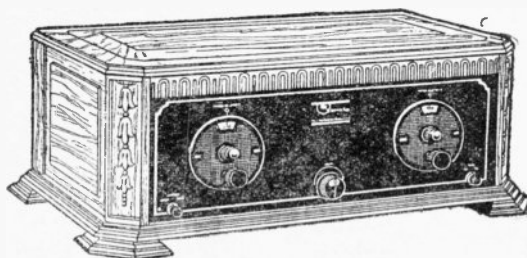
No. 3902. Complete Set of Cunningham A.C. Tubes, as described above. Your Net Cost..... **\$14.78**

SILVER-MARSHALL 630SG SHIELDED GRID SIX KIT

Two-Dial Control

Three Stages "Shield
Grid" Tuned R. F.
Amplification

Operates on 10-
Foot Length
Antenna



Fully Shielded

Wave Length Range
200 to 3,000
Meters

Adaptable to Complete
A.C. Operation, Using
New A.C. Tubes

RASCO SERVICE

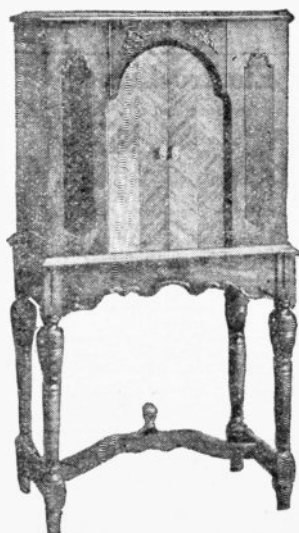
When this present catalogue was issued, practically all of Radio's best and current offerings were listed therein. Since its publication, newer apparatus has appeared on the market, and naturally will not be listed herein. HOWEVER, WE ARE IN A POSITION TO OBTAIN FOR YOU ANY SUCH APPARATUS AT AN APPROXIMATE DISCOUNT OF 40% FROM THE MANUFACTURERS' LIST PRICES. ALSO BEAR IN MIND THAT WE CAN SUPPLY PRACTICALLY ANY RADIO ITEM LISTED IN ANY OTHER RADIO MAIL ORDER CATALOGUE, AND SELL IT TO YOU AT THE IDENTICAL PRICE AS QUOTED THEREIN. WHEN ORDERING SUCH MERCHANDISE, PLEASE MENTION IN WHOSE CATALOGUE, AND ON WHAT PAGE THEREIN, SAME IS LISTED.

A new station for every degree on your dial! Locals never spread over more than one degree. With only a 10-foot antenna will bring in stations loud speaker volume, within 1,500 miles radius; with a 30-foot antenna, over 3,000 miles, right through local interference. Three stages of shielded grid tuned radio frequency amplification, with manual sensitivity control providing peak efficiency over the entire broadcast wave length range give extreme sensitivity and selectivity to the receiver. Individual stage shielding prevents internal oscillation or the pick-up of outside noise and interference. In tone quality the Shielded Six can be equalled by only a few of the very highest-priced factory-built receivers, and is surpassed by none. Two-dial control of the Shielded Six is provided by a link motion which gangs together the second, third and detector stage condensers. The receiver is assembled upon a pierced and formed steel chassis with decorated metal panel and removable aluminum shields. A single knob varies the volume from a whisper to a roar, the filament adjustment of all tubes being non-critical and automatically controlled. Is remarkably simple to construct, smooth in operation, functioning perfectly with a short indoor aerial or 50-foot outdoor antenna, adequately selective to separate all the locals and sensitive enough to pull in far distant stations through local broadcasting. With three 118A and one 116A coils as regularly supplied, the wave length range of the 630 receiver is 200 to 550 meters. With three 115D and one 116D coils the range will be 500 to 1,500 meters. With three 115E and one 116E the range is 1,100 to 3,000 meters. All coils are interchangeable, so that with the three sets of four, the range becomes 200 to 3,000 meters at will. The parts contained in the complete kit are factory packed by the manufacturers. Size 7" x 21" x 12". Requires three 222 type shield grid, two 201A type, and one 171A type tubes. Shipping weight 35 lbs.

No. 6553-630SG. Complete Kit, nothing further to buy. Less tubes and cabinet. List \$97.00. Net **\$35.95**

Richelieu-Graymore Console All-Electric A.C. Receiver

A Corbett Cabinet

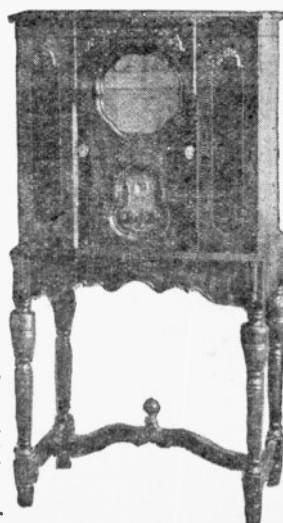


Unlike other consoles, the front doors slide out of view—a very valuable feature when space is at a premium. Note the exquisite effect of the unusual graining in the woods, and the tasteful overlays and two-tone effect panels. Most rigid construction, due to the bottom stretcher. Made of walnut plywood with butt walnut or diamond mahogany sliding doors. Overall dimensions: 52" high, 26" wide, 16" deep. Speaker shelf can be moved to any position desired. Speaker and set compartment, 23" high, 12 1/2" deep and 23" wide. Clearance between sliding doors when opened is 13 1/2". Entire compartment is accessible from the rear and the top is not hinged. Any magnetic or dynamic speaker of your own selection can be installed. No better baffle board or chamber available. Shipped from Pennsylvania.

No. 8431-300. Console only, with wooden set panel. No speaker, no receiver. List \$75.00. Net..... **\$44.10**

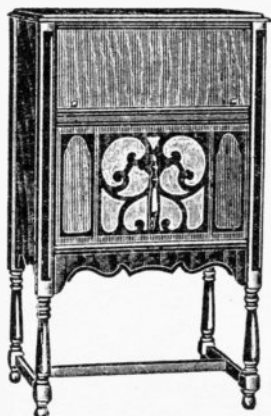
No. 8432-300. Console WITH GRAYMORE A.C. RECEIVER AND MAGNETIC CONE SPEAKER. No tubes. List \$189.50. Net..... **\$106.85**

NOTE: \$5.00 additional for DYNAMIC TYPE SPEAKER.



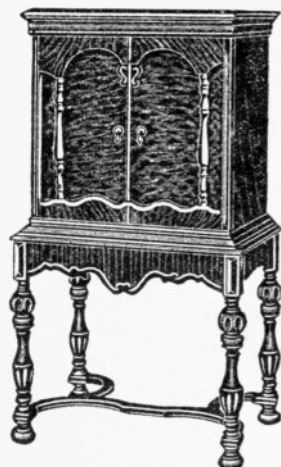
Lido Console

Here is a cabinet that is unmatched in value anywhere. Equally suitable for either battery or A.C. sets. Selected Walnut plywood, two-tone front, attractive grill work, ornamental legs, rail and stretcher, best construction and finish. A value like this enables you to meet and beat all competition. Outside dimensions: 26" wide, 16½" deep, 41" high. Panel accommodates any size panel up to 21" wide, 8¾" high, 14" deep. Inside measurement of speaker compartment 24" wide, 14½" deep, 13½" high. Cabinet is shipped with blank nicely grained wood panel on sliding pull-out mounting board. Can be used with any type speaker of your own selection. The one we list below will certainly please you—volume and quality galore! Shipping weight 85 lbs. Shipped from Indiana.



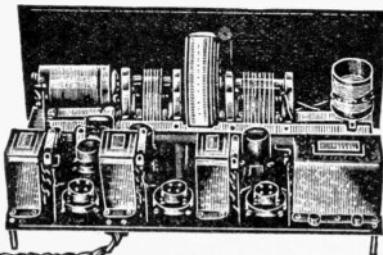
No. 8427-15. Console only, with wood set panel. List \$40.00. Net. **\$23.52**

No. 8428-15. Same with Magnetic Cone Speaker. List \$50.00. Net. **\$29.40**

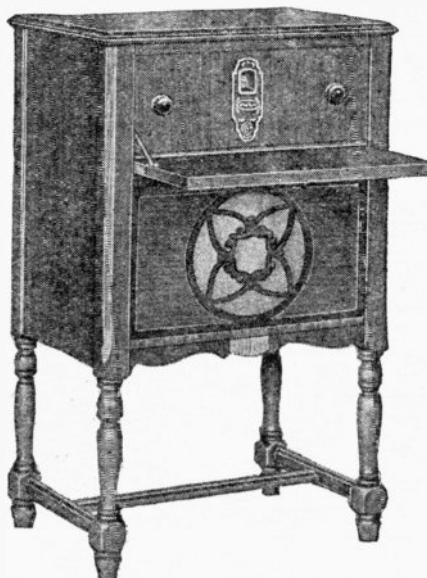
Caruso Console With Temple Dynamic Speaker

This cabinet, constructed of genuine Walnut Veneers in the William and Mary style, represents the greatest cabinet value on the market this season and compares favorably with cabinets listing at very much higher prices. The doors, mounted on offset hinges, are of beautifully figured Built-Walnut with contrasting overlays. The set compartment is at the bottom with the Temple Dynamic Speaker mounted above. Imagine what a tremendous bargain this is—a dynamic speaker and this exquisite looking massive console for so little money!

Be sure to state field voltage of dynamic unit you are ordering. Overall dimensions: 52" high, 26" wide, 17" deep. Approx. shipping weight 150 lbs. Shipped from Indiana. No. 8426-404. List \$90.00. Net. **\$52.92**

National S. G. 5 Receiver

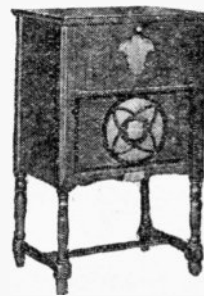
This new National Browning Drake Receiver uses a CX-322 shield grid tube in the Radio Frequency stage. Thus, far greater amplification—greater distance reception—is possible. Then again, there are no neutralization problems, for the shield grid tube is non-oscillating. The parts used in this kit are the finest money can buy—but the results obtainable more than justify the extra cost. Tubes required are: One 222, two 301-A, one 340, one 371-A. Can be ideally used with an "A" and "B" eliminator. Parts included are: 1 National Single Control B.D.222 Unit, 3 National Imperiaformers, 1 National Tone Filter, 2 .0001 Molded Condensers, 1 .00025 Molded Condenser, 1 .001 Molded Condenser, 2 .5 By

Frontenac-Philharmonic Console All-Electric A.C. Receiver

Without doubt, one of the smallest console cabinets available—just right for that corner or that small space in your room. Ideal for small apartments, etc. Suitable for PHILHARMONIC, Atwater-Kent, Crosley and other big selling sets. Neat design, good finish, sturdy construction. Selected Walnut front, top and sides. Drop leaf encloses receiver and acts as arm rest. Circular grill, fleur-de-lis and fancy wood overlay on front, hinged lift-up top, turned legs strengthened by stretcher. Outside dimensions: 21½" wide, 15" deep, 36½" high. Accommodates any size panel up to 19½" wide, 7½" high, 12" deep. Inside measurements of speaker space, 19" wide, 11½" deep, 11" high. Accommodates nearly all speakers. Cabinet can also be supplied with frame and grooves to accommodate a regular 7" x 18" panel for any custom built receiver. Some of our custom set builder customers, who specialize on this console, use 2 to 4 of them a week! Shipping weight of cabinet 75 lbs. Shipped from Indiana.

No. 8437-5. Console only, with wooden set panel. No receiver, no speaker. List \$26.00. Net. **\$15.30**

No. 8438-5. Same WITH PHILHARMONIC A.C. RECEIVER AND MAGNETIC SPEAKER, less tubes. List \$118.50. Net. **\$57.80**

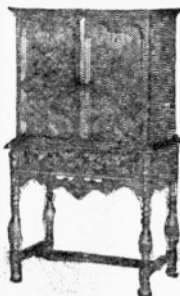


Closed View

For technical description of A.C. set, see pages 4-5.

Rheingold-Philharmonic Console All-Electric A.C. Receiver

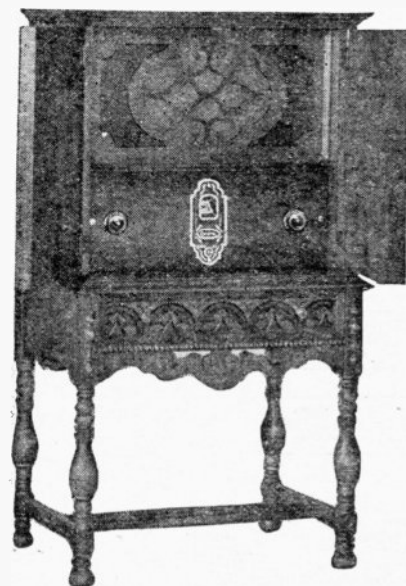
For those desiring a more rugged line of Radio furniture, this console is bound to please. Note the highly attractive appearance made by the panel effects, and handsome carvings on the front. Most any receiver will fit in the set compartment, as it measures 9" high, 25½" long, 16" deep. Overall height 55", width 31", depth 19". Speaker compartment is adaptable to any type speaker, and being an unusually large chamber its baffle action will produce the deepest, most sonorous tones. This console is an able help-mate to the PHILHARMONIC A.C. SET! Antique Walnut finish—harmonizes with the decorative effects in any room. Shipping weight of console 150 lbs. Shipped from Indiana.



Closed View

No. 8439-781. Console only, with set compartment wood panel. No receiver, no speaker. List \$95.00. Net. **\$55.86**

No. 8440-781. Same, WITH PHILHARMONIC A.C. RECEIVER AND MAGNETIC SPEAKER. No tubes. List \$187.50. Net. **\$98.35**



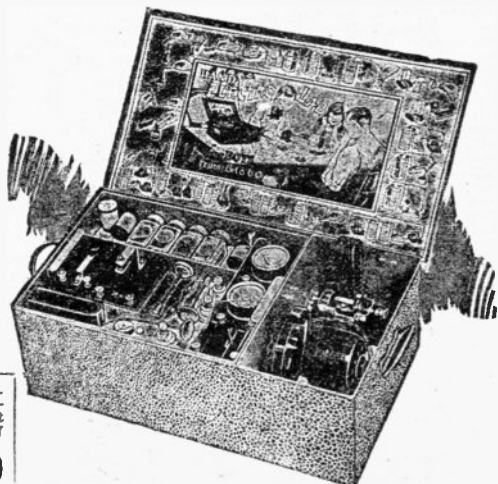
For technical description of A.C. set, see pages 4-5.

Handy Electro-Lab

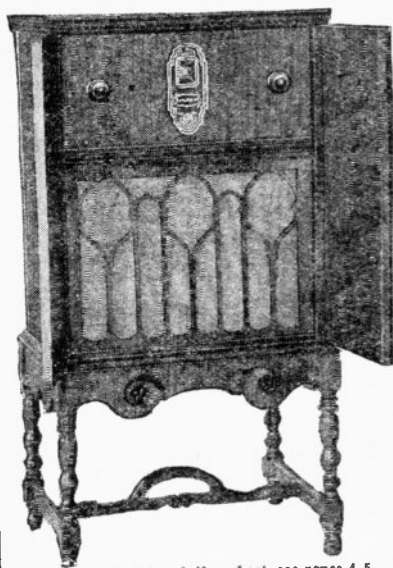
The set is fascinating for young and old. A 62-page booklet is furnished with each set containing 62 experiments and an explanation is given as to just what has been accomplished by conducting these experiments. The set actually consists of 42 parts and each part is substantial and eye-appealing. The motor furnished is a husky affair. Beside the motor pulley, there is a fan blade and guard. The generator is exceptionally well made and will light miniature lamps, ring door bells, annunciators, etc. The telegraph set will provide many happy hours for the fortunate youngster owning a HANDY ELECTRO-LAB. Included in the contents are a Voltmeter, Ammeter, Galvanometer, Pith Ball and rods, magnets, compasses, lamps, electromagnets, wire, etc. A handsome crackle lacquer metal chest is included—measures 18" by 10" by 7". Shipping weight 32 lbs. Shipped from St. Louis.

No. 5312. List \$32.00. Net. **\$18.82**

Pass Condensers, 5 Bakelite UX Sockets, 2 R.F. Chokes, 1 Filament Switch, 1 Carter 20 ohm Rheostat, 1 2 meg. grid leak with mounting, 2 Filament Equalizers with mounting, 1 7x18 Panel, 1 10x17 Sub-panel. Shipping weight 32 lbs. No. 7447. Complete Kit, less Tubes. List \$89.55. Net. **\$40.90**



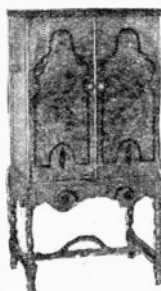
Mayfair-Philharmonic Console All-Electric A.C. Receiver



Here we offer an ideal cabinet suitable for practically all A.C. radio receivers, and particularly well suited for the PHILHARMONIC! The doors fold back to sides and are made of genuine matched burl Walnut ornamented with neat panel effect design, two oval turnings and fancy overlay at edges. Shaped apron and stretcher. Special turned legs, rugged construction, effectively shaded and high lighted. Note the finish of the front surface of the doors! Dimensions: Outside dimensions: 21 1/2" wide, 18" deep, 48" high. Panel: Accommodates any size panel up to 21" wide, 8 1/2" high, 13 1/2" deep. Inside measurement of speaker space 21" wide, 11" deep, 11" high. Cabinet is shipped with blank panel on sliding pull-out mounting board if it is purchased alone. Choice of speaker grille as illustrated or the now preferable baffle board with a 9" diameter ornamental grille in the center of this board, behind which can be mounted any magnetic or dynamic cone speaker. Only RASCO can offer such an extremely low priced combination of one of the world's best receivers, the PHILHARMONIC, and the Mayfair Console. It is value incomparable! Shipped from Indiana. Console weight 90 lbs.

No. 8411-25. Console only, with wooden set panel, no speaker, no receiver. List \$55.00. Net **\$32.34**

No. 8412-25. Console WITH PHILHARMONIC A.C. SET AND MAGNETIC SPEAKER, less tubes. List \$147.50. Net..... **\$74.84**



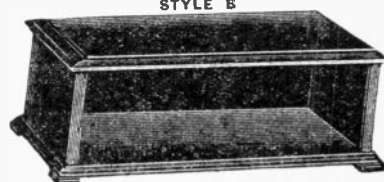
Closed View

For technical description of set, see pages 4-5.

Rasco Radio Cabinets

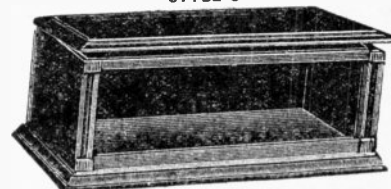
We offer a variety of sizes, patterns, finishes and qualities to suit every customer. You will be well pleased with any cabinet you get from us. Shipped direct from factory in Wisconsin, express collect.

STYLE B



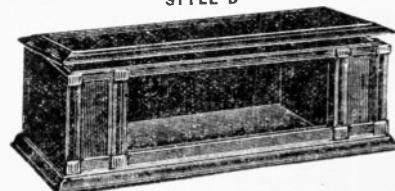
Imitation Walnut and Genuine Black Walnut—Fine looking, sturdily built and elegantly finished. The black walnut Master cabinets have continuous piano hinges and lid holders. The imitation walnut have regular hinges, three to each cabinet, supplied with lid holders.

STYLE C



Genuine Black Walnut—For distinctive appearance this style is not easily excelled. Has continuous piano hinges and lid holders. Space back of bakelite panel is 8" or 10". Top and ends of selected figured walnut, special built five-ply stock. Cannot warp. Base built upon heavy molding. Pillars on front are made of solid black walnut accurately fitted.

STYLE D



This style has ample space in end compartments for "B" and "C" batteries. The space under top is 4 1/2" wide, 10" deep and 3 1/2" high. They also can be used with sets having 7" mounting, the three remaining inches used for dry cell space if a portable set is wanted. Has continuous piano hinges and lid holders. Space back of panel is 10". Top and ends are of figured walnut, special built five-ply stock. Cannot warp. Base built upon massive molding. Pillars on front made of solid black walnut accurately fitted.

STYLE B

Panel Size	Imitation Walnut		Genuine Black Walnut		STYLE C		STYLE D	
	8"	10"	8"	10"	8"	10"	8"	10"
7"x18"	\$3.75	\$5.12	\$5.28	\$7.04	\$7.48	\$9.28	\$15.12	\$15.12
7"x21"	4.03	5.44	5.84	7.52	8.06	9.73	15.12	15.12
7"x24"	4.56	5.76	6.40	8.01	8.64	10.24	16.00	16.00
7"x26"	4.92	6.32	6.80	8.56	9.04	10.80	16.00	16.00
7"x28"	5.66	6.96	7.12	9.20	9.44	11.86	17.04	17.04
7"x30"	5.76	7.20	7.60	9.80	9.80	12.00	17.04	17.04

Signal De Luxe Solid Walnut Cabinets



Though costing only a few cents more than "similar" cabinets, this model is by far the greatest table cabinet value offered! It is constructed of the choicest solid walnut wood. A decidedly attractive antique walnut lacquer finish, with unusual shading effects, is more than good reason to set this cabinet among the finest pieces of furniture, with which it is in absolute harmony. Note the following exclusive features: Embossed frame (top and bottom)—hand carved effects corner post—removal of upper or lower strips, adds one inch height to panel space (therefore, 7"-8"-and 9" high panels can be installed. 12" depth behind rear of front panel—ideal for new all-electric receivers! Piano-hinged top! Shipping weights 30 to 40 pounds. Shipped from Michigan.

Type	Panel Size	Depth	List	Net
No. 7771-WD1....	7x18	12 in.	\$15.00	\$8.82
No. 7772-WD2....	7x21	12 in.	17.00	10.00
No. 7773-WD3....	7x24	12 in.	18.00	10.58
No. 7774-WD4....	7x26	12 in.	19.00	11.17
No. 7775-WD5....	7x28	12 in.	20.00	11.76
No. 7776-WD6....	7x30	12 in.	21.00	12.35

*Height can be increased to 8" or 9".

Bramley-Philharmonic Console All-Electric A.C. Receiver

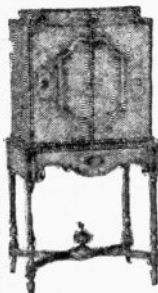
This console is ideal for battery operated or A.C. sets. Shows the designing skill and taste of a real artist. Sugar Maple doors showing the beautiful natural grain of this choice wood. Doors fold back to sides and are treated with scroll work designs richly shaded in two-tone effects. Decorated symmetrical frieze and apron. Walnut plywood top and sides, double stretcher with ornament. Outside dimensions: 26 1/2" wide, 19" deep, 53" high. Panel: Accommodates any size panel up to 21" wide, 10 1/2" high, 14 1/2" deep. Inside measurements of speaker compartment 22 1/2" wide, 10" high, 11 1/2" deep. Easy sliding pull-out chassis board mounted on rollers. Cabinet is shipped with blank panel if you are not ordering it with the PHILHARMONIC A.C. receiver. No matter how luxuriously furnished your room may be, the Bramley will add to its charm and reflect its purchaser's good taste! And what thrills you will have when you listen to the deep sonorous tones produced by the PHILHARMONIC set coupled to our magnetic cone speaker! (Any speaker of your own choice can be installed.) Shipping weight of console 120 lbs. Shipped from Indiana.

No. 8413-121. Console only, with wooden set panel, no speaker, no receiver. List \$85.00. Net **\$49.98**

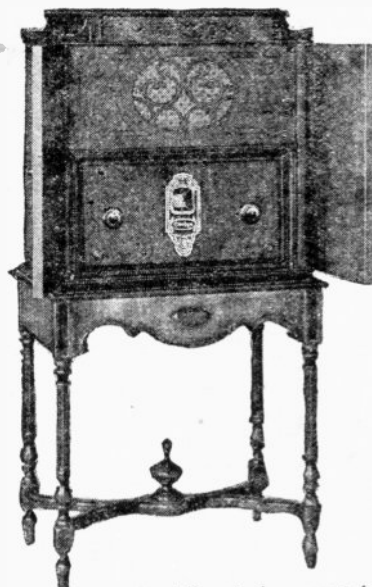
No. 8414-121. Console WITH PHILHARMONIC A.C. SET AND MAGNETIC CONE SPEAKER, less tubes. List \$177.50. Net..... **\$92.50**

NOTE

Any of our consoles can be furnished with Dynamic Cone Speakers—write for information!



Closed View



For technical description of set, see pages 4-5.

Knock Down Cabinets



is beautifully sanded—all the metal hardware is nickel plated brass. All sections are machine cut to size and placed, therefore insuring a perfect assembly. Corners of cabinet rest on rubber tack bumpers. Can be assembled in a few minutes. Shipped express collect.

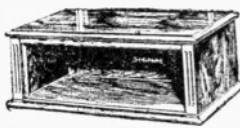
No. 9803. For 7" x 14" panel, 7" deep... **\$1.58**
No. 9805. For 7" x 18" panel, 7" deep... **1.75**
No. 9806. For 7" x 21" panel, 7" deep... **2.10**
No. 9807. For 7" x 24" panel, 7" deep... **2.45**

Trutone "Ce-lec-tor"



Is a hand pass filter—cuts off any infringing side bands. Particularly effective on low wave lengths. Also balances the aerial and tunes the first tube. Prevents one station from interfering with another. Can be used on either electric or battery sets. Simply connect one of the wires to the aerial binding post of your set and the other wire to the aerial lead-in.

Signal Table Cabinet



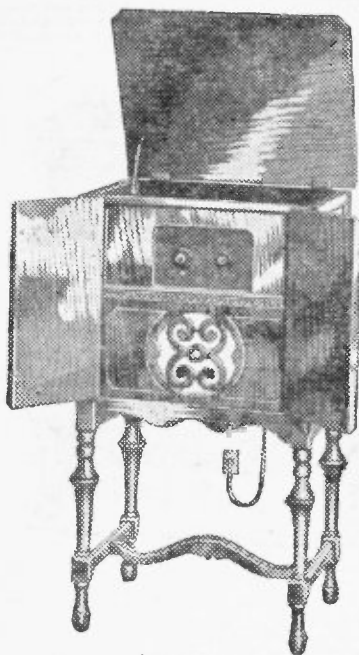
Inexpensive, yes—but beautifully finished and durably built! While it is not as striking in appearance as the more expensive Signal cabinets, it represents splendid value, just the same! Full 12" depth!

Modern A.C. receiver construction calls for between 10" to 12" deep sub-panels or baseboards, especially if the A.C. power pack is to be assembled on the same base. Made of selected quarter-sawn black gum wood, carefully matched to secure a beautiful grain, and hand rubbed to a most attractive shade mahogany. Top hinges back. Shipping weights 18 to 30 pounds. Shipped from factory in Michigan.

Type	Panel Size	Depth	List	Net
No. 7765-MD1	7x18	12 in.	\$9.50	\$5.59
No. 7766-MD2	7x21	12 in.	10.50	6.17
No. 7767-MD3	7x24	12 in.	11.25	6.61
No. 7768-MD4	7x26	12 in.	12.00	7.06
No. 7769-MD5	7x28	12 in.	12.75	7.50
No. 7770-MD6	7x30	12 in.	13.50	7.94

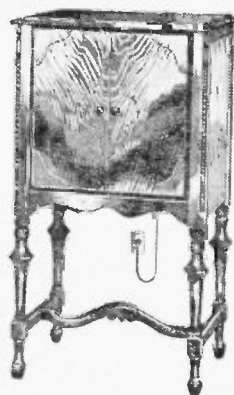
Self-contained in a beautiful bakelite container. 3 1/2" high and 2 1/2" in diameter. Shipping weight 3 lbs. No. 4553. List \$6.50. Net..... **\$3.82**

STARR RADIO CONSOLE



Open View

To get your share of the profit from the radio business you must offer what your customers demand. These special high-grade extraordinary values offer your customers distinction, quality and satisfaction and provide the means to get the hard-to-close business, while our low prices mean profit to yourself. If only to satisfy your good judgment we ask you to compare these cabinets with any others you have heard of at this price. Walnut, of a design distinguished for its simplicity and appealing contour. Smooth, fine finish. Doors swing back. Built-up turned legs. Artistic grill with silk back. Sturdily built. Superb craftsmanship to minutest detail. Finish brings out full beauty of grain. All appointments harmonize and enhance natural attractiveness of design. Dimensions: height 40", width 22", depth 17 1/4". Compartment space for radio set—height 8 1/4", width 19", depth 13 1/4". Panel opening cut if specified with your order.



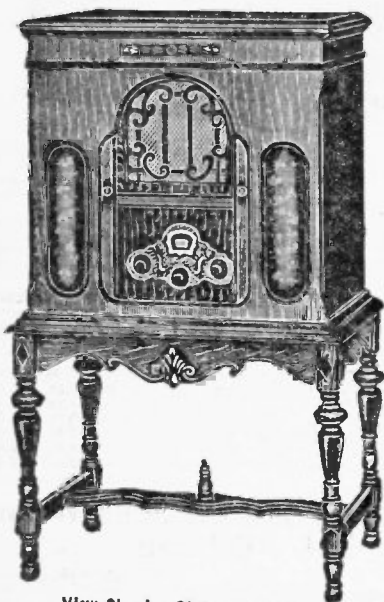
Closed View

Shipped express collect from Indiana.

No. 6906-L. Console with a Built-in Magnetic Cone Speaker on Baffle Board. **\$32.45**
Net

No. 6907-L. Same, less Speaker. **\$26.35**
Net

Excello Console



View Showing Sliding Doors Open

A walnut cabinet with select matched butt walnut veneer sliding doors and inset panels of Madrone Burl. The receiver compartment is 25" x 9 1/4" x 13 1/4" deep. Special panel cutouts for standard receivers will be furnished if specified with order. Door opening is 11". On most sets, the controls are confined to less than 11". Ample room in speaker compartment for any magnetic or dynamic speaker. Dimensions of console are 50" high, 30" wide, and 19 1/4" deep.

Shipped from Illinois.

No. 5241-R-53.

Cabinet only. No speaker, no receiver.

List \$80.00.
Net..... **\$47.04**

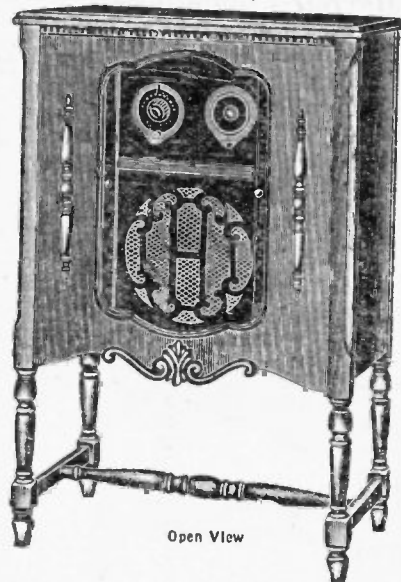


Closed View

NOTE

On the opposite page we show a net price list of various loud speakers that can be furnished with EXCELLO consoles listed on this and other pages of this catalogue. The STARR and RASCO LEADER CONSOLES shown on this page can also be equipped with the same speakers, at the same additional cost.

Excello Lowboy Console



Open View

With matched, butt walnut veneered sliding doors. Door opening is 11". The receiver compartment is 24" x 10" x 12 1/4" deep. Special panel cutouts for standard receivers will be furnished if specified with order. Ample room in speaker compartment for any magnetic or dynamic speaker.

Dimensions:

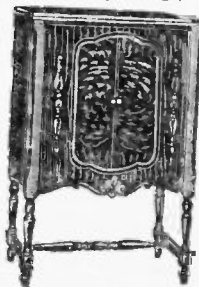
Height 42", width 27 1/4",
depth 14 1/4".

Shipped from Illinois.

No. 5240-R-55.

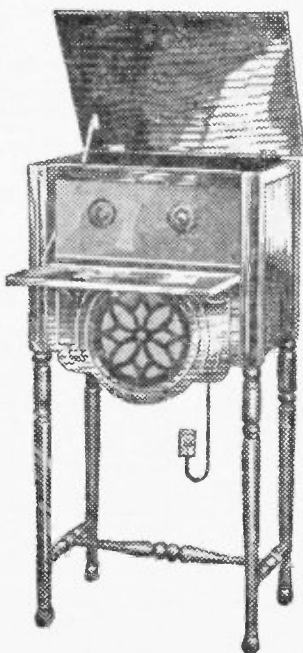
Console only. No speaker, no set.

List \$50.00.
Net..... **\$29.40**



Closed View

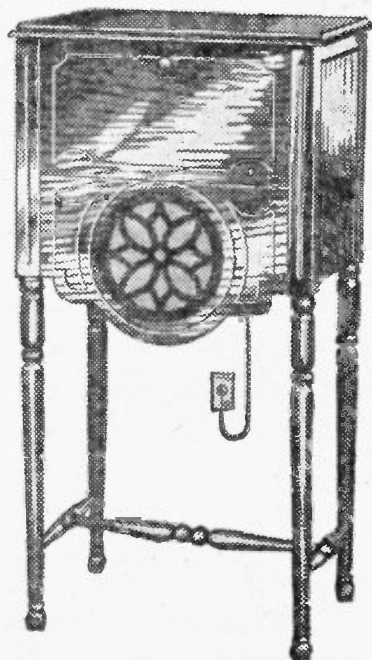
RASCO LEADER RADIO CONSOLE

Open View
With drop door down

No. 4750-M. Console only.
No receiver or speaker.
YOUR NET COST..... \$15.00

Shipped from Indiana, Express or Freight Collect.

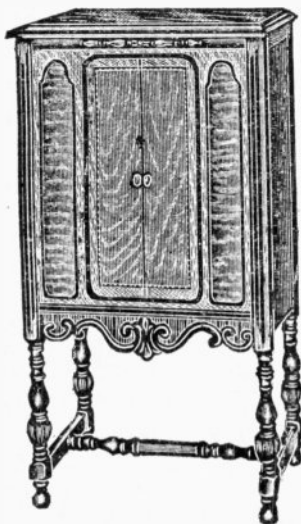
We know of no other cabinet offering that will pep up profits in your radio sales like these finely finished attractive cases for the home lover's radio unit. They are made to supply the insistent demand for a popular priced radio housing. They appeal instantly. More and more are music lovers looking to smart, attractive cabinets. Critics of beauty in home furnishings are severe. Any arrangement for the new radio will no longer do. These beautiful conventionally designed consoles in walnut, handsomely engraved and ornamented, will harmonize with the modest to the smartest surroundings. Appealing design with secretarial door. Cabinet is equally beautiful whether door is closed or open. Charmingly engraved and fluted. Turned legs. Attractive designed grill with background of silk. Equipped with or without a magnetic cone—or any dynamic speaker may be mounted within the acoustically perfect baffle chamber. Dimensions: height 41", width 21 1/2", depth 15 1/4". Compartment space for radio set: height 8 1/4", width 18 1/4", depth 10 1/4". This is just the console to use with the various All-Electric A.C. sets described in this catalogue! Made in Walnut only.



Closed View

No. 4751-M. Same, with a Farrand Magnetic Speaker. Your Net Cost **\$22.80**
No. 4752-M. Same, with a Newcomb Hawley A.C. Dynamic Speaker. Your Net Cost **\$44.10**

BAYVIEW SLIDING DOOR CONSOLE WITH MODEL "F" TEMPLE AIR CHROME SPEAKER



Closed Door View

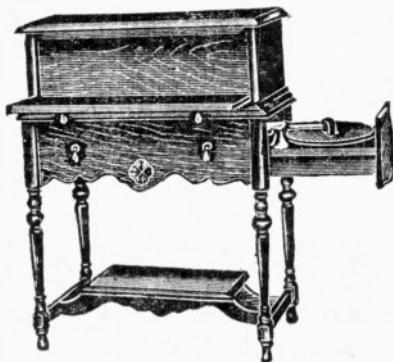
The sliding door console is now enjoying universal popular favor—and for good reasons, too. As a fitting companion to this exceptional console, there is included a Model "F" TEMPLE AIR CHROME SPEAKER, noted for deep bass notes and unusually realistic fidelity of reproduction—with volume gauge! This Sliding Door Cabinet is very practical for use in small rooms where swinging doors are often in the way. Beautifully figured four-way butt Walnut and imported marquetry decoration used on doors. Artistic turnings and carved frets on apron give this cabinet a finishing touch that is only achieved by expert craftsmanship. Artistic grille hides speaker which is below set compartment. Top lid hinged, permitting easy accessibility to set and tubes. Front wood set compartment panels can be furnished for different sets. Specify make of set when ordering. Built-in speaker measures 18" x 23". Console measures: height 48", width 28", depth 16", 11" opening when doors are open, across set compartment panel. Approximate shipping weight 125 lbs. Shipped from Michigan.



Open Door View

No. 5231-106. Complete with Temple Air Chrome Speaker. List \$85.00. Net..... **\$49.98**

Standish Phonograph Consolette



No. 5131 or 5133. View showing drawer installation of electrically operated Phonograph Turntable.

Unconventional in design. Its simplicity is enhanced by the beautiful walnut overlays and cane beading inlay giving the door a beautiful paneled effect. Solid walnut throughout, finished in a natural dark shade and all hand rubbed. Has a speaker shelf fitted to the stretcher across the base, 12" by 16", and will accommodate any of the standard cone or dynamic cabinet type speakers. The apparatus compartment is equipped with a walnut veneer panel. Shaped panels are furnished for standard table model receivers. Dimensions: Receiver compartment, 9" high, 21" long, 15" deep. Outside dimensions, 42½" high, 28" wide, 17¾" deep. Shipped from Chicago. Approximate shipping weight 90 lbs.



Closed View. Showing drop door closed, and phonograph mechanism entirely concealed from view.

No. 5130-CC34. Less phonograph installation. List \$55.00. Net..... **\$32.34**

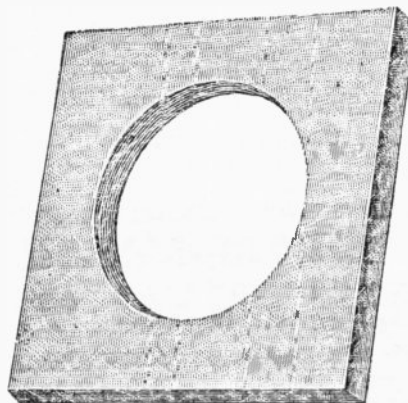
No. 5131-CC34-T. With Electrical Phonograph Turntable. List \$105.00. Net..... **\$61.74**

No. 5132-CC39. Receiver compartment 9" high, 29" long, 15" high. Outside dimensions: 42½" high, 33¾" wide, 17¾" deep. Less phonograph installation. List \$80.00. Net..... **\$35.28**

No. 5133-CC39-T. With Electrical Phonograph Turntable. List \$110.00. Net..... **\$64.68**

THE ABOVE PRICES DO NOT INCLUDE ELECTRICAL PICK-UPS.

Celotex Baffle Boards



Much superior to wood baffle boards. Made of sugar-cane fiber pressed into board form. Light in weight but very strong in structure. Its sound absorbing qualities are almost ideal, a fact which is borne out by its extensive use in the studios of broadcasting stations. The most expensive receiver console speaker compartments are lined with Celotex! Can be nailed or screwed. All boards are 1¼" thick.

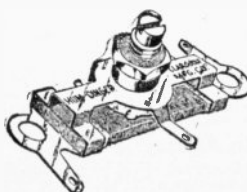
Plain Board—No Center Hole

No. 6928. 12" x 12". Your Net Cost.... **\$1.18**
No. 6929. 18" x 18". Your Net Cost.... **2.05**
No. 6930. 24" x 24". Your Net Cost.... **4.66**
No. 6931. 36" x 36". Your Net Cost.... **5.88**

With 7½" Diameter Center Hole Cut Out

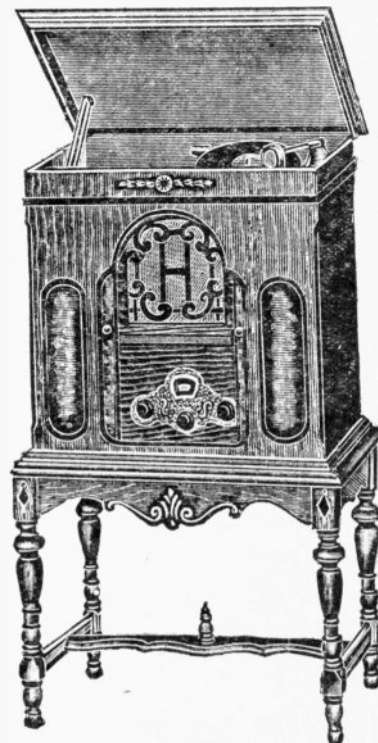
No. 6932. 12" x 12". Your Net Cost.... **\$1.03**
No. 6933. 18" x 18". Your Net Cost.... **2.04**
No. 6934. 24" x 24". Your Net Cost.... **4.05**

Hum-Dinger ClarOstat



Improved and refined center-tap resistor for hum control in A.C. tube circuits. Compact, handy, simple, inexpensive, fool-proof. Essentially a ClarOstat Strip Resistor provided with movable center contact swinging over center portion of winding. Adjustment made with screw driver. One-hole mounting. Panel, sub-panel or baseboard mounting. Soldering tabs. Available in resistance ranges from 6 to 500 ohms. Be sure to state value of resistance range desired. No. 5245. List \$0.75. Net..... **\$0.44**

Excello Phono-Radio Console



No. 5243. Note Phonograph Installation on top of cabinet.

No. 5242-R-54. Same as Style R-53 EXCELLO cabinet except that the top is hinged and a motor board is provided for phonograph use. Space for three record albums is provided. The space between motor board and top when closed is 3½".

Cabinet only, no phonograph equipment. List \$85.00. Net..... **\$49.98**

No. 5243-R-54. With Phonograph equipment consisting of 110 volt, 50-60 cycle induction motor, with 12" turntable, automatic shut-off, electric pick-up, volume control, apter and Phono Radio switch. Wired, ready for use. Radio set not included. List \$145.00. Net..... **\$85.26**

NOTE

ANY EXCELLO CONSOLE OR CABINET MAY BE EQUIPPED WITH ANY OF THE FOLLOWING LOUD SPEAKERS, AT THE NET COST SHOWN, ABOVE THE NET COST OF CABINET WITHOUT SPEAKER:

	Net Cost
Temple Magnetic Cone.....	\$ 9.00
Newcombe-Hawley Magnetic Cone.....	10.80
Peerless Magnetic Cone.....	12.00
R. C. A. 100-A Magnetic Cone.....	13.20
Temple Dynamic A.C. Unit.....	21.00
Newcombe-Hawley Dynamic A.C. Unit.....	24.00
Jensen Dynamic D-6 Unit Special for Atwater-Kent and Crosley Receivers.....	24.00
Jensen Dynamic A.C. Unit.....	30.00
Temple Air-Chrome Speaker.....	13.80

Tobe Filterette For Dynamic Speakers



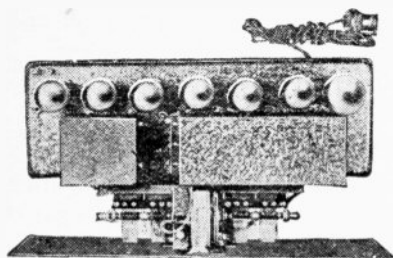
Designed for application to dynamic speakers to suppress the hum set up in the speaker field by the field energizing current. This annoying hum is entirely eliminated by the smoothing effect of the Filterette. Is equipped with spring clip terminals so that it may be readily attached to the speaker. Designed for use only with dynamic speakers having low voltage field energized from a dry disc rectifier delivering 12 volts or less. Outside dimensions: 5" x 5¼" x 1½".

No. 5357-D.A. List \$5.00. Net..... **\$2.94**

Tobe Transfilter

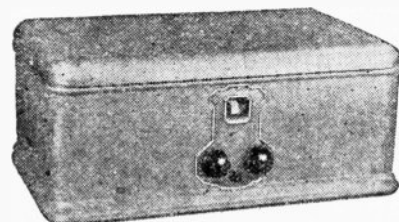
Designed to improve the quality of reception obtained from the average audio transformer. Attaching the Transfilter prevents core saturation and consequent distortion, and thus to a remarkable extent improves the overall frequency response of the transformer. The result is that the transmission of the lower notes is greatly improved. Outside dimensions 3" x 2" x ¾". No. 5358. List \$2.50. Net..... **\$1.47**

7-Tube All-Electric Buckingham Receiver



Top View of Chassis. Note Extra Large Size Power Plant in front of A.C. Tubes.

COMPLETELY ASSEMBLED
READY TO PLUG INTO ANY
110-VOLT 60 CYCLE A.C. SOCKET
EQUALS PERFORMANCE OF
MOST A.C. RECEIVERS SELLING
FOR TWICE ITS COST!
SCIENTIFICALLY SHIELDED



View of Chassis Mounted in a Metal Cabinet. Note the few closely grouped controls.

A PRODUCT OF SKILLED ENGINEERS WORKING WITH MASTERS OF MODERN FACTORY PRODUCTION

The average factory could never produce this type A.C. set to sell for even twice our rock-bottom net sale price. It is only possible to produce such tremendous value in a thoroughly modernized factory similar to Buckingham's. This alone counts for the extremely low price we quote. Therefore, you must not judge the quality of performance of the Buckingham receiver by its price. It is comparable to A.C. sets selling for twice the cost of this one. In fact, the Buckingham set will even out-class most of them in all-around efficiency and performance!

How It Is Constructed

The entire receiver is practically built on, or bolted to, a very heavy cast metal chassis. The Power Pack is built on top of this chassis, and is fully shielded. Note the over-size power plant used! The power transformer case alone measures 7 1/4" long by 3 1/4" wide by 4 1/2" high! Compare this to other receivers! The seven tubes are all mounted in a row, and their respective positions are clearly marked on their sockets. A pair of phone tip jacks (for loud speaker) and two automatic spring binding posts for aerial and ground completes the "upper deck." Underneath the chassis are mounted the four fully shielded (copper cans) R.F. transformers, the two over-size, powerful, distortionless audio transformers, voltage divider system—biasing resistances, by-pass condensers, etc. All the wiring is done underneath this chassis. It is important to note that a four-gang variable condenser tuning system is employed, insuring maximum selectivity (the ability to tune in, and out, AT WILL, wanted and unwanted broadcasting stations) and maximum sensitivity (the ability to tune in far distant or weaker broadcasting stations). Each of these con-

denser sections is compensated by an elaborate testing process in the factory! The tuning control drum works without back-lash or undue friction—an automatic take up prevents slipping. The celluloid strip, upon which are printed degrees AND KILOCYCLES, is translucent, and thus lends a beautiful appearance to the front panel view, as this single control drum dial IS ILLUMINATED. Thus, there is ONLY ONE TUNING CONTROL—ANYBODY CAN OPERATE THIS SENSATIONAL RECEIVER! A volume control completes the front panel controls—that proportionately controls both audio and radio stages at the same time, giving at all times smooth control from a whisper to full volume without distortion from overloading of any tubes. All small metal parts cadmium plated; main chassis frame finished in black frosted crystalline.

Installation Adaptability

The chassis can be used without a cabinet, or it can be inserted into any 7"x18" cabinet, wood or metal. The front metal panel measures 7"x18", and the metal chassis is 10 1/2" deep. Thus, any of our consoles, or any of our 12" deep wood cabinets, may be used to house this receiver. If this set is to be mounted into a console, it is not necessary to mount it on a wooden front panel, as is generally done—most consoles have a 7"x18" front panel compartment. Width across escutcheon dial plate is 4 1/2".

Unusual Tone Quality

Clear, natural reproduction from the lowest pedal note of the pipe organ to the highest over-tone frequencies of

the upper end of the musical and voice frequency spectrum! Free from regenerative noises and alternating current hum. All who hear this receiver are thrilled by its lifelike reality of reproduction! Tremendous volume (controllable) and no distortion!

Tubes Required

Four 226 type A.C. amplifier tubes, one 227 type A.C. detector tube, one 171A type power tube, and one 280 type rectifier tube (double wave rectification system employed). Operates from any 110 to 120 volt A.C. light socket, 50 to 60 cycles. Shipped from Chicago or New York, express collect. Weight 45 lbs.

No. 5225. Chassis, COMPLETELY ASSEMBLED. Less all tubes and cabinet. List \$60.00. Net..

\$35.28

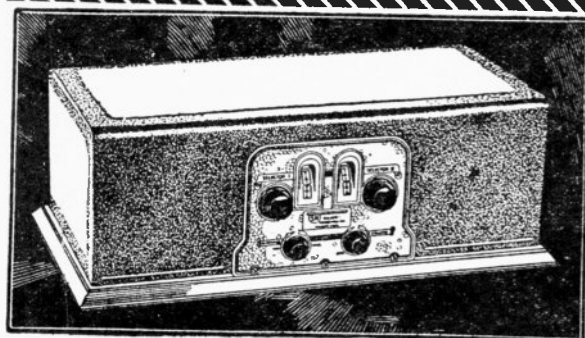
No. 5226. Same, with all necessary A.C. tubes (7) and choice of either a beautiful walnut finished wood cabinet or all metal cabinet as illustrated. NET.....

\$49.99

NOTE

In addition to the apparatus included under No. 5226, you will only require an aerial kit (not necessary if you now have an aerial installed) and a loud speaker. Five minutes after the aerial is installed you will be enjoying radio reception on the Buckingham!

NEW SILVER-MARSHALL 750 ALL-ELECTRIC 7 RECEIVER



Remember, this is not a kit. Silver-Marshall for the first time enters the field of factory built radio receivers. Incorporates all of the many discoveries and developments—the accomplishment of years of laboratory research.

Highly Sensitive—Selective

Will bring you distant reception under normal operating conditions with perfection of tone. All electric—actual light socket operation. Sensitive—many distant stations are received with the full volume of locals. Selective. Ten kilocycle separation is accomplished without sacrifice of tone quality. Powerful with fidelity of reproduction found only in the highest priced receivers.

The Circuit Used

One untuned R. F. ballast stage is followed by two efficient high gain tuned R. F. stages and tuned detector employing the 227 heater type tube. The ballast stage compensates the varying antenna characteristics—this is a very important requisite for true, highly efficient, single dial operation. A stage of finest quality audio amplification works into a stage of push-pull using two 171A tubes. All stages function at peak efficiency. The

Single Dial (illuminated) control is perfect—you will be thrilled by the hair line selective tuning!

Exceptional Tone Quality

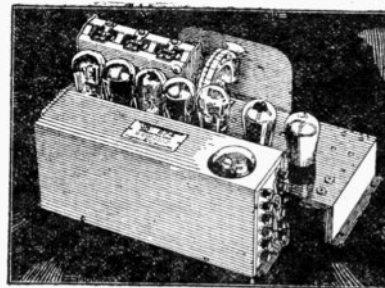
Incorporates the famous Clough audio system with the new Clough push-pull audio transformers, assuring almost perfection of tone. Natural, lifelike tone quality is actually accomplished by means of carefully designed audio units which amplify the entire scale of musical and audible frequencies evenly producing a quality of tone comparable with the actual performance of the artists themselves. There is no better audio amplification system used in any receiver than the push-pull circuit, no matter how much more costly it may be.

Housed in An Attractive Cabinet

Installed in a beautiful, rugged, one-piece metal shielding cabinet finished in two-tone moire brown. It is not only beautiful and attractive but gives complete shielding as well. Fitted with an antique brass control panel escutcheon plate on which the selector and volume control knobs may be found. Here also is the "on and off" switch. The gracefully designed escutcheon plate

**COM-
 PLETELY
 ASSEMBLED**

**Ready to
 Plug Into Any
 A.C. Socket**



Rear View of Chassis

lends beauty and dignity to the cabinet. The base of the cabinet is walnut, finely rubbed to an attractive finish, and is fitted with rubber feet. Dimensions: 23" long by 12" deep and 8" high.

Tubes Required

Four 226, one 227, two 171A and one 280 rectifier.

ABC Power Unit Included

An exceptionally powerful, humless ABC Power Unit is self-contained in this receiver, and is attached to the rear of the receiver, within the cabinet. Furnishes all current requirements in a most efficient manner—there is plenty of reserve power for the two 171A power tubes. Remember, you can only use the very best of speakers to properly handle this receiver's enormous volume! Shipped express collect from Chicago.

No. 6820-750. COMPLETELY ASSEMBLED. METAL CABINET INCLUDED. Less all tubes. For 110 volt, 60 cycle A.C. current. List \$58.20 \$99.00. Net.....

ACME AC-7 RADIO RECEIVER

ALL ELECTRIC SUPER A.C. RECEPTION

Superb Volume and Clarity — COMPLETELY ASSEMBLED — Single Dial Operation



FRONT VIEW OF CHASSIS.
Note the Large Size Power Plant at the left end.

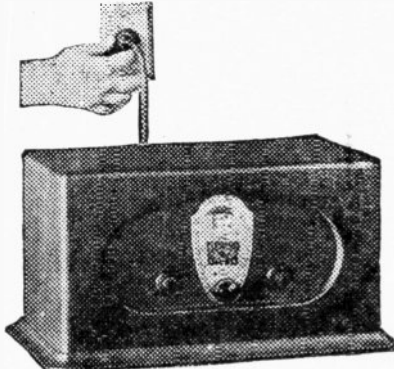
Considerable credit is due the manufacturers and designers of this sensational A.C. ALL ELECTRIC RECEIVER for having produced the most compact set of its type, with all "A," "R" and "C" power equipment self-contained. Yet, despite its size, it equals (and in most instances surpasses) the performance of much larger and more costly A.C. receivers.

Exceptionally Efficient Power Plant

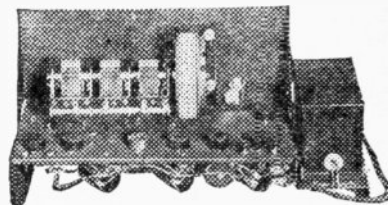
The Acme all electric chassis is made of heavy gauge steel and is built in a one-piece construction, thereby insuring a non-warping metallic panel, finished in crystalline lacquer. At the left end of the panel is the Acme over size power pack case, in which is housed the A.C. Transformer and Choke system. The filter condensers are outside, and are bolted to the under surface of the metal sub-panel. The filtering system employed assures unusually quiet operation—free from hum! The voltage divider system is mounted on a bakelite strip, also under the sub-panel—readily accessible. As individual resistors are employed, they can be instantly replaced, in any emergency. There is ample reserve power—more than enough to light the filaments of the A.C. tubes and rectifier tube used, and to furnish the powerful plate currents required. Between 180 and 200 volts are fed to the plate of the 171 power tube used, and the grids of all the tubes are properly biased.

Unusually Well Designed Chassis

Although this A.C. receiver is a marvel for compactness, all parts are readily accessible. Only the three-gang variable condenser and the drum dial are fastened above the sub-panel. This condenser is bolted at both ends, and there is absolutely no play or undue friction on the drum dial, which is directly connected to the shaft of the condenser. An adjustable feature on the dial takes up any wear. Each section of the three-gang condenser is correctly compensated. All tube positions are engraved in the surface of the sub-panel. The aerial and ground posts and phone tap jacks are also located on the top of the sub-panel, and properly identified. Two Giant audio transformers are used for maximum volume



REAR VIEW OF CHASSIS.
Note most of instruments are mounted and wired beneath the sturdy sub-panel.



A.C. tube, one 171A type power tube, and one 280 type rectifier tube. Phonograph pick-ups can be used to splendid advantage with this receiver.

Unusually Attractive Appearance

The one-piece steel chassis is a step forward in the design of radio receivers and lends itself to many console combinations. The escutcheon plate is handsome in appearance, and a very pleasant glow illuminates the translucent drum dial strip, behind the dial markings. The receiver is housed inside of an attractive, handsomely finished wooden cabinet, which has rounded corners and is finished in beautiful crackled lacquer. This Acme radio has refinements that are beyond the most exacting demands; values backed by proven quality, that guarantee service far in advance of present day expectations. The distance across the knobs is approximately 7 1/4", and thus the panel can be made to fit behind any wooden front panel of a console, necessary provision having been made for these knobs to protrude through the wood panel. The overall dimensions of the chassis are: 7 1/4" high, 17 3/4" long, 7 1/4" wide. The overall dimensions of the cabinet are: 9 1/4" high, 20" long, 8 1/4" wide. Shipping weight approximately 35 lbs. We suggest shipment via express collect. Detailed, explanatory instructions included. For A.C. current only.

- No. 5345-AC-7. Chassis. 110-115 volts (50 to 60 cycle). Less tubes and cabinet. List \$58.00. Net..... **\$34.10**
- No. 5346-AC-7. Chassis. 110-115 volts (25-30-40 cycle). Less tubes and cabinet. List \$70.00. Net..... **\$41.16**
- No. 5347-AC-7. Chassis and Cabinet, 110-115 volts (50-60 cycle). Less tubes. List \$65.00. Net..... **\$38.22**
- No. 5348-AC-7. Chassis and Cabinet, 110-115 volts (25-30-40 cycle). Less tubes. List \$77.00. Net..... **\$45.28**

Absolute Simplicity of Operation

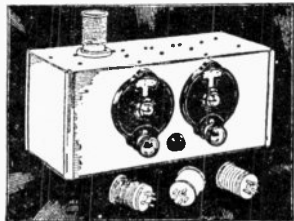
After the tubes are inserted into their respective sockets, this A.C. receiver is ready for immediate operation. Simply insert the set plug into any A.C. socket, attach the loud speaker, the aerial and ground, and that is all there is to it! Only one tuning dial. Just turn this knob and you will be amazed at the utter simplicity of it all! The small left-hand knob turns the receiver on and off. The small right-hand knob controls the volume.

Time Proven Circuit Employed

No receiver is better than the circuit used, and, as the ACME AC 7 circuit is GOOD (99 out of every 100 successful receivers use this self same circuit), you are assured 100 per cent SATISFACTORY PERFORMANCE! Here it is: Three stages of radio frequency amplification (one is an antenna compensating stage), one detector stage and two stages of audio amplification. The tubes required are: Four 226 type A.C. tubes, one 227 type

Silver-Marshall 730 Round the World Four

Have you had your taste of the "thrill band" — the wavelength band from 17 to 200 meters? Down on these low waves are the foreign broadcasts — English 58W with Colonial programs, Dutch, French, Russian, German and other re-broadcast programs. Down there you'll find KDKA, WGY, WRNY, WLN, with low wave broadcasts that you can hear when static blankets out their regular waves. And television—it's on the low waves that you hear the musical sing-song that means the transmission of living pictures! You can hear amateurs in every continent, in almost every country, all in an evening. These trim little kits build up into receivers using one screen grid tube in a single stage of radio frequency amplification followed by a non-radiating detector. There is but one tuning dial, with variable vernier reduction, so that the tuning is not critical. The range for loud speaker reception is practically unlimited. Is a complete short wave receiver and two stage audio amplifier, using the new S-M 255 and 256 Clough audio transformers. It uses the new S-M 5-prong plug-in coils to cover the whole range between 12.4 and 204 meters, efficiently and smoothly. All wavelengths are covered with no dead spots. The amateur hands fall well to the center of the tuning dial. The receiver is built into a very attractive aluminum shielding cabinet. Size, 14" long,



6 1/4" high, 6" deep. The coils plug into a socket mounted on top of the cabinet for easy and instantaneous wavelength change. The tubes required are: 1—UX222 (CX322) screen grid amplifier, 2—UX201A (CX-301A) or UX112A (CX312A) detector and amplifier tubes, and 1—UX112A (CX312A) or UX171A (CX371A) power tube. Kits are shipped express collect from Chicago.

No. 7102-730 Round the World Kit. Complete as specified above, ready to assemble (less tubes), factory packed in substantial carton, shipping weight 13 lbs. List \$51.00. Net..... **\$29.99**

No. 7103-731 Round the World Adapter Kit. Converts any radio receiver into a short wave set by merely plugging it into the detector socket of the set. It is essentially the 730 receiver, less the two audio stages; has the same characteristics in control, tuning and wavelength range, and is contained in the same aluminum cabinet. This adapter may be used with any radio receiver operating with batteries or power units, but only batteries should be used in the adapter itself. Shipping weight 11 lbs. List \$36.00. Net..... **\$21.17**

No. 7104-732 Round the World Essential Kit. Contains only the essential parts, carefully matched and tested for the R.F. and detector circuits of the "Round the World" Kits described above. Parts included are: 1—S-M 321 condenser, \$1.00; 1—S-M 320R condenser, \$1.00; 1—each S-M 131-T, 131-V, 131-V and 131-W coils, \$5.00; 1—S-M 512 socket, \$0.60; 2—S-M 277 chokes, \$3.00; 1—S-M 275 choke, \$0.90; 1—S-M 818 hook-up wire (25 feet), \$0.50. Complete, ready to assemble (less tubes), factory packed in carton, shipping weight 4 lbs. List \$18.50. Net..... **\$9.70**

Pacent Electrovox

Radio Electric Phonograph Reproduction At Its Best!



A complete electric phonograph, when attached to radio, provides astonishingly natural and beautiful tone quality—the tone and volume equivalent to "similar" instruments generally costing \$1,000.00. Easy to install. Switches instantly from radio to phonograph without removing tube. Encased in beautiful walnut cabinet. Uses Pacent silent induction electric motor requiring no winding. Pacent balanced tone arm is included.

No. 7554. List \$75.00. Net..... **\$45.00**

No. 7555. Same, without Cabinet. List \$60.00. Net..... **\$36.00**

No. 7105-734 Round the World Cabinet. A complete satin finished aluminum cabinet, pierced for mounting all parts of S-M 730 or 731 Round the World Kits. Sides, bottom, and back detachable. Complete with terminal strip. Contained in S-M 730 and 731 kits, but supplied separately if desired. Size, 14" long, 6 1/4" high and 6" deep. Shipping weight 4 lbs. List \$8.00. Net..... **\$4.71**

No. 7106-738 Adapter Plug. Complete with 3-foot connecting wire. List \$1.50. Net..... **\$0.89**

The Rasco 5-Tube Radio Receiving Set

So-called "improved" and "modernized" receivers may appeal to your liking for simplicity of control but bear this in mind: It is proven, a separately tuned R. F. stage has decided advantages over an R. F. stage which is tuned by a section of a gang condenser. If you are looking for a receiver that is capable of extra long distance reception, extreme selectivity, tremendous volume, perfect clarity, and consistency of reception, then the RASCO LEADER IS YOUR ONE AND ONLY CHOICE!

Ultra Sensitive

The thrill of distance reception is bound to impress you and make of you a radio fan, millions of whom "explore" the ether every night throughout the world. The very fact that this receiver is so ultra-sensitive also assures you that if your home town is located a few hundred miles from the nearest broadcasting station, you will enjoy their programs with surprising volume and clarity.

Ultra Selective

In some cities, like New York, Chicago, etc., there are as many as twenty stations, and unless your receiver is correctly designed and assembled, more than one station will be heard at once. Laboratory and practical tests with this receiver enable us to assure you that it will positively tune in only one station at a time. We have numerous letters in our files from purchasers of this set claiming to have recorded over 200 stations which they can consistently receive!

Volume with Perfect Clarity

There are many receivers which can be forced to produce volume at the costly expense of clarity, and after all your sense of enjoyment of the radio programs is solely dependent on the clarity with which you may receive these programs. The first passages of music that you will hear over this radio will thrill you with its 100 per cent fidelity of rendition.

Wired for Power Amplification

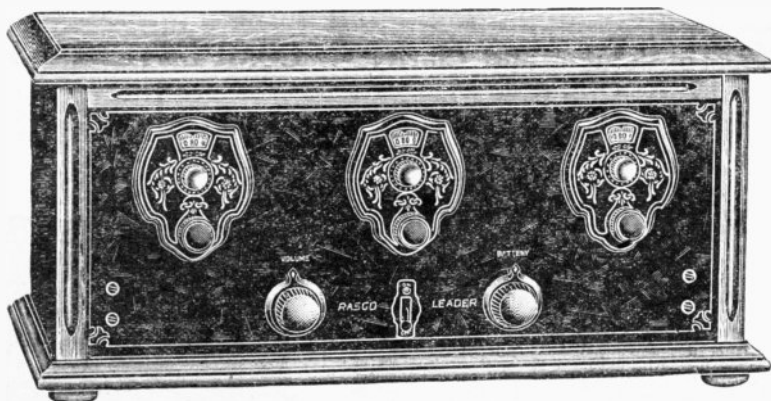
Whether you intend to use 90, 135 or 180 volts across your loud speaker, with accompanying "C" battery biases, the 9-wire battery cable system employed will provide for all of this.

Adaptable to Either Battery or Light Socket Operation

You can install this receiver with regular "A," "B" and "C" batteries. Later on you can discard the batteries and obtain all the current requirements DIRECT FROM YOUR LIGHT SOCKET. We particularly suggest the use of an appropriate "A" eliminator, such as the Knapp, Abox, Tobe, Valley, etc., in conjunction with any "B" or "BC" eliminator. This arrangement does not require A.C. tubes.

Tubes Required

If you will use 90 volts "B" current, five 201A tubes are required. Using 135 volts



"B" current, four 201A's and one 112 A power tube are necessary. Using 180 volts "B" current, four 201A's and one 171A power tube will be necessary (also a Speaker Filter, or Output Transformer). The necessary "C" bias is as follows: $4\frac{1}{2}$ volts for 90 volts "B"; 9 volts (two $4\frac{1}{2}$ -volt "C" batteries) for 135 volts "B"; $40\frac{1}{2}$ volts (two $22\frac{1}{2}$ -volt "C" batteries) for 180 volts "B."

Simple Operation

The three-dial knobs are rotated together, and, as a rule, they will each be set to the same corresponding number on each of the dials. For instance, a certain station may come in at 40 ON EACH OF THE DIALS. Once you have recorded a station, with its dial readings and station call letters, to listen in again to that self-same station you merely have to set your three large dials to these previously recorded settings!

The Circuit Employed

The circuit used is standard—nine out of ten radio sets use it! Two stages tuned radio frequency amplification, one detector stage, two stages audio frequency amplification. Will cover all wave lengths between 200 and 550 meters. Point to point wiring, carefully soldered at joints, system employed for maximum efficiency. All wiring, coils and audio transformers are rigidly attached on the under side of a bakelite sub-base panel, preventing mischievous handling thereof.

Other Exclusive Features

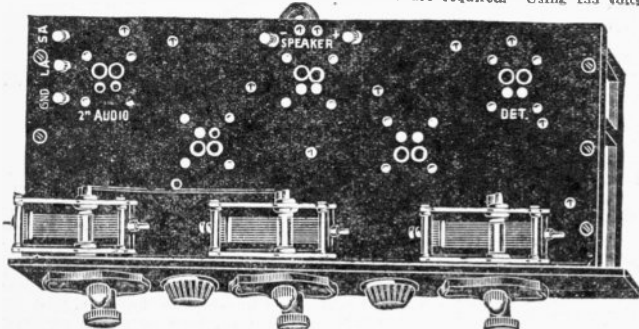
There are any number of five-tube receivers manufactured, and all are as alike as peas in a pod. RASCO IMPROVES—OTHERS MERELY COPY! We use the PILOT AIR VERNIER DIALS instead of 1 to 1 ratio knobs with a mass of unsightly dial settings printed on the panel, which is always used on "similar" low-priced five-tube receivers. The type toggle switch provided is generally found on automobile dash-boards—it will never become noisy. Particularly note that the sub-panel rests on two $6\frac{1}{2}$ " length bakelite sub-panel brackets and not on a jack or other inappropriate manner! The loud speaker connections are made to two blinding posts on the sub-panel. There are two aerial posts provided for either long or short antenna. A detailed chart showing the 9-wire cable assembly and an informative instruction sheet are included. Panel size, $7" \times 18"$. Depth of sub-panel is $6\frac{15}{16}"$. This chassis may be installed in any of our consoles. Shipping weight approximately 20 lbs., without cabinet.

No. 9057. COMPLETELY ASSEMBLED, READY FOR IMMEDIATE OPERATION. Less tubes, batteries, cabinet, etc. List \$50.00. Net

\$16.95

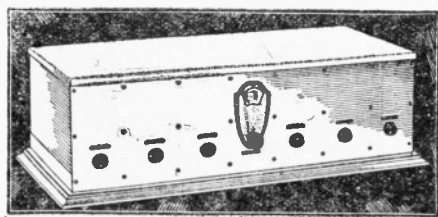
No. 9056. SAME. WITH WALNUT FINISHED CABINET. Your Net Cost

\$19.95

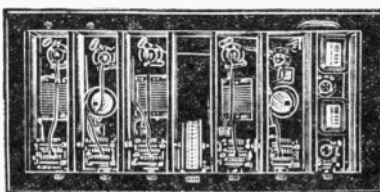


View of Sub-Panel—Note entire absence of wiring.

SILVER-MARSHALL 710 SARGENT-RAYMENT SEVEN



Front View



Interior View

An average of one hundred stations heard in one evening! That is the performance record of the Sargent-Rayment Seven, tested in the heart of Chicago interference on a warm summer evening. In performance, as in unique appearance, it is a precision laboratory type of instrument, intended for the man who desires the very extreme of radio reception in all respects, irrespective of cost or other limitations. It is unnecessary to introduce Messrs. Sargent and Rayment, whose invention of the Infrafine system has made them well known to every radio fan. Their new receiver, developed in conjunction with the Silver-Marshall engineering laboratories, carries its own recommendation. The thick aluminum shielding and chassis, finished in satin silver and trimmed by black instrument name plates with white engraving, gives the appearance a distinction and dignity. Consists of five sharply tuned circuits in a four-stage screen grid R. F. amplifier, all tuned by a single illuminated drum, and each stage provided with individual verniers. One knob turns the set on and off, a second controls volume

from zero to maximum. All are symmetrically placed. There are no other controls. Following the R. F. amplifier are the detector and the A. F. amplifiers, using the new S-M 255 and 256 audio transformers which provide unequalled tone quality and high volume. A 171 power tube can be used, or with S-M 675 ABC power supply a UX 210 or UX 250 is used in the last audio stage, for a 251 output coupler is included. Light socket operation is had with standard "A" and "B" power units, or batteries may be used. Each circuit is individually shielded, bypassed, and isolated from all others. The set goes together simply and positively, with clear direct wiring. It is a delight to build, so workmanlike is its design and layout. All of the parts for the receiver mount upon the specially die-formed and accurately placed aluminum chassis wiring machine screws and nuts. Lockwashers prevent the assembly ever loosening up once the set has been finished. Station after station, near and far, DX and local, literally plop in and out with the positive, clear-cut selectivity that

lets you get a station for every ten-kilocycle channel—ninety-five to a hundred stations in an evening under favorable conditions. And they'll all come in at about the same volume, with full, rounded tone, of a depth, beauty and brilliance that will make both you and your friends marvel. Tubes required are two 112A, four 222, and one 171A. Shipped express collect from Chicago. No. 7089-710 Sargent-Rayment Seven Kit. Complete kit, as specified above, factory packed, with aluminum cabinet, ready to assemble (less tubes). Shipping weight 33 lbs. List \$130.00. Net..... **\$76.44**

No. 7090-710 Custom-Built Sargent-Rayment Seven. The 710 Sargent-Rayment Seven, as described above, custom-built and guaranteed, complete with cabinet. Hand assembled and tested in the S-M laboratories. Packed in substantial carton (less tubes). Shipping weight 33 lbs. List \$175.00. Net..... **\$102.90**

No. 7091-705 Aluminum Knock-Down Shielding Cabinet. Especially designed for the Sargent-Rayment Seven, size 27 $\frac{1}{2}$ " long, 12 $\frac{1}{2}$ " deep, and 8 $\frac{1}{2}$ " high. Included in the 710 Sargent-Rayment Kit, but supplied separately if desired. Factory packed in substantial carton. Shipping weight 12 lbs. List \$27.00. Net..... **\$15.88**

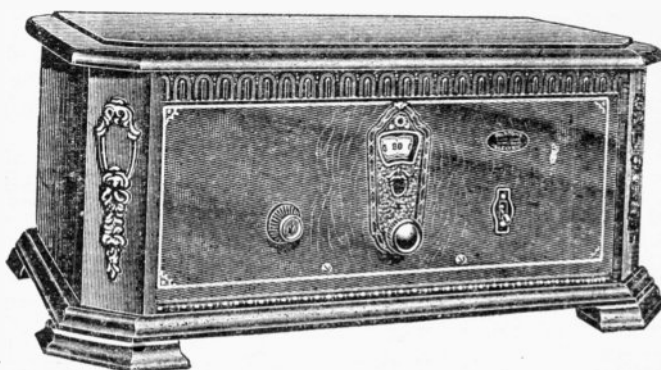
No. 7092-706 Walnut Finish Base Moulding. A walnut finished base moulding for the S-M 705 Aluminum Shielding Cabinet, greatly improving appearance. Included in the 710 Sargent-Rayment Kit, but supplied separately if desired. Size 28 $\frac{1}{2}$ " long, 14" wide. Shipping weight 4 lbs. List \$3.00. Net..... **\$1.77**

PILOTONE ALL-ELECTRIC "SIX" KIT

A celebrated English psychologist once stood on one of London's main thoroughfares with a tray extended before him. He offered for sale absolutely genuine currency worth \$10.00, in our money, for \$1.00! AND NOT ONE PERSON WOULD MAKE THE PURCHASE!!! Why? They evidently did not believe him!! In a quite similar manner, we are offering the Radio Trade an ALL-ELECTRIC A.C. KIT THAT EQUALS IN PERFORMANCE MANY FACTORY-BUILT RECEIVERS COSTING AS HIGH AS FIVE TIMES THE NET PRICE THIS PILOT A.C. KIT IS OFFERED TO YOU AT! Judging from the enormous sale these kits are enjoying, we are considerably more "fortunate" than the psychologist mentioned!

Simple to Operate and Gives "Close-up" Quality Reproduction

The Pilotone Electric is an extremely easy receiver to operate, for it has only ONE TUNING DIAL! All the family from the grandmother to the four-year-old boy can for themselves enjoy the thrill of snapping the "on" and "off" switch, rotating the knob of the illuminated vernier dial, and adjusting the small knob on the left of the receiver front panel to vary the ability to receive distant stations and the volume of the received program. In designing a radio receiver, as in nearly all engineering work, the ideal condition must usually be a compromise. The circuit design of the Pilotone receiver is such that relative ten kilocycle selectivity is obtained without cutting of sidebands. Care has been taken to design the constants of the detector tube circuit so that no overloading will occur, under normal operating conditions—there is no perceptible distortion! One stage of low radio audio frequency amplification is employed after the detector



No. 6869

oscillations in the R. F. stages. Without question the time has arrived when custom set builders and experimenters are particularly happy to have the engineering department of the radio manufacturer do the serious experimental work required in designing the receivers which they are to build. For this reason the list of parts necessary for the construction of the Pilotone Electric receiver includes a steel front panel, in which all holes are punched, and in addition a metal sub-base panel, likewise with all holes ready for immediate assembly. This plan also makes possible supplying a panel beautifully finished in grain walnut and decorated with gold border lines matching the golden bronze finish of the vernier illuminated dial, and the front panel knobs.

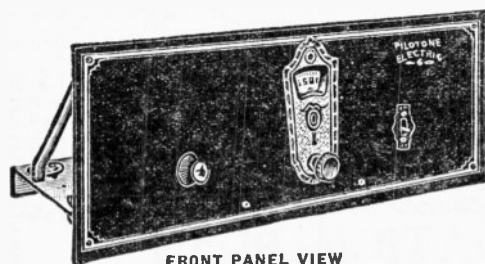
rect negative grid bias voltages for all tubes except the 6X25 (or its equivalent) detector tube, which of course does not require a negative grid bias, are obtained through resistances connected to the center taps of the secondary transformer windings. Thus, all you need to add to this receiver is any form of "B" supply, furnished by any "B" eliminator (a receptacle socket on the sub-panel is provided for this) capable of supplying the following voltages: —B, +45, +90, +135, +180 to 200. And for this purpose, we particularly recommend the PILOTONE "B" POWER SUPPLY, listed below.

Tubes Required

Five 226 Type A.C. Tubes and one 227 Type A.C. Tube are used in this kit. The overall dimensions of the assembled receiver are: 18" long, 7" high, 7 1/2" deep. Shipping weight 15 lbs.

The complete list of parts for the Pilotone receiver includes the following items (Pilot catalogue numbers quoted): 1 No. 738—7"x18" Walnut Finish Steel Front Panel; 1 No. 739—Special Metal Sub-Base Panel; 2 No. 36—

Angle Brackets; 1 No. 404—Filament Power Transformer; 1 No. 42—W Toggle Switch; 1 No. 277—Receptacle; 2 No. 172—R Coils; 1 No. 732—Antenna Coil; 2 No. 80—By-Pass Condensers (1 mfd.); 2 No. 68—Type M Mica Condensers (.006 mfd.); 1 No. 62—Type M Mica Condenser (.0005 mfd.); 1 No. 51—Type M Mica Condenser with Special Grid Leak Clips; 1 Set of 4 Binding Posts as follows: L. S. (—), L. S. (+), Ant., Gnd.; 1 No. VM82—Micrograd; 5 No. 216—Sockets; 1 No. 217—Socket; 1 No. 1282—Illuminated Dial with No. 1256-W Knob; 1 No. 350—Resistograd with No. 1257-W Knob; 1 No. 1703—Triple Compact Condenser; 1 No. 1001—1,000-ohm Adjustograd; 1 No. F-43—2 1/2-volt Bulb; 1 No. 391—Audio Transformer



FRONT PANEL VIEW

and the output of this stage of amplification feeds directly into a push-pull circuit providing high quality (and high volume, if desired) reproduction. A fixed condenser is arranged in the output circuit to prevent the high voltage direct current from going through the loud speaker coil windings. The radio frequency circuit is so efficiently designed that you are assured of maximum long distance reception, and ample selectivity—you will not be disturbed by receiving any more than one station at a time. The antenna circuit consists of a miniature variable condenser (.002) and a Resistograd (volume control) in series. The antenna coil is so connected to the antenna and rest of the circuit that it acts as a most efficient compensating stage, always necessary when using single dial controlled circuits. There are two R. F. stages and one detector stage, in addition to the audio stages. An Adjustograd prevents

Simplest Radio Kit to Assemble

There is really no possible chance for you to make a mistake when assembling this sensational receiver! All the "thinking" has been done for you at the factory—all you have to do is to bolt the various parts to the drilled sub-base structure. The actual wiring is even simpler, for the instructions furnished cover this so clearly that any ten-year-old boy could satisfactorily do the job! Please note that most of the apparatus is bolted to the sub-panel (and some more parts are bolted to the under side of the sub-panel)—thus, practically

the entire wiring can be done before the front panel is attached, this greatly simplifying the job! Another very important feature: With the exception of only a few wires, all the wiring is done below the sub-panel, and thus your completed receiver will boast of a commercially assembled receiver's appearance. Note that two sturdy brass angle plates make the entire chassis a very rigid affair—this is very important!

Plugs Into Any 50-60 Cycle A.C. Electric Light Socket

As will be understood, the filament current supply of the receiver is self-contained, being supplied directly from the alternating current lighting line by the filament power transformer. At the same time, no "C" battery external connections are necessary, as the cor-



REAR VIEW—NOTE STURDY ALL-METAL CHASSIS!

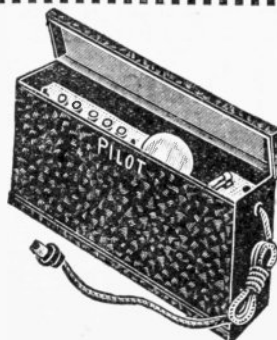
(3 1/2 to 1 Ratio); 1 No. 399—Input Push-Pull Transformer; 1 No. 401—Output Push-Pull Impedance; 1 No. 958—Fixed Resistor (2,000 ohms); 1 No. 85—Fixed Resistor (650 ohms); 1 No. 756—2-megohm Grid Leak; 1 No. 734—6 ft. Double Cord with Plug; 1 No. 735—Package of Assorted Screws, Nuts, Lock Washers, Lugs, etc.; 1 No. 736—Package of Assorted Rubber Covered Wire; 1 No. 737—Package of Hardware; 1 Assembling and Wiring Blue Print.

No. 6868-K-102. Chassis, Complete Parts, \$26.46 less tubes and cabinet, List \$45.00. Net.

No. 6869-K-102. Same, but including a highly decorative wood cabinet, 12" deep inside. The Pilotone "B" Eliminator can thus be placed behind the chassis, in the cabinet itself. Therefore, the entire receiver and \$35.28 ABC Power Supply is self-contained. Net

The Pilotone Assembled "B" Power Supply Eliminator

This Pilotone "B" power supply was particularly designed to provide the required "B" power voltages of positive (+) 45, 90, 135 and 200 volts as required by the Pilotone Electric receiver. The power pack is made up of a Pilot No. 405 power transformer, supplying the high voltage alternating current and also the alternating current to the filament of the UX-280 rectifier tube, used in this eliminator. A 1 1/2 ampere (1.5) fuse has been provided in the primary supply circuit which is to be connected to the alternating current lighting circuit by the 4 ft. attachment cord and plug provided. The rectified current from the UX-280 tube is effectively filtered by the use of two Pilot No. 392A filter choke coils and the Pilot No. 934 filter condenser block incorporating 14 mfd. total capacity. The entire unit is housed in a lacquered metal case measuring approximately 11 1/2" long, 7 1/2" high and 2 1/2" wide. The total weight is 7 1/2 lbs. The entire assembly of parts is mounted on a metal chassis which slips into the case. The binding posts for connections are supported on a bakelite strip at



the top, all terminals being marked. Although this particular "B" power supply was designed for the Pilotone Electric receiver it is completely satisfactory for use with any radio receiver not requiring a total current consumption of greater than 40 milliamperes. The convenient design and construction provides a power supply having dimensions that make it extremely convenient to use for nearly all receiver cabinets, having adequate space to enclose the "B" power supply in addition, of course, to the receiver. And, last but not least, it is COMPLETELY ASSEMBLED—simply insert the 280 type rectifier tube, and it is ready for immediate and ever efficient service!

No. 6870-K-107. Completely assembled, less rectifier tube. For 50-60 cycle, 110 volt A.C. current. List \$24.00. Net. **\$14.11**

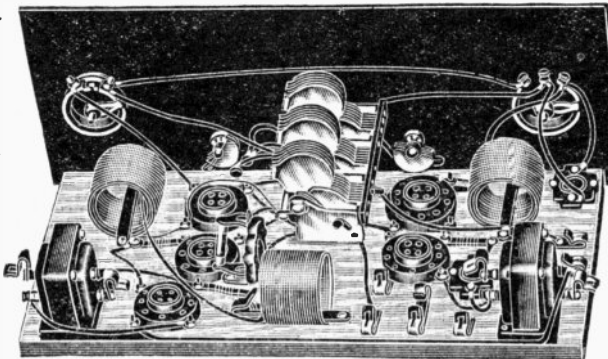
The Rasco ONE-DIAL Controlled 5-TUBE TUNED RADIO FREQUENCY RECEIVER

Selectivity — Sensitivity —
Clarity — Volume.

New Mode of Assembly.

Country-wide Reception as
Fast as You Can Turn
the Single Con-
trol Dial.

Adaptable to Any Form of
"A," "B," "C" Elim-
ination.



No. 8888

We have been successful in accomplishing the goal of every serious radio fan and experimenter—a perfect one-dial controlled five-tube receiver. To accomplish this, we long since realized the absolute necessity of standard quality parts—our list appended below will certainly testify to our selection thereof. Then, after carefully weighing the matter from its every angle, we decided to so construct this receiver that in a moment, without lifting the cabinet cover or re-calibrating the tuning instruments, you could avail yourself of the unquestionable superiority of the conventional three dials for extreme long distance reception. This is very simply accom-

plished: You will note on either side of the triple-gang condenser a small seven-plate midget condenser, each of which is shunted to one section of the main condenser, and are controlled by very small knobs on the panel. The center vernier dial is rotated to the desired wave length setting, and then these midget condensers are used to complete the perfect tuning of that wave length, taking but a moment's time. To revert back to true one-dial operation, these small knobs are set with the arrow immediately beneath a predetermined pencil mark on the panel. The radio frequency inductances are of the solenoid type, air spaced wound and 2" in diameter; the three of them are very carefully matched, as are the three sections of the triple condenser, insuring a wave length range of 200 to 550 meters. The sockets will accommodate any standard U-X base tube, and for this reason this receiver can be successfully used with either dry cell or storage battery tubes. The oscillations in the R. F. stages are very easily controlled with a potentiometer, and by virtue of this method truly remarkable long distance reception with surprising volume is at all times within the range of this receiver. The panel is handsomely engraved bakelite, and is scored around its edges with an attractive and pleasing border. The final design of this receiver represents the incorporation of all the improvements that we have found out in our own laboratory efforts, and suggested to us by our many friends. Included with each kit, we supply a detailed picture diagram blueprint, and each part used has a letter designation, which, when referred to on the blueprint, tells you what this instrument is and what it

No. 8889

NOTE SIMPLICITY
OF PANEL
LAYOUT!



does. The baseboard layout is full size. No soldering of wires is at all necessary. You simply slip an appropriate length wire over a screw, tightening the bolt thereon—a moment's task! The wiring instructions tell you to run a 6" wire from such and such a point to such and such a point. How could you go wrong? Why, you do not even have to know why you must make that connection—simply do it. We have done all the thinking for you! Furthermore, the instruments on the panel are wired before the panel is attached to the baseboard for your mechanical convenience, and the same is true of the wiring on the baseboard. Completing the latter, you attach the panel to the baseboard and complete the few remaining connections between the instruments on the panel and on the baseboard. Should you wish to use a power stage of audio frequency amplification, the directions clearly cover this point. "C" battery connections on the A. F. transformers are provided. Separate R. F. "B" battery binding post is also provided. A trouble shooter list will quickly determine any snag you may run into, and at once assist you in the elimination thereof.

Parts included in this receiver: One panel, 7" x 18", drilled and engraved bakelite, \$3.50; one baseboard, 7 1/2" x 17", laminated (non-warping), \$0.60; three coils, 2" diameter solenoids, air space wound, \$4.50; one U. S. L. triple .00035 variable condenser, \$5.75; one Pilot Kilograd vernier dial, \$1.00; two engraved miniature knobs, \$0.50; two Pilot audio transformers, \$4.50; one 10-ohm Pilot rheostat, \$0.70; one 400-ohm Pilot potentiometer, \$0.80; three Carter fixed filament resistances, \$0.75; five Pilot U-X cushion sockets, \$2.50; one Pilot single circuit filament control jack, \$0.50; one Pilot grid leak condenser and 2-megohm leak, \$0.85; one Pilot .002 fixed condenser, \$0.35; one Pilot .005 fixed condenser, \$0.50; one binding post strip, complete with posts, angles, etc., \$0.50; connecting wires, \$0.50; necessary hardware, screws, angles, etc., \$0.25; blueprint and detailed instruction sheet, \$1.00. List price of parts \$31.05.

No. 8888. Your Very Special Price. **\$14.75**

No. 8889. Above Kit with 7"x18" Walnut Cabinet, 8" deep. **\$19.75**

Approximate shipping weight 10 lbs.

RASCO SPECIAL ACCOMMODATION PLAN

"25% OFF LIST PRICES"

FREED EISEMANN ATWATER KENT

Kellogg FRESHMAN YOUR ULTIMATE RADIO Majestic

EVEREADY BREMER-TULLY PHILCO

Columbia BOSCH EDISON Balkite

Stromberg-Carlson STEWART-WARNER

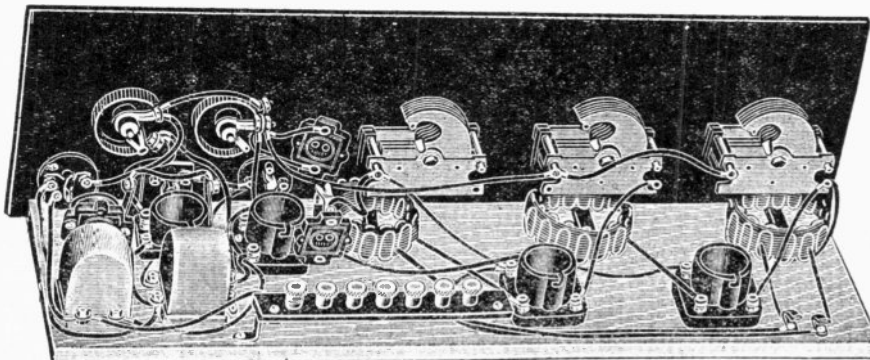
CROSLEY

Should you desire to purchase **FORCASH** any of the **STANDARD NATIONAL-ADVERTISED RADIO SETS**, we will be pleased to secure one of them for you, and ship it **F.O.B. New York**, packed in its original carton or shipping case. On such purchases, the maximum discount that we can allow you is 25 per cent off the manufacturer's list price. We cannot allow any further discount, and full cash remittance must

be sent with your order. Absolutely no **C. O. D.** shipments made under this plan. If we cannot obtain, due to market conditions, the receiver you have ordered within ten days, your money will be refunded at once! This 25% discount offer also applies to all standard receivers not shown in this box. As this offer is purely a matter of accommodation, we cannot accept for credit any purchase made under this plan.

Rasco 5-Tube Tuned Radio Frequency Receiver

For
DISTANCE
VOLUME
CLARITY
Easy Operation
Simple to Build



EQUALS
PERFORMANCE
OF MANY
KITS COSTING
THRICE
THE PRICE!

BIGGEST RADIO VALUE IN AMERICA

We decided to incorporate within this radio kit all of the best features to be found in commercially built radio sets selling for as high as even \$109. The average concern sells sets of this type (5 tubes) on a 7" x 18" panel in a 7" deep cabinet. We use a 7" x 21" panel, which comes to you already drilled and engraved. Our blueprint and detailed instructions furnished will show you how to first assemble and wire the panel, independent of the baseboard, then to assemble and wire the baseboard independent of the panel, finally attaching the panel to the baseboard, and completing the assembly in a few minutes.

For Battery or A.C. Light Socket Operation

In the event that you may some day wish to adapt this receiver into an all electric model, that is, obtain the A-B-C power from your light socket, this is very simply accomplished. You can use the new A.C. tubes, with a suitable step-down transformer and an A.C. adapter harness, etc., or you can use regular tubes in conjunction with "A," "B" and "C" eliminators. Detailed instructions for A.C. light socket conversion furnished.

Unusual Selectivity, Sensitivity, Volume and Clarity

Many users of this marvelous receiver write us of similar experiences to the following: Invite your friends over to "listen in"—make the receiver "show off"! Tune in stations 2,000 miles away with loud speaker volume. Astound them with its tremendous volume, and thrill them with its almost uncanny fidelity of reproduction. Then let them "guess" how much it costs you. "Seventy-five dollars," will say one. "One hundred dollars," will say another. When you finally tell them \$12.95, they will have the shock of their lives! No skill or knowledge required to operate or build. All connections are made by the use of flexible, insulated connecting wire in place of bus bar or wire, and solder. The binding posts are numbered in pairs, two marked No. 1, two marked No. 2, etc. All you have to do to make your connections is to take one of the flexible wires of the proper length, run it from one of the posts numbered 1 to the other post bearing the same number; another between the two posts marked No. 2, and so on. You place one end of the proper length wire over the post, and with your pliers screw the cap down tight, and you have made a perfect connection.

PARTS INCLUDED ARE:

Cabinet, mahogany finish, 7" x 24" x 8", \$7.50; panel, drilled and engraved, Bakelite Dilecto, 7" x 24", \$3.50; baseboard, laminated, \$0.50; 3 Freshman type coils (our No. 2629), \$2.25; 3 Pilot variable condensers, .00035, S.L.F., \$5.70; 3 4" Pilot bakelite dials, \$1.20; 2 Pilot audio frequency transformers, \$4.50; 1 Pilot 6-ohm rheostat, \$0.70; 1 Pilot 400-ohm potentiometer, \$0.80; 5 Pilot bakelite UX sockets, \$2.50; double circuit improved jack, \$0.70; single circuit filament control improved jack, \$0.85; Pilot switch, \$0.40; Pilot fixed grid condenser and mountings, \$0.35; Patent grid leak, 2 megohms, \$0.50; Pilot fixed condensers, .002, \$0.80; Rasco binding post strip (with binding posts), \$0.50; connecting wires, \$0.40; 2 Carter 4-ohm resistances, \$0.30; necessary hardware, screws, angles, etc., \$0.25; blueprint and instruction sheet, \$1.00. Total Price of Set \$35.20.

No. 9216. Your Net Price..... **\$17.95**

No. 9216A. Same as above, but without cabinet..... **\$12.95**

For \$3.30 additional, Pilot Giant Audio Transformers will be supplied.

EVERY SET YOU INSTALL SELLS 3 TO 12 MORE!

SPECIAL FEATURES

Maximum efficiency on all wave lengths. Any length aerial can be used with this set. Indoor aerial may be employed. Radically improved plan of assembly. Provision for "C" battery, insuring perfect clarity and doubling life of "B" batteries. Employs a perfect volume control.



No. 9216

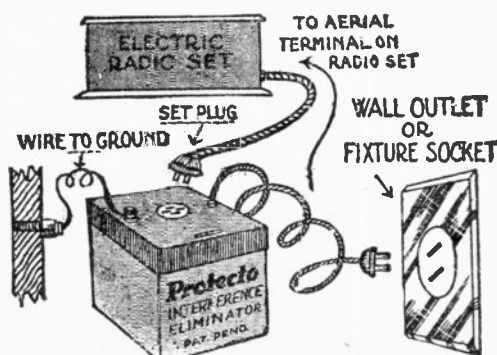
SPECIAL FEATURES

Provision for power amplification in last stage with accompanying "C" battery changes. Adaptable to any form of "A," "B" and "C" elimination. Wave length range, 200 to 550 meters. Distance reception, 1,000 to 3,000 miles. Three tuning dials "log" exactly. Equals performance of many \$100 receivers.

HIGH GRADE PARTS INCLUDED IN THIS KIT

Protecto Interference Eliminator

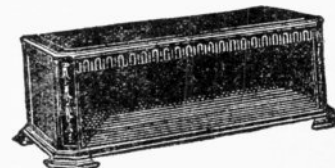
Sparking Motor's Interference Easily and Rapidly Eliminated!



With so many electrical appliances in general use, more and more interference is caused by sparking brushes in electric refrigerator motors, washing machines, electric fans, and similar motor driven devices. This interference may be effectively eliminated by installing a Protecto Interference Eliminator in circuit with your radio set. Contains large filter condensers and choke coils that absorb motor interference and conduct it to the ground instead of having it pass to the radio set, causing disturbances similar to static. The instrument can be used either at the source of interference or at the set itself. An electric, or eliminator-operated set may be plugged into the receptacle provided and the filter plugged into the wall socket. Or the electric apparatus causing the disturbance may be blocked off by having its power supplied through the filter. Laboratory tests of the Protecto Interference Eliminator, on A.C. from 20 to 60 cycle, and on both A.C. and D.C. from 32 to 220 volts, prove the device to be 98.6 per cent efficient. The instrument is approximately 4" square and weighs but 4 lbs. **\$7.35**

No. 949. List \$12.50. Net

Fritts Standard Super Cabinet



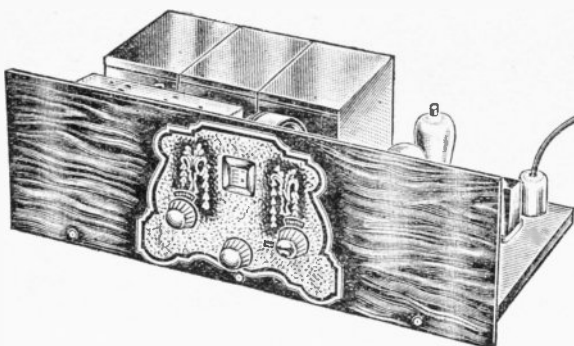
Solid walnut and is of the same high quality which distinguishes the entire Fritts line. The decorations are polychromed. Top and sides slightly raised with panel effect. Nickel-plated piano hinge and lid stay. Made to take standard 7" panel. If an 8" panel is used, it is only necessary to remove the top panel decorative strip. All cabinets 8" high inside by 12" deep from panel to back. Shipped express collect from Chicago.

	Panel Size	Shpg. wgt.			Net
		Crated	List		
No. 5922—SS 18	7"x18"	40 lbs.	\$21.00		\$12.35
No. 5923—SS 21	7"x21"	40 lbs.	22.00		12.94
No. 5924—SS 24	7"x24"	45 lbs.	22.50		13.24
No. 5925—SS 26	7"x26"	45 lbs.	23.50		13.83
No. 5926—SS 28	7"x28"	50 lbs.	24.50		14.42
No. 5927—SS 30	7"x30"	55 lbs.	26.50		15.60

HALLDORSON A. C. 56 KIT

Six Tubes with Push-Pull Audio Amplification—Using 226, 227 and 171A Tubes

The 226 and 227 type of A.C. tubes are no longer an experiment. They have been so perfected that they are now the standard tubes in the finest and most expensive radio sets made. In quality and power they surpass even the best D.C. tubes. The public wants A.C. sets that they can plug into a light socket and forget about. They refuse to putter with batteries or eliminators that have to be watered or adjusted. This receiver is the last word in kit design. It gives the appearance of a factory built receiver, and when assembled, it surpasses even the finest commercial sets for beauty. Its bronze front escutcheon plate carries all controls and may be mounted on the steel front panel supplied with the kit, or upon the wood panel found in most console cabinets. All parts are mounted upon a black steel crystalline finished sub-base and the sockets are riveted in place at the factory. The remaining parts may easily be mounted in 15 minutes, ready for wiring. Front panel size 21" x 7", sub-base 20" x 10 1/2". Simplest fool-proof operation—single control, illuminated dial, and graduated volume control. Stations boom in one after another as the knob is turned. The audio system, the last stage of which consists of two 171A tubes in a push-pull circuit develops tremendous power, and gives



a quality that is above criticism—the fidelity of reproduction is so perfect, it makes you think you are present in the broadcast studio! The R.F. stages are

totally shielded by handsome copper shields, which suppress entirely all outside interference, and produce razor edge selectivity. By a slight change this hair-line selectivity may be broadened for long distance reception, a feature particularly desired in the country.

Phonograph Pick-up Switch

An added feature is the phonograph pick-up switch, by means of which an electric pick-up may be attached to the rear of the receiver and phonograph or radio music, through the splendid amplification system, may be had at will. This may be used either in connection with an electric phonograph turn table supplied with many console cabinets or with any ordinary phonograph.

Tubes Required

One 227 A.C. detector, three 226 A.C. amplifier, and two 171A power amplifier tubes.

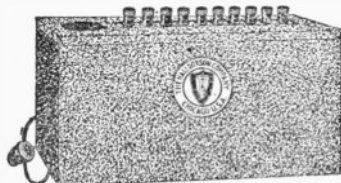
Amazingly Low Price

Because of metal construction and new production methods, the price of the new Halldorsen A.C. 56 kit has been brought well below that of other six tube kits. Shipping weight 25 lbs.

No. 6721-AC56. Complete Kit, nothing further to buy. Less tubes and cabinet. **\$38.31**
Unassembled. List \$63.85. Net..

HALLDORSON ABC POWER UNIT—ASSEMBLED

Especially designed to be used in conjunction with above A.C. kit, but will supply any existing receiver up to eight tubes with smooth and quiet B and C power. It will supply also the filament current for any of the present A.C. receivers using standard A.C. tubes. There is a 5-volt tapping winding to supply the filament of a 171 or 112 power tube in the receiver. With this unit and an A.C. harness any receiver may be quickly converted to a complete A.C. operated set. Fits directly behind receiver, or can be placed near the set. Operating from 110 volts, 60 cycles A.C. current, it supplies all A, B, and C voltages for the receiver. It filters out every vestige of



hum or ripple from the power line, delivering current as smooth as that of batteries. All resistances for supplying grid bias and B voltages are contained entirely within the eliminator, thus simplifying greatly the wiring of the receiver. An unusually well made unit that has been developed through a long series of laboratory experiments. Uses a 280 type rectifier tube, 180-volt "B" supply, 40-volt "C", 1 1/2-2 1/2 and 5-volt windings. Shipping weight 17 lbs.

No. 6722. Completely Assembled. Less 280 type rectifier tube. List \$37.50. **\$22.50**
Net.....

Halldorsen Shield-Grid Single Control 6-Tube Kit

In construction the Halldorsen Shield-Grid 56 is like the A.C. kit in every way except that instead of 226 and 227 type A.C. tubes, it uses shield-grid tubes for battery operation (or can be used with any "A" and "B", or "BC" eliminators) and has a slightly different hook-up. It has the same beautiful all-metal chassis with sockets riveted on sub-base at the factory. Two stages of shield-grid R.F. amplification produce tremendous step up in signal strength. These two R.F. stages, as well as the detector stage, are totally shielded with highly buffed copper shields. This provides a finished receiver that is almost weird in its quiet and smooth operation. Distance and locals slip in one after another without any trace of background noises.

Shield-Grid First Audio Stage

The first stage of audio amplification is a space-charge shield-grid tube. This type of tube was selected for this stage after many laboratory tests, because of its superior ability to amplify very weak detector signals, while at the same time handling the large power demands made upon it, with ease and smoothness. This

is one of the important improvements in the Halldorsen 56 receiver, because it permits loud speaker operation of signals that are ordinarily too weak to satisfactorily swing the grids of the amplifier tubes.

Smooth and Powerful Push-Pull Audio Amplification System

The last amplifier stage consists of two 171 A tubes in a push-pull circuit. To realize fully the advantages of push-pull amplification, one has only to remove one tube from the amplifier, allowing it to operate as a straight audio. The soft, smooth power of the push-pull amplifier is at once apparent. The power handling capacity of this stage is such that any of the present power dynamic speakers may be operated to its fullest extent direct from the receiver.

Phonograph or Radio Music

By an ingenious jack arrangement the amplifier stages may be used for either radio or phonograph music. Switching over takes but a few seconds. With the amplifiers on the phonograph the quality will compare with the finest electric phonographs.

Tubes Required

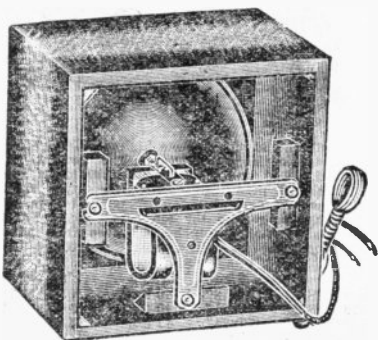
Three 222 Shield Grid, one 201A and two 171A tubes.

Plain Facts

Selectivity—Guaranteed 5 to 8 K.C. separation of locals. Sensitivity—On a 40-ft. antenna it will bring in distance stations with greater volume than most 9 or 10 tube receivers. Volume—Shield-grid first and push-pull second audio deliver tremendous power on weak input signals. Total gain over 6,400,000 times, several times that of any receiver not using a space charge shield-grid first audio tube. Appearance—The keenest job you've ever seen. Panel Size: 7" x 21" long; sub-panel, 20" x 10 1/2". Price—Compare the price with that of any other kit on the market. Never before has such value been offered. Shipping weight 35 lbs.

No. 6723-56. Complete Kit, nothing further to buy. Less tubes and cabinet. **\$35.91**
Unassembled. List \$59.85. Net..

DUO-MAGNETIC ASSEMBLED CONE SPEAKER



Rear View

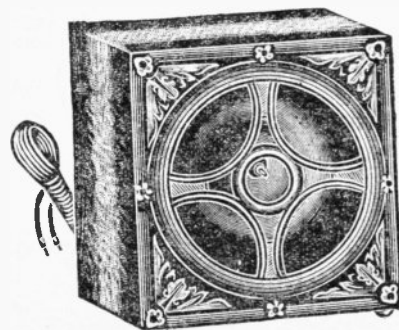
Here is a speaker you will be very proud to recommend to your trade! Low priced! Very efficient! Plenty of volume! No distortion! No blasting! Just sweet, mellow music—100% faithful reproduction. The cabinet is not only beautiful to look at, but it serves as a most efficient baffle chamber as well—acoustically correct! Note the highly decorative effects on the grille. Also note the open back for maximum efficiency! Five-ply veneer walnut housing. Completely assembled, including a Duo-Magnetic Unit and Burtex Cloth Cone (8" in diameter). Dimensions: 9 1/4" x 9 1/4" x 7 1/2". Shipping weight 8 lbs.

No. 6852. List \$30.00. Your **\$9.44**
Special Cost

Duo Baffle Chamber

You can obtain from us the above illustrated speaker baffle box, less the unit, should you wish to use your own. Inside dimensions: 8 3/4" x 8 3/4" x 7". Shipping weight 4 lbs.

No. 6853. Assembled Baffle Chamber, including a sturdy metal unit mounting plate. Net **\$4.95**



Front View

1929 HARKNESS "Screen-Grid de Luxe" Kits

7-Tube Performance with only 5 Tubes

The development of the screen grid tube has revolutionized the design of radio receivers. As a radio frequency amplifier the screen grid tube is infinitely superior to the general purpose 201A or similar A.C. tube. Two stages of screen grid amplification are more sensitive than four or more stages of ordinary tubes. Furthermore, no "neutralizing" system is needed. The "screening grid" of the new tube neutralizes more efficiently than any previous system and at the same time enormously increases the amplification.

Tremendous R. F. Gain—Stable, Non-Oscillating Circuit

In this new receiver the tremendous amplification of screen grid tubes is utilized to the fullest advantage. By the use of special R. F. transformers, careful design, and proper shielding, the maximum amplification is obtained from each tube. The set reaches out and brings in stations from all over the continent, stations which could not possibly hear except with the most expensive superheterodynes.

Amazing Distance Getter

Has no equal in its price class. In one evening, 37 distant stations were logged between 8 and 10 P. M., in New York.

Perfect Selectivity—Gets Distance Through Locals

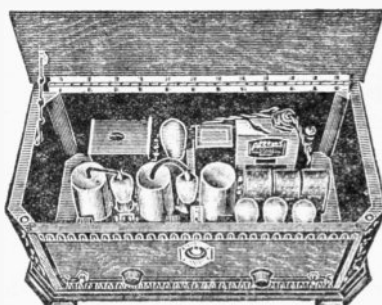
Even in congested districts like New York and Chicago you can cut through the locals and tune in distant stations every night.

Realistic Tone Quality—New Patented Audio Amplifier

A special type of audio amplifier is used. It comprises a transformer in the first stage, a "tuned double impedance" coupler in the second stage and an output filter unit to protect the loud speaker. This combination gives uniform reproduction over the entire musical scale.

Easy to Build

Set builders will find this receiver unusually easy to assemble and wire. The front and sub-panels in the kits are completely drilled and engraved, making the assembly very simple. Complete instructions for assembling and wiring, with schematic and picture wire diagrams, are enclosed with each kit of parts.



A.C. and Battery Models

The two sets are identical in appearance and use practically the same parts, the main difference being in the wiring.

A.C. All Electric Model

The A.C. model of the HARKNESS "Screen Grid De Luxe" is entirely self-contained and plugs directly into the A.C. light socket. No batteries, eliminators or any other accessories are required. The set uses A.C. tubes throughout. A special A-B-C Power-Pack fits directly behind the receiver, inside the cabinet, and supplies all the A, B and C power required to operate the set. Both the receiver and power-pack fit inside a standard cabinet, 12" deep. 15-volt Arcturus A.C. tubes were chosen for this receiver. This makes the tubes less susceptible to fluctuations in line voltage and also gives them a very much longer life than 2½-volt tubes. Following tubes are required: Set of 5 Arcturus A.C. tubes (two Type 22, one Type 26, one Type 32 and one Type 40), and one Type 280 rectifying tube. The receiver chassis and the power-pack are made in two separate units and then joined together by connecting strips. Parts included are: 1 front panel, 7" x 21" drilled, \$4.75; 1 sub-panel, 7" x 20", drilled, \$4.50; 1 pair Harkness sub-panel brackets, \$0.50; 1 Harkness R. F. coil, Type SG-10, \$1.50; 2 Harkness R. F. coils, Type SG-20, \$3.00; 3 Harkness aluminum coil shields, \$3.00; 1 Harkness audio transformer, \$5.00; 1 Harkness double

impedance coupler, \$7.50; 1 Harkness output filter unit, \$5.00; 3 U.S.L. .00035 variable condensers, \$6.00; 3 Hammarlund equalizers, \$1.50; 1 Hammarlund drum dial, \$4.00; 4 Aerovox .5 mfd. condensers, \$3.60; 3 Aerovox fixed condensers, \$1.10; 1 Aerovox grid leak mounting, \$0.25; 1 Aerovox 2-megohm grid leak, \$0.40; 2 Saturn switches, \$1.35; 1 Centralab potentiometer, \$2.00; 5 Eby UX tube sockets, \$2.00; 2 Eby binding posts, \$0.30; 2 Eby tip jacks, \$0.30; 2 Carter tube caps, \$0.50; 1 Carter 100-ohm resistance, \$0.25; 1 condenser ¼" shaft, \$0.25; lugs, screws, panel supports, nuts, blueprints, etc., \$0.95.

No. 5304-K-560-A. List \$59.50. Net **\$35.00**

A-B-C Power Pack

Especially designed for above A.C. kit. Fits right behind the set, as illustrated. Consists of: 1 Harkness power transformer, \$12.50; 1 Silver-Marshall Uni-Choke No. 331, \$8.00; 1 Aerovox B. C.—280 condenser block, \$12.00; 1 Aerovox 996—171 resistance, \$2.00; 1 Aerovox 992—1,000-ohm resistance, \$0.90; 1 Aerovox resistor mounting, \$0.25; 1 Eby UX socket, \$0.40; 1 terminal strip, drilled, \$0.30; 1 cord and plug, \$0.20; 1 base-board, \$0.05; 1 "C" battery, 7½ volts, \$1.00; lugs, screws, nuts, bushings, etc., \$0.30.

No. 5305-80. List \$38.50. Net **\$22.64**

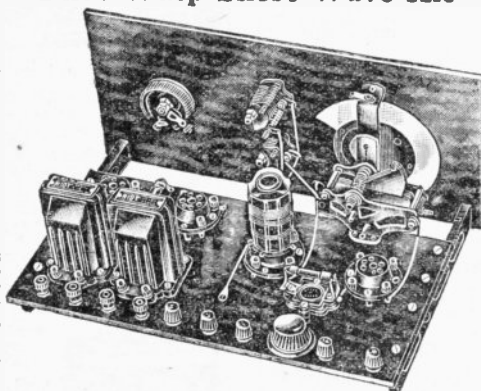
D.C. Model for Batteries or Eliminators

Tubes required: Two 222 shield grid tubes, two 201A and one 171A (or 112A if you use less than 180 volts "B"). Size cabinet required is 7" x 21" x 12". Parts included are: 1 front panel, 7" x 21", drilled, \$4.75; 1 sub-panel, 7" x 20", drilled, \$4.50; 1 pair Harkness sub-panel brackets, \$0.50; 1 Harkness R. F. coil, Type SG-10, \$1.50; 2 Harkness R. F. coils, Type SG-20, \$3.00; 3 Harkness aluminum coil shields, \$3.00; 1 Harkness audio transformer, \$5.00; 1 Harkness double impedance coupler, \$7.50; 1 Harkness output filter unit, \$5.00; 3 U.S.L. .00035 variable condensers, \$6.00; 3 Hammarlund equalizers, \$1.50; 1 Hammarlund drum dial, \$4.00; 3 Aerovox .5 mfd. condensers, \$3.60; 3 Aerovox fixed condensers, \$1.10; 1 Aerovox grid leak mounting, \$0.25; 1 Aerovox 2-megohm grid leak, \$0.40; 2 Saturn switches, \$1.35; 1 Centralab potentiometer, \$2.00; 5 Eby UX tube sockets, \$2.00; 9 Eby binding posts, \$1.35; 2 Eby tip jacks, \$0.30; 2 Carter tube caps, \$0.50; 1 Carter 10-ohm resistance, \$0.25; 1 Carter 1-ohm resistance, \$0.25; 1 Condenser ¼" shaft, \$0.25; lugs, screws, panel supports, nuts, blueprints, etc., \$0.95.

No. 5306-K-560-B. List \$59.90. Net **\$35.22**

Pilot Wasp Short Wave Kit

If you have ever listened to a short wave receiver, you already are aware of the thrills short wave reception offers. There is a tremendous field just now building short wave sets, for every day there appears in the newspapers reports of 5,000 to 12,000 mile reception, with sets similar to the above, of short wave transmission by amateur radio fans! Thus, a custom set builder can make considerable money installing this kit in every home in his community. The Pilot Wasp Kit is really two sets in one: Not alone can you receive short waves from 17 to 200 meters, but, by virtue of the plug-in coil feature, the regular broadcast band of 200 to 500 meters can also be tuned in, with tremendous volume, without any rewiring—simply remove the short wave coil, and insert the long wave coil! Many broadcasting stations (such as WLW, KDKA, WGY, etc.) operating between 200 to 550 meters, also broadcast, at the same time, the identical program on the short waves. This is very desirable, for often static or heterodyne whistles mar the reception of such a station on the regular, higher wave-lengths, whereas such disturbances are not present on the lower wave-lengths! Furthermore, this is the ideal receiver for re-



ception of television transmission! The assembly of this receiver is indeed simple—the clever sub-panel method of construction is used, and greatly simplifies the job! An illuminated vernier dial is used. Practically all of the parts included in this kit are of Pilot manufacture, and thus your 100% satisfaction is unreservedly warranted! These parts include one Pilot 5 pl. .00014 cond., ten binding posts, two Pilot 23 pl. midjet cond., two 1" brackets, one .002 fixed cond., one R.F. choke, one front panel, one sub-panel, four sockets, two Pilot audio trans., one 1 megohm and one 10 megohm grid leak, one 10 ohm rheostat, one Pilot illuminated dial, one 8 pl. cond., one set short wave plug-in coils, two pair clips, screws, wires, nuts and essential hardware. The plug-in coils included cover the following wave-length bands: 17 to 30, 30 to 52, 48 to 105, 73 to 202, 200 to 500 meters. Each coil is equipped with an identifying color ring. Dimensions of front panel: 7" x 14". The sub-panel is 7" x 13", and extends 8¾" behind rear of front panel. Shipping weight 18 lbs. For loud speaker reception.

No. 7474. Kit, not wired. List \$33.50. **\$19.70**

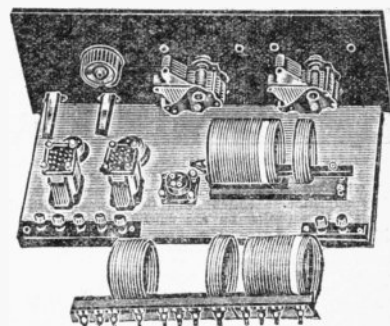
Wave Trap

The action of a wave trap is easy to understand. Suppose that two broadcasting stations are being received at the same time, although one station is operating on 316 meters and the other one on 309 meters. With the receiving set under consideration, it is found to be impossible to separate these stations. The wave trap is connected in the circuit and is tuned so as to be in resonance with the unwanted signal. It "accepts" this signal,

allowing the desired signal to pass on to the radio set. The original "Radio News" wave trap was such a success in their laboratory that the Conrad publications issued a pamphlet relative to the home construction of same by the layman. We offer you a kit (which can be assembled in one-half hour) complete with the following parts: 1 Variable Condenser, .00035 mfd. (17-plate); 1 X-L Variocoupler, .0003 to .001 mfd., type G-10; 1 Aero Antenna Coupler; 1 4" Dial; 4 Binding Posts; 2 Sub-Panel Brackets; 1 Panel, 5"x8½"x3/16"; 1 Sub-Panel, 5"x2½"x3/16"; Square Bus Bar Wire; 10 Flat Head 6-32 Machine Screws and Nuts; Conrad Blueprint, etc.

No. 5614. Complete Cost of Parts. Net **\$7.77**

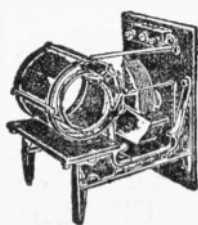
Short Wave Kit—20 to 550 Meters



Can be wired in less than three hours by the most inexperienced novice! Uses our No. 9838-9842 coils. This is really a two-in-one receiver, for not only does it receive short waves from 20 to 250 meters, but by plugging in a larger coil (furnished) you can receive the regular broadcast band wave-length stations. Therefore, this is the ideal 3 Tube Receiver, and costs no more, too! The possible range of reception on short waves is 5,000 to 10,000 miles! Listen in on European stations—the world is your neighbor! List of parts furnished include: One 7x18 drilled bakelite panel, 1 9x17 baseboard, 1 .00014 variable condenser, 1 .00035 variable condenser, 1 UX cushion socket, 2 bakelite UX cushion sockets, 1 set short wave plug-in coils 20 to 250 meters, 1 plug-in coil 200 to 550 meters, 2 3-to-1 audio transformers, 1 single open circuit jack, 1 double circuit jack, 1 20-ohm rheostat, 1 binding post strip with five posts, 1 binding post strip with two posts, 2 Pilot vernier dials, 1 grid leak 2 meg., 1 by-pass condenser .001, screws, wire, miscellaneous hardware, 1 wiring diagram. Shipping weight, 20 pounds.

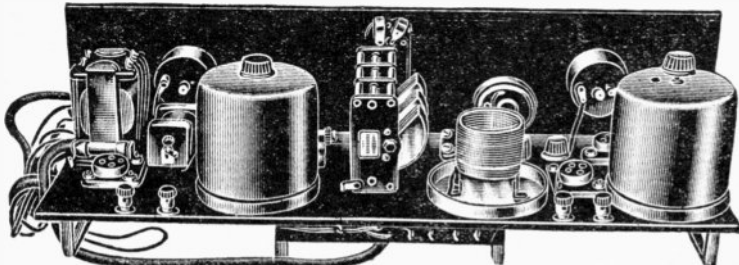
No. 7500. List \$40.00. Net **\$16.55**

NOTE: When using the long wave coil, 200-550 meter broadcast stations 2,000 miles away can be heard clearly in a loud speaker.



THE "PERIDYNE" FIVE RECEIVER

Designed by Mr. HUGO GERNSBACH, Editor "Radio-Craft"



No. 6590. Rear Panel View, showing the middle "Peridyne" shield cover removed.

The "PERIDYNE" FIVE set described here has been designed by Mr. Hugo Gernsback for the special purpose of "DX" work. Many builders of this receiver, in New York, have brought in Pacific Coast stations at a distance of over 2,400 miles air-line. Can be balanced to a degree of accuracy which has been impossible heretofore in tuned radio frequency circuits. The R. F. stages are independently shielded. Has only two controls, one of them a tuning control. It does not radiate in the least. The world-renowned Interlex circuit is brought into play, for a carbonyl fixed crystal detector is used in this circuit; it entirely replaces one tube; the "Peridyne" Five, which uses five vacuum tubes, is therefore in reality a 6-tube set and must be considered as such. The crystal detector is a half-wave rectifier and passes practically no radio-frequency currents. Inserted in the grid lead it does away with the condenser and grid leak, and the usual losses. It should be noted that the tube to which the crystal detector is connected becomes the first audio amplifier. There are, therefore, three stages of A. F. amplification in this set, which accounts for its tremendous volume. Not alone do the "Peridyne" shields give this receiver hair-line selectivity, due to the individual R. F. stage shielding, but the "Peridyne" principle—the varying of a grounded circular plate with respect to its distance from the enclosed shielded R. F. coil—brings the three R. F. stages into absolutely perfect resonance, entirely eliminating the somewhat unreliable system of balancing or compensating condensers shunted across the units in a gang condenser; it also makes the operation of this receiver truly one dial. Remember, this receiver has behind it a fund of laboratory experience and knowledge of extreme value—it has been perfected in the "RADIO NEWS" Laboratories, the sponsors of such world-renowned circuits as the Tropadyne, Super-Ultradyne, Interlex, Stroboddyne, etc., etc. All wiring is done beneath a sub-panel, supported by four bakelite sub-panel brackets—all battery connections are made by means of

a 7-wire cable. Use an "A" and "B" eliminator for true A.C. Socket Power operation.

PARTS AND PRICES

1 Pilot Triple Gang Vari. Cond., .0005, \$7.50; 3 Hammarlund "Peridyne" Coils, \$10.00; 3 "Peridyne" Shields, \$8.00; 2 3-to-1 Giant Audio Transformers, \$10.00; 2 Bradleystats, \$3.70; 1 100,000 ohms Vari. Resistor, \$2.00; 1 Carter Comb. Fil. Switch and 30 ohm Rheostat, \$1.00; 2 Amperites, \$2.20; 1 Carbonyl Fixed Crystal Detector, \$1.50; 1 85-mil. Choke, \$1.00; 1 .001 Mf. Condenser, \$0.40; 1 Jewell 0-to-8 Voltmeter, \$7.00; 1 Jewell 0-to-150 Voltmeter, \$7.50; 1 Yaxley Single Circ. Jack, \$0.50; 1 Yaxley 2 Circ. Jack Switch, \$1.00; 1 National Vernier Dial, \$2.50; 5 Pilot Cushion Sockets, \$2.50; 4 Pilot Binding Posts, \$0.60; 1 7x2x3/16" Drilled and Engraved Bakelite Panel, \$6.75; 1 8x2x3/16" Bakelite Sub-Panel, \$6.00; 4 Insulated Brackets, \$2.00; 1 Seven-Wire Battery Cable, \$0.75; 1 Battery Terminal Strip, \$0.50; 4 Rolls Colored Hook-up Wire, \$3.00. Total Cost of Parts, \$85.90.

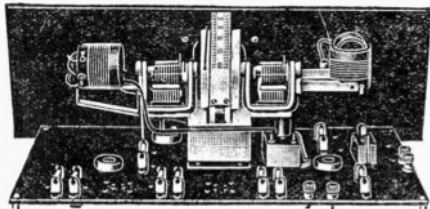
The use of panel meters is optional. Any of the above parts sold individually.

No. 6590—Your net cost..... \$51.54
No. 6591—Same, with 7" x 24" x 8" walnut finish cabinet..... \$59.34



Front Panel View. Note absolute simplicity and symmetrical layout. The "Peridyne" control knobs do not protrude above panel.

1929 Model Browning-Drake A.C. Shielded Grid Kit



Incorporates the greatest features in coil design developed since the Regenerators. It is absolutely single control with no antenna trimmers, variometers or any auxiliary adjustments which must be operated with the dial. Hair line tuning on the most distant stations is an accomplished fact. The over-all length is only 14 1/2", allowing the construction of many individual types, as well as the specified assembly.

The 1929 Official Kit-Set built around this famous unit is the most compact Kit of its type ever designed. In standard cabinets 13" deep, a power unit may be installed at the rear of the base panel, making a complete A.C. set of the highest type. Just the set for the professional set builder.

An A.C. Shield Grid tube is used for radio frequency amplification. Resistance coupling in the amplifier pro-

duces quality surpassing that in factory-built receivers selling for many times as much. The volume is tremendous on locals and ample on all distant stations. Shipped express collect.

No. 7031. Complete Kit, consists only of genuine parts as specified. List \$59.45. Net..... \$34.96

New Official B. D. Single Control Unit

Can also be used with D.C. screen grid tubes. Coils are small diameter, space wound. Single drum control. Precision condensers. Handsome acetone plate included. Illustrated in above kit. Shipping weight, 11 lbs.

No. 7032. List \$26.00. Net..... \$15.29

New B-D Foundation Unit

Consists of drilled front and base panels with amplifier sockets and resistance holders, twisted A.C. filament wire, connecting cable and all hardware. Shipping weight, 6 lbs.

No. 7033. List \$14.75. Net..... \$8.67

New B-D R. F. Chokes

For the new official B-D Kit.

No. 7034. List \$2.00. Net..... \$1.18

Kits, A.C. and D.C. Models

No. 6664. New B-D Five Tube Kit. For D.C. operation. List \$76.05. Net..... \$44.72

No. 6645. Same. For A.C. operation. List \$86.60. Net..... \$50.93

Set of new B-D Shields (mentioned as optional) No. 6616. List \$8.00. Net..... \$4.71

No. 6647. New official B-D Single Drum Control Kit. List \$26.00. Net..... \$15.30

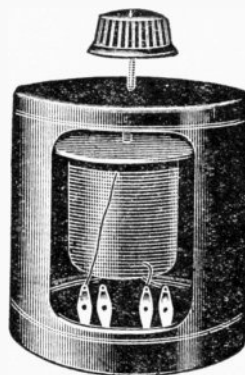
No. 6648. New official B-D Foundation Unit. List \$16.50. Net..... \$ 9.71

Makes use of the new and decidedly attractive single drum dial principle. The circuit remains the same (it cannot be improved)—all improvements are of a mechanical nature. Adapted for either the new A.C. (226-227) tubes, or 201A types.

No. 6642. New B-D Two Tube Tuner Kit. Consists of complete parts to assemble an R.F. and detector stage D.C. (storage) battery or eliminator model. List \$53.45. Net..... \$31.43

No. 6643. Same. For A.C. operation. List \$53.95. Net..... \$31.73

The "Peridyne" Shield and R. F. Coil



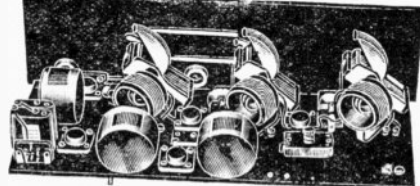
Consists of a cylindrical removable shield and an exceptionally efficient R.F. inductance manufactured by Hammarlund. By varying the distance between this metal plate and the coil (screwing up or down) the R.F. coil in that shield is brought into resonance with another R.F. coil in another "Peridyne" shield, all the coils (3 of them) having their secondaries shunted by a triple-gang condenser. This method of compensation, i.e., equalizing the resonance point of all three R.F. coils, is far superior to the very much less effective method of compensation by midjet condensers shunted across the condenser units. And this is not all: The individual stage shielding prevents interstage coupling effects, and gives to the receiver hair-line selectivity, so all important in the quest of "DX." Each shield consists of a round base (which is mounted to a sub-panel or baseboard) and removable cylindrical "Can" and cover-over piece. The shields are made of brightly polished aluminum and measure 4" in diameter by 4" high. In the "Peridyne" circuit, three complete units are required (3 cans and 3 coils). Note that these units may be used in any R.F. circuit. "Peridyne" Circuit is described in December, 1927, "Radio News."

No. 6585. Consists of One Hammarlund "Peridyne" R.F. Coil, One Silver-Marshall "Peridyne" Shield, One Control Knob. List \$5.50. Net..... \$3.25

No. 6586. "Peridyne" Shield and Knob only. List \$2.00. Net..... \$1.18

No. 6710. Hammarlund "Peridyne" Coils. Set of 3. List \$10.00. Net..... \$5.88

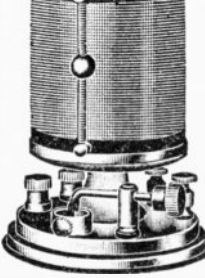
Karas 2-Dial Equamatic Kit



Completely balanced and perfectly neutralized. There are only two simple tuning controls. Equal and maximum efficiency over the entire broadcast wave band. The constant automatic coupling feature is used to splendid advantage herein—the tone has been greatly improved! Enormous volume! The ability to tune to one-thousandth of an inch with the new Karas micro-metric dials is extremely simple. Five tubes operating to peak efficiency insure results equivalent to seven and eight-tube receivers. The cabinet intended to house this receiver should measure no less than 7"x24"x10". For D.C. tubes, yet can be worked from any A.C. socket with appropriate eliminators or A.C. tube harness, etc. Only original specified parts included in this kit. Shipping weight 25 lbs.

No. 6464. List \$97.90. Net..... \$56.88

Pandora Crystal Receiving Set

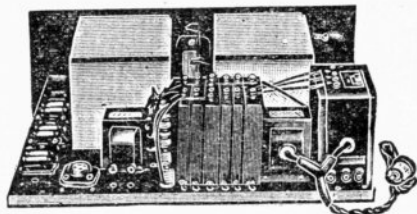


This is not a toy, but a scientifically correct crystal detector receiver. Simplest operation—no batteries ever required. Complete. Pair of head phones and aerial only required. Cap only be used where local broadcasting stations are no further than 25 miles. Handsomely finished in rich Russet Bronze. Binding posts and trimmings are bright lustre nickel plated. Overall size 3" in diameter by 5 1/2" high.

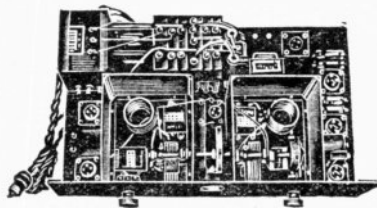
No. 9982. List \$1.75. Net..... \$0.98

SPECIAL NOTICE.—We can supply most any radio item listed in any other mail order radio catalogue at the same price it is quoted therein. Simply send us your remittance for such items, stating in your order in whose catalogue, and on what page, these items are listed. **WE MEET ANY LEGITIMATE COMPETITOR'S LEGITIMATE PRICES!**

Hammarlund-Roberts HI-Q 29 Receivers



Rear View A.C. Set
Shield Cover On



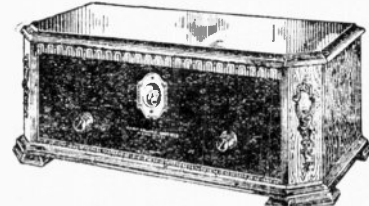
Top View A.C. Set
Shield Cover Removed

Junior Model—A.C.

The Junior A.C. Hi-Q-29 has a complete built-in power supply (illustrated), using A.C. tubes. It operates from the house current without batteries of any kind. The following tubes are required: two 222 A.C. shield grid, three 227, one 171A. One Raytheon 125 mil. tube is also required for the A.B.C. eliminator.

