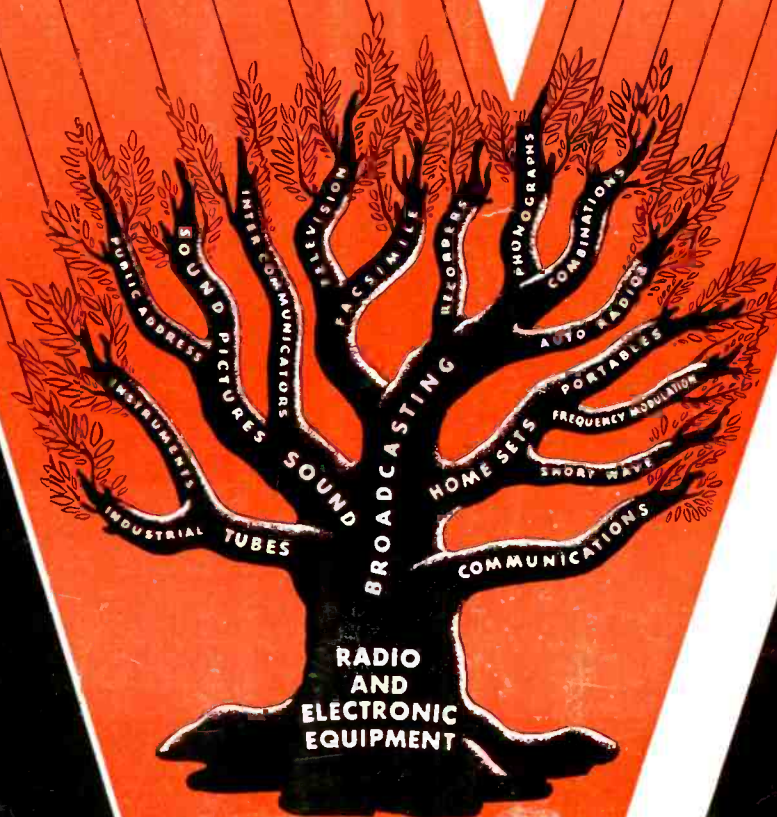


# RADIO *Retailing* TODAY



"Victory" Parts Lines  
Soon, for  
Civilian Receivers

Seventh Annual  
1943-44  
Radio Year Book and

TRADE DIRECTORY  
ISSUE

MARCH



# **IMPORTANT NOTICE** **to Radio Service Engineers,** **Dealers and Hams** **Who Are Entering the Service** **of Our Armed Forces**



A critical shortage of radio test equipment is seriously handicapping repair work in the civilian radio field.

Do not store your radio test equipment for the duration. It will only deteriorate and become obsolete.

Be patriotic. Sell your meters, signal generators and other test equipment so that it will be able to function efficiently where it will do the most good.

Now is the time when your test equipment will bring a fair price, and the money you receive, invested in War Bonds, will help you when the Victory comes.

If you do not know some one who needs your test equipment, list your inventory with your Mallory distributor. He will help you dispose of it to real advantage.

If you do not know his name, get in touch with us.

**P. R. MALLORY & CO., Inc., INDIANAPOLIS, INDIANA**

P. R. MALLORY & CO. Inc.  
**MALLORY**



**Approved Precision Products**





# Radio Noise SABOTAGES COMMUNICATIONS unless...

Like so many demons, the crashes and crackles of unwanted radio noise can play havoc with communications. They blot out words—vital words broadcast from plane to plane, from ship to ship, from command car to jeep or tank. They endanger the lives of fighting men—they sabotage communications—*unless* the proper suppression filter system is installed.

Solar Elim-O-Stats suppress interference *right where it starts*. They absorb interference from generators, motors, contacts and other sources. Thousands of these compact filters protect the lives of our land, sea and air fighters. They prevent the blotting out of vital communications in radio-directed combat.

Pioneers in capacitor manufacture and electronic research, Solar engineers probe the rapidly-expanding future of radio development. In post-victory cars, ships and planes, Solar war-proven Capacitors and Elim-O-Stats will safeguard civilian communications, just as they are safeguarding military operations today. Solar Manufacturing Corporation, Bayonne, New Jersey.



Solar

SOLAR



ELIM-O-STAT



3717

MAKERS OF RADIO NOISE SUPPRESSION FILTERS AND CAPACITORS

# THE FIRST WAR YEAR AT CBS...for the record

DECEMBER 7, 1941...  
TO DECEMBER 7, 1942

With the attack on Pearl Harbor the Columbia Broadcasting System dedicated itself to the single first task of making radio serve the cause of victory.

What CBS has achieved in this high purpose, as measured by the first full year of the war, is summarized concisely on these pages.

CBS believes that all who are interested in radio will honor this record.

In the first full year of America's participation in the war, the Columbia Broadcasting System devoted to the war effort...

**over 36% of its total network operating hours...**

The Columbia Broadcasting System communicated to the American people...

**6,471 war programs**

**3,723 war announcements**

**4,158 war news broadcasts...**



These are striking totals. Yet the figures themselves give too little hint of the ingenuity, planning and labor that made these thousands of war-effort broadcasts possible. They cannot speak for the color, the variety, nor the way in which these broadcasts were keyed to 124 different formal war enterprises, as well as to countless less formal organizations or projects. Each of the 116 CBS stations played its individual—as well as its collective—part in this effort, with initiative and zeal becoming to a patriot.

Notable among these CBS war broadcasts were such distinguished and special war-enterprise programs as...

**An American in England**  
**Calling Pan-America**  
**The Commandos**  
**F. O. B. Detroit**  
**Hello Americans**  
**Hello from Hawaii**  
**Man Behind the Gun**

**The Nature of the Enemy**  
**Report to the Nation**  
**Spirit of '42**  
**Soldiers With Wings**  
**They Live Forever**  
**The 22nd Letter**  
**Womanpower**

## THE COLUMBIA BROADCASTING SYSTEM





## Written in the Sky

# A new world of wonders, through ELECTRONICS

From the very beginning, Thordarson engineers recognized this amazing industry as a new challenge to their imaginations and a new opportunity to achieve.

As a result, Thordarson developments in the field of electronics are today far advanced... and they bear the same hall-mark of superiority which is a part of every Thordarson accomplishment...

When the propitious moment arrives, the tremendous scope of our research in electronics will be self evident!



**THORDARSON**  
ELECTRIC MFG. COMPANY  
500 WEST HURON STREET, CHICAGO, ILL.

*Transformer Specialists Since 1895*

## RADIO *Retailing* TODAY

**Trade Directory Issue**  
**MARCH, 1943**

*featuring*

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NEW YORK

# PHILCO MEN AND WOMEN WIN WHITE STAR AWARD FOR ARMY-NAVY "E" FLAG!



"....The White Star, which the renewal adds to your Army-Navy Production Award Flag, is the symbol of appreciation from our Armed Forces for your continued and determined effort and patriotism."

(signed) Robert P. Patterson, Under Secretary of War

SIX MONTHS AGO, the Army and Navy honored the men and women of Philco with the "E" Flag for outstanding achievement in the production of war equipment. In accepting the award, they pledged themselves to even greater achievements to come.


Today, that pledge is fulfilled! During the last six months, Philco soldiers of production exceeded the records that won their first awards. Their research laboratories and production lines have produced miracles of electronic science, equipping our planes, tanks and ships with the eyes and ears of modern, mechanized warfare. And today,

the men and women of Philco are among the first in the nation to win the right to fly the Army-Navy "E" Flag with the *added* White Star!

New ideas and techniques, created in the Philco laboratories and production lines, have enabled Philco to serve the fighting forces of the nation with honor. After Victory, Philco leadership will serve the homes of the nation again in thrilling applications of these new ideas to radio, television, refrigeration and air conditioning. And "*Philco All Year Round*" will take its place again as the *most valuable franchise in the appliance field.*

## PHILCO CORPORATION





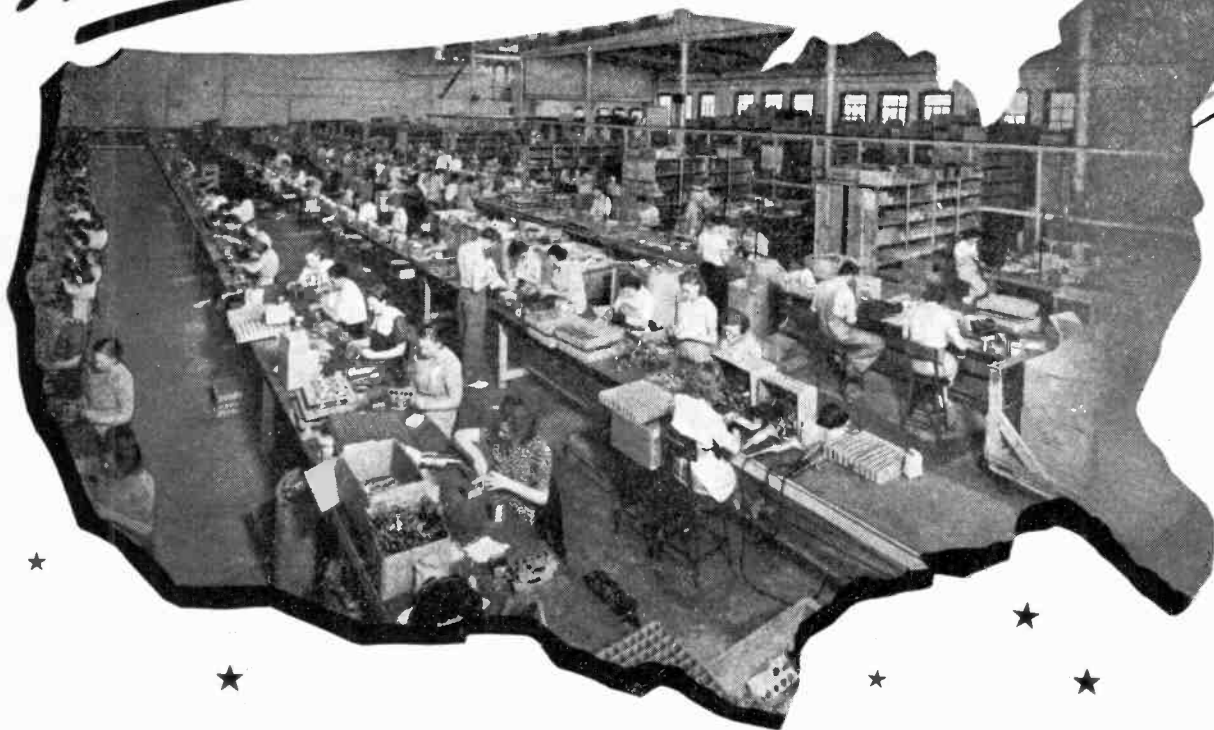
Since 1934 world's  
Largest Manufacturers  
of sound recording  
equipment and discs...

..... now becoming a major supplier of  
Electronic Equipment for the Armed Forces

**Presto Recording Corporation**

NEW YORK, N. Y., U. S. A.

# *America's* BUSINESS IS *Our* BUSINESS



**D**ETAILS of SONORA'S business these days are a military secret. But we can tell you that production records are being smashed . . . war materials are being turned out in staggering volumes . . . production speed has reached a breath-taking pace through new, time-clipping methods.

SONORA'S production genius is enabling skilled men and women to do their jobs better and faster than ever before. Every SONORA employee is cooperating in doing more than is asked of him . . . every SONORA employee still takes pride in producing fine instruments.

But it's not a secret that although SONORA enthusiastically assumed its first job—that of helping to blaze a trail to Victory—we are not losing sight of another important objective. SONORA jobbers and dealers have merchandise to sell, despite trying conditions; SONORA RECORDS—popular

classics, with a consistent demand—are being merchandised with SONORA'S "Package Plan" for profitable jobber-dealer operations.

The magic name "SONORA"—famous for quality in the music world since 1914—continues to assure the American public of the finest in home entertainment. The magic name is bringing new trade to SONORA jobbers and dealers. Into superb recordings has gone a magnificent artistry that nobly reflects the SONORA tradition of "Clear as a Bell" tone.

When the great day of Victory comes, the complete SONORA line—Radios, Phonographs, Combinations, Records—will again flow from our production lines, unhampered. And into each of these products will go new SONORA designs and new SONORA engineering achievements originally created for use in war materials.

**Sonora**  
CHICAGO

"Clear as a Bell"

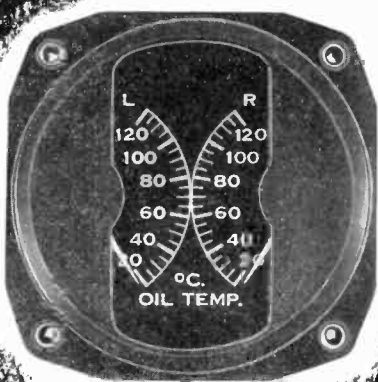
**HICKOK**

*33 Years of Progress..*

1910..  
1943..

1 small plant  
1 employee  
2 styles of meters

2 large plants  
Nearly 1000 employees  
Hundreds of styles of meters  
and test instruments



**HICKOK METER**



**HICKOK DYNAMIC MUTUAL  
CONDUCTANCE TUBE TESTER**

From its organization in 1910 until now The Hickok Electrical Instrument Co. has always been in the forefront of those companies who have contributed most to Electrical and Radio Instrument progress.

Quality has always predominated over quantity of production—building a reputation for highest grade instruments that is now reflected in the enormous demand for Hickok Meters for Aviation and other War Time uses. The meter illustrated is typical of these War Time Instruments.

The Hickok Dynamic Mutual Conductance Tube Tester, developed soon after the advent of the 3-element radio tube, is the standard instrument for tube testing today.

New Hickok Meters and Instruments are being designed or are already in production for the use of our Armed Services. They will be available for everyone as soon as the present emergency is over.

So keep your eye on Hickok for the newest and best in indicating meters and radio service equipment.

*Hickok*

**ELECTRICAL INSTRUMENT CO.**

**CLEVELAND, OHIO • U. S. A.**



# RAYTHEON TUBES *Automatically* BLACKOUT OUTDOOR SIGNS!

New wartime uses for RAYTHEON tubes are almost a daily occurrence. In large cities for automatically cutting off the illumination from lighted billboards RAYTHEON tube-equipped receivers are being used to work in cooperation with local broadcast stations . . . when the broadcast station goes off the air the sign illumination is automati-

cally cut off—thereby completing the black-out. Another RAYTHEON contribution to radionics.

Raytheon tubes were selected for this wartime job because of RAYTHEON'S long operating life and dependability under all operating conditions.

**RAYTHEON PRODUCTION CORPORATION**  
NEWTON, MASS. • LOS ANGELES • CHICAGO • NEW YORK • ATLANTA

DEVOTED TO RESEARCH AND MANUFACTURE OF TUBES FOR THE NEW ERA OF ELECTRONICS



## The "Robot" that Specializes in Precision

● Even the Sylvania machine tool is a specialist.

This one is a "robot" designed for a single purpose — the stamping of one kind of radio tube part. Its operation is as automatic as possible to eliminate "human error." Its output is carefully checked at regular intervals by a skilled set-up machinist who oversees the work of a dozen "robots."

To control quality, Sylvania fabricates all its radio tube parts with special machine tools — many of which are ex-

clusive and secret developments by Sylvania engineers.

Every step in the precision production of Sylvania Radio Tubes — from microscopic inspection of raw materials to final characteristic testing — is marked by the same painstaking care. Sylvania specialization in electronics is your best guarantee of radio tubes of the highest quality. That is why your Sylvania franchise is a val-

uable asset in these days when tube replacements represent a large amount of your business.

### IT PAYS TO SELL SYLVANIA



# SYLVANIA

ELECTRIC PRODUCTS INC.

Emporium, Pa.

*Incandescent Lamps, Fluorescent Lamps, Fixtures and Accessories, Radio Tubes, Electronic Devices*

# HOW TO GET *More* SERVICE BUSINESS

THROUGH YOUR ADMIRAL SPONSORED WEEKLY RADIO PROGRAM



"World News Today" . . . sponsored by Admiral Radio . . . is being broadcast over a nation-wide hook-up of the Columbia Broadcasting System every Sunday at 2:30 P.M., E.W.T. Listeners are urged to bring their radios to Admiral dealers for a periodic check-up.



Rated one of the most popular of all daytime shows, "World News Today" brings direct short-wave reports from London, Cairo, Algiers, Moscow, Honolulu, Australia and other leading news centers of the world to millions of listeners each week.



This attractive 2-color window poster will identify you as an Admiral dealer . . . will direct profitable service business to your store. Posters may be obtained from Admiral distributors at no cost . . . get one or more from your distributor today!



**Continental Radio & Television Corporation**  
3800 W. Cortland St., Chicago, U.S.A.



# From Casablanca to Bridgeport...



*Utah products are in the thick of the fight... on jungle isles... on desert sands... on distant seas... in war production plants. While concentrating on the war effort, Utah is continuing to do everything possible to aid radio jobbers in their line of duty—the task of keeping America the best-informed nation in the world.*

## Utah SPEAKERS

have won an outstanding preference in every branch of the radio and sound equipment industries. It is a preference earned by time-proved dependability, uniformity and consistently high quality. There is a Utah speaker for every requirement. Utah engineering has kept abreast of the developments and advancements in both industries. Outstanding tone quality is obtained by the careful selection of high quality materials and the precision manufacturing and treatment of each individual part. A special plasticizing process insures voice coils against mechanical failure or heavy overloads—coils are treated to give minimum absorption—heavier gauged metal assures ample over-all rigidity. These and many other features have provided user satisfaction.

## Utah TRANSFORMERS

are fully guaranteed. They have a non-corrosive, protective film of cellulose acetate which provides absolute insulation—prevents breaking down even under extremely high humidity and severe atmospheric conditions. There is a Utah transformer to meet all requirements in choke, input, output, and smaller capacity power transformers.



## Utah VIBRATORS

have won a leadership in the radio industry by their outstanding design and advanced engineering. Absolute dependability is assured by Utah's rugged, time-proved construction. Precision-made, Utah vibrators are delicately adjusted for long life, correct electrical balance, current output, freedom from noise.



## Utah RESISTORS

A minimum of two separately fired coats of vitreous enamel forms a hard, glassy surface—adhering permanently to the porcelain tube core, resistant wire and terminals. Utah Vitreous Enamel Resistors are available from 5 to 200 watts—either as fixed, tapped, or adjustable. Also, non-inductive types.



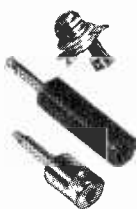
## Utah WIREWOUND CONTROLS

Rheostats, potentiometers, attenuators. High quality resistant wire evenly wound on a substantial core is clamped tightly to the control housing, resulting in a rugged and dependable variable resistor. Six sizes—3, 4, 8, 10, 15 and 25 watts are available in rheostats and potentiometers.



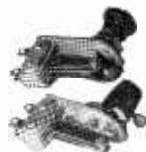
## Utah JACKS AND PLUGS

"Imp" jacks combine compact size, highest quality and economical price. Long and short frames and "imp" type jacks to meet your requirements. Phone plugs, two and three-conductor types, designed to fit your need, whether it is application, size, or shape. Utah is manufacturing phone jacks and plugs, according to Signal Corps and Navy specifications.



## Utah SWITCHES

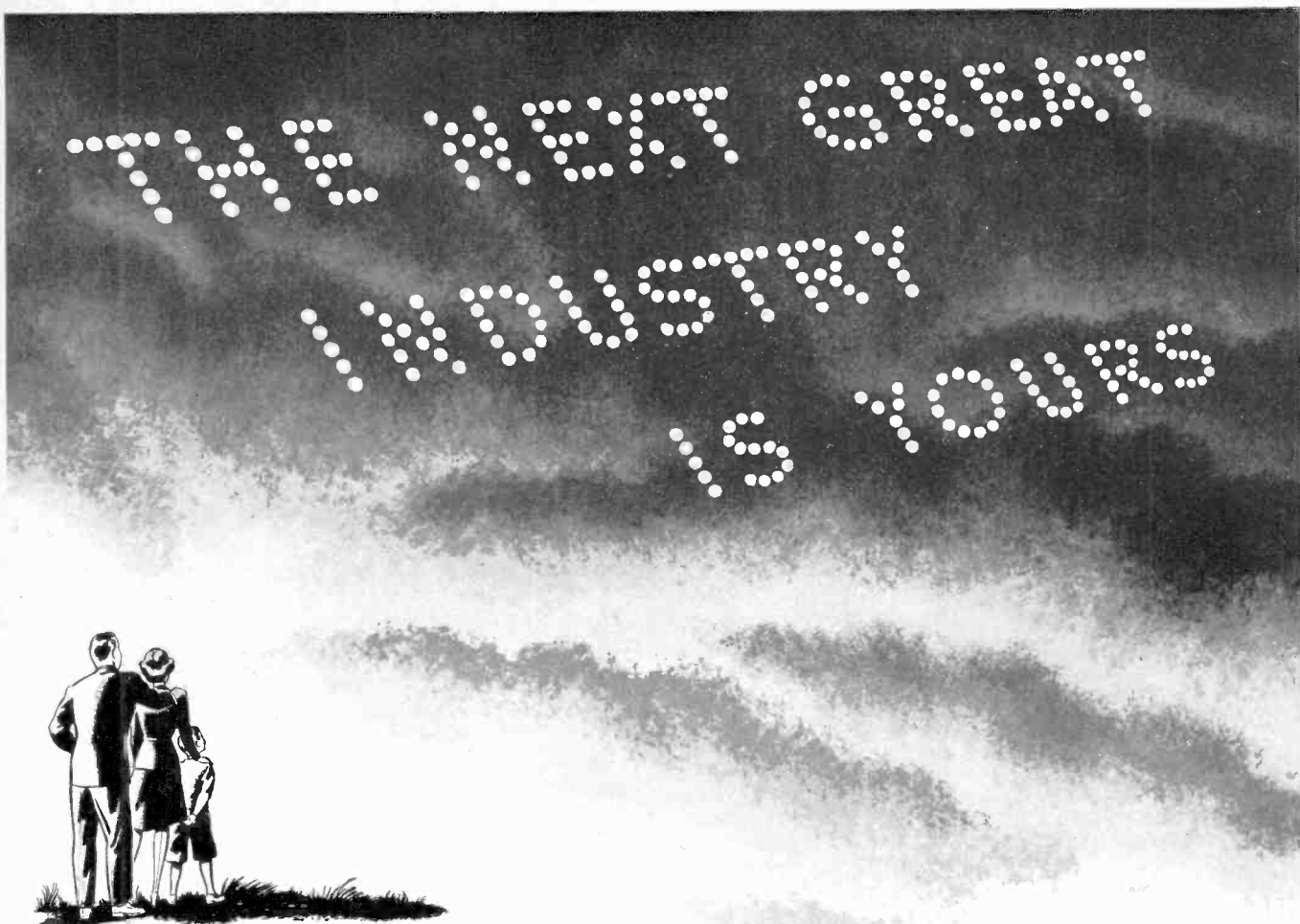
Compact size, highest quality and economical price are combined in Utah "Imp" Push-Button Switches. Also available are Utah-Carter Rotary and Push-Button Jack Switches, in long and short types. *Write today for full details.*



UTAH RADIO PRODUCTS COMPANY, 810 Orleans Street, Chicago, Illinois  
Canadian Office: 560 King Street, W., Toronto. In Argentine: UCOA RADIO PRODUCTS CO., S. R. L., Buenos Aires. Cable Address: UTARADIO, Chicago



**S P E A K E R S**  
VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS



**TELEVISION** is destined to be the big new industry of the post-war years. The best minds in business expect it to rival the growth of the automobile industry after the last war. It should help America "take up the slack" when Peace comes — enlist the country's piled-up savings — make thousands of new jobs.

Television will naturally be *yours!* As a radio dealer, you have the necessary background, you know the market. There will be big money in television — for the dealers who are ready to sell it!

Farnsworth, a natural leader in television and radio manufacturing, recognizes a deep responsibility to you. Our future is bound up with yours . . . and so we are working for you now, building up your post-war market.

**WHAT IS COMING.** Today, all our production goes to the armed forces . . . fine precision equipment that will help America win. When that job is done, we'll be able to supply you with marvelous new radios and phonograph-

radios, finer than any you've ever seen. Then will come special television equipment, ready for new and useful jobs in institutions, stores, industries. And finally, when television stations are set up, television sets for millions of American homes!

Farnsworth advertising, right now, is telling the country about these great new things that you will sell . . . making people think about them, talk about them — *and want them!*

Farnsworth ads are doing the job that advertising has done for other great businesses . . . *making the market for the trade.* When the new sets come, millions will expect to buy them. **THAT** will be your big opportunity!

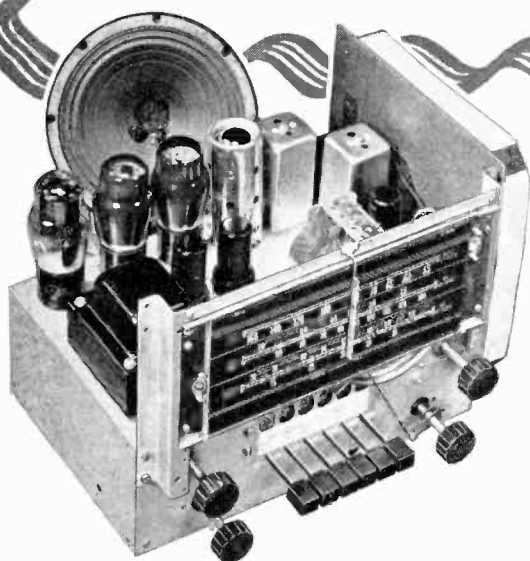
- **FACTS** about television are featured in the current Farnsworth advertisement, appearing in March 22 *Time*, March 27 *New Yorker*, March 29 *Life*, April 3 *Collier's*, and April 5 *Newsweek*.

# FARNSWORTH TELEVISION

• Farnsworth Television & Radio Corporation, Fort Wayne, Indiana. Manufacturers of Radio and Television Transmitters and Receivers; Aircraft Radio Equipment; the Farnsworth Dissector Tube; the Capehart, the Capehart-Panamuse, and the Farnsworth Phonograph-Rodios.

# RADIO KITS . . .

designed by **MEISSNER**  
for Accurate Radio Training

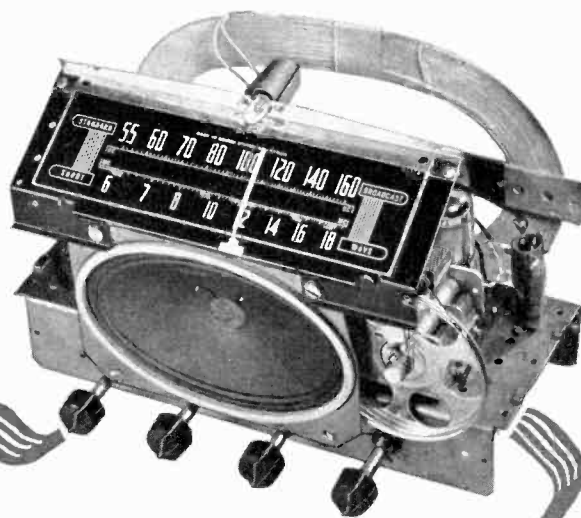


## 9-Tube STANDARD KIT . . .

the ideal kit for classroom radio defense training with advanced students. 3 band AC superheterodyne. Automatic push button tuning. Push-pull audio. 6" speaker. Built-in loop antenna. Connections for phonograph, television and FM. Frequency range 185 to 550 meters, 40 to 136 meters and 12½ to 40 meters. Meissner 9 tube kit is supplied complete (except cabinet) including all necessary parts and tubes. Model No. 10-1195. Special school net price \$48.90 (cabinet for 9 tube kit—Model No. 11-8261—school net price \$6.90).

## 6-Tube TRAINING KITS . . .

engineered for more thorough basic radio training. Frequency range: 540 to 1620 kc. (53 to 16 meters) on 2 bands. Operates on 110-120 volts AC, or 110-120 volts DC. Incorporates automatic volume control, slide-rule dial, beam power output. 6" speaker. 4 panel controls. Meissner 6 tube training kit supplied complete (except cabinet) including all parts, tubes and a schematic diagram. Model No. 10-1197. Special school net price \$19.10.



See your Meissner distributor, or write for  
complete catalog



# Meissner

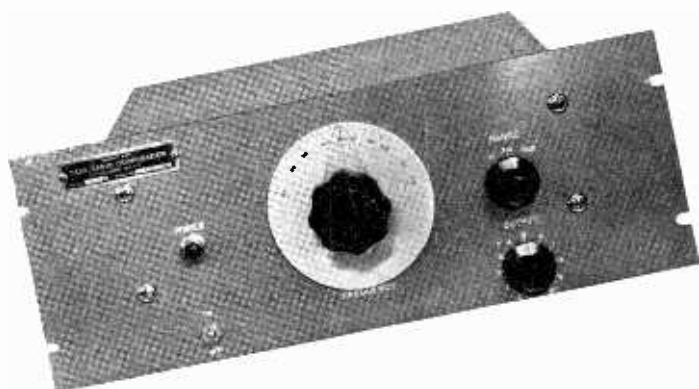
MOUNT CARMEL, ILLINOIS

"PRECISION-BUILT PRODUCTS"



# FADA Radio

*Sine —  
and Square —  
Waves  
20 Thru  
20,000  
Cycles*



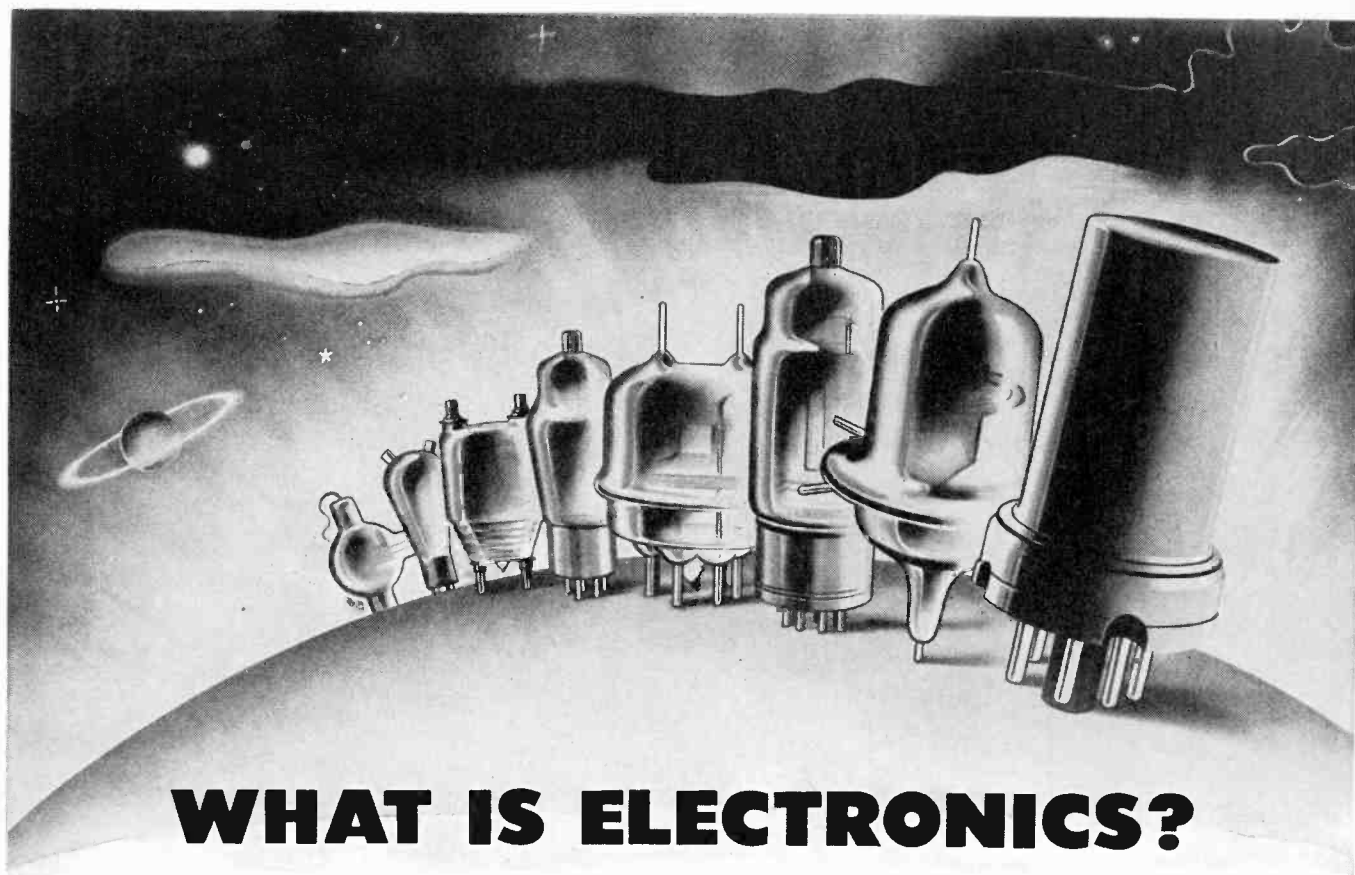
A precision sine wave audio oscillator which at the flip of a switch gives square wave output . . . radically new . . . product of Fada war-time engineering research . . . just one of an extraordinary variety of different equipments today produced directly for many services of our government in FADA'S modern, fully mechanized radio/electronics plant.

"From first neutrodyne receiver to radar" succinctly phrases the march of time from Hun vs. Allies to United Nations vs. Axis . . . the life span embracing the building of that solid, bedrock foundation which has made the name FADA synonymous for quality throughout the world . . . precious skill and priceless experience working continuously for Uncle Sam . . . long before Pearl Harbor. . .

This new audio oscillator is illustrated as but one of many concrete examples of new products of FADA research and engineering which proves that FADA will be the source of startlingly changed . . . simplified . . . improved radio/electronics for you . . . post war.

**FADA RADIO AND ELECTRIC COMPANY, INC.**  
**LONG ISLAND CITY, N.Y.**

DEPENDABILITY • PERFORMANCE • VALUE



# WHAT IS ELECTRONICS?

... and what does it mean to the radio serviceman and tube equipment distributor?



You've been hearing a lot about the "Electronics Industry" lately. Maybe you've been puzzled about the aura of mystery surrounding it. Perhaps you've even done a little wondering as to where such a development leaves you, and why.

Actually, "Electronics" is neither altogether new nor mysterious. Just as "wireless" grew into Radio with all of its ramifications in the fields of communications, and entertainment, so is Radio now expanding into "Electronics."

"Electronics," then, is simply a term for the newer applications of the basic radio-electronic circuit utilizing the well-known Radio Tube and its derivations.

Thus, in considering the latter, it is well to remember that the "Magic Brain" of any Electronic device is a tube—and

that the fountain-head of modern tube development is RCA. Remember, too, that development of a new tube, or a new application for an old one, stands as a new opportunity for the men to whom *no* tube or the circuit designed for its operation is altogether new. *This means you.*

The whole history of Radio has been one of rapid growth. New developments have constantly created new business and markets—and the best of these have fallen naturally to those who have specialized in the basic principles behind them all. Certainly they should continue to do so now.

Thus, to the RCA Tube and Equipment Distributor and Serviceman, "Electronics" means that Radio again stands on the threshold of another of its beginnings—one which may prove to them to hold the greatest possibilities of all!



## RCA RADIO-ELECTRONIC TUBES

RCA Victor Division, RADIO CORPORATION OF AMERICA, Camden, N. J.

BUY U. S. WAR BONDS EVERY PAYDAY

# A POST-WAR PROMISE TO THE LEGIONS OF *Andrea*

AS A PIONEER in radio since the days of the crystal detector, and an acknowledged leader in television development, we want you to have our point of view on peace-time radio and television.

While all our efforts and resources are still devoted to war production, a definite post-war policy is nevertheless taking shape.

As we see it, television is fortunate among the tools of war. It does not have to actually await world peace or post-war development. Peace-time radio and peacetime television are *in the making — now — in the midst of war!*

In a very real sense, we are sitting at the peace table right now — every day. We are seeing, developing and manufacturing the forerunners of a new radio and a new television.

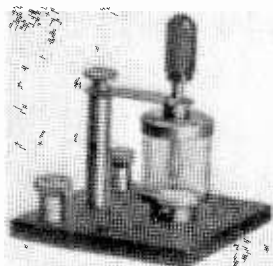
We often wish our dealers, servicemen, and our many loyal customer-friends, could have the same opportunity to see and know what is coming. That being impossible, we want to say, unmistakably:

When wartime engineering is no longer a military secret — when Andrea products are again available to the trade — you will see television striding forth in Seven League Boots. You will recognize the foundation of a vastly greater industry and a prosperous new era for all who make, sell or service Andrea Products.

*J. Q. D. Andrea*  
President

**Manufacturer of Precision Radio Equipment  
Since 1919**

## ANDREA PIONEERING from the CRYSTAL AGE to the FINEST in TELEVISION TODAY!



Even though it is not available to the trade for the duration, Andrea television is nevertheless a major achievement in sight and sound reception.

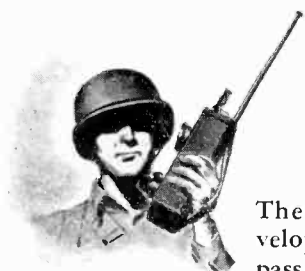
As an example, the Deluxe Combination of Television, Radio and Phonograph, first developed by Andrea and pictured here, is still the only instrument of its kind. No other manufacturer has made such an instrument.

Further evidence of the value of Andrea pioneering is found in the fact that government schools are using Andrea television kits in the teaching of electronics.

***In War as in Peace,  
Andrea Pioneering Counts!***

**ANDREA RADIO CORP., 43-20 34th St., Long Island City, New York**

HELLO JANET, I'M TAKING THE NOON PLANE



The marvels in electronics developed during the war will not pass with the war. Their application to post-war life will be as wide and amazing as only American imagination and enterprise can make them.

More efficient hearing aids, inexpensive ship-to-shore phones for small craft, wireless intercommunications systems for business, improved counting and color sorting devices are but a few of the obvious developments of existing electronic applications. Even portable, per-

sonal two-way radio phones may become a reality. Where electronics will take us no one can foretell.

In this time of need, it is TUNG-SOL'S job to design and produce necessary transmitting, receiving and amplifying electronic tubes for our government. After the war the new experience so gained will be at the disposal of jobbers and dealers who will find at TUNG-SOL the engineering, the production skill to produce electronic tubes that will enable TUNG-SOL jobbers and dealers to service the new and better electronic devices of the future.

# TUNG-SOL

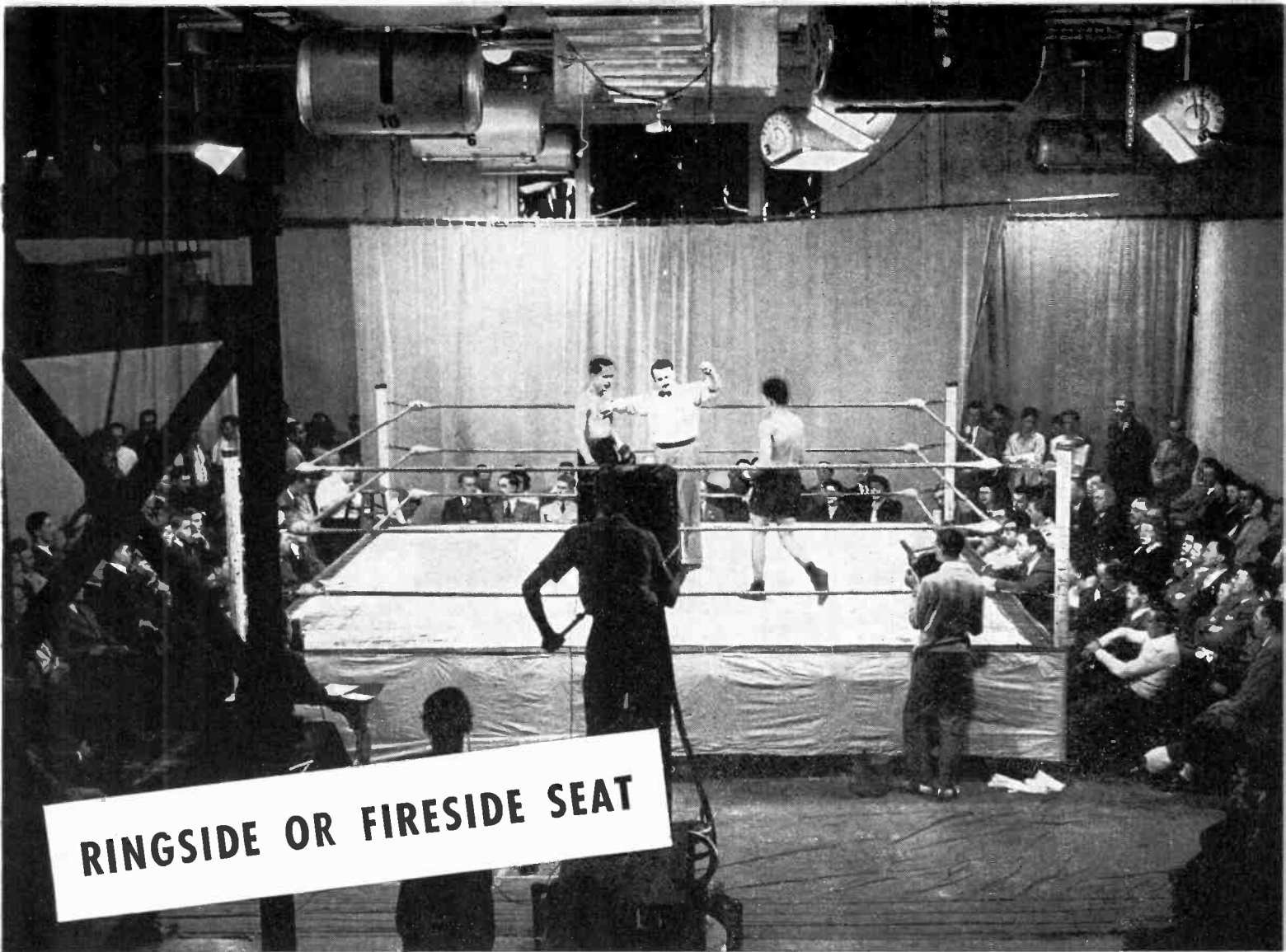
*vibration-tested*

## RADIO TUBES



**TUNG-SOL** LAMP WORKS INC., NEWARK, N. J., Sales Offices: ATLANTA, CHICAGO, DALLAS, DENVER, DETROIT, LOS ANGELES, NEW YORK  
ALSO MANUFACTURERS OF MINIATURE INCANDESCENT LAMPS, ALL-GLASS SEALED BEAM HEADLIGHT LAMPS AND CURRENT INTERRUPTERS





*Actual live-talent program in General Electric Television Station WRGB.*

## General Electric is speeding the day when television will be part of your business!

WRGB, General Electric's Television Station at Schenectady, is really producing television shows that people like!

Successes are accurately measured by the comments of a large local audience organized to criticize WRGB's predominantly live-talent shows.

But that's not all. G.E.'s mass-production manufacturing facilities are operating around the clock to build nearly every kind of radio and electronic device for the fighting men of the United Nations. The specifications for this equipment call for a high standard of skilled workmanship — a standard that G-E workers will carry over to the building of the post-war G-E Television Receivers!

Don't expect television immediately after the war. But you can be confident

that the kind of work General Electric is doing in the field of television is speeding the day when television will be an important part of your business.

Through constant consumer advertising in national magazines — such as the current one shown at the right — G.E. is telling these facts to the public over and over again!

And when television once more is a peacetime privilege, the public will look to department stores, radio and appliance, furniture, and other dealers, like yourselves, for General Electric Television Receivers. The improved G-E Television Receivers on your showroom floors will be your front-line leaders!

*... Electronics Department, General Electric, Schenectady, New York.*



### THIS G-E CONSUMER ADVERTISEMENT APPEARS IN:

COLLIER'S . . . . .	FEBRUARY 27, 1943
THE SATURDAY EVENING POST, . . . . .	MARCH 6, 1943
LOOK . . . . .	MARCH 9, 1943
LIFE . . . . .	MARCH 22, 1943
FORTUNE . . . . .	MAY, 1943

# GENERAL ELECTRIC

# This advertisement has a purpose

It is a message to the people of America from a group of their fellow citizens . . . we men and women who work at Stromberg-Carlson.

It is our pledge to work as we have never worked before until the war is won and freedom

is restored to mankind.

It is also our promise to you that your faith in Stromberg-Carlson will be justified in the world of decency and progress that will follow Victory.

This message will be spread before some 43 million people . . . in the pages of The Saturday Evening Post on March 6, Life on March 15, The New Yorker on March 13, Collier's on April 3 and Newsweek on April 19.

*It's ceiling zero—and the hills are wicked close to the field below! We circle around trying to spot a hole in the murk—but there are no holes. Then the radio operator on the ground calls out: "We can hear you over the field now. Get back to the west and try to come in!" The ship settles rapidly . . . we wait in our little cabin, sweat streaming from our faces. Suddenly the throttles jam forward, 4 screaming props grab huge chunks of air . . . and the ground operator yells frantically: "Pull up! Pull up! You're about to crash!"*



*"It's raining so hard, even the birds are walking . . . but men must fly . . ."*

*The above is part of a letter from a friend . . . a man who's risking his life every day . . . getting bombers to Africa in time! We think of him when we make communications equipment for some of the planes he flies . . . communications equipment for air, land and sea. We try to make this equipment just as reliable and durable as 48 years' experience has taught us . . . For today it's not our reputation that's at stake . . . it's human lives! How can we at Stromberg-Carlson do less than our best. And how can all of us do less than buy War Bonds and Stamps . . . as often, as much . . . as we can afford?*

  
In company with the front line of  
American industry we proudly dis-  
play the Army-Navy "E" pennant.



*In radios, telephones, sound systems, there is nothing finer than a*  
**STROMBERG-CARLSON**

© 1943, STROMBERG-CARLSON TELEPHONE MANUFACTURING COMPANY, ROCHESTER, NEW YORK

# RADIO *Retailing* TODAY

Including Radio and Television Retailing

O. H. CALDWELL, EDITOR      M. CLEMENTS, PUBLISHER  
480 LEXINGTON AVE., NEW YORK, N. Y.

## Radio Men Set WPB's Pace

Many names and faces familiar to the radio industry are now encountered in the long corridors of the big Washington building that houses the War Production Board. Radio men are playing many important parts in this most important of civilian authorities. Charles E. Wilson, Ralph Cordiner, Ray C. Ellis, John S. Timmons, Sidney K. Wolf, Frank McIntosh, Ken Dyck—and post-graduates like J. S. Knowlson—are all radio names that mean a lot in WPB as well.

And now we learn that so successful has been the special plan of operation of the Radio and Radar Division under Ray Ellis, that a similar procedure is to be adopted throughout the whole War Production Board. The radio group has been "scheduling" some military radio components for a number of months. WPB officials are now citing the successful operation of this scheduling principle in radio production, as evidence of the progress that may be expected through effective scheduling when Vice-Chairman Wilson's larger program is put to a test on a coast-to-coast, industry-wide basis.

## Victory Through Air Power

The latest check-up on the amount of broadcast time given exclusively to the war effort, comes from the Blue Network. The web has counted up the number of hours devoted to the Victory job, and those programs presented in cooperation with the Army, Navy and other governmental outfits. For the first month and a half of this year the total was *over 270 network hours*, which is a figure for all radio to be proud of.

With the network president Mark Woods doing the talking, the Blue comments that "we are only one of the four major networks and in addition there are hundreds of stations not affiliated with any network . . . all of these networks and all of these stations are doing an equally timely and important job."

Mr. Woods credits the sponsors, who keep the airwaves sparkling with talent, for making this effort possible. Broadcasters could not do it alone in America where there are no taxes on listening.

In this survey, the general phases of wartime entertainment and morale-building were not considered. Only the direct war contributions were counted. And radio men can see better than ever the in-battle importance of the in-repair receiver.

## Protecting Radios in the Tropics

Global war has taken American radios into many strange places and to many climes. For Americans want their daily radio programs whether in the tropics or the cold north seas.

But we are beginning to learn that the familiar receiving set which is so dependable in 31 million homes on the North American continent, cannot always "take it" when subjected to the onslaughts of tropical humidity. In the steaming South Seas near the Equator, where the moisture-laden air quickly rots clothing and shoes, and reduces tobacco to muddy mold,—radio sets break down, too.

But now Americans overseas are learning to apply the same remedy which Panama Canal employes have long used in home closets and pantries. It is to keep an electric light or small flame burning continuously day and night, to drive out the moisture. A 10-watt or 30-watt lamp tucked inside the radio cabinet and left on all 24 hours, will insure dry coils and condensers, protecting against breakdowns, so that the set is ready to play when turned on. This is a simple precaution, word of which should be passed along to householders in humid areas, and to our men overseas.

## Radio-Channel Chart with This Issue

At page 34 of this issue, we send you a complete chart of the radio channels, including broadcast and short-wave. This handsome chart in four colors has been compiled in accordance with the very latest revisions of the radio spectrum under international agreement.

Radio dealers and servicemen will find this chart of great interest and value for their own work, as well as to post up on the wall for use in explaining various kinds of radio reception to laymen.

Besides the broadcast, police, distress-calling, international, facsimile, frequency-modulation and television channels, all clearly outlined, a number of new assignments are indicated. These include the new instrument-landing beacons for airplanes, studio-transmitter links, and diathermy channels.

This complete "road-map to radio" is worth careful study by every radio man.

From now until the "war model" Victory replacements parts lines fully replenish the radio serviceman's supplies, the trade has its biggest job to keep civilian radios in repair. Therefore we repeat our battle cry first published six months ago on the October cover of "Radio Retailing Today" — "Don't Let Radios Die!"





• Relief for the radio serviceman and for the home radio owner is now on the way.

Radio men and laymen who have been clamoring for tubes and replacement parts, will soon find distributors' and manufacturers' stocks replenished, and supplies available in needed quantities.

Already eleven million tubes for home radios have been authorized by the War Production Board, the first quarterly step in its annual production program of 45 million tubes a year.

Manufacture of the new Victory Line replacement parts will follow immediately, starting in April,—with condensers as the first item to come off the production lines.

But servicemen and customers will

not have to wait until the actual production of these new "War Models"—for the announcement that they are "on the way," has served to unfreeze held-back stocks being kept for emergency use, resulting in immediate relaxation all along the line of tubes and parts.

#### ***Name-Change Questioned***

Meanwhile a new name has been adopted by the War Production Board for all its simplified lines of consumer-goods. To alarm-clocks, stoves, bicycles and other special products it has applied the term "War Models" (The earlier term Victory model was soft-pedalled because in some fields it was found that a Victory trade mark or name already existed and might lead to confusion with Victory

models).

"War Model" is expected to be the term eventually applied to the new radio replacement part line, but in combination with the "Victory Line" designation under which the whole line of simplified and standardized parts has been developed.

In certain quarters of the WPB and OPA, the feeling has been that "War Model" may imply an inferior compromise product, brought out for the interim, and not suitable for the days of peace afterward. The new Victory Line of radio replacement parts, however, is actually an undertaking to get a high average level of quality and durability, together with a simplification of units. It will be a distinct loss if the gains already made in simplification and standardization



Not until the "war model" radio replacement parts leave the hands of manufacturers and jobbers, and actually arrive at the serviceman's shelves, will they mean anything to civilian set owners. At the left is a scene at "Radio Margo" shop, Oakland, Calif., with Mr. Margo on duty.

are not to be recognized after the war emergency has passed. For the purposes of the radio replacement parts units therefore it seems particularly desirable to continue the term "Victory Line"—as a name even more appropriate for the after-war period.

### **Tube Program Underway**

Approval of the WPB's concentration-of-production and "Victory Model" program which will insure plenty of replacement tubes for civilian receiving sets was given Feb. 26 by the Vacuum Tube Industry Advisory Committee. Industry representatives at the meeting okayed the WPB plan to limit the manufacture of tubes to 114 essential types and further allocated the production of these tubes to seven manufacturers—Hytron Radio Corp., Salem, Mass., National Union Radio Corp., Newark, N. J., Raytheon Products Corp., New-

An effort to provide a greater supply of batteries for farm radios is also underway in the WPB. With four to five million farm radios in use, remote from power lines, it is essential that batteries be provided if the farm listeners are to have war news and price information. Zinc has been the critical material here, and it seems likely that not more than one set of batteries per year can be promised at best.

There has been considerable pressure from numerous congressmen to step-up battery production, these demands coming particularly from the farming areas, where radio has become an integral part of the inhabitants' lives.

Farm radio batteries require more zinc than all the other types—telegraph and telephone; railway, industrial and flashlight.

### **Replacement Parts**

Meanwhile the work of the American Standards Association's special committee on simplifying civilian radio replacement parts, is now nearing completion.

This work, which is being done at the request of the Office of Price

### **Improved Picture**

First of 11,000,000 new tubes expected to be available this month.

More batteries for farm radios promised by WPB.

First production of "war model" replacement parts scheduled for April.

clude a simplified list of the most critical replacement parts at present—capacitors (condensers), volume controls, power and audio transformers and reactors (chokes) and performance and constructional standards for both electrolytic and paper capacitors (condensers).

### **Simplification**

The list of replacement parts which is deemed adequate for servicing the great majority of home receivers shows a radical reduction from the thousands of different types of each item available in the "Pre-Pearl Harbor" replacement parts field. The

# **LINE — "War Models"**

## **Production of Tubes and Replacement Parts Starting As WPB Adopts New Designation for Simplified Units**

ton, Mass., RCA Victor Division Harrison, N. J., Sylvania Electric Products Corp., Emporium, Pa., and the Ken-Rad Corp., Owensboro, N. Y.

The tubes, which will be of top-flight quality, will bear no manufacturers' name, but all have been approved and coded by the American Standards Association. While some of the tube types are already in production, the program will be wholly in operation by April, it was expected. A projected 11,000,000 receiving tubes for civilians is the goal by July, 1943, with a yearly program of 45 million tubes.

