

"Service"

A DIGEST OF
ELECTRONIC NEWS
AND VIEWS

DURING the war period, Radio has undergone a tremendous change, its whole aspect is changing with the growing importance of Electronics. As we know it, Radio is an important branch of this vast new unfolding science. Fascinating new industries, almost undreamt of a few years back, are now part of our workaday life. Electronic food processing, television, soldering, paint drying, frequency modulation, gluing, heating, X-rays, sterilization of medical supplies, transmitting, and a host of others represent its present day applications to Industry.

Consequently, whether you be radio serviceman, electrical engineer, process worker or radio student, you must be interested in Electronics, because you are part and parcel of the industry serving it. From now on "Service" will give you more articles dealing with the Electronic field as a whole, in addition to the usual number of articles dealing specifically with Radio. Also, the type of article dealing with general business subjects, which in many cases, the student finds necessary for his complete success, will be maintained.

To incorporate complete articles dealing with all the above subjects in a paper of this size is an obvious impossibility—yet we feel that you should know something about everything worthwhile that is moving in Electronics. Therefore, vital articles which appear in local and overseas publications will be presented to you in condensed form. Details of origin will be quoted, so that any readers interested in procuring the publication containing the original article may do so through any newsagency. The new size also allows for more reading matter, besides being a handier booklet for reference.

Anyhow, here it is, your first issue in its brand new rig-out, and we hope you like it.

What to Look For in This Issue

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STARTING IN BUSINESS

By L. B. GRAHAM

Commencing a business of your own may seem difficult, but it is not if you do things logically and in an orderly manner. There are certain steps to be taken and if you conduct your business as other good businesses are conducted you have every reason for success.

The following general discussion may help you if you wish to start your own business. It contains general information as to how to start, and whilst no definite plan can be laid down as to amount of capital or amount of stock to be carried, the information given will help you to determine these facts for yourselves.

The first essential in starting a business is to decide the place where to start. If you intend starting in a capital city or big town do not fall into the common error that the best place to start is that place where there is no opposition. A good rule in business is to "go where the business is".

It is assumed of course that you are considering commencing a radio sales and service business. Remember that this type of business has been going for almost 20 years. Consequently a great deal has been learnt about it. Furthermore realise that you are not the only possessor of common sense and native shrewdness. If you pick a suburb in a big capital city that has no radio sales or service organisation stop and think before you decide that that is the best place. It may be that other people have tried that particular district and have found it wanting over a period of years. Therefore it would be a good plan to make further investigation and find out if there have been other people in a similar class of business in that particular suburb. If there have been a number and none could last then there is a clear indication that there is something wrong. Perhaps that is a suburb where most of the people go to town to purchase.

On the other hand if you pick a large industrial suburb that may have ten or twelve radio service organisations it is an indication that business is existing there. Make further inquiries and find out how long those places have been going and whether many have started and failed.

If you find the existing ten or twelve have lasted some considerable time then it definitely shows you that business is good in that particular locality.

The fact that you may intend to start there with an existing opposition of ten people is not so serious in itself. Look at it this way:— You have only to get 10% of each opposition's business and you will do better than they will. In a new suburb where there is no radio service organisation you have to get a 100% new business. Therefore it shows you that a first glance is not sufficient. A place where there is plenty of opposition may provide you an easier and quicker way of getting ahead than an entirely new place or a place where there is no opposition whatsoever.

For a radio sales and service business do not think that the wealthiest suburb is the best.

A big industrial suburb where you have perhaps ten, twenty or thirty thousand people on what is called a middle class salary, will provide you with a good living. It is the great population of middle class people who keep business running.

Therefore the second point in starting your own business is to pick a middle class industrial suburb.

Assuming that you have found your district your next step is the commencing. Now before we go on to this next step I want to make clear that the information set out beforehand

applies equally to a country town as it does to a city. All of the information that I am trying to give you in this little informal chat applies equally well to small country districts as it does to large city areas.

Once having chosen where to start you must find a suitable place of business residence. Even if your start is in a humble little one room place tucked well away from the main business and shopping centre, it can look like and it can be a place of business. If you are fortunate enough to be able to afford a shop on a main street with a good window then you will be able to make your place very business like. On the other hand if you have a tiny little room or shed in a back street then you can still hang out your big sign and you can still make it look like a place of business even though it may be a little harder to get the people to go there.