Extra Parts Needed for Junior A.C. Model
1 Benjamin socket, 2 Parvoit .5 mfd. by-pass condensers, 6 1/2-volt filter condensers, 1 Thordarson No. R-171 power compact, 1 Thordarson choke coil, 1 Thordarson filament transformer, 1 Electrad "Truvalt" Hi-Q-29 resistor. Shipping weight 50 lbs.

No. 7790. Complete set parts for A.C. model, including parts used in D.C. sets. **\$61.12**
List \$103.95. Net.....



Front Panel View

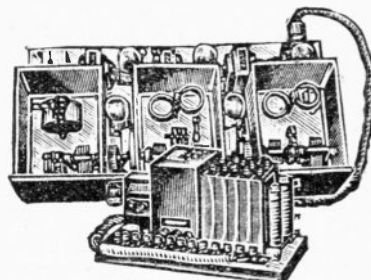
NOTE:
Either of the above kits can be supplied in an exquisite Corbett Cabinet for \$11.10 additional

Junior Model—D.C.

A six-tube, completely stage-shielded receiver built upon a solid steel chassis, using only the finest parts in the industry. Its three stage resistance-coupled audio amplifier of unique design assures an absolute fidelity and purity of tone. No factory-built six-tube single-dial set, regardless of price, can surpass its superb all-around performance. This receiver is perfectly balanced, eliminating all howls, squeals and oscillation. Wonderful selectivity and excellent DX reception. Two of the new screen-grid tubes are used in the tuning stages. The ideal receiver for unsurpassed natural tone and high quality reproduction even under high volume. Very compact—fits any standard 7"x21"x12" cabinet. Style illuminated dial control! Tubes required are: two 222 shield grid, three 201A, one 171A. Either a storage "A" battery or a suitable "A" eliminator is required—dry cell "B" batteries or any good "B" eliminator. Parts included are: 2 Hammarlund .00035 condensers, 2 Hammarlund shield-grid R.F. transformers, 1 Hammarlund radio frequency choke, 1 Hammarlund drum dial (walnut), 6 Benjamin sockets, 1 Sangamo .001 mfd. fixed mica condenser, 1 Carter volume control, 3,000 ohms; 1 Carter battery switch, 4 Parvoit .5 mfd. by-pass condensers, 2 Durham metallized resistors, 1/4 megohm; 1 Durham metallized resistor, 1/10 megohm; 2 Durham powerohms, 1 watt, 100,000 ohms; 1 Durham powerohm, 1 watt, 50,000 ohms; 1 Yaxley cable connector and cable, 1 pr. Yaxley insulated phone tip jacks, 2 Eby engraved binding posts, 1 "Hi-Q-29" foundation unit. Shipping weight 25 lbs.

No. 7789. List \$54.35. Net..... **\$31.96**

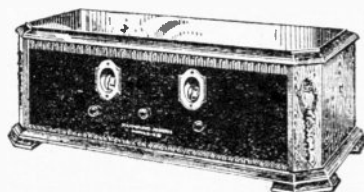
HAMMARLUND-ROBERTS "HI-Q 29" RECEIVERS



Top View A.C. Set and External ABC Supply
Shield Covers Off

Master Model—D.C.

The circuit employed uses two shield grid tubes working at maximum efficiency, followed by a standard detector and two stage transformer coupled audio amplifier. The special "tuned-grid, tuned-plate" circuits employed in the radio frequency stages are primarily responsible for the receiver's marvelous "pick up" and selectivity. These stages are really band-pass filters, both plate and grid coils of each stage being tuned to exact resonance by separate variable condensers. This highly efficient ultra-modern circuit makes it possible to utilize a much higher proportion of the theoretical amplifying properties of the shield grid tubes than would be possible if some other and less efficient circuit were used. This filter type of circuit has the added advantage of providing a degree of selectivity hitherto unobtainable without excessive "side-band cutting" with its accompanying loss of quality. The shape of the tuning curve closely approaches the flat-top sharp cut-off curve, long considered ideal by radio engineers. Each stage is individually and completely shielded by special shields, designed particularly to eliminate eddy current losses and preserve the desirable low resistance properties of the circuit. All parts are mounted on a ready drilled cadmium plated steel chassis with welded corners and of heavy construction. The tuning controls consist of two illuminated drum dials, one used as a separate control for the antenna coil and the other to tune the two filter stages. Either a storage battery, or "A" eliminator is necessary—also dry "B" batteries or an appropriate "B" eliminator. The complete chassis with its engraved walnut Micarta panel fits any standard cabinet designed for a receiver with overall dimension of 7" x 24" by 12". The tubes employed in the D.C. model are two 222's, two 201A's and a power tube (171A preferably). The complete D.C. kit consists of the following nationally famous parts: 3 Hammarlund No. .00035 Condensers; 1 Hammarlund Coil Set; 2 Hammarlund Drum Dials (walnut); 3 Hammarlund Chokes; 5 Benjamin Sockets; 1 Sangamo .0001 mfd. Fixed Mica Condenser; 1 Sangamo .0001 mfd. Fixed Mica Condenser; 1 Carter Potentiometer; 2 Thordarson Audio



Front Panel View

Either kit supplied in this most attractive Corbett Walnut Cabinet for \$12.00 additional.

Transformers; 4 Parvoit .5 mfd. By-Pass Condensers; 1 Durham Metallized Resistor, 1/4 megohms; 1 Yaxley Cable Connector and Cable; 1 pr. Yaxley Insulated Phone Tip Jacks; 2 Amperite No. 1-A; 1 Amperite No. 112; 2 Eby Engraved Binding Posts; 1 "Hi-Q-29" Master Foundation Unit. Shipping weight 30 lbs.

No. 8295. Complete set parts for Senior D.C. Model. List \$99.50. **\$58.70**
Net

Master Model—A.C.

The A.C. Model of the Master "Hi-Q-29" makes the receiver an all electric radio, ready to plug in the light socket. All constructional and operating characteristics are identical with the battery operated model, although the wiring, of course, is slightly different. The standard A.C. circuit was designed for Arcatrus tubes (listed elsewhere) because these 15-volt type tubes are considered best adapted to the special circuits employed. The Arcatrus tubes used are, two No. 22 shield grid tubes, one No. 46 detector tube and one No. 46 first audio tube, with any power tube in the last stage. The rectifier tube is a Raytheon type B.H. and the list of parts required is as follows: 1 Thordarson Power Compact; 1 Thordarson Choke Coil; 1 Benjamin Socket; 1 Thordarson Filament Block; 8 Parvoit Filter and By-Pass Condensers; 1 Yaxley No. 612 Cable Connector and Cable; 1 Electrad "Truvalt" Resistor. Shipping weight 65 pounds.

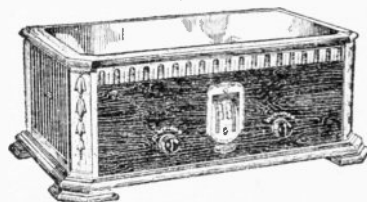
No. 8296. Complete set parts for A.C. Model, including above. List \$151.80. **\$89.26**
Net



Rear View

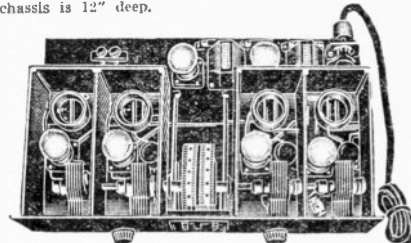
Note that the A.F. stages are not shielded—saves considerable needless labor if otherwise.

Hammarlund ROBERTS Hi-Q SIX



No. 5987

Consists of three stages of highly efficient tuned radio frequency amplification; non-regenerative detector; two stages of transformer-coupled audio amplification; equal and maximum amplification over the entire broadcast band; completely interstage shielded; uses Van Dorn steel chassis; has illuminated drum dial control and other special features. The panel measures 7"x21"; the chassis is 12" deep.



INSIDE VIEW

Note individual R.F. Stage Shielding
It has super-keen selectivity and sensitivity and delivers a full, round, natural tone that cannot be improved on by any receiver, regardless of cost. For those desirous of building a receiver that performs in a manner that will give perfect satisfaction at every step, we most heartily recommend the Hammarlund-Roberts Hi-Q Six. May be operated from any A.C. socket by using appropriate "A" and "B" eliminators. The complete kit consists of the exact specified and nationally advertised parts. Shipping weight 20 lbs.

No. 5986. Total Cost of Parts \$88.90. **\$52.27**
Your Special Price.....
No. 5987. Same with cabinet, as illustrated..... **\$61.97**

New Improved 6-Tube Hyatt Portable Radio Receiver

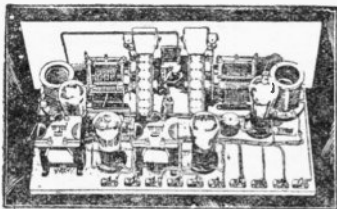


The circuit used is untuned radio frequency, employing three stages of radio frequency, one detector, and two stages of audio frequency, matched and balanced to secure maximum efficiency. Note there is only one tuning dial to manipulate! The Utah Loud-Speaker Unit is used. The horn is hand-made, of basswood, and has a 11" throat. An attractive grill conceals the chamber from your view and pleases the eyes. The reproduction qualities are a revelation—true, clear, and with great volume. The case is especially attractive in artificial leather covering with ship design on the inside of cover which houses the loop. This cover can be rotated in a 360° arc for loop directional effects, a very valuable feature accounting in part for this receiver's unusual selectivity. When not in use this cover is removed from the loop-jack, and entirely conceals the radio when it is snapped back into position. Size, 11" high, 14" long, and 9" deep; weighing, completely equipped with batteries and tubes, less than 28 lbs.—without accessories, 15 lbs. The equipment used is six 229 type tubes, three 1 1/2-volt "A" batteries, two 45-volt "B" batteries, and one 4 1/2-volt "C" battery.

DE LUXE MODEL
No. 5692. Set only, no equipment. **\$44.10**
List \$75.00. Assembled. Net...
No. 5693. Set complete with all accessories as specified above. List **\$55.95**
\$95.00. Net.....

MUSIC BOX MODEL
Larger horn area increases amplification, and superior tone quality. Of course, set becomes a trifle bulkier. Then, again, larger size allows for slightly larger loop. 22" Throat Speaker and Utah Unit.
No. 6714. Set only, no equipment. **\$35.22**
List \$60.00. Assembled. Net...
No. 6715. Set, complete with all accessories. List \$77.50. Net... **\$45.57**

Silver-Marshall 640 Series Universal All Wave Tuners



Rear View of Chassis

Very unusual two and four tube sets. They are most ingeniously designed for progressive building if desired, the two-tube tuner occupying but 5 inches of the baseboard depth. Three inches additional baseboard depth is available for two audio stages—and in the remaining 4 inches of depth in standard 12" cabinets, either of two types of "power supply." S-M 648 (same as 670 AHC) or 649 (same as 675 ABC) may be included. Drum dials, beautifully decorated steel panel, plug-in coils (for 30 to 3000 meter range), and new S-M Clough audio transformers, giving wonderful reproduction, make these receivers up-to-the-minute in every respect. Quality is nowhere sacrificed, yet the prices are the lowest on the market. The most efficient two-tube tuner circuit known is employed. For short-wave reception S-M 114B and 114C coils are used in detector stage only, with S-M 340 midset condenser added, to couple the antenna to the grid circuit of the detector tube. For reception above 600 meters, S-M 111D and 111E coils are used for R.F., and S-M 111D and 114E coils for detector. Shipped express collect from Chicago.

No. 7093-640 Essential Kit. Contains the essential parts for building any model Universal Tuner. Parts contained are: Two tuning condensers, two coils, two coil sockets, one Midset condenser and one R.F. choke. Shipping weight 4 lbs.

List \$16.00. Net.....**\$9.41**
No. 7094-642 Two-Tube Tuner Kit. The 2-tube battery operated tuner for 1½, 3 or 5 volt tubes. Especially designed to provide a high quality two-stage power amplifier such as the S-M Unipacs. Complete (less tubes), factory packed in carton. Shipping weight 12 lbs. List \$29.50. Net.....**\$17.35**

No. 7095-642AC Two-Tube Tuner Kit. Same as No. 642 kit, but for two UX227 A.C. tubes. Complete factory packed kit. Shipping weight 12 lbs. List \$33.25. Net.....**\$19.55**

No. 7096-644 Four-Tube Tuner Kit. For use with 1½, 3, or 5 volt battery operated tubes. Complete kit. Shipping weight 17 lbs.

List \$42.75. Net.....**\$25.14**
No. 7097-644AC Four-Tube Tuner Kit. Same as above, but for use with two 227, one 226, and one 171A or 210 power tube. Complete factory packed kit. Shipping weight 20 lbs.

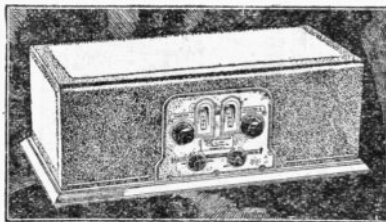
List \$54.00. Net.....**\$31.75**
No. 7098-644SG Four-Tube Screen Grid Kit. Complete 4-tube battery operated tuner using 1-UX222 Screen Grid Tube, 2-UX201A, and 1-UX112A. Essentially this kit is S-M 644, but uses a screen grid tube in the R.F. stage. Complete. Shipping weight 16 lbs. List \$47.50. Net.....**\$27.93**

No. 7099-648 A.C. Power Unit Kit. This unit fits behind any 640 series tuner in a 12" deep cabinet. Supplies 45, 90 and 220 volts D.C. for "B" supply and 1.5, 2.5, and 5 volts for A.C. tube filaments. Requires one Raytheon Rectifier Tube. Complete (less tubes) factory packed in carton. Shipping weight 15 lbs.

List \$32.50. Net.....**\$19.11**
No. 7101-649 A.C. Power Unit Kit. Same as S-M 618 (described above) except that it supplies 450 volts for a UX210 tube in last stage, as well as A and B power for receiver if equipped with A.C. tubes. Uses one 281 rectifier tube. Complete (less tubes), factory packed in carton. Shipping weight 21 lbs.

List \$42.75. Net.....**\$25.14**

SILVER-MARSHALL No. 720 SCREEN GRID 6



No. 720 CHASSIS IN No. 700 CABINET

The 720 receiver consists of three stages of radio frequency amplification, using screen-grid tubes, followed by a super-sensitive detector and two stages of Clough high gain audio frequency amplification, with power output tube—112, 171, 210 or 250 type being optional. Every individual part of the circuit has been designed for greatest efficiency and ease of assembly. The R.F. stages are controlled by two vernier drum dials operating one single condenser and a three-gang die-cast bowl-type condenser of unusual accuracy and rigidity. Ganging troubles are forever eliminated. The new S-M 140 Universal coil is used in the antenna stage, providing greater antenna selectivity than in any other set. A small condenser in this circuit regulates selectivity from minimum to maximum, smoothly and positively. The second and third R.F. stages are tuned by the compensated gang condenser and are individually shielded in separate copper stage shields. The new S-M 255 and 256 A.F. transformers provide twice the average amplification of ordinary audios and in addition give to the set unequalled fidelity of tone.

Performance With a Vengeance!

So selective is the 720 Screen Grid Six that, operated within only one to three miles of powerful local stations, it brings in out-of-town stations only one dial division (10 K.C.) away from the locals! On a short antenna it has brought in, consistently, both east and west coast stations on warm summer evenings. Think of it! KFI was heard in Chicago through WCFL (a very powerful local, one mile away) on a hot summer night; WJZ regularly through WQJ (two miles away). The set lops positively, and cannot get out of gang. It will bring in with full volume stations that cannot even be heard on much more expensive factory-built sets.

Attractive Appearance

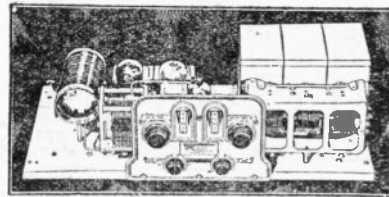
With its beautiful antique brass control escutcheon, walnut knobs and the beautiful new S-M 700 metal cabinet, finished in two-tone moiré brown, the 720 is a joy to the eye as well as to the ear. Its appearance when custom-built is far beyond standards of ready-made sets and will harmonize with any surroundings. The metal cabinet provides a 100% shielding thus augmenting the natural selectivity of the receiver.

Marvelous Reproduction

The tone quality of this receiver with the famous S-M 255 and 256 transformers is truly remarkable. Every note of the musical scale is brought out with full volume and fidelity of tone, with all hysteretic distortion found in ordinary transformers eliminated.

Simple to Build

The attention to detail in the layout and design of the 720 has made it very easy to build. All parts assemble upon the accurately pierced metal chassis. In an hour, and the wiring is simple and direct. The ganging, heretofore the hardest part of a single-control receiver, is already done, making only a small adjustment of the compensators necessary to perfectly line up the receiver. The custom-set builder standardizing on this set will have the benefit of national advertising and publicity. Never before has such a value been offered—a complete six tube screen-grid kit for only \$72.50 list. Are avail-



FRONT VIEW OF CHASSIS

able in kit and laboratory wired and tested models, for battery or light socket operation with standard power units (S-M 670 B or 675 ABC specified for B, and any standard A power unit for A supply).

Tubes Required

The 720 Screen Grid Six requires for operation, three UX222 (CX322) screen grid R.F. amplifiers, one UX201A (CX301A) detector, one UX112A (CX312A) first stage amplifier and one UX112A (CX312A) or UX171A (CX371A) last stage power tube.

No. 7117-720 Kit, without No. 700 S-M Shielding Cabinet, tubes. Complete in every detail, ready to assemble. Shipping weight 18 lbs. List \$72.50. Net.....**\$42.63**

No. 7118-720 Custom-Built Screen Grid Six. The 720 Screen Grid Six, as described above, custom built and guaranteed, complete with No. 700 cabinet. Hand assembled and tested in the S-M laboratories. Packed in substantial carton (less tubes), shipping weight 35 lbs.

List \$102.00. Net.....**\$59.98**
Shipped express collect from Chicago.

S-M No. 700 Shielding Cabinet

A beautiful, rugged one-piece metal shielding cabinet finished in two-tone moiré brown. Complete with walnut finished wood moulding base; equipped with rubber feet. Cabinet lifts off for access to wiring and for servicing of set. Inside dimensions, 21½" long by 10" wide by 7½" high. Packed in air cushioned carton with walnut base moulding, but less chassis. Shipping weight 17 lbs. Shipped express collect from Chicago.

No. 7114-700. List \$9.25. Net.....**\$5.44**

The New No. 720 A.C. Screen Grid Six

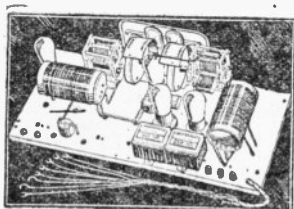
The first receiver to use the new A.C. screen grid and intermediate power tubes is now available for complete all-electric operation. It utilizes three of the new 224 type screen grid A.C. tubes and one of the new 245 type power tubes, in addition to five 227 type tubes. As a matter of fact, the design of this receiver for the screen grid A.C. tubes was completed almost a year ago, but was withheld until the introduction of the new Radiotron and Cunningham screen grid tubes. As the new 245 power tube was introduced simultaneously, the 720 receiver was redesigned to utilize it, for the 245 power tube is a distinct improvement over all previous power tubes, except the 250. The new S-M 669 power unit, designed to furnish all A, B and C power to the set and to an 851, or other D.C. type of dynamic speaker as well, is exactly suitable for this new sensational receiver. We can furnish this power pack at your usual wholesale discounts.

No. 5090-720 A.C. Less Tubes and Cabinet, not wired. List \$78.00.

Your Net Cost.....**\$45.87**
No. 5091-720 A.C. Same, W.I.R.E.D., READY FOR IMMEDIATE OPERATION. INCLUDES A METAL No. 700 CABINET. List \$108.00. Net.....**\$63.51**

Less Tubes. List \$108.00. Net.....**\$63.51**

Silver-Marshall 740 Coast to Coast Screen Grid Sets



Rear View of Chassis

The new Silver-Marshall Coast to Coast Fours offer the finest performance yet attained with its remarkable circuit. A screen grid R.F. amplifier stage, immeasurably finer coils than ever before, the new Clough high gain audio system, metal chassis, and antique brass control escutcheon, like the finest of ready-made sets, make the "740" the biggest radio value there is. Its story is told in its name—the Coast to Coast Four. It cuts through interference to distant programs only 10 to 20 K.C. away from "locals" with decisiveness and ease. Its tone quality is such as only the new S-M 255 and 256 transformers can provide. It will take 112, 171, 210 or 250 power tubes. And for the professional set

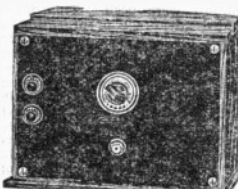
builder provides a low-priced set that will outdemonstrate popular six-tube, one-dial ready-made sets at up to twice its price. Requires 1-UX222 (CX322), 2-UX201A (CX301A), or UX112A (CX312A) detector and first stage amplifier and 1-UX171A (CX371A) power tube. UX210 (CX310) or UX250 (CX350) power tube can be used with S-M 675 ABC.

No. 7107-740 Coast to Coast Kit. Complete kit, ready to assemble, less S-M 700 cabinet and tubes. Factory packed in substantial carton, shipping weight 18 lbs. List, \$51.00. Net.....**\$29.99**

No. 7108-740AC Coast to Coast Kit. The No. 740 Kit uses regular battery type tubes, and requires either batteries or appropriate eliminators if you desire light socket operation. This A.C. kit uses A.C. tubes—either a S-M 670 or 675 A.C. Power Unit is recommended. Requires 1-AC29 Ceon or other A.C. screen grid tube, 2-UX222 (CX322) tubes, and 1-UX112A (CX312A) or UX171A (CX371A) power tube. 210 or 250 tubes may be used if desired. Complete, ready to assemble (less tubes), factory packed in substantial carton. Shipping weight 18 lbs.

List \$53.00. Net.....**\$31.17**
Shipped express collect from Chicago

"Rasco" 2-Stage Amplifier



Here is just what you are looking for, if you have a one-tube receiver. The addition of this two-stage amplifier will permit the use of any loud speaker, with tremendous volume and unusually pleasing clarity. Can be used with any plate voltage, and any "C" bias arrangements. Information furnished on request. This set uses all of our standard apparatus and is offered at a real bargain price as an inducement to buy our parts. Full directions, with blueprints, are furnished and we guarantee results from this amplifier to equal any other two-stage amplifier on the market. Parts included in Rasco two-stage amplifier: 1 Diectrite panel (7"x10"), 2 Rasco transformers (3 to 1), 1 Jones two-circuit jack, 2 bakelite sockets (UX), 1 bakelite 6-ohm rheostat, 10 Rasco binding posts, hookup wire, full blueprints and directions. Approximate shipping weight 10 lbs.

No. 9966. (Less Cabinet.) Net....**\$5.55**

With Pilot Giant Audio Transformers
\$3.00 net additional

Gentlemen:

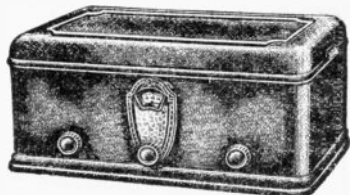
It may interest you to know that on my Radio set you sold me I have so far tuned in 40 stations on loud speaker from Cuba to New York, and from Nebraska to Texas.

CHARLES A. HARRILL, Davenport, Fla.

Aero Kits

Aero Broadcast Receiver Kits are supplied complete to the smallest detail, including beautiful two-tone metal cabinets and a handsome escutcheon plate of oxidized silver, etched with the name of the receiver. All receivers are single dial tuning and have a volume control and an antenna compensator on the panel. Foundation units include everything necessary down to screws, wire and solder, leaving nothing additional to be purchased. The cabinets of the Aero-Dyne and Aero Seven are 9x25x14"—the others are 9x18x12". Every part used is the best of its type obtainable and is the standard product of the nationally famous manufacturer. Audio frequency transformers of a type heretofore used only in broadcast station amplifiers assure surprising tone quality and the "Chronophase" principle of radio frequency amplification takes care of selectivity and distance. Illuminated micrometer dial! Handsome panel appearance! A set to be truly proud of!

Aero-Dyne 6 Receiver



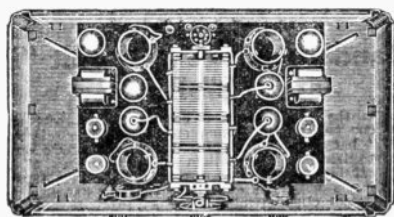
The Aero-Dyne is a six-tube receiver of supreme excellence. Three stages of "Chronophase" radio frequency amplification will utilize any type of tube, whether it be shield grid, A.C. or D.C. to the maximum advantage. Uses the new special broadcast station line audio amplifier. Transcontinental reception can be properly expected from the Aero-Dyne under favorable conditions. This kit includes the large cabinet illustrated. A.C. set uses five 227 tubes with 171 power amplifier. D.C. set uses either shield grid or 201-A tubes and 171 power amplifier.

	List	Net
No. 7342-23 Aero Complete Kit for Shield Grid Tubes.....	\$93.50	\$54.98
No. 7343-24 Aero Complete Kit for A.C. Tubes.....	93.50	54.98
No. 7344-25 Aero Complete Kit for D.C. Tubes.....	93.50	54.98

Net Prices Quoted Include Metal Cabinet.
Note.—For those wishing to build the set in a console or table, the same kit is supplied except that a handsome walnut finish Westinghouse-Micarta 7x18" drilled and engraved panel is supplied in place of the cabinet.

	List	Net
No. 7345-23P Aero Complete Kit for Shield Grid Tubes.....	\$83.50	\$49.10
No. 7346-24P Aero Complete Kit for A.C. Tubes.....	83.50	49.10
No. 7347-25P Aero Complete Kit for D.C. Tubes.....	83.50	49.10

Shipping weight 35 lbs.



View of Bottom of Cabinet and Receiver.

Aero Cabinets

The Aero Cabinets which are supplied with all Aero Kits are sold separately for the convenience of those desiring a handsome two-tone metal cabinet. Each cabinet contains holes for leads at the bottom and holes at the front for mounting a National Type E or Type F dial and two rheostats, or other single hole mounting instruments at the sides as illustrated. The Type 400 Cabinet is 9x18x12" and the Type 250 9x25x14".

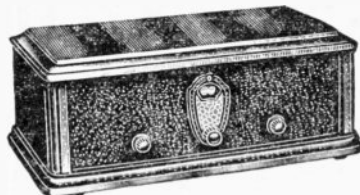
No. 7360-400 Cabinet. List \$10.00. Net.... \$ 6.00
No. 7361-250 Cabinet. List \$18.00. Net.... 10.80

Aero "Metropolitan" 4 Tube Set

Special coil kits allow the use of shield grid tubes or of 01-A tubes with the Inter-electrode capacity of the tube neutralized as in the popular Roberts and Chicago Daily News circuits. Receiver is built in a small metal cabinet (9"x18"x12"). Shipping weight 25 lbs.

	List	Net
No. 7305-26. Aero Complete Kit for Shield Grid Tubes.....	\$58.00	\$34.10
No. 7306-27. Aero Complete Kit for A. C. Tubes.....	58.00	34.10

Aero "Seven-Twenty-Nine" Receiver



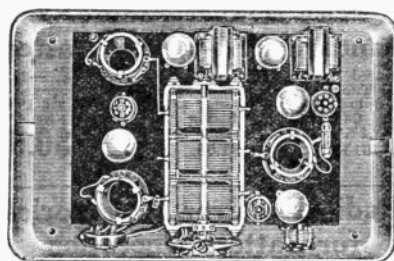
The Aero Seven-Twenty-Nine is a seven-tube DeLuxe model employing three stages of "Chronophase" radio frequency amplification and one semi-aperiodic stage. Extreme selectivity and great sensitivity assure the user of distance and "pop," while the improved audio amplifier gives truly surprising tone quality. A 71 power tube is employed in all models. In the A.C. model, six 27 tubes are utilized and in the D.C. type six 01-A type tubes. The shield grid model uses four shield grid tubes, two 01-A's and one 171. The semi-tuned antenna stage reduces static pickup considerably. This receiver uses the larger size metal cabinet.

	List	Net
No. 7348-32 Aero Complete Kit for Shield Grid Tubes.....	\$97.85	\$57.54
No. 7349-33 Aero Complete Kit for A.C. Tubes.....	97.85	57.54
No. 7350-34 Aero Complete Kit for D.C. Tubes.....	97.85	57.54

Net Prices Quoted Include Metal Cabinet.
Note.—For those wishing to build the set in a console or table, the same kit is supplied except that a handsome walnut finish Westinghouse-Micarta 7x18" drilled and engraved panel is supplied in place of the cabinet.

	List	Net
No. 7351-32P Aero Complete Kit for Shield Grid Tubes.....	\$87.85	\$51.65
No. 7352-33P Aero Complete Kit for A.C. Tubes.....	87.85	51.65
No. 7353-34P Aero Complete Kit for D.C. Tubes.....	87.85	51.65

Shipping weight 35 lbs.



View of Bottom of Cabinet and Receiver.
Note that the Aero Chronophase resembles this view.

Aero Chronophase

The Aero "Chronophase" Receiver is a five-tube set embodying two stages of tuned radio frequency utilizing the "Chronophase" circuit for either shield grid, A.C. or D.C. tubes, and the new Aero broadcasting type audio amplifier. Uses a 171 power tube. This receiver is recommended as one of the best low priced all-purpose receivers on the market. Selectivity is sufficient to separate powerful locals without difficulty and reception reports of two thousand miles are not unusual. A metal cabinet is furnished, making a handsome addition to the most well-appointed living room. A.C. Receiver uses four 227 tubes. Very simple to connect. Shipping weight 55 lbs.

	List	Net
No. 7354-20 Aero Complete Kit for Shield Grid Tubes.....	\$74.50	\$43.80
No. 7355-21 Aero Complete Kit for A.C. Tubes.....	74.50	43.80
No. 7356-22 Aero Complete Kit for D.C. Tubes.....	74.50	43.80

Net prices quoted include metal cabinet.

Note.—For those wishing to build the set in a console or table, the same kit is supplied except that a handsome walnut finish Westinghouse-Micarta 7x18" drilled and engraved panel is supplied in place of the cabinet.
No. 7357-20P Aero Complete Kit for Shield Grid Tubes..... \$68.55 \$40.31
No. 7358-21P Aero Complete Kit for A.C. Tubes..... 68.55 40.31
No. 7359-22P Aero Complete Kit for D.C. Tubes..... 68.55 40.31

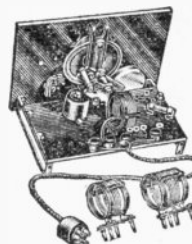
	List	Net
No. 7307-28. Aero Complete Kit for D.C. Tubes.....	58.00	34.10
Note.—With walnut bakelite drilled and engraved panel.		
No. 7308-26P. Aero Complete Kit for Shield Grid Tubes.....	\$53.00	\$31.17
No. 7309-27P. Aero Complete Kit for A.C. Tubes.....	53.00	31.17
No. 7310-28P. Aero Complete Kit for D.C. Tubes.....	53.00	31.17

Aero Short Wave Receivers



These kits include not only the actual radio instruments but also the "panel sets" comprising a complete outfit of front panel, sub-panel and back panel, together with all necessary machine screws, nuts, wire, bus-bar and every possible item required to assemble the set, with the exception of a soldering iron, a pair of pliers and a screw driver. Utilize the new Aero "International" Short Wave Coils. The last stage of each amplifier is so wired that either 171 or 112 tubes may be used. The front of the panel presents a pleasing appearance with a single tuned-in dial back of an oxidized silver escutcheon plate engraved with the name of the set, and flanked by two knobs controlling volume and filament.

Aero Short Wave Converters



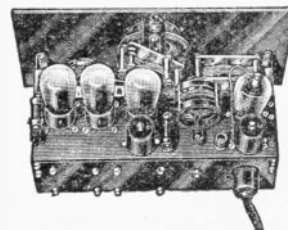
and is adapted to any Cabinet not included. Price includes drilled panel (7"x10") and sub-panel (6" deep). Shipping weight 16 lbs.

No. 7301-12 for D.C. Tubes. List	\$18.82
\$32.00. Net.....	
No. 7302-14 for A.C. Tubes. List	\$18.82
\$32.00. Net.....	

The Aero "International" Converter for D.C. receivers embodies one stage of radio frequency amplification utilizing a shield grid tube and a detector stage. Only one tuning control, one volume control and a filament rheostat. Shipping weight 25 lbs.

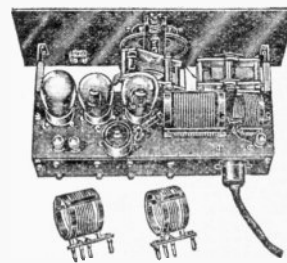
No. 7299-9. List \$38.90. Net.... \$22.88

Aero "International" All Wave Receiver



Employs one stage of aperiodic shield grid amplification. Is the first receiver designed exclusively for short wave broadcast reception. Only one tuning control. Non-radiating. Extremely simple to operate and certain to give excellent results. The finest short wave receiver obtainable at any price. No cabinet included. Price includes a 7"x14" drilled Micarta panel. Weight 25 lbs.

No. 7300-8. Aero Kit. List \$55.30. Net \$32.52



Aero Standard Short Wave Receiver

For either A.C. or D.C. tubes. Circuit has proven by years of excellent results in the hands of amateur operators to be one of the best. Kit is complete with nothing else to purchase. No cabinet included. Price includes beautifully engraved and drilled Micarta front panel and sub-panel. Can cover range from 15 to 550 meters. Shipping weight 16 lbs.

No. 7303-10. Aero Kit for A.C. Tubes. List \$49.95. Net.....	\$29.37
No. 7304-11. Aero Kit for D.C. Tubes. List \$49.95. Net.....	\$29.37

ADVANCE "A" - "B" - "C" DRY BATTERIES



No. 4500

Standard Large 45-volt Vertical Battery

This is the standard 45-volt large battery, and is recommended for sets which require current for one to four tubes, and also for five-tube sets using a "C" battery. This battery can also be used on all self-contained sets having more than five tubes, but which do not have sufficient space for the heavy-duty battery. Equipped with three spring terminals. Size 8" x 3" x 7". Actual weight 9½ lbs.

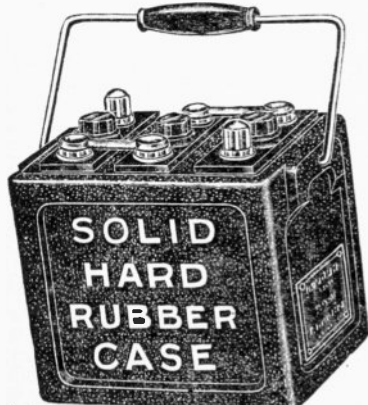
No. 4500-301V. List \$3.75. Net.... \$2.05

1½-volt "A" Dry Cell

This is designed to supply the current for vacuum tubes in radio sets. It can be used efficiently for ignition and general purposes. It has high recuperative powers, and will deliver efficiently current from ¼ to ¼ amperes. A bank of three of these batteries connected in series is required for 199 tubes—four for a 201A tube. Size 2½" x 6¼". Actual weight 2 lbs.

No. 5410-6. List \$0.50. Net..... \$0.30

Storage Battery



We have specialized in storage batteries a number of years, and this battery, although called a radio battery, is really an automobile battery. That means that it has been constructed for extra hard work. While used in the automobile the battery is shaken up all day long and undergoes a terrific wear and tear. Only the highest grade batteries can stand this constant jarring, consequently you know what to expect from our battery. Certain low priced batteries are made of plates taken from old batteries and made over. Such batteries cannot last. Our new plates are extra heavy and guaranteed to last. Another important point is that our battery will withstand sulphation, i.e., coating of the plates even if the battery has been run down quite low. Solid hard rubber case. We furnish only acid-proof terminals that will outlast the battery. Full automatic vents are provided. Positive (+) and negative (-) terminals are marked in a distinctive manner. Impossible to make a mistake.

No. 9100. 6-Volt, 100 Ampere Hour. List \$18.00. Net..... \$7.01

Shipped transportation collect.



No. 2250

Advance batteries are made of the highest grade ingredients under careful and scientific supervision, and under a secret formula which gives them a life beyond that of most batteries on the market. It is preferable to ship these batteries via express collect, due to their weight.

Small 22½-volt Portable "B" or "C" Battery

This is the smallest radio battery made, and should be used only where small size and light weight are the only essential factors, such as single-tube portable sets. Equipped with two spring terminals. Size 3¾" x 2" x 2 9/16". Actual weight 1 lb.

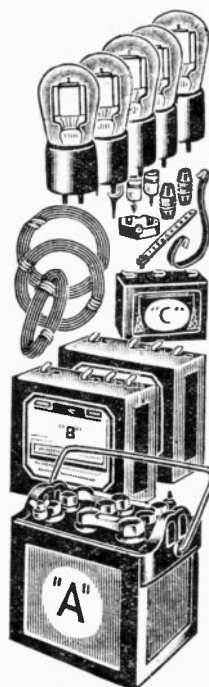
No. 2250-154. List \$1.50. Net..... \$0.90

Standard 22½-v. "C" Battery

Equipped with four terminals: -4½, -16½, -22½, +C. Two of these batteries are required (connected in series) to properly bias either a 171A, 210 or 250 Power Tube. Can also be used as a "B" battery. Size 4" x 2½" x 2¾". Actual weight 1½ lbs.

No. 4515-153. List \$1.90. Net..... \$0.98

Radio Receiver Accessories for Battery Operation



These are the accessories we recommend for all our kits and sets. The storage battery is of the latest type. Its purpose is to light the bulbs. The two "B" batteries place a positive polarity on the plates in all the tubes as well as furnish the current to the electro magnets in the loud speaker, causing the diaphragm within to vibrate in accordance with the variations controlled by the tubes. The 4½-volt "C" battery is guaranteed to render service for one year. The aerial equipment is of the very best manufacture, and comprises whatever materials are necessary for the construction of an average antenna. The following is included: 1 100-ampere hour 6-volt storage battery, 2 45-volt large size "B" batteries, 1 4½-volt "C" battery, 5 201A type 5-volt tubes (carry 100 per cent Replacement Guarantee), 1 Complete Aerial Kit as illustrated.

No. 9071.

Your Special Net Price... \$16.40

NOTE

Shipped via express collect. We do not list head phones or loud speakers in the above, as you may wish to make your own selection. For each additional tube add 50¢ per cent (subtract \$0.59 for each tube less). If you desire 135 or 180 volts of "B" battery for increased volume, then we will include with the above accessories one or two additional 45-volt "B" batteries, each additional one costs \$2.25. A total of 9 volts (2 "C" batteries) "C" bias is required with 135 volts "B" battery; two 22½-volt "C" batteries are required with 180 volts "B" battery.



No. 4509

Standard 45-volt Heavy Duty Battery

This is the most economical battery for all sets using five or more tubes or having a power tube, or where heavy current is required. It has extra large cells, which supply a large amount of power. It is particularly recommended for all sets using power amplification, and power amplifying loud speakers, and any sets of five tubes or more where space is available for this battery. Equipped with three spring terminals. Size 8" x 4½" x 7 1/16". Actual weight 13½ lbs.

No. 4509-3011. List \$5.00. Net..... \$2.75

Standard 4½-volt "C" Battery

An "ABC" battery in purpose as well as in name. Can be used as an "A", "B" or "C" battery. It is the most convenient "C" battery made. If greater "C" battery voltage is required, two or more of these batteries can be connected together in series. The use of a "C" battery in all sets where audio amplification is used will greatly prolong the life of the "B" battery, and also result in better reception. This battery can be used to add additional "B" battery voltage, and as an "A" battery on small portable or one-tube sets. Size 4" x 1¾" x 3". Actual weight 13 ozs.

No. 4503-31-C. List \$0.60. Net..... \$0.34

Standard Large 22½-volt "B" and "C" Battery

This is the standard large battery for all sets using from one to four tubes, and on all five-tube sets using a "C" battery. It will give economical service on all sets requiring not more than 18 milliamperes of current. It is equipped with five positive voltage taps for use in sets with soft detector tubes. It has five positive contact clips giving voltage at 16½, 18, 19½, 21 and 22½ volts respectively. It may also be used as a "C" battery with sets requiring a 22½-volt grid bias. The 18-volt tap furnishes the 4½-volt "C" battery voltage necessary for the first audio amplifying tube. Size 6¾" x 4 1/16" x 3". Actual weight 4½ lbs.

No. 2251-151. List \$2.00. Net..... \$1.12

Chaslyn Corrosion Cure



Spread a little of this preparation all over the terminals of your radio or automobile storage battery and corrosion will be forever banished. Corroded battery terminals cause noisy reception. Size 5" long by 1" wide. Shipping weight 2 lbs.

No. 5257. Net..... \$0.30

Battery Terminal



Combination lug and Falmstock clip for storage battery terminals. Prevents corrosion of leads to battery.

No. 5588. Per pair \$0.15

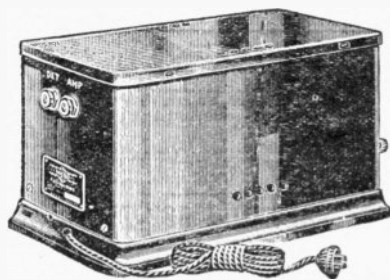
WEBSTER "A" AND "B" ELIMINATORS



Super B

We feature this eliminator, for it represents the greatest value in such a device—in performance it equals that of very much more costly ones! Quality has been built down to a price! The average 5 tube receiver, with one power tube, draws approximately 30 to 40 milliamperes, but the manufacturers wished to provide for sufficient leeway in this respect, so they made the "Super" B capable of furnishing from 120 to 200 volts, at 60 milliamperes! Note that there are 3 variable controls for the detector, amplifier and power amplifier output voltages—this feature is very valuable, as the particular voltage requirements of any receiver can be correctly complied with. Absolutely dry—no liquids—no acids! Uses a Raytheon B.H. Rectifier. Absolutely no hum or inconsistency of operation! There are four binding posts: Negative B, Detector, Amplifier and Power. Built to withstand road, hard usage—Again, we repeat: This is a 1:1 Quality Eliminator, and a most decided bargain at the seemingly very low list and net prices quoted. Cord and plug included. Size 6" high, 6 1/2" wide, 11 1/2" long. Shipping weight 22 pounds.

No. 8050. Less Tube. List \$26.40. Net..... **\$15.52**
No. 8051. With Raytheon BH 125 Mil. Rectifier Tube. Net..... **\$18.17**



Reliable B

The same high quality parts are used in this eliminator as in the "Super"—but, it is not designed to be used on more than a 5 tube set. Furnishes: 150 to 180 volts, at 40 milliamperes. There are four binding posts: Negative B, Detector, Amplifier and Power. The Detector and Amplifier voltages are variable, by means of a self-contained Duplex Clarostat, adjustable with a screw driver instead of knobs. This feature prevents mischievous hands from throwing the voltages out of adjustment. By installing an external Clarostat (or similar variable resistor) in the Power B voltage line, 100 to 135 volts can also be obtained and utilized. Uses the long life Raytheon B.H. Rectifier. Cord and plug included. Size: 6" high, 6 1/2" wide, 11 1/2" long. Shipping weight 18 pounds.

No. 8060. Less Tube. List \$20.35. Net..... **\$11.97**
No. 8061. With Raytheon BH 125 Mil. Rectifier Tube. Net..... **\$14.62**

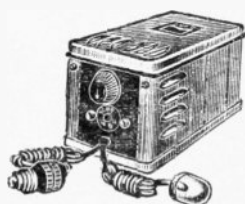
Webster Bone-Dri "A" Eliminator

The Bone-dri A-10 is a compact power supply unit, which supplies 2 1/2 amps. at 6 volts. It has a variable resistance, controlling the power, to suit line conditions. This unit has the receptacle in which a B eliminator may be plugged. In this way the entire set may be controlled from the penant switch attached to the A unit. This switch eliminates the necessity of ever touching the set switch. The Elkon rectifier and condensers are used in this pack. Entirely solves the demand for efficient dry A power supply. Install this and forever dispense with the ever troublesome storage battery and charger. Furthermore, this gives you true A.C. operation, without any rewiring of your set, or having to purchase new tubes! For all 5 volt 201A and power type tubes. Sufficient capacity to light as many as 10 tubes! Complete—nothing further to buy—includes cord and plug (with built-in penant switch), and Elkon rectifier unit. Size 10 1/2" high, 6 1/2" wide, 11 1/2" long. Shipping weight 30 pounds.

No. 8090. List \$38.59. Net.... **\$22.64**

The combination of the Webster Bone-Dri "A" and either of the above Webster Eliminators MAKES AN IDEAL SOCKET POWER TEAM.

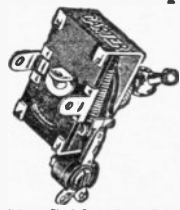
Tobe "A" Supply



Superior design has made this compact "A" supply possible, this unit measuring but 10" long, 6" high and 5" wide. Despite this size the component parts are of heavy, solid construction, bolted rigidly onto a chassis and not held in place by the common practice of pouring hot wax over the entire

"works" to keep them from moving. There are two special high inductance chokes and a large oversized transformer, all made of large wire and heavy cores, with a condenser bank of two units measuring 4000 microfarads each. These condensers are dry and actually remain at their rated capacity. In addition there is the Elkon metallic re-tifying unit placed in a compartment with air vents to control the operating temperature. An input cord and penant switch come with the unit permitting control of both the A and B supply with the snap of a single switch. A four-foot cord to this penant permits its location in a convenient position. This unit eliminates the need of delicate relays. A "P" outlet plug is on the front panel. Choice of 4 to 6 volts is available. Since everything is dry there is nothing to get out of order. This "A" supply is

Carter "Imp" Power Switches



Regular Type

Compact, rugged construction. Self-contained. Metal frame and other parts insulated. Latest type quarter turn, snap switch construction. Double contact. For use in regular 6-volt filament or 110 volt circuit. A positive on and off position. One of the smallest switches on the market. Mounts in 3/4 inch hole. Complete with "ON" and "OFF" nameplate.

No. 7196-110. List \$0.75. Net..... **\$0.44**
No. 7197-112. Same as above, except Single Pole Double Throw. List \$0.75. Net..... **\$0.44**

Automatic Type

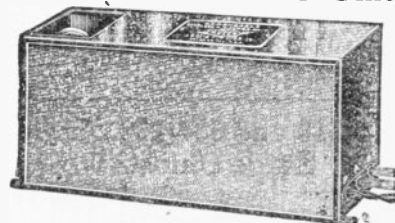
For switching charger off, "I" supply on, and closing filament circuit. Replaces relays. Simplifies set and insures positive operation. This switch will control any type of A or B supply. 1 1/2"x1"; projects 3/4" back of panel. Mounts in 3/4" hole.

No. 7198-115. List \$1.50. Net..... **\$0.88**

Designed for operation at 110-120 A.C. volts and 50-60 cycles and will take care of any 5-tube set. Output 2 to 2 1/2 amperes. Silver satin finish. Shipping weight 20 lbs.

No. 7379. List \$35.00. Net.... **\$20.58**

Muter AEC Power Unit



The ideal type of unit for construction of an A.C. set in view of the compact size, handsome appearance and uniform long life output. This unit will supply complete A, B and C power for any set up to 7 tubes with a power tube in connection with A.C. tubes. Filament current leads comprise 1.5, 2.5 with center tap, 5 volts with center tap. Two 171A power tubes can be lit from the winding for this purpose—ideal for push-pull circuits! The 226-227 types of A.C. tubes must be used in conjunction with this unit. A 171A power tube must be used in the last audio stage. B leads are Neg.-15-, 67-90-135 and Power. B-capacity 220 volts at 40 mils. Size 12" long, 3 1/4" wide, 5 1/4" high. Black crystalline finish. The 280 type of rectifying tube must be used. For 110 volt A.C. 50-60 cycle current. Shipped express collect from Chicago.

No. 7421-4000. Without Tube. List \$30.00. Net..... **\$17.64**

Muter "B" Power Eliminators



Muter radio apparatus is always dependable! Their reputation has been built upon two solid foundations. The first is 100 per cent perfection must prevail, and second, the price must be lower than quoted for similar apparatus of the same quality! Here, Muter offers a "B" eliminator power unit that is gaining them thousands of friends—and for good reason! No variable intermediate voltage resistors provided—instead, there are six binding posts with a

predetermined voltage output designated at the proper post—the voltage you want is there—always constant—no guess-work—no voltmeters required. The readings on these posts are as follows: Negative B, +22 +45 +90 +135 and Power—the requirements of any average receiver are accordingly provided. The highest grade of voltage dividing resistance strip is used, and the same is true of the filtering condenser bank. Muter actually employs a filtering system only to be found in very much more expensive eliminators. You are therefore assured maximum service with no blow-out for an indefinite period, and quality of reproduction in your loud speaker that is realistic beyond description! Perfection ever in mind, Muter has used only transformers and chokes that are beyond criticism, for there are no better made! For compactness and appearance, the Muter runs second to no other eliminator—the overall dimensions are 6 1/2" wide, 7" high and 8 1/4" long. Handsomely encased in a highly finished enameled metal case—the insulated binding posts (no shocks) are fastened on a suitably engraved bakelite panel. A cord detachable plug, and detailed instruction sheet are included. Shipped express collect.

No. 6300-3000. 280 Type Rectifier. Output 180 volts at 30 mils. List \$22.50. Net..... **\$13.13**

No. 6667-3025. 280 Type Rectifier. Output 220 volts at 40 mils. List \$25.00. Net..... **14.70**

No. 6350-3050. Raytheon Type Rectifier. Output 180 volts at 30 mils. List \$22.50. Net..... **13.13**

No. 6668-3075. Raytheon Type Rectifier. Output 220 volts at 40 mils. List \$25.00. Net..... **14.70**

NOTE

Tubes are not included in above prices. With tubes the net prices are:

No. 5295-3000, with U.N.280 Tube. Net. \$16.04
No. 6672-3025, with U.N.280 Tube. Net. 17.61

No. 5296-3050, with Raytheon Tube. Net. 15.78
No. 6673-3075, with Raytheon Tube. Net. 17.55

Greene-Brown Dry Electric "A" Supply



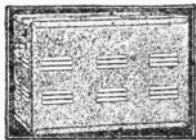
New! Full-strength A.C. light-socket "A" power for all receivers using up to 10 D.C.-tubes. Entirely DRY and batteryless. Requires no water, contains no acid, stores no current, never needs recharging. Employs efficient tubeless dry-plate rectifier guaranteed for continuous, long-life service. Maximum output 2 1/2 amperes at 6 volts. Has simple rheostat adjustment for fixed voltage re-

quirements of all sets. Size, 9" long, 3 1/4" high, 3 3/4" wide. Exceptional trouble-free performance. An unequaled value—designed only for 90-135 volt (50-60 cycle) A.C. current. Shipping weight 30 lbs.

No. 7024. List \$37.50. Net..... **\$22.05**

Silver-Marshall 680 Series Unipacs

681-210 and 681-250 Single Stage Unipacs



Universal super-power amplifiers, using 210 or 250 type super-power tubes, capable of delivering an enormous amount of undistorted power when used with any radio receiver or standard magnetic phonograph record pick-up. The four models available provide a

light-socket powered amplifier for any purpose—be it home entertainment, schoolroom use, or out-of-doors to provide coverage of small groups. The 681 Models are single-stage amplifiers. The 682 Models are two-stage amplifiers. Supplies B voltages, permanently eliminating all B batteries with an unfailing source of voltage kept constant by a UX874 (CX374) voltage regulator tube. Undistorted power outputs ranging from 1500 to over 13,000 milliwatts, insure deep, full tonal range—tone that adds a new zest and enjoyment to radio with its beauty, brilliance and realism of bass and treble alike. Unipacs may be used with dynamic air-chrome, air-column, cone, or other standard speakers. Truly it is a revelation to listen to a radio receiver equipped with a Unipac, so pure and undistorted is the reproduction provided. Contains a power supply which operates from any 105-120 volt, 60-cycle A.C. light socket, providing all A, B and C power required for the power amplifier contained in the same cabinet. A, B and C voltages for receiver operation, if equipped with A.C. tubes, or B voltage only, are available from the different models. Housed in a neat but substantial ventilated steel cabinet with beautiful dark crackle-brown finish, provided with a hinged lid and carrying handles. All parts are assembled on a heavy steel bulkhead, carrying a tube socket shelf, the bulkhead being bolted into the center of the cabinet and easily removable. Size 17½ inches long over carrying handles, 10½ inches high and 9½ inches wide. Types 681-210 and 681-250 Unipacs are single stage power amplifiers, the former using two 210 or 250 tubes in push-pull, and the latter using one 210 or 250 tube in a conventional audio stage. Type 681-210 is probably the most powerful single-stage amplifier ever developed. It is a true push-pull amplifier for either 210 or 250 type tubes. With two 210 type tubes, its undistorted power output is 5,000 milliwatts, or with two 250 type tubes, over 13,000 milliwatts are provided. Its particular application is as a last stage push-pull amplifier. Type 681-250 is a slightly lower powered model for home use, with only one 210 or 250 tube in a conventional power audio stage, providing an undistorted power output of 1,500 milliwatts when a 210 tube is used, or 4,500 milliwatts with a 250 tube. Both 681-210 and 681-250 Unipacs provide their own A, B and C power and, in addition, supply 45, 90 and 135 volts for receiver operation. Either type must be preceded by at least one audio stage for phonograph amplification, or to obtain satisfactory loud-speaker volume from a radio receiver. The tubes required for 681-210 are 2-UX210 (CX310) or UX250 (CX350) amplifiers, 1-UX874 (CX374) regulator and 2-UX281 (CX381) rectifiers. 681-250 requires 1-UX210 (CX310) or UX250 (CX350) amplifier, 1-UX874 (CX374) regulator and 2-UX281 (CX381) rectifiers. Shipped express collect from Chicago.

No. 7075-681-210 Kit Unipac. Factory packed in substantial carton, ready to assemble (less tubes), shipping weight 62 lbs.
List \$87.00. Net. **\$51.16**
No. 7076-681-210 Wired Unipac. Factory assembled and wired, packed in substantial carton (less tubes), shipping weight 62 lbs.
List \$102.00. Net. **\$59.98**

Silver-Marshall Public Address Unipac



an undistorted power level of 5 watts. A control knob is provided to regulate volume smoothly from a whisper to full maximum, as desired. The 685 is complete in itself. It contains a three-stage power amplifier using one UX227 (CX327) in the first stage, one UX226 (CX326) in the second stage and one UX250 (CX350) power tube in the last stage. The power supply is self contained and consists of a heavy duty power unit using two UX281 (CX381) half-wave rectifiers in a highly efficient full-wave system. The filter is of the combination selective and brute force type, reducing to a minimum all A.C. ripple. Each amplifier tube is equipped with an individual hum balance adjustment. This power unit supplies all A, B and C power to the amplifier,

No. 7077-681-250 Kit Unipac. Factory packed in carton (less tubes), shipping weight 62 lbs.
List \$81.50. Net. **\$47.92**
No. 7078-681-250 Wired Unipac. Factory assembled and wired, packed in substantial carton (less tubes), shipping weight 62 lbs.
List \$96.50. Net. **\$56.74**
Note—Space is provided for an S-M 247 or 325 filament transformer.

682-210 and 682-250 Two Stage Unipacs

Types 682-210 and 682-250 Unipacs are two-stage power amplifiers, the former using two 210 or 250 type tubes in push-pull and the latter using one 210 or 250 type tube in the power output stage. Both models contain a first audio stage amplifier, using a 226 type tube. Type 682-210 is a complete push-pull amplifier for use with any radio receiver or with any standard magnetic phonograph pick-up, or if a special transformer is installed (such as S-M 247 or 220A). It may also be used with a microphone. With a phonograph pick-up the 682-210 will provide the most beautiful reproduction the average fan has ever heard from any radio set or old phonograph regardless of cost. It is an ideal amplifier for use with a radio receiver having no audio stages at all or an old or obsolete audio amplifier. With 2-210 tubes in push-pull the 682-210 has an overall voltage amplification of 441 times, with an undistorted power output of 4,500 to 5,000 milliwatts; with 2-250 tubes, voltage amplification 183 times, undistorted power output 13,000 milliwatts—enough to entertain from 2,000 to 10,000 people. Type 682-250 is a lower powered two-stage model using only 1-210 or 250 tube in an ordinary audio stage, providing an undistorted power output of 1,500 milliwatts with a 210 tube, or 4,500 to 5,000 milliwatts with a 250 tube. In all other respects it is exactly like the 682-210. Both models supply their own A, B and C power; 45, 90 and 135 volts B for the receiver and 1½ and 2½ volts for A.C. tube filaments in receivers so equipped. 682-210 is essentially type 681-210 single stage amplifier with a second stage added, while 682-250 is essentially 681-250 plus an additional stage. The tubes required for 682-210 are 1-UX226 (CX326) amplifier, 2-UX210 (CX310) or UX250 (CX350) power amplifiers, 1-UX874 (CX374) regulator and 2-UX281 (CX381) rectifier tubes. 682-250 requires 1-UX226 (CX326) amplifier, 1-UX210 (CX310) or UX250 (CX350) power amplifier, 1-UX874 (CX374) regulator and 2-UX281 (CX381) rectifiers.

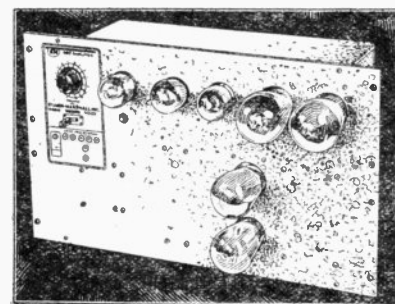
No. 7079-682-210 Kit Unipac. Factory packed (less tubes), shipping weight 69 lbs.
No. 7079. List price \$102.00. Net **\$59.98**
No. 7080-682-210 Wired Unipac. Factory assembled and wired (less tubes), shipping weight 69 lbs.
No. 7080. List price \$117.00. Net **\$68.80**
No. 7081-682-250 Kit Unipac. Factory packed in substantial carton, ready to assemble (less tubes), shipping weight 69 lbs.
No. 7081. List \$96.50. Net. **\$56.74**
No. 7082-682-250 Wired Unipac. Factory assembled and wired, packed in substantial carton (less tubes), shipping weight 69 lbs.
No. 7082. List \$111.50. Net. **\$65.56**
No. 7083-680 Unipac Cabinet. Cabinet for 680 series with bulkhead and shelf, dark crackle-brown finish, size 17½"x9½"x10½", ship weight 20 lbs.
No. 7083. List \$12.00. Net. **\$7.06**

Note—A 247 filament transformer is included for five A.C. tubes in a radio set. If greater capacity is required, the S-M 325 transformer should be specified, adding \$4.50 to the respective net prices.

the only external voltage necessary being the microphone battery consisting of three dry cells if a microphone is used. The entire assembly is mounted in a brown crystalline finished steel case provided with a hinged cover over the tube compartment, ventilating louvers and two carrying handles. Binding posts are provided for all connections. The Unipac weighs approximately 70 lbs., making it easily portable, and the ideal amplifier for use at picnics, county fairs and other gatherings of like nature where an A.C. lighting circuit is available to supply power. To operate the 685 it is only necessary to insert the tubes, connect the input and output apparatus, and plug into any 105 to 120 volt, 60 cycle A.C. light socket. Overall size: 17½ inches long, 9½ inches wide, and 10½ inches high. The 685 Unipac requires for operation, one UX227 (CX327) A.C. amplifier tube, one UX226 (CX326) amplifier tube, one UX250 (CX350) power amplifier tube and two UX281 (CX381) half-wave rectifier tubes, in addition to input apparatus and loud speakers. It operates on 105 to 120 volt, 60 cycle, A.C. only, but can be used in D.C. districts, if desired, with a rotary converter of at least 200 watts rating. For phonograph amplification, though, any good magnetic type pick-up may be used. Any radio receiver may be used by simply connecting the detector output to the 685 input terminals. Shipped express collect from Chicago.

No. 7072-685 Kit Unipac. Complete parts for three-stage public address Unipac amplifier, described above, factory packed in shipping carton (less tubes). Shipping weight 74 lbs.
List \$125.00. Net. **\$73.50**

Silver-Marshall Theatre Public Address Amplifier



This amplifier has been designed to provide sufficient power, when fed by a microphone, a radio set, or one or more phonograph record pick-ups to operate from two to twelve dynamic or other loud speaker units at sufficient capacity to adequately fill or "cover" a theatre or auditorium seating 3,000 to 5,000 people. Out-of-doors it will provide speech and music clearly audible to crowds of 10,000 to 30,000 people. Incorporates dual push-pull amplification, full A.C. amplifier operation, a frequency characteristic bringing out low tones at their full value, "fading" volume control, three-way selector switch, and "rack and panel" type of full aluminum construction. Provides the same amplification at 70 as at 5,000 cycles. The entire amplifier, with its self-contained power supply, is mounted on a solid aluminum panel 14" high and 21" wide, with all tubes projecting from sockets sunk below the panel face. One UX227 tube is used in the first stage, two UX226 tubes in push-pull in the second stage, and two UX250 power tubes in the push-pull output stage. The power supply employs two UX281 rectifier tubes in a full wave rectifier system delivering 450 volts to the plates and 80 volts to the grids of the 250 tubes (thus insuring an undistorted power output of 15 to 16 watts) and appropriate A, B and C voltages to the other tubes. Input binding posts are provided for connection of one record pick-up (or two with their own selector switch), one microphone, and the output of a radio set detector tube (or another record pick-up if preferred). The three-position key switch selects any one of these three inputs for amplification and a tapered potentiometer controls volume and "fading" from zero to full output. Three sets of loud speaker output connection posts provide three output impedances suited to combinations of one to twelve dynamic or magnetic speaker units for theatre, auditorium, or stadium use; up to 100 or 150 speakers for apartment, school, or hospital use; or up to 1,000 headphones for hospital or other uses. All parts are solidly attached to the aluminum panel, the rear of which is covered by metal dust covers, effectively protecting all apparatus and isolating the A. F. amplifier and power supply sections. All metal parts are furnished in crystalline black, with tube positions and control legends plainly engraved on the panel. All binding posts are on bakelite terminal strips on the rear of the control panel. Equipped with mounting holes so that, if desired, it may be permanently mounted in a standard S-M P.A. rack, or it may be attached to brackets for upright or side mounting in projection room, principal's office, cabinet, or other convenient place. It is fully portable for truck or automobile installations. Shipped express collect from Chicago. The S-M 690 amplifier is furnished fully wired, ready for operation, less only input apparatus, loud speakers, and tubes, but complete in itself for operation from 105 to 120 volts, 50 to 60 cycles A.C. Size 21" long, 14" wide, and 8" deep over dust cover, 14" deep with tubes in place.
No. 6735-690. Assembled. Less **\$144.95**
all tubes, List \$245.00. Net.

Silver-Marshall Link Motions



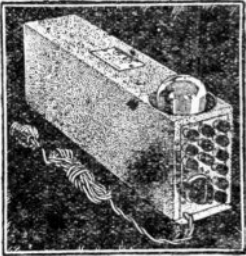
A 180° mechanical link designed to connect two condenser shafts (4" between centers) together for single dial operation. Size 6¾" by 2¼" overall. Weight 3 ozs.
No. 5541-637. Double Link Motion. **\$1.18**
List \$2.00. Net.
A 180° mechanical link designed to connect three condenser shafts (1" between centers) together for single dial operation, Size 10¾" by 2¼" overall. Weight 1 ozs.
No. 5512-632. Triple Link Motion. **\$1.47**
List \$2.50. Net.

No. 7073-685 Wired Unipac. Complete three-stage public address Unipac amplifier, as described above, factory assembled and wired, packed in shipping carton (less tubes). Shipping weight 74 lbs.
List \$160.00. Net. **\$94.08**

S-M INPUT TRANSFORMER

A combination audio and microphone transformer containing two primary and one secondary windings. Included in 685 Unipac, but furnished separately if desired.
No. 7074-220M. List \$15.00. Net **\$8.81**

Silver-Marshall ABC Power Supplies—180 Volt



ages. The 670B will operate radio receivers of from one to ten tubes, with one 112 or 171 type power tube. It is one of the very few units with sufficiently accurate voltage adjustments for safe use with the new UX222 (CX222) screen grid tubes. One UX280 (CX380) rectifier tube is required for operation. Type 670ABC Power Unit is a complete ABC power unit with all the characteristics of the 670B unit, but also delivering 1.5 volts at 4 amperes, 2.25 volts at 3.5 amperes and 5 volts at 1/2 ampere; for four to five 225 type, two 227 type and two 112A or 171A type power tubes. For A.C. tube equipped sets this Reservoir ABC furnishes all A, B and C power. 670B and 670ABC units are housed

in an attractive brown crystalline finished steel case, 17 inches long over mounting feet, 3 5/16 inches wide and 5 1/4 inches high—a convenient size to fit in a console cabinet, either behind or below the set itself. Shipped express collect from Chicago.

No. 7084-670B Kit Reservoir "B". Factory packed in substantial carton ready to assemble (less tubes) with instructions, shipping weight, 14 lbs. **\$23.81**

List \$40.50. Net.....

No. 7085-670B Wired Reservoir "B". Factory assembled and wired, packed in substantial carton (less tubes), shipping weight 14 lbs. **\$25.58**

List \$43.50. Net.....

No. 7086-670ABC Kit Reservoir "B". Factory packed in substantial carton (less tubes) with instructions, shipping weight 14 lbs. **\$25.28**

List \$43.00. Net.....

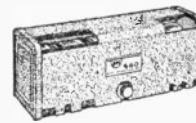
No. 7087-670ABC Wired Reservoir "B". Factory assembled and wired, packed in substantial carton (less tubes), shipping weight 14 lbs. **\$27.05**

List \$46.00. Net.....

No. 7088-670B or 670ABC Case, Chassis and Panel Unit. Consists of a brown crystalline finished steel case 5 1/4" high, 16 1/4" long and 3 5/16" wide with Micarta terminal panel drilled for either 670B or 670ABC units (specify model when ordering), complete with pierced and finished steel chassis 17" long overall. Included in all 670B and ABC models, but sold separately if desired. Packed in carton, shipping weight 3 lbs. **\$2.36**

List \$4.00. Net.....

Silver-Marshall 678PD Phonograph Amplifiers

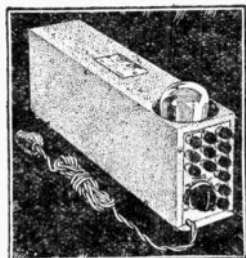


Replaces the former type 678 Unipac amplifier, and provides greater volume and finer tone. They are designed for use with a magnetic phonograph pick-up only and will provide ultra-fine reproduction of electrical cut records, with greater volume than most other standard two-stage phonograph amplifiers. Supplied in wired form, they are ideal units for bringing old phonographs up to date and to give them even finer tone than is found in the more expensive electric phonographs. A two-stage light socket power amplifier, with self-contained power supply, using one UX222 (CX326), and one UX219 (CX310) or UX250 (CX350) amplifier tubes. One UX281 (CX381) rectifier tube is used in the self-contained power supply which furnishes complete A, B and C power to the amplifier. Type 678PD is for dynamic speakers. Both models are supplied factory built for operation on 105 to 120 volts, 60 cycle A.C. only, and are housed in attractive brown crystalline steel cases 19 1/2 inches long, 7 1/2 inches high and 5 1/4 inches wide, equipped with pick-up and loud speaker tipjacks. Shipped express collect from Chicago.

No. 7050-678PD Phonograph Amplifier. For use with dynamic speakers, having their own field excitation. Packed in substantial carton (less tubes). Shipping weight 36 lbs. **\$42.92**

List \$73.00. Net.....

S-M No. 675 ABC Supply For 210 or 250 POWER TUBES



One of the most remarkable B power units ever developed, for it allows a 210 or 250 type super-power amplifier tube to be used in any radio receiver. Any radio receiver at all of any model can be brought up to date and given tone quality equal to that of expensive super-powered A.C. sets selling for \$500.00 or more. The enormous undistorted power output of the 210 or 250 type tube makes the reproduction as true to life that programs are brought right into the room, full, brilliant and lifelike. Every individual inflection is brought out with its true tone value—from the most delicate treble to the deep vibrating notes of the cello and concert organ. No change is necessary to adapt any radio receiver to use these power tubes with this power unit. A special adapter is provided, into which the tube fits, this adapter plugging into the last audio stage tube socket of any set. An output transformer is necessary (if not already in the set) for loud speaker protection. Uses one UX281 (CX381) rectifier tube and furnishes 22, variable 22 to 90, 90, 135 and 425 volts B power for any receiver, permanently and efficiently eliminating all B batteries. 1.5 volts at 4 amperes and 2.25 volts at 3.5 amperes, and 7 1/2 volts are available for filament lighting of A.C. tubes, so that a receiver, equipped with A.C. tubes may derive all A, B and C power from 675 power unit. Proper "C" voltage for the 210 or 250 tube is supplied by an internal resistor. Housed in an attractive crackle-finished metal case 17 inches long over mounting feet, 5 1/4 inches high, and 3 5/16 inches wide. It fits practically any space in average receiver cabinets, making a neat and simple installation.

No. 7068-675 ABC Power Supply Kit. Complete kit of parts, factory packed (less tubes). Shipping weight 28 lbs. List \$54.00. Net..... **\$31.75**

No. 7069-675 ABC Wired Power Supply. The 675 kit, as specified above, factory assembled, wired and tested, packed in substantial carton (less tubes). Shipping weight 28 lbs. List \$58.00. Net..... **\$34.10**

Duplex Clarostat



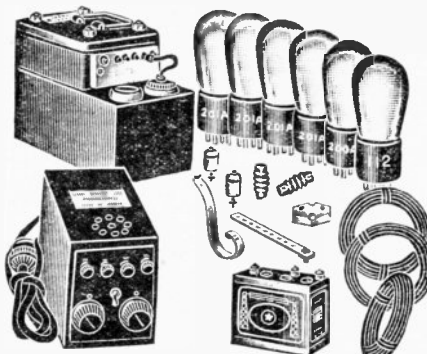
pendently adjustable voltage taps in addition to maximum tap. May be employed as potentiometer with variable total resistance and variable mid-tap. Many uses in A.C. tube sets, particularly as precision center-tap resistance for elimination of hum. Also employed for providing C-biasing resistances in socket-power receivers. Heavy metal case. Nickel plated. Compact. Two-hole panel mounting, with threaded nipples coming through and locked by nuts, exposing slotted screw head for screwdriver adjustment, or baseboard mounting with special bracket supplied. Universal resistance range. Rating 7 watts each section. Shipping weight, 2 lbs. **\$1.32**

No. 7003. List \$2.25. Net.....

Unique variable resistor comprising two Clarostats in one, with set-screw adjustment instead of knob for each independent section. A device of many unusual and unusual uses. Ideal for resistance network of usual B-power unit, providing two separate and independent taps in addition to maximum tap. May be employed as potentiometer with variable total resistance and variable mid-tap. Many uses in A.C. tube sets, particularly as precision center-tap resistance for elimination of hum. Also employed for providing C-biasing resistances in socket-power receivers. Heavy metal case. Nickel plated. Compact. Two-hole panel mounting, with threaded nipples coming through and locked by nuts, exposing slotted screw head for screwdriver adjustment, or baseboard mounting with special bracket supplied. Universal resistance range. Rating 7 watts each section. Shipping weight, 2 lbs. **\$1.32**

No. 7003. List \$2.25. Net.....

Light Socket Accessories



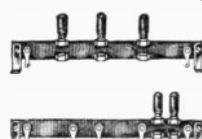
Your present receiver, or one that you now intend to purchase from us, can be operated direct from your 110-volt, 50 to 60 cycle A.C. current without purchasing A. C. tubes. No charging of batteries! No acids! No chemicals! No replenishing of "B" batteries. 180 to 200 volts of pure, powerful "B" current for one or two 171 type power tubes, and all lower intermediate "B" voltages! The reproduction you will enjoy is beyond worded description. Your first audition of this life-like music will leave a marked impression on you! The new improved Abox "A" Eliminator (used in place of the old-fashioned storage battery, trickle charger and relay switch) will furnish a 6-volt current supply to as many as 8 tubes! The aerial equipment is first-class quality throughout. The "A" batteries will last about one year. The tubes furnished with these accessories are selected by us for their efficiency and unusually long life—we want these tubes in every socket of every receiver or kit that we sell—we know their performance! Approximate shipping weight, 80 lbs.

No. 5691. List of Accessories included for Any 5-Tube Receiver—4 201A type tubes, 1 171A type power amp. tube, 1 Abox "A" Eliminator, 1 180-volt Webster "B" Eliminator (with Raytheon tube), 1 complete Cornish antenna kit, 2 22 1/2 volt tapped "C" batteries.

Total Retail Value, \$85.00. \$44.44

NOTE
If your receiver is a 4-tube model, then deduct \$0.59 from your net cost as above shown. For every additional tube beyond 5, add the sum of \$0.59 to the above net cost. A 200A type detector tube may be substituted in any accessory combination upon additional payment of \$1.00.

Carter Voltage Control Kits



Consists of two wire wound resistors, each equipped with sliders. These units are 3 1/2" long by 3/4" wide by 1/4" thick. The sliders permit accurate adjustment of both "B" and "C" battery voltages. When the thumbscrew is tightened, the adjustment remains fixed.

No. 47192-2313—250-Volt Control Kit. Consists of No. 1 Unit, total 7,400 ohms, and No. 2 Unit, total 2,900 ohms—tapped 1,000-900-1,000. List \$4.00. Net..... **\$2.35**

No. 7193-2314—300-Volt Control Kit. Consists of Units Nos. 1 and 2 plus one 3,000-ohm Unit. List \$5.25. Net..... **\$3.09**

No. 7194-2315—400-Volt Control Kit. Consists of Units Nos. 1 and 2 plus one 3,800-ohm Unit. List \$5.75. Net..... **\$3.38**

No. 7195-2316—500-Volt Control Kit. Consists of Units Nos. 1 and 2 plus two 3,000-ohm Units. List \$6.50. Net..... **\$3.82**

S-M Dynamic Amplifier

A single stage amplifier for use with any 90 volt D.C. type dynamic speaker to provide a marvelous improvement in tone and volume. It uses 1—UX250 (CX350) amplifier, and 1—UX281 (CX381) rectifier and operates from any 105-120 volt 60 cycle A.C. light socket. Cabinet same as 675 except aperture is provided for two tubes. Shipped express collect from Chicago.

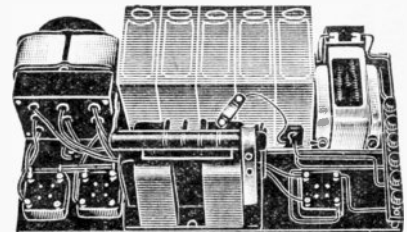
No. 7051-676 Dynamic Speaker Amplifier Kit. Factory packed in substantial carton, ready to assemble (less tubes). Shipping weight 28 lbs. **\$28.80**

List \$49.00. Net.....

No. 7052-676 Wired Dynamic Speaker Amplifier. Factory assembled and wired, packed in substantial carton (less tubes). Shipping weight 28 lbs. **\$32.34**

List \$55.00. Net.....

Victoreen 210 or 250 Power Supply and Power Amplifier



The Victoreen power circuit is, in its essentials, very similar to other power circuits except that it is characterized by that simplicity and ease of construction which has been so important in the success of other Victoreen circuits. This circuit, unlike most other circuits for this purpose however, employs double wave rectification and therefore supplies a much smoother output with less possibility of distortion. Like all Victoreen products the power supply parts have been so designed that they may be placed in almost any position and there is no balancing or adjusting to be done. The power supply when complete needs no further attention. Advantage has been taken of every opportunity to facilitate construction. Rated output of 475 volts—intended for 210 power amplifying tube only. Supplies perfect lower "B" intermediate voltages for remaining tubes in any receiver. Consists of: 1 Victoreen 116 power transformer, \$16.00; 1 Victoreen 216 choke unit, \$15.00; 1 Victoreen 216 resistance unit, \$3.00; 2 Tube 2 mfd. 1,000-volt D.C. condensers, \$7.00; 3 Tube 4 mfd. 1,000-volt D.C. condensers, \$18.00; 3 1X type sockets, \$2.25; 1 base board, 9"x16", \$1.00; 1 binding post strip, \$0.40; 1 Victoreen 115 output unit, \$10.00; 1 Tube small size 2 mfd. condenser, \$1.75; hook-up wire, etc. \$0.75. Total cost of parts, \$75.15.

No. 6530. Your Special Net Price... \$44.19

(Two UX281 Rectifier Tubes and one UX210 Power Amplifying Tube are required in addition to the above parts.)

VICTOREEN 116 POWER TRANSFORMER
No. 6531-116. List \$16.00. Net..... \$9.41

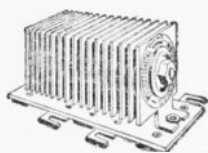
VICTOREEN 216 CHOKE
No. 6532-216. List \$15.00. Net..... \$8.82

VICTOREEN 216 RESISTOR
No. 6533-316. List \$3.00. Net..... \$1.77

VICTOREEN 115 AUDIO TRANSFORMER UNIT
No. 6534-112. List \$22.00. Net..... \$12.94

VICTOREEN 115 OUTPUT
No. 6519-115. List \$10.00. Net..... \$5.88

Elkon Replacement Rectifiers For "A" Eliminators

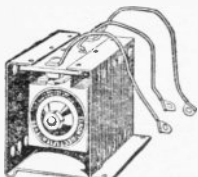


If your set does not operate with the same pep as it did when you installed your eliminator (using therein one of these units) the chances are that you need a new Rectifier. If you have one of the following eliminators, simply change the rectifier and your eliminator is as good as new.

May be used on the following "A" eliminators: Majestic, Mayfield, Elkon, Philco, Webster, Knapp, Barnard, Fada, Sentinel, Metro, General Instrument, and also on the following chargers: Elkon (3 amp.) and Briggs & Stratton. Truly, new eliminators for old!

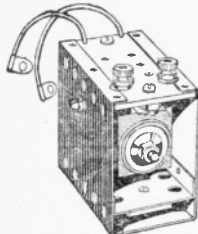
No. 7405-M16. List \$7.00. Net..... **\$4.12**

Elkon Replacement Units FOR MODEL "J" BALKITE CHARGERS



Replace the acid jar with the AUTHORIZED Elkon Dry Replacement Unit. Simply take out the acid jar, slip in the Elkon, attach the wires—and then forget it. No water, acids, corrosion, attention—just perfect performance. Authorized by Balkite. Can be adapted to other type chargers. The efficiency is increased 20% on all charging rates. Shipping weight 5 lbs.

No. 7406-BJ. List \$7.50. Net..... **\$4.41**
FOR BALKITE "N" AND "K" CHARGERS



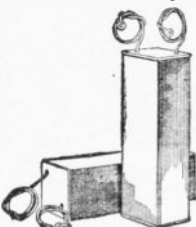
Increase the charging rate—and at the same time eliminate all attention. Take off the acid jar, snap the Elkon Dry Replacement Unit into place and forget it. Solid, dry, noiseless, foolproof. If you have a Model N, the charging rate will be increased to 1 ampere. If you have a Model K the charging rate will be increased to .8 ampere. Can be adapted to other make chargers. Shipping weight 4 lbs.

No. 7407-BNK. List \$5.00. Net..... **\$2.94**

Elkon High Capacity Dry Condensers

The genuine Elkon all dry condenser carrying high capacities. Are baked for 24 hours at a temperature of 200 degrees before sealing in the can. Cans are 2" x 2" x 6 3/4". Capacities from 750 to 2000 microfarads. Used in many of the leading "A" powers and in filter systems where high capacities are needed. Shipping weight 2 lbs.

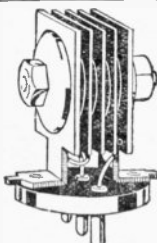
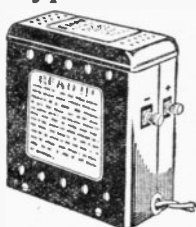
No. 7408-A. 750 mfd. List \$4.50. Net... **\$2.65**
No. 7409-B. 1,000 mfd. List \$4.50. Net... **2.65**
No. 7410-C. 1,500 mfd. List \$4.50. Net... **2.65**
No. 7411-D. 2,000 mfd. List \$4.50. Net... **2.65**



Elkon Tapering Charger— Trickle Type

The original Elkon Tapering Charger keeps the storage battery in just the right condition all the time. Charging rate varies (from 1 ampere, the maximum charging rate) with the condition of the battery—high when the battery is low—low when the battery is high. Absolutely dry, no corrosion, no trouble, no attention. Has the exclusive Elkon Rectifier Replacement feature. No moving parts, long life. An ideal "A" power unit would consist of this trickle charger, plus any storage battery and relay switch. Size, 6"x6"x2 3/4". Shipping weight 10 lbs.

No. 7401-E. List \$10.00. Net..... **\$5.88**

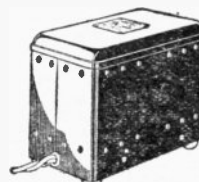


Elkon Replacement Rectifier Units

For Trickle Chargers employing Elkon rectifying units—upon replacement of new units, your charger becomes equal to new! No. 7404-V4.

Set of 3 Units. List \$4.00. Net... **\$2.35**

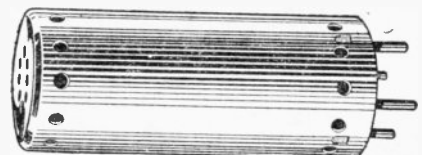
Elkon 3-Ampere Charger



May be used for charging either radio or automobile storage batteries. Portable, noiseless, absolutely dry, no trouble, no attention required. Has the Elkon tapering feature—charging rate varies with the condition of the battery. Maximum charging rate 3 amperes. Uses the Replacement Elkon Rectifier so that it will last for years. No moving parts, Elkon has long been the standard battery charger—and still is. Size, 7 1/2" x 4 3/4" x 6 1/4". Shipping weight 15 lbs.

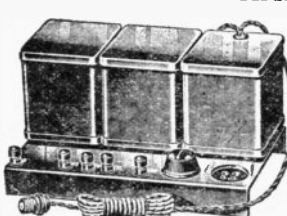
No. 7400-FW. List \$13.50. Net..... **\$7.94**

Elkon 5000 Hour Dry "B" Rectifier



No changes in wiring—no adjustments. Fits standard socket. Sturdy, solid, dry—none of the frailties of a tube—not affected by accidental overloads or line surges—it is self-healing. The power is smoother, quieter. May be substituted for full wave rectifier tubes in "B" eliminators, either separate units or in A.C. sets.

No. 7402-E8H (for "B" Eliminators using gaseous rectifying type tubes).
No. 7403-E80. (Eliminators using 280 type tubes.) List, either type, \$6.00. Net... **\$3.53**



KARAS ABC POWER SUPPLY

Make your old set A.C. operated with this ABC power supply. This equipment furnishes all the power for any A.C. tube equipped set. The "B" unit of this new power supply is equipped with fixed voltages of 45, 90, 135 and 180, with an adjustable voltage regulator in the shape of a 2,000-ohm rheostat for adjusting the proper "C" bias for the type 228 tubes. This new equipment will handle any radio set from 1 to 10 tubes using two 112 or two 171 power tubes. It is wired for full wave rectifier tube of the 280 type. The "A" part of the unit will deliver 1.5 volts at 4 amperes, 2 1/2 volts at 3.5 amperes and 5 volts at 1/2 ampere. It will

outputs, from 45 to 180 (on some sets as high as 200!). Complete with filamentless rectifying tube—nothing else to purchase. 9" long, 9 1/4" high, 3 3/4" wide. Shipping weight 18 lbs.

No. 7026. With Tube. List \$30.00. Net..... **\$17.64**

Knapp "A" Eliminator For Four or Six-Volt Sets



Absolutely Dry—No Tubes—No Attention

Make your set a 1929 model! Electrify it! The Knapp "A" power is not in any way a battery or a battery combination. It does away forever with the "A" battery and "tricky" trickle chargers. No re-wiring in the receiver—no additional parts need be added. A.C. tubes do not have to be purchased. Operates any set using standard D.C. tubes, regardless of number. Plug for "B" Eliminator—A "B" eliminator or batteries can be used with equal results. If a "B" eliminator is used there is a plug in the Knapp "A" Power so that the same switch may be used to control both "A" and "B" units. Instantaneous "A" Power—No waiting for a minute before you get music. The Knapp "A" Power gives you instantaneous "A" Power at the snap of a switch. Pendant Switch—One switch which may be located conveniently at side of set, controls set, "A" power and "B" eliminator. As dry as powder. Not a particle of moisture is used anywhere. No acids, no alkalis, no hydrometers, no water, no electrolytic action, no corrosion. A trouble-free unit, using the unfailing light line—and at less cost than a 50-watt lamp. Magically silent, not a hum audible to even the most sensitive ear. Even with a pair of head phones across the output you cannot detect the slightest noise. Ideal for super-heterodynes and short wave sets. The powering of super-heterodynes has always been a problem. The number of tubes, 8, 9 or 10 with a power tube, and with the resulting high amperage drain has made it impossible for the average "A" eliminator not using the Elkon rectifier and the Elkon filter system to operate satisfactorily. The Knapp "A" Power uses the Elkon rectifier and condensers. Sufficient amperage may be taken to operate any commercial set as well as any of the standard circuits which are built by radio fans. With the popularity of short wave sets, getting tremendous distance—in which head sets are used, an "A" eliminator must be devised to give service free from hum. The Knapp "A" Power with its millivolt ripple of only from 3 to 6 is ideal for this type of work. Four or 6 volts available in one model! Six volts for the standard type tubes. Four volts for the small dry battery tubes. No matter what type of set you have, if you use direct current tubes, the Knapp "A" Power will operate it. Every part, every screw, nut, terminal, wire is included, even to the drilled die-cast base board and the metal cover. Not a hole to drill. Nothing else to buy, the only tools required are a soldering iron, pliers, and a screw driver. Simple assembly. The parts were designed particularly for this kit. They seem to fall together. Picture instructions are printed on a large sheet which may be hung on the wall for ready reference. Even if you are inexperienced in radio you will have no difficulty in assembling the Knapp "A" Power. Supplies over 2 1/2 amperes at 6 volts. For 105-120 volt 50-60 cycle A.C. current. Size, 6 1/2" high by 12" long by 7" wide. Shipping weight 25 lbs.

No. 7412. Kit. List \$35.00. Net..... **\$20.58**
No. 7413. Completely Wired—ready for immediate use. List \$37.50. Net..... **22.05**

Greene-Browne B Eliminators



Highly perfected, battery-less "B" power for all sets using from 3 to 7 D.C. type tubes. Capacity 35 mls at 135 volts. Hum-free, DRY and vibrationless. Guaranteed to improve reception and provide ample current for every type of power tube. Operates on any 90-135 volt (50-60 cycle) A.C. light-socket supplying set a dry fixed plate voltage—entirely displacing batteries. 9" long, 9 1/4" high, 3 3/4" wide. The necessary rectifying tube is supplied. Shipping weight 16 lbs.

No. 7025. With Rectifying Tube. List \$27.50. Net..... **\$16.17**

Greene-Brown "B" Hi-Power

A heavy-duty unit for sets using up to 10 D.C. tubes. Delivers full strength "B" direct-plate current from any 90-135 (50-60 cycle) A.C. light-socket entirely displacing "B" batteries. Constant controlled reception always available. No variable adjustments to confuse an unskilled operator. Six fixed (trouble-proof) voltage

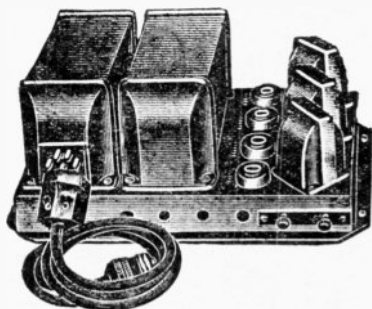
easily handle any set using four or five 226 type tubes, two 227 type tubes and two 112 or 171 type power tubes. The advantage of this power supply unit is its utter simplicity and ease of installation. The only wiring you need is to make the connections to your set from the binding posts on the front as shown and wiring from underneath for the A.C. filament supply. If you desire to use this kit for "B" power supply only, the filament supply wiring above referred to is unnecessary. The only connections then needed are those to binding posts at the front. Then plug it to your light socket and it is ready to operate. Do not confuse this with the ordinary knockdown kit. All wiring is completed. External connections to your radio set only must be made. This apparatus is supplied to you with a 5 ft. 6 in. cord and plug with an extra strand of wire which may run to the panel of your set and connected to a switch so that your power supply may be controlled from the panel. The cans and base are made of steel in black Duco finish. The very compact size is 10" long, 6 3/16" deep and 5 1/4" high overall. Shipping weight 24 lbs. Shipped express collect from Chicago.

No. 7465. Wired (Less 280 Tube). List \$35.00. Net..... **\$20.58**

Gentlemen:—From other mail order houses I have obtained bargains in radio merchandise—and from RASCO I have obtained GREATER BARGAINS and PERSONAL SERVICE. I am certainly more than pleased with your house. Yours very truly,

MARCEL EDWARD CONRAD.

SAMSON PAM POWER AMPLIFIERS



No. 7390

Entertainment, faithfully reproduced with marvelous tone quality, is a great business-building force for hotels, tea-rooms, clubs, roadside stands, concessions, filling stations, boat houses, ice and roller rinks, and similar places of recreation. Instruction for public and private schools; excellent music for dancing schools; church extension service—all these are made available by the new SAMSON PAM Amplifiers. These Power Amplifiers will operate 12 to 40 loud speakers or 500 to 1500 headsets according to the type of amplifier used. They utilize the famous Samson Symphonic and Symphonic Push-Pull Transformers.

PAM 16 Samson 2-Stage A.C. Phonograph or Radio Amplifier

For the magnetic type of loud speaker, and will operate 12 to 16 loud speakers or 500 to 700 head-sets. It operates from 105 to 120 volt 50-60 cycle current; provides compensation for line voltage variation, and requires one UX27, two UX210, and one UX281 tubes, but needs no output device between itself and speaker. Overall dimensions: 15 x 11½ x 7½"; net weight 32 lbs.

No. 7386-16. List \$125.00 (with-
out tubes). Net. **\$73.50**

PAM 17 Samson 2-Stage A.C. Phonograph or Radio Amplifier

Similar to PAM 16 but is designed to provide field current to a dynamic type speaker. The output transformer in this amplifier correctly matches the impedance of input transformers contained in dynamic type speakers.

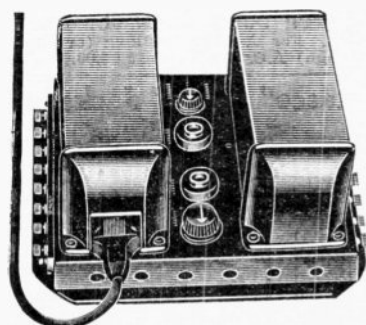
No. 7387-17. List \$125.00 (with-
out tubes). Net. **\$73.50**

PAM 19 Samson 3-Stage A.C. Phonograph or Radio Amplifier

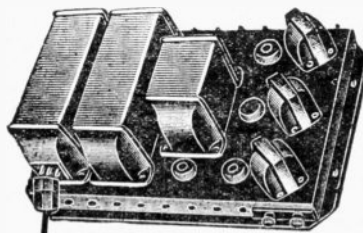
For larger installations requiring the operation of from 20 to 49 loud speakers or 700 to 1500 head-sets. Designed for the magnetic type of loud speakers, and operates from 105 to 120 volt 50-60 cycle current; provides compensation for line voltage variation, requires two UX250's, two UX227's, and two UX281's, but needs no output device between itself and speaker. Overall dimensions: 15½ x 14½ x 7½"; net weight 45 lbs.

No. 7388-19. List \$175.00 (with-
out tubes). Net. **\$102.90**

ABC 71 Samson "A-B-C" Eliminator



Operates each tube under the conditions specified by its manufacturer, and thereby lengthens its life. Uses one UX380 full-wave rectifier tube. Compensation for line voltage variation on 110 volt 50-60 cycle line is made by SAMSON Input Plug. An 874 regulator tube is used. A constant voltage B eliminator, supplying 30 to 75 volts variable; and 90, 135, and 180 fixed as



No. 7386

PAM 20 Samson 3-Stage A.C. Power Amplifier

Similar to PAM 19, except it is for, and provides field current to a dynamic type speaker. The output transformer in this amplifier correctly matches the impedance of input transformers contained in dynamic type speakers. No. 7389-20. List \$175.00 (with-
out tubes). Net. **\$102.90**

PAC 2 Samson 2-Stage A.C. Power Amplifier and "A-B-C" Eliminator

Combined power amplifier and A, B and C battery eliminator with 874 voltage regulator tube and UX281 half-wave rectifier tube. Its 2-stage amplifier uses a 227 tube in first and two 210's in second or output stage. No output device is required between unit and speaker. This unit supplies externally 45, 90 and 135 volts B current—4½ C voltage and raw A.C. filament current for two 227's and five 226's, making it suitable for conversion of D.C.-operated sets and the adding of a power amplifier. This unit, when used in connection with a tuner, is ideal for the supplying of radio programs to schools, hospitals, etc. It is designed to meet AIEE standards and the requirements of the National Board of Fire Underwriters. Overall dimensions of this unit are 19½ x 14½ x 7½"; net weight 49 lbs.

No. 7390-2. List \$175.00. Net. **\$102.90**

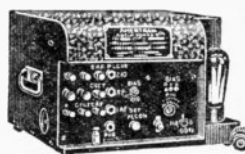
AmerTran Push-Pull Amplifier



A complete two-stage audio amplifier with first stage AmerTran De Luxe and second stage AmerTran Push-Pull for two power tubes. Designed to use one UX227 A.C. tube in the first stage and two 171 or two 210 power tubes in the push-pull stage. Capable of the most tremendous amplification possible. Only the most powerful loud speakers (choices of Dynamic, Magnetic, Orthophonic or Air-chrome) can be used with it. Volume can be of course be throttled down to a mere whisper. Can also be used with a 6 volt D.C. tube in the 1st audio stage, instead of an A.C. tube, when used in conjunction with D.C. sets. 210 tubes are of course lit by a special secondary winding in the eliminator transformer. Approximate shipping weight, 20 lbs.

No. 8105-2AP. Completely assembled, less tubes. List \$60.00. Net. **\$44.10**

AmerTran ABC Hi-Power Box



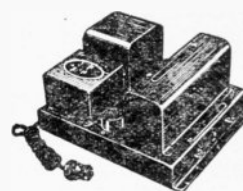
500 volts D.C. plate and lower tap voltages, plate currents up to 100 ma.; A.C. filament current for a 281 rectifier, two 210 power tubes and several 226 and 227 A.C. tubes. Adjustable negative bias voltages for all tubes. Can be used with any radio receiver and power amplifier—particularly designed for use with Type 2AP AmerTran Push-Pull Power Amplifier, one 281 rectifier tube required. Approximate shipping weight, 50 lbs. For 110 volt 60 cycle A.C.

No. 8106-21D. Completely assembled, less tube. List \$95.00. Net. **\$69.82**

well as —4½, —9, and —40 C voltages and raw A.C. current for five 226, two 227, and two 171 type tubes. The total output capacity of the B current is 70 mils. Overall dimensions: 11 x 12½ x 7½". Shipping weight 35 lbs.

No. 7391-71. List \$115.00. Net. **\$67.62**

Webster Power Amplifiers



MODEL A-271

Exceptionally well built! No effort or expense has been spared in the manufacturer's desire to make this series of amplifiers the outstanding Radio development of this season. Built on a most attractively brown crystal finished metal chassis.

Two-stage amplifier, using one UX226 A.C. tube in the first stage and two 171A power tubes in the push-pull stage. Rectification accomplished by a UX280 tube. 12¼" long, 10¼" wide, 6¾" high. Weight 35 lbs.

No. 8333-A-271. List \$67.50. Completely assembled and wired, less tubes. For **\$39.70**
110 volt 60 cycle A.C. Net....

No. 8334. Same, but for 110 volt 25 cycle A.C. List \$77.50. Net. **\$45.58**

MODEL A-210

Two-stage amplifier with one 226 tube in the first audio stage, two 210 tubes in push-pull in the second and 281 rectifier. For use with 110 volt D.C. dynamic speaker having field windings of from 2200 to 2500 ohms taking 40 to 50 milliamperes. Or can be used with any type speaker. Size 15¾" long, 10¼" wide, 7" high. Shipping weight 46 lbs.

No. 8335-A-210. List \$105.00. Completely wired, less tubes. For 110 volt 60 cycle A.C. Net. **\$61.74**

No. 8336. Same, but for 110 volt 25 cycle A.C. List \$115.00. Net. **\$67.62**

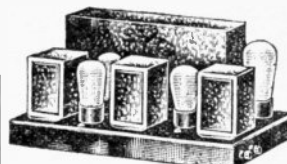
MODEL A-310

Three-stage amplifier with two audio stages of 226 tube, and one push-pull stage of 210 tubes and one 281 tube. Should be used with the same type of dynamic speaker as Model A-210. Overall size: length 15¾", width 10¼", height 7". Shipping weight 48 lbs.

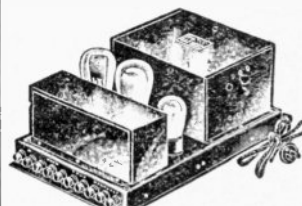
No. 8337-A-310. List \$115.00. Completely wired, less tubes. For 110 volt 60 cycle A.C. Net. **\$67.62**

No. 8338. Same, but for 110 volt 25 cycle A.C. List \$125.00. Net. **\$73.50**

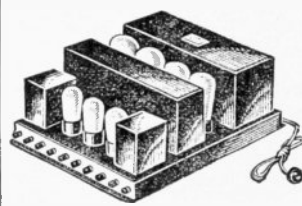
Webster Power Amplifiers



Type A



Type B



Type D

Webster Power Amplifiers are for use either with a microphone or phonograph pick-up. They may also be used with an appropriate adapter, to replace the audio system of a radio set. They give the maximum amplification possible without distortion and produce tones of absolute fidelity. For 110 volt 50-60 cycle A.C. current. ABC current requirements for these amplifiers are provided for. Net price does not include tubes. Shipped express collect from Chicago. Approximate overall dimensions are 10" wide by 15" long by 7½" high. Wired.

No. 7716-A. Two stages: 226 tube 1st audio stage into push pull 171 stage. Microphone, phonograph and radio connections. List \$55.00. Net. **\$32.34**

No. 7717-B. Two stages: 226 tube 1st audio stage into push pull 210 stage. Microphone, phonograph and radio connections. Supplies dynamic speaker currents. List \$79.50. Net. **\$46.75**

No. 7718-D. Three stages: 227 tube stage into push pull 226 stage into push pull 250 stage. Microphone, phonograph and radio connections. Supplies current to two dynamic speakers. Will fill large halls, theatres and is sufficient for open air address system. List \$145.00. Net. **\$85.26**

Knight HIGH QUALITY-LOW PRICE Tubes



TYPE 201A
IDEAL DETECTOR,
R.F. AND A.F.
AMPLIFIER
No. 8300
List \$1.50. **\$0.46**
Net.....

TYPE 171A
LAST STAGE POWER
AMPLIFIER.
180 volts
No. 8301
List \$2.75. **\$0.80**
Net.....

TYPE 112A
LAST STAGE POWER
AMPLIFIER
Max. 150 volts
No. 8302
List \$2.75. **\$0.80**
Net.....

TYPE 200A
POWER DETECTOR
Extremely Sensitive
No. 8303
List \$4.00. **\$0.98**
Net.....

TYPE 226AC
IDEAL R.F. OR A.F.
AMPLIFIER
For use in latest model
A.C. sets and circuits.
No. 8312
List \$2.50. **\$0.79**
Net.....

TYPE 250
SUPER POWER TUBE
Tremendous Volume
No. 8305. List \$12.00. **\$2.70**
Net.....

Manufacture any product in huge quantities and logically the sale price is very much reduced! That accounts for the very low prices quoted on these good, reliable, and efficient Radio Tubes. However, we want to be perfectly frank with all our customers, as we respect their good judgment and intelligence. It would be ridiculous for us to claim these tubes are as good as our more expensive tubes, for, if they were, we would not list the others! Here is the difference: These tubes are warranted to give satisfactory performance, but have not the same long life as the more costly ones. On the other hand, you are not buying "a cat in the bag." Should any of these tubes prove defective for any reason at all, within 3 months from date of purchase, please do not hesitate to return them to us, and we will replace them with brand new ones. We believe we are the only house making such a liberal guarantee offer on such a low price line of tubes! Order them by the dozens—that is how you will sell them—and they stay sold! Have same electrical characteristics as higher priced tubes.



TYPE 222
SHIELD GRID
A Remarkable Tube
No. 8304
List \$6.50. **\$2.40**
Net.....

TYPE 227AC
5 PRONG DETECTOR
Can also be used
as an amplifier.
No. 8311
List \$5.00. **\$1.35**
Net.....

TYPE 280
FULL WAVE REC-
TIFIER
For many B eliminators
and ABC power packs.
No. 8310
List \$4.50. **\$1.33**
Net.....

TYPE 281
HALF WAVE REC-
TIFIER
For 210 power amplifier
eliminators.
No. 8309
List \$7.50. **\$2.25**
Net.....

TYPE 210
POWER AMPLIFIER
Voltage 450
No. 8308
List \$9.00. **\$2.70**
Net.....

TYPE 199UX
DRY CELL DETECTOR AND
AMPLIFIER
UX Base
No. 8307. List \$2.25. **\$0.80**
Net.....

TYPE 199UV
DRY CELL DETECTOR AND
AMPLIFIER
Short Prong Base
No. 8306. List \$2.25. **\$0.78**
Net.....

CECO TUBES



No. 8371-AX
No. 8372
No. 8373-BX
No. 8374-B
No. 8375-E
No. 8376-H
No. 8377-M.26
No. 8378-N.27
No. 8379-AC-22
No. 8380-R.F.22
No. 8381-F-12A
No. 8382-J-71A
No. 8383-L.10
No. 8384-L.50
No. 8385-R.80
No. 8386-R.81
No. 8387-K

201A Type
201B Type
199 UX Type
199 UV Type
120 UX Type
200A Type
226 AC Type
227 AC Type
222 AC Type
222 UX Type
112A UX Type
171A UX Type
210 UX Type
250 UX Type
280 UX Type
281 UX Type

List \$1.40
List 3.50
List 2.00
List 2.00
List 2.50
List 2.50
List 2.00
List 3.00
List 8.00
List 6.50
List 2.50
List 2.50
List 9.00
List 11.00
List 3.50
List 7.25
List 3.00
Net \$0.82
Net 2.06
Net 1.18
Net 1.18
Net 1.47
Net 1.47
Net 1.18
Net 1.77
Net 4.70
Net 3.82
Net 1.47
Net 1.47
Net 5.29
Net 6.47
Net 2.06
Net 4.27
Net 1.76

U.V. 199 Tube Adapter

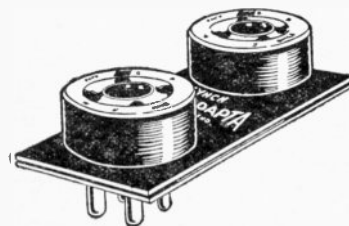


Moulded Bakelite construction. Insert any U.V. short prong 199 tube, within adapter, then plug adapter into any U.X. or Standard socket
No. 7565-404. List \$0.75. **\$0.45**
Net.....

S-M Ten-Lead Battery Cable

A ten-lead color coded battery cable with fabric covering and tinned ends. Used in all of the new S-M kits. Length overall, 5 feet. May be used with any receiver to conveniently make battery or power unit connections.
No. 7142-708. List \$1.75. **\$1.03**
Net.....

Lynch Tubadapta



Makes more power available in the last audio stage, because two similar tubes may now be used in parallel. The result is clearer reproduction regardless of type of loud speaker, because of the increased carrying capacity of the last (power) stage. Eliminates rattles and other noises in loud speakers, resulting from overloading of the last tube in the receiver. Simple, compact. No unsightly wires to become loose or broken. Can be installed easily in one minute. May be used in any type of receiver, whether factory or hand made, battery operated or electrically operated. No change in wiring is necessary, the new unit being as easy to install as a vacuum tube. Shipping weight 2 lbs.
No. 5342. List \$2.50. **\$1.47**
Net.....

Mertz Howl Arresters

There is nothing more objectionable than to listen to a loud speaker delivering a constant monotone or responding to every foot step in the room, or to the touching of the dials on the receiver itself. This condition can sometimes be avoided by transposing your tubes around, particularly the detector, placing therein a non-microphonic tube.

But, these arresters will always remove this howl. Takes but one second to install—simply slip the heavy weighted lead cap over each tube, as illustrated, and this condition shall have vanished. Shipping weight 1 lb.



No. 5576
Tubes. List \$0.25. **\$0.15**
No. 5577 — For 199 Type
Tubes. List \$0.25. **\$0.15**
Net.....

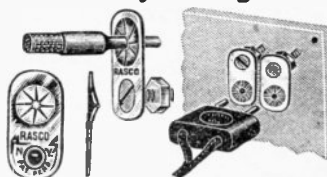
No. 5577

Kellogg A.C. Tubes

Eliminates all need for "A" batteries of any type, as well as trickle chargers and "A" eliminators. Makes it possible to secure a more faithful reproduction of tone, and better reception because the "A" power is always at its peak, or maximum. Is capable of reproducing great volume without distortion. The cathode or electron-emitting element of the Kellogg A.C. tube corresponds to the filament of the ordinary D.C. tube except that instead of being heated by direct application of current, the cathode is heated by an internal heating element which uses alternating current direct from the house lighting circuit. Since this heater element takes only three volts, it is necessary to use a small step-down transformer on the line between the 110 volt light socket and the tube. Alternating current to heat the tube is fed through the top instead of through the base, thus segregating it entirely from the rest of the tube circuits. The cathode proper has only one lead which is connected to the negative filament terminal at the base of the tube. Kellogg A.C. tubes have standard UX bases, thus permitting standard tube sockets to be used.
No. 7460-401. Detector and Amplifier.
List \$5.50. **\$3.77**
No. 7461-403. Power Amplifier (for Last Stage). List \$7.50. **\$5.15**
Net.....

STEP DOWN TRANSFORMER
No. 7462. For use with Kellogg (or McCullough) A.C. Tubes. List \$6.00. **\$3.53**
Net.....

"Rasco" "Jiffy" Jacks and "Jiffy" Plugs



Grip any style cord tip from any make phone or loud speaker. X-Ray view shows how two of the jacks are used in conjunction with our Jiffy Cord Plugs, which are made of semi-hard rubber into which the tips of your phones or loud speaker are pushed.
No. 4875. Two Jiffy Jacks with nuts and screws and one Jiffy Cord Plug. **\$0.09**
Net.....



Rextron Radio Tubes

100% Replacement Guarantee

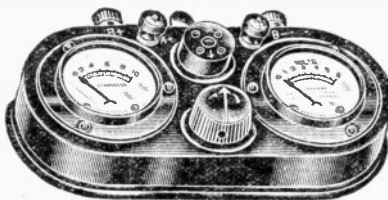
Rextron Tube Guarantee

The absolute proof that these tubes are as good as any on the market (and even superior) is very evident from this exclusive guarantee: RETURN ANY REXTRON TUBE PURCHASED FROM US WITHIN 6 MONTHS OF DATE OF PURCHASE, FOR ANY REASON WHATSOEVER, AND WE WILL REPLACE IT WITH A NEW TUBE! No other radio mail order jobber makes this same 100% replacement guarantee offer.



THIS READRITE TUBE CHECKER FREE

Certainly, we lose money when we make this offer! But, frankly, we feel we will solidify your good will, and that you will place all your tube business with us thereafter! Here is this EXCEPTIONAL OFFER: With your first order of 50 or more REXTRON tubes, either all of one type or assorted, we will include absolutely gratis this Readrite tube checker! There



are no strings to this offer, but, remember, only once can you take advantage of same. Open the case of 50 tubes, unpack your tube checker, test all the tubes, and then place them in plain sight of your customers. Let them demand a comparison test, on this tube test-r, with any tube you have for sale. WE HAVE NO DOUBT THE REXTRON WILL WIN THE SALE EVERY TIME!

Type 201A Detector-Amplifier

The most popular tube of them all! Works equally well in any socket of a D.C. receiver, either with a 6 volt storage battery or an appropriate "A" eliminator. If used as an audio amplifier, 5 volts A.C. can be applied to filaments! Plate voltage 225 to 150! 5/4 ampere filament. Grid bias, 4 1/2 volts "C" at 90 volts "B."—0 at 135. No. 8350. List \$1.50. **\$0.59**

Type 200A Power Detector Tube

Here is a "soft" gas filled detector, with a 5/4 ampere filament! 5 volt filament, "A" battery or eliminator. 18 to 45 volts "B." No. 8351. List \$4.00. **\$1.52**

Type 280 Full Wave Rectifier

Many ABC power packs use this tube. Can furnish ample current to sets using as high as 10 tubes! Replaces type 213B tube. Filament volts 5 A.C. Input 100 volts A.C., output 325 volts D.C. No. 8359. List \$4.25. **\$1.80**

Type 222 Shield Grid Amplifier

Overcome neutralization problems, as it will not oscillate. Tube must be shielded. Offers tremendous amplification possibilities—all new circuits call for these tubes! Standard protruding cap connection on top of glass bulb. Filament 3.3 volts, or 6 volt "A" battery or eliminator—125 amperes. Plate voltage 90 to 135. No. 8360. List \$6.50. **\$2.47**

No. 8361. A.C. Model. Filament voltage: 2.5 A.C. List \$4.00. Net. **\$2.67**

Type 112A Power Amplifier

What an ideal combination! 112A power tube in first audio stage, and a 171A in the second! If a 201A tube is used in the first audio stage, the 112A can be used in the second audio stage. 1/4 ampere 5 volt filament, lit from 6 volt "A" battery or eliminator—also 5 volt A.C. secondary winding. Plate voltage: 90-150. Grid bias, 6 to 12 volts. No. 8354. List \$2.75. **\$1.19**

Type 112 Power Amplifier

Same as above tube, but has a 1/2 ampere filament. No. 8355. List \$2.75. **\$1.19**

Type 281 Half Wave Rectifier

One or two of these tubes are used in eliminators furnishing plate voltage to either a 210 or 250 power amplifier. 7/4 volt A.C. filament. Input 700 volts A.C., output 500 volts D.C. Replaces the 216B Rectifier. No. 8358. List \$7.50. **\$2.85**

Type 210 Power Amplifier

Tremendous volume with no distortion—this is yours in a properly designed Power Amplifier, using between 400 and 500 volts! One or two 281 Rectifiers are used in a suitable Plate Supply to furnish this voltage. An ideal tube for short wave transmission, of both phone and code signals. 7/4 volt filament—A.C. transformer secondary winding generally furnishes this. 1 1/4 amperes. Grid bias, 20-80 volts. No. 8356. List \$9.00. **\$3.55**

Type 171A Power Amplifier

For last stage amplification or in push-pull stage. Tremendous volume and pure tonal performance. 1/4 ampere filament! Lit from either 5 volt A.C. transformer secondary winding or 6 volt "A" battery or eliminator. Plate voltage 90 to 180—grid bias 4 1/2 to 45 volts. No. 8352. List \$2.75. **\$1.19**

Type 171 Power Amplifier

Same as above tube, but has a 1/2 ampere filament. No. 8353. List \$2.75. **\$1.19**

Type 250 Super Power Amplifier

More powerful and larger than the 210. Mainly intended for amplifiers used in auditoriums, public address systems, etc. Filament volts 7.5 lit from A.C. transformer secondary winding, 1.25 amperes. Plate voltage 250 to 500. Grid bias, 45 to 85 volts. No. 8357. List \$11.50. **\$4.70**

Type 199 Dry Cell Detector-Amplifier

No. 8364UV. Short prong (old style) base. List \$2.25. **\$0.89**
No. 8365UX. Long prong base. List \$2.25. **\$0.89**

Type 245 Super Power Amplifier

No. 8349. Requires 250 volts plate A.C. Fil. 2.5 volts. List \$3.50. Net. **\$2.11**



Raytheon Tube

Until the advent of the Raytheon tubes, the success of "B" battery eliminators was never a certainty, but today practically 8 out of every 10 eliminators, assembled or home built, use this tube exclusively for the rectification of the alternating current. This tube gives full double rectification. Sometimes used in "A" eliminators, providing 199 tubes are used and their filaments are wired in series. This tube can be used in any "B" eliminator calling for a gaseous rectifier—Raytheon BII—125 mil. Replaces both the 60 and 85 mil. types. Shipping weight 3 lbs. No. 5503. Raytheon "BH" Tube, 125 mil., 220 volts. **\$2.65**
List \$4.50. Net....

Type A-2 1/2 Amps.

Raytheon A-2 1/2 Amps. is an entirely new and better device for high current, low voltage rectification. It is an unbreakable metal cartridge, compact and simple, containing no liquids or filaments. Guaranteed for 750 hours of service, 2 1/2" long. For "A" chargers and "A" eliminators. Shipping weight 1 lb. No. 5502. 2 1/2 Amp. Cartridge. List **\$2.65**
\$1.50. Net....

Type BA-350 M.A.

Raytheon BA-350 M.A. provides adequate voltage to operate any receiver using standard 201-A tubes with their filaments wired in series, and B.C. power. Delivers 200 volts of pure D.C. current to your power tube, besides "A" and "C" current. Shipping weight 5 lbs. No. 5501. BA Tube. List \$7.50. Net. **\$4.41**



Shieldplate SP 122 A.C. "Shield Grid" Tube

Similar in characteristics to the SP 122 direct current tube, but the cathode is of the isolated heater type to accommodate it to the use of raw alternating current. Has a five-prong base, the same as that used on 227 A.C. tubes. The heater filament, while rated as 2.5-volt filament, should be operated at 2.25 volts. It can be used for TELEVISION where resistance coupling is used. Shipping weight 3 lbs.

No. 5258-122AC.
List \$7.00. **\$4.12**
Net....

Shieldplate SP 122 "Shield Grid" Tube

Has an amplification constant of 300. It is primarily designed for use as a radio frequency amplifier, and is capable of giving ten times the amplification obtainable from general purpose tubes. Amplification constant is 300 compared with constant of 8 in general purpose tubes. Oscillation is entirely eliminated. It is self-neutralized. "A" battery drain is only .135 amperes. Operates on 3 volts. Brings in DX stations like locals. Shipping weight 3 lbs.

No. 5259-122.
List \$6.50. **\$3.82**
Net....



Rextron A.C. Tubes

Type 226 A.C. Amplifier

Will soon be the most popular tube of them all! For use in all A.C. circuits, as R.F. or A.F. amplifier. Standard 4-prong base. A.C. filament voltage 1.5-1.05 amperes. Plate voltage 90 to 180 D.C. No. 8362. List \$2.25. Net. **\$1.08**

Type 227 A.C. Detector

5-prong base, heater type tube. For all new A.C. sets and circuits. No hum. An excellent R.F. and A.F. amplifier, too. Heater voltage 2.5 A.C. Plate voltage 90 to 180 D.C. No. 8363. List \$4.50. Net. **\$1.19**

RADIOTRON AND CUNNINGHAM TUBES



CX-301A



CX-371A



CX-322



CX-326



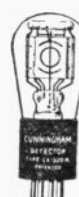
CX-327



CX-380



CX-381



CX-300A



CX-310

CX-301A—UX-201A

Amplifier and Detector. Filament draws only .25 amperes at 5 volts. 22½ to 135 B voltage. No. 8150. List \$1.40. Net. **\$0.96**

CX-300A—UX-200A

Super-Sensitive Detector. 5 volt filament, ¼ amp. B voltage 22½ to 45. No. 8151. List \$3.50. Net. **\$2.40**

CX-371A—UX-171A

Power Amplifier. 5 volts, ¼ amp. 40½ volts C and 180 volts B. No. 8152. List \$2.50. Net. **\$1.72**

CX-310—UX-210

Power Amplifier. 7½ volt filament, 1.25 amperes. 425 volts B and 35 volts C. No. 8166. List \$9.00. Net. **\$6.17**

CX-350—UX-250

Super Power Amplifier. 7½ volt filament at 1.25 amperes. 425 volts B, and 84 volts C. No. 8167. List \$11.00. Net. **\$7.55**

CX-380—UX-280

Full Wave Rectifier. Output 65 mls. 225 volts D.C. 5 volt filament, at 2.5 amperes. No. 8162. List \$3.50. Net. **\$2.40**

CX-345—UX-245

Super Power Amplifier. Requires 250 volts on its plate. A.C. voltage: 2.5. No. 4880. List \$3.50. Net. **\$2.40**

CX-381—UX-281

Half Wave Rectifier. 550 volt output at 110 mls. 7½ volt filament at 1.25 amp. No. 8163. List \$7.25. Net. **\$4.97**

CX-326—UX-226

A.C. Amplifier Tube, either R.F. or A.F. Filament draws 1.05 amperes at 1½ volts A.C. No. 8164. List \$2.00. Net. **\$1.38**

CY-327—UY-227

A.C. Detector. Heater type. 5 prong base. 2½ volt A.C. filament, 1.75 amperes. No. 8165. List \$3.00. Net. **\$2.06**

CX-220—UX-120

U.X. Base Power Tube, dry cell type. 3 volts, .125 amp. Plate 135 volts B. 22½ volts C. No. 8158. List \$2.50. Net. **\$1.71**

C-11—WD-11

Dry Cell Detector-Amplifier. 1.1 volts, .25 amp. Plate voltage 22½-90. No. 8159. List \$2.50. Net. **\$1.71**

CX12—WD12

U.X. Base Dry Cell Detector-Amplifier. Same as above. No. 8160. List \$2.50. Net. **\$1.71**

CY-324—UY-224

A.C. Screen Grid Tube. Maximum plate voltage 180. 2.5 volts, 1.75 amperes. 5-prong base. No. 4881. List \$4.00. Net. **\$2.75**

CX-374—UX-874

Voltage Regulator Glow Tube. Voltage on amplifier tubes cannot exceed 90 volts with this tube—up to 50 mls. No. 8161. List \$4.75. Net. **\$3.26**

CX-312A—UX-112A

Power Amplifier. 5 volts, ¼ amp. 9 volts C and 135-150 volts B. No. 8153. List \$2.50. Net. **\$1.72**

CX-340—UX-240

Hi Mu Amplifier. For resistance coupled and impedance amplifiers. 5 volts, ¼ amp. No. 8154. List \$2.00. Net. **\$1.37**

CX-322—UX-222

Shield Grid Amplifier. 3.3 volts, .132 amp. Uses 2 grids. No. 8155. List \$6.50. Net. **\$4.46**

C-299—UV-199

Old Model Short Prong Base Dry Cell Tube. Detector or Amplifier. 3 volts, .06 amp. 45-90 volts B. No. 8156. List \$2.25. Net. **\$1.54**

CX-299—UX-199

Same as above, but with U.X. Prongs. No. 8157. List \$2.00. Net. **\$1.38**

ARCTURUS A.C. TUBES

Low Voltage A.C. Tubes

The Nos. '26 and '71 are made in two types—heater and filament. With the average A.C. tube, twenty, or times thirty seconds elapse before the program becomes audible. Arcturus No. 127 has very little thermal lag. Within seven seconds the program is coming in. Tone quality and greater volume, coupled with Arcturus reliability, are immediately apparent.

Type 126 A.C. Amplifier, Filament Type
Filament volts A.C., 1.5; filament current, 1.05; plate volts, 67.5 to 135; grid volts (—), 4.5. No. 7860-126. List \$2.00. Net. **\$1.18**

The above are for radio and audio frequency amplification stages. Has standard 4-prong base.

Type 071 A.C. Power Amplifier, 5 volt Filament Type No. 7862-071. List \$2.50. Net. **\$1.47**

For maximum power output, without distortion, use either of the above two tubes in the last audio stage. 4 prong base.

Type 127—A.C. Detector and Amplifier. Of the indirectly heated type and is efficient as a detector or amplifier. Has a 5-prong base. Filament volts A.C., 2.5; filament current, 1.75; plate volts (recom. det.), 45; plate volts (max.), 180. No. 7863-127. List \$3.00. Net. **\$1.47**

Type 150—Super Power Amplifier, 7½ volt Filament Type. 4 prong base. No. 7864-150. List \$11.25. Net. **\$6.61**

Type 181—Half Wave Rectifier, 7½ volt Filament Type. 4 prong base. No. 7865-181. List \$7.25. Net. **\$4.26**

Type 124 A.C. Shield Grid Tube—2.5 Volts

Has a UY five-prong base. Is of the cathode-heater type, having the control grid brought out in the conventional manner to a cap on top of the tube. The cathode and heater of this tube are identical with those of the Arcturus 127 A.C. Detector Tube—it heats in seven seconds. The life of this heater and cathode is well in excess of two thousand hours. The dynamic and static characteristics of the 121, when operated at the normal and recommended potentials, are as follows: Plate potential, 180 volts; heater potential, 2.5 volts; heater current, 1.75 amperes; plate current, 4 m.a.;



No. 7875



No. 7870



No. 7867

Type 180—Full Wave Rectifier, Filament Type. A long-life filament type of rectifier tube for use in A., B. and C. eliminators or power packs. Filament volts A.C., 5.0; filament current, 2.0; plate volts (max.), 300; D.C. output: volts 260, current mil. amp. 1.25. No. 7866-180. List \$3.50. Net. **\$2.06**

15 Volt Arcturus A.C. Tubes

The 15-volt line of Arcturus A.C. tubes are all of the heater type and operate from an alternating current potential of 15 volts, and consume the low current of .35 amperes. All tubes have the same heater characteristics and may, therefore, be operated from a single transformer secondary, and without extra heavy wiring. The alternating current potential can be supplied from special transformers designed for use with these tubes,

screen grid potential, 75 volts; screen grid current, 0.4 m.a.; control grid bias, -1.5 volts; mutual conductance, 1,000 micro-mhos; amplification factor, 400; plate resistance, 400,000 ohms; effective plate-grid capacity, .01 m.mf. Lends itself to the newer circuits also as a detector, outputting directly to the power tube. No. 5915-122. List \$4.00. Net. **\$2.35**

Type 145 A.C. Power Amplifier Tube—2.5 Volts

An oxide coated filament A.C. power tube, having an undistorted power output of 1.8 watts. Plate potential

or from the conventional and economical toy type transformer.

Type 22—A.C. Shield Grid. Filament volts, 15; filament current, 0.35; plate volts, 135 to 180; grid volts (—), 1.0 to 1.5; shield grid volts, 22.5 to 70. No. 7867-22. List \$7.50. Net. **\$4.41**

Type 80—A.C. Full Wave Rectifier. No. 7868-80. List \$4.50. Net. **\$2.65**

Type 50—A.C. Super Power Amplifier. No. 7869-50. List \$12.00. Net. **\$7.06**

Type 30—A.C. Power Amplifier. No. 7870-30. List \$3.00. Net. **\$1.77**

Type 40—A.C. Power Amplifier. Filament volts, 15; filament current, 0.35; plate volts (recom.), 180; grid volts (—), 40.5; plate volts (max.), 250. No. 7871-40. List \$3.00. Net. **\$1.77**

Type 48—A.C. Amplifier. No. 7873-48. List \$3.00. Net. **\$1.77**

Type 28—A.C. Amplifier. Filament volts, 15; filament current, 0.35; plate volts, 67.5 to 135; grid volts (—), 1.5 to 4.5. No. 7872-28. List \$3.00. Net. **\$1.77**

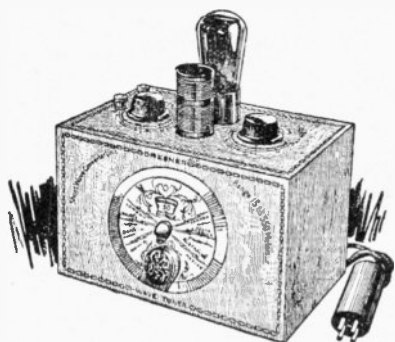
Type 32—A.C. High Mu Amplifier. No. 7874-32. List \$4.00. Net. **\$2.36**

Type 26—A.C. Detector. Filament volts, 15; filament current, 0.35; plate volts, 22.5 to 45; grid volts (+), 4.5. No. 7875-26. List \$4.00. Net. **\$2.36**

LOW VOLTAGE A.C. TUBES

(recommended and maximum), 250 volts; grid bias, -50 volts; plate current, 32 m.a.; filament potential, 2.5 volts; filament current, 1.5 amperes; amplification factor, 3.5; plate resistance, 1,800 ohms; recommended output impedance, 3,600 ohms; mutual conductance, 1,900 micro-mhos. The 145 tube lends itself as a substitute for the 171 type of tube in current A.C. sets. Aside from the economy and simplicity of a filament wiring common to that of other 2.5 volt circuits, the power output value of the tube is more than double that of the former type. Due to the similarity of impedance characteristics, the 145 tube can be used with amplifying transformers and output filters designed for the 171. No. 5916-145. List \$3.50. Net. **\$2.06**

Dresner Metal Shielded Short Wave Converter Unit



A most useful accessory to any radio receiver. May be connected in a moment's time. Instantly adapts the set for reception on short wavelengths. No extra tubes or batteries are required for its operation, nor does its use prevent the reception of broadcast music on the usual wavelengths.

Few persons fully appreciate the value of a unit of this type if they have never had the opportunity to listen to the programs which are available on short wavelengths. A number of the large broadcasting stations transmit short-wave programs on regular schedule and these may be received with good volume and without interference. Aside from this there is the thrill of receiving European broadcasting stations, which are picked up regularly with these simple sets. Also, thousands of amateur stations in all countries of the world are sending telephone and telegraph messages at all hours of the day.

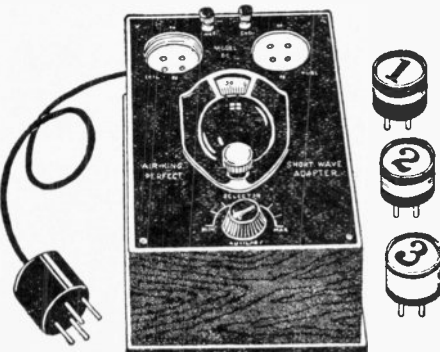
Compactness, simplicity and low cost are three features of the converter unit which are apparent immediately. The entire apparatus is housed in cabinet which measures $8\frac{1}{4} \times 5\frac{1}{4} \times 5\frac{1}{4}$ inches, and which weighs only 3 pounds. It is very easy to operate as there are only two dials. The dials on the set are disengaged entirely.

Five plug-in type short-wave coils (included with the kit) make it possible to cover a waveband of 15 to 550 meters with this converter unit. These coils are of identical size but are identified easily by the color of the form on which they are wound. The coils are fitted with prongs similar to those on a vacuum tube and they are inserted in a socket mounted on the top of the cabinet. Connected to any receiver (home built or manufactured) by removing detector tube from receiver, placing it in the left hand U.X. socket, and then inserting the converter plug into the detector socket from which the tube has just been removed. That is all there is to it! No extra tubes required—absolutely no re-wiring or additional batteries required. The converter plug wiring takes care of the lighting of the tube in the adapter, as well as its plate supply. Here is another use of this marvelous instrument: By adding two Pilot A. F. Redibox units, No. 6102-302, and making a few slight changes to the converter plug wiring, you have an unusually efficient 3-tube receiver. All metal housing—shields this unit perfectly! May be placed right next to any receiver without disturbing its operation. Shipping weight, 6 lbs. Be sure to state if your detector tube socket is a 4 prong (D.C.) or 5 prong (A.C.) type, for the proper converter plug will then be included.

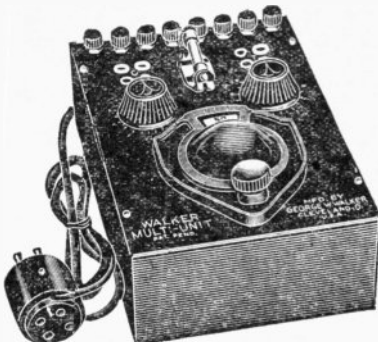
Shipping weight 6 lbs.
No. 8080. Completely assembled, including 5 Plug-in coils, converter plug, cable, metal cabinet, etc.
List \$16.50. Net.....

\$9.25

The Air-King Short Wave Adapter



Walker Multi-Unit (SHORT WAVE CONVERTER)



This unit is so designed that to use it as either an extra stage of tuned radio frequency or short wave adapter, you merely plug it into one of the tube sockets in your radio receiver. No change in the wiring of your receiver is necessary. The use of tools or the knowledge of radio is not required.

Serves Many Purposes

Can be used as a SHORT WAVE RECEIVER, SHORT WAVE ADAPTER, REGULAR BROADCAST RECEIVER, SCREEN GRID PRE-AMPLIFIER, REMOTE CONTROL ADAPTER, EXTRA STAGE OF R. F. OR "BOOSTER," SINGLE DIAL CONVERTER, AUDIO OSCILLATOR, RADIO "EXPERIMENTAL" UNIT, CRYSTAL RECEIVER, WAVE TRAP, WAVE METER.

Not Restricted to any One Type of Tube
An exclusive feature of the Multi-Unit is that most any standard type tube may be used. Some of the most popular types are: A.C.-226, 201-A, 1X-199, 112-A, W. D.-12, 200-A, 222 Screen Grid, Federal, etc. When using the unit as a Short Wave Adapter in a receiver designed for the 225 type tube, provision is made for the use of a small dry cell filament battery to avoid instability and A.C. hum.