Administration after consultation with the War Production Board, includes a simplified line of parts sufficient to service an estimated 90 per cent of modern home receivers in use today.

Production of parts to these new standards will, it is expected, be scheduled by manufacturers to start in April. The parts will be covered by price ceilings, which, with the performance requirements written into the standards will assure to the radio owner, continuing quality at a fair price.

The first standards promulgated in-

ASA list shows but nine paper condensers, nine electrolytic condensers, eleven values of volume controls, six power transformers, two chokes, two interstage audio transformers, one driver audio transformer, and three output audio transformers.

The performance and design standards for condensers provide for tubular cardboard-encased units using the very minimum of strategic materials. The required minimum performance characteristics have been chosen to be satisfactory from an electrical and service life standpoint, and so that there will be no need, it is hoped, for replacing replacement parts.

These standards provide for new "War Model" part numbers and a

(Continued on page 104)

● Another big Victory job has been added to the wartime duties of the home radio receiver. The family set now provides one of the ways for giving the "all clear" signal in new Civilian Defense regulations introduced in Eastern areas and recommended for the whole U.S. except the Western territory.

"Radio broadcast announcement" is officially designated as a signal that "raiders have passed." It is listed along with long blasts on police and warden's whistles, and the turning on of street lights.

Radio men welcomed this step as another proof of the essential nature of civilian radio during emergency times. It indicates that officials think of civilian radio as an efficient, all-inclusive, instantaneous method of reaching the millions with emergency messages. This development might also be regarded as a sign that the official attitude takes it for granted that civilian sets will be kept going right along with other war equipment.

#### **A Vital Job**

This new warning system serves to remind all servicemen and parts distributors that the garden-variety radio receiver now plays an important part in at least three branches of civilian defense—in the Air Raid Post, in the bomb shelter and in the home itself. With the new emphasis on radio announcements, radios will come into wider use in all these spots and since there are no new receivers available, the repair and replacement parts problem will be a vital factor.

Th revamped regulations for air raid protection became effective last month for the Eastern Military area, and were later recommended by the Office of Civilian Defense in Washington for voluntary adoption by all states except those of the Western Defense Command. The regulations first

applied to the 16 Atlantic Seaboard States and the District of Columbia, and Washington says that "these regulations will eliminate in that area the various conflicting and sometimes dangerous signals which had been adopted by States and localities in their search for an adequate warning system."

Officials pointed out that in addition to uniformity, the new warning signal and blackout system has the advantage of permitting earlier blackout, and earlier mobilization of Civilian Defense personnel, with greater protection to the public, while reducing to a minimum the interruption period in war factories.

It is significant that when the OCD finally decided on a uniform system

to be recommended to the nation, that radio emerged as one of the chief elements.

#### **Check on Repairs**

A preliminary check with radio servicemen in some of the Eastern areas revealed that very little reaction was felt in the repair business as a result of the first tests of the new system. As one serviceman put it, "The people in these areas are the type to keep their sets in repair anyway, and very few set owners were reminded by this test that they have their radio fixed."

However, as the new system gets better established and more dependence is placed on the radio announcements, the serviceman will be a key factor in getting the signals to the

## **Radio Gives the**

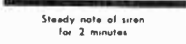

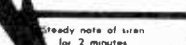
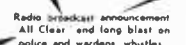


OWI Photo by Palmer

**"Raiders Have Passed" Signal Depends on Broadcast Announcements in New Plan Recommended by the OCD**

**CITY OF NEW YORK**

# AIR RAID INSTRUCTIONS

<p><b>WHEN YOU HEAR</b> </p> <p><b>WHEN YOU HEAR</b> </p> <p><b>WHEN YOU HEAR</b> </p> <p><b>WHEN YOU HEAR</b> </p>	<p><b>AIR RAID IS PROBABLE</b></p> <p><b>RAIDERS OVERHEAD</b></p> <p><b>RAIDERS ARE RETURNING</b></p> <p><b>RAIDERS HAVE PASSED</b></p>	<p>(1) All building lights blacked out. Keep radio on.</p> <p>(1) All lights blacked out. Keep radio on.</p> <p>(1) Building lights remain blacked out. Keep radio on.</p> <p>(1) Resume normal activities. All lights on.</p>	<p>(2) Pedestrians and vehicles stop. discharge passengers.</p> <p>(2) Pedestrians leave cover.</p> <p>(2) Pedestrians leave cover.</p>	<p>(3) Everybody take cover.</p> <p>(3) Resume pedestrian and vehicular movement.</p>
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**REMAIN CALM. WALK, DO NOT RUN. OBEY INSTRUCTIONS OF POLICE AND WARDENS.**

F. H. LaGUARDIA  
Mayor

**AIR WARDEN SERVICE**

**POLICE EMERGENCY DIVISION, CITY OF NEW YORK**

1943

At the left is the official CD instruction sheet used in New York. Widest coverage for the "all clear" depends on how many people can use their receivers to get the flash.

thing, the stations of course go off the air, and the first thing to be heard by the listener will be the "all clear" announcement.

With instructions like this being passed around, the average family in a target area may take a new attitude, if they have even the faintest suspicion that the U. S. is apt to be bombed, toward the radio.

Radio broadcasters have, of course, played a big part in the previous systems of air raid protection by keeping listeners up to the minute on what's going on, as a matter of rendering a public service. But both the broadcasters and the repairmen

## "ALL CLEAR"

public. Particularly since most of the local defense officials are anxious for people to stay at home, and keep off the streets, away from windows, and off the roofs. Radio will be the chief source of all-clear signals for the individually blacked-out family, because the whistles of street wardens and police would not reach into all the homes.

### Raid Flashes Will Depend on Repairmen

As supplies of replacement parts for radios get more scarce, the OCD use of the civilian receiver may become one of the most tangible and immediate reasons for official attention to the matter of wartime provision for "one radio per home." Actually, it would be only one of many reasons for keeping radios in repair, when you consider such other radio missions as broadcasting the war news, selling War Bonds and Stamps, aiding the Red Cross, giving instructions on rationing, recruiting men for the Armed Forces, etc., yet the CD matter is the kind of a reason that would send set owners directly to the radio repair shop, while other war flashes from the loudspeaker might not inspire such direct action.



Another part played by radio in Civilian Defense is the War Emergency Radio Service, which provides auxiliary short-wave communication for local CD organizations. Here, Mrs. Joyce Boynar of Washington, D. C., tests a WERS unit.

How the new radio signals work is seen in the description given by one of the New Jersey officials in the CD. He said that the public would be advised to keep their radios on during all alerts. If it is only a practice drill, regular programs continue on the air, and announcers will cut in, to give the "all clear" notice. But if the raid is the real

are given a far more important role, under the new plan.

James M. Landis, Director of Civilian Defense at Washington, recently called attention to the fact that American cities are now more likely to be bombed, since the Nazis are greatly irritated by the work of U. S. bombers over Europe. Thus the new air raid signals assume an extra importance.



● A survey of wartime conditions in the radio repair business shows that vital home receivers are beginning to die. At the moment, the demands of war have not left enough materials and men to keep all of the civilian sets glowing.

This investigation is one which indicates *why* the receivers are going out, and therefore indicates a line of action for remedying the situation. General conclusions are that servicemen and parts distributors should immediately revamp their local plans to help solve the problem, and that government agencies in charge of civilian supply should *rush* all the replacement supplies that can be spared from the war program.

### **Help Wanted**

Reports came from radio men in California, Texas, Michigan, Massachusetts, Pennsylvania, Indiana, Illinois, New York, New Jersey, Ohio, Kansas, Nebraska, and Connecticut. Specific difficulties in getting radios repaired were reported from all these areas. A part of the trouble can be classified as "temporary delay" only and it should be pointed out that

among the other cases—the permanent hold-ups—a part of the receivers concerned were second and third sets in homes.

### **Several Shortages**

The lag in servicing is due to shortages in batteries, tubes, replacement parts, the lack of adequate personnel, and the difficulty in getting gas rations. Often, these matters are tied together, as in the case of the serviceman in Newburyport, Mass., who reported that "because of the difficulty in getting parts, it takes extra gas chasing around to get them."

In farm areas, the need for batteries is getting to be acute. A dealer in Garden City, Kansas, for instance, needs immediate help on supplies because "we service farm radios for owners of large herds of sheep and cattle and they depend entirely on radio for special weather warnings, market reports, etc."

Another dealer, in Freehold, N. J., needs prompt relief as he says "I have my service shop deep in the farm area of New Jersey and about 50 per cent of my customers use battery radios in unwired homes. . . . I need replacement batteries and tubes for these ra-

dios as they mean just about everything to the farmers here, and are the only contact with the outside world for them in these important times."

An impressive set of facts on this situation was collected by Station WJAG, Norfolk, Neb. This report has received national circulation since WJAG sent the data to Congressman Karl Stefan in Washington and he discussed the matter on the floor of Congress. The station had made a single announcement asking its listeners about radios crippled for lack of batteries.

### **Death on the Dial**

WJAG says that "all told we have had reports on 800 sets out of service from one week to six months . . . over 63 per cent of these have been out of service for two months or more."

The station had this to say about radio battery supplies in the area:

"Dealers have waiting lists. Some buyers are on several different lists. Every farmer with dead radio batteries is anxious to get his set working for markets, news and weather



warnings. Those who have been deprived of radio the longest think they should be favored. Those with the largest livestock operations think they should be favored. The invalids and shut-ins think they should be favored. Some dealers are saving batteries to service the sets they have sold. Some dealers will not sell people who did not buy sets from them. But all would be willing to observe any fair method which was impartial."

A typical shortage in tubes is the

personnel in the whole area where its members are, and found the servicing manpower dangerously depleted. For instance, in the Bellflower, Calif., area, "we have only one man left, and his 6-month deferment ends next month . . . if they don't extend it or defer him completely that entire area will be without service as we cannot take care of it."

The California report continues thus: "We have now, well over 100 sets on the waiting list with equally

surrounding townships—in all, a total population of nearly 50,000. I average from 70 to 90 hours a week and like many others I am breaking in a lady assistant."

A similar situation seems to exist now in Hot Springs, Ark., where "the population of 33,000 and 5,000 visitors—a trade territory of 25 miles—depends on two shops for their radio service."

Many of the reports on radio manpower shortages indicate that some definite and organized steps are being taken locally to remedy the situation. In this connection, it is the feeling of the National Electronic Distributors Association that such steps are the answer to the problem; that there is in the country today enough servicing personnel to get available parts into civilian receivers if the matter were approached in a thoughtful and organized way.

This may become a very important factor in the situation because the parts distributors, as a national body, certainly know the nature and the extent of repair personnel left in the business, and they also are in position to relate this problem to the supplies of replacement parts.

#### **More Work—More Gas**

The rush of business forced into the shops of those servicemen still in business is reflected in their difficulties in getting sufficient gasoline rations. Problems in this department  
(Continued on page 46)

## **are Piling Up**

one pointed out by the Radio Technicians Association, Long Beach, Calif., where "tube numbers 50L6, 35Z5, 12SA7, 12SK7, 75 and companion tubes are definitely no more . . . it is doubtful if there are 50 of any of these numbers in the whole county, and we have been swapping back and forth among dealers to maintain emergency equipment in operation . . . our condition here in the West is quite alarming and if it would help any we could get an itemized list of what each dealer is short and how many sets are actually being held up due to the lack of tubes and parts."

This group of dealers also has a manpower problem to face. The Association studied the matter of radio

as many for the trucks to pick up. Of that group perhaps one-half cannot be repaired due to lack of tubes. We have approximately 15 sets with no power transformers and of course this number will increase as time goes on.

"Keep in mind that we have more defense plants in this area than on any part of the Pacific Coast and we are constantly being told by our customers to get their ——— radios back at once as it's the only entertainment they have. The best we can do is from ten days to two weeks."

From Norwich, Conn., a dealer adds to the chorus: "I am one of three servicemen left here to take care of radios for this city and half a dozen

The sets waiting for repairs at the Pioneer Radio Shop, Lubbock, Tex., are "three deep" in this photo taken for Radio Retailing Today by Tom Moore.



# Selling Now for Peacetime Delivery

• The much-discussed plan which would give civilians and members of the Armed Services a chance to buy goods (which are not now available) for post-war delivery, has created wide interest in the radio and appliance fields. The "Peace Goods Plan" as it is called, was outlined by Leon Henderson before he left OPA; it was worked out by Rolf Nugent, director of OPA's Credit Policy Office.

The plan is only a proposal, so far. Government officials have not approved it.

## Small Dealer Angle

One of the things which makes the plan interesting is OPA's statement that "it provides relief for small business hit by discontinuance of merchandise. . . . It provides employment to many dealers and salesmen not readily adaptable to war work and too old for Armed Service. . . . It brings their abilities to work on war financing, and helps hold dealer and sales organizations together as a basis for rapid post-war expansion."

A complete review of the proposal as issued by OPA, follows:

"Under the plan, any dealer or manufacturer's representative could sell Post-war Delivery Certificates. These certificates would be bought on the installment plan.

"Post-war Delivery Certificates would be issued for refrigerators, automobiles, pianos, oil-burners or stokers, and might later be extended to cover other types of consumers durable goods.

## Models Selected Later

"Holders of these certificates would be given a priority on the goods selected. When production is resumed, and the purchaser's priority number is called, he could choose any make or model and take delivery from any dealer. Priority would be determined by the date he started purchasing the certificate.

## Proposal Would Provide for Wartime Issue of Merchandising Credits

"Each purchaser would receive 110 per cent of his investment in merchandise. If he wanted cash after the war, he would receive 100 per cent of his investment. If he wanted cash earlier he would get the amount he has paid less sales collection costs.

"The customary channels of private enterprise would be utilized for selling the certificates, and the dealer selling them would keep the down-payment and 2 per cent of subsequent payments. Bookkeeping and delinquent collections would be handled by finance companies and banks. Installments would be paid at telephone, telegraph and light companies, post offices, etc.

"The Treasury, were the plan adopted, would receive the money now for war financing, and the pressure of too much money for goods now avail-

able would be channeled off and stored up for the post-war period.

"The plan gives particular attention to protecting the interests of the men and women of the Armed Forces. They would be given longer terms of payment to compensate for lower incomes. Sales would be made through chaplains and personnel officers, by means of payroll allotments. Sales and collection costs would be avoided, so the purchase price of military certificates would be lower.

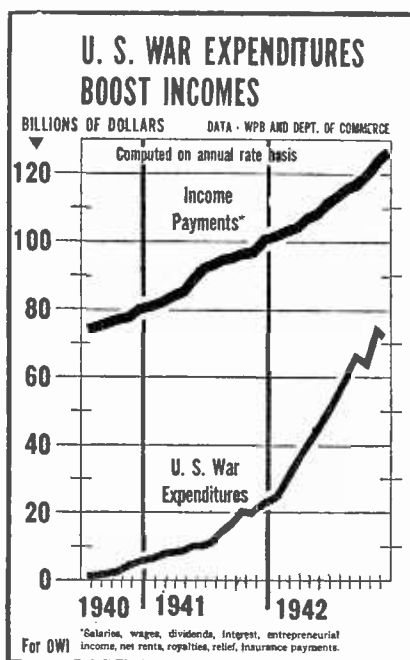
"The military personnel would be given higher priority than civilians, and those in service overseas would be given six-month leeway on their priorities. Sales and collection commissions are too low to attract labor that could be used at other war activities."

## Anti-Inflation Move

The Price Administrator, in outlining the plan, said "The plan would utilize certain energies of private industry in enlisting consumer spending in the fight against inflation. It would permit dealers and salesmen who cannot serve otherwise to participate in a program of importance to the war effort and to peace-time reconstruction. It would keep rudimentary sales and finance organizations together for the peace-time tasks that lie over the hill. It promises an enlarged market for all types of goods after the war. And it would remove an important part of the existing inflationary pressure that threatens the price ceilings."

The plan would require legislation to protect certificate purchasers.

Mr. Henderson also stated that, although the plan has been developed in connection with anti-inflationary programs at OPA, it is proposed that administration should be in the hands of the Federal Reserve Board. He is referring the plan for consideration to several government agencies, including the Federal Reserve Board, which would be concerned with its operation.



Part of the background for the Nugent plan—the current war-inflated buying power of the nation.



Above, Major L. S. Freedman and another guest tune in at "Phileo House", opened for servicemen at Atlantic City.



Above, a bristling M-3 tank illustrates the kind of fast-rolling warfare where radio products play a key part.

# Industry Offensive



Above, one of radio's answers to absenteeism—Sarah Thompson of the Ken-Rad tube plant at Owensboro, Ky. She's missed only one half day in the last 10 years.

At right, the opera singers Rise Stevens and Eleanor Steber make records for men in service.

Below, a part of the employee group at Admiral radio in Chicago who donated their blood to the Red Cross.



# Business Tactics in War



"Lines for wartime" include record cabinets, and here's a good assortment being shown by Phil S. Barber of H. R. Basford Co., San Francisco distributors who have set up a slick new record department.

## Radio Men Change with the Times

All kinds of steps taken by retailers and distributors in many fields who are using their best ingenuity to stay in business in wartime, have been recently reported by Raymond Reeves, regional business consultant of the San Francisco office of the U. S. Dept. of Commerce.

Among the reports are two which relate the experiences of radio men, quoted herewith.

"With new sets no longer obtainable, a radio dealer in a town of 10,000 decided to develop his repair business to the fullest. He asked his wife to look after the store while he went from door to door making a survey of radio ownership. Each householder interviewed was asked:

1. Do you have a radio?
2. What make is it?
3. What year?
4. Any trouble getting good reception?
5. How many hours per day do you listen to it?
6. Do you have any radios you want to sell?

"No attempt was made to sell anything during or immediately following the interview. However, cards were made up from this information, and used to guide a direct-mail campaign.

"Incidentally, the survey brought

to light several good used radios that were for sale, and other used radios which could be junked to obtain parts.

## Sets to Suits

"The proprietor of a very successful radio store in San Francisco is now keeping his store open only 3 days a week so as to make his stock of radios last until such time as he can get together a complete line of men's haberdashery. This dealer believes that his location in the heart of the main shopping center of town is too valuable to give up, and he is anxious to have this same location available when he re-enters the radio business after the war."

In another report from the Dept. of Commerce it says that "in the Cleveland, Ohio, region, appliance dealers are taking on toys, dolls, and almost anything else they can get . . . furniture is a popular line . . . in many instances, only such items as lamps, tables and sewing equipment are stocked . . . in others, no stock is carried, but sales are made from a catalog."

## For Dealers in Farm Areas

A tip for radio dealers who are operating in farm areas can be seen in the recent policies developed by Earl G. Benedict, a radio retailer of Cobleskill, N. Y. Mr. Benedict's territory

is a country where dairying is the main activity, and in working up a wartime method for staying in business, this fact was of course a leading consideration.

The New York dealer decided to make service and repairs his "long suit" for the duration. It occurred to him that he could repair other farm equipment besides the regular string of radios, refrigerators and milk coolers.

## Repair Services Expanded for Duration

Mr. Benedict's theory is that a good mechanic can fix almost anything if he decided to tackle it, and his experiences with fixing farm equipment are turning out to be successful and profitable. And in the light of all the emphasis today on wartime supplies of farm products, the work that Mr. Benedict is doing can certainly be classed as a Victory job.

Recently, when R. G. Powers, of the Zenith distributing firm in Albany, N. Y., called at the Benedict store, a farmer came into the shop with a horse clipper powered with a gasoline motor. The jobber was quite impressed when Mr. Benedict promptly agreed to repair the apparatus.

Modern farm equipment is varied and extensive, and it appears that this radio man has an A1 idea for a flourishing new business.





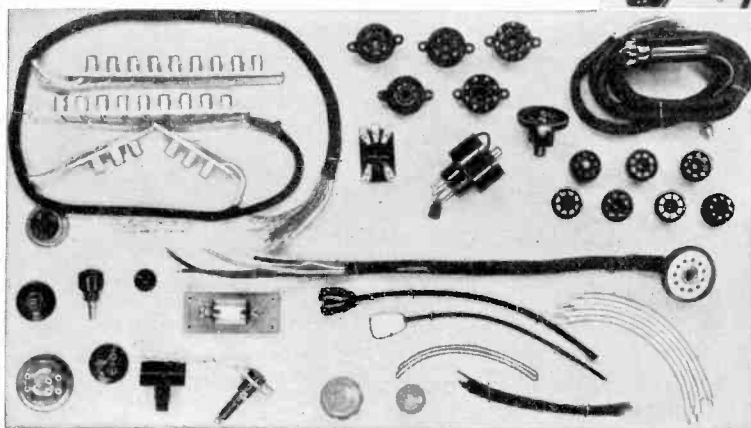
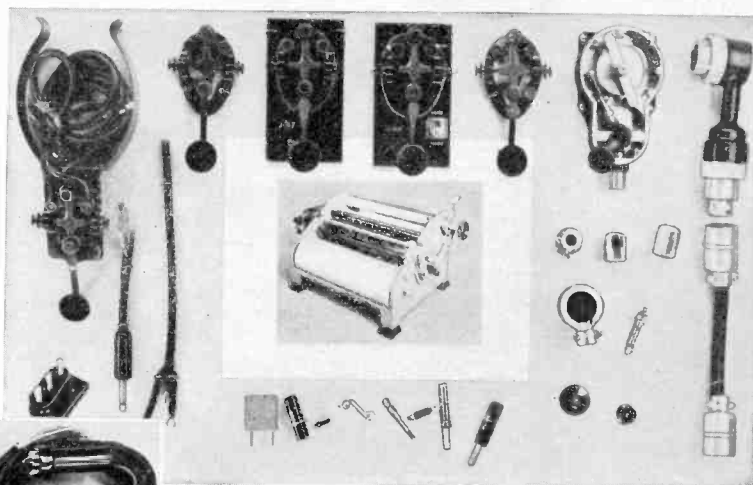
**WILCOX-GAY CORPORATION**

CHARLOTTE, MICHIGAN

***"Producing for war...planning for peace"***

# ALDEN

*Develops  
Them*



# ALDEN

*Manufactures  
Them*

Whether yours is a problem of getting swift, dependable delivery of standard parts or quick, intelligent action on the development of new parts or equipment, it will pay you to check with ALDEN.

As an organization completely independent of outside aid in design or manufacture, ALDEN can give you quick deliveries on standard items and provide you with amazing speed and efficiency in the development and manufacture of new parts and equipment.

## ALDEN is now manufacturing:

### TELEPHONE PLUGS, TELEGRAPH KEYS and CONNECTORS

built to Signal Corps Specifications. Continuous production on PL-54, PL-55 Telephone Plugs; J-37, J-41A, J-44, J-45, J-47, J-48 and B-19 Telegraph Keys; PL-114, SO-104, PL-Q103, PL-P103 and other Connectors.

### CATHODE RAY CONNECTORS

a magnal type socket assembly with leads prepared to your specifications. Two new di-heptal connectors for panel mounting or for straight connector use. All sockets have individually insulated terminals and leads, giving a large safety factor at high altitudes and over a wide temperature range.

### INSULATED TUBE CAPS

a complete line for all types of Rectifier and Power transmitting tubes.

### ALDENITE WIRE

the NEW wire without rubber. Synthetic insulation of the cellulose acetate or acetate butyrate film type base can be furnished with glass, rayon or cotton over-braid to fit your particular requirements. Wire conforms to Air Corps Spec. AN-J-C-48.

### CABLE ASSEMBLIES

any type of cable assembly such as formed, laced, braided or shielded to your print, can be handled efficiently in large or small quantities.

### PHENOLIC MOLDINGS

special magazine method of phenolic molding for both large and small quantities. A single mold starts your order, additional molds step up production to any daily requirement. This method also permits any required changes, and is particularly well-suited for government requirements.

### MULTI-WIRE CONNECTORS

of all kinds, with particular attention to compactness and complete insulation around each lead. Both government and commercial types.

### COMPLETE MACHINE ASSEMBLIES ENGINEERED

Facsimile Recorders, Aircraft Tuning Controls, etc. (Write for information.)

# ALDEN PRODUCTS COMPANY, INC.

117 NORTH MAIN STREET



BROCKTON • MASS.

## **WPB to Act on Unrestricted Use of PD-1X**

The use of PD-1X forms by radio outlets which may not be considered in the trade as "established" distributors, has created some disturbance in the business. Due to the general wartime shake-up of manufacturer-jobber relationships, the manufacturers are confronted with orders from outfits they never dealt with before; when these outfits are armed with PD-1X orders, the suppliers were faced with the question of whether the orders must be filled regardless of the applicant's position in the trade.

It was pointed out that the supplying of all applicants would tangle up the protected areas of established distributors, and would be an added irritation for the regular peacetime jobber. It became apparent that neither the manufacturer nor the long-time legitimate radio distributor would benefit from the granting of jobber prices to *anybody* who applied on a PD-1X form.

### **Washington Statement**

To help clarify the matter, the editors of RADIO RETAILING TODAY invited Frank H. McIntosh, assistant director for the Radio and Radar Division of the War Production Board, to make a statement on the use of the PD-1X form by distributors of doubtful status.

Mr. McIntosh replied as follows:

"Every effort is being made by the War Production Board to restrict the use of form PD-1X to established distributors, and it is probable that, where manufacturers receive orders from concerns unknown to them, the concerns in question are more than likely legitimate, but accustomed to doing business with some other manufacturer who is unable to supply their requirements.

"Any order rated pursuant to a

PD-1X application is, of course, a rated order and must be filled in accordance with the terms of Priorities Regulation No. 1. It is recognized that such demand orders are causing difficulty in the trade, and the matter is presently the subject of considerable study. It is hoped that a suitable solution to the problem will be reached very shortly."

## **Annual Meeting for New York "Reps"**

The New York chapter of "The Representatives" of Radio Parts Manufacturers held their annual dinner meeting on Feb. 16th at the famous Latin Quarter Restaurant in New York City.

Deluxe entertainment was arranged for by Mathew Camber, David Sonkin, Ben Joseph and president R. E. Breuer. Included in the list of members present were: Arthur E. Cerf, D. R. Bittan, Samuel S. Egert, Leo Freed, William Gold, John Kopple, Charles Newman, Jack Scharf, Jules Sussman, Jack Weber, Leroy Schenck, Bill Carduner, John M. Forshay, Adolph Friedman, J. Kaelber, Irvin Nevins, Perry Saftler, Michael Wolfe and others.

The invitations sent to the members of the "Reps" were in the form of a "Court Summons" which summoned the recipient to "appear" in answer to the plaintiff's cause of action which was as follows: "To keep a solemn promise to fraternize with his fellow members of The Representatives of the Radio Industry." This was accompanied by a typed statement of "what to expect in the way of reward, if the member attended, and also the penalty, if he did not come."

The guests of the evening included William Hicks of General Electric Co., C. L. Pugh of Standard Transformer Corp. and Samuel Weisbroth of Radio Division WPB, Washington, and the trade press.

## **"For the Cause Your Country Is Defending"**

A radio distributor in Peru has taken a step which really makes the "Good Neighbor" policy mean something.

In a letter to Commander E. F. McDonald, Jr., president of Zenith, Cesar Bustamante of Arequipa, Peru, requested that on all future orders for radio products, his account be charged with an extra amount equal to 10 per cent of the value of the order.

"These amounts," wrote Senor Bustamante, "are to be placed at the disposal of the Treasury Dept. of your country, as a modest contribution of my firm to the cause that your country is defending."

Commander McDonald commented that "although Peru is not at war with the Axis, this attitude reflects the thinking of the Peruvian people, and is recognition that our fight is their fight, and that the future of the entire Western Hemisphere depends on victory by the United States."

## **Radio Club Re-elects Officers**

The Radio Club of America announces the re-election of all 1942 officers for the 1943 term.

The slate is headed by Paul Ware, general manager of Allen B. DuMont Labs. Other officers include: C. E. Dean, vice president; J. J. Stantley, treasurer, O. J. Morelock, corresponding secretary and L. E. Packard, recording secretary. Austin Lescarbours, prominent writer and advertising man in the radio field, has been re-appointed chairman of the publicity committee.

### **Special Feature —**

# **TURN THIS PAGE AND LOOK INSIDE**

**For Your Full-Color Chart of**

# **BROADCAST AND SHORTWAVE CHANNELS**

**Compiled by the Publishers of Radio Retailing Today in  
Collaboration with RCA Laboratories**





**RCA**  
*Invites You to a Preview of*  
*New Products Developed by*  
**THE RCA RADIO-ELECTRONIC**  
**LABORATORIES**  
*at Princeton, New Jersey*

*R.S.V.P.\**

## \* R.S.V.P. — after Victory!

We wish you could answer that invitation today. We wish we could take you *today*, through the 150 individual laboratories of the great RCA Radio-Electronic research center and show you what's going on behind those closed doors.

You'd see radio scientists and engineers working on every possible problem connected with radio-electronics. You'd see new processes being perfected, new devices being created, new uses for radio being found in every field.

And you'd see how precisely, how accurately, how carefully these RCA experts work. No test is too difficult, no check too unimportant when it comes to developing a radio-electronic part or machine at RCA.

Of course, we can't take you through

these amazing laboratories . . . today. They are part of America's military front—for here is the nerve and control center that enables RCA to turn out not only the finest radio equipment for our armed forces but electronic applications that are helping many industries produce more and better equipment.

What we're doing here now is a military secret (all war work). But what we'll be doing here when peace returns is an open secret. We'll be planning and designing the best radio and electronic parts and machines that can be made—for *you* to sell to an eager and waiting America... And *this* is your invitation to come down after Victory and watch us do it!

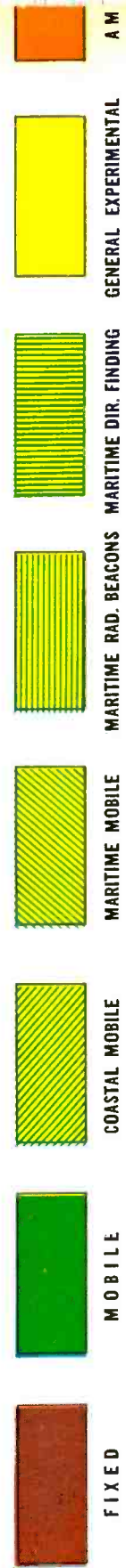
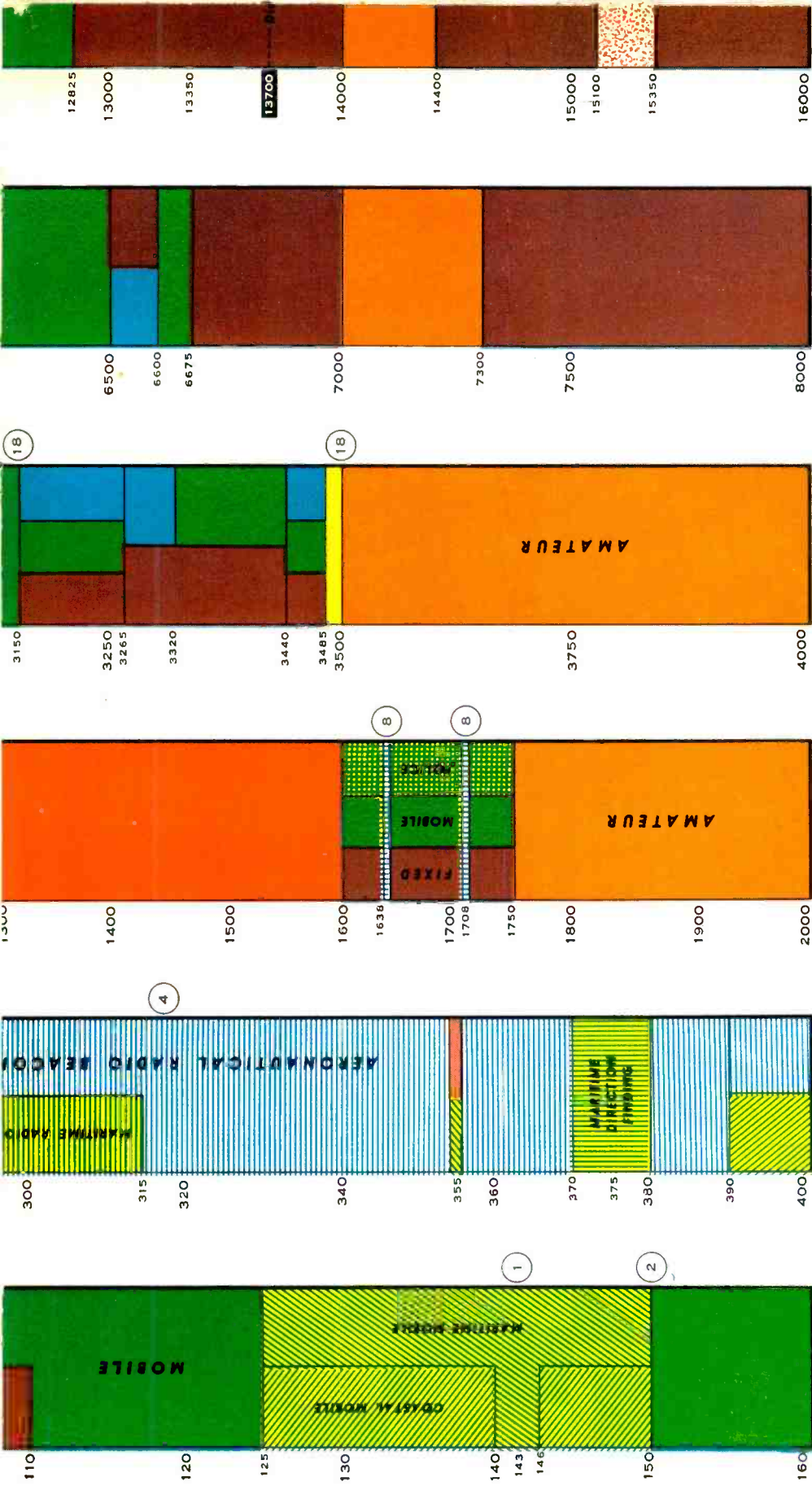


# RCA LEADS THE WAY

**IN RADIO • IN TELEVISION • IN ELECTRONICS**

RCA Victor Division, **RADIO CORPORATION OF AMERICA**, Camden, N. J.





# ALLOCATION NOTES

- General calling frequency.
- In the European region, the band 150-270 KC is used primarily for broadcasting.
- Aeronautical (airport control) frequency.
- In the Eastern European region, the band 320-445 KC is used also for broadcasting.
- U. S. protected superheterodyne-receiver intermediate frequency.
- Distress, calling, etc.
- In the European region the standard broadcast band covers 520-1500 KC. The frequency 540 KC is assigned to a 50-KW Canadian broadcast station at Watrous, Sask., by special agreement between the U. S. and Canada.

- North America, 1638 KC aeronautical direction-finding; Central and South America, 1638 KC and 1708 aeronautical direction-finding.
- North America, exclusive amateur; Central America amateur, fixed and mobile; South America, fixed and mobile.
- In South America, exclusively ship stations.
- North America, primarily police; Central America, mobile, primarily police and broadcasting; South America, fixed and mobile with broadcasting authorized between latitude 5 degrees and 30 degrees S.
- North and Central America, experimental, also broadcasting in Central America; South America, fixed and mobile and broadcasting (See Note 11).
- North and Central America, primarily police; South America, fixed and mobile and broadcasting (See Note 11).

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# Book Reviews

## Short-Wave Radio

by J. H. REYNER

*Distributed by the Pitman Publishing Corp.,*

*2 W. 45th St., New York City*

This is the third edition of this book, by the British expert who is also known as the author of "Modern Radio Communication." Aspects of short wave are necessarily treated briefly, since the volume runs only to eleven chapters on 186 pages. But the topics are chosen wisely and will be of considerable interest to radio men, particularly those who are watching war-period developments in this field and would like to get a basic understanding of short wave.

The book starts with a glossary of "the more specialized terms" and proceeds through these topics: (1) Definition of Short Waves, (2) Propagation, (3) Aerials and Feeders, (4) Aerial Arrays, (5) Receiving Aerials, (6) Short-Wave Transmitters, (7) Modulation, (8) Short-Wave Receivers, (9) Ultra Short Waves, (10) Frequency Modulation, and (11) Micro Waves.

The chapters on short wave receivers and the discussion of frequency modulation are of particular interest. The latter is pretty much of a history of the development of FM, and there is an emphasis on the Armstrong contribution to the art.

Noticeable in the book is the use of some English radio terminology such as "valves" instead of tubes. Also there's a free use of circuits and charts, and an effort to make the treatment a "non-mathematical" one.

The price of the volume is \$3.25.

## A-C Calculation Charts

by R. LORENZEN

*Published by John F. Rider Publisher, Inc.*

*404 Fourth Ave., New York City*

This volume gives practical assistance in working out alternating-current circuit computations quickly. There are 146 charts and a total of 190 pages and the whole thing is presented in an easy-to-read manner. The range of values covered is a wide one; calculations can be made with reasonable accuracy (direct reading) even by those not accustomed to reading charts.

Inductive and capacitive reactance or susceptance can be determined and the impedance or admittance computed. A range from 0.1 ohm to 10 megohms over a scale of 10 cycles to 1,000 megacycles is covered. A chart for finding the ratio of the reactance

to the resistance, or the susceptance to the conductance is also included along with a chart for phase angles.

The book is a two-color job and sells for \$7.50.

## Mathematics for Radio and Communication

by GEORGE F. MAEDEL

*Published in two volumes  
by Maedel Publishing House,  
593 E. 38th St., New York City*

Book 1 has 314 pages covering arithmetic, algebra and geometry. It starts with what may seem to be very elementary math, and the 33 chapters are all arranged for self-study.

Appropriate radio and electrical applications are included at every opportunity, and handled in a brief but generally understandable manner. The volume must necessarily be short-winded, to get all this into a single, practical book.

Home-workers will get a thorough work-out in the problems given, but 130 pages of answers are provided. Drawings are used plentifully throughout the book.

Book 1 may seem to be very much for beginners, yet before you are finished you'll be solving mesh circuits for three unknown currents. The price is \$3.75.

Book 11 is a neat treatment of trigonometry, advanced algebra and complex numbers. There is more radio in these 329 pages and more of that kind

of electrical math which can stand a review. The 17 chapters are full of examples, drawings and problems.

Things move pretty fast on some of these pages, but a serious student can get along. If you've been trying to read engineering papers which take math for granted, here's your chance to get in the swim.

Book 11 has a section of useful tables, including logs, functions and symbols. The tag is \$4.

## Principles of Electronics

by ROYCE G. KLOEFFLER

*Published by John Wiley & Sons, Inc.,  
440 Fourth Ave., New York City*

To catch the eye of radio men who are beginning to realize that this is getting to be "an electronic era" is this 170-page explanation of the fundamentals of electron tubes and a number of their applications. This book will not be confusing to those who never got into the subject before; the math is minimized and the general treatment is lucid and straightforward.

There are plenty of illustrations here and the action of the electron tube is made to seem extremely simple. For the short time that it takes in reading, the volume provides a neat package of basic working knowledge.

"Principles of Electronics" is priced at \$2.50.

## Wholesaler Honored

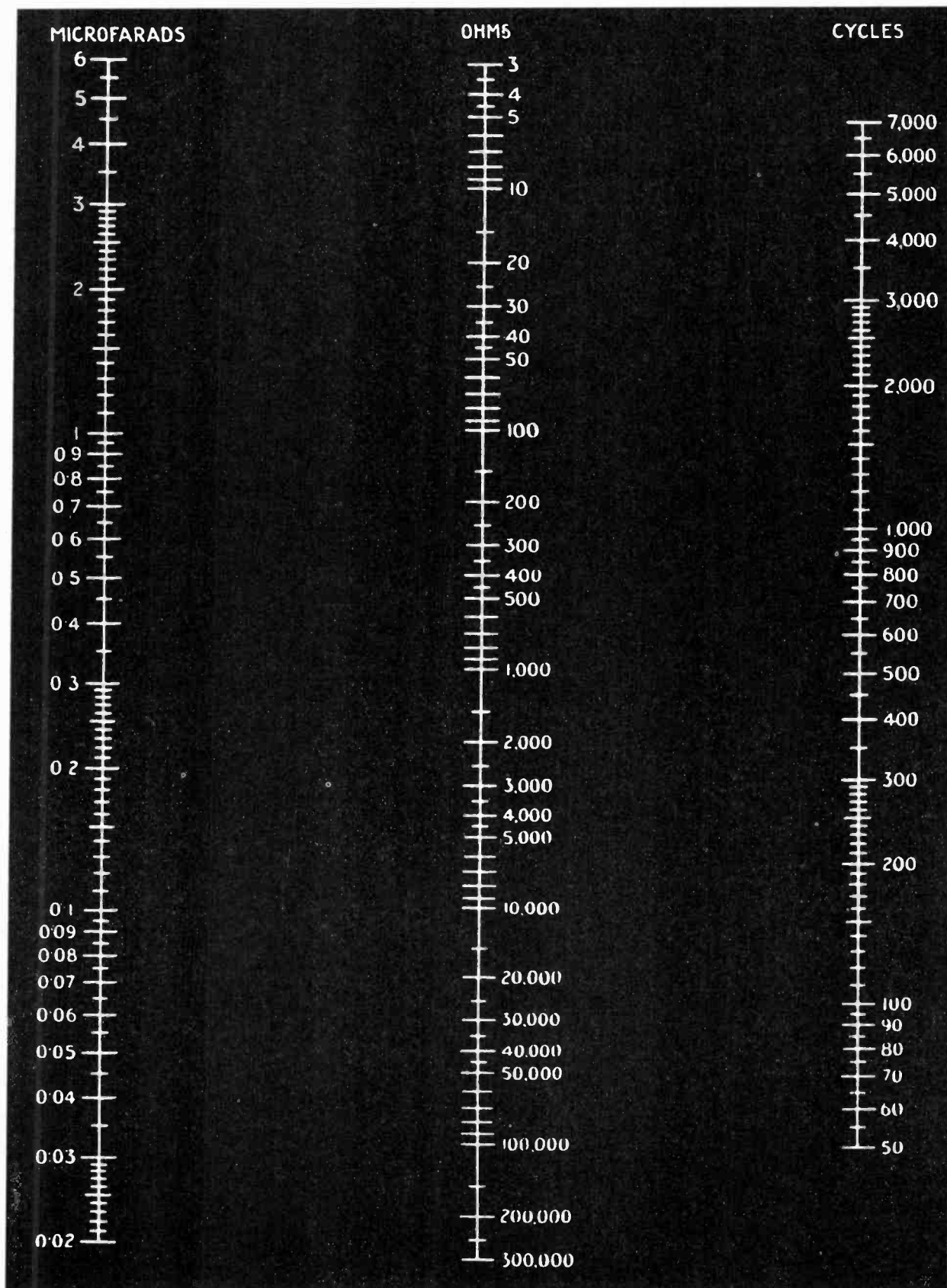
O. W. Ray, vice-president and general sales manager of Times Appliance Co., Inc., New York City, has been elected president of the National Photographic Manufacturers & Distributors Bureau, Inc. Mr. Ray is also vice-president of Western Merchandise Distributors, Inc., Buffalo, N. Y.



You'll have to fix it on the run, I haven't time to stop!



# Capacity Reactance Calculator



Knowing any two of the factors, capacity, ohms reactance, or frequency, servicemen can find the third by placing a straight-edge between the points of known value; the intersection with the third scale gives the unknown. To expand the scales, multiply the frequency scale by any number and divide the capacity scale by the same number. Ohms scale is unchanged.

# Circuit Changes to Use

• While radio servicemen are faced with shortages in the tubes they ordinarily need for repair jobs, their ingenuity and resourcefulness can count for a great deal in keeping civilian sets in repair. Circuit changes are often necessary, but they are well within the talents of experienced servicemen, and these days they can mean the success or failure of a war-rationed radio shop.

A serviceman in Minneapolis, Minn., M. J. Goldberg of 142 E. Fourth St., has given special attention to this problem. At Mr. Goldberg's shop, the "shortcuts" in tube circuits have been in daily use for the past few months, and have worked on hundreds of sets.

This radio man reports that "I have been in the service business for 20 years continuously and I have never seen people ready to spend money as quickly as they are today, especially on radio repairs . . . people are left with few new radios to buy, but lots more cash, and no gas to speak of, so that they must sit home and listen to the radio." Mr. Goldberg adds that this is no time for radio men to fall down on the job, just when the public badly needs the repair jobs and can afford to pay for them.

## Substitute Circuits

How the rewiring jobs work out in actual practice is seen in Mr. Goldberg's methods in handling the 35Z5 tube. The procedure works out as follows:

When 35Z5 is not available for re-

placement, use 50Z7G or 50Y6, or 35Z4, or 70L7GT, or 45Z5GT. Many jobbers are stocked up on 50Z7, which is a very slow mover. Others are stocked on 70L7GT. Others have 35Z4 and no 35Z5, etc. In practically all cases, some jobber locally will have some of these tubes.

In cases of changeover to 70L7GT, this tube will replace 35Z5 and 50L6 combined or 35Z5 and 35L6 combined. Keep the 50L6 or 35L6 and sell it as a used tube. You therefore repair two radios with one tube. You get say \$3.25 for the average changeover job.

## Simple Changes

Keep the tube and sell it as a used tube and charge 35c minimum, or 50c as the case may be for replacing it in a radio. Don't sell it over the counter. If you can get the 70L7's in your town, you can reverse the process, too. Replace the 50L6 tube and keep the used 35Z5, both of which are replaced by the 70L7, or if the 35L6 burns out, do the same.

If you can get 40Z5 or 45Z5 tubes, replace the 35Z5 directly with either one. The voltage per tube will drop, but the only appreciable or noticeable difference this will make is in lengthening the life of the tubes. No wiring changes are necessary.

If 50Y6 is available, several wiring changes are necessary at the socket. The 50Y6 is a full wave rectifier, but we tie both sets of elements together as a half wave rectifier. Since the pilot light tap is not present in

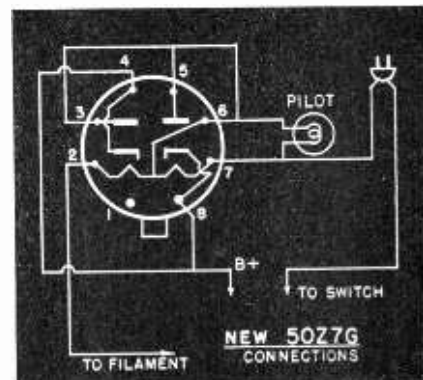


Fig. 2—The 50Z7G can be used to replace a 35Z5 if the connections are made as shown here.

this tube, it will be necessary to connect pilot light in series with the ac line with a 25 to 40 ohm resistor across the pilot light leads. See Figure 1. Be sure to remove any wiring from formerly "dead" socket prongs and tape them up.

In all cases of changeover, be sure no supposedly dead prongs are grounded between the socket wafers. If so, carefully cut away the thin ground band to the eyelet with a sharp knife and fold back slightly, dropping a spot of coil cement in between and letting it harden, to prevent any future shorting at this point. A few sets have this ground at the 50L6 socket, some at the 35L6 socket, but very few at the 35Z5 socket. It is only necessary to cut this thin metal band or strip on the socket being rewired.

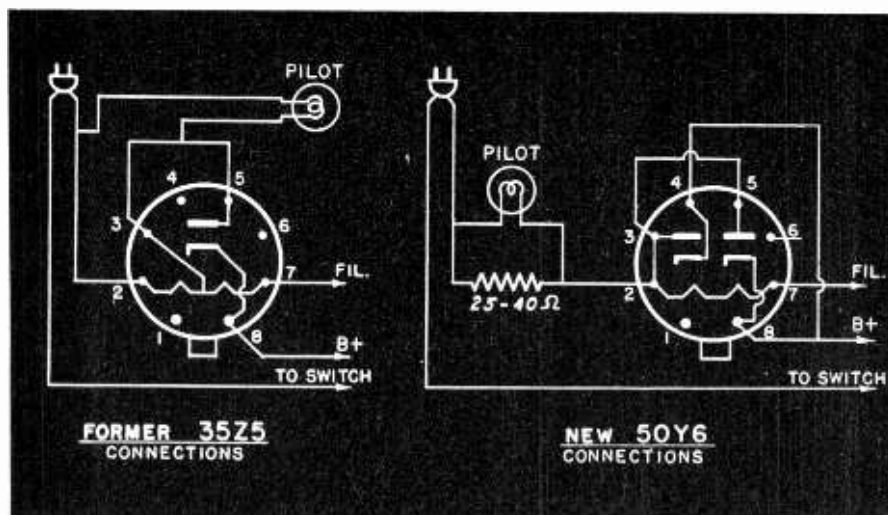
## Saving the Supply

If you can obtain 50Z7 tubes, do the same as in Figure 1 for a 50Y6, only in this case there is already a filament tap for pilot light. It is necessary to reverse the a-c input to the heater as the pilot light is connected between 6 and 7 instead of between 2 and 3 as on the 35Z5. No extra plate connection is needed as the plate is connected internally to the tap on the heater. See Figure 2 for this tube changeover.

If the 35Z4 is obtainable, this can replace the 35Z5 without any change unless the pilot light is operated from the tap on the Z5 filament. In this case just insert a 25 to 40 ohm resistance, 1 watt, in series with the a-c line, and connect the pilot light leads across it, just as for the 50Y6 tube.

If you find 70L7 tubes available, it is possible to replace both the 35Z5

Fig. 1—Hard-to-get 35Z5 rectifiers can be replaced with 50Y6, using a series filament resistor to provide a drop for the pilot bulb. Other tubes such as 45Z5 can be substituted when available.



# Available Tubes

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70A7  
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dio. The  
in their list,  
70A7

## Work Reverse

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You can sub-  
35Z4, instead of  
replace a 50Z7 with a  
se will allow as the for-  
is a bit smaller than the  
Other combinations can also  
worked, and they are limitless.

When replacing 35Z5 or 50L6 with  
70L7 or 70A7 tubes, much wiring can  
be eliminated if the combination tube  
is placed in the L6 socket instead of  
the Z5 socket. For 50L6 tube, a re-  
sistor of 25 to 40 ohms, 1 watt, is used  
between terminals 2 and 3 on the 35Z5  
socket, and a short piece of wire is  
connected between 3 and 7 to complete  
the a-c circuit. When using the com-  
bination tube in place of the 35L6  
tube, use the 25 to 40 ohm resistor  
the same way, between 2 and 3, but  
use a 2 watt carbon resistor 80 to 100  
ohms across 3 and 7 of the Z5 socket.  
The numbers 2, 3, and 7, underlined  
in Figure 3, refer to the Z5 socket.  
This holds true in Figure 4 also for  
the 70A7.

In review, watch out for these  
things:

## General Rules

1. Remove any wiring to other parts  
of the set not needed on the Z5 socket  
and which was connected to dead ter-  
minals on this socket as a tie point.
2. Follow directions carefully. After  
changing two or three sets of the same  
type you won't need to follow the di-  
agram, it will come much more  
quickly.
3. Connect the resistors directly  
across the socket terminals under-  
neath the chassis. In case only one  
resistor is used it might be mounted  
on the Z5 socket and the leads run  
right down through the socket holes  
(in cases of 70A7 and 70L7 replace-  
ment).
4. 70A7 is shown correctly in Fig-  
ure 4. 80 to 100 ohm resistor is used

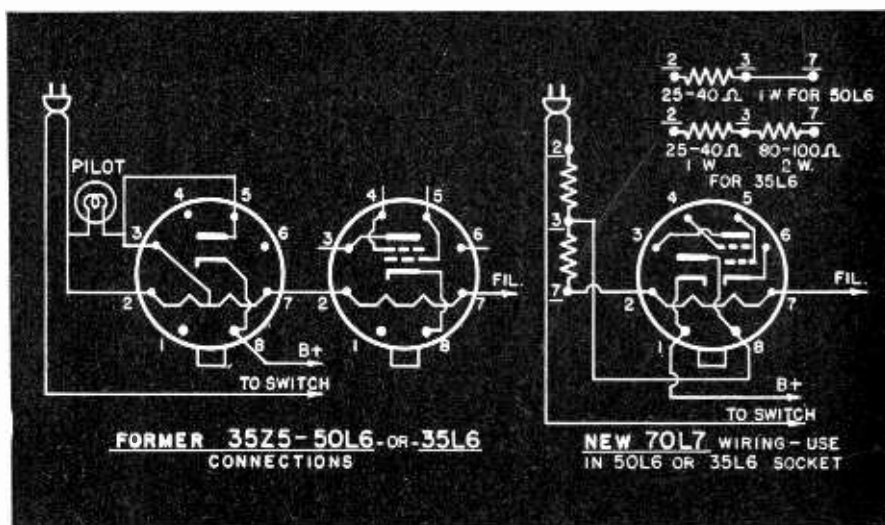


Fig. 3—The popular 35Z5-50L6 combination of rectifier and output tube can be successfully replaced with a 70L7 used in the 50L6 or 35L6 socket which will save considerable rewiring. If a 50L6 was used, connect a 25-40 ohm resistor between the pins 2 and 3 on the unused 35Z5 socket and connect a jumper between pins 3 and 7. If a 35L6 was used, put a 25-40 ohm resistor between lugs 2 and 3 and 80 to 100 ohms between 3 and 7.

across points 2 and 7 of 35Z5 socket  
for 35L6 replacement or a jumper is  
used if 50L6 is replaced.

## DOUBLE DUTY FOR PENNSYLVANIA REPAIRMAN

Howard Kerns, who runs a brisk  
radio servicing business at 6314 Ris-  
ing Sun Ave., Philadelphia, is doing  
a Victory job that appears to be one  
of the strongest in the whole area.

From 11:30 P.M. to 8 A.M., six  
nights a week he does important radio  
production work in a local war plant.

Every morning when he finishes

at the plant, he goes to his shop to  
work for three hours on until about  
11:30 A.M. From 12 noon until 6:30  
he finds it desirable to do a bit of  
sleeping. But at 7:00 or 7:30 P.M.  
he is back at work in the repair shop  
until time to leave for the plant again.