If it is a shop my first advice to you is to make that shop look attractive. Plenty of signs painted on the shop in a dignified fashion will be of assistance in drawing attention. The same applies to your shed or back room. A well designed sign displayed prominently outside of your place of business will let people know that you are in existence. If you have a window for display purposes a few shillings extra spent in good lighting will be of great assistance. Nothing looks more outstanding than a brilliantly lit shop or a sign-board outside a factory with a strong electric flood-light onto it.

The actual amount of rent you pay for your business premises depends to a great extent upon your capital and upon the worth of the particular premises. Nevertheless rent for a place such as this should not be too high.

Once you have decided upon your locality it will be necessary for you to register your business name. Now many people seem to be a little vague about this. There is nothing frightening about it and there is no necessity to deal through a solicitor. In every State in Australia it is necessary under the law to register with the Registrar General under the Business Name Act. If you decide to call your organisation

the "A.B.C. Radio Service Co." either call or write to the Registrar General in your own particular State asking for the necessary form to enable you to register your business. The usual fee is about 7s. 6d. and this is only paid once and is not paid annually.

Not only is it the law to make this registration but it will give you protection for the particular name you choose. It means that in your particular State no person can trade under a similar name. Now I am referring only to the Business Name Act. None of you people who wish to start in radio service business think of forming a proprietary company so we can leave that go. If anybody is fortunate enough to be able to start off in a bigger way like this then of course they would deal through a solicitor or public accountant to arrange this registration. However it is not necessary to start an ordinary business to think in terms of companies and by this I mean companies who have the word limited at the end of their name.

A registration under the Business Names Act is sufficient.

The amount of equipment, plant, fixtures and stock always seem to be a little worrying. I can well understand this. It is difficult to know how much capital you require to start a business and it is difficult to know how much you require to spend in stock.

Right at this point I can tell you that there is no hard and fast rule for capital or expenditure. It depends entirely upon circumstances, the individual running the business, the amount of opposition, the situation of the business, and a thousand and one other circumstances all of which affect this vital point. Nevertheless a lesson can be learned from the following facts. Many successful and highly profitable businesses in the radio service field have been founded on a capital of £5 and even less. That may seem ridiculous to you but I can assure you it is the real truth.

On the other hand many unsuccessful businesses have been started on a capital of £500 and more.

The difference lies in the temperament and hard working ability of the

people running the businesses.

Of course this cannot be taken that businesses with a capital of £500 and over never succeed. Many of them do. On the other hand many who start a business with a capital of only £5 or £10 frequently fail.

The point I wish to make is that ability and hard work is more important than capital.

Nevertheless to take a good steady way of starting business it is necessary to have some capital although this need not prevent you from starting.

Your first essential in a radio sales and service business is to have enough to pay the rent. If you are opening a shop and your rent is about £10 a month then you want to set aside about £25 to £30 for rent to prove your business.

The fixtures and fittings in the shop need not be expensive and if you have any mechanical ability you will be able to make a lot of them yourself.

Stocks for radio service need not cost a lot of money and service from wholesale organisations these days in every State will allow you to buy promptly those parts that you have not in stock when you find a service trouble. Therefore an amount of £10 to £50 is sufficient to buy replacement parts. I give you this wide margin because I know that capital will vary for varying individuals.

A most important point however is to have the necessary equipment to carry out service work. It is essential that you have such things as soldering irons, screw drivers, pliers and the like.

A simple Multimeter is about the minimum required for general test equipment but if you are fortunate enough to have some more capital perhaps you can purchase a Valve Tester and an Oscillator.

These three items are the most important and you can add other items as your business increases and your capital increases also.

I would say that if you have a £100 to commence a business you should do well if you are prepared to work hard and you have the necessary abi-

lity. If you have more than this, well it will be a little more help to you.

If you have less than £100 then decide whether you are prepared to work and whether you have the ability and with good luck and good management you will get through and make a success like anybody else.

When you commence your business you must be prepared to go out and get the business immediately. It will not come to you unless you are particularly fortunate. Now this is a most important point in business and here is the secret of real success.

Do not pass over this point too quickly. Here is the real reason for real success in any business. Hard work. Go out and get business. Do not wait for it to come to you.

If you wish to make a success you must be prepared to do anything that is respectable to get that business.

Sitting down in your shop will not necessarily result in business coming to you. It is a fortunate man indeed who has people knocking on his doors as soon as he opens his business.

You must be prepared to go out and do anything respectable as I said previously. A good plan and one that works very well is to make a personal house to house canvass in your district telling the people that you are doing radio repair work and that you are selling appliances or radio receivers or whatever your business is.