Pleasing in Appearance

The Multi-Unit is very neat and attractive in appearance. The bakelite panel of walnut grain is engraved with gold lettering. The case of the unit is of Spanish leather effect and blends with the dials in a rich, conservative color scheme. It is a device fitted for use with the most expensive radio receiver. Consists of: Engraved Bakelite Panel, Bakelite Vernier Dial, Bakelite Control Knob, Tuning Condenser, Midget Condenser, Rheostat, Choke Coil, Plug-in Coil Socket, Universal Tube Socket, Grid Leak and Condenser, Binding Posts and Fixed Condensers. Four Lead Adapter, Short Wave Plug-in Coil and Regular Broadcast Band Plug-in Coil are furnished with each unit. Instructions for use of the unit are clearly written and are understandable by the novice or layman. Dimensions: $5" \times 7\frac{1}{2}" \times 3"$. Shipping weight 6 lbs.

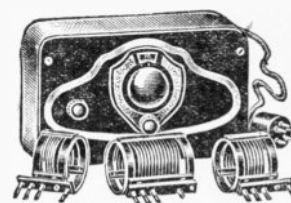
No. 6920. COMPLETELY ASSEMBLED. List \$16.00. Net..... **\$9.41**

SPECIAL NOTICE

We can supply the identical list of parts that were used in any of the original laboratory models of the "Radio News" Blue Print Articles, at an approximate discount of 40% from the manufacturer's list prices of those specified parts used. We can also supply you, on the same basis, any kit or parts described in the various other Radio Magazines. Further detailed information cheerfully furnished.

Aero Assembled Short Wave Converter

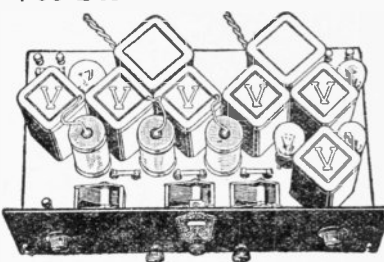
FILTERED—SHIELDED



One of the outstanding troubles on Short Wave A. C. Converters is motorboating. This is caused by the fact that the converter is plugged into a set with an efficient A. C. filter for the broadcast receiver, but when the converter is plugged into it the A. C. filter system in the broadcast set is inefficient for the oscillating circuit in the short wave converter. This trouble is overcome in the Aero-Call Factory-Built Short Wave Converter by an auxiliary filter system which is operated from a small dial on the back of A. C. Converters. Simply turn the knob until proper adjustment is secured and leave it at that adjustment. The A. C. Model Converter—shielded with filter incorporated—is the only one on the market which has incorporated as an integral part of it a supplementary filter to still further control the current from the power tuck in the broadcast receiver, thereby making it possible to use THIS model with any A. C. set operated from your electric light socket. In the D. C. model, the same filter system also makes smooth and stable operation possible with any D. C. set having for a "B" supply any make of "B" eliminator. Permits enjoyment of international programs and many others from coast to coast that regular receivers cannot get. What a thrill it is to plug this into a tube socket on any set and instantly be in another world! No change or wiring required. All complete, ready to operate. Tubes and coils hidden, no apparatus in sight, except the neat, golden-brown, compact metal cabinet, in crackle finish that harmonizes splendidly with the finest radio cabinet. Size, only $9" \times 5\frac{1}{2}" \times 2\frac{1}{2}"$. Plugs into detector socket of any receiver—uses same tube removed from that detector socket. Shipping weight 7 lbs.

No. 6775-A. For A.C. Sets. List \$25.00. Net..... **\$14.70**
No. 6776-D. For D.C. Sets. List \$25.00. Net..... **\$14.70**

Vee Screen Grid Receiver



The Vee Screen Grid Receiver is a real single control unit, lamp socket, loop operated set having great volume with a purity and faithfulness of reproduction heretofore unknown—all this with six tubes, 10 flicycle selectivity. *Note that all the R.F. and A.F. units are fully shielded in metal "cans." A time proven circuit is employed—no "freak" variety. The power pack is self contained—it is located in the two rear "cans." Tubes required are: Three A.C.-22 2½-volt screen grid tubes, two 227 type A.C. tubes (one for the detector and one for the first audio stage), one 171A type power tube, and one special rectifier tube (the latter tube is included in this kit). The Vee Shield-Coil Kit includes a factory sealed carton containing transformers, both R.F. and A.F.; condensers; patented Vee Unit Control; chokes; power pack, including special tube; resistances; sockets; wire; panel and sub-panel; layout and wiring instructions. Everything is included excepting tubes, cabinet and loud speaker. Better results than have been obtained with 8 to 10 tubes. Loop operated. The last word in receivers! Shipping weight 35 lbs.

No. 5227. Complete Kit, Unassembled, Less tubes and cabinet. INCLUDING **\$88.20**
POWER PACK. List \$150.00. Net

D.C. Model

Differs only that no power pack is included, or necessary—for use with a 6-volt D.C. current source (storage battery or "A" eliminator) and 180 volts "B" current to be derived from four 45-volt "B" batteries or an appropriate "B" eliminator. Tubes required: Three 3-volt type screen grid tubes, two 201A type tubes and one 171A type tube.
No. 5229. List \$112.00. Net..... **\$65.86**

Vee Coil Antenna (Loop)

The Improved Vee Coil Antenna has a greater pick-up, keener directional ability, and a lower distributed capacity. Not only for loop sets, but can be used with a slight change with any tuned R. F. set of five tubes or more. The ideal loop to use with the Vee screen grid receivers! Complete instructions packed with the loop. Shipping weight 8 lbs.

No. 5228. List \$15.00. Net..... **\$8.82**

No. 5313. D.C. Model. For all 4-prong detector socket receivers. List \$14.50. Net..... **\$8.35**

No. 5314. A.C. Model. For 5-prong detector socket receivers. List \$15.00. Net..... **\$8.65**

O'Neill Dynamic Cabinet Speaker



The cabinet is of miniature proportions compared with the average dynamic speaker cabinet. It has been made as small as it is practical to build such a cabinet. Overall dimensions are 13 1/4" high by 12 1/4" wide by 11 1/2" deep. It is strongly constructed out of substantial panel stock in keeping with the heavy duty required for the powerful Dynamic O'Neill Unit. It is finished in regular two-tone radio walnut color to match the best radio sets. Provision is made for part of the vibrations sent off by the rear parchment to be not altogether confined within the cabinet, preventing "barrel-tone" effect. Cabinet serves as a perfect baffle. The quality of reproduction that this dynamic speaker is capable of is absolutely amazing—and the volume is just as impressive! It takes a dynamic speaker to give such performance! Shipping weight 50 lbs.

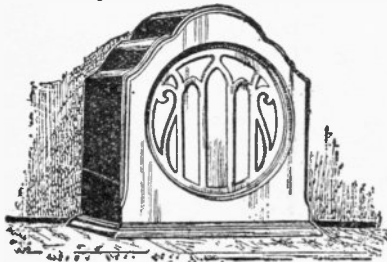
dynamic O'Neill Unit. It is finished in regular two-tone radio walnut color to match the best radio sets. Provision is made for part of the vibrations sent off by the rear parchment to be not altogether confined within the cabinet, preventing "barrel-tone" effect. Cabinet serves as a perfect baffle. The quality of reproduction that this dynamic speaker is capable of is absolutely amazing—and the volume is just as impressive! It takes a dynamic speaker to give such performance! Shipping weight 50 lbs.

- No. 8196-507. For 6 volt Storage Battery or any 6 volt "A" Supply. List \$55.00. Net..... **\$32.34**
- No. 8197-506. For 110 volt A.C. 60 cycle current. Plugs into light socket. Built in dry disc rectifier, and powerful transformer. List \$60.00. Net..... **35.28**
- No. 8194-508. For 110 volt D.C. (or 220 volt D.C.). Plugs into D.C. lighting socket. List \$55.00. Net..... **32.34**

NOTE

Any of the above can be supplied with a most attractive stand, with handsomely carved legs, for \$6.00 additional. Stand is 15" high.

Bremer Tully Magnetic and Dynamic Speakers



MAGNETIC SPEAKER

The B-T cone speaker has proved to be the most popular unit ever built in the most beautiful case ever offered at equal price. The success of this speaker is proved. Not only that, but a good well-built magnetic cone speaker of this type is a far better and safer investment than many dynamic speakers of recent origin and uncertain future. The owner of this B-T speaker need never apologize in any company. Like every product that has ever gone out bearing the B-T name the buyer of this speaker will never regret his choice. Case is of genuine mahogany wood, finished in walnut, the general design being the same as the B-T dynamic except for size and weight. The manner in which this speaker can reproduce the lower notes will thrill you, with all its reality and tremendous power. Width 10 ins., height 12 ins. Shipping weight 15 lbs.

No. 8039. List \$30.00. Net..... **\$19.11**

DYNAMIC SPEAKER

Resembles above illustration, only slightly larger. Dynamic reproduction, plus Bremer Tully manufacture, has made this speaker the very last word in perfection! For 110 volt A.C. current—simply plug line cord into light socket, and phone cord into receiver output. Size 13" high by 11 1/2" wide. Shipping weight 35 lbs.

No. 8040. List \$65.00. Net..... **\$41.40**

Baffle Boards

The purpose of any baffle arrangement in connection with radio speakers (either magnetic or dynamic) is to so mount the diaphragm (cone proper) behind the baffle board, that the air waves set in motion by the rear surface of the cone do not mingle with the air waves set in motion by the front surface of the cone. A circular hole, slightly larger than the circumference of the cone, should be cut out of the baffle, and the periphery (edge) of the cone is then centered and mounted to this baffle, by means of strips of chamol, velvet, parchment, etc. Cone must be free to move—do not rigidly attach it to the baffle board. Attaching top, sides and bottom to the baffle board will tend to lower the tone, and in some instances, increase the ability of the speaker to reproduce a sonorous, powerful, low note. Shipping weight ranges from 3 to 10 pounds. 1/2" special plywood used. Furnished unstained.

O'Neill Dynamic Speaker Unit

As the O'Neill Magnetic Speakers were famous in past years so are these new Dynamics—and they received the same instantaneous and enthusiastic approval. All that you can ask of a speaker, the O'Neill does—and in a better way. The breath-taking pauses of the vocalist, the soft tonal shadings of the instrumentalists, the majestic vibrancy of an organ or orchestra are reproduced without rattle or distortion. The entire broadcast is reproduced with unusual fidelity to the artist. Can be mounted upon a straight flat baffle board in a wall, a door, or in anything, the surface of which will serve as the necessary baffle. We can supply a properly designed baffle box, for any of these units, for \$2.50 additional.

A.C. MODEL

For A.C. light socket operation equipped with dry disc rectifier and powerful transformer, 110 v., 60 cycles. Diameter of cone 9". Shipping weight 30 lbs. 10-foot attachment cord with plug and telephone cord with pin terminals for set attachment are included.

No. 8185-A510. List \$40.00. Net... **\$21.69**

6 VOLT D.C. MODEL

This model is used when it is desired to operate same from the storage battery or battery eliminator. Extra leads are furnished to attach to either source of current which supplies 6 to 9 volt. Can also be used with a 6 volt eliminator, or a proper trickle charger, on A.C. current.

No. 8186-D500. List \$30.00. Net... **\$17.64**

Where D.C. power is supplied from the house current this model is constructed to operate direct from 110 volt D.C. outlet or from 220 D.C. properly fed through a suitable resistance. Ten foot extension cord and plug is furnished to attach from any convenient outlet.

No. 8187-D511. List \$30.00. Net... **\$23.58**

O'Neill Dynamic Speaker



The ultimate in value—measured by the dollar, appearance and fidelity of broadcast re-creation. The model illustrated at the left is beautiful in appearance—plus perfection in performance. The graceful lines of the cabinet and the fine soft two-tone walnut piano finish harmonizes with any scheme of interior home decoration.

—it is ruggedly built out of heavy panel stock. The best reproduction is assured as this attractive priced model is equipped with the renowned O'Neill Dynamic Units. Comparison with higher priced Dynamic Speakers, is this speaker's best salesman. Width 14 1/2", height 14", depth 11". Shipping weight 40 pounds.

No. 8195-A51. For 6 volt D.C. (storage battery or eliminator). List \$40.00. Net..... **\$23.52**

No. 8168-A51. For 110 volt 60 cycle A.C. current. Plugs into light socket. List \$50.00. Net..... **\$29.40**

No. 8169-A51. For 110 volt D.C. current. List \$45.00. Net..... **\$26.46**

NOTE

Either of the above Speakers can be furnished with a handsomely carved 15" high stand for \$6.00 extra. Top of this stand is cleverly recessed for the above speaker.

Fairfax Cone Speaker



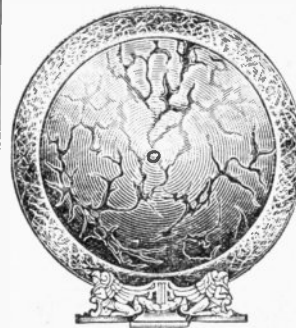
Masterpiece in construction and design. Two-tone walnut finish. Very efficient. Cabinet itself acting as a sounding board, a singular natural sweetness of tone is produced by the new Fairfax "Green Boxed" Cone Unit contained within. A beauty that will be appreciated everywhere. Front and back grille exactly the same. Haselkote construction. Shipped express collect from Chicago.

No. 7452-701. List \$32.50. Net... **\$19.11**

No.	Size	Net
No. 7711.	18" x 18"	\$1.45
No. 7712.	21" x 21"	1.85
No. 7713.	24" x 24"	2.15
No. 7714.	30" x 30"	2.35
No. 7715.	36" x 36"	2.95

On another page are listed CELOTEX BAFFLE BOARDS

O'Neill Cone Speaker

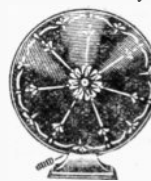


Here is a sensational cone speaker. It is made of high grade materials throughout. In the cone unit a large horse-shoe type magnet weighing 1 lb. is used, delivering a surplus of magnetic strength which compensates for the loss of magnetism known to eventually take place. Frame is made of five-ply laminated wood 13/16-inch thick, which serves as a true sound resonator exciting the rich mellow quality.

so much desired in loud speakers today. The frame is artistically done in jade green with effective bronze highlights. The beautiful design of the metal base is enhanced by the bronze finish and the verdigris shading. This large beautiful speaker stands 18 1/4" high and has a diameter of 17 1/4". Shipping weight 10 lbs.

No. 6098. List \$12.75. Net..... **\$7.50**

O'Neill, Jr., Cone Speaker



Please do not judge this cone speaker by its low price—it is no indication of its true value. Due to modern manufacturing methods, and the law of supply and demand, it is possible to offer you this exceptional value speaker at a price generally charged for very much inferior horn type speakers. Note the tasteful decorations on the parchment—the frame is laminated wood and is bound with a metal rim. This speaker is 16" high and 14 1/2" in diameter. Shipping weight, 7 lbs.

No. 6099. List \$8.50. Net..... **\$5.00**

O'Neill Illuminated Ship Speaker

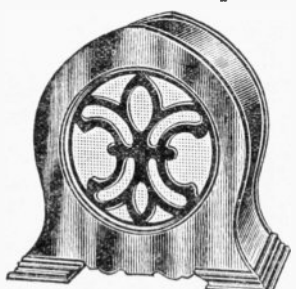


A beautiful generous sized oval frame full-rigged ship constructed of cast aluminum and finished in antique bronze. Illuminated with two concealed 25 watt red and blue intermediate lamps, effecting a beautiful sunset and glow illumination. Every home has several attractive lamps; here is a speaker and lamp in one, which will beautify any room. The tonal qualities of the speaker itself are even more exceptional.

course, this is due to the use of the new O'Neill 1929 Model No. IX radically improved cone speaker unit. Stands 20" high. Shipping weight 16 lbs.

No. 7383-19. List \$25.00, including Lamps, Plugs, Lighting and Phone Cords. Net... **\$14.70**

O'Neill Clock Model Magnetic Cone Speaker

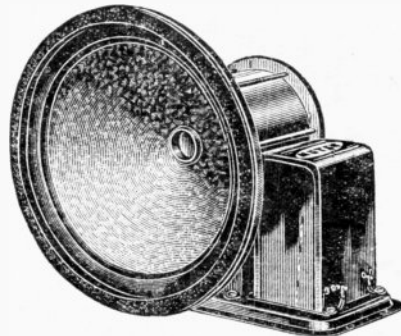


Designed to match the finer radio set—its beautiful lines and exquisite radio two-tone walnut finish will appeal to the most critical eye. A striking example of O'Neill artistry and craftsmanship. Equipped with the Super X Unit. The elusive bass notes, uncommon in speakers having a small cone, are all in evidence here.

producing the quality of the largest and best cones. No expense has been spared in making this model a most exceptional product, capable of the most impressive fidelity of reproduction with enormous, controllable volume. Height 12 1/2", width 12 1/2", 8 1/2" deep. Shipping weight 12 lbs.

No. 7384-105. List \$30.00. Net.... **\$17.64**

Muter Dynamic Units 1929 MODEL



Muter Dynamic Type Speaker Units are sold without cabinets for use as new or replacement speakers in console receivers, having a speaker compartment 12" wide, 11" high, and 9" deep or larger. Or, you can mount these units in their own baffle box, or upon a straight board at least 24" to 30" square. A 280 type rectifier tube is required to be used with this unit—it positively eliminates all HUM.

Note that all the working parts are completely encased. This enhances the external appearance of the Muter Dynamic and protects the delicate mechanism from dust or accidental injury.

110 Volt A.C. Model

For use with 110 volt alternating current. Simply plug into your light socket! Unit is not critical to small changes in input voltage and the normal voltage fluctuation encountered on the average 110 volt line does not affect the operation of the speaker in any way. 8 foot lamp cord and switch included. 60 cycle.

No. 7791-4310. List \$37.50. Net... **\$22.05**

No. 6925-4311. For 110 volt 25 cycle. List \$40.00. Net... **\$23.52**

6 Volt D.C. Model

Designed for use with a storage battery or an external trickle charger. The field has a resistance of approximately 17 ohms and may be operated at from 6 to 12 volts. It is desirable to use the higher voltage whenever practical. This type of unit is adaptable for use by set builders and in console cabinets.

No. 7792-4306. List \$27.50. Net... **\$16.17**

90-135 Volt D.C. Model

Designed for use in connection with power amplifiers, heavy duty B eliminators, etc. It is the same in every respect as the types 4306 and 4310, except that the field has a resistance of approximately 2500 ohms and should be supplied with 90 to 135 volts D.C. In cities using 110 volt D.C. house current, simply connect the field direct to this current. This type of unit is also adaptable for use in connection with factory built sets which provide a means of supplying a dynamic speaker field.

No. 7793-4390. List \$30.00. Net... **\$17.64**

Frost Jac-Box



FROST-RADIO

Consists of 4 jacks mounted on a bakelite panel and enclosed in an attractive wood box. The cord and plug fits into the jack

in your receiver. From one to four phones or loud speakers can thus be in use at the same time. Each phone cord requires its own plug. Shipping weight 2 lbs.

No. 6068. (As illustrated). List \$2.50. Net... **\$1.47**

Pilot Bakelite Plug



Molded plug, efficient operation, good appearance, perfect electrical contact. Cord tips easily inserted in this connector. Value high, price low.

No. 9437-275. List \$0.45. Net... **\$0.27**

Weston Plug



This is the justly celebrated Weston plug. On the market for years and always giving perfect satisfaction. Cord tips held firm. Cannot pull out unless released by pressure on spring which releases the grip.

No. 9565. Net... **\$0.45**

Muter Dynamic Speaker



This Dynamic Speaker, in spite of its great power, is no larger or more cumbersome than other type speakers. It will impart to any receiver a tremendously improved tone quality, not by changing the set in any way, but by reproducing the many tonal frequencies to which the ordinary speaker does not respond. The result is like magic. The set is immediately transformed from a mere mechanical reproducer of sound to a living thing with a thrilling reality of reproduction.

The contrast is so startling as to be almost amazing. The artists are brought right into the room to sing for you and entertain you, and when a man talks you can hear every word—clear, distinct and natural. The Muter Table cabinets are solid walnut and of a pleasing design that will harmonize with any setting. Net prices below do not include a 280 Type Rectifier Tube which is required.

	List	Net
No. 7797-4406. With 6 volt D.C. Unit	\$44.50	\$26.17
No. 7798-4490. With 90 volt D.C. Unit	48.00	28.13
No. 7449-4410. With 110 volt A.C. Unit, 60 cycle	54.50	32.05
No. 6927-4411. For 25 cycle, 110 volt	55.00	32.34

Muter Spinnet Console Dynamic Speaker

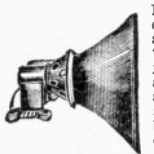


For those who consider the usual speaker external from the set unsightly, this Console type Muter Dynamic should particularly appeal. It is a separate piece of furniture in itself, built of solid walnut, designed to occupy a minimum of floor space and to harmonize with the finest surroundings. Unit set behind an attractive grill—the cabinet on top serves as a perfect baffle. By the use of an extension cord of suitable length, the Console speaker may be moved from one part of the room or home to another. With it one can have the radio in the living room and have music in the dining room, sun parlor, or outside.

A 280 Type Rectifier Tube is required.

	List	Net
No. 7794-4506. With 6 volt D.C. Unit	\$52.50	\$30.87
No. 7795-4590. With 90 volt D.C. Unit	55.00	32.34
No. 7796-4510. With 110 volt A.C. Unit, 60 cycle	62.50	36.75
No. 6926-4511. For 110 volt, 25 cycle	65.00	38.22

Racon Baffle Horn for Dynamic Speakers



Instead of using a flat baffle board or cabinet type in conjunction with a dynamic unit, this very clever "horn baffle" should be used. Full justice is given to both the high and low notes, and the volume is appreciably increased, due to the action of the horn effect. The bell measures 18" x 30", and the depth is 12".

No. 8149. Less Unit. **\$5.88**
List \$10.00. Net....

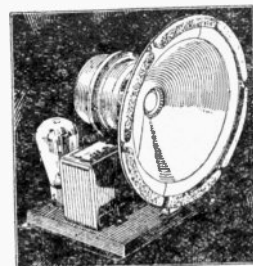
Extension Floor Cord



Consists of a 12-foot, flat, rubber insulated, two conductor cord, equipped with a bakelite connector at one end and a 5-foot flexible, brown, cotton covered cord equipped with pin terminals at the other. The 12-foot flat section runs under the rug and lies so flat that it can hardly be detected. The soft rubber gives, preventing undue wear on the rug. May be shortened to fit any small rug. The rubber insulation prevents leakage and loss of signal strength. Easily installed without the use of tools. Bakelite connector receives standard pin tips. Total length 17 feet. Shipping weight 5 lbs.

No. 4943. List \$2.75. Net... **\$1.62**

Silver-Marshall Dynamic Speaker Units



Consists essentially of a high permeability iron pot containing a core and a field magnetizing coil, and carrying a steel spider frame housing the cone diaphragm to which is attached a "voice" coil suspended in the field of the pot magnet. Is attached by mounting brackets to a steel base which carries a universal output transformer and a power supply unit to provide direct current for the field magnet coil. In the 850 type speaker this power

supply unit operates directly from a 105 to 120 volt, 50 to 60 cycle A.C. lamp socket, while in the 851 speaker the power supply and its base are omitted entirely, the 1,000-ohm field magnet coil in this case being intended to be connected to a source of 90 to 120 volt direct current such as is obtained from a radio set "B" eliminator, or from inclusion of the field coil as a choke in the filter circuit of a "B" power supply. has a high voltage, low current field winding, power to which is supplied by a rectifier employing the dependable and stable UX280 rectifier tube. This tube operates in connection with a full wave transformer having a 5-volt filament winding and two 150-volt secondaries, to deliver 120 volts D.C. to the speaker field, which is rendered so pure by a 2 mfd. filter condenser and the choking action of the high inductance field coil itself as to eliminate the usual annoying A.C. hum in the speaker itself. Equipped with a universal output transformer of wide application. This transformer is designed to operate from a push-pull amplifier using two UX171A, two UX250 or two of the new intermediate power tubes. From this transformer is taken out a special tap at the exact point to provide most efficient operation out of one 171A, 250, or out of a UX245 intermediate power tube while the whole primary winding matches a 210 tube for conditions of maximum undistorted output. The transformer is designed to avoid core saturation at the plate currents of one or two UX250 tubes, and this accounts in a measure for the unusual purity of reproduction of the S-M dynamic units. Each unit is recommended to dissipate two or three watts of signal energy for theatre, auditorium, or outdoor use. For such work, combinations of one or two baffles, 4 to 6 feet square and 10" deep, made of 3/4" lumber, are recommended, with from one to four dynamic units closely grouped in the center of the baffle. For 500 to 1,000 seat theatres, one or two units in individual baffles are recommended when fed by one UX250 in an amplifier. For 1,000 to 2,000 seat theatres, fed by two 250 tubes in push-pull, two baffles, each with two to four units, are recommended. For larger theatres, of 2,000 to 4,000 seats, two to three baffles each, carrying two to four speaker units, and fed from one or two 250 push-pull output amplifier stages will give tone quality and volume equal to or better than that of most "talkie" installations. The S-M 850 A.C. dynamic unit requires one UX280 tube for operation, is 9" outside diameter (to fit 8 3/4" baffle hole), 6 3/4" deep, 10" wide over power unit. Type 851 speaker is identical, except that it is not equipped with power supply or base. Both models may be mounted by being placed upon (or screwed down to) a cabinet bottom, or they may be screwed directly to a flat baffle with six wood screws. Shipping weight 15 lbs. Shipped from Chicago or New York.

No. 6736-850. A.C. Type, 110-Volt. **\$34.39**

Less 280 tube. List \$58.50. Net.

No. 6737-851. 90 to 120 Volt D.C. **\$28.51**

List \$48.50. Net....

SPEAKERELAY

In home or store you often want to operate two speakers together, or each separately, and this speaker switch does the trick! Connect the cord to the set and the speakers to the jacks in the switch.



Turn knob No. 1 at left to operate one speaker alone, to No. 2 to make both speakers (or headphones) operate at the same time (both speakers can be in different rooms), and to No. 1 at right to operate the other speaker alone. Enclosed in molded bakelite case. Can be placed outside the receiver. 2 3/4" wide, 2 3/4" high, 1 1/4" deep. Shipping weight 2 lbs.

No. 6731. List \$2.50. Net... **\$1.47**

FOR OPERATING FOUR DIFFERENT SPEAKERS.

No. 6732. List \$3.00. Net... **\$1.77**

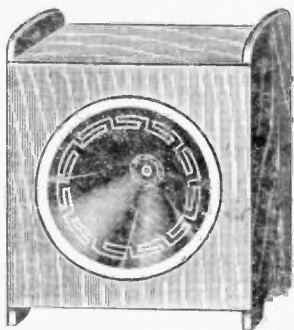
Volume Control

Exactly resembles Speakerelay. For external control of speakers or phonograph pick-ups. Complete with cord.

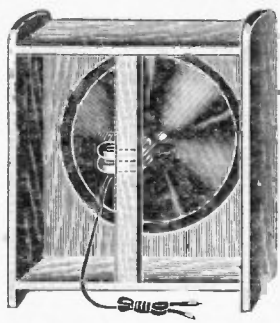
No. 6733. List \$3.50. Net... **\$1.77**

GIANT MAGNETIC BAFFLE TYPE SPEAKER KIT

Book-Case Model



Front View



Rear View, Showing Cone Unit Mounting

Amazing facts, but none the less true: This speaker is capable of practically the same reproduction as generally produced only by a dynamic speaker—that is, the bass notes are so remarkably reproduced that you might think this were a dynamic speaker, and the volume is, in some instances, even greater on this speaker than with most dynamical! And when you stop to consider that no field current is required (as with every dynamic) and that its cost is so very much less, the results are that much more remarkable. During the radio broadcasting of the 1928 "World Series" baseball games, this speaker was first demonstrated—it was hung out of one of the windows in our premises, and a stock model 5-tube receiver, with only 180 volts "B" battery used. The volume was so tremendous that office workers in buildings 200 to 300 feet away down the street sat at their windows and distinctly heard every word reproduced. At the finish of each game, many of the audience were so amazed by this most unusual speaker's performance, that they came in to our offices to inquire as to the cost of same, and when they could buy one. We finally realized that inadvertently we had produced a speaker with huge sales possibilities, and therefore decided to market it, as a kit proposition, so as to keep the price down to a very low figure. Essentially this speaker consists of an 18" diameter sheet of Alhambra Ponotex parchment, formed to a cone, the pitch of which is 90°! (The average magnetic speaker employs a cone not larger than 8" diameter!) Then, there is the baffle chamber, which is in reality a huge box, the front panel of which has a slightly larger circular opening in it than the diameter of the formed cone. The back is left open. This speaker can be set in any part of the room, preferably in "catty-corner" fashion. The fully open back prevents a barrel like—too "round"

tone. The unit furnished is our No. 7450 Duo Magnetic type, for another unit, of a less efficient type, could never produce bass notes, and the higher ones, in the manner this one does! This kit is so designed that you have very little work to do—the boards are all cut, and trimmed to length and width. The front board has the large hole in it, and the cone parchment is marked off with very explicit instructions, the cutting and forming of this takes but a few minutes! Nail (or screw) the boards together, form the cone, mount the cone to the front board, center the unit and bolt it to the rear board. . . . You are through! Yes, as simple as that! It is the only speaker we know of that will reproduce bass notes with ample volume, using only 90 volts "B" battery! If you have 180 volts power amplification, the results will positively startle you! And at 400 volts (using 210's or 2-0's) the volume is more than sufficient for a large hall or theatre! If you are using a phonograph pick-up, this is the ideal speaker, by far! Custom set builders can reap a small fortune installing these speakers—one sells at least 5 or 6! One demonstration is sufficient. Furnished plain, as illustrated, but you can varnish it to your own liking, or add ornamental designs, etc. Overall dimensions are: Length 23", height 23", depth 10". Shipping weight 23 lbs. No. 8898. Complete kit, including Duo Magnetic Unit, 1 front board with opening, 4 other boards, 1 unit board, parchment, velvet cloth, 90° apex bushing, tube Le Pages glue and tube Dupont cement, miscellaneous hardware, and detailed instruction sheet. Shipped knockdown.

Value \$50.00. Your Net Cost... \$12.95

Trimm Special Dependable Headset



Is of the bi-polar construction wound to 2000 ohms resistance on cores of special Norway iron. The magnets are of the finest quality chrome steel and these phones are guaranteed for sensitivity, tone quality and durability. They are built to withstand the rough handling to which phones are generally subjected. The backs are made of aluminum with polished composition screw off caps, and the headband is covered with heavy webbing. Shipping weight 2 lbs.

No. 8327-60. List \$4.00. Net..... \$2.35

Rasco Special Phones



Trimm Professional Headsets



The leading headset with those who constantly use headsets in their professional or amateur work. Coils wound to 3,000 ohms. Made by Dr. Donald B. McMillan on his last three expeditions to the Arctic regions. Shipping weight 2 lbs. No. 8266-70. List \$3.23 \$5.50. Net.... \$3.23

Baldwin Type "C" Phones



No. 7557. Net..... \$4.95

Here is a pair of phones that you could not duplicate in most stores for less than \$5.00. Yet our price is only a fraction as much. We are in the heart of the best radio market in the United States, and buying opportunities come to us which never come to the dealers less fortunately located. This is why we can offer you such a bargain as this and the many others you will find in this catalog. These phones not only act the same as those more costly, but their appearance and construction are first class. The caps are of molded composition, nicely finished. The headband is easily adjustable and comfortable. Resistance: 2,000 ohms. Shipping weight 2 lbs. No. 2237. List \$4.00. Net..... \$1.10

Dulce-Tone Radio Phonograph Attachment

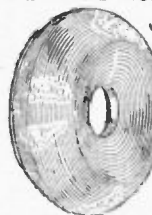
The objection to attaching phonograph units to the tone arm is the fact that the vibrating box holding the needle must be removed for radio reception, and vice versa, should you wish to use the phonograph.



In using the Dulce-Tone phonograph attachment, the needle of your vibrator box is simply rested in the special recess provided on this instrument, in the manner shown. The vibrating reed in the unit is set in motion by the electro magnetic response of same to the audio output of your radio receiver, and these vibrations, imparted to the phonograph mica diaphragm, produce the most mellow and sonorous reception possible, due to the acoustically perfect tone chamber employed within. Adjustable type of unit. Phonograph may be in any room of the house, apart from the radio, connected therewith by an extension cord of appropriate length. Crystallized metal case. Phone cord included. Shipping weight 3 lbs.

No. 9893. List \$10.00. Net..... \$5.88

Fonekushions SPONGE RUBBER



They exclude all outside noises, which is important when listening for long distances stations. Made of the best and most expensive sponge rubber of great elasticity. You really should not wear a pair of phones not equipped with these protecting cushions! They are light and can be slipped on any pair of phones.

Highly sanitary because they can be washed with soap and water. Shipping weight, 8 ozs.

No. 5050. Pair, Net..... \$0.59

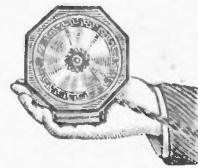
Double Phonograph Adapter



The body of this double phonograph adapter is molded of polished hard rubber and will adapt itself to any pair of head phones placed under the metal straps. The reception flows through the two channels, and issues forth at the nozzle, which will fit any standard phonograph with or without a rubber bushing. Shipping weight 1 lb.

No. 1320. Net..... \$0.55

Na-Ald Novelty Midget Cone Speaker



Primarily designed to be used as an advertising novelty and decorative addition to a regular speaker. It works surprisingly well, considering its extreme compactness. Adjustable unit. Will afford considerable amusement. Shipping weight 1 1/4 lbs.

No. 6413. List \$2.00. Net..... \$1.18

Brandes Matched Tone Phones



No brand of phones is better or more favorably known than Brandes. This is because Brandes phones are always uniform in quality and we are able to offer them at very reasonable prices. Easy headbands. The windings are evenly matched which produces even tones. The cord is extra long, being six feet. You are always safe in choosing a Brandes.

des. Shipping weight 3 lbs. No. 2031. Superior model, 2,000 ohms. List \$6.00. Net..... \$3.53

IMPROVED TEMPLE DYNAMIC SPEAKERS AND UNITS

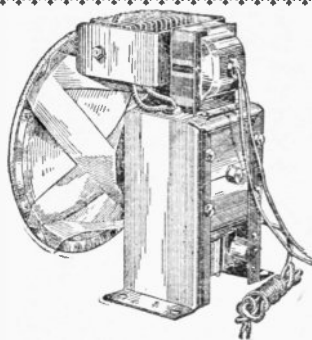


Dynamic Speaker

Temple Dynamic Speaker

Amazing for its true tone quality and ability to reproduce with absolute fidelity all musical and vocal notes impressive upon the human ear. The tones are rich and the volume is ample. By means of a volume control the intensity may be regulated from a mere whisper to a deafening roar. The outstanding advantage of this speaker is that quality and volume are not dependent on each other. Mounted in an attractive walnut paneled case with a grill of carved wood composition and a frame to match. The cloth insert behind the grill is of a golden brown color, offsetting the natural beauty of the woodwork to good advantage. The baffle board is built in and incorporates the walls of the cabinet in the general scheme. The speaker is kept isolated from the table top by means of two padded feet. This effectively prevents transfer of vibration to the table and eliminates all parasitic harmonics and discordant vibration. Speaker is 14 1/4" high, 11" wide, and 6 3/4" deep. Shipping weight 25 lbs.

- No. 6875-50. 110-volt 60-cycle A.C. **\$28.80**
List \$49.00. Net.....
No. 6876-54. 110-volt D.C. List **\$28.80**
\$49.00. Net.....
No. 6877-56. 6-volt battery. List **\$28.80**
\$49.00. Net.....
No. 6878-52. 110-volt 25-cycle A.C. **\$31.75**
List \$54.00. Net.....



Dynamic Unit

Temple Dynamic Unit

This unit is used in the above described Dynamic Speaker. Can be successfully used in any other speaker, too. Shipping weight 25 lbs.

- No. 6879-10. For 110-volt 60-cycle **\$20.58**
A.C. List \$35.00. Net.....
No. 6880-11. For 110-volt D.C. List **\$20.58**
\$35.00. Net.....
No. 6881-16. For 6-volt D.C. current. List **\$20.58**
\$35.00. Net.....
No. 6882-12. For 110-volt 25-cycle **\$22.93**
A.C. List \$39.00. Net.....

Temple Comparator



- No. 6809. List \$3.50. Net..... **\$2.06**

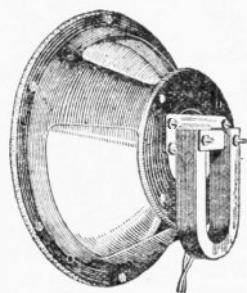
Made so speakers may be compared and the various characteristics of every type of reproduction analyzed. The Temple Comparator allows the comparing of from two to five speakers. May also be used as a selector for various speakers when they are located in different rooms. Shipping weight 3 lbs.

Temple Magnetic Speakers

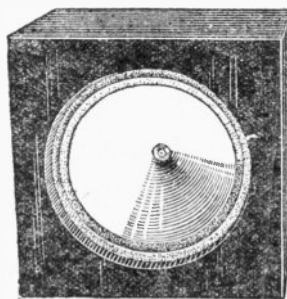
Boxed Console Mounting Model

The chassis model illustrated here is the same speaker used in Temple Magnetic table models. They are designed for new console installations, or for replacements—for bringing the tone of older receivers up to 1929 standards. The two types differ only in the fact that one model is housed in a box baffle, while the other is the bare chassis. Both are complete and ready for installation and are equipped with the famous Temple Double Action Unit. You will really be thrilled by the splendid fidelity of reproduction—and ample volume! Built into a baffle box which measures 9 1/4" square by 7 1/4" deep. Shipping weight 4 lbs.

- No. 6812-5-B. List **\$8.82**
\$15.00. Net.....
BARE MAGNETIC CHASSIS



No. 6813



No. 6812

Identical to the above model except that it has no housing. Size of cone 9" in diameter, depth 5". Shipping weight 2 lbs.

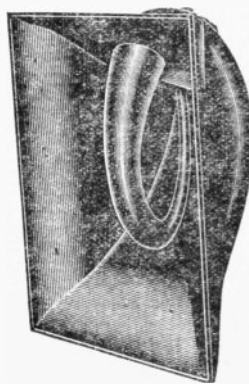
- No. 6813-5-C. List \$14.00. Net..... **\$8.24**

Giant Racon Dynamic Speaker Unit



as low as 40 cycles and as high as 10,000! Impedance of voice coil is 7 ohms. The actual weight of the unit is 20 lbs.! Must be used with a suitable long air column horn. Shipping weight 30 lbs.

- No. 6810. List \$125.00. Net..... **\$64.50**



Racon Auditorium Size Exponential 12 1/2 ft. Air Column Horn

IDEAL FOR SOUND
MOTION PICTURE
INSTALLATIONS!

Made of special fabric—exceptionally rigid, and vibrationless. This orthophonic tone chamber is practically the same type as used in all moving pictures with sound effect or "talkie" installations. Sufficient volume for any large size theatre or auditorium! We particularly recommend that you use the Giant Racon Dynamic Speaker Unit with this horn! Air column, 12 1/2 ft. Bell, 30" x 45". Depth, 31". Weight 29 lbs.

- No. 6811-O.B.-2320. List \$125.00. Net..... **\$58.50**

Racon Exponential Horns

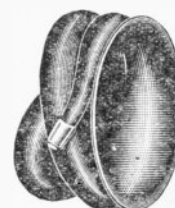
Made by the same company that now supplies most of the long air column horns for the new sound motion picture installations. Therefore, you may expect exceptionally pleasing results from any of these orthophonic type speaker chambers. Made of a special fabric—no vibration, as it is thoroughly impregnated and hardened. Climatic conditions do not affect these horns. Can be mounted in most speaker compartments of radio consoles, or can be used as is. Prices quoted do not include speaker unit. On other pages of this catalogue such units are listed.

120" TONE TRAVEL

Snail Shell Type.
Flat Bottom.
Bell is 18" x 18".
Depth 13".

No. 6800-300.

- List \$18.00. **\$10.60**
Net.....



84" TONE TRAVEL

Bell is 14" Round.
Depth 9".

No. 6801-100.

- List \$11.00. **\$5.50**
Net.....

92" TONE TRAVEL

Bell: 18" Square.
Depth 13 1/2".

No. 6802-200.

- List \$13.00. **\$7.65**
Net.....



78" TONE TRAVEL

Bell is 10" x 20".
Depth 13 1/2".

No. 6803-320.

- List \$9.00. **\$5.30**
Net.....

48" TONE TRAVEL—COMPACT

No. 6801-102R.
Bell 10" Round.
Depth 8".

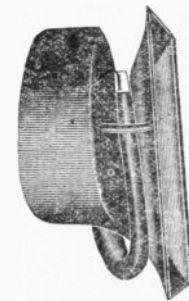
- List \$6.00. **\$3.00**
Net.....

No. 6805-102S.
Bell 10" Square.

- List \$6.00. **\$3.00**
Net.....



- No. 6806-309. Air Column 66". Bell 11"
Round. Depth 7". List \$6.00. **\$3.53**
Net.....



GIANT ORTHOPHONIC 104" TONE TRAVEL

No. 6807-1315.

Bell 18" x 24".
Depth 13 1/2".

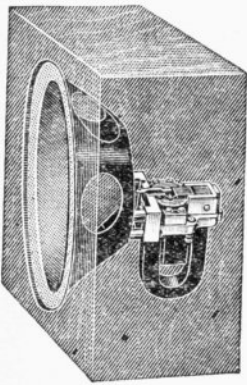
- List \$18.00. **\$9.40**
Net.....

No. 6808-1115.

Air Column 72".
Bell 14" x 17".

- List \$9.00. **\$5.30**
Net.....

Amplion Magnetic Cone Type Baffle Speaker



"X-Ray" View

phragm" can thus never conflict with those vibrations emanating from the front surface of the same diaphragm. (Overall dimensions are: 10½" x 10½" x 7". Shipping weight 10 lbs.)

No. 7154-108-B. List \$19.00. Including self-contained speaker filter. Net.... \$11.18
No. 7155-107-B. List \$17.00. Without filter. Net..... 10.00

Racon Dynamic Unit - Horn



For public address systems and wherever a terrific amount of volume must be reproduced with perfect clarity. 104" air column speaker. A special dynamic unit is responsible for this speaker's most unusual performance. Ideal for dance halls, small theatres, etc. Can also be used in your home, providing you control the volume. The bell measures 18" by 24". Depth 13".

No. 8191. Horn and Unit..... \$50.00 \$29.40
No. 8102-1315. Horn. Less Unit 16.00 9.41
No. 8103. Unit, Less Horn..... 31.00 19.99

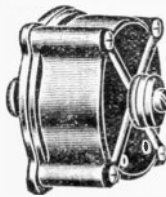
Racon Air Column Speaker



Contains an exponential air column made of fabric, impregnated and hardened till it is as substantial as any of the heavier ones. Has no period of vibration of its own, being free to vibrate in unison with the impressed sound. Perfect tone quality is the result. Mounted in a metal shell with a fine mesh facing, cloth covered. Shell is enameled in brown crackle finish. Base is walnut finish, with rubber feet. Diameter 11½ inches, depth 7½ inches. Air column 66 inches. Shipping weight 7 lbs.

No. 8100. List \$19.50. Net..... \$10.90

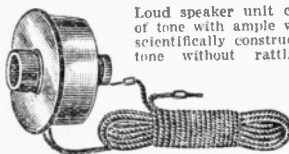
Amplion Unit



The Amplion Speaker owed all its success to this marvelous unit herewith illustrated. For phonograph and console speaker use. Covers the entire musical scale with faithful and lifelike reproduction. The basses and all the undertones, as well as the treble, are reproduced. Ideally suitable for the new orthophonic loud speakers. Fully adjustable. Large, oversized bakelite casing. There is no better unit made! Shipping weight 3 lbs.

No. 6218. Net..... \$3.00

"Rasco" Loud Speaker Unit



Loud speaker unit combines mellowness of tone with ample volume. It has been scientifically constructed to produce true tone without rattling or distortion.

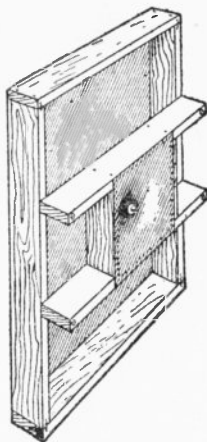
Tone may be varied by adjusting screw. Comes with bushing for connection to phonograph with rubber connector. It is specially built of cast aluminum and brass. Weight 2 lbs.
No. 9384. List \$3.50. Net..... \$1.66

Rubber Adapter



Two-inch length, flexible rubber tubing. Any unit can be attached to any phonograph tone arm in a jiffy. Fits all units.
No. 6216. Net..... \$0.10

Aero-O-Tex Aeroplane Cloth Speaker Kit

Rear View.
Unit not attached.

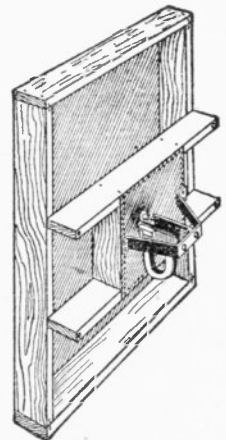
In less than one hour's enjoyable work, you can build this sensational loud speaker. Note two diaphragms. Small one (on to this one the unit is affixed) is for best reproduction of high notes, whereas the large diaphragm reproduces the low notes to their best advantage. Cone units to actuate these diaphragms are listed elsewhere in this catalogue. We recommend the Duo-Magnetic for maximum volume and tone quality! Front surface of speaker cloth can be beautifully painted or otherwise decorated. Speaker can be hung on wall, enclosed in a console, set on the floor, under a table, etc. Practically indestructible—not subject to climatic conditions, for no paper cone is employed. Overall dimensions are: 21" long, 18" wide, 2" thick, plus depth of unit used. Shipping weight 5 lbs.

No. 8226. Complete Kit, less cone unit and unit mounting angle. Unassembled. List \$8.50. Net..... \$3.00

No. 8227. Same, ASSEMBLED. All you have to do is attach the unit! List \$10.00. Net..... 4.00

UNIT MOUNTING ANGLE

No. 8209. Specially designed for Duo-Magnetic Cone Unit. Can be used to mount any unit to Aeroplane Cloth Speakers. Net..... \$0.95



View showing cone unit and unit mounting angle attached.

Airplane Cloth Speaker Parts

For the experimenter or custom set builder who wishes to attach a speaker to suit his own requirements.

Airplane Cloth Dope

For lacquering both the linen diaphragms—makes them bring out the deep, low tones. Also strengthens the cloth, and makes them very taut. Not available—sent express collect only. Shipping weight 2 lbs.

No. 8228. Large Can. Net..... \$0.49

Airplane Cloth

Genuine cloth—same as used in construction of wings on an airplane. Width 36 inches. Length 36 inches. Vibrates with clear, absolutely natural sounds from the faintest whisper to tremendous volume.

No. 8229. Net..... \$0.73

Apex

Not the same type as used in construction of cone speakers.

No. 8199. Complete in every detail. Net \$0.19

Yaxley New Phone Tip Jacks



Red and black colored—denotes plate and B battery terminals. Bakelite moulded caps. Heavy contacts. Fits standard phone tips. Ideal for metal or bakelite panels.
No. 7850. List \$0.15
\$0.25. Net.... \$0.15

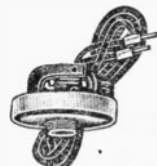
Yaxley Pup Plug



Nicely nickel finished. The plug is designed to be used as a phone tip, without soldering, and is used in conjunction with the Yaxley Red and Black Cord Tip Jacks.

No. 6404-415. Pup Plug. List, Each \$0.15. Net..... \$0.06

Baldwin Concert Grand Unit



The peer of them all! Each unit is hand-made, carefully adjusted and tested. Precision made at every step. It is widely imitated but never excelled for its faithful, consistent reproduction. Nipple ¾" long, ¾" diameter, 18 threads per inch. Five-foot cord with tips. Just the unit to use with an orthophonic loud speaker. Shipping weight 3 lbs.

No. 651. Baldwin Concert Unit. \$5.25

List \$10.00. Net..... \$6.85

No. 6252. Baldwin Concert Grand Unit. List \$12.00. Net..... \$6.85

Baldwin Rival Unit

This is the unit characterized by its U-shaped holes and circular magnet with the armature balanced in the center. Its beauty and volume of tone and its response to all frequencies of high notes and low notes make it a unit to be greatly appreciated and desired. The price is much lower than formerly. The unit comes complete with cord. Shipping weight 2 lbs.

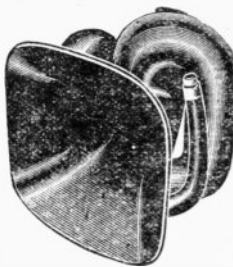
No. 9382. As illustrated. List \$7.00. \$3.05

Net \$3.05

No. 9781. Shielded model. List \$7.50. \$3.53

Net \$3.53

8-Foot Tone Travel Orthophonic Type Loud Speaker



Actual View of Speaker

Volume, roundness of tone, overtones, bass note reproduction, and all around performance! Imagine! An 8 ft. tone travel, yet this speaker encased measures only 21¼" high by 18" wide by 15" deep overall. Mind you, you receive it completely encased in a lightweight wooden box which is also used to mount it. The tone chamber itself is completely mounted on felt pads. The ferrule attached to the horn is equipped with a ¾" standard thread and will take any standard unit. Shipped express collect direct from factory in Chicago.

No. 6546-595. Without unit. List \$18.00. Net.... \$10.59

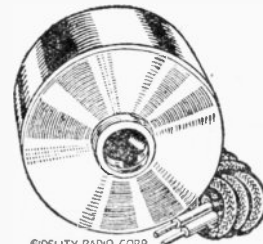
No. 6547-595. With a Fidelity Unit. List \$24.00. Net.... \$13.47

6-Foot Tone Travel Model

Overall dimensions: 15" high by 12" wide by 12" deep.
No. 6548-570. Without unit. List \$13.00. Net..... \$7.64

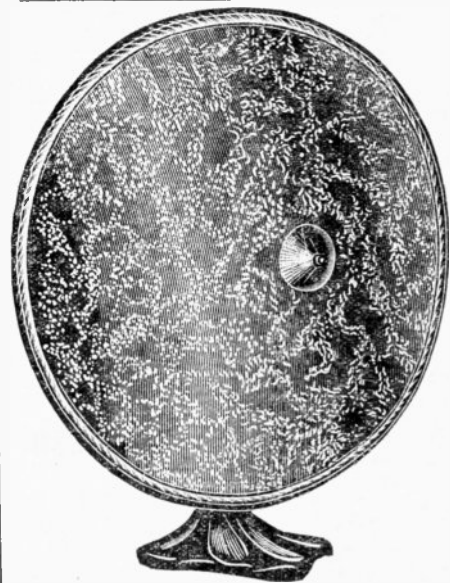
No. 6549-570. With a Fidelity Unit. List \$19.00. Net..... 10.52

Fidelity Loud Speaker Unit

FIDELITY RADIO CORP.
847 4TH AVE. N.Y.C.
SALT LAKE CITY, U.S.

Ideal for Orthophonic speakers—in fact, can be installed in any type speaker—remove your present one, and note the tremendous difference! Aluminum base is machined to exact size which supports unit. Diaphragm is of special alloy. Light as aluminum but has five times its tensile strength. Rubber gaskets cushion the diaphragm. The plate, which holds diaphragm gaskets in place, supports the motor element of unit. In common with all other parts of Fidelity Units requiring such protection, the magnet is made absolutely rustproof by the Udylite Process. Soft iron pole pieces provide low reluctance path for magnetic flux. The coil is wound on moulded bakelite spool, and is moisture-proofed by a special impregnating process. Balanced armature is of a new material which is very sensitive at all frequencies. Heavy polished brass cover shields unit from dust and dirt. Shipping weight 3 lbs.

No. 7020. List \$6.00. Net..... \$2.88



OUR LEADER 16" CONE SPEAKER

A cone speaker not to be judged by its exceptionally low price! We do not promise you it will perform as well as a \$50.00 Speaker, but we do wish to emphatically say it will give the same high quality reproduction and ample volume as any similar Speaker selling for \$10.00! There is one answer to it all: Quantity Production—Quality built down to a price. Both high and low notes are reproduced with remarkable fidelity. The low notes are given full justice, for therein lies all the true beauty of music—the so-called bass tones. Free Edge Construction. The edge of the cone is handsomely beaded in brass, and the surface of the cone is highly decorative—will enhance the beauty of any room. The base is cast iron, beautifully tinted in full harmony with the rest of the Speaker. The unit is an exceptionally sensitive one, and is adjustable, by means of a small thumb screw, on the back. Every bit of vibrating energy caused by this unit is transmitted to the surface of the cone, in a most unique, patented manner! Note the oversize apex. Will work on all sets, D.C. or A.C. Storekeepers should purchase these by the dozen and feature them! We do, why not you? Shipping weight, 6 lbs.

No. 7838. List \$9.50. Net..... **\$3.30**

20" FREE EDGE CONE

Identically the same as the above, but has a larger diameter cone. Will thus handle greater volume, and give lower bass note reproduction. Shipping weight, 8 lbs.

No. 7839. List \$15.00. Net..... **\$5.10**

Na-Ald Electric Phonograph Pickup

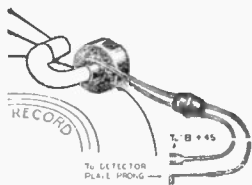
Attached to your phonograph and amplified through your radio set, the Na-Ald Pickup will give wonderful music. Weighs less than four ounces. Built-in volume control and needle scratch filter. Patented clip and switch connection to the radio which saves removing the detector when using the Pickup.

No. 7733-501. List \$10.00. Net..... **\$5.88**

NA-ALD COMPETITIVE MODEL

Astonishing value! Consists of magnetic pickup, special connecting plug, and simple connection arrangement to detector socket.

No. 5595. Complete. List \$5.00. Net..... **\$2.94**



The Home Broadcaster consists of a microphone (resembles a telephone), a long extension cord, and the Via Tector plug. Just slip the tube out of the detector socket, plug in the Home Broadcaster, run the extension cord into another room, or better still, a closet. Then you or your confederate talk into the microphone, make an announcement from Paris, Shanghai, Honolulu, San Francisco, etc. You can say anything—the sky's the limit! All such conversations are not sent out through your antenna—they are reproduced with plentiful volume in your present loud speaker. Be sure to state if your detector has 4 or 5 prongs. Shipping weight 3 lbs.

No. 6592. Complete. List \$7.50. Net..... **\$4.41**

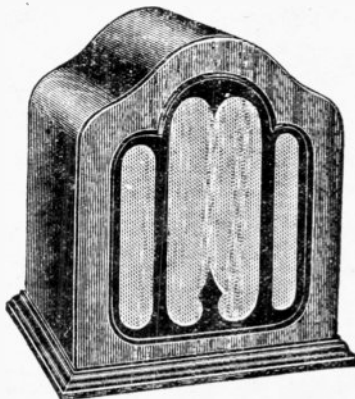
B.M.S. HOME BROADCASTER



fool your friends—

be your own broadcaster

Amplion Royal Magnetic Type Cone Speaker



Handsome two-tone walnut finish cabinet, 12½" high, 11" wide and 7½" deep, with a fine piano finish. New Cone Assembly with Amplion balanced armature unit, C-104. A protective speaker filter is included—a very valuable feature, indeed! Assures absolute protection to speaker unit. This model will be compact and small in size, is very efficient due to its unusual construction and design. The cabinet itself functions as a sound-board and resonating chamber which produces a natural tone of singular sweetness. Shipping weight 15 lbs.

No. 7161-110. List \$30.00. Net..... **\$17.64**



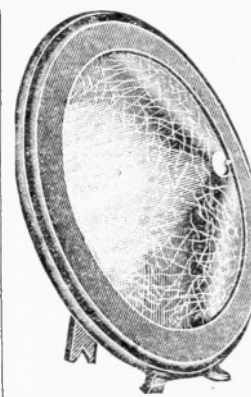
The largest, heaviest and most powerful pick-up available to the general public. Naturally to get power, you must have size and with size you must have weight. The Best Suspension Bridge Counter-Balance makes it possible to use this weight, with but the weight of a feather on the delicate record, so that they last indefinitely. Tremendous volume—enough to tax the capacity of any speaker—and when you want them, the softest tones with clarity which will surprise a musician. Volume control and adapter for four or five prong tubes (in case your set has not a phonograph jack). Shipping weight 6 lbs.

No. 4799. List \$17.50. Net..... **\$10.30**

Dynamic Speaker Control



To operate a radio with an external dynamic speaker requires two switches—one for your set and one for your speaker. The Brach Dynamic Speaker Control eliminates the extra switch and places complete control of both your set and your speaker in the set switch itself.

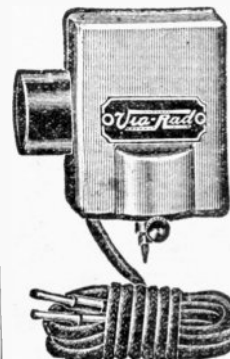


Cannon & Miller 16½" Easel Cone

Cone itself is a beautifully designed alligator effect leatherette paper. Frame is hand rubbed deep mahogany wood. Broad surface apex assures maximum energy transfer between the powerful adjustable cone unit and cone. Frame acts as a most effective "baffle." Can be placed on table, or floor, easel fashion, or hung on the wall. Exceptional value. Shipping weight 10 lbs.

No. 8207. List \$12.50. Net..... **\$5.95**

Via-Rad Phonograph Pick-Up

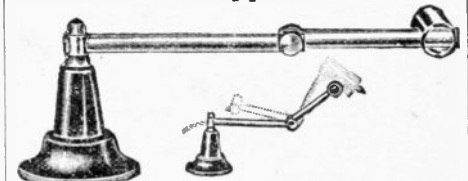


The electric reproducer of living tone and full throated volume. Can be quickly adapted, without tools, to any phonograph to change the otherwise obsolete phonograph into a radio operated instrument of unsurpassed quality for the true and life-like reproduction of voice and music. Bass, violins, kettle drums, horns, violins—in fact all instruments will be distinctly heard in their various brilliancies of tone and volume: the high as well as the low notes will be reproduced with clarity and life-like fidelity. Consists of the following units—one electric phonograph reproducer to replace the phonograph sound box, one adaptor which fits into the detector socket of the radio set and one volume control which regulates the reproduction from a mere whisper to the loudest volume. This model is intended to be slipped on to the tone arm in any phonograph; thus no independent support arm is included at this price. See description of this support arm elsewhere.

No. 7392-890. U.X. Type (4 prong detector sockets). List \$10.00. Net..... **\$5.88**

No. 7393-891. A.C. Type (5 prong detector sockets). List \$10.00. Net..... **\$5.88**

B.M.S. Support Arm



Very convenient for use with any phonograph magnetic pick-up. Eliminates the necessity to remove sound box from tone arm, as the pick-up can be directly attached to this device. Base is weighted, thus it does not have to be screwed down to the phonograph platform. Note how the arm can be swung back off the surface of the record. Same length as conventional phonograph tone arm. Shipping weight 4 lbs.

No. 7186-895. List \$1.50. Net..... **\$0.88**

Speaker Demonstrating Unit



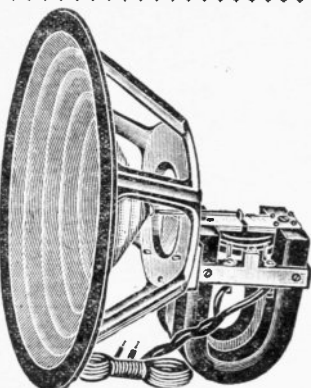
No dealer can afford to be without this valuable assistant! The merits of 5 different speakers can be shown to your customer, singly. In the home, various speakers can be alternately used, at will. The tips of the various speakers are inserted into phone tip jacks on the panel.

Very compact!
No. 7047. List \$3.00. Net..... **\$1.77**

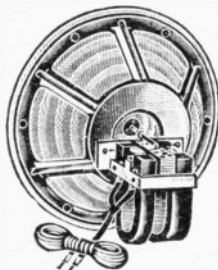
Avoids wasting current. Avoids shortening life of ALL operating parts of speaker. Eliminates hum in speaker when set is not in operation. Quickly pays for itself. No special wiring is necessary. Can be easily installed in a few moments by merely plugging your set and speaker into the Control and the Control Plug into any light socket. Shipping weight 5 lbs.

No. 5380. List \$3.00. Net..... **\$1.77**

DUO-MAGNETIC CONE SPEAKER CHASSIS



Side View



Rear View

No other magnetic speaker chassis is so strongly constructed! Note the heavily ribbed, sturdy "spider leg" white-lead casting! The entire frame work is one piece—a beautifully molded job! A Duo-Magnetic cone speaker unit is bolted to the rear mounting plate of the chassis, and the Burtex "ribbed" cloth cone is fastened between two heavy rings of cardboard—these rings are held in place by either screws and nuts, bolted to the frame of the chassis, or by being pressed up against a baffle mounting board. Although this speaker can be used as illustrated, it is strongly recommended that it be used in conjunction either with a baffle board or mounted within a box, a cabinet, or speaker compartment space in any console. The tone quality is comparable to any speaker selling for many times its trivial cost. Will stand all the volume any radio set can "give it." Will work satisfactorily with a D.C. or an A.C. set—with 90 volts applied through it, or even as high as 500 volts! No blasting! No distortion! No rattling! you will be most impressed with its splendid performance! Overall dimensions: Diameter 9", width of mount-

ing ring 1 1/4", depth (rear of unit to mounting baffle board plate) 6 1/4", diameter of unit mounting plate 4 1/4". Shipping weight 8 lbs.

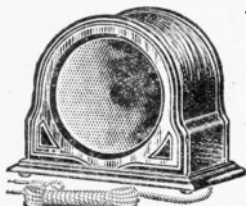
No. 6850. COMPLETELY ASSEMBLED. Including DUO-MAGNETIC UNIT and cord. AS ILLUSTRATED. List \$18.50. **\$6.75**
Your Special Cost.....

Chassis Without Unit

Should you possess a cone speaker unit, you can purchase the above chassis without the unit, and thus attach your own unit to the mounting surface above referred to. Shipping weight 5 lbs.

No. 6851. Chassis, less unit. Includes white-lead casting, assembled Burtex cloth cone, cardboard rings, and Apex hardware. Your Net Cost..... **\$3.00**

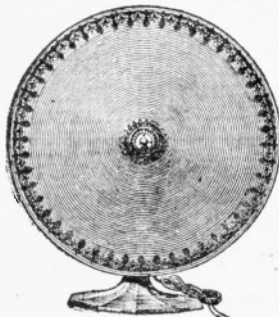
Trimm "Entertainer" Clock Cone



A worthy addition to the family of Trimm Quality Reproducers. An improved type of balanced armature unit, extremely sensitive, yet ruggedly built to give perfect service over long periods of continuous operation. Improved spring feature with double coil gives positive control over the air gap. Absolutely free edge cone. Reproduces over a wide range of audibility, handling all details with true fidelity—volume with mellowness and entire absence of blasting or distortion. Cabinet of beautiful paneled two tone walnut with bronze mesh screen front and back. Can handle enormous volume. Shipping weight 15 lbs.

No. 8328-58. List \$25.00. Net.... **\$14.70**

Trimm Concerto Cone



The Trimm Concerto will appeal to every music lover. The reproducer gives the performance and tones of speakers selling at much higher prices, yet it is within everyone's reach. Trimm balanced armature unit and fourteen inch cone, fully protected, insure superior reproduction. The Concerto is highly desirable for those whose wants may be satisfied with a less expensive instrument. Shipping weight 11 lbs.

No. 8329-28. List \$10.00. Net..... **\$5.88**

MODEL 38—17" Diameter

Concerto Grande Cone Speaker. Can be hung on wall, if desired, by removing patented base.

No. 8330-38. List \$16.00. Net..... **\$9.41**

Gentlemen:

I bought from you "the biggest value in America"—your 9216 5-tube T.R.F. receiver—it gives me excellent results. In 5 months I have received in all 172 stations all over the country.

JAMES J. WOODS, Jr., Iona Island, N. Y.

Trimm Home Speaker



Unquestionably the most deservingly popular horn type, goose neck speaker on the American market. Trimm quality throughout. Stands 18" high, 12" bell of composition. Has been sold the country over for the reason that it out-talks speakers costing twice as much. Great volume, beautiful tone. No blasting, distortion or harsh overtones. It has the kick and power you want.

Shipping weight 9 lbs.

No. 6780-125. List \$10.00. Net

\$5.88

Racon Dynamic Speaker Unit



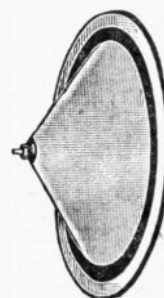
Racon is known the world over for perfection in the manufacture of any and all acoustic products! This dynamic unit is indeed another of their triumphs. Very sturdily built, economically but durably. Will match performance of much more costly units. Capable of enormous volume and powerful bass note reproduction. Same size as any other of similar type. Shipping weight 20 lbs.

No. 6771. For 110-volt A.C., 60-cycle. List \$35.00. Net..... **\$17.50**

No. 6772. For 110-volt D.C. List \$30.00. Net..... **\$15.00**

No. 6773. For 6-volt D.C. List \$25.00. Net..... **\$12.50**

Assembled Cones



Ideal for all replacement purposes or for the custom set builder who builds his own magnetic or dynamic cone speakers. Constructed of specially treated parchment stock and very firmly glued. The periphery (outside edge) of the cone itself is cemented to a very pliable disc of chamol, which is firmly fastened to a 1/4" thick cardboard disc. Due to the pliable nature of the chamol, the impulses created in the unit are fully reproduced, the edges of the cone not being firmly fastened, as above stated. This cone can be mounted directly to a wooden baffle board or baffle chamber or box in which a suitable opening has been cut out. The unit is generally mounted on the outside of the cone. Sold complete with apex and conical washers, fastened in place. Dimensions: Outside diameter 8 3/4"; the cone itself is 7" in diameter; depth of cone is 3". Shipping weight 2 lbs. (Carefully packed!)

No. 5235. Your Special Cost..... **\$0.80**

Concert Model Speaker



The new Trimm Concerto Speaker is easily one of the most distinctive reproducers ever offered to the radio public. It appeals to the lover of good things because of its coloring and finish, its beautiful embossings and unique design. It delights the music lover, because it clothes the vital qualities of melody in a rich housing of rare attractiveness. Driven by the improved Concerto Grande

chassis this model faithfully reproduces voice and music. It brings out the low notes as well as the high with a remarkable clearness, distinctness and perfect, harmonious blending of tonal values. Made of genuine five-ply laminated walnut, front and back panels beautifully embossed and high-lighted. These panels being open, the speaker gives full volume of sound in all directions. The woodwork of rim and base or pedestal are Standard American Black Walnut. Made in two models: Model No. 80B (illustrated) is 20" high overall; weight 15 lbs.; 5 ft. cord. Model No. 80P (mounted on an attractive 3-legged pedestal) is 36" high overall; weight 19 lbs.; 20 ft. cord.

No. 6781-80B. List \$35.00. **\$14.65**
Net.....
No. 6782-80P. List \$40.00. **\$17.44**
Net.....

Excello Table Speaker



R-42



R-41

R-42—A popular table designed for large radio receivers such as Radiola Model 18. Made with five-ply walnut top. Finished in walnut, hand rubbed. Can be furnished with or without cone speakers. Dimensions: Height 30", width 32 1/2", depth 17". Shipped from Chicago.

No. 7504-R42. Table alone. List \$23.00. Net..... **\$13.52**
No. 7505. Same, with Utah Magnetic Cone Speaker. List \$39.00. Net..... **22.93**
No. 7506. Same, with Peerless Magnetic Cone Speaker. List \$43.00. Net..... **25.28**
No. 7507. Same, with Jensen Dynamic A.C. Speaker. List \$78.00. Net..... **45.86**

R-41—Especially designed for Radiola, Atwater-Kent models, and other A.C. receivers. The top and side panels are five-ply walnut veneer. The door is five-ply with matched butt walnut veneer, walnut finish, hand rubbed. The receiver compartment is 29"x10"x12" deep. Special panel arrangements for standard receivers will be furnished gratis if specified when ordering. Speaker equipment optional. Dimensions: Height 41 1/2", width 32 1/2", depth 17". Shipped from Chicago.
No. 7508-R-41. Cabinet and Table, less Speaker. List \$45.00. Net..... **\$20.46**
No. 7509. Same, with Utah Magnetic Cone Speaker. List \$61.00. Net..... **35.87**
No. 7510. Same, with Jensen Dynamic A.C. Speaker. List \$100.00. Net..... **58.80**

Temple Air Column Speaker



True realism in speaker reproduction, for which Temple Air Columns are justly famous, has taken another step forward. Temple Model 15 is the new improved 60" long exponential air column—the same mathematically correct and properly designed type of speaker which made the name Temple famous. It is lighter in weight and smaller, yet at the same time the improvements in its tone are the most important of all. You will find in this new model a tonal beauty, a natural reproduction of the actual broadcast, a response to all frequencies, and a handling capacity that is really a revelation in speaker construction—all with volume to spare. Its appearance will impress everyone with its rich and pleasing beauty—truly a masterpiece of harmony in its artistic and dignified lines. It is encased in genuine walnut with sides of the same color in beautifully grained leather effect. 11 1/2" wide, 12 1/2" high, 8 1/2" deep. Shipping weight 20 lbs.

No. 8180-15. List \$29.00. Net.... **\$17.05**

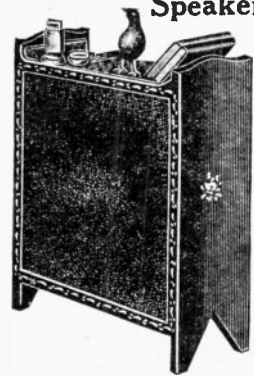
NOTE

Less expensive Temple Air Column Speakers are supplied in plain cases. Same high quality reproduction and volume.

No. 8181-13. 54 in. Air Column. List \$22.50 Net \$12.78
Shipping weight, 30 lbs.

No. 8182-11. Same as above but lighter weight 22.50 13.23
Shipping weight 20 lbs.

Browning-Drake Air-Chrome Speaker



While this speaker, because of its acoustical design, will reproduce the low and bass notes, the peculiar definition of the speaker permits every characteristic of every individual instrument or voice to stand out with unusual clarity and beauty.

The speaker is 20 1/2" wide by 9 1/2" deep and stands 22" high. It is furnished in natural walnut duco, high-lighted, to conform with the latest furniture finishes. The diaphragm employed is genuine aeroplane cloth, stretched across the frame and properly concaved.

the BBL unit being employed, the volume can be raised to a point to fill a fair-sized auditorium, backed up, of course, by an appropriate power supply. This model is to be set on the floor—the shelf on top can hold books, ornaments, etc., as suggested in the illustration (not included). Shipped express collect.

No. 7029-35. List \$35.00. Net.... **\$20.58**

Table Model

Enjoys practically the same acoustical characteristics of the floor model speaker, but smaller in size. Measures 15" wide, 8" deep, 17" high.

No. 7030-25. List \$25.00. Net.... **\$14.70**

Wirt Magnetic Cone Speaker



Every gradation of sound, from the deep tones of the bass viol to the sharp, flute-like notes of the soprano, is rendered distinct and natural by this newest development in radio speaker. The enclosed, free-edge, cone type, is the most modern and generally accepted form. It is unequalled for faithful reproduction of voice and instrument. Its quiet simplicity and dignity of appearance, the soft neutral bronze finish and silk-backed grills, harmonize nicely with the finest home furnishings. Case is metal, therefore, can stand an unusual amount of abuse. Serves as a very effective baffle, too—low notes are splendidly reproduced. Shipping weight 15 lbs.

No. 7560-400. List \$14.50. Net.... **\$8.53**



Parsifal SPEAKER TABLE With Air Chrome Speaker

Of ample proportions, a very large size Airplane Cloth Speaker is self contained in this massive table, equipped with Temple Model "F" (18"x23") Air Chrome Speaker. Height 30", width 29", depth 15". Sturdily constructed of selected Walnut Veneers. Suitable for use with a wide variety of receiving sets, ranging in size from the Alwater-Kent 37 to Radiola 18, or, of course, of large enough proportions to allow its use with the largest size custom built sets. A table cabinet is meant to rest on the top surface. Note the highly attractive speaker grille and handsomely turned and carved legs. The Air Chrome Speaker included in this table can safely handle the highest powered amplifiers—with a fidelity of tone that will startle you! Approximate shipping weight 65 lbs. Shipped from Holland, Mich.

No. 8405-103. List \$45.00 (with Air Chrome Speaker and Unit).

Net **\$26.46**

Tannhauser SPEAKER TABLE With Air Chrome Speaker

Here we offer you a truly attractive and highly useful table with a Temple Model "Z" (9 1/2"x21") Air Chrome Speaker. Height 30 1/2", width 21", depth 14". Beautifully designed—constructed of Genuine Walnut Veneers. Suitable for use with a variety of receiving sets, such as Philharmonic, Crosley, Alwater-Kent, Bosch, Steinie, Shamrock, A-C Dayton, Day-Fan, Standard, and many others—including most every custom built radio at present housed in a table cabinet, (which is rested on the table top. The Air Chrome Speaker (airplane cloth type) will thrill you with its absolute fidelity of reproduction and ability to handle enormous volume. Approximate shipping weight 58 lbs. Shipped from Holland, Mich.

No. 8404-102. List \$42.50 (including Air Chrome Speaker and Unit).

Net **\$24.99**



Raleigh SPEAKER TABLE With Temple Dynamic Speaker

Another proof of RASCO'S purchasing power! Why, for even less than the price generally quoted for dynamic speakers, we offer you a very handsome table manufactured of genuine Walnut Veneers that will harmonize with practically every receiving set on the market. The effectiveness of a dynamic speaker depends, in no small measure, on the size of the baffle board employed—in this combination—the whole interior of the table serves as the baffle! You are thus assured most exceptional performance—the breathing likeness and terrific volume will positively thrill you. Mind you, a TEMPLE dynamic speaker unit is supplied—the name alone is assurance of 100 per cent absolute satisfaction. The table is of ample proportions—30" high, 31 1/2" wide and 15" deep. Approximate shipping weight of the table is 25 lbs. Shipped from St. Louis. Please state what field voltage unit should be sent you—your choice of 6 volt D.C., 110 volt D.C., and 110 volt A.C.

No. 8406-51. List \$59.00 (including Temple Dynamic Unit).

Net **\$34.68**



Model 20 Temple Speaker is of the open radiator type with a large surface linen diaphragm. The balanced tension principle of its construction, however, lifts it bodily out of the class of cone type speakers. In Air Chrome construction the larger, or front half of the diaphragm is tuned to the lower frequencies while the smaller, or back half is tuned to the higher frequencies. Each and every tone reproduced may be said to be individually distinctive. Its frequency range is from lowest bass to the highest treble, all with a degree of naturalness that is as startling as it is pleasing. These speakers are sometimes referred to as "aeroplane cloth" type. Uniform response from 50 to 10,000 cycles! Uses the world renowned Temple Double Action Unit! Of refined beauty, its design adapts itself with harmony into the surroundings of the most fastidious—its genuine walnut frame together with the leather effect of its sides give it an eye appeal most pleasing, to say the least. Size: 20" x 25" x 10". Shipping weight 15 lbs.

No. 8172-20. List \$29.00. Net.... **\$17.05**

NOTE

The Temple Air-Chrome Speaker can also be supplied mounted on a plain, stained wood frame—no fancy cabinet or other frills. Can be installed in any console cabinet or used, as is, hung on the wall, standing on the floor, etc. All are about 12" deep overall. Shipping weights 9 to 22 pounds.

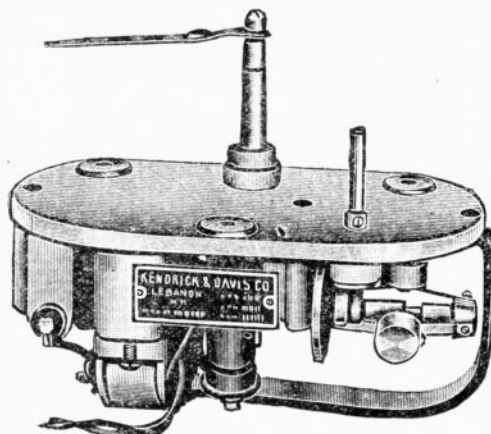
No.	Size	List	Net
8173	24"x24"	\$25.00	\$14.70
8174	18"x23"	23.00	13.52
8175	14"x14"	20.00	11.76
8176	10"x13"	20.00	11.76
8177	9"x24"	20.00	11.76
8178	9 1/2"x18 1/2"	20.00	11.76
8179	30"x36"	75.00	44.10

Temple Air-Chrome Speaker



UNIVERSAL ELECTRIC PHONOGRAPH MOTOR

The electrical pick-up of phonograph recordings, and amplification by virtue of any modern receiver's audio amplification system, has so thrilled its listeners with its almost uncanny fidelity of reproduction, and enormous distortionless volume, that the phonograph is once again enjoying popular favor. In many homes, electrically driven phonograph mechanisms are installed in the same console that houses the receiver itself—you can do this very thing with this most compact K and D phonograph motor. Measures only 7" long by 4" wide by 3" deep. Can be mounted to any board in a few minutes, or attachment may be made in any model of phonograph. There are but three bolts to support drive, and a template card is furnished to show holes to be bored. The frame is a special die casting, very strong and rigid. There are but two revolving shafts in the drive. The armature shaft is of 1/4" tool steel and revolves in self-aligning, well greased bronze bearings. This shaft through its brass worm transmits the power to a Bakelite Worm Gear, housed in a fool-proof slipping device which makes the stripping of a gear impossible. The governor is of the three-ball centrifugal type and is firmly attached on the armature shaft. The vertical spindle which carries the turntable is driven by the Bakelite Gear and revolves in a long bronze bearing. The electrical construction is of the highest grade throughout. An automatic switch works through a hole in the center of vertical spindle. This automatic stop lever is shown protruding through the center shaft—you will be amazed by its ingenious



construction and effectiveness. Can be used with either A.C. or D.C. current. While in operation, your receiver will not be disturbed due to its electrical proximity, even if the motor is running and your receiver is in operation! Sold completely assembled. Shipping weight 8 lbs.

No. 6910. For A.C. and D.C. current, 110 volts. Less Turntable.
YOUR NET COST... \$17.45

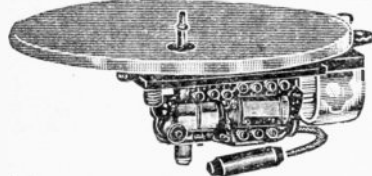
Phonograph Turntable

Especially designed to be used with the above described motor. Can also be used with other similar devices. Very accurately made. Highly nickel-plated. For 10" and 12" records. Shipping weight 4 lbs.

No. 6911. With Felt Covering. **\$1.85**
Your Net Cost.....

No. 6912. With Plush Covering. **\$2.95**
Your Net Cost.....

Bodine Electric Turntable



Is designed to meet the demand for a reliable, noiseless and absolutely non-interfering electrically operated turntable for phonographs and radio-phonograph combinations. Operated by a small single-phase induction motor, suspended on a spring mounting. It is a well known fact that motors with commutators and brushes will spark as soon as the commutators or brushes become worn or dirty, resulting in the loudspeaker caused by such sparking is clearly illustrated by the operation of a vacuum cleaner. The Bodine Type R Electric Turntable cannot cause such interference because it has no commutator or brushes. The speed reducing mechanism, of the worm-gear type, is totally enclosed, thus assuring remarkably quiet and smooth operation. No belts or external gear arrangements are used. Although the speed of the turntable is held practically constant at the correct record speed by the alternating current which operates the motor, an easily adjusted governor holds the record to the exact speed required, regardless of line voltage fluctuations. Requires practically no attention other than an occasional oiling by means of spring cap oiling tubes conveniently located under the turntable plate. Shipping weight 15 lbs. For 110 volt, 60 cycle A.C. only.

No. 7448-RC10. List \$37.50. Net. **\$23.98**

Na-Ald A.C. and D.C. Pick-up Adapter

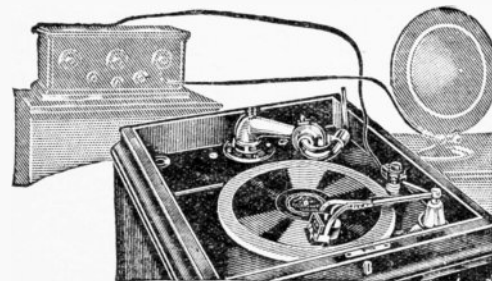


The detector tube in either a D.C. or A.C. receiver is removed. This adapter is slipped on to the prongs of the detector tube, and then the tube is inserted back into its own socket. The phone tips of the pick-up are inserted in the two up-right sockets. Shipping weight 1 lb.

No. 5352-949. List \$0.60. Net. **\$0.35**

No. 5352-949. List \$0.60. Net. **\$0.35**

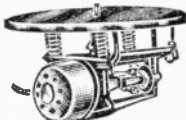
Amplion Revelaphone Electric Phono-Pickup



Light weight, together with the "short type" connection between needle and magnet field, eliminates the distortion so common in the ordinary electrical pick-up. Consists of volume control arm and pivot support and 20 feet extension cord. Adapters included for A.C. and D.C. sets. Shipping weight 5 lbs.

No. 7153. List \$13.50. Net. **\$7.94**

Pacent Phonomotor



Induction type which means no brushes, no sparking, long wearing. Absolutely silent. Nothing to get out of order. The most scientifically engineered phonograph motor on the market. Trouble proof. Price includes turntable. For 110 volt A.C. current

No. 7553. List \$35.00. Net..... **\$21.00**

Webster Electric Pick-Up



Using this pick-up, true reproduction over the entire musical range is assured. The finer harmonies and the timbre of all instruments are maintained in every detail. Will faithfully reproduce all frequencies now recorded on the best Orthophonic records. Remarkable clearness and volume, and freedom from any objectionable noise when playing any type of record, are features that prove the scientifically correct design of this new Webster product. Consists of the volume control base, cantilever supporting arm, and the pick-up head. Two adapters and full instructions are packed with each pick-up so that it is easily adaptable to either battery-operated or A.C. sets. These models embody such features as frictionless knife-edge stylus bearing, dead metal die cast housing, vibration-dampening cantilever supporting arm and base, and painstaking detail at every point of construction. Note that the volume control is built right into the pedestal. Shipping weight 7 lbs.

No. 8047-1A. List \$17.50 Net.... **\$10.44**

NOTE

The above model has its own tone arm. If you wish to attach this pick-up direct to the present tone arm on your phonograph, order Model 1B. Separate volume control is included, and necessary adapter.

No. 8048-1B. List \$12.50. Net..... **\$7.35**

Pacent Phonovox Electrical Phonograph Reproducer

The magnetic pick-up system for electrical phonographic reproduction is conceded by every engineer to be the most efficient method, and the Pacent Phonovox will therefore perform in a manner only possible when you use "pick-ups" that cost considerably more.



The sound box on the phonograph is replaced with the pick-up unit, into which a needle is inserted and locked. A cleverly constructed screw and clamp on this unit will enable you to attach it to any tone arm. A special adapter (one furnished for 4-prong D.C. detector tubes, and one for 5-prong A.C. detector tubes) is inserted in the detector socket of any receiver; the R. F. tubes can be turned off, for they are not used. A 20 ft. extension cord and volume control complete this outfit. Nothing to get out of order. Takes but a few minutes to install. No technical knowledge required. Detailed instructions furnished. Shipping weight 3 lbs.

No. 6070. Without tone arm and record. List \$10.50. Net..... **\$6.17**

New Pacent Balanced Tone Arm Pick-Up



Note that this tone arm rests on its own base—the end remote from the unit itself, there is a considerable weight which "counterbalances" the weight beyond the pivot. Weight on record is only about three ounces, greatly reducing scratching, and increases the life of all records

so reproduced. Due to construction of tone arm, the unit is always set at the correct angle, with reference to the surface of the record. Pedestal does not have to be screwed down to the phonograph platform. New form of adapters allow use with either A.C. or D.C. detector sockets. Shipping weight 4 lbs.

No. 7556-124. Complete, including tone arm adapters for A.C. and D.C. sets, volume control, and connecting cords. List \$13.50. Net..... **\$7.94**

Ultrapasonic Phonograph Reproducers

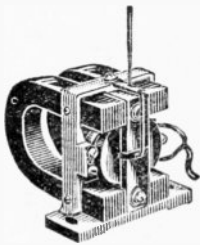


Although this instrument has no connection with radio apparatus, we are listing it, for the improvement that this type of reproducer makes possible in the tone reproduction of ANY phonograph, is comparable to the trend of universal adaptation of cone speakers, for radio reception—they both reproduce the lowest, the medium and highest registers of the full musical scale with startling fidelity. The special diaphragm used in this reproducer is ONLY AS THICK AS A HUMAN HAIR—it is a scientifically proportioned aluminum alloy, blended from manganese, silicon, iron, copper, zinc, magnesium, nickel and aluminum.

No. 9094. List \$8.50. Net..... **\$5.45**

No. 6593. Competitive Model. **\$2.95**

Duo Magnetic Cone Speaker Unit

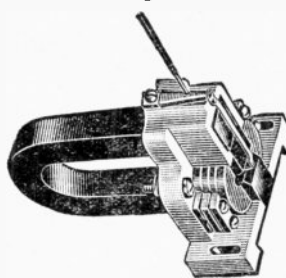


One of the most powerful units ever offered to the public! A loud speaker unit with a compound magnetic field, a radical improvement that insures the highest degree of tonal quality. The exclusive features offered in this unit are: Two powerful permanent tungsten steel magnets, uniform and free from all holes and defects; specially designed armature of specially-treated chrome steel; extremely large magnetic cross sectional area; extra large and accurately

machined pole face areas; adjustable feature of pole pieces; extremely high magnetic damping of armature; heavy duty, scientifically designed non-resonant coils; horizontal, transverse and longitudinal armature adjustment; special method of balancing armature, with variable tension feature; parallel connection of coil units, to obtain maximum flux density and to match output impedance of power tube; single piece cast aluminum bracket, simple and effective; non-breakable driving pin connection to armature and link; machined pole pieces to insure most permeable field path from magnet poles to armature; no chattering or blasting possible; absolutely even amplification on all audio frequencies; depth of tone with unequalled fidelity of reproduction; all harmonics and overtones produced clearly. Equipped with 10-foot cord. Ideal for magnetic type cone speakers, aeroplane speakers, balsa wood, etc. No matter what cone speaker you may now possess, you will vastly improve its performance by replacing present unit in it with the Duo Magnetic! Shipping weight 5 lbs.

No. 7450. List \$10.00. Net..... **\$5.88**

Amplion Magnetic Type Cone Speaker Unit



Here you have the heart of the Amplion Magnetic Type Cone Speaker Units! Here you see the reason for their most remarkable performance. It is truly a tribute to the already long established Amplion reputation! For those who wish to build their own ideas of a magnetic type cone speaker. Briefly, its outstanding features are: Intense magnetic field, laminated pole pieces, light moving parts, accurately balanced restoring spring, noiseless transfer levers, scientific step-up ratio. Ingenuity in design and precision in manufacture make Amplion Cone Unit No. 104 the recognized standard of quality. Shipping weight 5 lbs.

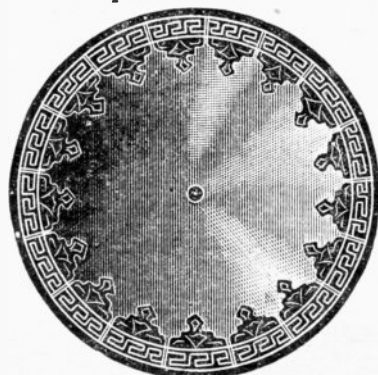
No. 7159-104. List \$7.50. Net..... **\$4.41**

Amplion Air Column Speaker Unit

Essentially, this unit is the same as the Amplion Cone Unit, which means its installation in a long air column speaker will assure you of incomparable results. Can safely handle all the volume imposed on it by any powerful A.C. receiver—no blasting, no chattering—just sonorous, mellow but sweet reproduction. Shipping weight 5 lbs.

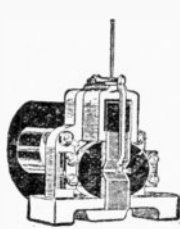
No. 7160. List \$10.00. Net..... **\$5.88**

Cone Speaker Parchment



We offer you the very same parchment that is used in most all commercial cone speakers—"Alhambra Fonotex." The very fact that it is used so extensively is your assurance that your home assembled cone speaker will be a pronounced success. Furnished in a square sheet 38"x38" and smaller sizes with a design and circle

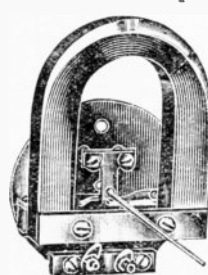
B. B. L. Cone Speaker Unit



This unit is not a mere copy of any loud speaker unit previously made, but is a new and original development, a broadcast voice and music unit which reproduces the more faithfully and naturally, throughout the entire frequency range. The quality reproduction of this unit embraces a uniform sensitivity to pitch and the ability to transmit a large amount of power and correspondingly large sound volume output without the introduction of the blasting notes caused by magnetic saturation. Some of the features are tapered pole pieces, pole faces and armature cross section sufficiently large to carry without saturation the necessary maximum amount of magnetic flux, comparable flux-carrying capacity of pole faces and armature that is made purposely short, wide and flat. There is ample winding space to use wire large enough to carry any required current. Pole pieces are laminated and tapered. Pole pieces are cast integral with aluminum frame to insure permanent adjustment. Will drive any type speaker—Magnetic Cone—Airplane—36" Double Cone—Balsa, etc. Dimensions: 4 1/4" deep by 3" wide by 3 1/2" high. Shipping weight 3 1/2 lbs.

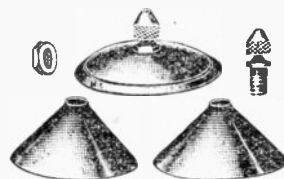
No. 7191. List \$7.50. Net..... **\$4.40**

Cone Speaker Units



This unit is constructed along principles recognized as theoretically and mechanically perfect. In fact, it will enable you to assemble your own cone speaker, equal in efficiency, volume, clarity, fidelity of reproduction, etc., to the highest priced speakers. Massive tungsten steel permanent magnet. Step down leverage of placement of stylus rod assures concentrated energy, producing tremendous volume. Ohmage is 1,300, and the impedance will match the average receiver. Armature (Flipper) upon which is attached the stylus) correctly adjusted between pole pieces. Pole pieces and armature are Norway Iron. Will operate successfully at 90 volts or up to 600 volts. Weight 3 lbs.

No. 9785. List \$6.00. Net..... **\$2.15**



Cone Apex

BE SURE TO STATE THE PITCH OF CONICAL CAPS DESIRED: 145° OR 90°.

Consisting of two conical caps, as shown—bushing with center hole for stylus—threaded vertical hole—knurled screw for locking stylus to apex bushing—and 3/32 hexagon nut.

No. 9784. List \$0.60. Net..... **\$0.20**



Le Page's Glue

Whereas this glue can be used in the same manner explained in No. 5910, it is really recommended by us to be used to glue the flaps of the "pie." When these flaps are glued to each other, then the cone is formed. Naturally, this glue can be used for a thousand and one other purposes. A tube or two should always be on hand. Shipping weight 8 oz.

No. 5911. Per Tube. Net... **\$0.23**

printed thereon, or furnished plain. The price includes a very durable cardboard mailing tube—an assurance you will receive these sheets in perfect condition. Shipping weight 5 lbs. (including tube).

DECORATED

No. 5901. One 38"x38" Sheet, including Mailing Tube. Net... **\$1.25**

No. 5902. One 26"x26" Sheet, with Mailing Tube. Net... **\$0.95**

No. 5903. One 20"x20" Sheet, with Mailing Tube. Net... **0.83**

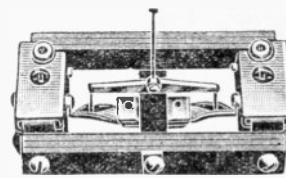
PLAIN CONE SPEAKER PARCHMENT

No. 5904. One 38"x38" Sheet, with Mailing Tube. Net... **\$0.95**

No. 5905. One 26"x26" Sheet, with Mailing Tube. Net... **0.79**

No. 5906. One 20"x20" Sheet, with Mailing Tube. Net... **0.69**

Double Drive Cone Unit

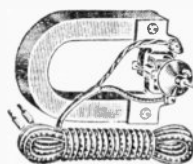


It can be readily observed that this unit is a radical departure in construction from the conventional horse-shoe magnet type. There are two distinct units in this type, both of which are exactly identical in mechanical and

electrical characteristics. The world renowned and accepted principle of balanced armatures (Baldwin type) is used herein. The vibrations produced by each unit are transmitted to the common cross-bar which carries the stylus pin at its exact center. The double drive principle causes the pin to travel straight up and down, and not with a side sweeping motion. The magnets also constitute the frame. The pin is removable at will. Tungsten steel magnets. All parts are either nickel-plated or Parkerized Universal mounting base. For voltages between 90 and 750. Ideally suited to drive a 36" cone with enormous volume. Just the unit to use in any magnetic speaker. Makes an ideal replacement cone speaker unit. Shipping weight 3 lbs.

No. 5900. List \$6.00. Net..... **\$3.53**

Trimm Cone Unit



Used in the higher priced Trimm Cone Speakers. Balanced armature type, therefore can stand up to 500 volts. Note unusually large magnet, assuring unusual sensitivity and ability to produce bass notes supreme. Shipping weight 5 lbs.

No. 8331. List \$6.00. Net.... **\$3.53**

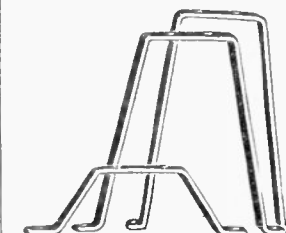
Cone Mounting Rings



Provide an anchoring for the metal angle straps to which is fastened the cone speaker unit, and to grip the rear cone parchment. A special additional disk is supplied which acts as a washer for this purpose. Constructed of molded aluminum 9" in diameter. For 18, 24 and 36" double cone speakers.

No. 5909. (Two Rings, Nuts and Bolts.) List \$3.50. Net... **\$2.10**

Cone Unit Mounting Brackets



Designed to work in conjunction with the above rings. Very solidly constructed of heavy brass. 16 drilled and ready for use. The 18" cone bracket extends the cone unit 1 1/4" nearer the apex of the parchment; the 24" cone bracket extends the unit 3", and the 36" cone bracket 6 1/4".

Shipping weight 1 lb.

No. 5906. For 18" Double Cone Speaker. Net... **\$0.68**

No. 5907. For 24" Double Cone Speaker. Net... **0.88**

No. 5908. For 36" Double Cone Speaker. Net... **1.13**

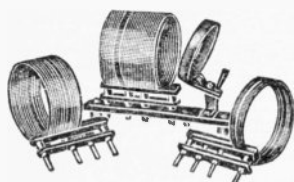
Dupont "Fabrikoid" Cement



A transparent, quick drying cement which is ideally suitable for joining the periphery of the front cone parchment to the rear one. Place one cone over another, center their outer edges evenly, and squeeze the tube, allowing the fluid to flow in such a manner that it will cover the rear cone periphery (slightly smaller in circumference than the front cone), and the slight excess circumference of the front cone. Can also be used to affix a single cone to a piece of velvet cloth, chamols, skin, etc., as generally the practice in modern magnetic type cone speakers. Shipping weight 8 ozs.

No. 5910. Each tube, Net... **\$0.23**

Hammarlund Short-Wave Plug-in Coils



These coils are wound with a definite space between turns and supported by a thin film of strong, efficient dielectric material. By firmly anchoring the wire to the dielectric, short circuits are impossible.

This also serves to keep down the stray circuit capacity which limits the frequency range of each coil. The standard SWT-3 coil set covers the 15-107 meter range with a .00014 mfd. condenser. There is ample overlap, making tuning very smooth over the whole wavelength range. Additional coils extend the range down to 3 meters and up to 215 meters. The primary is adjustable and held in position by friction. Shipping weight 5 lbs.

	List	Net
No. 7595-SWT-3. Base and tuning coils for 20, 40 and 80 meter bands (illustrated)	\$10.00	\$5.88
No. 7596-SWT-B. Base only	3.00	1.77
No. 7597-SWT-20. Tuning Coil for 20 meter band. 15-30 meters	2.50	1.47
No. 7598-SWT-40. Tuning Coil for 40 meter band. 27-59 meters	2.50	1.47
No. 7599-SWT-80. Tuning Coil for 80 meter band. 52-107 meters	2.50	1.47
No. 7703-SWT-120. Tuning Coil for 120 meter band. 100-215 meters	3.00	1.77

Inductor Coils

Constructed like coils above, but without tickler or variable primary. Windings correspond to secondary windings of tuning coils. Used in sets with a stage of R.F. amplification, using standard or "Shield-Grid" tubes. For .00011 Mfd. Tuning Condensers.

	List	Net
No. 7704-SWI-3. Base and inductors for 20, 40 and 80 meter bands	\$6.00	\$3.53
No. 7705-SWI-B. Base only	1.00	0.59
No. 7706-SWI-20. Inductor for 20 meter band. 15-30 meters	1.50	0.88
No. 7707-SWI-40. Inductor for 40 meter band. 27-59 meters	1.50	0.88
No. 7708-SWI-80. Inductor for 80 meter band. 52-107 meters	2.00	1.18
No. 7709-SWI-120. Inductor for 120 meter band. 100-215 meters	2.00	1.18

Hammarlund Foundation Kits



Consists of a drilled and engraved Westinghouse micarta panel, aluminum shields, drilled Van Dorn steel chassis, shafts, binding post strips, Fahnestock clips, fixed resistance units, resistor mounts, brackets, clips, wire, screws, nuts, washers and other minor parts. Shipping weight, each, 15 lbs.

	List	Net
No. 7719. Master Model (A.C. and D.C.). Hi-Q-29	\$16.50	\$9.40
No. 7720. Junior Model (A.C. and D.C.). Hi-Q-29	14.00	8.22
No. 7721. Hi-Q-6 (1927 and 1928)	15.50	9.11
No. 7722. Hi-Q-5 (1926 and 1927)	10.50	6.17

Hammarlund Coil Kits

No. 6710. Perldyne Coil Sets. Packed in sets of three. List \$10.00. Net	\$5.88
No. 6711. Hi-Q "Autocouple" Coils. List \$3.50. Net	2.06
No. 6712. "Hi-Q Six" Coil Sets. Packed in sets of four. List \$12.00. Net	7.06
No. 6713. Pre-Selector Coil Sets. Packed in sets of two. List \$7.50. Net	4.41
No. 5989. Strobodine Coil Sets. Packed in sets of three. List \$10.00. Net	5.88
No. 5990. Loftin-White Coil Sets. Packed in sets of four. List \$10.00. Net	5.88

All of the above coil sets are exclusive Hammarlund Products made in exact accordance with the set designer's original specifications. Shipping weight 3 lbs.

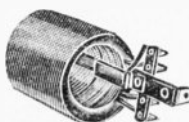
B-T R. F. Choke Coil



Arrangement of windings in a series of banks gives considerable improvement in results. This unit is housed in a neat bakelite case with binding post terminals. Mounts with single screw. 1" in diameter. Shipping weight 8 ozs.

No. 6308. List \$0.90. Net **\$0.53**

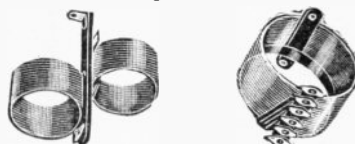
Hammarlund Shield-Grid Coils



Made of the famous low resistance Hammarlund space-wound self-supporting inductance, 2" in diameter. The high impedance primary of the R.F. transformer has three taps so that required selectivity can be balanced against maximum useable amplification. The tap leads are conveniently located on a Bakelite terminal strip. The antenna coupler has three taps for varying degrees of selectivity and pick-up with any type of receiver. These also permit its use as an efficient interstage transformer in standard tube circuits of the straight and neutralized mid-tap primary types.

	List	Net
No. 7566-SGT-23. For .0005 mfd. condenser	\$2.50	\$1.47
No. 7567-SGT-17. For .00035 mfd. condenser	2.50	1.47
No. 7568-SGT-LW. Long - wave transformer	2.50	1.47
No. 7569-AC-23. Antenna Coupler for .0005 mfd. condenser	2.50	1.47
No. 7570-AC-17. Antenna Coupler for .00035 mfd. condenser	2.50	1.47

"Hi-Q 29" Coils



A set of three space-wound coils for use with .00035 mfd. "Midline" condensers, designed for the new Hammarlund-Roberts "Hi-Q 29" Receiver but also very desirable for other experimental circuits. The antenna coupler primary has three taps which are brought out to convenient soldering lugs, permitting wide variation in antenna coupling to meet all sensitivity or selectivity requirements. The radio frequency transformers are designed for special band selector circuits in which both the grid and plate circuits are tuned. Shipping weight 3 lbs.

	List	Net
No. 7592-HQ-29 Kit. Consists of two HQT-29 Coils and one HQC Coil	\$8.00	\$4.70
No. 7593-HQT-29 R.F. Coil. Each	2.50	1.47
No. 7594-HQC-29 Tapped Antenna Coil	3.00	1.76

Hammarlund Manuals



"Hi-Q 29" Construction Manual No. 7585-HQM-29. List 25c. Net	\$0.15
Short-Wave Manual No. 7586-SWM. List 10c. Net	\$0.06
R.F. Choke Manual No. 7587-CM. List 10c. Net	\$0.06
Hi-Q 6 Constructional Manual No. 9814. List \$0.25. Net	\$0.15

Hammarlund R. F. Choke Coil



Action is uniform throughout the broadcast range of frequencies. The current-carrying capacity of both sizes is 60 milliamperes. Hammarlund R. F. Choke Coils are advantageously used in the plate circuits of detector tubes, in the "B" plus and grid leaks of radio frequency tubes and in many other ways. All-bakelite case.

No. 5991-85. Has an inductance of 85 millihenries, a capacity of 3 mfd., and a resistance of 215 ohms. List \$2.00. Net	\$1.18
No. 5992-250. Has an inductance of 250 millihenries, a capacity of 2 mfd., and a resistance of 420 ohms. List \$2.25. Net	1.32

Remler Choke Coil



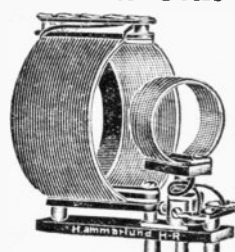
Limits radio frequency currents to certain paths and prevents the generation of high parasitic frequencies. It may also be used to advantages in various reflex and super-heterodyne circuits. The case is of molded Bakelite. Size 1" in diameter by 1" in depth.

No. 6069-35. List \$0.90. Net **\$0.53**

Hammarlund-Roberts Coils



Antenna Roberts Coil or Neutrodyne Coil



Detector Roberts Coil

These coils consist of an R. F. Stage or Antenna Coupler, the primary of which is tapped for maximum efficiency for any length aerial, 3 such taps being provided, and a 3-circuit tuner of exceptional efficiency, the primary of which is tapped for precise neutralizing. Both coils are wound on 3" diameter films of celluloid. Precision space wound, assuring electrical uniformity between both coils. The insulating material is genuine bakelite, upon which are mounted the soldering lugs for all connections. For .0005 23-plate condensers only. For use in any variety of circuits. Shipping weight 4 lbs.

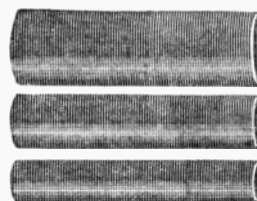
No. 9749. Set of 2 Coils. List \$7.50. Net **\$4.41**

Hammarlund Neutrodyne Coils

Wound on 2" diameter film of celluloid. Correctly tapped for neutralization. Can be used in any tuned R. F. circuit. Can be mounted closer together, with less interstage coupling. Small diameter means less pick-up, therefore helps eliminate interference and broad tuning. For 17-plate .00035 condensers only. Shipping weight 4 lbs.

No. 9750. Set of 3 Coils. List \$7.50. Net **\$4.41**

Space Wound Solenoid Coils



We can supply space wound coils 11" long. Set builders find them extremely useful in making their own plug-in coils, or, in fact, any form of solenoid coil for any purpose.

No. 9843. 3" diameter by 11" long. Wound 13 turns per inch with No. 18 S.C.C. wire. List \$4.40. Net \$1.50

No. 9844. 3" diameter by 11" long. Wound 32 turns per inch with No. 24 D.S.C. wire. List \$4.40. Net	1.50
No. 8991. 2 3/4" diameter by 11" long. Wound 20 turns per inch with No. 32 green silk covered wire. Per 11" length, List \$4.40. Net	1.50
No. 8992. 2" diameter by 11" long. Wound 25 turns per inch with No. 24 green silk covered wire. Per 11" length, List \$4.40. Net	1.50

NOTE

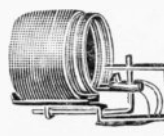
We do not sell less than a 11-inch length. You simply measure off the required number of turns as specified under the inductance values in all circuits and hook-ups, and clip the wire accordingly, saving the rest of the coil for future use. These four sizes are recognized as Standard. Precision wound by special machinery assures you of electrical uniformity throughout the coil.

Hammarlund Low-Wave Receiving Coils

Wound on a dielectric of very high quality, 5/1,000" thick, No. 16 copper wire, green silk over cotton insulation. 10 turns per inch, 3" in diameter. Used by prominent laboratories and amateurs. Special technical bulletin gives complete information. Coils are 20" in length.

No. 5544. List \$8.00. Net **\$4.71**

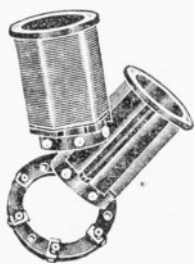
New Model Hammarlund Auto Couple Coil



This type specified for the Hammarlund-Roberts Hi-Q Six is essentially the same as the "Auto-Couple" Coil described under our No. 9816, except its mechanism has been changed somewhat to permit its use in connection with the new Hammarlund Drum Dial. Used with .0005 mfd. condensers. Is sold complete with mounting bracket and adjustment.

Four of these matched coils are required for the Hi-Q Six Kit. No. 5988. Each Coil. List \$3.00. Net **\$1.77**

Silver-Marshall Plug-In Coils



Their qualities of low losses, reduced to a minimum, electrical uniformity, mechanical perfection, extreme compactness, less pick-up possibility, least interstage coupling, accessible connections on base, have made these instruments famous all over the world. Their small diameter makes them ideally suitable for use in shielded stages. To change from one coil to another for different band of wave lengths or to another circuit, the coils are simply removed and another substituted. A key section molded in the coil form must fit into the special

slot provided on the base, preventing shorts, wrong connections, etc.

A Range 190 to 550 meters C Range 30 to 75 meters B Range 190 to 200 meters D Range 500 to 1500 meters E Range 70 to 1100 to 3000 meters

All S-M plug-in coil grid inductances are designed for .00035 mfd. variable condensers. All are interchangeable, fitting the individual S-M No. 515 six-contact coil socket. Average shipping weight 1 lb.

No. 5661-110-A Coil—Two 4 2/3 turns secondary; 32 turns rotor. List \$2.50. Net \$1.47

No. 5668-111-A Coil—80 2/3 turns secondary; 44 2/3 turns slotted primary; 32 turns rotor. List \$2.50. Net \$1.47

No. 5667-111-B Coil—23 2/3 turns secondary; 24 2/3 turns slotted primary; 10 turns rotor. List \$2.50. Net \$1.47

No. 5668-111-C Coil—11 2/3 turns secondary; 24 2/3 turns slotted primary; 6 turns rotor. List \$2.50. Net \$1.47

No. 5671-113 Coil Form—Molded bakelite stator form, with rotor, rotor supports and contacts. Weight in carton, 3 ozs. List \$1.75. Net \$1.03

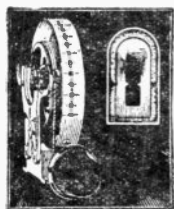
No. 5672-114-A Coil—89 2/3 turns secondary; 40 turns slotted primary; 10 2/3 turns inner primary. List \$2.50. Net \$1.47

No. 5688-114 S. G. For shielded grid tubes. List \$2.50. Net \$1.47

S-M PLUG-IN COIL SOCKET

No. 5685. Molded bakelite ring with six contacts designed to take all S-M plug-in coils. List \$1.00. Net \$0.59

New Silver-Marshall Illuminated Drum Dial



Illustrated in the accompanying illustration with the 807 window, the dial is seen to consist of a die-cast metal drum carrying a translucent 100 degree scale, and a die-cast bracket which, in turn, carries the drum, the drum illuminating lamp socket, and the drive shaft. This bracket may be fastened down upon a chassis, the condenser requiring no other support than the dial bracket itself. Will accommodate almost any standard condenser. The dial is of 8:1 vernier reduction ratio, and is controlled entirely by a knob on the front panel located

directly below the center of the dial scale window. The scale, divided into 100 degrees with numbers every 5 degrees, is translucent, and a small lamp socket is arranged so that the lamp falls directly behind that portion of the scale seen through the window, thus illuminating it evenly and without shadow. The scale itself, about 6" long (drum diameter, 3 3/4"), provides a full 1/16" for each scale division, for easy reading to 1/2 division or closer. Of the so-called "string-drive" type of dial, this new S-M product uses not the usual type of dial, this new S-M product uses not the usual type of dial, but bronze cable wound from shaft to drum, and vice versa. This dial will not slip no matter how stiff its load, and "play" is absent. The drum is free to turn a little more than 180 degrees—then it is arrested, by rubber-cushioned bumpers, effectively preventing strain on condensers or dial cable. Two models are available—bracket at left of dial, and bracket at right of dial. Both turn in the same direction, and are essentially similar, except for scales. (Drums, brackets, stops, and lamp mountings are universal, for right or left mounting. Very compact—but 2" from front or back to shaft center, and only 1 1/16" wide overall, excluding lamp bracket and knob. Furnished complete with knob and lamp socket. It may be used with the 807 window or with the new \$11 and \$12 single and control, escutcheons soon to be released. Shipping weight 3 lbs.

No. 6903-810L. (Left). List \$3.75. Net \$2.20

No. 6904-810R. (Right). List \$3.75. Net \$2.20

No. 6905-807. Window. List \$0.50. Net \$0.29

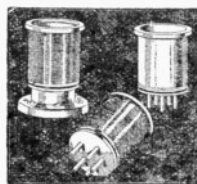
Silver-Marshall R.F. Chokes

A special R.F. choke of very low distributed capacity for short-wave use between 10 and 200 meters. Sectionally wound on impregnated spool, sealed in black Bakelite case, similar to type 275. Inductance, 3.4 mh. Average distributed capacity, 1 nmfd.



No. 7119-277. List \$1.50. Net \$0.88

Silver-Marshall Midget Plug-in Coils



lite tube. All forms are equipped with five pins to fit any 5-prong tube socket (S-M 512). Overall size, 2 1/2" long over finger flange, 1 3/4" diameter.

	List	Net
No. 7123-130-P. Coil Form, unwound form smooth	\$0.65	\$0.39
No. 7124-130-T. Coil Form, unwound form, threaded with 98 1/2 threads	.65	.39
No. 7125-131-T. Coil—17.1 to 32.1 meters with .00014 mf. condenser	1.25	.74
No. 7126-131-U. Coil—31 to 58 meters with .00014 mf. condenser	1.25	.74
No. 7127-131-V. Coil—57 to 110 meters with .00014 mf. condenser	1.25	.74
No. 7128-131-W. Coil—101 to 204 meters with .00014 mf. condenser	1.25	.74
No. 7133-131-X. Coil—190 to 360 meters with .00014 mf. condenser	1.25	.74
No. 7134-131-Y. Coil—315 to 650 meters with .00014 mf. condenser	1.50	.88
No. 7129-132-A. Coil—190 to 550 meters with .00035 mf. condenser	1.25	.74
No. 7130-132-B. Coil—5 prong type, R.F. Transformer	1.25	.74
No. 7131-132-C. Coil—5 prong type, Oscillator	1.25	.74
No. 7132-132-D. Coil—240 to 1000 meters with .00035 mf. condenser	2.00	1.18

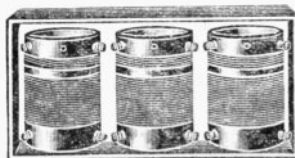
Dresner Plug-in Coils



Coils plug into standard U-X (4 prong) sockets, to which all wiring connections are made. Wound on moulded bakelite. Diameter 1 1/4", length 2 1/4". Range 215 to 550 meters, with .00035 tuning condenser. All coils are electrically matched. Sold singly or in sets of 3.

No. 7017-95. Single Coil. List \$0.75. Net \$0.44

Dresner R. F. Coils

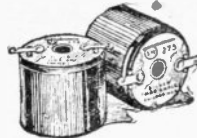


Automatically space wound on a threaded bakelite form. Binding post terminals. All coils are electrically matched—very attractive in appearance. Covers broadcast wave lengths, 215 to 550 meters, requiring a .00035 mfd. variable condenser. Diameter 2". Length 2 3/4".

No. 7015-90. Single Coil. List \$0.90. Net \$0.53

No. 7016-90. Set of 3 Coils. List 2.50. Net \$1.47

Silver Marshall R. F. Chokes



Designed for short wave use up to 600 meters. Impregnated winding encased in Bakelite housing, two soldering lugs and one mounting hole. Inductance 2 1/2 millihenries. Size 1 1/2 x 1 1/2". Weight 2 oz. No. 5531-275 R.F. Choke. List \$0.90. Net \$0.53

For long wave use from 600 meters up. Inductance, 10 millihenries. Weight 2 oz. No. 5532-276. R.F. Choke. List \$1.00. Net \$0.59

S-M Choke for Needle Scratch Filters



Housed in the same bakelite case as both 275 and 276 Silver-Marshall R.F. chokes, the 278 is intended primarily for use in a "needle scratch" filter circuit. Its inductance of 140 M. H., when connected in series with a .0075 mf. condenser and shunted across any standard magnetic phonograph record pick-up, will cut out all frequencies above 4,900 cycles, and hence practically all "needle scratch." Shipping weight 6 ozs.

No. 6738-278. List \$1.50. Net \$0.88

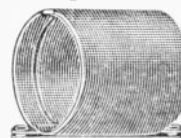
S-M Universal Coils



A highly efficient coil having R.F. resistance almost 50% lower than of any other coil. Especially designed to provide extreme selectivity and high amplification with screen grid tubes. Universal in application, they may be used as an antenna coupler, R.F. transformers, or regenerative coils, etc. There are 3 windings on each coil. Encased wire is wound on threaded Bakelite tubing, with inside primary tubes. Size, 2 1/2" diameter by 3 1/2" long. Range

190 to 550 meters with .00035 mf. variable condenser. No. 7139-(140, 141 or 142). List \$3.00. Net \$1.77

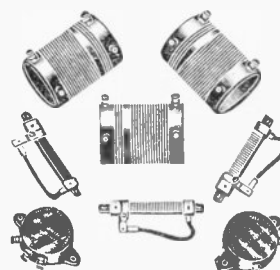
Compact Air Wound R.F. Coils



The superiority of a solenoid coil over any other type is conceded. This coil is a solenoid and its air space wound with no insulation in its field. It is truly a low loss product. Another outstanding feature of this efficient coil is its extreme compactness, measuring only 2 1/4" in diameter and 2" long. This small size lessens the interstage coupling effects, and greatly reduces external pick-up. The primary is enclosed within the filament end of the secondary. The ends of the wire are coiled, and are long enough to be run direct to their proper terminals. Precision wound, thus each coil is electrically matched with every other one. Ideal for use in shielded stages or wherever space is at a premium. Green silk covered wire. Can be used as an antenna inductance, or intermediate R.F. stage transformer. Can be screwed to base board through the heavy celluloid strip permanently attached to the coil. There are 12 turns in the primary and 79 turns in the secondary. For 17-plate .00035 variable condensers, with which it will cover 200 to 550 meters.

No. 9836. Each Coil. List \$1.50. Net \$0.55

Dresner 6 Tube T. R. F. Essential Kit



A very excellent receiver can be built with these parts! Consists of 3 Bakelite space wound threaded coils, 3 variable grid suppressors (oscillation control), one special antenna inductance (does not have to be tuned) and one R. F. choke. Instructional diagrams included show that either a single control 3 range .00035 condenser, or a single and double condenser, or even 3 single variable condensers can be used in conjunction with this kit.

No. 7014-91. List \$5.00. Net \$2.94

Halldorson R. F. Transformers and Stage Shields



Have been designed with as low an R. F. resistance as is consistent with a good substantial transformer. Wound on threaded bakelite forms with No. 28 wire; each turn is spaced the thickness of the wire. The coupling has been made quite tight to give high gain per stage when the receiver is shielded.

No. 5392. Type .00035 A. C. R. F. Coils. Each Coil, List \$1.25. Net \$0.74

No. 5393. Type .00035 Shield-Grid R. F. Coils. Each Coil, List \$1.25. Net \$0.74

No. 5394. Type .00035 Oscillator Coupler. Each Coil, List \$3.00. Net \$1.77

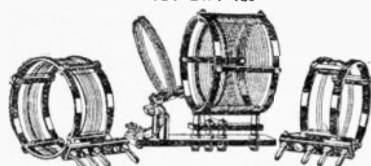
No. 5395. Type .00035 Antenna Coupler. Each Coil, List \$3.00. Net \$1.77

STAGE SHIELDS

Are made from a special grade of soft pliable copper in which the conductivity is higher than any other shield available to the amateur. Brushed and lacquered, they not only provide effective shielding but add greatly to the commercial appearance of any receiver. Size 7" high, 3 1/2" wide and 3 1/4" long. Shipping weight 3 lbs. No. 5396. List \$2.00. Net \$1.18

Aero Short Wave Tuner Kit

SERIES LWT-125

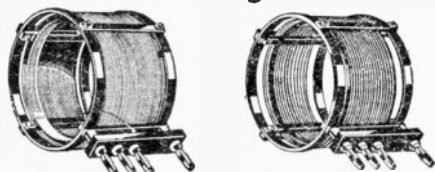


COMPLETELY INTERCHANGEABLE

Constructed with strict accordance with low losses. Inductances are space wound on special forms and bases with provision for immediate removal to change over to another wave length band. This kit covers 15 to 130 meters. Completely interchangeable. Includes 3 coils and base mounting, covering U. S. bands 20, 10 and 80 meters. Uses .00014 condenser on secondary, and .00025 on feedback control.

No. 9604. Set of 3 Coils. List \$12.50. Net... **\$7.35**

Aero Interchangeable Coils



No. 9606

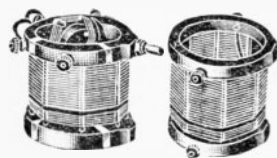
No. 9605

By virtue of plug-in feature, you can increase the wave length range of your Aero short wave tuner by plugging in the above coils, without changing the variable condenser. Wound on air—no dope of any kind used. Shipping weight 2 lbs.

No. 9605-1. Range 125-250 meters. List \$4.00. Net... **\$2.36**

No. 9606-5. Range 235-350 meters. List \$4.00. Net... **2.36**

Bruno Inductances



No. 9074

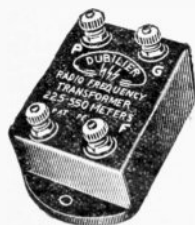
No. 9631

The diameter of these coils is only 2 1/2". Each is 3" long. The wire is very attractively wound in two colors of orange and green upon a low loss Quartzite form, assuming a coil of utmost efficiency. For .0005 variable condensers. Will tune from 200 to 575 meters. Single hole mounting. Ends of molded bakelite.

No. 9074. 3-Circuit Tuner. List \$5.50. Net... **\$3.19**

No. 9631. Bruno No. 99 R. F. Coil. List \$3.00. Net... **\$1.73**

Dubilier Duratran Untuned R. F. Transformer



Covers the broadest wave length band from 225 to 550 meters, without the necessity of any tuning variable condenser connected across the secondary terminals. It is recommended that the first R. F. stage, in a receiver utilizing these transformers, be of the conventional tuned type, followed by one or several Untuned R. F. Stages, employing the Duratran transformer. Maintains an amplification factor of 15 throughout the entire band it covers. Very compact. Shipping weight 1 lb.

No. 5285. List \$4.00. Net... **\$2.35**

Bakelite Tubing

Genuine bakelite tubing. Will not warp, bend or change color. For the experimenter who winds his own coils. Three-inch long pieces only.

No. 6351.	2"	Diameter.	Net.....	\$0.14
No. 6352.	2 1/4"	Diameter.	Net.....	0.19
No. 6353.	2 1/2"	Diameter.	Net.....	0.16
No. 6354.	2 3/4"	Diameter.	Net.....	0.22
No. 6355.	3"	Diameter.	Net.....	0.19
No. 6356.	3 1/4"	Diameter.	Net.....	0.24
No. 6357.	3 1/2"	Diameter.	Net.....	0.22
No. 6358.	4"	Diameter.	Net.....	0.29

NOTE

Sold in 6" and 12" lengths at proportionate prices.

Aero LWT 10-11 Coils



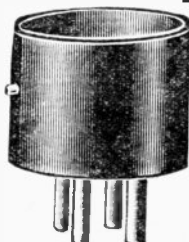
No. 7283. Coil Kit No. LWT-11—Contains a plug-in mounting base without primary and three coils for use after a shield grid tube. Range 16.5 to 89.5 meters. List \$11.50. Net... **\$6.76**

No. 7284. Coil Kit No. LWT-10—For use with Foundation Units containing plug-in mount, or for replacing LWT-125 Coils. Same three coils as in LWT-11 Kit. List \$10.50. Net... **6.17**

BROKEN KIT PRICES

No.	Kit	Range	Shipping weight	List	Net
No. 7285	INT-101	16.5 to 32 Meters...	2 lbs.	\$4.00	\$2.36
No. 7286	INT-102	26.2 to 48.7 Meters...		4.00	2.36
No. 7287	INT-103	46.7 to 89.5 Meters...		4.00	2.36
No. 7288	INT-104	87 to 155 Meters...		4.00	2.36
No. 7289	Base with Space Wound Primary.	No. 100-P.....		3.00	1.77
No. 7290	Base, without Primary.	No. 100-W.....		1.50	0.89

Short Wave Coil Mounting Form



In reality, this is similar to the conventional socket base used in all radio tubes—in fact, the prongs are of the same length, same thickness, and set in the identical positions. Plugs into any 4 prong U.X. socket. Coil can be either wound directly on the bakelite shell or on a bakelite or fibre tube, which is then fastened to this base. Diameter is 1 1/4" scant, length of shell is 1 1/16", length of prongs is 5/8".

No. 7391. Net... **ea. \$0.15**

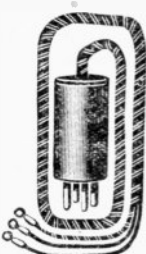
No. 7395. 5 Prong UY Base. Net... **ea. .25**

1 3/8" Diam. Bakelite Tubing

Short wave and regular broadcast wave coils can be wound on this tubing, which is then slid over the shell of the above tube bases. Inside diameter 1 3/8".

No. 7396. 3" length. Net... **\$0.30**

Short Wave Adapter Converter Plug



Just what you are looking for! For home-built short wave adapters—when the cables above shown are properly connected to the short wave adapter, simply remove detector tube from broadcast receiver, insert this plug, and the short wave reception will be amplified! "A" and "B" voltages for converter are thus automatically provided for. If fourth cable is required, it can be easily inserted. Other uses will suggest themselves. Bakelite plug—var-colored cables, with soldered lug ends. Length of plug is 2". Length of cable is 30".

No. 7000. List \$0.80. Net... **\$0.47**

Rasco Leader Baby Low Wave Coil 3-Circuit Tuner



Covers a wave length band of 37 to 150 meters when used with a 23-plate .0005 variable condenser. Measures only 2 1/2" long by 2 1/4" in diameter. The primary and secondary windings are bare wire wound, precision spaced. Wound on the least possible amount of insulation, and between machined slots. Fibre tubing used. There are 4 turns of wire in the primary, 14 turns in the secondary, and 14 in the rotary coil. Digitized connections on rotary coil. Binding post connections. One hole mounting. Nickel plated brass hardware.

No. 8830. List \$2.50. Net... **\$1.01**

Baby R. F. Inductance Coils



"Aero International" Short Wave Receiving Coils



LWT-12

The new International Aero Coils follow the same general type of construction as the famous LWT-125 (our No. 9601), but are constructed of slightly heavier wire and the diameter has been altered to two inches. This change improved the structure and rigidity of the coil, it reduced the field of the coil materially by increasing the ratio of length to diameter, minimized the pickup from powerful nearby stations and provides a favorable coefficient of coupling between the tickler and secondary for operation on the higher frequencies. Base dimensions are the same and coils may be substituted in the LWT-125 Kits. Variable primary is now built in the same low-loss construction as the secondary.

No. 7282—LWT-12. Contains a plug-in mounting base with variable space wound primary and three plug-in coils of the new type, for use in three circuit receivers. Range 16.5 to 89.5. Shipping weight 2 lbs. List \$12.50. Net... **\$7.35**

Dresner Short Wave Plug-in Coils



Covers short wave band from 16 to 210 meters, using either a 5 or 7 plate variable condenser (.00015 mfd. approximately). Wound on moulded bakelite forms, which plug into standard 4 prong U.X. sockets, thus providing for ready removal when changing wave length reception. Automatically space wound. Coils are 1 1/4" diameter by 2 1/4" long.

No. 7019-94. Set of 4 Coils. List \$3.59. Net \$2.06

Dresner R. F. Choke



Absolutely air and moisture proof! Sealed in a moulded bakelite case. Sub-panel, or baseboard mounting. Terminal screw connection. Inductance, 85 millihenries. Size 2 1/2" by 1 1/2".

No. 7012-85. List \$0.75. Net... **\$0.44**

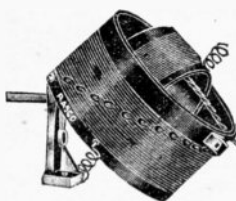
Dresner Untuned Antenna Inductance



For the first R. F. stage in single control R. F. circuits, wherein it compensates for all antenna variations thus permitting true one-dial control. Moulded bakelite case. Terminal screw connections. Size 2 1/2" by 1 1/2".

No. 7013-86. List \$0.75. Net... **\$0.44**

180° Vario Coupler



Can be used for panel and table mounting. The bracket is an aluminum casting, as is the holder which secures the secondary to the coupler. Tubes are natural colored bakelite. Diameter of primary 4", height 2". Diameter of secondary 1 1/2", height 1 1/2". 1/4" shaft used. Two spring binding posts are provided for the secondary winding connections. By means of this, the instrument can be connected as a variometer. Primary is tapped, providing for selective antenna tuning—has 13 taps. Wave length range, 180 to 550 meters with .0005 condenser. Shipping weight 2 lbs.

No. 3150. List \$2.50. Net... **\$0.95**

Basket weave construction. The primary is at one end of the coil. Furnished with a fibre mounting insert. COMPLETELY AIR-SPACE WOUND For .00035 mfd. 17-plate condensers—range 200 to 550 meters. This is the most compact coil on the market, measuring 1 1/2" long and 2" in diameter.

No. 8929. EACH COIL. List \$0.65. Net... **\$0.32**

No. 8930. Set of 3 coils. List \$1.95. Net... **0.96**

Pilot Plug-In, Space-Wound R. F. Transformer



This coil has the same electrical and general characteristics as the No. 5615, and differs only in that it is cleverly arranged to be plugged into any UX tube socket, and particularly into our Pilot set builder's type socket No. 5630. Designed for .00035 17-plate variable condensers. The No. 5616-176 coil is intended for the reception of all American and many foreign broadcasting stations.

No. 5616-176, 190 to 600 meters. Plug-in R.F. transformer, precision type for use with 201-A tubes or equivalents. List \$1.00. Net..... \$0.46

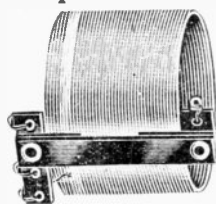
Pilot Space-Wound R. F. Transformer

PRECISION TYPE

With a variable condenser of .00035 mfd., this precision type R. F. transformer covers 190 to 600 meters. Space-wound on threaded tubing of molded bakelite, this unit represents the last word in the laboratory development of extreme efficiency, designed for practical and convenient use. It is mounted by a hole in the center of the base. Only 1 1/4" diameter and 2 1/2" long. This compactness of design reduces interstage coupling effects to a minimum, as well as external pick-up possibilities. Receivers have been built with 3 and 4 stages of R. F. amplification, using these coils without any shielding whatsoever! Just the coil to use when employing gang condensers, as they are 100 per cent uniformly wound.

No. 5615. Each Coil. List \$0.75. Net. \$0.44

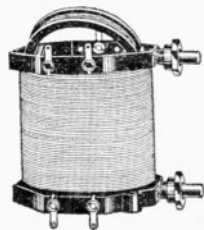
Space-Wound R. F. Coil



Space-wound and supported on a thin film of celluloid. The bakelite mounting strip carries the soldering lug terminals, and is also used to fasten the coil to a baseboard, sub-panel, etc. Two ejection holes being used for the purpose. Wound with green silk wire—3" in diameter—for 200 to 550 meters, with a .00035 mfd. variable tuning condenser.