On Sundays he follows the same  
schedule except that he doesn't report  
at the plant that night to go to work.

## Volume Doubled

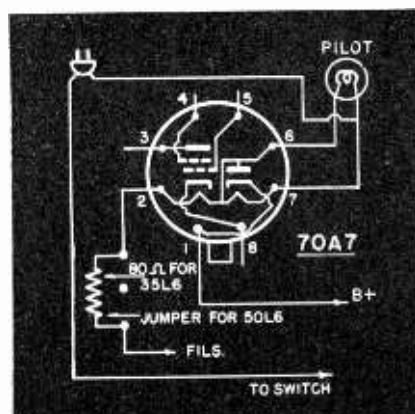
"It's good fun and I love it," re-  
ports Mr. Kerns, but then adds, "I  
don't know how long I can keep it up."  
Our service work has doubled in the  
past six months, and people are al-  
ways in a hurry. They want their  
sets put back in working order im-  
mediately. So the pressure never lets up."

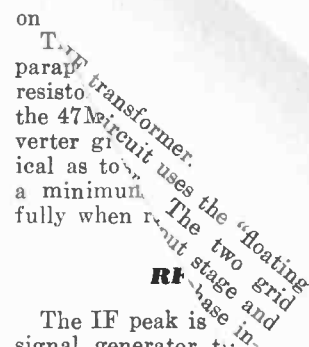
To take care of his customers as  
well as possible, he is "sub-contract-  
ing" some of the easier repair jobs to  
other servicemen, but keeping the  
harder ones and those for special  
customers to do himself as he gets the  
chance. Lots of his service work  
comes from fellow employees at the  
plant.

So far, Mr. Kerns reports, he has  
been able to get standard parts reason-  
ably well. But he makes no guaran-  
tees for the future.

Besides doing the work of two men,  
Mr. Kerns has the even greater dis-  
tinction of putting 47 per cent of his  
earnings into war bonds to help buy  
the planes, ships, and tanks that are  
going to win the war, aided by the  
radio equipment he is helping to

Fig. 4—The 70A7 may also be used to replace the 35Z5-50L6-35L6 combination. Use 80-ohm resistor between lugs 2 and 7 on 35Z5 socket if a 35L6 was used. Use a jumper between these pins if a 50L6 was used.





# SERVICE NOTES

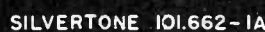
The circuit for this model, which is shown in accompanying diagram, is the chassis No. 101.602-1A. The tuning range is 540-1700 kc. and 6-13 mc. Mechanical push-button tuning is used and the set has an automatic record changer.

The circuit uses a diode plate in the 7E6 oscillator to rectify the oscillator signal and furnish a minimum bias for the RF-IF tubes. The 6SK7GT IF stage uses regeneration in the screen circuit. The feed-back voltage is induced into the extra coil

The IF peak is signal generator to the 7H7 grid, at closed, adjust trimmers for peak output. With gang full open, at 1750 kc. and connect to tenna post through 200 mn. antenna. Adjust oscillator mer on broadcast range. Trimmer is the one at far left when rear of chassis. Set dial and gtor at 1410 kc. and adjust ant trimmer C<sub>5</sub> and mixer trimmer C<sub>7</sub> peak output. C<sub>5</sub> is trimmer at right of the row of trimmers and C<sub>7</sub> is next to C<sub>5</sub>.

To adjust the oscillator paddler, set dial and generator at 600 kc. and adjust C<sub>7</sub> (second from left) while rocking tuning gang.

The dummy antenna for short-wave alignment should be 400 ohm resistor. With the tuning gang full open set generator to 18.3 mc. and adjust oscillator trimmer  $C_{10}$  (third from left). Tune dial and generator to 15 mc. and adjust mixer trimmer  $C_1$  (fourth from left). Rock the gang while making this last adjustment.





# ARVIN *Keeps the Flag Flying!*

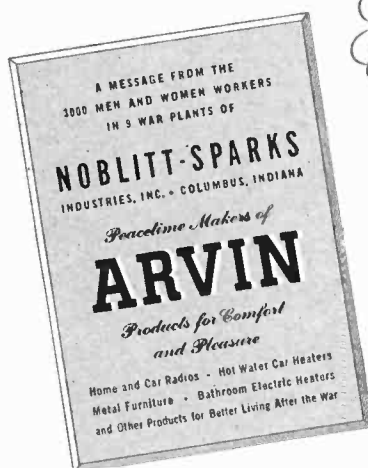
... Today, all 9 plants of Noblitt-Sparks are fully engaged in war work—as explained in the advertisement reproduced below. This is one of a series of full pages appearing regularly in leading magazines such as The Saturday Evening Post, Collier's, Life, Better Homes and Gardens, Ameri-

can, Country Gentleman, Successful Farming and Capper's Farmer. So the good old Arvin name on peacetime products of Noblitt-Sparks is being kept before the millions who will buy Arvin merchandise after the war—including Arvin radios.

## *Sewing Circle?*



**NO...THEY'RE BOMBING THE RUHR**



*S*URE... we must have sewing circles, knitting circles, nurses, WAVES, WAACS—and housewives.

But also we must have women in our war plants—"pinch-hitting" for men who have gone into our armed services—women who work right along with the men who must stay on the farm and factory production fronts.

Here in the 9 plants of Noblitt-Sparks hundreds of women, like those shown above, work with our men to help win the war. These women, literally, are "bombing the Ruhr"... bombing Berlin... they're making ready for Tokio and "all points East."

How? These women do the fine, intricate work of assembling fighting-radios for planes, tanks and trucks—radios that enable Allied fighters to talk back and forth and win

their battles in the air or on the ground. Instead of the Arvin peacetime products for comfort and pleasure, the 3000 men and women workers of Noblitt-Sparks are producing tremendous quantities of weapons for war, in addition to war-radios.

Other war products of this company include—anti-tank mines, hurster-wells and bombs to blow up the Axis—blitz-cans to refuel tanks, trucks and planes—water and food cans to help feed our armies—exhaust systems and many other vital parts for combat cars, tanks and transport trucks.

Women are doing their war jobs amazingly well—everywhere—in countless ways. And as victory moves steadily closer, America's women are winning new glory, along with the Nation's men, in our country's service.



**WAR BONDS EARN YOU INTEREST AND HELP BOMB THE RUHR**



The advertisement above appears in the March 27 Saturday Evening Post and April Country Gentleman

## DEAD RECEIVERS ARE PILING UP

(Continued from page 27)

were reported from many areas, including Oakland, Calif.; Newberry, Mich.; Carnegie, Pa.; Bluffton, Ind.; Ravenna, Mich.; Mt. Vernon, Ill.; Griffith, Ind.; Lubbock, Tex.; Chicago, Ill.; Akron, Ohio; and Meriden, Conn., to indicate that this problem is by no means limited to certain territories.

The one from Oakland is typical in its statements that "our average service calls in the past required traveling from 750 to 1000 miles per month. But since so many servicemen have been called to the Service, or have been absorbed by the shipyard industries here, the burden of taking care of remaining sets is left upon the shoulders of a very few radio shops like ours. Hence our mileage has increased accordingly."

Several steps are recommended for radio servicemen, to help keep more receivers from going dead while the

War Production Board works out the best balance between military and civilian requirements. The much-dreaded prospect of having any more sets out of repair is being conveyed to WPB with the hope that it will do its immediate best on all civilian radio supplies that can be spared from the Victory effort. These supplies take the form of "war models" or Victory lines discussed elsewhere in this issue.

### Ways to Help

But the trade is also asked to do its very best in helping to fill the damaging gap between war supply and civilian demand. Radio men can, for instance, help to get the public educated to the idea of "only one set per home" as many repairmen are already doing. They can also make a specialty of "shortcuts" in the use of replacement parts, adapting, adjusting and changing circuits so that fewer parts will be needed. These are great days for technical ingenuity, and Uncle Sam will appreciate it.





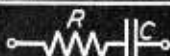

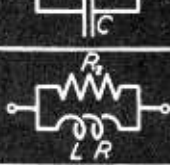

Likewise to be conveyed to the public is the idea of bringing sets in to radio shop for repairs, rather than asking the technician to call. This will save the time, the tires and the gas of a man whose talents are now rare in the civilian scene.

More of the "working-together" idea will also help. Exchanging parts and personnel, and cooperating in whatever local program will make the best use of community manpower and materials, will count for a great deal in this emergency.

## The WAACS, the WAVES and Now the WIRES

Now joining the ranks enrolled by the War Department are the "Women in Radio and Electrical Service, who are commonly called the WIRES. These women are being signed up by officers of the Signal Corps and the WAAC. The plan is that the qualified WIRES, who are trained in radio and communication work, will be enrolled in the WAAC when they successfully pass the qualifications.

## CIRCUIT CALCULATOR FOR SERVICEMEN

Circuit	$z$	$1/z$	$ Z $	$\phi$
	$R$	$1/R$	$R$	$0$
	$R + j\omega L$	$\frac{R - j\omega L}{R^2 + \omega^2 L^2}$	$\sqrt{R^2 + \omega^2 L^2}$	$\arctan \frac{\omega L}{R}$
	$-j/\omega C$	$j\omega C$	$1/\omega C$	$-\pi/2$
	$R + j[\omega L - (1/\omega C)]$	$\frac{R - j[\omega L - (1/\omega C)]}{R^2 + [\omega L - (1/\omega C)]^2}$	$\sqrt{R^2 + [\omega L - (1/\omega C)]^2}$	$\arctan \frac{\omega L - (1/\omega C)}{R}$
	$R - (j/\omega C)$	$\frac{R + (j/\omega C)}{R^2 + (1/\omega^2 C^2)}$	$\frac{1}{\omega C} \sqrt{1 + \omega^2 C^2 R^2}$	$-\arctan (1/\omega C R)$
	$\frac{R(1 - j\omega CR)}{1 + \omega^2 C^2 R^2}$	$(1/R) + j\omega C$	$\frac{R}{\sqrt{1 + \omega^2 C^2 R^2}}$	$-\arctan \omega CR$
	$\frac{R_1[R(R+R_2) + \omega^2 L^2] + j\omega LR_1}{(R+R_2)^2 + \omega^2 L^2}$	$\frac{[R(R+R_2) + \omega^2 L^2] - j\omega LR_1}{R_2(R^2 + \omega^2 L^2)}$	$R_2 \sqrt{\frac{R^2 + \omega^2 L^2}{(R+R_2)^2 + \omega^2 L^2}}$	$\arctan \frac{\omega LR_1}{R(R+R_2) + \omega^2 L^2}$
	$\frac{R + j\omega[L(1 - \omega^2 CL) - CR^2]}{(1 - \omega^2 CL)^2 + \omega^2 C^2 R^2}$	$\frac{R - j\omega[L(1 - \omega^2 CL) - CR^2]}{R^2 + \omega^2 L^2}$	$\sqrt{\frac{R^2 + \omega^2 L^2}{(1 - \omega^2 CL)^2 + \omega^2 C^2 R^2}}$	$\arctan \frac{\omega L(1 - \omega^2 CL) - CR^2}{R}$

These convenient formulas for common circuit combinations will save time in figuring part values for set conversion, etc. The first column is a group of typical part combinations. Note that the inductance  $L$  also includes a series resistance  $R$ . In the second column the formula for  $z$ , the complex impedance, is given for each circuit. The third column is  $1/z$  or the complex admittance. The fourth column  $|Z|$  is the formula for the numerical value of the impedance. The last column gives the phase angle of the current with respect to the voltage. Arctan is to be interpreted as "angle whose tangent is". The symbol  $\omega$  is  $2\pi f$ .

# **RADIONICS ON THE WARPATH**

**Runs the War and Speeds the Victory!**



Zenith dealers the world over can feel secure in the knowledge that every piece of fighting radionic apparatus shipped out by the Zenith plant, brings nearer the time when Zenith will again produce peacetime radio.

Today, the tank operator talks to his commanding officer...by radio. Today, planes take off...land...detect the enemy...talk to each other and their bases via radio, radar, radionics! Battleships carry a wealth of ingenious radio and radar devices. Even the foot soldier packs a radio on his back.

Radio is serving the war in myriad ways, hurdling the obstacles of distance, detecting, directing, saving many lives, speeding the Victory.

Every Zenith dealer shares with Zenith and the radio industry a part of this great service.

Comes Victory, and Zenith—now on the radionic warpath—will "take off" with new Zenith "firsts"—and Zenith Radio history will repeat itself.

**ZENITH RADIO CORPORATION, CHICAGO, ILLINOIS**

**BETTER THAN CASH  
U. S. WAR SAVINGS  
STAMPS AND BONDS**

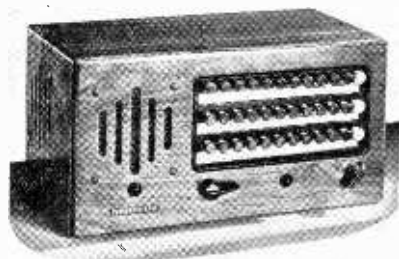


# New Products



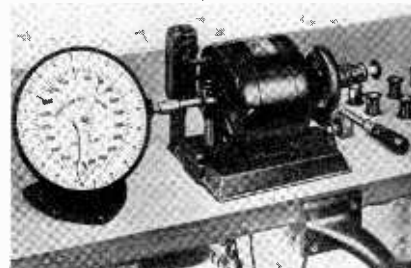
**RADIO CITY MODEL 461**, an ultra sensitive multimeter, has 20,000 ohms per volt on all DC scales. Sensitivity of AC scales is 1,000 ohms per volt. Includes DC, AC & output voltmeters, DC microammeter and DC milliammeter, ohmmeter & decibel-meter. Supplied complete with self-contained battery supply and convenient handle. \$34.50 net. Also available in hinged cover portable case with accessory compartment & test leads. \$38.50. Radio City Products Co., 127 E. 26 St., New York, N. Y.—RRT.

**EAGLE VICTORY PLUG**, made of black unbreakable bakelite. Screwless type which can be assembled without tools. Made to fit multiple receptacles. Packed one to a card, 25 to a box, 500 to a std. pkg. or 1 to a card, 500 to a carton. Eagle Electric Co., 23-10 Bridge Plaza, South, Long Island City, N. Y.—RRT.

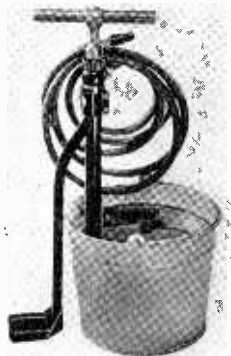


**GARNER CONVERS-O-CALL**, a "President's model" combination all-master system and office inter-communicator. Useful for factories, offices and training centers. Can also be used for music transmission to employees. Available for 10 to 30 stations. Prices for each President's model master station range from \$29.50 to \$69.50 net. Earphones available. Fred E. Garner Co., 53 E. Ohio St., Chicago, Ill.—RRT.

**MILES THROAT MICROPHONE**, for use in aircraft, submarine, tanks, and defense plants, etc., where words spoken by the wearer are picked up and may be amplified and transmitted through a public address system. Can be used with any standard amplifier designed to use a crystal or other high impedance mike. Constructed in the inductor-dynamic principle and weighs only 2 oz. Leather covered and equipped with an adjustable neck strap. Miles Reproducer Co., Inc., 812 Broadway, New York, N. Y.—RRT.

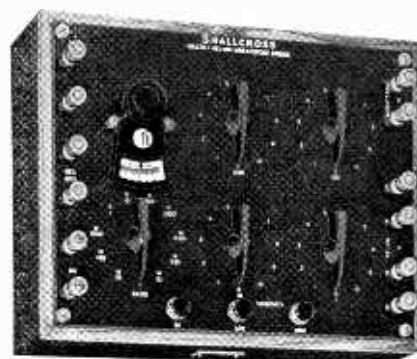


**CLIPPER COIL WINDING COUNTER**, designed for direct connection to the motor shaft or for operation through a flexible shaft. Reset to zero is accomplished with a single motion. Unique pointer design gives instant visual check of reset. Legible figures read to 10,000 turns. Pointers have specially designed friction hubs which afford large bearing area for dependability and minimum wear. Production Instrument Company, 702-20 W. Jackson Blvd., Chicago, Ill.—RRT.



**ILCO STIRRUP PUMP**, designed by the government and approved by the O. C. D. The pump mechanism is of metal and plastics, the handle, wood. 10 ft. flexible and leakproof hose. Plastic nozzle, adjustable to throw solid stream or fine mist spray. Ceiling retail price \$3.80. Contract for manufacture and sale in New England states has been awarded to the Independent Lock Co., Fitchburg, Mass.—RRT.

**OHMITE WIREWATT RESISTORS** are available in values from 100 to 25,000 ohms (and others on special order). These compact 1 w. units are wire wound on porcelain cores and coated with low temperature enamel. Mounted and connected through their wire leads. Because they are noise-free and have constant resistance they are especially designed for radio and other low wattage electronic circuits and in meter circuits. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.—RRT.




**SHALLCROSS KELVIN-WHEATSTONE BRIDGE**, 638-L, has an effective range from 0.0001 ohm to 11,000,000 ohms. By using a source of current of considerable capacity resistances as low as 0.00001 ohm may be detected and measured. The rheostat arm consists of four decades, variable in 1 ohm increments. The ratio arm has two sets of multipliers. The set designated W is for use in Wheatstone Bridge measuring and the set designated K is for measuring with the Kelvin Bridge method. Shallcross Mfg. Co., Collingdale, Pa.—RRT.

BUY  
WAR  
BONDS  
AND  
STAMPS







# ANOTHER JENSEN WARRIOR!

There is nothing visionary about this product. It is at war every day helping to make our navy the best navy in the world. Many other Jensen loud speakers are at war, too; some of them are standard Jensen prewar products . . . all of which we believe is interesting commentary on the eternal quality and reliability of Jensen products whether in war, prewar or postwar times.

## Jensen

RADIO MANUFACTURING CO.,

6601 S. LARAMIE AVENUE, CHICAGO

## New Stars in Radio Production Banners

New honors have been given to manufacturers in the radio field, for continued excellence in the production of war equipment.

P. R. Mallory & Co., Inc., Indianapolis, Ind., has been honored with a renewal of the Army-Navy "E" award for an additional period of six months, dating from Dec. 31, 1942. Thus Mallory will add another white star to its pennant; the first one was added in July of last year. The company was the first in Indianapolis to get the Navy "E" flag, which was awarded in December 1941 and later replaced by the coveted Army-Navy banner.

In Camden, N. J., the RCA Victor Division of the Radio Corp. of America added a second star to its Army-Navy "E" pennant. This was also a second renewal of the "E" which Victor had first received more than a year ago. The company has been conducting an intensive drive, under the auspices of a joint labor-management War Production Committee, to speed up production of equipment for the Armed Forces.

For continued "meritorious services on the production front," Philco Corp. has also been awarded the Army-Navy "E" with a white star, according to word from Robert P. Patterson, Under Secretary of War. The original "E" award presentation was made to this firm on August 14, 1942.

Mr. Patterson said that "The White Star, which the renewal adds to your Army-Navy Production Award flag, is the symbol of appreciation from our armed forces for your continued and determined effort and patriotism."

## More PD-IX for Distributors

New advice on the use of PD-IX forms by parts distributors in their re-stocking difficulties has been issued by the National Electronic Distributors Association.

NEDA says that PD-IX is working smoothly for those who are using it in the right way, and for the right merchandise. But it is pointed out that the big majority of the forms being processed at Washington are for radio tubes, rather than for replacement parts. This indicates either that the jobbers are using other methods for re-stocking, or that their need for replacement parts is not as acute as was generally thought.

Also, it is reported by WPB that the civilian stock pile of radio materials has been constantly depleted by jobbers who fill out small rated orders out of PD-IX material and then fail to use these small priority orders to fill the stock. In this regard, NEDA feels that some jobbers are selling themselves and their fellow distributors out of business, just because the PD-IX

order is easier to handle than the rated order.

NEDA goes on to say that "WPB has asked us to put special emphasis on the necessity for accumulating small priority orders and sending them to the factories so that the total made available by the small rated orders will help to keep the civilian stock pile up to par."

Distributors are again reminded of the fundamental nature of the PD-IX form: (1) It is designed to give distributors priority ratings for a 60-day supply of parts so that these parts can be sold to servicemen without priority ratings, (2) Distributors *must* furnish parts for civilian sets, without ratings, and *must* use PD-IX to replenish their stocks of these parts, and (3) Civilian allotments *must* go to civilians.

## FM to Dominate Radio, Says Freed

It has been predicted by Arthur Freed, the radio pioneer who is vice-president and general manager of the Freed Eisemann company, that FM will supplant the amplitude modulation system of broadcasting within a year after peace comes. Mr. Freed bases his conclusions on a survey just completed in 17 cities of the U. S. where 53 FM transmitters are operating. He said that the public preference as reported by radio dealers, was for the staticless quality and the superior tone range of FM.

Mr. Freed added that FM is now making vital contributions to the war

## Ropin' and Ridin'



These two prominent radio men are old hands at ranch life in the Southwest. Thomas A. White, left, vice president and sales manager of Jensen Mfg. Co., and Burton Browne, Chicago advertising agency head, prefer winter vacations in Arizona.

## Next to Nelson



Charles E. Wilson, the General Electric president, now holds a key position in Washington as Executive Vice Chairman of the War Production Board. He was named by Donald Nelson to succeed F. E. Eberstadt, and has been given authority over all phases of WPB programs and activities. See page 21.

effort and that its developments go ahead at an impressive rate. These improvements cannot be told now, but "the public can be certain that what FM licensees are learning during their war work will make peacetime FM radios unusual musical instruments for home entertainment."

## Signal Corps Will Buy More Radio Equipment

The Signal Corps is again making a call for radio equipment, needed both for training purposes and operational use. Especially desired are audio-frequency and radio-frequency signal generators and oscilloscopes, precision a-c and d-c voltmeters, ammeters and milliammeters, and other test equipment. Also needed are capacitors, resistors and installation materials.

Radio amateurs were urged to sell their transmitters and receivers, in the new appeal.

The Signal Corps says that "Used equipment will be purchased if it is in perfect operating condition or if it can readily be restored to such condition. The price paid for each item will be set by a Signal Corps inspector. Persons in possession of the desired equipment who wish to sell it for the use of the Army are invited to send a brief description, including name of manufacturer and model type, to Captain James C. Short at the Philadelphia Signal Corps Procurement District, 5000 Wissahickon Avenue, Philadelphia, Pa."

# The SPRAGUE TRADING POST

EXCHANGE — BUY — SELL

**FOR SALE**—110 D.C. amplifiers, 8-tube phono type, used. 48's P.P.P. Output tubes supplied. Have special relay which keep filaments warm 'til ready for use, then applies full voltage to plates and files. at flip of switch. Sold "as is" or re-conditioned. Reasonable. Will swap three for 125 watt rotary converter. P. F. Alphonse, 6 Halifax St., Jamaica Plain, Mass.

**WILL SWAP**—1 Hickok signal generator and decibel meter comb.; 1 custom made amp. about 25-watts; two pairs of 6L6's; 1—18-watt 12" Pm. speaker (new); 1 Crosley table model radio for multi-meters, tube testers or multi-testers. Ward Smith, 712 1/2 Flecia Way, Homewood, Pittsburgh, Pa.

**WILL TRADE**—Small universal output transformers and 5 or 6 tube power transformers 6.3 volt type. Will trade for tubes or buy outright. Give full details as to size, make, etc. Radietric Labs, Hudson, Wis.

**WILL BUY**—F-M receiver, 'scope, meters, etc. Will also buy tubes. State what you have for sale. Charles Sovatsky, 209 Taaffe Place, Brooklyn, N. Y.

**WILL TRADE**—Junior volt ohmmyst or other high grade ohmmeter unit. Would consider Superior Giant ohmmeter or similar type, either battery or A.C.-operated. Metropolitan Radio Service, 4314 Elston Ave., Chicago, Ill.

**CONDENSER TESTER WANTED**—Must be standard product in good condition—no home-made job. Describe and name price. Radio Service Assoc., 7 Washington Pl., East Orange, N. J.

**WILL TRADE**—Oscilloscope, Philco signal tracer, 0-1 milliammeter, and condenser analyzer. Have radio chassis, old radio chassis, refrigerator parts, electric motors, watch, and books to exchange. Hlawati Radi Service, 1434 W. First St., Oil City, Pa.

**WILL TRADE**—Signal generator, volt-ohmmeter, analyzer and Sky Champion receiver. Only local replies considered. E. Dunn, 4031 Park Ave. Bronx, New York, N. Y.

**VOLT-OHMMETER WANTED**—Prefer Triplett. Must measure to 3 megohm resistance and 500 volts. Would like a mil. scale, too. T. Rex Phelan, 3717 1/2 Canal St., Houston, Texas

**FOR SALE**—BC-3 Bliley crystal, 2030.5 Kc. Guaranteed in perfect electrical and mechanical condition. Send offer. Will answer all letters. Charles Nelson, Route 2, Wayzata, Minn.

**RADIOS TO SWAP OR SELL**—Have ten Philco AR-50 and two AR-40 radios. Will swap or sell. Court Radio, 91 Prince St., Newark, N. J.

**ANALYZER FOR SALE**—Have Supreme analyzer in good condition for sale. Would like to obtain 35Z5 tubes, or 50L6, 12SA7 (G or GT), 12SK7 (G or GT) or 80's in original cartons. G. R. Runyan, 522 Main St., Arkadelphia, Arkansas.

**TUBES WANTED**—Need twenty-five 35Z5's; ten 12SA7's, fifteen 45's; also one pocket type volt ohmmeter. Describe fully and state price. H. W. Barnes, c/o Walker, Harlow Co., 127 Sandwich St., Plymouth, Mass.

**OSCILLATOR WANTED**—Will pay cash for unit in good condition. Have drafting set to swap. Felix Laureckis, R.F.D. Box 42, Brooklyn, Conn.

**WANTED**—Any kind of test equipment at reasonable prices—also any odd meters you might have available. Give list of same and price. Rolan P. Woods, CEM, Training Center Force, U.S.N.-C.T.C. S-3, Camp Endicott, Davisville, R. I.

**TYPEWRITERS TO TRADE OR SELL**—No. 5 Underwood and No. 10 Remington. Both in fair condition. Jack Kunzman, 60 Mercer St., Somerville, N. J.

**WANTED FOR CASH**—Tubes, any good brand, 125 types (metal or GT). 50L6GT, 5Y3GT, 35Z5GT, 35L6GT, also record changer assemblies. Paul J. McCray, 413 South Wayne St., Arlington, Va.

**EQUIPMENT FOR SALE**—Have Philco signal tracer (new); 6 volt generator, 50 mill., 250 volts; also ditto 30 mill., 180 volts with filter; and good used tubes, almost any type. Want 2" or 3" 'scope, Chanalyst, vacuum tube voltmeter, 0 to 1 mill. meter. John Repa, Jr., Richlandtown, Pa.

**WANTED**—R.M.E. LF-90 inverter; Hallicrafters HT-7 frequency standard; Abbott TR-4 transmitter. Walter Kryger, 912 W. 151 St., East Chicago, Indiana.

**WILL SELL—HALF PRICE**—Official Radio Service Manual Vol. VI. Battery operated Philco Signal Generator; also Radio City Products Tube Tester, good for beginners. Frick Radio Service, 1311 W. Virginia St., Evansville, Indiana.

**MANUALS WANTED**—Rider's Nos. 1, 2, 3, 4, 5, 8, 10, 11, and 13. Also want inductance bridge and an H.T.-7 or equivalent. Henry Wagner, 4411 Indianapolis Bld., East Chicago, Indiana.

**AMPLIFIER TO SWAP OR SELL**—Have 35-watt amplifier with two Jensen speakers, tubes, phono equipment, portable carrying case, etc. Has four inputs, 2 mike, 2 phono. Will trade for speed Graflex camera or equal in cash. Victor Kozma, 3104 Wilkinson Ave., New York, N. Y.

**WANTED**—Receiving parts, tubes, meters, power transformers, relays, condensers, speakers, and variable and fixed resistors. Give cond. and best price. Will trade new Lionel 00 scale model train outfit No. 0082-W with whistle and track freight engine, tender, box car, oilcar and caboose. R. N. Eubank, Room 504, Virginia Electric & Power Co., Richmond, Va.

**WANTED**—Tube checker, Multi-Tester, Oscilloscope, Signal Tracer, Condenser Tester, Rider's Manuals from 8 to 13. Will pay cash or swap sound equipment, amplifiers, mikes, etc. State price in first letter. Norman Jacobson, 1117 Gerard Ave., Bronx, New York, N.Y.

**TUBE TESTER FOR SALE**—Or trade. JMP Tube Tester, also RCA 204A Xmitting Tube, and Jewell Type 54 0-15 d.c. mill. meter. Want Jefferson or Thordarson 60 watt 6L6 P.A. or parts for same. Snavelly Radio Shop, 1014 Cedar St., Elkhart, Indiana.

**WANTED**—25, 50, or 100M ohm bleeder resistances, not less than 25 watts. Prefer semi-variable type. Leonard Cole, 266 Delmar Rd., Rochester, N. Y.

**WANTED**—Oscillograph, also obsolete radio test equipment, and used sound heads for 35 mm. film. Alfred L. Lepore, 736 Manton Ave., Providence, R. I.

**CASH FOR MANUALS**—Will pay cash for complete set of Rider's Perpetual Trouble Shooters Manuals, or will buy separate volumes. Must be perfect, and priced right. Kirkby Radio Service, 464 River St., Manistee, Michigan.

## Your Own Ad Run FREE!

The "TRADING POST" is Sprague's special advertising service designed to help radio servicemen obtain the things they need, or to dispose of things they do not need during the shortages of these wartime days. Send in your ad today! We'll run it in at least one of the five leading radio magazines in which the TRADING POST appears—at no cost to you, and providing only that the ad seems to us to fit in with the TRADING POST plan. "Emergency" ads will receive first attention. Keep your copy short. Write clearly. Address your ad to:

SPRAGUE PRODUCTS CO., Dept. RRT 33  
North Adams, Mass.

## TC TUBULARS

"Not a Failure in a Million"

Sprague TC Tubulars are the best-known by-pass condensers in Radio today—because they're the most dependable. Test voltage, 1200; working voltage, 600. They cost little—they do a big job—they will not let you down. Famous Sprague inner-seal moisture protection and many other features make them tops for any job. Sold by Sprague distributors everywhere. Ask for them by name!



SPRAGUE  
PRODUCTS CO.  
North Adams, Mass.

# SPRAGUE CONDENSERS AND KOOLOHM RESISTORS

Obviously, Sprague cannot assume any responsibility for, or guarantee goods, etc., which might be sold or exchanged through above classified advertisements

## Changes in Tung-Sol Sales Dept.



W. B. Masland, the Tung-Sol executive who has been "loaned" to the War Production Board for special duties in Washington.

In order to obtain the best operating efficiency, Tung-Sol Lamp Works, Inc., of Newark, N. J., has announced executive changes.

G. A. Bodem, formerly in charge of exports and radio tube equipment sales, is now sales manager for radio tubes, lamps and special products. The market research and advertising departments have been combined with W. B. Masland as manager. Mr. Masland, formerly renewal sales manager, is now on loan to the WPB in Washington.

## Emerson Employees Invest More Than 10%

The war workers of Emerson Radio & Phonograph Corp. were awarded the "T" flag of the U. S. Treasury for beating their quota of War Bond and Stamp purchases. The subscriptions of 93 per cent of the employees have averaged more than 10 per cent of their base pay.

The presentation of the Treasury emblem was made at a war production rally attended by Army and Navy officials and battle heroes.

## Phoneedle in Wartime Sales

Sales experts at Recoton Corp., makers of Phoneedles at 21-10 49th Ave., Long Island City, N. Y., point out that retailer emphasis on their 10c gold-packaged phonograph needle these days is timely for a couple of reasons. One is that it discourages hoarding by making the needles available to more people, and the second reason is that these points are ideal for the playing

of recorded messages sent to and from the men in the Armed Forces.

The company reports also that this 10c Superior Phoneedle has been invaluable in building store traffic for retailers.

## Sonora Products, Inc., Formed in Chicago

It has been announced by Joe Gerl, president of Sonora Radio & Television Corp., Chicago that a new sales organization has been formed to handle all Sonora civilian merchandise. The new firm will be called Sonora Products, Inc.

Mr. Gerl said that Sonora Products, Inc., was formed "to eliminate many of the complications in accounting procedures and plant supervision, due to the big percentage of our products now going to the government."

## Snyder Company Expands Antenna Production

Next month, the radio antenna specialist, the Snyder Mfg. Co., will move into new and improved quarters at 22nd and Ontario Streets, Philadelphia. The firm has purchased a new factory building there, where the 50,000 sq. ft. of space will permit expansion for current war production and enlargement of post-war lines.

Gus Snyder, partner and superintendent of production, has scheduled the moving so that production will not

## Washington Promotion



Ralph J. Cordiner has been given new responsibilities with the War Production Board in Washington. Previously director-general for War Production Scheduling, he's now a vice-chairman of WPB and special assistant to Charles E. Wilson. Mr. Cordiner was the head of Schlek, Inc., and had previously been a General Electric executive.

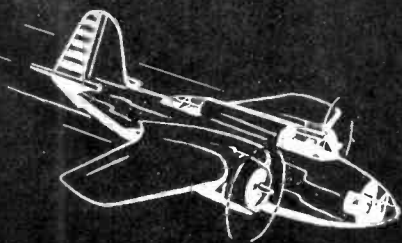
be interrupted and the new up-to-date equipment at the new plant will roll into action at once. The Snyder company designs and manufactures many types of radio antennas and related products, and is now making this equipment for the Allied Armies and Navies.

## Experts Added to Hallierafters Staff

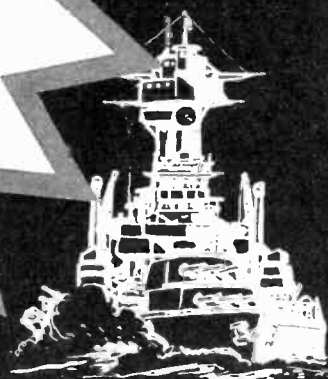
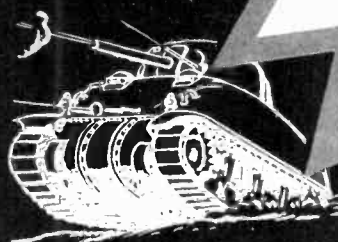


New personnel for the Hallierafters Co., Chicago, has been announced by Raymond W. Durst, left, partner in the firm. Robert L. Russell, standing, has been named an administrative assistant, and Cletus Wiot, right, becomes the manager of the government contract section. Mr. Russell's experience has been with the Chicago Signal Corps Depot, Chrysler, and General Motors. Mr. Wiot has served in several divisions of Hallierafters for many years.





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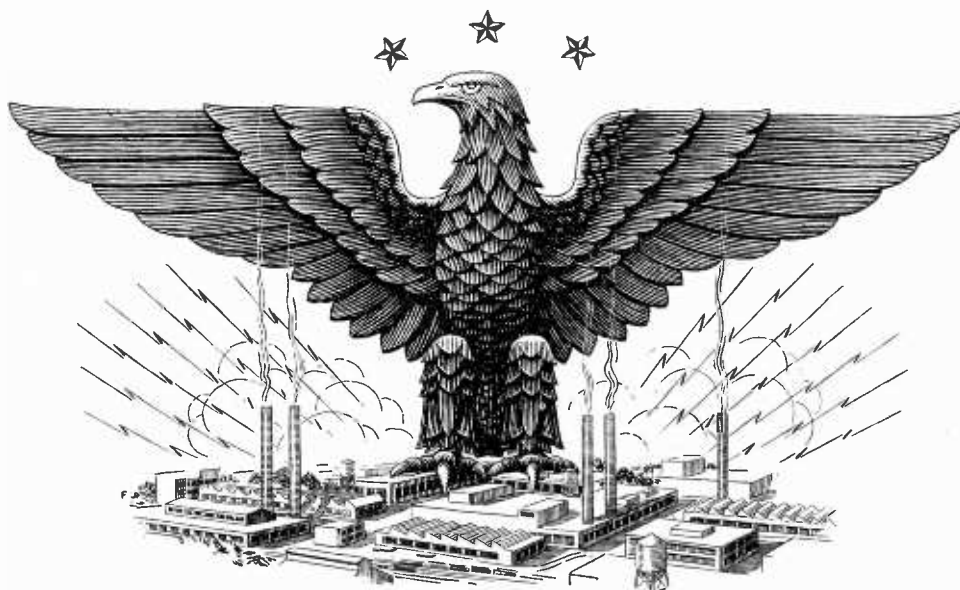
# 1943-44 RADIO TRADE

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# Radio Trade Directory

Section of Radio Retailing Today

**Wartime Listings of Manufacturers, Products and Trade Names—an Up-to-Date Buying Guide with Products Indexed on Pages 54 and 55.**

## Antennas & Accessories



Airplane antenna	AA
All-wave (home)	AW
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Frequency modulation	FM
Ground clamps	G
Grounding springs	GS
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Insulators	I
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Lightning arresters	L
Loop antennas	LA
Master systems	MS
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Outlets	O
Rotary beam	RB
Television	T
Towers & Supports (home)	TL

ABC Radio Laboratories, 3334 N. New Jersey St., Indianapolis, Indiana—AW  
 Acme Welding Co., Louisville, Ohio—AW, FM, LA, T  
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.—antenna eliminator  
 Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kans.—AA  
 Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—FM, LA  
 The Akron Porcelain Co., Cory Ave., Akron, Ohio—I  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—AW, A, FM, G, I, K, L, LA, TL  
 American Lava Corp., Cherokee Blvd., & Manufacturers Rd., Chattanooga, Tenn.—K  
 American Radio Hardware Co., Inc., 478 Broadway, New York, N. Y.—G, O  
 Amplex Engineering, Inc., 1620 Grand Ave., New Castle, Ind.—RB  
 Amy, Aceves & King, Inc., 13 W. 42nd St., New York, N. Y.—MS  
 Atlantic India Rubber Works, Inc., 1453 W. Van Buren St., Chicago, Ill.—I  
 Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—I  
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.—AW, FM, K, L  
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 Blaw-Knox Company, Blawnox, Pa.—FM, TL  
 L. S. Brach Mfg. Co., 55 Dickerson St., Newark, N. J.—AW, A, G, I, K, L, MS, N, TL  
 Clampie—Mueller Electric Co.  
 Consolidated Wire & Assoc. Corps., 1635 S. Clinton, Chicago, Ill.—A, AW, G, K, L, MS  
 Cook Ceramic Mfg. Co., 503 Prospect St., Trenton, N. J.—I  
 Cook Electric Co., 2700 Southport Ave., Chicago, Ill.—L  
 Corning Glass Works, Corning, N. Y. "Pyrex"—I  
 Cornish Wire Co., Inc., 15 Park Row, New York, N. Y. "Corwico", "Noise-Master"—AW, G, I, K, L, MS  
 Corwico—Cornish Wire Co., Inc.  
 Dessert and Co., 242-244 W. 41st St., New York, N. Y.—G  
 DX Crystal Co., 1841 W. Carroll Ave., Chicago, Ill.—RB  
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza So., Long Island City, N. Y.—AW, G, I, K, L  
 Fisher Research Laboratory, 1961 University Ave., Palo Alto, Calif.—A, LA  
 M. M. Fleron & Sons, Inc., 113 N. Broad St., Trenton, N. J., "Fleron"—AW, G, I, K, L, N, O, TL, T  
 Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—AW, A, FM, G, I, K, L, MS, N, TL, T  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—GS  
 General Ceramics and Steatite Corp., Keasbey, N. J.—I  
 General Winding Co., 420 W. 45th St., New York, N. Y., "Gen-Win"—AW, K, MS, N  
 Gen-Win—General Winding Co.  
 ICA—Insuline Corp. of America  
 Imperial Porcelain Works, Inc., New York Ave. & Mulberry St., Trenton, N. J.—I  
 Insuline Corp. of America, 3802-35th Ave., Long Island City, N. Y., "ICA"—A, LA, TL

Isolantite Inc., 843 Cortlandt St., Belleville, N. J.—I, HF  
 J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y., "JFD"—A, FM, TL  
 E. F. Johnson Co., Waseca, Minn.—FM, I  
 Kaar Engineering Co., Palo Alto, Calif.—A  
 Lapp Insulator Co., Inc., Le Roy, N. Y.—I, O  
 Lear Avia, Inc., Piqua, Ohio—LA  
 Lehigh Structural Steel Co., 17 Battery Place, New York, N. Y.—T  
 Fred M. Link, 125 W. 17th St., New York, N. Y.—FM  
 Littelfuse, Inc., 4732 Ravenswood Ave., Chicago, Ill.—L  
 Locke Insulator Corporation, S. Charles & Cromwell Sts., Baltimore, Md.—I, K  
 James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—I, F, S  
 Molded Insulation Co., 335 E. Price St., Philadelphia, Pa.—I  
 Mueller Electric Co., 1533 E. 31st St., Cleveland, Ohio, "Universal", "Clampie"—G  
 The Mutter Co., 1255 S. Michigan Ave., Chicago, Ill.—LA  
 Mycalex Corporation of America, 60 Clifton Blvd., Clifton, N. J.—I  
 National Porcelain Co., 400 Southard St., Trenton, N. J.—I  
 Noise-Master—Cornish Wire Co., Inc.  
 Penn-Union Electric Corp., 315 State St., Erie, Pa.—G  
 Philson Mfg. Co., Inc., 156 Chambers St., New York, N. Y.—A, TL, FM  
 Porcelain Products, Inc., 124 W. Front St., Findlay, Ohio—I  
 Premax Products Div., Chisholm-Ryder Co., Inc., Niagara Falls, N. Y., "Premax"—AW, I, T  
 Pyrex—Corning Glass Works  
 Radex Corp., 1322 Elston Ave., Chicago, Ill.—FM, LA  
 The Radiant Corp., 3571 W. 62nd St., Cleveland, Ohio—AW, A  
 Radio Frequency Labs., Inc., Boonton, N. J.—LA  
 Radolek Co., 601 W. Randolph St., Chicago, Ill.—AW, A, K  
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 Technical Appliance Corp., 516 W. 34th St., New York, N. Y., "Taco"—AW, FM, I, L, MS, N, TL  
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 The Ucinite Co., 459 Watertown St., Newtonville, Mass.—TL  
 Utilities Service Co., Allentown, Pa.—G, K, LA  
 Vertrod Mfg. Co., 132 Nassau St., New York, N. Y.—AW, K, N, TL  
 Victor Insulators, Inc., Maple Ave., Victor, N. Y.—I  
 Ward Products Corp., 1523 E. 45th St., Cleveland, Ohio, "Ward"—AW, A, FM, G, L, LA, TL  
 Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—I, O  
 Whisk Laboratories, 145 W. 45th St., New York, N. Y.—N  
 Wincharger Corp., Sioux City, Iowa—T

Chicago Metal Hose Corp., 1315 S. 3rd Ave., Maywood, Ill.—F  
 Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—CU  
 Crowe Name Plate & Mfg. Co., 3703 Ravenswood Ave., Chicago, Ill.—"Crowe"—CU, CH, F, FS  
 Dual Remote Control Co., 31776 W. Warren St., Wayne, Mich., "Ducon"—CU, CH, F, FS  
 Ducon—Dual Remote Control Co.  
 Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill., "Motorola"—CU, CH, F, FS  
 Insuline Corp. of America, 3602 35 Ave., Long Island City, N. Y., "ICA"—FS  
 J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y., "JFD"—T, F, FS  
 Lear Avia, Inc., Piqua, Ohio—CH, FS  
 Molded Insulation Co., 335 E. Price St., Philadelphia, Pa.—FS  
 Motorola—Galvin Mfg. Corp.  
 Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—CU, CH, F, FS  
 Reynolds Spring Co., Molded Plastics Division, Cambridge, Mass.—CH  
 F. W. Stewart Mfg. Corp., 4311 Ravenswood Ave., Chicago, Ill., "Stewart"—CU, CH, FS  
 Troy Radio & Television Co., 1144 S. Olive St., Los Angeles, Calif.—CU, CH  
 Walker-Turner Co., Inc., 639 South Ave., Plainfield, N. J.—FS  
 S. S. White Dental Mfg. Co., Industrial Div., 10 E. 40 St., New York, N. Y.—FS

## Automatic Tuning Units & Parts



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Mechanical automatic selectors	MS
Push button knobs	K
Push button motor operated units (complete)	PM
Push button trimmer units (complete)	PT
Remote controls	R
Station name cards	SC
Switches	S
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Aladdin Radio Industries, Inc., 225 W. Jackson Blvd., Chicago, Ill.—IT  
 Alden Products Co., 119 N. Main St., Brockton, Mass.—GC  
 Alliance Manufacturing Co., Lake Park Blvd., Alliance, Ohio—M  
 American Automatic Electric Sales Co., 1019 W. Van Buren, Chicago, Ill.—B  
 American Insulator Corp., New Freedom, Pa.—K  
 American Steel Package Co., Squire Ave., Defiance, Ohio, "Defiance"—MS  
 Automatic Winding Co., 900 Passaic Ave., E. Newark, N. J.—IT, PT, CU  
 Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—GC, IT, S, CU  
 Centralab, 900 E. Keefe Ave., Milwaukee, Wis., "Centralab"—S  
 Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—MS, FM  
 Consolidated Wire & Assoc. Corps., 1635 S. Clinton, Chicago, Ill.—MS  
 Control Corp., 800 Stinson Blvd., Minneapolis, Minn.—B  
 Cota-Coil Co., 71 Willard Ave., Providence, R. I.—MS, R, S  
 Crowe Name Plate & Mfg. Co., 3701 Ravenswood Ave., Chicago, Ill., "Crowe"—MS, K, SC  
 Harry Davies Molding Co., 1428 N. Wells St., Chicago, Ill.—K  
 Defiance—American Steel Package Co.  
 DX Crystal Corp., 1841 W. Carroll Ave., Chicago, Ill.—IT, CU  
 H. C. Evans & Co., 1528 W. Adams St., Chicago, Ill.—S  
 The Forest Electronic Co., 320 E. 65th St., New York, N. Y.—R  
 Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill., "Motorola"—K, R

## Auto Radio Controls



Cable replacement tools	T
Control units (complete)	CU
Control heads	CH
Fittings	F
Flexible shafts	FS

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—T, CU, CH, F, FS  
 Breeze Corporations, 26 S. 6th St., Newark, N. J.—FS  
 Bad Radio, Inc., 2118 E. 55 St., Cleveland, Ohio—FS

## Automatic Tuning Parts

General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—S  
The General Industries Co., Taylor & Olive Sts., Elyria, Ohio—K  
General Instrument Corp., 829 Newark Ave., Elizabeth, N. J.—MS, PM  
General Winding Co., 420 W. 45th St., New York, N. Y., "Gen-Win"—IT, PM, PT, CU, M  
Gen-Win—General Winding Co.  
Carl Gorr Printing Co., Inc., 1801 Byron St., Chicago, Ill.—SC  
Guardian Electric Mfg. Co., 1622 W. Walnut St., Chicago, Ill.—R  
E. I. Guthman & Co., Inc., 15 S. Throop St., Chicago, Ill., "Guthman"—IT, PT, CU  
Hart Manufacturing Co., 110 Bartholomew Ave., Hartford, Conn.—R  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—GC, IT, MS, PM, PT, R  
Lear Avia, Inc., Piqua, Ohio—MS, PM, R, M

P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Yaxley", "Mallory"—S, CU  
James Millen Mfg. Co., Inc., 130 Exchange St., Malden, Mass.—CU  
Molded Insulation Co., 335 E. Price St., Philadelphia, Pa.—K  
Motorela—Galvin Mfg. Corp.  
The Mutter Co., 125 S. Michigan Ave., Chicago, Ill., "Muter"—MS, PT, S  
Oak Mfg. Co., 1260 Clybourn Ave., Chicago, Ill., "Oak"—GC, MS, PM, S  
Oxford-Tartak Radio Corp., 3911 South Michigan Ave., Chicago, Ill.—R  
Parisian Novelty Co., 3510 S. Western Ave., Chicago, Ill.—SC  
Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—GC, IT, K, PM, PT, R, SC, S, CU, M  
Premier Metal Etching Co., 21-03—44th Ave., Long Island City, N. Y.—SC  
Radio Receptor Co., Inc., 251 W. 19th St., New York, N. Y.—R  
Reynolds Spring Co., Molded Plastics Division, Cambridge, Mass.—K

The Richardson Co., Melrose Park, Ill.—"Insurok"—K  
F. A. Smith Mfg. Co., Inc., P. O. Box 509, Rochester, N. Y.—M  
Sprague Products Co., North Adams, Massachusetts—CU, PT  
Sprague Specialties Co., North Adams, Mass.—PT, CU  
Stackpole Carbon Co., St. Marys, Pa., "Stackpole"—S  
F. W. Stewart Mfg. Corp., 4311 Ravenswood Ave., Chicago, Ill.—MS, K, PM, R, SC, S  
S-W Inductor Co., 1056 N. Wood St., Chicago, Ill.—IT  
Teleradio Engineering Corp., 484 Broome St., New York, N. Y., "Teleradio"—IT, PT, CU  
Trans-American Airports Corp., 271 Madison Ave., New York, N. Y.—S  
Utah Radio Products Co., 850 Orleans St., Chicago, Ill., "Utah"—M  
Yaxley—P. R. Mallory & Co.

## Battery Chargers



Gas engine .....	G
Hand cranked .....	HC
Metallic rectifiers .....	MC
Motor generator .....	MG
Power line (home) .....	PH
Power line (service station) .....	PS
Vacuum tube .....	VC
Vibrators .....	V
Wind driven .....	W

Acme Electric & Mfg. Co., 54 Water St., Cuba, N. Y.—PS  
Allen Elec. & Equip. Co., 2103 N. Pitcher St., Kalamazoo, Mich.—MC, VC  
American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—VC  
American Battery Co., 17 S. Jefferson St., Chicago, Ill.—MC, VC  
American Communications Corp., 306 Broadway, New York, N. Y.—VC  
American Television & Radio Co., 300 E. 4th St., St. Paul, Minn., "ATR"—PH, MC  
American Transformer Co., 178 Emmet St., Newark, N. J.—VC  
ATR—American Television & Radio Co.  
The Automatic Electrical Devices Co., 324 E. Third St., Cincinnati, Ohio—MC, PH, PS  
Battery Boosters—The Benwood Linze Co.  
The Benwood Linze Co., 1815 Locust St., St. Louis, Mo., "B-L", "Battery Boosters"—MC, PH, PS  
B-L—The Benwood Linze Co.  
Briggs & Stratton Corp., 2711 N. 13th St., Milwaukee, Wis., "Briggs & Stratton"—G  
The Brown-Brockmeyer Co., 1000 S. Smithville Rd., Dayton, Ohio—MG  
Carter Motor Company, 1609 Milwaukee Ave., Chicago, Ill.—HC  
Climax Engineering Co., Clinton, Iowa—G  
Control Corp., 600 Stinson Blvd., Minneapolis, Minn.—MC  
Ecor, Inc., 1501 Congress St., Chicago, Ill., "Utilite"—G, MG  
Electrical Facilities, Inc., 4224 Holden St., Oakland, Calif.—MC  
Electrical Products Co., 6535 Russell St., Detroit, Mich.—G, PH, W  
Electricoil Transformer Co., 417 Canal St., New York, N. Y.—G, VC  
Electron Equipment Corp., Palm Springs, Calif.—MC, PH, PS  
Electronic Products Co., 19 N. First St., Geneva, Ill.—MC, PH, PS, VC  
Fansteel Metallurgical Corp., North Chicago, Ill.—MC  
Federal Telephone & Radio Corp., 200 Mt. Pleasant Ave., Newark, N. J.—MC  
General Electric Company, 1 River Road, Schenectady, N. Y.—MC, MG, PH, PS, VC  
Gould Storage Battery Corp., 35 Neoga St., Depew, N. Y.—MC  
Hy Ef Electrical Products Mfg. Co., 1515 W. Pico Blvd., Los Angeles, Calif., "Hy Ef"—MC, VC  
Janette Mfg. Co., 556 W. Monroe, Chicago, Ill.—MG  
Kato Engineering Co., 530 N. Front St., Mankato, Minn., "Kato"—G  
Laurehk Radio Mfg. Co., 3918 Monroe Ave., Wayne, Mich., "Laurehk"—VC  
Lear Avia, Inc., Piqua, Ohio—W  
Leland Electric Co., 1501 Webster St., Dayton, Ohio—MG  
Linick, Green & Reed, Inc., 29 East Madison St., Chicago, Ill.—MC  
Fred M. Link, 125 W. 17th St., New York, N. Y.—MC  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Mallory"—MC, PH, PS  
Merwin-Wilson Co., New Milford, Conn.—MC, VC  
The North Electric Mfg. Co., P. O. Box 267, Gallon, Ohio—MC  
D. W. Onan & Sons, 43 Royalston Ave., Minneapolis, Minn.—G  
Pincor—Pioneer Gen-E-Motor Corp.  
Pioneer Gen-E-Motor Corp., 5841 W. Dickens St., Chicago, Ill., "Pincor"—G, MG  
Raytheon Mfg. Co., Electrical Equip. Division, Waltham, Mass., "Recticharger"—MC

**PROUDLY IN THE**  
*Nation's Service*

As in the First World War, BRACH radio and electrical equipment is once again proving its excellence and dependability under the most exacting conditions...the products of 36 years' experience in "QUANTITY-plus-QUALITY" manufacture.