Direct mail which means sending circulars through the post to select people in the district is also good. A volume can be written on advertising but the tried and tested methods are the best. Be careful of advertising in local papers. A general small advertisement is quite sufficient but do not run into big spaces unless it has proved itself. Beware also of stunt advertising from sources that are not generally known.

If you can pick up a very good stunt of your own which you can put in at a minimum amount of cost and one which does not offend people, then it is a good plan.

If you have a shop window it is an excellent idea to move your whole service and repair bench into it oc-

asionally and do the work in the window. This will attract custom and build up your reputation.

In running a business there are many other things to learn besides advertising. Many business men are not prepared to continue learning. If you are running your own organisation then you must be prepared to learn more and more every day and so try and learn them both technically and from a business viewpoint.

You must be prepared to put a certain amount into study. Many technical men, and radio service men must be technical men, start off being quite good but they will not keep in touch with new developments. Consequently they do not give their customers good service and they wonder why their business is not as successful in later years as it was in earlier years.

Try and think up new ideas. Keep abreast with the times and if possible try and beat the times.

There is an old saying that the customer is always right. This has a lot of merit and a lot of truth in it. If we take this too literally it is ridiculous of course. Nevertheless it must mean to you that the customer is the person who builds up your business and who is responsible for your livelihood. Consequently be prepared to give him the best possible service. Look after him. Give him faithful honest service and he will reward you with better business and better recommendation.

An honest business is worth its weight in gold. A dishonest business which is nothing more than a "racket" is not worth while. You will never build up a lasting name, a lasting reputation and a reasonable size banking account unless you run an honest place.

There are many servicemen in the past who have gone out of business because they have not given the customer a fair and honest deal.

When a customer brings in a radio receiver for repair, it would be quite easy to tell him that the transformer was faulty and put a new one in and charge him for it even though you may have merely soldered one wire up.

This is not smart. This is just dishonest. The customer will eventually find out and you will lose that business and quite a lot of other business as well.

Although the customer is a very important person do not give him too much credit. Quite a number of people had a very bad time because they have not taken care of accounts. The customer is a human being and if you do not know that customer thoroughly don't be too anxious in letting him owe you money. Try and run your radio repair and service business on a cash basis. If a lot of people owe you money it means that you will not be able to pay your accounts and your credit name will suffer and you may go out of business accordingly. Therefore look after the accounts very carefully and see that money is paid to you promptly.

The same applies the other way. Do not owe too much and pay your accounts promptly and thus keep up your good name.

A most important thing in business is to keep your promises. If you promise a man that you will be out on a certain date to do a certain job, then be out that day or if you cannot do it at least let him know before the time. A reputation like this will be of great assistance to you.

Answer your letters promptly. Answer all enquiries and complaints promptly. Keep your appointments and be in time and other people will respect you for it.

The something that you owe the country is the tax. It is necessary every year to forward to the Commissioner for Taxation in your State a correctly filled in income tax return. If you are running a business it is required by law that you keep books. These books need not be kept in any specified way such as Double Entry or Single Entry but they must show a clear statement of the position. Therefore keep your records carefully so that at the end of June in any particular year you can complete your income tax return accurately and thus avoid any worry or trouble with Government Departments. This is the law, so carry it out.

If you are not sure of the requirements of Taxation you can obtain from your local post office a direction sheet which shows you how to fill in your return. If it is still beyond you then in your district there is surely an accountant or clerk who will prepare your income tax for you every year for a very nominal sum. This is worth while and will help you keep your business on an even keel.

Remember however that the salient facts in making a success of business is to work hard and be prepared to do any honest work at any time.

Before concluding, let me sound a

note of warning. Many servicemen are turning their thoughts nowadays towards opening up a Radio business when discharged. It is obvious from the numerous enquiries we receive that many fellows lack a knowledge of the Radio Trade and Trade practises. Consequently, I do not wish you to feel that I am urging you in this article to set out in business of your own account. I do wish to impress upon you the necessity of learning all you can about Trade practises, and gaining all the experience possible before embarking upon a venture which the College wishes to be a SUCCESS for you.

On page 5 of the Australasian Radio World,—September 15th, 1945, Mr. A. G. Hull commences a series of articles entitled "Starting in the Radio Business." This can be recommended to those interested.