No. 6388. List Price \$0.75 Each Coil. Net..... \$0.35

Samson Double Rotor Coupler



Wound with double silk covered wire on Formica tubing. Covers 160-550 meters with .0005 mfd. condenser. Rotors may be used with variable primary or tickler, etc. Solder lug connection.

Shipping weight 14 ozs.

No. 6680. List \$7.50. Net..... \$4.41

No. 6681. Single Rotor Coupler. List \$6.00. Net..... 3.53

Samson Antenna Coil

Used with double rotor coupler in Browning-Drake, T. C., Deluxe circuit, etc. Silk wound on Formica tubing. Covers 160-550 meters with .0005 condenser. Shipping weight 1/2 lb.

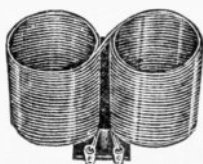
No. 6682. List \$1.85. Net..... \$1.09

Samson Neutral. Condenser

Minimum capacity .00002 mf. Maximum capacity .0001 mf. Bakelite case 3" by 1 1/2" by 1/2".

No. 6683. List \$2.25. Net..... \$1.32

Benjamin "Lekeless" Transformers



Has uniformly high inductance, low distributed capacity and low resistance. It is "Lekeless" for its figure 8 shape assures a very close field, preventing the ever-ruthless feedbacks and power leakage. Neutralization is very easily affected because of this, and no special angles or minimum distances between centers of coils need be employed. Covers entire

Aero Coil Kits

KIT NO. U-233

Consists of four Universal Coils suitable for both antenna couplers and interstage R.F. couplers when the "Chronophase" system is used, in the "Aero-Dyne" Shield Grid Model, and other receivers utilizing three stages of tuned radio frequency. Suitable for use with all types of tubes, both A.C. and D.C. For use with .00035 condensers. Shipping weight 4 lbs.

No. 7332-U-233. List \$15.00. Net... \$8.82

The same kit for the use of .0005 condensers. No. 7333-U-23. List \$15.00. Net... \$8.82

KIT NO. U-163

This kit consists of one antenna inductance with variable primary and three Universal Radio Frequency Transformers. For use with .00035 condensers. Shipping weight 4 lbs.

No. 7334-U-163. List \$15.00. Net... \$8.82

The same kit for use with .0005 condensers. No. 7341-U-16. List \$15.00. Net... \$8.82

KIT NO. U-203

This Kit includes three special twice matched autotransformer inductance units suitable for either interstage couplers or antenna couplers, when the "Chronophase" system is used for the "Chronophase" Shield Grid Model and other receivers utilizing two stages of tuned radio frequency. Suitable for use with all types of tubes, both A.C. and D.C. For use with .00035 condensers. Shipping weight 3 lbs.

No. 7335-U-203. List \$12.00. Net... \$7.06

The same kit for use with .0005 condensers. No. 7336-U-20. List \$12.00. Net... \$7.06

KIT NO. U-123

Kit U-123 includes three twice matched Universal Coils of the U-1 type, suitable for either antenna couplers or interstage R.F. transformers using U-199, 201, 112, and 210 tubes, as well as all models of A.C. tubes, but not for shield grid tubes of any variety. For use with .00035 condensers. Shipping weight 3 lbs.

No. 7337-U-123. List \$12.00. Net... \$7.06

Same type of coil for use with .0005 condensers. No. 7338-U-12. List \$12.00. Net... \$7.06

KIT NO. U-1203

Kit consists of three twice matched units, one antenna inductance with a variable primary and two Universal Radio Frequency Transformers. For use with .00035 condensers. Shipping weight 3 lbs.

No. 7339-U-1203. List \$12.00. Net... \$7.06

Same type of coil for use with .0005 condensers. No. 7340-U-120. List \$12.00. Net... \$7.06

Aero Matched Coils



KIT NO. U-263

Consists of two inductance units especially designed to give maximum results when one shield grid radio frequency amplifying tube is used in connection with a regenerative detector. For use with .00035 condensers.

No. 7327-U-263. List \$8.00. Net... \$4.70

The same kit as the above except designed for use with .0005 condensers. No. 7328-U-260. List \$8.00. Net... \$4.70

KIT NO. U-273

Two inductance units especially designed for use where tubes of the 199, 201 or 112 type or the 226 and 227 A.C. tubes are utilized in a set comprising one stage of balanced tuned radio frequency and a regenerative detector. The antenna coupler is standard, while the radio frequency transformer contains four distinct windings, the usual primary and secondary with a fixed tickler coil and a special winding for balancing the capacity of the tube so constructed as to obtain maximum reaction with minimum capacity coupling. A most efficient coil kit for this type of circuit. For use with .00035 condensers.

No. 7329-U-273. List \$10.00. Net... \$5.88

Same type of coil for use with .0005 condensers. No. 7330-U-270. List \$10.00. Net... \$5.88

KIT NO. RB-8

Especially designed for adaptations of the Betts circuit, such as the Radio Broadcast "Laboratory" Receiver. Comprises a special antenna coupler with centrally located primary and a center-tapped secondary for use with circuits employing the Rice system of neutralization and the R.F. Coil has a secondary tap for the use of part of the secondary winding as plate coupler and tickler. For use with .00035 condensers.

No. 7331-RB-8. List \$8.00. Net... \$4.70

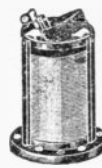
Shipping weight 2 lbs. on all above kits. broadcast wave length band with a .00035 condenser. Equipped with special taps if used as an antenna inductance for best results on various length antennas. Shipping weight 2 lbs.

No. 9852. List \$2.50. Net... \$1.47

Aero Universal Coils



Universal Radio Frequency Transformer designed for use with all types of tubes except shield grid tubes. Tapped primary permits perfect coupling for best results. Use .00035 condenser.



No. 7311-U-43. List \$4.00. Net... \$2.35

No. 7312-U-4. Same type for use with .0005 condenser. List \$4.00. Net... \$2.35

Special inductance, autotransformer type, for use with all kinds of tubes as antenna coupler or interstage R.F. transformer. Especially adapted for use with shield grid tubes, in receivers employing the "Chronophase" circuit. Uses .00035 condenser.

No. 7313-U-53. List \$4.00. Net... \$2.35

No. 7314-U-5. Same type for use with .0005 condenser. List \$4.00. Net... 2.35

Special transformer designed to operate as a coupling transformer between all types of tubes except the shield grid tubes, and a regenerative detector. Has four windings, secondary, tickler and a space wound primary and neutralizing coil for the preceding tube. Uses .00035 condenser.

No. 7315-U-63. List \$6.00. Net... \$3.53

No. 7316-U-6. Same type for use with .0005 condenser. List \$6.00. Net... 3.53

A coil designed for coupling shield grid tubes to a regenerative detector. Tickler is variable to allow placement for best results. Uses .00035 condenser.

No. 7317-U-73. List \$4.00. Net... \$2.35

No. 7318-U-7. Same type for use with .0005 condensers. List \$4.00. Net... 2.35

ANTENNA COUPLERS

The U-43 and U-53 coils make excellent antenna couplers, but for those desiring further types have been developed. Uses a .00035 condenser.

No. 7319-U-963. List \$4.00. Net... \$2.35

No. 7320-U-96. The same coil for .0005 condenser. List \$4.00. Net... 2.35

Special antenna coil with primary wound in the center and center-tap secondary for use with circuits employing the Rice method of tube capacity neutralization. Uses .00035 condensers.

No. 7321-U-923. List \$4.00. Net... \$2.35

No. 7322-U-92. The same coil for .0005 condensers. List \$4.00. Net... 2.35

THREE CIRCUIT TUNER

Equipped with variable primary for governing the selectivity of the circuit. For use with .00035 condenser.

No. 7323-U-553. List \$4.00. Net... \$2.35

No. 7324-U-55. The same coil for .0005 condensers. List \$4.00. Net... 2.35

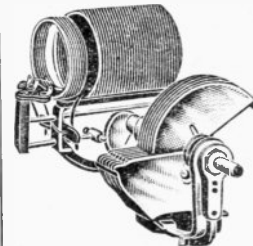
OSCILLATORS

The U-923 and U-53 coils will be found to give excellent results as oscillator coils in circuits requiring this type of connections. For other circuits, the following two coils have been developed. The same type of coil as the U-1003 except that a variable pickup coil has been added. By the substitution of this coil, the selectivity of most superheterodynes can be increased. Uses .00035 condensers.

No. 7325-U-1053. List \$4.00. Net... \$2.35

No. 7326-U-105. Same type of coil for .0005 condenser. List \$4.00. Net... 2.35

Hammarlund Auto Couple Tuned Radio Frequency Unit

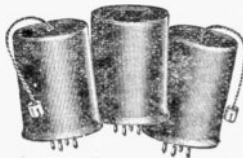


Comprises the Hammarlund .00035 variable condenser with special rear extension shaft, upon which is mounted a cam. When condenser shaft is rotated, this cam bears against a movable member of the primary of the coil; the primary being mounted on a special track is therefore automatically moved in and out of the secondary coil, thus varying the coupling thereof. Automatically, the primary is set at

the correct distance with respect to the secondary for the wave length being received. This principle is conducive of SENSITIVITY, SELECTIVITY, VOLUME AND CLARITY AT ALL WAVE LENGTHS IRRESPECTIVE OF ANY LENGTH AERIAL BEING USED. Condenser plates are non-corrosive brass, soldered to both of their respective frames. Reinforced ribbed standards—one hole mounting, with additional anchoring screw if desired—bronze spring pig tail—friction band brake—design of plates assures no crowding of channels on any wave length. Shipping weight 4 lbs.

No. 9816. Complete Unit, Coil and Condenser. List \$8.75. Net... \$5.14

Screen Grid Shielded Plug-in Coils



No. 8240

The most important of the new receiving set designs are being planned around the shielded grid tubes. Engineers of the Twin Coupler Company have produced a series of units for the most efficient shield grid circuits. The No. 222-A unit is for antenna coupling to the first radio frequency shield grid tube. This unit plugs into any UY (5 prong) socket and the antenna is connected to either of two contacts for short or long antenna. If two stages of R.F. are to be used, the No. 222-B should be used next. No. 222-C is the coil unit feeding the detector. Note that the antenna and R.F. units are equipped with a flexible cable (6" long) and clip to snap onto the grid connection to be found on the top of a shield grid tube. Diameter of shield: $2\frac{1}{2}$ " x $3\frac{3}{8}$ " long. Complete circuit data is supplied with the coils. Wave length range 200-550 meters, with a .00035 condenser. Using these units, no other shielding is needed to suppress oscillation. Shipping weight 3 lbs.

No. 8231-222. Kit containing one No. 222-A and one 222-C. List \$8.70. Net \$5.12

No. 8232-222-A. Shield grid antenna coil unit. List \$4.35. Net 2.56

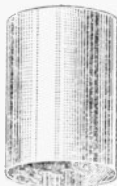
No. 8233-222-B. Shield grid tuned R. F. unit. List \$4.35. Net 2.56

No. 8231-222-C. Shield grid detector unit. List \$4.35. Net 2.56

NOTE

Special kit of 3 units (illustrated) for 5 tube sets. No. 8240. List \$13.00. Net \$7.05

A.C. Shielded R.F. Plug-in Kit



No. 8234

they give splendid results with 201A's. Complete circuit data is supplied with the coils. Shipping weight 3 lbs.

No. 8235-226. Set of 3 A.C. shielded R. F. coils. List \$6.50. Net \$3.83

Neutrocup R. F. Choke Coil



The maximum capacity for the entire broadcast band is only 5 picofarads, an amount so small that this R.F. choke is practically perfect electrically. Every set should have a neutrocup R.F. choke connected between the plate of the detector tube and the P post of the first A.F. transformer. Then there should be a .0005 mfd. condenser connected from the plate of the detector to the filament. $1\frac{1}{2}$ " long. $1\frac{1}{2}$ " diameter. Complete with center mounting screw and nut. Shipping weight 8 ozs.

No. 8230-130. 80 millihenries. List \$1.00. Net \$0.59

Midget Solenoid R. F. Coil



Exceptionally small electro-magnetic field about each coil, making it possible to mount them with parallel axes, as close as $\frac{1}{4}$ " center to center. Only $1\frac{1}{4}$ " in diameter! Wound with enameled wire on Formaltite tubing, 88 turns per inch, covering 200 to 550 meters with a .00035 mfd. variable condenser. Soldering lug terminals. Absolute uniformity of windings makes these coils ideal for gang condenser assembly, and their confined magnetic field and small size make them very desirable for use in shielded cases!

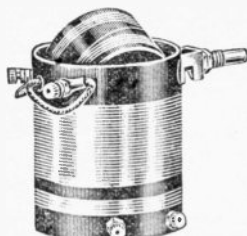
No. 6306. List. Each Coil, \$0.75. Net \$0.26

Steinite Wave Trap



Where the selectivity in your radio receiver is not all it should be, either through adverse conditions, such as too close proximity to local broadcasting stations, long aerials, etc., or due to a broad tuning receiver, the insertion of this wave trap between the aerial binding post and the aerial lead-in wire will greatly improve the selectivity, by adjusting the small knob in

Twin Coupler Shield Grid Tuner



Using a shield grid tube for R.F., followed by a 201A or 227 detector tube connected to this 3 circuit shield grid tuner, the most amazing range and volume can be obtained. The circuit for this type of outfit, with a two-stage audio amplifier, is given in the circular which accompanies the coil. A long antenna on the No. 123 R.F. coil can be used with the shield grid tube. Use .00035 mfd. condenser for tuning. $2\frac{3}{8}$ " diameter tube, $2\frac{1}{2}$ " long. Attractively colored.

No. 8236-133. List \$1.95. Net \$1.15

R. F. Coil to Match No. 121 or 133 Tuner

For .00035 mfd. cond. $2\frac{3}{8}$ " diam., $2\frac{1}{2}$ " long. No. 8237-123. List \$0.75. Net \$0.45

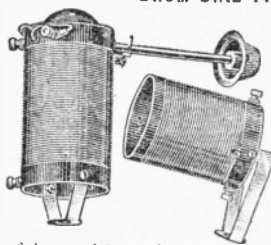
90° Enameled 3-Circuit Tuner

A 90° Three-Circuit Tuner, wound with enameled wire on $2\frac{1}{2}$ " Formaltite tubing. This unit is being specified in many of the latest high-efficiency broadcast circuits. Covers 200 to 550 meters with a .00035 mfd. variable tuning condenser. $2\frac{3}{8}$ " diameter, $2\frac{1}{2}$ " long.

No. 8238-121. List \$1.95. Net \$1.15

New Browning-Drake Space Wound Coils

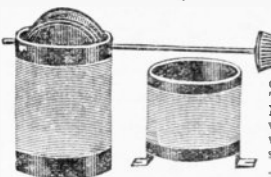
DRUM DIAL TYPE



This is the latest coil design for such circuits as the Roberts, Browning-Drake, and Diamond of the Air. Both coils are designed for .00035 mfd. condenser, and are fitted with mountings so that they can be secured to their respective condensers, regulated by a single or double drum dial. The detector coil has a slot-wound primary and making thicker coil. Highest efficiency can be obtained with these tuning units in the new all-electric or battery circuits. $2\frac{1}{2}$ " diameter. Shipping weight 2 lbs.

No. 8239-109B. Set of drum dial type space-wound coils. List \$6.00. Net \$3.23

Browning-Drake Coils

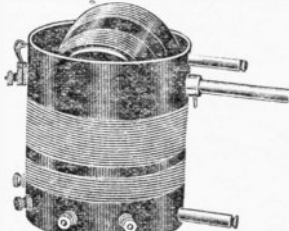


These coils are for use in the celebrated Browning-Drake circuit. They are wound on bakelite tubing. The antenna coil and R. F. unit are space-wound with enameled wire. Finest workmanship. Requires one .0005 and one .00025 condenser. Mounting brackets included.

Shipping weight 3 lbs.

No. 9506. List \$7.00. Net \$2.95

90° Three-Circuit Tuner



This three-circuit tuner has fine selectivity. It represents the latest in inductance design, having an untuned primary winding and a loosely coupled secondary. Its compactness and adaptability permit its use in the Ambassador circuit or any three-circuit receiver. A fraction of a turn will tune out locals and bring in distant stations, clear and sweet. For .0005 condensers. $3\frac{1}{2}$ " long, $3\frac{1}{2}$ " in diameter. Shipping weight 2 lbs.

No. 9388. List \$2.50. Net \$1.02

No. 4916. For .00035 mfd. condenser (17-plate). List \$2.50. Net \$1.02

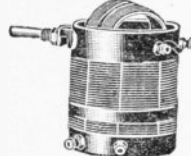
the center thereof. No alterations in the wiring of your receiver are necessary, nor does this instrument require an additional tube, batteries, etc.

No. 9927. List \$1.00. Net \$0.59

The Rasco Leader All-Circuit Tuning Inductances



No. 8933



No. 8934

The BABY R. F. coil can be used in a variety of circuits, either in conjunction with the BABY 3-circuit tuner or with a number of their own type for neutrodyne, tuned radio frequency circuits, etc. It can also be used as an antenna inductance for super-heterodynes, etc. For 23-plate .0005 variable condensers, with which it will cover the broadcast wave lengths from 200 to 550 meters. The primaries and secondaries of both coils are wound between slots, in the latest low loss fashion, with the least possible insulation beneath the windings. Pigtail connection on rotary coil in 3-circuit tuner. Binding post connections. One hole mounting on 3-circuit tuner. All metal parts nickel plated brass. The dimensions of the fibre tubes are $2\frac{3}{16}$ " in diameter by $2\frac{1}{8}$ " long.

No. 8933. BABY R.F. COIL. List \$1.25. Net \$0.57

No. 8934. BABY 3-CIRCUIT TUNER. List \$2.25. Net \$0.97

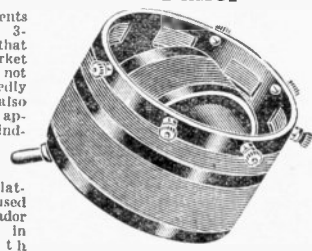
Air King Screen Grid Coil Kit

Consists of one $2\frac{1}{2}$ " diameter ($2\frac{1}{2}$ " long) R. F. coil and one special 3 Circuit Tuner, with a large primary winding for use in any circuit employing one Screen Grid R. F. Tube and one regenerative detector tube. Similar to above coils in general appearance and construction. For .0005 condensers. Shipping weight 4 lbs.

No. 4915-S.G.5. List \$3.50. Net \$2.06

180° Low Loss Three-Circuit Tuner

This coil represents the very best 3-circuit tuner that is on the market today. It is not only very ruggedly made, but is also very pleasing in appearance, the windings being in 2 all parts hand-colored and metacromically nickel plated. Can be used in the Ambassador type circuit or in conjunction with our No. 9608 R. F. coil in the Roberts, Browning-Drake, etc. type circuits. Wound on $3\frac{1}{4}$ " diameter tubing, $2\frac{1}{2}$ " long. For .0005 condenser. Shipping weight 2 lbs.



No. 9609. List \$2.50. Net \$1.01

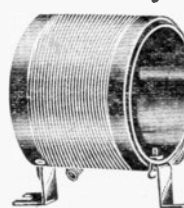
Low Loss Antenna Coupler or Radio Frequency Coil



This coil is constructed according to the latest principles of low loss winding, and is highly approved. Primary and secondary are in two coils. For .0005 or 23-plate variable condensers. Can be used to precede our No. 9609 three-circuit tuner (or any other three-circuit tuner) to convert a three-tube set into a Roberts or Browning-Drake four-tube circuit. Can also be used as an antenna coupler in multi-stage tuned radio frequency circuits, as well as for the radio frequency transformers. Wound on $3\frac{1}{4}$ " diameter tubing, $2\frac{1}{4}$ " long. For .0005 condensers. Shipping weight 1 lb.

No. 9608. List \$1.50. Net \$0.69

Neutrodyne or R. F. Coils



Although primarily designed for neutrodyne circuit inductances, it is entirely suitable for use in any R. F. circuit. Note that the primary is wound on a separate tube, and inserted at the filament end of the secondary. Wound on Formaltite tubing, $3\frac{1}{2}$ " in diameter, for .00035 mfd. variable condensers. Covers 200 to 550 meters. Complete with nicked brass step angles for mounting to baseboard or condenser frame. Shipping weight 2 lbs.

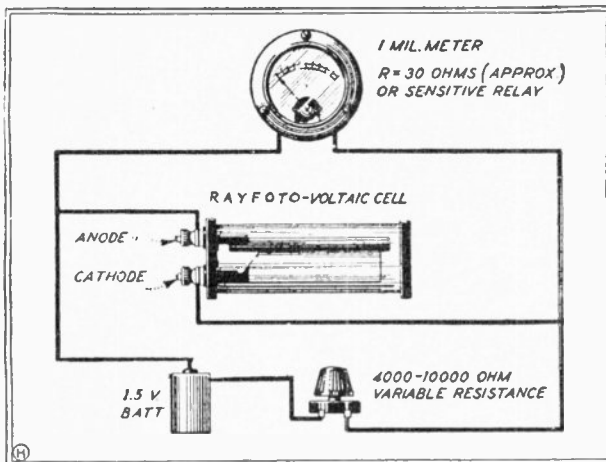
No. 6387. List. Each Coil, \$1.80. Net \$0.95

RAYFOTO LIGHT SENSITIVE CELL

Just One of Many Home Uses



Practical applications of "Rayfoto" Voltaic Cell are infinite. Every manual job that depends on the rising and setting of the sun can be performed automatically

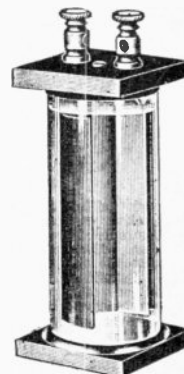


When the Rayfoto Voltaic Cell is used in this circuit it acts as a battery which will become weakened when short-circuited, unless in circuit as illustrated.

Prevention of Holdups



Commercial applications are innumerable



THE RAYFOTO VOLTAIC CELL

Experimenters in television will find surprising results in placing a few cells in series.

Liquid Filled — Generates Its Own Electricity When It Is Exposed to Light!

The Rayfoto Voltaic Cell is the only cell that generates sufficient electricity to operate a sensitive relay WITHOUT VACUUM TUBES OR ANY OTHER FORM OF AMPLIFICATION.

Will Operate Any Low Resistance Sensitive Relay Without Amplification

Light from a flashlight will generate sufficient current to cause a deflection of one milliamperes. Lamplight, firelight, diffused sunlight and other forms of weak light will generate enough electricity to operate fire alarms, burglar alarms, fire and smoke detectors, and other useful, automatic devices.

Has Hundreds of Uses

Applications are so extensive that we have not yet found its limits. Here are just a few: **Indicating Devices:** Light a lamp, ring a bell, fire alarms, crime detection, fire and smoke detector, opening garage doors, traffic counting. **Measuring Devices:** Sorting by color, length and width; Imperfections in mechanical products; light intensities (photometry time intervals). **Signalling Devices:** Control of railroad trains, traffic control, automatic light house control, automatic buoy control, automatic street lamp control. It also has great possibilities in talking movies and television, where it can be used in place of present slow-reacting devices. Has great possibilities in the electro-static and magnetic fields. Also in tremendous demand in colleges and laboratories.

One Milliammeter on Sunlight Without Amplification

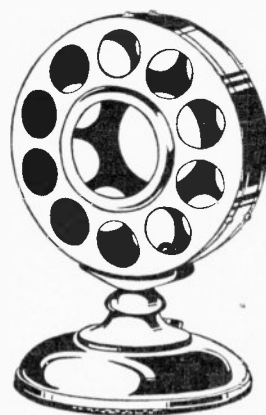
Rayfoto Cell, in circuit, will perform any of the numerous functions which are usually brought about manually with the coming of daylight and darkness, such as the shutting of a window, starting a furnace or an electric heater, or lighting a fire, and many other uses.

How to Use Rayfoto Light-Sensitive Cell

When using the Rayfoto Voltaic Cell without amplification, the circuit shown above should be used. It will produce many times more current than the best photo-electric device known today. For the best results, use the Special Rayfoto galvanometer relay model 35-A, priced at \$12.50, or your own sensitive relay.

No. 4714. Rayfoto Voltaic Cell only. **List \$10.00. Net \$5.88**

Kellogg Desk Type Microphone Stand

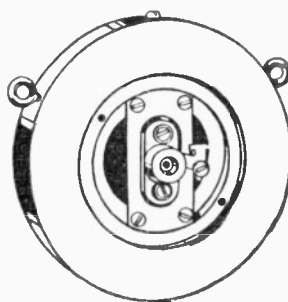


Many broadcasting stations are using this desk type microphone stand because it is very convenient for the announcer to sit at his desk and announce programs while attending to telegrams and letters. A green felt pad is attached to the bottom of the base to prevent the desk or table from becoming scratched by the metal on the base. The stand helps protect your microphone from damage. It helps to keep dirt and dust from reaching the delicate parts of the microphone which would render it less efficient. Its neat appearance will harmonize with your most exacting requirements. Net weight 5 1/4 lbs. Dimensions of the base, diameter 5 1/2". Dimensions of upper section, diameter 5 1/4". Height overall 8 1/4". Gun metal finish.

No. 5236. (Less Microphone.) **\$22.25**
Your Net Cost.....

Kellogg Microphone Stand—Floor Extension Type

We can now furnish an excellent stand which may be easily lowered or raised to suit the height of the person broadcasting. This stand has an extension rod which permits it to be raised from 3 ft. 10 in. up to 6 ft. 3 in. This height range will allow anyone to stand or sit and adjust the stand so that the sound waves will flow



Front View

There is one cup containing carbon on each side of the diaphragm and the flanges of the cups are protected from the diaphragm by felt washers. A collar is provided to help prevent damage to the diaphragm.

Gentlemen:
I am ordering again from you because I am pleased with your safe and rapid deliveries.

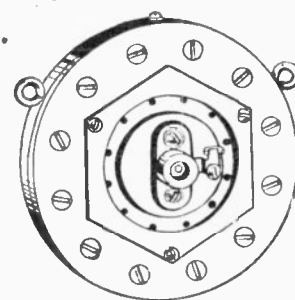
LE ROY WILLIAMS,
P. O. Box 525,
Mountain View, Calif.

directly into the microphone. The stem of the stand is made of beautiful brass, bronzed, colored with green trimmings. The stand will fit in with the furnishings of the finest studios. The lower part of the base is provided with green felt padding to prevent the metal from scratching the floor and to allow the base to rest evenly. An opening 2 1/2" high by 11/16" wide allows the cord to enter the stem of the stand directly above the base. This is an important feature because it prevents the cord from making the stand top-heavy. Entire stand 5 ft. 10 in. Entire stand extended 6 ft. 3 in. Extension rod 2 ft. 4 1/2 in. Ring for supporting microphone 6 1/2 in. Shipping weight 25 lbs.

No. 5237. Your Net Cost..... **\$18.95**

Kellogg Studio Microphone

In "line miles" the Kellogg microphone is known as about "forty miles down". This means that three stages of a power amplifier will bring the output of a Kellogg 501 microphone up to a volume the equal of the original expression, thus requiring power amplification before modulation in addition to push and pull amplification of a three-stage amplifier. The current will produce best tone at 5 to 10 milliamperes per button. It is ruggedly built into a brass frame which is machine-to shape. The diaphragm is a special composition, carefully gold plated. Twelve screws are used on the reverse side of the frame for drawing the two sides of the diaphragm and pull it into its correct tension. Two electrodes are provided, one on each side of the diaphragm.



Rear View

Diameter 4". Weight 2 1/2 lbs. Finish: Nickel plated.
No. 5238-501. Your Special Net **\$94.45**
Cost

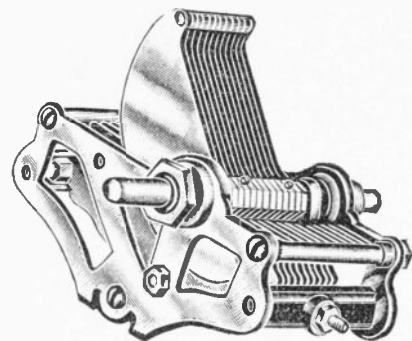
Kellogg Hand Broadcasting Transmitters



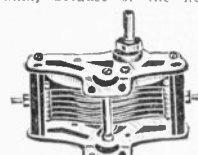
Has proven to be of special value in amateur broadcasting. It may also be used to amplify public speeches made in large halls. It is light but durable. A switch button placed in the handle is exceedingly convenient for broadcasting practice. Black finish. Has a 4 ft. cord. Shipping weight 2 lbs.

No. 5239-21C. Your Net Cost..... **\$8.90**

Pilot Removable Shaft Variable Condenser



Condensers selling for as high as \$5.00 can offer no finer quality workmanship, no better performance, no more desirable features than the new Pilot 1600 series condensers. They are now supplied with mounting feet and removable shafts. The brass shaft can be removed, and a Bakelite shaft substituted instead. Can be mounted on clock-wise or anti-clock-wise dials, for they can be fastened at either end. Phosphor bronze pigtail connection from rotor to end plate. Made with non-corroding brass parts, with gold finish, and highly polished aluminum end plates. In appearance they are truly handsome. The 1608 is used for tuning short-wave receivers. To gang two or more condensers together, use the Pilot flexible shaft coupling device. This is an insulated universal joint. The condensers are fastened to the base panel by their mounting legs, and then coupled to the next condenser. Even though the condensers are not lined up perfectly, they will not bind, because of the flexible design of the coupling.



Bottom View
Note mounting feet

Pilot condensers excel not merely in their mechanical and electrical accuracy but in their versatile design. They can be secured in half a minute with the single hole mounting. One screw holds the condenser permanently, so that it cannot turn or become loose. Designed for mounting in a single 15/32" hole, but a threaded bushing is provided also for a 6-32-F.H. screw to prevent the condenser from turning. Any coupling device for the shaft extends out at the rear. This shaft extension can also be used for mounting special coils or other apparatus. When using drum dials, the condenser can be operated from the front or rear end of the shaft, permitting the condensers to be fastened at the left or right-hand side of the drum control. Set builders often ask if, for example, a .00035 mfd. condenser can be used where .00037 is specified. Slight variations of this sort make no difference. Again, .00016 or .00011 mfd. condensers can be used interchangeably. Overall width 4 3/8" by 3 1/2" high with plates unmeshed. Extends 2 1/4" behind panel. Shipping weight 2 lbs.

No. 1600 Series—Modified Straight Line Rotors

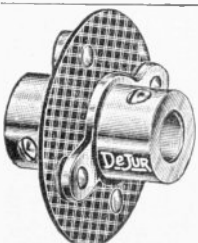
The popular model. This is the model we recommend. Wave length distribution over tuning dial is evenly balanced.

No.	Number Plates	Capacity	List	Net
9911-1608	8	.00016	\$1.90	\$1.12
9912-1613	13	.00025	2.00	1.18
9913-1617	17	.00035	2.15	1.26
9914-1623	23	.0005	2.25	1.32

No. 1500 Series—S.L.F.

Offers true S.L.F. calibration of tuning dial. This type, however, spreads out the tuning of the lower wave length stations. Takes up slightly more room than the 1600 Series.

No.	Number Plates	Capacity	List	Net
8902-1508	8	.00016	\$1.90	\$1.12
3580-1513	13	.00025	2.00	1.18
3581-1517	17	.00035	2.15	1.26
3582-1523	23	.0005	2.25	1.32

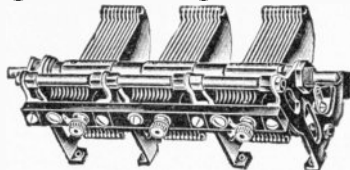


Amsco Unicouple

A simple universal coupling unit which permits operation of two or more variable condensers in tandem. Perfectly insulated, allowing the condensers to be operated as independent electrical units, if so desired.

No. 7710-1C. List \$0.21
No. 35. Net..... \$0.21

Pilot Compact Variable Single and Gang Condensers

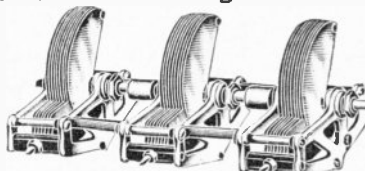


Electrically, these newly designed condensers represent the last word in efficiency. The capacity range of each section is from .000012 to .00035 mfd., giving a range in standard broadcast circuits of 200 to 550 meters. The capacities of any section in any condenser are guaranteed to match the standard within 1% over the entire capacity range. Mechanically, they offer a combination of important features. The 1/2" shaft is removable and each section of the ganged condensers is fastened to the shaft independently by two set screws. Before the condensers leave the factory, the sections are carefully matched, so that the plates should not be shifted unless it is necessary. Tiny compensating condensers are supplied for each section, to take care of distributed capacities in the wiring. The compensators are adjusted by hard rubber thumb nuts which can be turned with the fingers. When special arrangements require it, a long steel or brass rod can be substituted for the shafts supplied, in order that two or more condensers can be turned from one shaft, even though they are spaced far apart. Center mounting flanged nuts and threaded bushings for fixing screws are supplied at each end, so that the condenser can be mounted on the left or right of a drum dial. This also makes it possible to operate the condensers with a clock wise or anti-clock-wise dial. Note the mounting feet, integral with the frame. Are threaded for 6-32 screws, so that the condenser can be fastened to a base board or base panel. This type of condenser will suit the most exacting custom set builder in every detail of design and workmanship. Rotors are modified straight line frequency type. Phosphor bronze pig-tailed connection. When using a single condenser with either of the gang condensers, you must order the one listed below for uniformity of design and dial settings. Or you can purchase single condensers and gang them as you wish, as to position on the rotor shaft and number desired. Overall length of 2-gang condenser: 4 3/8", of 3-gang: 6 1/4". Width is 3". Maximum radius of rotor plates is 1 7/8". Shipping weight 1 1/2 lbs. per gang.

No. 8341-1701. Single compact condenser, .00035 mfd. max. List \$2.15. Net..... \$1.26
No. 8342-1702. Double compact condenser, .00035 mfd. max. List \$4.00. Net..... 2.35
No. 8343-1703. Triple compact condenser, .00035 mfd. max. List \$6.00. Net..... 3.53

All of the above net prices include the necessary compensating condensers.

Pilot 2 and 3 Gang Condensers



This triple-gang condenser boasts of all the features only found on the most expensive models—yet it is offered at a price generally asked for single condensers. The plates, shaft, coupling units and standard are solid brass; aluminum nickel-plated end plates; single or double hole mounting; three stator terminals on both sides of the condenser. Rotors may be adjusted to position in relation to each other electrically and then permanently set. Bakelite insulation. Note extended rear shaft. Shaft is removable! When ordering a single condenser to work in conjunction with this model, be sure it is the Pilot No. 1600 series type. Overall dimensions are 8 1/4" deep behind front panel, 3 1/4" high by 1 1/2" wide with plates completely unmeshed. Do not confuse these highest quality condensers with other low-priced gang condensers. Shipping weight 3 lbs.

No. 6561 2-Gang, .00035 List \$6.00 Net \$2.15
No. 6563 3-Gang, .00035 List 8.00 Net 3.53
No. 6562 2-Gang, .0005 List 6.50 Net 2.65
No. 6561 3-Gang, .0005 List 9.00 Net 3.75

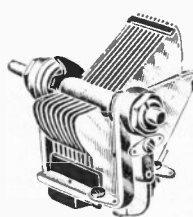
Pilot Micrograd Miniature Variable Condenser



The Micrograd is made in capacity ranges suitable for use as a neutralizing condenser, adjustable by-pass, antenna series condenser, grid condenser, bridge balancing condenser and for audio tuning. Can be adjusted by hand or with a screw driver. For base panel mounting. About 2" long. Molded of bakelite. Screw terminals or soldering lug connections. No. 5607-80. .000010 to .00055 mfd. capacity. List \$0.90. Net..... \$0.53

No. 5608-81. .0001 to .0005 mfd. capacity. List \$1.00. Net..... 0.59
No. 5609-82. .00025 to .001 mfd. capacity. List \$1.25. Net..... 0.74

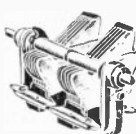
The Improved Hammarlund "Midline" Condenser



The special shape of the plates avoids crowding of stations on either the upper or lower bands and retains normal separation in the middle of the scale. In this model, all of the established Hammarlund features are included: soldered, non-corrosive brass plates with tie-bars; rib-reinforced aluminum alloy frame; minimum dielectric; one-hole mounting with anchoring screw; bronze clockspring pigtail; friction band brake that places no strain on bearings. In addition, there are two advanced features—adjustable ball and cone bearings and a full-floating rotor shaft. This shaft supports no weight. Its length may be adjusted without cutting to accommodate any type of dial. It may be entirely removed and a longer shaft (metal or bakelite) inserted for coupling other condensers in tandem—for mounting a variable primary coil, or gears, pulleys or cams for operating individual condensers in multiple. The removable shaft also makes it possible to mount the condenser for either clockwise or counter-clockwise operation without affecting its efficiency in any way. This feature, in connection with the new Hammarlund Drum Dial with flexible coupling, comprises the ideal arrangement for a simplified single-tuning control of any number of condensers mounted in tandem. The condenser frame is drilled for either panel or base-board mounting and also provides for the direct attachment of coils. The "Midline" is much more compact and even stronger than previous Hammarlund models. The span of the condenser, with plates fully open, is only 4". The standard Hammarlund "Straight-Frequency Line" Condenser also incorporates all of the above mechanical features and will continue to be supplied in the same sizes and at the same prices as the "Midline" Condenser. Be sure to mention type desired.

No.	List	Net
No. 6061-ML. 23 plate, .0005 mfd.	\$5.50	\$3.24
No. 6062-ML. 17 plate, .00035 mfd.	5.25	3.09
No. 6063-ML. 13 plate, .000275 mfd.	5.10	3.00
No. 6064-ML. 11 plate, .00025 mfd.	5.00	2.91
No. 4998-ML. 7 plate, .00014 mfd.	5.00	2.91
No. 6065-ML. 5 plate, .0001 mfd.	4.75	2.80

Hammarlund Multiple Condensers



Model "MLD" is a dual "Midline" Condenser. Like all Hammarlund products it is an instrument of laboratory precision, embodying all of the well-known Hammarlund features of design and workmanship. Capabilities are accurately matched and equipment in the finest single-control sets because of superior performance.

			List	Net
No. 5951.	11 plate, .00025 mfd....	\$7.75		\$1.56
No. 5952.	13 plate, .000275 mfd....	8.25		4.85
No. 5953.	17 plate, .00035 mfd....	8.75		5.05
No. 5954.	23 plate, .0005 mfd....	9.25		5.44

Hammarlund Junior Midget Condenser



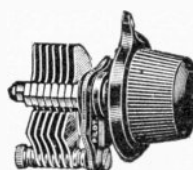
Soldered brass plates, cone bearings, Bakelite dielectric. A high ratio midget condenser with all of the distinctive earmarks of Hammarlund design and workmanship—plus sturdier, simplified construction. One-hole or base-board mounting. Has a new look—the rotor plates in any position.

inc. device for fixing. Many uses are shown in circular packed with each condenser.

		List	Net
No. 5993.	5 plate, 16 mmfd.....	\$1.50	\$0.88
No. 5994.	9 plate, 32 mmfd.....	1.50	0.88
No. 5995.	11 plate, 50 mmfd.....	1.75	1.03
No. 5996.	15 plate, 65 mmfd.....	2.00	1.18
No. 5997.	23 plate, 100 mmfd.....	2.25	1.33
No. 7018.	Table Mounting Bracket for above. Net		\$0.15

No. 7018. Table Mounting Bracket for above. Net..... \$0.15

Neutrograd Midget Condenser Precision Type

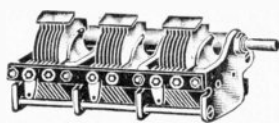


A very high quality instrument—a fitting companion to our Pilot Centraline and S. L. F. variable condensers—or any other make condenser. Invaluable for general compensating, neutralizing or oscillation control purposes. Ideally suitable for use with gang condensers to match their electrical values. One-hole mounting. Brass plates—handsomely furnished. 3/4" shaft.

	74	shalt.		List	Net
No. 7398.	5	plates.	.000015	max.	\$0.90 \$0.53
No. 9468.	7	plates.	.000025	max.	0.90 0.53
No. 8802.	13	plates.	.00005	max.	0.95 0.56
No. 5444.	23	plates.	.0001	max.	1.10 0.82

U. S. L. 1-2-3-4 Gang Corrected Frequency Condensers

BRASS PLATES



No. 8932

The sections are exactly alike, and as the condenser is very strongly built, it will never vary. The common rotor shaft upon which the rotor plates are most rigidly attached is $\frac{1}{4}$ " in diameter, terminating, at the panel end, in the conventional $\frac{1}{4}$ " diameter. For extreme durability the brass rotor plates are strapped together, as the illustration will suggest. Minimum of Radion insulation. Connections to the various stators and the common rotor are possible on either the right or left side of the condenser. Size is $3\frac{1}{2}$ " wide, $3\frac{1}{2}$ " high, and only $3\frac{1}{2}$ " from rear of panel. Choice of one hole mounting, or two anchoring holes, ideal for one dial control 4-5-6-7-8 tube tuned radio frequency circuits. Very compact construction.

No. 5491, .00035 Two Gang, List \$1.00, Net.....	\$2.36
No. 5492, .0005 Two Gang, List \$1.50, Net.....	2.65
No. 8932, .00035 Three Gang, List \$6.00, Net.....	3.53
No. 6660, .0005 Three Gang, List \$6.75, Net.....	3.97
No. 5493, .00035 Four Gang, List \$8.00, Net.....	4.71
No. 6661, .0005 Four Gang, List \$9.00, Net.....	5.29

U. S. L. Single Condensers

NOTE

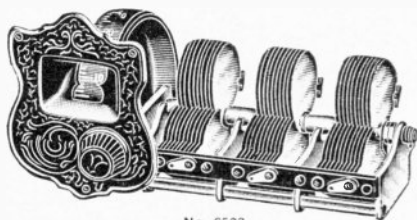
The special construction of these condensers provides the removable shaft feature, thus they can be reversed for clockwise or counter clockwise rotation dials. Or by using a special $\frac{1}{4}$ " steel shaft, you can place 2, 3, 4, etc., single condensers at any point you may desire on the common shaft, which may be rotated by either a drum, our No. 9672 type illuminated vernier or any form of vernier dial. May be mounted on a sub-panel, as the supporting legs are threaded accordingly.

No. 5493, Single .00025 mfd. condenser, List \$1.90, Net.....	\$1.12
No. 5494, Single .00035 mfd. condenser, List \$2.00, Net.....	1.18
No. 5495, Single .0005 mfd. condenser, List \$2.25, Net.....	1.33

24" Length, $\frac{1}{4}$ " Diameter Steel Shaft

No. 6662, Per Length, Net..... \$0.40

U. S. L. 1-2-3 Gang Condenser and Drum Control Unit



No. 6523

Gives every receiver a highly desirable commercial appearance. Adds considerable beauty. The famous U. S. L. Straight Line Corrected Frequency BRASS condensers are used. The rotors of each unit can be adjusted on the shaft, to compensate for any electrical difference between the three circuits, or external compensators can be attached. A $\frac{1}{4}$ " diameter drum is used, and a gold plated metal strip, with dial readings in bold black figures and graduations, is riveted to this drum. Sub-base mounting the drum itself provides $\frac{5}{8}$ " beyond these mounting lugs on the under surface of the condenser. The richly embossed bronze face plate measures $3\frac{1}{2}$ " wide by $1\frac{1}{2}$ " high overall, and is fastened to the panel with 3 small screws, which are furnished. Walnut fluted knob is also included. From the center of the shaft that protrudes through the panel to the very end of the condenser measures $6\frac{1}{4}$ " and only $1\frac{1}{4}$ " from the center of the same shaft to the edge of the drum. Overall depth behind the panel is $1\frac{1}{2}$ ". Soldering lug or terminal screw connections. Bakelite insulation, aluminum end plates.

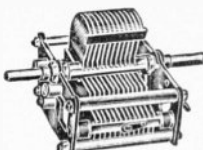
No. 6533, Complete with 3-Gang Brass Condenser, .00035 mfd., Bronze Face Plate, Walnut Fluted Knob—Drum and Miscellaneous Hardware included, List \$11.00, Net.....	\$6.17
No. 6524, Same, but .0005, List \$11.75, Net.....	6.91
No. 6525, Same, but 2-Gang, .00035, List \$9.00, Net.....	5.29
No. 6526, Same, but 2-Gang, .0005, List \$9.50, Net.....	5.59

NOTE

If you should desire to use your own condensers, and merely want the drum escutcheon plate and knob drum mechanism, simply order our

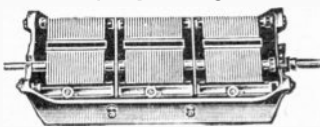
No. 6527, List \$4.50, Net.....	\$2.65
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Amsco-De Jur Duo-Space Condensers



No. 7440

The Duo-Space capacitors have a spacing between rotor and stator plates twenty thousandths of an inch greater than the Amsco standard types. Wide spacing raises the flash-over voltage, and makes possible the matching of double, triple and quadruple units within tolerances never before achieved in large production.



No. 7444

The Duo-Space triple and quadruple gangs are assembled within an aluminum casting that preserves the laboratory alignment regardless of the manner of mounting—a consideration of great importance. In the single and double units, an insulating shaft may be substituted for the metal shaft, adapting the condenser to different capacitative feed back circuits as well as shield grid and plate arrangements encountered in modern receiving practice. Amsco compensators are provided on all gang capacitors, facilitating the compensation of capacity discrepancies occasioned by wiring and general lack of balance. These are conveniently placed and are adjustable by means of a screw driver. Such adjustments are permanent. The tuning characteristics, with average coils, is that generally described as a straight tuning line—being a compromise between frequency and wavelength discrimination. The shafts extend from both ends of all models making clockwise or counter clockwise motion a simple matter of choice, as well as providing for the automatic control of coupling coils, etc. All Duo-Space condensers may be mounted for drum or dial control. Shipping weight 2 to 4 lbs.

Single Units with Removable Shaft

No.	Capacity	List	Net
No. 7437-114,	.00014 mfd.	\$4.00	\$2.35
No. 7138-125,	.00025 mfd.	4.25	2.50
No. 7139-135,	.00035 mfd.	4.50	2.65
No. 7140-15,	.0005 mfd.	5.50	3.23

Siamese Units with Removable Shaft

No.	Capacity	List	Net
No. 7441-225,	.00025 mfd.	\$8.00	\$1.70
No. 7442-235,	.00035 mfd.	9.00	5.29
No. 7443-25,	.0005 mfd.	11.00	6.47
Triple Unit			
No. 7444-335,	.00035 mfd.	\$13.50	\$7.94
Quadruple Unit			
No. 7445-435,	.00035 mfd.	\$18.00	\$10.58

Silver-Marshall Midget Condensers



Capacity, .00003 to .00025 mf. Designed for compensating, balancing, antenna coupling, regeneration control, etc. Has lacquered brass plates mounted on a Bakelite end plate. For either panel or base mounting. Complete with control knob. Size, $1\frac{3}{16}$ x $1\frac{1}{2}$ x 1 inches. Shipping weight, 8 oz.

No. 7065-340, List \$1.50, Net.....	\$0.89
340A Midget Condenser. Shaft is slotted for screw-driver adjustment, List \$1.50, Net....	\$0.89
No. 7066-340A, List \$1.50, Net....	\$0.89
342B Midget Condenser. Capacity .00001 to .00075 mfd., List \$1.75, Net....	\$1.03

X-L Vario Densers



MODEL X—Capacity range 1.8 to 20 micro microfarads for balance in Roberts, Browning-Drake, Neutrodyne and all tuned radio frequency circuits wherein neutralization is required.

No. 9379, List \$1.00, Net..... \$0.59

MODEL G-1—.00002 to .0001 mf. MODEL G-5—.0001 to .0005 mf. MODEL G-10—.0003 to .001 with grid leak clips. The Model G-10 is ideal for inserting between antenna and receiver to sharpen the tuning, or to match the antenna stage to the other R. F. stages in a one-dial receiver. Kindly state model desired.

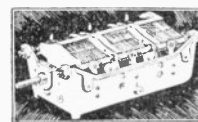
No. 9380, List \$1.50, Net..... \$0.89

NOTE

For receivers embodying two-dial control (one dial tunes the antenna stage) we can supply the above drum complete with a single U. S. L. Brass Straight Line Wave Length Condenser.

No. 6527, .00035, List \$6.50, Net.....	\$3.82
No. 6528, .0005, List \$6.75, Net.....	3.97

Silver-Marshall "323" Three-Gang Variable Condenser



A three-unit gang condenser assembled in a rugged die-cast frame. Universal, for mounting on end, either side or bottom. Each section is electrostatically shielded from all others, and equipped with individual compensator. Plates are of modified SLP-SLAW shape. Capacity of each section, .00007 to .00025 mfd., the accuracy of which, between all three sections, is guaranteed to be within less than 1% over upper half of scale and to within 1 mmfd over the lower half. Size, $4\frac{5}{16}$ " wide, $8\frac{25}{32}$ " long and $3\frac{3}{16}$ " high. Shipping weight 3 lbs.

No. 7062-323, List \$13.50, Net..... \$7.94

Silver-Marshall Universal Variable Condenser



A single .00035 mfd. variable condenser with full floating rotor, removable shaft, soldered plate assemblies and die-cast end plates. Universal mounting for either end and as left or right either side, bottom, or either end and as left or right type, on panel or chassis. Plates are of modified SLP-SLAW shape to provide a substantially straight line tuning curve. Size $2\frac{1}{2}$ " wide, $4\frac{1}{2}$ " long and $1\frac{1}{16}$ " high. Shipping weight 1 lb.

No. 7063-320R, List \$1.00, Net.... \$2.35

S-M 321 Single Universal Condenser

A low capacity condenser identical in all respects to S-M 320R type (described above), except that the capacity is .00005 to .0001 mfd. An ideal condenser for short wave receivers. Shipping weight 1 lb.

No. 7064-321, List \$4.00, Net..... \$2.35

Muter Midget Variable Condensers



Black moulded Bakelite shell, size $2\frac{1}{2}$ " long, $1\frac{1}{4}$ " wide. Holes for mounting $\frac{1}{4}$ ", $2\frac{1}{4}$ " from center to center. For neutralization purposes, and general balancing purposes. Note very low capacity.

No. 7482-1900, Variable Balancing Condenser, .000003 to .00005 mf. List \$0.75, Net..... \$0.44

No. 7483-1950, Variable Grid Condenser, .00015 to .0005 mf. List \$1.00, Net.... .59

Muter Tunetena

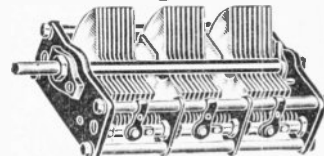
Tune the Antenna as Well as Your Set



The Tunetena applies a well known transmuting principle to radio reception. Every last bit of antenna energy is utilized. The result is greater distance, a higher degree of selectivity, and suppression of static interference to a minimum. It may be used as a complete indoor aerial or in connection with an outside aerial. Red moulded Bakelite case $3\frac{3}{4}$ " in diameter. Special light socket plug and silk wire is included. Shipping weight 2 lbs.

No. 7467-3800, List \$3.50, Net..... \$2.06

Amsco Gang Condensers



Allocates stations equally on dial in straight tuning line fashion. Perfect bearings. Single hole mounting. Electrically shielded. Easily and accurately compensated by means of self-contained variable mica condensers clamped to cross bars. Shipping weight 2 lbs.

No.	Capacity	List	Net
No. 6160, 2-gang, .00035		\$6.50	\$3.78
No. 6161, 2-gang, .0005		7.50	4.41
No. 6162, 3-gang, .00035		9.75	5.68
No. 6163, 3-gang, .0005		11.25	6.58
No. 6409, 4-gang, .00035		13.00	7.80
No. 6410, 4-gang, .0005		15.00	9.00

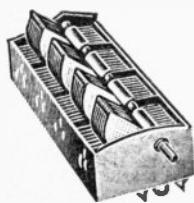
NOTE

If you must use, in conjunction with the above S.T.L. gang condensers, a single one, it must be the same type for uniformity of dial readings. Weight 1 lb.

No. 6607, .00025 mfd., List \$3.00, Net \$1.76	
No. 6111, .00035 mfd., List \$3.25, Net 1.91	
No. 6112, .0005 mfd., List \$3.75, Net 2.20	

Hammarlund Multiple Condensers

Two, Three and Four Gang Models



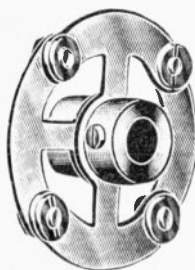
The New Hammarlund "Battleship" Multiple is the finest condenser model Hammarlund has ever produced. Beautifully finished—brute strength. Die-cast frame; plates permanently aligned; free-moving rotor. Recesses in the frame permit direct attachment of an equalizing condenser (not included in prices quoted) to balance each unit with absolute precision. The sections of the Hammarlund are within $\frac{1}{4}$ of $\frac{1}{2}$ (plus or minus) of each other at all points. This is the closest matching obtainable. Shaft $\frac{3}{4}$ ", turned down to $\frac{1}{4}$ " on dial end. Made only in 17 plate (350 mmfd.) and 23 plate (500 mmfd.) sizes. Shipping weights: 2 Gang, 3 lbs; 3 Gang, 4 lbs; 4 Gang, 5 lbs.

	Capacity	List	Net
2 GANG			
No. 7571-BSD-35.	350 mmfd.	\$9.50	\$5.59
No. 7572-BSD-50.	500 mmfd.	10.00	5.88
3 GANG			
No. 7573-BST-35.	350 mmfd.	13.25	7.79
No. 7574-BST-50.	500 mmfd.	14.00	8.25
4 GANG			
No. 7575-BSQ-35.	350 mmfd.	17.00	10.00
No. 7576-BSQ-50.	500 mmfd.	18.00	10.69

Condenser Shafts

BRASS	Length	BAKELITE
No. 7577.	8"	No. 7580. \$0.34
No. 7578.	12"	No. 7581. 0.48
No. 7579.	16"	No. 7582. 0.51

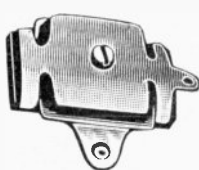
Hammarlund Insulated Flexible Shaft Coupling



The universal flexibility of this coupling permits operation of any number of condensers in tandem, without requiring exact alignment of condenser units. The two sides of the coupling being insulated from each other, condensers in the gang can be operated as independent electrical units; that is, their rotors (as well as their stators) will be electrically independent of each other. Made of tough spring phosphor-bronze with brass bushing and two hardened steel set-screws. Bakelite insulation, $\frac{1}{4}$ " in diameter. Length of bushing is $\frac{3}{4}$ ".

No. 5452. List \$0.60. Net..... **\$0.36**

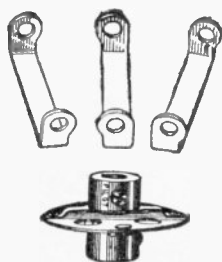
Hammarlund Equalizing Condenser



It has a wider range than condensers many times its size, the above view being about full size, the bakelite base measuring $1\frac{3}{16}$ " long by $\frac{5}{8}$ " wide. Can be used to compensate for differences between condensers in gang assembly, or for neutralizing oscillations by balancing R. F. tube capacities. Maximum capacity 50 micro microfarads and minimum 2 micro microfarads. Base is genuine bakelite; uses a mica dielectric and a heavy phosphor bronze spring plate. Adjusting the center screw raises or lowers the top spring plate, causing the variation in capacity. Mounts directly to socket or variable condenser terminals, or can be suspended on any connection wire.

No. 9052. List \$0.50. Net..... **\$0.29**

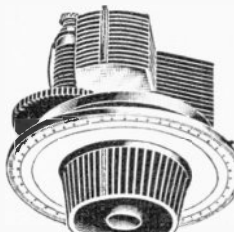
Pilot Flexible Shaft Coupling



For insulation of gang condensers, mount the several units on a bakelite or rubber platform, then insert one of these insulated coupling links between the shafts. If insulation is not desired, attach the brass links to the front and rear plates of the condensers, and couple their shafts, as above described. Couplers are $\frac{1}{4}$ " diameter, $\frac{3}{4}$ " long.

No. 7800. Complete, as illustrated. **\$0.35**

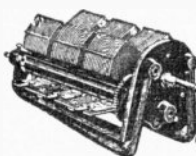
Remler 360° Variable Condenser Twin Rotor Type



This most unique condenser has two rotors which mesh into each other. A small ratio gear produces a very realistic vernier effect. The dial moves in a 360° arc, but the rotors only move in a 90° arc. All electrical connections are foreign to the metal shaft, and operating dial, insuring no trace of body capacity effects. The plates are "potted" brass. Shipping weight 3 lbs.

No. 9667.	.00035 capacity 17-plate S.L.F.	
List \$5.00.	Net.....	\$2.91
No. 9668.	.0005 capacity 23-plate S.L.F.	
List \$5.00.	Net.....	2.94
No. 5117.	.00035 capacity S.L.W.L. List \$5.00.	2.94
No. 5118.	.0005 capacity S.L.W.L. List \$5.00.	2.94
No. 5104.	360° Remler Dial for above condensers.	List \$1.00. Net..... 0.59

Remler 3-in-Line Condenser



Complete insulation of each rotor permits its use in any system of neutralization. Balancing condensers are quickly adjusted by means of conveniently located regulating screws. Ample space is allowed between sets of plates. Frame is die-cast aluminum with black crystalline enamel finish. Can be mounted interchangeably with other condensers. The dial rotates in a 360° arc. Special staggered connection of plates makes it self-shielding, preventing interstage coupling. All insulation is of genuine Bakelite. Maximum capacity of each section, .00035 mfd. Size overall, $6\frac{3}{4}$ " deep by $3\frac{1}{2}$ " wide by $3\frac{13}{16}$ " high. Shipping weight $3\frac{1}{2}$ lbs.

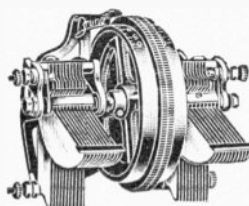
No. 6047-633.	Three-in-Line Condenser.	S.L. Wave Length. List \$15.00. Net..... \$8.82
No. 6108-613.	Three-in-Line Condenser.	S.L. Frequency. List \$15.00. Net..... 8.82

Remler 2-in-Line Condenser

The Remler Two-in-Line Condenser is identical in construction and design with the Three-in-Line Condenser described above, except that it is of two sections. Size overall, $5\frac{1}{4}$ " deep by $3\frac{1}{4}$ " wide by $3\frac{1}{16}$ " high. Shipping weight $3\frac{1}{2}$ lbs. Maximum capacity of each section is .00035.

No. 6104-632.	Two-in-Line S.L.W.L. List \$12.00.	Net..... \$7.06
No. 6105-612.	Two-in-Line S.L.F. List \$12.00.	Net..... 7.06

Bruno Unitune Condensers



Consists of two condensers, both electrically matched, yet electrically independent of each other in their rotors. Both dials can be turned TOGETHER with a one-dial effect, and then either can be further adjusted independent of the other. Mounts to the panel by means of only two screws which also hold handsome bronze indicating plates. .0005 mfd. straight line frequency. The plates are of brass and shaped for S.L.F. tuning. The frame is of aluminum and is very durable. The drums are of molded bakelite, and on the circumference thereof the dial numbers are clearly engraved. The edges of the drums are knurled for tuning purposes. Shipping weight 4 lbs.

No. 9635. List \$11.00. Net..... **\$6.40**

NOTE

You can adapt your present condensers for localized tuning control by attaching to them the Bruno Drums (2), panel plate and frame. Takes but a few minutes. No. 8947. As described. List \$3.50. **\$2.06**

National Short Wave S.L.F. Eucycle Condenser



Curve of 270 degrees—average condenser rotates in an arc of 180 degrees. Plates are double spaced. Note girder frame.

	Capacity	List	Net
No. 7931....	.0001	\$4.50	\$2.65
No. 7932....	.00125	4.50	2.65
No. 7933....	.00015	4.00	2.35
No. 7934....	.00025	4.50	2.65

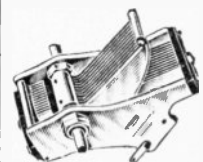
Karas Extended Shaft Orthometric Condensers



Especially designed for use in the Equanatic receiver because of its extended shaft from the rear plate of the condenser. This product is symbolic of the Karas efforts to offer the radio public the very finest instruments that skilled engineers can design and patient craftsmen can build. Mathematically designed plates assure perfect S.L.F. results in tuning. Frame is very heavily nickel plated and substantially formed. Plates are heavy lacquered brass. The shaft revolves velvet-like. .00037-mfd. capacity—17 plates. Ship'g weight 2 lbs.

OTHER KARAS		ORTHOMETRIC	CONDENSERS
No. 8912.	5 plate .0001	List \$6.50.	Net..... \$3.82
No. 8913.	7 plate .0001	List 6.50.	Net..... 3.82
No. 9459.	11 plate .00025	List 6.50.	Net..... 3.82
No. 9458.	17 plate .00037	List 6.75.	Net..... 3.97
No. 9457.	23 plate .0005	List 7.00.	Net..... 4.12

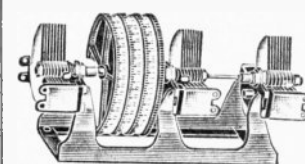
Karas S.L.F. Condensers



Offers the same general advantages as the Karas orthometric condenser. Removable shaft feature so essential in gang assembly. Mounting on sub-panel baseboard or single hole panel from either side. For either clockwise or counter clockwise dials—a very valuable feature! Shaft diameter $\frac{1}{4}$ ". Shipping weight 1 lb.

No. 6447.	Type 11, .00025 mf.	List \$5.00.	Net..... \$2.94
No. 6448.	Type 17, .00037 mf.	List \$5.25.	Net..... 3.09
No. 6449.	Type 23, .0005 mf.	List \$5.50.	Net..... 3.23

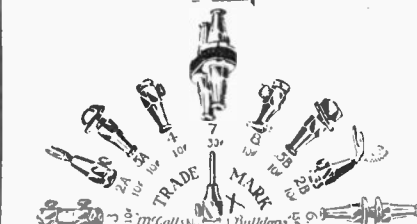
Na-Ald Localized Control Tuning Units



All condenser drums can be turned at once, or singly, independent of each other, all within range of your FINGER TIPS. The dial numbers are to be found on the bakelite drums and are hand-somely set off in a frame of embossed polished bronze furnished with each condenser. Shipping weight 4 lbs.

No. 9711.	Double 17-plate .000375.	List \$8.00.	Net..... \$4.70
No. 9710.	Triple 17-plate .000375.	List \$10.00.	Net..... 5.88
No. 9713.	Quadruple 17-plate .000375.	List \$15.00.	Net..... 8.81
No. 9075.	Double 23-plate .0005.	List \$10.00.	Net..... 6.00

McCall's Suretite Connectors



Use them once, and you will wonder how you could have possibly done without them! A knurled locking screw provides a firm contact—no soldering required to any of the terminals. Note that each connector, except the No. 1, is in reality a phone tip jack, into which No. 1 is inserted, with almost a vise-like grip. Nickel-plated brass.

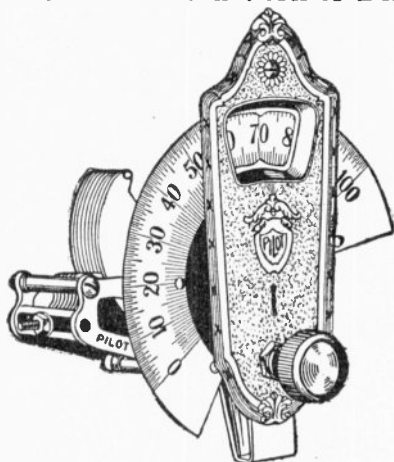
No. 5370—1.	Cord Tip.
No. 5371—2A.	Spade Tip Adapter.
No. 5372—2B.	Spade Tip Adapter.
No. 5373—3.	Wire Splitter or Connector.
No. 5374—4.	Spring Connector. Takes a phone tip (or No. 1) or bus bar.
No. 5375—5A.	Same. Has screw and washer for mounting.

All of the Above—IN LOTS OF 10.. **\$0.65**

All of the Above—IN LOTS OF 25.. **\$1.50**

No. 5376-6. Double Cord Tip Jack. Similar to No. 5A. In lots of 10..... **\$1.00**

No. 5377-7. Loud Speaker Extension. In lots of 10..... **2.00**

Pilot Illuminated Vernier Dial

You can't appreciate the striking beauty of this new Pilot Illuminated dial until you see the dial itself. One look at this dial and you'll say, "Sold," on the spot. The bronze plate is not cheaply etched, but handsomely embossed in relief. You will almost think that the plate was engraved by hand, so sharp and clear is the design. Control knob is walnut bakelite. This is the kind of dial you'd want on a thousand-dollar receiver. It will give that same kind of finish to a twenty-dollar outfit that you build yourself. Professional set builders, appreciating the demand for improved appearance, will find the No. 1282 a tremendous sales help. If your women customers have objected to the old-style controls as unattractive, just let them see a set fitted with these new plates. They will not only suit the most critical taste, but they are much finer in design and workmanship than anything that has ever been produced before. Dial numbers are unusually prominent, greatly assisting you in tuning—of course, the illuminated effect is very startling. If used in an A.C. set, the bulb can be lit from the 5 volt raw A.C., usually fed to the power tubes. Friction drive—no back-lash. Escutcheon plate measures 5 3/16" high. Diameter of celluloid disc is 4 3/4". Behind back of front panel, dial protrudes 13/16". Condenser shown in illustration not included. Shipping weight 1 1/2 lbs.

	List	Net
No. 8012-1282. Without bulb....	\$1.90	\$1.12
No. 8043-1282L. With bulb	2.15	1.27

**Type F National Vernier Drum Dial**

Velvety smoothness of operation. For clockwise or counter clockwise condensers, which can be mounted on both sides of drum. An automatic spring takeup assures positive drive at all times. Template furnished with each dial. The escutcheon plate adds to beauty of set. A concealed 8 volt lamp may be attached to light dial. Weight 1 lb.

No. 8834-F. List \$1.00. Net.....	\$2.35
No. 8835-28. Illuminator. Bulb included.	
List \$0.50. Net.....	0.29

Type E National Vernier Dial

Differs from the National Type F Drum Dial, in that this model has no drum, but instead, a circular disc on which are most attractive figures, visible from the

Mar-Co Vernier Dial

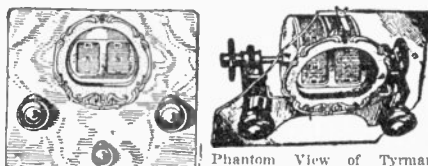
Weight 1 lb.

No. 9329. List \$2.00. Net.....	\$0.85
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Dial Knob

Here is a knob of particular interest to the set builder. Very popular on account of its small size. The knob is 2" in diameter; center of bushing to end of point, 1 1/4"; total height, 1". No holes to be drilled in panel. Can be unscrewed in a jiffy. For 1/4" shafts.

No. 1993. Black	\$0.15
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Tyrman Illuminated Drum Dial

No. 8052—Front Panel View Double Drum Dial.

Distinctive and individual in appearance. Worm gear drive permits velvet-smooth, positive operation. Fits all popular condensers without sawing or filing. Connect tuning condenser by fastening set screw. Insulated mounting for condenser and insulated coupling are provided to prevent body capacity. Rigid construction. Easily and quickly mounted on panel. Gives a front panel appearance of finished craftsmanship and unequalled attractiveness. The rich bronze escutcheon encircles a concave window of special translucent material permitting indirect illumination giving a strikingly beautiful effect. The calibration strip is metal with black numerals on gold bronze. Easy to read.

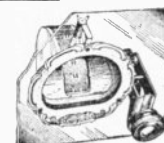
No. 8052—Worm Drive DOUBLE Drum—Completely assembled, including escutcheon plate, translucent window, light bulb, three matched knobs—two for tuning and one for volume control.

No. 8052. List \$12.00. Net.....	\$7.06
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No. 8053

Front Panel View Single Drum Dial. Knob on left is used as a volume control.



Phantom View of Tyrman Single Drum as mounted on panel. Volume control knob not shown.

No. 8053—Worm Drive SINGLE Drum—Same general design as the Double Drum, except it employs one drum and two knobs. Escutcheon plate, translucent window, light bulb, two matched knobs—one for tuning and one for volume control.

No. 8053. List \$8.00. Net.....	\$4.70
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National Precision Velvet Vernier Dial

Designed for laboratory apparatus where it is necessary to calibrate readings to one-tenth of a dial scale division. Ideal for the amateur who uses precise short wave apparatus. Scales are of solid German silver engraved in black. Vernier reduction 5 to 1 ratio. Shipping weight 1 lb.

No. 8831. 100 to 0 dial reading.	
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No. 8832. 150 to 0 dial reading.	
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No. 8833. 200 to 0 dial reading.	
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List each with vernier scale \$6.50.	\$3.82
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same port hole, as in the F model. Condensers, etc., are thus mounted in the usual manner, i. e., at 90° angle to the front panel. A special illuminator can be installed. Same front panel appearance as Type F dial. Shipping weight 1 lb.

No. 8836-VEC. 200 to 0. List \$2.75.	\$1.63
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No. 8835-28. Illuminator. List \$0.50.	
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Net	0.29
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Halldorson Dial and Control Escutcheon Plates

No. 5385

equivalent of three auxiliary controls. The dials used in the assembly are of a new smooth-running drum construction, illuminated from the rear.

No. 5383. 2-Dial Escutcheon (less drum dials). List \$3.00. Net.....	\$1.77
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No. 5384. 1-Dial Escutcheon (less drum dial). List \$3.25. Net.....	1.92
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No. 5385. 2 Drum Dials and 2-Dial Escutcheon. List \$13.50. Net.....	7.94
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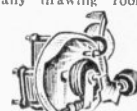
No. 5386. 1 Drum Dial and 1-Dial Escutcheon. List \$8.00. Net.....	4.70
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Hammarlund Knob-Control Drum Dial

Front View

The driving mechanism utilizes an exceptionally strong silk and linen cord, gripping a drum, snubber fashion. It cannot slip—absolutely no backlash or lost motion.

Shipping weight 3 lbs.



Rear View

List	Net
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No. 7588-SDB-1 (with black knob) including template, electric bulb, mounting screws, instructions.	\$1.00	\$2.35
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No. 7589-SDW-1 (with walnut knob)	4.00	2.35
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No. 7590-SDBK—Black knobs (for rheostats, volume control, etc.)	0.25	0.15
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No. 7591-SDWK—Walnut knobs...	0.25	0.15
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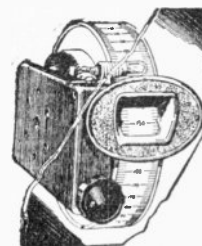
Hammarlund Drum Dial

Front View



Rear View

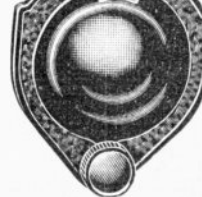
No. 5453-DD2. List \$6.00. Net....	\$3.53
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Remler Drum Dial

required for panel plate. Will drive all standard makes of condensers. Mounting template is included in each carton. Shipping weight 2 lbs.

No. 6066. Condenser Mounts on Either	\$2.65
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Left or Right Side. List \$4.50. Net	
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Kurz-Kasch Vernier Dial

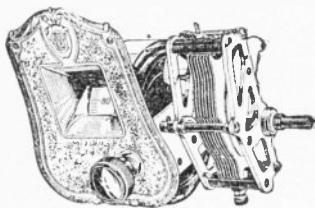
No. 9984. 200 to 0. List \$2.00. Net....	\$1.18
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No. 9096. 0 to 200. List \$2.00. Net....	1.18
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No. 9097. 100 to 0 to 100 List \$2.00.	
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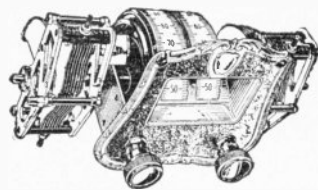
Net	1.18
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PILOT KNOB DRIVEN DRUM DIALS



No. 7163

Electrically, mechanically, and artistically the new Pilot knob control type drum dials score 100 per cent on any scale of rating radio parts for quality. While Pilot manufacturing methods make these dials low in cost, the designers' efforts were only directed toward making one of the finest knob-controlled drum dials that has ever been offered to set builders. Mounted on a walnut or mahogany Bakelite panel, the rich, bronze plate matches perfectly. The design on the plate looks as if it were hand-tooled from a solid block of metal. When the set is switched on, the scales are indirectly illuminated from a hidden source of light. This eliminates all glare and reflection. Then, as you tune your set, you will discover the silky smoothness of the mechanism. And there is a reason for this smooth-running control. Two similar metals bearing on each other always stick and grind. Pilot uses a metal-to-Bakelite drive, a combination which works better as it is used longer. Also, the polished Bakelite drums which carry the scales are more attractive in appearance than stamped



No. 7165

brass shells. Control knobs are of walnut Bakelite, unless black is specified. The single dial will carry condensers (any make) on both sides of the drum—a very valuable feature. It is difficult to properly set in words how truly beautiful these drum dials are. Will positively make any custom built set's panel look like the costliest commercial models. And, being knob driven, makes its operation much more desirable than the now antiquated finger drive drum dial principle. Shipping weight 4 lbs.

	List	Net
No. 7163-1284—Single illum. drum without lamp	\$3.00	\$1.77
No. 7164-1284L—Single drum with 6-volt bulb	3.25	1.92
No. 7165-1283—Double illum. drum without bulb	5.50	3.23
No. 7166-1283L—Double illum. drum with 6-volt bulb	5.75	3.38

S-M Single Control Escutcheon



An antique brass control panel escutcheon accommodating one 806L or 806R dial, a volume control and switch combined, and an extra sensitivity control or separate on-off switch. Very attractive. This escutcheon lends beauty and dignity to the home-built receiver ordinarily found only in the finest ready-made sets. Size, 6 1/2" high, 8 1/2" long, 7/32" panel, and 7/16" or 7/8" chassis. Shipping weight 1 lb.

No. 7109-808. List \$2.25. Net..... \$1.33

Dual Control Escutcheon

An antique brass control panel escutcheon similar to 808, but accommodating one 806L and one 806R dials, and two auxiliary controls. Size, 8 1/2" high, 8 1/2" long, to fit type 700 cabinet or 703 panel and 7/16" or 7/8" chassis. Shipping weight 1 lb.

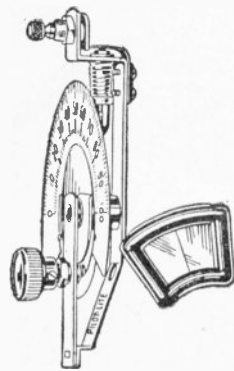
No. 7110-809. List \$2.75. Net..... \$1.63

S-M Left Drive Vernier Drum Dial

A smooth, positive vernier drum dial for left-hand drive. The drum is 3 3/4" in diameter, and carries a beautiful gold scale with etched divisions and figures every five degrees. The dial is controlled by a walnut panel knob operating through a smooth and positive semi-gear semi-friction drive system. May be used with any condensers. Vernier ratio, 9 to 1. Template included. No panel window is furnished. Shipping weight 1 lb.

No. 7111-806L. List \$2.50. Net..... \$1.47

Illuminated Vernier Dial



Consists of a well printed scale on translucent celluloid, the numbers of which are 1/4" in height, showing from behind an attractive panel window, upon which is etched a very fine marker for dial settings. Placed directly behind this "transparent" scale is a 6-volt, very small consumption (1/10th of an ampere hour) bulb, which is wired, through its socket, directly to the plus and negative leads of your "A" battery within the receiver. To cut out this bulb, the switch on the top of the dial is used. The vernier action provides for "razor sharpness"—there is no back lash or play, for a smooth friction drive is employed. Diameter of scale is 5 3/4". Bakelite knob used. All

metal parts are brass, and the switch is nickel plated. Black figures against a white background. Shipping weight 1 lb.

No. 9672-1276. Without Bulb.	List \$1.50.	Net
No. 8920. Special Mazda 1/10 Ampere Bulb for Above.	Net	0.21

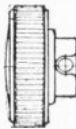
Pilot Decorative Knob



An ornamental finish can be given to small controls, such as rheostats, midjet condensers, and coupling coils. Supplied in black or walnut Bakelite, it can be used with panels of various finishes. A brass insert, with a set screw, molded into the knob, takes a 1/4-in. shaft, 3/4" long, 1 3/8" diameter. Moulded bakelite.

	List	Net
No. 8093-1257. Black	\$0.20	\$0.12
No. 8094-1257-W. Walnut	.20	.12

Pilot Knob



A plain but good looking knob. Moulded bakelite. Choice of black or walnut colors. 1 1/4" brass insert, with steel set screws. 1 1/4" diameter, 3/4" long.

No. 8091-1256. Black.	List \$0.12
No. 8092-1256-W. Walnut.	List \$0.12
No. 8093-1256. Black.	Net \$0.20
No. 8094-1256-W. Walnut.	Net \$0.20

Right Drive Vernier Drum Dial

Same as S-M 806-L, described above, except right-hand drive type.

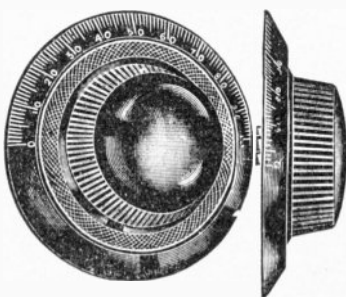
No. 7112-806R. List \$2.50. Net..... \$1.47

Drum Dial Window

A single drum dial window of antique brass, for either 806L or 806R dials. Similar in size and shape to the dial windows of 808 and 809 escutcheons. Intended for use with 806L and 806R when used with McIntara or other panels where 808 or 809 escutcheons may not be used. It is very attractive and is attached to any panel with two screws and nuts. Size, 2 3/4" high and 1 7/8" wide.

No. 7113-807. List \$0.50. Net..... \$0.30

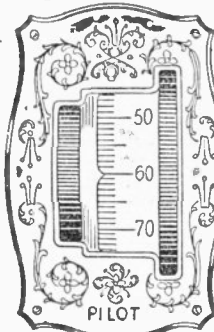
"Rasco" Molded Dials



One-piece composition molded dials. The lettering and figures are inlaid in brilliant white enamel. The metal bushings are very heavy and will always remain firm. The illustration shows the slight boss at the back of the dial, which makes the dial stand off from the panel about 1/16", so that the rim will not grind against the panel. Beveled edges. 1/4" bushings used. Set screw included. Shipping weight 1 lb.

No. 3074. 2-inch Dial.	Net \$0.20
No. 3076. 4-inch Dial.	Net 0.30

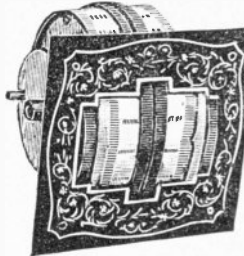
Pilot Vernier Drum Dials



Excellent and useful as it is, decidedly attractive. The larger knurled Bakelite wheel is for coarse, rapid tuning, whereas the small wheel is for the unusually effective and efficient vernier control. The brass panel plate is hand-somely embossed. The number scale is in black figures on a white celluloid band which can be readily cleaned. Condensers can be mounted (parallel with panel) on either side of the single drum, an exclusive feature. Very simple to install. A complete template is furnished. The panel plate

measures 3 3/4" x 4 1/2". Shipping weight 2 lbs. No. 5655-1280. List \$1.00. Net.... \$2.35

Double Vernier Drum Dial

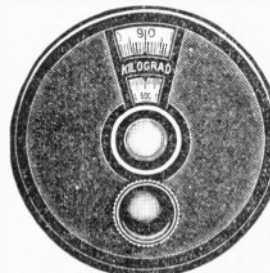


You will note that the two large knurled drums are next to each other, thus permitting the dual rotation of both drums with the same finger, giving a single dial effect. The outside small wheels are the vernier controls. If you wish you can use only these wheels exclusively. This double dial is ideal for all 2-dial tuners, such as Browning Drake, Roberts, and for all receivers employing one

single condenser (to tune the loop or antenna stage) and a 2, 3 or even 4-gang condenser mounted on the other drum. The brass plate measures 4 1/4" x 5". Shipping weight 4 lbs.

No. 5656-1281. List \$7.00. Net.... \$4.12

Pilot Kilograd Vernier Dial



Here is a bakelite vernier dial which is bound to please you immensely, because while its price is always down, it tunes as sharply as any other dial. In the lower opening the numbers are printed in the opposite direction (clockwise) making this dial universal for any type condenser—an exclusive feature.

Weight 1 lb.

No. 9167-1275. List \$1.00. Net.... \$0.58

Pilot All Bakelite Vernier Dial



Almost completely molded of genuine black, highly polished Bakelite. A very attractive design is beautifully embossed thereon. The shank which receives the shaft of the condenser is highly nickel plated—a steel set screw therein locks the shaft. A full 360-degree scale is provided. Upon a white background are printed the dial settings reading from 0 to 100, and on a black background are printed in white letters the dial settings from 100 to 0; therefore, the dial is adaptable to clockwise and counter clockwise rotation. The vernier action is accomplished by a friction drive—always positive—never any back lash or microphonic noises always incidental to gears. Diameter of hole in shank is 1/4". Diameter of tuning knob is 1". The outer surface of the dial protrudes 3/8" from the panel. The total depth from the knob to the panel is 1 1/4". Overall dimensions are 3 1/4" at the widest portion and 4" long. Shipping weight 1 lb.

No. 8850-1278. List \$0.95. Net.... \$0.56

No. 8851-1279. Same as above, but in walnut finish case, gold finished

hubb. List \$1.10. Net..... \$0.65

In every issue of any radio journal there are described new circuits—we can supply such kits, exactly as specified, at an average discount of 40%.

Carb. Coupling Resistors



Are made in an electric furnace, wherein a rock like substance is obtained and used as the actual resistance. They will never disintegrate, and thus will never change their values. Slots in the clips are much more satisfactory than holes, for they permit more accessible mounting. Clips can be bent to any angle, or removed. The following values in grid leaks can be supplied, and your order should state just which ones you wish: 1, 2, 3 and 5 megohms.

No. 9077.	12,000, 25,000, 50,000, 75,000, 100,000 ohms.	List \$0.75.	Net.....	\$0.44
No. 9097.	2,500-5,000 ohms.	List \$1.00.	Net.....	0.59

Variable Grid Leak



Offering a range from 0 to 15 megohms, this leak will enable you to properly adapt it to your specific requirements. Adjustment is made by a micrometer screw—one complete turn of the knurled knob advances the plunger within the leak only 1/10th of an inch! Once set, the instrument remains constant; no jolts or vibrations will disturb it. Fits any standard grid leak mount, or grid leak condenser.

No. 5590.	List \$1.00.	Net.....	\$0.32
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Lynch Metallized Fixed Resistors



Metal long has been recognized as the best electrical conductor. In a grid leak a certain unwanted electrical charge must be let from the grid of the tube to which it is connected, and the Lynch resistor has no equal for this purpose, as it employs a CONDUCTIVE, non-arcng metallized resistance on a glass core, sealed within the outer glass tube. It is warranted absolutely noiseless, permanently accurate and forever dependable. Specify resistance wanted.

No. 9687.	5-3-2-1-5-.25 megohms.	List \$0.50.	Net.....	\$0.29
No. 9688.	12,000 ohms to 200,000 ohms.	List \$0.75.	Net.....	0.44
No. 9689.	500 ohms to 10,000 ohms.	List \$1.00.	Net.....	0.59

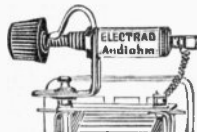
Lynch Grid Suppressors



Inserted in the R. F. grid circuit, oscillations are suppressed. Furnished with mount in resistance values ranging from 100 to 1,800 ohms, varying in even hundred units. Be sure to state size desired.

No. 5260.	List \$1.00.	Net.....	\$0.59
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Audiohm



Raspy or nasal reproduction in your loud speaker can frequently be traced to the secondary of your first or second stage audio transformer. By shunting the grid and filament terminals thereof with this variable resistance, you can adjust the output in your speaker to your own satisfaction. A cleverly arranged mounting bracket and flexible coil spring permit the immediate installation of this device on the secondary of any transformer without any drilling, special tools or soldering. Shipping weight 1 lb.

No. 9899.	List \$1.50.	Net.....	\$0.88
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Bradleyleak



The Bradleyleak provides a stepless, noiseless control of grid leak resistance for all tubes from 250,000 ohms to 15,000,000 ohms by adjusting the slotted knob, varying the pressure of the enclosed graphite discs. A very efficient grid leak is always a forerunner of extreme long distance reception. Connections may be soldered or twisted under the screws. Measures 2" long by 3/4" wide and protrudes 3/4" of an inch from back of panel. One hole mounting on panel, or base board mounting. Shipping weight 1 lb.

wide and protrudes $\frac{3}{4}$ of an inch from back of panel.	
One hole mounting on panel, or base board mounting.	
Shipping weight 1 lb.	
No. 9916. List \$1.85. Net.....	\$1.20
No. 9917. With .00025 Fixed Condenser.	
List \$2.20. Net.....	1.44

Pilotohm Metal Grid Leaks and Resistors



The Pilotohm not only has the advantage of eliminating the noises which were characteristic of the ink-tipped strips, but offers the great advantage of constant resistance at all normal currents. You don't need a calibration curve to tell the true resistance of a Pilotohm resistor. It is always actually what the label shows. Nor will the value change over a period of years. With Pilotohm metal resistors you don't need to hope the values will be right—you always know positively. Be sure to state what ohmage you are ordering. Supplied in following resistance ranges: 1, .25, .5, .75, 1, 1.5, 2, 2.5, 3, 4, 5, 10, megohms.

No. 8290.	List \$0.25.	Net.....	\$0.15
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Yaxley Grid Resistance



Wire wound. Mount directly on socket. Suppresses oscillation. State resistance range desired.

No. 8288.	100, 200, 300, 400, 500 ohms.	List \$0.25.	Net.....	\$0.15
No. 8289.	600, 700, 800, 1000, 1500, 2000, 3000 ohms.	List \$0.35.	Net.....	0.31

25-Ohm Adjustable Resistance



2 1/2" long, 5/8" wide. Resistance can be adjusted by sliding clamp along wire. Mounts directly on socket or rheostat terminal. Very useful—several of them should always be on hand.

No. 7279-100.	List \$0.20.	Net.....	\$0.12
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Truvolt C. T. Resistance

Particularly designed for use across the filaments of A.C. tubes. The center tap provides the electrical center for grid return leads. These resistances are made by riveting matched resistors together, thus affording a center tap resistance that is extremely accurate. Can be used with any type of A. C. tube sockets.



Types	Total Resistance	Maximum Working Voltage	List	Net
No. 7425-V10	10 ohms	3.5	\$0.75	\$0.45
No. 7426-V20	20 ohms	5.5	.75	.45
No. 7427-V30	30 ohms	6.5	.75	.45
No. 7428-V50	50 ohms	8.5	.75	.45
No. 7429-V80	80 ohms	11.0	.75	.45
No. 7430-V100	100 ohms	12.0	.75	.45
No. 7431-V150	150 ohms	15.0	.75	.45
No. 7432-V200	200 ohms	17.0	.75	.45

Electrad Grid Suppressors

One end can be mounted directly on grid post of R.F. sockets—other end connects to R.F. coil and variable condenser. Resistance is completely covered with varnished cambric and bends into shape—a very valuable feature. Suppresses oscillations. Can be supplied in any of the following values—be sure to state which you are ordering: 50-75-100 and up to 2000 ohms, in successive stages of 100 ohms difference.

No. 8000.	Any size up to 1,000 ohms.	List \$0.25.	Net.....	\$0.15
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No. 8000A.	From 1,100 to 2,000 ohms, in steps of 100 ohms.	List \$0.40.	Net.....	\$0.24
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Electrad Phasatrol



Phasatrols are suited to any circuit having radio frequency amplification—whether tuned, untuned or reflexed. One Phasatrol must be used for each stage of radio frequency amplification. Will absolutely eliminate any tendency to radio frequency oscillation or distortion. Can be installed by the inexperienced radio fan in a short time. A properly neutralized receiver will always assist in producing perfect quality reception. Occupies same space as a rheostat. Explicit instructions are included. Slotted shaft adjustment.

No. 9975.	List \$2.75.	Net.....	\$1.62
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Single Resistor Mounting



Molded of genuine bakelite. Patented nickel-plated phosphor bronze clips so designed that they grip the cartridge all around, insuring ever perfect contact. Can be used as an independent grid leak mounting or for any other purpose involving a tubular device. Soldering lugs facilitate connections.

No. 9642.	Without Resistor.	List \$0.30.	Net.....	\$0.18
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Carter Wall Outlet Plates



Plain Brass Type

AERIAL AND GROUND

Consists of plain brass escutcheon plate equipped with Carter Tip Jacks with name plates "Aerial" and "Ground" and two "IMP" plugs are also included. The jacks take any standard phone tip plugs. Screws for mounting to regular electric outlet box or directly on wall or baseboard.



Statuary Type

No. 7817-620.	Statuary type	List \$0.90.	Net \$0.53
No. 7818-720.	Statuary type	List \$2.25.	Net 1.32

Loudspeaker Outlet

For use in bringing radio speaker service to rooms remote from the receiver. Consists of plain brass escutcheon plate fitted with a Carter open circuit (for parallel connection) "Short" Jack with "Radio" name plate. Takes any standard plug. Fits standard electric outlet box or may be mounted directly on wall.

No. 7841-600	List	Net
	\$0.80	\$0.47
No. 7842-700 Statuary type	2.00	1.18

A.C. Outlet—Aerial and Ground

Provides a standard A.C. outlet for the power current together with jacks for aerial and ground lead-ins. The plate is equipped with two Carter Tip Jacks with "Aerial" and "Ground" nameplates. Two "Imp" plugs are also included. The plate has a hole 1 3/4" in diameter for standard receptacle and fits on standard outlet box.

	List	Net
No. 7843-660	\$1.00	\$0.59
No. 7844-760, Statuary type	2.25	1.32

Volume Control L.S. Outlet

Allows the user, though far removed from the radio set, to regulate the volume as he wants it. Equipped with a Carter "111 Ohm" Volume Control, and open circuit "Short" Jack with "Radio" nameplate. Fits any standard electric outlet box or may be mounted on wall.

	List	Net
No. 7845-630	\$2.75	\$1.62
No. 7846-730, Statuary type ...	4.25	2.50

B.M.S. Volume Control

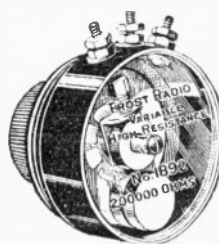


A volume control that can readily be adapted for various purposes. Ideal for use with electrical phonograph pick-ups. Can also be used as external volume control for any loud speaker. Note tip jacks self contained. Will give perfect control of volume without distortion. Eliminates

interfering noises and improves tonal quality. Shipping weight 3 lbs.

No. 7185-840.	List \$2.00.	Net.....	\$1.18
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Frost De Luxe Variable High Resistances



Give a continuously variable resistance adjustment. Smooth as silk—no jerks, no jumps. Roller contact eliminates all friction and mechanical wear. Repeated laboratory tests on a mechanical oscillator show no perceptible mechanical wear or resistance change after rotation tests of over a million revolutions. Are enclosed in a highly polished bakelite case and are equipped with a bakelite cover to exclude dust. Equipped with new style black bakelite knob with engraved white arrow indicator. If desired only two of the terminals need be used. Shipping weight 1 lb.

	List	Net
No. 6189-1896.	2,000 ohms	\$2.25 \$1.32
No. 6190-1898.	10,000 ohms	2.25 1.32
No. 6191-1899.	25,000 ohms	2.00 1.18
No. 6192-1890.	50,000 ohms	2.00 1.18
No. 6193-1891.	100,000 ohms	2.00 1.18
No. 6194-1892.	200,000 ohms	2.00 1.18
No. 6195-1895.	500,000 ohms	2.00 1.18

Table Type Clarostat



Clarostat in accessory form instead of as a part. This handy device, requiring neither tools nor knowledge of radio to apply to any radio receiver, is proving a favorite with those seeking a means of controlling the volume and the tone of the usual loud-speaker. May also be employed as a regeneration control, stabilizer, plate voltage control, sensitivity control and so on. An unusually explicit direction sheet included in the carton. Finished in handsome statuary bronze and nickel, with felt bottom to prevent scratching of fine furniture. Provided with two connection cords with tips, together with tip connector block. Genuine bakelite knob. Altogether a handsome addition to any set. Resistance may be inserted in series or in parallel with any circuit, according to connections made with cords. Resistance range 200-500,000 ohms. 7 watts rating. Shipping weight, 4 lbs.

No. 7001. List \$2.50. Net..... **\$1.47**

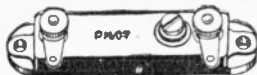
Volume Control Clarostat

A compact, inexpensive variable resistor of ample resistance range and current-handling capacity for applications in the radio receiver. Incorporating same design and precise construction as the larger Clarostats. Permanently sealed, fool-proof, ample heat radiation when used within rating of 7 watts. One-hole panel mounting or baseboard mounting by means of bracket. Solderless terminals. Heavily nickel-plated. Genuine polished bakelite knob.

Specified by leading radio authorities for use as volume and tone control, plate voltage control, regeneration control, stabilization control, grid suppressor and other applications in the usual receiving set and in the usual loud-speaker circuit. This model Clarostat is not intended, however, for use in radio power units, where the heavier Standard or Power type must be used. Resistance range 200-500,000 ohms. Shipping weight 2 lbs.

No. 7002. List \$1.50. Net..... **\$0.88**

Pilot Adjustograd



In keeping with the Pilot policy of constant improvement, the Adjustograd, a Pilot product familiar to many thousands of set builders, is now offered in a new design. The resistance element, of Nichrome wire, is now housed in an attractive bakelite shell. To facilitate adjustment, the regulation is obtained through a screw projecting at the top of the case. Thus the Adjustograd can be set by a screwdriver while the receiver is in operation. It is no longer necessary to touch it with the hand. It is inserted between the variable condenser and the grid in the first and second R.F. amplifier stages. All the other connections should be made in accordance with the particular circuit you are using. To set the Adjustograd, put the set in operation, tune in a low wave station, and regulate the Adjustograd until all oscillations have stopped. A.C. Tube Circuits: To take out the last trace of hum from A.C. tube sets, put an Adjustograd in the first or second R.F. stage, connected as shown in the directions included. $2\frac{1}{2}$ " long, $9/16$ " wide, $9/16$ " high. Range 0 to 1000 ohms.

No. 7235-1001. List \$0.50. Net.... **\$0.29**

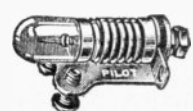
Bradleystat



The graphite disc controlled by pressure is conceded to be the most efficient form of filament control. Furthermore, this one type of Bradleystat can control either one or even ten tubes AT THE SAME TIME, with no further changes in the circuit wiring. Even a UX199 type of tube can be successfully controlled from a storage battery source. Knob is detachable for replacement by any knob of your own choice, if desired. All metal parts brass heavily nickel plated. Sides are white porcelain. Terminal screw connection. One hole mounting. Dimensions: $2\frac{1}{2}$ " long by $1\frac{1}{2}$ " high—extends $\frac{3}{8}$ " from rear of panel. Shipping weight 1 lb.

No. 9920. List \$1.85. Net..... **\$1.20**

Pilot Lamp Bracket



Just the thing to illuminate your dials, or as a trouble lamp to be mounted inside your cabinet. Bulb runs from "A" battery.

Shipping weight 8 ozs.
No. 5611. List \$0.10.
(Less Bulb.)
Net..... **\$0.23**

Grid Leak Clarostat



A variable resistor covering the enormous resistance range of from 1/10 to 10 megohms, suitable for many applications in the usual radio receiver aside from detector grid leak. Resistance range is covered in several turns of knob, so as to provide precise resistance settings. Adjustments maintained indefinitely. One-hole panel mounting or baseboard mounting with bracket. Solderless terminals. Heavily nickel plated. Genuine polished bakelite knob.

Meets the demand for an adjustable grid leak capable of silent operation and free from shunting resistance value. Indispensable as detector grid leak in DX reception and especially for short-wave operation. An important aid to better tone quality and maximum volume in resistance coupling and impedance coupling. Resistance range 1/10 to 10 megohms. Shipping weight, 2 lbs.

No. 7005. List \$1.50. Net..... **\$0.88**



Muter Variable High Resistance

A permanent resistance element which is wire wound and securely held in place in a highly nickel plated metal shell $1\frac{1}{2}$ " in diameter. A smooth contact with sliding arm gives uniform variation. Single hole mounting in standard $\frac{3}{8}$ " size. Furnished with black moulded Bakelite arrow knob, $1\frac{1}{2}$ " in diameter.

Range	List	Net
No. 7257-2101—0 to 10,000 Ohms..	\$1.00	\$0.59
No. 7258-2105—0 to 50,000 Ohms..	1.00	.59
No. 7259-2110—0 to 100,000 Ohms..	1.00	.59
No. 7260-2120—0 to 200,000 Ohms..	1.00	.59
No. 7261-2150—0 to 500,000 Ohms..	1.00	.59

Muter Variable Rheostats

Are similar to Variable High Resistances in appearance and general construction.

Range	List	Net
No. 7262-2303—0 to 3 Ohms.....	\$0.50	\$0.30
No. 7263-2306—0 to 6 Ohms.....	.50	.30
No. 7264-2310—0 to 10 Ohms.....	.50	.30
No. 7265-2320—0 to 20 Ohms.....	.50	.30
No. 7266-2330—0 to 30 Ohms.....	.50	.30
No. 7267-2350—0 to 50 Ohms.....	.50	.30

Muter Variable Grid Leak

Same construction and appearance as Muter High Resistance. Panel mount type.

Range	List	Net
No. 7268-2200— $\frac{1}{2}$ to 6 Megohms..	\$1.00	\$0.59

Muter Variable Power Rheostat

Exactly resembles in appearance and construction, the Muter High Resistance.

	List	Net
No. 7269-2305— $\frac{1}{2}$ Ohm	\$1.00	\$0.59
No. 7270-2315—1 $\frac{1}{2}$ Ohm	1.00	.59
No. 7271-2331—30 ohm Potentiometer—3 Terminals	1.00	.59
No. 7272-2370—700 Ohm Var. Grid Resistance	1.00	.59
No. 7273-2351—1000 Ohm Variable Resistance	1.00	.59
No. 7271-2352—2000 Ohm Variable Resistance	1.00	.59

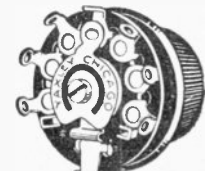
Bradleyometer



The absence of the movable arm on a wire resistance assures a NOISELESS control—no flattening out of the turns to make contact against each other, either. Is non-inductive. One hole mounting, or base board mounting. It is $2\frac{1}{2}$ " long, $1\frac{1}{2}$ " wide and extends $\frac{3}{8}$ " behind the panel. Fluted knob furnished. Screw terminals. Shipping weight 1 lb.

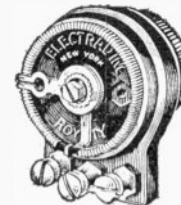
No. 9918. 200 Ohms.	List \$2.00. Net... \$1.30
No. 9919. 400 Ohms.	List 3.00. Net... 1.95

Yaxley Inductance Switches



Measuring but $1\frac{1}{2}$ " across, this little switch answers every requirement for a dependable tap switch. Perfect contact assured. Furnished complete with neat dial plate and bakelite knob. Shipping weight 1 lb.

No. 5801-11. 4 Point.	List \$0.75. Net... \$0.14
No. 5807-70. 7 Point.	List .80. Net... .17
No. 5809-90. 9 Point	List .90. Net... .53



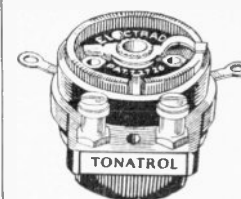
Electrad Royalty Variable Resistances

Resemble the Tonatrol. Are non-inductive. Its merits are well known, and therefore need no further comment herein.

Shipping weight 1 lb.

No. 5564. Type A—Variable Grid Leak, 1/10 to 7 megs.	List \$1.50. Net.....	\$0.88
No. 5565. Type B—Variable High Resistance, 1,500 to 100,000 ohms.	List \$1.50. Net.....	0.88
No. 5566. Type C—Variable High Resistance, 500 to 50,000 ohms.	List \$1.50. Net.....	0.88
No. 5567. Type D—Detector Control for "B" Eliminators, 10,000-700,000 ohms.	List \$1.50. Net.....	0.88
No. 5568. Type E—Compensator, 500,000 ohms. Potentiometer.	List \$2.00. Net.....	1.18
No. 5569. Type F—Variable High Resistance, 0 to 2,000 ohms.	List \$1.50. Net.....	0.88
No. 5570. Type G—Variable High Resistance, 0 to 10,000 ohms.	List \$1.50. Net.....	0.88
No. 5571. Type H—Variable High Resistance, 0 to 25,000 ohms.	List \$1.50. Net.....	0.88
No. 5572. Type J—Variable High Resistance, 0 to 200,000 ohms.	List \$1.50. Net.....	0.88
No. 5573. Type K—Variable High Resistance, 0 to 5,000 ohms.	List \$1.50. Net.....	0.88
No. 5574. Type L—Variable High Resistance, 0 to 500,000 ohms.	List \$1.50. Net.....	0.88

Electrad Tonatrol



It is almost universally accepted that the most satisfactory volume control can be obtained by connecting a 500,000-ohm variable resistance across the secondary of the first stage amplification audio transformer. And why the Tonatrol? Because its resistance strip is never subject to any wear, for the rotating lever only makes contact with cleverly inserted "taps." Shipping weight 1 lb.

No. 5562. List \$1.50. Net.....	\$0.88
No. 5563. With Built-in Filament Switch.	List \$2.00. Net..... 1.18

Centralab Modulator



The 500,000-ohm Centralab Modulator is a non-inductive NOISELESS variable resistance, smoothly variable from zero, affording a satisfactory means of regulating the output of the amplifier, with improved quality of reproduction from a whisper to maximum loudness. The outer shell is Bakelite, encasing the element in a novel dust-proof transparent case. Single hole mounting.

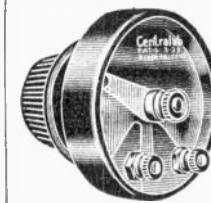
Same size as a potentiometer or rheostat. Shipping weight 1 lb.	
No. 9686. List \$2.00. Net.....	\$1.18

Centralab Potentiometer

This potentiometer is of the same construction and principle as our No. 9686 Modulator.

No. 9684. 100 ohms. List \$2.00. Net.....	\$1.18
No. 9685. 2,000 ohms. For providing "C" bias from any eliminator.	List \$2.00. Net..... 1.18

Centralab Radiohm

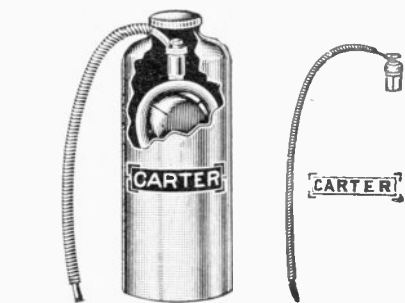


The Centralab Radiohm is constructed in the same manner as our No. 9686 Modulator, but has only two connections. Can be used as an oscillation control in any tuned radio frequency circuit, connected in the "B" battery circuit. Our No. 9683 is recommended for this purpose. It can also be used to control the regeneration in a fixed tickler circuit. Single hole mounting. Shipping weight 1 lb.

No. 9680. 2,000 ohms maximum. List \$2.00. Net \$1.18	
No. 9749. 25,000 ohms maximum. List 2.00. Net 1.18	
No. 9681. 50,000 ohms maximum. List 2.00. Net 1.18	
No. 9682. 100,000 ohms maximum. List 2.00. Net 1.18	
No. 9683. 200,000 ohms maximum. List 2.00. Net 1.18	

Gentlemen:
The five tube kit set I purchased from you is very much better than a six tube set I had purchased elsewhere.
JAMES ADAMS,
Oshawa, Ont., Canada.

Carter Shield Grid Tube Shields



No. 7187

No. 7188

A tube shield that actually shields! Not only completely covers the tube down to the sub-panel, but also encloses the top connector. Fits snugly around sockets that have bases extending above sub-panel and readily adaptable to sub-panel style sockets by use of the Carter Adapter Ring listed below. Made in one piece with ornamental cap and finished in a rich dull copper finish. Makes a splendid showing in the completed receiver. Fits over all 322 type shielded grid tubes. Has outlet hole at top for the shielded wire connector.

No. 7187-322. List \$1.50. Net..... \$0.88

Shielded Wire Connector

No. 7188-352. Shielded flexible wire fitted to a spring brass cap. List \$0.50. Net..... \$0.29

Carter Adapter Ring for Sub-Panel Style Sockets

Fits around sub-panel sockets and is fastened securely to sub-panel by screws furnished. The shield fits snugly over it, preventing microphonic noises. Ring is made of black Bakelite.

No. 7189-332. List \$0.35. Net..... \$0.21



Carter Connector Cap

Made of spring brass, slotted on side so that it slips onto the top terminal of shielded grid tube. Top is threaded and fitted with short screw, so that the lead wire may be firmly fastened.

No. 7190-342. List \$0.25. Net..... \$0.15

Carter Center Tapped Resistances



Small, compact and rugged resistor designed especially for A.C. filament circuits. Guaranteed accurate within 3 per cent. The terminals are noteworthy, being small and neat. They are so attached to the strip and wire that accuracy is assured. This cannot be said of many center-tapped resistances now on the market. Length, center to center, 1 1/16". State total resistance range desired: 6, 10, 15, 20, 40, 60 ohms.

No. 8107-JU. List \$0.25. Net..... \$0.15

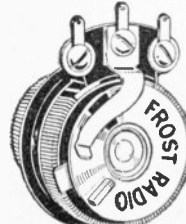
Tapped at 5 ohms and with total resistance of 15 ohms. For use with new 322 Shielded Grid Tube when rheostat is employed.

No. 8108-J5-15. List \$0.25. Net..... \$0.15

Total resistance of 25 ohms and tapped at 10 ohms. For use with new 322 Shielded Grid Tube when rheostat is not employed.

No. 8109 J10 25. List \$0.25. Net..... \$0.15

Frost Gem Rheostats with Filament Switch



FROST-RADIO

Takes a minimum of space behind the panel. Metal frame construction; exposed metal parts nickel plated and hand buffed. Resistance element securely wound on flexible bakelite. Diameter 1 1/4", depth 1 1/32". The filament switch combination is simple, positive and of rugged, long-lasting construction. Nothing to wear or work loose. Has wiping contact and positive "off" position. Depth with switch 1 1/2". Shipping weight 1 lb.

No. 6254-S1903. 3 ohm for 4 X 201 A or equal. List \$1.00. Net..... \$0.59

No. 6255-S1906. 6 ohm for 3 X 201 A or equal. List \$1.00. Net..... \$0.59

No. 6256-S1910. 10 ohm for 2 X 201 A or equal. List \$1.00. Net..... \$0.59

No. 6257-S1920. 20 ohm for 1 X 201 A or equal. List \$1.00. Net..... \$0.59

No. 6258-S1930. 30 ohm for 1 X 201 A or equal. List \$1.00. Net..... \$0.59

Carter Power Tube Adapter



For CX112 and CX171 type tubes in 301-A or 201-A sockets. Fitted with flexible marked leads for "B" and "C" battery connections. No rewiring in receiver necessary if you wish to add a power tube—additional "B" and "C" voltages are applied direct to the power tube. Takes only a few minutes to install.

No. 7185-171. List \$1.00. Net..... \$0.59

Carter UX to UV199 Adapter

For adapting UX and UX types of tubes to UX199 type of base.

No. 7186. List 75c. Net..... \$0.44

Carter A-C Tube Adapters

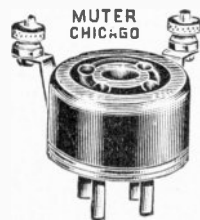


These adapters permit the use of 326 and 327 type A.C. tube in standard sockets. Battery operated sets may be changed over to A.C. operation with use of these adapters, slight changes in wiring, etc. No. 26 Adapter—For 326 type tubes. Has flexible leads for connecting tube filament to the step down filament transformer. The D.C. filament wiring in the set is left unused. The plate and grid connections also remain unchanged.

No. 7183-26. List 90c. Net..... \$0.53

No. 27 Adapter—For 327 type tubes. Has flexible leads for connecting the heater element of the tube to the filament transformer. The D.C. filament wiring in the set is left unused except the cathode element of the tube (the emitter) is connected to both A+ and A- terminals inside of adapter. Plate and grid connections remain unchanged.

No. 7184. List \$1.10. Net..... \$0.59



Muter Adapter Socket

Molded bakelite with standard prong for converting D.C. to A.C. sets. Four prong adapters are for 226 type A.C. tubes, five prong adapters for 227 detector type A.C. tubes. Adapters fit any standard four prong U.X. socket in which D.C. tubes are now employed. Highly nickel finished metal parts.

	List	Net
No. 7276-3610. 4 Prong Adapter	\$0.50	\$0.30
No. 7277-3615. 4 Prong Adapter with Center Tap	.50	.30
No. 7278-3620. 5 Prong Adapter	.50	.30

New Eby U.X. Socket



For all four prong UX tubes. Made of genuine moulded bakelite, phosphor bronze contacts. Can be mounted above or below a sub-panel. A popular seller. Shipping weight 6 oz.

No. 7381. List \$0.40. Net..... \$0.24

Eby U.Y. Socket

For certain 5 prong A.C. tubes. Same as above.

No. 7382. List \$0.50. Net..... \$0.29

Carter Center Tapped Resistances



	Ohms	List	Net
No. 5253-CE-6.	6	\$0.50	\$0.29
No. 5254-CE-10.	10	.50	.29
No. 5255-CE-20.	20	.50	.29
No. 5256-CE-60.	60	.50	.29

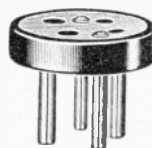
Carter Heavy Duty Type Resistors



Used to reduce 6-volt current to the voltage requirements for the different tube combinations and other uses such as grid circuit stabilizers, and resistance by-pass in receivers using filament wiring in series. Be sure to state exact resistance desired. (Illustration is exactly one-half size.)

No. 5712—H Type, under 100 ohm, each List \$0.25. Net..... \$0.15

No. 5713—H Type, 100 ohm to 1,000 ohm, each List \$0.30. Net..... 0.18



Carter Adapter

With this adapter you can use any modern UX type base tube in a UX111 type socket, such as UX199, WX12, UX120, and UX201A.

No. 9715-3A. List \$0.50. Net..... \$0.30



Carter "Imp" Rheostat

One of the smallest made. Diam. is 1 3/8" and it projects 3/4" of an inch back from panel. Metal parts nickel plated. Wide contact arm maintains constant pressure. One-hole mounting. Includes knob.

	List	Net
No. 5716. 2 ohms	\$1.00	\$0.59
No. 5717. 3 ohms	1.00	.59
No. 9371. 6 ohms	1.00	.59
No. 5718. 10 ohms	1.00	.59
No. 5719. 20 ohms	1.00	.59
No. 5511. 25 ohms	1.00	.59
No. 5720. 30 ohms	1.00	.59
No. 5721. 50 ohms	1.00	.59
No. 5722. 75 ohms	1.00	.59

CARTER "MIDGET" RHEOSTAT

Slightly smaller than above model—very good value. Kindly state resistance desired.

List \$0.50. Net..... \$0.29

Carter "Imp" Potentiometer



This potentiometer, a sister to the Carter "Imp" Rheostat family, is unique in that it is the most compact instrument made of its type, yet it retains the same 100 per cent efficiency to be found on much larger ones. Same size as the Carter "Imp" Rheostats. Furnished in either 200 or 400 ohms. Diameter 1 3/8", and projects only 3/4" of an inch from panel.

No. 9661. List \$1.25. Net..... \$0.74

CARTER "MIDGET" POTENTIOMETER

Supplied in either 200 or 400 ohm resistance.

No. 6597. List \$0.75. Net..... \$0.44

CARTER "MIDGET" POTENTIOMETERS

WITH FILAMENT SWITCH

Positive action built-in filament switch. Supplied in 200 or 400 ohm range.

No. 5731. List \$1.25. Net..... \$0.74

Carter Hi-Ohm Volume Controls

A non-inductive, variable wire-wound resistance, same dimensions as Carter "Imp" Rheostats. Invaluable wherever a volume control is essential. Furnished in 500,000, 300,000, 200,000, 100,000, 50,000, 10,000 ohms. Two terminals. Diameter 1 3/8". Projects 3/4" of an inch from rear of panel.

No. 9665. List \$2.00. Net..... \$1.18

Carter Hi-Pot differs from Hi-Ohm in that it is equipped with three terminals. Furnished in 50,000, 100,000, 200,000, 500,000 ohms. State range desired.

No. 6591. List \$2.25. Net..... \$1.32

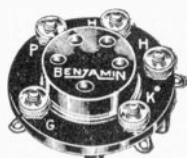
Carter "Midget" Rheostat with Filament Switch



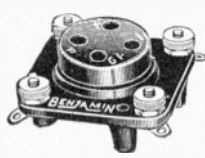
Consists of a standard midget rheostat with cleverly assembled filament switch which is closed by a never failing cam action with the slightest turn of the rheostat knob, starting from the off position thereof. A very valuable feature indeed—saves the cost of a separate switch, conserves space and reduces control knobs on the panel. The usual one-hole mounting is provided. The rheostat itself is only 1 3/8" in diameter, and the overall length is 2 1/4"—projects only 3/4" behind panel. An attractive knob is included. Shipping weight 1 lb.

	List	Net
No. 5723. 2 ohm—(6 201A tubes)	\$1.00	\$0.59
No. 5724. 3 ohm—(5 201A tubes)	1.00	.59
No. 5725. 6 ohm—(3 201A tubes)	1.00	.59
No. 5726. 10 ohm—(2 201A tubes)	1.00	.59
No. 5727. 20 ohm—(1 201A tube)	1.00	.59
No. 5728. 30 ohm—(1 199 tube)	1.00	.59
No. 5729. 50 ohm—(2 199 tubes, 6v.)	1.00	.59
No. 5730. 75 ohm—(1 199 tube, 6v.)	1.00	.59

Benjamin Cle-ra-tone Sockets



No. 7252



No. 7250

UX 4-PRONG TYPE

Shock absorbing and non-magnetic—the tube holding element “floats,” independently of base, on four perfectly balanced springs, which are also the contacts. Soldering lugs and terminal nuts. Highly polished, molded Bakelite. With mounting base.

	List	Net
No. 7250-9040	\$0.75	\$0.44
No. 7251-9011, Without mounting base. For direct panel mounting	.50	.29



No. 7253

“UY” 5-PRONG TYPE

Same as No. 9010 described above, but with 5 contacts, for 227 type A.C. detector tubes. Green Bakelite top with mounting base.

No. 7252-9036, List \$1.00.	Net	.50	.29
No. 7253-9037, Same as above but without mounting base. For direct panel mounting.	List	\$0.75	Net. .44

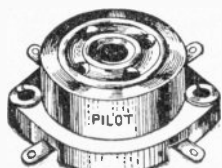
Tyrman Shielded Socket



Greatly helps in stabilizing the circuit, eliminating whistles, howls and microphonic noises. When used with Shielded Grid Tubes, the socket provides an automatic contact for grounding the shield. Shields are drawn of heavy aluminum stock. Ventilated openings are provided for the new heater type A.C. tube. The necessity of shielding these tubes is of utmost importance, considering the action of heat on the neighboring R.F. apparatus. All insulating parts molded of genuine bakelite. Shields finished in beautiful black crystal. Type 2-26 for four prong tubes, or Type 2-27 for five prong heater type tubes, complete with sockets and shields.

No. 7749, Either UX or UY Type,	List \$1.25.	Net	\$0.74
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Pilot Solid Universal Socket



Here is a new and very popular Bakelite socket, suitable for metal chassis designs as well as for base mounting. This base can be fastened beneath a sub-panel, with the center part, extending through a 1 1/4" hole. The phosphor bronze springs, extending out to the slides for soldering, are silver plated, to facilitate

No. 7232-216	List	Net	\$0.35	\$0.21
No. 7233-217, For UY 5-prong Tubes			.40	.24

Karas

Micrometric Vernier Dial

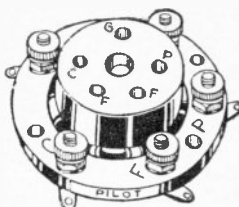


It firmly against the panel and then locking it with the special set screw included. No additional holes to drill in the panel. There are 200 divisions on the 180° scale, reading either from 0 to 100 or 100 to 0. Diameter 4". Highly polished bakelite with gold engraved markings. Weight 1 lb.

No. 9008, List \$3.50.	Net.	\$2.06
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State which type desired.

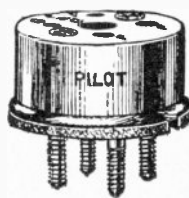
Pilot UY Type Socket



Size: 2 5/16" x 2 7/16" x 1" high.

	List	Net
No. 7230-212	\$0.50	\$0.29
No. 7231-213, For UX 4-prong Tubes, and 4-prong Pilot Plug-in Coils	.40	.24

Pilot Sub-Panel Mounting Sockets



A favorite with Custom Set Builders! An improved form of our No. 5630 Pilot Sub-Panel Socket, in that terminal screws protrude through the sub-panel on which it is mounted, instead of the contact springs. Thus, connections can be made thereto by slipping a wire, or lug, around the screw, and tightening a nut. Ideal for 4-prong Plug-in Coils. Bakelite. Can be mounted on sub-panels up to 3/8" thick.

	List	Net
No. 7228-211	\$0.25	\$0.15
No. 7229-215, For UY Tubes (5-Prong) and 5-Prong Plug-in Coils	.25	.15

Silver-Marshall Socket



A standard 4-prong socket taxing all types of battery or A.C. tubes with UX bases. Made of genuine black Bakelite presenting a very attractive appearance. The springs are made of best quality phosphor bronze to insure permanent contact. Screw contacts for wire ends or lugs are provided. Size 1 1/16 x 3/4 inches.

No. 7121-511, List \$0.50.	Net.	\$0.30
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For A.C. Tubes

Made exactly the same as No. 511 except that it is for use with the 5-prong base UY227 (C327) A.C. tubes and all S-M “130 Type” coils.

No. 7122-512, List \$0.60.	Net.	\$0.36
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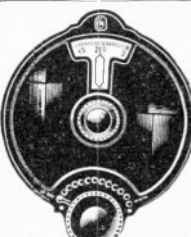


Muter

Push-Pull Panel Switch

Length 2 1/4". Fits standard 3/4" hole. Turned brass barrel and spring bronze contacts. All parts highly nickelled. The plunger cannot be lost unless the lock washer is removed.

No. 7473-1600, List \$0.35.	Net	\$0.21
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National Velvet Vernier Dial

The vernier action is positively noiseless, and will not produce any microphonic disturbances due to any gears, back lash, etc. The vernier ratio is also variable by a simple lever adjustment, from 6 to 1 to 20 to 1. From 0 to 100 and from 100 to 0. Also supplied reading 0 to 200 or 200 to 0 in a 360° type. 1 1/2" diameter, highly polished black bakelite. Shipping weight 2 lbs.

No. 9618-11, Combination 0 to 100 and 100 to 0.	List \$2.50.	Net.	\$1.47
No. 5108-C, Same with illuminated attachment.	List \$3.00.	Net.	\$1.77

Carter Phono-Radio Switch

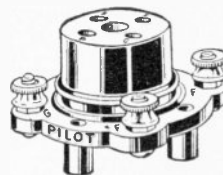


This unit makes a very convenient way for using the amplifier of your radio set for the reproduction of phonograph music. Very simply installed—no wires changed in your receiver.

Switch changes from radio to phonograph instantly. Shipping weight 2 lbs.

No. 5302-PC-27, For 5-prong A.C. detector socket.	List \$2.75.	Net.	\$1.62
No. 5305-PC-26, For all 4-prong detector sockets.	List \$2.75.	Net.	1.62

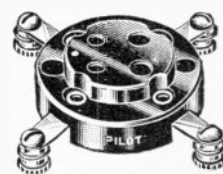
Pilot Shock-Proof Universal Socket



Finest mechanical design is made available in the Shock-Proof Socket at such a reasonable price that there is no reason for using awkward, inefficient types, often made of cheap composition. The Shock-Proof Socket is of genuine bakelite, carrying the tube on resilient, one-piece contact springs. The slightest jar to the receiver will be absorbed by the shock-proof features of this efficient socket. It is the most compact socket of its type, measuring only 1 1/4" square by 1" high overall. Terminal screw connections. The low price of this socket is no indication of its value or merit. You will realize it is even superior to its very much more costly brothers.

No. 5600-206, List \$0.50.	Net.	\$0.29
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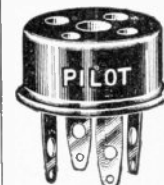
Pilot Universal Socket



For 1V 201A tubes, with old style bases, as well as for the new UX tubes, both storage battery and dry cell types. Equip your set with these modern sockets and use whatever tubes you please. Equipped with four binding posts for quick and easy connections. Positive wiping contacts. A wonderful socket which you must see to appreciate. Genuine bakelite.

No. 5635-203, Pilot Universal Socket	List \$0.35.	Net.	\$0.21
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Pilot Compact, Sub-Panel Socket, Set Builders' Type



Clearer little socket you ever saw, and the handiest. Perfect contacts take UX or UV tubes. Springs pass through 7/32" holes in panel. Thus all connections can run beneath the sub-panel, giving the receiver a professional manufactured appearance. A center screw and nut hold the socket to the panel. Ideal for plug-in coils. Drilling template furnished with each socket. Molded bakelite shell. The diameter of this socket is only 1 3/16".

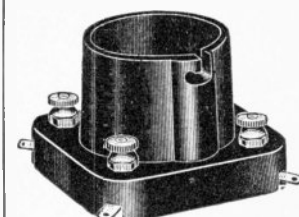
No. 5630-205, List \$0.20.	Net.	\$0.12
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5-Prong Type

Identical in appearance with the No. 5630 except that it has five contacts to fit the UY 227 and C 327 A.C. detector tubes.

No. 5613-211, List \$0.25.	Net.	\$0.15
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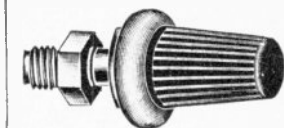
Rasco Vacuum Tube Socket



One of the best sockets made. Value unequalled anywhere. Made entirely of heavy bakelite. Four springs giving maximum pressure against contact pins. Best finish. Nickel plated binding posts.

No. 6500, List \$0.40.	Net	\$0.24
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“Rasco” Vernier Attachment



By turning the vernier a quarter of a turn the dial will advance about 1°. The diameter of our rubber ring is less than 1/4" and the small illustration shows the proportion of the vernier to a 3" dial. Only one hole required in panel. Quickly attached. No loose parts. Knob of composition, molded firmly to the metal. The soft rubber ring is tight so it cannot move or slip. The tapered shape of the knob is right and will harmonize well with any dial.

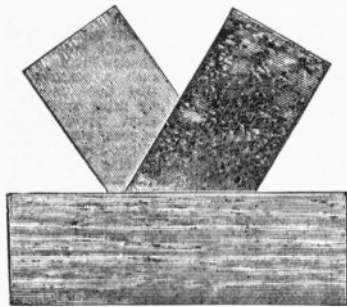
No. 1450, List \$0.35.	Net.	\$0.09
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Gentlemen:

Your quick delivery of my order of your exceptional apparatus greatly pleased me. Accept my thanks.

MAK YUK TIN,
38 PoYuk St., Victoria,
Hongkong, China.

Grained Bakelite Panels



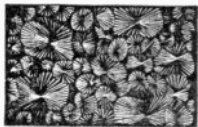
Custom built radio sets can be made to harmonize with any home surroundings by using one of our beautifully decorated Bakelite panels, finished in a natural wood grain effect of Mahogany, American Walnut and Cirsassian Walnut. Or you can select a panel to match your console or cabinet. Only the very best grade of Bakelite insulation is used in these panels. Kindly specify which grain finish you are ordering.

1/8" Thick		3/16" Thick	
No. 9752.....\$0.77	7x10	No. 9762.....\$1.17	
No. 9753.....0.85	7x12	No. 9763.....1.27	
No. 9754.....0.95	7x14	No. 9764.....1.37	
No. 9755.....1.32	7x18	No. 9765.....1.75	
No. 9756.....1.65	7x21	No. 9766.....2.10	
No. 9757.....2.05	7x24	No. 9767.....2.40	
No. 9758.....2.22	7x26	No. 9768.....2.55	
No. 9759.....2.65	7x28	No. 9769.....2.78	
No. 9760.....2.79	7x30	No. 9770.....3.05	
No. 9761.....	7x36	No. 9771.....4.40	

NOTICE

We can also supply the above grained Bakelite panels in special sizes cut to your measurements.
 1/8" thick.....\$0.01 3/4 a square inch
 3/16" thick.....0.02 a square inch
 1/2" thick.....0.02 1/2 a square inch
 For example, you may wish a special panel to fit a Victrola console or a desk, drawer, etc. If it measures 17" by 13", multiply the length by the width and that will give you the square inches. Therefore, 221 square inches at \$0.02 a square inch would cost \$4.42.

Florentine (Frieze) Panels



The illustration cannot possibly convey to you the luxurious beauty of the new cracked effect these panels boast of. Will dress up any receiver. Harmonizes with any cabinet. Makes an immediate appeal. Made of best quality hard rubber.

Although any dial will look beautiful on a panel of this luxurious design, we particularly recommend our Pilot Art Vernier Dials, these panels presenting an unusually attractive background for them. 3/16" thick. Shipping weight 3 lbs. Black only.

No.	Panel Size	List	Net
No. 6441	7"x18"	\$2.00	\$1.15
No. 6442	7"x21"	2.40	1.40
No. 6443	7"x24"	2.60	1.60
No. 6444	7"x26"	3.00	1.73
No. 6445	7"x28"	3.25	1.85
No. 6446	7"x30"	3.50	1.95

Separable Cord Tips



Replaces the usual cord tip, or when it is necessary to make connections with flexible conductors. Requires no solder. The flexible wires are bared and inserted in one end of the ferrule; then the shank is screwed in. Wires can't pull out.

No. 2900. Each.....\$0.03
 Lots of 50—\$1.00

Lignole Wood Radio Panels

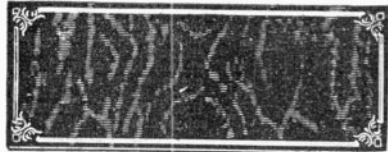


A new specially treated wood panel that meets all panel requirements. As a dielectric there is no better material obtainable. Extremely rigid, will not warp. Made of genuine walnut wood, finished either in plain or two-tone with a darker border, separated from the body of the panel by beautiful Marqueterie inlay. Panel thickness 3/16". Average shipping weight 3 lbs.

Rich Grain Walnut Face and Back			
No.	Size, Inches	List	Net
No. 6570	7 x 18	\$2.52	\$1.19
No. 6571	7 x 21	2.94	1.72
No. 6572	7 x 24	3.36	1.98
No. 6573	7 x 26	3.61	2.14
No. 6574	7 x 28	3.92	2.30
No. 6575	7 x 30	4.20	2.47

Inlaid Walnut Two-Tone with Marqueterie Inlay			
No.	Size, Inches	List	Net
No. 6576	7 x 18	\$6.52	\$1.20
No. 6577	7 x 21	6.94	4.20
No. 6578	7 x 24	7.36	4.50
No. 6579	7 x 26	7.61	4.50
No. 6580	7 x 28	7.92	4.90
No. 6581	7 x 30	8.20	4.90

Vee Dee Metal Panels



A special color coating on the back of the panels provides ease in laying out the holes, etc. Note that a very attractive gold decoration runs around the outside edges of the panel; this coupled with the grain effect on the panel, will give your receiver a very valuable appearance. Thickness about 1/16". A packet of fibre bushings and washers is included with each panel for insulation and mechanical purposes. Kindly state finish desired; mahogany or walnut. Shipping weight 5 lbs.

No.	Size	List	Net
No. 6243—7" x 18"		\$1.80	\$0.98
No. 6244—7" x 21"		2.10	1.17
No. 6245—7" x 24"		2.40	1.32
No. 6246—7" x 26"		2.60	1.48
No. 6247—7" x 28"		2.80	1.55
No. 6248—7" x 30"		3.00	1.66

Panel-Baseboard Bracket



Just what you have been looking for! Strengthens your panel structure—prevents sagging and warping of panels. One end is bolted to the top corner of the panel and the other to the baseboard. Adaptable to any panel at least 7" wide, and to any baseboard at least 6" wide. Overall length 8" by 1 1/2" width by 1/16" thick. Lacquered brass. Shipping weight 1/2 lb.

No. 6399. Each Bracket. Net.....\$0.15

Baseboards



Made of non-warping ply-wood 1/2" thick. Beautifully grained wood—one coat of stain dresses it up.