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**L. S. BRACH MFG. CORP.**  
World's Oldest and Largest Manufacturers of Radio Aerial Systems  
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The Ready Power Company, 3826 Grand Ave., Detroit, Mich.—G  
Recticharger—Raytheon Mfg. Co.  
Small Motors, Inc., 1322 Elston Ave., Chicago, Ill.—MG  
Stancor—Standard Transformer Corp.  
Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill., "Stancor"—PS  
Taylor Tubes, Inc., 2318 Wabansia Ave., Chicago, Ill.—VC  
Technical Apparatus Co., Inc., 1171 Tremont St., Boston, Mass.—MC  
United Transformer Co., 150 Varick St., New York, N. Y.—MC, PH, VC  
Utilite—Elicor, Inc.  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—MC, MG  
Willard Storage Battery Co., 246 E. 131st St., Cleveland, Ohio, "Willard"—MC, PS, VC  
Wincharger Corp., Sioux City, Iowa—G, W  
Wind-impeller Electric Works, Ellsworth, Iowa—W

## Batteries, Dry & Wet

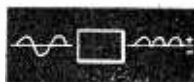


"A" blocks .....A  
"B" .....B  
"C" .....C  
Bias cells .....BC  
Hearing aid .....HB  
Dry cells .....DC  
Flashlight cells .....FL  
Portable A & B .....PB  
Storage .....S  
Storage, non-spill .....SN  
Wet batteries .....W

Acme Battery Co., 61 Pearl St., Brooklyn, N. Y., "Advance"—DC  
Advance—Acme Battery Co.  
Air Cell—National Carbon Co., Inc.  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—A, B, C, BC, DC, FL, PB, S  
Bond Electric Corp., 148 Munson St., New Haven, Conn., "Bond"—A, B, C, DC, FL, PB  
Bright Star Battery Co., 202 Crooks Ave., Clifton, N. J., "Bright Star", "Unneed-it", "Eclipse"—A, B, C, BC, DC, FL, PB  
Bryant Mfg. Co., 401 North Pauline St., Chicago, Ill.—W  
Burgess Battery Co., Freeport, Ill., "Power-House", "Multi-Ply", "Uni-Cel"—A, B, C, DC, FL, PR, HB  
Centralab, 900 E. Keefe Ave., Milwaukee, Wis.—S  
Eclipse—Bright Star Battery Co.  
Edison Storage Battery Div., Thomas A. Edison, West Orange, N. J.—DC, S  
Electric Storage Battery Co., Allegheny Ave. & 19th St., Philadelphia, Pa., "Exide"—S  
Eveready—National Carbon Co.  
Exide—Electric Storage Battery Co.  
Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—A, B, C, DC, PB, S, SN  
General Dry Batteries, Inc., 13000 Athens Ave., Cleveland, Ohio—A, B, C, HB, DC, FL, PB  
General Lead Batteries Co., 125 Chapel St., Newark, N. J.—S  
Globe-Union, Inc., 900 E. Keefe Ave., Milwaukee, Wis.—S  
Gould Storage Battery Corp., 35 Neoga St., Depew, N. Y.—S, SN  
Ideal Commutator Dresser Co., 5079 Park Ave., Sycamore, Ill.—SN  
Laurehk Radio Mfg. Co., 3918 Monroe Ave., Wayne, Mich.—HB  
Lay-Bilt—National Carbon Co., Inc.  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.—BC  
Marathon Battery Company, 840 Henrietta St., Wausau, Wis.—A, B, C, BC, HB, DC, FL, PB  
Mini-Max—National Carbon Co., Inc.  
Monark Battery Co., Inc., 1240 N. Homan Ave., Chicago, Ill., "Monark"—W  
Multi-Ply—Burgess Battery Co.  
National Battery Co., 1728 Roblyn Ave., St. Paul, Minn.—S  
National Carbon Co., Inc., 30 E. 42nd St., New York, N. Y., "Air Cell", "Eveready", "Lay-Bilt", "Mini-Max"—A, B, C, HB, DC, FL, PB  
National Union Radio Corp., 15 Washington St., Newark, N. J.—FL, PB  
Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—A, B, C, DC, FL, PB, S  
Power-House—Burgess Battery Co.  
Prest-o-lite Battery Co., 4500 W. 16th St., Indianapolis, Ind.—S  
Ray-O-Vac Co., 2317 Winnebago, Madison, Wis., "Ray-O-Vac"—A, B, C, HB, DC, FL  
Reading Batteries, Inc., Reading Pa.—S, SN  
Solar Corp., 944 W. Bruce St., Milwaukee, Wis.—S  
Sonotone Corp., Elmsford, N. Y.—HB  
Southern Battery Co., Appomattox, Va.—FL  
Unneed-it—Bright Star Battery Co.  
Uni-sel—Burgess Battery Co.  
United States Electric Mfg. Corp., 222 W. 14th St., New York, N. Y., "Usalite"—A, B, C, DC, FL, PB  
Universal Battery Co., 3410 S. LaSalle St., Chicago, Ill., "Universal"—S, SN  
U S L Battery Corp., Niagara Falls, N. Y., "U-S-L"—S  
Usalite—United States Electric Mfg. Co.

Willard Storage Battery Co., 246 E. 131st St., Cleveland, Ohio, "Willard"—A, B, C, BC, DC, FL, PB, S, SN  
Wincharger Corp., Sioux City, Iowa—S  
Winchester Repeating Arms Co., New Haven, Conn.—DC

## Battery Eliminators & Power Supply



Battery eliminators .....BE  
Hand cranked .....HC  
Metallic rectifiers .....M  
Mercury arc .....MA  
Power units complete .....PU  
Voltage regulators .....VR

Acme Electric & Mfg. Co., 54 Water St., Cuba, N. Y.—PU

Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kans.—PU  
Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—PU  
Allen Elec. & Equip. Co., 2103 North Pitcher St., Kalamazoo, Mich.—BE, M, PU  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—BE, M  
Altec Lansing Corp., 6902 McKinley Ave., Los Angeles, Calif.—PU  
American Automatic Electric Sales Co., 1019 W. Van Buren, Chicago, Ill.—BE  
American Communications Corp., 306 Broadway, New York, N. Y.—PU  
American Transformer Co., 178 Emmet St., Newark, N. J.—BE, M, MA, PU  
Amplifier Co. of America, 17 W. 20th St., New York, N. Y., "ACA"—PU  
The Automatic Electrical Devices Co., 324 E. Third St., Cincinnati, Ohio—M, PU  
Auto Radio Filterpac—The Benwood Linze Co.  
The Benwood Linze Co., 1815 Locust St., St. Louis, Mo., "B-L", "Auto Radio Filterpac"—BE, M  
B-L—The Benwood Linze Co.  
Carter Motor Co., 1609 Milwaukee Ave., Chicago, Ill.—HC



Nobody will dispute that the dry battery needs of our armed forces must come first! And the restricted supply available for civilian use has many important jobs to do. Thousands of rural communities are dependent on battery operated radios to bring them the reports of important current happenings, while early morning and late evening chores on farms are aided by battery powered flashlights.

Realizing the need for equitable distribution of war-restricted supplies of flashlight and radio batteries, Burgess distributors in cooperation with the Burgess Battery Company are shouldering the responsibility of distributing these very limited supplies as fairly as possible.

**BURGESS BATTERY COMPANY, FREEPORT, ILLINOIS**



## Battery Eliminators & Power Supply

Conn. Telephone & Elec. Div., Great American Industries, Inc., Meriden, Conn.—PU  
Continental Electric Co., 715 Hamilton St., Geneva, Ill., "Cetron"—B, G, MA, V  
Control Corp., 800 Stinson Blvd., Minneapolis, Minn.—M  
Electrical Facilities, Inc., 4224 Holden St., Oakland Calif.—M  
Electric Transformer Co., 417-421 Canal St., New York, N. Y.—BE, PU  
Electron Equipment Corp., Palm Springs, Calif.—BE, M, MA, PU  
Electronic Corp. of America, 45 W. 18th St., New York, N. Y.—PU  
Electronic Laboratories, Inc., 122 W. New York St., Indianapolis, Ind.—BE, PU  
Electronic Products Co., 19 North 1st St., Geneva, Ill.—MA, PU  
Electronic Transformer Co., 515 W. 29th St., New York, N. Y.—PU  
Electro Products Laboratories, 549 W. Randolph St., Chicago, Ill.—BE, PU  
Fansteel Metallurgical Corp., 46 W. 22 St., North Chicago, Ill.—M, PU  
Ferranti Electric, Inc., 30 Rockefeller Plaza, New York, N. Y.—PU  
Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J., "Ferris"—PU  
General Electric Co., West Lynn, Mass.—M  
General Electric Company, 1 River Rd., Schenectady, N. Y.—M, MA, PU  
General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill., "Porta-Power"—BE, PU  
Herbach & Rademan Co., 522 Market St., Philadelphia, Pa.—PU  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—BE, PU  
Lear Avia, Inc., Piqua, Ohio—PU  
Linick, Green & Reed, Inc., 29 E. Madison St., Chicago, Ill.—M  
Mallory Dry Disc—P. R. Mallory & Co., Inc.  
P. R. Mallory & Co., Inc., 3039 E. Washington St., Indianapolis, Ind., "Mallory Dry Disc"—M, PU  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—PU  
National Company, Inc., Malden, Mass.—PU  
The North Electric Mfg. Co., P. O. Box 267, Galion, Ohio—BE, M  
Nothelfer Winding Labs., 111 Albermarle Ave., Trenton, N. J.—MA, PU  
The Radiart Corp., 3571 W. 62nd St., Cleveland, Ohio—BE  
Radio Receptor Co., Inc., 251 W. 19 St., New York, N. Y.—PU  
Radiotron—RCA Victor Div., Radio Corp. of America  
The Rawland Corporation, 4245 N. Knox Ave., Chicago, Ill.—PU  
Raytheon Mfg. Co., Electrical Equip. Division, Waltham, Mass., "Rectifier"—PU, BE  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA", "Radiotron"—PU, VR  
The Ready Power Company, 3826 Grand River, Detroit, Mich.—PU  
Rectifier—Raytheon Mfg. Co.  
Schuttig & Company, 9th & Kearny Sts., Washington, D. C.—PU  
Selenium Corp. of America, 1800 W. Pico, Los Angeles, Calif.—M  
Silman Mfg. Corp., 305 Pennsylvania Ave., Pittsburgh, Pa.—PU  
Stancor—Standard Transformer Corp.  
Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill., "Stancor"—BE, M  
Taylor Tubes, Inc., 2318 Wabansia Ave., Chicago, Ill.—G, MA, V  
United Transformer Co., 150 Varick St., New York, N. Y.—BE, PU  
Webster-Chicago Corporation, 3825 Armitage Ave., Chicago, Ill.—VR  
Western Electric Co., 195 Broadway, New York, N. Y.—M  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—M, MA  
Weston Electrical Instrument Corp., 597 Frelinghuysen Ave., Newark, N. J.—M

## OMISSIONS

Listings have been omitted in all cases where, after three requests, a company has failed to return our directory questionnaire or otherwise verify its activity.

## Cabinets, Racks & Panels



Carrying bags .....CB  
Cloth covered .....CC  
Console (wood) .....C  
Equipment panels .....EP  
Equipment racks .....ER  
Metal .....M  
Phonograph cabinet .....PC  
Plastic .....see Plastic Molders  
Portable .....P  
Record cabinets .....RC  
Rawhide .....R  
Table (wood) .....T  
Wood .....W

Acro Tool & Die Works, 5326 N. Kedzie Ave., Chicago, Ill.—C, M, PC, P, RC, T  
Adler Mfg. Co., 2903 W. Chestnut St., Louisville, Ky.—C, T, RC  
Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—M, P  
Allen Elec. & Equip. Co., 2103 N. Pitcher St., Kalamazoo, Mich.—M  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—M, P, RC  
Altee Lansing Corp., 6900 McKinley Ave., Los Angeles, Calif.—C  
American Communications Corp., 306 Broadway, New York, N. Y.—T  
Bell Sound Systems, Inc., 203 N. 4th St., Columbus, Ohio—CC, M, P  
A. Bitter Construction Co., 721 E. 133rd St., New York, N. Y.—ER, RC  
Brunswick Radio Div., Mersman Bros. Corp., 244 Madison Ave., New York, N. Y.—RC  
Carb Mfg. Co., 25 Carroll St., Brooklyn, N. Y.—CB, CC  
Castlewood Mfg. Co., Inc., 12th & Burnett Sts., Louisville, Ky.—C, T, PC, RC  
Caswell-Runyan Co., Huntington, Ind.—C, T, RC  
Chicago Sound Systems Co., 2124 S. Michigan Ave., Chicago, Ill.—RC  
Churchill Cabinet Co., 2119 W. Churchill St., Chicago, Ill.—C, T  
Cinema Engineering Co., 1508 W. Verdugo Ave., Burbank, Calif.—M, EP  
Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.—M  
C. G. Conn Ltd., Elkhart, Ind.—CB  
Crowe Name Plate & Mfg. Co., 3701 Ravenswood Ave., Chicago, Ill.—EP  
Dahlstrom Metallic Door Co., Metal Specialties Division, Buffalo & E. 2nd, Jamestown, N. Y.—M, EP, ER  
DeJure Amco Corp., Bridge St., Shelton, Conn.—EP  
Erie Art Metal Co., Erie, Pa.—M  
Erie Can Co., 818 Erie St., Chicago, Ill.—M  
H. C. Evans & Co., 1528 W. Adams St., Chicago, Ill.—C, P  
Flock Process Corp., 17 W. 31 St., New York, N. Y.—Flock covered cabinets  
General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—EP  
General Time Instruments Corp., Seth Thomas Clocks Division, Thomaston, Conn.—W  
ICA—Insuline Corp. of America  
Illinois Cabinet Co., Rockford, Ill.—CC, C, P, T  
Illinois Wood Products Corp., 2512 S. Damen Ave., Chicago, Ill.—C, PC, RC, T  
Ingraham Co., Bristol, Conn.—C, T  
Insuline Corp. of America, 3602—35th Ave., Long Island City, N. Y., "ICA"—M  
Kane Mfg. Corp., Kane, Pa.—M  
Karp Metal Products Co., Inc., 129—30th St., Brooklyn, N. Y.—M  
Le Febure Corp., Cedar Rapids, Iowa—M, RC  
Lewyt Metal Products Co., Inc., 60 Broadway, Brooklyn, N. Y.—M  
Littelfuse, Inc., 4732 Ravenswood Ave., Chicago, Ill.  
John Meck Industries, Liberty St., Plymouth, Ind.—CC, PC, P, RC  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—M  
Paramount Radio Co., 967—32nd St., Oakland, Calif.—C, RC  
Par-Metal Products Corp., 32-62—49th St., Long Island City, N. Y., "Par-Met"—M  
Penn Union Electric Corp., 315 State St., Erie, Pa.—M  
Radiat Service, 720 Schubert Ave., Chicago, Ill.—EP, M, P, RC  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—M  
The Recordit Co., 555 Bedford Ave., University City, Mo.—RC, ER  
A. E. Rittenhouse Co., Honey Falls, N. Y.—M  
Sanders Bros. Mfg. Co., 409 W. Main St., Ottawa, Ill.—W  
Schloss Bros. Corp., 801 E. 135th St., New York, N. Y.—PC, RC, T  
Schuttig & Company, 9th & Kearny Sts., Washington, D. C.—M  
Sherron Metallic Corp., 1201 Flushing Ave., Brooklyn, N. Y.—M

Steger Furniture Mfg. Co., Steger, Ill.—C, T  
Tonk Mfg. Co., 1912 N. Magnolia, Chicago, Ill.—RC  
Trans-American Airports Corp., 271 Madison Ave., New York, N. Y.—C, RC, T  
Trebner Radio Co., Pasadena, Calif.—CC, T  
Union Aircraft Products Corp., 380 Second Ave., New York, N. Y.—EP, M  
Wabash Cabinet Co., Wabash, Ind.—RC  
Wm. T. Wallace Mfg. Co., Chili & Madison Ave., Peru, Ind.—C, T  
Weltronic Corp., East Outer Drive, Detroit, Mich.—M  
Western Electric Co., 195 Broadway, New York, N. Y.—M  
Worcester Pressed Steel Co., Worcester, Mass.—EP, M

## Capacitors, Fixed




Ceramic insulated .....C  
Electrolytic dry .....ED  
Electrolytic wet .....EW  
Fluorescent starter .....FS  
Fluorescent ballast .....FB  
Industrial .....I  
Mica receiving .....M  
Paper (receiving) .....P  
Plug-in condensers .....PF  
Polystyrene insulated .....PO  
Power factor correct .....PC  
Silvered mica .....S  
Standard .....ST  
Temperature compens. ....T  
Transmitting .....T  
Compressed gas .....G  
Vacuum cond. ....V

Aerovox Corp., 742 Belleville Ave., New Bedford, Mass.—ED, EW, FS, FB, I, M, P, PF, PO, PC, S, TC, T  
The Akron Porcelain Co., Cory Ave., Akron, Ohio—C  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—ED, M, PF, S, T  
American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—P  
American Condenser Corp., 2506 S. Michigan Ave., Chicago, Ill.—ED, P  
Atlas Condenser Products Co., 548 Westchester Ave., New York, N. Y. "Mite," "Mercury"—ED, P, FS, FB  
Atoms—Sprague Products Co.  
The Automatic Electrical Devices Co., 324 E. Third St., Cincinnati, Ohio—EW  
Automatic Winding Co., 900 Passaic Ave., East Newark, N. J.—C, M, T  
The Allen D. Cardwell Mfg. Corp., 81 Prospect St., Brooklyn, N. Y.—C, PF, T  
Centralab, 900 E. Keefe Ave., Milwaukee, Wis.—C, TC, T  
Ceramicon—Erie Resistor Corp.  
Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—I, M, S  
Consolidated Wire & Assoc. Corps., 1635 S. Clinton, Chicago, Ill.—ED, P, T  
Continental Carbon, Inc., 13900 Lorain Ave., Cleveland, Ohio—C  
Cornell-Dubilier Elec. Corp., 1000 Hamilton Blvd., S. Plainfield, N. J.—C, ED, EW, FS, FB, I, M, P, PF, PO, PC, S, T, TC  
Cosmic Radio Corp., 699 E. 135th St., New York, N. Y., "Cosmic," "Megrite"—ED, P  
Henry L. Crowley & Co., Inc., 1 Central Ave., West Orange, N. J.—C  
Tobe Deutschmann Corp., Canton, Mass.—ED, FR, I, P, PF, T  
Domino—Solar Mfg. Corp.  
Dumont Electric Co., 34 Hubert St., New York, N. Y., "Dumont"—ED, EW, I, M, P, S, T  
Ecco High Frequency Elec. Corp., 7020 Hudson Blvd., N. Bergen, N. J., "Ecco," "H-F"—T  
Eimac—Eitel-McCullough, Inc.  
Eitel-McCullough, Inc., San Bruno, Calif. "Eimac"—V  
Electro Motive Mfg. Co., Inc., S. Park & John Sts., Willimantic, Conn.—M, S  
Elmenco—Electro Motive Mfg. Co., Inc.  
Erie Resistor Corp., 640 W. 12th St., Erie, Pa., "Ceramicon"—C, S, TC  
Ex-Stat—Tilton Electric Co.  
J. E. Fast & Co., 3123 N. Pulaski Rd., Chicago, Ill.—FB, FS, I, P, PC, PO, T  
General Electric Co., 1 River Rd., Schenectady, N. Y.—FB, I, P, PC, T  
General Radio Co., 30 State St., Cambridge, Mass., "G-R"—ST  
G-H—Girard-Hopkins  
Girard-Hopkins, 1000 40th Ave., Oakland, Calif.—ED, FB, I, P, PC, T  
G-R—General Radio Co.  
H. R. S. Products, 5707 W. Lake St., Chicago, Ill.—ES, FB, I, P, PE, PO, PC, T  
ICA—Insuline Corp. of America  
Illinois Condenser Co., 1160 Howe St., Chicago, Ill., "Illinois"—ED, FS, FB, I, M, P, PC, T  
Industrial Condenser Corp., 1725 W. North Ave., Chicago, Ill., "Industrial"—C, ED, FS, I, M, P, PF, PO, PC, T  
Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y., "ICA"—M

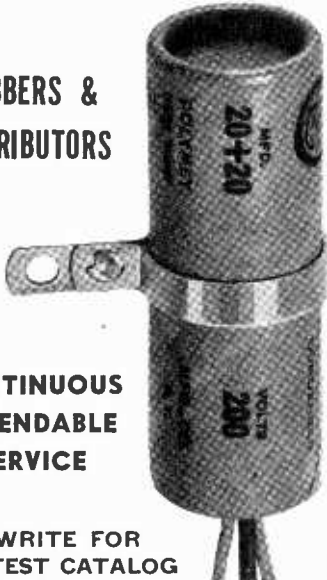


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E. F. Johnson Co., Waseca, Minn., "Johnson"—T, G  
Kellogg Switchboard & Supply Co., 6650 S. Cicero Ave., Chicago, Ill.—P  
Kodacap—Micamold Radio Corp.  
Little Giant—Solar Mfg. Corp.  
The Louthan Mfg. Co., 2000 Harvey Ave., E. Liverpool, Ohio—C  
The Macallen Co., 16 Macallen St., Boston, Mass.—M  
The Magnavox Co., 2131 Bueter Rd., Ft. Wayne, Ind.—ED  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Mallory"—ED, I, M, P, PF, PC, T  
Megrite—Cosmic Radio Corp.  
Mercury—Atlas Condenser Products Co.  
Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y., "Kodacap"—ED, FS, FB, I, M, P, PF, PC, S, T  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—C, S, T, PO  
Minicap—Solar Mfg. Corp.  
Mite—Atlas Condenser Products Co.  
The Muter Co., 1255 S. Michigan Ave., Chicago, Ill., "Muter"—C, TC  
National Union Radio Corp., 15 Washington St., Newark, N. J.—ED, EW, M, P  
New England Confectionary Co., 254 Mass. Ave., Cambridge, Mass.—I  
Polymet Condenser Co., 699 E. 135th St., New York, N. Y.—I  
The Potter Co., 1950 Sheridan Rd., N. Chicago, Ill.—ED, I, P, T  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—M, S, T, TC  
Reynolds Spring Co., Molded Plastics Division, Cambridge, Mass.—PO  
Sangamo Electric Co., Springfield, Ill., "Sangamo"—M, T  
Sealdite—Solar Mfg. Corp.  
F. W. Sickles Co., Chicopee, Mass., "Silver Cap"—S  
Silvercap—F. W. Sickles Co.  
Solar Mfg. Corp., 586 Ave. A, Bayonne, N. J., "Solar," "Domino," "Sealdite," "Tom Thumb," "Transoil," "Transmica," "Minicap," "Little Giant"—ED, EW, FS, FB, I, M, P, PF, PO, PC, S, TC  
Sprague Products Co., N. Adams, Mass., "Sprague 600 Line," "Atoms"—ED, EW, I, M, P, PC, S, T, TC  
Sprague Specialties Co., N. Adams, Mass.—ED, EW, I, M, P, T, TC, FS, FB, PF, PO, PC, S  
Teleradio Engineering Corp., 484 Broome St., New York, N. Y., "Teleradio"—S, TC  
Tilton Electric Corp., 138 W. 17 St., New York, N. Y., "Ex-Stat"—ED, EW, P  
Tom Thumb—Solar Mfg. Co.  
Transmica—Solar Mfg. Co.  
Transoil—Solar Mfg. Co.  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—I, T

#### Capacitors, Variable




Air trimmer .....	A
Ceramic trimmer .....	CT
Compressed gas .....	CG
Instrument .....	I
Mica trimmer .....	M
Precision .....	P
Receiver tuning .....	RT
Transmitting tuning .....	TT
Neutralizing .....	N

Alden Prods. Co., 119 N. Main St., Brockton, Mass.—M, RT  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—A, M, RT, TT  
American Steel Package Co., Squire Ave., Defiance, Ohio, "Defiance"—A, RT  
Automatic Winding Co., 900 Passaic Ave., E. Newark, N. J.—A, M  
Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—TT, N  
Bud Radio, Inc., 2118 E. 55th St., Cleveland, Ohio, "Bud"—A, RT, TT, N  
The Allen D. Cardwell Mfg. Corp., 81 Prospect St., Brooklyn, N. Y.—N, TT  
Centralab, 900 E. Keefe Ave., Milwaukee, Wisc.—CT  
Ceramicon—Erie Resistor Corp.  
Defiance—American Steel Package Co.  
De Wald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.—A, N  
DX Crystal Co., 1841 W. Carroll Ave., Chicago, Ill.—M  
Electro Motive Mfg. Co., Inc., S. Park & John Sts., Willimantic, Conn., "Elmenco"—A, M  
Elmenco—Electro Motive Mfg. Co., Inc.  
Erie Resistor Corp., 640 W. 12th St., Erie, Pa. "Ceramicon"—CT  
General Instrument Corp., 829 Newark Ave., Elizabeth, N. J. "G. I."—RT, TT, N  
General Radio Co., 30 State St., Cambridge, Mass. "G-R"—P, I  
General Winding Co., 420 W. 45th St., New York, N. Y. "Gen-Win"—A, M  
Gen-Win—General Winding Co.  
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E. I. Guthman, Inc., 400 S. Peoria St., Chicago, Ill.—A, M  
Hammarlund Mfg. Co., Inc., 460 W. 34th St., New York, N. Y.—A, M, RT, TT, N  
Hy Ef Electrical Products Mfg. Co., 1515 W Pico Blvd., Los Angeles, Calif. "Hy-Ef"—RT  
ICA—Insuline Corp. of America  
Insuline Corp. of America, 3602—35th Ave., Long Island City, N. Y. "ICA"—M, RT, TT, N  
E. F. Johnson Co., Waseca, Minn. "Johnson"—TT, N, CG  
Kaar Engineering Co., 619 Emerson St., Palo Alto, Calif.—A  
Lapp Insulator Co., Inc., Le Roy, N. Y.—G  
Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill. "Meissner"—A, M  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—A, M, RT, TT, N  
National Co., Inc., Malden, Mass. "National"—A, RT, TT, N  
Oak Mfg. Co., 1260 Clybourn Ave., Chicago, Ill.—A, RT, TT  
Peerless Laboratories, Inc., 115 East 23rd St., New York, N. Y.—TT  
Radio Condenser Co., Davis & Copewood Sts., Camden, N. J. "R.C.C."—RT  
R.C.C.—Radio Condenser Co.  
F. W. Sickles Co., Chicopee, Mass.—A, M  
Solar Mfg. Corp., 586 Avenue A, Bayonne, N. J. "Solar"—M  
Sprague Specialties Co., North Adams, Mass.—M  
Teleradio Engineering Corp., 484 Broome St., New York, N. Y. "Teleradio"—A, M, RT, TT  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—TT

## Coils & I.F. Transformers



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R. F. coils (receiving) . . . . . RF  
Transmitting . . . . . T  
Solenoids . . . . . S

Acme Wire Co., New Haven, Conn. "Acme"—S  
Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—CH, RT, T  
Aladdin Radio Industries, Inc., 223 W. Jackson Blvd., Chicago, Ill. "Aladdin"—IF, CH, P, RF, T  
Alden Products Co., 117 North Main St., Brockton, Mass. "Na-Ald"—F  
Allied Control Co., Inc., 227 Fulton St., New York N. Y.—S  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill. "Knight"—F, IF, CH, RT, RF, T  
American Automatic Electric Sales Co., 1019 W. Van Buren, Chicago, Ill.—S  
American Phenolic Corp., 1830 So. 54th St., Cicero, Ill. "Amphenol"—F  
Amphenol—American Phenolic Corp.  
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.—F, IF, CH, RF, T  
Audio Development Co., 2833 13th Ave., So., Minneapolis, Minn.—CH, RT  
Automatic Winding Co., 900 Passaic Ave., East Newark, N. J.—W, IF, CH, RF, T  
Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—F, RT, T  
Browning Laboratories, Inc., 750 Main St., Winchester, Mass.—IF, T  
Bud Radio, Inc., 1923 E. 55 St., Cleveland, Ohio—F, CH, RF, T  
Wm. W. L. Burnett Radio Lab., 4815 Idaho St., San Diego, Calif.—CH, RT  
Carron Mfg. Co., 415 So. Aberdeen St., Chicago, Ill. "Carron"—IF, CH, RT, RF, T  
Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—F, T  
Consolidated Molded Products Co., 309 Cherry St., Scranton, Pa.—F  
Cook Electric Co., 2700 Southport Ave., Chicago, Ill.—S  
Corning Glass Works, Corning, N. Y.—F  
Coto-Coil Co., 71 Willard Ave., Providence, R. I.—F, IF, T  
Henry L. Crowley & Co., Inc., 1 Central Ave., West Orange, N. J.—F  
Dean W. Davis & Co., Inc., 549 Fulton St., Chicago, Ill.—F, S  
Dinon Coil Co., P. O. Drawer D, Caledonia, N. Y.—T, S  
Struthers Dunn, Inc., 1321 Arch St., Philadelphia, Pa.—S  
DX Crystals Co., 1841 W. Carroll Ave., Chicago, Ill.  
Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—IF, T  
Eckstein Radio & Television Co., Inc., 1400 Harmon Place, Minneapolis, Minn.—CH, RT, RF  
Electrical Coil Winding Co., 2733 Saunders St., Camden, N. J.—S  
Electricoil Transformer Co., 417 Canal St., New York, N. Y.—S

Electronic Transformer Co., 515 W. 29th St., New York, N. Y.—S  
H. C. Evans & Co., 1528 W. Adams St., Chicago, Ill.—S  
John E. Fast & Co., 3123 N. Pulaski Ave., Chicago, Ill.—CH  
Ferranti Electric, Inc., 30 Rockefeller Plaza, New York, N. Y.—F, CH, RT, S  
General Communication Co., 681 Beacon St., Boston, Mass.—IF, CH, RT, RF  
General Electric Co., 1 River Road, Schenectady, N. Y.—S  
The General Industries Co., Taylor & Olive Sts., Elyria, Ohio—F  
General Radio Co., 30 State St., Cambridge, Mass. "G-R"—CH  
General Winding Co., 420 W. 45th St., New York, N. Y. "Gen-Win"—F, IF, CH, RF, T  
Gen-Win—General Winding Co.  
G-R—General Radio Co.  
Guardian Electric Mfg. Co., 1522 Walnut St., Chicago, Ill.—S  
Edwin I. Guthman & Co., 15 S. Throop St., Chicago, Ill.—IF  
Hammarlund Mfg. Co., Inc., 460 West 34th St., New York, N. Y.—F, IF, CH, RT, RF  
Horn Signal Mfg. Corp., 310 Hudson St. New York, N. Y.—F, S  
ICA—Insuline Corp. of America  
Industrial Transformer Corp., 2540 Belmont Ave., New York, N. Y.—CH, RT, T, S  
Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y. "ICA"—F, CH, RT, RF, T  
Isolantite, Inc., 343 Cortlandt St., Belleville, N. J.—F  
Jefferson Electric Co., Bellwood, Ill.—S  
E. F. Johnson Co., Waseca, Minn. "Johnson"—F, RT, T  
Lapp Insulator Co., Inc., LeRoy, N. Y.—TT, N  
Lectrohm, Inc., 5135 W. 25th Place, Cicero, Ill.—CH, RT  
Lenoxite Div., Lenox, Inc., 65 Prince St., Trenton, N. J.—F  
Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill. "Meissner"—F, IF, CH, RF, RT  
Merit Coil & Transformer Corp., 311 N. Desplaines St., Chicago, Ill.—S  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—F, IF, CH, RT, RF, T, S  
J. W. Miller Co., 5917 S. Main St., Los Angeles, Calif. "Miller"—IF, CH, RT, RF, S  
Music Master Mfg. Co., 508 S. Dearborn St., Chicago, Ill.—IF, CH, RF  
The Muter Co., 1255 S. Michigan Ave., Chicago, Ill. "Muter"—IF, CH, RT, RF  
Na-ald—Alden Products Co.  
National Tile Co., 26 & Lynn Sts., Anderson, Ind.—F  
N-C—National Company  
National Company, Inc., Malden Mass. "National"—F, IF, CH, RF, T, S  
Ohmite Mfg. Co., 4984 W. Flournoy St., Chicago, Ill.—RT  
Paramount Paper Tube Co., 801 Glasgow Ave., Ft. Wayne, Ind.—F  
Peerless Mfg. Corp., 1400 W. Ormsby, Louisville, Ky.—S  
Potter & Brumfield Mfg. Co., Princeton, Ind.—F, IF  
Precision Paper Tube Co., 2033 W. Charleston St., Chicago, Ill.—F  
Printloid, Inc., 93 Mercer St., New York, N. Y.—F  
Radio Frequency Labs., Inc., Boonton, N. J.—IF, CH, RT, RF  
John A. Roebing's Sons Co., Trenton, N. J.—S  
F. W. Sickles Co., Chicopee, Mass.—F, IF, CH, RT, RF, T, S  
Small Motors, Inc., 1322 Elston Ave., Chicago, Ill.—F, IF, CH, RT, RF  
Nathan R. Smith Mfg. Co., 105 Pasadena Ave., South Pasadena, Calif.—S  
Stackpole Carbon Co., St. Marys, Pa.—F  
Standard Winding Corp., Newburgh, N. Y.—S  
Super Electric Products Corp., 1057 Summit Ave., Jersey City, N. J.—IF, CH, RT, RF  
Supreme Elec. Prod. Corp., 194 Vassar St., Rochester, N. Y.—S  
S-W Inductor Co., 1056 N. Wood St., Chicago, Ill.—F, IF, CH, RT, RF, T, S  
Teleradio Engineering Corp., 484 Broome St., New York, N. Y. "Teleradio"—IF, CH, RF, RT, T, S  
The R. Thomas & Sons Co., Lisbon, Ohio—F  
Weller Bros., 516 Northampton St., Easton, Pa.—S  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—F, S, T  
Zierick Mfg. Corp., 385 Gerard Ave., New York, N. Y.—F

## OMISSIONS

Listings have been omitted in all cases where, after three requests, a company has failed to return our directory questionnaire or otherwise verify its activity.

## Communication and Military Equipment

### Editor's Note

Nearly all of the companies listed below are normally producers of peacetime radio who have certified their present activity and are listed under the general heading of "military equipment" without detailing the types of equipment produced. Equipment of this nature is classified as "restricted," hence no specific data can be divulged. This military listing is, in effect, a listing of radio receiver manufacturing, with the addition of some non-radio concerns now engaged in radio war production. Commercial products for communications services and electronic applications are listed under the other classifications.



Admiral—Continental Radio & Television Corp.  
Air Communications, Inc., 2233 Grand Ave., Kansas City, Mo.  
Air King Products Co., Inc., 1523 63 St., Brooklyn, N. Y., "Air King"  
Alden Prods. Co., 119 N. Main St., Brockton, Mass.  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"  
Andrea Radio Corp., 43-20 34 St., Long Island City, N. Y.  
Ansley Radio Corp., 21-10 49 Ave., Long Island City, N. Y., "Dynaphone"  
Arvin—Noblitt-Sparks Industries, Inc.  
Automatic Radio Mfg. Co., 122 Brookline Ave., Boston, Mass.  
Bell Radio & Television, 125 E. 46 St., New York, N. Y., "Bell"  
Belmont Radio Corp., 5921 W. Dickens Ave., Chicago, Ill., "Belmont"  
Bendix Radio Division, Bendix Aviation Corp., 920 E. Port Ave., Baltimore, Md.  
Berger Electronics, 109-01 72nd Rd., Forest Hills, N. Y.  
Browning Laboratories, Inc., 750 Main St., Winchester, Mass., "Browning"  
Brunswick Radio Div., Mersman Bros. Corp., 244 Madison Ave., New York, N. Y.  
Clarion—Warwick Mfg. Co.  
Colonial Radio Corp., 254 Rano St., Buffalo, N. Y.  
Continental Radio & Television Corp., 3800 W. Cortland St., Chicago, Ill., "Admiral"  
The Crosley Corp., 1329 Arlington St., Cincinnati, Ohio, "Crosley"  
Detrola Corp., 1501 Beard Ave., Detroit, Mich., "Detrola"  
Delco Radio Division, General Motors Corp., Home Ave., Kokomo, Ind.  
De Wald Radio Mfg. Corp., 436 Lafayette St., New York, N. Y., "Pierce Airo"  
Allen B. DuMont Labs., Inc., 2 Main Ave., Passaic, N. J., "DuMont"  
Dynaphone—Ansley Radio Corp.  
Eckstein Radio & Television Co., Inc., 1400 Harmon Pl., Minneapolis, Minn.  
Electrical Research Lab., Inc., 2020 Ridge Ave., Evanston, Ill., "Erla," "Sentinel"  
Emerson Radio & Phonograph Corp., 111 8th Ave., New York, N. Y.  
Erla—Electrical Research Lab., Inc.  
Esney Mfg. Co., Inc., 305 E. 63 St., New York, N. Y.  
Fada Radio & Electric Co., Inc., 30-20 Thomson Ave., Long Island City, N. Y., "Fada"  
Farnsworth Television & Radio Corp., 3700 Pontiac St., Ft. Wayne, Ind.  
Federal Telegraph & Radio Corp., 200 Mt. Pleasant Ave., Newark, N. J.  
Finch Telecommunications, Inc., Passaic, N. J.  
Freed Radio Corp., 200 Hudson St., New York, N. Y., "Freed-Eisemann"  
Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill., "Motorola"  
Garod Radio Corp., 70 Washington St., Brooklyn, N. Y., "Garod"  
GE—General Electric Co.  
General Electric Co., 1285 Boston Ave., Bridgeport, Conn., "GE"  
General Television & Radio Corp., 1240 N. Homan Ave., Chicago, Ill.  
Giffillan Bros., Inc., 1815 Venice Blvd., Los Angeles, Calif., "Giffillan"  
Grebe Mfg. Co., Inc., 70 Washington St., Brooklyn, N. Y., "Grebe"  
The Hallicrafters Co., 2611 S. Indiana Ave., Chicago, Ill., "Skvrider"  
Hamilton Radio Corp., 510 6th Ave., New York.  
Hammarlund Mfg. Co., Inc., 424 W. 33rd St., New York, N. Y., "Super-Pro"  
Harvey Machine Co., Electronics Div., Los Angeles, Calif.  
Harvey-Wells Communications, Inc., Southbridge, Mass.  
Hazelton Electronics Corp., 1775 Broadway, New York, N. Y.



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Electronic Products Mfg. Corp., 7300 Huron River Drive, Dexter, Mich.—H  
Felker Mfg. Co., Torrance, Calif.—CO  
Fisher Research Laboratory, 1961 University Ave., Palo Alto, Calif.—SW  
Foote Mineral Co., 1609 Summer St., Philadelphia, Pa.—BL  
Hetro Electrical Industries, Inc., 5819 N. Drake Ave., Chicago, Ill.  
Howard Radio Co., 1731 Belmont Ave., Chicago, Ill., "Howard"  
International Tel. & Tel. Co., 67 Broad St., New York, N. Y.  
Jefferson-Travis Mfg. Corp., 380 Second Ave., New York, N. Y.  
Kaar Engineering Co., 619 Emerson St., Palo Alto, Calif., "Kaar"  
Karadio Corp., 1400 Harmon Pl., Minneapolis, Minn., "Karadio"  
Kingston Radio Co., Inc., Kokomo, Ind.  
Lafayette Radio Corp., 100 Sixth Ave., New York, N. Y.  
Lear Avia, Inc., Piqua, Ohio  
Fred M. Link, 125 W. 17th St., New York, N. Y.  
The Magnavox Co., Inc., 2131 Bueter Rd., Ft. Wayne, Ind.  
Majestic Radio & Television Corp., 2600 W. 50 St., Chicago, Ill., "Majestic"  
Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill., "Meissner"  
Midwest Radio Corp., 909 Broadway, Cincinnati, Ohio, "Midwest"  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.  
Mission Bell Radio Mfg. Co., Inc., 3765 S. Broadway Pl., Los Angeles, Cal.  
Motorola—Galvin Mfg. Corp.  
National Co., Inc., Malden, Mass., "National"  
National Union Radio Corp., 15 Washington St., Newark, N. J.  
Nobitt-Sparks Industries, Inc., Columbus, Ind., "Arvin"  
Packard-Bell Co., 1115-1119 S. Hope St., Los Angeles, Cal.  
Panoramic Radio Corp., 242 W. 55 St., New York, N. Y.  
Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.  
Philharmonic Radio Corp., 216 Williams St., New York, N. Y.  
Pierce Airo—DeWald Radio Mfg. Corp.  
Pilot Radio Corp., 3706 36 St., Long Island City, N. Y., "Pilot"  
Radiola—RCA Victor Div., Radio Corp. of America  
Radolek Co., 601 W. Randolph St., Chicago, Ill.  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "Radiola", "RCA", "RCA Victor"  
Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif., "Remler"  
E. H. Scott Radio Labs., Inc., 4450 Ravenswood Ave., Chicago, Ill., "Scott"  
Sentinel—Electrical Research Lab., Inc.  
Setchell-Carlson, Inc., 2233 University Ave., St. Paul, Minn., "Setchell-Carlson"  
Skyrider—The Hallicrafters Co.  
Sonora Radio & Television Corp., 325 N. Hoeyne Ave., Chicago, Ill.  
Sparks-Withington Co., Radio Div., 2400 E. Ganson Ave., Jackson, Mich., "Sparton"  
Sparton—Sparks-Withington Co.  
Sperry Gyroscope Co., Inc., 40 Flatbush Ave., Brooklyn, N. Y.  
Stewart-Warner Corp., 1826 Diversey Pkwy., Chicago, Ill., "Stewart Warner"  
Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y., "Stromberg-Carlson"  
Super-Pro—Hammarlund Mfg. Co.  
Templeton Radio Co., Mystic, Conn.  
Trav-Ler Karanola Television Corp., 1028 W. Van Buren St., Chicago, Ill.  
Trebtor Radio Co., Pasadena, Calif., "Trebtor"  
Troubadour—Warwick Mfg. Co.  
Troy Radio & Television Co., 1144 S. Olive St., Los Angeles, Calif.  
Warwick Mfg. Corp., 4640 W. Harrison, Chicago, Ill., "Clarion", "Troubadour", "Warwick"  
Waters-Conley Co., Rochester, Minn.  
Watterson Radio Mfg. Co., 2608 Ross Ave., Dallas, Texas  
Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago, Ill.  
Western Electric Co., 195 Broadway, New York, N. Y., "Western"  
Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.  
Wilcox Electric Co., 14th & Chestnut Sts., Kansas City, Mo.  
Wilcox-Gay Corp., Charlotte, Mich., "Wilcox-Gay"  
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.



## Dials & Parts



Call letter tabs .....	CL
Complete dials .....	D
Crystals .....	C
Decalcomanias .....	DE
Dial cables & belts .....	DC
Dial lamps .....	L
Dial light assem. ....	PL
Dial locks .....	DL
Dial pointers .....	P
Drive rubbers .....	DR
Escutcheons .....	E
Faces or scales .....	F
Knobs-molded .....	KM
Knob springs .....	KS
Knobs-wooden .....	KW
Name plates .....	N
Jewel pilot lights .....	JL
Push button knobs .....	PB
Shaft locks .....	SL
Worm drives .....	WD

The Acromark Co., 9 Morrell St., Elizabeth, N. J.—N  
 Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—D  
 Alden Products Co., 119 N. Main St., Brockton, Mass.—DC, PL, KM, JL  
 American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—JL  
 American Emblem Co., Inc., P. O. Box 116-E, Utica, N. Y.—D, C, E, N  
 American Insulator Corp., New Freedom, Pa.—P, E, F, N, KM, PB  
 American Radio Hardware Co., Inc., 478 Broadway, New York, N. Y., "Arhco"—PL, P, JL  
 Arhco—American Radio Hardware Co.  
 O. Austin Co., 42 Greene St., New York, N. Y.—DE, F, N  
 Barker and Williamson, 237 Fairfield Ave., Upper Darby, Pa.—I  
 Bastian Bros. Co., 1600 Clinton Ave., N., Rochester, N. Y.—DE, E, F, N  
 Browning Labs., Inc., Winchester, Mass.—D

Bud Radio, Inc., 2118 E. 55th St., Cleveland, Ohio, "Bud"—D, PL, KM  
 Carlton Lamp Corp., 730 S. 13th St., Newark, N. J.—L  
 Cinema Engineering Co., 1508 W. Verdugo Ave., Burbank, Calif.—F  
 Consolidated Molded Products Corp., 309 Cherry St., Scranton, Pa.—KM, PB  
 Crowe Name Plate & Mfg. Co., 3701 Ravenswood Ave., Chicago, Ill., "Crowe"—D, C, PL, E, P, F, KM, N  
 The Daven Co., 158 Summit St., Newark, N. J.—KM  
 Harry Davies Molding Co., 1428 N. Wells St., Chicago, Ill.—E, KM  
 Dial Light Co. of America, Inc., 90 West St., New York, N. Y.—PL  
 The Dickey-Grabler Co., 10302 Madison Ave., Cleveland, Ohio—N  
 Drake Mfg. Co., 1713 W. Hubbard St., Chicago, Ill., "Drake"—PL, JL  
 Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—KM  
 Eclipse Moulded Products Co., 5151 N. 32nd St., Milwaukee, Wis.—KM  
 Enameloid-Cloisnone—Gemloid Corp.  
 Erie Resistor Corp., 840 West 12th St., Erie, Pa.—E, KM, PB  
 Etched Products Corp., 39-01 Queens Blvd., Long Island City, N. Y.—D, E, F, N  
 H. C. Evans & Co., 1528 W. Adams St., Chicago, Ill.—L  
 Federal Screw Products Co., 224 W. Huron St., Chicago, Ill.—JL  
 Flexo Wire Co., 638 W. Genesee St., Syracuse, N. Y.—DC  
 Flock Process Co., 17 W. 31st St., New York, N. Y.—DE, E, F, N  
 G-C—General Cement Mfg. Co.  
 Gemlite—Gemloid Corp.  
 Gemloid Corp., 7910-7930 Albion Ave., Elmhurst, L. I., N. Y., "Enameloid-Cloisnone," "Gemlite"—D, E, F, KM, N, PB  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill., "G-C"—CL, C, DC, DR, KM, KS, KW  
 General Crystal Corp., 1776 Foster Ave., Schenectady, N. Y.—C  
 General Radio Co., 30 State St., Cambridge, Mass.—D, KM

Gits Molding Corp., 4600 W. Huron St., Chicago, Ill.—P, E, KM  
 Gothard Mfg. Co., Springfield, Ill.—PL, JL  
 L. F. Grammes & Sons, Inc., 399 Union St., Allentown, Pa.—D, P, E, F  
 J. Hope, P. O. Box 666, Wenonah, N. J.—DE  
 ICA—Insuline Corp. of America  
 Insuline Corp. of America, 3802 35th Ave., Long Island City, N. Y., "ICA"—D, C, KM, N  
 J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y.—DC  
 E. F. Johnson Co., Waseca, Minn.—P  
 Kellogg Switchboard & Supply Co., 6650 S. Cicero St., Chicago, Ill.—JL, L, PL  
 J. R. Kilburn Glass Co., Inc., S. Worcester St., Charley, Mass.—JL  
 H. R. Kirkland Co., Morristown, N. J.—L, PL, JL  
 Linick, Green & Reed, Inc., 29 East Madison St., Chicago, Ill.—C  
 P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Yaxley"—L, PL, JL  
 Mica Insulator Co., 200 Varick St., New York, N. Y.—F  
 James Millen Mfg. Co., 150 Exchange St., Malden, Mass.—D, DL, E, KM, SL, WI  
 Molded Insulation Co., 335 East Price St., Philadelphia, Pa.—KM, PB  
 National Company, Inc., Malden, Mass.—KM  
 National Union Radio Corp., 15 Washington St., Newark, N. J.—L  
 Norton Laboratories, Inc., 520 Mill St., Lockport, N. Y.—KM  
 Parisian Novelty Co., 3510 S. Western Ave., Chicago, Ill.—D, P, F, N  
 Premier Metal Etching Co., 21-03 44th Ave., Long Island City, N. Y.—D, E, F, N  
 Radio City Products Co., 127 W. 28th St., New York, N. Y.—KM  
 Radio Essentials, Inc., 69 Wooster St., New York, N. Y.—PB, PL  
 Radio Specialty Mfg. Co., 408 N. W. 9th Ave., Portland, Ore.—C  
 Raymond Mfg. Co., Division of Associated Spring Corp., Corry, Pa.—KS  
 Reynolds Spring Co., Molded Plastics Division, Cambridge, Mass.—KM, N, PB  
 Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif., "Walseo"—DC, KS  
 F. W. Stewart Mfg. Corp., 4311 Ravenswood Ave., Chicago, Ill.—D, C, P, E, KM, PL  
 Superior Tube Co., Norristown, Pa.—P

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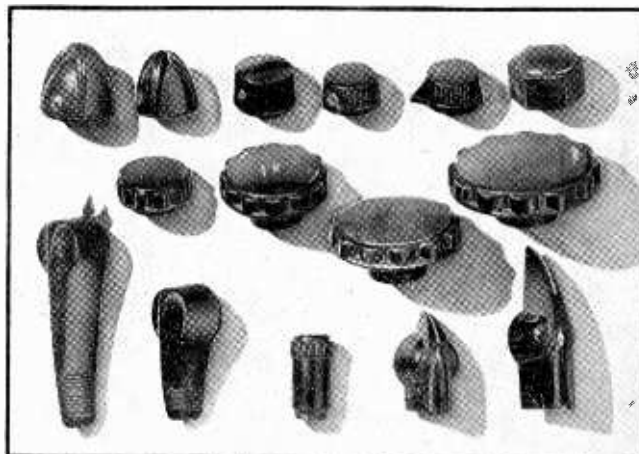
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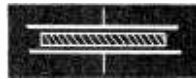
## Dials & Parts

Syracuse Ornamental Co., 581 S. Clinton St., Syracuse, N. Y., "Sycowood," "Woodite," "Sycroo"—E, KW  
Sycroo—Syracuse Ornamental Co.  
Sycowood—Syracuse Ornamental Co.  
Tingstol Corp., 1461 W. Grand St., Chicago, Ill.—PL  
Tungston Contact Mfg. Co., 7311 Cottage Ave., N. Bergen, N. J.—KM  
Tung-Sol Lamp Works, Inc., 95 Eighth Ave., Newark, N. J.—L  
The Ucinite Co., 459 Watertown St., Newtonville, Mass.—  
Walsco—Walter L. Schott Co.  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—E, KM, L  
Woodite—Syracuse Ornamental Co.  
Worcester Pressed Steel Co., Worcester, Mass.—E  
Yaxley—P. R. Mallory & Co., Inc.

## Crystals & Access.

### Editor's Note

Many of the names listed under this heading were furnished by government services and have not been verified as to actual war production.