APOLOGY

We regret the lateness of the despatch of this issue of "Service". Unfortunately, this is due mainly to a factor entirely out of our control. The present Printing Strike makes it impossible for us to guarantee prompt despatch of your paper. We will do our very best to have following issues in your hands as soon as possible, but we know you will understand the reason for any delays.

★ Licensing and Zoning of Servicemen Discontinued

All students will be interested to hear, that on August 2nd, 1945, the Control of Radio Service Order was lifted. This means that the licensing and zoning of servicemen has been completely discontinued and all persons, including A.R.C. students who wish to carry out radio repairs, may now do so in any district they please.

At the same time, the control of radio parts is still in force, and until these restrictions are lifted, a number of items used in radio receivers will still be very difficult and, in some cases, impossible to obtain. However, it is anticipated that within the next few months the restrictions placed upon radio parts will be also relaxed, and when this is brought about, general servicing and set building activities will once more resume their normal pre-war aspects,



Lightning protected cable as used by the Bell Telephone laboratories is shown in picture at left.

Damage to cables due to lightning is frequently in the form of holes in the sheath, burned insulation, and crushing of the sheath.

With this lightning protected cable — extra insulation inside the sheathing gives added prevention against burning, and also an entirely separate shield in addition to the usual sheath is provided to carry any heavy lightning currents which may be present. This outer shield is of corrugated copper well insulated from the usual sheath and of sufficient thickness to carry the greater proportion of any heavy currents. The corrugation of the copper is to give mechanical rigidity.

FM Possibilities.

- ★ It is learned from a recent survey of 111 stations affiliated to the U.S. Blue Network that only one does not intend introducing frequency modulation. At present only three of the stations are operating FM transmitters, but 35 have applied for construction permits and a further 65 intend making application. The remaining seven are undecided.

Secret Pacific Radio.

The George Medal has been awarded to two officers, who in 1942, on the Pacific Island of Tarawa, held by the Japs, succeeded in getting information of the enemy's movements back to Allied Naval authorities, when the main transmitting station had been put out of action.

2nd Lt. R. G. Morgan, an Australian, who was in charge of a training school for native wireless operators, concealed a portable transmitter and, in spite of Japanese threats, relayed information sent to him by a system of runners by Capt. F. G. L. Holland, 60-year-old Director of Education, Gilbert Islands. Lt. Morgan, who voluntarily remained on the island, after arranging the escape of most of the civilians, was notified of the award by radio. He was later killed by the Japanese with 21 European prisoners.

—Wireless World (England), May, 1945.

It is easier to fight for one's principles than to live up to them.—Adler.

A man hears only that which he understands.

Such is friendship, that through it we love places and seasons; for as bright bodies emit rays to a distance, and flowers drop their sweet leaves on the ground around them, so friends impart favour even to the places where they dwell. With friends even poverty is pleasant. Words cannot express the joy which a friend imparts; they only can know who have experienced. A friend is dearer than the light of heaven, for it would be better for us that the sun were exhausted than that we should be without friends.

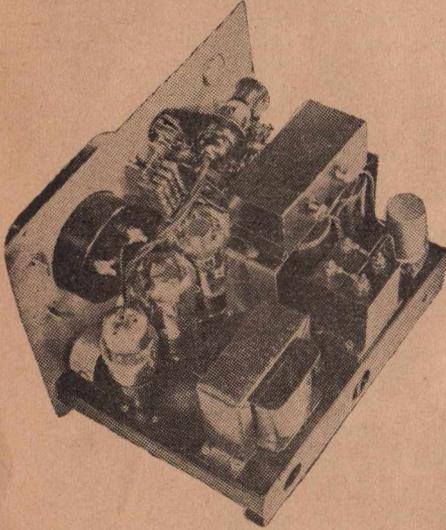
— St. Chrysostem.



"I used your electric razor again, dear. Mad?" —Electrical Merchandising, May,

The most obvious general applications are in measuring the operation times of relays, fuses, contact-breakers and other overload protectors, and in timing many kinds of high-speed automatic machinery.

Another interesting use of electronic heating has been in the development of a high frequency "heating gun" for spot gluing plywoods and veneers. This high frequency gun makes it possible to apply heat locally to a synthetic glue, so as to cause it to set rock hard within a short space of time. The area heated by the gun is circular with a diameter of about $\frac{1}{4}$ in. The adhesive outside the heated spot is unaffected in properties, and if the correct type is used will eventually harden at shop



(2)

Some Business Definitions

In Bond.—Goods on which duty is yet to be paid are placed in a Government-controlled store and are said to be "in bond."