Beautifully! Do not use baseboards less than 1 1/2" thick.			
No.	Size	List	Net
No. 9549	7x 6	\$0.23	
No. 9550	7x 9	0.26	
No. 9551	7x11	0.28	
No. 9552	7x13	0.29	
No. 9553	7x17	0.29	
No. 9554	7x20	0.33	
No. 9555	7x23	0.42	
No. 9556	7x25	0.46	
No. 9557	7x27	0.48	
No. 9558	7x29	0.54	
No. 9559	9x17	\$0.54	
No. 9561	9x20	0.67	
No. 9562	9x23	0.78	
No. 9563	9x25	0.85	
No. 9564	9x29	0.93	
No. 9585	12x17	0.78	
No. 9586	12x20	0.90	
No. 9587	12x23	1.02	
No. 9588	12x25	1.10	
No. 9589	12x29	1.26	

Pilot Non-Metallic Sub-Base Brackets



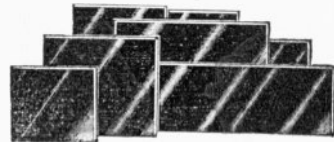
No. 6583



No. 9531

Made of moulded Bakelite. They prevent dielectric losses and electrical disturbances. Will not vary the inductive capacity value of coil or condenser. Mechanically true right angles. Weight 8 oz. each.
 No. 9531-34. 2" x 6 3/4".
 Each, List \$0.50, Net \$0.29
 No. 6583-35. 1" x 8 1/2".
 List \$0.50, Net.....0.29

Radio Dielectric Panels



The finish is a high polish on both sides. Can be drilled and tapped where necessary, by tools which are ordinarily used by radio set builders and amateurs. Dielectric Radio Panels are highly recommended. 3/16" thick. Can be sanded or oiled, for velvet finish. Shipping weights 2 lbs to 10 lbs.

BLACK		MAHOGANY	
No.	Net	No.	Net
No. 7100.....\$0.50	7"x10"	No. 7100a.....\$0.58	
No. 7120.....0.57	7"x12"	No. 7120a.....0.71	
No. 7140.....0.74	7"x14"	No. 7140a.....0.88	
No. 7180.....0.92	7"x18"	No. 7180a.....1.14	
No. 7210.....1.08	7"x21"	No. 7210a.....1.32	
No. 7240.....1.24	7"x24"	No. 7240a.....1.47	
No. 9786.....1.36	7"x26"	No. 9786a.....1.68	
No. 9787.....1.45	7"x30"	No. 9787a.....1.87	

Bakelite Panels

IN GLOSSY BLACK FINISH

3/8" THICK		Net	
No.	Size	No.	Net
No. 9516.	7"x6"		\$0.58
No. 9517.	7"x10"		0.77
No. 9518.	7"x12"		0.85
No. 9519.	7"x14"		1.23
No. 9520.	7"x18"		1.36

3/16" THICK		Net	
No.	Size	No.	Net
No. 9521.	7"x10"		\$0.92
No. 9522.	7"x12"		1.24
No. 9523.	7"x14"		1.38
No. 9524.	7"x18"		1.76
No. 9525.	7"x21"		2.10
No. 9526.	7"x24"		2.40
No. 9527.	7"x26"		2.55
No. 6608.	7"x28"		2.78
No. 9528.	7"x30"		3.05
No. 9529.	8"x36"		4.85

NOTE

Bakelite panels can be cut to your size, either for front panel or sub-panel use. Determine the number of square inches required, and multiply by 1/4c per square inch for 1/8" thick, 1 1/4c per square inch for 3/16" thick.

Bakelite—Phenoline Sub-Panels

Generally used with sub-panel brackets, either metal or Bakelite. Sockets and coils can now be so mounted that their connections are below the surface, thus all their wiring is unexposed to view. Binding posts (or cable plugs) can be drilled into sub-panel, along rear edge. Makes professional-like appearance of any custom built set. Shipping weights 2 to 6 lbs.

No.	Panel Size	Thickness	Net Cost
8071	3x17 1/2"	1/4"	\$0.75
8072	3x17 1/2"	3/16"	1.15
8073	3x20 1/2"	3/16"	1.28
8074	3x23 1/2"	3/16"	1.52
8075	8x25 1/2"	3/16"	3.40
8076	9x17 1/2"	3/16"	2.37
8077	9x20 1/2"	3/16"	2.84
8078	9x23 1/2"	3/16"	3.05
8079	9x29 1/2"	3/16"	4.30

NOTE

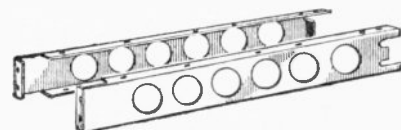
If the size you wish to use is not listed here, we will cut a panel to your order at the rate of \$0.13 per square inch, 3/16" thick. Cannot be shipped C.O.D.

Panel Engraving

A special service! We will engrave or letter any panel, one you will send to us, or a new one, at the rate of \$0.01 per letter or figure. Be sure your diagram or sketch is exact.

No. 7946. Engraving, per letter....\$0.04

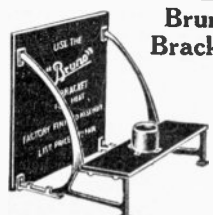
Aluminum Sub-Panel Brackets



No. 8261

Possess unusual strength, yet are as light as a feather. Various sizes available cover all custom set builders' requirements. Finished in bright aluminum.
 No. 8260. 2 1/2" high by 6 3/4" long. Net...\$0.20
 No. 8261. 1" high by 8 1/2" long. Net...0.20
 No. 8262. 2" high by 9" long. Net...0.30
 No. 8263. 2" high by 11" long. Net...0.40

Bruno Brackets



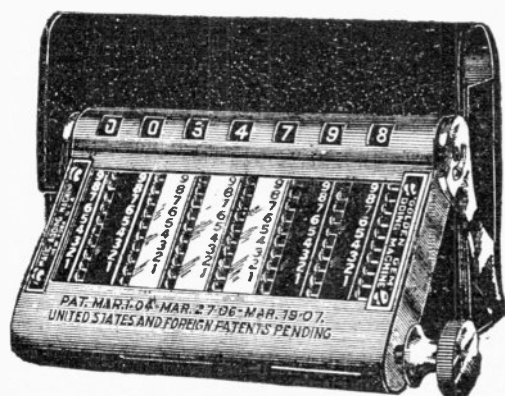
Supports the front panel, to which it is screwed and bolted, at the four corners thereof, preventing sagging of panels in time, due to the weight of the condensers, etc., on them. They are die-cast of aluminum. Designed to be used with 7-inch high panels and 7-inch deep cabinets.
 No. 9007. Per Pair. \$0.83
 Net.....\$0.83

Self-Supporting Brackets



For use in mounting sub-panels. The space provided underneath gives plenty of room for small parts and wires, reducing short-circuit risks. Drilled for attaching to front panel. Drilled flange takes grid leak panel. Metal in dull nickel finish. Screws included. Shipping weight, 1 lb.
 No. 9501. Pair, List \$0.44
 \$0.75, Net.....\$0.44

Golden Gem Adding Machine



We have been using several of these wonderful adding machines in the various departments of our business for the past six years, and obtain much satisfaction and 100% ACCURACY from them that we thought it a good idea to recommend them to all our dealers for their figuring work. It is simple to operate. It does its carrying of figures forward automatically. It clears to zero mechanically. It has the totals always in sight. It will last a business life time. It prevents eye and nerve strain. It is dustproof when not in use. It will slip into your pocket or desk drawer. It saves time and money. It does the work accurately and rapidly. It saves the brains for some other work more essential. It quickly pays for itself by avoiding costly errors. Sold mostly through the recommendation of its users. Just as accurate as any \$350.00 machine! Inactive only 37x4x5" overall. Weight 12 ounces, in leatherette case. Unreservedly guaranteed for one year, but they last a business life time, with average care! Total capacity, 7 columns, \$99,999.99. 9 column model, \$9,999.99. No. 8345-7. 7-column Gem.

List \$16.00. Net..... \$7.00
No. 8346-9. 9-column Gem.
List \$15.00. Net..... \$10.50

Dongan Giant Transformer

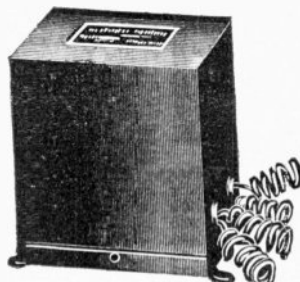


It is no exaggeration to designate Type II as a Super Audio Transformer. Embodying every feature of the latest approved design and built to the highest quality standard, both volume and tone purity reach their maximum in receivers built up with Type II Transformers. A moisture-proof sealed case is an additional feature of this transformer. Shipping weight 6 lbs. No. 7238. Audio Transformer, ratio 3 to 1.
List \$4.50. Net \$2.65

Giant Push-Pull Type

	List	Net
No. 7241. Push-Pull Input Transformer.....	\$4.50	\$2.65
No. 7243. Push-Pull Output Transformer.....	4.50	2.65
No. 7242. Push-Pull Output Transformer for dynamic speaker.....	6.00	3.53
No. 7244. Push-Pull Inter Stage Transformer.....	6.00	3.53
No. 7245. Push-Pull Phonograph Pick-up.....	6.00	3.53

Dongan B Eliminator Condenser Blocks



Designed for use with the Raytheon BH gaseous type or RCA UX 280 or Cunningham CX 380 rectifier tubes. Contains condenser units of 2-2-4-1-1-1 mfd. sections having a working voltage of 100 volts D.C. Shipping weight 9 lbs.

No. 6349-D314. List \$12.00. Net \$7.06

Dongan Buffer Condenser

For use with Raytheon rectifier tubes.

No. 6950-D417. List \$1.75. Net..... \$1.03

1000 Volt Amplifier Condenser Units

For use with the UX 281 rectifier tubes and UX 210 or 250 power tubes. Working voltage of 1000 volts. Mounted in crystal lacquered steel cases.

Unit contains sections of 2-2-4 mfd.

No. 6961-D600. List \$16.50. Net.... \$9.70

Contains condensers of 1-2-1-1 mfd. sections with a working voltage of 100 volts for use in connection with D600.

No. 6951-D307. List \$10.00. Net.... \$5.88

Dongan Filter Condensers

Type	Capacity	Working Voltages	List	Net
No. 6952-D331	1 mfd.	400V D.C.	\$1.50	\$0.89
No. 6953-D332	2 mfd.	400V D.C.	2.50	1.47
No. 6954-D334	1 mfd.	400V D.C.	4.50	2.65
No. 6955-D441	1 mfd.	600V D.C.	2.00	1.18
No. 6956-D442	2 mfd.	600V D.C.	3.00	1.77
No. 6957-D511	1 mfd.	800V D.C.	2.50	1.47
No. 6958-D512	2 mfd.	800V D.C.	3.50	2.06
No. 6959-D611	1 mfd.	1000V D.C.	4.75	2.79
No. 6960-D612	2 mfd.	1000V D.C.	7.00	4.12

Dongan Audio Transformer



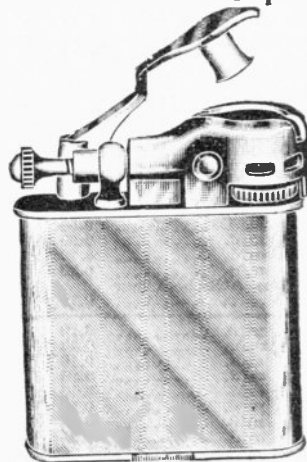
A Dongan product—therefore you 100% satisfaction is warranted using these low priced transformers! This high-grade shielded audio transformer is built with a large heavy core of steel with extra large coil. You will like the quality of reception assured with Dongan Type S. Shipping weight 3 lbs.

No. 7221. Ratio 3 to 1.
List \$3.00. Net.... \$1.77

Push-Pull Type

	List	Net
No. 7222. Push-Pull Input Transformer.....	\$3.00	\$1.77
No. 7223. Push-Pull Output Transformer.....	3.00	1.77
No. 7224-E104 Special Filter—Eliminates distortion on high notes.....	3.00	1.77

Superior Cigarette Lighter



Not only does the work as efficiently as very much more expensive lighters, but also boasts of several unique and valuable features. Note protective hood around wick—acts as a wind breaker, and also confines the entire spark to the wick. All renewable parts are standard and instantly accessible. Automatic self closing lid. Large capacity "tank"—knurled screw on cover. You will sell them by the dozens. Overall dimensions: 1½" wide, 1¾" high, ¾" thick. Shipping weight 5 ozs.

No. 5286. Silvered Finish. \$1.00

Net..... \$1.25
No. 5287. Gold Finish.
Net.....

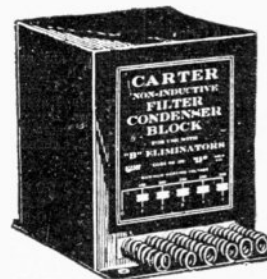


Carter Aerial Switch

A self-contained switch, giving single pole double throw action. Equipped with L & S (long and short) name plate. Can be used for a host of purposes—even as a phonograph switch.

No. 8325. List \$0.70. Net \$0.41

Carter Condenser Blocks



Non-inductive wound. Impregnated with a high melting point wax to insure permanency. Flexible wire connections are brought out through bakelite strips to eliminate leakage and to facilitate soldering. Will stand their full rated voltages continuously. For "B" eliminators using Thordarson B-171 Compact and similar transformers having a maximum no-load output of 350 volts. Consists of 2, 2, 2, 2, 1, 1, 1, and 1 mfd.

No. 8013-C-300. List \$15.00. Net... \$8.82

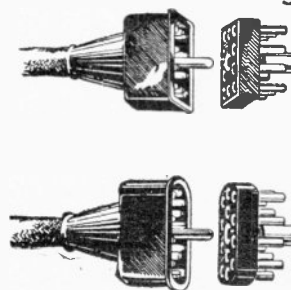
For "B" eliminators using rectifying tubes (such as Raytheon BH or 280 type tube, etc.) with transformers having maximum no-load output of 300 volts. Consists of 2, 2, 8, 1, and 1 mfd.

No. 8014-B-300. List \$12.00. Net... \$7.06

For "B" eliminators using 281 rectifying tubes. For no-load output of 570 volts. Consists of three units—2, 4, and 4 mfd., all having a 600 D.C. maximum working voltage.

No. 8015-A-600 Condenser Block. \$8.82
List \$15.00. Net.....

Jones Multi-Plug Cables



Jones Multi-Plug, affording a plug and socket connection between the radio receiver and power supply units, ground and aerial leads, simplifies radio installations and demonstrations.

TYPE PM COMPLETE
Type PM (Panel Mounting) is used for mounting the socket member of the Multi-Plug directly on the sub-panel. With

4 ft. cables.	List	Net
No. 5810—1M 45 Five Contact.....	\$1.50	\$0.88
No. 5811—1M 47 Seven Contact.....	2.25	1.32
No. 5812—1M110 Ten Contact.....	3.00	1.77
No. 5813—1M112 Twelve Contact.....	4.00	2.35

TYPE BM COMPLETE

Type BM (Base Mounting) Socket is equipped with die cast bracket which may be screwed down to wood base. This type most convenient for average set builder. With 4 ft. cables.

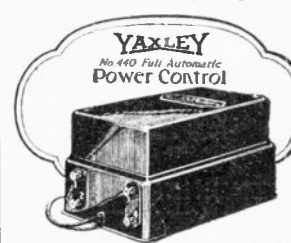
4 ft. cables.	List	Net
No. 5818—BM 45 Five Contact.....	\$1.75	\$1.02
No. 5819—BM 47 Seven Contact.....	2.25	1.47
No. 5820—BM110 Ten Contact.....	3.50	1.91
No. 5821—BM112 Twelve Contact.....	4.25	2.50

TYPE BP COMPLETE

Type BP (Binding Post) Socket is supplied with 18" coded lead: corresponding with the Multi-Plug in the number of contacts and color code. It is used to adapt a radio receiver using binding posts to Multi-Plug system. With 4 ft. cables.

	List	Net
No. 5826—BP 45 Five Contact.....	\$2.00	\$1.18
No. 5827—BP 47 Seven Contact.....	2.75	1.62
No. 5828—BP110 Ten Contact.....	3.50	2.06
No. 5829—BP112 Twelve Contact.....	4.50	2.65

Yaxley Full Automatic Power Control



Practically makes the battery operated set a power operated set. Controls the switching of the B power supply and charger or either, when the filament of the set is turned on or off. When the set is turned on the B power supply is cut in and the charger is cut out. The reverse takes place when the set is turned off. When the A battery is fully charged, the Full Automatic Power Control cuts out the A charger. Thus the A battery will not overcharge and electric current is not used when not needed. The radio set owner may use a high rate charger. The A battery is kept charged, but not overcharged, whether the set is used frequently or only occasionally, and the set will give maximum efficiency at all times. Neat, black enameled case. Thousands of them are in successful operation. Shipping weight 2 lbs.

No. 8286-440. List \$7.50. Net..... \$4.41



Sangamo Parvolt Wound Condensers

Parvolt wound condensers are especially designed for all radio circuits: Current Supply Units, Radio Frequency By-Pass Paths, Audio Frequency By-Pass Paths, Interference Eliminators, Removal of Static Electricity in Manufacturing Processes.

RATING: 200 VOLTS

No. 6082—0.1.	List \$0.85, Net.....	\$0.50
No. 6083—0.25.	List \$0.95, Net.....	0.56
No. 6081—0.5.	List \$1.00, Net.....	0.59
No. 6085—1.0.	List \$1.25, Net.....	0.74
No. 6086—2.0.	List \$2.35, Net.....	1.32
No. 6087—1.0.	List \$1.00, Net.....	2.35

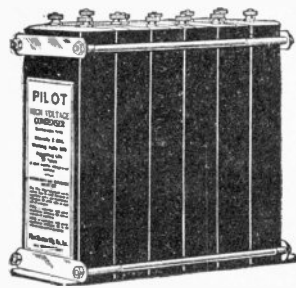
High Capacity Condensers



These are standard condensers, originally designed for manufacturing purposes only; hence the very low prices! Are of the best vacuum impregnated paraffin type. The insulation is specially prepared paper, and the units are compressed hydraulically before they are sealed in their metal casings. Tested for 500 volts breakdown; comes in an enameled black tin casing. There are two metal terminals to which wires or bus bar can be readily soldered. Especially suitable for "B" eliminator work, and we believe our prices are the lowest in the country. Try connecting a number of these condensers together. You can make any capacity "Filter Block" for any style "B" or "A" eliminator. The 4 mfd. type consists of two 2 mfd. units in one case. Shipping weights 2 to 1 lbs.

No. 4007. 4-Mf. Condenser, each.....	\$1.65
No. 4009. 2-Mf. Condenser, each.....	0.75
No. 4010. 1-Mf. Condenser, each.....	0.55
No. 4011. 1/2-Mf. Condenser, each.....	0.50

Pilot Condenser Block Clamp



Pilot offers this condenser clamp, consisting of small end plates held together by threaded rods, to clamp the condensers at the top and a smaller arrangement at the bottom, with angles for mounting. The threaded rods furnished are long enough to clamp seven 2 mfd. condensers. If a smaller number is required, the rods can be cut off accordingly. This clamp is especially designed to be used in conjunction with the No. 7236-9302 Pilot high voltage condensers. Hereafter, if one condenser in a block blew out, the whole block had to be replaced! Now, all you have to do is to replace the defective condenser, saving you from \$6.00 to \$12.00! 2" wide.

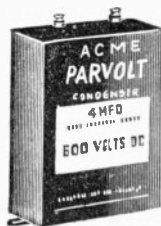
No. 5612-9000. Clamp only. List \$0.90, Net.....	\$0.53
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Pilot Bakelite Fixed Condenser



These condensers are molded in one piece under 20 tons of pressure. They are made of beautiful brown bakelite. Are 98 per cent perfect in capacity. Each condenser individually tested and guaranteed. Size overall, 1 7/8" long, 1 1/2" wide, 3/8" thick. Terminal screw connection. Note two mounting holes through bakelite case.

No.	Capacity	List	Net
No. 5584. .00002	mfd.	\$0.35	\$0.18
No. 5585. .00004	mfd.	0.35	0.18
No. 5026. .0001	mfd.	0.35	0.18
No. 5586. .00015	mfd.	0.35	0.18
No. 5027. .0002	mfd.	0.35	0.18
No. 5028. .00025	mfd.	0.35	0.18
No. 5029. .0005	mfd.	0.35	0.18
No. 5030. .001	mfd.	0.40	0.22
No. 5031. .002	mfd.	0.40	0.22
No. 5032. .003	mfd.	0.50	0.28
No. 5033. .004	mfd.	0.55	0.31
No. 5034. .005	mfd.	0.60	0.34
No. 5035. .006	mfd.	0.75	0.43
No. 5036. .01	mfd.	0.90	0.52
No. 5587. .015	mfd.	1.20	0.71
No. 5625. Grid leak clips for any of above condensers.			0.08



Acme Parvolt Filter Condensers

Made in all standard mfd. capacities for 200, 400, 600, 1000, and 1500 volts D.C. continuous operation, and are supplied with right-angle mounting lugs at the bottom and screw binding-posts with soldering lugs at the top for vertical installation. 5" high x 3 3/4" wide.

No.	Voltage	Mfd.	List	Net
No. 7535.	200	1	\$1.25	\$0.74
No. 7536.	200	2	2.25	1.32
No. 7537.	200	4	4.00	2.36
No. 7538.	400	1/2	2.00	1.18
No. 7539.	400	1	2.50	1.47
No. 7540.	400	2	3.50	2.06
No. 7541.	400	4	6.00	3.53
No. 7542.	600	1	3.00	1.77
No. 7543.	600	2	5.50	3.24
No. 7544.	600	4	8.00	4.71
No. 7545.	1000	1	5.00	2.94
No. 7546.	1000	2	7.00	4.12
No. 7547.	1000	4	12.00	7.06
No. 7548.	1500	1	6.50	3.81
No. 7549.	1500	2	12.00	7.06
No. 7550.	1500	4	20.00	11.76

Buffer Condenser

No.	Voltage	Mfd.	List	Net
No. 7551.	400.	2 condensers, 0.1 mfd., in series in a can 1-15 16" x 1-7/8" x 15 16".....	\$1.75	\$1.02
No. 7552....1000.		1 condenser, 0.1 mfd., in a can 1-15 16" x 1-7/8" x 15 16".....	1.75	1.02

Two of these required.

Pilot Filter and By-Pass Condensers



No. 7236 BY-PASS CONDENSER

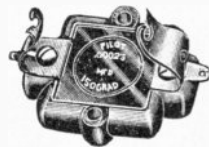
Only the 1 mfd. by-pass condenser is built by Pilot, for this size serves all by-pass purposes. This three-paper condenser has a working voltage of 180 A.C. This can be used, with improved results, where values of .1 to .5 mfd. are specified for all by-pass connections. Binding post terminals—a valuable feature. Mounting lugs can be bent to mount the condenser against the panel, or at right angles, as desired. Size: 2" wide by 2 7/8" by 7/8".

No. 7234-801. List \$1.00, Net.....	\$0.59
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FILTER CONDENSER

The 9302 unit of 2 mfd. capacity is a three-paper condenser rated at 300 volts A.C. It is tested at 1,200 volts, to eliminate the possibility of slight defects which,

Pilot Bakelite Grid Condenser



No. 5182. .0001 mfd.	List \$0.15, Net.....	\$0.26
No. 5183. .00025 mfd.	List 0.15, Net.....	0.26
No. 5184. .0005 mfd.	List 0.15, Net.....	0.26

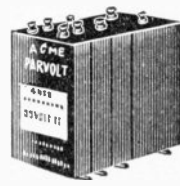
Sprague Midget Fixed Condensers



A fixed condenser of greater electrical efficiency—half the usual size and quarter the weight—a lot of condenser in a surprisingly little—that's the new Sprague Midget. Illustration is practically full size of each condenser. They are factory tested at 1,500 volts, and safe for continuous operation at 1,000 volts.

No.	Capacity	List	Net
No. 6111. .00007 mfd.		\$0.35	\$0.21
No. 6112. .0001 mfd.		0.35	0.21
No. 6113. .00025 mfd.		0.35	0.21
No. 6114. .0005 mfd.		0.35	0.21

Acme Condenser Blocks



Acme Parvolt Filter Condensers are uniform in height and width and vary only in thickness depending upon ratings. All terminals are conveniently located at the top. These features facilitate stacking where special combinations are required in preference to our ready-housed units. Specially constructed to conserve space, reduce number of connections, save labor and time in assembly. For receiving sets, power supply and amplifier units.

No.	Capacity	List	Net
No. 7528. 3 mfd. (Cap. 0-1-1-1) 5" high, 3 3/4" wide, 15/16" deep.....		\$4.00	\$2.36
No. 7529. 4 mfd. (Cap. 0-1-1-1-1) 5" high, 3 3/4" wide, 15/16" deep.....		5.00	2.94

Acme Housed Condensers

FOR POWER SUPPLY AND POWER AMPLIFIERS
Acme Parvolt Filter Condensers are supplied in metal housings, ready-wired and with simplified terminals and binding posts for the leading power amplifiers such as Samson, Thorlarsen, AmerTran, and Victor, and are specified and recommended by the designers of these power units.

No.	Capacity	List	Net
No. 7530. For Samson No. 210.		\$38.00	\$22.35
No. 7531. For Samson No. 713 and 718.....		26.00	15.29
No. 7532. For Thorlarsen R-210 (Capacities 2-2-2-1-4-1).....		17.50	10.30
No. 7533. For Thorlarsen R-171 (Capacities 1-2-2-8-1-0).....		14.00	8.23
No. 7534. AmerTran ABC Hi-Power Box (Capacities 0-2-4-4) 5" high, 3 3/4" wide, 5" deep.....		18.00	10.58

Carter Round Condensers



Noted for their compactness and convenient mounting features. Mounting holes are slotted—non-inductive wound. Fibre case—working voltage 180 D.C.—90 A.C.

No.	Capacity	List	Net
No. 7030—.1 mfd.		0.75	0.44
No. 7040—.25 mfd.		0.75	0.44
No. 7041—.5 mfd.		0.90	0.53
No. 7042—1.0 mfd.		1.25	0.74

over a period of years, might cause it to break down under its rated load. Used with the Pilot No. 5612-9000 condenser mounting clamp, any combination of capacities can be obtained, a feature not found in the usual condenser blocks. Therefore, you can assemble any filter block of any capacity combinations to suit your requirements. Should one unit ever break down (a rarity!) it can be removed in a moment—a great money-saving feature! A buffer can be clamped to the group of 2 mfd. units, since the cases are of the same size, which is 2" wide by 5 3/4" high by 7/8" thick.

No.	Capacity	List	Net
No. 7236-9302		\$1.75	\$1.03
No. 7237-9110—Buffer, consisting of two sections of .1 mfd. capacity each.....		1.50	.88
No. 5612-9000—Mounting Clamps.....		.90	.54

Pilot Isograd Fixed Condensers, Manufacturers' Type



These splendid fixed condensers are identical electrically with the Pilot Bakelite Fixed Condensers—the only difference is in their mechanical construction.

No.	Capacity	List	Net
No. 5631. .00002 mfd.		\$0.35	\$0.21
No. 5632. .00004 mfd.		0.35	0.21
No. 5633. .0001 mfd.		0.35	0.21
No. 5634. .00015 mfd.		0.35	0.21
No. 5635. .0002 mfd.		0.35	0.21
No. 5636. .00025 mfd.		0.35	0.21
No. 5637. .0005 mfd.		0.35	0.21
No. 5638. .001 mfd.		0.40	0.24
No. 5639. .002 mfd.		0.40	0.24
No. 5640. .003 mfd.		0.45	0.26
No. 5641. .004 mfd.		0.45	0.26
No. 5642. .005 mfd.		0.50	0.29
No. 5643. .006 mfd.		0.50	0.29
No. 5644. .01 mfd.		0.70	0.41
No. 5645. .015 mfd.		0.90	0.53
Grid Leak Clips attached, per pair.....		0.10	0.06

No.	Capacity	List	Net
No. 6115. .001 mfd.		0.40	0.24
No. 6116. .002 mfd.		0.40	0.24
No. 6117. .0025 mfd.		0.40	0.24
No. 6118. .003 mfd.		0.45	0.27
No. 6119. .004 mfd.		0.45	0.27
No. 6120. .005 mfd.		0.45	0.27
No. 6121. .006 mfd.		0.45	0.27
No. 6122. .01 mfd.		0.55	0.33
No. 6123. .02 mfd.		0.75	0.41
No. 6124. .01 mfd.		1.00	0.59

Flechthheim By-Pass Condensers



Wherever a low voltage by-pass condenser is required, a Flechthheim Superior By-pass will fulfill its duty with absolute satisfaction. Having high grade insulating qualities, Flechthheim condensers provide against direct current leakage and also afford an unobstructed path for radio frequency currents. Accurately made, with a capacity value within 5% of the rating, Flechthheim condensers have an insulation resistance of approximately 150 megohms per microfarad. For continuous operating voltages up to 250 volts D.C.

Type	Mfd.	Size	List	Net
No. 8004-B-10	.10	2x1 3/4 x 3/8	\$0.60	\$0.35
No. 8005-B-25	.25	2x1 3/4 x 3/8	0.70	0.11
No. 8006-B-50	.50	2x1 3/4 x 3/8	0.75	0.11
No. 8007-B-100	1	2x1 3/4 x 3/8	0.90	0.53
No. 8008-B-200	2	2x1 3/4 x 1 1/8	1.50	0.88
No. 8009-B-400	4	2x1 3/4 x 1 1/8	3.00	1.77

Flechthheim High Voltage Condensers



Uses high grade glazed porcelain insulators. Used for the 171 or 210 power packs. It has the same electrical characteristics and efficiency as the 11X type, but is slightly larger in size. For the one who wants a real high-powered looking condenser that will stand the strains of heavy duty in a one or two stage filter operating in conjunction with a 171 or 210, these units will be very effective. Undoubtedly one of the best units for use in half wave and full wave Raytheon or filament type tube rectifier filter circuits. 650 volts D.C. continuous operating voltage.

Type	Mfd.	Size	List	Net
No. 7951-H-100	1	4 3/8 x 3 1/4 x 1	\$3.50	\$2.06
No. 7952-H-200	2	4 3/8 x 3 1/4 x 1 1/8	5.00	2.94
No. 7953-H-400	4	4 3/8 x 3 1/4 x 3 1/4	7.50	4.41

1000 Volts D.C. Rating

For the new type 250 power tube. Rated conservatively at 1,000 volts D.C., they have been given a large safety margin to prevent breakdown by sudden voltage surges from the 550 V. A.C. transformer, operating with either a 280 or 281 rectifier tube. Many custom set builders and radio experimenters prefer separate units when building up power supply and power amplifier apparatus, so that this type is becoming more widely in use. The 250 tube requires a capacity of 2-2-2-4-1-1 mfd. in the circuit of a two stage filter. A combination of these sizes can readily be stacked up together and as the units are furnished with solder-lug connections, it is an easy job to wire them. Increasing number of radio set builders, amateurs, and engineers use them exclusively in their work. Resembles above illustrated condenser.

Type	Mfd.	Size	List	Net
No. 7954-TC-100	1	5 1/4 x 4 3/4 x 1	\$3.75	\$2.20
No. 7955-TC-200	2	5 1/4 x 4 3/4 x 1 1/8	6.50	3.82
No. 7956-TC-400	4	5 1/4 x 4 3/4 x 3 1/4	11.00	6.47

Transmitting Condensers

Can be used successfully with filter circuits from which a pure D.C. note is desired. Designed for use either with a straight operating voltage up to 750 V. A.C. applied to the plate of the rectifier tube, or a full wave 1500 V. A.C. center tapped transformer combination.

Type	Mfd.	Size	List	Net
No. 7962-T-100	1	4 1/2 x 4 3/4 x 1 1/8	\$4.50	\$2.86
No. 7963-T-200	2	4 1/2 x 4 3/4 x 2	8.50	5.41
No. 7964-T-400	4	5 x 4 3/4 x 4	14.50	9.24

2000 Volts D.C. Rating

Used by some of the largest stations in the country, giving excellent service. Best suited for use with motor-generator units delivering up to 2,000 volts D.C.

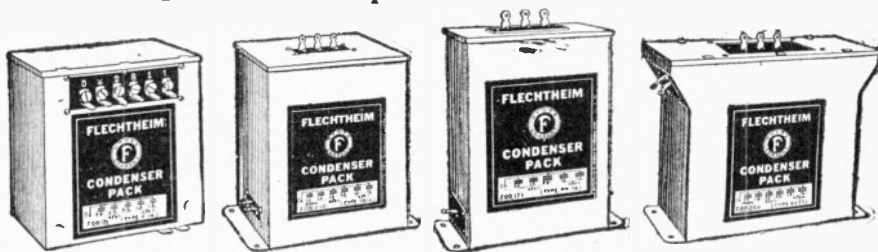
Type	Mfd.	Size	List	Net
No. 7965-TII-100	1	8x6x2 3/4	\$8.75	\$4.98
No. 7966-TII-200	2	8x6x3 1/2	13.50	8.60
No. 7967-TII-400	4	8x6x6	22.00	14.02

3000 Volts D.C. Rating

These highly perfected condensers are for use in "brute force" filters where the maximum A.C. voltage supply is 2200 volts, or 3000 V. A.C. center tapped, for a full wave rectifier up to 1000 volts capacity.

Type	Mfd.	Size	List	Net
No. 7968-HP-100	1	6x6x3 1/4	\$20.00	\$12.74
No. 7969-HP-200	2	6x6x4 1/8	32.50	20.70
No. 7970-HP-400	4	6x12x6 1/8	60.00	38.22

Flechthheim Superior Condenser Blocks



Type F14-14A

Type FA-10

Type RM-14

Type DX-25

Ideal for the many popular types of power packs and amplifier units, such as Raytheon, Thordarson and Amtran. Built with care and precision, the blocks are available for use with the types 171, 210 and 250 power tubes, and are equipped with solid lug terminals. Encased in unusually attractive silver-finished containers. Are made with a large safety margin, designed for continuous operation and conservatively rated. Famous for their dependability and performance. Radio men everywhere—set builders, experimenters, amateurs and engineers are using Flechthheim Superior Condenser Packs because of their outstanding characteristics.

Type	Used for	Capacity	Mfd.	Working Voltage	Dimensions	List	Net
No. 7988-F-14	171	0-2-2-8-1-1	14	450 D.C.	4 3/8 x 4 3/4 x 2 3/8	\$11.00	\$6.47
No. 7989-F-14A	171	0-2-2-4-4-1-1	14	450 D.C.	4 3/8 x 4 3/4 x 2 3/8	11.00	6.47
No. 7990-RM-14	171	0-2-2-8-1-1	14	650 D.C.	5 1/2 x 4 x 2 3/8	13.50	7.94
No. 7991-FA-10	210	0-2-2-2-4-1-1	12	650 D.C.	5 1/2 x 4 1/2 x 3 1/2	16.50	9.70
No. 7992-DX-25	250	0-2-2-2-4-1-1	12	1000 D.C.	5 1/2 x 4 3/4 x 2 3/8	20.00	11.80

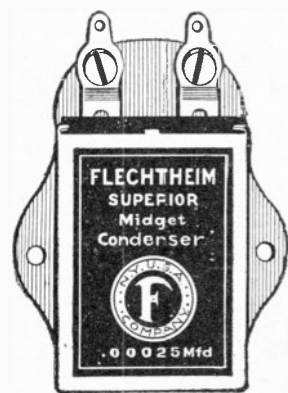
Flechthheim 650 Volt D.C. High Voltage Units



Designed for either the 171 or 210 Power Packs, these units can be mounted side by side, in the proper capacities and will afford the finest results. Equipped with combination screw and lug terminals, it is a very easy task to connect them in circuit. Compact, neat and efficient, they present a formidable appearance which is exceeded only by their dependability and long life.

For the 171 power pack, a combination of 2-2-8-1-1 mfd. is required. For the 210, 2-2-2-4-1-1 mfd. are needed. The 8 mfd. unit type HX800 is tapped 0-4-4 mfd., and will be found invaluable in a number of types of circuits—power amplifiers, interference eliminators and high voltage eliminators, delivering up to 650 D.C.

Flechthheim Midget Condenser



Exact Size

and radio frequency losses being negligible. Note clever mounting plate arrangement, and solder lug or screw terminals.

Type	Capacity	List	Net
No. 7971-M-A	.0001	\$0.40	\$0.23
No. 7972-M-B	.0002	0.40	0.23
No. 7973-M-C	.00025	0.40	0.23
No. 7974-M-D	.0005	0.40	0.23
No. 7975-M-E	.001	0.45	0.26
No. 7976-M-F	.002	0.45	0.26
No. 7977-M-G	.004	0.45	0.26
No. 7978-M-H	.005	0.50	0.29
No. 7979-M-J	.006	0.55	0.32
No. 7980-M-K	.01	0.60	0.35
No. 7981-M-L	.02	0.65	0.38
No. 7982-M-M	.05	0.75	0.44

Unexcelled for their superiority of design, performance and efficiency, Flechthheim Superior Midget Condensers are being widely used as grid condensers; for plate bypass, stopping, or blocking, impedance and resistance coupling, series antenna, compensating and neutralizing functions. In fact, wherever a high grade small size condenser is required to withstand voltages up to 500 D.C. is required, the Midgets can be relied upon to do the work with highest efficiency — power factor

Flechthheim Filter Condensers



Type F-401

Type F-400

For shunting the resistances in the output circuit of an eliminator, Flechthheim Superior Filter Condensers are ideal. Capable of withstanding the extremes of temperature without deterioration, they can be used safely where a neat and efficient condenser is required for heavy duty at voltages under 450 V.D.C. For use in conjunction with choke coils, or across a source of A.C. supply, to filter out line noises, commutator ripples and eliminate A.C. interference. 450 volts D.C. rating.

Type	Mfd.	Size	List	Net
No. 7993-F-10	.10	2x1 3/4 x 2 3/8	\$0.70	\$0.44
No. 7994-F-25	.25	2x1 3/4 x 1 1/8	0.75	0.44
No. 7995-F-50	.50	2x1 3/4 x 1 1/8	0.80	0.47
No. 7996-F-100	1	2x1 3/4 x 1	1.25	0.74
No. 7997-F-200	2	2x1 3/4 x 1 1/8	1.75	1.03
No. 7998-F-400	4	4 1/2 x 1 3/4 x 1 1/8	3.50	2.06
No. 7999-F-401*	4	2x1 3/4 x 2 3/8	3.25	1.92

*Type 401 is especially designed as an Output Condenser. Working voltage of this type 350 volts D.C.

Flechthheim Buffer Condensers

Consist of two .1 mfd. condensers in series, center tapped.

Type	Voltage	Size	List	Net
No. 8001-F-15	450 D.C.	2x1 1/2 x 3/8	\$1.50	\$0.88
No. 8002-F-16	1000 D.C.	2x1 3/8 x 1 1/8	2.00	1.18
No. 8003-F-20	1500 D.C.	4 1/2 x 4 x 1 1/4	3.50	2.06

Tobe Interference Filter No. 1



Will handle up to 1/4 H.P. on 110 volts or 1/2 H.P. 220 volts D.C., and is made to reduce radio interference from oil burners, refrigerators, sewing machine motors, etc., at the source. Provided with 5 leads so that no extra wiring is required for attachment. In some cases the nature of the radio interference is such that it can only be reduced and cannot be completely eliminated. We do not guarantee this line of apparatus to eliminate fully and absolutely all difficulties from radio interference. We know that in a majority of cases it will reduce them to a point where they are no longer noticeable.

No. 8276. List \$10.00. Net..... **\$5.88**

Tobe Radio Interference Filter No. 2



The Tobe Radio Interference Filter No. 2 is a newly developed piece of power equipment which will handle motors and other appliances up to 5 H.P. at 220 volts. It is built in accordance with code requirements, in a ventilated metal box for attachment to wall or machinery. The equipment is not enclosed in wax, but is entirely in the open, so as to be properly cooled. Terminals are brought out to a Bakelite terminal strip with heavy screw posts, and cutouts are provided in the bottom of the box, for attachment to standard BX or conduit. A complete wiring diagram is supplied inside the covers. Designed for house elevator motors, motor generator sets, and other types of interfering electrical apparatus too large to be handled by the No. 1 Filter. Silvered finish.

No. 8277. List \$15.00. Net..... **\$8.82**

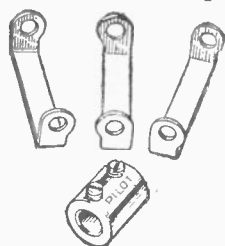
Tobe 1000 Volt and 2000 Volt Transmitting Condensers



The 1,000 volt condensers are fitted with heavy brass binding posts with petticoat insulators. Each condenser is case in a heavy silvered finish metal case. The ideal condenser for transmitting plate-supply use. The 2000 volt condensers are similar in design, but of heavier construction than the 1000 volt line. The best material and finest workmanship go to make up each 2000 volt transmitting condenser. Heavy porcelain insulators, with brass terminals are used for safe and easy connections. The safety factor of each condenser is far greater than will be called upon by the amateur. Each condenser is tested at several times its rated voltage. Each condenser is case in a heavy silvered finish metal case. The 2250 model weighs 17 pounds and the case is 10 1/2" x 6" x 5 1/2". The ideal transmitting condenser where higher voltages are used.

1000 VOLT			
Capacity Mfd.	List	Net	
No. 8270-1110 1.0	\$ 7.50	\$ 4.41	
No. 8271-1120 2.0	10.50	6.17	
No. 8272-1150 5.0	21.50	12.64	
2000 VOLT			
Capacity Mfd.	List	Net	
No. 8273-2210 1.0	\$10.00	\$ 5.88	
No. 8274-2220 2.0	18.00	10.58	
No. 8275-2250 5.0	32.00	18.81	

Pilot Gang Condenser Couplings



An ingenious arrangement whereby 2, 4 and more Pilot condensers (and others with rear extended shafts) can be linked to provide the now increasing tendency to gang assembly condensers, tuneable by one dial. Note that the rotors can be individually adjusted with relation to each other, balancing whatever electrical differences may exist, and then permanently locked. Simply insert the rear shaft of the first condenser and the front shaft of the second condenser into the brass coupling tube, attach the three links to their positions on the rear and front end plates of the condensers, line up the rotors as desired and tighten the hardened steel set screws. The lengths of the links are 1 1/2" and of the coupling tube 5 1/2". 1 1/2" diameter hole. Handsomely finished. Now furnished with a flexible insulated shaft coupling, which is not illustrated.

No. 5610. One Complete Set, as illustrated. List \$0.45. Net..... **\$0.27**

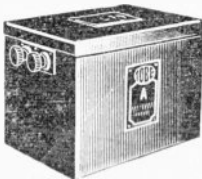
Tobe Type 250 B-Block



The Type 250 is designed for use with the new types of transformers now being specified for use with the new 250 type of power tubes. Such as the new Thorlarsen No. 2008 and other similar transformers used in high voltage "B" Eliminators or Power Packs. Contains 2, 2, 2, 4, 1, 1, 1, special high voltage Tobe Condensers.

No. 7463-250. List \$26.00. Net... **\$15.29**

Tobe A-Filter



Continuous and reliable A.C. filament operation without the necessity of converting battery sets by harnesses, rewiring, or the expense and uncertainty of changing to A.C. tubes. When combined with a Tobe TransFormer, humless, consistent A.C. filament operation of battery type tubes is obtainable with these new Tobe units. Consists of two Tobe A-Condensers which contain over 4,000 mfd. each, combined with two large capacity chokes—properly connected, so that when the proper rectifier is used on one pair of binding posts, the other pair may be connected direct to A+ and A—binding posts on the set, through a 2-ohm rheostat of heavy-duty design. Maximum current-carrying capacity, 2 1/2 amperes (to obtain amperage of battery set, add the amperes taken by each tube. For example, a 6-tube set using two UX-222 tubes, three UX-201A tubes, and the UX-171A tube, will take .132, plus .132, plus four times .25 amperes, or a total of 1.261 amperes—well within the capacity of the Tobe A-Filter). Attach a Tobe A-Filter to any good two ampere charger to make a complete A-Supply by combining a Tobe A-Filter with a Tobe TransFormer. Just remove the cover of the Tobe A-Filter and slip a Tobe TransFormer in its place, connect two wires, plug into the house supply and you have a complete A eliminator. In either case you will never use the messy A battery again.

No. 7435 Tobe A-Filter. 3 ampere capacity, 8,000 mfd. Dry condensers. List \$18.00. Net..... **\$10.57**

Tobe TransFormer

No. 7436 Tobe TransFormer. 3 ampere capacity complete in one unit with receptacle for your B-Supply. List \$15.00. Net..... **\$8.82**

Tobe 1300 Line Hi-Voltage Surproof Condensers

Guaranteed to operate at rated voltage. Carries an Iron Clad Replacement Guarantee. Especially designed for use with two UX-210 Power Tubes in Push-Pull, or the new UX-250 Power Tube. Has safe working voltage of 1300 volts D.C. Not designed for transmitting.

	List	Net
No. 7944-1302, 2 mfd.....	\$5.00	\$2.94
No. 7945-1304, 4 mfd.....	9.00	5.29

Tobe "B" Eliminator Blocks



Especially designed for use with the Raytheon and similar tubes. Contains one 8 mfd., two 2 mfd., and two 1.0 mfd. Tobe Filter Condensers. Height is only 5 1/2", width 4", and depth 2 1/4". Shipping weight 4 lbs.

No. 9726-760. List \$13.00. Net.... **\$7.64**

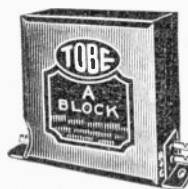
Very similar in appearance and size to our No. 9726 Block, but contains three 4 mfd. and two 1.0 mfd. Tobe Filter Condensers. Especially designed for use with 280 Rectifier Tube.

No. 9727-761. List \$11.00. Net.... **\$6.47**

No. 6130—R-171. Designed and specified by the manufacturer for use with the Thorlarsen R-171 Power Compact. Contains 8, 2, 2, 1, 1, 1 mfd. List \$15.00. Net..... **\$8.82**

No. 6131—R-210. B BLOCK designed in collaboration with Thorlarsen and specified by them for use with their R-210 Power Compact. Contains 2, 2, 2, 4, 1, 1, 1 mfd. high voltage Tobe Condensers. Shipping weight 4 lbs. List \$18.00. Net..... **\$10.58**

Tobe "A" Block



Use a good 2 ampere charger in conjunction with this filtering condenser block. Eliminates "A" battery. 3000 mfd. capacity, yet only 5" x 5 1/2" x 1 1/2". Permanent life—no refilling, etc. 3 to 10 volts D.C. capacity. Side terminal connections—heavy silvered metal case. Shipping weight 4 lbs. No. 8016. List \$7.00. Net.... **\$4.12**

Tobe A-Condenser



Within a space of but 5" x 5" x 1 1/2" the Tobe A-Condenser has 4000 microfarads. Its life appears to be indefinitely long when used at 12 volts or under. Its use saves cost of batteries or motor generators and their care. Connect a trickle charger to condenser and dynamic cone speaker for energizing the latter. Just four wires required. This condenser retains its original capacity, unlike others it has no fictitious rating. are in every Tobe A-Filter.

Two Tobe A-Condensers No. 8017. List \$6.00. Net..... **\$3.53**

Tobe Filter Condensers



Their handsome silvered metal cases will lend grace to any receiver. Can be used in "B" battery eliminators and in the radio frequency or audio frequency circuits. Connections may be made by soldering to the tinned lugs provided, or screwed and bolted thereon.

FILTER TYPE			
No.	Capacity	List	Net
No. 9735, .1 mfd.....		\$0.70	\$0.41
No. 9736, .25 mfd.....		0.75	0.44
No. 9737, .5 mfd.....		0.90	0.53
No. 9738, 1 mfd.....		1.35	0.74
No. 9739, 2 mfd.....		1.75	1.03
No. 9740, 4 mfd.....		3.50	2.06

Tobe 400 Line Condensers

Designed for continuous operation on 400 volts D.C. No. 5771-401, 1 mfd. List \$2.00. Net... **\$1.18**
No. 5772-402, 2 mfd. List \$2.75. Net... **1.62**
No. 5774-404, 4 mfd. List \$4.50. Net... **2.65**
No. 5775-411, 2-0.1 Buffer Condensers. List \$2.00. Net..... **1.18**

Tobe Power Pack Condensers



Extra high-voltage condenser. Is designed for continuous operation without the possibility of breakdown in the AmerTran and similar Power Packs. This condenser will operate continuously on D.C. voltages from 600 to 1,000 volts. The two smaller sizes are case in containers 4 1/2" high by 2 1/2" overall, including fastening down lugs, and 13/16" and 1 1/2" deep, respectively. The two larger sizes are 5" high by 5 1/2" wide overall, and 1 1/2" and 3" deep, respectively. Containers are finished with the familiar TOBE silvered finish. Note the side terminals situated at the base of the casing to permit a number of condensers to be arranged in a bank with minimum wiring and short and neat connections.

No. 5650-650, 0.5 mfd. List \$2.00. Net... **\$1.18**
No. 5651-601, 1.0 mfd. List 2.50. Net... **1.47**
No. 5652-602, 2.0 mfd. List 3.50. Net... **2.06**
No. 5654-604, 4.0 mfd. List 6.00. Net... **3.53**

The new Raytheon BH tube requires a heavier voltage capacity block than the No. 8726-760. This model contains two 4 mfd. and one 6 mfd. 400-volt Short Path Condensers. No. 6125-765. List \$13.00. Net..... **\$7.64**

There are two Tobe Blocks required for the new Raytheon 350 mil. rectifying tube A.B.C. power supply. No. 6126 (No. 1)—Contains two 4 mfd. List \$10.00. Net..... **\$5.88**

No. 6126 (No. 2)—Contains one 8 mfd., three 1 mfd. List \$10.50. Net **\$6.17**

TOBE RAYTHEON BUFFER CONDENSER UNIT

The Raytheon circuit requires two 0.1 mfd. condensers on the A.C. side of the tube. 400-volt test. No. 9060. List \$2.00. Net..... **\$1.18**

Tobe Filterettes—Stop Radio Noises



FILTERETTE JUNIOR MODEL
The Filterette Junior Model is an ideal small filter for any small motor, such as, motors on electric fans, hair dryers, barber clippers, vacuum cleaners, cash registers and similar devices. This unit plugs in line and it is only necessary to run a small wire from the binding post on the Filterette to any part of the motor frame. Interference is eliminated at once. 110 volts A.C. or D.C., capacity 500 watts. Shipping weight, 2 lbs.

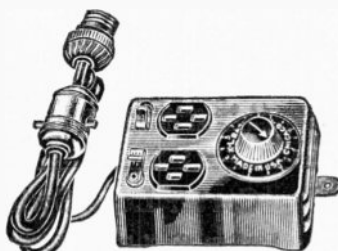
No. 6730. List \$3.50. **\$2.06**

NOTE

Additional Tobe Filterettes are available as listed below. As additional models are ready for distribution, we will be able to supply them.

Model	Applications for Filterette	Your net cost
No. 11—Motors, generators, chargers, transformer, house lighting plants, etc.	Capacity, 110 volts A.C. or D.C., 1000 watts.....	\$5.88
No. 22—Motors, generators, chargers, transformer, house light plants, etc.	Capacity, 220 volts A.C. or D.C., 2000 watts.....	8.82
No. 23—Same as No. 22, but where three wires are required instead of two.	Capacity, 3 phase 220 volts A.C., single phase, 110-220 volts A.C., 3 wire 110-220 volts D.C.....	11.76
No. 55—Motors, and any other apparatus operating on 410-550 volts A.C.	Capacity, maximum potential, 440-550 volts A.C.....	11.76
No. 56—Same as No. 55, but where three wires are required instead of two.	Capacity, 3 phase, 440-550 volts A.C.....	20.58
No. 110—Refrigerators, oil burners, chargers, dehumidifiers, certain types of violet ray, diathermic machines, electric heating pads, small electric signs or blinkers, and any type of apparatus within maximum potential named.	Capacity, maximum potential, 110 volts A.C. or D.C. 500 watts, maximum of current, 4 amperes....	8.82
No. 131—Sign flashers.	Capacity, 110 volts A.C. or D.C., 1000 watts, 10 amperes.....	11.76

X-L Link



Does just what its name implies: LINKS THE RADIO RECEIVER TO THE A.C. LIGHT SOCKET, offering the following indispensable features: Positive line voltage regulation—no excessive voltage reaches the A.C. tubes, thus greatly prolongs their life. Acts as Antenna and Ground—dispenses with all outside wires, completely eliminating outside aerials and a ground! Increases selectivity! Double Socket Outlet—for set and dynamic speaker, or "A" and "B" eliminators, if used. Complete Fusing—protects instruments and tubes from burning out, and eliminates fire hazards. All A.C. Operation—one wire to the light socket operates the entire set, including antenna and ground. Control Switch—for sets using power units or A.C. dynamic units or speakers. Buffered silver finish. Attaches to any set in a moment—requires no wiring. Shipping weight 4 lbs.

No. 5310. List \$5.75. Net..... **\$3.38**

Thermatrol Voltage Control



For regulating the voltage at the electric socket where an electric set or B eliminator is plugged in and preventing A.C. tubes and condensers from burning out or becoming paralyzed. Guarantees protection to all your A.C. radio tubes, yet the cost of one tube is double the price of this Voltage Control. Outstandingly superior to anything on the market because it sticks close to the wall—does not project and will not fall out of the receptacle. Offset prongs prevent interference with other receptacles in wall plate. Impossible to alter adjustment accidentally when once plugged through. Better appearance, accurate control, thorough insulation. Note various A.C. line voltage outlets. Shipping weight, 3 lbs.

No. 6726. List \$1.75. Net..... **\$1.03**

Webster Potentialator



An amazing new product. It produces that even flow of A.C. current, necessary to the successful operation of A.C. radio receivers or A and B battery eliminators. Regulates the local line voltage automatically. There are no tubes, no liquids, nor is there any sort of hand switch or rheostat with which to bother. The Potentialator not only gives you the proper voltage on the normally high or low line, but it automatically regulates the sudden line fluctuations, noticed in any A.C. line. It permits one to enjoy steady radio reception, of uniform volume through the loud speaker, without the annoyance of constantly adjusting the set rheostats, to accommodate the ever-varying supply line. The Potentialator is strictly automatic. Protects the delicate A.C. tubes. Longer life to the tube is assured with this practical device. Size 1" wide x 7" long x 4" high.

No. 7380. List \$16.50. Net..... **\$9.70**

De Jur Buffalo A.C. Voltage Control Box



Similar to the De Jur A.C. Voltage Regulator except that the meter is omitted. The correct voltage applied to the A.C. set can be judged with fair accuracy by observing the heater element in the detector tube. When this element glows at dull red it is receiving the correct voltage. Should it appear brighter, adjust the control on the control box until the desired brilliancy is had. 6 3/4" long, 4 3/4" wide, 2 3/4" high. Shipping weight 5 lbs.

No. 7225-510. List \$4.00. Net..... **\$2.35**

R-B-M Voltage Regulator



Steps low line voltage up to 110 volts or reduces high line voltage to 110 volts. This feature is accomplished by the use of a transformer so well designed and of such ample proportions that there is no heating no matter how long it is used. The transformer is constructed with eight taps which are controlled by an eight point switch. This switch is connected with a relay buzzer adjusted to operate at 110 volts. By turning the switch knob you bring into play, one at a time, one of these taps. When the tap that gives you 110 volts is reached the relay buzzes indicating that you have the correct voltage. The instant you take your hand off the switch knob a spring releases the contact with the relay and it stops buzzing. In other words the 110 volts indicating device is automatic in its operation. Entirely fool-proof. More than saves its original cost, by prolonging the life of expensive A.C. tubes. Shipping weight 10 pounds.

List Net
No. 7947. 110 Volt, 60 Cycle A.C. \$10.00 \$5.88
No. 7948. 110 Volt, 25 Cycle A.C. 12.50 7.35

De Jur Heavy Duty A.C. Voltage Regulator



May be used on A.C. sets and electrified installations. Tubes designed to be operated direct from the alternating current mains have been endangered by fluctuations in line voltages. This is particularly true in small communities or in homes located near the end of the A.C. line. In these instances, it is not uncommon for voltage to fluctuate, by actual measurement from 90 to 130 volts. Eliminates the possibility of applying excess voltage to the receiver. Merely plug it into the outlet from the lighting line and plug your receiver into the receptacle provided for that purpose in the voltage regulator. The meter on the regulator will indicate the exact line voltage when the receiver is turned on. If the reading is in excess of 110 volts (indicated by the red block on the scale) just adjust the knob until the pointer indicates the proper value. Supplied in crystalline finish container. 8" long, 3 3/4" high, 5 3/4" wide. Shipping weight 5 lbs.

No. 8104-500. List \$12.50. Net..... **\$7.35**

Brach Controllit



If you employ a trickle charger and wish to automatically disconnect same while your receiver is in operation, and then to automatically switch it back to its charging position, the Brach Controllit will solve the problem. Your battery switch, or rheostat, when turned on, automatically causes this relay to SWITCH OFF, and vice versa. Can also be used with "B" eliminators. Shipping weight 4 lbs.

No. 9697. List \$4.50. Net..... **\$2.65**

I.C.A. Resistovolt



Excessive voltage harms A.C. sets and ruins tubes. In most cities the voltage so varies that at certain times of the day it is high enough to burn out the tubes and seriously to harm the step-down transformers. Protects sets from "surges" and excess voltages. It prevents tubes and other parts from burning out. It banishes extraneous tube noises. It also enhances the tonal quality of the set and gives more perfect reproduction of music and speaking voice. In case of a short circuit in the radio set this inexpensive device does the blowing out acting like a fuse, the whole set of expensive A.C. tubes and set wiring remaining unharmed. Prong end is inserted into A.C. socket. Receiver plug is inserted into other end of Resistovolt.

No. 7562-100. List \$1.50. Net..... **\$0.88**

I. C. A. Resistovolt and Antennavolt



The De Luxe Model RESISTOVOLT is identical in function and performance to the No. 100 model except for its air-cooling feature which prevents it from heating up from too great an excess line voltage or steady overload. It is constructed with advanced principles of engineering and represents the achievement of extensive laboratory research. Perforated metal design, polished, handsome and efficient.

No. 7563-99. List \$1.75. Net..... **\$1.03**



The ANTENNAVOLT is a combination of the De Luxe Resistovolt and a light socket antenna. It makes possible the use of a light socket antenna without tying up the wall socket outlet for set current use, and retains at the same time the protective qualities of RESISTOVOLT. The light socket antenna has long been praised for its static reduction, sharper tuning, greater selectivity and enhanced reproduction qualities in general.

No. 5308-98. List \$2.25. Net..... **\$1.32**

ANTENNA AND GROUND PLUG makes it possible to use one wall socket for aerial and ground purposes and set current supply at the same time. Does not contain a Resistovolt.

No. 5311-97. List \$1.50. Net..... **\$0.88**

Thermatrol

110-Volt Interference Filter

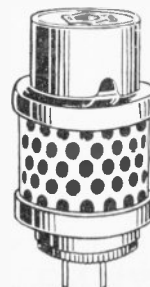


A light duty filter for reducing A.C. line interference. Much of your interference comes from the A.C. line that feeds the set. Fans, sewing machine motors and many other appliances that plug into the light socket cause serious interference. To reduce or eliminate this, just plug the Thermatrol 110-Volt Interference Filter in the wall outlet ahead of the appliance that causes the trouble. Also all such interference will be reduced by plugging the filter into the wall outlet ahead of the set itself. This will muffle that snap you get when lights are turned on or off. No wiring—no expensive installation—just plug into the wall socket. Attractively finished with polished nickel front plate and crystalline lacquered body. Compact, effective. Shipping weight 4 lbs.

No. 6724. List \$3.00. Net..... **\$1.77**

Vitrohms

Line Voltage Reducer



Radio receivers, made for complete operation from the power lines, are designed, usually, to operate at a fixed line voltage. Where the line voltage exceeds the arbitrary value assumed by the set manufacturer, damage to the A.C. tubes may result, unless means are used to reduce the line voltage to a value at or below that at which the set is designed to operate. This Reducer reduces abnormal line voltages of 125 volts or less to a safe value for the operation of all A.C. sets drawing from 0.1 to 0.6 amperes. This includes practically all A.C. sets now on the market. Installed in a few seconds. A Ward Leonard product. Shipping weight 1 lb.

No. 5309-507-109. List \$2.00. Net..... **\$1.18**

THE WORLD RENOWNED READRITE METERS

Readrite Panel Mount Meters



No. 6161
Various ranges are supplied in Ammeters for measuring filament current, Voltmeters to measure "A" and "B" voltages, Milliammeters for measuring plate current of one or more tubes and combination voltmeters for measuring "A" and "B" voltages. High reading voltmeters have external resistance. Narrow rim type requires 2 5/16" hole. Rim is 2 5/16". Furnished with back clamps. Finish is full nickel for narrow rim type. Dials are metal, silvered. Naturally the installation of these meters on your receiver panels will dress them up and give them a truly professional appearance—but that is not all! They are just as efficient as they are attractive.

READRITE PANEL AMMETER

No. 5321-336. 0-3 amperes. List \$1.00. Net.....\$0.59
No. 6160-338. 0-10 amperes. List 1.00. Net.....0.59

READRITE PANEL VOLTMETERS

No. 6161-326. 0-6 volts. List \$1.00. Net.....\$0.59
No. 6162-335. 0-8 volts. List 1.00. Net.....0.59
No. 6163-310. 0-10 volts. List 1.00. Net.....0.59
No. 6164-316. 0-16 volts. List 1.00. Net.....0.59
No. 6165-337. 0-50 volts. List 1.00. Net.....0.59
No. 6166-339. 0-100 volts. List 1.25. Net.....0.74
No. 6167-342. 0-150 volts. List 1.50. Net.....0.88
No. 6168-340. 0-8-100 volts. List \$1.75. Net.....1.03
No. 6169-346-P. 0-300 volts external resistance. List \$5.00. Net.....2.94
No. 6170-347-P. 0-500 volts external resistance. List \$6.00. Net.....3.53
No. 6171-351. 0-15 volts A.C. List \$2.50. Net.....1.47
No. 6172-352. 0-10 volts A.C. List 2.50. Net.....1.47
No. 6173-353. 0-6 volts A.C. List 2.50. Net.....1.47
No. 5322-348-P. 0-150 A.C., with external resistance. List \$5.00. Net.....2.94

READRITE PANEL MILLIAMMETERS

No. 6174-311. 0-10 m.a. List \$1.75. Net.....\$1.03
No. 6175-325. 0-25. List 1.00. Net.....0.59
No. 6176-350. 0-50. List 1.00. Net.....0.59
No. 6177-390. 0-100. List 1.00. Net.....0.59
No. 6178-399. 0-300. List 1.00. Net.....0.59
No. 6179-394. 0-400. List 1.00. Net.....0.59

Panel Mount Ammeters



Narrow rim type, for 2 5/16" hole. Rim is 2 5/16". Handsomely nickel-plated—dials are silver-plated.

List Net
No. 7200-303. 3-0-3 Amperes.....\$1.00 \$0.59
No. 7201-606. 6-0-6 Amperes.....1.00 .59
No. 7202-110. 10-0-10 Amperes.....1.00 .59
No. 7203-220. 20-0-20 Amperes.....1.00 .59

Panel Mount Voltmeters

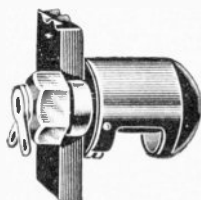
List Net
No. 7204-311. 0 to 8—0 to 150 volts.....\$2.00 \$1.18
No. 7205-333. 3-0-3 Volts.....1.00 .59
No. 7206-331. 3-0-2.5 Volts. Special Cadmium Tester.....2.50 1.47

Panel Mount Milliammeters

List Net
No. 7207-395. 0 to 20—0 to 100.....\$1.75 \$1.03

Yaxley Panel Light

A great convenience for every radio set. The set can be placed in any part of the room, independent of the lighting within, as this Panel Light illuminates the dials with a pleasing effect. Consists of a handsome reflector and metal socket. One-hole mounting, easily wired.



No. 9707. Less bulb. List \$0.50. Net.....\$0.30
No. 9776. 6-volt bulb for above. Net.....0.21

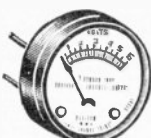
Pilot "Pilot" Light



The Pilot Light is practically indispensable on any set. Tells at a glance when tubes are lit from the front panel, thus preventing waste of battery current when your radio is not in operation. Single hole mounting. Attractive as well as useful.

No. 9775-40. Without bulb. List \$0.45. Net.....\$0.27
No. 9776. 6-volt bulb for above. List \$0.30. Net.....0.21

Readrite Plug-in Tip Jack Voltmeters



List Net
No. 8210-306. 0-6 volts for No. 25-28 Radiolas.....\$2.50 \$1.47
No. 8211-308. 0-6 volts for No. 29 Radiolas 2.50 1.47
No. 8212-307. 0-6 volts Desk Type with Cord 2.50 1.47
No. 8213-309. 0-8 volts for Majestic and other "A" eliminators 2.50 1.47

Readrite Plug-in Line Voltmeter

List Net
No. 8214-148. 0-150 volts A.C.—D.C.....3.00 1.77

A.C. Line Voltage Regulator

A Protection for A.C. Tubes



You are endangering the life of your expensive A.C. tubes without this voltage regulator—it is folly to be without one. Base is 4 1/2" diameter equipped with A.C. voltmeter having red margin from 110 to full scale and a black line maximum voltage division marked 115. The power rheostat gives a working range between 130 and 100 volts. Complete with five-foot cord, plug and tap for connecting to receiver. Attractively finished in dull black. May be placed in set, cabinet or outside wherever it is most convenient to use.

No. 8216-218. List \$6.50. Net.....\$3.82

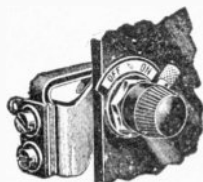
Readrite Single Socket Testing Meters



For reading Plate-Filament-Grid voltages by plugging directly into tube socket. In this manner you can quickly localize any trouble. Fits any U.X. socket. Handsomely nickel plated. Readings warranted accurate.

No. 8223-146. Plate Voltmeter, 0-300 volts. Resistance 54000 ohms. List \$3.00. Net.....\$1.77
No. 8224-150. Grid Voltmeter, 0-50 volts. Resistance 8800 ohms. List \$3.00. Net 1.77
No. 8225-152. Filament Voltmeter A.C.—D.C. 0-10 volts. List \$2.50. Net.....1.47

Yaxley Battery Switch



YAXLEY No.10

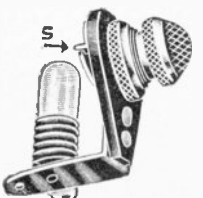
No. 5700. List \$0.50. Net.....\$0.29

Yaxley No. 11 Aerial Switch

Same in every respect as No. 10, excepting single pole double throw for switching from long to short aerial or vice versa.

No. 5701. List \$0.65. Net.....\$0.39

Bruno Light Switch



Combines both a battery switch and a ruby pilot light which glows in an attractive manner when the switch is turned on. The glow is visible through the center of the switch button. Red ruby jewel supplied. Uses our No. 9776 six-volt bulb.

No. 9777. Without bulb. List \$0.75. Net.....\$0.44

Readrite High Resistance "B" Eliminator Voltmeters



This high resistance voltmeter is used to check the voltage of "B" eliminators and radio "B" battery circuits. Low resistance voltmeters on the market, and even the better instruments in common use, cannot be used for "B" eliminator testing. These meters are also used in conjunction with the Readrite No. 210 and No. 215 Tube Checkers for general set testing purposes. Supplied with 30" red and black cords to show polarity. Highly nickel-plated case. 3" in diameter by 1 1/4" high. Shipping weight 4 lbs.

No. 5948-346. 0 to 300 volts. List \$5.00. Net.....\$2.94
No. 6158-347. 0 to 500 volts. List \$6.00. Net.....3.53
No. 6159-348. 0 to 150 volts on A.C. current line. List \$5.00. Net.....2.94

Readrite Tube Testers

TYPE A

It takes but a moment to test any tube with this tester, an 0 to 10 "Readrite" milliammeter. The grid return on the tester can be swung from positive to negative with a suitable switch—those tubes which show the greatest difference with a positive or negative bias are the more desirable tube. Highly nickel-plated. Weighs 4 lbs.

No. 5970-A. Without bulb. List \$3.00.

Net...\$1.77

TYPE AA

Contains a double reading meter for voltage and milliamperes. Reads 3 and 5 volts in one position and milliamperes up to 20 m. a. in second position. Simple and accurate in operation. Contains grid switch and instructions. An instrument which does the work of the higher price two meter testers.

No. 4903-AA. List \$3.50. Net.....\$2.06

TYPE AAA

Same as Type AA but contains a larger base having a rheostat for controlling the filament current separate from the set control.

No. 4904-AAA. List \$4.50. Net.....\$2.65

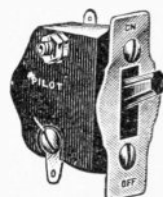


Carter Lock Switch

Lengthens life of tubes and batteries by reducing chance of accidentally leaving the tubes lit, or tampering. A quarter turn of the key lights the tubes. When key is not in, the set cannot be operated. Neat, small and durable.

No. 9378. List \$0.75. Net.....\$0.44

Pilot Toggle Switch



Attractive in appearance—and just as efficient. Can break 110 volts at 1 1/4 amperes. A nickel-plated front plate is included with appropriate designations thereon. Case is of molded bakelite. Dimensions of face plate are 1 1/2" long by 1 3/16" wide, and the case extends 1 3/4" behind the panel. Either soldering lugs or screw terminal connections.

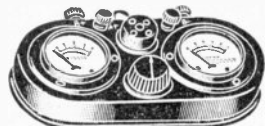
No. 5626-12. List \$0.50. Net.....\$0.29

Yaxley Jack Nameplates

Set of 10. May be mounted behind the hex nut of a jack to indicate the purpose of the jack. Attractive as well as useful. Finished in black and nickel, the characters being plainly discernable. Saves engraving of the panel. Can be supplied as follows: Telephone, Radio, 1-Stage, 2-Stage, Detector, Off-On, Off-Soft-Loud, 3-Stage, L-S, Loud Speaker.

No. 9362. Each Plate. List \$0.05. Net.....\$0.03

Readrite Two-Meter DC Tube Checker



Every set builder, service man, and radio fan should own one of these extremely useful instruments. Very sturdy, yet compactly built. Contains 0-6 D.C. Voltmeter—0 to 10 milliammeter, grid bias switch, rheostat, socket and binding posts. Connect to batteries or eliminators or to set socket with Readrite Cord and Plug No. 21. Tests quickly tubes operating at 5 volts or less. Especially recommended for 199 and 201A type tubes. Instructions for using and chart of tube readings supplied. Shipping weight 3 lbs.

No. 6384-210. List \$7.50. Net..... **\$4.41**

Readrite No. 210 Test Set

Designed especially for testing tubes of the 199 and 201-A types. Complete set is very convenient for servicing radio receivers equipped with these, and similar tubes. Also very handy for counter testing, by connecting to batteries or eliminators, for reading their output voltages. The tube tester consists of an 0.6 D.C. voltmeter, an 0-10 milliammeter—filament rheostat—4 binding posts and U.X. socket. The grid switch gives the amplifying value of the tube. The cord has 3 terminals marked: A+, A- and B+. The terminals of the high resistance B voltmeter may be attached to these terminals for servicing receivers.

	List	Net
No. 6649-210. Test Set, consisting of Tube Checker, Cord, and B Voltmeter (0 to 300 volts)	\$13.50	\$7.91
No. 7911-210. Same, but with 0 to 500 volt High Resistance Voltmeter	14.50	8.51

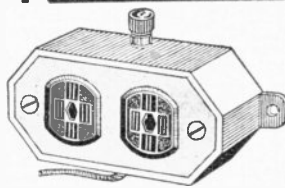
Readrite Test Kit



Contains 9 meters fitted in tip jacks 0-50, 0-500, 0-8 D.C., 0-15, 0-6, 0-150 A.C. voltmeters and 0-10, 0-100, 0-300 milliammeters, in black metal case with leather handle size 7x10x12" high. Has 4 meter tube tester connected with five-foot cord, plug and adapters. Also a five-foot polarity cable with tips for special test meter. Power rheostat, grid switch, four and five prong sockets with interchangeable meters all on marked bakelite panel. Will make every kind of test of tubes and circuits. Locates faults quickly without switches or other cord connections. A complete and flexible outfit every service man or experimenter will want to own. Full instructions and tube chart.

No. 8215-9. List \$35.00. Net.... **\$20.58**

KABINETTENNA



No more unsightly wiring, double plugs, cumbersome aerials—just one small, inconspicuous, attractive unit which can be mounted in or outside the radio cabinet. Kabinettenna requires no lightning arrester, reduces static and local interference. Kabinettenna is not patented after any aerial plug but built on an entirely new and successful principle. Shipping weight 5 lbs.

No. 5315. List \$1.50. Net..... **\$2.65**

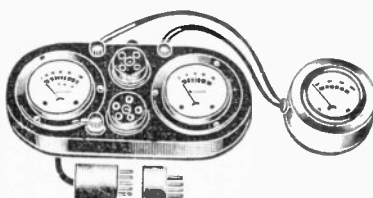
Thermatrol Dynamic Speaker Control



Separate Dynamic Speakers require a separate switch, making it necessary to operate two switches every time set is used. The Thermatrol Dynamic Speaker Control places entire control of the speaker automatically in the set switch eliminating the inconvenience of snapping two switches and the danger of leaving the speaker on when set is off. No wiring. Just plug it in the wall outlet. No cords to tangle. Takes no table space. Shipping weight 4 lbs.

No. 6725. List \$2.50. Net..... **\$1.47**

Readrite Universal Tube Checker and Set Tester



Combination of a No. 215 Tube Checker and either a 0-300 or 0-500 High Resistance Voltmeter.

Operates equally well on either A.C. or D.C. circuits. Consists of No. 215 Readrite Universal Tube Tester and High Resistance Voltmeter, range 0 to 300 volts (or 0 to 500 volts). This voltmeter can be detached at will. In use, the tube tester is plugged into the socket from which the tube to be tested has been removed. Especially designed for service work but equally valuable for the set owner. Quickly locates defective circuit wiring, open transformers, poor contacts and shorts. Tests large and small tubes. Is equipped with a filament voltmeter of the repulsion type, range 0 to 10 volts, and with a double reading milliammeter, reading either 0 to 20 or 0 to 100 milliamperes, with switch to give high or low reading. The voltmeter scale is very evenly divided, so that voltages of 1 1/2 to 7 1/2 are easily read. A grid switch is also provided to give comparative grid readings, thereby indicating the amplifying quality of the tube. Tester is provided with a thirty-inch cord carrying a five-prong plug and a four-prong adapter. The 0 to 300, or 0 to 500 voltmeter is used in combination with the tube tester to measure plate voltage. Enables you to test the B voltage of the tube plate circuit and to determine the correct voltage applied, or when such circuits are at fault. A service man cannot well afford to be without this universal Test Set.

	List	Net
No. 7912-215. Complete, with 0 to 300 volt High Resistance Meter, Cables, Special Plugs, etc.	\$17.00	\$10.00
No. 7913-215. Same, with 0 to 500 Voltmeter	18.00	10.60

Model 215 A.C.-D.C. Tube Checker

This Tube Checker is used for A.C. or D.C. for servicing sets. It is complete with cord, plug, and adapter. Has grid switch and two binding posts for connecting B voltmeter, such as 0-300 or 0-500 illustrated on another page in this catalogue, for testing plate voltage. Besides testing all circuits, either A.C. or D.C., this tester will check all tubes, including power tubes. Meters included are a combination of 0 to 20 and 0 to 100 milliammeter (note switch) and a 0 to 10 A.C. voltmeter. Equipped with two sockets for four and five prong tubes. A universal tester complete with Instructions and Tube Chart. 8 1/2" long, 4" wide, 2" deep. Shipping weight 5 lbs. Illustrated above.

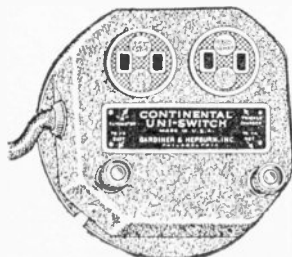
No. 7208-215. List \$12.00. Net.... **\$7.06**

Model 212 Tube Checker— Dealer's Model

This Checker is for dealer's counter testing. Connected permanently to eliminators or batteries. It will test all tubes including power and A.C. types. Supplied with adapter No. 45 and equipped with 5 prong socket. Meters consist of 0-8 D.C. voltmeter and double reading 0-20 and 0-100 milliammeter. Has grid switch and power rheostat, and 6 marked binding posts for A-B-C circuits. "B" and "C" voltmeters can be attached. Also may be used with No. 22 cord and plug for connecting to set socket thereby testing the circuits and securing current from the set to test tubes. No. 212 has the same style black finish steel case as No. 210 but is deeper. Full instructions and Tube Test Chart furnished. Shipping weight 5 lbs.

No. 7209-212. List \$10.00. Net.... **\$5.88**

Automatic Relay Switch



Weights 4 lbs.
No. 5699. List \$3.50. Net..... **\$2.06**

It is designed to cut in or out a trickle charger (and storage battery) and a "B" eliminator, singly or together. Standard receptacles and 5 ft. connection cord and plug furnished. Very attractively finished black crystallized case. Overall dimensions are 4 1/2" by 4 1/2" by 2 1/2".

Set Tester Cord and Plug



Brings the plate and filament from the set socket to the No. 210 Tube Tester (our No. 6384). Can also be used for connecting the respective circuits to any of our meters separately. Combining No. 21 Cord, No. 210 Tube Checker and a 300-volt high resistance Voltmeter, makes up a Test Set for testing A & B volts direct from the set socket, as well as to test tubes.

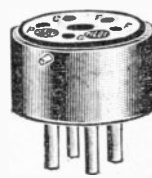
No. 7211-21. List \$1.00. Net..... **\$0.59**

No. 22 CORD AND PLUG

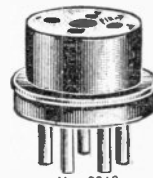
Brings the plate, grid and filament circuits from the set to be connected to either No. 210 or 212 Tube Checkers. B and C voltmeters may also be attached to the respective posts for making all set tests where D.C. is furnished for the filament circuit.

No. 7212-22. List \$1.50. Net..... **\$0.88**

Readrite Adapters



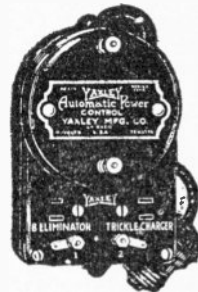
No. 8217



No. 8218

	List	Net
No. 8217-54. Contains 5 prong Socket on a 4 prong Plug. Has all connections complete to plug, except the cathode.....	\$1.00	\$0.59
No. 8218-45. Contains 4 prong Socket on a 5 prong Plug. Has all connections complete to plug, except the cathode.....	1.00	0.59
These adapters are used to accommodate A.C. tubes No. 326 and No. 327 in standard socket. Battery operated sets may be changed to A.C. operation by using adapters No. 260 and No. 270 with slight changes in wiring.		
	List	Net
No. 8219-260. For 326 type tube. Has soldering terminals for connecting tube filament to transformer. The D.C. filament wiring in set is left unused. The plate and grid connections also are unchanged.....	\$1.00	\$0.59
No. 8220-270. For 327 type tube. Has soldering terminals for connecting the heater element to the filament of transformer. The D.C. filament in set is left unused except the cathode of tube is connected inside the adapter to both A+ and A- terminals. Plate and Grid connections remain unchanged.....	1.00	0.59
No. 8221-20. Adapter for using tubes of 199 type having the UV base and adapting same in the standard UX socket.....	0.60	0.36
No. 8222-24. Adapter for testing Kellogg type tubes in any of our tube testers.....	1.00	0.59

Yaxley Automatic Power Control



Cuts in the "B" eliminator, cutting out the trickle charger when the set is turned on. The "B" eliminator is cut out and the trickle charger cut in when the set is turned off. The filament switch of the set is the only switch to operate the Automatic Power Control does all the other switching. Pure silver contacts with a wiping action assures perfect electrical connections. Neat in appearance. Thoroughly dependable.

No. 5844-444. Series Type Automatic Power Control—Now furnished with new construction, exclusively Yaxley, that keeps the voltage drop less than two-tenths (2/10) volts when used with sets having a current draw equivalent to four 199 type of tubes up to eleven 201 type of tubes. List \$5.00. Net..... **\$2.94**

No. 5845-445. Multiple Type Automatic Power Control—There is no voltage drop with the multiple type. Best for all sets. Especially recommended for multi-tube sets and also for sets with a very low current draw. Complete instructions for installing packed in each box. Approximate shipping weight 2 lbs. List \$6.00. Net..... **3.53**

Automatic Relay Switch



Turning on the bulbs in your receiver will automatically cause this switch to disconnect the trickle charger, and vice versa. Will also control them independently. Or "B" eliminators can be controlled in the same fashion. All parts sealed in durable black porcelain base—very attractive. 3" in diameter. Shipping weight 3 lbs.

No. 9005. List \$2.00. Net..... **\$1.18**

Jewell A.C.-D.C. Set Analyzer, Pattern No. 199



A radio set analyzer which, as a result of cumulative information gathered through years of close study of the needs of the radio dealer and his service department, and of years of development of radio service equipment, is offered in the belief that it is the most useful and reliable service instrument ever produced. Every test which will give information of the workings of a radio set and its accessories has been provided for. It tests A.C. and D.C. tubes, A and B eliminators, batteries, circuits, grid, plate and Cathode voltage, plate milliamperes, etc. Flange of instrument are: 0-1.8-10-160 A.C. volts, 0-7.5-75-300-600 D.C. volts and 0-15-150 milliamperes. All D.C. voltage ranges have a resistance of 1,000 ohms per volt. Furnished with test leads, 4 and 5-prong tube adapters, line voltage leads, pad of analyzer charts and complete instructions. Shipping weight 20 lbs.

No. 8022-199. List \$97.50. Net... **\$71.66**

Jewell No. 150 A.C. Tube Checker

All tubes can be tested without resorting to batteries of any kind. A 5-prong socket is supplied, with an adapter for 4-prong tubes, a compound rheostat for adjusting the filament in conjunction with the 0-4.8 volt A.C. filament voltmeter. Plate current is read on a 0-15 milliammeter and by the grid shift method, a second reading of plate current gives the value of the tube. All tubes can be tested on this tube checker from the WD-11 and 199 up to the 210 by merely plugging into a 110 volt 60 cycle outlet. Shipping weight 7 lbs.

No. 7813. Price, complete. List \$38.00. Net... **\$27.93**

Model 110A for D.C. and A.C. Tubes

For both A.C. and D.C. type tubes. Filament voltmeter 0-7.5 range. Double scale milliamperes 0-10 and 0-50 milliamperes. 4 prong socket with adapter for five prong A.C. tubes and also for TV-190 D.C. tube; binding posts for connecting additional "C" battery in testing power tube. Shipping weight 5 lbs.

No. 7814. List price \$45.00. Net... **\$33.07**

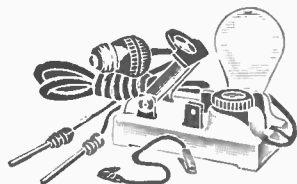
Jewell Pattern No. 53 Meters



A popular size 2 1/4" instrument for panel mounting used to obtain operating conditions existing in a radio set. Furnished single scale. Flange type mount—black enamelled case, etc. Shipping weight 4 lbs.

	List	Net
No. 7807. Choice of ranges: 0-5, 8, 10, 15, 50 Volts.....	\$7.50	\$5.52
No. 7808. 0-100 Volts.....	9.00	6.61
No. 7809. 0-150 Volts.....	9.50	6.99
No. 7810. Choice of ranges: 0-3, 5, 10, 15 Amperes.....	7.50	5.52
No. 7811. Choice of ranges: 0-3, 5, 10, 15, 25, 30, 50, 100 Milliamperes.....	7.50	5.52
No. 7812. Choice of ranges: 0-1.5, 2 Milliamperes.....	8.00	5.88

Rasco Radio Set Tester



tached to a heavy porcelain base. In addition there is supplied a 10-watt fuse, a 110-volt lamp—a connection cord and detachable plug—two 5 ft. lengths of test cord with insulated handles and metal contacts. The lamp, fuse and switch are so wired that when the two test cords come in contact with each other, the bulb lights, signifying continuous circuit. You can immediately determine if you have electrical continuity in all of your connections, audio transformers, R. F. coils, phones, units, etc., and conversely there should be NO light when contact is made to a variable condenser, between primary and secondary, etc. This tester can be carried in a service bag (measures only 4 1/2" long by 3" wide), screwed on a wall, or placed on the table. Operates on either A.C. or D.C. current supply. Shipping weight 3 lbs.

No. 6060. Complete with all parts and instructions... **\$1.77**

Jewell A.C. Voltmeters

PATTERN NO. 77



For Table or Wall Mount—note special case. An instrument moderate in price but very effective for making the various alternating current tests required in the servicing of alternating current sets and accessories. The current draw is very small and the ranges are ample to check and adjust all voltages likely to be encountered. Lower ranges are for filament voltage checking while higher ranges are for line voltage. Shipping weight 5 lbs.

	List	Net
No. 8023. 0-3-15-150 Volts (3 Ranges).....	\$15.00	\$11.02
No. 8024. 0-150-300 Volts (2 Ranges).....	15.00	11.02
No. 8025. 0-300-600 Volts (2 Ranges).....	18.00	13.13
No. 8026. 0-15-150 Volts (2 Ranges).....	10.50	7.71
No. 8027. 0-150 Volts.....	10.00	7.35

Jewell A.C. Voltmeters

PATTERN NO. 190



2 1/4" flange diameter and 2" case diameter. For testing A.C. tube filament voltages, or any commercial purpose. Can also be used to test line voltages. Low current consumption permits use without changing action of set in which it is installed. Shipping weight 3 lbs. Be sure to specify range you are ordering.

	List	Net
No. 8035. Choice of 0 to 1.5—0 to 3—0 to 5—0 to 10—0 to 15—0 to 20 Volts A.C.....	\$7.50	\$5.52
No. 8036. 0 to 150 Volts A.C.....	9.50	6.99

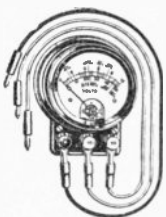
AMMETERS

No. 8037. Choice of 0 to 1—0 to 3—0 to 5—0 to 10—0 to 15 Amps.	7.50	5.52
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MILLIAMMETERS

No. 8038. Choice of 0 to 20—0 to 30—0 to 50—0 to 100—0 to 300—0 to 500 Milliamperes.....	7.50	5.52
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Jewell Portable Voltmeter Pattern No. 98



Colored scales and binding posts with colored leads make it easy to test radio batteries with this instrument. The green lead, post and scale are for readings up to 10 volts and the red for readings up to 50 volts. Green and red markings on the scale indicate proper readings for various batteries. Double scale voltmeter. Shipping weight 7 lbs.

No. 7801. Complete with 3 leads. List \$13.50. Net... **\$9.93**

Pattern No. 57—Portable Voltmeter

A portable instrument intended for general service use in testing batteries, circuits and for general laboratory work. Furnished with plain dial having black characters and silver etched background. Complete with test leads. 18" long. Not ideal for "B" eliminators. Shipping weight 6 lbs.

No. 7802. Choice of ranges: 0-7.5-150 or 0-8-200 Volts. List \$10.50. Net.....	\$7.72
No. 7803. 0-50 Amperes and 0-50 Volts (in one instrument). List \$13.50. Net.....	\$9.90

"A" Battery Charge Indicator



To the radio fan who objects to the use of an hydrometer this is indeed invaluable. By applying the two contacts included with this device to both terminals of the storage battery the arrow will advise you whether to start charging the battery—when it is nearly full charged—and when you should stop charging it. Handsomely nickel plated.

No. 9741. List \$1.00. Net... **\$0.59**

NOTE

Be sure to order a few assortments of our "Surprise Offers," consisting of Brackets, Screws and Nuts, and Knobs.

Jewell Meters

TYPE 140



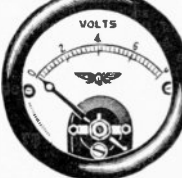
In the double reading types the voltage condition of both your storage and "B" batteries can be instantly determined on the panel. The milliammeters are used to determine how much "B" current is being consumed, as well as to check distortion. The serious radio fan cannot afford to be without these gauges. Black japanned cases. No. 9650—Double Reading, 0.

7 1/2-150 volts, 2" case diameter. With wide flange (2 1/2" diameter) front panel mounting. Self-contained switch with an automatic off position. Shipping weight 4 lbs. No. 9650. List \$9.50. Net... **\$6.05**

TYPE 135-B

Same type as No. 9650 described above, but with narrow cup-shaped flange, with back panel mounting, similar in appearance to Type 135 illustrated below. The low voltage scale is always in the circuit, a built-in push button on meter being used to read higher voltages. Choice of following double reading voltage combinations: 0-7 1/2-150, or 0-8-200. Shipping weight 4 lbs. No. 9651-135-B. List \$9.00. Net... **\$5.74**

TYPE 135



2" diameter D.C. Instruments. Note narrow cup-shaped flange. A very popular series. Black japanned cases, silver dials. Fingerprint screw adjustment. Shipping weights 4 lbs.

No. 9652. Choice of 0-5, 0-8, or 0 to 10 volts. List \$7.00. Net.....	\$4.46
No. 9653. Choice of 0 to 10, 15, 25, 50, 80, 100, 300, or 500 milliamperes. List \$7.00. Net.....	4.46
No. 6638. 0 to 100, or 0 to 150 volts. List \$7.50. Net.....	4.78
No. 6639. 0 to 3, or 0 to 5 amperes. List \$7.00. Net.....	4.46
No. 6640. Double Reading, 0-8-200 volts, without switch. List \$8.50. Net.....	5.41

TYPE 135-C

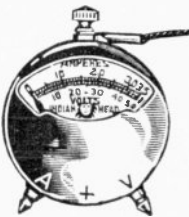
Mounted in a miniature mantel clock bakelite case. Range 0-7.5-150 volts. No. 5823-135-C. List \$10.00. Net... **\$6.37**

Voltmeters—Pocket Radio Meters



No. 9316

An accurate indicator of the strength of your batteries. Case is cast metal, nickel finish, glass crystal, flexible contact cord. Black numbers on silver face. Shipping weight 1 lb.



No. 9515

VOLTMETERS

No. 6652. 0 to 8 volts. List \$1.00. Net \$0.54	
No. 6653. 0 to 10 volts. List 1.00. Net 0.54	
No. 6654. 0 to 16 volts. List 1.00. Net 0.54	
No. 9316. 0 to 50 volts. List 1.00. Net 0.54	
No. 6655. 0 to 100 volts. List 1.25. Net 0.71	
No. 6656. 0 to 150 volts. List 1.50. Net 0.88	

AMMETERS

No. 6651. 0 to 40 Ammeter Scale. List \$0.75. Net.....	\$0.44
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VOLTAmmETERS

No. 6658. 0 to 8 volts, 0 to 40 amperes. List \$1.50. Net.....	\$0.74
No. 9515. 0 to 50 volts, 0 to 40 amperes. List \$1.50. Net.....	0.74

Yaxley Battery Switch and Pilot Light



With the use of this combination switch and pilot light there is no danger of your leaving the current on when you cease using the receiver. It does not take long to save its cost in current saved. The light from the lamp shines through the red jewel set in a hole in the panel. Switch is snap-off type. Complete with switch, 6-volt lamp bracket and jewel (without bulb).

No. 7921-210. Complete. List \$0.75. Net.....	\$0.44
No. 7922. Pilot Light only, including Jewel and Bracket. List \$0.50. Net...	0.29

Flechthiem Superior High Resistance Voltmeters

Are made specifically for testing and checking "B" and "A" voltages—of batteries or eliminators. Furnished in highly nickel-plated meter cases, equipped with flexible cords having well-insulated metal tips, with which to make connections. The scale of each meter is carefully checked with a precision standard, so that every voltmeter leaves the factory as accurate as is humanly possible to make. The largest diameter of the meters is 2 3/4", the diameter of the face being 2 1/2". Construction is sturdy and solid, provision having been made to hang them on the wall, out of harm's way. (Total height is 15 1/2".) Cords have red—plus, positive; black—minus, negative insulated tip terminals. Polarity is instantly known. Only 5 milliamperes of current are consumed by these fine instruments for full scale deflection. The resistance per volt is 200 ohms and thus very accurate results are obtainable. The series resistances used in all Flechthiem Superior Voltmeters are wound with



No. 7926
0 to 600 Volt A.C. and D.C.



No. 7924
0 to 300 Volt D.C.

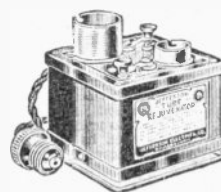


No. 7925
0 to 500 Volt D.C.

a special resistance wire having a low temperature coefficient, so that the readings are always within a 2 per cent range of accuracy. Shipping weight 4 lbs.

No. 7924-AV300. 0 to 300 Volt D.C. List \$6.00. Net \$3.53
No. 7925-BV500. 0 to 500 Volt D.C. List \$8.50. Net 5.00
No. 7926-CV600. 0 to 600 Volt A.C. and D.C. Uses the electro-dynamic principle. Can be used on either direct or alternating current, without changing or modifying the connections in any way. Reversing the polarity of the meter terminals will not affect the reading on A.C. or D.C. It is just the meter for testing A.C. windings and the output voltages of high power eliminators. On full scale deflection of this meter is only 10 mills. List \$12.50. Net 7.35

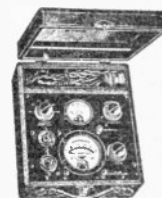
Jefferson Tube Rejuvenator



The burning life of a radio tube is many times greater than its usual effective life. The reason for this is that after the tube has been used for a period, the electrons of thorium on the surface of the filament, which carries the current to the plate, are consumed. To bring back the full usefulness of the tube, more electrons must be brought

to the filament surface. Weight 4 lbs. Plugs into A.C. line.
List Net
No. 8019-175. 100-120 Volts A.C. 50-133 Cycles \$1.50 \$2.65
No. 8020-180. 100-120 Volts A.C. 25-49 Cycles 6.00 3.53

Jewell Portable Tube Tester



Is contained in a genuine morocco leather covered case. Its rectangular panel carries an A.C. voltmeter and a direct current instrument and a transformer for supplying filament energy of 1.1, 1.5, 2.5, 3, 5, and 7.5 volts. Voltages are picked by a selector switch, markings for which are engraved on the panel. Both four and five prong tube sockets are provided. A high resistance rheostat in connection with the A.C. voltmeter compensates for line variations between 100 and 130 volts; or

practically any condition which will be encountered in service. In operation, the correct filament voltage is set on the selector switch, the tube inserted in the socket and the adjusting rheostat turned until the voltmeter registers normal condition. Then the potentiometer knob in the lower right hand corner is adjusted so that the D.C. instrument registers zero. The grid test button is then pressed and the net change in plate current is read directly from the instrument, absolutely eliminating the reading of two values and the subtraction of one from the other. This very important feature makes for greater speed and accuracy in testing—it enables anyone to take values and saves time and effort for the expert. The scale of the D.C. instrument is divided into 100 arbitrary units. For rectifier tubes, such as 251, a push button is pressed and the instrument indicates the rectified current on a 100 milliamperes scale. Double wave tubes, such as the 250, which could not be tested heretofore on commercial tube testing apparatus, are taken care of by an additional push button switch which causes the rectified current of the test plate to register on the 100 milliamperes scale. Operates from A.C. service line. Shipped express collect.
No. 4711-210. List \$65.00. Net... \$47.77

Jewell Transmitting Trio Meters



Consists of 3 types meters—No. 54, 61 and 71. Ideal for short wave transmitters. To build a transmitter without meters, is folly, and not to use Jewell Transmitting meters, is even worse folly. Wide flange mount—overall diameter of same is 3 3/4". Diameter of case is 3". Should be in every laboratory!

Pattern No. 54 D.C. Meters

Direct current instruments. Used to measure the plate voltage in transmitting sets, as well as for general laboratory work where the higher voltages are encountered. Are always supplied with external resistors having moulded bakelite heads, which are ample large to take care of the various capacities. Not intended for "B" eliminator testing.

	List	Net
No. 7815. Choice of ranges: 0-5, 6, 8, 10, 15, 25, 50 Volts.....	\$7.50	\$ 5.52
No. 7816. 0-100 Volts.....	9.00	6.61
No. 7817. 0-150 Volts.....	9.50	6.98
No. 7818. 0-300 Volts.....	12.00	8.82
No. 7819. 0-500 Volts.....	15.50	11.39
No. 7820. 0-750 Volts.....	19.00	13.96
No. 7821. 0-1000 Volts.....	22.50	16.53
No. 7822. 0-1500 Volts.....	28.50	20.91
No. 7823. 0-2000 Volts.....	31.50	25.35
No. 7824. 0-2500 Volts.....	32.50	31.23
No. 7825. 0-3000 Volts.....	49.50	36.38
No. 7826. Choice of 0-1, 3, 5, 10 Amperes.....	7.50	5.52
No. 7827. Choice of 0-3, 5, 10, 15, 25, 50, 100, 150, 200, 250, 300, 500, 1000 Milliamperes.....	7.50	5.52
No. 7828. 0-1 Milliamperes.....	9.00	6.61
No. 7829. 0-2 Milliamperes.....	8.00	5.88
No. 7830. 50-0-50 Galvanometers.....	9.00	6.61

No. 64 Radiation Ammeter

	List	Net
No. 7831. 0-150 Milliamperes.....	\$15.00	\$11.03
No. 7832. 0-250 Milliamperes.....	13.00	9.55
No. 7833. Choice of 0-5, 1, 1.5, 2.5, 3, 5, 10 or 15 Amperes.....	12.00	8.82
No. 7834. 0-100 Galvanometer.....	15.00	11.03

No. 74 A.C. Voltmeters

	List	Net
No. 7836. Choice of 0-10, 15, 25, 50, 100, 150, 200, 250, 300, 500, 1000 Volts.....	\$7.50	\$5.50
No. 7837. 0-150 Volts.....	9.50	6.98
No. 7838. Choice of Ranges: 0-3, 5, 15 Amperes.....	7.50	5.50

NOTE

5 Watt Tubes require a 0 to 10 Voltmeter and 0 to 3 Ammeter. 50 Watt Tubes require 0 to 15 Voltmeter and 0 to 10 Ammeter.

Jewell Pattern 55 Combination Voltmeters



Note self-contained switch on face of instrument. Choice of voltage range by merely moving switch to the left or right. Mounts to panel by 3 holes in wide flange. Hole in panel must be 2 1/4". Largest size available in this type, D.C. only. Shipping weight 3 lbs.

No. 7801. Double Range 0 to 7 1/2 and 0 to 150 Volts. List \$10.00. Net.....	\$7.35
No. 7805. Triple Range 0 to 8—0 to 80 —0 to 160 Volts. List \$12.00. Net....	9.15

Jewell Pin Jack Voltmeter Pattern 135A



Note "phone tips" mounted on rear of this 2" diameter instrument. They can be varied to suit various spacings of "jacks" on panel, into which they are inserted. Can be used with all radios or "A" eliminators requiring this device. Shipping weight 3 lbs.

No. 7806. 0 to 5 volts. List \$7.50. Net	\$4.77
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Jewell "B" Eliminator Checker Pattern No. 139



A small high resistance voltmeter of the D'Arsonval type suitable for use by the individual in checking and adjusting B Eliminator voltages. Scale range of 0-300 volts covers all ordinary requirements. It is a thoroughly high grade instrument and can be depended upon. Shipping weight, 5 lbs.

No. 8028. 0-300 Volts.....	\$12.00	\$7.61
No. 8029. 0-500 Volts.....	16.50	10.51

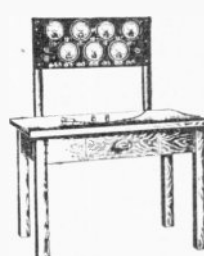
Jewell "B" Eliminator Testers Pattern No. 116



A high resistance Voltmeter which has established a highly satisfactory reputation for accuracy and reliability. High internal resistance requires but 1 1/4 Milliamperes for full scale deflection. 800 ohms per volt. Shows the true voltage which cannot be obtained with the ordinary Voltmeter. Shipping weight, 5 lbs.

No. 8033. 0-50-250 Volts (Two Range).....	\$25.00	\$18.37
No. 8031. 0-250-500 Volts (Two Range).....	32.00	21.50

Jewell No. 580 Test Panel



Accurate and rapid checking of both old and new sets is made possible by the Jewell No. 580 Test Panel. The large instruments with unusually long scales, furnished on this compact panel make for a high degree of speed and accuracy in testing. The compact arrangement permits the panel to be mounted readily on a wall or service table. Every accessory needed for accurate and rapid testing of receivers and tubes is provided. The seven instruments on this panel are all large

test type, approximately 5" in diameter, with long, finely divided scales. The following ranges are provided: 0-75 volts D.C., 0-75 volts D.C., 0-150-300-750 volts D.C., 1,000 ohms per volt; 0-15-150 D.C. milliamperes, 0-4-16 volts A.C., 0-150-750 volts A.C., and 0-1.5-15 microfarads. Binding Posts are supplied so that all instruments can be used individually and with switches to cover all ranges. A plug and cord is provided which in one included with Pattern 139, so that all circuits in the radio set can be tested with the tube, a socket for which is provided in the panel. A pair of outlets is arranged for connection to the 110-volt, 60-cycle A.C. line, so that the line voltage may be read. An outlet is also provided for connecting set on tester. The panel is wired so that the line voltage may be read at will. The 750-volt A.C. range enables testing power pack secondaries for open circuits and the capacity meter which gives direct readings at 115 volts, 60 cycles provides an efficient method of determining condenser values and checking condensers for short circuit. The test panel is of black enameled steel. Shipped express collect.

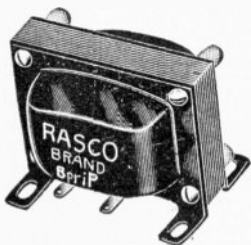
No. 4712-580. Test Panel—No. 580 Table. List \$212.00. Net.....	\$155.82
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Complete with Bench

Illustrated above. The Jewell No. 580 Test Panel can be supplied in conjunction with the bench. The bench is hard maple, 36" high with a top 24"x42". A tool drawer mold is included. There is ample room for assembling or repairing radio sets on this table.

No. 4713-581. Table and No. 580 Test Panel. List \$278.50. Net.....	\$204.71
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Rasco Transformer

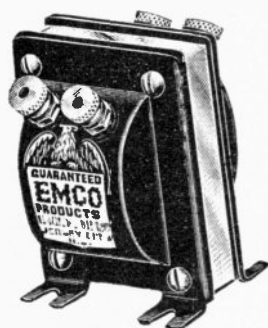


This is made for us by the makers of the Emcotran described below and is of the same general character of construction. Very efficient and very low in price. Guaranteed by the manufacturer and us to be satisfactory. Binding Post Terminals.

Shipping weight 2 lbs.

No. 9502. Ratio 3 to 1. List \$3.50, Net \$1.08
No. 9567. Ratio 5 to 1. List \$4.00, Net 1.18

Emcotran Transformer

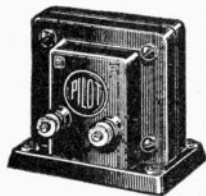


Windings are No. 40 wire. Carefully layer wound, highly insulated, reducing tendency to open circuit, vacuum impregnated to insure against short circuits and changes in characteristics due to moisture. Laminations in the core of very thin rolled silicon steel so designed and assembled to insure even distribution of flux through entire magnetic circuit and low core losses. Connections plainly marked upon each transformer opposite the terminals. Each

transformer individually tested before the Emco guarantee tag can be attached. Coils have a surplus current carrying capacity—ample for any receiving tube. Insulation has been carried out to the last degree—not only between coils, but also between coils and all metal parts. Uniform voltage amplification throughout the entire range of musical frequencies. The flatness of the Emcotran amplification curves throughout this range guarantees distortionless performance. Very compact. Provided with convenient holes in the base for mounting in any position. Shipping weight 3 lbs.

No. 9503. Ratio 3 to 1, Net \$1.20
No. 9568. Ratio 5 to 1, Net 1.30

Pilot Bakelite Case Audio Frequency Transformers



For inexpensive sets, the PILOT bakelite case transformer is ideal, for by careful design a very fine amplification curve is obtained. Moreover, the polished black bakelite case is most attractive in appearance. Be careful not to judge this transformer by its seemingly low price—it boasts of an unusually high quality of performance, being superior to many other higher priced transformers. Note

that they are made in two ratios: $3\frac{1}{2}$ to 1, and 2 to 1. The overall dimensions are $2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ high. Shipping weight 2 lbs.
No. 6565-371. $3\frac{1}{2}$ to 1 ratio. List \$2.25, Net \$1.32
No. 6566. 2 to 1 ratio. List \$2.25, Net 1.32

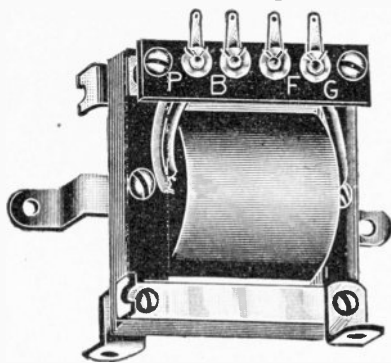
Speaker Output Transformer



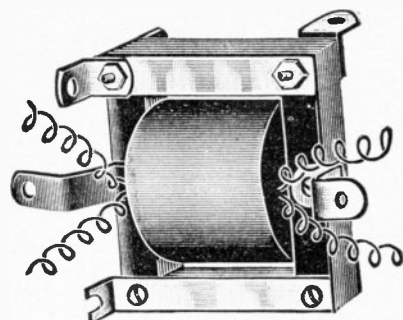
Is enclosed in a neat black crystallized metal case with a Bakelite insulation board on one side holding and insulating a pair of phone jacks into which the loud speaker cord is inserted; and a phone cord on the other side which is inserted in the loud speaker terminals of the radio set. It is designed to be used as a filter to keep the high current required in the plate circuit of power tubes out of the windings of the loud speaker. It not only protects the loud speaker from excessive high current flow, but improves the quality of reproduction because the constant D.C. strain is entirely eliminated from the speaker windings. It is easily connected to any receiver (either inside or outside of the receiver itself, without disturbing present wiring of your receiver) and provides ample protection for the loud speaker where power tubes are used in the receiver. $2\frac{1}{2}$ " high, $3\frac{1}{2}$ " wide, $3\frac{1}{2}$ " deep. Weighs 3 lbs.

No. 5466. List \$6.50. Net \$2.75

Rasco Replacement Audio Transformers



No. 7950
Terminal Strip Model



No. 7900
Flexible Lead Model

In the many hundred orders we receive daily, we have noted a considerable number of them request us to ship "Replacement" transformers. There is a big market for such apparatus, and therefore we decided to design such customers, who certainly know what they want, being right in the field. The exclusive improvements offered are: A choice of either flexible lead connections, or connections to a bakelite strip provided for this purpose—and, what is even more desired, both transformers can be mounted in either of three positions, that is, lying down, or standing up with the core parallel with the base on which it is resting, or standing up with core perpendicular to the base. Other replacement transformers can only be mounted two ways. There are six specially designed feet to provide this most convenient choice of mounting, and any of them can be removed at will, should you so desire. Thus, it is logical to conclude that our Replacement transformers can be installed in ANY receiver, either custom or factory built, no matter how small a space there may be available, whether such mounting is to be above, or beneath, a sub-panel, or baseboard. Please do not confuse the meaning of "Replacement Transformer"—for these are ideal for installation in any new circuit—you must not judge their quality by the seemingly ridiculously low price, which is made possible by manufacturing and selling them in the thousands (many custom set builders order 25 to 50 at a time). The coils themselves are of the first quality, and are only found on the most costly Transformers. The core is the highest grade silicon steel, and of ample proportions. A happy combination of electrical values in both the core, and coil, assure maximum amplification possibilities—more than sufficient volume, yet with no trace of distortion! The silicon steel stampings are very rigidly bolted together by a generous size bar which is attractively nickel plated. The actual overall dimensions are $2\frac{1}{2}$ " long by $1\frac{1}{2}$ " high by $2\frac{1}{2}$ " wide. When resting on the two center "step" angles, the overall dimensions, including the angles, are: $3\frac{1}{2}$ " long by $2\frac{1}{2}$ " wide by $1\frac{1}{2}$ " high. These transformers may cost a few cents more than competitive makes, but, believe us, they are by far worth the difference! All stage ratio ($3\frac{1}{2}$ to 1) is used, now the accepted practice. Not shielded—greatly reducing the cost, yet not detracting any from its performance!

Terminal Strip Model

As illustrated, the primary and secondary leads are spaghetti covered, and unusually well soldered to generous size lugs, to which the connections from the audio circuit are made. Strip is bakelite and properly lettered. Shipping weight 3 lbs. Ratio, $3\frac{1}{2}$ to 1.

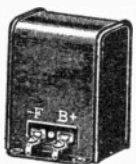
No. 7950. List \$5.00. Net \$1.01

Flexible Lead Model

Many set builders prefer to run the flexible transformer leads direct to their respective connections in the audio circuit. These leads average 8" in length. Ratio, $3\frac{1}{2}$ to 1. Shipping weight 3 lbs.

No. 7900. List \$4.00. Net \$0.80

Karas Audio Transformer



Completely impregnated with an insulating compound of highest quality. Shell is thoroughly sealed. This precaution assures absolute protection to the delicate windings, keeps out the moisture, prevents electrolysis and no matter what the temperature in the place used, the insulating material cannot leak out. Particularly useful in those areas near the sea where salt water air causes serious damage. The Karas "Twenty" Audio has a ratio of 2 to 1 and the Karas "Forty" has a ratio of 4 to 1. All transformers are $3\frac{1}{2}$ " high, $2\frac{1}{2}$ " wide and $2\frac{1}{2}$ " deep all over. The shell is made of steel with a Duco finish. Each is equipped with combination binding post or solder lug terminal carefully marked for easy assembly. Shipping weight 3 lbs.

No. 7478-20 2 to 1 Ratio List \$4.50 Net \$2.65
No. 7479-10 4 to 1 Ratio List 4.50 Net 2.65

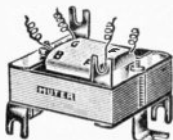
Karas Harmonik Audio Transformer



A very popular transformer for all stages. Very efficient performance, attractive appearance. High amplification without distortion. Specified in many recognized circuits. Shipping weight 2 lbs.

No. 6378. List \$5.00. Net \$2.94

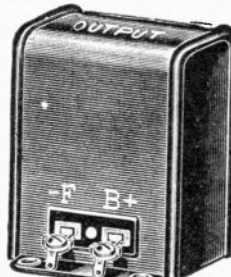
Muter Replacement Audio Transformer



Designed especially for service work, but also excellent for new circuits. Size $2\frac{1}{2}$ " by $2\frac{1}{2}$ " by $1\frac{1}{2}$ ", with brackets that permit mounting in almost any position, either above or below sub-panel, thus making it adaptable for use with practically all sets. High grade silicon steel core, giving full amplification without distortion. Shipping weight 2 lbs.

No. 5319-1575. Universal Ratio. List \$2.00. Net \$1.18

Karas Audio Transformer



Laboratory tests reveal the interesting fact that it amplifies as well as many transformers costing more money. It is encased in a handsome steel shell with black Duco finish. Coil and laminations are of generous design. Terminals are combination binding post type or solder lug type. Size $2\frac{1}{2}$ " deep, $2\frac{1}{2}$ " wide and $3\frac{1}{2}$ " high. Shipping weight 2 lbs. Recommended where a good but inexpensive audio is needed.

No. 7480. List \$3.00. Net \$1.77

F M C Double Impedance Audio Amplifier Units

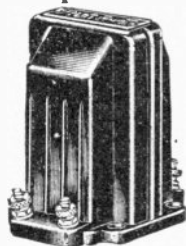


Herein have been combined all the good features of audio frequency amplification transformers, and of impedance coupled transformers, by a very ingenious system, requiring no different wiring than a straight audio frequency transformer. It quadruples the power output of audio tubes, because grid currents are permissible, with no magnetic coupling. The volume is practically unlimited, and there is no tube blocking, due to the condenser discharge through the inductance. The high value of inductances causes all frequencies to be faithfully reproduced. The quality is perfect, a straight amplification curve being possible. Any number of stages may be used without howling. Enclosed in black, crystallized metal cases; all terminals clearly designated on bakelite insulation strips. Kindly state what stage you are ordering—usually three units are required in a complete and most efficient audio amplifier. Shipping weight 2 lbs.

No. 9981. One Complete Stage. List \$6.00. Net \$3.53

PILOT LATEST MODEL A. F. TRANSFORMERS

Output Filter—Output Transformer—Push-Pull Transformer



Modern amplifying tubes and circuits call for 180 up to 450 volts "B" current. The average humidity in most parts of the world is sufficient to provide the almost imperceptible amount of moisture which, absorbed in the windings, offers low-resistance paths for the high voltage. While the most serious result of moisture is the breaking down of the insulation under high voltage strains, thus shorting turns in the windings, it is also responsible for 95 per cent of the open circuits. In such cases corrosion has eaten through the wire and the set stops working altogether. Any one of this series of moisture-proof transformer units is guaranteed to be unaffected after immersion in water for a period of 30 days. This exposure is equivalent to use in the most humid climate for five to ten years. The one-piece bakelite case is used not only because this material is waterproof, but because in some circuits better results are obtained than with steel cases. Laboratory tests showed that the shielding of transformers and chokes is not necessary to prevent magnetic coupling. Such coupling effects are due to faulty transformer design—particularly overloading—and when present cannot be eliminated even by iron cases. If the coil and core are designed correctly, no shielding is needed. If you have been annoyed by loose binding posts on transformers you will appreciate the Pilot method of anchoring square-head screws in recesses moulded into the case. You'll have to break up the case to get the binding post screws loose. The coil and core assembly are sealed in the case after the leads have been soldered to the binding posts. Nothing is left loose to break off or wear out under the most severe vibration. Consequently, these units can be used under all extreme conditions—for sets on board ships, arctic or tropical exploration, airplanes and flying boats, wherever continued operation is vitally important.

Audio Transformers

The primary impedance, under operating conditions, for the 2 to 1 type, is 75 henries, giving an impedance of 471,000 ohms at 1,000 cycles, and for the 3½ to 1 type, is 62 henries, giving an impedance of 390,000 ohms at 1,000 cycles. The characteristics of the transformers match the response curves of the good orthophonic and alplane type speakers to give the best musical reproduction, without over-emphasizing the low notes. With dynamic speakers, the quality is exceptionally fine. Overall size: 3" by 2½" by 2½" high. Shipping weight 2 lbs.

No. 7006-390. 2 to 1 Ratio. List \$2.75.
Net \$1.62
No. 7007-391. 3½ to 1 Ratio. List \$2.75.
Net 1.62

Output Filter

High-voltage amplifiers require the use of an output filter or output transformer. That is because the plate current of the 112, 171, 210, or 250 tubes is too heavy for the load speaker winding. If the plate current through the speaker is reversed, it will demagnetize the magnet. If it aids the magnets, it will saturate the cores and spoil the quality. The No. 392 output filter contains a choke coil which, at 1,000 cycles, carrying 20 milliamperes, has an impedance of 200,000 ohms connected to a condenser of 1 mfd. The high impedance of the choke coil keeps the A.C. from going to the plate supply, so that when signals come in and the plate current varies, the varying current is by-passed around the choke through the condenser and load speaker. In this way, no direct current flows through the load speaker, for it cannot pass the condenser. Only the alternating signal component goes through the speaker. When no signals are coming in, no current flows through the speaker. Overall size: 3" by 2½" by 3½" high. Shipping weight 4 lbs.
No. 7008-392. List \$3.25. Net \$1.91

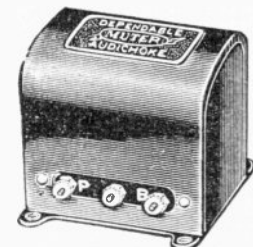
Jefferson Star Audio Transformer



The Jefferson Star Audio Transformer is sealed in the case to prevent open circuits from moisture and is an outstanding example of a low-priced, yet high quality product. The coils are machine wound to insure accuracy and uniformity. The finest rolled silicon steel is used for the laminated core, which is so designed and assembled as to insure even distribution of flux through the entire circuit. Star Transformers are assembled in black enameled sheet steel cases, with a nickel-plated band around the core and have nickel-plated binding posts mounted on Bakelite insulation. The windings are completely shielded and clearly marked for proper connection. Size 2½" high by 2½" wide by 2½" deep, including binding posts. Shipping weight 2 lbs.

No. 7373-113. 3 to 1 Ratio. List \$2.75.
Net \$1.62
No. 7376-116. 5 to 1 Ratio. List \$2.75.
Net \$1.62

Muter Audichoke



A complete audio frequency choke unit containing special low resistance choke and 1 mfd. Heavy Duty Filter condenser. Assembled in highly finished enameled metal container with nickel terminals and doubly sealed against moisture. Size 3" high, 3½" long, 2½" wide. Shipping weight 2 lbs.
No. 7154-3500. List \$5.00. Net \$2.94

Output Transformer

Serves the same purpose as the Pilot output filter. The action is different, however, for current is induced in the secondary winding when incoming signals cause variations in the plate current flowing through the primary winding of the transformer. The selection between the output filter and the output transformer is a matter of preference. The purpose of protecting the loud speaker is served by either device. Some set builders feel that better quality is obtained with the filter, while many find results superior with the output transformer. Overall size: 3" by 2½" by 3½" high. Shipping weight 2 lbs.

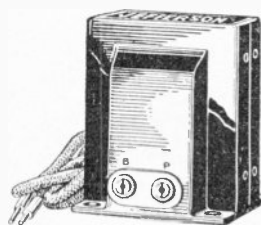
No. 7009-391. List \$2.50. Net \$1.47

Push-Pull Transformers

When better quality is required than can be obtained with a single 171 tube in the last stage, the push-pull circuit should be used. The advantages of this type of last-stage amplifier are well known, although there is some misunderstanding as to the tubes which should be used. Pilot engineers have found by actual test that two 171 tubes in a push-pull circuit give practically as good quality as two 210 tubes. In fact, it is not worth while to use anything more than 171 tubes unless you want to use two 250's. Any of the new dynamic or alplane type loud speakers, as well as the orthophonic speakers can be operated at maximum efficiency with the 171 push-pull circuit. The No. 393 transformer is used for the push-pull input, and the No. 101 former is preferred to an output transformer because of the improvement in the quality. The Pilot No. 391 transformer is recommended for the first audio stage. This type of amplifier will give you quality such as you might expect from much more expensive push-pull transformers. Same size as regular transformers. Shipping weight 2 lbs. each.

No. 7010-393. Push-Pull Input Transformer. List \$3.00. Net \$1.77
No. 7011-401. Push-Pull Output Impedance. List \$3.00. Net 1.77

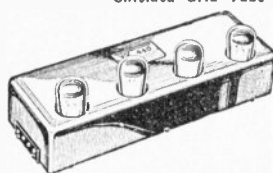
Jefferson Output Transformer



Is designed for installation between the loud speaker and the power tube to purify and improve the tone of the speaker, to allow more volume without distortion, and to prevent possible burnouts by keeping the heavy plate current out of the speaker windings. Assembled in a beautifully enameled upright case to match the Concertone Audio Transformer. Supplied with 30 inches of cord equipped with telephone tips and pin type jacks to receive the tips of the speaker cord. 3½" high, 2½" wide, 3" deep. Shipping weight 4 lbs.
No. 7372-393. List \$6.00. Net \$3.53

Silver-Marshall Jewelers' Time Signal Amplifiers

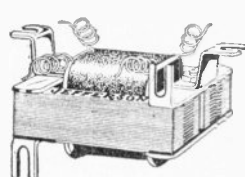
Shielded Grid Tube Model



The S-M Time Signal Amplifiers are known the world over for their high amplification and positive accuracy of peaking. They are three stage long-wave R.F. amplifiers sharply tuned to 112 K.C. for reception of Arlington (NAX) time signals. Each R.F. stage is individually shielded to prevent coupling and pick-up, and the entire amplifiers are housed in lacquered copper shielding cases. The selectivity is so great that interference from other wavelengths is impossible. Thousands of these amplifiers are in use.

No. 7143-440SG. JEWELERS' TIME SIGNAL AMPLIFIER. Three-stage long-wave R.F. amplifier and detector, as described above, for three U222 (4X222) screen grid tubes and one 1X200A (6X300A) detector. Laboratory tuned and calibrated and housed in a

Jefferson Replacement Audio Transformer

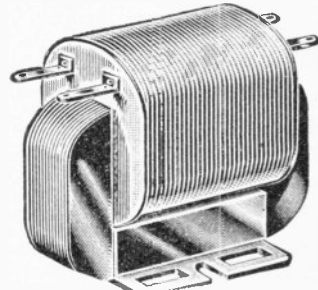


Makes an ideal replacement job, because of its high quality and low price. It is small and compact, so that it will fit under the sub-base and can be used in practically any set. For that matter, it can also be mounted either on top of a sub-panel, or on a baseboard.

A radio repair man should always have a few on hand. It is efficient, gives full amplification, and reproduces the tones purely and naturally. Made of the best materials and built to Jefferson standards. Unshielded, but has two brackets for mounting. Overall dimensions are: 1½" high by 2½" wide by 2½" deep. Weight 1 lb.

No. 7370-370. List \$2.25. Net \$1.32

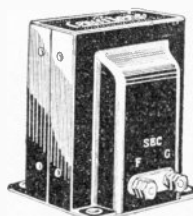
Karas Universal Transformer



Very popular with set builders and radio service men because of its compact size and universal application. Faithful reproduction—excellent tone quality. Soldering lugs are easily accessible, clearly marked, and installation is quick and easy. The heavy base is slotted and will fit practically any setting of mounting holes. It is small, compact, and will fit into any allowable space on any size of type of receiver. Size 2¼" high, 2½" wide, 1½" deep. Shipping weight 2 lbs.

No. 7481. List \$2.25. Net \$1.32

Jefferson Concertone Audio Transformer



Designed to amplify, evenly and uniformly, all notes within the musical scale in sets using A.C. or batteries. The Concertone transformers have a delicacy of balance, which comes from sufficient winding and large core, to get an even amplification factor at low frequencies, yet such that the capacitance of the secondary is low enough to prevent resonant peaks at the higher frequencies. Its distance, and reproduction of clear, pure and undistorted and rich overtones so essential to true tonal quality. Heavily insulated throughout, safe for use with power tubes, assembled and sealed into a beautifully black enameled metal case. The primary impedance is extremely high and exactly correct for A.C. tubes. Sealing makes it impervious to moisture and eliminates the possibility of an open primary. Shipping weight 4 lbs. high by 2½" wide by 3½" deep. Shipping weight 4 lbs.
No. 7371-102. 3 to 1 Ratio (For All Stages) \$3.53
List \$6.00. Net \$3.53

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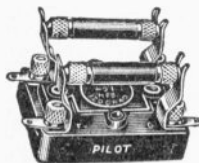
No. 7371-102. 3 to 1 Ratio (For All Stages) \$3.53
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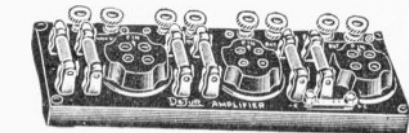
Pilot Resistoblock



Ideal for installing resistance coupled amplification in any commercial or custom built receiver. Every set builder appreciates the convenience and neatness of this unit. A recess in the base takes any Isorad condenser, permitting a choice of capacities. The base is of molded Bakelite. Electrically and mechanically this resistance stage block has no superior. It is certainly cleverly constructed—and yet very inexpensive. The plate resistors should be 100,000 (1) ohms in all stages, and a 1 megohm grid leak for the first stage, and a .5 grid leak for the second stage, and a .25 grid leak for the third stage are required. Overall dimensions are 2 1/4" x 1 1/2" x 1 1/2" high.

No. 5620-500. Resistoblock, with .01 mfd. Isorad condenser screwed in base, no resistances. List \$1.25. Net. \$0.74
No. 5621-501. Resistoblock, without condenser or resistances. List \$0.50. Net. 0.30
No. 5690. Resistoblock, with 2 resistors and .01 fixed condenser. Be sure to state what stage you are ordering. List \$1.75. Net. 1.03

De Jur Resistance Coupled Amplifier—Assembled



A 3-stage non-inductive resistance coupled amplifier reproducing tonal qualities second only to your actual presence at the broadcast studio. Entirely molded of Genuine Bakelite. U.X. sockets are adaptable to old U.V. type and new U.X. type. Connections are not soldered, no screws, no bolts; all connections are metal RI-ETED STRIPS, assuring noiseless operation. Fool-proof. Product of good volume with no distortion. All connections lead to patent binding posts, plainly marked. Can be used with any tubes—CX340 are particularly recommended. Overall size is 3 1/2" x 9". Shipping weight 3 lbs.

No. 9644. List \$8.00. Net. \$4.70

National Impedaformer

TYPE "B"



This type embodies the Audio Frequency Choke Coil, 0.1 Mfd. Condenser and Grid Leak in a single unit, thus facilitating the assembly of the amplification units and saving space. In each set of three impedaformers one is marked first stage, which includes a Radio Frequency Choke Coil and is used in the First or Input Stage of Amplifier. There is also a Third Stage Unit in which the Impedance or "Choke-Coil" is placed in the Grid Circuit and the Resistor in the Plate Circuit. Very compactly made. Face plate is of Bakelite, with white engraved terminal designations. The case is an attractive crystallized black finish. Shipping weight 2 1/2 lbs.

No. 6011. Each Stage. State stage desired. List \$5.50. Net. \$3.23

National Tone Filter



Contains an impedance of the proper value through which the plate of the Power Tube is supplied, and which will vary as high as 35 mfd. continuously without heating or saturation. Also used in the Tone Filter is a 2 Mfd. Tube Filter Condenser. All D.C. is kept out of the speaker windings. Supplied with 5 foot phone cord. Phone tip jacks on bakelite face plate receive input phone cord and loud speaker tips. Dimensions: 2 1/2" wide x 4" deep x 3 1/4" high. Shipping weight 2 1/2 lbs.

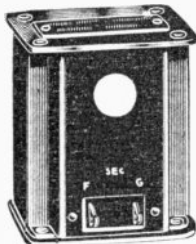
No. 6042. Including Phone Cord. List \$8.00. Net. \$4.70

National Scratch Filter

The purpose of this filter is to greatly reduce the "needle scratch" heard from the loud speaker when using one of the several types of electrical phonograph pick-ups in connection with an audio frequency amplifier for playing phonograph records electrically. The terminals of the filter are connected across the output of the pick-up—this suppresses the greatest possible amount of "needle scratch" with the least possible suppression of the upper musical notes. Shipping weight 2 1/2 lbs.

No. 6043. List \$5.50. Net. \$3.23

Sangamo Audio Transformers



Is capable of practically uniform amplification to all frequencies from the lowest to the highest. Designed to deliver maximum performance with all power tubes and types of speakers, distortion being entirely absent. Has a special alloy core. A colored spot on transformer denotes type. All are 3" high by 2 1/2" wide by 3 1/4" deep. Shipping weight 1 lbs.

Type A Yellow Spot Transformer—For any straight audio amplification stage. No. 7489-A. List \$10.00. Net. \$5.88

Type B Blue Spot Push-Pull Input Transformer—Maximum amplification at low frequencies. Frequency characteristics of each half of secondary winding are practically identical. No. 7490-B. List \$12.00. Net. 7.06

Type C-171 Green Spot Push-Pull Output Transformer. No. 7491-C. List \$12.00. Net. 7.06

Type D-210 Dark Blue Spot Push-Pull Output Transformer. No. 7492-D. List \$12.00. Net. 7.06

Type E Red Spot Output Impedance—Protects windings in speaker. Impedance can be matched to various type power tubes. No. 7493-E. List \$5.00. Net. 2.94

Type F Orange Spot Plate Impedance—Prevents "motor-boating." Can also be used in an impedance coupled amplifier. No. 7494-F. List \$5.00. Net. 2.94

Sangamo "X" Transformers

Newly introduced. Sangamo quality dominates throughout! One hundred per cent satisfactory performance! Size 3" x 2 1/2" x 2 3/4". Shipping weight 3 lbs. No. 7495-AX. Audio Transformer. List \$6.00. Net. \$3.53

No. 7496-BX. Push-Pull Input Transformer. List \$6.50. Net. 3.82

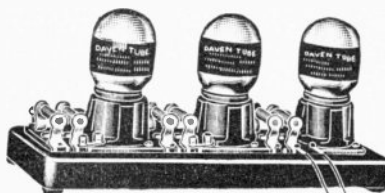
No. 7497-CX. Push-Pull Output Transformer. For use with 171 or 250 tubes. List \$6.50. Net. 3.82

No. 7498-DX. Push-Pull Output Transformer. For use with 210 or 112 tubes. List \$6.50. Net. 3.82

No. 7499-GX. Push-Pull Output Transformer. For use with 210 tubes, and dynamic speakers. List \$6.50. Net. 3.82

No. 7501-HX. Push Pull Output Transformer. For use with 171 or 250 tubes, and dynamic speakers. List \$6.50. Net. 3.82

Daven Super Amplifier

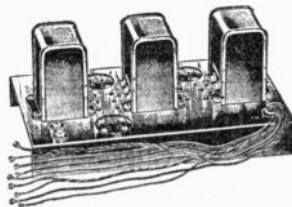


"C" battery connections are on every stage to insure smallest "B" battery current drain, longest tube life and greater undistorted power output. Made of molded Bakelite and equipped with Daven Glasters and Daven type "A" condensers. 10 1/2" long by 3 1/2" wide by 7/8" high. Easily attached to any set or incorporated into any circuit. Complete installation instructions for every type of set included in each individual carton. Shipping weight 3 lbs.