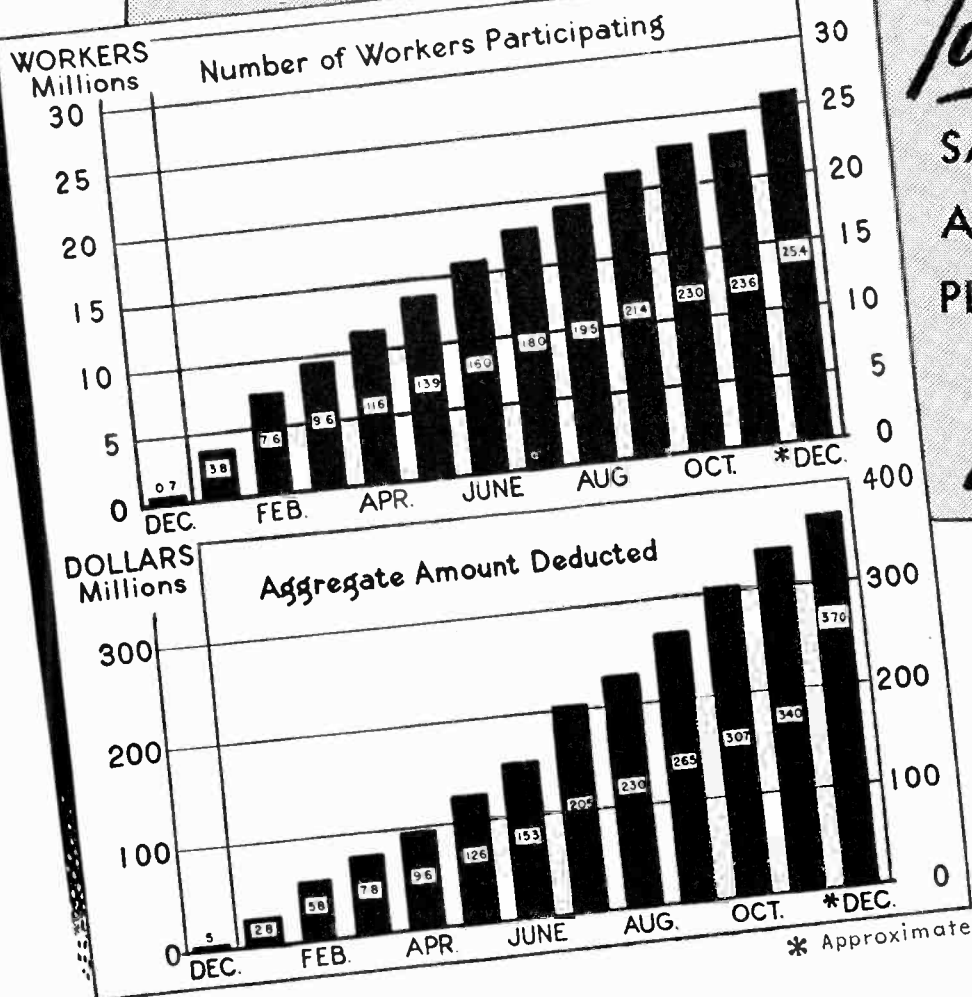


Amateur .....A  
Blanks .....BL  
Broadcast .....B  
Crystal cartridges .....C  
Crystal tester .....CT  
Cut-off blades .....CO  
Frequency std .....F  
Holders .....H  
I. F. Filter .....S  
Police, marine, air .....SW  
Temp. control ovens .....T  
Quartz cutting machines .....QC  
Rochelle salt .....R  
Tourmaline .....TO

Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kan.—BL, B, F, H, SW, T  
Alden Products Co., 119 N. Main St., Brockton, Mass.—H  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—A, H  
American Instrument Co., Silver Spring, Md.—VC, T  
American Jewels Corp., Attleboro, Mass.  
American Radio Hardware Co., Inc., 478 Broadway, New York, N. Y.—H  
Apex Industries, Inc., 1037 W. Lake St., Chicago, Ill.—A, BL, B, F, S, SW  
Rex Bassett, Inc., 500 S. E. Second St., Fort Lauderdale, Fla.—F, SW  
Bendix Radio Division, Bendix Aviation Corp., 920 East Fort Ave., Baltimore, Md.—SW  
Bliley Electric Co., Erie, Pa.—A, B, F, H, S, SW, T  
Charles J. Bodnor, Inc., Tuckahoe, N. Y.—  
Breon Laboratories, Williamsport, Pa.—  
Brush Development Co., 3311 Perkins Ave., Cleveland, Ohio—C  
Wm. W. L. Burnett Radio Laboratory, 4814 Idaho St., San Diego, Calif.—A, B, BL, F, H, SW, T  
Oscar Capian & Sons, Diamond Tool Repl. Div., 207 W. Saratoga St., Baltimore, Md.—QC  
Carlisle Crystal Corp., Carlisle, Pa.—A, BL, B, F, SW  
Carver Cotton Gin Co., E. Bridgewater, Mass.—  
Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—A, BL, B  
Commercial Crystal Co., 112 No. Water St., Lancaster, Pa.—B, SW  
Commercial Radio Equipment Co., 321 E. Gregory Blvd., Kansas City, Mo.—BL, B, F, H, S, SW  
Consolidated Molded Products Corp., 309 Cherry St., Scranton, Pa.—H  
Crystal Mfg. Co., 1725 W. Diversey Pkwy., Chicago, Ill.—  
Crystal Products Co., 1519 McGee St., Kansas City, Mo.—A, BL, B, F, H, S, SW  
Crystal Research Laboratories, Inc., 29 Allyn St., Hartford, Conn.—A, BL, B, F, S, SW  
Dallons Laboratories, 5066 Santa Monica Blvd., Los Angeles, Calif.—  
The Diamond Drill Carbon Co., 53 Park Row, New York, N. Y.—A, BL, B  
L. A. Dow, 2208 4th Ave., Seattle, Washington—SW  
DX Crystal Co., 1841 W. Carroll Ave., Chicago, Ill.—A, B, C, F, H, S  
Eidson's, 1309 N. Second St., Temple, Texas—A, B, SW, H  
Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—F, SW  
General Crystal Corp., 1776 Foster Ave., Schenectady, N. Y.—QC  
General Electric Company, 1 River Road, Schenectady, N. Y.—A, B, F, S, SW

General Radio Co., 30 State St., Cambridge, Mass., "G-R"—F  
Gentleman Products Division, Henney Motor Co., 1708 Cuming St., Omaha, Neb.—A, SW  
Geophysical Instrument Co., 1315 Half St., S. W., Washington, D. C.—CT  
Henry Radio Shop, 814 N. LaBrea Ave., Los Angeles, Calif.—  
Higgins Industries, Inc., 1221 Warwick Ave., Santa Monica, Calif.—  
Hipower Crystal Co., 2037 W. Charleston St., Chicago, Ill., "Hipower"—A  
P. R. Hoffman Co., 321 Cherry St., Carlisle, Pa.—BL, H  
Hollister Crystal Co., 1617 Pearl St., Boulder, Colo.—A, B, BL, SW  
Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—A, B, SW  
Howard Mfg. Co., 15 4th St., Council Bluffs, Iowa—H  
G. C. Hunt & Sons, Carlisle, Pa.—H  
ICA—Insuline Corp. of America  
Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y., "ICA"—H  
Jefferson-Travis Radio Mfg. Corp., 380 Second Ave., New York, N. Y.—H, SW  
Kaar Engineering Co., 619 Emerson St., Palo Alto, Calif.—H, SW  
Katz & Ogush, Inc., 33 W. 60th St., New York, N. Y.—BL, H  
Kemlite Laboratories, 1809 North Ashland Ave., Chicago, Ill.—B, C, F  
The James Knights Co., 131 S. Wells St., Sandwich, Ill.—BL  
Landis & Gyr, Inc., 104 Fifth Ave., New York, N. Y.—T  
Lear Avia, Inc., Piqua, Ohio—SW  
Lewek Electric Co., Lincoln, Neb.—  
Majestic Radio & Television Corp., 2600 W. 50th St., Chicago, Ill.—  
John Meck Industries, Liberty St., Plymouth, Ind., A, B, BL, C, F, H, SW  
Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill.—T, F, S  
James Miller Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—F  
August E. Miller, 9226 Hudson Blvd., North Bergen, N. J.—BL, B, F, SW, T  
Molded Insulation Co., 335 East Price St., Philadelphia, Pa.—H  
National Scientific Products Co., 2204 West North St., Chicago, Ill.—  
National Tile Co., 26th & Lynn Sts., Anderson, Ind.—H  
Norclay Radio Co., Independence, Mo.—  
North American Philips Co., Inc., 115 Palisade St., Dobbs Ferry, N. Y.—BL, H, SW  
Pacific Radio Crystal Co., 1035 Post, San Francisco, Calif.—B, SW  
Petersen Radio Co., 2800 West Broadway, Council Bluffs, Iowa, "P. R. Crystals"—A, BL, B, F, H, S, SW, T  
Philco Radio & Television Corp., Tioga & C Streets, Philadelphia, Pa.—C, SW  
Phonette Co. of America, 7122 Melrose Ave., Los Angeles, Calif.—H  
Pinkham & Smith Co., 276 Boylston St., North Boston, Mass.—  
P. R. Crystals—Petersen Radio Co.  
Precise Development Co., 1621 N. Wolcott St., Chicago, Ill.—  
Precision Instrument Mfg. Co., Inc., 57-02 Hoffman Dr., Elmhurst, L. I., N. Y.—A, BL, B, H, S, SW  
Premier Crystal Labs, Inc., 63 Park Row, New York, N. Y.—BL, H  
Radio Specialty Mfg. Co., 403 N. W. 9th Ave., Portland, Ore.—BL, B, C, H, SW  
The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—F  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—B, S, SW  
Reeves Sound Lab., Inc., 62 W. 47th St., New York, N. Y.—B  
Rinauld Optical Co., Webster, Mass.—  
Scientific Radio Products, Council Bluffs, Iowa—  
Scientific Radio Service, 4301 Sheridan St., University Park, Md.—A, B, F, H, S, SW  
Sentry Crystal Co., Portland, Ore.—  
Shideler Crystal Laboratory, Fort Dodge, Iowa—  
F. W. Sickles Co., Chicopee, Mass.—S  
Melvin L. Smith Laboratories, Kane, Pa.—  
Somerset Laboratories, Lyndhurst, N. J.—  
Standard Coil Products Co., 4910 W. Bloomingdale St., Chicago, Ill.—  
Standard Piezo Co., P. O. Box 164, Carlisle, Pa.—BL, B, F, H  
Tibbetts Laboratories, 12 Norfolk St., Cambridge, Mass.—R  
Trans-American Airports Corp., 271 Madison Ave., New York, N. Y.—R  
The Turner Company, Cedar Rapids, Iowa—  
Universal Quartz Co., 347 W. 36th St., New York, N. Y.—BL  
The Valpey Crystals, Box 321, Holliston, Mass.—A, BL, B, F, H, S, SW, T  
Vreeland Lapidary Mfg. Co., 2020 S.W. Jefferson St., Portland, Ore.—R  
Wm. T. Wallace Mfg. Co., Chili & Madison Ave., Peru, Ind.—A, BL, H, SW  
Webster Electric Co., 1900 Clark St., Racine, Wis.—C  
Wenkstern Hasley Co., 305 1st St., S.W. Cedar Rapids, Iowa—BL

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Western Electric Co., Kearny, N. J.—B, F, H, S, T  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—T  
Withers Gen. Co., Atlanta, Ga.—  
Wynne Precision Co., 114½ North Hill St., Griffin, Ga.—A, BL  
Carl Zeiss, Inc., 485 Fifth Ave., New York, N. Y.—H, TO

## Electronic Control Equipment



Anti-sabotage .....AS  
Blackout .....BO  
Boiler level alarms .....B  
Burglar alarms .....BA  
Burner control .....BC  
Combustion .....IC  
Conductivity controls .....CC  
Counting devices .....C  
Dimension control .....DC  
Door control .....D  
Electric fence .....EF  
Grading & sorting controls .....G  
Heat treating controls .....HC  
Humidity controls .....H  
Lighting controls .....LC  
Machine safety control .....MS  
Metal detectors .....M  
Microscopy .....MI  
Motor & generator control .....MC  
Package wrapping control .....P  
Pressure indicators .....PI  
Printing controls .....PC  
Smoke density controls .....S  
Solenoid valves .....SV  
Temperature controls .....TC  
Time controls .....TI  
Traffic .....TR  
Vibration control .....V  
Weight control .....WC  
Welding control .....WE

Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee, Wis.—TC, TI, WE  
American District Telegraph Co., 157 Sixth Ave., New York, N. Y.—BA, S

American Gas Accumulator Co., 1031 Newark Ave., Elizabeth, N. J.—TI  
American Instrument Co., Silver Spring, Md.—TC  
Andrews & Perillo Mfg. Corp., 39-30 Crescent St., Long Island City, N. Y.—M  
Askania Regulator Co., 1605 S. Michigan Ave., Chicago, Ill.—PI  
The Audio-Tone Oscillator Co., 60 Walter St., Bridgeport, Conn.—G  
Automatic Alarms, Inc., Youngstown, Ohio—BA  
Automatic Electric Mfg. Co., Mankato, Minn.—BO, LC, PC, TI  
The Automatic Electrical Devices Co., 324 E. 3rd St., Cincinnati, Ohio—BA, BO, V  
Automatic Products Co., 2450 N. 32nd St., Milwaukee, Wis.—SV  
Automatic Temperature Control Co., 24 E. Logan St., Philadelphia, Pa.—TI  
Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—AS, BO, BA, C, D, HC, MS, M, TC, TI  
Berger Electronics, 169-01 72nd Rd., Forest Hills, L. I., N. Y.—BC, TC  
Brooks Engineering Co., Inc., 4517 Wayne Ave., Philadelphia, Pa.—IC  
Brown Instrument Co., 4536 Wayne Ave., Philadelphia, Pa.—B, PI, TC, TI  
Browning Laboratories, Inc., 750 Main St., Winchester, Mass.—AS, EF  
Bruno—New York, Inc., 460 W. 34th St., New York, N. Y.—M  
Burlington Instrument Co., 253 Springfield Ave., Newark, N. J.—TC  
Burlington Instrument Co., Burlington, Iowa—MC  
The Clark Controller Co., 1146 E. 152nd St., Cleveland, Ohio—TI, WE  
Communication Measurements Lab., 131 Liberty St., New York, N. Y.—M  
Control Corp., 600 Stinson Blvd., Minneapolis, Minn.—BO, TI  
The R. W. Cramer Co., Inc., Centerbrook, Conn.—TI, TR  
Eagle Signal Corp., 202 20th St., Moline, Ill.—C, TI, TR  
Eicor, Inc., 1501 W. Congress St., Chicago, Ill.—MC  
The Electric Controller & Mfg. Co., 2700 E. 79th St., Cleveland, Ohio—WE  
Electric Eye Equipment Co., 6 W. Fairchild St., Danville, Ill.—G  
Electric Sorting Machine Co., 802 Michigan Trust Bldg., Grand Rapids, Mich.—G  
Electro Products Laboratories, 549 W. Randolph St., Chicago, Ill.—HC, TC  
Electron Equipment Corp., Palm Springs, Calif.—AS, C, DC, G, M, MC, PI, PC, S, TC, TI, V, WC, WE

Electronic Control Corp., 626 Harper, Detroit, Mich.—BA, DC, D, G, HC, MS, S, TC, TI, WE  
Electronic Corp. of America, 45 W. 18th St., New York, N. Y.—AS  
Electronic Laboratory, 306 S. Edinburgh Ave., Los Angeles, Calif.—BA, D, HC, TC  
Electronic Products Co., 19 N. First St., Geneva, Ill.—B, BA, C, D, DC, G, HC, LC, PI, S, TI, TR  
Electronic Radio Alarm, Inc., 1920 Lincoln-Liberty Bldg., Philadelphia, Pa.—AS, BO, BA, EF, MS  
Engineering Laboratories, Inc., 624 E. Fourth St., Tulsa, Okla.—M, PI  
Ess Instrument Co., George Washington Bridge Plaza, Fort Lee, N. J.—AS, C, P, PC, S  
The Exact Weight Scale Co., Columbus, Ohio—WC  
Fisher Research Laboratory, 1961 University Ave., Palo Alto, Calif.—M  
General Control Co., 243 Broadway, Cambridge, Mass.—LC  
General Electric Co., 1 River Road, Schenectady, N. Y.—AS, BO, B, BA, C, DC, D, G, HC, LC, MS, M, MI, MC, P, PI, PC, S, TC, TI, TR, V, WC, WE  
The Girdler Corp., 224 E. Broadway, Louisville, Ky.—I  
Gisholt Machine Co., 13 S. Baldwin St., Madison, Wis.—V, WC  
Guaranteed Products Corp., Wellington, Ohio, "Shex-Stock"—EF  
Wm. Hansen Co., R 3, Niles, Mich.—AS, BA, D, HC, LC, S, TC, V  
Hathaway Instrument Co., 1815 S. Clarkson, Denver, Colo.—DC, WC  
Haydon Mfg. Co., Inc., Forestville, Conn.—TI  
H-B Electric Co., 6122 N. 21st St., Philadelphia, Pa.—TC  
Herbach & Rademan Co., 522 Market St., Philadelphia, Pa.—TI, C, V  
Hewlett-Packard Company, 395 Page Mill Rd., Palo Alto, Calif.—WE  
Horn Signal Mfg. Corp., 310 Hudson St., New York, N. Y.—AS, C, D, EF, LC, M, TI, TR  
Hy Ef Electrical Products Mfg. Co., 1515 N. Pico Blvd., Los Angeles, Calif.—"Hy-Ef"—PI  
Industrial Instruments, Inc., 156 Culver Ave., Jersey City, N. J.—CC  
Industrial Timer Corp., 117 Edison Pl., Newark, N. J.—TI, WE  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—AS, BO, B, BA, C, DC, D, HC, LC, MS, M, MI, MC, P, PI, PC, S, TC, TI, TR, V, WC, WE  
Kurman Electric Co., Inc., 30-30 Northern Blvd., Long Island City, N. Y.—C, DC, LC, MC, TC, TI, WC, WE  
L. A. B. Corp., P. O. Box 162, Summit, N. J.—B, V  
Lear Avia, Inc., Piqua, Ohio—MS, MC, PI, TC, TI, TR  
Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.—TC  
Lektra Laboratories, Inc., 30 E. Tenth St., New York, N. Y.—TI  
Littelfuse Inc., 4732 Ravenswood Ave., Chicago, Ill.—BO, EF, LC, V  
Lord Manufacturing Co., Erie, Pa.—V  
J. Milton Luers, 12 Pine St., Mount Clemens, Mich.—TI  
Lumenite Electric Co., 407 S. Dearborn St., Chicago, Ill.—B, D, HC, LC, TC, TI, WC, C, M, BO  
The Magnetic Gauge Co., 60 E. Bartges St., Akron, Ohio—DC, G, WC  
McDonnell & Miller, Room 1316, Wrigley Bldg., Chicago, Ill.—B  
McNeill Engineering Co., 4057 W. Van Buren St., Chicago, Ill.—S  
Megard Corp., 381 W. 38th St., Los Angeles, Calif.—AS, EF  
The Mercoid Corp., 4201 Belmont Ave., Chicago, Ill.—B, TC  
Merwin-Wilson Co., New Milford, Conn.—HC, TC  
Minneapolis-Honeywell Regulator Co., 2712 Fourth Ave., Minneapolis, Minn.—HC, MC, TC  
National Union Radio Corp., 15 Washington St., Newark, N. J.—BO  
Photobell Corp., 114 Nassau St., New York, N. Y.—AS, BO, B, BA, C, DC, D, EF, G, HC, LC, MS, M, MC, P, PI, PC, S, TC, TI, TR, V, WC, WE  
Photoswitch, Inc., 89 Broadway, Cambridge, Mass.—AS, BO, B, BA, C, DC, D, EF, G, LC, MS, P, PC, S, TC, TI, TR, WC  
Photovolt Corp., 95 Madison Ave., New York, N. Y.—LC, PC, S, TI, WE  
Radio Electronic Co., 1816 Villanova Dr., Oakland, Calif.—AS, BO, B, BA, C, DC, D, G, HC, LC, MS, M, MI, MC, P, PI, PC, S, TC, TI, TR, V, WC, WE  
Radiotechnic Lab., 1328 Sherman Ave., Evanston, Ill.—BC  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—AS, BA, M, MI  
Rehtron Corp., 2159 Magnolia Ave., Chicago, Ill.—BO, BA, HC, MS, P, PC, S, TI  
Richards Electro-Fence Co., 2308 Madison, Boise, Idaho—BA  
Richardson-Allen Corp., 15 W. 20th St., New York, N. Y.—LC, TI, WE  
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 Seely Instrument Co., Inc., 2249 14th St., S. W., Akron, Ohio—MS, TI  
 Selenium Corp. of America, 1800 W. Pico Blvd., Los Angeles, Calif.—PC  
 Shox-Stock—Guaranteed Products Corp.  
 Shure Brothers, 225 W. Huron St., Chicago, Ill.—V  
 Small Motors, Inc., 1322 Elston Ave., Chicago, Ill.—MC  
 F. A. Smith Mfg. Co., Inc., P. O. Box 509, Rochester, N. Y.—PI, TC  
 Spencer Thermostat Co., 34 Forest St., Attleboro, Mass.—TC  
 Standard Electric Time Co., Springfield, Mass.—TI  
 The Stanley Works, Magic Door Division, 143 Lake St., New Britain, Conn.—D  
 The States Company, 19 New Park Ave., Hartford, Conn.—TI  
 Superior Electric Company, Laurel St., Bristol, Conn.—HC, LC  
 Supreme Electric Products Corp., 194 Vassar St., Rochester, N. Y.—TC  
 Synchro-Start Products, Inc., 221 E. Cullerton, Chicago, Ill.—AS, BO, B, BA, IC, C, DC, D, EF, G, HC, LC, MS, M, MI, MC, P, PI, PC, S, TC, TI, TR, V, WC, WE  
 C. J. Tagliabue Mfg. Co., 540 Park Ave., Brooklyn, N. Y.—HC, TC, TI, PI  
 Technical Apparatus Co., Inc., 1171 Tremont St., Boston, Mass.—HC, LC, M, S  
 Televisio Products, Inc., 6533 Olmstead Ave., Chicago, Ill.—DC, V  
 Tenney Engineering, Inc., 8 Elm St., Montclair, N. J.—H, PI, TC  
 Thomas-Gibb Welding Co., Lynn, Mass.—WE  
 Tork Clock Co., Inc., Mt. Vernon, N. Y.—BO, LC, TI  
 United Cinephone Corp., 65 New Litchfield St., Torrington, Conn.—BA, D, LC, PC, TI  
 Waldron Electric Co., 13221 Merl Ave., Cleveland, Ohio—EF  
 Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—C, G, HC, MC, P, PC, TC, TI, TR, WE  
 Weston Electrical Instrument Corp., 597 Frelinghuysen Ave., Newark, N. J.—LC  
 Wheelock Instruments Co., 847 W. Harrison St., Chicago, Ill.—B, HC, PI, TC  
 Worner Products Corp., 1019 W. Lake St., Chicago, Ill.—AS, BO, BA, C, DC, D, EF, G, LC, MS, M, P, PC, S, TI, TR, WC, WE  
 Zenith Electric Co., 15 W. Walton St., Chicago, Ill.—BO, TI

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 Auth Electrical Special Co., Inc., 422 E. 53 St., New York, N. Y.—BC  
 C. G. Conn, Ltd., Elkhart, Ind.—T, BC, P  
 DeValera Manufacturers, 1945 Park Ave., New York, N. Y.—BC, O, P, S, T  
 Dynaphone—Ansley Radio Corp.  
 Gulbransen Co., 816 N. Kedzie St., Chicago, Ill.—O  
 Hammond Instrument Co., 2987 N. Western Ave., Chicago, Ill., "Novachord," "Solovox"—O  
 Hardman, Peck & Co., 33 W. 57 St., New York, N. Y., "Miniplano"—P  
 Maas Organ Co., 3015 Casitas Ave., Los Angeles, Cal.—BC, percussion harps  
 John Meck Industries, Liberty St., Plymouth, Ind.—S  
 Miessner Inventions, Inc., Morristown, N. J.—PL  
 Miniplano—Hardman, Peck & Co.  
 Novachord—Hammond Instrument Co.  
 Radio Electronic Co., 1816 Villanova Dr., Oakland, Calif.—BC, O, P, S  
 Rangertone, Inc., 73 Winthrop St., Newark, N. J.—BC  
 RCA Victor Division, Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—BC  
 Schulmerich Electronics, Inc., 141 E. Glenside Ave., Glenside, Pa.—BC  
 Nathan R. Smith Mfg. Co., 105 Pasadena Ave., South Pasadena, Calif.—P, S  
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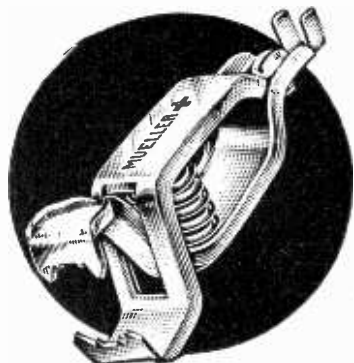
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 Coil shields .....CS  
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 Fuses (meter) .....F  
 Fuse holders .....FH  
 Grid clips .....GC  
 Grommets .....G  
 Jacks .....J  
 Mounting brackets .....MB  
 Nuts .....NL  
 Plugs .....P  
 Rivets .....R  
 Safety terminals .....STE  
 Screws .....S  
 Self tapping screws .....SS  
 Shielding, rubber .....SR  
 Sockets .....SKT  
 Soldering lugs .....SL  
 Springs .....SP  
 Clips, spring .....SC  
 Terminals .....TE  
 Terminal strips .....T  
 Tube shields .....TS  
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 Washers, felt .....WF  
 Washers, fibre .....FW  
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American Microphone Co., 1915 S. Western Ave., Los Angeles, Calif.—C, CP  
American Nut & Bolt Fastener Co., 2029 Doerr St., Pittsburgh, Pa.—NL, FW, WF, WL  
American Phenolic Corp., 1830 S. 54th St., Chicago, Ill., "Amphenol"—C, GC, P, SKT, TS  
American Radio Hardware Co., Inc., 476 Broadway, New York, N. Y., "Arhco"—BP, C, FH, G, GC, J, MB, P, S, SKT, SL, SC, SP, SS, T, TS, FW, WL  
American Screw Co., 21 Stevens St., Providence, R. I.—S, SS  
American Steel & Wire Co., Rockefeller Bldg., Cleveland, Ohio—SP  
Amphenol—American Phenolic Corp.  
Arhco—American Radio Hardware Co.  
Armstrong Cork Co., Lancaster, Pa.—WF, FW  
Arrow-Hart & Hegeman Electric Co., Laurel & Peck Sts., Hartford, Conn.—J  
The Astatic Corp., 830 Market St., Youngstown, Ohio—P, SKT  
Atlantic India Rubber Works, Inc., 1453 W. Van Buren St., Chicago, Ill.—G, P, WR  
Auburn Mfg. Co., 100 Stock St., Middletown, Conn.—FW, G, WF  
Airadio, Inc., 2 Selleck St., Stamford, Conn.—C  
N. S. Baer Co., 9 Montgomery St., Hillside, N. J.—FW, T  
Baker & Co., Inc., 113 Astor St., Newark, N. J.—CM  
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.—CP, J, P  
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C. S. Brainin Co., 233 Spring St., New York, N. Y.—CM  
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The Bristol Co., Waterbury, Conn.—S  
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Callite Tungsten Corp., 558 39th St., Union City, N. J.—CM  
Cannon Electric Development Co., 3209 Humboldt St., Los Angeles, Calif.—C, P, SKT  
Chandler Products Corp., 1491 Chardon Rd., Cleveland, Ohio—S  
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Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y., "ICA"—BP, C, CP, CS, FH, FS, FW, G, GC, J, MB, NL, P, R, S, SC, SKT, SL, SP, SS, T, TS, WF, WL  
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New England Screw Co., Keene, N. H.—SS  
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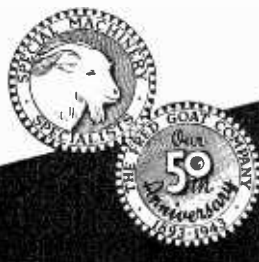
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The Pyle-National Co., 1334 N. Kostner Ave., Chicago, Ill.—P  
Radex Corp., 1322 Elston Ave., Chicago, Ill.—BP, CS, GC, J, SC  
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Reed & Prince Mfg. Co., 1 Duncan Ave., Worcester, Mass.—S, SS  
Remler Co., Ltd., 19th at Bryant, San Francisco, Calif.—“Remler”—P  
Reynolds Spring Co., 955 Water St., Jackson, Mich. SP  
Bernard Rice's Sons, Inc., 325 Fifth Ave., New York, N. Y.—TE  
Rupp's Assembling & Mfg. Works, 2341 N. Seminary Ave., Chicago, Ill.—P, S, SKT, SL  
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Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif.—S, SP  
Shakeproof Lock Washer Co., 2539 N. Keeler Ave., Chicago, Ill.—WL  
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Taylor Fibre Co., Norristown, Pa.—WF  
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Universal Microphone Co., Ltd., 424 Warren Lane, Inglewood, Calif.—P  
W. Urban & Co., 518 Broadway, Camden, N. J.—TE  
Utah Radio Products Co., 850 Orleans St., Chicago, Ill.—GC, J, P, TS  
George Walker Co., 118 Amsterdam Ave., Passaic, N. J.—“Gripmaster”—CC  
Western Electric Co., 195 Broadway, New York, N. Y.—J, P, SKT, T  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—CP  
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Wilmington Fibre Specialty Co., Wilmington, Del.—FW  
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Audiograph—John Meck Industries  
Aurex Corp., 1115 N. Franklin St., Chicago, Ill.—C, D, HA, M  
Autocrat Radio Co., 3855 N. Hamilton Ave., Chicago, Ill.—M  
Best Mfg. Co., Inc., 1202 Grove St., Irvington, N. J.—D, M  
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C. F. Cannon Co., Springfield, N. Y.—M  
Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.—“Carron”—M  
Chicago Telephone Supply Co., 1142 W. Beardsley Ave., Elkhart, Ind.—“Frost”—M  
Conn. Tel. & Elec. Div., Great American Industries, Inc., 70 Britannia St., Meriden, Conn.—C, M  
Crystal-Vox Hearing Instruments Co., 442 Book Bldg., Detroit, Mich.—HA  
DeVry Corp., 1111 Armitage Ave., Chicago, Ill.—HA  
D-X Crystal Co., 1841 W. Carroll Ave., Chicago, Ill.—HA  
Eastern Amplifier Corp., 794 E. 140 St., Bronx, N. Y.—HA  
Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—M  
Emerson Radio & Phono Corp., 111 8th Ave., New York, N. Y.—HA  
Frost—Chicago Telephone Supply Co.  
General Electric Co., Plastics Dept., 1 Plastics Ave., Pittsfield, Mass.  
Graybar Electric Co., Lexington Ave. at 43 St., New York, N. Y.—HA

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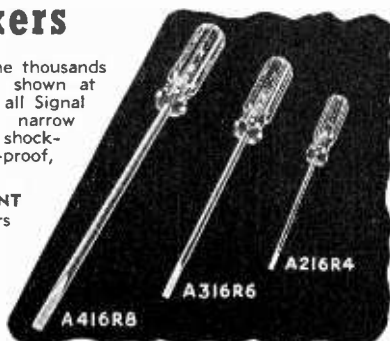
lines with this priority product needed by thousands in your section. Liberal discounts to authorized dealers.

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Hearing Instruments Co.  
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Detroit, Michigan

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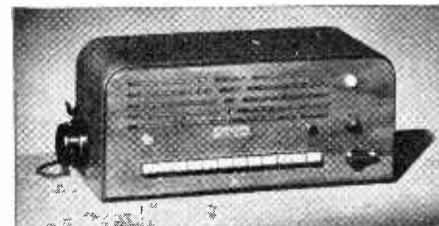
Signal Corps Trainees by the thousands are using the three types shown at right, selected as ideal for all Signal Corps operations; having narrow straight bits, and being shock-proof, break-proof, chip-proof, with Amberyl handles.

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Chicago



ICA—Insuline Corp. of America  
Insuline Corp. of America, 3602 35th Ave., Long  
Island City, N. Y., "ICA"—M  
Kellogg Switchboard & Supply Co., 6650 S. Cicero  
Ave., Chicago, Ill.—M  
Knight—Allied Radio Corp.  
Laurehk Radio Mfg. Co., 3918 Monroe Ave., Wayne,  
Mich., "Laurehk"—C, HA  
Lumenite Electric Co., 407 S. Dearborn St., Chicago,  
Ill.—R  
Maico Co., Inc., 83 S. 9th St., Minneapolis, Minn.—  
D, HA  
John Meck Industries, 1313 W. Randolph St., "Audio-  
graph"—HA  
Murdock Mfg. Co., 158 Carter St., Chelsea, Mass.—M  
E. A. Myers & Sons, Radioear Bldg., Mt. Lebanon,  
Pa., "Radioear"—C, HA, M  
Newton Co., 244 W. 23 St., New York, N. Y.—HA  
Philmore Mfg. Co., 113 University Pl., New York,  
N. Y., "Philmore"—M  
Quam-Nichols Co., 33rd Pl. & Cottage Grove Ave.,  
Chicago, Ill.—D, M  
Radioear—E. A. Myers & Sons  
Radio Speakers, Inc., 221 E. Cullerton St., Chicago,  
Ill.—D, M  
Radolek Co., 6001 W. Randolph St., Chicago, Ill.—  
C, D, HA, M  
RCA Victor Div., Radio Corp. of America, Front &  
Cooper Sts., Camden, N. J.—HA, M  
The Rola Co., Inc., 2530 Superior Ave., Cleveland,  
Ohio—M  
Sonotone Corp., Elmsford, N. Y.—C, HA, M  
Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd.,  
Rochester, N. Y.—M  
Telex Prods. Co., Telex Park, Minneapolis, Minn.—  
C, HA, M  
Tibbets Labs., 12 Norfolk St., Cambridge, Mass.—  
C, HA  
Trim, Inc., 1770 W. Berteau, Chicago, Ill.—HA, M  
Western Electric Co., 195 Broadway, New York, N. Y.—  
D, HA, M  
Western Sound & Elec. Labs., 311 W. Kilbourn  
Ave., Milwaukee, Wis.—HA  
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.—  
HA

## Insulation & Insulators



Bushings	B
Ceramic parts	C
Condenser paper	CP
Enamel	E
Insulating beads	IB
Fibre	F
Fibre-glass	FG
Friction tape	FT
Mica	M
Mycalex	MY
Paper	P
Plastics	PL
Rubber insulation	RI
Scotch tape	ST
Special ceramics	SC
Steatite	S
Stand-off insulators	SO
Tubing (varnished)	T
Varnished cambric	VC
Paper tubing	PT
Glass tubing	G

Acme Wire Co., New Haven, Conn.—FG, VC  
The Akron Porcelain Co., Cory Ave., Akron, Ohio—  
B, C  
Alden Products Co., 117 N. Main St., Brockton, Mass.—  
PL, SO  
Alsimag—American Lava Corp.  
American Insulator Corporation, New Freedom, Pa.—  
PL  
American Lava Corp., Chattanooga, Tenn., "Alsimag"  
—B, C, IB, SO  
American Phenolic Corp., 1830 S. 54th St., Chicago,  
Ill., "Amphenol"—C, IB, PL, SO  
Amphenol—American Phenolic Corp.  
Armite—Spaulding Fibre Co., Inc.  
Atlantic India Rubber Works, Inc., 1453 W. Van  
Buren St., Chicago, Ill.—B  
Auburn Mfg. Co., 100 Stack St., Middletown, Conn.—  
B, F, P, VC  
N. S. Baer Co., 9 Montgomery St., Hillside, N. J.—  
F, PL  
Bakelite Corporation, 30 E. 42nd St., New York,  
N. Y.—E, PL  
Barker and Williamson, 235 Fairfield Ave., Upper  
Darby, Pa.—B, C, PL, SO  
B & C Insulation Products, Inc., 261 Fifth Ave., New  
York, N. Y.—PL, T, VC  
Bentley, Harris Mfg. Co., Conshohocken, Pa., "B-H"  
—T  
B-H—Bentley, Harris Mfg. Co.  
Birnbach Radio Co., Inc., 145 Hudson St., New  
York, N. Y.—C, SO, T, VC  
The Birtcher Corp., 5087 Huntington Dr., N., Los  
Angeles, Calif.—PL

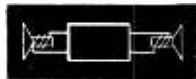
Boonton Molding Co., Boonton, N. J.—PL  
L. S. Brach Mfg. Corp., 55 Dickerson St., Newark,  
N. J.—C, F, PL, SO  
Wm. Brand & Co., 276 Fourth Ave., New York, N. Y.,  
"Turbo"—M, T, VC  
Brandywine Fibre Products Co., 14th & Walnut Sts.,  
Wilmington, Del.—F  
Bud Radio, Inc., 2118 E. 55th St., Cleveland, Ohio,  
"Bud"—C, SO  
Carbide & Carbon Chemicals Corp., Plastics Div., 30  
E. 42nd St., New York, N. Y.—PL  
Catalin Corp., 1 Park Ave., New York, N. Y., "Loalin"  
—PL  
Celanese Celluloid Corp., 180 Madison Ave., New York,  
N. Y., "Lumarith Protectoid"—PL  
Centralab, 900 E. Keefe Ave., Milwaukee, Wis.—B, C,  
IB, S, SO  
Ceramic Specialties Co., East Liverpool, Ohio  
Colonial Kolonite Co., 2212 Armitage Ave., Chicago,  
Ill.—B, C, F, PL  
Consolidated Molded Products Corp., 309 Cherry St.,  
Scranton, Pa.—B, PL  
Continental-Diamond Fibre Co., Newark, Del., "Diam-  
ond," "Dilecto"—F, M, PL  
Cook Ceramic Mfg. Co., 503 Prospect St., Trenton,  
N. J.—B, C, IB  
Corning Glass Works, Corning, N. Y., "Pyrex"—B, G,  
IB, SO  
Cottrell Paper Co., Inc., 19 Purchase St., Fall River,  
Mass.—P  
Crolite—Henry L. Crowley & Co.  
Henry L. Crowley & Co., Inc., 1 Central Ave., West  
Orange, N. J., "Crolite"—C  
Harry Davies Molding Co., 1428 N. Wells St., Chicago,  
Ill.—PL  
Diamond—Continental-Diamond Fibre Co.  
Dilecto—Continental-Diamond Fibre Co.  
John C. Dolph Co., Dept. a-12, 168 Emmett St.,  
Newark, N. J.—B, C, E, F, FG, FT, G, IB, M,  
P, PL, PT, SO, ST, T, VC  
Dow Chemical Co., Plastics Div., Midland, Mich.—PL  
E. I. DuPont de Nemours & Co., Inc., Plastics Dept.,  
626 Schuyler Ave., Arlington, N. J.—PL  
Durez Plastics & Chemicals, Inc., North Tonawanda,  
N. Y., "Durez"—PL  
Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia,  
Pa.—PL  
Electronic Mechanics, Inc., 70 Clifton Blvd., Clifton,  
N. J.—C  
Endurette Corp. of America, Cliffwood, N. J.—P, T, VC  
Federal Screw Products Co., 224 W. Huron St.,  
Chicago, Ill.—T  
Formica Insulation Co., 4638 Spring Grove Ave., Cin-  
cinnati, Ohio, "Formica"—PL  
A. W. Franklin Mfg. Corp., 175 Varick St., New  
York, N. Y.—B, C, PL  
Franklin-Fibre-Lamitex Corp., Wilmington, Del.—B,  
F, PL  
Fyberoid—Wilmington Fibre Specialty Co.  
Gemloid Corp., 7910-7930 Albion Ave., Elmhurst,  
L. I., N. Y.—PL  
General Cement Mfg. Co., 919 Taylor Ave., Rockford,  
Ill.—B, E, F, FG, FT, P, ST, T, VC  
General Ceramics & Steatite Corp., Keasby, N. J.—  
C, IB, S, SO  
General Electric Co., 1 River Rd., Schenectady, N. Y.—  
B, C, F, FT, M, MY, PL, VC  
General Electric Co., Plastics Dept., 1 Plastics Ave.,  
Pittsfield, Mass.—PL  
The General Industries Co., Taylor & Olive Sts.,  
Elyria, Ohio—PL  
General Paper Tube Co., 430 E. Chelton Ave., Phila-  
delphia, Pa.—PT  
Halowax Products Division, Union Carbide & Carbon  
Corp., 30 E. 42nd St., New York, N. Y.—PL  
Hodgman Rubber Co., Framington, Mass.—RI  
J. Hope, P. O. Box 666, Wenonah, N. J.—CP, IB, VC  
ICA—Insuline Corp. of America  
Imperial Porcelain Works, Inc., Trenton Ave. & Mul-  
berry St., Trenton, N. J.—B, C  
Industrial Molded Products Co., 2035 Charleston,  
Chicago, Ill.—PL  
Industrial Synthetics Corp., 60 Woolsey St., Irvington,  
N. J.—B, PL, T  
Industrial Screw & Supply Co., 717 W. Lake St.,  
Chicago, Ill.—FT, ST, T  
Insulation Manufacturers Corp., 565 W. Washington  
Bldg., Chicago, Ill.—B, E, F, FG, FT, G, M, P,  
PT, ST, T, VC  
Insulation Products Co., 504 N. Richland St., Pitts-  
burgh, Pa.—PL  
Insuline Corp. of America, 3602 35th Ave., Long  
Island City, N. Y., "ICA"—B, C, E, F, FG, IB  
Insurok—The Richardson Co.  
Irvington Varnish & Insulator Co., 6 Argyle Terrace,  
Irvington, N. J., "Irv-O-Volt"—E, FG, P, PL, T,  
VC  
Irv-O-Volt—Irvington Varnish & Insulator Co.  
Isolatite, Inc., 343 Cortlandt St., Belleville, N. J.—  
B, C, IB, SC, SO  
E. F. Johnson Co., Waseca, Minn.—C  
Katz & Oquish, Inc., 33 W. 60th St., New York,  
N. Y.—IB  
Keystone Specialty Co., 1373½ Cove Ave., Lakewood,  
Cleveland, Ohio—PL  
J. R. Kilburn Glass Co., Inc., S. Worcester St.,  
Charley, Mass.—B, SO  
Knox Porcelain Corp., Knoxville, Tenn.—C, SO  
Lamicoid—Mica Insulator Co.  
Lapp Insulator Co., Inc., Le Roy, N. Y.—B, C, SO  
Lavite—D. M. Steward Mfg. Co.  
Lenoxite Div., Lenox, Inc., 65 Prince St., Trenton,  
N. J.—B, C, S, SC, SO  
Loalin—Catalin Corp.

Locke Insulator Corporation, S. Charles & Cromwell  
Sts., Baltimore, Md.—B, C, SO  
The Loutan Mfg. Co., 200 Harvey Ave., East Liver-  
pool, Ohio—B, C  
Lumarith Protectoid—Celanese Celluloid Corp.  
The Macallen Co., 16 Macallen St., Boston, Mass.—M  
Makaiot Corp., 262 Washington St., Boston, Mass.—PL  
John A. Manning Paper Co., Inc., Troy, N. Y.—F, P  
The Matsch Refractories Co., East Liverpool, Ohio—C  
Mica Insulator Co., 200 Varick St., New York, N. Y.,  
"Lamicoid," "Mico"—B, F, FG, FT, G, M, P,  
PL, T, VC  
Mica Products Mfg. Co., 69 Wooster St., New York,  
N. Y.—B, F, M, P, T, VC  
Micarta Fabricators, Inc., 4619 Ravenswood Ave.,  
Chicago, Ill.—F, PL, T  
Mico—Mica Insulator Co.  
James Milten Mfg. Co., Inc., 150 Exchange St.,  
Malden, Mass.—C, IB, PL, SO  
Mitchell-Rand Insulation Co., 51 Murray St., New  
York, N. Y.—F, FG, FT, G, M, P, ST, T, VC  
Molded Insulation Co., 335 East Price St., Philadel-  
phia, Pa.—PL  
Monsanto Chemical Co., Plastics Division, Springfield,  
Mass.—PL  
Multi Electrical Mfg. Co., 1840 W. 14th St., Chicago,  
Ill.—B  
Eugene Munsell & Co., 200 Varick St., New York,  
N. Y.—M  
Mycalex Corporation of America, 60 Clifton Blvd.,  
Clifton, N. J.—B, C, SC, SO  
N-C—National Company, Inc.  
National Co., Inc., Malden, Mass., "N-C"—C  
National Porcelain Co., 400 Southard St., Trenton,  
N. J.—BC, IB, SC, SO  
National Tile Co., 26th & Lynn Sts., Anderson, Ind.—  
C, IB, SO  
National Vulcanized Fibre Co., Wilmington, Del.,  
"Phenolite"—F, P, PL  
Nepperhan Sales Co., 175 Fifth Ave., New York,  
N. Y.—FG, G, T, VC  
New England Mica Co., Waltham, Mass.—M  
New England Radiocrafters, 1156 Commonwealth Ave.,  
Brookline, Mass.—PL  
Northern Industrial Chemical Co., Elkins St., S.  
Boston, Mass.—PL  
Norton Laboratories, Inc., 520 Mill St., Lockport,  
N. Y.—PL  
Ohmoid—Wilmington Fibre Specialty Co.  
Pacific Clay Products, 308 W. Ave. 26, P. O. Box 145,  
Sta. A, Los Angeles, Calif.—"Steapactite"—C  
Parisian Novelty Co., 3510 S. Western Ave., Chicago,  
Ill.—PL  
Penn Fibre & Specialty Co., 2030 E. Westmoreland  
St., Philadelphia, Pa.—B, F, PL, SO  
Phenolite—National Vulcanized Fibre Co.  
Plastics Division, Carbide & Carbon Chemicals Corp.,  
30 E. 42nd St., New York, N. Y.—PL  
Plax Corp., 133 Walnut St., Hartford, Conn.—PL, SO  
Poinsettia, Inc., 11 Cedar Ave., Pitman, N. J.—PL  
Porcelain Enamel & Mfg. Co., Plastics Div., 5601  
Eastern Ave., Baltimore, Md.—M, PL  
The Porcelain Insulator Corp., Main St., Lima, N. Y.—  
B, C, SO  
Porcelain Products, Inc., 124 W. Front St., Findlay,  
Ohio—B, C, SO  
Precision Paper Tube Co., 2033 W. Charleston St.,  
Chicago, Ill.—P, PL, PT, T  
Printloid, Inc., 93 Mercer St., New York, N. Y.—B  
Pyrex—Corning Glass Works  
Racon Elec. Co., Inc., 52 E. 19th St., New York,  
N. Y.—PL  
Radio Essentials, Inc., 63 Wooster St., New York,  
N. Y.—B, SO, T  
Recto Molded Products, Inc., Appleton & B. & O.  
R. R., Cincinnati, Ohio—PL  
Reynolds Spring Co., Molded Plastics Division, Cam-  
bridge, Mass.—PL  
The Richardson Co., Melrose Park, Ill., "Insurok"—  
PL  
Rogan Bros., 2001 S. Michigan Ave., Chicago, Ill.—  
PL  
The T. R. Routh Co., 1045 Bryant St., San Fran-  
cisco, Calif.—SO  
Rupp's Assembling & Mfg. Works, 2341 N. Seminary  
Ave., Chicago, Ill.—B  
Saxonburg Potteries, Saxonburg, Pa.—C  
Smith Paper Co., Inc., Lee, Mass.—CP  
Spaulding Fibre Co., Inc., 310 Wheeler St., Tona-  
wanda, N. Y., "Spauldite," "Armite," "Spauldo"  
—B, F, PL  
Spauldite—Spaulding Fibre Co., Inc.  
Spauldo—Spaulding Fibre Co., Inc.  
Square D Co., 6060 Rivard St., Detroit, Mich.—P  
Star Porcelain Co., 41 Muirhead Ave., Trenton, N. J.  
Steapactite—Pacific Clay Products  
D. M. Steward Mfg. Co., Chattanooga, Tenn., "Lavite"  
—C, IB, SO  
Stupakoff Ceramic & Mfg. Co., Latrobe, Pa.—C  
Synthane Corp., Highland Ave., Oaks, Pa., "Synthane"  
—PL  
Taylor Fibre Co., Norristown, Pa.—F, PL  
R. Thomas & Sons Co., Lisbon, Ohio—B, C, SO  
Tingstol Corp., 1461 W. Grand Ave., Chicago, Ill.—  
PL  
Tungston Contact Mfg. Co., 7511 Cottage Ave., North  
Bergen, N. J.—PL  
Turbo—Wm. Brand & Co.  
Ucinite Co., 459 Watertown Ave., Newtonville, Mass.—  
PL

## Insulation and Insulators

U. S. Rubber Co., 1230 Sixth Ave., New York, N. Y.—**RT**  
 Universal Clay Products Co., Sandusky, Ohio—**C, SO**  
 W. Urban & Co., 518 Broadway, Camden, N. J.—**F, SO**  
 Vap-O-Lite Co., see Nepperhan Sales Co.  
 Varflex Corp., Rome, N. Y.—**FG, T**  
 Victor Insulators, Inc., Maple Ave., Victor, N. Y.—**B, C, IB, SO**  
 Washington Porcelain Co., Washington, N. J.—**C, SO**  
 R. D. Werner Co., Inc., 380 Second Ave., New York, N. Y.—**PL**  
 Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa.—**B, C, F, FG, FT, M, P, PL, PT, SO, T, VC**  
 West Virginia Pulp & Paper Co., 230 Park Ave., New York, N. Y.—**F**  
 Whitney Blake Co., New Haven, Conn.—**PL**  
 Wilmington Fibre Specialty Co., Wilmington, Dela., "Fyberoid," "Ohmold"—**F, PL**

## Inter-Communicating Systems



Wired .....**W**  
 Wireless .....**WS**

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—**W**  
 American Amplifier & Tel. Co., Inc., 1222 Glendon Ave., Los Angeles, Calif.—**W**  
 American Communications Corp., 306 Broadway, New York, N. Y.—**W**  
 American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—**W**  
 Amplifier Co. of America, 17 W. 20 St., New York, N. Y., "ACA"—**W**  
 Austin Electronic Mfg. Co., Warren, Pa., "Port-A-Phone"—**W, WS**  
 Auth Electrical Specialty Co., Inc., 422 E. 53rd St., New York, N. Y.—**W**  
 Autocrat-Phone—Autocrat Radio Co.  
 Autocrat Radio Co., 3855 N. Hamilton Ave., Chicago, Ill., "Autocrat-Phone"—**W**  
 Bank's Mfg. Co., 1105 Lawrence Ave., Chicago, Ill.—**W**  
 Belfone—Bell Sound Systems, Inc.  
 Bell Sound Systems, Inc., 1183 Essex Ave., Columbus, Ohio, "Belfone"—**W**  
 David Bogen Co., Inc., 663 Broadway, New York, N. Y.—**W, WS**  
 Chicago Sound Systems Co., 2124 S. Michigan Ave., Chicago, Ill.—**W, WS**  
 Clarion—Electronic Corp. of America  
 Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—**W**  
 Communications Co., Inc., 300 Greco Ave., Coral Gables, Fla.—**W**  
 Conn. Telephone & Elec. Div., Great American Industries, Inc., Meriden, Conn.—**W**  
 Control Corp., 600 Stinson Blvd., Minneapolis, Minn.—**W**  
 De Wald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.—**W**  
 Frank I. Dufrane Co., Inc., 1138 Howard St., San Francisco, Calif.—**W, WS**  
 Electrical Research Lab, Inc., 122 W. New York St., Evanston, Ill.—**W**  
 Electronic Corp. of America, 45 W. 18th St., New York, N. Y., "Clarion"—**W**  
 Executone, Inc., 415 Lexington Ave., New York, N. Y.—**W**  
 Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—**W**  
 Gentlemen Products Division, Ilene Motor Co., 1708 Cumming St., Omaha, Nebr.—**W, WS**  
 Godfrey Manufacturing Corp., 2140 N. 27th St., Milwaukee, Wis.—**W**  
 Hollywood Electronic Co., 800 Sunset Blvd., Los Angeles, Calif.—**W**  
 Horni Signal Mfg. Corp., 310 Hudson St., New York, N. Y.—**WS**  
 Intercall Systems, Inc., 610 Linden Ave., Dayton, Ohio—**W**  
 International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—**W, WS**  
 Lake Mfg. Co., 2323 Chestnut St., Oakland, Calif., "Voycall"—**W**  
 Laurehk Radio Mfg. Co., 3918 Monroe Ave., Wayne, Mich.—**W**  
 Lektra Laboratories, Inc., 30 E. Tenth St., New York, N. Y.—**W**  
 John Meck Industries, Liberty St., Plymouth, Ind.—**W**  
 Megard Corp., 381 W. 38th St., Los Angeles, Calif.—**W**  
 Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill.—**W**  
 Miles Reproducer Co., 812 Broadway, New York, N. Y.—**W, WS**  
 National Inter-Communicating Systems, 2434 Montrose Ave., Chicago, Ill.—**W**  
 Newcomb Audio Products Co., 2815 S. Hill St., Los Angeles, Calif.—**W**  
 The North Electric Mfg. Co., P. O. Box 267, Gallon, Ohio—**W**  
 Operadio Mfg. Co., 13th & Indiana Sts., St. Charles, Ill.—**W**

Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—**W**  
 Phonette Co. of America, 7122 Melrose Ave., Los Angeles, Calif.—**W**  
 Port-A-Phone—Austin Electronic Mfg. Co.  
 Radex Corp., 1322 Elston Ave., Chicago, Ill.—**WS**  
 Radio Electronic Co., 1816 Villanova Dr., Oakland, Calif.—**W, WS**  
 The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—**W**  
 RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—**W, WS**  
 Record-O-Vox, Inc., 1379 E. 8th St., Brooklyn, N. Y.—**W, WS**  
 Regal Amplifier Mfg. Corp., 14 W. 17th St., New York, N. Y., "Tok-Phone"—**W, WS**  
 Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif., "Remler"—**W**  
 Select-O-Phone Co., 1012 Eddy St., Providence, R. I.—**W**  
 Silman Mfg. Corp., 305 Pennsylvania Ave., Pittsburgh, Pa.—**W**  
 Mark Simpson Mfg. Co., Inc., 188 W. 4th St., New York, N. Y.—**W**  
 Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—**W**  
 Talk-A-Phone Mfg. Co., 1219 W. Van Buren St., Chicago, Ill.—**W**  
 Telemotor Corp., 260 5th Ave., New York, N. Y.—**W**  
 Tok-Phone—Regal Amplifier Mfg. Corp.  
 Trebor Radio Co., Pasadena, Calif.—**W**  
 Troy Radio & Television Co., 1144 S. Olive St., Los Angeles, Calif.—**W, WS**  
 Voycall—Lake Mfg. Co.  
 Webster Electric Co., Racine, Wis.—**W**  
 Western Sound & Electric Labs., Inc., 3512 W. St. Paul, Milwaukee, Wis.—**W, WS**

## Measuring Instruments



Ammeters, indicating .....**A**  
 Ammeters & milliammeters, recording .....**AR**  
 Attenuation meters .....**AM**  
 Distortion meters .....**D**  
 Electronic hygrometers .....**EH**  
 Electrostatic VM .....**E**  
 Field strength meters .....**F**  
 Frequency measuring devices .....**FM**  
 Galvanometers .....**G**  
 Insulation testers .....**IT**  
 Light intensity .....**L**  
 Megohm meters .....**MO**  
 Microvoltmeters .....**MV**  
 Multi-meters .....**M**  
 Phase angle meters .....**P**  
 Sound level meters & recorders .....**S**  
 Tachometer .....**TA**  
 Telemeter .....**TM**  
 Thermo-couples .....**TH**  
 Thermometers & pyrometers .....**T**  
 Tuning fork .....**TF**  
 Vacuum gauges .....**VG**  
 Vac. tube voltmeters .....**VT**  
 Volum indicators .....**VI**  
 Voltmeters .....**V**  
 Watt-hour meters .....**WH**  
 Watt meters .....**W**  
 Wave meters .....**WM**

Aetna Electrical Mfg. Corp., 276 McKibbin St., Brooklyn, N. Y.  
 Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kans.—**FM, WM**  
 Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—**FM**  
 Allen Elec. & Equip. Co., 2103 Pitcher St., Kalamazoo, Mich.—**A, V**  
 American Instrument Co., Silver Spring, Md.—**T**  
 American Thermo-Electric Co., 69 E. 8th St., New York, N. Y.—**TH (vacuum)**  
 Amplifier Co. of America, 17 West 20th St., New York, N. Y.—**S**  
 Associated Research, Inc., 431 S. Dearborn St., Chicago, Ill.—**IT, MO**  
 The Audio-Tone Oscillator Co., 60 Walter St., Bridgeport, Conn.—**AR, S, W**  
 Ballantine Laboratories, Inc., Boonton, N. J.—**MV, V, VT**  
 Alfred W. Barber Laboratories, 34-04 Francis Lewis Blvd., Flushing, L. I., N. Y.—**VT**  
 Biddle Co., James G., 1211 Arch St., Philadelphia, Pa.—**FM, IT, MO**  
 Boonton Radio Corp., Boonton, N. J.—**IT**  
 The Bristol Co., Waterbury, Conn.—**AR, T, TH**  
 Brown Instrument Co., 4538 Wayne Ave., Philadelphia, Pa.—**T, TH**  
 Browning Laboratories, Inc., 750 Main St., Winchester, Mass.—**FM**  
 Bruno-New York, Inc., 460 W. 34th St., New York, N. Y.—**S**  
 Bud Radio, Inc., 2118 E. 55th St., Cleveland, Ohio—**WM**  
 Brush Development Co., 3311 Perkins Ave., Cleveland, Ohio—**G**  
 Bulova Watch Co., 630 Fifth Ave., New York, N. Y.—**M**