No. 5660. Complete (without tubes). List \$12.50. Net. \$7.35

The well posted radio service man will always have on hand several RASCO REPLACEMENT TRANSFORMERS.

Karas A.C. Push-Pull Amplifier



Designed for use with any A.C. receiver. The tone is vastly improved because of greater, more perfect amplification and the entire absence of distortion. Consists of one new "Karas Forty" audio transformer and one pair of new Karas Push-Pull transformers—that is, it consists of a first audio stage, and then one push-pull stage. These are mounted on a steel base. The job is completely assembled and wired. All connections are underneath the base—out of sight. No wiring necessary except the external connections to the receiver. To set builders, dealers and service men, this amplifier provides an amazing profit opportunity due to the insistent demand for better, clearer, more life-like reproduction. Three tubes are required, one 201A (or 112A) and two 171A's. Note the cable, which is connected to the proper voltage terminals on the power supply. The dimensions overall are 4 1/2" high, 6" wide and 10" long. The most compact amplifier ever built. Shipping weight 12 lbs.

No. 7466. Wired. (Less Tubes). List \$25.00. Net. \$14.70

Na-Ald

Truphonic Amplifier Kit



The No. 303 Truphonic Amplification Set consists of three Truphonic Couplers, including one special first stage coupler and mounting brackets. This set is recommended for set builders and service men who desire to build Truphonic amplification into a new set or replace the old audio amplifier with Truphonic. The units, being compact, can be built into a small space. They will fit space previously occupied by a resistance coupled amplifier. The compact detachable brackets permits the couplers to be mounted in various positions, either above or below sub-panels or on baseboards. Makes an ideal Television amplifier. This amplifier will give 50 per cent more volume than resistance coupled amplifiers. Each unit measures 2 1/4" x 2 1/4" x 1 1/2". Directions are included showing how the power tube can be lighted from A.C., reducing the load on the A battery. Shipping weight 4 lbs.

No. 7464-303. Amplification Set. List \$15.00. Net. \$9.00

Truphonic Output Unit

For improved quality, and to protect the speaker against burning out and demagnetizing this output unit is recommended, particularly when power tubes are used.

No. 7446-300. List \$5.00. Net. \$3.00

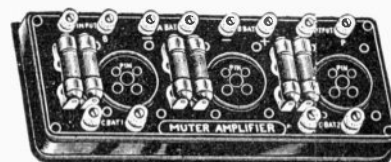
Daven Anti-Motorboater



At last it is possible to use a "B" eliminator with any set equipped with Resistance Coupled Audio Amplification. The old trouble of "motor-boating" is entirely eliminated with the new Daven Anti-Motorboater, a development after a year's experiments. The Daven Anti-Motorboater is extremely simple to install. It is merely necessary to remove the middle grid leak in the amplifier and replace it with the cartridge. No external connections of any kind are necessary. Shipping weight 3 lbs.

No. 5801. List \$4.00. Net. \$2.35

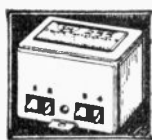
Muter Assembled Resistance Amplifier



Molded bakelite base, size 9" long by 3 1/4" wide. Expressly designed for the new UX-240 and CX-340 tubes with provision for proper "C" batteries. Completely equipped with heavy duty resistances and condensers. Metal parts highly nickel-plated. Completely wired and ready for quick installation. Full instructions are included showing use with all types of tuning circuits. Shipping weight 3 lbs.

No. 5320-1100. 3 Stages. List \$8.00. Net. \$4.70

Silver-Marshall 255-256 Audio Transformers



No. 255 First Stage Audio Transformer. Designed for use between any standard detector and first stage amplifier tube to provide a rising curve between 65 and 3,000 cycles, the same amplification at 65 as at 1,000 cycles, and a flat curve up to 5,000 cycles. Effective transformation ratio 4.2 to 1. An ideal impedance matching transformer for coupling any magnetic record pickup to an amplifying tube, and when used will boost volume tremendously. Shipping weight 2 lbs.

No. 7056-255. List \$6.00. Net..... **\$3.53**

No. 256 Second Stage Audio Transformer. A companion transformer to type 255 for use between standard first and second stage amplifier tubes to provide a similar curve. Effective transformation ratio 3.5 to 1. An audio amplifier using one 255 and one 256 transformer will give the same amplification at 65 cycles as at 1,000 cycles, a rise between 65 and 3,000 cycles and a flat curve on up to 8,000 cycles or more. Shipping weight 2 lbs.

No. 7057-256. List \$6.00. Net..... **\$3.53**

No. 251 Output Transformer or Impedance. A combination variable ratio output transformer, choke and condenser tone filter, and tapped impedance. Recommended as a tone filter and is provided with taps exactly matching it to either, 112 and 210 or 171 and 250 type power tubes. Boosts low-note reproduction. May be used with 210 or 250 type tubes when an external 1 mfd. 600 volt condenser is added. Shipping weight 2 lbs.

No. 7058-251. List \$6.00. Net..... **\$3.53**

Silver-Marshall 225-226 Audio Transformers



These new transformers operate on the entirely new Kendall Clough system of amplification.

No. 225 First Stage Audio Transformer

Designed for use between any standard detector and first audio tube to provide a flat amplification curve up to 5,000 cycles, rising somewhat below 300 cycles, and with actually greater amplification at 32 cycles than at 1,000 cycles. Effective transformation ratio 4.3 to 1. Shipping weight, 3 lbs.

No. 7059-225. List \$9.00. Net.... **\$5.29**

No. 226 Second Stage Audio Transformer. A companion transformer to type 225 for use between standard first and second stage amplifier tubes to provide a similar curve. Effective transformation ratio, 3.5 to 1. An audio amplifier using one S-M 225 and one S-M 226 will give the same amplification at 32 cycles as at 1,000 cycles, a rise between 32 and 300 cycles, and a sharp cut-off between 5,000 and 8,000 cycles. No finer amplifier could possibly be constructed. Shipping weight, 4 lbs.

No. 7060-226. List \$9.00. Net.... **\$5.29**

No. 223 Hi-Mu Audio Transformer

Designed especially for use between a 1X222 (GX322) first stage screen grid tube, used with space charge connection, and any standard power output tube to provide an absolutely flat amplification curve from 32 to 5,000 cycles and an average voltage amplification of 42 per stage. Shipping weight, 3 lbs.

No. 7061-223. List \$9.00. Net.... **\$5.29**

NEW SILVER-MARSHALL TRANSFORMERS

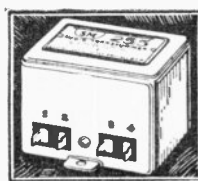


Type 257

Push-Pull Input Transformer

A companion to the popular 255 and 256 audio transformers, and is housed in the same type of case. Its effective transformation ratio is 1.8:1 and its frequency characteristic flat from 45 to 8,000 cycles when operating out of any standard amplifier tube and when feeding into two standard or power amplifier tubes, including the forthcoming intermediate power tube. Shipping weight 3 lbs.

No. 6739-257. List \$7.00. Net..... **\$4.12**



Type 258

Push-Pull Output Choke

Designed to couple two 171A or equivalent tubes in push-pull to any standard loud speakers. Its core will not saturate at the plate currents of 171, or of the new intermediate power tubes, and it is designed to facilitate obtaining maximum undistorted power output. In 250 type case. Generally used with Type 257 Input Transformer. Shipping weight 3 lbs.

No. 6740-258. List \$5.00. Net..... **\$2.94**

Type 227 Interstage Push-Pull Input Transformer

Designed to couple two standard voltage amplifier tubes to two more such tubes, or into two power amplifier tubes. Its effective transformation ratio is 1.8:1 and its frequency characteristic flat from 20 to 10,000 cycles. (Television experimenters, please note!) Is 3% high. Shipping weight 4 lbs.

No. 6741-227. List \$8.00. Net..... **\$4.70**

Silver-Marshall Transformers



220 AUDIO TRANSFORMERS

Provide substantially straight-line amplification from 30 to 5,000 cycles (at 30 cycles, approximately 90 per cent of the amplification obtained at 1,000 cycles). After 5,000 cycles the amplification falls off rapidly to compensate against static, regenerative squeals and noise level beyond the musical range. Turn ratio 3:1 for both first and second stage operation with any standard tubes. Shipping weight 5 lbs.

No. 5523-220. List \$8.00. Net.... **\$4.70**

221 OUTPUT TRANSFORMERS

For use between the last power tube and loud speaker to prevent "blasting" or damage to the speaker from direct current. Brings out absent low notes, by virtue of the primary winding's impedance being suited to the output impedance of the power tubes, and the secondary winding matching the impedance of standard cone speakers. Shipping weight 5 lbs.

No. 3524-221. List \$7.50. Net..... **\$4.41**

222 OUTPUT TRANSFORMER

Same as No. 221, described above, except that it is equipped with 4 phone-tip jacks and 5-foot heavy duty extension cord, instead of 4 binding posts.

No. 5525-222. List \$8.00. Net.... **\$4.70**

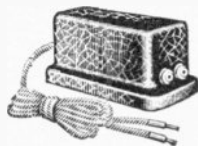
S-M Transformers are encased in black japanned drawn steel cases (height 3 3/4", length 3 3/16", breadth 2 1/2").

S-M Microphone Transformer

A microphone transformer designed to meet the need for a good microphone coupling transformer for single or double button microphones or as a line input transformer for coupling a telephone line to an amplifier tube. Consists of two separate primary windings and one secondary winding mounted on core and frame (unshielded). The characteristics are: Inductance of primary (each half) .333 henries, D.C. resistance of primary (each half) 5.4 ohms, inductance of secondary .552 henries, D.C. resistance of secondary 8.500 ohms. Size, 3% high, by 2 1/4" by 2 3/4", fully mounted with soldering lugs. Shipping weight 3 lbs.

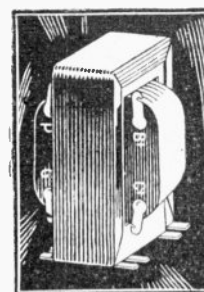
No. 7138-212. List \$7.00. Net.... **\$4.12**

Amsco Orthophone



The Orthophone is an output device incorporating carefully designed reactors for connection between the last tube of an amplifier-receiver combination and the loud speaker. So connected, it protects the speaker, reduces mechanical rattling, increasing the amount of power it is possible to output from the speaker without distortion. The relatively intense direct plate current passes through the windings of the Orthophone, while the alternating current component, which produces the sound impulses, is shunted through the speaker. The isolation of the direct current from the speaker windings prevents the possibility of demagnetizing polarized speakers through reversed connections. Effects a desirable impedance balance between the speaker and the output tube, enhancing the reproduction of the low tones. Enclosed in a handsome Bakelite case. Note phone tip jacks built in. Connection cord to receiver furnished.

No. 7459. List \$6.00. Net..... **\$3.53**



Silver-Marshall Audio Replacement Transformers

Type 260T replacement type audio transformer is intended for use where uniform amplification from 200 to 5,000 cycles is required, with a gradual fall-off below 200 cycles. It is small and compact, being only 1 1/2" wide, 1 1/2" thick, and 2 7/16" high. Ratio 3:1—universal for all circuits and tubes. Can be used to advantage in new sets, as well as for replacement purposes. Soldering lug terminals. Shipping weight 3 lbs.

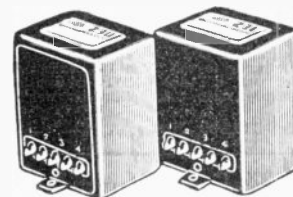
No. 6748-260T. Upright Mounting. **\$1.32**

List \$2.25. Net.....

No. 6749-260S. Side Mounting. List **\$1.32**

\$2.25. Net.....

Silver-Marshall Push Pull Transformers



OUTPUT

For use either in conjunction with No. 230, listed below in push-pull circuits or as a straight output transformer similar to the S-M No. 221, for by virtue of the center-tapped primary of this No. 231 transformer the output impedance of the 112

and 210 tubes or of the 171 tube can be accurately matched. Shipping weight 5 lbs.

No. 5534-231. List \$10.00. Net.... **\$5.88**

INPUT

Suitable for use either in the highest quality push pull power amplifier that can be built or as a variable ratio straight audio transformer, 6:1 or 3:1, by virtue of its center-tapped secondary. In 3:1 ratio same characteristics as No. 220 audio transformer. Shipping weight 5 lbs.

No. 5533-230. List \$10.00. Net.... **\$5.88**

Silver-Marshall Transformers Series 240

AUDIO TRANSFORMER

Possessed of the same popular high frequency cut-off as type 220, amplification falls off rapidly above 5,000 cycles to compensate against static, regenerative squeals, and noise level above the musical range. Turns ratio, 3:1, for both first and second stage operation with any standard tubes, 3% high by 2 1/4" by 2 3/4", fully mounted with lugs, as illustrated. Shipping weight 3 lbs.

No. 7133-240. List \$6.00. Net..... **\$3.00**

S-M OUTPUT TRANSFORMER **\$2.50**

No. 7134-241. List \$5.00. Net..... **\$2.50**

S-M AUDIO AND OUTPUT CHOKE **\$2.50**

No. 7135-243. List \$5.00. Net..... **\$3.50**

S-M PUSH-PULL INPUT TRANSFORMER **\$3.50**

No. 7136-245. List \$7.00. Net..... **\$3.50**

S-M PUSH-PULL OUTPUT TRANSFORMER **\$3.50**

No. 7137-246. List \$7.00. Net.....

Type 228 and 248 Universal Output Chokes

Are intended to couple two 1X171A, or two of the new intermediate power tubes, or more particularly, two 1X250 tubes, in push-pull to any normal combination of one to eight standard loud speakers. For impedance matching purposes, each choke is provided with two end leads and a center tap (B-T) and, in addition, two extra pairs of taps to accommodate any normal series or series-parallel arrangements of one to eight standard magnetic or dynamic speakers. They will handle the full undistorted power output (or more) of two 1X250 tubes without core saturation or observable distortion. Shipping weight 4 lbs.

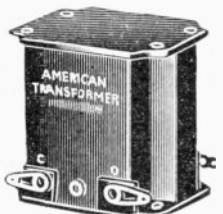
No. 6742-248. Open Mounting Case. **\$4.12**

List \$7.00. Net.....

No. 6743-228. Shielded Case. List **\$4.71**

\$8.00. Net.....

AmerTran De Luxe Audio Transformers



The acknowledged audio transformer! Known throughout the world, having earned first place for superior merit merely on its superior performance. Made in two types, the first stage turn ratio is 3, the second stage turn ratio 4. Completely shielded and sealed in with a weatherproof compound. High permeability alloy is used in the cores. Shipping weight 2 lbs.

No. 6467, 1st Stage, List \$10.00, Net. **\$5.88**
No. 6468, 2nd Stage, List \$10.00, Net. **\$5.88**

Push-Pull Transformers

INPUT

An interstage audio transformer with a high permeability coil and primary impedance, and frequency characteristics similar to that of the second stage AmerTran De Luxe Transformers. Its secondary is designed to work equally well into the grids of all standard power tubes, connected in push-pull fashion. Shipping weight 2 lbs.

No. 6477-151, List \$15.00, Net. **\$8.82**

OUTPUT

Designed to work out of two 1X210 or similar power tubes. High permeability alloy used in the core. Impedance ratio 4:1. Shipping weight 2 lbs.

No. 6178-152, List \$15.00, Net. **\$8.82**

OUTPUT

This transformer is similar to the Type 152, except it is designed to work out of two 1X171 or similar power tubes. Impedance ratio 2:1. Shipping weight 2 lbs.

No. 6479-271, List \$15.00, Net. **\$8.82**

Samson Helical Wound Transformers



Helically wound and thus give superior results in all circuits and receivers. Recommended for their wonderful tone quality by all leading engineers, and all-around efficiency. Shipping weight 1 3/4 lbs.

No. 6611, Standard Transformer (Type 1W-A3), Ratio 3:1, List \$5.00, Net. **\$2.94**

No. 6613, Standard Transformer (Type 1W-A6), Ratio 6:1, List \$5.00, Net. **2.94**

No. 6614, Symphonic Transformer, List \$10.00, Net. **5.88**

No. 6616, Plate Impedance (Type P), List \$5.00, Net. **2.94**

No. 6617, Grid Impedance (Type G), List \$1.50, Net. **2.65**

No. 6618, Dual Impedance (Type D), List \$5.00, Net. **2.94**

No. 6619, Output Impedance (Type O), List \$5.00, Net. **2.94**

Symphonic Push-Pull

This comprises one Symphonic Push-Pull input transformer, Type "Y," and one Symphonic Push-Pull output impedance, Type "Z."

No. 6615, Reg. Pair, List \$19.50, Net. **\$11.47**

No. 6620, Push-Pull Output Impedance (Type Z), List \$5.50, Net. **3.26**

No. 6621, Symphonic Interstage Push-Pull Transformer (Type Y), List \$14.00, Net. **8.23**

Samson R. F. Choke Coils

These are also Helically wound radio frequency choke coils. Used to keep all R.F. currents from going astray. Every receiver should use between the detector plate and P on first audio transformer. Shipping weight 3 ozs.

No. 6622, 1/2 Henry, List \$2.75, Net. **\$1.62**

No. 6623, 250 Millihenry, List \$2.25, Net. **1.32**

No. 6624, 85 Millihenry, List \$2.00, Net. **1.18**

Samson Audio Frequency Chokes

Helically wound A. F. Chokes to be used in A. F. "R" battery leads to keep the stages isolated. Shipping weight 1 lb.

No. 6625, 3 1/2 Henries, List \$3.25, Net. **\$1.91**

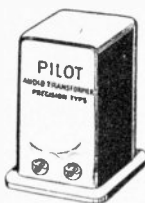
No. 6626, 30 Henries (for power supply use), List \$5.00, Net. **2.94**

Samson Amplification Book

Explains all audio amplification systems used, and illustrates them thoroughly. Shows in an unbiased manner all of their good and bad points. Shipping weight 3 ozs.

No. 6627, Net. **\$0.17**

Pilot Giant A.F. Transformer



Quality amplification brought down to a price! Some will say—Impossible! Hereafter, their contention would have been quite correct—but then, Pilot is known to succeed where others try or fear to tread! The tremendous amplification and absence of distortion this Giant transformer is capable of, is not solely due to its largeness—correct engineering design is more than 90 per cent the dominant factor. Handsomely encased in black metal boxes—terminal screw connections. Can be used with all amplifier tubes, including the 210 series. Overall size: 2 9/16" wide, 3 11/16" long, 3 11/16" high. Shipping weight 4 lbs.

No. 7748-381, Ratio 3 1/2 to 1, List \$5.00, Net. **\$2.94**

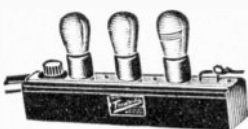
Pilot Giant A.F. Output Choke



Since the advent of last-stage audio amplifier tubes using 135 volts or more, the output choke has become an essential radio part. D.C. plate current flows through the choke, but no direct current can go through the loud speaker because of the 2 mfd. condenser in the circuit used. When signals come in, however, the audio frequency currents cannot pass the choke, because of its high impedance, but flow through the 2 mfd. condenser and into the speaker. Thus the magnets are relieved of the heavy, constant D.C. current, and are acted upon only by A.C. speech currents—does not introduce distortion. D.C. resistance of 450 ohms, and carries up to 60 mills at 500 volts.

No. 7747-383, List \$4.00, Net. **\$2.36**

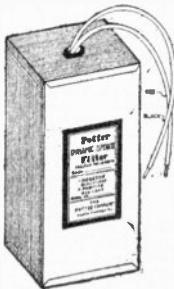
Na-Ald Truphonic Amplifier



Employs a new system of coupling which balances the essential coupling elements with such precision that losses are eliminated, distortion is impossible, and perfect reproduction is assured—yet, enormous volume is produced, and every frequency in the audible range is given full value in the reproduction thereof. Can be attached to your present receiver in a few minutes by means of a special cable furnished for the "A" and "B" battery connections, plus one simple additional connection to your receiver. Only three tubes are employed after the detector tube. It is attractive enough in appearance to be set outside of the cabinet, yet compact enough to even be installed within. The casing is of lacquered steel. The radio tubes fit into a genuine highly polished bakelite socket strip on which are also mounted a rheostat and phone tap jack for the output.

Size 12 1/2" x 3 1/2" x 2 1/4". Weight 6 lbs.
No. 9709, Amplifier, including cable, but no tubes, List \$25.00, Net. **\$14.70**

Potter Dynamic Speaker Filter



Gives "hum-free reception" from A.C. operated dynamic speakers. Silences the bothersome hum which is present in the A.C. operated dynamic speaker using the low voltage type rectifiers. Easy to install—all that is necessary is to connect the two leads provided on this filter to the output of the rectifier and across the dynamic speaker field as shown in diagram furnished. Permanently sealed in a metal container 2 3/16" x 2 3/4" x 6" high with an attractive black finish.

No. 5277, List \$4.75, Net. **\$2.80**

"Hegehog" Miniature Audio Transformer

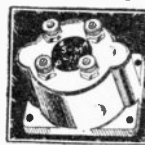


Though the "Hegehog" Transformer is only a fraction of the size of the usual audio frequency transformer, it combines the two essentials of an audio frequency transformer as do most larger transformers. These two qualities are great volume and superb tone quality. It occupies about one-half of the space required by other transformers and therefore lends itself readily to portable sets or to mounting under a sub-panel or any convenient place where space could be saved in an assembly. The overall dimensions are 1 1/2" high, 1 1/2" wide and 1 3/4" long. Weighs only 5 1/2 ozs. Shipping weight 2 lbs.

No. 5971, 3 to 1 Ratio, List \$3.50, Net. **\$1.98**

No. 5972, 5 to 1 Ratio, List \$3.50, Net. **1.98**

Silver-Marshall Long Wave Transformers



The S-M 210 iron core transformer is particularly suited for use with the new 1X222 (CX322) screen grid tube, giving tremendous amplification in long wave amplifiers, with unusual selectivity. Both transformers are housed in a neat black genuine Bakelite case (size 2 3/4" long, 1 1/4" wide, 1 1/4" high), provided with knurled terminal nuts.

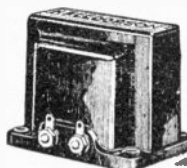
No. 7070-210 Long Wave Transformer. An iron core transformer of exceptional amplification, supplied at any desired peak frequency from 50-60 K.C. for 201A type tubes, or from 60 to 70 K.C. for .99 or 222 type tubes. Shipping weight 1 lb.

No. 7070, List \$6.00, Net. **\$3.53**

No. 7071-211 Long Wave Transformer. This is a sharply tuned air core transformer. Supplied tuned with a fixed primary capacity, at any desired peak frequency from 50 to 70 K.C. for any type of tubes. Shipping weight 1 lb.

No. 7071, List \$6.00, Net. **\$3.53**

Halldorson Precision Long Wave Transformers



These transformers are the result of precision methods and extremely careful and accurate calibration. Assembled, calibrated, tested and retested by skilled craftsmen, they are built to meet the most rigid inspection that a long wave transformer can be subjected to, its ability to give maximum amplification over a ten kilocycle band and to

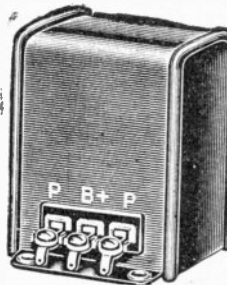
exclude any energy on either side of this narrow band.

Shipping weight 2 lbs.

No. 5390-540, 1 C, List \$6.00, Net. **\$3.53**

No. 5391-541, 1 Filter, List \$6.00, Net. **3.53**

Karas Push Pull Transformers



Karas Push-Pull transformers are matched units so that the circuit may be perfectly balanced. They can be successfully used to replace the last audio stage or for building any new circuits where Push-Pull system is used. The size is compact, 3 1/2" high, 2 5/16" wide and 2 1/2" deep. They are supplied in combination binding post or solder lug terminals. As with all push-pull transformers, no additional output transformer or speaker filter, is required. The Karas

output transformer listed below protects the speaker from excessive currents. Shipping weight 3 lbs.

No. 7475, Push-Pull Input Transformer, List \$5.00, Net. **\$2.94**

No. 7476, Push-Pull Output Transformer, List \$5.00, Net. **2.94**

Electrad Truvolt



"Truvolt" is a variable wire resistance. The resistive element is a copper-nickel alloy wire, high in quality and with temperature coefficient practically nil. Nichrome wire is closely wound on an asbestos cord having an enameled covered copper core. The whole in turn is wound on an Isolantite tube, making the complete resistance unit. As the resistance is wound openly around an Isolantite tube, the full length of the wire is exposed for the dissipation of heat directly into the air. A contact arm moving across the turns of wire gives fine regulation with as many points of control as there are turns, and a gradual increase or decrease of voltage, with smooth, quiet operation. One Truvolt is required for each intermediate voltage; are connected in the same manner as fixed resistances. For sub base panel mounting, Pot baseboard mounting, order a No. 5561 bracket. All rated at 25 watts. Be sure to state type you are ordering.

Type	Resistance in ohms	Current in amperes	Type	Resistance in ohms	Current in amperes
T-2	200	353	T-35	3500	84
T-3	300	289	T-40	4000	79
T-4	400	250	T-50	5000	71
T-5	500	224	T-75	7500	58
T-7.5	750	182	T-100	10000	50
T-10	1000	158	T-150	15000	35
T-12.5	1250	141	T-200	20000	30
T-15	1500	129	T-250	25000	32
T-20	2000	112	T-300	30000	29
T-25	2500	100	T-400	40000	25
T-30	3000	91	T-500	50000	22.5

No. 5250, ALL ONE PRICE, List \$3.50, Net. **\$2.06**

No. 5561, Truvolt Mounting Bracket, **\$0.15**

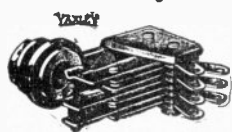
Yaxley Junior Jack Switches



The Junior Jack Switches are exactly the same in every respect, excepting size, as the standard Yaxley Jack Switches. Illustration is half size.

No. 5742-720. Battery Switch. List \$0.70. Net.....	\$0.41
No. 5743-730. Two Circuit. List \$0.80. Net.....	0.47
No. 5744-740. Double Circuit. List \$0.95. Net.....	0.56
No. 5745-745. Five Spring. List \$1.10. Net.....	0.65
No. 5746-760. Two Way, Two Circuit. List \$1.20. Net.....	0.71

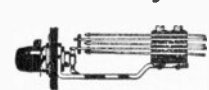
Yaxley Junior Jacks



Extends 1 1/4" behind panel. Here is a jack for use in the set where space is at a premium. The Junior Jack has exactly the same characteristics as the standard jack described above. Full weight springs, silver contacts.

No. 5851-701. Open Circuit. List \$0.40. Net.....	\$0.24
No. 5852-702. Circuit Closing. List \$0.55. Net.....	0.32
No. 5853-702A. Two Circuit. List \$0.55. Net.....	0.32
No. 5854-703. Single Circuit Filament Control. List \$0.65. Net.....	0.38
No. 5855-703A. Circuit Reversing. List \$0.65. Net.....	0.38
No. 5856-703C. Double Circuit. List \$0.65. Net.....	0.38
No. 5857-704. Interstage. List \$0.75. Net.....	0.44
No. 5858-704A. Two Circuit Filament Control. List \$0.75. Net.....	0.44
No. 5859-705. Two Circuit Filament Lighting. List \$0.85. Net.....	0.50
No. 5860-706. Interstage Filament Control. List \$0.95. Net.....	0.56
No. 5861-707. Interstage Filament Lighting. List \$1.05. Net.....	0.62

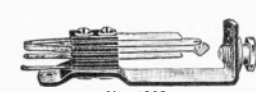
Yaxley Jack Switches



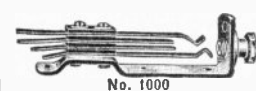
There is a Yaxley Jack Switch to meet your exact requirements. Serves the same purpose as the very much larger knife switches. The frames are brass—with Bakelite insulation.

No. 5702-20. Single Pole, Single Throw. List \$0.75. Net.....	\$0.45
No. 5703-30. Single Pole, Double Throw. List \$0.90. Net.....	0.53
No. 5704-40. Double Pole, Single Throw. List \$1.00. Net.....	0.59
No. 5705-45. Five Springs, combining Nos. 20 and 40. List \$1.15. Net.....	0.68
No. 5706-60. Double Pole, Double Throw. List \$1.25. Net.....	0.74
No. 5707-63. Three Pole, Double Throw. List \$1.60. Net.....	0.94
No. 5708-64. Four Pole, Double Throw. List \$2.40. Net.....	1.18

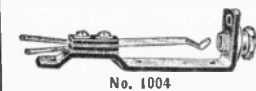
"Rasco" Jacks



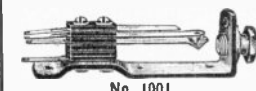
No. 1002



No. 1000



No. 1004



No. 1001

The springs are very heavy and the tension is right. The jacks are rugged, have positive action at all times, while the pure silver contacts are very large, insuring absolute electrical contact. The construction of the bracket is brass, heavily nickel plated and buffed.

No. 1000. Four springs, double circuit. Net \$0.20
No. 1001. Three springs. Net \$0.20
No. 1002. Automatic five springs. Net \$0.32
No. 1004. One spring, open circuit. Net \$0.15
No. 1005. Two springs, closed circuit. Net \$0.18

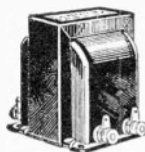
Pilot Midget Dual Jack



A whirlwind seller! No set builder can afford to be without these extremely useful jacks. It is a combination single circuit jack and new form of "double" circuit, having only 3 contacts for this purpose instead of 4. Connections may be soldered to projecting lugs or slipped under a nut and bolt—silver contacts assure perfect connections. The overall length and width of these jacks behind the panel are 1" x 1 1/4".

No. 5757-1165. List \$0.40. Net..... \$0.24

Thordarson R-300 Audio Transformer



Establishes a new standard of musical performance and reproduces a full range richness of tone and timbre that insures practical perfection in audio amplification. This transformer is housed in an attractive shielding case which reduces the external coupling effect to a minimum. Binding posts are mounted close to the base and are convenient for either top or sub-panel mounting.

Ideally adapted for use with cone type speakers. Dimensions: 2 1/2" x 2 1/2" x 3" high. Shipping weight 3 lbs. Replaces Thordarson R-200 model. No. 7910-300. List \$8.00. Net..... \$4.70

Thordarson Autoformer R-10

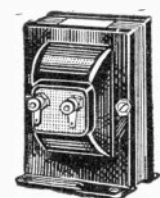
An all frequency amplifier. The lowest notes are amplified as perfectly as high ones. Greatly improves reception of weak programs. Built on same principle as line amplifier at newest high powered broadcasting stations. Size 2 1/2" x 2 1/2" x 3" high. Shipping weight 2 1/2 lbs. No. 6452. Thordarson Autoformer. List \$5.00. Net..... \$2.94



Thordarson "Z" Coupler

Use this transformer with screen grid tubes, in audio amplification circuits—an amplification of 40 times the input voltage will result in a single stage. Size, 3 1/2" x 3 1/2" x 4 3/16" overall. Shipping weight 4 lbs. No. 7909. List \$12.00. Net..... \$7.06

Thordarson Speaker Coupling Transformer



A special output transformer designed to couple the output of a single UX-250 type power amplifying tube into a high impedance speaker. Will easily carry the heavy output current and high voltage of amplifiers of this type. Dimensions 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs.

No. 7883-T-2901. List \$12.00. Net..... \$7.06

Type T-2902

Couples UX-250 type power tube into a dynamic speaker. Replaces the original speaker coupling transformer mounted in the base of a dynamic speaker. The secondary is connected directly to the terminals of the movable coil of the speaker. Dimensions 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs.

No. 7884-T-2902. List \$12.00. Net..... \$7.06

Type T-2903

Couples the output of two UX-250 tubes in push-pull into the coil of a dynamic speaker. Replaces the transformer mounted in the base in the dynamic speaker. Dimensions 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs.

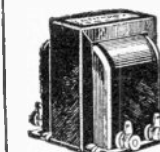
No. 7885-T-2903. List \$12.00. Net..... \$7.06

Type T-2629

Couples two UX-210 tubes into the coil of a dynamic speaker. Dimensions 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs.

No. 7886-T-2629. List \$10.00. Net..... \$5.88

Thordarson Speaker Coupling Transformer



Designed especially for use in coupling the output of a UX-171 tube power amplifying tube into a high impedance speaker. Should be used with Power Compact, R-171. Dimensions: 2 1/2" x 2 1/2" x 3" high. Weight 4 lbs.

No. 7891-R-76. List \$6.00. Net..... \$3.53

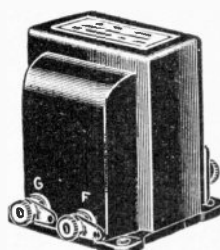
Type T-2876

Similar to type R-76, but designed to couple the output of a UX-210 type power amplifying tube into a high impedance speaker. Dimensions: 2 1/2" x 2 1/2" x 3" high. Weight 4 lbs.

No. 7892-T-2876. List \$6.00. Net..... \$3.53

Thordarson Push-Pull Transformers

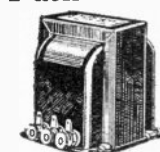
INPUT TRANSFORMERS T-2408 and OUTPUT CHOKE T-2420



The use of these two highly advanced transformers in the last stage of your audio amplification system in conjunction with two 1X171A power tubes, and 180 to 200 volts of "B" current, will give you more volume and clarity than even obtainable with a single 210 tube. No output transformer or speaker filters required when using these transformers, representing an appreciable saving. Reminds the R-300 in appearance. Can also be used in a push-pull amplification stage employing two 210 or two 250 Power Tubes. Size of each: 2 1/2" x 2 1/2" x 3" high. Shipping weight 5 lbs.

No. 6454. Per Pair. List \$16.00. Net..... \$9.40

Push-Pull Input Transformers



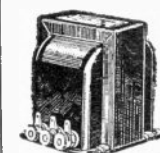
Couples a stage of straight audio amplification into a stage of power push-pull using any of the existing types of power amplifying tubes. Ratio 1 to 1. Dimensions: 2 1/2" x 2 1/2" x 3" high. Weight 4 lbs.

No. 7877-T-2408. List \$8.00. Net..... \$4.70

TYPE T-2922 Possesses a higher ratio, 3 to 1. Built primarily for use with the UX-210 and UX-250 type power amplifying tube in the push-pull stage. Dimensions: 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs. No. 7878-T-2922. List \$12.00. Net..... \$7.04

TYPE T-2973 Couples two stages of push-pull amplification. Ideal for use with the UX-250 type power tubes in the output stage. No. 7879-T-2973. List \$12.00. Net..... \$7.04

Thordarson Push-Pull Output Choke



A special push-pull impedance designed to couple two 1X-210 type power amplifying tubes into a high impedance speaker. Dimensions: 2 1/2" x 2 1/2" x 3" high. Weight 2 lbs.

No. 7898-T-2420. List \$8.00. Net..... \$4.70

Type for Dynamic Speakers

Is designed to couple two 1X171A, intermediate power, or UX250 tubes in push-pull (or singly) to the moving ("voice") coil of any standard dynamic speaker.

No. 6744-229. List \$8.00. Net..... \$4.71

Thordarson A.F. Transformers



An old favorite. The standby of many experimenters and custom set builders. These Thordarson transformers can be used in any circuit with pronounced exceptional performance. Very compact. Size 1 1/2" by 2 1/2" by 2 1/2". Shipping weight 1 lb.

No. 6456. 2 to 1. List \$5.00. Net \$2.94
No. 6458. 6 to 1. List \$4.50. Net \$2.65

No. 6457. 3 1/2 to 1. List \$4.00. Net..... \$2.35

LATEST THORDARSON AUDIO TRANSFORMERS

No. 4755-R-100

A quality replacement audio transformer. The universal mounting bracket of this replacement unit permits mounting on either side or end, and is slotted in such a way as to fit the mounting holes of the old audio unit without extra drilling. All stage ratio. Shipping weight 2 lbs.

List \$2.25. Net..... \$1.32

No. 4756-R-260

Wound on a core of Thordarson "DX-Metal" this audio unit is capable of reproducing plenty of "lows." It is entirely devoid of resonant peaks and performs with unusual brilliancy over the entire audible band. All stage ratio. Shipping weight 2 lbs.

List \$5.00. Net..... \$2.94

No. 4757-R-400

The first and only audio transformer built expressly for use with A.C. tubes. Similar to the R-300 type in appearance and performance. Ideal for coupling the first and second stages of audio amplifiers, using 226 or 227 type tubes in the first stage. All stage ratio. Shipping weight 4 lbs.

List \$9.00. Net..... \$5.30

Dongan Power Transformers — Choke Coils

These products are manufactured by one of the oldest established transformer concerns in the United States. They are mechanically and electrically perfect. All transformers are sealed within black japanned metal cases in which a high grade transformer compound is poured. Many of the leading nationally advertised manufacturers of "B" eliminators obtain their transformers and choke coils from Dongan.

All prices quoted for 110-volt, 60-cycle current. All Dongan material shipped express collect from Detroit. Transformers for 25 and 40 cycle—25% additional. Transformers for 220 volt—15% additional.

UNITS FOR COMPLETE SOCKET-POWER OPERATION



No. 5419

No. 5419-5552. Contains transformer and chokes to supply complete A B C power for one to eight UX-226, two 1Y-227, and two UX-171. To be used with 125 mil. gaseous rectifier tube. List \$20.00. Net..... \$11.76

No. 5420-5553. Similar to No. 5552 with the addition of a 5-volt tap for the filament of a UX-280 rectifier tube. List \$22.00. Net..... 12.94

TRANSFORMERS FOR COMPLETE SOCKET-POWER OPERATION

No. 6630-5574. Supplies complete A B C power for from one to eight UX-226, two 1Y-227, and two .5 amp. 171 power tubes. For 125 mil. rectifier tube. 300-300 volts—85 mils. 1½ volt 8.4 amp.—2½ volt 3.5 amp.—center tap 5 volt 1 amp.—windings are incorporated in this transformer. List \$12.00. Net..... \$7.00

No. 6631-5560. Similar to No. 5574, with addition of a 5-volt 2-amp. tap for the filament of a UX-280 rectifier tube. List \$14.00. Net..... 8.24

SPECIAL A.C. FILAMENT TRANSFORMERS

For 4 UX-226, 1 UX-227, 2 UX-171A Tubes

No. 6632-6512. Mounted in crystallized lacquered case equipped with lamp cord and plug outlet for "B" eliminator—also tap for control switch. List \$5.75. Net..... \$3.39

For 4 UX-226, 1 UY-227 Tubes

No. 6634-6510. Same as No. 6632-6512. List \$5.25. Net..... 3.09

For 6 Arceturus 15-Volt A.C. Tubes

No. 6636-6513. Same as No. 6632-6512, only equipped with a high and low tap. List \$5.25. Net..... 3.09

UNITS FOR B POWER AND POWER AMPLIFIERS

No. 5421-1582. Contains transformer and chokes to supply B and C power for a radio receiver and UX-112 power tube. To be used with 125 mil. gaseous rectifier tube. List \$11.00. Net..... \$6.47

No. 5422-3516. Contains transformer and chokes to supply B and C power for a radio receiver and A B C power for one or two UX-171 power tubes. To be used with 125 mil. gaseous rectifier tube. List \$13.00. Net..... 7.64

TRANSFORMERS FOR B POWER AND POWER AMPLIFIERS

No. 5424-509. Supplies B and C power for radio receiver and UX-112 power tube. Used with 125 mil. gaseous rectifier tube. List \$5.00. Net..... \$2.94

No. 5425-1569. Supplies A B C power for one or two UX-210 power tubes and B and C power for a radio receiver. To be used with two UX-281 rectifier tubes. List \$10.00. Net..... 5.88

No. 5426-2567. Supplies A B C power for one UX-210 power tube and B and C power for a radio receiver. To be used with one UX-281 rectifier tube. List \$10.00. Net..... 5.88

No. 5427-2593. Supplies B and C power for a radio receiver and one or two UX-171 power tubes. Used with 125 mil. gaseous rectifier tube. List \$6.00. Net..... 3.53

No. 5430-5509. Similar to No. 5427-2593. Used with UX-280 rectifier tube. List \$10.00. Net..... 5.88

No. 5432-5511. Similar to No. 5425-1560. To be used when full output of two UX-281 rectifier tubes is desired. List \$15.00. Net..... 8.82

LOW VOLTAGE TRANSFORMERS FOR FILAMENT HEATING AND BATTERY CHARGERS

No. 5433-286. Filament heater for one UX-210 power tube. List \$2.50. Net..... \$1.47

No. 5434-287. Filament heater for two UX-171A or UX-112A power tubes. List \$2.50. Net..... 1.47

No. 5435-820. Filament heater for one to eight McCullough A.C. tubes. List \$6.00. Net..... 3.53



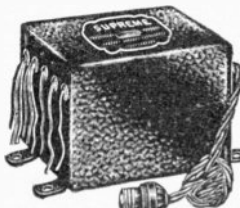
No. 5438

No. 5438-4586. Filament heater for one to eight UX-226, two 1Y-227 and two UX-171 tubes. List \$8.00. Net..... 4.71

No. 5439-4587. Filament heater for one to eight UX-226, two 1Y-227 and two UX-171 tubes. List \$8.00. Net..... 4.71

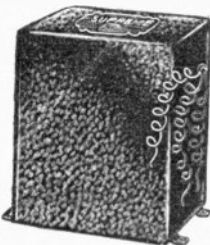
Transformers for B-Power and Power Amplifiers

No. 8313-7568. For full wave rectification using two UX-281 or similar rectifier tubes to supply B and C power to receiver and power for two UX-250 tubes. Use one No. 6551 double choke in filter circuit. Approximate D.C. output from filter 325V 130 mils. Secondary voltages 650-650V, 170 mils, 7½V 2½ amp. C. T., 7½V 2½ amp. C. T. List \$13.50. Net..... \$7.94



Dongan 7541

No. 8314-7541. Designed for use with UX 280 or similar rectifier tube to supply B and C power to receiver and UX 171 power tubes. Use No. 7512 double choke in filter circuit. Approximate D.C. output from filter 220V 30 mils. Secondary voltages 275-275V 85 mils. 5V 2 amp. C. T. List \$5.00. Net..... \$2.94



Dongan 7542

Choke Coils

No. 8315-7542. Double Choke. Inductance 20 to 30 henries. May be used where current does not exceed 85 mils. List \$6.00. Net..... \$3.53

No. 8316-6551. Double Choke. Inductance 20 to 30 henries. May be used where current does not exceed 250 mils. List \$15.00. Net..... \$8.82

Units for Filament Heating, B Power and Power Amplifier

No. 8322-7501. Unit similar to No. 5553, to operate one to four UX 226, one 1Y 227 and one UX 171 or two UX 171A. Unit contains transformer No. 7500 and two No. 511 chokes. List \$17.00. Net..... \$10.00

No. 8323-6588. Unit similar to No. 5552, to operate one to four UX-226, one 1Y-227 and one UX-171 or two UX-171A. Unit contains transformer No. 6582 and two No. 514 chokes. List \$16.00. Net..... \$9.41

No. 8324-7571. Designed to supply filament current for one to six Arceturus tubes together with power for Raytheon or UX-280 or similar rectifier tube for plate supply. Unit contains transformer No. 7570 and two No. 511 chokes. List \$17.00. Net..... \$10.00

NOTE

Transformers for 25 and 40 cycle 25% additional. Transformers for 220 volt 15% additional. Above prices for 110V., 60 cycle A.C.

CHOKE COILS

No. 5440-514. Inductance 20 to 30 henries. May be used where current does not exceed 85 mils. List \$4.00. Net..... \$2.36



No. 5443

No. 5441-1591. Inductance of 25 to 35 henries. May be used where current does not exceed 100 mils. List \$5.00. Net..... 2.94

No. 5443-5554. Double choke. May be used where current does not exceed 130 mils. For average eliminator. List \$11.00. Net..... 6.47

NOTE

All Dongan Transformers, etc., are shipped express collect from factory in Detroit, Mich.

Dongan Special UX 250 Tube Output Transformers

The following transformers were designed specially for use with UX 250 tubes:

	List	Net
No. 7246-1177. A splendid straight power amplifier Output Transformer.....	\$12.00	\$7.06
No. 7247-1176. Similar to No. 1177 but of Push-Pull type.....	12.00	7.06
No. 7248-1183. A Push-Pull Output Transformer for use with the dynamic speaker.....	12.00	7.06

Transformers for Filament Heating, B Power and Power Amplifiers

No. 8318-6582. Transformer similar to No. 5574 to operate one to four UX 226, one 1Y 227 and one UX 171 or two UX 171A. Use two No. 514 chokes in filter circuit. Approximate D.C. output from filter 220V 40 mils. Secondary voltages 300-300V 85 mils. 1½V 4.2 amp. 2½V 2 amp. C. T., 5V ½ amp. C. T. List \$10.00. Net..... \$5.88



Dongan 7540

No. 8319-7540. Designed to supply filament current for the A.C. tubes, together with power for the UX 280 or similar rectifier tube for plate supply. Transformer supplies current to operate one to four UX 226, one UY 227, one UX 171 or two UX 171A. Use No. 7542 double choke in filter circuit. Approximate D.C. output from filter 220V 30 mils. Secondary voltages 275-275V 85 mils. 1½V 4.2 amp. 2½V 1.75 amp. C. T., 5V ½ amp. C. T., 5V 2 amp. C. T. List \$8.25. Net..... \$4.85

No. 8320-7500. Transformer similar to No. 5560 designed to operate one to four UX 226, one UY 227 and one UX 171 or two UX 171A. Use two No. 514 chokes in filter circuit. Approximate D.C. output from filter 220V 40 mils. Secondary voltages 300-300V 85 mils. 1½V 4.2 amp. 2½V 1.75 amp. C. T., 5V ½ amp. C. T., 5V 2 amp. C. T. List \$11.00. Net..... \$6.47

No. 8321-7570. Designed to supply filament current for one to six Arceturus A.C. tubes together with power for Raytheon or UX 280 or similar rectifier tube for plate supply. Use two No. 514 chokes in the filter circuit. Approximate D.C. output from filter 200V 50 mils. Secondary voltage 15V 2.1 amp. 300-300V 85 mils. List \$11.00. Net..... \$6.47

220 Volt A.C. Converter to 110 Volt A.C.

No. 8317-5533. Designed for transmitting 220V A.C. to 110V. A.C. for operating 110V A.C. receiving sets, B eliminators, etc. Capacity 75W. List \$8.00. Net..... \$4.71

Dongan Radio Interference Filters

Both condensers are mounted in substantial steel cases equipped with conduit fittings. Greatly assist in elimination of interference in radio reception due to sparking motors, vacuum cleaners, etc., etc. Approved by underwriters.



No. 7213-D207. Containing 8 mfd. total condenser capacity. List \$7.50. Net..... \$4.41

No. 7214-D215. Containing 4 mfd. total condenser capacity. List \$5.00. Net..... \$2.94



Trio Tap

A three-way pin socket to fit into any flush receptacle. Highest grade insulation used. Shipping weight 8 ozs. No. 6253. Net... \$0.10

2- and 3-Way Socket Plug



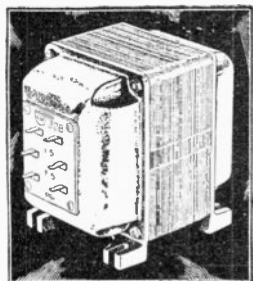
For general household use, and for connecting eliminator, "A" power unit or both to light circuit as well as an electric lamp to the same socket. Screws into any light socket. Highest grade insulator used.

No. 6211. Two-Way Plug..... \$0.21
No. 6215. Three-Way Plug..... \$0.46

Gentlemen: I would like to say you have the lowest prices of any catalogue, so am enclosing my order.

FRANK HANKINSON,
c/o A. C. L. Rwy. Co.,
Savannah, Ga.

SILVER-MARSHALL POWER TRANSFORMERS



The S-M line of power transformers comprises a transformer for every need. They have long been the standard in popular power supply units, because of the generous design, conservative rating and their low cost. They are hum-free and operate without deleterious heating. Types 324, 327 and 328 have heavy cast iron frames. Other types are sealed in the regular S-M drawn steel cases.

No. 6716-324 Power Transformer

A large, heavy, full-wave power supply transformer for operation from a 50 to 60 cycle power source of 105 to 120 volts. It weighs approximately 16 lbs. and is 6 1/2" high, 4 1/2" wide, and 7" long. Conservatively rated at 150 watts, and is equipped with two 750-volt, 150-milliamperes secondaries (center tapped 1,500-volt winding) and two separate 7.5 volt, 2.5 ampere filament windings, for operation of 210, 250, and 281 type tubes. It is mounted similarly to S-M 328. Shipping weight 18 lbs.

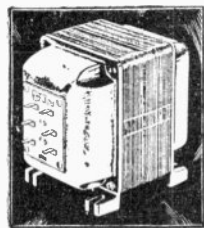
List \$25.00. Net..... **\$14.70**

No. 6717-326 Reducing Transformer

An auto-transformer for adapting to operate from 220, 230, 240, or 250-volt, 50 to 60 cycle alternating current any radio or other electrical device designed to operate on 105 to 120 volt, 50 to 60 cycle alternating current. Capacity 150 watts. May also be used where power line voltage runs about 125 or 130 volts, to reduce voltage to operate 110-volt devices. Fully mounted; size 5" long over mounting lugs, 3 1/4" wide, and 4 3/8" high. Shipping weight 7 lbs. 3 cts.

List \$15.00. Net..... **\$8.82**

No. 7144-327 Power Transformer



No. 327 Power Transformer. Especially recommended for use in power packs supplying A.C. sets containing a 210 or 250 type tube in the last stage and must be used with one 1X281 (CX381) half-wave rectifier for this purpose. For 112 or 171 type power tubes it should be used with 1X280 (CX380) or gaseous full-wave rectifier tube. The 327 transformer has the following windings: two 250 volt secondaries; two 7 1/2 volt, 2 ampere secondaries for UX281 (CX381) and 210 or 250 type tubes; one 1 1/2 volt, 4 ampere secondary for three or four UX226 (CX328) tubes; and one 2.25 volt, 3.5 ampere secondary for two 1X227 (C327) tubes. Primary winding is for 105 to 120 volts, 60 cycle A.C. lighting circuit. Provided with electrostatic shield and soldering lugs, cord and plug not included. Size 5 1/2" long, 3 3/4" wide, 4 1/4" high. Shipping weight 10 lbs. Shipped express collect.

No. 7144-327. List \$15.00. Net..... **\$8.82**

No. 6719-327U POWER TRANSFORMER

Same as 327 above, except unmounted for manufacturers' use. Shipping weight 7 lbs.

List \$15.00. Net..... **\$8.82**

No. 5536-328 Super Power Transformer

Heavy duty transformer designed for either full wave or half wave rectification, using 281 rectifier tubes. Will furnish 480 to 500 volts at 110 m. a. of a thoroughly filtered direct current using two 281 tubes and a 331 Unichoke. Besides furnishing ample A, B and C power for 210 or 250 type power tubes, singly or in push-pull at full voltage, it furnishes ample B power for receiver operation or standard dynamic speaker field excitation. Consists of two 750 volt secondaries and two 7 1/2-volt, 2 1/2-ampere filament windings. Electrostatic shield and 105 to 120 volt, 60 cycle primary, less cord and plug. Size 6" long, 4" wide, 5" high. Shipping weight 12 lbs.

List \$20.00. Net..... **\$11.76**

No. 5538-329 Power Transformer

Designed for gaseous, or filament rectifier tubes. Consists of two 220 volt secondaries, one 105-120 volt, 60 cycle A.C. primary, and one 5 volt, 2 ampere filament winding, center tapped. Rated at 85 milliamperes continuous duty without heating, or will furnish double this current for reasonable periods. Provided with electrostatic shield and equipped with S-M terminal lugs and cord and plug. Shipping weight, 5 lbs.

List \$9.00. Net..... **\$5.29**

No. 7055-325 Step Down Transformer

No. 325 Step-Down Transformer. Designed for use in supplying the necessary 1 1/2 and 2 1/2 volts filament lighting voltage required for the operation of all A.C. tubes, as well as furnishing 5 or 7 1/2 volts for the filaments of 112, 171, 210 or 250 power tubes. Equipped with one 60 cycle, 105-120 volt primary winding, one center tapped 7 1/2 volt, 2.5 ampere secondary, 3 ampere capacity; one 1 1/2 volt secondary, 12 ampere capacity, and one 2 1/2 volt secondary, 12 ampere capacity. Transformer sealed in regular S-M shield case and equipped with cord and plug. Weight 6 lbs.

No. 7055-325. List \$12.50. Net..... **\$7.35**

No. 5539-329A Power Transformers

For use with gaseous or filament rectifier tubes, and may be used wherever S-M 329 is specified. Provided with two 275 volt, 125 m.a. secondaries; one 5 volt, 1 ampere; one 1.5 volt, 6 ampere; and one 2.5 volt, 6 ampere secondary, together with a 105-120 volt, 60 cycle A.C. primary, with cord and plug. Provided with electrostatic shield and soldering lugs. Shipping weight, 5 lbs.

List \$11.00. Net..... **\$6.47**

No. 6720-329BU Power Transformer

Similar to 329A, except unmounted for manufacturers' use. Has two 220 volt secondaries, one 5 volt, 2 ampere center-tapped winding, one 5 volt, 1/2 ampere winding, one 2 1/2 volt, 3 1/2 ampere, and one 1 1/2 volt, 5 ampere winding. Shipping weight, 5 lbs.

List \$10.00. Net..... **\$5.88**

No. 5540-330 Power Transformer

Identical to type 329 described above, except provided with two 300 volt secondaries and one 7 1/2 volt, 4 ampere filament winding. With a 1 1/2 ohm filament resistance this transformer may be used with a 280 type rectifier tube. Provided with electrostatic shield and soldering lugs. Shipping weight, 5 lbs.

List \$9.00. Net..... **\$5.29**

Type 334 Power Transformer

Intended to be used with one UX280 tube and a 2 mfd. condenser to supply 120 volts D.C. to the fields of standard 90 to 120 volt D.C. type dynamic speakers. It is equipped with one 105 to 120 volt, 50 to 60 cycle primary; one 5 volt, 2 ampere filament winding; and one 300 volt center-tapped (150 volts per side) secondary. Shipping weight 5 lbs.

No. 6745-334. List \$7.00. Net..... **\$4.12**

Type 335 Power Transformer

Intended for use with sets employing the new A.C. screen grid and intermediate power tubes. It contains one 105 to 120 volt, 50 to 60 cycle primary; one 5 volt, 2 ampere rectifier filament winding; two 2.5 volt, 6 ampere filament windings; and two high voltage secondaries. With one UX280 tube, it will deliver 300 volts at 100 m.a. Provided with iron end casting mountings. Shipping weight 10 lbs.

No. 6746-335. List \$15.00. Net..... **\$8.82**

No. 5537-331 Unichoke



A two-winding high inductance filter choke. Its tuned section eliminates the 120 cycle ripple, and with only 7 mfd. of condenser capacity the Unichoke performance is equal or superior to two choke-section filters with from 8 to 12 mfd. condenser capacity. For use as an output choke for loud speaker, with power tubes, the Unichoke is also unequalled. Primary inductance, 2 henries; secondary inductance, 30 henries at 110 milliamperes load. Provided with an air gap to prevent saturation. Rated at 125 milliamperes continuous duty, or will handle double this current for reasonable periods. D.C. resistance; primary 4.85 ohms; secondary 335 ohms. Provided with electrostatic shield and soldering lugs, as illustrated. Shipping weight, 5 lbs.

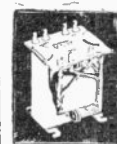
List \$8.00. Net..... **\$4.71**

Type 333 Dual Filter Choke

Consists of two chokes assembled together for better filtration than with separate mounting. Resistance 400 ohms per coil; inductance 9.1 henries per coil at maximum current rating of 10 m.a. Size 2 7/16" wide, 3 3/8" high, and 1 1/2" thick, open mounted. Shipping weight 4 lbs.

No. 6747-333. List \$6.00. Net..... **\$3.53**

Silver-Marshall No. 247 Filament Transformer



A filament transformer designed to supply filament current to standard A.C. tubes. It is especially recommended for use with the various A.C. harnesses now on the market, to convert old battery operated receivers to socket power operation. The 217 transformer contains the following windings: one 105-120 volt 60 cycle primary; one 1 1/2 volt, 5 ampere secondary; one 2 1/2 volt, 3 1/2 ampere secondary; and one 5 volt, 1 ampere secondary. Will operate four or five 226 type tubes, two 227 type tubes and two or three 112 or 171 type tubes. Cord and plug not included. Shipping weight 3 lbs.

No. 7051-217. List \$5.00. Net..... **\$2.94**

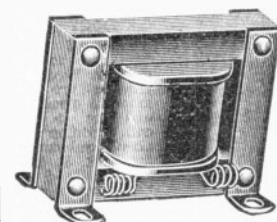
Pilot B Eliminator Choke



A real piece of power engineering, this choke measures 30 henries at full rated load of 65 mls. Many set builders do not realize that cheaply made chokes, with insufficient copper and iron, may show 30 henries at 20 mls. and less than 10 henries at the full load of 65 mls. Such chokes are worthless and are responsible for most of the poor filtering in "B" eliminators. In keeping with standards set for the Precision Type units, Pilot has designed this choke to give 30 henries with even more than the rated load of 65 mls. This choke can therefore be used in any "B" eliminator. The overall dimensions are 3 3/4" by 2 1/2" by 3". Shipping weight 5 lbs.

No. 5977-377. List \$3.75. Net..... **\$2.25**

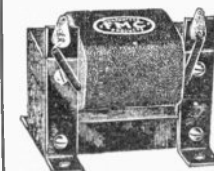
"B" Eliminator Choke



This excellent choke, especially manufactured for "B" battery eliminators, has about 70 - milliamperes capacity (10,000 turns of No. 32 wire) and is warranted to do the work right. Will not heat or burn out under normal load. Can also be used as an audio filter in output stage. Shipping

weight 3 lbs. No. 4002. Choke. List \$3.50. Net..... **\$1.75**

F. M. C. Choke



Designed for use in connection with a "B" eliminator or an output choke. The core, of the best electrical steel, is ample in size and the large wire used in the coils gives it a current capacity of 90 milliamperes which is ample for use in any "B" eliminator. The resistance is low, thus keeping losses at a minimum.

In using the choke for a "B" eliminator (the 30-henry choke being generally used for this purpose), it is preferable to use two chokes as recommended for the Raytheon tubes although in some cases, where the output is low, one choke will be sufficient. 3" high, 3 1/2" wide, 3 1/2" long. Weighs 2 1/2 lbs.

No. 5467. 30 henry choke. List \$5.00. Net \$2.30
No. 5468. 50 henry choke. List 5.50. Net 2.75

Bradleyohm Type E



For varying the output of any "B" battery eliminator, so as to obtain any intermediate voltages, using one Bradleyohm for each tap desired. It will successfully dissipate up to 4 watts but must not be used where the full voltage exceeds 250. Fluted knob provided. Terminal screw connections. Dimensions: 2" long, 1" wide, and extends about 1 1/2" from rear of panel. One-hole mounting on panel, or baseboard mounting. Shipping weight 2 lbs.

No.	Type	Range	List	Net
No. 9923	1E	100 to 5,000 ohms	\$2.25	\$1.46
No. 9924	5E	1,000 to 50,000 ohms	2.25	1.46
No. 9925	10E	20,000 to 500,000 ohms	2.25	1.46
No. 9926	25E	25,000 to 1,500,000 ohms	2.25	1.46

Please bear in mind RASCO can supply any radio apparatus not listed in this catalogue—and with no delay. Try this Special Service!

AmerChoke Type 641 (Output Only)



400 Hy. full winding, each half 60 ma. 275 ohms D.C. Audio output impedance with center tap designed to take the plate current of two 250 tubes or smaller power tubes. It contains four sand-wiched coil sections arranged and connected for absolute electrical symmetry on both sides of the center tap. Current capacity 60 milliamperes each side of center tap. Mounted in metal case sealed with insulating compound. Five terminal posts on bakelite cover. Shipping weight 6 lbs.

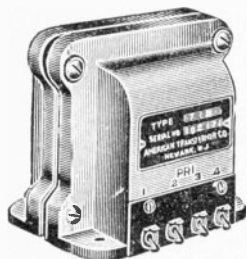
No. 8394-611. List \$10.00. Net..... \$5.88

AmerChoke Type 101 (Output or Filter)

60 ma., 40 henries, D.C. Resistance 275 ohms. Intended for the plate circuit of a single 250 or smaller power tube and has a flat audio frequency characteristic from 40 to 9,000 cycles. It may also be used as a filter choke. Shipping weight 6 lbs.

No. 8395-101. List \$10.00. Net..... \$5.88

AmerTran Output Type 678



Impedance ratio 480-160 120-33.7. This has a center tapped primary suitable for working out of two 250 tubes; 78 ma. current capacity each half of primary. Secondary contains two separate 15 ohm coils and one 45 ohm coil, providing suitable combinations for 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000.

magnetically within a cast aluminum case. Shipping weight 5 lbs.

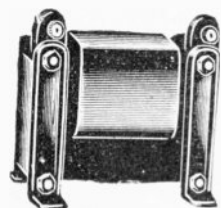
No. 8397-678. List \$25.00. Net... \$14.70

Intermediate Type 710

Turn ratio 134. This transformer has sandwiched primary and secondary coil sections with a carefully balanced center tap in both primary and secondary. It may be used between two pairs of push-pull tubes. It is carefully shielded magnetically within a cast aluminum case. Shipping weight 4 lbs.

No. 8398-710. List \$20.00. Net... \$11.76

AmerTran Choke Coils



Type 418—2 amperes, 1/2 Henry, D.C. Resistance, 0.5 ohms. This is a filter choke having a current capacity of 2 amperes and an inductance of approximately 1/2 Henry when loaded. D.C. Resistance is approximately 0.5 ohms. It is intended primarily for use in "A" eliminator circuits and for removing the commutator ripple from D.C. circuits. Approximate shipping weight, 4 lbs.

No. 6180-418. List \$6.00. Net..... \$3.53

TYPE 851

Type 854—50 ma., 15 to 20 Henries D.C. Resistance, 600 ohms. This is a filter choke having a current capacity of 60 milliamperes and an inductance of approximately 50 Henries when loaded. D.C. Resistance is approximately 600 ohms. It is intended primarily for use in filter circuits of "B" eliminators and as an output choke for the loud speaker. The two gaps in the magnetic circuit are semi-adjustable for obtaining maximum inductance for various loads. Approximate shipping weight, 5 lbs.

No. 6181-854. List \$6.00. Net..... \$3.53

TYPE 709

Type 709—120 ma., 15 to 20 Henries D.C. Resistance, 210 ohms. This is a filter choke having a current capacity of 120 milliamperes and an inductance of from 15 to 20 Henries when loaded. D.C. Resistance is approximately 210 ohms. It is recommended for use in any filter circuit requiring more than 60 milliamperes load. In construction it is similar to that of the Type 851. Approximate shipping weight, 3 1/2 lbs.

No. 6182-709. List \$6.00. Net..... \$3.53

AmerTran Equalizer Type 389



Impedance Ratio 2000:1—The primary of this output transformer is identical with that in type 152, and designed to work out of UX 210 tubes, or tubes of similar impedance. The secondary is designed for connecting directly to the moving coil of dynamic type speakers, such as the Jensen, Magnavox, etc. Shipping weight 2 lbs.

No. 8388-200. List \$15.00. Net..... \$8.82

AmerTran Output Type 362

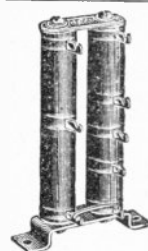
Impedance Ratio 530:1—Designed to work out of 171 tubes into the moving coil of dynamic type loud speakers. The center tapped primary on this transformer is similar to the primary of type 271. Shipping weight 2 lbs.

No. 8389-362. List \$15.00. Net..... \$8.82

AmerTran Output Type 200

Designed to adjust the impedance of an electric phonograph pick-up to the primary impedance of the first stage AmerTran De Luxe. Three primary taps are provided to compensate for slight variations in the impedance of the best available electrical pick-ups. Shipping weight 2 lbs.

No. 8390-389. List \$10.00. Net..... \$5.88



AmerTran Voltage Divider Resistance

Type 400—This is a wire-wound double-tube resistor for use across the output of 100 volt filter circuits and is provided with taps conveniently arranged for obtaining practically all intermediate plate voltages below the maximum. Shipping weight 1 lb.

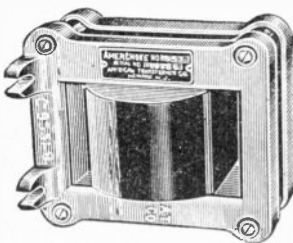
No. 8391-400. List \$7.50. Net..... \$4.41

AmerTran Dual Adjustat

Type 500—This voltage divider has a total resistance of approximately 11,000 ohms—with fixed terminals at 0, 6,000, 31,000, and 41,000 ohms. In addition there are two rotary switch blades which provide two variable plate voltages in 15 steps from 6,000 to 31,000 ohms each. Shipping weight 2 lbs.

No. 8392-500. List \$8.50. Net..... \$5.00

AmerChoke Type 557 (Filter)



250 ma., 20 henries, D.C. Resistance 110 ohms. A heavy duty choke of high inductance for use in filter circuits passing up to 300 ma. D.C. It is recommended for circuits in which the D.C. current exceeds the limits of the type 709 up to 300 ma. Shipping weight 14 lbs.

No. 8393-557. List \$12.00. Net..... \$7.06

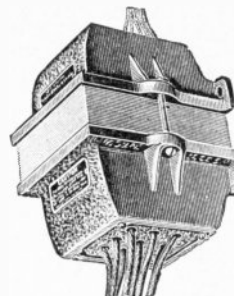
A.C. Adapter Harness



With the popularity of A.C. operated sets, there has been opened a tremendous field for the conversion of battery-operated sets now in use to A.C., both by set owners and dealers (or custom set builders). This can easily be accomplished even by the non-technical fan by the use of a standard step-down transformer, ordinary A.C. tubes, and a Corvico Adapter Harness. NO CHANGES AT ALL IN SET WIRING! For the person who has a set working with a "B" Eliminator such a conversion gives him an ALL-ELECTRIC SET. For the person who uses "A" and "B" batteries the "A" battery—radio's chief nuisance—is eliminated. By the purchase of an A-B-C power supply unit and a Corvico Adapter Harness an ALL-ELECTRIC SET is produced. All important is the design of an Adapter Harness is its universality—that is, the ease and certainty with which it can be applied to all types and makes of receivers, using 6 or less tubes. Corvico Harnesses are

AmerTran Power Transformers

TYPE PF 52-A



For D.C. output of approximately 450 volts, 100 ma. half wave with UX 281 or 220 volts, 100 ma. full wave with UX 280. Two center tapped filament windings, 2 1/2 volts each, 2 1/2 amp. each. Replaces both the PF 61 and PF 52. Plate winding 600 volts A.C. center tap. Suitable rheostats must be provided to lower the filament voltages. Primary 50 or 60 cycles tapped for 100, 110, 115, 120 volts. Not provided with switch, cord or plug. Shipping weight 10 lbs.

No. 8367-PF52-A. List \$18.00. Net..... \$10.60

TYPE PF-281

For D.C. output of 425 to 650 volts, 110 ma., with UX 281 half wave rectifying tube—Power tube UX 210. Heater windings for A.C. tubes. For half wave rectification with a UX 281 rectifying tube, 70 or 60 cycle, 110 volt circuits. Rated 150 V. A. continuous load. Plate winding for 550 volts A.C. maximum, 110 milliamperes, with a tap at 550 volts. Four filament windings, one for 7 1/2 volts with a center tap for the UX 281 rectifying tube; one for 7 1/2 volts, 2 1/2 amperes center tapped for use with one or two UX 210 power tubes; one for 1 1/2 volts, 10 amperes without center tap for the filaments of UX 226 A.C. tubes; one for 2 1/2 volts, center tapped for the filaments of UX 227 A.C. tubes. There is a copper ground shield over the primary, and primary taps are brought out for 100, 110, 115, and 120 volts. This transformer virtually becomes an A-B-C eliminator when used with A.C. tubes and the proper filter circuit for D.C. voltages of from 425 to 650 volts, plate current 110 milliamperes. Shipping weight 25 lbs.

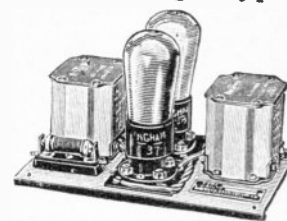
No. 8368-PF-281. List \$25.00. Net..... \$14.70

TYPE PF-250

For D.C. output of 400 to 450 volts, 200 ma., with two UX 281 rectifying tubes, full wave—Power tubes UX 250 single or push-pull. For full wave rectification with two UX 281 rectifying tubes, having a 1200 volt A.C. plate winding with a center tap. Current capacity of plate winding 100-200 ma. Each of the two 7 1/2 volt center tapped filament windings is sufficient for two UX 281 or two UX 250 tubes with their filaments in parallel. Primary 50 or 60 cycles tapped for 100, 110, 115 and 120 volts. Shipping weight 27 lbs.

No. 8369-PF-250. List \$30.00. Net..... \$17.64

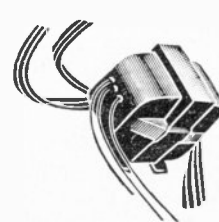
AmerTran Push-Pull Power Stage Type P



Consists of a type 151 input and either a type 152, 271, 200, or 362 output transformer (depending upon the combination of power tubes and speaker desired) mounted on a metal base and wired to two power tube sockets with necessary 50,000 ohm resistances in the C—

lead. Shipping weight 10 lbs. No. 8396-P. List \$36.00. Less tubes, Net..... \$23.52

AmerTran Heater Transformer for A.C. Tubes

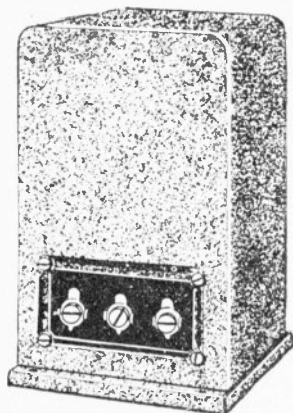


This transformer has a rating of 11 V. A. for use on 50 or 60 cycle, 110 volt A.C. current. It has a copper ground shield over the primary, and there are three separate heater windings, each with a center tap; one for 1 1/2 volts (up to 6 UX-226 A.C. Tubes may be used therewith); one for 2 1/2 volts sufficient for 4 UX-227 A.C. Tubes or 5 Kellogg A.C. Tubes; and one 5 volt winding for the filaments of one or two UX 171 (.5 amp.) tubes. Primary tap voltages, 100, 110, 115 and 120. Used with the tubes for which it is designed, the H-7 is virtually an "A" eliminator. Shipping weight 9 lbs.

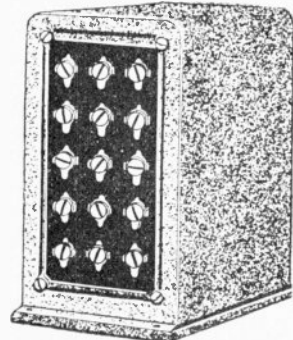
No. 6166-H-67. List \$12.00. Net... \$7.06

so designed that they may be used with practically all receivers, and will fit such sets mechanically and electrically. There is no surplus length of wire in any Corvico installation. An instruction sheet is supplied. No. 7377-R (for R.C.A. type A.C. tubes). List \$8.00. Net..... \$4.80

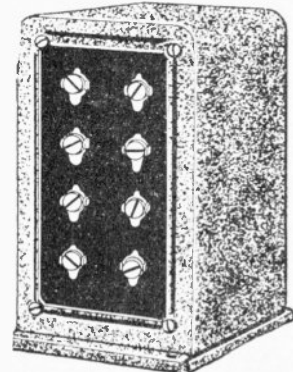
Pilot Triple Block A.B.C. Power Supply



No. 395 Double Choke



No. 398 ABC Transformer

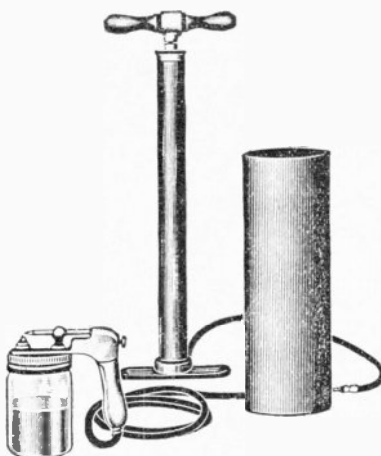


No. 396 Condenser Block

plate and 40 volts C bias. Various special circuits can be built up around this power supply, including almost any kind of a set from a single 1-tube receiver with a single stage of tuned R.F. and regenerative detector to shield-grid outstut of the A.C. operated type, and superheterodynes, with a single 171 in the last stage or two 171's in push-pull arrangement. If the triple block supply is arranged at the rear of a receiver, the complete equipment will occupy space approximately 3" deep and 18" long. Mounted as a compact unit on a small base board, the power supply will occupy a space approximately 6 1/2" by 10". The individual blocks are contained in steel cases, attractively finished in black crystallized lacquer. The terminal plates are of Bakelite, carrying binding posts to which leads can be fastened by means of the machine screws, or the leads can be soldered directly to tabs. These terminals are of the type found most satisfactory and permanent by set manufacturers. The condenser block, comprising sections of 1, 1.3, 3, 6, .1, and 1 mfd. units are the same as those supplied by Pilot in the individual cases. These condensers are guaranteed against breakdown for a period of 10 years provided the normal operating voltage is not exceeded. There need be no concern, therefore, over having to discard the entire block owing to the failure of one section, for no trouble of any sort will be experienced as long as the rated voltage is not exceeded. Since the transformer block is designed specifically for the condenser block, the two will work together, in combination with the double choke block, for years to come. Overall dimensions of the Double Choke, Filter Condenser Block and Power Transformer are approxi-

Taking the lead in the manufacture of power equipment in the 1937 season, Pilot has continued to develop new apparatus to meet new and varying requirements. The set of B power blocks illustrated represents an additional series, designed for use when the A and B supply must be built into a receiving set or made up as a very small external unit. The triple block power supply operates five or six 226 tubes, one or two 227 tubes, one or two 171 tubes and the dial lights, supplies filament current to a 280 rectifier and provides B voltage for the tube to give an output of approximately 220 volts at the full load of 60 milliamperes. A 171 Raytheon can be used for the rectifier, in which case certain terminals are not used. The only difference is that the 280 tube gives an output about 20 volts higher. The three blocks comprise a transformer, a set of filter condensers, and a double choke—all the elements of the power supply except the tube, socket, and such accessories as are required for C bias. Actually the circuits for the 280 or 171 tubes are practically the same. For the conventional tuned R.F. receiver, using 226 tubes for R.F., a 227 for detector, 226 for first audio, and one or two 171 tubes in the last stage, either singly or push-pull, the triple block supply gives all the necessary A, B, and C voltages, including the 40 volts bias on the 171 tube or tubes. That is why the maximum voltage is 220 volts, to give 180 volts for the

Haywood Payntgun

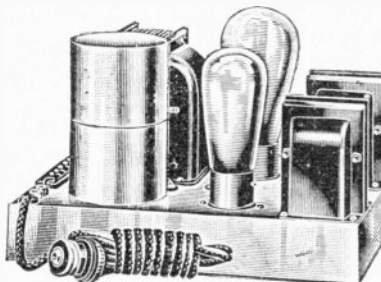


Practical for Painting Everything from One Piece to a Whole Interior

No matter what you want to paint, the Payntgun will do it more quickly, smoothly and easily—and give a better finish—than any other method. The more intricate the painting job, the more need for the Payntgun. That brilliant, smooth, glossy surface of automobiles and furniture, on new floors and woodwork, can now be duplicated by anyone. You need no experience in painting to put a perfectly smooth new surface on whatever you want to refinish. The old method of using a brush is being discarded. For years manufacturers have used the Payntgun principle in the manufacture of painted, lacquered, varnished or enameled products. They found it practical, economical, time saving, and a guarantee of a finer finish. With the Haywood Payntgun, anyone can get the same good results in his own home. With a brush, painting is a decidedly tedious, tiresome job. No experience is needed, no skill necessary, to get good results with the Payntgun. Just light pressure of the thumb on the release button and you have a fine spray of color easily directed and controlled. Paint, lacquer, varnish or enamel work equally well in the Payntgun. Shipped express collect.

No. 5366. Your Special Net Cost... **\$9.17**

H.F.L. 250 Power Amplifier and "B" Supply—Assembled



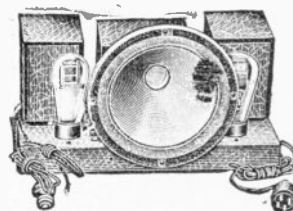
This exceptionally fine power amplifier was designed especially for the "H.F.L. Special Nine" and all factory or custom built receivers. It is absolutely without an equal in the radio field today. Several entirely new principles are incorporated in its construction. The amplifier allows a quantity of total reproduction which has heretofore been unobtainable with amplifiers of this type. Extra large transformers, chokes, and a special Marshon 35 mfd. filter condenser operating in the filter circuit, eliminates every trace of A.C. hum. The condensers in the H.F.L. 250 power amplifier cannot break down as they are of the electrolytic type which is self healing in case of a puncture. These condensers are sealed, entirely dry, and have a life of over forty-five years. Special resistors permit heavy current loads with maximum heat dissipation. Adjustable sliders permit different voltages to be obtained. This power amplifier will also operate beautifully with any receiver, and it will furnish plate voltages up to 350 volts for all tubes in any set. Dimensions, 11 inches long by 7 inches wide by 7 1/2 inches high. Requires 1 CX 250 (or CX 350) and 1 UX 250 (or CX 350) tubes. Shipping weight, 10 lbs.

No. 6727. Factory assembled and wired, less tubes. List \$77.00, Net **\$45.28**

mately 3" wide by 1 1/4" long by 5 1/16" high. Shipping weight: 12 lbs. for the Double Choke, 10 lbs. for the Power Transformer, and 8 lbs. for the Condenser Block.

	List	Net
No. 7784-395. Double Choke Unit	\$6.50	\$3.82
No. 7785-396. Filter Condenser Block	9.50	5.59
No. 7786-398. ABC Power Transformer	9.50	5.59

Webster Fidelity C-250 Power Amplifier



An amplifier which is connected to a receiver with an adapter, that replaces the power tube in the receiver, transforming it into a super power stage. Fits in usual cabinet of console without altering position of dynamic speaker. Reproduces the music of a solo or orchestra as if the musicians were personally present. Assures marvelous music of FULL EXPRESSION with clear and exacting FIDELITY OF TONE. Uses a 250 tube and a 281 tube, for use with a radio only. Current is automatically supplied for the field winding of a 90-120 volt D.C. dynamic unit. Note that the dynamic unit mounts right on the chassis of this single stage super power amplifier. Naturally, some form of baffle board arrangement must be provided for if not used in a console. Furnishes 450 volts, Size: 14 1/2" long, 8 1/2" wide, 7" high without speaker, 10 1/2" high when speaker has been attached.

No. 5299-C-250. Completely assembled and wired. Less speaker unit and tubes. List \$39.50. Net **\$23.23**

I.C.A. Filtevolt

Purifies Radio Reception—Banishes Electric Line Noises Suppresses Hum

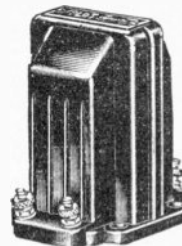


Filters out the distortions, the clicks, rattles, crackles, and din caused by apparatus which is operated from the same electric trunk line as electric radio sets or eliminator sets. Vacuum cleaners, oil burners, telephone bells and dials, elevators, electric refrigerators, flashing signs, player pianos, sewing machines, vibrators, etc.—all

appliances operating in or near your home are contributing causes of distorted reception or annoying noises emitted from the loud speaker. Any radio receiver using house current for power can use Filtevolt—all A.C. or D.C. electric sets, or sets using any type A and B eliminators. With sets using dynamic speakers, Filtevolt is a necessity because dynamic speakers amplify and intensify line noises. Filtevolt operates on 110, 220 volts and 32-volt farm system. Filtevolt is small and compact. Handsome japanned case, size 4"x5"x5 1/2".

No. 4777-301. List \$15.00. Net... **\$8.82**

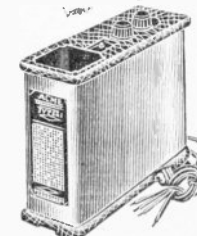
Pilot B Eliminator Choke



It is not necessary to use heavy eliminator chokes for power packs from which only a small amount of current is to be drawn. This choke is intended for B packs drawing a maximum of 15 milliamperes. At that value the choke has an inductance of 30 henries, increasing to 80 henries at 20 milliamperes. Two of these chokes can be used in the same circuit. Size: 3" x 2 1/2" x 3 1/2" high. Shipping weight 4 lbs.

No. 8194-393. List \$2.75. Net **\$1.62**

Acme Super BC Power Supply

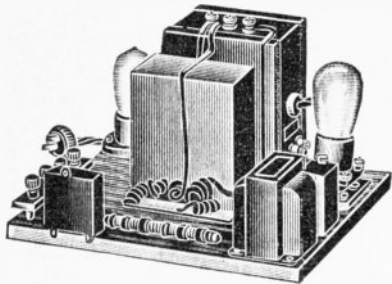


The Acme E-25 Super BC Power Supply Unit is designed to supply voltages up to 180 for sets having up to and including 8 tubes. It has six binding posts from which the following voltages may be obtained: 15 volts for detector, 70 volts for R.F. tubes, 135 volts for first audio, or if power tube is not used, for all audio tubes, and 180 volts if a 171 power tube is used. The correct C voltage for 171 power tube is provided and is taken from terminal marked C.

Fixed wire wound resistances are used in the output circuit. This way single control is obtained. Uses a Raytheon 171 mfd. rectifier tube. The dimensions are 3 3/4" x 8 3/4" x 7 3/4" high. Shipping weight approximately 20 lbs.

No. 5381-E-25. List \$25.00 (less rectifier tube). Net **\$14.70**
No. 5382-E-25. Same, with Raytheon Tube. Net **\$17.35**

Thordarson R-171 Power Supply and Amplifier



Supplies A B C power for a 171A tube and B power for the entire receiver. Contains: 1 Thordarson 171 compact, 1 171 filter condenser, 1 171 tapped resistance, 2 UX sockets, 1 Thordarson 196 choke, 1 2-mf. filter condenser, 2 1-mf. by-pass condensers, 1 1-post terminal strip, 1 bakelite strip, 2 tip jacks, 1 9"x11" baseboard, 4 binding posts, screws, wire. Tubes required (not furnished) are 1 Raytheon BH tube and 1 171A power tube. Weight 25 lbs.

No. 6371. List \$42.10. Net..... **\$24.95**

No. 6674. COMPETITIVE MODEL. **\$21.95**

List \$42.10. Net.....

"B" Eliminator Only

Will supply complete "B" current to any receiver, also A B C voltage to one or two 171A power tubes. Consists of 1 Thordarson 171 compact, 1 171 filter condenser, 1 171 tapped resistance, 1 bakelite socket, 2 1-mf. filter condensers, 1 2-post terminal strip with posts, 1 5-post terminal strip with posts, screws, lugs, wire, 2 lengths spaghetti tubing. Shipping weight 20 lbs.

No. 6372. List \$33.80. Net..... **\$21.28**

COMPETITIVE MODEL "B" ELIMINATOR

Consists of nationally advertised manufacturers' parts. Do not judge the quality of this "B" eliminator kit by its very low price! We guarantee you 100% PERFORMANCE and SATISFACTION with this kit. Can be assembled in 15 minutes. Requires a Raytheon 125 mil. rectifier tube.

No. 6683. List \$33.80. **\$14.88**

Net

'B' Eliminator for the New No. 245 Power Tubes!

Modernize any receiver by installing one or two (for push-pull audio circuits) of the new 245 type power tubes. Far superior to 171 type tubes! Kit consists of a power transformer and two choke coils in one unit, filter condenser block, voltage divider resistance, socket, baseboard and necessary binding posts. Can be assembled in 10 minutes! One Type 280 Rectifier Tube is required.

No. 5092. List \$42.00. Your Spe- **\$14.45**

cial Net Cost. WITH ONE STAGE OF PUSH-PULL AMPLIFICATION FOR TWO 245 TYPE POWER TUBES

Same as above kit, No. 5092, with the following additional parts included: One S-M type 247 filament transformer, two more sockets, two super power push-pull audio transformers, and one 850-ohm resistance. Mind you, your present receiver wiring is not disturbed. This push-pull stage takes the place of the last tube, and audio stage, in your receiver. THUNDEROUS AND DISTORTIONLESS VOLUME IS YOURS—MODERNIZE YOUR RECEIVER AT A TRIFLING COST!

No. 5093. List \$65.00. Your Spe- **\$24.45**

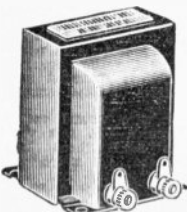
cial Net Cost.

Thordarson Resistance Unit



13,000 ohms divided into 2,000, 3,000, 3,000, 3,000 and 2,000 ohms, intended to supply plate voltages of 45, 90, 135 and 180 volts and approximately 10 volts C bias for the 171 type power tube.

No. 7881-508-1. List \$2.15. Net..... **\$1.27**

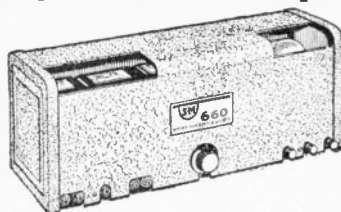


Thordarson Filter Choke Coil

Inductance 30 henries. Current carrying capacity of 70 milliamperes. D.C. resistance of 280 ohms. Can also be used as a filter choke for keeping high voltages off your loud speaker. Measures 2 1/2" by 2 1/2" by 3" high. Shipping weight 5 lbs.

No. 9646-R196. List \$5.00. Net..... **\$2.94**

Silver-Marshall 660 - 171A Unipac Push-Pull Amplifier

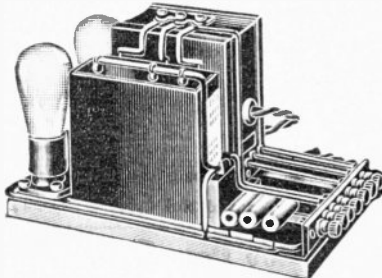


This is a single stage push-pull power amplifier for 171A tubes and is essentially a small edition of the 681-210 Unipac. The power supply is a full wave rectifier system using 2 Raytheon gasous rectifier tube, delivering about 220 volts at 102 milliamperes. A variable "C" bias resistor is provided to allow proper bias to be obtained for 171A or 171A tubes. Will also furnish 1.5 volts at 5.0 amperes and 2.5 volts at 7.0 amperes for A.C. tubes in any receiver. Consists of first quality parts throughout—parts worthy of its splendid performance! Tubes required: two 171A amplifiers, one 171A regulator, one Raytheon 125 M.A. rectifier. Comes to you completely wired by Factory Experts—ready for immediate service. You will be thrilled by its terrific volume and truly distortionless quality reproduction. Shipping weight 20 lbs.

No. 6688-660-171A. Completely Assembled and wired. List \$76.00. (Less **\$29.50**

Net

Thordarson R-210 "B" Eliminator Power Supply



Exceptional tone quality or exceptional volume are two different goals to attain in a receiver; as a rule, one is obtained at the expense of the other. However, such is not the case if you will use a 210 power tube in the last socket of your receiver, and use this eliminator to supply that tube with A, B and C current, as well as all lower intermediate "B" voltages for the rest of the tubes in your receiver. Developing in excess of 400 volts, the quality of the reproduction in your loud speaker will be almost uncanny in its reality—and with volume enough to fill a good sized hall! The simplicity of assembly involved will impress you—any novice can complete it within one hour. Supplies not only the 400 volts to 210 tube, but also 7 1/2 volts for filament of the 210 power tube and 7 1/2 volts for the filament of a 681 rectifier tube—and complete "B" supply for the entire receiver. Complete parts to build this power unit, including the following: Thordarson 210 power compact, 210 "B" block, 8,000-ohm resistance, 21,000-ohm resistance, 1-1,000-ohm fixed resistance, metal baseboard with socket and binding posts mounted, diagram, etc., without tubes. (Tubes required: one 381 and one 371 voltage regulator tubes.) Weight 35 lbs.

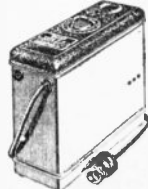
No. 6418. List \$51.90. Net..... **\$30.52**

R-210 Power Amplifier and "B" Supply

This power amplifier combination unit contains, in addition to the above, 1 Thordarson 1300 transformer, 171A socket, 1 Thordarson R76 output transformer. Using this combination one less tube (the second stage amp. tube) is required in your receiver. Incidentally, the loud speaker connections will then be made direct to the output transformer on this power amplifier. Use one 381 tube, one 371 voltage regulator and one 210 power tube (not included).

No. 6419. List \$56.20. Net..... **\$33.55**

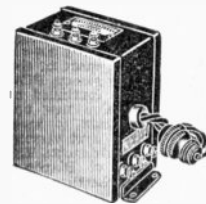
Acme Power Amplifier



The Acme PA 1 power amplifier consists of a single stage of resistance coupled amplification with an impedance leak, a filament lighting transformer (to light the power tube, either of the 112, 312, 171 or 371 types used therein direct from the A.C. current line, thus imposing no additional drain on your storage battery) and an automatic "C" bias supply. Can be used in conjunction with any receiver. Exceptionally attractive in appearance. Weight approximately 8 lbs.

No. 5979-PA 1. Without tube. List \$12.50. Net **\$7.35**

Thordarson Power Compacts R-171 Compact



Contains a power supply transformer for full capacity operation of Raytheon BH rectifier, 2 filter chokes of 80 milliamperes capacity, a 5-volt center tapped filament supply for one or two UX171A power tubes, and 2 buffer condensers—all in one compound filled steel case. Equipped with 6 ft. cord and separable plug for attachment to the 110-volt, 60-cycle light circuit. Dimensions, 3 1/4" by 5 1/2" by

6" high overall. Maximum voltage output: 170 to 225 volts plate current, depending on milliamperes drain. Shipped express collect.

No. 9038. Power Compact R-171. **\$8.82**

List \$15.00. Net.....

R-210 Compact

Contains a power supply transformer for full capacity operation of the UX281 rectifier furnishing 400 volts to the plate of the power tube UX210 and all intermediate voltages, 2 filter chokes, a 7 1/2-volt center tapped filament supply for one UX210 power tube—all in one compound filled case. Equipped with a 6 ft. cord and separable plug for attachment to the 110-volt, 60-cycle light circuit. Dimensions, 3 1/4" by 5 1/2" by 6 1/2" high overall. Shipped express collect.

No. 8924. Power Compact R-210. **\$11.76**

List \$20.00. Net.....

R-280 Compact

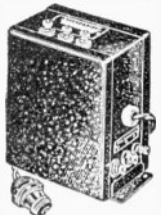
This compact is used with a filament type rectifier, namely, the UX 280 type—otherwise, it is very much the same as the R 171 Compact.

No. 5251-R-280. List \$17.00. Net. **\$10.00**

R-480 Power Compact

Consists of proper transformer, filter chokes, filament windings, and buffer condensers sealed in one case. This is the model to use when using two 171 tubes in push-pull audio amplification circuits.

No. 7908-480. List \$17.00. Net.... **\$10.00**



Thordarson 210 Voltage Divider



A voltage divider kit designed for use with power amplifiers using the Thordarson R-210 Power Compact. May be used in similar power amplifiers employing the UX-874 voltage regulator tube. Consists of four individual resistors as follows: one 8,000 ohm resistor with tap at 1,200 ohms; two 10,000 ohm resistors; and one 1,000 ohm resistor. Provides B voltages of 15, 90, 135 and 400 volts, and C-bias for the 210 power tube.

No. 7907-R-508-3445. List \$4.90. Net **\$2.88**

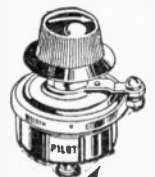
Thordarson Resistance Kit



For power supply transformers T-2098, T-2300 and T-2350. Contains individual resistors as follows: One 4,000 ohm fixed resistor, one 4,000 ohm variable resistor, one 10,000 ohm fixed resistor, one 10,000 ohm variable resistor, and one 750 ohm fixed resistor.

No. 7899-R-2098. List \$9.75. Net..... **\$5.74**

Pilot Resistograd



Continuously variable resistance from practically zero to 40 megohms. Resistance material is hermetically sealed in a case moulded of special high temperature bakelite material. Widely used as a regeneration control, voltage regulator, volume control and variable grid leak. Occupies less space on the panel than a rheostat. Popular single-hole mounting is employed. A bakelite knob of pleasing shape is furnished. The shell is moulded bakelite. All metal trimmings handsomely nickel-plated.

One of our best sellers. Every experimenter should have a few on hand, because of their versatility—and established efficiency. Shipping weight 1 lb.

No. 5696-350. List \$1.00. Net..... **\$0.59**

Thordarson Filament Supply Transformer



Will supply filament current for one or two UX-226 type A.C. tubes. Ideal for phonograph amplifiers. Primary: 110-115 volts, 50-60 cycles, alternating current only. Secondary No. 1: 1.25 volts, no center tap, 2 amperes. Secondary No. 2: 2.5 volts, no center tap, 3 1/2 amperes. Dimensions: 2 1/2" x 3" x 3 1/4" high. Weight 3 lbs. No. 7893-T-3081. List \$6.00. Net... \$3.53

Thordarson Filament Heating Transformers Type T-2445



For use with the alternating current tubes UX-226 and UX-227 and power tubes UX-171 or UX-112. Specifications—Secondary No. 1: 1.5 volts, will supply 6 UX-226 or CX-326 amplifier tubes. Secondary No. 2: 2.5 volts, will supply 2 UX-227 or CX-327 detector tubes (center tapped). Secondary No. 3: 5 volts, will supply 2-5 volt power tubes. Primary: 115 volts, 60 cycle equipped with 6 foot cord and separable plug. Receptacle: Provided for B-supply plug. Case: Crackle finished, compound filled. Dimensions: 2 1/2" x 5 1/2" x 4 1/2" high. Shipping weight 6 lbs. No. 7894-T-2445. List \$10.00. Net... \$5.88

Type T-2504

For use only with 1 to 10 McCulloch A.C. tubes of the heater type. Specifications—Primary: 110-115 volts, 50-60 cycles, equipped with six foot cord and separable plug. Secondary: 3 volts with center tap. Current capacity: 30 volt amperes. Dimensions: 3 1/2" x 3" x 3 3/4" high. Weight 5 lbs. No. 7895-T-2504. List \$7.50. Net... \$4.41

Type T-2180

Filament supply for all 5 volt filament power tubes. Especially recommended in all cases when power tubes are used in push-pull output stage. Specifications—Primary: 110-115 volts, 50-60 cycles, equipped with six foot cord and separable plug. Secondary: 5 volts, center tapped. Sufficient capacity for 2-5 volt power tubes. Dimensions: 3 3/4" x 2 1/2" x 3 1/4" high. Weight, 4 lbs. No. 7896-T-2180. List \$5.00. Net... \$2.94

Type T-2230

This transformer is similar to type T-2180 except that it is designed for larger power tubes with 7 1/2 volt filaments. Specifications—Primary: 110-115 volts, 50-60 cycles, equipped with six foot cord and separable plug. Secondary: 7 1/2 volts, center tapped. Sufficient capacity for 2-7 1/2 volt power tubes. Dimensions: 3 3/4" x 3" x 3 3/4" high. Weight 4 lbs. No. 7897-T-2230. List \$7.50. Net... \$4.41

Thordarson Power Input Plug



This plug makes a convenient method of connecting the power amplifier to a receiver. Fits into last audio socket in receiver and impresses signal on grid of power amplifying tube. Removes necessity of changing wiring of receiver to accommodate power amplification. No. 7890-172. List \$1.00. Net... \$0.59

Universal Clarostat



Can be varied from practically zero to 5,000,000 ohms; thus it can be adapted for practically any purpose where a variable resistor is called for. The Clarostat is extremely useful in "B" eliminators, where it is used to reduce the voltages for the detector and R.F. tubes. Connected across the secondary of the second stage audio transformer. It will eliminate all rassy noises and eliminate distortion. Connected in the R.F. plus "B" battery lead, it will very admirably control the oscillations in the R.F. stages. Connected across a fixed tickler coil, it will control the regeneration therein. Encased in a compact insulated shell, and is equipped with a bakelite knob with engraved white arrow thereon. Rating 20 watts. Shipping weight 2 lbs. No. 9983. List \$2.25. Net... \$1.32

NOTE

On other pages of this catalogue are listed additional products of Clarostat manufacture.

Thordarson Power Supply Transformers



Supplies A-B-C current to two UX-210 power amplifying tubes and B current to the receiver. To be used with two UX-281 rectifier tubes. Conservatively rated, cool in operation. Primary: 110-115 volts, 50-60 cycles, alternating current only. Secondary No. 1: 550 volts each side of center tap, capacity of winding 130 milliamperes. Secondary No. 2: 7 1/2 volts, center tapped, 2 1/2 amperes. Secondary No. 3: 7 1/2 volts, center tapped, 2 1/2 amperes. Case: Crackle finish steel, compound filled. Dimensions 1 1/2" x 5 1/4" x 5 1/4" high. Weight 18 lbs. No. 7888-T-2098. List \$30.00. Net... \$11.76

Type T-2900

Supplies A-B-C current to a single UX-250 type power amplifying tube and B current to the receiver. To be used with two UX-281 type rectifier tubes. Conservatively rated, cool in operation. Primary: 110-115 volts, 50-60 cycles, alternating current only. Secondary No. 1: 610 volts each side of center tap, capacity of winding 130 milliamperes. Secondary No. 2: 7 1/2 volts, center tapped, 2 1/2 amperes. Secondary No. 3: 7 1/2 volts, center tapped, 2 1/2 amperes. Case: Crackle finished steel, compound filled. Dimensions: 4 1/2" x 5 1/4" x 5 1/4" high. Weight 18 lbs. No. 7889-T-2900. List \$20.00. Net... \$11.76

Type T-2950

Supplies A-B-C current to power amplifiers using two UX-250 power amplifying tubes in push pull. To be used with two UX-281 type rectifier tubes. Conservatively rated, cool in operation. Primary: 110-115 volts, 50-60 cycles, alternating current only. Secondary No. 1: 675 volts each side of center tap, capacity of winding 200 milliamperes. Secondary No. 2: 7 1/2 volts, center tapped, 2 1/2 amperes. Secondary No. 3: 7 1/2 volts, center tapped, 2 1/2 amperes. Case: Crackle finished steel, compound filled. Dimensions: 4 3/4" x 6 1/4" x 5 1/4" high. Weight 21 lbs. No. 7890-T-2950. List \$29.50. Net... \$17.35

Thordarson Double Choke Units



Designed for use in the filter circuit of power supply devices using power supply transformers T-2098, T-2900, T-2950, respectively, or other similar transformers. Contains two 30 Henry chokes, conservatively rated. Each double unit contained in a crackle finished steel case, compound filled. Size: 4 1/2" x 5 1/4" x 5 1/4". Weight 18 lbs.

	List	Net
No. 7904-T-2099. (Capacity 130 M. A.)	\$11.00	\$8.23
No. 7905-T-3099. (Capacity 160 M. A.)	16.00	9.41
No. 7906-T-3100. (Capacity 200 M. A.)	18.00	10.58

NOTE

T-2099 is for use in all packs using 112-171 or one 210 power tube.
T-3099 is for use in a 210 stage of push-pull amplification, or for one 210 in a transmitter.
T-3100 is for a pair of 250 tubes in a push-pull amplifier, or in a 50 watt transmitter.

Power Type Clarostat



The variable resistor for power applications. Current carrying capacity of 40 watts. Provides wide range of resistance in several turns of knob. Compact, permanently sealed, fool-proof, ample heat radiation. One-hole mounting with crimped face to prevent turning of body. Panel mounting (9/16" hole) or baseboard mounting with bracket supplied. Connections made to solderless terminals. Heavy nickel-plated. Genuine polished Bakelite knob with engraved white arrow. In the low-range model, it is used for line-voltage control and protection of rectifier tube against flashovers. Universal range model and low-range model used for controlling filament current for series-connected filaments. Many applications in radio transmitters, where heavy-duty device is required. Invaluable in laboratory work. Shipping weight 3 lbs.

Model	Resistance Range	Rating
Filament Control	0-10 ohms	40 watts
Low Range	25-500 ohms	40 watts
Universal Range	200-100,000 ohms	40 watts

No. 5154. (State model desired.)

List \$3.50. Net... \$2.06

Thordarson Latest Model "B" Eliminators and Power Amplifier Kits

MODEL 250 PLUG-IN AMPLIFIER AND PLATE SUPPLY

Last stage power amplifier, using a 250 tube. Also furnishes "B" Power to any receiver. Tubes required: two CX381, one CX350, one CX374. Shipping weight 50 lbs.

No. 7215. List \$85.55. Net... \$47.85

MODEL 250 2-STAGE POWER AMPLIFIER AND PLATE SUPPLY

Supplies ABC current to power and rectifier tubes—and "B" power to rest of receiver. 227 tube used in first audio stage, and 250 in second stage. Tubes required: two CX381, one CX350, one CX327, one CX374. Shipping weight 55 lbs.

No. 7216. List \$98.00. Net... \$56.86

MODEL 250 PUSH-PULL DEMONSTRATION AMPLIFIER

Far too powerful for home. For outdoor work, auditoriums, etc. Three stages of amplification for microphone work, two for phonograph or radio. Tubes required: two CX350, two CX327, two CX381, one CX374. Shipping weight 60 lbs.

No. 7217. List \$152.25. Net... \$89.52

Model 210 PUSH-PULL SINGLE STAGE AND PLATE SUPPLY

Tremendous volume. Uses two 210 power tubes in push-pull audio amplification system. Furnishes ABC power to this audio stage as well as "B" supply to any receiver. Tubes required: two CX310, two CX381, one CX374. Shipping weight 50 lbs.

No. 7218. List \$86.50. Net... \$49.90

MODEL 210 PUSH-PULL AMPLIFIER WITH FIRST AUDIO STAGE AND PLATE SUPPLY

Same as above kit, but includes a first audio stage using a CX327 A.C. tube therein.

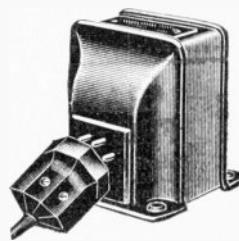
No. 7219. List \$106.00. Net... \$61.75

PHONOGRAPH AMPLIFIER

Two-stage amplifier designed for use with an electrical phonograph pick-up and dynamic speaker. Only 10" square. Uses 129 tube in first stage and 210 in second. All ABC power automatically furnished. Tubes required: one CX299, one CX310, one CX381. Shipping weight 50 lbs.

No. 7220. List \$61.25. Net... \$33.50

Samson "B" Eliminator Transformers



Designed to furnish 200-volt plate supply from a "60-cycle" A.C. power source. Furnishes necessary filament supply for UX or CX-380 tube and one or two 171's. Can also be used with Raytheon BH tubes.

No. 7851-132. List \$18.00. Net... \$10.58

No. 132

Samson Transformer No. 162

Furnishes a 500-volt plate supply to tubes such as the 210. Filament supply for UX or CX-381 and another winding for one or two 210 tubes. Secondary voltage is 725. For 110 A.C. 60 cycle.

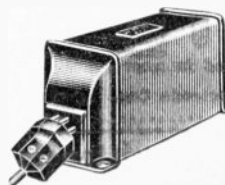
No. 7852-162. List \$21.00. Net... \$14.11

Samson Transformer No. 232

Same as No. 132 transformer but also supplies necessary "C" voltages, filament current for five UX-226 and two UX-227 A.C. tubes, and for two 171 tubes. Rating 100 watts.

No. 7853-232. List \$19.50. Net... \$11.47

Samson Transformer No. 262



Same as No. 162, but is also capable of supplying "C" voltages, filament current for five UX-226, two UX-227, and for two 210 tubes.

No. 7854-262. List \$33.00. Net... \$19.40

	List	Net
No. 7855-713. Power Block	\$25.50	\$15.00
No. 7856-718. Power Block	33.50	19.76
No. 7857-210. Power Block	39.50	23.23
No. 7858-463. Transformer	18.00	10.60



Rectifier Cells

These rectifier cells, of which four must be used for the complete full-wave rectification, are standard with us, having been specially designed for "B" eliminator work. These 1-oz. jars, with acid- and heat-proof rubber screw covers, are furnished with two electrodes, namely, pure aluminum and lead. A vent cap is also provided. The special connectors listed below should be used for connecting the cells together. Size 4 1/2" by 2 1/2".

Shipping weight 1 lbs.

No. 4003. Rectifier Cell (but no connectors nor salts). Complete with cover and electrodes. Net Each... **\$0.60**

Large Size Rectifier Cell



Commonly termed a "pint" size rectifier jar, it can be used in either a trickle charger rectifier or in a "B" battery eliminator. In the former instance, only one jar is required; in the latter, four jars are required. Consists of a heavy jar with a threaded "neck" upon which is screwed the molded cover and through which are inserted the 1/2" diameter lead and aluminum electrodes (No. 4017-4018) separated by 1 1/2". A removable vent cap completes the unit. Besides this unit, you need a lamp cord and plug and our No. 8804 resistance to assemble your own trickle charger. Overall dimensions are 5 1/2" high, 3 1/2" diameter. Shipping weight 5 lbs.

No. 8803. As illustrated, Net..... **\$1.35**

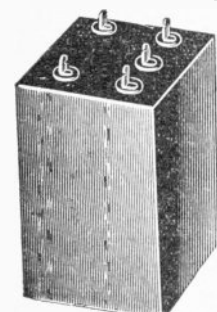
Trickle Charger Resistance



Used in conjunction with our No. 8803 Rectifier. The resistance itself consists of a long "spring" wound around the porcelain standard, in which are molded the grooves to receive this resistance. The ends of same are connected to a plug which screws into the porcelain standard base plug furnished. Two mounting holes and two connection terminals are conveniently provided on the base. The capacity is rated at 75 watts. Overall length of resistance is 4 1/2", and, including the socket, 5". Can also be used as a Heater Coil.

Shipping weight 3 lbs.

No. 8804. Net..... **\$1.15**



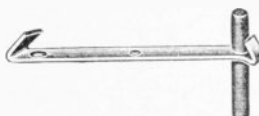
"RASCO" Filter Block

This is the high capacity 500-volt tested condenser system used in the NO-HUM "B" Battery Eliminator. Can be used in other type eliminators. Contains four condensers, all in one housing, as follows: one each 4-mfd., 2-mfd. and two 1-mfd. Complete as illustrated, with five terminals; in tin shell, size 1 1/2" high. Exceptional value.

Shipping weight 2 lbs.

No. 4001. Block. Net..... **\$3.85**

Electrode Connectors



Set of four special connectors sold as one unit. Strap over the round electrodes, giving a positive binding contact at all times that stays put. Illustration shows how connector clamps over

1/4" red. Center hole is used for screw and nut binding post.

No. 4004. Set of 4 Electrode Connectors. Net..... **\$0.16**

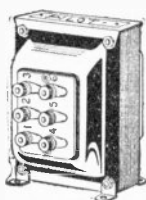
Voltage Divider Resistances



Standard for eliminators. Two of these must be used in standard eliminators for 22 1/2 and 45 volt

outputs. The resistance is 10,000 ohms per unit. Resistances come complete with two spring clip mountings. No. 1005. "B" Eliminator Resistance, 10,000 Ohms. Net Each.... **\$0.50**

Pilot A.C. Tube Filament Lighting Transformer



Ample copper and iron give a degree of voltage control which cannot be approached by transformers of skimpy design—a factor of prime importance because of the voltage accuracy required for A.C. tubes. Engineering skill plus extreme accuracy in manufacture have made the No. 386 an outstanding success in all kinds of circuits which employ one or two 1'Y-227's, one to five UX-226's and one to two 5-volt tubes such as the UX-171 (or 112 series) in the last amplifier stage. A special feature of this transformer is the

provision of center taps on all three secondaries, thus eliminating the trouble of center tap resistances. The method employed in determining the electrical center is so accurate that the tap cannot be out even a fraction of a turn from the center. If you are following a hook-up that calls for center tap resistances, wire the set as if there were no resistances shown, and run the center tap connections to the center posts on the transformer instead of hooking them on resistances. The operation of the set will not be affected, and you will eliminate those extra resistances and their connections. Operating Costs: At full load, the cost of running this transformer, at 10c per k.w. for house current, is four-tenths cent per hour, or one cent for 2 1/2 hours. The appearance of the No. 386 is quite as fine as its performance. The case is finished in baked black enamel, with the name plate in red and gold. All exposed metal parts are nickel plated. Size 3 3/4" long, 2 3/4" wide, 3 3/4" high. For 110 volt 50 to 60 cycles A.C. Shipping weight 10 lbs.

No. 7724-386. List \$6.00. Net..... **\$3.53**

Pilot Universal "B" Power Transformer

Either the 280 tube filament rectifier or Raytheon 125 mil. non filament rectifier can be used in conjunction with these "B" Power Transformers. Choice of rectifiers is mostly a matter of personal preference. Each side of the secondary delivers 275 volts at 60 mils. This gives an output voltage of 220 volts maximum at full load. The 5-volt winding will deliver up to 2 amperes. It is used to operate the filament of a 1'Y-280 tube. When a Raytheon rectifier is employed, the 5-volt winding can be connected to the filament of one or two 171 power tubes, if you wish. Total output of 220 volts allows the use of 40 volts of this for the C—bias for a 171 power tube, leaving 180 volts for the power tube plate and speaker. The correct tapped resistor for this purpose is Pilot No. 960—starting from the B—end, has resistances of 4,000, 3,650, 2,250, and 2,800 ohms. The "B" power transformers match in appearance and finish the A.C. tube filament lighting transformers. The case is finished in baked black enamel, the name plate is of red and gold, and the exposed metal parts nickel plated. For 110 volt 50 to 60 cycle A.C. Shipping weight 10 lbs.

No. 7723-387. List \$6.00. Net..... **\$3.53**

Yaxley Two Stage Switch



Used for controlling the filaments of first and second audio stages with one switch. Turned to left, the switch is off. The center position cuts in the first audio stage. Turned to right, the switch cuts in the first and second audio stages.

	List	Net
No. 7255-69—Two Stage Switch Voltmeter Switch frame as illustrated	\$1.25	\$0.74
No. 7256-69B—Two Stage Switch (Straight Frame)	1.25	.74

Rectifier Cell Electrodes

For those who wish to make their own rectifiers we supply electrodes. We use only 99.5 per cent pure aluminum in connection with our rectifiers. The small electrodes measure 3/4" long by 1/4" in diameter. The large electrodes are 1 1/4" long by 1/2" in diameter, and are threaded at one end, two nuts being furnished with each electrode. The large electrodes are intended for pint jars, which can be used for either "B" eliminators or "A" trickle chargers.

No. 4015. Small Aluminum Electrode.....	\$0.10
No. 4016. Small Lead Electrode.....	0.08
No. 4017. Large Aluminum Electrode.....	0.35
No. 4018. Large Lead Electrode.....	0.30

Eliminator Rectifier Salts

Only long experience can produce the correct "B" eliminator rectifier salts. One filling charges one cell. Also used for Trickle Charger Rectifiers.

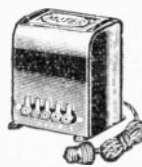
No. 4006. Rectifier Salts, per box (one complete charge). Net Each.... **\$0.15**

NO-HUM "B" ELIMINATOR BLUE PRINT

You can quickly assemble a "B" eliminator with this detailed Blue Print. Shows use of four No. 4003 Cells, one No. 4002 choke, one No. 4001 Block, two No. 4005, four No. 4006, four No. 4004.

No. 5411. Net..... **\$0.50**

Muter A.C. Filament Transformer



Heavy duty vacuum impregnated coil with large silicon steel core. Instrument black enameled metal shell with nickel plated terminals. Doubly sealed with insulating compound. Size: 4" high, 3 1/4" long, 2 1/2" wide. Taps will supply six 225 tubes at 1 1/2 volts, two 227 tubes at 2 1/2 volts with center tap, and two 112 or 171 tubes at 5 volts with center tap. Certainly, a big bargain at the low price quoted. Shipping weight 5 lbs.

No. 7275-3600. List \$6.00. Net.... **\$3.53**

Muter B Power Unit Transformer



An efficient long life transformer enclosed in enameled metal case, with nickel terminals and doubly sealed against atmospheric conditions. Size 5" high, 3 3/4" long, 2 1/2" wide. Standard type output, 110 volts center tapped, and 5 volts center tapped with static shield and primary. Heavy duty type output, 520 volts center tapped and 5 volts center tapped with static shield and primary. Either a 280 filament type rectifier may be used, or a Raytheon rectifier tube—a filament winding on the secondary takes care of the lighting of the filament of the tube, if it is used. If it is not used, it can then be used to light a power tube in the receiver. Shipping weight 9 lbs.

No. 7419-3213. Standard Type. List \$5.00. Net..... **\$2.91**

No. 7420-3220. Heavy Duty Type. List \$6.00. Net..... **3.53**

Muter Power Unit Choke



Vacuum impregnated coil assembled in high grade silicon core. Enclosed in enameled metal shell and sealed with moisture proof compound. Ideal for 171 Power Compacts. Size 3" high, 3 1/4" long, 2 1/2" wide. Binding post terminals. Shipping weight 3 lbs.

No.	Inductance	Capacity	List	Net
7280-3120	20 henrys	—65 mils	\$3.00	\$1.77
7281-3130	30 henrys	—80 mils	4.00	2.35

Voltage Changer



For changing line voltages of 220 volts to 110 volts. Designed primarily to enable 110 volt A.C. radio receivers and power units to be operated in districts where line voltage is 220. Equipped with a six-foot cord and separable plug. Secondary terminals in a standard plug receptacle. Completely shielded, no exposed live parts. Furnished in attractive crackle finished, compound-filled steel case.

Primary: 220-230 volts, 50-60 cycles, alternating current only. Secondary: 110-115 volts. Capacity: 60 V. A. Dimensions: 2 1/2" x 6" x 1 1/2" high. Weight, 5 lbs.

No. 8069-T-2604. List Price \$10.00. Net..... **\$5.88**

Hallderson Power Transformers and Filter Chokes

Are guaranteed not to over-heat or become noisy in operation. Have excellent voltage control curves and will safely carry 85 mills.

Type 180 has one 500-volt winding tapped at the exact center, two tapped 5-volt windings, one 1 1/2-volt winding and one 1 1/2-volt winding. The last two windings are actually slightly lower than their rating to prevent premature burnout of A.C. tubes. Any standard make of A.C. tubes should give at least a year's service when operated with Hallderson Power Transformers. Type 125 is similar to 180 except that the secondary is a 120-volt winding, tapped at 600 volts with two 7 1/2-volt tapped filament windings in place of the 5-volt on the No. 180, and no A.C. filament windings are supplied. Shipped express collect from Chicago.

No. 5387. Type 180. List \$10.00. Net... **\$5.88**
No. 5388. Type 125. List \$12.00. Net... **7.06**
No. 5389. Double Filter Choke, 30 Henries. List \$7.00. Net..... **4.12**

Handy Trickle-Booster Charger



For either 4 or 6 volt storage batteries. Combines both $\frac{1}{2}$ ampere trickle charger and fast two ampere charger. Instantly changed from continuous, slow rate charger to fast rate booster by merely throwing the switch on the panel. Uses long life two ampere handy metallic tube or standard glass rectifier bulb—Tungar type. Absolutely quiet. Why buy an ordinary trickle charger when you can get the combination of an improved trickle charger and a fast

rate charger all in one small unit at the same price? The new Handy Trickle Booster is now equipped with an accurate ammeter which enables the set owner to tell at a glance whether his battery is receiving the proper charge. In normal use the switch is thrown to the "low" side and a smooth, quiet charging rate of $\frac{1}{2}$ ampere flows to the battery. If a fast rate is necessary for a weakened battery, the switch is thrown to the high side and a 2 to 2½ ampere rate quickly restores the battery to a fully charged state. Contained in beautifully finished Duco Brewster Green all metal case. Size 8"x5"x5". Shipping weight 15 lbs. Shipped express collect from St. Louis.

No. 7433. 110 volt, 50 or 60 cycle A.C., with metallic tube. List \$18.00. Net..... **\$8.23**
No. 7434. 110 volt, 25, 30 or 40 cycle A.C., with metallic tube. List \$16.00. Net..... **\$9.41**

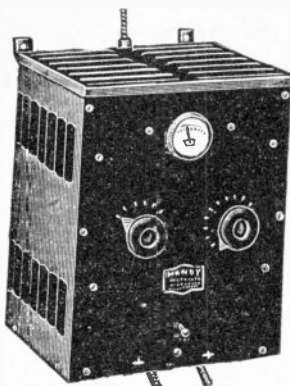
Handy Metallic Rectifier Tube

Bone Dry, Noiseless, Indestructible, Long Life, Efficient

Can be used with all makes of chargers and power units—2 ampere or trickle—with lower spring contact or Fahnestock clip. Is a 2 to 2½ dry ampere indestructible rectifier. It is made of solids—metallic discs—strong, durable and long lasting, and is a modern form of rectification, free of liquids, vacuum or gaseous tubes, vibrating parts or any components that have heretofore required maintenance or replacements. It is absolutely noiseless—no hum. It is contained in a heavy nickel-plated tube with standard Edison base to fit the socket of any bulb type rectifier employing a glass bulb. It will deliver a truly rectified steady current of 2 to 3½ amperes in a charger built to charge 6 volt or 4 volt batteries, and will operate satisfactorily in any bulb type trickle charger on the market. Its long life and steady output is especially suitable in chargers of the trickle type, using the .5 and .6 ampere rectifier tubes. It will perform without noticeable signs of deterioration for many thousands of hours, and the watt consumption of a charger equipped with this rectifier tube is just about half that of the same charger with a gas filled bulb. There is no filament or elements to wear—there are no liquids to dry—no gas to leak—nothing to break—solid metals employed all the way through. Shipping weight 2 lbs. Size approximately the same as a regular tube.

No. 7424. List \$4.00. Net..... **\$2.36**

Handy Garage Type Chargers



Cases are thoroughly ventilated with louver type openings, making the outside appearance very attractive. Transformers are equipped with even steps or secondary taps, giving very fine current regulation. Rotary and quick break switches controlled by a handle extending through the front panel, provide a means of setting the charging rate to the desired value. The 15 B is

equipped with supplementary rheostat for fine adjustment of the charging current to give any desired rate for forming the plates of new batteries. Chargers are finished in Brewster Green Crystal Duco. Will quickly pay for themselves. Imagine, at 50¢ per battery charged, you make a handsome profit! All equipped with 4.8 ampere Tungar bulb. Shipped from St. Louis. The model "6-B" has a capacity of six batteries, and the "15 B" (illustrated), 15 batteries. Shipping weights, 95, 120, 112, 142 lbs in order listed.

No. 7927. Model 6-B. Capacity, 6 batteries; 6 ampere rate; for 110-220 volt; 50 or 60 cycle current. Net..... **\$44.10**
No. 7928—Model 6-B. For 110-220 volt; 25, 30 or 40 cycle current. Net..... **53.90**
No. 7930—Model 14-B. Capacity, 15 batteries; 6 ampere rate; for 110-220 volt; 50 or 60 cycle current. Net..... **68.60**
No. 7931—Model 15-B. For 110-220 volt; 25, 30 or 40 cycle current. Net..... **78.40**

Webster "Bone-Dri" Charger

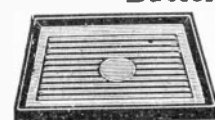


The new Webster Bone Dri Charger, using the Elkon Rectifier, charges at the full rate of 3 amps. It charges at a tapering rate, that is, when your A battery is low, the rate of charge is high, and when the battery is high the charging rate is low. This feature insures you against the possibility of over-charging your battery. There are no tubes, liquids or acids of any sort, and it needs no attention. It is of sturdy design with the

rectifier in the open, allowing complete ventilation. Size, 4" wide, 6" high, 7" long. Shipping weight 8 lbs.

No. 8278. List \$12.10. Net..... **\$7.11**

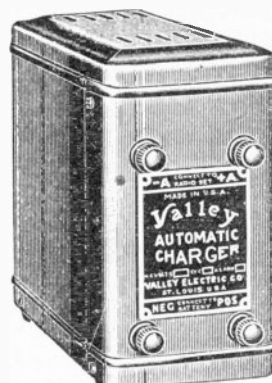
Battery Tray



We hardly need suggest the wisdom of placing your wet batteries in this tray so no acid can get to the rug. It may save its cost many times over and the women folks will appreciate your thoughtfulness. Full size for your battery. Heavy black rubber. Shipping weight 3 lbs.

No. 4512. List \$4.00. Net..... **\$0.42**

Valley Automatic Charger



Equipped with automatic "B" Power relay switch and battery charger control so that set and all accessories can be operated from the switch of your receiving set. Employs an entirely new life long rectifier. This charger has no liquids, no moving parts, no noise—requires no attention. Small and compact, with black enameled case—fits all console compartments—comes complete with cord, plug leads and clips. Capable of delivering either 1½ or 2½ amperes, which is controlled by a HIGH and LOW plug under the lid. Equipped with "B" Power Supply re-

ceptacle and start and stop toggle switch. Designed to charge 3 volt "A" batteries. This device, plus any storage battery, practically makes any receiver a socket power operated affair—with no new tubes to buy or any rewiring in your receiver! Size 8½" long, 7¾" high, 4½" wide. Shipping weight 10 lbs.
No. 8332. List \$16.50 Complete. **\$9.70**
Net.....

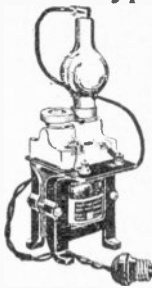
Valley Battery Charger



Charges any 6-volt storage battery at 6 ampere rate, or any 12-volt battery at a 3 ampere rate. The most efficient high rate battery charger made. Equipped with full length cord to attach to your lighting circuit, clips and leads to attach to your battery, and a very accurate ammeter, registering rate of charge. Transparent, molded cover. Rests on rubber feet. For 110 volt A.C. current. Size 6" x 6¾" x 7½". Shipped express collect. Weight 21 lbs.

No. 9671. List \$19.50. Net..... **\$11.73**
No. 9072. For 25, 30, 40 cycle, 110-volt A.C. current. List \$21.00. Net..... **\$13.95**

Holmes Tungar Bulb Type Battery Charger



In operation, there is no noise to disturb you—there are no acids or liquids to contend with, nor burning out of vibrator contacts. Simply snap connections from charger to battery terminals, plug into your lighting circuit—the Holmes charger will do the rest, at a 2 ampere charging rate. Can be permanently mounted in your radio enclosure, due to small size, and special mounting holes provided for the purpose, or picked up and moved around at will. The transformer is heavily shielded with a black japanned iron case, and is of generous proportions. Size overall: height 7½", width 1", length 1". For 60 cycle, 110 volts A.C. current.

No. 9076. With 2-Amp. Tungar Bulb, Cord and Plug. List \$14.00. Net..... **\$6.89**
FOR 25-CYCLE 110-VOLT A.C. CURRENT
No. 9091. With 2-Amp. Bulb, Cord and Plug. Net..... **\$11.95**
Shipped express collect from factory in Chicago.

Automatic Trickle Charger



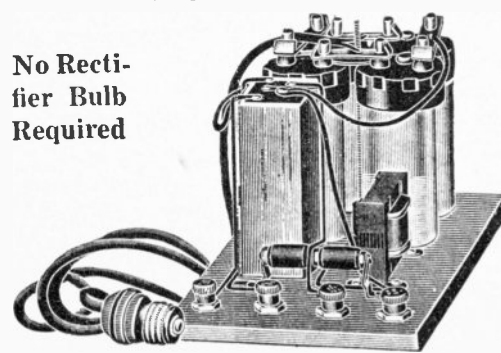
This device, plus your storage battery, "electrifies" your present receiver without purchasing new A.C. tubes! It's a full watt unit operating at ¾ ampere rate. There is no need for an automatic relay switch with this unit—as it is already built in. The switch on your panel controls this unit—turn on your switch and the charger is disconnected, thus keeping out of the reception all line noises, disturbances, etc. The moment you turn it off, however, the relay switch causes the charger to immediately function, complete with cord and detachable plug. Can be installed in 5 minutes! Shipping weight 7 lbs.

No. 5947. List \$12.50. Net..... **\$7.35**

RASCO "B" ELIMINATOR KIT

For A.C. (Any Cycle) or D.C. Current

No Rectifier Bulb Required



Build this "B" eliminator, drawing its current from your light socket—assuring you an ever constant "B" battery supply of between 90 and 100 volts, with two intermediate voltages of 22½ to 45 (or any voltage between 0 and 100 if a variable resistance is inserted in the positive output lead). Should your receiver require 135 volts in the last stage for a power tube, the addition of a 45-volt "B" battery in series with this eliminator (the positive lead of the latter being connected to the minus of the "B" battery) will solve the problem. The electrolyte lasts about one year, and perhaps only twice a year need distilled water be added thereto. Can be assembled in fifteen minutes—nothing further to buy. The kit consists of: 4 Rectifier Jars, complete with Electrodes; Connectors; Filter Condenser Block; Choke Coil; 2 Resistances with mounts; full charge of Salts; baseboard; binding posts; lamp cord with detachable plug; threaded rod; hook-up wire; miscellaneous hardware; blueprint and instructions; and a Handsome Metal Cover. Shipped express collect. Uses less than \$1.00 per year house current.

No. 4000. Unassembled "RASCO" "B" Eliminator as described. List \$18.00. Net..... **\$8.95**



Type B

ELECTRAD 25-50-75 WATT RESISTANCES

Any eliminator, whether it be an "A" "B" or "C" type, is only as good as its voltage dividing system. You must choose only those resistances whose value is known to be correct, and which

will not vary under a safe load. This quality is apparent in the Electrad Fixed Wire Resistance. We highly recommend it for use in your eliminator.

SIZES:

Type B (25-watt): 2" long. Type C (50-watt): 4" long. Type D (75-watt): 6" long.

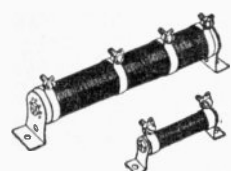


Type D

25-WATT RATING—TYPE B				50-WATT RATING—TYPE C				75-WATT RATING—TYPE D			
Resistance in OHMS	Current	Milliamperes	Net Cost	Resistance in OHMS	Current	Milliamperes	Net Cost	Resistance in OHMS	Current	Milliamperes	Net Cost
200	No. 4950-B-2	353	\$0.50	No. 4972-C-2	500	0.80	\$0.80	No. 4922-D-2	610	1.09	\$1.09
300	No. 4951-B-3	289	0.50	No. 4973-C-3	406	0.80	0.80	No. 4923-D-3	500	1.09	1.09
400	No. 4952-B-4	250	0.50	No. 4974-C-4	353	0.80	0.80	No. 4924-D-4	432	1.09	1.09
500	No. 4953-B-5	224	0.50	No. 4975-C-5	316	0.80	0.80	No. 4925-D-5	387	1.09	1.09
750	No. 4953-B-7.5	182	0.50	No. 4976-C-7.5	259	0.80	0.80	No. 4926-D-7.5	316	1.09	1.09
800	No. 4954-B-8	177	0.50	No. 4977-C-8	252	0.80	0.80	No. 4927-D-8	306	1.09	1.09
1,000	No. 4956-B-10	158	0.50	No. 5445-C-10	224	0.80	0.80	No. 4928-D-10	274	1.09	1.09
1,250	No. 4955-B-12.5	141	0.50	No. 4978-C-12.5	200	0.80	0.80	No. 4929-D-12.5	245	1.09	1.09
1,500	No. 5457-B-15	129	0.50	No. 4979-C-15	182	0.80	0.80	No. 4930-D-15	224	1.09	1.09
2,000	No. 5458-B-20	112	0.50	No. 5446-C-20	158	0.80	0.80	No. 5478-D-20	194	1.09	1.09
2,250	No. 4944-B-22.5	105	0.50	No. 4980-C-22.5	149	0.80	0.80	No. 4931-D-22.5	182	1.09	1.09
2,500	No. 5459-B-25	100	0.50	No. 4981-C-25	141	0.80	0.80	No. 5479-D-25	173	1.09	1.09
3,000	No. 4956-B-30	91	0.50	No. 5447-C-30	129	0.80	0.80	No. 5480-D-30	158	1.09	1.09
3,500	No. 4957-B-35	84	0.50	No. 4982-C-35	119	0.80	0.80	No. 5481-D-35	146	1.09	1.09
4,000	No. 4958-B-40	79	0.50	No. 4983-C-40	112	0.80	0.80	No. 5482-D-40	137	1.09	1.09
4,500	No. 4959-B-45	75	0.50	No. 4984-C-45	105	0.80	0.80	No. 5483-D-45	129	1.09	1.09
5,000	No. 5460-B-50	71	0.50	No. 5448-C-50	100	0.80	0.80	No. 5484-D-50	122	1.09	1.09
6,000	No. 4960-B-60	64	0.50	No. 4985-C-60	91	0.88	0.88	No. 5485-D-60	112	1.12	1.12
7,000	No. 4961-B-70	60	0.50	No. 4986-C-70	84	0.88	0.88	No. 5486-D-70	103	1.15	1.15
7,200	No. 4962-B-72	59	0.50	No. 4987-C-72	83	0.88	0.88	No. 4932-D-72	102	1.15	1.15
7,500	No. 5461-B-75	58	0.50	No. 4988-C-75	82	0.88	0.88	No. 4933-D-75	100	1.18	1.18
8,000	No. 4963-B-80	56	0.53	No. 4989-C-80	79	0.88	0.88	No. 5487-D-80	97	1.18	1.18
9,000	No. 4964-B-90	53	0.56	No. 4990-C-90	74	0.88	0.88	No. 4934-D-90	91	1.24	1.24
10,000	No. 5462-B-100	50	0.59	No. 5449-C-100	71	0.88	0.88	No. 5488-D-100	87	1.32	1.32
12,000	No. 4965-B-120	45	0.59	No. 4991-C-120	65	0.97	0.97	No. 4935-D-120	79	1.32	1.32
15,000	No. 5463-B-150	41	0.59	No. 5450-C-150	58	0.97	0.97	No. 5489-D-150	71	1.47	1.47
20,000	No. 4966-B-200	35	0.68	No. 4992-C-200	50	1.06	1.06	No. 4936-D-200	61	1.47	1.47
25,000	No. 5464-B-250	32	0.68	No. 5451-C-250	45	1.09	1.09	No. 5490-D-250	55	1.57	1.57
30,000	No. 4967-B-300	29	0.74	No. 4993-C-300	41	1.12	1.12	No. 4937-D-300	50	1.57	1.57
40,000	No. 4968-B-400	25	0.77	No. 4917-C-400	35	1.15	1.15	No. 4938-D-400	43	1.57	1.57
50,000	No. 5465-B-500	22.5	0.83	No. 4918-C-500	32	1.18	1.18	No. 4939-D-500	39	1.62	1.62
60,000				No. 4919-C-600	29	1.24	1.24	No. 4940-D-600	35	1.65	1.65
80,000				No. 4920-C-800	25	1.32	1.32	No. 4941-D-800	31	1.71	1.71
100,000				No. 4921-C-1000	22.5	1.62	1.62	No. 4942-D-1000	27	1.77	1.77

NOTE: We can furnish a metal sliding tap which can be clamped over any of the above resistances—for intermediate voltages. No. 4945. Each Net..... \$0.06

Pilot Wire Wound Resistors



Are wound with Nichrome wire on insulating tubing, and impregnated with a heat-proof coating which binds the wire and protects it from dampness and corrosion. Since the number of turns per section is controlled by automatic machinery, the resistances cannot vary from the standards. Moreover,

there are no soldered joints to come loose or to be broken by handling.