Burlington Instrument Co., Burlington, Iowa—**A, FM, TH, V, W**  
 Wm. W. L. Burnett Radio Laboratory, 4814 Idaho St., San Diego, Calif.—**FM**  
 Cambridge Instrument Co., Inc., 3732 Grand Central Terminal, New York, N. Y.—**G, TH, GA**  
 Central Scientific Co., 1700 Irving Park Blvd., Chicago, Ill.—**G**  
 The Clough-Brengle Co., 5501 Broadway, Chicago, Ill.—**A, FM, IT, M, V, MO, MV, AM**  
 Collins Co., 644 Landfair Ave., Westwood Village, Los Angeles, Calif.—**G, T**  
 Communication Measurements Laboratory, New York, N. Y.—**FM, VT, WM**  
 Continental Electric Co., Geneva, Ill.—**VG**  
 Control Corp., 600 Stinson Blvd., Minneapolis, Minn.—**TM**  
 The Daven Co., 158 Summit St., Newark, N. J.—**VI**  
 Distillation Products, Inc., 755 Ridge Rd., W. Rochester, N. Y.—**VG**  
 Electrical Facilities, Inc., 4224 Holden St., Oakland, Calif.—**LA, A**  
 Electro-Medical Laboratory, Inc., 1529 Highland Ave., Holliston, Mass.—**CH**  
 Electro-Products Laboratories, 549 West Randolph St., Chicago, Ill.—**FM**  
 Electronic Products Co., 19 No. First St., Geneva, Ill.—**VT, L, EH**  
 Ess Instrument Company, George Washington Bridge Plaza, Fort Lee, N. J.—**SG**  
 Esterline—The T. R. Routh Co.  
 The Esterline-Angus Co., Inc., P. O. Box 598, Indianapolis, Ind.—**AR**  
 Ferranti Electric, Inc., 30 Rockefeller Plaza, New York, N. Y.—**A, E, IT, V**  
 Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J.—**VT, F, FM, RN**  
 Field Electrical Instrument Co., 2432 Grand Concourse, New York, N. Y.—**TH**  
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 Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—**FM**  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—**A, AR, E, FM, IT, G, M, MV, S, W, WH, T, V, VT, MO, L, P, F, TH, WM**  
 General Radio Co., 30 State St., Cambridge, Mass.—**D, FM, IT, MN, MO, MV, S, V, VT, WM**  
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 G-M Laboratories, Inc., 4326 N. Knox Ave., Chicago, Ill.—**G**  
 G. M. Mfg. Co., 50 West 3rd St., New York, N. Y.—**T**  
 Gruen Watch Co., Time Hill, Cincinnati, Ohio—**M**  
 W. & L. E. Gurley, 514 Fulton Street, New York, N. Y.—**FM**  
 Hathaway Instrument Co., 1315 South Clarkson, Denver, Colo.—**FM, G, MI**  
 Haydon Mfg. Co., Forestville, Conn., FR  
 Heiland Research Corp., 130 East 5th Ave., Denver, Colo.—**G**  
 Herbach & Rademan Co., 522 Market St., Philadelphia, Pa.—**FM, WM**  
 Hewlett-Packard Co., 395 Page Mill Rd., Palo Alto, Calif.—**VT, D, FM**  
 The Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio—**A, E, FM, IT, DV, G, M, W, V, VT, MO**  
 Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—**F, MO, MV, S, VT**  
 Hy Ef Electrical Products Mfg. Co., 1515 W. Pico Blvd., Los Angeles, Calif., "Hy-Ef"—**IT**  
 Industrial Instruments, 156 Culver Ave., Jersey City, N. J.—**IT**  
 Industrial Transformer Corp., 2540 Belmont Ave., New York, N. Y.—**IT**  
 Intercontinental Marketing Co., 95 Madison Ave., New York, N. Y.—**L**  
 International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—**D, F, FM, IT, L, P, MV, S, VT**  
 J-B-T Instruments, Inc., 441 Chapel St., New Haven, Conn.—**A, FM, G, T, V**  
 Lampkin Labs., Bradenton, Fla.—**FM**  
 Landis & Gyr, Inc., 104 Fifth Ave., New York, N. Y.—**WH**  
 Lavoie Laboratories, Morganville, N. J.—**FM, WM**  
 Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.—**FM, G, IT, T, TH, V**  
 Fred M. Link, 12 W. 17th St., New York, N. Y.—**FM, IT**  
 Merwin-Wilson Co., New Milford, Conn.—**TH**  
 James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—**P, FM, WM**  
 B. F. Miller Co., P. O. Box 56B, Trenton, N. J.—**IT**  
 Monarch Mfg. Co., 3341 Belmont Ave., Chicago, Ill., "Monarch"—**MV**  
 National Instrument Co., 44 School St., Boston, Mass.—**HC**  
 Newark Transformer Co., 17 Freilighuysen Ave., Newark, N. J.—**IT**  
 Netheller Winding Labs., 111 Albermarle Ave., Trenton, N. J.—**IT**  
 Oxford-Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—**F, M, WM**  
 Panoramic Radio Corp., 242 W. 55th St., New York, N. Y.—**FM**  
 Pfaltz & Bauer, Inc., 350 Fifth Ave., New York, N. Y.—**G**  
 Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—**M, W, VT**  
 Photobell Corp., 114 Nassau St., New York, N. Y.—**F, IT, L, MO, VT**

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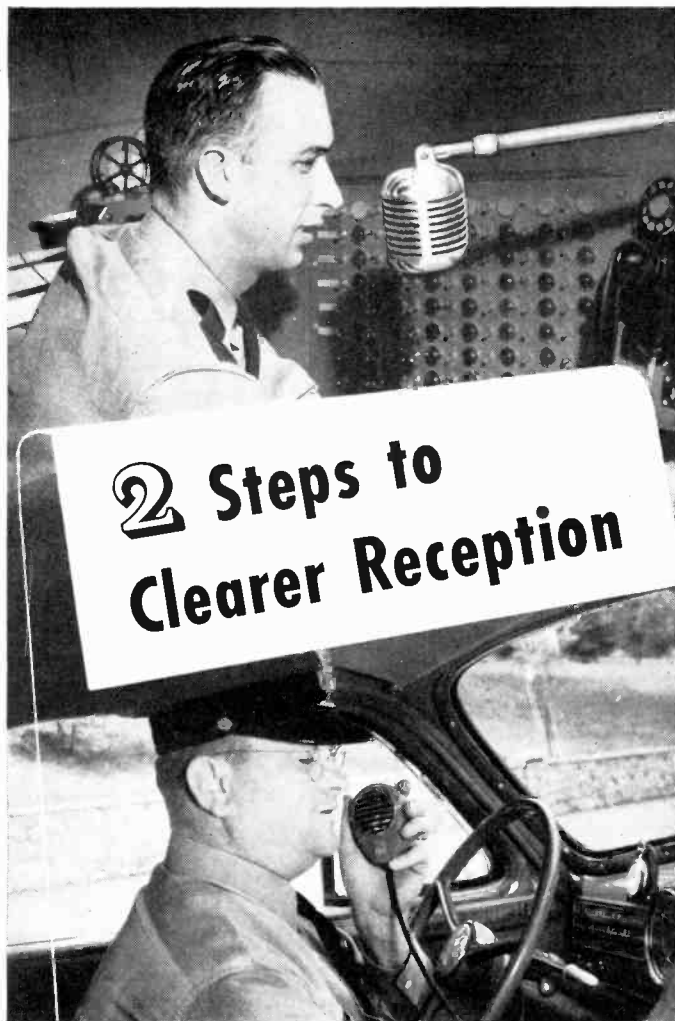
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Radio Design Co., 1353 Sterling Place, Brooklyn, N. Y.—M, V  
Radiotechnic Lab., 1328 Sherman Ave., Evanston, Ill.—V, VT  
The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—FM  
Rawson Electrical Instrument Co., 90 Potter St., Cambridge, Mass.—A, E, G, M, MO, TH, V, W  
RCA Victor Div., Radio Corp of America, Front & Cooper Sts., Camden, N. J.—D, F, FM, P  
Arklay S. Richards Co., Inc., 72 Winchester St., Newtown Highlands, Mass.—T, TH  
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Riverbank Laboratories, Geneva, Ill.—TF  
W. C. Robinette Co., 802 Fair Oaks, South Pasadena, Calif.—P  
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Rubicon Co., 3753 Ridge Ave., Philadelphia, Pa.—G, IT  
Sangamo Electric Co., Springfield, Ill.—M  
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Weston Electrical Instrument Corp., 597 Frelinghuysen Ave., Newark, N. J.—A, FM, G, IT, L, MM, MO, PF, T, TA, TH, V, VT, W  
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Connectors .....	CTR
Contact .....	CT
Crystal .....	CRY
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Home broadcasting .....	HB
Springs .....	SPR
Stands .....	STD
Velocity .....	VEL

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American Amplifier & Tel. Co., 1222 Glendon Ave., Los Angeles, Calif.—DYN, VEL

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Amperite Co., 561 Broadway, New York, N. Y.—ACC, CT, CTR, DYN, STD, VEL

Amphenol—American Phenolic Corp.

Art Specialty Co., 3245 W. Lake St., Chicago, Ill.—ACC, STD

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“Atlas Velvet Action”—ACC, CTR, STD

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Na-Aid—Alden Products Co.

Newcomb Audio Products Co., 2815 S. Hill St., Los Angeles, Calif.—CRY, DYN, STD

Otto K. Olesen III Co., Ltd., 1560 Vine St., Hollywood, Calif.—STD

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Permoflux Corp., 4916 W. Grand Ave., Chicago, Ill.

Quam-Nichols Co., 33rd Pl. & Cottage Grove Ave., Chicago, Ill.—DYN, HB

Racon Elec. Co., Inc., 52 E. 19th St., New York, N. Y.—DYN

Radiotone, Inc., 7356 Melrose Ave., Hollywood, Calif.—CRY, DYN, STD

The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—ACC, CRY, DYN, STD, VEL

RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—ACC, CRY, CTR, DYN, STD, VEL

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Selectar Mfg. Corp., 21-10 49th Ave., Long Island City, N. Y.—CTR

Shure Bros., 225 W. Huron St., Chicago, Ill.—“Shure,” “Uniplex,” “Unidyne”—ACC, CAR, CON, CRY, CT, CTR, DYN, HB, SPR, STD

Mark Simpson Mfg. Co., Inc., 188 W. 4th St., New York, N. Y.—ACC, CT, STD

Speak-O-Phone Recording & Equipment Co., 23 W. 80th St., New York, N. Y.—CAR, CRY, SPR, STD

Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—CAR, ACC, CRY, CTR, DYN, STD

Tibbetts Labs., 12 Norfolk St., Cambridge, Mass.—CRY

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Unidyne—Shure Bros.

Uniplex—Shure Bros.

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Interference locators .....I  
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American Transformer Co., 180 Emmet St., Newark, N. J.—P

Apex Industries, Inc., 1035 W. Lake St., Chicago, Ill.—FF, P, S

Automatic Electric Mfg. Co., Mankato, Minn.—P

Avia Products Co., 749 N. Highland, Los Angeles, Calif.—FF, P, S

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L. S. Brach Mfg. Corp., 55 Dickerson St., Newark, N. J.—S

Consolidated Wire & Assoc. Corps., 1635 S. Clinton, Chicago, Ill.—S

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Tohe Deutschmann Corp., Canton, Mass.—I, IA, P

Dumont Electric Co., 34 Hubert St., New York, N. Y.—P

Electro Products Laboratories, 549 W. Randolph St., Chicago, Ill.—P, S

Elim-O-Stat—Solar Mfg. Corp.

Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J.—“Ferris”—I

Filternoys—Continental Carbon, Inc.

General Electric Co., Pittsfield, Mass.—P

Industrial Condenser Corp., 1725 W. North Ave., Chicago, Ill.—FF, P, S

ICA—Insuline Corp. of America

Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y.—“ICA”—P, S

International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—FF, I, IA, P, S

International Transformer Co., 17 W. 20th St., New York, N. Y.—P

J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y.—FF, S

Lear Avia, Inc., Piqua, Ohio—P

P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.—FF, P, S

Measurements Corp., Box 88, Boonton, N. J.—I, IA

James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—P

J. W. Miller Co., 5917 S. Main St., Los Angeles, Calif.—“Miller”—FF, P, S

Pioneer Gen-E-Motors, 5841 Dickens Ave., Chicago, Ill.—P

Quietone—Cornell-Dubilier Elec. Corp.

RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—I, IA

Solar Mfg. Corp., 586 Avenue A, Bayonne, N. J.—“Elim-O-Stat.”—FF, P, S

Sprague Products Co., North Adams, Mass.—FF, I, IA, P, S

Sprague Specialties Co., N. Adams, Mass.—FF, I, IA, P, S

Super Electric Products Corp., 1057 Summit Ave., Jersey City, N. J.—P

S-W Inductor Co., 1056 N. Wood St., Chicago, Ill.—S

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Whisk Laboratories, 145 W. 45th St., New York, N. Y.—P

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 Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.—I  
 Bakelite Corp., 30 E. 42nd St., New York, N. Y.—C, E, I, L, R, V  
 Barker & Williamson, 287 Fairfield Ave., Upper Darby, Pa.—CD  
 B & C Insulation Products, Inc., 261 Fifth Ave., New York, N. Y.—I  
 Biwax Corp., 3445 Howard St., Skokie, Ill.—I, W  
 Cantol Wax Co., 211 N. Washington St., Bloomington, Ind.—I, W  
 Carbide & Carbon Chemicals Corp., Plastics Div., 30 E. 42nd St., New York, N. Y.—C, I, R  
 Celanese Celluloid Corp., 180 Madison Ave., New York, N. Y.—C  
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 James B. Day & Co., 1872 Clybourn Ave., Chicago, Ill.—C, CD, E, I, L, P, R, S, V, W  
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 GC—General Cement Mfg. Co.  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill., "GC"—C, CD, E, I, L, P, R, S, V, W, WF  
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 Halowax Products Div., Union Carbide & Carbon Corp., 30 E. 42nd St., New York, N. Y.—I, R, W  
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 Industrial Synthetics Corp., 60 Woolsey St., Irvington, N. J.—I  
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 Mica Insulator Co., 200 Varick St., New York, N. Y., "Mico"—C, I  
 Mico—Mica Insulator Co.  
 James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—C, CD  
 Mitchell Rand Insulation, 51 Murray St., New York, N. Y.—E, I, P, R, V, W  
 Murphy Varnish Co., 224 McWhorter St., Newark, N. J.—E, L, P, V  
 New England Radiocrafters, 1156 Commonwealth Ave., Brookline, Mass.—CD, L  
 New Wrinkle, Inc., 314 W. First St., Dayton, Ohio—E, L, P, R, V, WF  
 Pioneer Asphalt Co., 435 N. Michigan Ave., Chicago, Ill.—P  
 Poinsettia, Inc., 111 Cedar Ave., Pitman, N. J.—W  
 Pratt & Lambert, Inc., 92 Tonawanda St., Buffalo, N. Y.—E, L, P, V  
 Production Engineering Corp., 666 Van Houten Ave., Clifton, N. J.—IE  
 The Resinous Products & Chemical Co., West Washington St., Philadelphia, Pa.—R, S  
 Roxalin Flexible Finishes, Inc., 800 Magnolia Ave., Elizabeth, N. J.—C, CD, E, I, L, P, R, S, V, W  
 Schaar & Co., 754 W. Lexington St., Chicago, Ill.—C  
 Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif., "Walsco"—C, CD, E, L, P, S, V  
 Sherron Metallic Corp., 1201 Flushing Ave., Brooklyn, N. Y.—P  
 The Sherwin-Williams Co., 101 Prospect Ave., Cleveland, Ohio—E, I, L, P, R, S, V  
 Solar Corp., 944 W. Bruce St., Milwaukee, Wis.—E, P, R, S, V  
 Standard Oil Co. (Indiana), 910 S. Michigan Ave., Chicago, Ill.—W  
 Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—I  
 Trans-American Airports Corp., 271 Madison Ave., New York, N. Y.—S, W  
 Walsco—Walter L. Schott Co.  
 R. D. Werner Co., Inc., 380 Second Ave., New York, N. Y.—I  
 Western Electric Co., 195 Broadway, New York, N. Y.—I  
 Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—CD, E, I, L, R, V  
 Zophar Mills, Inc., 128 26th St., Brooklyn, N. Y.—I, W, WP

## Photo Electric Equipment



Complete units .....EE  
 Light supplies .....L  
 Photo tubes, gas.....PG  
 Photo tubes, vacuum.....PV  
 Photo cells .....PC  
 Photometers .....PM  
 Relays .....R  
 Smoke indicators .....I

Advance Electric Co., 1262 W. Second St., Los Angeles, Calif.—R  
 Allied Control Co., Inc., 229 Fulton St., New York, N. Y.—R  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—EE, L, PC, PG, R  
 American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—R  
 American Instrument Co., Silver Spring, Md.—EE  
 The Audio-Tone Oscillator Co., 62 Walter St., Bridgeport, Conn.—EE  
 Auth Electrical Specialty Co., Inc., 422 E. 53rd St., New York, N. Y.—R  
 Bank's Mfg. Co., 1105 Lawrence Ave., Chicago, Ill.—R  
 Bradley Labs., Inc., 81 Meadow St., New Haven, Conn., "Luxtron"—PC  
 Brooke Engineering Co., Inc., 4517 Wayne Ave., Philadelphia, Pa.—I  
 Burke & James, Inc., 223 W. Madison St., Chicago, Ill.—L  
 Cetron—Continental Electric Co.  
 Carlton Lamp Corp., 730 S. 13th St., Newark, N. J.—L  
 Coleman Electric Co., 318 Madison St., Maywood, Ill.—PM  
 Continental Electric Co., Geneva, Ill., "Cetron"—PG, PV  
 Struthers Dunn, Inc., 1321 Arch St., Philadelphia, Pa.—R  
 Eastern Amplifier Corp., 794 E. 140th St., Bronx, N. Y.—EE  
 Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—EE, PC, R  
 Electric Sorting Machine Co., 802 Michigan Trust Bldg., Grand Rapids, Mich.—EE  
 Electro-Eye—Wm. Hansen Co.  
 Electronic Control Corp., 626 Harper, Detroit, Mich.—EE, R, L  
 Electronic Products Co., 19 N. 1st St., Geneva, Ill.—EE, L, R  
 Ess Instrument Co., George Washington Bridge Plaza, Fort Lee, N. J.—EE, R  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—EE, L, PC, PG, PV, R  
 General Scientific Corp., 4029 S. Kedzie Ave., Chicago, Ill.—"Lumotron"—PC  
 G-M Laboratories, Inc., 4326 N. Knox Ave., Chicago, Ill.—PC, PG, PV, R  
 Guardian Electric Mfg. Co., 1622 Walnut St., Chicago, Ill.—R  
 Wm. Hansen Co., R. 3, Niles, Mich., "Electro-Eye," "Radiocall," "Ordercall"—EE  
 International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—E  
 Kliegl Bros. Universal Electric Stage Lighting Co., 321 W. 50th St., New York, N. Y.—L  
 Leach Relay Co., 5915 Avalon Blvd., Los Angeles, Calif.—R  
 Lumotron—General Scientific Corp.  
 Luxtron—Bradley Labs., Inc.  
 Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill.—R  
 National Union Radio Corp., 15 Washington St., Newark, N. J.—PC, PG, PV  
 The North Electric Mfg. Co., P. O. Box 267, Gallon, Ohio—R  
 Ordercall—Wm. Hansen Co.  
 Peerless Mfg. Corp., 1400 W. Ormsby, Louisville, Ky.—R  
 Pfaltz & Bauer, Inc., 350 Fifth Ave., New York, N. Y.—EE, PC  
 Photobell Corp., 114 Nassau St., New York, N. Y.—EE, L, PC, PG, PV, R  
 Photoswitch, Inc., 89 Broadway, Cambridge, Mass.—EE  
 Photovolt Corp., 95 Madison Ave., New York, N. Y.—PC  
 Photronics—Weston Electrical Instrument Corp.  
 Potter & Brumfield Mfg. Co., Princeton, Ind.—R  
 Potter Elec. Signal & Mfg. Co., Century Bldg., St. Louis, Mo.—EE  
 Radiocall—Wm. Hansen Co.  
 Radio Electronic Co., 1816 Villanova Dr., Oakland, Calif.—EE  
 The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—PV

RBM Mfg. Co., Logansport, Ind.—R  
 RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—PG, PV  
 Saxl Instrument Co., Inc., 38 James St., E. Providence, R. I.—EE  
 Selenium Corp. of America, 1800 W. Pico Blvd., Los Angeles, Calif.—PC  
 Sigma Instruments, Inc., 78 Freeport St., Boston, Mass.—R  
 Nathan R. Smith Mfg. Co., 105 Pasadena Ave., S. Pasadena, Calif.—R  
 Talking Devices Co., 4447 W. Irving Park Rd., Chicago, Ill.—L  
 United Cinephone Corp., 65 New Litchfield St., Torrington, Conn.—EE, R  
 Vacutron, Inc., 2819 12th St., Arlington, Va.—PC  
 Weltron Corp., 3080 E. Outer Dr., Detroit, Mich.—EE  
 Western Electric Co., 195 Broadway, New York, N. Y.—PC  
 Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—PC, R, L, EE  
 Westinghouse Lamp Div., Bloomfield, N. J.—PC, PG, PV  
 Weston Electrical Instrument Corp., Newark, N. J., "Photronic"—EE, PC, R  
 Worner Products Corp., 1019 W. Lake St., Chicago, Ill.—EE, L

## Plastic Molders and Fabricators

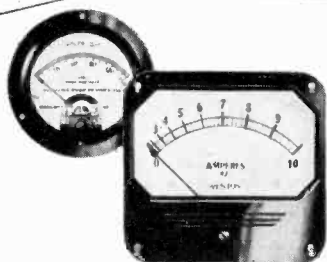


Cabinet molders .....C  
 Extruded shapes .....E  
 Fabricators .....F  
 Parts molders .....P

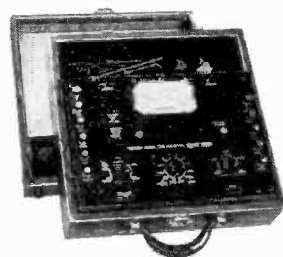
Alden Prods. Co., 117 N. Main St., Brockton, Mass. F, P  
 American Insulator Corp., New Freedom, Pa.—C, P  
 American Phenolic Corp., 1830 S. 54th St., Chicago, Ill., "Amphenol"—E, F, P  
 Amphenol—American Phenolic Corp.  
 Auburn Button Works, Inc., Auburn, N. Y.—E, P  
 Barber-Colman Co., Molded Prods. Div., Rockford, Ill.—P  
 Bastian Bros. Co., 1600 Clinton Ave., N., Rochester, N. Y.—F  
 Bend-A-Lite Plastics Co., 123 S. Honore St., Chicago, Ill.—F  
 Boonton Molding Co., Boonton, N. J.—P  
 Bridgeport Molded Prods., Inc., 303 Myrtle Ave., Bridgeport, Conn.—P  
 Bryant Electric Co., Plastics Div., 1105 Railroad Ave., Bridgeport, Conn.—P  
 Catalin Corp., 1 Park Ave., New York, N. Y., "Catalin"—C, F  
 Chicago Molded Prods. Corp., 1020 N. Kolmar Ave., Chicago, Ill.—C, E, P  
 Cincinnati Molding Co., 2037 Florence Ave., Cincinnati, Ohio—P  
 Cleveland Plastics, Inc., 1611 E. 21st St., Cleveland, Ohio—P  
 Colt's Patent Fire Arms Mfg. Co., Plastics Div., Hartford, Conn.—E, P  
 Consolidated Molded Prods. Corp., 409 Cherry St., Scranton, Pa.—P  
 Creative Plastics Corp., 963 Kent Ave., Brooklyn, N. Y.—P  
 Cutter-Hammer, Inc., 1401 W. St. Paul Ave., Milwaukee, Wis.—P  
 Harry Davies Molding Co., 1428 N. Wells St., Chicago, Ill.—C, P  
 Dayton Insulating Molding Co., 418 E. First St., Dayton, Ohio—C, E, F, P  
 Diemolding Corp., Raabach St., Canastota, N. Y.—C, P  
 Eagle Plastics Corp., 23-10 Bridge Plaza South, Long Island City, N. Y.—P  
 Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—P  
 Eclipse Moulded Products Co., 5151 N. 82nd St., Milwaukee, Wis.—C, E, P  
 Emeloid Co., 291 Laurel Ave., Arlington, N. J.—F, P  
 Erie Resistor Corp., 640 W. 12 St., Erie, Pa.—E, P  
 Extruded Plastics, Inc., New Canaan Ave., Norwalk, Conn., "Interlox"—E  
 Franklin Fibre-Lamitex Corp., Wilmington, Del.—P  
 Garfield Mfg. Co., Garfield, N. J.—P  
 Gemoid Corp., 7910-7880 Albion Ave., Elmhurst, L. I., N. Y., "Gemute"—E, F, P  
 Gemute—Gemoid Corp.  
 General Electric Co., Plastics Dept., 1 Plastics Ave., Pittsfield, Mass.—C, E, P  
 The General Industries Co., Taylor & Olive Sts., Elyria, Ohio—C, P  
 Gits Molding Corp., 4600 Huron St., Chicago, Ill.—P  
 Imperial Molded Prods. Corp., 2925 W. Harrison St., Chicago, Ill.—P

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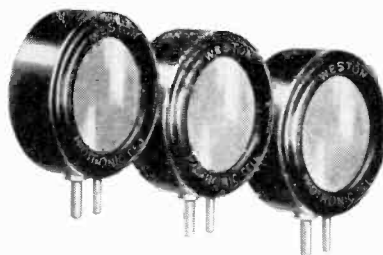
**Panel Meters for Electronic applications**



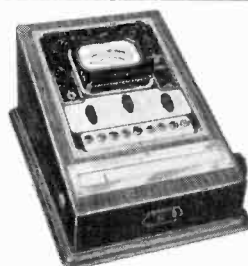
**Electronic Circuit Testers**



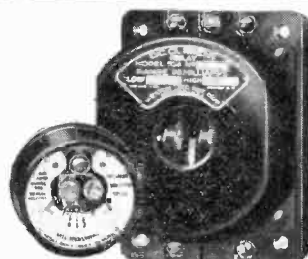
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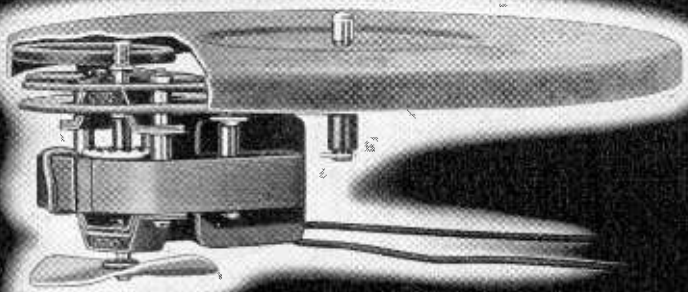
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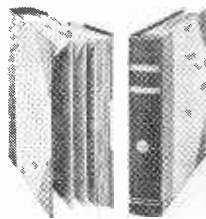
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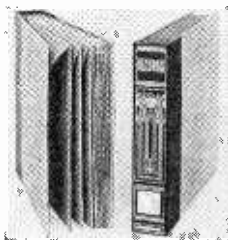
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- Insulation Prods. Co., 504 N. Richland St., Pittsburgh, Pa.—P
- Insurok—The Richardson Co.
- Interlox—Extruded Plastics, Inc.
- Keasby & Mattison Co., Butler Ave., Ambler, Pa.—P
- Kellogg Switchboard & Supply Co., 6650 S. Cicero Ave., Chicago, Ill.—P
- Keystone Specialty Co., 1373½ Cove Ave., Lakewood, Cleveland, Ohio—P
- Kuhn & Jacob Molding & Tool Co., 1200 Southard St., Trenton, N. J.—P
- Kurz-Kasch, Inc., 1421 S. Broadway, Dayton, Ohio—C, P
- Mack Molding Co., Wayne, N. J.—E, C, P
- Meissner Mfg. Co., 7th & Belmont, Mt. Carmel, Ill.—P
- Michigan Molded Plastics, Inc., G St., Dexter, Mich.—P
- Elmer E. Mills Corp., 812 W. Van Buren St., Chicago, Ill.—E, P
- Molded Insulation Co., 335 E. Price St., Philadelphia, Pa.—P
- Niagara Insul Bake Specialty Co., Inc., 483 Delaware Ave., Albany, N. Y.—P
- Northern Industrial Chem. Co., 10 Elkins St., S. Boston, Mass.—C, P
- Norton Labs., Inc., 520 Mill St., Lockport, N. Y.—C, P
- Oris Mfg. Co., Thomaston, Conn.—P
- Parisian Novelty Co., 3510 S. Western Ave., Chicago, Ill.—F
- Plastic Fabricators, Inc., 500 Sansome St., San Francisco, Calif.—F
- Plastic Molding Corp., Sandy Hook, Conn.—P
- Plastikmould—R. D. Werner Co., Inc.
- Plastiktrim—R. D. Werner Co., Inc.
- Poinsettia, Inc., 111 Cedar Ave., Pitman, N. J.—P
- Precision Fabricators, Inc., Champeney Terrace, Rochester, N. Y.—F
- Printloid, Inc., 93 Mercer St., New York, N. Y.—F
- Recto Molded Prods., Inc., Appleton & B. & O. R. R., Cincinnati, Ohio—E, P
- Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif., "Remler"—C, P
- Reynolds Spring Co., Molded Plastics Div., Cambridge, Ohio—C, E, P
- The Richardson Co., Melrose Park, Ill., "Insurok"—C, E, P
- Rogan Brothers, 2001 S. Michigan Ave., Chicago, Ill.—P
- Royal Moulding Co., Inc., 69 Gordon Ave., Providence, R. I.—P
- Shaw Insulator Co., 150 Coit St., Irvington, N. J.—P
- Specialty Insulation Mfg. Co., Church St., Hoosick Falls, N. Y.—C
- Jos. Stokes Rubber Co., Taylor & Webster Sts., Trenton, N. J.—P
- Synthetic Plastics Co., 88 St. Francis St., Newark, N. J.—P
- Tech-Art Plastics Co., 41-01 36th Ave., Long Island City, N. Y.—C, E, P
- Terkelsen Machine Co., 326 A St., Boston, Mass.—P
- Telex Prods. Co., Telex Park, Minneapolis, Minn.—P
- Tungsten Contact Mfg. Co., 7311 Cottage Ave., N. Bergen, N. J.—P
- Union Insulating Co., Box 351 Parkersburg, W. Va.—P
- Universal Plastics Corp., 235 Jersey Ave., New Brunswick, N. J.—C, P
- Varflex Corp., Rome, N. Y.—E
- Waterbury Button Co., 835 S. Main St., Waterbury, Conn.—P
- Watertown Mfg. Co., 3 Porter St., Watertown, Conn.—P
- Wernco—R. D. Werner Co., Inc.
- R. D. Werner Co., Inc., 380—2nd Ave., New York, N. Y., "Wernco," "Plastiktrim," "Plastikmould"—E, F
- Western Electric Co., 195 Broadway, New York, N. Y.—P
- Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—P
- Wheeling Stamping Co., Wheeling, W. Va.—P
- The S. S. White Dental Mfg. Co., Industrial Div., 10 E. 40th St., New York, N. Y.—P

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Magnetic tape recorders .....	MT
Magnetic wire recorder .....	MW
Motors .....	M
Needles (cutting) .....	CN
Record preforms and molding compounds .....	RP
Recording machines .....	RM
Recording machine assem. ....	RA
Recording supplies .....	RS
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Stroboscopic speed disc. ....	ST
Turntables .....	TT

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 Alden Prods. Co., 119 N. Main St., Brockton, Mass.—RM  
 Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio—M, RM, TT  
 Allied Recording Prods. Co., 21-09 43rd Ave., Long Island City, N. Y.—CH, D, M, CN, RM, RS, S, TT  
 Audio Devices, Inc., 1602 Broadway, New York, N. Y., "Audiodes," "Audiopoints"—CN, D  
 Audiodes—Audio Devices, Inc.  
 Audiopoints—Audio Devices, Inc.  
 The Audio-Tone Oscillator Co., 62 Walter St., Bridgeport, Conn.—RG  
 Austin Electronic Mfg. Co., Warren, Pa.—CH, E, RM, RA  
 Berger Electronics, 109-01 72nd Rd., Forest Hills, N. Y.—E, S  
 Black Diamond—M. A. Gerett Corp.  
 The Bristol Co., Waterbury, Conn.—S  
 Brush Development Co., 3313 Perkins Ave., Cleveland, Ohio, "Soundmirror"—CH, E, MT

Carbide & Carbon Chemicals Corp., Plastics Div., 30 E. 42nd St., New York, N. Y.—RP  
 C. G. Conn, Ltd., Elkhart, Ind.—CH, D, RA, RS  
 The Daven Co., 158 Summit St., Newark, N. J.—E  
 Dearborn Glass Co., 2414 W. 21st St., Chicago, Ill.—R  
 Dictaphone Corp., 420 Lexington Ave., New York, N. Y.—RM, RS  
 Duodisc—Duotone Co.  
 Duotone Co., 799 Broadway, New York, N. Y., "Duodisc"—CH, CN, D, E, RS  
 The Eldeen Co., 504 N. Water St., Milwaukee, Wis.—CN  
 Electrovox Co., 169 Maplewood Ave., Maplewood, N. J.—"Walco"—CN  
 Emeloid Mfg. Co., 289 Laurel Ave., Arlington, N. J.—D  
 Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—D, CN, TT  
 Fairchild Aviation Corp., 88-06 Van Wyck Blvd., Jamaica, L. I., N. Y., "Fairchild"—A, CH, RM  
 Federal Recorder Co., Inc., 630 S. Wabash Ave., Chicago, Ill.—CH, CN, D, RM, RS  
 Filmgraph—Miles Reproducer Co., Inc.  
 Flock Process Co., 17 W. 31st St., New York, N. Y.—TT  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—CN, S  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—MW  
 The General Industries Co., Taylor & Olive Sts., Elyria, Ohio—M, RA, RM, TT  
 General Phonograph Corp., Putnam, Conn.—CN  
 M. A. Gerett Corp., 2947 N. 30th St., Milwaukee, Wis., "Black Diamond"—CN  
 The Gould-Moody Co., 395 Broadway, New York, N. Y.—CN, D, RS  
 Gray Mfg. Co., 230 Park Ave., New York, N. Y.—RM  
 Harris Mfg. Co., 2422 W. 7th St., Los Angeles, Calif.—CN, D  
 Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—A, E  
 Home Recording Co., 9 E. 19th St., New York, N. Y.—D

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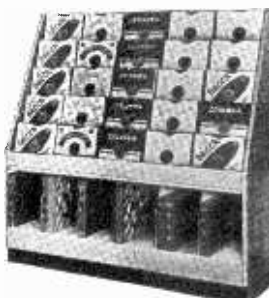
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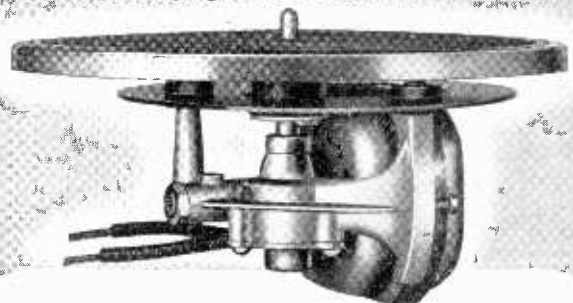
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Lear Avia, Inc., Piqua, Ohio—M

Manufacturers Screw Products, 216 W. Hubbard St., Chicago, Ill.—S

Miles Reproducer Co., Inc., 812 Broadway, New York, N. Y., "Filmgraph"—CH, M, MT, RM

Mirror Record Corp., 58 W. 25th St., New York, N. Y.—CN, D, RM, RS

Montgomery Bros., 61 Fremont St., San Francisco, Calif.—RM

Music Master Mfg. Co., 508 S. Dearborn St., Chicago, Ill.—CN

The National Screw & Mfg. Co., 2440 E. 75th St., Cleveland, Ohio—S

Pacific Sound Equipment Co., 1534 Cahuenga Blvd., Hollywood, Calif., "Port-Elec."—M, RM, RA, TT

The Paroloy Co., 600 S. Michigan Ave., Chicago, Ill.—CN

Permo Point—Permo Products Corp.

Permo Products Corp., 6415 Ravenswood Ave., Chicago, Ill., "Permo Point"—CN, RS

Pfanstiehl Chemical Co., 104 Lakeview Ave., Waukegan, Ill.—CN

Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—CN, RM, RS, TT

Phonograph Needle Mfg. Co., Inc., 42 Dudley St., Providence, R. I.—CN

Poinsettia, Inc., 111 Cedar Ave., Pitman, N. J.—RS

Port-Elec—Pacific Sound Equipment Co.

Presto Recording Corp., 242 W. 55th St., New York, N. Y., "Presto"—CH, CN, D, E, M, RA, RM, RS, S, ST, TT

Rangertone, Inc., 73 Winthrop St., Newark, N. J.—CN, D, RM

The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—RM

RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA"—CN, D, RM, RA, F, TT

Recordisc Corp., 395 Broadway, New York, N. Y.—CN, D, RS

The Recordit Co., 555 Bedford Ave., University City, Mo.—CN, RS

Record-O-Vox, Inc., 1879 E. 8th St., Brooklyn, N. Y.—RM

Recoton Corp., 21-10 49th Ave., Long Island City, N. Y.—CN, RS

Rek-O-Kut Corp., 176 Lafayette St., New York, N. Y.—M, RM, RA, TT

Frank Rieber, Inc., 11916 W. Pico Blvd., Los Angeles, Calif.—D, RM

Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif., "Walsco"—RS

Scranton Record Co., 300 Brook St., Scranton, Pa.—CH, CN, D, E, M, MT, RA, RM, RS, S, ST, TT

Scully Machine Co., 62 Walter St., Bridgeport, Conn.—RM

Selectar Mfg. Corp., 21-10 49th Ave., Long Island City, N. Y.—RM

Shure Bros., 225 W. Huron St., Chicago, Ill.—CH

Mark Simpson Mfg. Co., Inc., 188 W. 4th St., New York, N. Y.—RM

Soundmirror—Brush Development Co.

The Sound Scriber Corp., 82 Audubon St., New Haven, Conn.—RM, RS

Speak-O-Phone Recording & Equipment Co., 23 W. 80th St., New York, N. Y., "Speakophone"—CH, CN, D, RA, RM, RS, S, TT

Talk-A-Phone Mfg. Co., 1219 W. Van Buren St., Chicago, Ill.—RA, RM, TT

Talking Devices Co., 4447 W. Irving Park Rd., Chicago, Ill.—CH, RM, TT

Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.—E

Tibbetts Laboratories, 12 Norfolk St., Cambridge, Mass.—CH

Troy Radio & Television Co., 1144 S. Olive St., Los Angeles, Calif.—CN, D, M, RS

Walco—Electrovox Co.

Walsco—Walter L. Schott Co.

Waters Conley Co., Rochester, Minn.—CR

Webster Electric Co., 1900 Clark St., Racine, Wis.—CH

Western Sound & Electric Labs., Inc., 3512 W. St. Paul St., Milwaukee, Wis.—RM, RS

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—M

Wilcox-Gay Corp., Charlotte, Mich., "Wilcox-Gay"—D, RM, RS

Zephyr Prods. Corp., 67 W. 44th St., New York, N. Y.—RM

## YESTERDAY

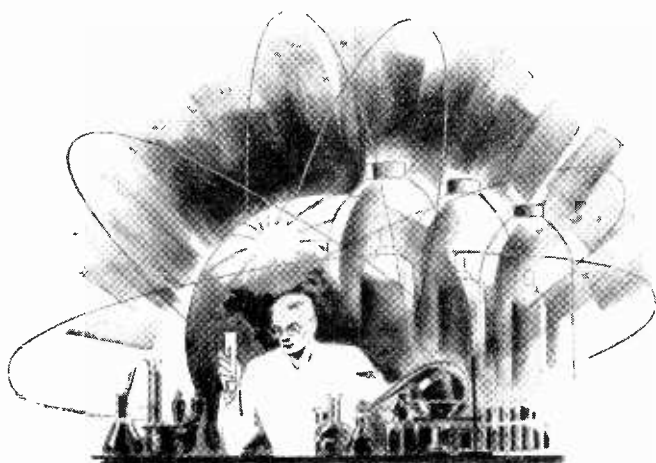


For more than twenty years recognized as builders of the finest sound reproducers. 15,000,000 users of fine radio sets testify to ROLA Quality.

## TODAY



Expanded facilities completely dedicated to serving war needs. Producing a variety of high precision, tough-to-make electronic parts, fine radio communications equipment for the U. S. Army and Navy Air Forces.



## TOMORROW!

will bring to you all the benefits of improved equipment and processes, all the gains of concentrated experience *plus* the tremendous advantages of intense unhampered research during war years. In the world of tomorrow, Rola will maintain its peacetime leadership. THE ROLA COMPANY, INC., 2530 Superior Avenue, Cleveland, Ohio.

# ROLA

MAKERS OF THE FINEST IN SOUND REPRODUCING AND ELECTRONIC EQUIPMENT

# Get Your Share of the BOOMING Replacement Business



**Webster Electric  
Low Pressure-AJ1  
Crystal Pickup**

• Here's a sturdy, adaptable light weight crystal Pickup that gives you a head start in the replacement business because it gives your customers results to please the most discriminating at modest cost.

Speech... swing... symphony—the AJ1 has the range to bring out all the color and timbre in any recording. And the AJ1 rides so lightly that long record life is assured. The entire unit is precisely balanced to exert just 40 grams (less than 1½ ounces) needle pressure. The durable Bakelite tone arm is streamlined to harmonize with modern cabinets. Needle is specially designed for long life performance and meets the tone requirements of the AJ1. It plays thousands of records, and then may be easily changed by loosening a recessed head screw.

The AJ1 is easily and quickly adapted to almost all pickup requirements. High quality performance is combined with practical simplicity in the Model AJ1 by Webster Electric engineering skill and manufacturing experience.

Serve your customers and yourself by encouraging them to modernize their radio-phonograph combinations with the Model AJ1.

(Licensed under patents of the Brush Development Company)

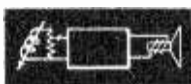
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# WEBSTER ELECTRIC

"Where Quality is a Responsibility  
and Fair Dealing an Obligation"

## Records, Transcriptions & Playing Equipment



Automatic record changers	.....ARC
Cactus needle sharpener	.....CS
Coin record players	.....CM
Electric phonographs	.....EL
Felt-flock, turntable	.....F
Frequency records	.....FR
Motors	.....M
Needles	.....N
Needles, sapphire	.....SN
Pick-ups (crystal)	.....PC
Dynamic pick-ups	.....D
Pick-ups (magnetic)	.....PM
Records	.....R
Record albums	.....RA
Record cabinets, see Cabinets	
Records compounds	.....RO
Record player attachments	.....RP
Record pressers	.....RM
Store equipment	.....SE
Transcription record players	.....TR
Turntables	.....TT
Wireless players	.....WP

H. W. Acton Co., Inc., 372 7th Ave., New York, N. Y., "Actone"—N  
Actone—H. W. Acton Co., Inc.  
Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio—M, TT  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—ARC, EL, M, N, SN, PC, PM, R, RA, TR, TT, WP  
Andrea Radio Corp., 43-20—34th St., Long Island City, N. Y.—EL  
Ansley Radio Corp., 21-10—49th Ave., Long Island City, N. Y., "Dynaphone"—EL, RP, TR  
The Astatic Corp., 832 Market St., Youngstown, Ohio, "Astatic"—PC  
Auburn Mfg. Co., 102 Stack St., Middletown, Conn.—F  
Audax Co., 500 Fifth Ave., New York, N. Y., "Audax"—PM  
Audax—Audax Co.  
Audio Devices, Inc., 1600 Broadway, New York, N. Y., "Audiopoint"—N, SN  
Audiopoint—Audio Devices, Inc.  
The Audio-Tone Oscillator Co., 60 Walter St., Bridgeport, Conn.—FR  
Berger Electronics, 109-01 72nd Rd., Forest Hills, L. I., N. Y.—N, F  
A. Bitter Construction Co., 721-723 E. 133rd St., New York, N. Y.—SE  
Bluebird—RCA Victor Div., Radio Corp. of America  
Boetsch Bros., 221 E. 144th St., New York, N. Y.—EL  
David Bogen Co., Inc., 663 Broadway, New York, N. Y.—ARC, EL, M, PC, PM, TT  
Bruno-New York, Inc., 460 W. 34th St., New York, N. Y.—ARC, TT  
Brunswick Div., Mersman Bros. Corp., 244 Madison Ave., New York, N. Y.—EL  
Chicago Sound Systems Co., 2124 S. Michigan Ave., Chicago, Ill.—RA  
Classic Point—The Eldeen Co.  
Classic Record Co., 2 W. 46th St., New York, N. Y., "Elite"—N, R, RA  
Columbia Recording Corp., 1473 Barnum Ave., Bridgeport, Conn., "Columbia," "Masterworks," "Okeh"—EL, N, R, RA, RM  
Continental Radio & Telev. Corp., 3800 W. Cortland St., Chicago, Ill.—WP  
Decca Records, Inc., 50 W. 57th St., New York, N. Y., "Decca"—EL, M, N, PC, R, RA, RP, WP  
Diehl Mfg. Co., Elizabethport, N. J.—M  
Duotone Co., 799 Broadway, New York, N. Y.—CS, N, SN, RO  
The Eldeen Co., 504 N. Water St., Milwaukee, Wis., "Maestro Point," "Classic Point," "Victory Point," "Merit Point"—N  
Electrical Research Laboratories, Inc., 2020 Ridge Ave., Evanston, Ill.—EL, RP  
Electrovox Co., 169 Maplewood Ave., Maplewood, N. J., "Walco"—SN  
Elite—Classic Record Co.  
Emerson Electric Mfg. Co., 410 N. 19th St., St. Louis, Mo.—M  
Espey Mfg. Co., Inc., 305 E. 63rd St., New York, N. Y.—EL, RP, WP  
Fada Radio & Electric Co., Inc., 30-20 Thomson Ave., Long Island City, N. Y.—EL, RP, WP  
Fairchild Aviation Corp., 88-06 Van Wyck Blvd., Jamaica, L. I., N. Y.—D, PC, TT  
Farnsworth Telev. & Radio Corp., 3700 Pontiac St., Fort Wayne, Ind.—ARC, EL, RP  
Fidelitone—Permo Products Corp.  
Flock Process Co., 17 W. 31st St., New York, N. Y.—F  
Freed Radio Corp., 200 Hudson Street, New York, N. Y.—"Freed-Eisemann,"—EL

Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—"Motorola"—ARC, N, PC, RA, WP  
Garrard Sales Corp., 296 Broadway, New York, N. Y.—ARC, EL, M, N, SN, PC, PM, RP, TR  
General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill.—F, N, RO  
General Electric Co., 1 River Rd., Schenectady, N. Y.—EL  
The General Industries Co., Taylor & Olive Sts., Elyria, Ohio—ARC, M, TR, TT  
General Instrument Corp., 829 Newark Ave., Elizabeth, N. J.—ARC  
General Phonograph Corp., Putnam, Conn.—N  
M. A. Gerett Corp., 2947 N. 30th St., Milwaukee, Wis., "Miracle Point"—N  
Goldenpoint—Lowell Needle Co.  
Goldentone—Lowell Needle Co.  
The Gould-Moody Co., 395 Broadway, New York, N. Y.—N, SN  
Harris Mfg. Co., 2422 W. 7th St., Los Angeles, Calif.—CS, EL, N, RA, RP, SN, TR  
Hilo—Shure Bros.  
Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—RP, TR  
Jensen Industries, Inc., 737 N. Michigan Ave., Chicago, Ill.—N  
Lafayette Radio Corp., 100 6th Ave., New York, N. Y.—EL, RP, WP  
Lowell Needle Co., 1 Wildore St., Putnam, Conn., "Goldentone," "Goldenpoint"—N  
Maestro Point—The Eldeen Co.  
The Magnavox Co., Inc., 2131 Bueter Rd., Ft. Wayne, Ind.—EL, SN  
Masterworks—Columbia Recording Corp.  
Megard Corp., 381 W. 38th St., Los Angeles, Calif.—TR  
John Meck Industries, Liberty St., Plymouth, Ind.—ARC, EL, RP, TT  
Mel-O-Tone—Herbert Corp.  
Merit Point—The Eldeen Co.  
Miracle Point—M. A. Gerett Corp.  
Music Master Mfg. Co., 508 S. Dearborn St., Chicago, Ill.—ARC, EL, N, R, RP, SN  
New Products Corp., Benton Harbor, Mich.—ARC  
Oak Mfg. Co., 1260 Clybourn Ave., Chicago, Ill.—ARC  
Okeh—Columbia Recording Corp.  
Operadio Mfg. Co., 13th & Indiana Sts., St. Charles, Ill., "Operadio"—EL  
Otto K. Olesen III Co., Ltd., 1560 Vine St., Hollywood, Calif.—TR  
Pacific Sound Equipment Co., 1534 Cahuenga Blvd., Hollywood, Calif., "Port-Elec."—EL, N, PC, TR, TT  
The Parajoy Co., 600 S. Michigan Ave., Chicago, Ill.—N  
Peerless Album Co., Inc., 38 W. 21st St., New York, N. Y.—RA  
Permo Point—Permo Products Corp.  
Permo Products Corp., 6415 Ravenswood Ave., Chicago, Ill., "Fidelitone," "Permo Point"—N, R, TR  
Pfanziehl Chemical Co., 104 Lake View Ave., Waukegan, Ill.—N  
Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—ARC, EL, N, PC, RA, RP, TT, WP  
Phonograph Needle Mfg. Co., Inc., 42 Dudley St., Providence, R. I., "Supreme"—N, SN  
Phonola-Waters-Conley Co.  
Poinsettia, Inc., 111 Cedar Ave., Pitman, N. J.—R, RA, RM  
Port-Elec.—Pacific Sound Equipment Co.  
Presto Recording Corp., 242 W. 55th St., New York, N. Y., "Presto"—EL, M, N, PM, SN, TR  
Radiat Service, 720 Schubert Ave., Chicago, Ill.—TR  
Radolek Co., 601 W. Randolph St., Chicago, Ill., "Radolek"—EL, RP, TR, WP  
Rangertone, Inc., 73 Winthrop St., Newark, N. J.—N, R  
The Rauland Corp., 4245 Knox Ave., Chicago, Ill.—ARC, RP, TR  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA," "Victor," "Bluebird"—ARC, EL, N, PC, PM, R, RA, TR, TT  
The Recordit Co., 555 Bedford Ave., University City, Mo.—N, R, RA  
Record-O-Vox, Inc., 1379 E. 8th St., Brooklyn, N. Y.—ARC, EL, CM, WP  
Recoton Corp., 21-10 49th Ave., Long Island City, N. Y.—N, SN  
Regal Amplifier Mfg. Corp., 20 West 20th St., New York, N. Y.—ARC, EL, R, RP, TR, WP  
Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif., "Walco"—RO  
Scranton Record Co., 300 Brook St., Scranton, Pa.—ARC, CM, CS, D, EL, F, M, N, PC, PM, R, RA, RO, RP, RM, SE, SN, TR, TT, WP

## PRODUCT INDEX

on

PAGES 54 & 55



*A War Contribution that Will Bring*  
**FINER PHONOGRAPHS**  
AND THE  
**CONTINUED LEADERSHIP**  
OF



*Higher degrees of precision and fidelity required in war work,  
assure higher standards of excellence in peacetime production*



In the Phonola factory, now devoted 100 per cent to the manufacture of communication and other equipment for the armed forces, finer phonographs are in the making. Not on the production line. Not even in blueprints. But in a new realization of obtainable quality and performance for the peace-time musical instrument.

This new conception of the future portable phonograph is not based on new technical facili-

ties alone but, also, on valuable war-production experience in working to higher degrees of precision and fidelity in audio systems and other electronic and electro-mechanical applications, so necessary in military communication equipment.