"B" Power Pack Resistor

Is designed to give 45, 90, 135, 180, and 220 volts when used in the No. 5 Pilot "B" Pack or in similar "B" eliminators. The resistances of the sections, starting at the B—end, are 4,000 ohms, 3,850 ohms, 2,250 ohms, and 2,800 ohms, giving a total of 12,700 ohms. Over 60 mls. can be drawn from the power pack when this resistor is used. 5 3/4" long by 1 3/4" high.

No. 4911-960. List \$1.25. Net..... \$0.74

BINDING POST MODEL

Instead of simply having terminal lugs, as on the No. 960, this model is equipped with six metal binding posts, mounted on a binding post strip, which is attached to the resistor frame. Posts are marked: B—; B+35; B+90; B+135; B+180; B+220.

No. 4914-397. List \$1.75. Net..... \$1.03

"C" Bias Resistor for 171 Tubes

When a 171 tube, run from 5 volts A.C., is used in the last stage of any receiver, the 40.5 volts C bias required can be obtained by putting this resistor in the B—lead from the center tap of the 5-volt transformer winding. Then the F side of the last A.P. transformer is connected to B—on the power pack. 2 7/16" long by 1 3/4" high. Rated at 2,500 ohms

No. 5956-951. List \$0.50. Net..... \$0.29

"C" Bias Resistor for A.C. Tubes

Not only the quality of reproduction but the life of the A.C. tubes depends largely on the use of correct C bias for the UX-226 and UX-227 tubes. Pilot engineers have designed this resistor to meet the correct specifications of these tubes. This unit has two sections of 450 ohms, with a center tap. 2 7/16" long by 1 3/4" high.

No. 4912-959. List \$0.60. Net..... \$0.35

Fil. Resistor for 222 Tubes

This is a 15-ohm filament resistor for Shield Grid Tubes, when used with a 5-volt "A" current. Properly tapped at 5 ohms for biasing. 2 7/16" long by 1 3/4" high.

No. 4913-961. List \$0.60. Net..... \$0.35

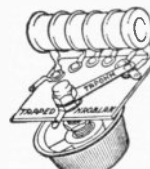
Tapped Resistor No. R508-1



Made expressly for the Thordarson R-171 power compact. Total resistance 13,000 ohms divided into five sections: 2,000, 3,000, 3,000, 3,000, and 2,000 ohms. Recommended by Thordarson for their power compact. 35-watt capacity. Size 1" high by 4" long. Shipping weight 2 lbs.

No. 6022-508. List \$2.25. Net..... \$1.32

Variable Kroblak Resistance



This unique variable resistance totals approximately 30,000 ohms and is tapped in five equal sections, connected to taps, over which a switch blade is rotated. This unit makes a splendid output control device for any "B" eliminator as a detector regulator. By using two of the units, the amplifier as well as the detector voltage may be regulated. Total capacity 10 watts. Complete as illustrated. Overall size 2" by 2" by 2 1/4". Shipping weight 2 lbs.

No. 5873-V. List \$2.25. Net..... \$1.32

Mountford Kroblak Wire-Wound Resistances



Mountford Kroblak Resistors are made by winding a wire having a low temperature coefficient of resistance upon a porcelain tube equipped with lugs at either end. The entire unit is then covered with a protective coating which hermetically seals the unit, thus preventing oxidation or deterioration. The rating of these resistors does not indicate the maximum capacity of the units but rather the amount of watts which can be dissipated with the units running at a low temperature (about 100° C. or less).

TYPE A FIXED RESISTOR

By connecting several of these units in series an excellent output voltage divider is obtained.

10-watt capacity, dimensions..... 9/16" x 2"

20-watt capacity, dimensions..... 9/16" x 4"

TYPE C FIXED RESISTOR

Especially suitable for high voltage eliminators.

35-watt capacity, dimensions..... 1" x 4"

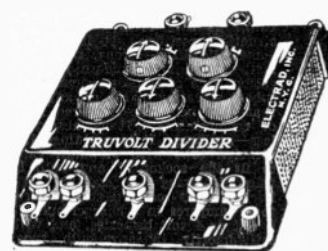
50-watt capacity, dimensions..... 1" x 6"

75-watt capacity, dimensions..... 1" x 8"

Type A and C Kroblak Resistors are made in the following stock sizes: 500, 750, 1,000, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000, 5,000, 6,000, 7,500, 8,000, 10,000, 12,000, 15,000, 25,000, 30,000, 40,000, and 50,000 ohms. Please be certain to state in your order the resistance value desired and the wattage!

Type	Watt.	500	10M	25M	40M	50M
No. 5862	A	10	\$0.60	\$0.69	\$0.75	\$0.90
No. 5863	A	20	0.69	0.75	0.84	0.99
No. 5864	C	35	0.75	0.84	0.90	1.05
No. 5865	C	50	0.84	0.90	0.99	1.14
No. 5866	C	75	0.90	0.99	1.05	1.20

Electrad Truvolt Divider



The Truvolt Divider is a unique combination of fixed and variable wire wound resistances. It is so designed that proper operating "B" voltages and "C" bias voltages can be obtained with any type of power supply in combination with any type of radio set. In addition to this all critical voltages are adjustable between usable ranges. The Truvolt Divider is calibrated so that desired voltages can be obtained without the use of high resistance voltmeter. The resistance units are of the famous Truvolt construction, assembled in an attractive ventilated bakelite case. Binding posts are provided for all "B" and "C" voltage taps. Can be mounted flat or upright on wood, bakelite or metal sub-panel. Eliminates the need of output panel and greatly simplifies power supply or "B" eliminator construction. Booklet giving complete information on Truvolt Divider and other valuable data supplied with each unit. Overall size: 5 1/2" x 6 3/4" x 1 3/4". Shipping weight 3 lbs.

No. 7227. List \$12.50. Net..... \$7.35

Kroblak M-210 Kit



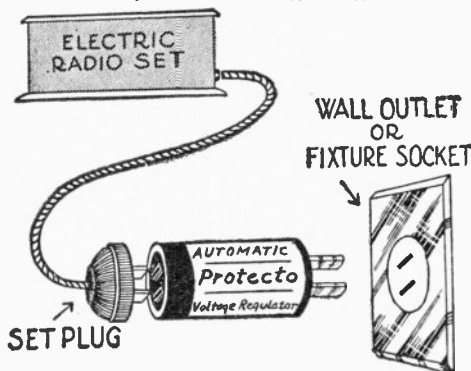
Contains all the resistors necessary for the Thordarson R-210 power compact. Endorsed by the Thordarson engineers. Kit consists of the following resistors: one 8,000-ohm 20-watt Type T unit tapped at 1,200 ohms; two 10,000-ohm 10-watt Type A units; one 1,000-ohm 10-watt Type A unit. Shipping weight 3 lbs.

No. 6020-M-210. List \$4.50. Net... \$2.65

PROTECTO LIGHT SOCKET VOLTAGE REGULATORS AND AERIAL PLUGS

Automatic Voltage Regulators

PREVENTS A.C. TUBE BLOWOUTS. "WORTH ITS WEIGHT IN GOLD!"



tubes from blowing, and preventing damage to the set wiring. is that it holds back line noise, such as is caused when any house is turned on or off to operate electric lights, motors, etc. Mahogany colored bakelite housing. Fits any standard wall outlet or fixture socket. Shipping weight 1 lb. 2 1/2" long by 1 1/2" in diameter.

No. 6757-6 "Protecto" is used with sets drawing up to 50 watts, such as the Atwater-Kent 37, the R. C. A. 17 and 18. Ideal for average receiver.
No. 6750-7. Used with sets drawing up to 75 watts
No. 6751-8. Used with sets drawing up to 100 watts
No. 6752-9. Used with sets drawing up to 125 watts
No. 6753-10. Used with sets drawing up to 150 watts
No. 6754-11. Used with sets drawing up to 200 watts
No. 6755-12. Used with sets drawing up to 250 watts
No. 6756-13. Used with sets drawing up to 300 watts

LIST \$1.50.

NET **\$0.69**

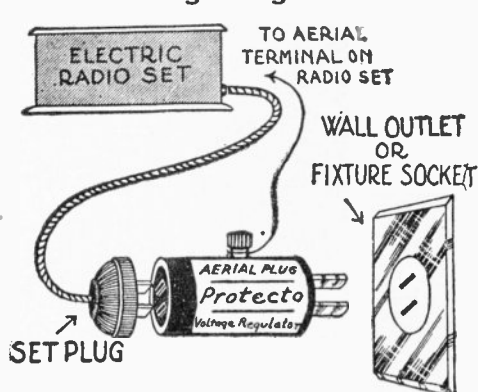
Light Socket Aerial Plug



Takes the place of indoor or outdoor aerials. It entirely eliminates the lightning hazard and does away with lightning arrestors, ground switches, etc. Operates with A.C. or D.C. lighting circuits, and consumes absolutely no current and requires no attention. Approved by all Underwriters. Provided with two outlets which will be found very useful for connecting electric lamps or appliances to the same socket. Can be inserted into either a wall plug or a regulation socket. Overall length 3 1/2". Shipping weight 1 lb.

No. 6761. List \$1.25. Net.....

Combination Aerial Plug and Voltage Regulator

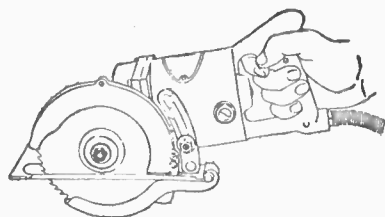


Is made for those who have electric radio sets and who desire to have a superior aerial connection at the same time. This device is a combination of the two appliances herewith described in detail. Shipping weight 1 lb.

No. 6760. List \$2.25. NET..... **\$0.99**

\$0.50

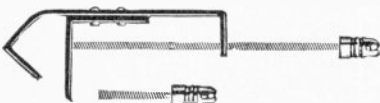
Electric Hand SKILSAW



Junior SKILSAW for ripping and cross cutting up to 2" dressed lumber. The light weight, compactness and power of this model make it extremely popular with the carpenter. It is becoming indispensable to manufacturing concerns, office buildings, hotels, and shipping rooms of all industries; in fact, wherever the hand saw was formerly used. Speed! Accuracy! Cutting capacity, maximum, 1 1/2" deep. Base adjustable for depth of cut desired. Power, 1/2 H.P. specially designed motor for D.C. or A.C. single phase, 60 cycle or less. Speed of motor, 12,000 R.P.M. Speed of saw, 2,500 R.P.M. Aluminum body. Chrome nickel steel shafts and gears. Ball bearings throughout. Diameter saw blade 6". Kerf guided and approved safety guard. Weight 11 lbs. Standard equipment includes: One combination rip and cutoff saw blade, steel carrying case, adjustable rip fence attachment, 15 ft. of rubber covered cord with connector, one patented grease gun filled with SKILSAW lubricant, socket wrench.

No. 6684-J. Your Net Cost..... **\$60.00**

Aerial Clamp



An excellent clamp for supporting the aerial or lead-in wires. Is made of heavy galvanized metal with a sliding jaw provided with a slot for adjusting to the desired width. A threaded rod with an insulator at one end screws into this portion of the clamp as shown. Another similar rod with an insulator is placed at the bottom, several holes being provided for optional adjustments. The jaws of the clamp can be opened to a maximum distance of 10 1/2", and the clamp may be fastened almost anywhere. It can be quickly fastened to the window sill or eave corner. If the strain of the aerial is toward the object to which the clamp is attached, the insulator on the longer rod should be used. But if the strain is away from the clamp support, the shorter rod provided at the bottom of the channel should be used for supporting the aerial. The sliding portion of the clamp can be reversed when making adjustments of less than 6". "It clamps anywhere." Shipping weight 5 lbs.

No. 6783. List \$1.50. Net..... **\$0.88**

The Rambler Portable Radio Receiver

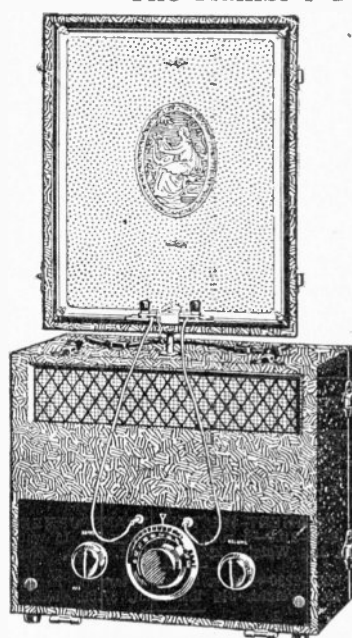
MADE FOR US BY TRAV-LER

The new 1929 one-dial Rambler Radio Receiver is compact, completely self-contained and provides ample volume, wide range and beautiful tone quality. It is built by the oldest and largest exclusive manufacturer of portable receivers in the world, and is the lowest priced standard five tube radio set on the market—bar none. It is completely assembled and ready for operation. It is a boon for the traveling man, for the invalid who is convalescing, for the college boy, for the bachelor, for the woman employed during the day, for the small apartment, and for the home. Mother can enjoy it in the sun parlor, the sewing room, or even in the kitchen, when she would otherwise be unable to have any radio entertainment during the day. Father can tune in any time without disturbing anyone else. So can the other members of the family. And the Rambler is so compact and at the same time so versatile in its service that it makes an instant hit with vacationists and for summer homes and cottages. Remember, too, that it not only operates with its self-contained loop, but it can also be quickly connected through binding posts for use with antenna and ground connection. Weighs only 23 1/2 lbs. complete with tubes and batteries. About as large as an overnight case and just as easily carried. Size, 8 1/2" x 10" x 12 1/2". Case covered with waterproof durable black leatherette. Specifications: Single dial control, spring base sockets, built-in speaker and loop antenna. Circuit employed consists of two stages radio frequency, detector, and two stages audio amplification. A Jones plug and cable allows the use of larger batteries in the home—a very valuable feature. Can be operated with 4-volt storage battery or "A" eliminator, also has binding posts for antenna and ground connection, when so desired. Uses five 250 dry cell type tubes, three 1 1/2-volt dry cells ("A" batteries), two 45-volt "B" batteries, and one 4 1/2-volt "C" battery.

No. 5355. Set only, no equipment. Includes loop and built-in loud speaker. Completely assembled. **\$33.80**

List \$65.00. Net.....

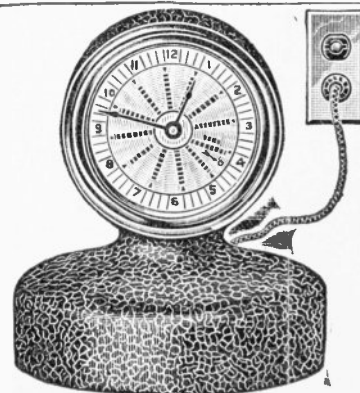
No. 5356. Complete with all equipment (tubes, batteries, etc.) Net **\$45.60**



The Talking Klok

Uses no current. It is not only a clock, but also an aerial that can be attached to any light socket. No outside wiring—no lightning arrester. Perfect reception—cuts static and outside interference. An ornament for any home—blends pleasingly with home appointments. Klok unit of standard make, but fitted with unique multi-time zone dial—tells you the exact time in the 12 Time Zones of the world. Not a novelty or a toy. Another Klok for the home—at the radio set—where the average individual spends a large portion of his leisure time. Made of cast aluminum, equipped with a high grade time unit, lamp cord, socket, plug and terminal for connecting with radio. It is four inches high, and is finished in mahogany stain with cracked lacquer. Operates on A.C. or D.C. current. Shipping weight 3 lbs.

No. 5230. List \$9.50. Net..... **\$5.59**



ACME TRANSMITTING APPARATUS

Acme Type TR Transformers



For best operation a separate plate transformer and a separate filament transformer should be used, thereby preventing a drop in filament voltage that often causes an unsteady note. It is also an advantage to control the plate voltage independently from the filament voltage. On the low power and low voltage transmitters, separate plate and filament supply is not essential. Filament windings are tapped in the center so that the grid of the tube may not have its potential alternately changed from positive to negative, thus modulating the plate current at the power supply frequency. The ratings of these transformers are for continuous duty without undue heating.

No.	Type	Watts	Plate volts each side of center tap
No. 6141—TR 5		500	2000-1500-1000
No. 6142—TR 2		200	750-550
No. 6143—TR 4		160	
The above transformers are			
No. 6144—TR 2		For 200	750-550
		For 110 volt 25 cycle A.C.	(All)

Acme Modulation Transformers

The A 3 is a single button modulation transformer suitable for use with the ordinary telephone microphone, or Skinderviken button; requires up to 6 volts on the primary. The impedance of the primary is 10 ohms at 1,000 cycles. The DA 3 is a split primary or two-button modulation transformer made especially for the broadcast type of microphone, and requires up to 6 volts in the primary. The impedance of the primary is 850 ohms on each side of the center tap at 1,000 cycles. Shipped express collect.

No. 5778-A-3.	List \$5.00.	Net..... \$3.75
No. 5779-DA-3.	(Split Primary Type).	
	List \$12.50.	Net..... 11.38

210 TYPE TRANSMITTING TUBES ARE LISTED ON ANOTHER PAGE

Plate current max.	Filament volts	No. Filament windings	Filament amperes per winding	List	Net
250	10	2	5	\$30.00	\$22.50
250	10	2	5	20.00	15.00
110	60	2	8	18.00	13.51
for 110-volt 60 cycle A.C.	1	2	5	35.00	26.25
transmitters shipped express collect.)					

Acme Transmitting Chokes

For best results the rectified D.C. should be well filtered as a properly filtered transmitter causes no interference to the B. C. L. next door. Also, a good D.C. note is obtained that will cut through static and will reach the distant station. In order to cut down the A.C. hum as well as the D.C. ripple, one 30-henry choke should be used. This choke followed by a 1½-henry choke and the use of sufficient filter capacity insures best results. The 1½-henry choke cuts out any residual hum or ripple that may be left after passing through the 30-henry choke. Acme choke coils are built with an air gap so that the value of inductances remains practically constant over a wide range of current values.

1½ HENRIES

No.	Type	List	Net
No. 6145-150 M.A.	Single Coil.	\$1.00	\$3.00
No. 6146-150 M.A.	Double Coil.	6.00	4.50
No. 6147-500 M.A.	Single Coil.	6.00	4.50
No. 6148-500 M.A.	Double Coil.	8.00	6.00

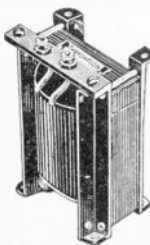
6 HENRIES

No. 6149-150 M.A.	List \$10.00.	Net..... \$ 7.50
No. 6153-300 M.A.	List 11.00.	Net..... 10.50
No. 6154-600 M.A.	List 18.00.	Net..... 13.50

30 HENRIES

No. 6155-150 M.A.	List \$18.00.	Net.....	\$13.50
No. 6156-300 M.A.	List 25.00.	Net.....	17.75
No. 6157-600 M.A.	List 33.00.	Net.....	24.75
No. 6056.	.0001 Double Spaced Trans-		
	mitting Condenser.	List \$5.50.	Net..... \$4.13
No. 6057-L-1.	C. W. Inductance.	List \$8.00.	Net..... 6.00
No. 6058-G-1.	Grid Inductance.	List \$2.00.	Net..... 1.50
No. 6059.	2 mfd. 750-volt Condenser.	List \$2.50.	Net..... 1.88

Thordarson High Voltage Transmitting Transformers for Plate Supply



Stands heavy overloads. Steel Case. Crackle Finish. Compound filled Cord and plug included.

No. 8081-2395—550 v. and 750 v. each side center tap. 100 watt. 5x3½x6 in. Weight, 8½ lbs. List, \$16.00. Net..... \$10.19
No. 8082-2387—1000 and 1500 v. each side center tap. 300 watt. 7½x5½x7½ in. Weight, 20 lbs. List, \$22.00. Net..... \$14.02
No. 8083-2388—1000 and 1500 v. each side center tap. 500 watt. 7½x6½x8½ in. Weight, 27 lbs. List, \$30.00. Net..... \$19.11

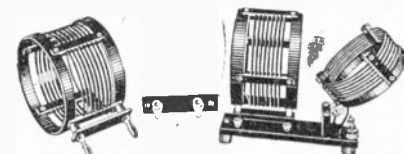
REL Transmitting Inductance



Flatwise wound on glass—for low wave C.W. Transmission. The ribbon is nickel plated, the glass spacers assure maximum efficiency. 3 REL sure grip clips are furnished with each unit—adaptable to all circuits using from 1 to 1,000 watts. Can be supplied in two types: Type L is for 40-80-150 meters wave length. Type S is for 20 meters and less. The double units comprise one primary and one secondary unit, with glass coupling rods for varying the coupling thereof. Shipping weight 5 and 10 lbs.

No. 8922.	Single unit, either type, with 3 clips.	Net..... \$3.85
No. 8923.	Double unit, either type, with 6 clips.	Net..... 7.70

Aero Interchangeable Short Wave Transmitter Kits



Sturdily built (No. 14 enameled wire). Aero Interchangeable Transmitter Coils will safely handle the 210 tube or two 50-watt tubes.

No. 5880-4080-K.	Aero Interchangeable Transmitter Kit. Range 36 to 90 meters. Including two mounting bases and two Aero choke 218 coils. Can be used with 20-10 meter coils and 90 to 180 meter coils. List \$12.00. Net..... \$7.06
No. 5881-2040-K.	Aero Interchangeable Transmitter Kit. Range 16.5 to 52 meters. Including two mounting bases and two choke coils. Can be used with 40-80 meter coils and 90 to 180 meter coils. List \$12.00. Net..... 7.06
No. 5882-9018-K.	Aero Interchangeable Transmitter Kit. Range 90 to 180 meters. Including two mounting bases and two Aero choke 218 coils. Can be used with 20-10 meter coils and 40-80 meter coils. List \$12.00. Net..... 7.06

BROKEN KIT PRICES

No.	Description	List	Each	Net
No. 5883-2040C.	One 16.5 to 52 meter coil.	\$4.00	\$2.35	
No. 5884-4080C.	One 36 to 90 meter coil.	4.00	2.35	
No. 5885-9018C.	One 72 to 180 meter coil.	4.00	2.35	
No. 5886.	One Grid Mounting Base—Grid 100	1.00	0.59	
No. 5887.	One Antenna Mounting Base—P. R. 1, 300.	3.00	1.76	
No. 5888.	One Choke Coil.	1.50	0.88	

FILAMENT HEATING TRANSFORMERS

No. 8085-2180—5 volts center tapped. 15 watt. 3¼x2¼x3¼ in. Weight, 2½ lbs. List, \$5.00. Net..... \$3.18
No. 8086-2230—7½ volts center tapped. 35 watt. 3½x3x3¼ in. Weight, 3½ lbs. List, \$7.50. Net..... \$4.79
No. 8087-2382—12 volts center tapped. 80 watt. 3½x4½x1 in. Weight, 5 lbs. List, \$10.00. Net..... \$6.37
No. 8088-2383—12 volts center tapped. 175 watt. 4½x5x6 in. Weight, 12 lbs. List, \$15.00. Net..... \$9.56

Hammarlund Transmitting Condensers

Transmission over short wave-lengths is recognized as the most efficient medium for long-distance amateur communication. The very low losses and high quality of Hammarlund Transmitting Condensers are emphasized in this class of work where ordinary condensers are impossible. Tested to withstand very high potentials.

No.	Type	List	Net
No. 5797-TC-12.	.0001 mfd.	\$6.00	\$3.82
No. 5798-TC-22.	.0002 mfd.	7.00	4.46
No. 5799-TC-43.	.0004 mfd.	10.00	6.37

We can supply, at appropriate discounts, considerable other transmitting apparatus not listed in this catalogue.

Radio Encyclopedia



By Sidney Gernsback, an internationally known authority. 168 pages, 9"x12"—contains 1,330 definitions, 549 photographs, drawings and diagrams. You are groping in the dark without this book—every experimenter should have this storehouse of Radio Knowledge in his library—or better yet, on his work bench!

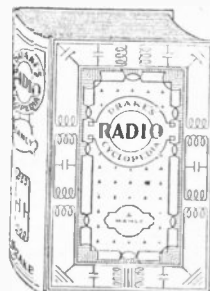
No. 8799. Net... \$1.65

RADIO FOR ALL

By Hugo Gernsback, Editor "RADIO-CRAFT." The best book for radio beginners. Hundreds of instructive illustrations. No. 8700. Size 5½ x 8¼ inches, 296 pages..... \$1.85

Shipping weight 5 lbs.

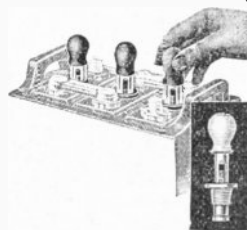
Drake's Radio Cyclopedia



There are over 1500 articles described in this massive book, all alphabetically arranged, and there are over 1000 definitions, abbreviations, terms, symbols. Every phase of Radio is fully covered by a very competent engineer. The pages are 6½"x9". And there are 870 pages Over 950 illustrations, diagrams, 120 tables. For the set builder, dealer, Radio fan, this book is ideal. Shipping weight 5 lbs

No. 8370. List \$6.00. Net..... \$4.41

Scranton Battery Cap Tester



You simply replace your present battery caps with three of these combined battery caps and built-in hydrometers. There is no chance of spilling any acid with its ever ruinous effects. To test, simply squeeze the bulb, and without removing these caps you can glance at the floats as they rise, denoting the condition of charge IN EACH OF THE

CELLS. The solution will then slowly drain back. Should no solution arise, then it is proof positive that that particular cell needs replenishing with distilled water. The conventional vent for battery gases is provided. Universal plug fits all batteries. Shipping weight 3 lb.

No. 9865. Set of 3. List \$2.00. Net... \$1.18

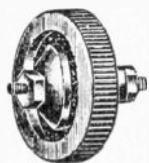
Chaslyn Sink or Swim Hydrometer



This hydrometer does not depend on a float therein for determining the condition of charge of the battery, but instead three differently colored balls. If all three float, the battery is fully charged; if one ball sinks, the charge is almost full; if two balls sink, the charge is low, and if the three balls sink, then the battery is totally discharged and should be immediately attended to. Shipping weight 2 lbs.

No. 9788. List \$0.75. Net..... \$0.44

NOTE

Skinderviken Button

This sensitive microphone button has been used for a number of years for all sorts of experimental work. It is the smallest microphone made, measuring only $\frac{3}{8}$ " in diameter. By means of this microphone button a great many experiments can be made. You can amplify weak radio signals by mounting the button on your telephone receiver and then boosting up the signal through a low resistance loud speaker. In this

case it acts the same as an audio-frequency transformer. It can also be used as a detector (diphone) to listen in secretly on conversations, etc., and to amplify phonograph music at a distance. Very good sensitivity. We furnish directions to make some twenty-five different experiments. Shipping weight 3 ozs.

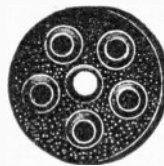
No. 9595. Net..... **\$0.70**

5 ohm Telephone Receiver

Wound especially for work with our Transmitter buttons. No. 9596. Net..... **\$1.95**

Induction Coils

The only Transformer coil which can be used with the Skinderviken Buttons. No. 9597. Net..... **\$1.50**

Carbon Buttons

These buttons are used in connection with our carbon diaphragms for amplifiers and phone instruments for the deaf. Carbon grains or carbon balls are placed in the five circular depressions. Diaphragm and button must be about $\frac{1}{16}$ " apart. Diameter of button is $\frac{3}{4}$ "; thickness $\frac{3}{16}$ ". Center hole $\frac{1}{8}$ ".

No. 680. Net..... **\$0.20**

Carbon Balls and Grains

Polished carbon grains are used for ordinary microphone work. Carbon balls are used for amplifier work, hearing instruments for the deaf, etc. Experimenters should get some of each kind to experiment with for best results. Sold only in bottles about the sizes shown. We carry only the A-1 grades.

No. 677. Carbon Grains, bottle. Net..... **\$0.20**

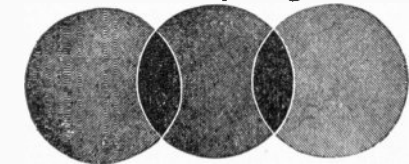
No. 678. Carbon Balls, bottle. Net..... **\$0.40**

Special prices in ounce lots.

Carbon Phone Diaphragm

To make microphones, loud speakers, amplifiers. $\frac{2}{3}$ " in diameter. Thinnest, most elastic made. Shipping weight 1 lb.

No. 676. Net..... **\$0.20**

Mica Diaphragms

Made from special mica stock, the same special grade as used in phonographs and in mica diaphragm receivers. These diaphragms are all engine-turned, and the edges are perfect. Diaphragms are plain, without hole in the center. Holes can be drilled readily by any twist drill. Thickness is about .008".

No. 2550. Size $2 \frac{1}{8}$ ". Each, Net.. **\$0.20**

No. 2551. Size $1 \frac{3}{16}$ ". Each, Net.. **\$0.15**

Phone Diaphragm

A standard thin diaphragm. Used only for radio work. Diameter $\frac{2}{3}$ ". No other size can be supplied.

No. 675. Net..... **\$0.05**

Scranton Ayanbee Hydrometer

A very fine quality instrument for testing your "A" and "B" storage batteries. The proper construction of the float and barrel assures accurate readings. Large size. Shipping weight 2 lbs.

No. 9001. List \$0.75. Net..... **\$0.44**

Signal Wireless Keys

A long time favorite with all amateurs. Universally used by most operators. Sturdily made. Coin silver contacts. All parts brass. Beautifully polished and lacquered. Brass base. Bakelite finger rests. Shipping weight 2 lbs.

No. 6507. $\frac{1}{8}$ " Contacts. Net..... **\$2.62**
No. 6508. $\frac{1}{4}$ " Contacts. Net..... **2.77**
No. 6509. $\frac{3}{16}$ " Contacts. Net..... **2.92**

Wireless Practice Set

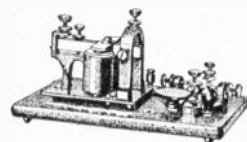
Just the instrument for those who wish to learn the wireless code. For your convenience the code itself is printed on a brass plate, to the left side of the key. Complete with a high frequency buzzer, and battery terminals. Completely wired. Shipping weight 2 lbs.

No. 6197. Net..... **\$2.80**

High Frequency Buzzer

This type buzzer is the same as used on our wireless practice set. It is adjustable. Has standard resistance of 2 ohms. Black crystalized lacquer finish. Shipping weight 8 ozs.

No. 6198. Net..... **\$0.92**

Signal Sr. Telegraph Learner Set

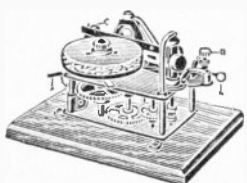
Golden finish brass bar frame, sounding plate and key base. Aluminum sounding bar, nickel-plated key lever, rubber-covered coils and mahogany finish base. For transmission and reception of telegraph code signals.

No. 7013-108. 4 ohm. List \$6.25. Net \$3.68
No. 7014-109. 20 ohm. List \$6.50. Net \$3.82

Jr. Learner Set

Black enamel key base and bar frame. Brass bridge and aluminum sounding bar. Nickel-plated lever, mahogany finish base.

No. 7015-112. 4 ohm. List \$4.00. Net \$2.35
No. 7016-113. 20 ohm. List \$4.25. Net \$2.50

Omnigraph

Model 4

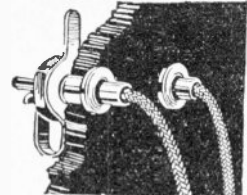
In order to own a transmitter either for phone or key (code), you must be able to transmit and receive code messages. And there is a new world awaiting you as soon as you start transmitting, for you soon list your friends in every corner of the Union, especially on the ever increasing popular short wave band. The New Omnigraph consists of a dependable clock motor which revolves a turn table upon which are nested removable plates, on the edge of which raised characters cause the machine to "transmit" to you its message which you decipher. The speed of this turn table is governable from 5 words to 50 words a minute at will. The spring runs motor for 45 minutes. Complete with five dials. Size, 8" by 6" by 5 1/2". In a short time, you can apply for a license (no charge), this machine having quickly taught you the code.

No. 9638. List \$25.00. Net..... **\$19.95**

Telephone Transmitter Microphone

The carbon chamber in this microphone is especially constructed for radio telephone work. Metal parts are highly nickel plated and polished. Has black knurled handle. Can also be plugged into any two-stage audio amplifier input, providing a modulator transformer is also employed. Your loud speaker will then reproduce whatever is spoken into the microphone, with tremendous volume. Can be used for addressing large audiences, class rooms, or general business purposes. Shipping weight about 2 lbs. Complete with handle and cord.

No. 6455. List \$6.00. Net..... **\$3.53**

Phone Tip Jacks

A favorite with every set builder. For loud speaker and phone outlets—either on the front panel or sub-panel. Can also be used on a binding post strip, the battery wires being soldered into our standard No. 315 phone tips. Positive electrical contact, mechanically perfect.

No. 5800. Per Pair, List \$0.25. Net.. **\$0.15**

Yaxley Extension Jack

Quickly connects extension cord or wire so that loud speaker or head phones may be plugged in at a point distant from receiving set.

No. 8287-100. List \$0.75. Net..... **\$0.45**

C. R. L. Modulator Plug

Replaces your present plug. The knob, when adjusted, will match the impedance of your loud speaker to the output impedance of your radio receiver, and also acts as a very effective volume control. Composed of genuine bakelite base, with bakelite knob and engraved white arrow thereon, and highest quality bakelite sleeves in the plug itself. Will fit any standard jack, or we can furnish a special type if you do not use a jack on your receiver. Shipping weight 1 lb.

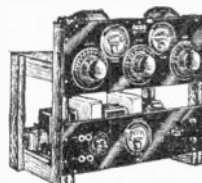
No. 9677. Jack Type, illustrated. List \$2.50. Net..... **\$1.47**

No. 6037. Cord Type. List \$2.50. Net..... **\$1.47**

Yaxley Duplex Plug

Has screw terminals with coin slots and the cord clips. No. 8284-75.

List \$0.50. Net **\$0.30**

Aero S. W. Transmitters

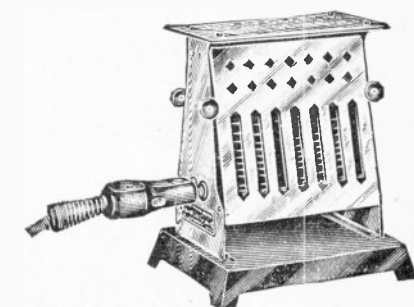
For either the man who wishes to build his first low-power transmitter and become initiated in the mysteries of "round the world" communication, or for the dazed in-the-wool amateur who wants to purchase all the parts for a high powered installation. We list below only two kits, but can supply any Aero Transmitter Kit not listed here.

No. 7297-50 Aero Kit. Simple and inexpensive to build. For phone or C.W. operation, direct from 60 cycle 110 volt A.C. lighting mains, as illustrated.

List \$148.75. Net..... **\$87.47**

No. 7298-51 Aero Kit. The oscillator section of No. 50 only. For phone or C.W. operation from battery or generator power. Also uses 210 oscillator.

List \$74.85. Net..... **\$44.00**

EV'RYDAY Minute Toaster

Made of high grade materials, sturdily built, easy to clean. Lustrous nickel finish enhances its attractiveness. Guaranteed, hand wound element mounted on first grade mica. Exclusive positive turnover feature, merely raise and lower lid. Toasts two slices from largest size loaf at same time. The only toaster in its price class equipped with a switch plug, merely push switch to turn on or off. Height 8". Shipping weight 3 lbs. Operates on 110 volts, 550 watts. For A.C. or D.C. Guaranteed one year.

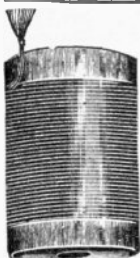
No. 4867-120. List \$3.75. Net..... **\$2.44**

MAGNET WIRE



We are headquarters for magnet wire. Not that we carry in stock a larger variety of this wire than any other radio supply house. Our wire can be used for any electrical and radio purpose. One continuous length on each spool.

Weight Per Spool	Gauge (B.&S.)	Feet Per 8 oz. Spool D. C. C.	Double Cotton Covered, White	Your Net Cost	Enameled	Your Net Cost	Double Silk Covered, Green	Your Net Cost	Gauge (B.&S.)	Weight Per Spool
8 oz.	14	38	No. 2537	\$0.26					14	8 oz.
8 oz.	16	61	No. 2538	0.28					16	8 oz.
8 oz.	18	90	No. 2500	0.31	No. 2535	\$0.24	No. 2580	\$0.51	18	8 oz.
8 oz.	20	149	No. 2501	0.33	No. 2514	0.25	No. 2581	0.61	20	8 oz.
8 oz.	22	232	No. 2502	0.38	No. 2515	0.27	No. 2582	0.69	22	8 oz.
8 oz.	24	356	No. 2503	0.45	No. 2516	0.28	No. 2583	0.84	24	8 oz.
8 oz.	26	540	No. 2504	0.54	No. 2517	0.34			26	8 oz.
4 oz.	26						No. 2584	0.53	26	4 oz.
4 oz.	28	815	No. 2505	0.65	No. 2536	0.36	No. 2585	0.66	28	8 oz.
4 oz.	28								28	4 oz.
4 oz.	30	1210	No. 2506	0.78	No. 2518	0.41	No. 2586	0.86	30	8 oz.
4 oz.	30								30	4 oz.
4 oz.	32	1750	No. 2539	0.95	No. 2519	0.60	No. 2587	1.35	32	8 oz.
4 oz.	32								32	4 oz.
4 oz.	34	2460	No. 2540	1.74	No. 2542	0.68			34	8 oz.
4 oz.	34						No. 2588	1.52	34	4 oz.
4 oz.	36	3330	No. 2541	2.33	No. 2520	0.72	No. 2589	2.10	36	8 oz.
4 oz.	36								36	4 oz.
4 oz.	38	4225 (8 oz.)			No. 2521	0.60			38	4 oz.
4 oz.	40	5200 (8 oz.)			No. 2522	0.77			40	4 oz.



Lititz Wire

Lititzdraht High Frequency Cable is used more and more for winding coils and for radio instruments. Made of many thin enameled wires twisted into a thin cable. The difference in results between solid conductor and Lititz cable is tremendous, and cannot be appreciated till a trial has been made. The B. & S. size given is the size of the cable.

No. 323. 20 No. 38 wires stranded. Double white silk insulation. Equivalent to No. 23 B&S. Per foot..... \$0.02
Per 100 feet, Net..... 0.95
No. 892. Lititz Wire. 60 No. 38 wires cabled into 3 strands of 20 wires each; all cabled together. Double white silk insulation. Equivalent to No. 20 B&S. Per foot..... 0.04
Per 100 feet, Net..... 2.95



Rheostat Wire

Designed especially for rheostats. A special grade that will not crystallize in use and will always keep clean and bright. The only wire for rheostats. Resistance is 1 ohm per foot. Not less than 25 feet sold.

Per Foot
No. 1650 \$0.01

Acme Pushbak Wire



The custom set builder's boon and delight! Simply push back the insulation—no stripping necessary. Made of No. 19 solid turned copper wire, covered with cotton wrap and braid. Wax covered. 25 feet lengths. Supplied in following colors: Black, Yellow, Green, Red, Blue, Brown. Be sure to state colors wanted.

No. 8007. Per 25 feet. List \$0.30.
Net..... \$0.18

Twisted A.C. Hook-up Wire

Required for A.C. filament hook-up. One red and one black strand flexible Celatsite twisted together. 25 ft. coil in carton.

No. 8093. List \$1.75. Net..... \$1.03

Rubber Covered Hookup Wire

Extensively used for wiring sets. Consists of a stranded copper wire, size 18, covered with layer of gray black rubber. Smooth, neat appearance. Flexible and easily handled.

No. 4426. 25 feet..... \$0.24

Bus Bar Wire

This copper, tin-plated and polished bus bar wire is square and measures 1/16" x 1/16". Very easy to solder, because the wire is tinned already. Comes only in 24" length.

No. 6400. 10 lengths..... \$0.12
No. 6402. Round, 10 lengths..... 0.12
In lots of 100 lengths, either type. Net..... 1.02

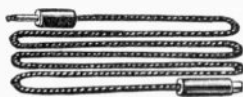
Phone Cords



We carry two styles of telephone cords, as illustrated, one 5 ft. long, the other 3 ft. Made of the best tinned throughout. We do not carry the cheaper and worthless kind of cord, where stranded wire is used, for the reason that constant bending of phone cords destroys and breaks these wires in short order, giving rise to terrible amount of phone noises. Black only; never varnized cotton. The 3 ft. cord comes with 2 loops and 2 tips. The loops can be used on phones that are made for the tip cord. All that it is necessary to do is to flatten the metal loops by means of a pair of pliers, which make a tip out of the loop.

Each
No. 5500. 5 ft. with 6 tips \$0.26
No. 5501. 5 ft. with 2 tips and 4 loops..... 0.26
No. 3300. 3 ft. with 2 tips and 2 loops..... 0.09
No. 6649. 5 ft. SINGLE. For Loud Speakers. All tips. Net..... 0.21

Extension Cord



To enable you to place your loud speaker or phones at a distance from the receiver. Fine quality. Extension plug included. Regular plug not included.

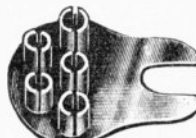
No. 9191. 20 feet..... \$0.19
No. 8818. 30 feet..... 0.81
No. 8819. 40 feet..... 1.07
No. 8820. 50 feet..... 1.18

Extension Cord Connector



Moulded Bakelite. In one end, the speaker tips are inserted—extension cord tips go in other end. Contacts are phosphor bronze. No. 7564.
Net, each..... \$0.12

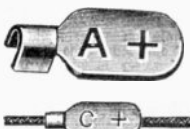
5-in-1 Connector



With this ingenious and inexpensive device attached to the positive and negative phone binding posts you can use from one to five pairs of phones on any radio receiver. The spring sockets grip any phone tip. Loose contact is impossible. Works while loud speaker is in operation.

No. 7117. Pair..... \$0.21

Battery Lead Tags



These little tags are indispensable to any radio set. Illustration is full size. Made of polished aluminum. Prongs will clamp any size battery lead or cable. Full set consists of A+, A-, B-, B+ Detector, B+ Amp. 90, B+ 135, C+, C-.

No. 9780. Set of 8. Net..... \$0.10

"Braidite" Stranded Hook-Up Wire



"Corvico" Braidite is a hook-up wire made from stranded tinned copper wire covered first with a cotton wrap and then with a cotton braid. The product is then impregnated with a damp-proof compound making it impervious to moisture and adding to its insulating qualities. The chief merit of this product lies in the fact that in order to make a soldered connection, it is unnecessary to strip back the insulation. The braid is simply pushed back while the soldering is done and then replaced, thus forming the neatest possible connection. For this reason this product has been adopted by most of the leading set manufacturers. Braidite is exceptionally good for A.C. hook-up work. The ease with which two or more leads can be twisted together, and its excellent insulating qualities make the product admirably suitable for this work. 25-foot length in each box. Braidite is made in five colors: red, green, yellow, blue, and black. Be sure to state colors you are ordering.

No. 5360-601. List \$0.35. Net..... \$0.21

Flexibus or Celatsite Hook-up Wire



Point to point wiring is now solely resorted to for the leads are always as short as possible for greatest efficiency. Besides, there are no angles to "figure out." Flexibus or Celatsite wire is covered with a varnished cambric flameproof insulation finished in the following colors: Red, Green, Yellow, Brown, Black. The wire itself is flexible tinned stranded copper. State which color you wish.

No. 9747. Per 25 ft. Roll. Net.... \$0.45

Celatsite Bus Wire



Tinned copper bus wire insulated with highest grade varnished coverings, supplied in yellow, brown, black, green, maroon, salmon, slate gray, blue, white and red. Using different colors makes tracing of circuits easy and sure, neater and lower cost. Size 14 stiff solid wire.

No. 6362. 10 lengths (each one is 30" long). Your net cost..... \$0.54

Flexible Insulated Wire



No. 4400. One conductor rubber insulated; 14 No. 34 copper wires, green silk covered. Per foot. Net..... \$0.01 1/2
No. 4401. Two conductors rubber insulated; 14 No. 34 copper wires, silk braid cover in green. Per foot. Net.... 0.02 1/2

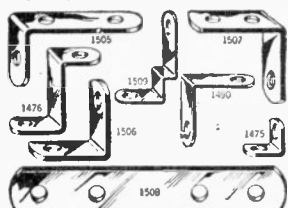
SCREW AND NUT ASSORTMENT



As this assortment of screws, nuts and small turnings are not solely intended for use in Radio Mechanics, a few pounds should always be on hand to meet the many emergencies that arise in the shop, garage, laboratory, store, home, etc., etc. Consists of all forms and shapes of screws, nuts, and small odd and end turnings, the greater part of which are brass—and most of it is nickel plated, too. Some screws are as small as 3/48 and 4/36 size thread, and range in length from 1/4" up to 2". The turnings are a varied lot, indeed. All made to our special order, and were the parts used in crystal detectors, binding posts, switches. The experimenter and inventor will certainly welcome this assortment, for more than likely just that special shape turning, screw or nut is at hand. Sold only by the pound. There are approximately 175 to 225 separate pieces to a pound! Assortments are weighed off—we cannot make up special assortments, nor can we guarantee there will be an exact even quantity of nuts and screws. Shipping weight one pound more than quantity ordered.

	Value	Net
No. 8450, 1 Pound Quantity...	\$1.00	\$0.30
No. 8451, 3 Pound Quantity...	3.00	0.81
No. 8452, 5 Pound Quantity...	5.00	1.30
No. 8453, 10 Pound Quantity...	10.00	2.50

"Rasco" Radio Brackets



Stamped from heavy metal, nickel-plated and carefully finished. Illustrations are half size. Where special strength is required we recommend Numbers 1505, 1506, 1507 and 1508. Hold heavy panels or heavy sub panels. Bracket No. 1509 is used in connection with grid all cardboard or bakelite tubes (inductances) to panels. No. 1476 is used for the same purpose.

No. 1475, Brass Angle Piece, 5/16" wide by 7/16" high, 10 for... \$0.16

No. 1476, Brass Bracket, 3/4" high by 2 lugs 1/2" long, 10 for... 0.25

No. 1490, Brass Angle Piece, size 3/4" by 3/4", 10 for... 0.20

No. 1505, Brass Angle Piece, size 1 1/2" high by 3/4" long, 10 for... 0.16

No. 1506, Size 3/4" high, 3/4" long, and 1/2" wide, 10 for... 0.20

No. 1507, Size 1" long by 1" high by 1/2" wide, 10 for... 0.16

No. 1508, Size 3" long by 1/2" wide, 10 for... 0.16

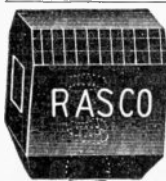
No. 1509, Size 3/4" high by 1/2" long by 3/4" wide, 10 for... 0.20

Rasco Surprise Bracket Assortment

Consists of a VARIED quantity of the above mentioned and illustrated brackets, as well as others. Every mechanic, plumber, radio service man, custom set builder, garage worker, experimenter, general laboratory worker and every home tool box should have a plentiful assortment of these brackets on hand for the many emergencies that present themselves, wherein one or several of these brackets could be most advantageously used.

List Value \$1.00, Your Net Cost...	\$0.25
No. 5262, 50 Assorted Brackets.	\$0.45
List Value \$2.00, Your Net Cost...	\$0.80
No. 5263, 100 Assorted Brackets.	\$1.55
List Value \$4.00, Your Net Cost...	
No. 5264, 250 Assorted Brackets.	
List Value \$10.00, Your Net Cost...	

Sliders

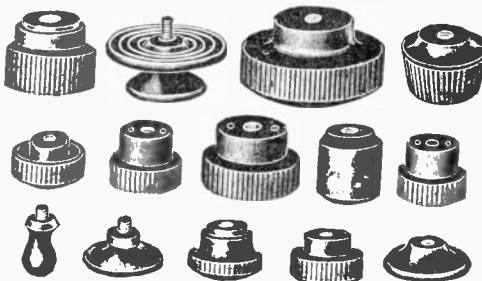


With ball and spring. Holder fits 1/4" square rod; the size overall is 3/4" x 3/4" x 1/4". Comes in red and black rubber composition.

No. 875, Black, Net...	\$0.32
No. 876, Red, Net...	0.32

The illustration is an "X-Ray" view showing position of ball and spring.

RASCO SURPRISE ASSORTMENT OF KNOBS



No. 5280, Per 10 Assorted Knobs.	\$0.50
Net.....	
No. 5281, Per 25 Assorted Knobs.	\$1.00
Net.....	



"Perfect" Lugs

Made of brass tubing and flattened at the ends. Shown full size, and will take up to 10-32 screw. Fully nickel plated.

No. 3110, Open.....	\$0.02
No. 3080, Closed.....	0.02
Per 100.....	1.45

"Rasco" Lugs

Brass, nickel plated, used for making connections. Only for 6-32 screw.

No. 308, Per 100.....\$0.20

Per 1,000.....1.25

Copper lug, made in 3 styles for No. 4, 6 and 8 screws.

No. 309, Per 100.....\$0.30

Brass Lug, made only for No. 8 screw.

No. 310, Per 100.....\$0.30

Copper Lug, comes for No. 6 and No. 8 machine screw.

No. 311, Per 100.....\$0.30

All of the above, per 1,000, \$1.40

"Rasco" Nosolder Lugs

This small lug, shown full size, grasps either round or square bus bar with a vise-like grip. Bus bar can now be connected or disconnected in a jiffy direct from the lug. Soldering is positively done away with. Perfect contact. Finally, if you insist on soldering, you'll be pleased to see that the lug is fully tinned.

No. 3727, Package of 50.....\$0.20

"Rasco" Switch Points

Our switch points are made of brass, nickel plated and polished. The following four sizes have been found the most popular. Illustrations are all full size. Size may be ascertained by measuring cuts.

No. 301, 1/4" x 1/4", 6-32 thread, doz... \$0.15

No. 303, 3-16" x 3-16", 4-36 thread, doz. 0.15

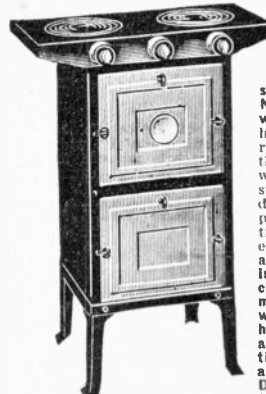
No. 307, 3-16" dia., 1/4" thick; stem 4-36 doz. 0.15

No. 375, Switch Stop, can be used with all switch levers, 3/4" long, 6-32 thread, complete with nut, doz..... 0.15

In the years gone by, we sold these knobs in the hundred thousands, but lately the sale of them has not been so brisk. Rather than close our huge stock of these knobs out to one or two "big operators," we have decided to offer them, as a varied assortment, to our thousands of customers, at a price which commands your purchase. We could fill up pages suggesting the many uses you can make of these knobs—not only for radio purposes! Highest grade insulation. Some have a clearance hole in the center—some have a standard tapped hole—some have projecting screws. Note the variety of sizes and shapes. We used to sell these knobs under the following names: Dial Knob, Navy Key Knob, Indicator Knob, Twirler Knob, Shank Knob, Switch, Hand Knob, Fluted Knob, etc., etc. The largest one illustrated measures 2 3/16" in diameter by 1" deep; the smallest one is 5/8" long by 1/4" in diameter. We try to make as evenly distributed an assortment as possible—please do not ask us to ship you all of one type. Shipping weights 2 lbs. to 20 lbs.

No. 5282, Per 50 Assorted Knobs.	\$1.80
Net.....	
No. 5283, Per 100 Assorted Knobs.	\$3.40
Net.....	

EV'RYDAY Electric Range

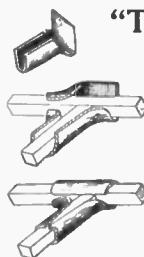


An economical and efficient range that will cook speedily and economically by merely attaching same to the light socket or base plug. No special meters or wiring required. The highest grade of materials only are used in this range, and for those who require only a small range, the Ev'ryday Electric Range will perform the same duties just as well as an expensive and elaborate affair. Special features include long life, nickel chromium heating element, insulated oven, warming oven, oven heat indicator, outlet at side making connection more convenient, and Large Size Oven. Dimensions: 35" high, 18" wide, 12" deep, top 12"x22" with two cooking units 550 watts each regulated by individual on and off switches. Oven has two heating elements, one in top 500 watts, bottom one 600 watts controlled by a three-heat switch, making possible three different oven heats, low, medium, and hot. Operates on 110 volts A.C. or D.C. Your choice of finishes as follows: All black, black top and doors with orange body. Shipped express collect from Indiana.

No. 4866-200, List \$40.00, Your Special Net Cost.....\$23.85

Should you desire a lustrous nickel plated top with any color body, as above, add \$1.00 to net cost.

"T" Wire Connector



This big little article will solve your problem when making "T" wire connections. Nickel plated brass. Can be used without solder but you can solder over the connector if you wish. Illustrations show how connector is attached to bus-bar wire. It is made to take wire 1/16" square, or round wire 1/16" diameter. A pair of pliers is all you need. This "T" wire connector will give your set a workmanlike appearance. Now used by nearly all the largest set manufacturers.

No. 2975, Per 50... \$0.25

Gentlemen:

I am so intensely enthusiastic over my Radio set purchased from you, I must convey my most sincere wish to your firm. You are indeed worthy of great success!

Yours very truly,

DR. LESLIE ROGERS,
London, England.

The "Du-All" Lead-In



fastened with wing set screw. Insulated section measures 10 1/2" long.

No. 4948, Net.....	\$0.09
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Spring Binding Posts



No. 1010. Takes No. 14 B. & S. wire. Width 5/16", length 3/4", screw hole clears 6/32 screw. Each \$0.03

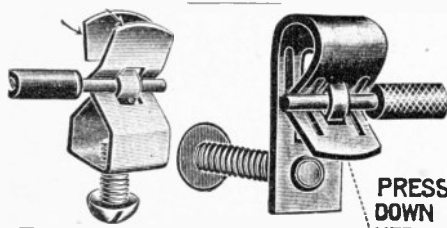
Per Dozen—\$0.35

No. 1515. Takes No. 16 B. & S. wire; has lug to which wire can be soldered. Width 7/32", length 1/2". Each \$0.02

Per Dozen \$0.22

No. 33. Takes No. 12 B. & S. wire. Length overall 3/4", width 3/8", clears 6/32 screw. Same as No. 41, except without screw. Each \$0.02

Per Dozen—\$0.22



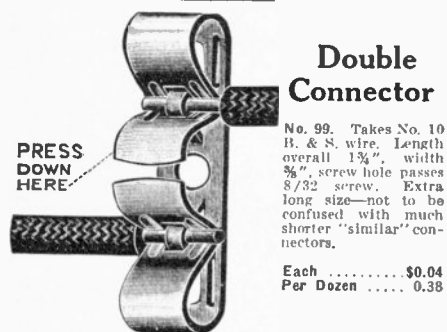
Panel Post

No. 45. Can be mounted on panels. Stands upright. One of the handiest connectors made. Has tapped hole which takes an 8/32 screw. Furnished with post. Each \$0.04

Per Dozen 0.40

No. 44. Takes No. 10 wire. Length overall 1", width 3/8", screw hole threaded for 8/32 screw. Each \$0.05

Per Dozen 0.55

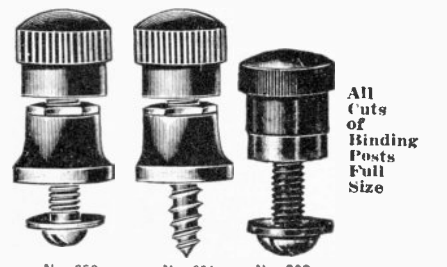


Double Connector

No. 99. Takes No. 10 B. & S. wire. Length overall 1 1/4", width 3/8", screw hole passes 8/32 screw. Extra long size—not to be confused with much shorter "similar" connectors. Each \$0.04

Per Dozen 0.38

"Rasco" Binding Posts



Well made of composition. Will give good service. No. 650 has 8/32 machine screw, and No. 651 has a wood screw; both have a hexagonal brass nut in center. No. 202 is nickel-plated at bottom and has a machine screw. No. 650 \$0.04

No. 651 0.05

No. 202. Each \$0.03. Per Dozen \$0.30

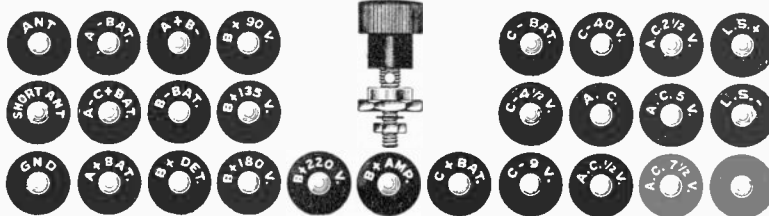
In lots of 100—\$2.25

No. 029. Each 0.02

No. 030. Each 0.01

In lots of 100, subject to a 20% discount.

Engraved Character Binding Posts



Practically every possible requirement is covered by the Pilot line of engraved Bakelite posts. They are made with non-removable tops, and with drilled shanks to take phone tips thru the holes, as well as lugs and plain wires. Genuine Bakelite—not shellac compositions that melt away when accidentally touched with the soldering iron. These posts are black, with the engraved letters filled with permanent white. As heads are non-removable, they cannot be incorrectly spun back on the wrong posts. When engraving is not required, the plain Bakelite posts or the nickel-plated brass posts, of similar design, can be used. 1/2" diameter by 1 1/4" long. Can be supplied in the following denominations, and in additional new ones, as made. ANT SHORT ANT GND A—A+C+ A+B— B— B+DET B+90V B+135V B+180V B+220V B+AMP C+ C— C+1/2V C—9V C—49V A.C. A.C.1 1/2V A.C.2 1/2V A.C.5V A.C.7 1/2V L.S. L.S.+

No. 8914. (State which posts you are ordering.) List \$0.15. Net \$0.09

No. 8988-11. Plain Brass Post. List \$0.10. Net 0.06

Eby Ensign Binding Post

Non-removable, engraved character tops. Nut and lug included. Be sure to state markings desired.

No. 7399—Choice of: Ant. Short Ant. Grid. Loop. Speaker +. Speaker —. A Bat. +. A Bat. —. B Bat. +. B Bat. —. C Bat. +. C Bat. —. 45 Volts +. 67 Volts +. 90 Volts +. 135 Volts +. 150 Volts +. B + Power. B — Det. C — Power. (As new denominations are added, we will supply them on your order.)

\$0.09

List price, each \$0.15. Net \$0.09

X-L Binding Post Bridge



Handsome polished panel with seven mounted push posts and the following attractive white engravings: Aerial, Ground, A—A+, B—, B+Det, and B+ Amp. Complete with soldering lugs, raising bushings, screws for mounting, etc. 8" long by 1 1/4" long. No. 7199. List \$1.50. Net \$0.88

De Jur Readimount



The De Jur Readimount is a handy binding post strip for the custom set builders as well as for the fan who builds his own. It is made of one-piece molded Bakelite and is equipped with nine binding posts and soldering lugs. The lugs are riveted to the base assuring permanent contact. Due to ridges between the binding posts, it is impossible for wires connected to them to come in contact with each other. 6 1/2" long by 3/8" wide. No. 7226-450. List \$0.50. Net \$0.30

Initial Binding Posts

Resembles our No. 202, only larger and better. Tops are inlaid with white enamel in various denominations. Tops are of full composition; bottom brass part, nickel polish. No. 122, Antenna; No. 123, "B" Battery —; No. 124, "A" Battery +; No. 125, "B" Battery +; No. 126, "A" Battery —; No. 127, Ground; No. 128, Telephone; No. 129, +C; No. 130, —C. Each Style \$0.03

Set of 13—\$0.35

Brass Lock Binding Posts

Something new. The top screws down and clamps the finest wire. A clamping action and not shearing action. Figure 325 shows post open. Figure 326 shows post closed. Lacquered. Each No. 325. Large \$0.15

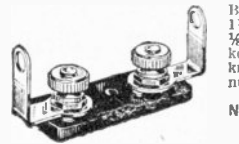
No. 326. Small 0.09

Muter Grid Leak Mounting

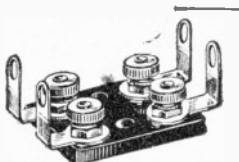


Moulded black Bakelite base, 2 1/4" long, 5/8" wide, with 1/4" center hole for mounting. Nickel plated brass clips with knurled terminals and lock nuts. No. 7471-825. List \$0.20. Net \$0.12

Muter Resistance Mounting



Black Bakelite base, size 1 1/4" long, 1/2" wide, with 3/8" hole for mounting. Nickel plated brass clips with knurled terminals and lock nuts. No. 7469-800. List 15c. Net \$0.09



Black Bakelite base, size 1 1/4" long, 1" wide with two 3/8" mounting holes. Nickel plated brass clips with knurled terminals and lock nuts. No. 7470-850. List 35c. Net \$0.21

Muter Cable Markers



Tightly nickle-plated soft brass stamping, size of illustration, with deeply embossed letters. Permanently and easily attached to all standard size wire with pliers. Each set contains 10 markers as follows: ANT, GND, A—, A+, B—, B+22, B+45, B+90, C—, C+.

No. 7249-1300. Per set of 10. List \$0.15. Net \$0.09

Muter Midget Panel Mount Bakelite Base Knife Switches



No. 6211 For front panel or sub-panel mounting. The most compact knife switch made. Bakelite base. Highly nickle-plated. No. 6211-900. Single pole single throw. Net \$0.09

Base 1 1/4" long by 1/2" wide. No. 6212-925. Single pole double throw. Net 0.15

Base 1 1/4" long by 1/2" wide. No. 6213-950. Double pole double throw. Net 0.24

Base 1 1/4" long by 1" wide.

Rasco Binding Post Strip

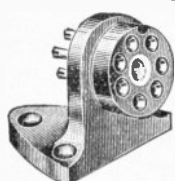


Mounted on a hard rubber strip, and the denominations are engraved in gold. The entire strip is supported by two brackets, 1" high, to clear wiring and other obstacles. 9 hard rubber binding posts. The markings are: "Antenna", "Ground", "A—", "A+", "B—", "Det B+", and "Amp B+"; "B+Int."; "C—", "C+", Length 7", width 1 1/4". Shipping weight, 1 lb. Illustration only shows 7 posts, although we supply it with 9 posts. No. 870. Binding Post Strip. Net \$0.35

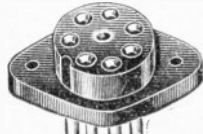
Hagel Power Plugs and Cables

Long life Bakelite construction. Extremely attractive in appearance. Plugs into socket smoothly—perfect contact always. Unaffected by heat or moisture. Non-inflammable and will not corrode the bronze contacts. In the bracket socket the pins are firmly embedded in Bakelite. Will not loosen in soldering. An insulator (leak-proof) separates contacts—impossible for stray wires to short circuit. Plugs in one way only. Impossible to make wrong connection. Soft rubber bushing is compressed around braid on cable. Prevents twisting of conductors and relieves soldered connections of all pull-strain. Multiple conductor cable. Standard length 5 ft. Brown braid. Conductors are in colored rubber insulation. R. M. A. standard colors. Just what the custom set builder needs!

Sockets



No. 8113



No. 8115

Wall Outlet Socket—Consists of Socket attached to Standard Switch Box Cover—Brush Brass Finish.
No. 8119, 7 Contacts. List \$1.50. Net.....\$0.88
No. 8120, 10 Contacts. List \$1.75. Net.....1.02

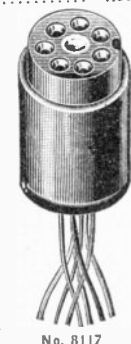
Plugs



Plug and 5 ft. Cable, less socket.
No. 8121, 7 Contacts. List \$2.25. Net.....\$1.32
No. 8122, 10 Contacts. List \$3.25. Net.....1.91

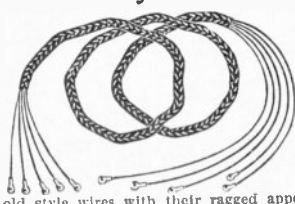
Double Plug Cable, 4 ft. Plug on each end, less sockets.
No. 8123, 7 Contacts. List \$3.25. Net.....\$1.91
No. 8124, 10 Contacts. List \$4.75. Net.....2.79

Extension Cable, 6 ft. Plug on one end and Binding Post Socket on other end.
No. 8125, 7 Contacts. List \$3.50. Net.....\$2.06
No. 8126, 10 Contacts. List \$5.00. Net.....2.94



PLUG ONLY
No. 8127, 7 Contacts. List \$1.00. Net.....\$0.59
No. 8128, 10 Contacts. List \$1.25. Net.....0.74

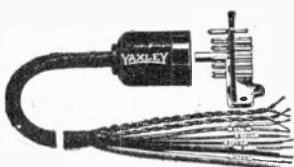
Battery Wire Assembly



Make your "A" and "B" battery connections quickly and easily. Made of different colored rubber and cotton covered insulated wires woven together. Eliminates unsafe and unsightly wiring as when using the old style wires with their ragged appearance. Five feet long.
No. 9224, 5 Wires.....\$0.25
No. 8010, 6 Wires.....0.31
No. 8011, 7 Wires.....0.37
No. 8012, 8 Wires.....0.43
No. 8013, 9 Wires.....0.49

10-Foot Length Cable

Very indispensable if you intend to install your batteries in a closet, or in the cellar, another room, etc.
No. 8821, 5 Wires.....\$0.55
No. 8822, 6 Wires.....0.67
No. 8823, 7 Wires.....0.79
No. 8824, 8 Wires.....0.91
No. 8825, 9 Wires.....1.03



Yaxley 12 Conductor Cable Plug

May be connected or disconnected quickly and conveniently from the power pack or batteries. It is just like pulling apart or pushing together a separable electrical plug. Positive spring contacts. Bakelite construction. No loosening of the pins or springs in soldering. Easily soldered. Extra quality cables. You cannot put the Cable Connector Plugs together improperly. All terminals and also cable ends plainly marked. Cable length, 4 feet. Six conductors, two pair being twisted, for A.C. leads are No. 14 wire.
No. 7167-612—Complete. List \$5.00. Net.....\$2.94
Also furnished with two extra Phone Tip Jacks on the mounting plate for Loud Speaker Connection.
No. 7168-614—With 2 extra Jacks. List \$5.25. Net.....\$3.09

Yaxley Cable Parts

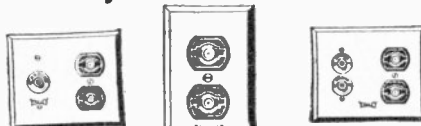
7 CONDUCTOR	List	Net
No. 7169-615—Receptacle Plug.....	\$1.00	\$0.59
No. 7170-650—Receptacle Plug and 5-foot Cable.....	2.25	1.33
No. 7171-680—Mounting Plate.....	.75	.45
No. 7172-635—Pin Plug.....	1.00	.59
12 CONDUCTOR	List	Net
No. 7173-615—Receptacle Plug.....	\$1.25	\$0.74
No. 7174-610—Receptacle Plug and 4-foot Cable.....	4.00	2.35
No. 7175-682—Mounting Plate.....	1.00	.59
No. 7176-625—Pin Plug.....	1.25	.74
CABLES	List	Net
No. 7177—12 Conductor, furnished in 4-foot length only.....	\$2.25	\$1.33
No. 7178—7 Conductor, 5-foot length.....	1.00	.59
No. 7179—Extra feet over 5, 7 Conductor, each.....	.15	.09

NOTE

Type 660 Yaxley 7 Conductor Cable Plug is also furnished with two Phone Tip Jacks in the plate, for Loud Speaker Connections.

List Net
No. 7181-669—With 2 Extra Jacks.....\$3.25 \$1.91
Type 670 Yaxley Binding Post Type 7 Conductor Cable Plug can be supplied with 12 conductors. 4-foot cable.
No. 7182-627. List \$6.00. Net.....\$3.53

Yaxley Convenience Outlets



No. 7037 No. 7035 No. 7038

For A. C. Connections
No. 7035-138. Brass. List \$1.00. Net \$0.59
No. 7036-138B. Bakelite. List \$1.25. Net \$0.74
For A. C. Connections and Loud Speaker
No. 7037-242. Brass. List \$2.00. Net \$1.18
For Aerial, Ground and A. C. Connections
No. 7038-241. Brass. List \$2.00. Net \$1.18

Battery Cable



Consists of five wires of different colors of insulation for convenience and accuracy in connecting your set to the batteries. Rubber insulation covered with woven thread. Highest grade. Two large storage battery clips furnished. Five feet long.
No. 9003.....\$0.47
No. 8814, 6 Wires.....\$0.53
No. 8015, 7 Wires.....0.59
No. 8016, 8 Wires.....0.65
No. 8017, 9 Wires.....0.71

5-6-7-8-9 Wire Cable



No. 9494

Ideal for connecting receiver to battery placed at a distance as in basement. Insulation of each wire marked so you can distinguish instantly. Comes in any length up to 100 feet.

Yaxley Cable Connector Plug



There are seven vari-colored strands of insulated stranded copper wire, each one of them plainly designated with an engraved metal tag corresponding with plug to which it makes contact. The connecting plate is mounted, as a rule, on the rear of the baseboard, sub-panel, etc. The plug can be inserted or removed at will. As plug can only be inserted one way, there is no chance of making an error. The ends of the cable and prongs are tinned, to facilitate soldering thereto. The plug proper is made of genuine bakelite, richly polished. Contacts therein are phosphor bronze, and the contact prongs are brass. Length of cable, 5 feet. Weight 3 lbs.
No. 9708-660. List \$3.00. Net.....\$1.77

The cable plug illustrated above is for sets that do not employ binding posts. If your present receiver has binding posts and you wish to use a Yaxley cable plug, then you must use the Binding Post type.
No. 5870-670. Complete. List \$3.50. Net \$2.06
No. 5740-610. Pin Plug with 15" Leads. List \$1.25. Net.....0.74

Yaxley Radio Convenience Outlets



No. 5736

The following radio convenience outlets and gang plates are quite similar to the illustration and are mounted on the wall in the same manner as our No. 9088 Yaxley Wall Plug.

VOLUME CONTROL SPEAKER OUTLET

For use where many loud speakers are to operate on the same circuit at the same time.

Equipped with an impedance coil wound to 2,200 ohms, which is equivalent to the resistance in the average loud speaker unit or headset resistance. An equal volume is possible from one or several loud speaker units on the same circuit at the same time. Shipping weight 3 lbs.

No. 5534-131. List \$2.50. Net.....\$1.47

FOR LOUD SPEAKER CONNECTIONS

Makes it practical to place radio set in one room and enjoy reception in another part of building. Recommended for homes, hotels, apartments, hospitals, etc.
No. 5735-135. List \$1.00. Net.....\$0.59

FOR AERIAL AND GROUND CONNECTIONS

No. 5736-136. List \$1.00. Net.....\$0.59

FOR TWO LOUD SPEAKER OUTLETS

No. 5835-235. List \$2.00. Net.....\$1.18

FOR LOUD SPEAKER, AERIAL AND GROUND CONNECTIONS

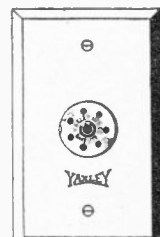
No. 5838-238. List \$2.00. Net.....\$1.18

FOR AERIAL AND GROUND AND BATTERY CONNECTIONS

No. 5839-239. List \$3.50. Net.....\$2.06

FOR LOUD SPEAKER, AERIAL AND GROUND, AND BATTERY CONNECTIONS

No. 5850-350. List \$4.50. Net.....\$2.65



Yaxley Wall Plug

This device fits into the space occupied by any standard house current outlet box. The batteries to which this receptacle is attached may be placed in an adjacent closet. You simply plug in the special attachment furnished—there is only ONE way it can be done, as a safeguard. When you have shut off your radio, the plug can remain in the receptacle or can be removed. Handsome brass finish. Weight 2 lbs.

No. 9088-137. Complete with Plug. List \$2.50. Net.....\$1.47



Carter Short Jack

Smallest jack made. Ideal in cramped quarters, yet contacts are perfect. Single hole mounting in 3/8" hole. Is about 3/8" long.

No. 9662. Open Circuit. List \$0.25. Net.....\$0.15
No. 9095. Closed Circuit. List \$0.30. Net.....0.18

No. 9494, 5 Wires.	Per foot.....	\$0.04 1/4
No. 8806, 6 Wires.	Per foot.....	0.05
No. 8807, 7 Wires.	Per foot.....	0.05 1/2
No. 8808, 8 Wires.	Per foot.....	0.11
No. 8809, 9 Wires.	Per foot.....	0.14

Electric Soldering Iron



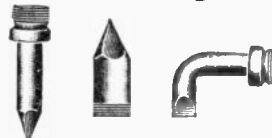
Here is a soldering iron which is most useful and is made especially for radio constructional work. Works on 110-volt direct or alternating current. Heats up in less than three minutes. The heating coil is Nichrome wire. Iron is strongly constructed and made of best material. Shipping weight 2 lbs.
No. 2200, Soldering Iron, List \$2.50. **\$1.15**
Net.

Adroit Double Duty Electric Soldering Iron



Especially recommended for continuous use. Will give the same lasting satisfaction and service as soldering irons selling for two and three times its very low cost price. Weighs only $\frac{1}{2}$ lb. Consumes 75 watts per hour. Supplied with two-piece readily detachable attachment plug. Heater cord is an assurance of long life. Note the anti-kink spring protruding from the red tusk handle. Black oxide tubing, genuine copper tip, long life special alloy element covered with porcelain cement. Operates with either 110 D.C. or A.C. current. Shipping weight 3 lbs.
No. 9930, Complete, with One Tip. **\$1.95**
List \$3.00, Net.

Soldering Iron Tips



For use with our No. 9930 iron. You cannot afford to be without these useful copper tips—there is one for every possible purpose.

No.	Tip	Size	List	Net
No. 9931.	Standard Tip, 9/16" by 1 1/4"		\$0.50	\$0.32
No. 9932.	Pencil Tip, 3/8" by 2"		0.50	0.32
No. 9933.	Ellow Tip, 3/8" by 1 1/4" by 3/8"		0.50	0.32

Adroit 2-Heat Soldering Iron

A button, conveniently placed in the handle, when pressed forms a connection increasing the wattage and temperature of tips from 20 to 30 per cent. Each iron then is in fact two distinct irons of different wattage to be used as best adapted for the required work. For 110-volt, D.C. or A.C. current.

- No. 5709—Model B 100. Equivalent to 2 and 2 1/4 lb. pair old type soldering coppers. Consumes 100 watts on single, 130 watts on double heat. Most practical for general all-around soldering work. Weight 1 1/2 lbs. with tip. Length 15". Price, equipped with Regular Tip, List \$6.00. **Net.... \$3.90**
- No. 5710—Model B 200. Equivalent to 4 and 4 1/4 lb. pair old type soldering coppers. Consumes 200 watts on single, 250 watts on double heat. Weight 2 lbs. with tip. Length 16 1/2". Price, equipped with Regular Tip, List \$9.00. **Net.... 5.85**
- No. 5711—Model B 300. Equivalent to 5 and 6 1/4 lb. pair of old type soldering coppers. Consumes 300 watts on single, 400 on double heat. The most efficient model made for heavy work. Weight 3 1/2 lbs. with tip. Length 18". Price, equipped with Regular Tip, List \$12.00. **Net..... 7.80**

Tips for 2-Heat Soldering Irons

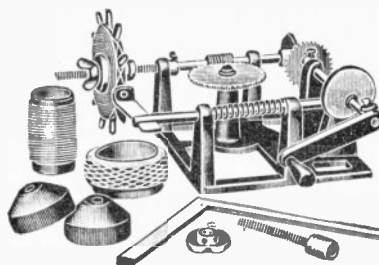


Tips for No. 5709 Iron			
Diameter	Length	List	Net
No. 6180-A	3/8" 1 1/4"	\$0.50	\$0.32
No. 6181-B	3/8" 1 1/2"	0.70	0.45
No. 6182-C	3/8" 1 1/4"	0.60	0.39
No. 6183-D	3/8" 1 1/4"	0.60	0.39
No. 6184-E	3/8" 1 1/4"	0.60	0.39

Tips for No. 5710 Iron			
Diameter	Length	List	Net
No. 6185-G	3/8" 2 1/4"	\$1.50	\$0.97
No. 6186-H	3/8" 2 1/2"	2.00	1.30

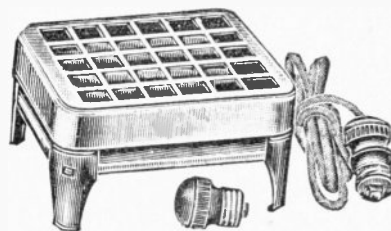
Tips for No. 5711 Iron			
Diameter	Length	List	Net
No. 6187-G	1 1/4" 3"	\$2.00	\$1.30
No. 6188-H	1 1/4" 3"	2.50	1.62

Morris Winding Machine



This machine will wind Honey Comb, Spider Web, Solenoids, etc., in different widths and diameters, using wire of various sizes. Each of the different types of coils can be made without removing any gears from the machine. Made with a heavy cast iron frame. Steel gears are accurately cut; the polished steel shaft runs in carefully reamed bearings. Weight 5 lbs.
No. 8184, List \$7.50. **Net..... \$4.90**

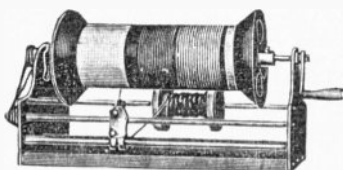
EV'RYDAY Table Stoves



Made of cold rolled steel, nickel plated and polished. Nickel chromium heating element easily renewable. Height 3 1/4". Top dimensions 6" by 5 1/2". Operates on 110 volts, 500 watts. Shipping weight 2 lbs. Separable attachment plug.

No. 14865-100, Your Net Cost **\$0.88**

Wizard Wire Winder



With this ingenious device—the WIZARD WIRE WINDER—you can accurately and quickly wind any coil with silk, enamel or cotton wire of any thickness for coils from 3/8" to 4 1/2" in diameter, up to 10' in length. With a WIZARD WIRE WINDER the largest coil can be wound in only 30 seconds. It winds in spaces absolutely true, has ten speeds which are easily regulated, and is very substantially built. Perfect spacing guaranteed. Extreme width 11 1/2". Ship's wt. 3 lbs.
No. 2694, List \$7.50. **Net..... \$5.25**

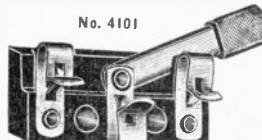
Bakelite Base Knife Switches



They are the most compact switches made, yet their insulating qualities are as dependable as switches twice their size. Mechanically and electrically perfect. Base is genuine Bakelite. All metal parts are brass, heavily nickel plated. No. 9061 switch 2 1/4" long by 1 1/2" wide.

No.	Configuration	List	Net
No. 9061-11.	Single Pole, Single Throw	\$0.60	\$0.36
No. 9062-12.	Single Pole, Double Throw	0.90	0.54
No. 9063-21.	Double Pole, Single Throw	0.70	0.41
No. 9064-22.	Double Pole, Double Throw	0.85	0.51
No. 9065-31.	Triple Pole, Single Throw	1.25	0.75
No. 9066-32.	Triple Pole, Double Throw	1.25	0.74
No. 9067-41.	Four Pole, Single Throw	1.75	1.05
No. 9068-42.	Four Pole, Double Throw	2.00	1.20
No. 9069-51.	Five Pole, Single Throw	2.25	1.35
No. 9070-52.	Five Pole, Double Throw	2.50	1.47

Throw Switch



No.	Configuration	List	Net
No. 4100.	Single Pole, Single Throw		
No. 4101.	Single Pole, Double Throw	\$0.21	
	Switch		0.30

Brach Mouth Blow Torch



No service man can well afford to be without this handy tool—whether you are building or repairing a set, it will quickly prove its usefulness. Burns denatured alcohol and delivers a long, hot needlepoint flame, which can be played directly on the spot to be heated. The harder you blow (tube is placed in your mouth) the more intense the flame. Highly nickel plated. Complete with protective cap and chain, and rubber tube.

No. 8031, List \$2.25. **Net..... \$1.32**

"Rasco" Alcohol Blow-Torch



Small enough to fit the pocket and big enough to do all your work. One filling of denatured alcohol, costing less than one cent, will last for three or four hours of steady work. The alcohol cannot escape when the torch is not in use. Note illustration carefully. By blowing into the soft rubber tube which is one foot long, an extremely hot needle flame comes from the top of the torch. The needle flame can be directed against the smallest surface. The direction of the flame can be changed by moving the sliding member of the torch up or down. The torch fits your hand. The entire torch is nickel plated and polished. The size 5"x1". It will last a lifetime. Weight 1 lb.

No. 8981, "Rasco" Blow Torch, Each, List \$1.50. **Net..... \$0.75**

No. 8982, Same Torch, but smaller. Size 3"x3/8". **Net..... \$0.50**

Lenk Automatic Blow Torch



This blow torch develops a blast of 1,700° Fahrenheit, and will operate for about three hours on one filling. Uses denatured and commercial alcohol. A detachable shield is provided to protect blast from all drafts on outdoor work. Blows itself. Starts in twenty seconds. Overall size 7". The tank (there are two tanks inside) itself is 2" in diameter and is heavy brass highly nickel-plated and polished.

Shipping weight 3 lbs.

No. 5808, List \$3.00. **Net..... \$1.95**

Porcelain Base Switches



No. 9855



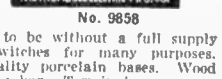
No. 9856



No. 9859



No. 9857



No. 9858

No experimenter can afford to be without a full supply of these most necessary switches for many purposes. Genuine high insulating quality porcelain bases. Wood knobs. Fibre insulation cross bar. Terminal screw connections.

No. 9855.	Single Pole, Single Throw.	Net..... \$0.13
No. 9856.	Double Pole, Single Throw.	Net..... 0.21
No. 9857.	Single Pole, Double Throw.	Net..... 0.23
No. 9858.	Double Pole, Double Throw.	Net..... 0.30
No. 9859.	Triple Pole, Double Throw.	Net..... 0.65
No. 5414.	Five Pole, Double Throw.	Net..... 1.42

Bakelite Base Insulating Cement



All soldered joints should be painted to prevent corrosion from ever setting in. For this purpose our special glue is recommended. It is also used for insulating wires that would touch each other, by applying this solution to the surface thereof with a brush, eliminating the use of spaghetti covered wire. The bakelite base in this preparation assures a very high quality insulation. May also be used to cover coils. Very quick drying. Shipping weight 2 lbs.

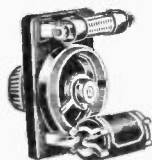
No. 8901, Per 1/2 Pint, **Net..... \$0.45**

Semi-Adjustable Carborundum Detector



It's adjustable. After adjustment it's permanently sensitive. Heavy contact pressure makes it permanently sensitive. It is the only rectifying substance that can be used with a heavy pressure contact; consequently, it is the only material suited for permanently sensitive detectors. Are built solidly and they are guaranteed not to "burn out" at ordinary signal strength. When used with the controlling unit, it exceeds all other crystals in permanency, efficiency, selectivity, sensitivity and perfect adaptability to practically any set. Certain circuits require a slight adjustment in the crystal for balance, and the Carborundum Detector permits of this. When the adjustment is made by slightly turning the adjusting screw the position can be fixed by tightening the lock nut, and the adjustment then remains permanently sensitive. It may be unlocked and readjusted to new conditions as required. Shipping weight 8 ozs. **No. 9340-30. List \$1.50. Net. \$0.88**

Carborundum Stabilizing Unit



The stabilizing unit is an electrically controlled Carborundum Detector and is adaptable to all circuits, as the detector impedance, being adjustable by a very high resistance potentiometer and flashlight battery shunted across same, exactly matches the particular circuit requirements. Regulation is possible within 1/100th of a volt. There are provided clips for snapping in place the flashlight battery, a built-in mica condenser, a carborundum detector. Control may be effected from the panel or unit can be mounted on a baseboard. Bakelite knob is supplied with white engraved arrow. Bakelite frame. Nickel plated brass. Only two connections required—same as any crystal detector. Overall dimensions: 2 1/2" wide, 3 1/4" long; extends 2 1/4" from rear of panel. Shipping weight 2 lbs. **No. 9639. Includes Carb. Detector (With-out Flashlight Battery). List \$3.50. Net \$2.06**
No. 8979. Flashlight Cell for Above. 0.20

"Rasco" Baby Detector

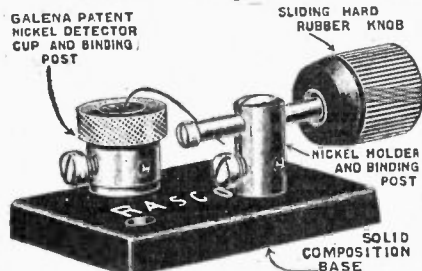


Illustration is full size. Base is solid, black composition. Mounted on same is a nickel holder and binding post which holds a fluted hard rubber knob with its sliding rod member. Fully adjustable. Metal highly nickel plated and polished. Complete in all details. Furnished complete with cat-whisker and one galena crystal. Size overall: 1 1/2" x 1 1/4". Shipping weight 8 ozs.

No. 1898. Detector. List \$1.00. Net. \$0.25
No. 1899. With Galena and Radiocite Crystals. Net. \$0.50

Crystal Detector Stand



Entirely nickel plated. All brass parts. It takes the swivel adjustment, of the ball-socket type. It is possible to move the arm in every direction. Shipping weight 8 ozs. **No. 1350. Unassembled, complete. \$0.20**
Each, List \$0.75. Net.

Selenium



This metalloïd is used for a variety of purposes, particularly to make selenium cells, etc. We carry only the chemically pure kind.

No. 557. 1 ounce. Net. \$0.50

B.M.S. Fixed Crystal Detector



The sensitivity of the mineral is determined by laboratory methods and fixed permanently. Made to withstand high voltage. Small and enclosed in Bakelite. Illustration is actual size. **No. 7487-318. List \$1.00. Net. \$0.59**

Radiocite Crystal



We recommend Radiocite as the best all-around radio crystal in existence. The size of this mounted crystal is 1/2" by 1/4". It contains a piece of the best tested Radiocite. The crystal will fit any standard cup. **No. 317. Net. \$0.22**



Crystal Cups

This crystal cup is well made and has a knurled set screw.

No. 318. Net. \$0.10

Galena Mounted Crystal

RASCO Galena Mounted Crystals are all tested. Each spot is sensitive. We use only striated (argenteriferous) "steel" galena. **No. 327. \$0.15**



"Rasco" Cat Whisker

Made accurately of phosphor bronze spring wire, and specially recommended for use with our mounted crystals. So cheap that you will not wish to make your own after you have seen them. **No. 4420. \$0.05**



"Rasco" Radio Cement

For all radio work. It is highly insulating, water-resisting, and quick-drying. Used particularly for cementing covered wires together. A cotton or silk wound coil is wound upon any form, while the form is first covered with a piece of thin paper. Then the wire is wound on top of this. Apply the cement by means of a brush that comes with the bottle. The cement dries quickly and the wire form can be removed in 20 minutes. The paper is then removed from the inside of the coil and another coat of cement is applied to the inside. You now have a wire form that holds together without any visible support. Shipping weight 8 ozs. **No. 1750. 2-oz. Bottle. \$0.45**
Net.

Threaded Brass Rod

No. 6032. 6/32 thread. Per 6" length. \$0.06
Lots of 50. \$0.15

Brass Strip

This strip is particularly handy for the experimenter. Width 1/2"; 1/16" thick; comes in 6" lengths only. **No. 1430. \$0.10**

Round Brass Rod



We carry only two sizes of plain round brass rod: 3/16" and 1/4" diameter. Furnished only in 6" lengths. Ends carefully milled and squared.

No. 1425. 1/4". \$0.06
No. 3616. 3/16". \$0.04
Lots of 50—less 10%

Brass Tubing

Outside diameter, 1/4"; inside diameter, 3/16". Comes only in 6" lengths. No other lengths furnished. **No. 1431. \$0.15**

Copper Foil



Better than tin foil, which latter has not a high conductivity, whereas copper, being the second best conductor, is much superior. Annealed, and can be flattened out perfectly. Any length, but only 1" wide. Thickness .001".

No. 5025. Per Running Foot. \$0.07
10 Ft. Length. 0.60

Copper Ribbon



This ribbon is used for connecting and other purposes, and is .005" thick. Not less than 10 ft. sold.

No. 700. 3/4" wide. Per ft. \$0.01
No. 701. 1/2" wide. Per ft. 0.01
No. 702. 3/16" wide. Per ft. 0.01

Silicon Steel



Silicon steel is specially used for transformer purposes. Exceedingly soft. Can be cut with pair of old scissors. One size which is standard—2 1/2" wide and .007" thick. Sold by the foot only. No other size can be supplied.

No. 4900. Per Running Foot. Net. \$0.08

Aluminum Shielding

Just the proper thickness for maximum shielding effect with ample mechanical strength. Commercially pure aluminum sheets. About 1/32" thick. Shipping weight 2 to 6 lbs.

No. 6359. 6x12". Each. \$0.55
No. 6360. 7x24". Each. 0.93
No. 6361. 8 1/2x30". Each. 1.25

Zinc Shielding

For use between A. F. or R. F. stages for all sorts of shielding panels or cabinets. Thick enough to be self-supporting. Will hold shape firmly when bent. Can be easily formed or cut to any size. Made of zinc with polished nickel coating.

No. 6366. Size 6x12". Per Sheet. \$0.40
No. 6367. Size 7x24". Per Sheet. 0.80

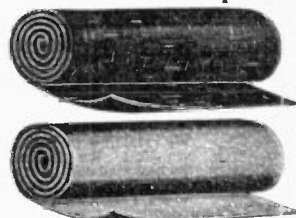
Tin Foil



Standard for all electric purposes. Averages 1,500 sq. ins. to the pound. Is suitable for all radio receiving condensers, etc.

No. 850. Per Pound, Net. \$0.42

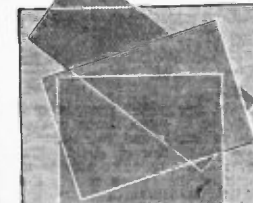
Varnished Paper and Cloth



This so-called "Empire" paper and "Empire" cloth is the very best for insulating purposes. The paper is recommended for transformer windings; also protects windings from moisture; to wind over iron cores or iron core wire and for many other purposes, such as in connection with condensers, etc. Both have high dielectric qualities and are far superior to paraffined paper. Not less than 1 ft. sold. The paper is .006" thick and comes in any length, 5 1/2" wide; and the cloth is .020" thick and 5 1/2" wide. Sold by the running foot.

No. 1290. Varnished Paper, 5 1/2" wide by .006" thick. Per running foot, Net. \$0.04
No. 1291. Varnished Cloth, 5 1/2" wide by .02" thick. Per running foot, Net. 0.10

Mica



We carry the best grade of electrical mica only. Sheets can be split readily into any thickness.

Per Sheet
No. 860. 1x3". \$0.01
No. 861. 1 1/2x2". 0.01
No. 862. 2x3". 0.02
No. 863. 2 1/4x3". 0.04
No. 864. 3x5". 0.07
No. 865. 4x5". 0.10



Screw and Lug Assortment

Contains 100 pieces, all handy, in useful standard sizes. Includes a good assortment of all standard screws, corner lugs, machine screws, wood screws. All screws plated. Cheapest buy you could think of. Saves time, trouble and money. Shipping weight 1 lb.

No. 9413. Net..... **\$0.29**

EV'RYDAY

Electric Coffee Percolator



These highly polished heavy-gauge aluminum percolators are of pleasing designs. They are equipped with cold-water type pumps. Etched wood handles, and wood feet to protect polished surfaces. Heat proof glass top, and aluminum interior fittings. Supplied with cord set. A table mat is furnished with each percolator. Shipping weight 6 lbs.

No. 6785-45. Five-Cup Size. **\$5.95**

Your Net Cost.....

No. 6786-18. Eight-Cup Size. **\$6.25**

Your Net Cost.....

"Rasco" Brass Washers

These washers are standard and are accurately stamped and as flat as it is possible to make them.

Cat. No.	Clears Size of Machine Screw	Outside Diam.	Inside Diam.	Thickness	Price per Gross, 144
49	No. 4	9-32	.125	.025	\$0.25
63	No. 6	8-32	.150	.032	0.25
83	No. 8	3-8	.170	.032	0.50

"Rasco" Lock Washers



Made of phosphor bronze. Split as shown, but the two flat surfaces are not on the same plane;

there is a difference of about 1/16". The washers are about 1/32" thick when compressed.

No. 3001. For 1/32" screw. Per 50..... **\$0.16**

No. 3006. For 6/32" screw. Per 50..... **\$0.16**

No. 3008. For 8/32" screw. Per 50..... **\$0.32**

Hexagon Nuts



We specialize in Hexagon Nuts. We furnish the best kind only, in six sizes: 4-36, 6-32, 8-32, 10-32, 10-21 and 12-21.

Nos. 4-36 and 6-32. Per gross..... **\$0.47**

Nos. 8-32 and 10-32. Per gross..... **0.78**

Nos. 10-21 and 12-21. Per gross..... **1.08**

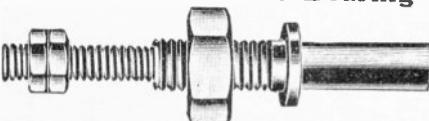
Cap Nuts



No. 314. Nickel plated brass cap nut, 8-32 or 6-32. Each..... **\$0.02**

Per 100..... **1.50**

"Rasco" Universal Bearing



Made of brass, and comes in five parts: inner shank, bushing that holds whole device in panel, large washer which screws against inside of panel, and two hexagon nuts to secure the work to the center of shaft. The illustration of the Bearing is full size. The outside of the shaft is 1/4"; the length of the thread is 1"; the total length of Bearing is 2 3/4"; the length of the threaded sleeve is 3/4" overall.

No. 1375. Net..... **\$0.22**

Brass Screws—Nickel Plated

Sold only in lots of 144



Round Head Machine Screws

Size 6-32 threads to inch

No.	Length	Per Gross
No. 8129.	1/4 inch	\$0.42
No. 8130.	1/2 inch	.42
No. 8131.	3/4 inch	.42
No. 8132.	1 inch	.50
No. 8133.	1 1/2 inch	.75
No. 8134.	2 inch	.99



Oval Head Machine Screws

Size 6-32 threads to inch

No.	Length	Per Gross
No. 8135.	1/4 inch	\$0.48
No. 8136.	1/2 inch	.48
No. 8137.	3/4 inch	.48
No. 8138.	1 inch	.65



Flat Head Machine Screws

Size 6-32 threads to inch

No.	Length	Per Gross
No. 8139.	1/4 inch	\$0.45
No. 8140.	1/2 inch	.45
No. 8141.	3/4 inch	.45
No. 8142.	1 inch	.62



Round Head Wood Screws

Just the right thickness for Radio work. Sizes are No. 5 and 6.

No.	Length	Per Gross
No. 8143.	3/4 inch	\$0.43
No. 8144.	1 inch	.52
No. 8145.	1 1/2 inch	.55
No. 8146.	2 inch	.69



Oval Head Wood Screws

Ideal for Radio work. Sizes No. 6 and 7.

No.	Length	Per Gross
No. 8147.	1/2 inch	\$0.48
No. 8148.	3/4 inch	.50

Center Punch



An important tool in the making of radios. Panels must be prick punched as a starter for the drill. 4" long. Knurled handle. Extra sharp Point.

No. 8062. Net..... **\$0.10**

Reamer



An indispensable tool in radio work. For enlarging drilled holes to the proper size. Only one size of drill need be used. Operates perfectly on bakelite, hard rubber, etc.

No. 8063. Net..... **\$0.17**

Dial Marker



Using our patent dial marker you do not need to spoil your panel by scratching a mark. Illustration full size. Made of a single piece of brass with shank to take a nut. Just drill a single hole, mount the marker point, tighten up nut on back of panel and that is all. Heavy milled-in line takes places of the old scratch line. Point is nickel plated. Thickness 1/16".

No. 7788. Net..... **\$0.05**

3 for \$0.10. 100 for \$2.00.

Pee Wee Clip



The uses and versatility of this clip are too numerous to mention. 1 1/2" long, nickel-plated. Terminal screw provided.

No. 5415. Each Clip. Net..... **\$0.05**

Phone Tips



No. 315. Standard Telephone Cord Tip, nickel plated and polished.

Per Dozen..... **\$0.35**

Lots of 12 dozen—\$3.50

"Crow Bill" Pliers



An ideal plier for all radio and electrical work. Long thin semi-round nose for fine jobs where other types of pliers are useless. Just right for radio wiring and enables the user to form perfect eyelets. Drop forged. Warranted.

No. 8066. Net..... **\$0.35**

Scriber



Lays out panels and baseboards accurately. Saves time and insures neatness. The finest of steel, fully tempered. Is used in Radio-Electric Scribes. Needle point on each end for marking hair line and will fit the very smallest screw hole.

No. 8068. Net..... **\$0.17**

Countersink



For shaping holes in hard rubber, bakelite, fibre, wood, etc., to fit the heads of flat head screws. A necessary tool for the radio builder.

No. 8064. Net.... **\$0.17**

Nut Forceps



A perfect grip on all size knurled hex and square nuts. Drop forged. Warranted.

No. 8065. Net..... **\$0.35**

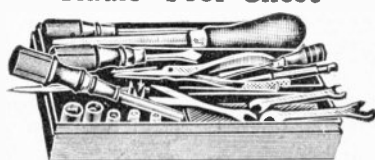
Wrench Set



A real necessity for radio builders, repairmen, electricians and auto mechanics. Adjusts nuts in places impossible to reach with other tools. For all hex nuts measuring 3/4 in., 5/16 in., 1/2 in., 7/16 in. and 3/8 in., with alligator jaw for odd sizes. Each set in genuine leather case.

No. 8067. Net..... **\$0.17**

Radio Tool Chest



The most necessary and ever needful radio tools are in this kit—should be in every custom set builder's or service man's tool box. And just as useful in your laboratory or workshop. Here are the contents: 3 and 5 in. screw drivers, scriber, reamer, countersink, pliers, center-punch, socket wrench set for hexagon and knurled nuts; and 3 wrenches for hexagon nuts, ranging from 1/4 to 1/2 in. Packed in attractive dark blue and gold cardboard case. Weight 2 lbs.

No. 8899. List \$3.00. Net..... **\$1.76**

Scroll Saw and Blades



For cutting wood, bakelite or metal. 6" long blade—3/4" clearance to top of saw. Adjustable position blade arrangement. Complete with 6 blades. Shipping weight 2 lbs.

No. 8259. Set..... **\$0.69**

No. 8264. Six Extra Blades. Net..... **0.19**

Morris Safety Battery Clip



A safety fuse carrier is built into it, in which is placed a removable fuse. All radio receivers should be protected against accidents from crossed wires—and the use of the Morris Safety Clip gives this protection automatically. Its use also guards the surrounding property from danger of fires from short circuits, and it meets the requirement of the National Electrical Code by fusing the circuit AT the battery. The fuses used with these clips are standard 5-ampere auto lighting fuses and can be obtained from your radio dealer or any garage or auto electric shop. Overall dimensions are 3 1/2" long by 1 1/4" by 3/8".

No. 6520. Each, List \$0.25. Net..... **\$0.16**

Storage Battery Clip



These large size clips are non-corrosive and are warranted to make a positive, ever gripping connection. Lead wire is attached to the clip by twisting it under a screw and then tightening same. Lead covered. Weight 8 ozs. each.

No. 9719. Net..... **\$0.11**

Radio Tools

SIDE CUTTING PLIERS



No. 8792. Net..... \$0.49

SQUARE JAW PLIERS AND SIDE CUTTER



No. 8793. Net..... \$0.59

RATCHET SCREW DRIVER



The advantages of an automatic ratchet screw driver are well known. Ratchet mechanism is perfect. A quality product. Especially designed for radio experimenters.

No. 8795. Net..... \$0.89

Radio Hand Drill



Handy for radio and electrical work. For drills up to 1/4", but will drill up to 7/16" holes in bakelite with drills having shanks cut down to 1/4". Polished wood handles. Black enameled frame. Strong and rapid working. Shipping weight 2 1/2 lbs.

No. 4801. Net..... \$1.13

Set of Drills



These Carbon steel drills are for use in our or any standard hand drill, being the most widely used sizes. This set of nine drills ranges in size from 1/16" to 3/16" diameter.

No. 9046. Set of 9 Drills. Net..... \$0.35

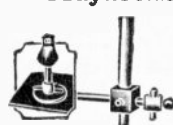
Counter Sink



To counter sink holes on any surface. Must be done if you use flat head screws. The heads of the screws will then lie flush with the panel. Standard size. Fits standard hand or bench drill. High quality steel.

No. 6342. List \$0.10. Net..... \$0.23

Stevens Adjustable Panel Cutter



For drilling holes in panels for meters or other large diameter instruments. Adjustable from 1 1/2" to 6". As the shank is 7/16" it can be used in any hand brace or bench drill. A quality tool.

No. 6408. Net..... \$1.85

No. 6628. Competitive Model. Maximum hole that can be cut is 3". Net..... \$1.15

Long Nose Pliers



An exceptionally fine quality tool, and very useful on every set builder's work bench. For reaching into otherwise inaccessible places, these pliers have no equal. Hardened tool steel. Shipping weight 1 lb.

No. 6397. List \$1.00. Net..... \$0.53

Socket Wrench Set



Consists of a durable wood handle and metal shank. Five readily removable nut formed sockets are included. Only those sizes generally used in radio: 1/4", 5/16", 3/8", 7/16" and 1/2". Sockets snap on shank very readily. Shipping weight 1 lb.

No. 6019. List \$0.75. Net..... \$0.50

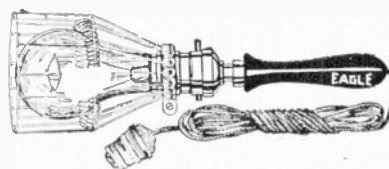
Wire Loop Former



A complete and handy tool for electricians, radio set builders and mechanics. It will accurately form loops for No. 4, 6, 8 and 10 screws and make easy radius right-angle bends. Made of the best quality steel, drop-forged and carefully tempered in oil.

No. 4802. List \$1.50. Net..... \$0.90

Trouble Lamp



Very convenient and handy for every service man—certainly, a device of many uses! Furnished with twelve feet of P. K. waterproofed heavy cable. Association push socket. Heavy enameled handle, and lamp guard. Price does not include 110 volt bulb, or spring.

No. 8089-487. List \$1.50. Net..... \$0.90

Reamer



Tapering spiral tool—indispensable! Enlarges small holes to larger size without re-drilling. Just a few turns of this tool, and the job is well done. For wood, metal, bakelite, etc. Diameter at large end, 3/4".

No. 8265. Net..... \$1.30

Drill and Countersink



Drills hole (for No. 6 and 8 screws) through wood, metal, bakelite, etc., and at the same time, countersinks the hole!

No. 8266. Net..... \$0.24

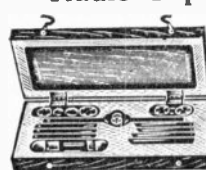
Meter Hole Cutter



Ideal for making meter holes in wood or bakelite panels. Fits any brace.

No. 8291. 2". Net..... \$0.86
No. 8292. 2 1/2". Net..... \$0.86
No. 8293. 3". Net..... \$0.86

Radio Tap and Die Set



Contains 4/36, 6/32 8/32, 10 21, 11/20 size taps and dies. Set also includes a die stock and adjustable tap wrench. Shipping weight 4 lbs.

No. 8294. Net \$5.55

Friction Tape



Invaluable for insulating joints in aerials, ground leads, battery cables, etc. Can also be used for many purposes around the home, shop, etc. Generous sized roll.

No. 7022. Net.... \$0.20

Screw Driver Set

No radio fan's kit of tools is complete without these three screw drivers. The blades are molded into a Non-Skew Insulated and knurled handle. Each set consists of one screw driver with a 2 3/4" long blade, one with a 3 1/4" blade, and one with a 5 1/4" blade. Shipping weight 1 lb.

No. 9778. Set of 3 Drivers. Net.... \$0.32

Kester Rosin Core Wire Solder



A very ingenious solder which consists of a hollow wire tube of genuine tin and lead with tiny pockets that hold the rosin flux. As the solder is melted off, the proper amount of flux is released to insure a perfect bond. A big saving of time and material. Strictly non-corrosive.

No. 4104. 18" length. Net, Per Strip \$0.07

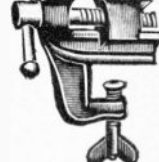
End Cutting Pliers



A needed tool in radio work. Cuts all kinds of wire. Correctly designed, well made and durable. Drop forged and guaranteed. Snips off excess length wires close to terminals. Powerful leverage eases work.

No. 8057. 5 1/2" Length..... \$0.45
No. 8058. 6 1/2" Length..... 0.55

Radio Vise



You are lost without this ever handy tool in your workshop, laboratory, etc. Hardened jaw moves on accurately cut horizontal screw. Securely clamps anywhere—can be removed in a moment. Highest quality throughout—not to be compared with "similar" offerings.

No. 8255. Jaws 1 1/2" wide. Approx. length 5". Shipping weight 4 lbs. Net..... \$0.39
No. 8256. Jaws 2" wide. Approx. length 6 1/2". Shipping weight 6 lbs. Net..... 0.80
No. 8257. Jaws 2 1/2" wide. Approx. length 8". Shipping weight 10 lbs. Net..... 1.15

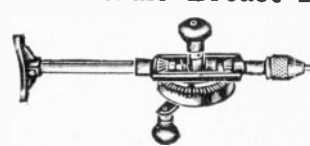
Kester Rosin Core Solder



Famous the world over. Sufficient rosin flux is contained in the core of the solder itself. Greatly simplifies work. Soldered joints are electrically and mechanically perfect using this solder.

No. 8044. Per Can, 4 oz. Net..... \$0.18
No. 5265. ONE POUND SPOOL. Net..... \$0.66
No. 5266. FIVE POUND SPOOL. Net..... \$3.05

Radio Breast Drill



3/8" drills, or smaller, at tight gripping chuck. Note hand grip and breast plate for heavy, accurate work. Shipping weight 4 lbs.

No. 8258. Net..... \$1.88

Yaxley Cable Markers



Easily read markers, convenient to attach. Each marker snugly hugs the wire so that the wire may be drawn through small opening. Packed in boxes, each box containing set of sixteen markers as follows: A+, A-, B-, 13-4 DET., B+AMP., B+RF, B+PR, C+, C-, C-4 1/2, C-9, C-PR, A-C+, A+B-, ANT., GRD.

No. 8285. Per Set. List \$0.25. Net.... \$0.15

Solderall



A wonderful solder and non-corrosive flux combined. In paste form, in collapsible tube, always ready for instant use. No acids, resin or flux necessary. Squeeze

a little on the parts to be soldered and heat with a match, hot iron, or torch, and the work is done. Size of tube, 3/4" x 3/4".

No. 8950. List \$0.25. Net..... \$0.16

Soldering Paste

An old favorite, and justly so. Will positively work where rosin core solder may fail. Non-corrosive. Generous size can.

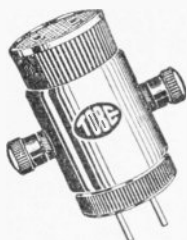
No. 5589. List \$0.25. Net..... \$0.15

Solid Wire Solder

A half tin and half lead composition approximately 3/4" diameter. Ideally suited for radio work.

No. 8377. Per 8 ozs. Net..... \$0.32

Tobe 4 Purpose Light-Socket Aerial



Saves cost and bother of aerial and lightning arrester or ground while permitting use of electrical outlet. Just plug in your electric lamp or electric radio set to Tobe Aerial as you now do to base-board flush receptacle or lamp socket. You will not interfere with ordinary use of the outlet by using the Tobe 4 Purpose Light-Socket Aerial. Static is minimized. Construction of plug prevents excessive pick-up of static. Increased selectivity improves tone quality. Tuning is sharpened. Your set will tune much more sharply when you use a Tobe Aerial than when you use an outdoor antenna. Shipping weight 2 lbs.

No. 7375. List \$2.00. Net..... **\$1.18**

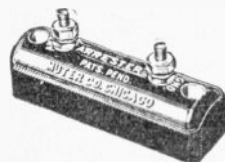
Muter Interference Eliminator and Static Reducer



Black moulded Bakelite case, size $3\frac{1}{2}$ " in diameter. Can be easily and quickly attached to receiving set without the use of tools. A real device that is capable of tuning out nearby powerful stations and which gives results when other such eliminators fail. Shipping weight 1 lb.

No. 7472-1800. List \$2.50. Net.... **\$1.47**

Muter Guardian Lightning Arrester



Brown porcelain shell $4\frac{1}{2}$ " long, $1\frac{1}{2}$ " wide. Approved for outdoor or indoor use by Underwriters in the United States and Canada. Air gap type positive in action.

No. 7468-1000. List \$0.75. Net.... **\$0.44**

Hawkeye Reel Aerial



Carry a 21-ounce Reel Aerial in your pocket and install a highly efficient antenna in a jiffy—any time, any place—outdoors, indoors. It's your antenna and lead-in combined. Window or door can be closed tight and locked—without harm to the tape. Aerial can be made longer or shorter by reeling it out or in. This enables you to determine best length for selectivity, distance, volume on different sets and different hook-ups. The flat drawn copper wire is 100 feet long, $\frac{1}{4}$ -inch wide, and not insulated. Unused portion remaining in case therefore does not cause dead-end losses. Reel Aerial permits you to make quick and satisfactory home demonstrations with an aerial you know is 100% right. Shipping weight 3 lbs.

No. 8049. List \$2.00. Net..... **\$1.18**

Brach Arrester



The price of this very efficient lightning arrester is more than compensated for in the absolute faith you can place in it as a 100% CERTAIN arrester. You enjoy that feeling of complete safety no matter how severe an electrical storm may be raging. It is intended for outdoor use, and attaches directly to the lead in wire just outside the window. The ground wire is bolted to the lower section. Enclosed vacuum cartridge can be replaced and this can be readily examined. Protecting bond is of bakelite. Approved by Underwriters. Shipping weight 2 lbs.

No. 8999. List \$2.50. Net..... **\$1.47**

Light Socket Aerial

Where an outside aerial cannot be conveniently installed, you can plug this device into your house current socket, connecting a wire to the aerial post on the receiver. A special condenser, self-contained in this attachment, prevents the house current from entering the receiver—therefore, is absolutely safe. Takes only a few minutes to install.

No. 9928. List \$1.00. Net..... **\$0.59**

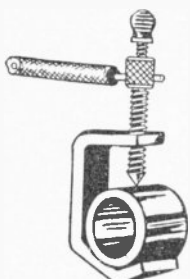
Antenna Plug Clarostat



Plugs into nearest electric light socket or outlet. Makes the ideal antenna. Ground connection may be nearest water or heating system pipe, or brass plate or screws of convenience outlet. Consumes no current; reliable, safe. Extra long, flexible, rubber-covered connection cord. Detachable plug. Shipping weight 2 lbs.

No. 7004. List \$1.50. Net.... **\$0.88**

Bear Grip Ground Clamp



Heavy formed body, threaded brass contact screw with needle point. Knurled end of screw cross drilled for No. 11 wire, end tapped for set screw. Brass wing set screw deep seating to insure positive contact. Body slanted to increase conductivity and prevent rust. Eliminates necessity of soldering connection. No tools required to make positive connection. Fits up to a $1\frac{1}{8}$ " diameter pipe. Shipping weight 8 ozs.

No. 4917. Net..... **\$0.15**

Aerial Lead-in



It is a flat strip of metal, entirely insulated with weather-proof material. Fits under any window. Can be bent into any shape. Neat and durable. It can be mounted on the window sill or clamped in at the upper part of the window. The insulation is perfect. Length $18\frac{1}{2}$ ", width $\frac{3}{4}$ ".

No. 8628. List \$0.40. Net..... **\$0.14**

Antenna Spring Tightener

Consists of two porcelain high insulating quality insulators, rigidly attached to both ends of a coil spring, which takes up all slack, or yields, if either end of your antenna is attached to a swaying tree limb or clothes pole. Overall length about 9". Shipping weight $1\frac{1}{2}$ lbs.

No. 9796. (10 pair for \$1.55). Net, each..... **\$0.24**

Radio Lite-Tenna



Connects into the nearest light socket and to the aerial binding post of your radio receiver. It replaces any other form of aerial. The LITE-TENNA also provides a pleasing light for reading. Requires no lightning arrester, cuts down static, increases selectivity, cuts down local interference. No house current reaches the Radio. 10" high. Finished in old gold with beautiful shading. Amber shade, cord and plug included. Shipping weight 3 lbs.

No. 7049. List \$7.50. Net..... **\$4.41**

Ground Clamp



No more laborious scraping off the paint or rust on your ground pipe for proper contact thereto! The hardened steel points on the screw and frame bite into the metal, assuring a perfect contact. In a few moments, the job is over. Will fit any pipe $\frac{1}{4}$ " to $1\frac{1}{4}$ " in diameter. Terminal screw connection on frame. Shipping weight 8 ozs.

No. 9929. List \$0.15. Net..... **\$0.10**

Universal Lightning Arrester



Made of brown glaze porcelain. Easily attached to window sill or against wall. Passed by Fire Underwriters. Insures your house against lightning and your instruments against damage.

No. 2300..... **\$0.13**

Ground Clamp

Fits any pipe from $\frac{1}{2}$ " to $3\frac{1}{2}$ ". Strap is adjustable and galvanized and will not rust. Has binding post to clamp wire.

No. 2236. Net..... **\$0.15**

Aerial Kits



No. 5476. Complete Kit. List \$1.75. Net..... **\$1.15**

100 ft. coil special 7-strand aerial wire, 25 ft. rubber covered lead in wire, 1 standard approved lightning arrester, 2 porcelain insulators, 1 window lead-in strip, 1 quick adjusting ground clamp, 2 porcelain nail knobs, 2 galvanized screw eyes, 25 ft. cotton covered hook-up wire, 1 instruction sheet.

No. 5477. Complete Kit. List \$3.50. Net..... **\$2.35**

100 ft. coil 7/22 copper aerial wire in a carton 40 ft. rubber covered weather-proof lead-in wire, 1 branch Storm King lightning arrester with insulator, 2 glass insulators, 1 window lead-in strip, 1 quick adjusting ground clamp, 3 porcelain nail knobs, 3 galvanized screw eyes, 25 ft. No. 18 flexible rubber covered hook-up wire, 1 instruction sheet. (In this kit is furnished an arrester which carries a \$100.00 insurance policy at no additional charge, payable to you if lightning strikes your aerial and causes damage.) Shipping weight 6 lbs.

UNDERGROUND ANTENNA SYSTEM

Offers the only effective means of combating static. It completely replaces the old aerial and does away with the up in the air type of aerial. Greatly improves radio reception of electrical energy. It is not just a wire. A scientifically designed radio wave builder. Does not deteriorate with age. Shipped direct from factory in Chicago. Shipping weight 22 lbs.

No. 5775. List \$7.50. Net..... **\$4.41**

Quali-Tone Loop Antenna

The wood used is selected solid walnut, hand rubbed, natural finish. The wire spacers are made of best grade insulating material, reducing losses to a minimum. Well insulated, flexible stranded wire, covered with brown silk braiding. Three long leads for readily connecting loop to receiver are furnished. Provided with a removable center tap and either two or three leads may be used as desired. Provided with an adjustment feature which assures tight wires at all times—no sagging wires. Specified with the most popular circuits. The De Luxe turns within a radius of $5\frac{1}{2}$ " the Quali-Tone within a radius of $7\frac{1}{2}$ ". Designed for use with .0005 condensers. Dimensions of De Luxe No. 6374 are, erected, $29\frac{1}{2}$ " x $11\frac{1}{2}$ " x $3\frac{1}{2}$ ". Dimensions, packed, $5\frac{1}{2}$ " x $8\frac{1}{2}$ " x $19\frac{1}{2}$ ". Shipping weight 4 lbs. The dimensions of the Quali-Tone No. 6379 are, erected, $31\frac{1}{2}$ " x $16\frac{1}{2}$ " x $3\frac{1}{2}$ ". Dimensions, packed, $11\frac{1}{2}$ " x $7\frac{1}{2}$ " x $14\frac{1}{2}$ ". Shipping weight 4 lbs.

No. 6374. De Luxe Loop. List \$12.50. Net..... **\$7.35**

No. 6379. Quali-Tone Loop. List \$10.00. Net..... **\$5.88**

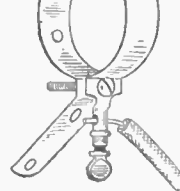
Knocked Down Loop



This aerial is 35" high, 24" on each side. Made entirely of well-seasoned wood. Comes to you knocked down. Can be put together in less than five minutes. Enough No. 22 enameled wire is furnished to make ten rounds. Shipping weight 3 lbs.

No. 2600. Knocked Down Loop Aerial. Net..... **\$0.85**

"Du-All" Radio Ground Clamp



Holes in .020 x $9/16$ " copper strip accurately spaced to fit $\frac{1}{8}$ " to $2\frac{1}{2}$ " pipe. Note patent terminal screw. The copper strip is folded over the shoulder of lug, thus any chance of loosening lug is eliminated. Head of bolt sets against brass lug so as not to cut through when fastening to pipe.

No. 4946. Net..... **\$0.05**

Copper Antenna Wire



The stranded wire is hard drawn copper cable and is preferred generally by those desiring the best results. Shipping weight 3 lbs.

- No. 9227. Solid Copper, Single, No. 14.
100 ft. \$0.39
Lots of 10—\$0.37
No. 9228. Stranded, 7 wires. 100 ft. 0.39
Lots of 10—\$0.36

Enameled Aerial Wire

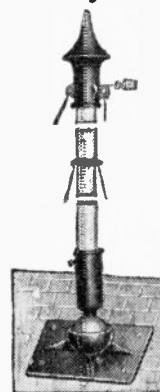
Will insure superior reception, as the usual increased resistance caused by corrosion of plain wire is prevented by the enamel coating. Made of fine copper strands, each coated with enamel insulation.

- No. 6401. 100 ft. Coil. \$0.45
Lots of 10—\$0.42

ANOTHER POPULAR AERIAL

- No. 9451. Talking Tape, Ribbon. Per
100 ft. Net. \$0.59

W-E-B-B Adjustable Aerial Masts



Model B-C

If you are going to have an outside antenna, why not install it in so careful a manner it will always retain its desired efficiency, be a pleasure to gaze upon, and remain aloft, no matter what storm may hit it? Simply use the W-E-B-B standard pipe fittings and pedestals of which two types are available—one for a flat or a sloping roof, and the other for a gable roof as illustrated. The ball and socket joint makes it fully adjustable. Constructed of cast iron, attractively finished.



Model A-D

Shipped express collect from Chicago.

- No. 5964-A. 1" Pipe Size for gable or hip roofs. Set consists of ball-and-socket base adjustable to any roof-slope, spearhead top, and guy wire collar. List \$3.00. Net. \$1.77
No. 5965-D. 1/2" Pipe Size. Same set as Model A, in smaller size. Set consists of spearhead top, and ball-and-socket base. List \$1.50. Net. 0.88
No. 5966-B. 1" Pipe Size for flat roof or side wall. Consists of ball-and-socket base to fit flat, sloping or vertical surface, spearhead top, and guy wire collar. List \$3.00. Net. 1.77
No. 5967-C. 1/2" Pipe Size. Same set as Model B but smaller size. Consists of ball-and-socket base, and spearhead top. List \$1.50. Net. 0.88

Guy-Wire Anchor

Is a permanent and secure fitting to anchor guy wires. Will take guy-wire strain satisfactorily at any angle. Used in all W-E-B-B adjustable aerials. This iron plate is screwed on to a support and the guy wire anchored thereto. Shipping weight 2 lbs.



- No. 5968. Net. \$0.15

Aerial Insulators



The larger ball insulator is the popular style, 3 1/2" x 2 1/4". The smaller is used for light work, size 3" x 1 1/4". High grade insulation compound, not affected by the weather. Mechanically right; will stand several thousand pounds pull.

- No. 7914. Small \$0.10
No. 2012. Ball \$0.20

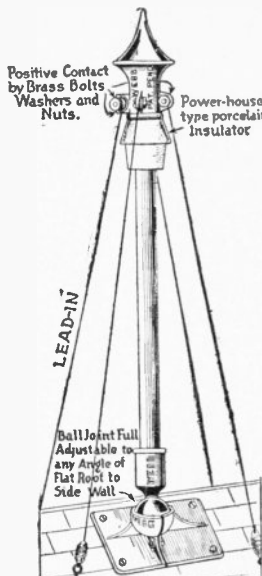
Screw Eye Insulator



A very handy type of insulator for keeping the lead-in away from walls or other foreign object. Galvanized iron screw. Porcelain insulator. Length of screw, 2 1/4".

- No. 9980. Net. \$0.04

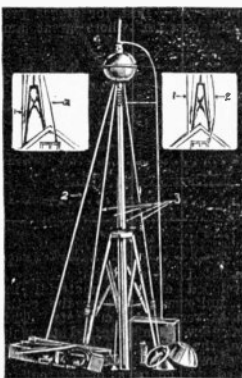
W-E-B-B Umbrella Aerial



Increases distance range, reduces static interference, unusually attractive and ornamental, quick and easy to erect, requires only a small space, nothing to rust or corrode, ball and socket base adjustable to any angle, will remain erect in severest storms, low priced. Consists of: 80" of 1/2" standard pipe, 1 heavy design grey iron spear head, 1 fully adjustable ball and socket base, 50 ft. 7x21 aerial wire, 50 ft. insulated lead-in wire, 1 power-house type porcelain insulator, 1 approved lightning arrester, 1 lead-in strip, 1 instant adjustable ground clamp, 3 porcelain guy wire insulators, 3 screw eyes, 4 brass bolts, washers and nuts, 4 wood screws. Shipped express collect from Chicago.

- No. 5307. List \$6.75. Net. \$3.97

Morris Ball Tower



The Tower members are made from steel sections each of which is given a heavy covering of weatherproof white enamel allowing it to harmonize with the color arrangement of any building, and the highly polished all aluminum ball, which will retain its bright luster in all weather conditions and practically indefinitely, greatly enhances the beauty of the whole. On top of the Ball Tower and insulated from the ball is a polished shaft, with wire for connecting to the ground. This serves as a lightning protector and reduces the annoyance caused by atmospheric disturbances, static electricity, etc., by drawing

to the ground a large part of the static electricity in the area around the ball—drawing it in the same way as the lightning rod on a building draws to the ground the charge on a cloud. Approximately eight feet in height. Consists of 1 sectional steel tower, 40 feet No. 18 bare copper pick-up wire, 4 insulators, 6 feet No. 11 R. C. wire for lead in wire, 6 feet No. 11 R. C. wire for lightning rod wire, 1 insulator socket with lightning rod attached, 1 sectional aluminum ball approximately 10 inches in diameter. Screws, nuts, washers, etc., for joining the parts. Shipping weight 14 lbs. Shipped from factory in Iowa.

- No. 5916. List \$10.00. Net. \$5.88

Lead-in Wire



Properly insulated against any losses in the antenna system, should the lead-in wire rub against any object, whether it be the leaves or limb of a tree, a roof, a gutter, etc.

- No. 9744. 50-foot Roll \$0.40
No. 9745. 100-foot Roll 0.75

Glass Insulators



Made of special tempered glass. Heat or cold or other atmospheric conditions do not affect their efficiency. Approximately 4" long.

- No. 6266. Each, Net. \$0.07

Flat Braided Ribbon Antenna



Based on the theory of large surface area, Corvico Flat Braided Ribbon Aerial Wires are made to have the largest energy collecting surface of any antenna wire on the market. Twenty-five wires are braided into a ribbon 1/4" wide, which sells on sight to those who are obliged to use a short aerial or who enjoy getting distant stations. This is the highest type of aerial possible to use, and is well worth the additional cost. Shipping weight 2 lbs.

- No. 5362-65. Plain Copper. Net. \$0.85
No. 5363-66. Tinned Copper. Net. 0.98
No. 5364-67. Enameled Copper. Net. 1.19

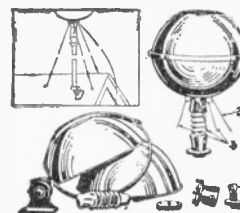
"Echo" Tape (Indoor Aerial)



Corvico "Echo" Tape is a flexible metallic ribbon antenna especially manufactured for indoor reception. It is as flexible as a fabric tape, yet contains as much effective metallic surface as a solid metal strip. For installations located in apartments, hotels, etc., where outside aerials are impossible, this product gives reception far superior to any other type of indoor aerial or loop. Due to its extreme flexibility and neat appearance "Echo" Tape can be easily placed about the room in convenient places. It is ordinarily placed around the moulding, under tables, behind furniture, pinned to curtains, or may be strung on a frame which in turn can be concealed. Shipping weight 1 lb.

- No. 5361-80. 100 ft. List \$0.90. Net. \$0.53

Morris Ball Kit



Much easier to install than a wire aerial and being non-directional less care need be used in locating it. They can be placed near one another without causing interference and, being less subject to atmospheric disturbances than wire aerials, they give quieter reception with any radio receiver. The polished aluminum ball stays bright under all weather conditions.

Contents are: 1 all-aluminum ball approximately 10 in. in diameter; 1 band for joining halves of ball, complete with screws; 1 adjustable roof bracket with screws and bolts in place; 1 glass insulator; 2 insulator sockets complete with screws and bolts in place; 1 3-in. washer for inside of ball; 1 lead-in wire; 2 guy wires. Shipping weight 5 lbs.

- No. 5969. List \$5.00. Net. \$2.94



Nail-It Knobs

This insulator is made of good quality porcelain, and has a nail through its center for driving into wood, brick, etc. The wire is set into the recess shown and the upper section of the insulator is then closed tightly upon it. Very useful.

- No. 9795. Net. \$0.06

Bell Wire



A very universally used form of wire. A plentiful supply of this should always be kept on hand. It is made of No. 18 B. & S. copper with double cotton covered insulation, heavily impregnated with a coating of paraffine. Can be used for a temporary lead-in wire—

as an aerial for portable sets—for battery connections—for wiring a receiver—for winding certain forms of inductance coils, etc. Shipping weight 1 lb.

- No. 9035. 1/2 Pound Roll. Net. \$0.24

TELEVISION EXPERIMENTAL APPARATUS

The progress that Television has made in so short a time since its recent introduction to the general public, is daily thrilling us all! Hardly a day goes by that some newspaper does not tell us of some new recent achievement in the science of Television—of some great accomplishment! Yet, with all of these encouraging reports, and daily display of new wonders, the art is truly in its experimental stage, even though there are various broadcasting stations, throughout the land, daily reserving parts of their program exclusively to the transmission of Television signals. We therefore suggest that serious-minded experimenters only purchase Television equipment—in its present stage of perfection, the general public, not mechanically or electrically inclined, or not fully appreciative of the wonder of it all, should not install a television receiver—they will doubtless expect too much! Therefore, it must be definitely understood that Television equipment is not subject to return to us, either for credit, or refund.

Raytheon Kino-Lamp



The Raytheon Kino-Lamp is a gaseous discharge glow lamp for converting electrical variations into light variations. It was particularly developed as the source of light in experimental television reception circuits. The variation of light is instantaneous and directly proportional to applied current changes. Its characteristics also make it adaptable as a low frequency oscillator. It is recommended that the current through the lamp be held at 20 milliamperes or below. Some television signals may be received as negatives (i. e., shadows are light, and light parts are dark, as in photography). Instructions furnished with lamp shows how simply they can be changed to positive. A reversal of A.C. terminals will change the image from negative to positive. The construction of the tube is quite simple. There are two flat metal plates placed parallel and very close together. They are $1\frac{1}{2}$ " square, presenting an area of 2 1/4 square inches. They are mounted so that both plates present a clear surface. In this way either plate can be used as the anode. Fits standard U.X. socket, 1,200 ohms dynamic impedance. Height $5\frac{1}{2}$ ", diameter 2".

No. T7658. List \$7.50 Net..... **\$4.41**

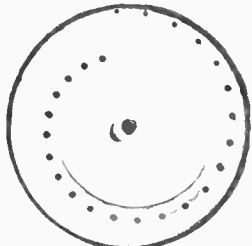


Raytheon Foto-Cell

This Foto-Cell should not be confused with the Kino-lamp as it is used for transmission. Raytheon Foto-Cells are made in two types, hard vacuum and gas filled. The hard vacuum type has a linear characteristic but is relatively insensitive. The gas filled type is non-linear and extremely sensitive, and is the most satisfactory type for television transmission. These tubes may be used in light-ray phonographs, phonoflons, daylight recorders, color analyzers, television transmission, photometers, fire-alarm systems, and other places where a light-sensitive relay may be used.

No. T7654. Large Hard Vacuum Type. List \$25.00. Net..... **\$14.70**
No. T7655. Small Hard Vacuum Type. List \$20.00. Net..... **11.76**
No. T7656. Large Gas Filled Type. List \$25.00. Net..... **14.70**
No. T7657. Small Gas Filled Type. List \$20.00. Net..... **11.76**

Daven Scanning Discs



Made from the highest grade of aluminum obtainable and are designed to afford the best possible quality of image. Unless holes are laid out mathematically correct, the field will not be evenly illuminated, which will cause light and dark lines to appear. A standard of $1\frac{1}{2}$ " picture has been adopted in order to take advantage of all the illumination that is obtainable from the Television lamp. Pictures of this size require varying diameters of disc with different numbers of scanning lines, i. e., T-21 scanning disc is a disc 12" in diameter with a $\frac{3}{8}$ " center hole and has 21 scanning lines or apertures; the T-36 scanning disc has a diameter of 18", a $\frac{3}{8}$ " center hole and has 36 scanning lines or apertures; the T-48 scanning disc has a diameter of 24", a $\frac{3}{8}$ " center hole and has 48 scanning lines or apertures. An advanced disc design is also offered in the Daven Combination Television scanning disc type T-468. This disc is designed to receive 24, 36 and 48 line pictures. In using this type of disc, all that is necessary is to change the position of the Neon Lamp and pictures may be received from various stations without the necessity of purchasing the three different discs. Diameter 24"; $\frac{3}{8}$ " center hole.

No. T7642-24 with 24 apertures... **\$5.00 \$3.19**
No. T7643-36 with 36 apertures... **7.50 4.77**
No. T7644-48 with 48 apertures... **10.00 6.37**
No. T7645-468, Special Combination disc for Receiving 24, 36 and 48 line pictures..... **15.00 9.56**



Daven Television Lamp

These lamps are designed to operate with an output tube in series. Will give excellent illumination with a current of 20 milliamperes or less. Where extremely bright illumination is required for maximum results, the tube may be loaded up to 80 milliamperes by means of suitable output tubes singly or in parallel. Characteristics are: Striking voltage 100 volts, minimum current to cover plate 5 mils, internal resistance 1000 ohms, maximum current 80 mils, four prong Bakelite base, plate area $1\frac{1}{2}$ " square, $5\frac{1}{2}$ " high, $1\frac{1}{2}$ " diameter. Fits standard U.X. base.

No. T7618-2080. List \$8.57
\$12.50. Net.....

Daven Photoelectric Cells

For the advanced experimenters who desire to experiment with Television transmission, a Daven Photoelectric Cell opens up a new field. This sensitive cell, ruggedly designed, can be used in experimenting with not only the art of Television transmission, but talking circuit control devices, relays, etc. With a single step of amplification, a deflection of 30 milliamperes has been obtained with a 100 watt lamp as a light source.

No. T7619-PC-175 (1 1/2" bulb diameter) List \$20.00. Net..... **\$13.78**
No. T7620-PC-300 (3" bulb diameter) List \$37.50. Net..... **25.73**

Daven Amplifier Tubes

Daven tubes should not be confused with the ordinary "all purpose" tubes—they have been designed and built for special purposes. MU-20 is the first high-amplification tube to be placed on the market. Best for stages preceding output tube and for detector where great amplification is required.

OUTPUT TUBES
No. T7660-MU-20. List \$3.25. Net... **\$1.54**
No. T7621-MU-6, 10-14 Milliamperes. List \$3.50. Net..... **\$2.40**
No. T7622-AC-71, 20 Milliamperes. List \$3.50. Net..... **2.40**
No. T7623-AC-10, 30 Milliamperes. List \$9.00. Net..... **6.17**



Telion Television Lamp

Can be modulated at all frequencies. A specially developed electrode material insures a full, uniform glow over the entire surface, even at very small currents. This uniformity of glow is maintained throughout the life of the tube. The inclination of this type of glow lamp to become "spotty" when subjected to changes of current at high frequencies has been eliminated in the Telion. Characteristics (approximate): Striking potential, 180 volts; current at "dark point," 10 mils. Maximum current—(instantaneous value), 125 mils; safe average current, 50 mils. Fully tested and aged before leaving the factory.

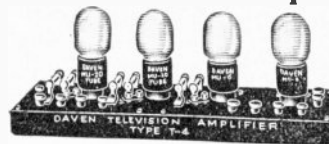
No. T7659. List \$10.00. Net..... **\$5.88**

Daven Essential Television Kit



In order to assist the novice in selecting the proper apparatus for constructing a simple yet efficient television receiver, the Daven Essential Kit is offered. The kit contains the following apparatus: Complete instructions for wiring and constructing, Neon Lamp, Scanning Disc, Three Stage Television Amplifier, Universal Motor, Rheostat, Motor Bushing (tubes not included).

Daven Television Amplifier



Takes the place of all apparatus after the detector, being complete with all resistors and coupling condensers. Any type power tube may be used, i. e., two Daven MU-6, 171 or 210 in the output. These power tubes in parallel reduce the effective plate impedance and increase the plate current which supplies the Neon lamp. Filament circuits for the tubes in first and second stages are separate from the power stage. The "B" circuits are also separate. "C" battery connections on all 12 binding posts all individually marked. $1\frac{1}{4}$ " long and $4\frac{1}{4}$ " wide.

No. T7632-4. List (without tubes) \$11.14
\$17.50. Net.....

TYPE 3

This Television Amplifier itself is a very convenient unit which takes the place of all the apparatus after the detector tube. All resistors and coupling condensers are supplied and there is nothing additional needed. The individual tubes in operation consume one-quarter the plate current of other methods of amplification. The use of this amplifier obviates the necessity of complicated wiring. "C" battery connections on all stages. For use with Television the amplifier should be equipped with two Daven MU-20 tubes and 1 Daven MU-6, or tubes of like electrical value. $10\frac{1}{4}$ " long, $3\frac{3}{4}$ " wide.

No. T7633. List (without tubes) \$7.96
Net.....

Daven Television-Coupler

One complete stage of resistance coupling amplification. Includes one plate resistor and one grid resistor. The coupling condenser is the special Daven type "A," and is included in the base of the coupler.

No. T7634—1st Stage..... List \$2.15 Net **1.36**
No. T7635—2nd Stage..... List 2.15 Net **1.36**
No. T7636—3rd Stage..... List 2.15 Net **1.36**

Note.—Where heavy plate currents are to be used, add \$2.50 to above cost. Plate resistors furnished will be Super Davohm Wire Wound Units.

Daven Universal Motor

It is essential in order to receive satisfactory pictures that the Television receiver scanning disc be synchronized with the disc at the broadcasting station; therefore, a motor is required that will operate at a constant speed. The Daven Universal Motor will meet all the requirements for the proper speed when used with the Daven Universal Rheostat. The Daven Universal Motor operates on A.C. or D.C. current at 110 volts, 60 or 133 cycles, and is rated at 1/10 horsepower.

No. T7628. 110 volt, 60 or 133 cycle List \$27.50 Net **\$17.51**
No. T7629. Special Rheostat for close regulation..... List 3.00 Net **1.92**
DAVEN BUSHING
No. T7630. Bushing to fit $\frac{1}{4}$ ", 5 16" and $\frac{3}{8}$ " motor shafts (state size)..... List 1.00 Net **.61**
No. T7631. Special Bushing for 48 line disc..... List 3.50 Net **2.23**

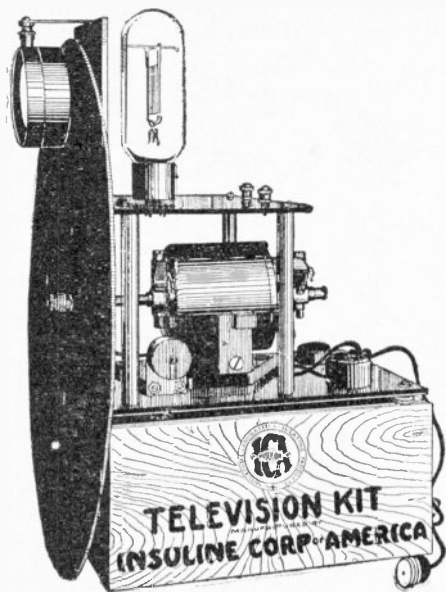
Speed Control Clarostat

Especially designed for the control of the scanning disc, the Speed Control Clarostat comprises a special Power Type Clarostat and a short-circuiting button, housed in a properly ventilated metal casing. Ample ventilation is provided for dissipating the heat generated by the resistance in the motor circuit. Wiring connections are made to screw terminals at the end, which are protected by a removable cap. In several turns of the knob the Speed Control Clarostat provides a resistance range which is more than sufficient for the scanning disc control.

No. T7617. List \$5.00. Net..... **\$2.94**

No. T7637-240 with 24 line Scanning Disc..... List \$60.00 Net **\$38.22**
No. T7638-360 with 36 line Scanning Disc..... List 60.00 Net **38.22**
No. T7639-450 with 45 line Scanning Disc..... List 60.00 Net **38.22**
No. T7640-480 with 48 line Scanning Disc..... List 60.00 Net **38.22**
No. T7641-4680 with Combination Scanning Disc..... List 65.00 Net **41.40**
(for 24-36-48 line pictures)

I.C.A. Television Kits



Television is now an accomplished fact. Experimenters will welcome the first television receiving sets in kit form. Developed to use with any standard radio set or short wave radio receivers.

It is now possible for the amateur to receive television pictures by means of simple apparatus. The results depend upon the quality of the receiving apparatus, the tuning system of the receiver which the amateur employs and the distance of the broadcasting station. The I.C.A. Television Kit Sets are made with the utmost care and precision and embody the Bell System Laboratory method.

Television is now a reality and many prominent broadcasting stations are now broadcasting television while many others are preparing to do so.

The apparatus required besides our television kits is merely a good radio receiver, resistance coupled amplifier tubes, and a television tube. The output of the amplifier is fed directly to the television lamp and the brilliancy of the Neon lamp depends entirely upon the amount of current that the output tube will pass, therefore the greater consumption of the output tube the greater the amount of brilliancy the television lamp will give. Note that the television lamp is placed behind the scanning disc which is mounted on the spindle of the motor by means of a chuck or bushing.

The television picture is viewed through the telescopic lens in front of the scanning disc. The apparatus can be assembled in 30 minutes.

Connects up to the speaker outlet where ordinarily the loud speaker should be attached.

All kits supplied less amplifier tubes.

No. T7600-52. Consists of the following parts: 1 Bakelite Scanning Disc 48 holes (24 or 36 holes if preferred), Universal Motor (A.C. or D.C.), Speed Control, Motor Chuck, Telescope with 2 lenses, screws and lens bracket, Bakelite subbase for motor, Receptacle cord and plug for attachment, Subbase with socket for television lamp, Picture Frame Shield, Bakelite Pillars, brackets, screws, hardware and four Stages Television Amplifier (Less Television and Amplifier Tubes).

\$31.50

List \$52.50. Net

No. T7601-65. Same as Model 52 but includes Television tube. List \$65.00.

Net

No. T7602-B-1. Without resistance coupled amplifier or Television tube.

List \$37.50. Net

No. T7603-45. Same as Model B-1 but with improved Motor. List \$45.00. Net

27.00

I.C.A. Television Parts

For the amateur who desires to purchase his experimental apparatus "piece-meal." These are the same parts which are used in the I. C. A. Television Kit, and can be used in conjunction with any other similar apparatus.

No. T7607-108. Chuck to fit 1/2" 5/16" or 3/8" Motor Shaft. List \$3.50. Net

2.10

No. T7608-109. Universal Motor (A.C. or D.C.) List \$22.50. Net

16.50

No. T7609-110. Special Single Phase 1/15 HP 110 Volts 60 Cycle Motor Resistance controlled

—800 RPM. Will operate 12" to 24" Scanning discs. List \$35.00. Net

21.00

No. T7610-111. Special Magnifying and ground glass en-ased in a telescope complete. List \$5.00. Net

3.00

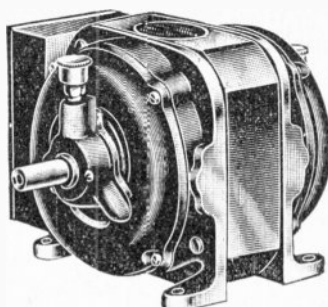
No. T7611-112. 2 Bakelite special base panels, one picture shield, brackets, insulated pillars, screws, hardware, etc. List \$7.50. Net

4.50

No. T7612-113. Speed Control, hardware, receptacle, wire, cord, brackets, etc. List \$5.00. Net

3.00

Baldor Television Motors



Television motors should be of the induction type, not relying upon a commutator either for starting or running. As the motor is placed in close proximity to the Television amplifier, tiny sparks such as are produced by brushes sliding over the surface of a commutator while the motor is running creates disturbing electrical waves, which if picked up by the amplifier may cause distortion or fogging to such a degree that the sought for picture would be an utter failure. Must be silent in operation and free from hum, either of which affects the amplifier to cause distortion and lack of clearness. Must be so designed that by inserting a suitable control mechanism in the form of a switch, variable resistance, reactance, or a combination of the foregoing, its speed may be changed to any speed constant with the speed of the motor at the transmitting end. All the characteristics mentioned above for Television work are incorporated in the design of the Baldor Type V Condenser Type Single Phase Bell Bearing Motor. Can be controlled so that any speed from 50 to 100 RPM up to synchronous speed can be obtained when connected to a suitable load. The magnetic action is similar to a poly-phase motor, the usual single phase hum is absent. Size 5"x5"x6 1/2".

Type M2V, 1/15 HP—110 Volt, 60 cycle, A.C. single phase, 1800 RPM, for receiving sets employing 9" to 18" aluminum scanning disc, also resistance controlled, 1700 RPM Full load. Variable Speed Range with 60-ohm rheostat, 750 to 1750 RPM. Shipping weight 18 lbs.

\$16.10

No. T7648. List \$22.00. Net

Lexington Square Hole Television Disc



Those who know the advantages of the focal plane shutter over the iris diaphragm type in photography will appreciate the similar advantage of square holes in the scanning disc over circular ones. In the usual scanning disc, holes are drilled in the form of a spiral and the object is to have each hole cover a portion of the radial

Type YIV, 1/4 HP—110 Volt, 60 cycle, A.C. single phase, 1800 RPM, recommended for Receiving Sets using a 21" scanning disc. Speed between 750 and 1700 RPM with a 5 to 45-ohm variable resistance. Shipping weight 30 lbs.

No. T7649. List \$30.00. Net

\$21.00

Type Y2V, 1/4 HP—110 Volt A.C. 60 cycle single phase, 1200 RPM for Television sending set. Its speed will be nearly constant at a little less than synchronous speed, 1100 RPM full load speed. Variable Speed Range, with 30-ohm rheostat, 500 to 1100 RPM. Shipping weight 35 lbs.

No. T7650. List \$33.00. Net

\$23.00

No. T7651. Machined Flange for Scanning Disc for all motors. Net

No. T7652. Rubber Cushioned Base. Net

\$2.25

1.90

NOTE

For 220 volts A.C., add 5% to above net prices.

ALL OF THE ABOVE SHIPPED EXPRESS COLLECT FROM ST. LOUIS

Baldor Synchronous Motor

The Type Y2S, 1/4 HP Baldor Motor is an absolutely synchronous motor. Recommended for all sending or broadcasting television stations. Ideal in Metropolitan centers where the power service does not fluctuate. Synchronous motors on 60 cycle can be had in 1800, 1200 or 900 RPM. In our opinion the 1200 RPM will be the most desirable sending speed for the reason that the receiving station can then use the condenser variable speed type of motor of the 4 pole, 1800 type, which at full load will run about 1700 RPM and by resistance control can be operated very satisfactorily at 1200 RPM. This then gives the broadcasting station a fixed speed, no motor control equipment needed, merely throw the switch. Where a synchronous motor is used by the broadcasting station, receiving sets in the same Metropolitan district, or that district which obtains its light and power from the same power plant, can also use a small synchronous condenser type motor of the same speed to operate their scanning discs. With this arrangement it will not be necessary to vary the speed of the motor in the receiving set, as it will then run perfectly in step with the sending disc. Shipping weight 35 lbs.

No. T7633. List \$44.00. Net

\$33.00

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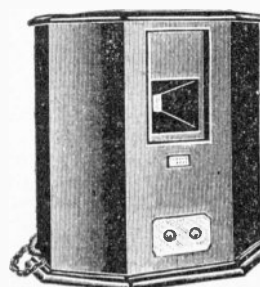
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Daven Television Receiver



The Daven Television Receiver has been designed to assist the dealer in the sale of Daven Television apparatus. It can also be used in the home of a Television experimenter with splendid satisfaction. The parts contained in the built-up receiver are identical with those furnished in the Daven Essential Kit, but are assembled and wired up in a beautiful walnut finished cabinet 25" high,

25" wide and 12" deep. This receiver is furnished with a clever 21-36-48 Combination Scanning Disc and may be attached to any good radio receiving set at the detector. Everything is furnished with this receiver except 4 amplifying tubes. It is a complete Television receiver and will receive pictures requiring different size discs. The Daven Television Receiver is completely wired and includes Neon Lamp, Disc, Rheostat, Bushing Cables, T-4 Amplifier, Motor, etc. Less amplifying tubes. Completely wired. Shipped express collect.

No. T7624-240 with a combination 24-36-48 Line Scanning Disc. List \$125.00.

Net

Net

Net

Net

Net

Net

Net

Net

\$79.62

Daven De Luxe Television Kit

No. T7661. List \$90.00. Net

\$57.33

I.C.A. Scanning Discs

The I.C.A. Bakelite Scanning Disc is made with the utmost precision, special machinery and tools being required to construct it. The disc is laid out and made in accordance with the Bell Laboratory specifications. The I.C.A. Scanning Discs are designed for the reception of the best quality of image. The holes are laid out mathematically correct. The present standard Television Picture is 1 1/2"x1 1/2". The discs are made as follows:

No. T7604-105. 24 Scanning Lines, 12"

Television Discs. List \$5.00. Net

3.00

No. T7605-106. 48 Scanning Lines, 16"

Television Discs. List \$9.00. Net

5.40

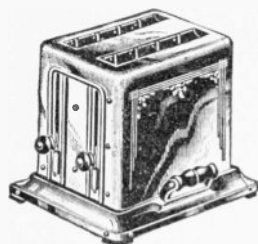
No. T7606-107. Universal Disc (Alumi-

nium) Combination 24—36—48 lines.

List \$15.00. Net

9.00

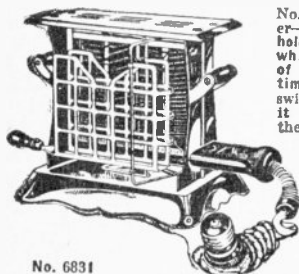
Note.—We offer ample financial backing and reward to the inventor of an improvement in Television—both in the reception and transmission. Write us in absolute confidence!

"Toastswell" Electric Toaster

This toaster is irresistible, and quick sales with real profit are assured. Now you can get real toast—crisp, golden brown, just the way you like it. TOASTSWELL just naturally pulls your customers' attention. With real features such as heat to both sides of the bread at the same time, producing that golden brown crispy surfaced toast, and under that crispy surface is the hot delicious moist-

ness of fresh baked bread—the only toast for breakfast and for those wonderful three-decker sandwiches. Sanitary—the TOASTSWELL is the only toaster in which cleanliness is assured by the quick and simple method of crumb removal—easy to keep clean because all exposed parts are free of crevices and places difficult to polish. The beautiful floral chased side panels and ebony finished handles and silk cords make the TOASTSWELL one of the most handsome of all toasters. Really, you will want one for your own home. Shipping weight 4 lbs.

No. 4707. Your Net Cost..... **\$4.55**

Electric Toasters

No. 6831

No. 30 Electric Toaster—With a reversible holder on each side which toasts 2 slices of bread at the same time. Special shut-off switch which makes it possible to turn the current on and off at the toaster. Special nichrome resistance wire guaranteed against burn-out for one year, but if properly used will last many years. Fully nickel plated and polished, extra fine finish, with felt protectors which prevent scratching or marring of the table. 6 ft. asbestos covered heater cord with 2-piece socket plug. You will be very impressed with its appearance, performance and stupendous value! For 110-volt A.C. or D.C. Shipping weight 3 lbs.

No. 6830-30. Your Net Cost..... **\$3.72**

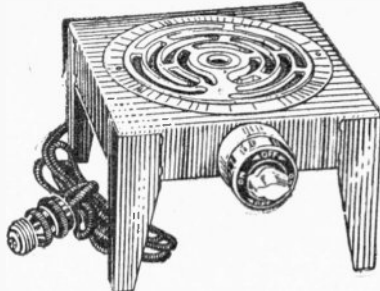
No. 6831-31. Same as above, only has no switch, although it has a detachable plug. (Illustrated.)

Your Net Cost..... **\$2.99**

Electric Waffle Iron with Shut-off Switch

Highly nickel plated and polished iron produces full size (7 5/16") round waffles. It bakes waffles rapidly and uniformly—cooking both sides at the same time. The pure, heavy cast aluminum grids have a recess mold around surface that prevents batter from dropping over sides. Expansion hinge permits waffle to expand while baking. Truly a beautiful product! In fact, it can be placed right on a dining table even while in use! Recipes are supplied with each iron. Ideal for the home or lunch counter. Ever-cool ebony handles. Iron is equipped with cord and switch-plug. 110 volts A.C. or D.C., 660 watts. Shipping weight 10 lbs.

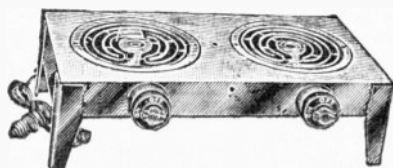
No. 6829-71. Your Net Cost..... **\$6.98**

EV'RYDAY Square Hot Plate

Built to withstand the heaviest usage. Heavy gauge cold rolled nickel-plated steel; Heateco porcelain; Nickel Chromium Heating Element; reliable switches; inside wiring of heavy asbestos covered copper wire; 6 foot standard cord and separable plug. The No. 110A has a 3 heat element and 3 heat indicating switch. 110B has a single heat element and a single heat indicating switch. 8" square, 5" high. Operates on 110 volts, A.C. or D.C. current. Shipping weight 6 lbs.

No. 4818-110B. Nickel finish. With 1 heat switch. Your Net Cost.... **\$2.27**

No. 4819-110A. Nickel finish. With 3 heat switch. Your Net Cost.... **\$2.97**

Double Hot Plate

Each plate has its own heat control switches, as well as on and off switches. Heating element is suspended in a separate steel pan—prevents over-heating of stove body proper. Braced in the center with a steel angle—will support 300 pounds. 18" long, 8" wide, 5" high. Operates on 110 volts, A.C. or D.C. current. Shipping weight 12 lbs. All models are handsomely nickel-plated.

No. 4820-115. Equipped with one 3-heat and one single heat switch.

Your Net Cost..... **\$5.60**

No. 4821-115A. Equipped with two single heat switches, one for each hot plate.

Your Net Cost..... **\$4.20**

No. 4822-115AA. Equipped with two 3-heat switches, one for each hot plate.

Your Net Cost..... **\$6.30**

Electric Hot Plate

A quick seller because of the unusual beauty, high efficiency and low price. A stove to take care of a ready demand for a stove that is low-priced without the appearance of cheapness. The body and legs are one piece construction, of heavy steel (will support over 500 lbs.). Finished in baked

enamel in red, blue or green. The top plate is nickel-plated and the element of genuine nichrome wire is mounted on a plate of refractory porcelain. A heavy plate of asbestos is mounted below the element plate as a heat barrier to protect the table. For 110-volt A.C. or D.C. current. Shipping weight 2 lbs.

No. 4700-711. Your Net Cost..... **\$1.15**

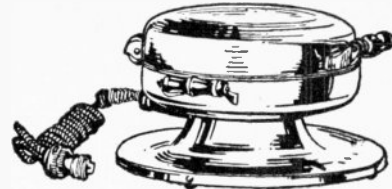
Electric Stove—Single Grill

Heat enough for heavy boiling and quick frying on the high heat—1100 watts. The medium heat for ordinary uses and the low or simmering heat to keep things warm, just below the boiling or cooking heat. It is a big fellow, over 12" wide, with a big 8" refractory plate and genuine nichrome wire element of generous size to insure unusually long life. Made of heavy steel, heavily coppered and durably nickel-plated and polished to a high finish. For 110-volt A.C. or D.C. Shipping weight 8 lbs.

No. 4701-250. Your Net Cost..... **\$4.55**

Electric Stove—Double Grill

Three heats controlled by reciprocating switches with individual control on each plate. Maximum, 1300 watts. Here it is and it's a great big 24" long beauty. The large 8" elements of refractory material that will not crack are equipped with genuine nichrome wire. Triple

Electric Waffle Iron

A natural seller to meet the demand for a handsome, moderate priced waffle mould. Handsome, nickel-plated finish with colored handles and alk heater cords to match. A waffle mould fit to grace the breakfast table of the finest home at a "rock bottom" price. The gift supreme and an all-year-round seller. The grid is the largest size permissible—8". The generous drip ring prevents running over, and the wide 10" base is a double assurance against soiling the table. The batter is poured on the grill and the cover is snapped down—that is all there is to it! For 110-volt A.C. or D.C. current. Shipping weight 8 lbs.

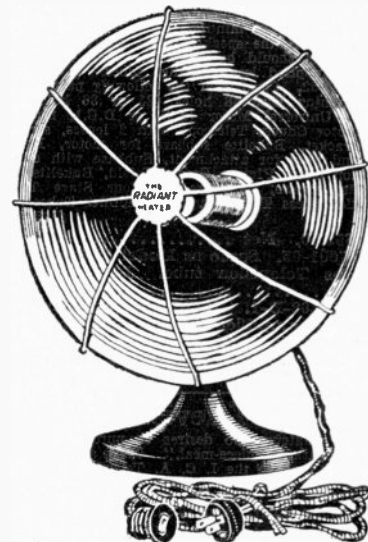
No. 4706-150. Your Net Cost..... **\$5.60**

Electric Heat Pads

Electric heat pad sales increase in volume because of all electrical heat appliances heat pads are considered the one absolute necessity. Millions of leaky, clammy, heavy hot water bottles are being replaced by these light, flexible and dependable pads, with their consistent and easily controlled heat. They are a source of joy for these afflicted with body pains of any kind.

Quick relief is assured when this pad is used. Are built for constant service over a long period of time. The construction is of the latest design; thermostats of the finest quality are used and they are adjusted to function within a safe temperature range. The cover material is of beautiful fleecy material in attractive colors, with extra length silk cords to match. The three heat control switch has indicating buttons. This is a large 12" x 16" pad and an excellent value. For 110-volt A.C. or D.C. current. Shipping weight 2 lbs.

No. 4703-600. Your Net Cost..... **\$4.20**

EV'RYDAY De Luxe Heater

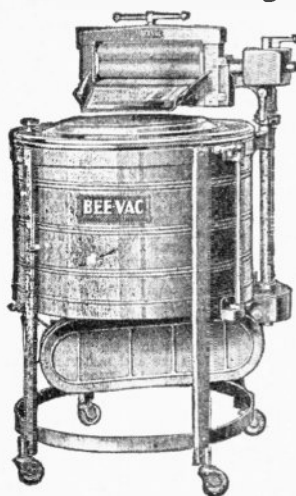
Made of highest grade materials throughout. Finished in mottled bronze. Has removable, screw type, long life nickel chromium heating element. 6 foot standard cord and separable plug. Adjustable reflector bowl, 12 1/2" across. Convenient handle. Height 15". Operates on 110 volts, A.C. or D.C. current. (On D.C. current, this heater can be used as a storage battery charger, charging rate 5 amperes!) Consumes 650 watts per hour. Shipping weight 8 lbs.

No. 4823-106B. Your Net Cost..... **\$2.59**

adjustment of heat values. For 110-volt A.C. or D.C. Shipping weight 15 lbs.

No. 4702-1250. Your Net Cost..... **\$8.75**

BEE-VAC Electric Washing Machine



Type: The agitator type which merits the approval of thousands of enthusiastic users. Agitator: Ruggedly built from cast aluminum, light in weight and easily removed. Three webs on side prevent tangling of clothes and increase agitation of water. This is an exclusive patented BEE-VAC feature. Tub: Of 18 oz. heavy copper with heavy, non-peeling, polished, nickel interior. Frame: Built of channel steel, welded and riveted. Wringer: Instant take apart wringer. With instant safety roll a safe feature; semi soft rolls; automatically adjusted when the desired position is reached. Gears: Heavy in construction, simple in design. Fully enclosed and operate in grease-tight housings. Bearings: Packed in heavy lubricant, once a year is sufficient for lubricating. Efficiency: BEE-VAC is fast washing—it does its work thoroughly and cannot injure the finest fabrics. Finish: All parts, except the wringer, are beautifully finished in surf-screen lacquer. Cover: One piece non-dropping cover. Operation: Absolutely smooth, quiet and vibrationless. Capacity: Eight sheet capacity. The BEE-VAC is compactly built and occupies small space, but has an oversize tub allowing ample water space for thorough washing. Motor: Equipped with 1 H. P. Sunlight motor, 110-volt, A.C., 60-cycle. Thoroughly dust and moisture proof. Can also be furnished with odd voltage motors such as 92 volts, 110 volts D.C., 220 A.C. or D.C., etc., at slightly additional cost. Large easy rolling casters. Shipping weight 235 lbs. Net weight 185 lbs.

No. 4710. Your Special Cost..... **\$99.50**
Shipped from N.Y. or Chicago.

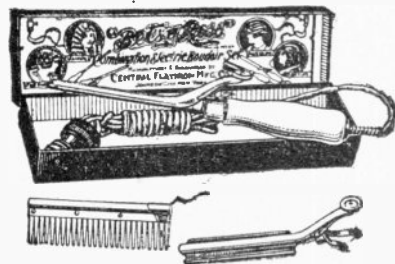
Electric Curling and Waving Rod



Curler and waving iron with detachable plug at end of handle. Packed in beautiful display carton. Handle with silk cord to match. Made with genuine Nichrome heating unit guaranteed against burnout for one year. Fully nickel plated. Size curler 10" long, waving rod 2 1/2" thick. For 110-volt A.C. or D.C. Shipping weight 2 lbs.

No. 6833-52. Your Net Cost..... **\$1.48**

Electric Boudoir Set



Four piece combination set with curling iron and waver rod, drying comb and single marcel waver. Packed in beautiful display carton. Equipped with guaranteed Nichrome heating unit guaranteed against burnout for one year. Supplied with handle and silk cord to match. Iron fully nickel plated. Size 10" long, waving rod 2 1/2" thick. For 110-volt A.C. or D.C. Shipping weight 3 lbs.

No. 6832-203. Your Net Cost..... **\$1.88**

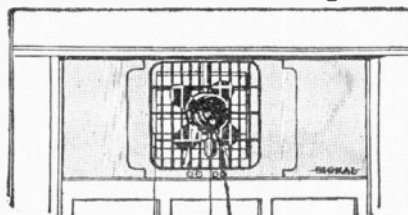
Signal Electric Fruit Juice Extractor



Ideal for home, restaurant or soda fountain use. Will withstand heavy abuse. A "perfect hostess" cannot well do without this fruit juice extractor. An orange, lemon, grapefruit, etc., is sliced in half; the center of one of the halves portions of the fruit is pressed down against the rapidly whirling cone extractor—in a jiffy you have before you one of Nature's blessings. In liquid, readily palatable and very nourishing form! Extracting cones are so designed that they extract the juices of oranges, lemons, limes and grapefruit, leaving the cell tissues clinging to the peel. Extracts every drop of juice. Has a cast aluminum base, natural finish, with a stainless aluminum cup and extractor cone. The body is made of sheet steel and is finished in Porcelain. The motor is of Signal manufacture, approximately 1/20 h.p., Universal type, 25 to 60 cycles, for 110 to 120 volts.

No. 4825. Your Net Cost..... **\$12.80**
No. 4826. For 32-volt or 220-volt. **\$16.20**
Your Net Cost.....

Signal Household Ventilating Fan

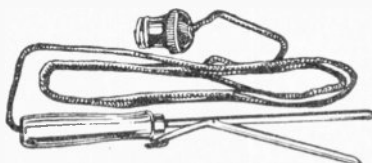


ALSO IDEAL FOR OFFICE USE

Consume fresh air at work. Let every employee benefit by the circulation of fresh air. Believe drowsiness, inefficiency and afternoon fatigue. Fresh air is as important as pure water. A Signal Ventilating Fan will pay for itself many times over. It is mounted on a firm steel slide, adjustable to the width of any window. The 2" steel blades are black enameled and the mounting is substantially finished in a handsome shade of French gray. You can take more pride in your kitchen, more delight in cooking and do your work in comfort. You need no longer work in a steaming, odorful, stuffy, hot kitchen. The Signal Household Ventilating Fan draws all objectionable fumes out of the house and enables you to maintain a comfortable temperature even while the oven is going full blast. Steam and cooking odors need no longer damage the finish of your walls or settle in your furnishings. When the ventilator is in operation the shutters are opened by pulling the cord. Air displacement, 550 cubic feet per minute. Shipped from factory in Michigan.

No. 5365. Your Net Cost..... **\$15.30**

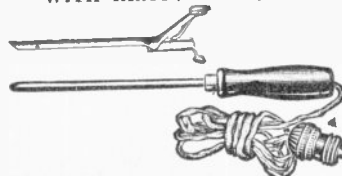
Electric Curling Irons



Designed especially for the heavy demand trade where beauty and efficiency are required as well as a low price. This is really a beautiful curler, with its high nickel finish and brilliant colored handles. The luxurious silk cords in colors to match the handles sell this curler against all competition. "Non-heated" buttons guard against burnt fingers. For 110-volt A.C. and D.C. current. Shipping weight 1 lb.

No. 4701-20. Your Net Cost..... **\$0.63**

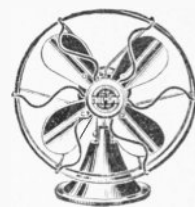
WITH REMOVABLE CLIP



This removable clip represents the last word in this type of curler. No more burnt fingers, for the two heat-insulated buttons enable you to remove or attach the clip to the heated rod in a jiffy.

No. 4705-30. Your Net Cost..... **\$0.94**

Signal "Cool Spot, Jr." Electric Fans



Gives real service—not a toy. For cramped quarters, or wherever available space is at a premium. So inexpensive, a few can be purchased for the usual cost of one larger fan. Equipped with a Universal 110-volt A.C. or D.C. motor of exceptional merit. 6 1/2" lacquered brass blades, cast base, felt bottom will not "creep." 6 ft. cord and swivel plug. Non-oscillating. Shipping weight 7 lbs.

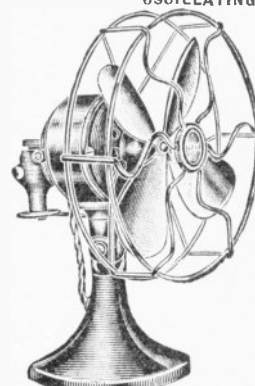
No. 4815. Your Net Cost..... **\$3.30**
No. 5816. 8" Blades. Your Net **\$4.48**
Cost.....

Oscillator Model

While the fan blades are in motion, the frame swings from side to side, distributing the "cooled air" over a wide radius. 9" lacquered brass blades.

No. 4817. Your Net Cost..... **\$9.80**

Signal Electric Fans OSCILLATING TYPE

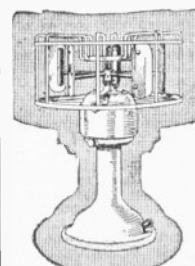


Has a Universal motor which operates either on a direct or alternating current by simply adjusting the switch under the base plate. The R.P.M. is the same on either current. The 12" AC, the 12" DC and the 16" AC all three have new induction type motors. Three speeds. Black all over finish. Aluminum blades. Has a handy toggle switch on base which controls two different speeds and off position. Armature shaft is of tool steel working in oversize special alloy. Non-freezing bronze bearings. 8 ft. of cord with plug. Shipping weight 13 lbs.

No. 4811-121. 12" Fan. For 110-volt A.C. 50-60 cycle. Your Net Cost..... **\$21.30**
No. 4812-127. 12" Fan. For 32-volt D.C. Your Net Cost..... **21.30**
No. 4813-161. 16" Fan. For 110-volt A.C. 50-60 cycle. Your Net Cost..... **24.60**
No. 4814-167. 16" Fan. For 32-volt D.C. Your Net Cost..... **24.60**

NOTE
110-volt D.C. Fans can also be supplied at same cost of 110-volt A.C. models.

Signal Table Fan



Here is a radically different fan—for the well appointed home, or office! Very attractively finished in white lacquer; metal blades are extra heavy coated. The blade guard is so constructed that a small flower vase may be placed in the center, certainly lending no little beauty to it all. Gives a gentle, very comforting, cooling breeze. 8 ft. white silk cord. Universal motor. Shipping weight 12 lbs.

No. 4810. Can be furnished for 110-115 volts A.C. and D.C., 25-60 cycles; 220-225 volts A.C. and D.C., 25-60 cycle; 250 volts D.C.; 32 volts D.C. currents. Be Sure **\$17.25** to state which. Your Net Cost.....

Cord Set with Switch



Standard all appliance heater cord set with shut-off switch. Made with 6 ft. asbestos covered heater cord and all appliance shut-off switch plug. Standard two-piece socket plug. Shipping weight 1 lb.

No. 7146-121. Your Net Cost..... **\$0.99**

De Jur 3-HEAT Regulating Electric Iron



Boasts of distinctive exclusive features which are necessary requirements for better pressing! Three stages of heat—LOW, MEDIUM, HIGH. Presses everything without fear of scorching. YOU regulate the heat as YOU require it. Genuine Bakelite handle fits the grip of your hand. Feels fine in the hand. Use it for hours without fatigue. And this handle will never burn your hand, warp, break or work loose. Another life-time feature that places De Jur irons head and shoulders above the rest! NO BACK PLUG to pull out. Armored flexible cable with oversize connecting wire. Always out of your way. All parts are of the highest grade obtainable. There is no other iron having these exclusive patented features. BUILT TO LAST A LIFE-TIME. The iron of your dreams! Sturdily built for long, long service. Every slightest detail carefully worked out. Only the best materials used: Bakelite, Monel Metal, Clear Ruby India Mica. And why? Simply to give to the woman in the home an iron that will change all your former ideas of how much and how well an iron can perform.

No. 5085. 6 lb. List \$8.75. Net..... \$6.35
No. 5086. 8 lb. List 12.00. Net..... 8.90
No. 5087. 12 lb. List 20.00. Net..... 14.80
No. 5088. 15 lb. List 21.00. Net..... 15.45

Electric Hair Clipper



Anyone can use it successfully—no experience at all necessary. It does much better and quicker work than hand clippers or shears. It is operated by electricity which eliminates the opening and closing of the hand. It does not pull the hair. It removes unsightly, superfluous hair easier, quicker, safer and better than any other method. The Tapering Comb Attachment eliminates the danger of digging in or leaving steps. The clipper can be changed within a second from a long cutting blade to a short cut blade, or reversed. It fits the smallest or the largest hand. It operates on direct or alternating current—can be supplied for any standard voltage from 6 up to 250 volts. It operates on any light socket, Delco system, or storage battery. It pays for itself in 20 haircuts. A year's guarantee accompanies every clipper. Shipping weight 6 lbs.

No. 5267. Your Special Net Cost... \$8.44

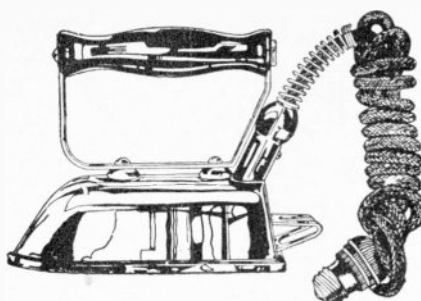
Household Electric Cord Set



Household all appliance heater cord set. Made with 6 ft. asbestos covered heater cord, "Real" brand all appliance attachment plug and standard two-piece socket plug. Shipping weight 1 lb.

No. 7145-120. Your Net Cost..... \$0.66

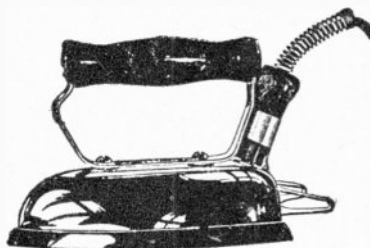
3½ lb. Electric Traveling Iron



3½ lb. traveling or boudoir iron fully nickel-plated and polished, with heel rest. Sizing base 5½" long, 3½" wide. Heating unit made with special heat resisting insulation with genuine Nichrome resistance wire guaranteed against burnout for one year. 6 ft. asbestos covered heater cord with "Real" all appliance plug, standard 2-piece socket, correct size for traveling and touring. For 110-volt A.C. or D.C. Shipping weight 5 lbs.

No. 6825-14. Your Net Cost..... \$2.69

Standard 6 lb. Guaranteed Electric Iron



6 lb. guaranteed electric iron, with beveled base measuring 9½" thick, 7" long, 4½" wide. The iron has 3 square inches more ironing surface than standard sized irons. Fully nickel-plated and polished, extra fine finish with heel rest, comfortable cool handle, 6 ft. asbestos covered heater cord with "Real" brand all appliance attachment plug and standard 2-piece socket plug. Heating unit made of special heat resisting insulation, with genuine Nichrome resistance wire guaranteed against burnout for one year, but if properly used will last many years. Approved by the National Board of Fire Underwriters. For 110-volt A.C. or D.C. Shipping weight 8 lbs.

No. 6822-9. Your Net Cost..... \$2.69

No. 6823-98. Is equipped with shut-off switch and black handle.

Your Net Cost..... \$2.92

No. 6824-98F. With switch. Your Net Cost..... \$3.11

1 lb. Toy Electric Iron



"Toy" medium heat electric iron with beveled base. Fully nickel-plated. Size base 4" long, 2½" wide, with heater cord and socket plug. Guaranteed Nichrome asbestos covered heating unit. Size 4" long, 2½" wide. An iron of varied uses. Genuine value! For 110-volt A.C. or D.C. Shipping weight 3 lbs.

No. 6826-20B. Your Net Cost..... \$0.98

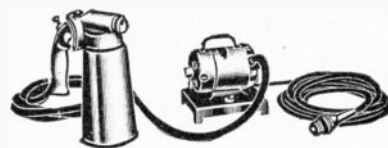
New and Improved Automatic 6 lb. Electric Iron

FOR ALTERNATING CURRENT ONLY
IT LOOKS AFTER ITSELF

6 lb. Automatic heat controlled electric iron with patented thermostat control. Cannot overheat, eliminates danger of fire and prevents discoloration of the nickel plate. This Automatic iron is highly polished and nickel-plated, with heel rest. Heating unit is Nichrome flat resistance ribbon incased in clear sheet mica with a patented thermostat control which maintains a steady ironing temperature of 495 to 505° Fahrenheit. Comfortable, cool handle. 6 ft. of asbestos covered silk heater cord with detachable plug and 2-piece socket. Guaranteed for two years against burnout. Size ironing surface, 7" long, 4½" wide. For 110-volt A.C. only. Shipping weight 9 lbs.

No. 6821-707. Your Net Cost..... \$5.55

Atomister Even Pressure Spraying Machine

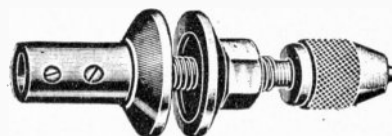


PAINT BY ELECTRICITY!

For the painter or practical man who wishes to greatly increase his earnings. Any paint or spray job with this sensational device can be done in one-tenth the time it would take by hand! Cuts labor costs tremendously! Plugs into any light socket! Uniquely designed release valve insures a fine mist-like spray subject to instantaneous control. Leaves no smears—no brush marks. You can paint your house (inside and out); whitewash your cellar; lacquer your car; bronze your radiators; enamel your wicker furniture; varnish your floors; spray your screens; decorate or paint any object about your home that would protect or beautify it. Do it quickly, cheaply, easily, with a saving of time and material that makes your investment in an Atomister a necessity. No one can afford to be without an Atomister. Sprays paint, lacquer, enamel, bronze, varnish, stain, shellac, white-wash, insecticides, disinfectants. For use in the home, factory, garage, dairy, farm, sign shop, boat yard, truck fleet, gas station, greenhouse, etc. Weighs 6½ lbs. without motor. Air pressure 25-30 lbs. Material container 1 qt. For 110-volt A.C. or D.C. Shipped express collect. No. 5697-B. Complete outfit, consists of AIR COMPRESSOR (MOTOR), SPRAY GUN and ELECTRIC CORD, as illustrated. \$34.88

List \$39.50. Your Net Cost.... \$34.88

EVRY-USE Electric Motor Attachment



An original, practical and substantial tool, invaluable for the home, hotel, restaurant, radio shop, service station, farm, institution, garage or shop. Holds grindstones, buffs, saws, drills, wire scratch brushes, etc., for grinding tools and cutlery, polishing and buffing of all kinds, drilling holes, preparing metals for welding. Can also be used as a Television Disc Adapter and for countless other uses. Simply fastens with set screws directly to shaft of your small motor in a jiffy. No belts or pulleys necessary. Made of highest grade cold rolled steel, with machined flanges, and fitted with three jaw 0 to ¼" drill chuck. Comes in three sizes to fit ⅜", ½", and ¾" motor shafts. Be sure to state size of your motor shaft when ordering.

No. 5689. Your Net Cost..... \$1.95

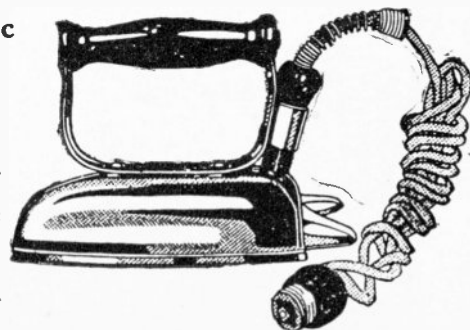
Travel or Toy Electric Iron

A BIG SELLER

1½ lb. fully nickel-plated travel or toy iron suitable for light ironing. Packed in beautiful black leatherette case with six baby clothes pins. 6 ft. heater cord and 2-piece socket. Genuine Nichrome asbestos covered heating unit guaranteed against burnout for one year. For 110-volt A.C. or D.C.

Shipping weight 4 lbs.

No. 6827-70. Your Net Cost..... \$2.33

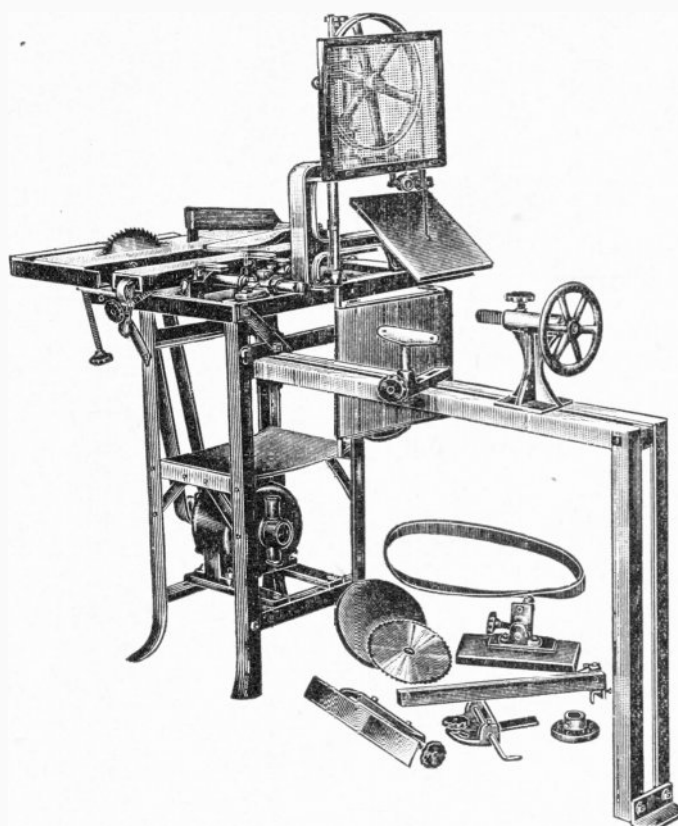


"6-In-1" Combination Woodworker

- (1) Band Saw; (2) Circular Saw; (3) Jointer;
(4) Lathe; (5) Borer;
(6) Sand Disk.

OPERATES FROM
ANY LIGHT
SOCKET.
110-VOLT A.C. OR D.C.

DOES
EVERYTHING
THE BIG
EXPENSIVE
COMBINATIONS
WILL DO.



DO MORE BEAUTIFUL, PROFITABLE WOODWORK

Perfect work—work that you have always longed to do—is easy when you use the "6-in-1" Woodworker. Fine woodworking is simplified in this machine so that anyone can get best results at once. It is a complete machine for the complete job. In the small space it uses, it gives you every advantage of a complete shop. The economical electric motor furnishes smooth, quiet power at the lowest possible cost to you. The beautiful jobs that you turn out on the "6-in-1" will amaze you with their inexpensiveness, as well as the ease with which you do them. This machine has proved a pleasurable and profitable investment for hundreds of its owners—it will pay for itself in a few months!

Performs All Operations Easily, Quickly

In this machine you have six separate machines in one. It provides (1) A Band Saw, (2) Circular Saw, (3) Jointer, (4) Lathe, (5) Borer, (6) Sand Disk. It is a real machine for doing all kinds of accurate rip and cross cutting, jointing, turning, etc., with the utmost ease and speed. Each operation on the "6-in-1" Woodworker has its own driving pulley. Only that unit of the machine is running which is in use at the time. Every operation is right-handed, so that its use is easy and natural. Guards make machine perfectly safe and easy to operate.

Comes Complete to Use—Set It Up Anywhere

There are no extras to buy—you use the "6-in-1" Woodworker just as it is received, completely equipped. From the very first day, it starts earning money for you, saving fees that you are now paying to mills and shops. The machine is guaranteed satisfactory. The "6-in-1" Woodworker is strongly built and completely portable. Take it anywhere—out on the job, in the shop, garage or basement. Operating from any ordinary lamp socket it gives you a complete woodworking shop anywhere that current is available.

Well Made—A Big Value

BAND SAW—12" wheels; table tilts for bevels; cuts 4" material. CIRCULAR SAW—Cast iron table, 11"x28", raises and lowers; 8" saw cuts 2 1/2" material; takes dados, cutters, etc. JOINTER—47" wide safety head; 2 high speed knives; both plates 14"; adjustable. LATHE—Swings 13"; 36" between centers. BORER—Takes bits with 1/2" shanks. SAND DISK—Diameter 9". EQUIPMENT—8" rip, 8" cross cut blade; 1/4" band saw; cross-cut, rip, angle, and tilting guides, and boring bit. MOTOR—1/4 H.P. heavy duty. Shipped freight collect from St. Louis.

No. 5165-3BB545. "6-in-1" Combination Woodworker, complete as described and illustrated, with 1/2 H.P. Electric Motor and Connecting Cord.
Your Net Cost..... **\$157.50**

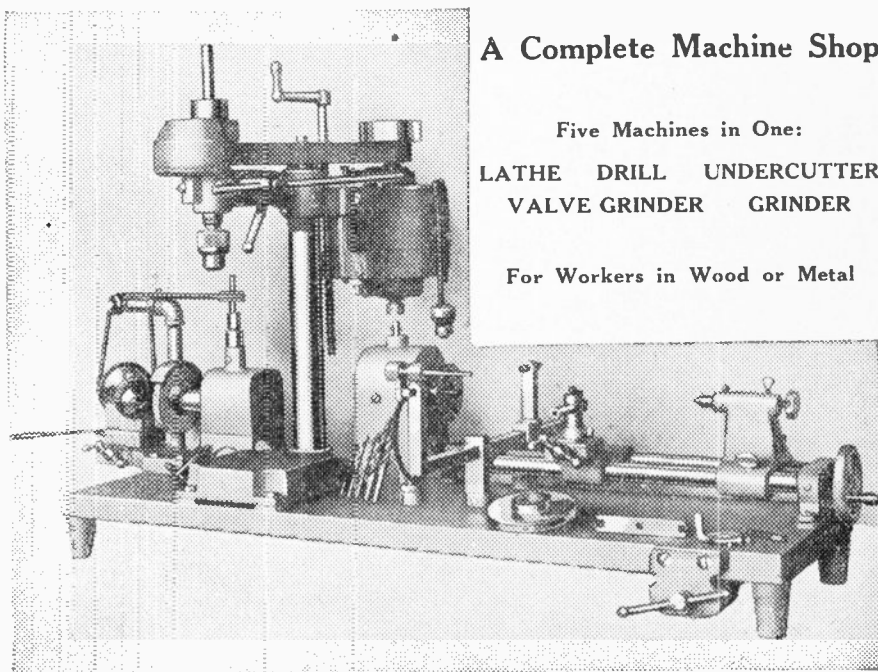
C-O Master Mechanic

It is no longer necessary to buy expensive, separate machines. The C-O Master Mechanic will take care of all ordinary requirements for the shop or home worker in wood or metal. Owners of this machine say that in a very short time it has paid for itself. There are many odd jobs to do for your friends, etc., with considerable profit for you! To purchase the separate machines embodied in the C-O Master Mechanic would cost a great deal more than the price of this remarkable complete machine, occupying so little space and requiring no costly shafting, pulleys, belts, etc., so easy to operate by simply plugging into any electric light socket. Operation is very simple. Power for the lathe and undercutter is obtained by merely swinging drill head to the right and attaching a special chuck that is part of the construction to the stub shaft on the lathe head. To operate the grinder attachment and the valve grinder, the drill head is swung to the left and attached in the same manner as when operating the lathe. It requires but a few seconds to change from one to the other.

OCCUPIES SMALL SPACE

The C-O Master Mechanic weighs only 200 lbs. and can be installed on an ordinary work bench. Dimensions: 38" long, 27" high, 12" wide. Lathe—6" swing, 11" between centers. Adjustable tail stock. 1/4" Universal chuck, 3" face plate, center plate, tool post, 5/8" chuck dog, cutting tools, special wrench to fit all nuts and screws. Two speeds, 500 and 1,000 R.P.M. Drill—Drills holes 0 to 3/8". Adjustable head with 7 1/2" travel on column. Drills to 9" (circle and has 2 1/2" up and down spindle run. Speeds 1,100 to 2,200 R.P.M. Three-jaw chuck furnished with 1/4" chuck wrench. 3/16", 1/8", 5/16" and 3/8" bits. Undercutter—Instantly adjustable and does accurate work. Equal to any separate and more expensive undercutter. Valve Grinder—Grinds valves with 45 degrees up to and including 5/8" diameter stem. Grinder—1 1/2" and 1/4" emery wheels with guards. Operates at speeds of 1,100 to 2,200 R.P.M. The C-O Master Mechanic comes complete with all necessary equipment, including be's, drill bits, wrenches, dogs, face plates, a small vise and a 110-volt, 60-cycle, single phase motor, ready for immediate use. Also furnished in other voltages and cycles, to suit special requirements or local conditions. Shipped from Chicago, Ill., freight collect.

No. 5698. Complete, as illustrated. Your Net Cost..... **\$178.45**
NOTE
Without Valve Grinder..... **\$153.45**



A Complete Machine Shop

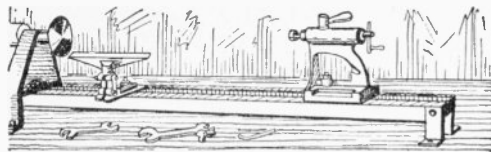
Five Machines in One:

LATHE DRILL UNDERCUTTER
VALVE GRINDER GRINDER

For Workers in Wood or Metal

1930 MODEL **SPEEDWAY** HOME WORKSHOP UNITS

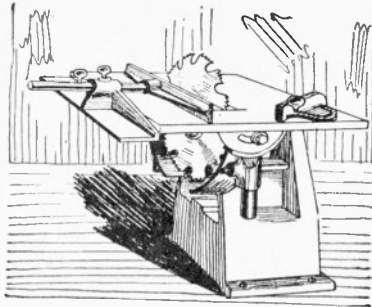
Lathe



Furns part of the new Speedway Home Workshop. Designed so that you can build your shop one step at a time. Starting with the table saw (No. 325), you can add any of the other accessories as you go along. And you need tighten only two bolts to turn the trick. Lathe shown above may be your next step, after you own the table saw. Has 10" swing with 30" centers. Heavy construction. Screw feed tailstock. Mounts on to table saw base which serves as two-speed headstock. Has four speeds when driven from two-speed motor pulley. Adjustable tool rest. Note particularly that table saw and lathe may be operated at the same time. Four speeds are given to the lathe when driven from a 1,750 R.P.M. motor through our line shaft as follows: 1,300-2,000-2,600-3,900 R.P.M. Angle-section rails with cross-member braces; face plate 5" in diameter; 10" swing; four-jaw spur-center; Universal wrench.

No. 5156-326. Four-Speed Lathe. **\$18.29**
Your Net Cost.....

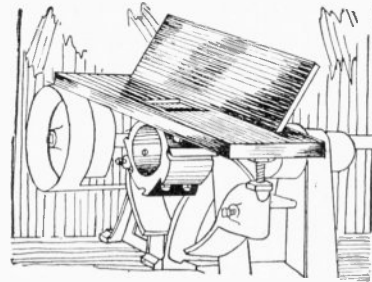
Table Saw



You start your **SPEEDWAY** home workshop with this **TABLE SAW**, BECAUSE IT IS THE MOST USED UNIT IN ANY WOODWORKING SHOP. As you add the other units listed on this page (No. 326 LATHE, No. 327 PLANER, No. 329 SANDING OUTFIT, No. 240T JIG SAW, No. 328 GRINDING AND BUFFING STAND, No. 330 LINE SHAFT ASSEMBLY), this rugged table saw becomes, in turn, a **PLANER**, a **SANDER**, a **LATHE**, a **JIG SAW**, a **BUFFER**, a **GRINDER**, and so on down the line! Truly, this is a credit to American mechanical ingenuity and construction! The illustration above shows how ingeniously this table saw has been engineered. First of all, it is a practical heavy duty table saw for ripping, cross-cutting, mitering, beveling and dadoing. But its base also serves as a two-speed headstock for the lathe described above (No. 326), which you will surely want to add later on. It is the start of your completely Motorized Workshop. When driven from a 1,750 R.P.M. motor, the spindle of this table saw develops two speeds: 1,600 and 3,500 R.P.M. Table top measures 12"x15"; machined casting with removable filler block (tilts 45°); rip fence; cross-cut and miter gauge; two-step balanced motor pulley, 2 1/4" and 3" in diameter; two-step spindle pulley, 1 1/2" and 2 1/4" in diameter; dust guard; one 1" flat driving belt; slide rails for mounting motor and adjusting belt tension; two Universal wrenches; screws for mounting table saw. Table top tilts 45° for bevel cut. 8" combination blade included.

No. 5155-325. Table Saw Complete. **\$26.60**
Your Net Cost.....

Planer

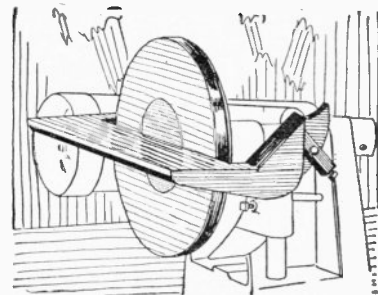


AFTER THE TABLE SAW COMES THE PLANER

No matter how fine the saw blade, the cut must always be dressed if you would give your work the finished appearance that shows good workmanship. Outstanding simplicity and micrometer adjustment feature this **Planer**. Mounting and dismounting are accomplished in terms of seconds. Nothing to break—nothing to get out of order. Adjustment for correct position of cutter-blades is made by means of two nuts on threaded mounting posts. Nowhere among wood-working tools is this fine adjustment so necessary as in the **Planer**. The four cutter-blades are made of Ketos Oil-hardened Steel—easily removed for sharpening. **Planer** table, 4 1/2"x15". Bevel guide, adjustable to any angle from 0 to 45°. Four-blade planer head, 3 3/4" in diameter. Four cutter-blades, 2" wide.

No. 5157-327. Planer Complete. **\$15.91**
Your Net Cost.....

Adjustable Disk Sander



We recommend the disk sander as the next step in motorizing your workshop, because we know the importance of smooth joints and surfaces and the part that the disk sander plays in making them smooth. The good cabinet builder not only must have good tools; he must have the proper tools. The sanding table tilts 45°, enabling you to sand beveled edges as well as smooth surfaces. Aluminum sanding disk, 8" in diameter. Sanding table, 2 3/4"x10 1/2"—adjustable to 45° angles. Six medium grit sandpaper disks.

No. 5159-329. Sanding Outfit Complete. Your Net Cost..... **\$8.79**

Any mechanically inclined man can make considerable money, either on the side or on full time, by installing one of our Home Workshops, and then advertising in his community. Many people have any number of odd mechanical jobs to be done, all of which this machine can do. Many of our customers make from \$25.00 to \$50.00 a week "on the side" in this manner.

ADDITIONAL UNITS

LINE SHAFT POWER TRANSMISSION ASSEMBLY

Patterned after the proven method of power transmission found in the line shaft drive employed in factories. Shaft hangers incorporate the "three-point" aligning system. When driven from a 1,750 R.P.M. motor the line shaft develops two speeds, 825 and 1,550 R.P.M. Three shaft hangers with "three-point" adjustment; two collars with safety set screws; one steel shaft, 3/4" in diameter by 6 ft. long; two two-step shaft pulleys, 4 3/16" and 5" in diameter; one two-step motor pulley, 2 1/4" and 3" in diameter; two 1" flat belts; two round belt pulleys; two 1/4" round belts; screws for mounting shaft hangers; hollow set screw wrench.

No. 5160-330. Complete. Your **\$18.55**
Net Cost.....

JIG SAW

Scroll work in cabinetry relieves your finished pieces from the hard, angular appearances that so frequently characterize the work of the amateur. Throat measures 10" deep; spring tension on blade; top tilts 45°; half-dozen extra blades; cuts 1" depth.

No. 5161-240IT. Complete. Your **\$12.00**
Net Cost.....

GRINDING AND BUFFING STAND

Comes in handy for sharpening turning chisels when purposes. Two-bearing stand with cone and flange arbors; one 6" cloth buff; one 6" grinding wheel.

No. 5158-328. Complete. Your **\$3.50**
Net Cost.....

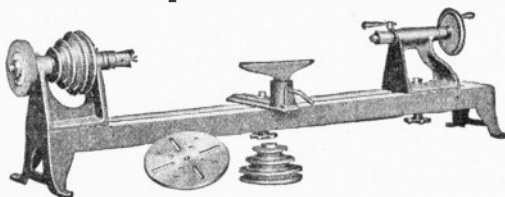
TOOL ASSORTMENT

The tool assortment speaks for itself. The drill chuck converts your shop into an electric drill. And extra buffers and grinders never come amiss. 1/2" capacity drill chuck; one accessory arbor with flanges and nut; one gouge chisel; one skew chisel; one 6" cloth buff; one 6" grinding wheel.

No. 5161. Complete. Your Net Cost **\$15.00**

Home or Machine Shop Lathe

Never before has a lathe of this size and quality been offered at anything near the price asked for this lathe. It is an outstanding picture of what modern production methods and modern engineering will do. Bed is made of angle steel 1/2" thick. BED IS ACCURATELY PLANED. No other lathe selling at anywhere near the price of this lathe has a planed bed. A planed bed is the only one that will give perfect alignment. The 1" slot in center is accurately milled, thus providing perfect alignment. Head stock has brass bushings. These can be replaced at 25 cents each. Both head stock and tail stock are made strong and sturdy. Pulley is made for 3/4" round or 1" belt. Has three speeds. We furnish an extra three-step "V" pulley as standard equipment, to be used on the motor shaft. This pulley is bored for 1/4" or 3/8" shaft. The 6" face plate will handle any flat work up to 9 3/4" in diameter. A 1/4 horsepower motor will drive this lathe in wonderful shape. No. 1 Morse Taper Centers can be furnished with this lathe at \$2.00 extra. The two wood spur chucks that we furnish with this lathe are held to the spindle by means of a set screw. They are perfectly true. Face plate and drill chuck are held in the same manner. Note these specifications: Swing 10"; distance between centers 25"; length over all 42"; height 12"; width of bed 4"; net weight 60 lbs., shipping weight 90 lbs. Shipped from Toledo, Ohio. No. 5268-19. Consists of lathe with all equipment as shown, except emery wheel. Your Special Net Cost.... **\$22.32**



EXTRA EQUIPMENT

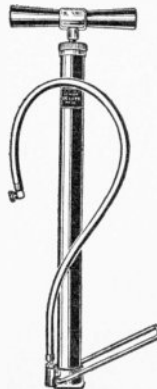
No. 5134.	Special 24" long tool rest....	\$2.85
No. 5135.	1/4" drill chuck.....	2.38
No. 5136.	3/8" drill chuck.....	2.85
No. 5137.	1 ft. longer bed, making 35" between centers, extra.....	1.90
No. 5138.	2 ft. longer bed, making 45" between centers, extra.....	4.74
No. 5139.	One 1/2"x4" emery wheel with nut and two collars (shown in above illustration at extreme left).....	1.43
No. 5140.	One set of four turning chisels.....	2.85

Arvin
Tire Pump

A BARREL OF AIR AT EVERY STROKE!

A big sturdy pump—quality in every inch. It always works—like a regular pinch hitter—when you need it. Big, heavy-gauge barrel (1 1/2"x18"), finished in chip-proof Rolls-Royce Blue baked enamel. Extra heavy, durable plunger. 3/4" plunger rod. 1 1/4" welded clamp holds handle rigid. Black enameled handle. 22" of 300 lb. test hose, ample length to reach any point on a wheel. A high quality pump at a moderate price. All trimmings neatly nickel plated. Shipping weight 4 lbs.

No. 5150-12. List **\$1.18**
\$2.00. Net.....

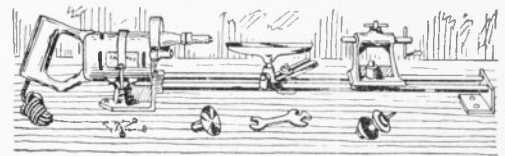
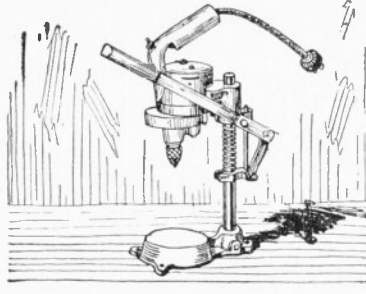
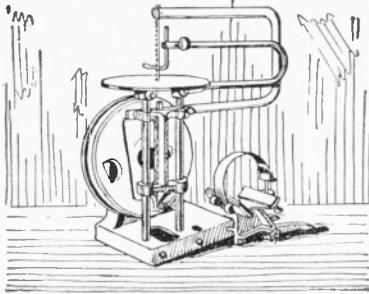


"SPEDWAY" ELECTRIC TOOLS AND HOME WORKSHOP UNITS

Pattern Jig-Saw

Bench Electric Drill Press

Portable Lathe



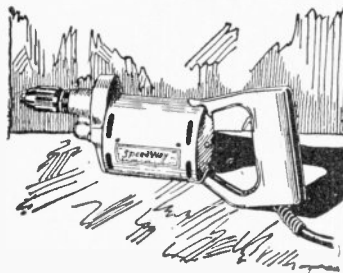
Depth of throat 10"—cuts 1" deep. About 300 strokes per minute. Spring tension on blades. 1/2 dozen extra blades included. Ideal for pattern making and general curved line design. Tilting top. Used with No. 49 and No. 53 electric drills.

No. 5181-240. Complete, as illustrated. Your Net Cost..... **\$14.25**

Where strict alignment of holes is required, or where work can more conveniently be done at a bench, use this drill stand for both No. 49 and No. 53 electric drills, described below. Great power is supplied to the drilling operation through the fulcrum lever.

No. 5179-210. Complete, as illustrated, except electric drill. Your Net Cost..... **\$9.50**

SPEEDWAY ELECTRIC DRILLS

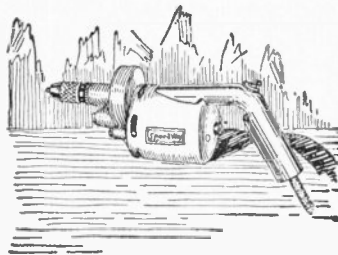


Type 53

long. Both these tools may be used to drive any of the accessories described below, including buffer, grinder, scratchbrush, and even the No. 262 lathe, above described. The Type 53 Drill is necessary for driving the Type 257 Electric Hand Saw.

No. 5176-49. Weight 3 1/2 lbs. Gear ratio, 6 to 1. Load speed 1,250 R.P.M. YOUR NET COST..... **\$15.20**

Types No. 49 and No. 53 Speedway Drills are both built for drilling up to 1/2" holes in steel. In both tools drawn steel motor housings are used to provide greater strength, to prevent breaking when dropped, and to produce a more compact tool. Type No. 49 is recommended for extremely light drilling, while Type No. 53 may be used for all 1/2" drilling, except strictly production work where the drilling continues all day.

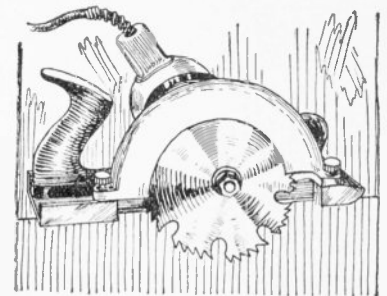


Type 49

No. 5177-53. Weight 5 lbs. Motor 1/2 H.P. Gear ratio 6 to 1. Housing, drawn steel giving compactness. Gears, spindle of Cramps gear bronze, pinion of steel. Load speed 1,000 R.P.M. Perfectly balanced. Ruggedly built to render service in terms of years.

YOUR NET COST..... **\$23.75**
Prices Include Universal Motors Operating on 110 Volts A.C. and D.C.

Electric Hand Saw



Converts type No. 53 drill into a portable hand saw. Cutting capacity 1" lumber. Peep sight in base for ripping. Combination rip and cross-cut blade of finest quality is included. Used for trimming lath, cutting wallboard, kindling and miscellaneous carpentry.

No. 5180-257. Complete, as illustrated, less motor. Includes one 6" circular saw blade. Your Net Cost..... **\$9.50**

Electric Drill and Saw Kit

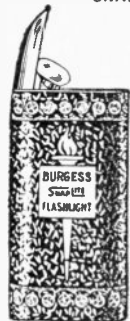


By combining five electric tools around a single power unit of great torque, we present the user with a low cost portable electric tool kit of great practical value. IT DRILLS—The power unit is the famous Speedway 1/4" No. 53 drill. IT SAWS—Handles lumber up to 1" thick. Pays its way in any shop. IT GRINDS—Saves valuable time and labor around the shop or home by sharpening tools, knives, etc. IT BUFFS—Polishes the auto radiator, silver, etc. IT RE-SURFACES—The wire brush removes rust, paint, scale, etc. Outfit plugs into any light socket. For 110-volt A.C. or D.C. Equipment includes No. 53 Drill, No. 257 Saw, No. 235 Accessory Set. All packed in convenient steel carrying case.

No. 5182-281. Your Net Cost..... **\$39.90**

Burgess SnapLite

A NEW IDEA IN POCKET FLASHLIGHTS
SNAP! Top's up—Light's on!
SNAP! Top's down—Light's off!



Closed View



Open View

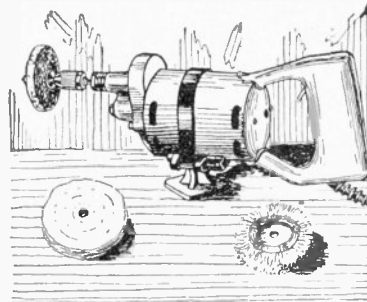
Here is the handiest little flashlight you can own. It is about as large as a penny box of matches—weighs about as much as a gentleman's watch. It can be carried in the vest-pocket, and many ladies carry them in their purses. The construction is unique. The miniature electric lamp is part of the "snapper-top," and the battery itself forms the rest of the Snap-Lite. There is no case—no switch—nothing complicated. When the snapper-top is tipped up it snaps to the position. The light is snapped on by closing the top. It is carried in the pocket with the top closed and the lamp is then protected from any breakage or harm. High quality Burgess battery. The battery in the Snap-Lite is made with chrome. 2 3/4" long, 1 1/2" wide, 5/8" thick. Shipping weight 8 ozs.

No. 5051-42942. List \$0.39. Net..... **\$0.26**

No. 5052-129. BATTERY ONLY. List \$0.20. Net..... **\$0.13 1/2**

No. 5053-942. SNAPPER and BULB. List \$0.20. Net..... **\$0.13 1/2**

Electric Drill Accessory Set



This set brings three additional electric tools to your workbench. Set includes arbor which mounts on chuck of either No. 49 or No. 53 drills and supports buffer, grinder and scratchbrush. Stand or mounting drill, as shown, is also included.

No. 5178-235. Complete, as illustrated, less electric drill. Your Net Cost..... **\$4.75**

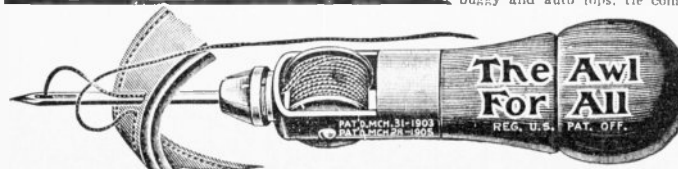
Famous Lock Stitch Sewing Awl

"THE AWL FOR ALL"

Same Things This Awl Will Do: Mend old or new harness, repair saddles, shoes, gun and suit cases, wagon covers, burlap awnings, carpets, grain bags, pulley belts, buggy and auto tops, tie comforters, etc. Can be used to sew up wire cuts on live stock. All parts are interchangeable. You can secure any of the parts that get loose or broken. You do not have to throw the tool away. It meets the need of a hard sewer for doing speedy stitching and repairing of harness, shoes, saddles, canvas, gun and

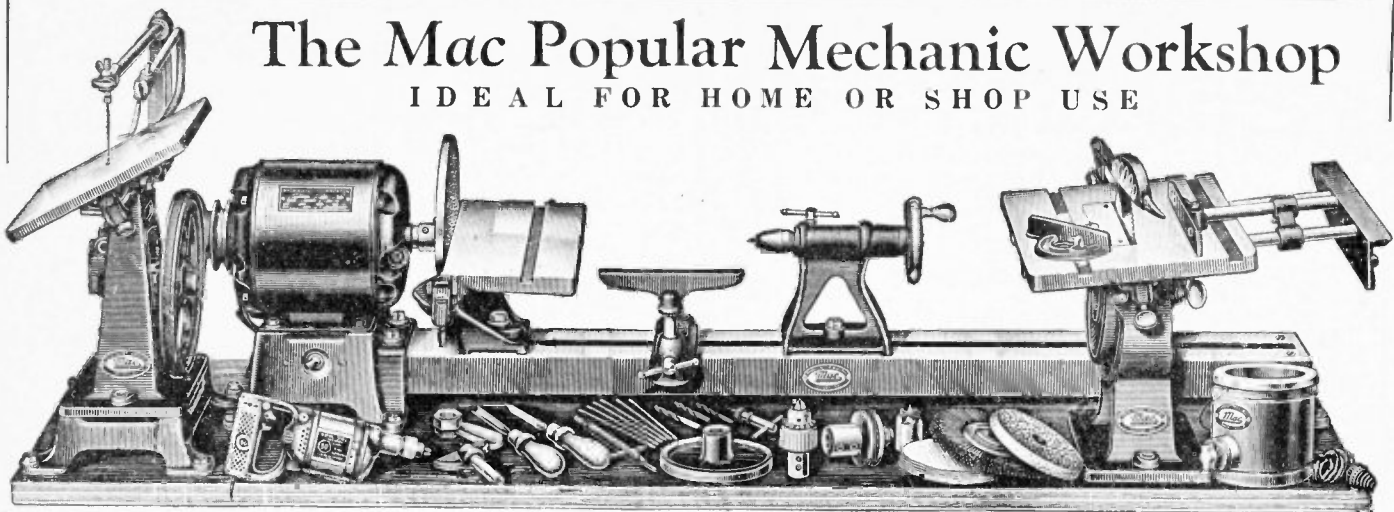
suit cases, auto and buggy tops, seats, grain bags, and many other leather and canvas articles. Its big feature, and in which it is superior to all other sewing devices, is the exposed thread reel. This thread reel is placed in the most convenient position under the fingers' end, so that the tension can be controlled at will by a simple movement of the fingers on the reel. The thread can be taken up or let out as desired. The thread reel is the most essential part of a sewing awl. Each awl is equipped with one No. 8 straight and one No. 6 curved diamond point full ground needle, exposed holding filled with the best waxed thread, with illustrated directions. The awl is well constructed throughout, has a beautifully finished handle, and all metal parts are highly nickle-plated. With ordinary care it will last a lifetime. Shipping weight 1 lb.

No. 6518. Your Net Cost..... **\$0.70**



The Mac Popular Mechanic Workshop

IDEAL FOR HOME OR SHOP USE



No. 4836

It is now possible to own a mechanically perfect workshop that embraces all the requirements of a complete carpenter shop, at a minimum cost! Designed primarily for the man who desires to make useful and practical things; for the boy who is ambitious to develop his mechanical ability; for carpenters, repairmen, shopmen, inventors and "handy-men." All the latest improvements are embodied in the construction of the Mac. In all-around utility and convenience—in simplicity of construction—in ease of operation—this is unquestionably one of the most complete and practical electric workshops ever designed. Its performance will exceed the highest expectations of every owner. IN A SHORT TIME IT WILL PAY FOR ITSELF—AND THEN NET YOU A HANDSOME PROFIT EACH WEEK! Turns spindles, ribs, cross cuts, surfaces, drills, grinds, polishes, etc. In fact, it does everything you would ordinarily expect from a complete professional type workshop.

Specifications

Motor: Specially constructed Wagner $\frac{1}{4}$ H.P. Motor; 1,725 R.P.M. split phase double shaft A.C. or D.C. constant speed, with fully enclosed end plates making motor dustproof. It has a quick brake switch; spacious well insulated terminals; strong rigid stator frame; drip-proof end plates and unbreakable base. Has a dynamically balanced rotor which is vibrationless.

Lathe: Has capacity of 9" swing and 30" between centers which provide the correct length for all spindle work of standard size. Centers $4\frac{1}{2}$ " above top line of

bed which is of channel construction and $2\frac{1}{4}$ " above base line of supporting legs.

Jig Saw: 12 blades 5" long are furnished. Stroke of saw is $1\frac{1}{2}$ " at 500 R.P.M. It has a tilting table adjustable 45° down to left and is 8" square. Jig Saw Frame Arm provides a 12" throat. Specially designed Hold Down Arm is provided where it is necessary to hold down work. Drive Shaft $\frac{1}{4}$ " operating in phosphor bronze bearing 2" long provided with car box type of dustless lubrication. Crank pin of bronze $\frac{1}{2}$ " diameter, $\frac{3}{8}$ " long operating in hardened sliding block. Screw tightener provides suitable adjustment giving necessary tension to saw blade. Mounting on sub-base provides adjustment for tightening "V" belt. Adjustments are easily made without wrench by using thumb screws.

Circular Saw: Combination cross cut and rip saw 6" in diameter operating at 3,100 R.P.M. This saw is adjustable from zero to $1\frac{1}{2}$ " above surface of table by simple movement of bearing. A special feature of this saw makes it possible to cut any size up to $1\frac{1}{2}$ " by movement of a bearing instead of the old method of moving table up and down. Adjustable to 45° for making angular cuts. Table insert made of cast iron provides facilities for using $\frac{5}{8}$ " dado head 5" in diameter. Table top is 9"x12" with extension facilities for 18" width on either side. Both extension and rip guides furnished. Phosphor bronze spindle bearing $\frac{5}{8}$ " in diameter by 3" long provided with car box type of dustless lubrication. Mitre gauge operates on either side of saw in $3/16"$ x $1/2"$ slots entirely across table top. This makes it possible to mitre right and left for cutting all styles and

shapes of mouldings and trim. Extension of saw shaft allows space for $\frac{3}{4}$ " capacity drill chuck and other attachments. Mounting on sub-base provides for adjustment for tightening "V" belt. Adjustments are easily made without wrench by using thumb screws.

Sander: Has balanced aluminum disc $8\frac{1}{4}$ " in diameter provided with standard sand paper of highest quality. Table is $5\frac{1}{2}$ " x 11" and tilts 45° from horizontal without changing position of table base with relation to sander disc. Can be attached and detached in 20 seconds. Tilting adjustments made in few seconds. A thrust ball bearing takes up the thrust of work against disc. The sander table has a slot $3/16"$ x $1/2"$ entirely across table which can be used with mitre gauge for sanding moulding, etc., an exclusive feature.

This equipment is complete and ready to operate from any lamp socket. Dimensions: Lathe mounted on 5-ply wood base 15" x 56". Lathe Bed: 4" U section has a capacity of 30" between centers. Shipping weight, complete, 175 lbs. Shipped from Chicago.

Accessories

The following accessories are included as regular equipment: Face Plate: 5" in diameter; Spur and Cup Type Wood Turning Centers, Arbor and Flange; 6" Cotton Buffs; 6" Wire Brushes; 5" Emery Wheel; Adjustable Tool Rest, and two Tool Supports 3.5" and 6" in length provided with specially designed Bed Clamp; $\frac{3}{8}$ " three-jaw geared Chuck; two fine quality Spear Point and Gauge Turning Tools and Socket Wrenches.

No. 4836-70. Lathe, with all accessories AND INCLUDING THE ELECTRIC GLUE POT AND ELECTRIC DRILL, as shown in above illustration. YOUR SPECIAL NET COST.....

\$121.45

No. 4835-50. Lathe, with all accessories, less Electric Glue Pot and Electric Drill. YOUR SPECIAL NET COST.....

\$94.55

Elco Portable Electro-Therapeutic Generators



Generates High Frequency, Violet Ray, Medical Electricity, Mechanical Vibration and Ozone, either separately or in combination. Constructed to operate only on A.C., 110 volts, 60 cycles. All the functions can be regulated in the graduations, so as to be suitable for all medical, beauty and developing treatments. This is an instrument that fills a long wanted need for a portable combination outfit both for professional and home use. Practically all electro-therapeutic treatments can be accomplished with this instrument. It is the most prac-

Elco Massage Vibrators



A splendid Electric Massage Vibrator for home use. Operates on either A.C. or D.C., 100 to 120 volts. Equipped with speed regulator and on and off switch conveniently located. Furnished with a soft rubber face, soft rubber scalp, ball, and small flat disc applicators; also oil can and direction book. Contained in a substantial and attractive leatherette carrying case. Guaranteed for one year. Shipping weight 5 lbs. No. 4827-121. List \$14.50. Net... **\$10.88**

tical, compact, powerful, dependable and durable outfit manufactured. Guaranteed for one year. Switchboard of highest grade Bakelite. Case is solidly constructed and covered with durable leatherette. All metal parts are nickel-plated. Equipment Furnished—For Violet Ray: Surface and Body Electrode. For Vibrator: Soft Rubber Face, Soft Rubber Scalp, Hard Rubber Ball Applicators. For Ozone Generator: One bottle of Ozone Inhalant. For Medical Electricity: Plate Intensifier, 2 Metal Hand-dies, 2 Wood Hand-dies, 2 6-ft. Conducting Cords, and Felt Electrodes. Shipping weight 11 lbs. No. 4833-16. List \$23.50. Net... **\$24.38**



For use on 100 to 120 volt, 60 cycle A.C. only. Vibrations are very rapid and penetrating. Recommended by electro-therapists to be the most suitable and beneficial for all kinds of medical, developing, spinal, facial and scalp treatments. Rubbing, pounding and rotary strokes can be obtained. Case is die cast and of high nickel finish. Sturdy construction throughout. Nothing to get out of order. No oiling. Practically noiseless. Put up in an attractive cardboard box. Size 11"x6"x3 1/2". Furnished with these applicators: Soft rubber face, soft rubber scalp, ball, and soft rubber sponge; also direction book. Shipping weight 5 lbs. No. 4828-1. List \$6.50. Net... **\$4.88**

No. 4834-210. Same construction and equipment as No. 4833-16. Operates on either A.C. or D.C., 110 volts. Furnished with more powerful Vibrator. Shipping weight 13 lbs. List \$42.50. Net... **\$31.88**

IMPORTED GERMAN CAMERAS

Kawee Ultra-Compact Camera

FOR 2 1/4" x 3 1/4" AND 3 1/4" x 4 1/4" SIZE PICTURES



Open View



Closed View

Fits the hip pocket. The greatest advance in camera construction in the past twenty years. The thinnest camera in existence, yet it boasts of the same efficiency generally found on much larger cameras! Weighs only 14 ounces! Thickness, when closed, only 1 1/2"! This camera really fits the pocket! KAWEE is the ideal solution of a real thin pocket-fitting camera without sacrifice of strength and rigidity, producing a large picture and holding the high speed lenses. It is an all-metal camera of unique and patented design. **SUITABLE FOR PLATES AND STANDARD FILM PACKS.** The camera when open is absolutely rigid. Has an extra long rack and pinion extension with leather bellows, rising front, spirit level, collapsible brilliant view finder, two tripod sockets, metal back slide and focusing back. Black seal-leather covered. Fitted with the popular wire finders in addition to the regular finder, not shown in the illustration. Complete with three metal plate holders, one leather covered film pack adapter, and wire release. Film pack required is a standard American size, obtainable the world over! More convenient than roll film! The smaller size camera measures 3 1/4" x 4 1/4" x 1" when closed; the larger one measures 6 1/4" x 4 1/2" x 1 1/4" when closed.

2 1/4" x 3 1/4" (6.5 x 9 cm.) SIZES

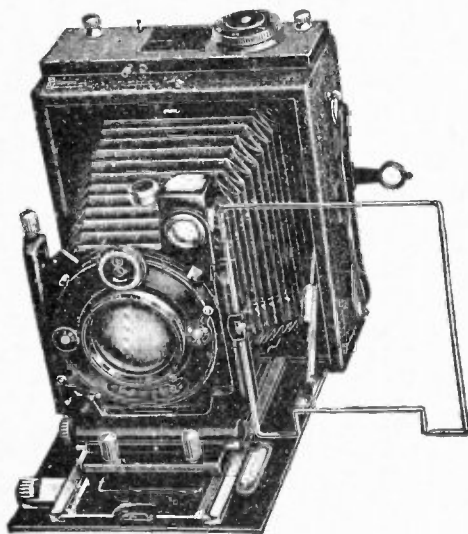
- No. 3802. Fitted with 4 1/4" Hugo Meyer F:4.5 Trioplan lenses in Compur Shutter, including above mentioned equipment. List \$15.00. Net..... **\$33.66**
- No. 3803. Fitted with a Schneider Xenar F:4.5 anastigmat lens in Compur Shutter. List \$50. Net..... **\$35.44**
- No. 3804. Fitted with a Carl Zeiss Tessar F:4.5 anastigmat lens in Compur Shutter. List \$65.00. Net..... **\$44.79**

3 1/4" x 4 1/4" (9 x 12 cm.)

- No. 3805. Fitted with a Carl Zeiss Tessar F:4.5 anastigmat lens in Compur Shutter. List \$75.00. Net..... **\$51.88**
- No. 3806. Fitted with a Schneider Xenar F:4.5 anastigmat lens in Compur Shutter. List \$65.00. Net..... **\$44.79**
- BOTH SIZES ARE TO BE HAD IN DOUBLE EXTENSION MODEL FOR \$4.75 EXTRA.**
- Ideal for Close-Ups, Copying, Portraits, etc.

New Brooks Sport Two-Shutter Camera

Has met with instant and enthusiastic reception from press photographers all over the world.

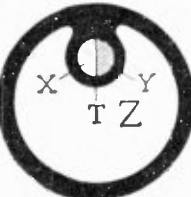
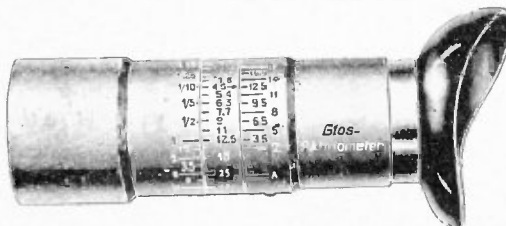


FOR 3 1/4" x 4 1/4" (9 x 12 cm.) PICTURES

What greater recommendation for the serious photographer than that it has the whole-hearted approval of these most exacting workers. For general work as well as speed work it is unexcelled. The features of the Brooks Sport that appeal the most are its focal plane shutter for speeds up to 1/1000 second and the popular Compound shutter for slow snaps and time exposures. Two shutters to depend on instead of one. Double extension bed, wire and brilliant finder, rising, falling and lateral front. It is very light and compact, and a fine example of modern German precision workmanship. Specifications: Weight, 4 lbs.; dimensions, 2 1/4" x 5 1/2" x 6 1/2"; bellows extension, 12".

- No. 3809. Fitted with 15 cm. Schneider Xenar F:3.5 lens, in Compound Shutter, including Focal Plane Shutter, 3 Plate Holders, and film pack adapter. (Uses standard size.) List \$120.00. Net..... **\$83.85**
- No. 3810. Schneider Tele-Xenar F:5.5 Telephoto Lens, in case. For above camera. List \$45.00. Net..... **\$35.40**
- No. 3811. Fitted with 6" Jos. Schneider & Co. Xenar F:3.5 high speed lens, in Compound Shutter, complete with 3 plate holders and film pack adapter. All metal body and answering the same general description as the above camera but **WITHOUT THE FOCAL PLANE SHUTTER** and consequently smaller in bulk and lighter in weight. List \$75.00. Net..... **\$52.65**

The Lios Photo Actinometer



THE CORRECT EXPOSURE AT A GLANCE

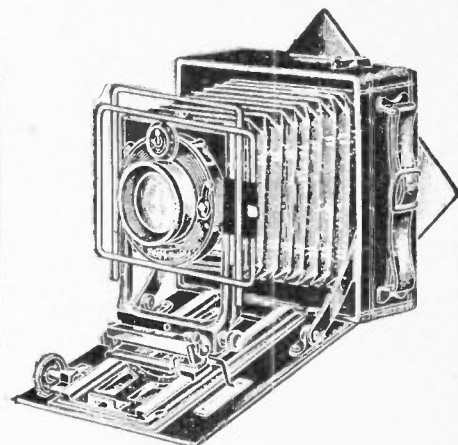
The "One Movement" Meter
Utterly Simple
ABSOLUTELY ACCURATE

A scientifically designed meter that accurately measures the actinic value of light, indoors and outdoors, under all conditions. The Photo model for still cameras is delivered ready set for ordinary emulsions, such as roll film and back; i.e., with the arrow on the middle scale pointing to the H & D scale 820. (Picture above shows Schneider scale; meters now supplied with H & D scale.) It is only necessary to alter these two scales if special emulsions are used. To Use—Look through the eyepiece and turn tube D until the dividing line between the

light and dark blue fields just disappears—and THAT'S ALL. The correct exposure is then found opposite to aperture desired. A booklet is supplied containing detailed instructions and information. Case furnished.

- No. 3800. List \$7.50. Net..... **\$5.95**
- No. 3801. An equally simple model for motion picture work. List \$8.00. Net..... **\$6.39**

The Linhof Precision Cameras



Are the best for the serious amateur and, in large sizes, for the professional photographer. They are of the finest German precision workmanship, body made entirely of special aluminum, and great stress is laid on the perfect construction and mechanism of all parts. The body, base board, slide and front are made of special aluminum alloy. Swinging U front working on very broad guides, extremely rigid, drop bed. Triple extension. Mechanically controlled rising, falling and lateral movements. Automatic infinity stop. Lensboard easily removable, enabling different lenses to be used. Revolving back, focusing screen with spring frame. Wire frame view finder and spirit level. Covering of the body and bellows is of finest black leather. Such cameras, when equipped with the new Schneider telephoto lenses, make the last word in a high grade outfit for the serious worker. Use standard size film packs and plates.

PRICES INCLUDING 3 HOLDERS AND FILM PACK ADAPTER:

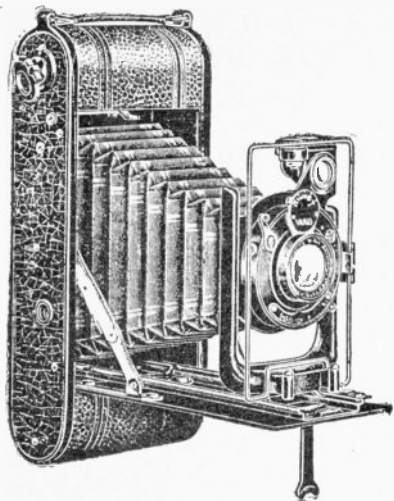
- No. 3820. 2 1/4" x 3 1/4" Square Model with Schneider Xenar F:3.5 lens, in Compur Shutter. List \$110.00. Net... **\$76.45**
- No. 3821. 2 1/4" x 3 1/4" Square Model with Zeiss Tessar F:4.5 anastigmat lens, foc. 12 cm., in Compur Shutter. List \$110.00. Net..... **76.45**
- No. 3822. Schneider Tele-Xenar F:5.5 Telephoto lens for above. List \$35.00. Net..... **23.80**
- No. 3823. 3 1/4" x 4 1/4" Square Model with Xenar F:3.5 anastigmat lens, foc. 15 cm., in Compur Shutter. List \$125.00. Net..... **90.95**
- No. 3824. 3 1/4" x 4 1/4" Square Model with Zeiss Tessar F:4.5 anastigmat lens, foc. 15 cm., in Compur Shutter. List \$125.00. Net..... **90.95**
- No. 3825. Schneider Tele-Xenar F:5.5 Telephoto lens for above. List \$39.00. Net..... **30.33**
- No. 3826. 4" x 5" Square Model with Xenar F:3.5 anastigmat lens, foc. 16.5 cm., in Compur Shutter. List \$150.00. Net..... **111.23**
- No. 3827. 4" x 5" Square Model with Zeiss Tessar F:4.5 anastigmat lens, foc. 18 cm., in Compur Shutter. List \$150.00. Net..... **111.23**
- No. 3828. Schneider Tele-Xenar F:5.5 Telephoto lens for above. List \$50.00. Net..... **40.25**
- No. 3829. 5" x 7" Square Model with Zeiss Tessar F:4.5 anastigmat lens, foc. 21 cm., in Compur Shutter. List \$200.00. Net..... **146.75**
- No. 3830. Schneider Tele-Xenar F:5.5 Telephoto lens for above. List \$70.00. Net..... **51.65**

(All Telephoto lenses are adapted to screw into the shutter. The price includes fitting, leather case and a diaphragm scale suitable for using with both lenses.)

NOTE

All of these cameras use Standard Kodak or other Film Packs (the Roll Film Model uses Standard Kodak or other rolls) obtainable the world over.

Certonet Imported Roll Film Cameras



Designed to overcome competition on every market. Incorporating all modern improvements expected in the finest imported cameras, such as wire and brilliant glass finder, all-metal frame rigidly constructed, hinge back, detachable spool for convenience in loading, leatherette bellows, focusing infinity to 6 ft., two bushings for tripod, etc. For the first time in history a camera of this type has been fitted with an imported highly corrected anastigmat lens working at the extremely high speed of f4.5, more than four times as fast as lenses generally supplied on cameras of this price. The shutter is the well known Vario automatic, permitting snap shots at various speeds, as well as time and bulb exposures.

No. 3807-1A. For $2\frac{1}{4}'' \times 3\frac{1}{4}''$ size picture, equipped as described. **\$18.75**

List \$30.00. Net.....

No. 3808-2B. For $2\frac{1}{4}'' \times 3\frac{1}{4}''$ size picture. As above, but not including wire **\$15.45**

List \$25.00. Net.....

All cameras listed take standard Kodak roll films, film packs and plates.

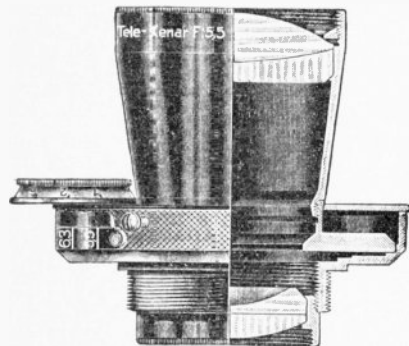
Speeds of Compound and Compur Shutters

With the smaller size lenses, the speeds of either of these world renowned shutters are as follows:

T — B — 1 — $\frac{1}{2}$ — $\frac{1}{5}$ — $\frac{1}{10}$
1/25 — 1/50 — 1/100 — 1/200
1/250 — 1/300th of a second.

With the larger size lenses, these shutters only are supplied with a maximum speed of 1/200th of a second.

Fast Telephoto Lenses



Cross Sectional View

Tele-Xenar F:5.5

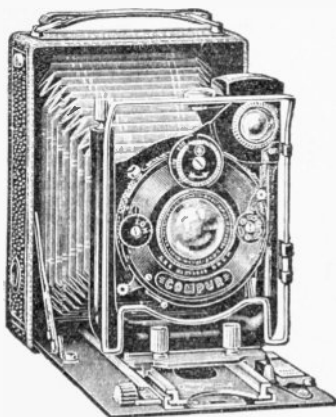
MADE BY JOS. SCHNEIDER & CO. FOR SPORTS, PRESS PHOTOGRAPHY AND PORTRAITURE

The Tele-Xenar is of the fixed magnification type, beautifully corrected over a large field and with a speed which makes practical its extensive use, even under bad light conditions. The press man can use it for baseball and football and tennis shots at a distance. The amateur will find it a wonderful lens for snapshots, where subjects are unaware of picture taking. The naturalist and bird photographer who cannot get close up can secure remarkable shots. One of its novel features is its use as a portrait lens, giving long focus perspective on a short bellows camera. Will interchange with the regular Xenar of the same approximate extension. Simply unscrew the cells and replace them by Tele-Xenar. The picture obtained is twice as big in linear size, and you expose just like any other anastigmat. On movie cameras it gives large images from a distance and much better perspective on close-ups. A focusing mount is a necessity on such fittings.

	Focal Length	Covers Plate
No. 3831.	$7\frac{1}{2}''$	$2\frac{1}{2}'' \times 3\frac{1}{4}''$
No. 3832.	$9\frac{1}{2}''$	$2\frac{1}{2}'' \times 3\frac{1}{4}''$
No. 3833.	$10\frac{5}{8}''$	$4'' \times 5''$
No. 3834.	$11\frac{3}{4}''$	$5'' \times 6''$
No. 3835.	$14\frac{1}{4}''$	$5'' \times 7''$

	In Cells	In Normal Mount	In Compound Shutter
No. 3831.	\$24.45	\$25.88	\$34.80
No. 3832.	32.45	37.63	45.30
No. 3833.	36.75	42.88	51.45
No. 3834.	42.24	51.45	58.77
No. 3835.	53.55	66.30	72.60

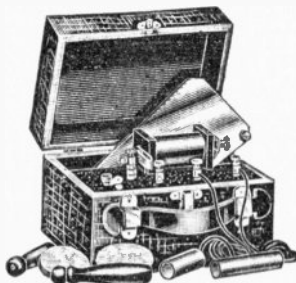
Glunz Camera



$3\frac{1}{4}'' \times 4\frac{1}{4}''$ (9 x 12 cm.)

The latest model in this line of high grade imported cameras. Has all modern improvements, wire and brilliant finder, double extension, all metal body, etc. Fitted with the new high speed Schneider Tele-Xenar f 5.5 Telephoto Lens. Made interchangeable with the regular lens. It makes the ideal outfit for the advanced amateur or the photographer who wants a compact outfit capable of doing the most exacting work. This new telephoto lens is easily fitted to most hand and Graflex cameras and fills a long felt want.

Elco Medical Battery



This outfit is a complete Faradic Battery giving a very strong current which can be regulated by the shield, so as to produce a very mild current. It is operated on one dry cell No. 5. It gives the primary, secondary and combined primary and secondary current. Furnished with one Foot Plate and one pair of Felt Electrodes, one pair of wood handles, one pair of metal handles and one pair of 4 ft. conducting cords, also direction book for taking treatments. Put up in a substantial leatherette case, size $8'' \times 5\frac{3}{4}'' \times 5\frac{1}{4}''$, with carrying handle. Shipping weight 6 lbs.

No. 4832-20. List \$8.50. Net..... **\$6.38**

For Plates and Film Packs, Film Pack Holder Supplied.
No. 3836. Fitted with Schneider Radionax f4.5 lens in Compur. **\$33.45**

List \$50.00. Net.....

No. 3837. Camera complete, with Zeiss Tessar f4.5 lens. **\$45.85**

List \$65.00. Net.....

No. 3838. Same as No. 3837, including Schneider Tele-Xenar lens. **\$73.65**

List \$105.00. Net.....

Genuine Violet Ray Machines

Here are the greatest bargains ever offered in Violet Rays. Genuine, guaranteed health instruments. Same as used by leading doctors, hospitals and sanatoriums.



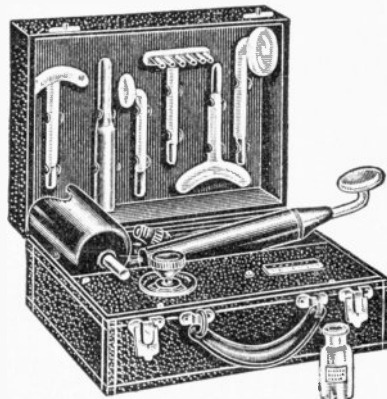
Complete Violet Ray with 6 Electrodes. A sturdy, strong and efficient instrument of regular heavy duty professional design. May be used for all medical and beauty purposes. Besides, it can be used for scalp saturator, throat, eye, spinal, face and general treatments. Usually offered by others as at \$18.00 to \$25.00 value. Furnished complete with a Surface, Comb Rake, Throat Electrode, Sensitive and Eye Electrode, Spinal Electrode, Metal Saturator Electrode; also direction book.

No. 4829-70. List \$12.50. Net..... **\$9.38**



Complete Violet Ray with 4 Electrodes. A splendid instrument recommended for light medical and beauty treatments. Usually offered by others as at \$10.50 to \$15.00 value. Furnished complete with the following electrodes: Surface, Comb Rake, Spinal, Metal Saturator; also direction book.

No. 4830-71. List \$7.85. Net..... **\$6.14**



Complete Violet Ray with 6 Electrodes and Ozone Generator. An instrument that can be used to treat scores of acute and chronic ailments in a satisfactory and speedy manner. Quick relief for all respiratory ailments as hay fever, catarrh, asthma, colds, bronchitis, etc. A super heavy duty professional type. Usually offered by others as at \$30.00 to \$35.00 value. Furnished complete with the following electrodes: Surface, Comb Rake, Throat, Sensitive and Eye, Spinal, Metal Saturator, Ozone Generator and Inhalant Solution; also direction book.

No. 4831-72. List \$18.50. Net.... **\$13.88**

Cameras Exchanged

If you at present own a camera and would like to purchase one of the modern, highly efficient cameras listed in this catalogue, and wish to give your present camera as part payment thereof, please proceed as follows: Return to us via Insured Parcel Post, or prepaid express, the camera you wish to trade. On receipt of same we will examine it and inform you just how much allowance we can make on same towards your purchase of one of our new cameras. Should our offer not interest you, your camera shall be immediately returned to you in the same condition as received.

EASTMAN KODAK CO. HAWKEYE CAMERAS

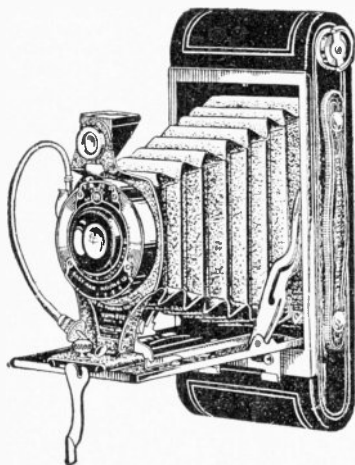
Hawkeye Roll Film $2\frac{1}{4}" \times 3\frac{1}{4}"$ Model C Box Camera



Embodies the scientific principle that have made Kodak products famous. It is compactly and durably constructed, finished in seal-grain imitation leather, and has neat fittings. It is equipped with view finder, tested lens and automatic shutter. Average negatives will yield good enlargements. There is a genuine leather handle for easy carrying. The loading is easily done in daylight with regular Kodak film in the familiar yellow box that can be purchased anywhere in the world. Overall dimensions: $4" \times 1\frac{3}{8}" \times 2\frac{3}{4}"$. Aim the camera and press the lever—that's all there is to it.

No. 3850-2C. Your Net Cost..... **\$1.08**

Folding Hawkeye Special Roll Film Cameras



Lens Equipment on these Special Models consists of the World Renowned Kodak Anastigmat f6.3!

This super-speed lens is so fast that you don't have to wait for sunlight. Whether the day is bright or cloudy, whether it's early morning or almost sundown, the speed of this lens gets the picture. Paired with the Kodak Anastigmat is the carefully constructed Kodak shutter. It gives you a choice of snapshot speeds besides the usual bulb and time actions for longer exposures. A worm screw at your finger tips makes focusing unusually quick and easy. In short, this camera has fittings of a caliber to correspond with its chief feature—the lens. And the finish reflects quality as well. Trim, black, imitation leather covers the body. Gleaming black enamel and brilliant nickel set off the appearance of the camera whether it's open or closed. But you can appreciate its good looks only by seeing it—and you can appreciate its capability only by using it. Brilliant reversible finder. Adjustable iris scale. Uses Standard Kodak Roll Films.

For $2\frac{1}{4}" \times 3\frac{1}{4}"$ Pictures. **\$12.80**
No. 3861-2-S. Your Net Cost...

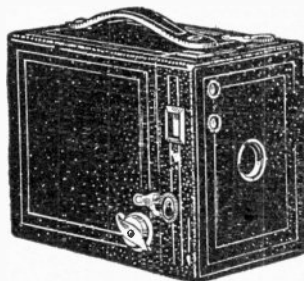
For $2\frac{1}{2}" \times 4\frac{1}{4}"$ Pictures. **\$13.60**
No. 3862-2A-S. Your Net Cost...

For $3\frac{1}{4}" \times 5\frac{1}{2}"$ Pictures. **\$17.60**
No. 3863-3A-S. Your Net Cost...

NOTICE

A year's subscription to "Kodakery," a splendidly written and illustrated magazine of great interest to every camera owner, selling regularly for 5c a copy or 60c a year, is included FREE WITH EACH CAMERA.

Hawkeye Roll Film No. 2 and 2A Box Cameras



Both these cameras are made by Kodak workmen in Kodak shops. They differ only in size, the No. 2 making a picture $2\frac{1}{4}" \times 3\frac{1}{4}"$; the No. 2A, $2\frac{1}{2}" \times 4\frac{1}{4}"$. Their equipment includes an automatic shutter and TWO finders, one for vertical and the other for horizontal views. The lenses are carefully tested before they leave the factory. Uses standard roll film. Both models are covered with seal-grain imitation leather; the fittings are in nickel and black enamel. With each camera is included a year's free subscription to "Kodakery," a well-written and interesting monthly magazine for amateur photographers that sells regularly at sixty cents a year. Size: $1" \times 4\frac{1}{2}" \times 2\frac{3}{4}"$.

No. 3851-2. Your Net Cost..... **\$1.80**

No. 3852-2A. Your Net Cost..... **\$2.55**

Single and Double Lens

Double lenses (rapid rectilinear type) are conceded to be superior to single lenses (meniscus achromatic type). They admit a greater amount of light, and thus are of greater advantage when light conditions are poor or when making rapid, instantaneous pictures. ANASTIGMAT LENSES ARE SUPERIOR TO RAPID RECTILINEAR LENSES.

Kodak Roll Film

	Size	Exposures	Your Net Cost
No. 3864-127.	$1\frac{1}{2}" \times 2\frac{1}{2}"$	8	\$0.21
No. 3865-128.	$2\frac{1}{4}" \times 3\frac{1}{4}"$	6	0.21
No. 3866-116.	$2\frac{1}{2}" \times 4\frac{1}{4}"$	6	0.26
No. 3867-122.	$3\frac{1}{4}" \times 5\frac{1}{2}"$	6	0.47

Kodak Film Packs

	Size	Exposures	Your Net Cost
No. 3868-520.	$2\frac{1}{4}" \times 3\frac{1}{4}"$	12	\$0.30
No. 3869-511.	$3\frac{1}{2}" \times 4\frac{1}{2}"$	12	0.85
(For 9x12 cm. Cameras)			
No. 3870-523.	$4" \times 5"$	12	0.91
No. 3871-515.	$5" \times 7"$	12	1.62

Kodak Imitation Leather Camera Carrying Cases

	Your Net Cost
No. 3872. For $1\frac{1}{2}" \times 2\frac{1}{2}"$ Picture Cameras	\$1.13
No. 3873. For $2\frac{1}{4}" \times 3\frac{1}{4}"$ Picture Cameras	1.35
No. 3874. For $2\frac{1}{2}" \times 4\frac{1}{4}"$ Picture Cameras	1.44
No. 3875. For $3\frac{1}{4}" \times 5\frac{1}{2}"$ Picture Cameras	1.62

Kodak Portrait Attachments

Snap on over present lens equipment—enables you to take close up portraits busts, heads, etc.

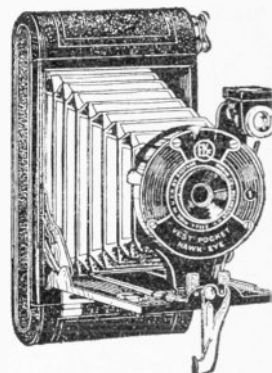
	Your Net Cost
No. 3876. For Vest Pocket Cameras ($1\frac{1}{2}" \times 2\frac{1}{2}"$)	\$0.68
No. 3877. For No. 2 Cameras ($2\frac{1}{4}" \times 3\frac{1}{4}"$)	0.68
No. 3878. For No. 2A Cameras ($2\frac{1}{2}" \times 4\frac{1}{4}"$)	0.68
No. 3879. For No. 3A Cameras ($3\frac{1}{4}" \times 5\frac{1}{2}"$)	0.68

Developing, Printing, Enlarging and Copying

One of New York's largest and finest photograph finishing laboratories has been engaged to handle our work. Write to us for our charges for this class of work and detailed information!

Hawkeye Vest Pocket Roll Film Camera

FOR PICTURES $1\frac{1}{2}" \times 2\frac{1}{2}"$



A Real Eastman Camera

Is equipped with an Eastman-made lens and automatic shutter adjustable for snapshots and time exposures. The shutter opening is adjusted to the light by turning a milled disk. The brilliant finder is reversible for either vertical or horizontal views. Focus is "fixed"; draw out the bellows and the camera is ready to snap for any distance. Impossible to make a mistake. A tripod socket and daylight loading

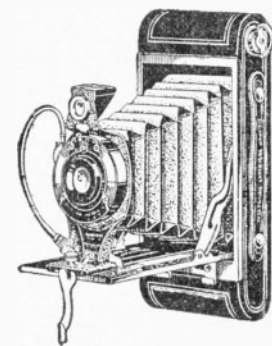
with Kodak roll film are other features. The body is covered with black imitation leather handsomely embossed. Metal parts are finished in nickel and black lacquer. Conveniently fits your vest pocket. When closed this exceptionally efficient camera measures $5" \times 1\frac{1}{2}" \times 1\frac{1}{4}"$.

No. 3853. WITH SINGLE LENS. **\$3.99**
Your Net Cost.....

No. 3851. WITH DOUBLE LENS. **\$5.99**
Your Net Cost.....

A year's subscription to "Kodakery," a splendidly written and illustrated magazine of great interest to every camera owner, selling regularly for 5c a copy or 60c a year, is included FREE WITH EACH CAMERA.

Hawkeye Model B Folding Roll Film Cameras



This camera can be had with either a single or a double lens, both Eastman made. The shutter is the dependable Kodak. It provides for bulb and time exposures and for snapshot speeds of 1/25th and 1/50th second. A simple scale on the bellows of the camera aids accurate focusing. The brilliant finder can be quickly set for horizontal or vertical pictures. Two tripod sockets, finger and cable release—these are other details of this complete little picture maker. The

finish—black imitation leather—is set off by nickel and black lacquer trimmings. You can be proud of the appearance of this camera as well as of the pictures it will make for you. Free—One year's subscription to "Kodakery" included! Uses Standard Kodak Roll Films.

FOR $2\frac{1}{4}" \times 3\frac{1}{4}"$ PICTURES

No. 3855-2. WITH SINGLE LENS. **\$6.40**
Your Net Cost.....

No. 3856-2. WITH DOUBLE LENS. **\$7.98**
Your Net Cost.....

FOR $2\frac{1}{2}" \times 4\frac{1}{4}"$ PICTURES

No. 3857-2A. WITH SINGLE LENS. **\$7.20**
Your Net Cost.....

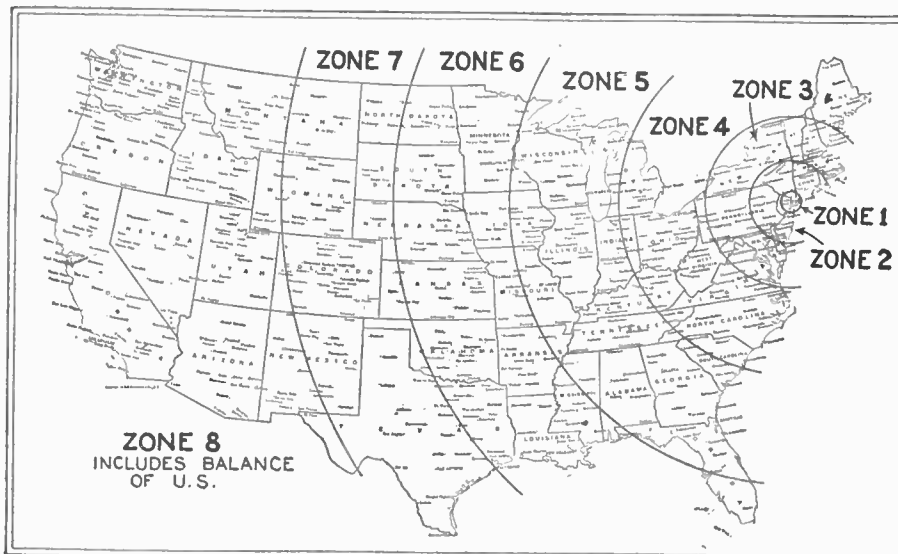
No. 3858-2A. WITH DOUBLE LENS. **\$8.80**
Your Net Cost.....

FOR $3\frac{1}{4}" \times 5\frac{1}{2}"$ PICTURES

No. 3859-3A. WITH SINGLE LENS. **\$10.80**
Your Net Cost.....

No. 3860-3A. WITH DOUBLE LENS. **\$12.80**
Your Net Cost.....

Shipping Information—Parcel Post Zone Map and Rates



Add 1c for each additional pound or fraction of a pound if the weight of your package exceeds 20 pounds, if you live in the 1st or 2nd zone. 2c extra if you live in the 3rd zone, 4c extra if you live in the 4th zone, 6c extra if you live in the 5th zone, 8c extra if you live in the 6th zone, 10c extra if you live in the 7th zone, 12c extra if you live in the 8th zone.

NOTE: Rate on packages weighing less than 8 ozs. is 1½c for each 2 ounces. Packages weighing over ½ lb. (8 ozs.) and not more than 1 lb., take 1 lb. rate. Packages weighing over 1 lb. and less than 2 lbs., take the 2 lb. rate, etc.

Your remittance must include a sufficient amount to prepay parcel post transportation charges. If you wish us to insure the shipments kindly enclose the necessary fee. Parcel Post shipments which are not insured are sent at purchaser's risk. If you do not enclose transportation charges, shipment will be made express collect. All shipments made via express are automatically insured against theft and damage. You are refunded at once any excessive amount you may have sent us for parcel post charges.

Shipments to foreign countries are only made when all transportation and consular charges are included with remittance. Inquiry should be made in your local post office as to parcel post weight and overall size limit. Heavier shipments must then be forwarded via Ocean Freight, which charges must be prepaid.

RETURNED GOODS.—We are at all times ready to adjust any just claim of dissatisfaction with our goods in your part, or, make an exchange—but we must request you not to return such goods without our written authority. Such returned goods must be in the original containers, and delivery charges must be prepaid.

OUR LONG DISTANCE TELEPHONE NUMBER IS BARCLAY 9247

CABLE ADDRESS: RASCORAD, N. Y.

Packages Weighing from 8 ozs. (½ lb.) to 20 lbs.

	ZONES 1-2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8
WEIGHT IN POUNDS	Up to 150 Miles from New York	150 to 300 Miles from New York	300 to 600 Miles from New York	600 to 1000 Miles from New York	1000 to 1400 Miles from New York	1400 to 1800 Miles from New York	Over 1800 Miles from New York
1	7c	8c	8c	9c	10c	12c	13c
2	8c	10c	12c	15c	18c	22c	25c
3	9c	12c	16c	21c	26c	32c	37c
4	10c	14c	20c	27c	34c	42c	49c
5	11c	16c	24c	33c	42c	52c	61c
6	12c	18c	28c	39c	50c	62c	73c
7	13c	20c	32c	45c	58c	72c	85c
8	14c	22c	36c	51c	66c	82c	97c
9	15c	24c	40c	57c	74c	92c	1.09
10	16c	26c	44c	63c	82c	1.02	1.21
11	17c	28c	48c	69c	90c	1.12	1.33
12	18c	30c	52c	75c	98c	1.22	1.45
13	19c	32c	56c	81c	1.06	1.32	1.57
14	20c	34c	60c	87c	1.14	1.42	1.69
15	21c	36c	64c	93c	1.22	1.52	1.81
16	22c	38c	68c	99c	1.30	1.62	1.93
17	23c	40c	72c	1.05	1.38	1.72	2.05
18	24c	42c	76c	1.11	1.46	1.82	2.17
19	25c	44c	80c	1.17	1.54	1.92	2.29
20	26c	46c	84c	1.23	1.62	2.02	2.41

We realize that it is difficult for our customers to determine with absolute accuracy the AMOUNT OF PARCEL POST TRANSPORTATION CHARGES to include with your remittance. We have accordingly installed the following EXCLUSIVE SYSTEM FOR OUR MUTUAL CONVENIENCE: (Here again RASCO proves its well deserved leadership in the Radio Trade by being THE FIRST RADIO MAIL ORDER HOUSE TO INSTALL THIS SYSTEM!)

It is suggested you include an EXCESSIVE postage allowance for transportation charges, for if your allowance is not sufficient we are compelled to HOLD UP SHIPMENT, notifying you accordingly. Presuming your postage allowance is \$0.50 and the actual amount required is only \$0.39, YOU WILL RECEIVE A CREDIT SLIP SHOW-

NOTE

ING WE ARE HOLDING TO YOUR CREDIT THE SUM OF \$0.11. You can then return this slip for CASH REFUND or the credit can be APPLIED TOWARDS ANY FUTURE PURCHASE! This system operates like clock-work—IF THERE IS DUE YOU EVEN ONE CENT YOU ARE LIKEWISE NOTIFIED! Incidentally, you are also notified if any items you have ordered are "BACK ORDERED" (a rarity!); if any items can no longer be supplied (if they are no longer manufactured), and if you have sent us AN EXCESSIVE REMITTANCE EXCLUSIVE OF POSTAGE ALLOWANCE. RASCO'S SQUARE DEAL POLICIES ARE THE VERY BACKBONE OF THIS ORGANIZATION! IT IS A POSITIVE PLEASURE TO ORDER FROM RASCO BECAUSE OF THIS SYSTEM WE HAVE INSTALLED!

RASCO 450 Volt Power Supply and "ABC" Pack

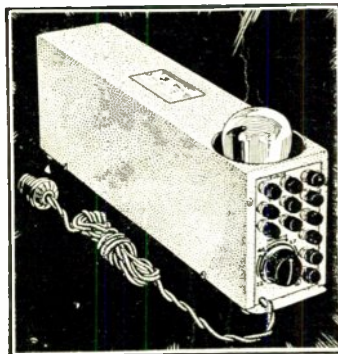
For 210 and 250 Type Power Amplifying Tubes

Modernizes Any Radio Receiver

The universal quest of every radio set owner is to improve the tonal qualities of his receiver. Here is EXPERT ADVICE. First: Be sure the audio transformers in your set are the very best quality obtainable, not any particular make, necessarily. Second: Apply at least 450 volts to the output power tube and speaker, and use either a 210 or a 250 tube for this purpose, preferably the latter. Third: Install this Power Supply, for all you have to do is to insert a special adapter in the last tube socket, and then insert the power tube in the adapter.

Supplies All Necessary "B" Voltages

Using one type 281 rectifier tube in this eliminator, all "B" voltages are supplied for any receiver at 150, 135, 90, 22 and 22.90 variable, as well as "A" and "C" voltages for a type 210 or 250 power tube. Any receiver using A.C. tubes may derive all "A," "B" and "C" power from the RASCO POWER SUPPLY, including all "B" voltages as above and 4 amperes at 1½ volts, 3.5 amperes at 2½ volts, 2½ amperes at 1½ volts and all necessary "C" bias for the A.C. tubes. And, should your receiver be a D.C. battery model, you can convert it into an all-electric A.C. set, so that it will be able to take full advantage of the perfect A B C power this device offers.



Simple Installation

Mind you, no changes are at all necessary in the set wiring, unless as above stated. WIRED BY EXPERTS. READY FOR IMMEDIATE USE! NOT A KIT, BUT A FACTORY ASSEMBLED ELIMINATOR.

Superb Tone and Ample Volume

There is volume enough produced by this device to even fill a small auditorium, but at the same time, there is no trace of distortion! For very little outlay of money, and with no trouble at all, you can make your present receiver perform on an even par with any \$300.00 modern receiver. Need we say any more? Could we offer any more?

Extreme Compactness

The crackle-finished metal case, 3 5/16" wide, 5 1/4" high over mounting feet, and 17" long (8 3/4" high over tubes), fits neatly in any average receiver cabinet. Shipping weight 28 lbs.

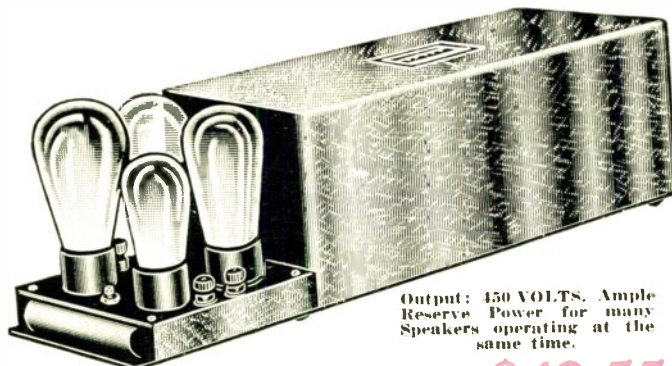
No. 6728. FACTORY ASSEMBLED. LESS 281 TYPE RECTIFIER TUBE. List \$58.00. **\$28.25**
Net

No. 6729. Same, but equipped with an additional winding to furnish "A" current for 10 Arcturus 15-volt A.C. Tubes. **\$32.25**
List \$65.00. Net

RASCO SUPER POWER AMPLIFIER

EMPLOYING 2 STAGES AUDIO FREQUENCY AMPLIFICATION FOR 250 TYPE TUBE PUBLIC ADDRESS AMPLIFIER SYSTEMS

An idea of the tremendous volume afforded by this MAMMOTH AMPLIFIER can be gained by realizing that it is ideal for theatres seating approximately 3,000 people! Thus, it is especially suitable to be used in conjunction with "sound effect" motion pictures. It is also equally suitable to all amplification and acoustic requirements of dance halls, schools, lectures, hospitals, hotels, auditoriums, outdoor gatherings, etc., etc. The gigantic power is at all times within control—for that matter it can be used in any home, as the volume can be regulated down to a whisper! But most important of all, the QUALITY OF REPRODUCTION IS AS NEAR PERFECT AND LIFE LIKE AS POSSIBLE! ITS POSSIBILITIES CAN BE SUMMED UP IN THREE WORDS: ABSOLUTELY DISTORTIONLESS VOLUME!!



Output: 450 VOLTS. Ample Reserve Power for many Speakers operating at the same time.

No. 5270. COMPLETELY ASSEMBLED. LESS ALL TUBES. List \$125.00. Your Net Cost. **\$49.55**

Completely Wired—Ready for Immediate Operation

Not alone was this sensational instrument designed by the WORLD RENOWNED SILVER-MARSHALL ENGINEERS, but it is also BUILT IN THEIR LABORATORIES an assurance to you of unflinching, always pleasing performance. When you remove it from its shipping crate, all you need do is to insert the necessary tubes, PLUG INTO ANY 60 CYCLE A.C. 110 VOLT ELECTRIC SOCKET and connect the input binding posts to either a radio set tuner output, a phonograph pick-up, or a "phono-movie" arrangement.

Tubes Required

The Super-Power Amplifier is a complete, self contained unit requiring only to be plugged into the electric light socket. Supplies all necessary A, B and C power to its own tubes. Tubes not included. Operation requires one type X250 power tube, one X226 A.C. tube and two type X281 rectifier tubes. Housed in an attractive brown crystalline finish metal cabinet. Shipped express collect.

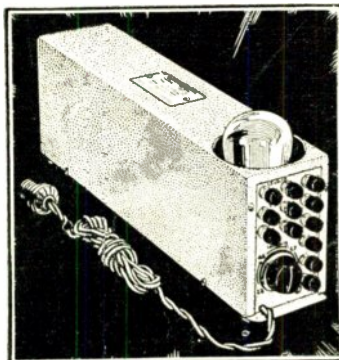
RASCO 180 Volt Super "ABC" Power Supply

For 171A Power Amplifying Tubes

We feature this eliminator because we can offer it to our trade at a drastically reduced price, and at the same time assure you it rivals the performance of much more expensive eliminators of its type. In reality, there is a logical reason for its low price: MASSIVE PRODUCTION AND HUGE SALES—THE ETERNAL LAW OF SUPPLY AND DEMAND.

Used as a Conventional "B" Eliminator

It is a complete receiver "B" unit with fixed voltage taps for 22, 90, 135 and 180 volts, and one variable voltage tap, adjustable from 22 to 90 volts. A total of 60 m.a. may be drawn at these voltages. Will operate radio receivers of from one to ten tubes, with one or two 171A type power tubes. It is one of the very few units with sufficiently accurate voltage adjustments for safe use with the new UX222 screen grid tubes. One UX280 rectifier tube is required for operation.



Used as an "ABC" Power Unit for Any All-Electric A.C. Set

In addition to the above, this eliminator will deliver 1.5 volts at 4 amperes, 2.25 volts at 3.5 amperes and 5 volts at 1½ ampere; for four to five 226 type, two 227 type and two 112A or 171A type power tubes. For A.C. tube equipped sets, this power device furnishes all A, B and C power. If your present receiver is a D.C. battery model, a data sheet furnished with this device will show you how to re-wire it, so that you can use A.C. tubes, and thus make of it an All-Electric A.C. Set. All housed in an attractive brown crystalline finished steel case, 17" long over mounting feet, 3 5/16" wide and 5 1/4" high—a convenient size to fit in a console cabinet, either behind or below the set itself. No. 6731. COMPLETELY ASSEMBLED BY

FACTORY EXPERTS. List \$46.00. (Less 280 Rectifier Tube.) Net. **\$21.45**

Shipping weight 14 lbs.

NOTICE

We will shortly be able to supply this type eliminator suitable for the NEW 171A TYPE AMPLIFIER TUBES.

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HUGO GERNSBACK, Editor
VOL. 1, NO. 1
RADIO-CRAFT
JUNE

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