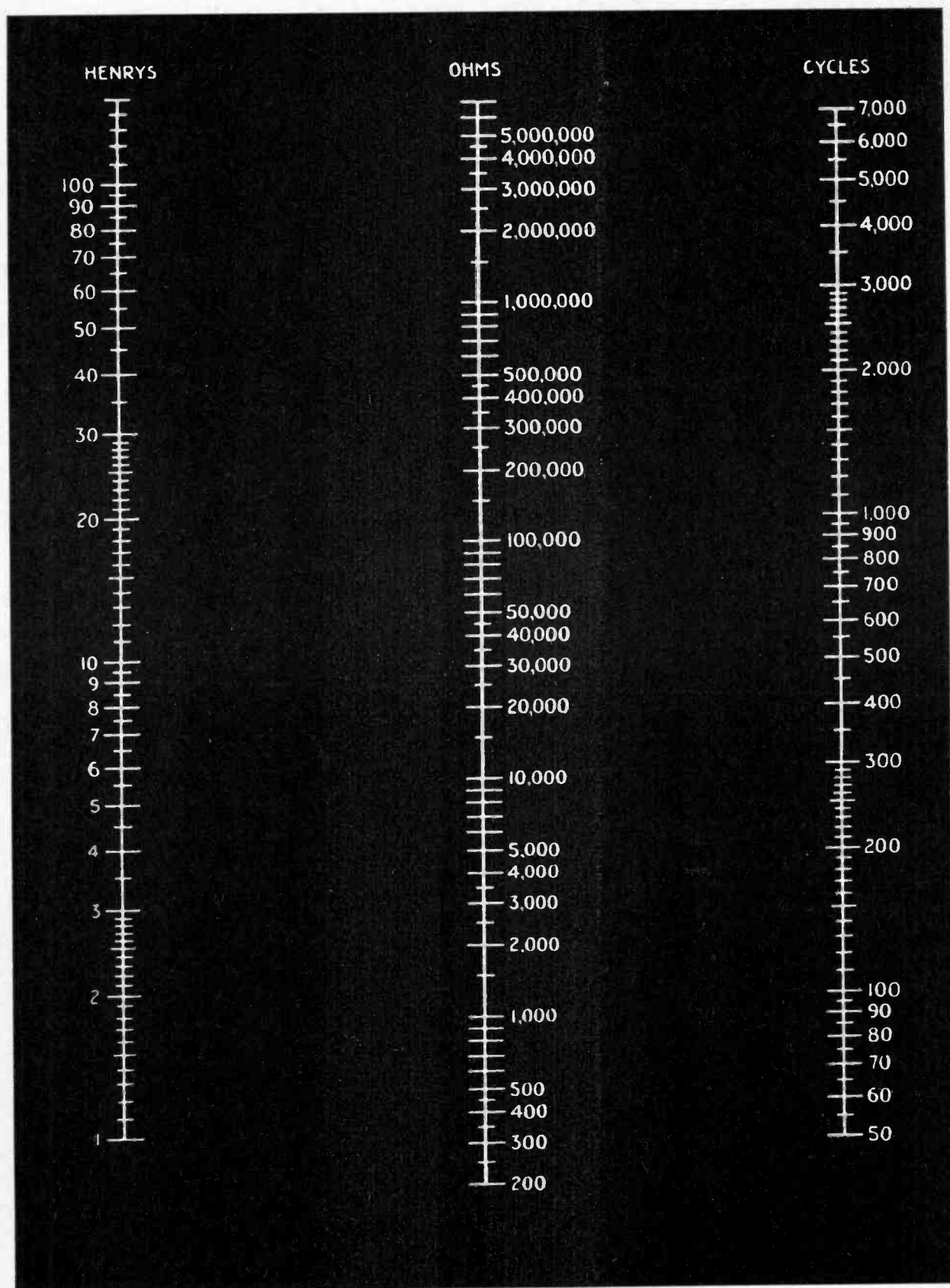
Thus while Waters Conley is doing its utmost to aid the war effort, it is inevitably envisioning a finer line of portable phonographs when the war is over—a line that will be worthy of America's oldest and largest manufacturer in the portable phonograph field.

**WATERS CONLEY COMPANY**  
**ROCHESTER, MINNESOTA**

**NEW YORK: 17 East 42nd Street—Vanderbilt 6-2079**

**1943**  
**1916**

# Inductive Reactance Calculator



Knowing any two of the factors, inductance, ohms reactance, or frequency, you can determine the third by placing a straight-edge between the points of known value; the intersection with the third scale gives the unknown. To expand the scales, multiply the frequency scale by any number and divide the inductance scale by the same number. Ohms scale is unchanged.

There's Still Time to Qualify in the



"Here's How"

VOLUME CONTROL

Contest



SHARE IN \$500.00 WAR BONDS!

Closing Date April 10th

Yes, there's still time to put yourself in the running for one of those FIVE \$100 U.S. War Bonds, as announced in last month's issue of this magazine. *But there's no time to lose!*

If you saw the original notice and have been putting it off . . . well, this is the **LAST CALL!** Contest closes and entries must reach IRC by April 10.

If you have overlooked this "golden" and patriotic opportunity . . . if you are a radio man living within the United States . . . if you would like to have one of those \$100 Bonds inscribed with your name and delivered to you, the field is still wide open and you stand as good a chance as anyone!

## HERE'S WHAT TO DO

IRC feels that radio service men today are doing a fine job in keeping the Nation's radios functioning in the face of unprecedented difficulties. Often unable to get exact duplicate replacement and repair parts you would ordinarily require for the job in hand, you are showing amazing resourcefulness.

All right—write IRC an informal, simple letter telling in your own words—

**How you were able to replace a volume control and get the radio set working satisfactorily—when you couldn't obtain the volume control you would ordinarily have considered necessary for that particular make and model of radio.**

Please be specific. Name the make and model instrument you were working on. Tell what the VOLUME CONTROL trouble was. Describe exactly what you did, and why: whether you made certain mechanical changes in the substitute control to adapt it to the set, and/or certain electrical changes in the circuit.

## BONDS for IDEAS

It's your factual story that counts in this contest—not your spelling, your "literary style" or anything else. What we're after is a straightforward account of a VOLUME CONTROL problem you ran up against, and how you licked it. *Your* story, unexciting as it may seem to you, may be the very one to cop one of those awards!

## PRIZES WILL BE AWARDED

by an impartial board of three—Joseph Kaufman of the National Radio Institute, William Moulie of "Radio Retailing Today" and IRC's Chief Engineer Jesse Marsten. The judges' decision as to the five winning entries will, of course, be final and if in their opinion winning ideas of equal merit are presented, duplicate awards will be made.

## RADIO INDUSTRY TO BENEFIT

Though all ideas entered in this contest become the property of IRC, contestants have the satisfaction of knowing that their worth-while ideas will be passed along to the entire service profession. Thus, while you extend a hand to others, they too will help you to keep radio sets in operation that might otherwise be retired from service and become lost jobs for you.

## HAVE YOU WON A BOND ALREADY?

Some VOLUME CONTROL jobs you have already done may be good enough to win a \$100 Bond, if you write us about it **NOW**.

## DON'T PASS UP THIS CHANCE!

Remember, you have as good a chance to win as the next fellow. Fill out that coupon right now! Write your letter tonight! Don't put it off—and later kick yourself for passing up an opportunity. A \$100 bond would sure come in mighty handy at maturity, wouldn't it? O.K.—*let's go!*

## Uncle Sam's Men, Too

If you're now in Government service, in or out of uniform, you're eligible in this contest too. Maybe the job you have in mind was done before you went into the Service.

CLIP THIS—FILL IN—SEND IN WITH YOUR ENTRY

INTERNATIONAL RESISTANCE COMPANY

401 N. Broad St., Philadelphia, Penna.

• Gentlemen: Here is my entry in your \$500 U.S. War Savings Bond Contest.

MY NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

MY REGULAR DISTRIBUTOR IS \_\_\_\_\_

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Shure Bros., 225 W. Huron St., Chicago, Ill., "Hilo," "Zephyr"—PC  
Mark Simpson Mfg. Co., Inc., 188 W. 4th St., New York, N. Y.—EL, TR  
F. A. Smith Mfg. Co., P. O. Box 509, Rochester, N. Y.—M  
Sonora Radio & Television Corp., 325 N. Hoyne Ave., Chicago, Ill.—"Sonora"—EL, R, RP  
The Sound Scriber Corp., 82 Audubon St., New Haven, Conn.—TR  
Sparks-Withington Co., Radio Div., 2400 E. Ganson Ave., Jackson, Mich., "Sparton"—WP  
Speak-O-Phone Recording & Equipment Co., 23 W. 60th St., New York, N. Y., "Speakophone"—CS, EL, F, M, N, PC, R, SN, TR, TT  
Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y., "Stromberg-Carlson"—ARC, RP

Supreme—Phonograph Needle Mfg. Co., Inc.  
Talk-A-Phone Mfg. Co., 1219 W. Van Buren St., Chicago, Ill.—ARC, EL, RP, TR, TT, WP  
Talking Devices Co., 4447 W. Irving Park Rd., Chicago, Ill.—R, RM, RO, TT  
Tibbetts Laboratories, 12 Norfolk St., Cambridge, Mass.—PC  
Trans-American Airports Corp., 271 Madison Ave., New York, N. Y.—RA  
Troy Radio & Television Co., 1144 S. Olive St., Los Angeles, Calif.—ARC, EL, N, PC, PM, R, RA, WP  
Victor—RCA Victor Div., Radio Corp. of America, Victory Point—The Eldeen Co.  
Walco—Electrovox Co.  
Walco—Walter L. Schott Co.  
Waters Conley Co., Rochester, Minn.—EL  
Webster-Chicago Corp., 3825 W. Armitage Ave., Chicago, Ill.—ARC, EL, M, PM, RP, TT  
Webster Electric Co., 1900 Clark St., Racine, Wis., "Webster-Electric"—D, PC, PM  
Western Elec. Co., 300 Central Ave., Kearney, N. J.—EL, PM, TR

Western Sound & Electric Labs., Inc., 3512 W. St. Paul, Milwaukee, Wis., EL, SN  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—M  
Wilcox-Gay Corp., Charlotte, Mich.—ARC, EL, N, WP  
The Rudolph Wurlitzer Co., Niagara Falls Blvd., North Tonawanda, N. Y.—CM  
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.—"Radio Nurse," "Zenith,"—WP  
Zephyr—Shure Bros.

## Rotary Machines



Alternators .....	A
Power plants .....	AC
Converters .....	CON
DC generators .....	DC
Dynamotors .....	DYN
Gas engines .....	ENG
Motor generator .....	MG

Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio—DYN, MG  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—AC, CON, DC, ENG  
The Automatic Electrical Devices Co., 326 E. Third St., Cincinnati, Ohio—CON  
Bendix Radio Div., Bendix Aviation Corp., 922 E. Port Ave., Baltimore, Md.—DYN  
Bodine Electric Co., 2262 W. Ohio St., Chicago, Ill.—CON, DYN  
The Brown-Brockmeyer Co., 1002 Smithville, Dayton, Ohio—DC, MG  
Carson Machine & Supply Co., Box 4547, Oklahoma City, Okla.—AC  
Carter Motor Co., 1609 Milwaukee Ave., Chicago, Ill.—CON, DC, DYN  
Caterpillar Tractor Co., Peoria, Ill.—AC  
Climax Engineering Co., Clinton, Iowa—AC, ENG  
Diehl Mfg. Co., 80 Trumbull St., Elizabethport, N. J., "Diehl"—CON, MG  
Eico, Inc., 1501 Congress St., Chicago, Ill.—DYN  
Electric Specialty Co., Stamford, Conn., "Esco"—CON, DYN, DC  
Electron Equipment Corp., Palm Springs, Calif.—CON  
Esco—Electric Specialty Co.  
Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—CON, ENG  
General Electric Co., 1 River Rd., Schenectady, N. Y.—CON, DC, DYN, MG  
Janette Mfg. Co., 556 W. Monroe, Chicago, Ill.—CON, DC, DYN, MG  
Kato Engineering Co., 530 N. Front St., Mankato, Minn.—AC, CON, DC, MG  
Kellogg Switchboard & Supply Co., 6650 S. Cicero Ave., Chicago, Ill.—CON  
Lauson Co., New Holstein, Wis.—ENG  
Lear Avia, Inc., Piqua, Ohio—CON, DC, DYN, MG  
Leland Electric Co., 1501 Webster St., Dayton, Ohio—CON, DYN, MG  
Master Vibrator Co., 200 Davis Ave., Dayton, Ohio—AC  
Midco Mfg. & Dist. Co., Inc., 13th St. & Kentucky Ave., Sheboygan, Wis.—AC  
The K. B. Noble Co., 450 Capitol Ave., Hartford, Conn.—AC  
North American Philips Co., Inc., 145 Palisade St., Dobbs Ferry, N. Y.—FVW  
D. W. Onan & Sons, 43 Royalston Ave., Minneapolis, Minn.—AC, MG  
Pioneer Gen-E-Motor Corp., 466 W. Superior St., Chicago, Ill.—AC, CON, DC, DYN, ENG, MG  
RCA Victor Division, Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA Photophone"—CON  
The Ready Power Co., 3826 Grand River, Detroit, Mich.—AC  
F. A. Smith Mfg. Co., Inc., P. O. Box 509, Rochester, N. Y.—A  
Webster—Chicago Corp., 3825 Armitage Ave., Chicago, Ill.—DYN  
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—CON, DC, DYN, MG  
Wincharger Corp., Sioux City, Iowa—AC, CON, DYN, ENG

## Some Things are REALLY Scarce Right Now\*



\*(Especially Radio Servicemen's Time)

**T**HERE is only one practical way to offset the present shortage of labor—that is to ration the time you do have available.

Study your bench-time just as you check the consumption of any other rationed item. Make sure the latest methods are being employed—that testing instruments and Rider Manuals are being used on every job. For, the dependable servicing information in the thirteen Rider Manuals will lead you quickly to the cause of failure—supply you with the facts that speed repairs.

Stop wasting time "guessing out" defects; today it's your patriotic duty to work with system and assurance.

Reach for one of the thirteen Rider Manuals before you begin every job. In doing so you'll conserve manpower, parts, time and civilian sets—all critically scarce right now.

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Volumes XII to VII ..... \$11.00 each  
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### OTHER RIDER BOOKS YOU NEED

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Two to five times as fast as slide rule.  
More fool-proof. 16 pp. 2 colors ..... 7.50  
Hour-A-Day-with-Rider Series—  
On "Alternating Currents in Radio Receivers"—  
On "Resonance & Alignment"—On "Automatic Volume Control"—On "D-C Voltage Distribution" ..... 90¢ each

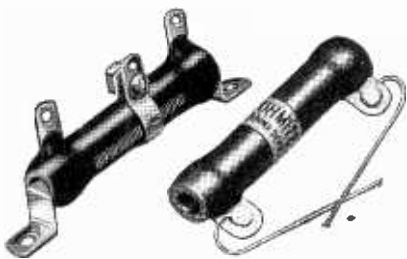
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# RIDER MANUALS

## SPEED REPAIRS — AND VICTORY

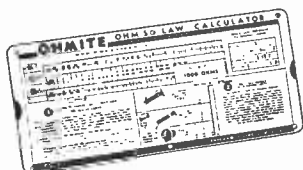
## OHMITE RESISTORS for Permanent Performance



It's the way Ohmite Resistors are designed and built that makes them so reliable for today's critical service on the war front, and the home front. These sturdy, wirewound units stay accurate, prevent burnouts and failures—insure permanent performance under the toughest operating conditions from the arctic to the tropics.

This is your best assurance in maintaining the service of existing equipment or in developing new devices to defeat the enemy and build for tomorrow's peace.

### Send for These Handy Aids



**Ohm's Law Calculator**—Helps you figure ohms, watts, volts, amperes—quickly, easily. Solves any Ohm's Law problem with one setting of the slide. All values are direct reading. Available for only 10c. (Also available in quantities.)

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Service manuals	S
Sound pictures	SP
Sound systems	SS
Television	TV
Tubes	T

American Radio Relay League, 38 La Salle Rd., W. Hartford, Conn.—AT, BT  
American Technical Society, Drexel Ave. at 58th St., Chicago, Ill.—A, AV, BT, E, IE, TV  
ARRL—American Radio Relay League  
Theo. Audel & Co., 49 W. 23 St., New York, N. Y.—A, AT, SP, SS, TV, T  
The Blakiston Company, 1012 Walnut St., Philadelphia, Pa.—A  
Caldwell-Clements, Inc., 480 Lexington Ave., New York, N. Y.—“Electronic Industries,” “Radio Retailing Today,” “Radio Year Book”  
Chemical Publishing Co., Inc., 234 King St., Brooklyn, N. Y.—A, AT, AV, BT, E, S, SP, TV, T  
Electronic Industries—Caldwell-Clements, Inc.  
Gold Shield Prods., 350 Greenwich St., New York, N. Y.—S  
Listen Magazine, 100 Stevens Ave., Mt. Vernon, N. Y.—RP  
Macmillan Co., 60 Fifth Ave., New York, N. Y.—A, E  
Maedel Publishing House, 593 E. 38th St., Brooklyn, N. Y.—A, AT, AV, BT, E, IE, RP, S, SP, SS, TV, T  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind.—S  
McGraw-Hill Book Co., 300 W. 42 St., New York, N. Y.—AT, BT, E  
National Union Radio Corp., 15 Washington St., Newark, N. J.—S, T  
Pitman Pub. Corp., 2 W. 45 St., New York, N. Y.—AV  
Prentice-Hall, Inc., 70 Fifth Ave., New York, N. Y.—AV, E  
Radiolab Publishing Co., 652 Montgomery St., Brooklyn, N. Y.—BT, E  
Radio & Technical Publ. Co., 45 Astor Pl., New York, N. Y.—BT, IE, S, TV, T, E, SS  
Radio Retailing Today—Caldwell-Clements, Inc.  
John F. Rider Publisher, Inc., 404 Fourth Ave., New York, N. Y.—AT, BT, E, S, T  
Ronald Press Co., 15 E. 26 St., New York, N. Y.—AV  
The Sherwood Press, Box 552, Edgewater Branch, Cleveland, Ohio—A, AT, AV, BT, E, IE, S, SP, SS, TV, T  
Supreme Publications, 328 S. Jefferson St., Chicago, Ill.—BT, S, RP, TV  
D. Van Nostrand Co., Inc., 250 Fourth Ave., New York, N. Y.—A, AT, BT, E, TV, T

## Resistors & Volume Controls



Attenuators (precision)	A
Fixed composition	FC
Fixed wirewound	FW
Industrial fixed	I
Plug-in (tubes)	PT
Power rheostats	PR
Precision	PRE
Suppressors	SU
Variable	V
Volume controls	VC
High frequency resis. slug	HR
Slide wire pots	S

Aerovox Corp., 742 Belleville Ave., New Bedford, Mass.—FC, FW  
Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee, Wis., “Bradleyunit,” “Bradleyometer”—A, FC, PR, SU, V, VC  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., “Knight”—FC, FW, I, PT, PR, PRE, SU, V, VC  
American Automatic Electric Sales Co., 1019 W. Van Buren St., Chicago, Ill.—FW, SU  
Amperite Co., 561 Broadway, New York, N. Y., “Amperite”—PT

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Production facilities for Global Brand Ceramic Type Resistors are being utilized to the utmost to maintain deliveries to the most essential Electronic needs. When the present crisis has passed we will be able to serve those industries whose needs at the moment must be subordinated to the war effort.

Today when demands upon us are heavy and deliveries are scheduled according to priority and date of order, your indulgence is appreciated. We pledge our untiring efforts to those who have come to depend upon us as well as others who may need our help.

Below is a condensed table of specifications of the more commonly used types of Global Brand Resistors. Resistors having special characteristics are also available.

Type		A	B	CX
Length	Min.	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
	Max.	18"	18"	18"
Diameter	Min.	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{16}$ "
	Max.	1"	1"	1"
Resistance Per Inch Of Length	Min.	25 ohms	5 ohms	1 ohm
	Max.	15 megohms	15 megohms	1000 ohms
*Overall Watt Rating	Min.	$\frac{1}{4}$ watt	$\frac{1}{4}$ watt	$\frac{1}{4}$ watt
	Max.	54 watts	54 watts	150 watts
*Normal Rating W./Sq. In. of Radiating Surface		1 watt	1 watt	2 $\frac{1}{2}$ watts
Maximum Voltage Per In. of Length		400 V.	400 V.	See Note

\*These ratings may be substantially increased by artificial cooling.

#### Characteristic Coefficients:

Type A: Comparatively Straight Line Temperature and Voltage.

Type B: Negative Temperature and Voltage.

Type CX: Slightly Positive Temperature.

Terminals: All types: Metalized ends for clip mounting or with wire leads.

Type CX Resistors have a low specific resistance and cannot be subjected to voltage stresses permissible with Types A and B. Maximum allowable voltage is that required to yield maximum watt rating.

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## Resistors & Volume Controls

Atlas Resistor Co., 425 Broome St., New York, N. Y.  
"Atlas"—FW, V  
The Audio-Tone Oscillator Co., 60 Walter St., Bridgeport, Conn.—A  
Berger Electronics, 109-01 72nd Rd., Forest Hills, L. I., N. Y.—V, VC  
James G. Biddle Co., 1211 Arch St., Philadelphia, Pa.—PR  
The Birtcher Corp., 5087 Huntington Dr., N., Los Angeles, Calif.—FC  
Bradleyometer—Allen-Bradley Co.  
Bradleyunit—Allen-Bradley Co.  
Brown Devil—Ohmite Mfg. Co.  
Candohms—The Muter Co.  
Carborundum Co., Niagara Falls, N. Y.—FC, I  
Centralab, 900 E. Keefe Ave., Milwaukee, Wis., "Centralab"—V, VC  
Chicago Telephone Supply Co., Elkhart, Ind.—V, VC  
Cinema Engineering Co., 1508 W. Verdugo Ave., Burbank, Calif., "Cinema"—A, FW, PRE, V, S  
Claroat Mfg. Co., Inc., 285 N. 6th St., Brooklyn, N. Y., "Claroat"—A, FC, FW, I, PT, PR, PRE, V, VC  
Consolidated Wire & Assoc. Corps., 1635 S. Clinton, Chicago, Ill.—FC, FW, SU, VS, W  
Continental Carbon, Inc., 13900 Loraine Ave., Cleveland, Ohio, "Continental"—FC, FW, PRE, SU  
Cordohm—Ohmite Mfg. Co.  
Daven Co., 158 Summit St., Newark, N. J.—A, FW, PRE, VC  
Dependable—Radio City Prods. Co., Inc.  
Dividohm—Ohmite Mfg. Co.  
Electronic Prods. Co., 19 N. 1st St., Geneva, Ill.—A, FC, FW, I  
Erie Resistor Corp., 640 W. 12th St., Erie, Pa.—FC, SU  
Ex-Stat—Tilton Electric Co.  
Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J.—A, S  
Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—FC  
General Electric Co., 1 River Rd., Schenectady, N. Y.—I, PH, PT  
General Radio Co., 30 State St., Cambridge, Mass., "G-R"—A  
G-H—Girard-Hopkins  
Girard-Hopkins, 1000 40th Ave., Oakland, Calif., "G-H"—FC  
G-R—General Radio Co.

Hardwick & Hindle, Inc., 40 Herman St., Newark, N. J.—FW, I, PR, S, V  
Hewlett-Packard Co., 395 Page Mill Rd., Palo Alto, Calif.—A  
Hytron Corp., 23 New Derby St., Salem, Mass., "Hytron"—PT  
Industrial Transformer Corp., 2540 Belmont Ave., New York, N. Y.—I  
Instrument Resistors Co., 25 Amity St., Little Falls, N. J.—FW  
Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y., "ICA"—FW, PRE, SU, V, VC  
International Resistance Co., 401 N. Broad St., Philadelphia, Pa., "IRC"—A, FC, FW, HR, I, PR, PRE, S, SU, V, VC  
IRC—International Resistance Co.  
J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y., "JFD"—PT  
Keystone Carbon Co., St. Marys, Pa.—N  
Koolohms—Sprague Products Co.  
Lafayette Radio Corp., 100 6th Ave., New York, N. Y., "Trutest"—FC, FW, V, VC  
Landis & Gyr, Inc., 104 5th Ave., New York, N. Y.—FW, I  
Lectrohm, Inc., 5125 W. 25th St., Cicero, Ill.—FW, I, PR, V  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Yaxley"—A, FW, I, V, VC  
Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.—FW, PT  
Microhm—Precision Resistor Co.  
Multivolt—Ohmite Mfg. Co.  
The Muter Co., 1255 S. Michigan Ave., Chicago, Ill., "Candohms," "Zipohms,"—FW  
National Technical Laboratories, 820 Mission St., S. Pasadena, Calif.—PRE, S, VC  
National Union Radio Corp., 15 Washington St., Newark, N. J.—PT, VC  
The Ohio Carbon Co., 12508 Berea Rd., Cleveland, Ohio—FC, FW  
Ohmite Mfg. Co., 4984 W. Flournoy St., Chicago, Ill., "Ohmite," "Red Devil," "Brown Devil," "Multivolt," "Riteohm," "Cordohm," "Dividohm"—FW, HR, I, PR, PRE, V  
Ohmspun—The States Co.  
Philco Radio & Telev. Corp., Tloga & C Sts., Philadelphia, Pa.—FW, PT, SU, V, VC  
Precision Resistor Co., 334 Badger Ave., Newark, N. J., "Microhm"—A, I, PR, PRE, RW, V  
Radio City Products Co., Inc., 127 W. 26th St., New York, N. Y., "Dependable"—PRE



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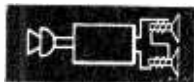


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Raytheon Production Corp., 55 Chapel St., Newton, Mass.—PT  
 Red Devil—Ohmite Mfg. Co.  
 Riteohm—Ohmite Mfg. Co.  
 Rowe Radio Research Laboratory Co., 2422 N. Pulaski Rd., Chicago, Ill.—A  
 Sensitive Research Instrument Co., 4545 Bronx Blvd., New York, N. Y.—FW  
 Shallicross Mfg. Co., 10 Jackson Ave., Collingdale, Pa., "Shallicross"—PRE  
 Speer Resistor Corp., St. Marys, Pa.—FW, V  
 Sprague Products Co., N. Adams, Mass., "Koolohms"—FW, I, PRE  
 Sprague Specialties Co., N. Adams, Mass.—FW, I, PRE  
 Stackpole Carbon Co., St. Marys, Pa., "Stackpole"—FC, V, VC  
 The States Co., 19 New Park Ave., Hartford, Conn., "Ohmspan"—HR  
 Herman H. Sticht Co., Inc., 27 Park Pl., New York, N. Y.—FW, PR, PRE  
 Sylvania Electric Products, Inc., Emporium, Pa., "Sylvania"—PT  
 Tech Laboratories, 7 Lincoln St., Jersey City, N. J., "Tech Lab"—A, PRE, VC  
 Tilton Electric Corp., 138 W. 17th St., New York, N. Y., "Ex-Stat"—FW, SU, VC  
 H. W. Tuttle & Co., 261 W. Maumee St., Adrian, Mich.—FW, I  
 Utah Radio Products Co., 820 Orleans St., Chicago, Ill.—A, FW, I, PRE, V, VC  
 Ward Leonard Electric Co., 35 South St., Mt. Vernon, N. Y.—FW, I, PR, SU, V  
 Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—FW, I, PR  
 Wirt Co., 5221 Greene St., Philadelphia, Pa., "Wirtco Phenocote"—FW, I, SU, V, VC  
 Wirtco Phenocote—Wirt Co.  
 Yaxley—P. R. Mallory & Co., Inc.  
 Zipohms—The Muter Co.

## Sound Systems, Amplifiers & Accessories



Acoustic materials .....AM  
 Carrying cases .....C  
 Kits (amplifier) .....K  
 Mobile amplifiers .....M  
 Power amplifiers .....PA  
 Pre amplifiers .....PRE  
 Remote controllers .....RC  
 Sound systems (complete) .....SS  
 Car-top speaker rack .....CR

ACA—Amplifier Co. of America  
 Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kans.—K, M, PA, PRE  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—C, K, M, PA, PRE, SS  
 Altec Lansing Corp., 6900 McKinley Ave., Los Angeles, Calif.—M, PA, PRE, SS  
 American Communications Corp., 306 Broadway, New York, N. Y.—PA, PRE, SS  
 American Transformer Co., 178 Emmet St., Newark, N. J.—PA  
 Amperite Co., 561 Broadway, New York, N. Y., "Amperite"—PRE  
 Amplifier Co. of America, 17 W. 20th St., New York, N. Y., "ACA"—M, PA, PRE, RC, SS  
 Art Specialty Co., 3245 W. Lake St., Chicago, Ill.—CR  
 Atlas Sound Corp., 1443—39th St., Brooklyn, N. Y., "Atlas"—C  
 Audiograph—John Meek Industries  
 Austin Electronic Mfg. Co., Warren, Pa.—PA, PRE, RC, SS  
 Belfone—Bell Sound Systems, Inc.  
 Bell Radio & Television, 125 E. 46th St., New York, N. Y.—SS  
 Bell Sound Systems, Inc., 1183 Essex Ave., Columbus, Ohio, "Belfone"—C, K, M, PA, PRE, RC, SS  
 David Bogen Co., Inc., 663 Broadway, New York, N. Y.—C, M, PA, PRE, RC, SS  
 Boom Electric & Amplifier Co., 1227 W. Washington Blvd., Chicago, Ill.—SS  
 Chicago Sound Systems Co., 2124 S. Michigan Ave., Chicago, Ill., "Chicago Sound Amplifiers"—PA, SS  
 Cinema Engineering Co., 1508 W. Verduga Ave., Burbank, Calif., "Cinema"—K, M, PA, PRE, SS  
 Clarion—Electronic Corp. of America  
 E. G. Conn, Ltd., Elkhart, Ind.—SS  
 Cover Dual Signal Systems, Inc., 125 W. Hubbard St., Chicago, Ill.—RC  
 DeVry Corp., 1111 Armitage Ave., Chicago, Ill.—SS  
 Diks Acoustic Products Co., 540 West Ave., Norwalk, Conn.—M, PA, SS  
 Frank I. Dufrene Co., Inc., 1138 Howard St., San Francisco, Calif.—SS  
 Eastern Amplifier Corp., 794 E. 140th St., Bronx, N. Y.—M, PA, PRE, RC, SS  
 Eckstein Radio & Television Co., 1400 Harmon Pl., Minneapolis, Minn.—M, PA, PRE, SS

Electro Products Labs., 549 W. Randolph St., Chicago, Ill.—RC  
 Electronic Corp. of America, 45 W. 18th St., New York, N. Y., "Clarion"—M, PA, PRE, RC, SS  
 Electronic Products Co., 19 N. First St., Geneva, Ill.—K  
 Empire Radio Mfg., 114 E. 47th St., New York, N. Y.—SS  
 Erwood Sound Equipment Co., 223 W. Erie, Chicago, Ill.—C, K, M, PA, PRE, REC, SS, CR  
 Executone, Inc., 415 Lexington Ave., New York, N. Y.—PA, SS  
 Ferranti Electric, Inc., 30 Rockefeller Plaza, New York, N. Y., "Ferranti"—PA, PRE  
 The Forest Electronic Co., 320 E. 65th St., New York, N. Y.—PA, SS  
 Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—PA  
 Gates American Corp., Quincy, Ill.—SS  
 Gentleman Products Div., Henney Motor Co., 1708 Cuming St., Omaha, Nebr.—M, PA, PRE, RC, SS

Gibson, Inc., 225 Parsons St., Kalamazoo, Mich.—PA, SS  
 Godfrey Mfg. Corp., 2140 N. 27th St., Milwaukee, Wis.—PA, PRE, SS  
 Harvey-Wells Communications, Inc., Southbridge, Mass.  
 Herbach & Rademan Co., 522 Market St., Philadelphia, Pa.—M, PA, PRE, RC, SS  
 Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—M, PA, PRE, SS  
 International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—SS  
 Jefferson Electric Co., Bellwood, Ill., "Jefferson"—K  
 Johns-Manville, 22 E. 40th St., New York, N. Y.—AM  
 Karadio Corp., 1400 Harmon Pl., Minneapolis, Minn.—M, PA, PRE  
 Lafayette Radio Corp., 100 6th Ave., New York, N. Y.—C, M, PA, RC, SS  
 Laurehk Radio Mfg. Co., 3918 Monroe Ave., Wayne, Mich., "Laurehk"—PA

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 Lincophone Co., 1661 Howard Ave., Utica, N. Y.—C, M, PA, SS  
 John Meck Industries, Liberty St., Plymouth, Ind., "Audiograph"—CK, M, PA, PRE, SS  
 Megard Corp., 381 W. 38th St., Los Angeles, Calif.—PA, SS  
 Miles Reproducer Co., Inc., 812 Broadway, New York, N. Y., "Miles"—C, K, M, PA, PRE, RE, SS, CR  
 National Inter-Communicating Systems, 2434 Montrose Ave., Chicago, Ill.—PA, PRE, SS  
 National Union Radio Corp., 15 Washington St., Newark, N. J.—C, M, PA, SS  
 Newcomb Audio Products Co., 2815 S. Hill St., Los Angeles, Calif.—C, M, PA, PRE, RC, SS  
 Operadio Mfg. Co., 13th & Indiana Sts., St. Charles, Ill., "Operadio"—M, PA, PRE, RC, SS  
 Oxford Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—K, M, PA, PRE, SS  
 Pacific Sound Equipment Co., 1534 Cahuega Blvd., Hollywood, Calif., "Port-Elec"—SS

Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—M, PA, SS  
 Port-Elec—Pacific Sound Equipment Co.  
 Presto Recording Corp., 242 W. 55th St., New York, N. Y., "Presto"—M, PA, PRE  
 Racon Elec. Co., Inc., 52 E. 19th St., New York, N. Y.—AM, SS  
 Radiad Service, 720 Schubert Ave., Chicago, Ill.—PA  
 Radio Electronic Co., 1816 Villanova Drive, Oakland, Calif.—SS  
 Radiotechnic Lab., 1328 Sherman Ave., Evanston, Ill.—SS  
 Radolek Co., 601 W. Randolph St., Chicago, Ill., "Radolek"—PA, PRE, SS  
 Rangertone, Inc., 73 Winthrop St., Newark, N. J.  
 The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill., "Rauland"—M, PA, PRE, RC, SS  
 RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—M, PPA, PRE, RC, SS  
 Regal Amplifier Mfg. Corp., 20 W. 20th St., New York, N. Y.—M, PA, SS  
 Remler Co., Ltd., 2101 Bryant St., San Francisco, Calif., "Remler"—SS  
 Frank Rieber, Inc., 11918 West Pico Blvd., Los Angeles, Calif.—PA, PRE, RC, SS

Rowe Radio Research Laboratory Co., 2422 N. Pulaski Rd., Chicago, Ill.—PRE  
 Schulmerich Electronics, Inc., 141 E. Glenside Ave., Glenside, Pa.—M, PA, PRE, RC, SS  
 Setchell-Carlson, Inc., 2233 University Ave., St. Paul, Minn., "Setchell-Carlson"—PA, SS, M  
 Silman Mfg. Corp., 305 Pennsylvania Ave., Pittsburgh, Pa.—PA, PRE  
 Mark Simpson Mfg. Co., Inc., 188 W. 4th St., New York, N. Y.—C, K, M, PA, PRE, RC, SS  
 The Sound Scriber Corp., 82 Audubon St., New Haven, Conn.—PRE  
 Stantor—Standard Transformer Corp.  
 Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill., "Stantor"—K  
 Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y., "Stromberg-Carlson"—PA, PRE, SS  
 Sun Radio Co., 212 Fulton St., New York, N. Y., "Mercury"—M, PA, SS  
 Talk-A-Phone Mfg. Co., 1219 W. Van Buren St., Chicago, Ill.—PRE  
 Technical Apparatus Co., Inc., 1171 Tremont St., Boston, Mass.—PRE  
 Thordarson Electric Mfg. Co., 500 W. Huron St., Chicago, Ill., "Thordarson"—C, K, M, PA, PRE  
 Transmitter Equipment Mfg. Co., Inc., 345 Hudson St., New York, N. Y.—PA, PRE, RC  
 Triumph Mfg. Co., 913 W. Van Buren St., Chicago, Ill.—PA, PRE, SS  
 United Transformer Corp., 150 Varick St., New York, N. Y., "UTC"—K  
 Vac-O-Grip Co., 2025 Detroit Ave., Toledo, Ohio—CR  
 Waters-Conley Co., 501 1st St., Rochester, Minn.—C  
 Webster Electric Co., 1900 Clark St., Racine, Wis., "Webster Electric"—C, M, PA, PRE, RC, SS  
 Wesbar Stamping Corp., West Bend, Wis.—CR  
 Western Electric Co., 195 Broadway, New York, N. Y.—PA, PRE, SS  
 Western Sound & Elec. Labs., Inc., 3512 W. St. Paul, Milwaukee, Wis.—M, PA, PRE, RC, SS, CR  
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.—PA, PRE, SS

## Speakers & Parts



Accessories .....	ACC
Acoustic chambers .....	CH
Baffles .....	B
Cones .....	C
Crystal speakers .....	CS
Electro-dynamic .....	D
Field coils .....	F
Field exciters .....	FE
Grille cloths .....	GC
High frequency .....	HF
Magnetic .....	M
Permanent magnet dyn .....	PM
Power speakers .....	PS
Projector horns .....	PH
Stands .....	ST
Wall speaker baffles .....	WB
PM drivers .....	PD
Shims, adjusting .....	S

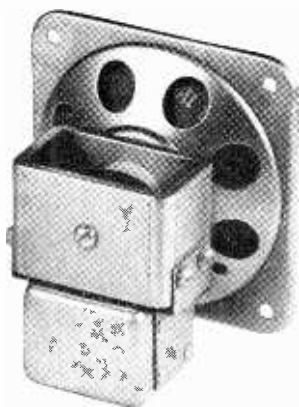
The Acme Wire Co., New Haven, Conn.—F  
 Adler Mfg. Co., 2901 W. Chestnut St., Louisville, Ky.—B  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—ACC, B, D, HF, M, PM, PH, PS, ST, WB  
 Alter Lansing Corp., 6900 McKinley Ave., Los Angeles, Calif.—B, C, D, F, FE, HF, PH, PM, PS  
 Apex Industries, Inc., 1035 W. Lake St., Chicago, Ill.—F  
 Art Specialty Co., 3245 W. Lake St., Chicago, Ill.—B, PH, ST, WB  
 Atlas Sound Corp., 1451—39th St., Brooklyn, N. Y., "Atlas"—ACC, CH, B, C, D, FE, PD, PM, PS, PH, ST, WB  
 Auburn Mfg. Co., 100 Stack St., Middletown, Conn.—S  
 Best Mfg. Co., Inc., 1200 Grove St., Irvington, N. J.—ACC, C, D, F, M, PM, S  
 Brush Development Co., 3311 Perkins Ave., Cleveland, Ohio—CS  
 Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.—C, F  
 Cinaudagraph Speakers, Inc., 3929 S. Michigan Blvd., Chicago, Ill.—ACC, B, C, CH, D, E, FE, GC, HF, M, PM, PS, PD, PH, S, ST, WB  
 Cleveland Wire Cloth & Mfg. Co., 3576 E. 78th St., Cleveland, Ohio—GC  
 Crescent Industries, Inc., 4140 Belmont Ave., Chicago, Ill., "Crescent"—D, PM  
 Electronic Transformer Co., 515 W. 29th St., New York, N. Y.—F, FE  
 Erwood Sound Equip. Co., 223 W. Erie St., Chicago, Ill.—FE, PH, ST  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill., "G-C"—ACC, GC, S  
 Hawley Products Co., 201 N. First Ave., St. Charles, Ill., "Hawley"—B, C, CH, PH, WB  
 A. G. Hintze Co., Westchester, Ill.—GC  
 Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—B, CH

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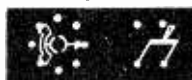
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Watterson Radio Mfg. Co., Dallas, Texas.—B  
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Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.—ACC  
The Wheeler Insulated Wire Co., 378 Washington Ave., Bridgeport, Conn.—F, FE  
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Fluorescent lamp starters	.....FS
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Keys, switch	.....SK
Keying relays	.....KR
Mercury	.....M
Polarized relays	.....RP
Power	.....P
Protective	.....PR
Push button	.....PB
Relays	.....R
Safety interlocks	.....S
Safety relays	.....SRE
Selector switches	.....SL
Stepping relays	.....SR
Toggle switches	.....TO
Test equipment	.....TS
Thermostats	.....TH
Thermal switches	.....T
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Wave change (transmitter)	.....WT

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The Adams & Westlake Co., Elkhart, Ind.—R  
Advance Elec. Co., 1260 W. 2nd St., Los Angeles, Calif.—R  
Bruno H. Ahlers, 8524 89th St., Woodhaven, L. I., N. Y.—P, SL, TS  
Alden Products Co., 117 North Main St., Brockton, Mass.—"Na-Ald"—TS  
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Allied Control Co., Inc., 227 Fulton St., New York, N. Y.—CB, R  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—C, M, P, PR, R, SK  
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Audio Development Co., 2833 13th Ave., Minneapolis, Minn.—SK  
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Berger Electronics, 109-01 72nd Rd., Forest Hills, L. I., N. Y.—CS, S  
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Durakool, Inc., 1010 N. Main St., Elkhart, Ind.—B  
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Eitel-McCullough, Inc., San Bruno, Calif., "Eimac"—V  
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Ess Instrument Co., Bridge Plaza, Ft. Lee, N. J.—R  
H. C. Evans & Co., 1528 W. Adams St., Chicago, Ill.—R  
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General Electric Co., 1 River Rd., Schenectady, N. Y.—C, CB, CS, FS, M, P, PB, PR, R, S, TS, V  
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Guardian Electric Mfg. Co., 1622 Walnut St., Chicago, Ill.—C, M, P, PR, PB, R, S, SR, TE, V  
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Robert Hetherington & Son, Inc., 1216 Elmwood Ave., Sharon Hills, Pa.—P  
Horn Signal Mfg. Corp., 310 Hudson St., New York, N. Y.—C, PB, S, SR, TE, V  
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Industrial Timer Corp., 117 Edison Pl., Newark, N. J.—TE  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—C, V  
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Eidson's, 1309 N. Second St., Temple, Texas—CC  
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Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J., "Ferris"—CC, DA, SG, VTV  
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General Radio Co., 30 State St., Cambridge, Mass.—AO, CRO, CC, FM, IB, OHM, RB, SG, VTV  
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Hathaway Instrument Co., 1315 S. Clarkson, Denver, Colo.—CRO, RB  
Hewlett-Packard Co., 395 Page Mill Rd., Palo Alto, Calif.—AO, VTV  
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Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—AO, CRO, VTV, CC  
Hoyt Electrical Instrument Works, 857 Boylston St., Boston, Mass.—MM  
Hy Ef Elec'l Prods. Mfg. Co., 1515 W. Pico Blvd., Los Angeles, Calif., "Hy-Ef"—CT  
ICA—Insuline Corp. of America  
Industrial Instruments, Inc., 158 Culver Ave., Jersey City, N. J.—RB  
Industrial Transformer Corp., 2540 Belmont Ave., Chicago, Ill.—VT  
Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y., "ICA"—AD, AO, HV  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—AO, BT, CT, SA, VTV  
The Jackson Elec'l Instrument Co., 131 Wayne Ave., Dayton, O., "Jackson"—AO, CRO, CT, MM, OHM, SG, ST, TT, VTV  
J. F. D. Mfg. Co., 4111 Ft. Hamilton Pkway, Brooklyn, N. Y.—HV  
Lampkin Labs., Bradenton, Fla.—FM  
Lapp Insulator Co., Inc., LeRoy, N. Y.—DA  
L-C Checker—Aerovox Corp.  
Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.—FM, IB, OHM, RB  
Lepel High Frequency Labs., Inc., 39 W. 60th St., New York, N. Y.—TT  
Fred M. Link, 125 W. 17th St., New York, N. Y.—FM  
Littelfuse, Inc., 4732 Ravenswood Ave., Chicago, Ill.—F, NI  
Measurements Corp., Box 88, Boonton, N. J.—SG, VTV  
Meissner Mfg. Co., 7th & Belmont, Mt. Carmel, Ill., "Analyst"—CC, ST  
James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—FM, MOD, CC  
Monarch Mfg. Co., 3341 Belmont Ave., Chicago, Ill., "Monarch"—SG  
Musicmaster Mfg. Co., 508 S. Dearborn, Chicago, Ill.—CT, ST  
Na-Ald—Alden Prods. Co.  
National Company, Inc., 61 Sherman St., Malden, Mass., "N-C"—CRO  
Ohmite Mfg. Co., 4984 W. Flourmoy St., Chicago, Ill., "Determohm"—DA  
Oxford-Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—MOD, OHM, SPK  
Philco Radio & Telev. Corp., Tioiga & C Sts., Philadelphia, Pa.—AD, AO, BT, CF, CT, CU, DA, DO, MM, NI, OHM, OI, SA, SG, SPK, HV, TT, VTV, VT  
Photobell Corp., 114 Nassau St., New York, N. Y.—AO, IB, RB  
Precision Apparatus Co., 92-27 Horace Harding Blvd., Elmhurst, N. Y., "Precision"—BT, MM, OHM, SA, SG, TT, VTV  
Radio City Prods. Co., Inc., 127 W. 26th St., New York, N. Y., "Dependable"—AD, AO, BT, CRO, CCT, FM, HHV, MM, OHM, OI, RB, SA, SG, SPK, TT, VTV  
Radio Design Co., 1353 Sterling Pl., Brooklyn, N. Y., "Radio Design"—AO, CT, MM, NI, OHM, OI, SA, VTV  
Radio Essentials, Inc., 69 Wooster St., New York, N. Y.—HV  
Radio Frequency Labs., Inc., Boonton, N. J.—SA  
Radiotechnic Lab., 1328 Sherman Ave., Evanston, Ill.—"R-T-L"—TT  
Radio Service Engineers, 110 W. Packard Ave., Ft. Wayne, Ind.—CT

Ranger-Examiner—Readrite Meter Works  
The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—FM  
Rawson Elec'l. Instrument Co., 90 Potter St., Cambridge, Mass.—MM, OHM  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—"RCA"—AO, CRO, CC, FM, MOD, SG, ST  
Readrite Meter Works, 136 E. College Ave., Bluffton, O., "Ranger-Examiner," "Readrite"—AD, CRO, CT, M, MM, OHM, OI, SA, SG, TT  
Rowe Radio Research Lab. Co., 2422 N. Pulaski Rd., Chicago, Ill.—AO, CRO, IB, VTV  
Rupp's Assembling & Mfg. Wks., 2341 N. Seminary Ave., Chicago, Ill.—HV  
Schuttig & Co., 9th & Kearney Sts., Washington, D. C.—DA  
Sensitive Research Instrument Co., 4545 Bronx Blvd., New York, N. Y.—OHM  
Shallcross Mfg. Co., 10 Jackson Ave., Collingdale, Pa., "Shallcross"—MM, OHM, RB  
Simpson Electric Co., 5216 W. Kinzie St., Chicago, Ill.—HV, HM, OHM, SA, SG, ST, TT  
The States Co., 19 New Park Ave., Hartford, Conn.—DA  
Sterling Mfg. Co., 9205 Detroit Ave., Cleveland, O.—BT, M, MM, OHM, OI  
Herman H. Sticht Co., Inc., 27 Park Pl., New York, N. Y.—FM, OHM, RB  
Swomberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—CU  
Sun Mfg. Co., 6323 Avondale Ave., Chicago, Ill.—BT, CT, OHM, SA  
Sundt Engineering Co., 4763 Ravenswood Ave., Chicago, Ill.—NI  
Superior Instruments Co., 227 Fulton St., New York, N. Y.—MM, OHM, SA, SG, TT, VTV  
Supreme Instruments Corp., 414 Howard St., Greenwood, Miss., "Supreme"—AO, BT, CRO, MM, MOD, OHM, OI, SA, SG, ST, HV, TT, VTV  
Technical Apparatus Co., Inc., 1171 Tremont St., Boston, Mass.—AO, BT, CRO, CT, CC, FM, MM, NI, OHM, RB, TT, VTV  
Televiso Prods., Inc., 6533 Olmstead Ave., Chicago, Ill.—AO, FM, VTV  
Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.—CRO (kit), VTV  
Traceometer—The Hickok Elec'l. Instr. Co.  
Triplett Elec'l. Instr. Corp., Harmon Rd., Bluffton, O., "Triplett"—AD, AO, BT, CRO, CT, FM, HV, MM, OHM, OI, SA, SG, TT, VTV, VT  
Triumph Mfg. Co., 913-21 W. Van Buren St., Chicago, Ill., "Triumph"—AO, BT, CRO, HV, MM, MOD, OHM, SG  
Earl Webber Co., 4352 W. Roosevelt, Chicago, Ill., "Webber"—AD, AO, CRO, CT, M, MM, MOD, OHM, OI, RB, SA, SG, ST, SPK, TT, TW, VT  
Western Electric Co., 195 Broadway, New York, N. Y.—AO, FM, OI  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—MM, OHM  
Weston Elec'l. Instr. Corp., 597 Frelinghuysen Ave., Newark, N. J., "Weston"—BT, MM, OHM, OI, SA, SG, TT, VTV  
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.—FM  
Willard Storage Battery Co., 246 E. 131st St., Cleveland, O.—BT

## Tools



Alignment tools .....	AT
Chassis holders .....	CH
Demagnetizers .....	DM
Drills, electric .....	D
Electric etchers .....	EE
Electroplater .....	E
Hacksaw blades .....	HB
Hand drills .....	HD
Hole cutters .....	HC
Knob puller .....	KP
Pliers .....	P
Punches .....	PU
Punching machines .....	PM
Ratchet wrenches .....	RW
Screwdrivers .....	SD
Socket wrenches .....	SW
Solder .....	S
Soldering irons (elec.) .....	SI
Soldering iron stands .....	SS
Soldering iron tips .....	SE
Solder pots .....	ST
Staple driver .....	SH
Flux, fluid .....	SF
Flux, paste .....	SP
Tube pullers .....	TP
Wire strippers .....	WS

Ackermann, Steffan Co., 4532 W. Palmer St., Chicago, Ill.—ST  
Acro Tool & Die Co., 5326 N. Kedzie Ave., Chicago, Ill.—CH  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—AT, CH, D, E, HB, HD, HC, P, PU, S, SD, SW, SI, SE, SP, SS, SH, WS



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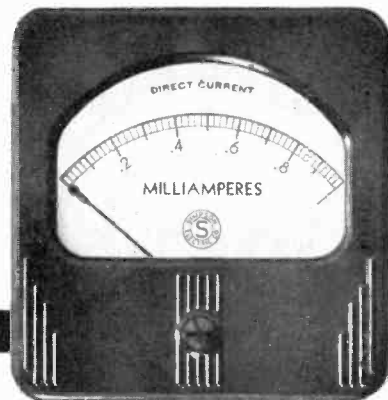


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## Tools

Alpha Metal & Rolling Mills, Inc., 363 Hudson Ave., Brooklyn, N. Y.—S  
 American Phenolic Corp., 1832 S. 54th Ave., Cicero, Ill.—"Amphenol"—HC, PU  
 American Radio Hardware Co., 476 Broadway, New York, N. Y., "Arhco"—SD, SE, SI, SW, TP  
 Amphenol—American Phenolic Corp.  
 R. B. Annis Co., 1103 N. Delaware St., Indianapolis, Ind.—DM, EE  
 Arhco—American Radio Hardware Co.  
 The Automatic Electrical Devices Co., 324 E. Third St., Cincinnati, Ohio—SF  
 Automatic Mfg. Co., Inc., Harrison, N. J.—PM  
 Chase Brass & Copper Co., 236 Grand St., Waterbury, Conn.—S, SE  
 Cole Radio Works, Caldwell, N. J., "Instansolder"—SI, SS  
 Continental Screw Co., 457 Mt. Pleasant St., New Bedford, Mass.—SD  
 Detroit Power Screw Driver Co., 2801 W. Fort St., Detroit, Mich.—SD  
 Division Lead Co., 836 W. Kinzie St., Chicago, Ill. S, SF, SP  
 Drake Electric Works, Inc., 3656 Lincoln Ave., Chicago, Ill.—SI, SS  
 Eisler Engineering Co., 740-770 So. 13th St., Newark, N. J.—ST  
 Electric Soldering Iron Co., Inc., Deep River, Conn., "Raleo"—SI  
 Esico—Electric Soldering Iron Co., Inc.  
 Federal Screw Products Co., 224 W. Huron St., Chicago, Ill.—S, SE, SP, SW  
 The Forsberg Mfg. Co., Bridgeport, Conn.—HB, HD, SD  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill., "G-C"—AT, CH, KP, PU, SE, SP, SW, WS  
 General Electric Co., 1 River Road, Schenectady, N. Y.—SE, SI, SS, ST  
 Goldsmith Bros., Smelting & Refining Co., 58 E. Washington St., Chicago, Ill.—S  
 Greenlee Tool Co., 1903 Columbia Ave., Rockford, Ill.—HC, PU  
 Hexacon Elec. Co., 161 W. Clay Ave., Roselle Park, N. J.—SI  
 Industrial Screw & Supply Co., 717 W. Lake St., Chicago, Ill.—HB, S, SD, SF, SP  
 Instansolder—Cole Radio Works  
 Insuline Corp. of America, 3602 35th Ave., Long Island City, N. Y.—AT, CH, PU, SE, SI, SS, SW

K-D Mfg. Co., 526 N. Plum St., Lancaster, Pa., "K-D"—P, RW  
 Kellogg Switchboard & Supply Co., 6650 S. Cicero Ave., Chicago, Ill.—SI  
 Kester Solder Co., 4201 Wrightwood Ave., Chicago, Ill.—S, SS  
 Krauter & Co., Inc., 563 18th Ave., Newark, N. J.—P, PU  
 Kwikheat—Vanatta Mfg. Co.  
 Lectrohm, Inc., 5125 W. 25th St., Cicero St., Ill. "Lectrohm"—ST  
 Linick, Green & Reed, Inc., 29 E. Madison St., Chicago, Ill.—AT, D, E, HB, S, SD, SF  
 Meissner Mfg. Co., 7th & Belmont, Mt. Carmel, Ill., "Meissner"—HC, ST  
 Mueller Electric Co., 1583 E. 31st St., Cleveland, Ohio, "Snapper"—AT  
 New York Solder Co., Inc., 15 Crosby St., New York, N. Y.—S  
 The Ohio Carbon Co., 12508 Berea Rd., Cleveland, Ohio—SF  
 Park Metalware Co., Inc., Orchard Park, N. Y.—AT, P, SD, SW  
 Parker-Kalon Corp., 200 Varick St., New York, N. Y.—PU  
 Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—AT, SD, SW, TP  
 Photobell Corp., 114 Nassau St., New York, N. Y.—SS  
 Pyramid Products Co., 2224 S. State St., Chicago, Ill.—WS  
 Radio Essentials, Inc., 69 Wooster St., New York, N. Y.—AT, SD, SE, SI, SW  
 Rapid Electroplating Process, Inc., 1414 S. Wabash Ave., Chicago, Ill.—E  
 RCA Victor Division, Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA"—AT  
 The Ruby Chemical Co., 68-70 McDowell St., Columbus, Ohio, "Rubyfluid"—S, SF, SP  
 Rubyfluid—The Ruby Chemical Co.  
 The Wm. Schollhorn Co., 414 Chapel St., New Haven, Conn.—P, PU  
 Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif.—SD, SH  
 Snapper—Mueller Electric Co.  
 Speedcraft—Wire Stripper Co.  
 Stanley Tools, New Britain, Conn.—SI  
 The L. S. Starrett Co., Athol, Mass.—HB, PU, SD  
 Stevens Walden, Inc., 475 Shrewsbury St., Worcester, Mass.—AT, HC, P, PU, RW, SW

Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—D, HD, P, SD, SW, S, SI, ST, SP  
 Tilton Electric Corp., 138 W. 17th St., New York, N. Y.—S  
 Harold E. Trent Co., Leverington Ave. & Wilde St., Manayunk, Philadelphia, Pa.—ST  
 Tuck Mfg. Co., 74 Ames St., Brockton, Mass.—SD  
 The United States Electrical Tool Co., 1050 Findlay St., Cincinnati, Ohio—D, SD  
 Utica Drop Forge & Tool Corp., Utica, N. Y.—P, W  
 Vaco Prods. Co., 317 E. Ontario St., Chicago, Ill.—SD, SW  
 Vanatta Mfg. Co., 516 Monterey Ave., Ontario, Calif., "Kwikheat"—SE, SI  
 Vasco Electrical Mfg. Co., 4116 Avalon Blvd., Los Angeles, Calif.—SE, SI, ST  
 Weller Bros., 516 Northampton St., Easton, Pa.—SI  
 Wellmade Electric Mfg. Co., Torrington, Conn.—SI  
 Western Electric Co., 195 Broadway, New York, N. Y.—S  
 Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—S, ST  
 Wire Stripper Co., 1725 Eastham Ave., East Cleveland, Ohio, "Speedcraft"—WS

## Transformers & Chokes

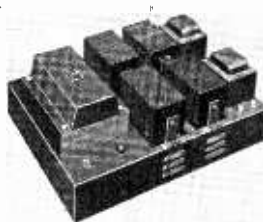


Amateur transmitting .....AT  
 Audio (receiving) .....A  
 Auto transformers .....AU  
 Bridge .....B  
 Chokes .....C  
 Coils & windings .....CW  
 Commercial & broadcast trans.....CT  
 Fence controllers .....FA  
 Fluorescent reactors .....R  
 Current trans. ....T  
 Mike cable transformers .....MT  
 Plug-in transformers .....PT  
 Power .....P  
 Transformers, special range.....TR  
 Voltage regulating .....VR  
 Welding transformers .....WT

ACA—Amplifier Co. of America  
 Acme Electric & Mfg. Co., 54 Water St., Cuba, N. Y., "Acme"—A, AU, C, CT, P, R, VR  
 Acme Wire Co., New Haven, Conn.—CW  
 Adjust-a-Volt—Standard Elec'l. Prods. Co.  
 Allen Elec. & Equip. Co., 2103 N. Pitcher St., Kalamazoo, Mich.—AU  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—AT, A, AU, C, FA, MT, VR, R  
 Altec Service Corp., 252 W. 57th St., New York, N. Y.—A, AC, C  
 American Transformer Co., 178 Emmet St., Newark, N. J., "Amertran"—A, AT, AU, C, CT, CW, P, PT, R, T, VR  
 Amertran—American Transformer Co.  
 Amplifier Co. of America, 17 W. 20th St., New York, N. Y., "ACA"—AU, CW, VR  
 R. B. Annis Co., 1101 N. Delaware St., Indianapolis, Ind.—T  
 Apex Industries, Inc., 1035 W. Lake St., Chicago, Ill.—A, AT, AU, C, CT, CW, FA, MT, P, PT, R, T, VR  
 Audio Development Co., 2833—13th Ave., S., Minneapolis, Minn.—A, AU, C, CT, P  
 Best Mfg. Co., Inc., 1200 Grove St., Irvington, N. J.—A, C, CW  
 Burlington Instrument Co., Burlington, Iowa—VR  
 Chicago Transformer Corp., 3501 W. Addison St., Chicago, Ill., "Chltran"—A, AU, C, CT, CW, FA, MT, P, R  
 Chitran—Chicago Transformer Corp.  
 Cinaudagraph Speakers, Inc., 3929 S. Michigan Ave., Chicago, Ill.—A, C, CW  
 Cook Electric Co., 2700 Southport Ave., Chicago, Ill.—CW  
 Dean W. Davis & Co., Inc., 549 Fulton St., Chicago, Ill.—AU, C, CW  
 Dinon Coil Co., P. O. Box D, Caledonia, N. Y.—A, AU, C, CT, CW, P, VR  
 Eisler Engineering Co., 740-770 So. 13th St., Newark, N. J.—WT  
 Electric Sorting Machine Co., 802 Michigan Trust Bldg., Grand Rapids, Mich.—VR  
 Electrical Facilities, Inc., 4224 Holden St., Oakland, Calif.—T  
 Electricoil Transformer Co., 417-421 Canal St., New York, N. Y.—AU, C, CW, P, PT, R, T  
 Electronic Products Co., 19 N. First St., Geneva, Ill.—FA, VR  
 Electronic Products Mfg. Corp., 7300 Huron River Drive, Dexter, Mich.—J  
 Electronic Transformer Co., 515 W. 29th St., New York, N. Y.—A, AT, AU, C, CT, CW, FA, P, T  
 Engineering Laboratories, Inc., 624 E. Fourth St., Tulsa Okla.—A  
 Ferranti Electric Inc., 30 Rockefeller Plaza, New York, N. Y.—AU, C, P, VR  
 Freed Transformer Co., 72 Spring St., New York, N. Y.—A, AT, AU, C, CT, CW, FA, MT, P, PT, T, VR

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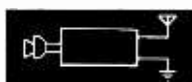


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Gardner Electric Mfg. Co., 4227 Hollis St., Emeryville, Calif.—AU, C, CW, R  
 General Electric Co., 1 River Road, Schenectady, N. Y.—A, AU, C, CT, CW, P, R, T, VR  
 General Radio Co., 30 State St., Cambridge, Mass.—“G-R,” “Variac”—A, AU, B  
 General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill.—“Streamliner”—A, AU, C, FA, P, R  
 G-R—General Radio Co.  
 The Hallidorsen Co., 4500 Ravenswood Ave., Chicago, Ill.—A, AU, C, CW, P, PT  
 Hollywood Transformer Co., 645 N. Martel Ave., Los Angeles, Calif.—A, C, CT, CW, TR  
 Industrial Electronics Corp., 951 McCarter Highway, Newark, N. J.—R  
 Industrial Transformer Corp., 2540 Belmont Ave., New York, N. Y.—A, AT, AU, C, CT, CW, FA, MT, P, PT, R, T, VR  
 Jefferson Electric Co., Bellwood, Ill.—A, AC, CT, P, R, VR  
 Kenyon Transformer Co., Inc., 840 Barry St., New York, N. Y.—A, AT, AU, C, CT, P, PT  
 Magnetic Windings Co., 16th & Butler Sts., Easton, Pa.—A, C, CW, P, R  
 Merit Coil & Transformer Corp., 311 N. Desplaines St., Chicago, Ill.—A, AT, AU, C, CT, CW, FA, P  
 Merwin-Wilson Co., New Milford, Conn.—A, AT, AU, C, MT, P, PT, R, T, VR  
 B. F. Miller Co., P. O. Box 56B, Trenton, N. J.—AU, C, CT, CW, P, T, VR  
 Musicmasters Mfg. Co., 508 S. Dearborn St., Chicago, Ill.—A, AT, AU, C, CT, CW, P  
 National Co., Inc., 61 Sherman St., Malden, Mass.—“National”—A, C, P  
 Newark Transformer Co., 17 Frelinghuysen Ave., Newark, N. J.—A, AT, AU, C, CT, CW, FA, MT, P, PT, T  
 Newton Company, 244 W. 23rd St., New York, N. Y.—CT, CW  
 New York Transformer Co., 26 Waverly Pl., New York, N. Y.—A, AU, C, CT, MT, P, VR  
 Nothelfer Winding Labs., 111 Albermarle Ave., Trenton, N. J.—AT, AU, CT, T  
 Oxford-Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—A, AT, C, CT, CW, MT, P  
 Peerless Laboratories, Inc., 115 E. 23rd St., New York, N. Y.—VR  
 Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—A, C, P  
 The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—A, AU, C, MT, P, PT  
 Raytheon Mfg. Co., 190 Willow St., Waltham, Mass.—A, AT, AU, CT, VR  
 RCA Victor Division, Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—“RCA”—A, AT, C, CT, P, VR  
 Red Arrow Electric Corp., 100 Coil St., Irvington, N. J.—A, AU, C, CT, P, PT, R  
 A. E. Rittenhouse Co., Honeoye Falls, N. Y.—AU, CW, PT  
 The Rola Co., Inc., 2530 Superior Ave., Cleveland, Ohio—A, AU, C, CW, P  
 Shure Bros., 225 W. Huron St., Chicago, Ill.—MT  
 Nathan R. Smith Mfg. Co., 105 Pasadena Ave., So. Pasadena, Calif.—CW, R  
 Sola Electric Co., 2525 Clybourn Ave., Chicago, Ill.—AU, CW, R, VR  
 Stancor—Standard Transformer Corp.  
 Standard Electrical Products Co., 300 E. 4th St., St. Paul, Minn.—“Adjust-a-Volt”—VR  
 Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill.—“Stancor”—A, AT, AU, C, CT, CW, FA, P  
 Streamliner—General Transformer Corp.  
 Super Electric Products Corp., 1057 Summit Ave., Jersey City, N. J.—A, AU, C, CT, CW, P, R, VR  
 Superior Electric Co., Laurel St., Bristol, Conn.—VR  
 Teleradio Engineering Corp., 484 Broome St., New York, N. Y.—A, AT, AU, C, CT, CW  
 Thermador Elec. Mfg. Co., 5119 S. Riverside Dr., Los Angeles, Calif.—A, AT, C, CT, CW, FA, MT, P, PT, R, VR  
 Thordarson Electric Mfg. Co., 500 W. Huron St., Chicago, Ill.—“Thordarson”—A, AT, AU, C, CT, CW, FA, MT, P, PT, T, VR  
 Tilton Electric Corp., 138 West 17th St., New York, N. Y.—“Ex-Stat”—A, C, P  
 Transformer Engineering Co., Stamford, Conn.—A, AT, AU, C, CT, FA, MT, P, PT, T, VR  
 United Transformer Co., 150 Varick St., New York, N. Y.—“UTC”—A, AT, AU, C, CT, CW, FA, MT, P, PT, R, T, VR  
 UTC—United Transformer Co.  
 Utah Radio Products Co., 850 Orleans St., Chicago, Ill.—A, AT, AU, C, P  
 Variac—General Radio Co.  
 Waldron Electric Co., 13221 Merl Ave., Cleveland, Ohio—FA  
 Ward Leonard Electric Co., Mt. Vernon, N. Y.—VR  
 Weller Bros., 516 Northampton St., Easton, Pa.—CW  
 Western Electric Co., 195 Broadway, New York, N. Y.—A, AU, C, CT, MT, P, VR  
 Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—CT, T  
 Weston Electrical Instrument Corp., 597 Frelinghuysen Ave., Newark, N. J.—T  
 The Wheeler Insulated Wire Co., 378 Washington Ave., Bridgeport, Conn.—A, AT, AU, C, CT, CW, FA, MT, P, PT, R, T, VR

## Transmitters & Equipment



Amateur (xmitters) .....	AM
Amateur kits .....	AK
Antennas .....	A
Antenna tuners .....	AT
Aviation (xmitters) .....	AV
Broadcast (xmitters) .....	BC
Commercial (xmitters) .....	COM
Control consoles .....	CC
Facsimile .....	FAC
Frequency control equip. ....	FC
Frequency measurements .....	FM
Ground screens .....	OS
Insulators .....	I
Marine (xmitters) .....	M
Police (xmitters) .....	P
Radioteletype .....	RT
Speech amplifiers .....	SA
Towers .....	T
Transmission monitor equip. ....	TM
Vertical radiators .....	VR

Abbott Instrument Inc., 8 W. 18th St., New York, N. Y.—AM  
 Airadio, Inc., 4 Selleck St., Stamford, Conn.—AV, M, P  
 Air Communications, Inc., 2233 Grand Ave., Kansas City, Mo.—AV  
 Aircraft Accessories Corp., Fairfax & Funsten Rd., Kansas City, Kans.—AM, AT, AV, BO, CC, COM, CR, FAC, FC, FM, M, P, SA, TM  
 Aircraft Radio Corp., Boonton, N. J.—AV  
 Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—A, AT, AV, M, T, VR  
 Alden Products Co., 119 N. Main St., Brockton, Mass.—I  
 Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—“Knight”—A, AK, AM, I  
 American Communications Corp., 308 Broadway, New York, N. Y.—AV, COM, CC, M, P, SA  
 American Lava Corp., Chattanooga, Tenn.—I  
 Amplex Engineering, Inc., New Castle, Ind.—A  
 Amplifier Co. of America, 19 W. 20th St., New York, N. Y.—SA  
 Austin Electronic Mfg. Co., Warren, Pa.—AM, AV, SA  
 Barker and Williamson, 235 Fairfield Ave., Upper Darby, Pa.—AM, AT, COM, FC, FM, I, M, P, TM  
 Rex Bassett, Inc., 500 S.E. Second St., Ft. Lauderdale, Fla.—AV, CR, M, P  
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.—A  
 Bendix Radio Div., Bendix Aviation Corp., 920 E. Fort Ave., Baltimore, Md.—AV, COM, CR  
 Blaw-Knox Co., Blawnox, Pa.—VR  
 Biley Electric Co., 207 Union Sta. Bldg., Erie, Pa.—CR  
 Browning Labs. Inc., 750 Main St., Winchester, Mass.—AK, FM  
 J. H. Bunnell & Co., 81 Prospect St., Brooklyn, N. Y.—BC, COM, M  
 Wm. W. L. Burnett Radio Lab., 4814 Idaho St., San Diego, Calif.—CR, FC, FM  
 Carlisle Crystal Corp., Carlisle, Pa.—CR  
 Clarion—Electronic Corp. of America  
 Collins Radio Co., 2920 First Ave., Cedar Rapids, Iowa—AM, A, AV, BC, COM, CC, FC, FM, I, M, P, SA, T, TM, VR  
 Communications Co., Inc., 300 Greco Ave., P. O. Drawer 6250 Coral Gables, Fla.—A, AV, COM, CC, M, P, SA  
 Communications Equipment Corp., 134 W. Colorado Blvd., Pasadena, Calif.—A, AT, AV, CC, COM, M, P, SA  
 Corning Glass Works, Corning, N. Y.—“Pyrex”—I  
 Coto-Clay Co., Inc., 71 Willard Ave., Providence, R. I.—AM, I  
 Cover Dual Signal Systems, Inc., 125 W. Hubbard St., Chicago, Ill.—COM, M, P  
 The Daven Co., 18 Summit St., Newark, N. J.—TM gain  
 Lee De Forest Labs., 5106 Wilshire Blvd., Los Angeles, Calif.—AV  
 DeWald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.—FM  
 Doolittle Radio, Inc., 7421 S. Loomis Blvd., Chicago, Ill.—A, AV, BC, CC, COM, FC, FM, P, SA, TM  
 D-X Crystal Co., 1841 W. Carroll Ave., Chicago, Ill.—AK, CR  
 Eckstein Radio & Telev. Co., 1400 Harmon Pl., Minneapolis, Minn.—AV, P, TM  
 Eidson's, 1309 N. Second St., Temple, Texas—CR  
 Electrical Industries Mfg. Co., Red Bank, N. J.—COM, M  
 Electronic Communications Co., 36 N.W. Broadway, Portland, Ore.—M  
 Electronic Corp. of America, 45 W. 18th St., New York, N. Y.—“Clarion”—AM, COM, SA  
 Electronic Specialty Co., 3456 Glendale Blvd., Glendale, Calif.—AV  
 Erco Radio Labs., Inc., Hempstead, L. I., N. Y.—AM, AT, AV, COM, FM, M, P, SA  
 Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.—AM, AV, COM  
 Fada Radio & Electric Co., Inc., 30-20 Thomson Ave., Long Island City, N. Y.—AM, AV, COM, M, P

Farnsworth Telev. & Radio Corp., 3700 Pontiac St., Fort Wayne, Ind.—AV, BC, CC, COM, FC, TM  
 Federal Telephone & Radio Corp., 200 Mt. Pleasant Ave., Newark, N. J.—“Federal”—BC, COM  
 Fisher Research Lab., 1961 University Ave., Palo Alto, Calif.—AV, COM, M, P  
 M. M. Fleron & Son, Inc., 113 N. Broad St., Trenton, N. J.—“Fleron”—A, I  
 Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—“Motorola”—A, AM, AV, BC, CC, COM, M, P  
 Fred E. Garner Co., 43 E. Ohio St., Chicago, Ill.—CR, FM, M, VR  
 General Ceramics & Steatite Corp., Keasbey, N. J.—I  
 General Communication Co., 681 Beacon St., Boston, Mass.—M, SA  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—A, AV, BC, CC, COM, CR, FC, FM, I, M, P, SA, TM  
 General Radio Co., 30 State St., Cambridge, Mass.—FM  
 Thomas B. Gibbs & Co., Delavan, Wis.—“Gibbs”—SA  
 Gray Radio Co., West Palm Beach, Fla.—AV, M  
 Robert M. Hadley Co., 707 E. 61st St., Los Angeles, Calif.—“Hadley”—AK  
 Hallicrafters, Inc., 2607 S. Indiana Ave., Chicago, Ill.—“Skyrider”—AM  
 Hamilton Radio Corp., 510 6th Ave., New York, N. Y.—BC, M  
 Hammarlund Mfg. Co., Inc., 460 W. 34th St., New York, N. Y.—AM, AK, COM  
 D. H. Harrel, 1527 E. 74th Pl., Chicago, Ill.—A, VR  
 Harvey Radio Labs., Inc., 447 Concord St., Cambridge, Mass.—“Harvey”—AM, AV, COM, M, P, SA  
 Harvey-Wells Communications, Inc., Southbridge, Mass.—AM, AV, COM, M, P  
 Heintz & Kaufman, Ltd., South San Francisco, Calif.—COM  
 Herbach & Rademan Co., 522 Market St., Philadelphia, Pa.—AM, AT, AV, COM, FC, FM, M, P, SA  
 P. R. Hoffman Co., 321 Cherry St., Carlisle, Pa.—CR  
 Hollywood Electronics Co., 800 Sunset Blvd., Los Angeles, Calif.—COM  
 Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—FM  
 Ideco—International Stacey Corp.  
 Illinois Seating Corp., 2138 N. Racine Ave., Chicago, Ill.—A, VR  
 Imperial Porcelain Wks., Inc., New York Ave. & Mulberry St., Trenton, N. J.—I  
 International Stacey Corp., International Derrick & Equip. Div., 910 Michigan Ave., Columbus, Ohio—“Ideco”—A, GS, T, VR  
 Ray Jefferson, Inc., 182 Milburn Ave., Baldwin, N. Y.—AV, M, P  
 Jefferson-Travis Radio Mfg. Corp., 380 Second Ave., New York, N. Y.—M, P  
 E. F. Johnson Co., Waseco, Minn.—“Johnson Q”—I  
 Kaar Engineering Co., 619 Emerson St., Palo Alto, Calif.—“Kaar”—AV, CR, M, P  
 Karadio Corp., 1400 Harmon Pl., Minneapolis, Minn.—AV, CC, P, SA  
 Kemlite Labs., 1809 N. Ashland Ave., Chicago, Ill.—CR  
 Lafayette Radio Corp., 100 6th Ave., New York, N. Y.—“Tru-test”—AM  
 Lear Avia, Inc., Piqua, Ohio—A, AT, AV, COM, CR, M  
 Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.—FC, FM  
 Lehigh Structural Steel Co., 17 Battery Pl., New York, N. Y.—T, VR  
 Lenoxite Division, Lenox, Inc., 65 Prince St., Trenton, N. J.—I  
 John E. Lingo & Son, Inc., 28th St. & Buren Ave., Camden, N. J.—A, T, VR  
 Fred M. Link, 125 W. 17th St., New York, N. Y.—A, P  
 Maritime Radio Corp., 24 Whitehall St., New York, N. Y.—M  
 Megard Corp., 381 W. 38th St., Los Angeles, Calif.—SA  
 Meissner Mfg. Co., Belmont & 7th Sts., Mt. Carmel, Ill.—“Meissner”—AM, AT, FC, I  
 James Millen Mfg. Co., Inc., 150 Exchange St., Malden, Mass.—AM, AK, AT, AV, BC, COM, CC, FC, FM, I, M, P, SA, TM  
 Molded Insulation Co., 335 E. Price St., Philadelphia, Pa.—AV, I, SA  
 N-C—National Co.  
 National Co., Inc., Malden, Mass.—“N-C”—AK, AM, I  
 Oxford-Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—AK, AM, AT, AV, BC, COM, FC, M, P, SA  
 Panoramic Radio Corp., 242 W. 55th St., New York, N. Y.—TM  
 Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—A  
 Pierson-DeLane, Inc., 2345 W. Washington Blvd., Los Angeles, Calif.—BC, FC, FM, P, TM  
 The Porcelain Insulator Corp., Main St., Lima, N. Y.—I  
 Premax Prods. Div., Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.—“Premax”—A, I, VR  
 Presto Recording Corp., 242 W. 55th St., New York, N. Y.—COM, SA  
 Pyrex—Corning Glass Wks.  
 The Radiant Corp., 3571 W. 62nd St., Cleveland, Ohio—A



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Radio Engineering Labs., Inc., 35-54 36th St., Long Island City, N. Y.—BC  
Radio Frequency Labs., Inc., Boonton, N. J.—AV  
Radiomarine Corp. of America, 75 Varick St., New York, N. Y.—COM, M  
Radio Mfg. Engineers, Inc., Peoria, Ill.—COM  
Radio Receptor Co., Inc., 251 W. 19th St., New York, N. Y., "Radio Receptor"—AV, VR  
Radio Transceiver Labs., 86-27 115th St., Richmond Hill, N. Y., "Radio Transceiver Labs."—AM, COM  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—AT, AV, BC, CC, COM, CR, FAC, P, SA, TM  
Record-O-Vox, Inc., 1379 E. 8th St., Brooklyn, N. Y.—SA  
Raymond Rosen Co., 32nd & Walnut Sts., Philadelphia, Pa.—CC  
Schuttig & Co., Ninth & Kearny Sts., Washington, D.C.—AT, RT, TM  
Sea Pal Radio Co., 228 N. LaSalle St., Chicago, Ill.—M  
Maxwell Smith Co., 1027 N. Highland Ave., Hollywood, Calif.—A, AM, AK, AV, BC, CC, COM, FC, M, P, SA, TM, VR  
Stancor—Standard Transformer Corp.  
Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill., "Stancor"—AK, AM, AV, P  
Standard Winding Corp., Newburgh, N. Y.  
Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—A, SA  
Technical Prods. International, 135 Liberty St., New York, N. Y., "Technipower"—AK, AM, SA  
Technical Radio Co., 275 9th St., San Francisco, Calif.—COM  
Technipower—Technical Prods. International  
Temco—Transmitter Equipment Mfg. Co.  
The R. Thomas & Sons, Lisbon, Ohio—I  
Thordarson Elec. Mfg. Co., 500 W. Huron St., Chicago, Ill.—AK, SA  
Transmitter Equipment Mfg. Co., Inc., 345 Hudson St., New York, N. Y., "Temco"—AM, AV, BC, CC, COM, CR, FAC, FC, M, P, SA  
Union Elec'l. Porcelain Wks., Inc., Trenton, N. J.—I  
United Cinephone Corp., 65 New Litchfield St., Torrington, Conn.—AV, BC, SA  
United Transformer Corp., 150 Varick St., New York, N. Y.—AK, AM  
Utah Radio Prods. Co., 850 Orleans St., Chicago, Ill., "Utah"—AK  
Weltronic Corp., 3080 E. Outer Dr., Detroit, Mich.—AV, COM, P  
Western Electric Co., 195 Broadway, New York, N. Y.—A, AT, AV, BC, CC, COM, CR, FC, FM, M, P, SA, TM  
Westinghouse Elec. & Mfg. Co., E. Pittsburgh, Pa.—COM, P  
Wilcox Elec. Co., Inc., 4014 State Line, Kansas City, Kans.—A, AM, AV, CC, COM, FC, FM, M, P, SA, TM

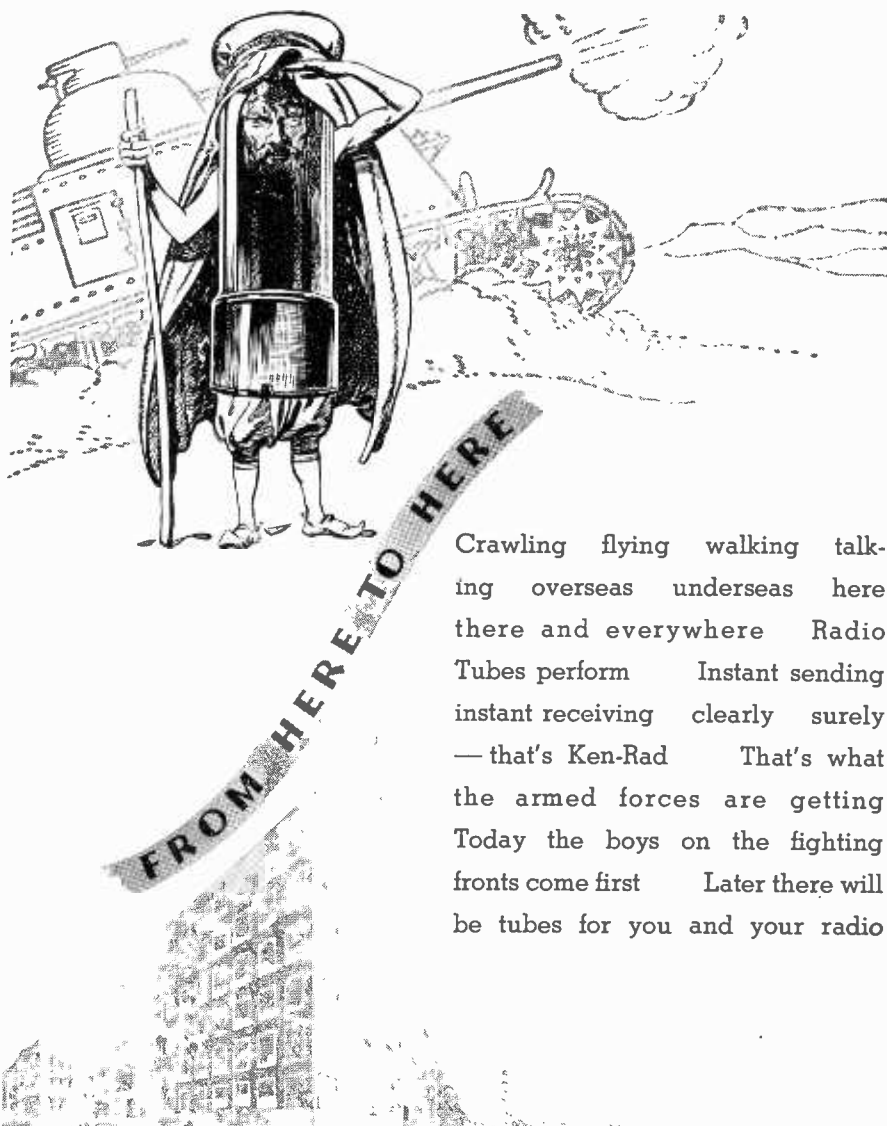
## Tubes & Parts



Anodes, graphite	AG
Anodes, metal	AM
Ballast (regulating)	B
Cathode-ray	CR
Electron multiplier	EM
Filament wire	F
Fluorescent	FL
Geiger-Mueller tubes	GM
Industrial	I
Miniature tubes	MT
Phosphors	P
Rare gases	RG
Receiving (including rectifiers)	R
Special tubes	ST
Tube repairing	TR
Television	TT
Transmitting	T
Tube parts	TP
Voltage control	VC
X-ray	X

Admak Mfg. Co., 44-46 Cordier St., Irvington, N. J.—TP  
Air Reduction Sales Co., 62 E. 42nd St., New York, N. Y.—RG  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—B, R, MT, VC  
American Lava Corp., Chattanooga, Tenn.—TP  
Amperex Electronic Prods. Corp., 81 Washington St., Brooklyn, N. Y., "Amperex"—AG, I, TT, T, VC, MT, X  
Amperite Co., 561 Broadway, New York, N. Y., "Amperite"—B, VC  
Art Radio Corp., 115 Liberty St., New York, N. Y.—B  
The Bead Chain Mfg. Co., 110 Mountain Grove St., Bridgeport, Conn.—TP  
The Birtcher Corp., 5089 Huntington Dr., N. Los Angeles, Calif.—TP  
Cetron—Continental Elec. Co.  
Collins Radio Co., 2920 First Ave., Cedar Rapids, Iowa—R, T  
Sigmund Cohn, 44 Gold St., New York, N. Y.—TP  
Continental Elec. Co., Geneva, Ill., "Cetron"—I, R, ST  
Corning Glass Wks., Corning, N. Y.—TP

The Crosley Corp., 1329 Arlington St., Cincinnati, Ohio—R  
 Cunningham—RCA Victor Div., Radio Corp. of America  
 Distillation Prods., Inc., 755 Ridge Rd., W. Rochester, N. Y.—GM  
 Wilbur B. Driver Co., 150 Riverside Ave., Newark, N. J.—TP  
 Allen B. DuMont Labs., Inc., 2 Main Ave., Passaic, N. J.—CR, TT  
 Eimac—Eitel-McCullough, Inc.  
 Eisler Elec. Corp., 534—39th Ave., Union City, N. J.—I, TT, TM  
 Eitel-McCullough, Inc., 798 San Mateo Ave., San Bruno, Calif., "Eimac"—I, T  
 Electronic Corp. of America, 45 W. 18th St., New York, N. Y.—T, VC  
 Electronic Enterprises, 67 Seventh Ave., Newark, N. J.—T  
 Electronic Labs., Inc., 122 W. New York St., Indianapolis, Ind.—FL  
 Electrons, Inc., 127 Sussex Ave., Newark, N. J.—I  
 Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—B, R, MT  
 Farnsworth Telev. & Radio Corp., 3700 Pontiac St., Fort Wayne, Ind.—CR, EM, T, TT  
 Freeland & Olschner, Inc., 611 Baronne St., New Orleans, La.—TK  
 Gammatron—Heintz & Kaufman, Ltd.  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—B, F, CR, FM, I, R, TT, T, TP, VC, MT  
 General Electric X-Ray Corp., 2012 Jackson Blvd., Chicago, Ill.—X  
 Geophysical Instrument Co., 1315 Half St., S.E., Washington, D. C.—GM  
 Goat Metal Stampings, Inc., 314 Dean St., Brooklyn, N. Y.—TP  
 Haydu Bros., Plainfield, N. J.—TP  
 Heintz & Kaufman, Ltd., S. San Francisco, Calif., "HK," "Gammatron"—T  
 HK—Heintz & Kaufman, Ltd.  
 Hytron Corp., 23 New Derby St., Salem, Mass., "Hytron"—B, I, R, TT, T, VC, MT  
 Industrial & Commercial Electronics Co., Belmont, Calif.—T  
 The C. O. Jelliff Mfg. Corp., Southport, Conn.—TP  
 Jennings Radio Mfg. Co., McLaughlin Rd., San Jose, Calif.—T  
 Ken-Rad Tube & Lamp Corp., Owensboro, Ky., "Ken-Rad"—R  
 King Laboratories, Inc., 201 Oneida St., Syracuse, N. Y.—TP  
 Lewis Electronics, Route E, Shannon Rd., Los Gatos, Calif.—TR  
 Machlett Labs., Inc., 25 Grand St., Norwalk, Conn.—X  
 Metroloy Co., Inc., 57 E. Alpine St., Newark, N. J.—TP  
 National Union Radio Corp., 15 Washington St., Newark, N. J., "National Union"—B, CR, EM, I, R, TT, T, VC, MT  
 North American Philips Co., Inc., 145 Palisade St., Dobbs Ferry, N. Y.—CR, F, I, T, TT  
 Northern Mfg. Co., Inc., 36 Spring St., Newark, N. J.—CR, F  
 The Patterson Screen Co., 625 Main St., Towanda, Pa.—P  
 Philco Radio & Telev. Corp., Tioga & C Sts., Philadelphia, Pa.—B, CR, EM, MT, TT  
 Philips Metalix Corp., 419 Fourth Ave., New York, N. Y.—X  
 Radio Electronic Co., 1816 Villanova Dr., Oakland, Calif.—CR, I, R, TT, T, X  
 Raytheon Production Corp., 55 Chapel St., Newton, Mass.—R, T  
 RCA-Radiotron—RCA Victor Div., Radio Corp. of America  
 RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA-Radiotron," "RCA-Victor," "Cunningham"—CR, I, R, TT, T, VC, MT, FM, TP  
 Bernard Rice's Sons, Inc., 325 5th Ave., New York, N. Y.—TP  
 Slater Electric & Mfg. Co., 726 Atlantic Ave., Brooklyn, N. Y., "Slater"—B, I, R, T  
 Speer Carbon Co., Theresa St., St. Marys, Pa.—AG  
 Stupakoff Ceramic & Mfg. Co., Latrobe, Pa.—TP  
 Summerill Tubing Co., Bridgeport, Pa.—I, TP  
 Sundt Engineering Co., 4763 Ravenswood Ave., Chicago, Ill.—ST  
 Superior Electric Co., Laurel St., Bristol, Conn.—VC  
 Superior Tube Co., Norristown, Pa.—AM, TP  
 Swedish Iron & Steel Corp., 17 Battery Pl., New York, N. Y.—TP  
 Sylvania Elec. Prod., Inc., "Sylvania" 500 Fifth Ave., New York, N. Y.—CR, R, TT  
 Taylor Tubes, Inc., 2341 Wabansia Ave., Chicago, Ill., "Taylor"—I, T  
 Translite, Inc., 639 Kent Ave., Brooklyn, N. Y.—T  
 Tung-Sol Lamp Works, Inc., Radio Tube Div., 95—8th Ave., Newark, N. J., "Tung-Sol"—R, MT, T, TT  
 United Electronics Co., 42 Spring St., Newark, N. J.—I, T  
 U. S. Tool Co., Inc., Ampere, E. Orange, N. J.—AG  
 Western Electric Co., 195 Broadway, New York, N. Y.—CR, EM, MT, R, T, VC  
 Western Elec. Co., 300 Central Ave., Kearny, N. J.—B, CR, I, T, VC  
 Westinghouse Elec. & Mfg. Co., 2519 Wilkens Ave., Baltimore, Md.—T, VC, I, X  
 Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.—I, T, VC, X



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Westinghouse Lamp Div., Westinghouse Elec. & Mfg. Co., Bloomfield, N. J.—B, CR, EM, F, I, MT, T, TP, TT, VC, X  
Wicox Electric Co., 14th & Chestnut Sts., Kansas City, Mo.—T  
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill., "Zenith"—R

### Vibrators & DC Power Packs



Auto radio .....A  
Farm radio .....F  
Invertors .....INV  
Vibrator power packs .....VP

Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill., "Knight"—A, F, INV, VP  
Aurex Corp., 1115-7 N. Franklin St., Chicago, Ill.—VP  
The Automatic Electrical Devices Co., 326 E. Third St., Cincinnati, Ohio—A, F, INV, VP  
Electrical Research Lab., Inc., 124 W. New York St., Evanston, Ill.—F  
Electro Products Laboratories, 549 W. Randolph St., Chicago, Ill.—F, VP  
Electronic Equipment Corp., Palm Springs, Calif.—INV  
Electronic Laboratories, Inc., 122 W. New York St., Indianapolis, Ind., "Portapower," "Portapack"—INV, VP  
Ferris Instrument Corp., 110 Cornelia St., Boonton, N. J.—INV, VP  
Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill., "Motorola"—A  
General Communication Co., 681 Beacon St., Boston, Mass.—VP  
General Electric Co., 1 River Rd., Schenectady, N. Y.—INV, VP  
General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill.—F, VP  
International Electronics, Inc., 630 Fifth Ave., New York, N. Y.—A, F, INV, VP  
James Vibrapower Co., Inc., 1551 Thomas St., Chicago, Ill.—A, F, VP  
Jefferson-Travis Radio Mfg. Corp., 380 Second Ave., New York, N. Y.—VP  
Lear Avia, Inc., Piqua, Ohio—VP  
Leland Electric Co., 1501 Webster St., Dayton, Ohio—INV  
P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Mallory"—A, F, VP  
Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill.—A, F  
National Co., Inc., 61 Sherman St., Malden, Mass.—VP  
Oak Mfg. Co., 1260 Clybourn Ave., Chicago, Ill., "Oak"—A, F, INV  
Oxford-Tartak Radio Corp., 3911 S. Michigan Ave., Chicago, Ill.—VP  
Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—A, F  
Portapack—Electron Laboratories  
Portapower—Electron Laboratories  
The Radiart Corp., 3571 W. 62nd St., Cleveland, Ohio—A, F, VP  
The Rauland Corp., 4245 N. Knox Ave., Chicago, Ill.—INV, VP  
RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J.—VP  
Small Motors, Inc., 1322 Elston Ave., Chicago, Ill.—INV

Standard Transformer Corp., 1500 N. Halsted St., Chicago, Ill.—A, F  
Transformer Engineering Co., Stamford, Conn.—INV, VP  
The Turner Co., Cedar Rapids, Iowa—A, F  
Utah Radio Products Co., 850 Orleans St., Chicago, Ill.—A, F  
The Wheeler Insulated Wire Co., 378 Washington Ave., Bridgeport, Conn.—A, F, INV, VP  
Wincharger Corp., Sioux City, Iowa—INV

### Wire & Cable



Antenna (receiving) .....A  
Antenna (transmitting) .....AT  
Antenna transmission (rec) .....AN  
Antenna transmission (tr) .....ANT  
Cable assemblies .....CA  
Coaxial cable .....CC  
Cords (attachment) .....CO  
Flat woven cable .....FL  
Guy .....G  
Hook-up .....HU  
Insulated cable .....IC  
Litzendraht .....L  
Magnet .....M  
Mike cable .....MC  
Radio harness .....RH  
Resistance .....R  
Resistance cords .....RC  
Shielded .....S  
Shielded ignition .....SI  
Wire shielding .....WS

Acme Wire Co., 1257 Dixwell Ave., New Haven, Conn., "Cottonite," "Enamelite," "Heatex," "Paperlite," "Silkenite"—L, M  
Aircraft-Marine Products, Inc., 288 N. Broad St., Elizabeth, N. J.—CA  
Airplane & Marine Instruments, Inc., Box 92, Clearfield, Pa.—CA  
Alden Products Co., 119 N. Main St., Brockton, Mass.—CA, CO, FL, HU, H, IC, MC, S, SI, WS  
Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—A, AN, ANT, AT, CC, CO, FL, G, HU, IC, L, M, MC, R, RC, S, SI, WS  
American Automatic Electric Co., 1019 W. Van Buren St., Chicago, Ill.—CA, CO  
American Insulated Wire Co., 610 Manton Ave., Providence, R. I.—IC  
American Phenolic Corp., 1830 S. 54th St., Chicago, Ill., "Amphenol"—CC  
American Steel & Wire Co., Rockefeller Bldg., Cleveland, Ohio—IC, M, S  
Amphenol—American Phenolic Co.  
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.—A, AN, ANT, AT, CC, CO, FL, IC, M, MC, S, SI  
Art Specialty Co., 3245 W. Lake St., Chicago, Ill.—RC  
Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.—A, AT, AN, ANT, CA, CC, CO, FL, G, H, HU, IC, L, M, MC, R, RC, S, SI, WS  
Best Mfg. Co., Inc., 1200 Grove St., Irvington, N. J.—CO  
Birnbach Radio Co., Inc., 145 Hudson St., New York, N. Y.—A, AN, ANT, AT, CC, CO, FL, G, HU, IC, L, M, MC, RC, S, SI  
Central Cable Corp., 4 S. 15th St., Philadelphia, Pa.—A, AT, IC  
Chase Brass & Copper Co., 236 Grand St., Waterbury, Conn.—IC, M, S

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 C. G. Conn, Ltd., Elkhart, Ind.—ANT  
 Consolidated Wire & Assoc. Corps., 1635 S. Clinton St., Chicago, Ill.—A, AN, ANT, AT, CO, HU, IC, M, MC, RC, S, SI, WS  
 Cornish Wire Co., Inc., 15 Park Row, New York, N. Y., "Corwico"—A, AN, AT, CA, CO, FL, G, H, HU, IC, MC, S, SI, WS  
 Corwico—Cornish Wire Co.  
 Cottonite—Acme Wire Co.  
 The Crescent Co., Front & Central Ave., Pawtucket, R. I.—CA, FL, IC, H, S, SI, WS  
 Crescent Insulated Wire & Cable Co., Trenton, N. J.—A, AN, ANT, AT, CO, H, HU, IC, L, M, MC, S  
 Diamond Wire & Cable Co., 16th & Union, Chicago Heights, Ill.—CA, CO, HU, IC, MC, RC, WS  
 Driver-Harris Co., Harrison, N. J.—R  
 Wilbur B. Driver Co., 150 Riverside Ave., Newark, N. J.—A, R  
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.—CA, CO  
 Hugh H. Eby, Inc., 18 W. Chelton Ave., Philadelphia, Pa.—CA  
 The Electric Auto-Lite Co., Wire Div., Port Huron, Mich.—A, AN, ANT, AT, CA, CO, FL, H, HU, IC, M, MC, S, SI, WS  
 Electro-Voice Mfg. Co., Inc., 1239 S. Bend Ave., S. Bend, Ind.—MC  
 Enamelite—Acme Wire Co.  
 Essex Wire Corp., 14312 Woodward Ave., Detroit, Mich.—A, CC, CO, H, HU, IC, L, M, MC, R, S, SI  
 M. M. Fleron & Son, Inc., 113 N. Broad St., Trenton, N. J., "Fleron"—CO, HU  
 Flexo Wire Co., 638 W. Genesee St., Syracuse, N. Y.—A, AN, ANT, AT, FL, WS  
 General Cable Corp., 420 Lexington Ave., New York, N. Y.—A, AN, ANT, AT, CA, CO, FL, G, HU, IC, L, M, MC, S, SI, WS  
 General Cement Mfg. Co., 919 Taylor Ave., Rockford, Ill., "G-C"—A, AT, CO, HU  
 General Electric Co., 1 River Rd., Schenectady, N. Y.—CA, CC, CO, IC, L, M  
 General Insulated Wire Works, Inc., 69-105 Gordon Ave., Providence, R. I.—CA, CO, H, IC, MC, S  
 The James Goldmark Wire Co., 116 West St., New York, N. Y.—FL, HU, L, M, R, WS  
 Hatfield Wire & Cable Co., 605 Hillside Ave., Hillside, N. J.—IC  
 Heatex—Acme Wire Co.  
 Hudson Wire Co., Winsted Div., 981 Main St., Winsted Conn.—M  
 INCA—Phelps Dodge Copper Prods. Corp.  
 Indiana Steel Wire Co., 700 S. Council St., Muncie, Ind.—G  
 Industrial Screw & Supply Co., 717 W. Lake St., Chicago, Ill.—WS  
 Industrial Synthetics Corp., 60 Woolsey St., Irvington, N. J.—WS  
 J.F.D. Mfg. Co., 4111 Ft. Hamilton Pkwy., Brooklyn, N. Y.—CA, H  
 The C. O. Jelliff Mfg. Corp., Southport, Conn.—R  
 E. F. Johnson Co., Waseca, Minn., "Johnson"—ANT, AT, CC  
 Kennecott Wire & Cable Co., Phillipsdale, R. I.—IC, M, S  
 Knickerbocker Annunciator Co., 116 West St., New York, N. Y.—FL, IC, L, M  
 Lear Avia, Inc., Piqua, Ohio—CC  
 Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago, Ill.—A, HU, IC, M, S  
 Lowell Insulated Wire Co., 171 Lincoln St., Lowell, Mass.—CO, HU, IC  
 P. R. Mallory & Co., Inc., 3029 E. Washington St., Indianapolis, Ind., "Yaxley"—IC  
 Meissner Mfg. Co., 7th & Belmont Sts., Mt. Carmel, Ill.—HU, L, M  
 North American Philips Co., Inc., 145 Palisade St., Dobbs Ferry, N. Y.—R  
 Northern Electric Co., 5224 N. Kedzie, Chicago, Ill.—RC  
 Ohmite Mfg. Co., 49R4 W. Flournoy St., Chicago, Ill., "Cordohm"—RC

The Okonite Co., Passaic, N. J.—AN, ANT, CA, CC, CO, IC, MC, S, SI  
 Paperite—Acme Wire Co.  
 Patton-MacGuyer Co., 17 Virginia Ave., Providence, R. I.—M  
 Phelps-Dodge Copper Prods. Corp., 40 Wall St., New York, N. Y., "INCA"—CC, IC, M, S  
 Precision Tube Co., 3828 Terrace St., Philadelphia, Pa.—CC, IC, S, WS  
 Radex Corp., 1322 Elston Ave., Chicago, Ill.—A, CC  
 The Radiart Corp., 3571 W. 62nd St., Cleveland, Ohio—A, AN, ANT, AT  
 RCA Victor Div., Radio Corp. of America, Front & Cooper Sts., Camden, N. J., "RCA"—AN, MC, S  
 Rea Magnet Wire Co., Inc., E. Pontiac St., Ft. Wayne, Ind., "Rea"—M  
 E. A. Rittenhouse Co., Honeoye Falls, N. Y.—CA  
 Rockbestos Products Corp., P. O. Box 1102, New Haven, Conn.—HU, IC, M, S  
 John A. Roehling's Sons Co., Trenton, N. J.—A, AN, ANT, AT, CO, FL, G, HU, IC, M, MC, S, SI, WS  
 Rome Cable Corp., 332 Ridge St., Rome, N. Y.—IC, M  
 Royal Electric Co., Inc., 95 Grand Ave., Pawtucket, R. I.—CA, CO, IC  
 Rupp's Assembling & Mfg. Works, 2341 N. Seminary Ave., Chicago, Ill.—CA, CO, H  
 Walter L. Schott Co., 9306 Santa Monica Blvd., Beverly Hills, Calif.—A, AT  
 Sherman & Reilly, Inc., 1st & Broad, Chattanooga, Tenn.—G  
 Silkenite—Acme Wire Co.  
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge, Mass.—CC, IC, MC, S  
 Swedish Iron & Steel Corp., 17 Battery Pl., New York, N. Y.—R  
 The Ucinite Co., 459 Watertown St., Newtonville, Mass.—A, AT  
 Uniform Tubes, Shurs Lane & Lauriston St., Roxborough, Philadelphia, Pa.—CC, S, SI, WS  
 Universal Microphone Co., Ltd., 424 Warren Lane, Inglewood, Calif.—CA, MC  
 Utilities Service Co., Allentown, Pa.—G  
 Western Electric Co., 195 Broadway, New York, N. Y.—AT, AN, ANT, CC, CO, FL, HU, IC, MC, S  
 Western Insulated Wire, Inc., 1001 E. 62nd St., Los Angeles, Calif.—CA, CO, HU, IC, MC, S, SI, WS  
 The Wheeler Insulated Wire Co., 378 Washington Ave., Bridgeport, Conn.—L, M  
 Whitney Blake Co., New Haven, Conn.—S  
 C. D. Wood Electric Co., Inc., 826 Broadway, New York, N. Y.—CA, CC, CO, H  
 Yaxley—P. R. Mallory & Co., Inc.

## ASSOCIATIONS AND ORGANIZATIONS

Acoustical Society of America, 120 S. LaSalle St., Chicago, Ill.  
 American Institute of Electrical Engineers, 29 W. 39th St., New York  
 American Radio Relay League, East Hartford, Conn.  
 American Standards Association, 29 W. 39th St., New York  
 Associated Police Communication Officers, Buffalo, N. Y.  
 Institute of Radio Engineers, 330 W. 42nd St., New York  
 National Association of Broadcasters, 1626 K St., NW, Washington, D. C.  
 National Electronic Distributors Association, Box 2, Reading, Pa.  
 National Electrical Manufacturers Association, 155 E. 44th St., New York  
 Radio Club of America, 11 W. 42nd St., New York  
 Radio Manufacturers Association, 1317 F St., NW, Washington, D. C.  
 Society of Motion Picture Engineers, Hotel Pennsylvania, New York

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## VICTORY LINES

(Continued from page 23)

special symbol consisting of a V with the Morse Code "V"—three dots and a dash—enclosed in a circle to appear on all parts made in accordance with them. Likewise, it is expected that a manufacturer's identification symbol assigned by the WPB will appear on all parts so that responsibility for the quality of unbranded and private brand parts can be definitely ascribed to the original manufacturer.

The ASA War Committee on Replacement Parts for Civilian Radio has in these new standards reconciled the oft-times diverging viewpoints of the various branches of the radio industry including parts manufacturers, receiver manufacturers service organizations, parts distributors and design laboratories, while defining a severely limited line of parts.

A performance standard for power and audio transformers and reactors is expected to be available by mid-March with performance standards for volume controls and resistor-type line cords and plug-in ballast resistors, ready early in April. These will be incorporated in the government orders, when issued.



ANTENNAE & ASSOCIATED PRODUCTS

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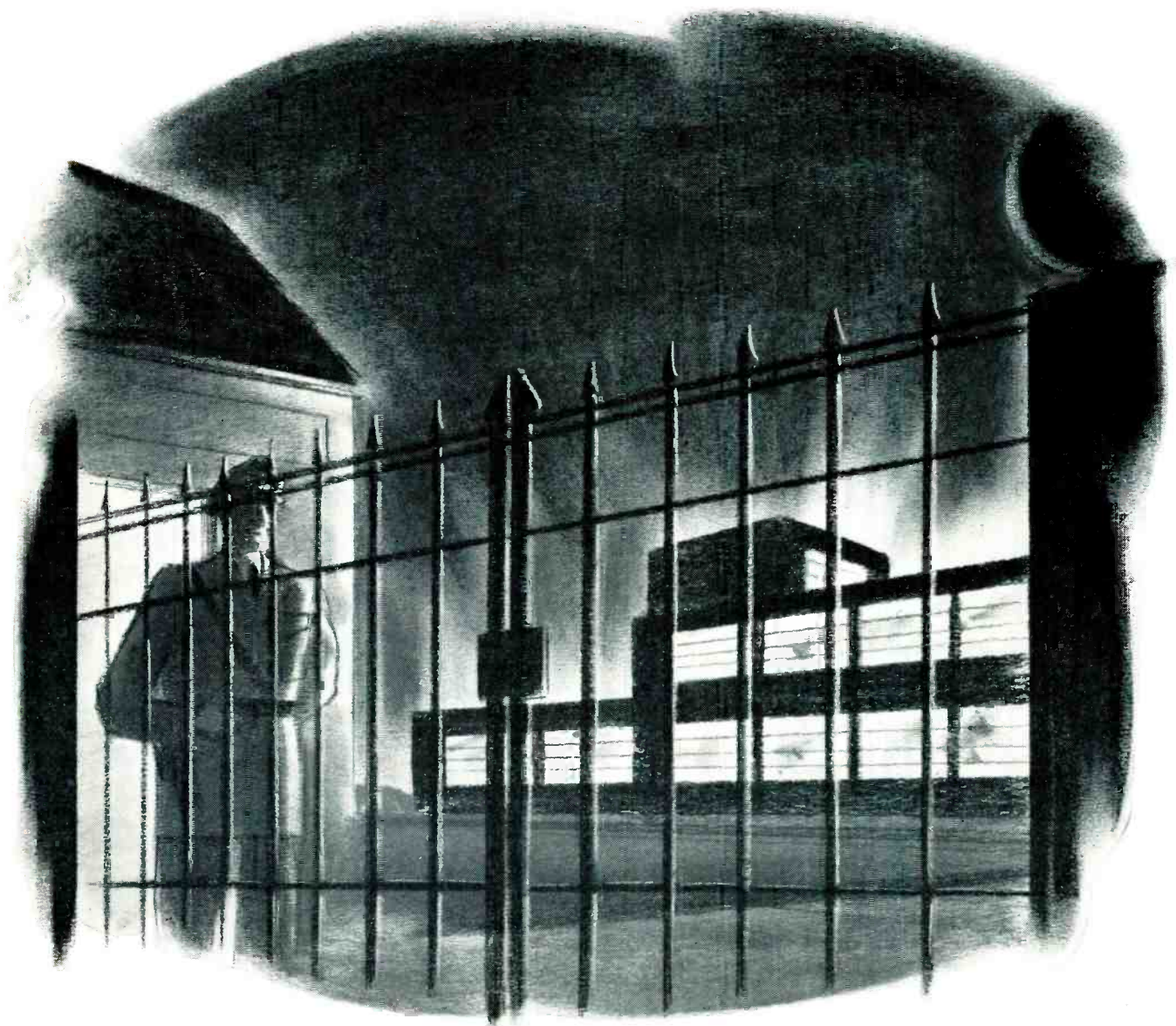
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