Fee simple.—The fullest interest a person can have in land amounting for all practical purposes to the ownership of the land itself.

E. & O.E.—Errors and omissions excepted. A statement on commercial documents that they are issued subject to amendment where errors or omissions are discovered later.

Dunnage.—Materials used in the stowage of cargo to prevent shifting or damage, or to build up or separate the cargo.

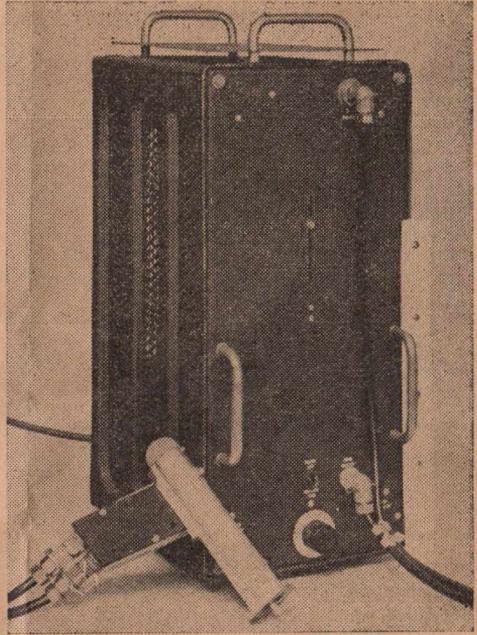
Fixed Deposit.—A deposit of money, generally with a bank, repayable on a certain date, together with interest.

Residual Value.—The estimated value that may remain after an asset has exhausted its intended purpose, e.g., the scrap value of an asset.

These and many other business definitions may be found in the Australian Commercial Dictionary (Yorkston)—published by the Law Book Co.

temperature to produce a complete bond. The spot heating is somewhat equivalent to using metal tacks, but is quicker, and does not mar the surface.

The radio-frequency power of about 100 watts at 170 megacycles is supplied by a portable self-oscillator through a flexible cable to the gun. (Fig. 3.)



(3)

Lincoln's Request

To a delegation of ministers full of advice, Abraham Lincoln said:

"Gentlemen, suppose all the property you possess were in gold, and you had placed it in the hands of Blondin to carry across the Niagara River on a rope. With slow, cautious, steady step he walks the rope, bearing your all. Would you shake the cable, and keep shouting to him, 'Blondin! stand up a little straighter! lean more to the south. Now lean a little more to the north!'—would that be your behaviour in such an emergency? No; you would hold your breath, every one of you, as well as your tongues. You would keep your hands off until he was safe on the other side. This Government, gentlemen, is carrying an immense weight; untold treasures are in its hands. The persons managing the ship of state in this storm are doing the best they can; don't worry them with needless warnings and complaints. Keep silence, be patient and we will get you safe across. Good day, gentlemen. I have other duties pressing upon me that must be attended to."

An Interesting Letter

Dear Mr. Graham,

After spending six years abroad, including four years in Germany, I returned home some days ago. Naturally, I have encountered all types of experiences during this time, but the most interesting from your point of view will be my adventures with radio while in Germany as a P.O.W. After all sorts of narrow escapes and difficulties, I managed to build a 2 tube AC/DC short-wave receiver, employing a type VCL11 and VY2. Built without a transformer, it was suitable for A.C. or D.C. 110-220 v, so that it could be used in any part of Europe. Employing grid leak detection and reaction, it received the principal English, Italian and North African short-wave transmitters at good phone strength, without earth and 6ft. of aerial coiled around the power cord as induction pick-up. This enabled me to pick up news bulletins daily for over two years and circulate this news among the camps, sometimes even sending news reports to the Vienna area from Breslau, via the "Underground" post. The long and weary march across Germany was made lighter by occasional news bulletins and items of interest picked up with my receiver en route. This set was carried right across Europe, and despite soaking by snow and rain, never failed us when it was required, being our only source of entertainment through those years, made possible by the training I received from the College. The set is still in my possession!

Mother informed me that you have been sending birthday greetings to me, for which I now thank you. I may pay you a visit this year. At the moment I am trying to accustom myself to normal life again; I can't even decide what to do for an occupation.

I hope that all is well with you and the staff, and that I may hear a little of the doings of the College during my absence.

I remain,

Yours sincerely,

REG. L. GLANVILLE.

Footscray W., Vic (28/7/45).

Keep to the Point.

From the Christian Science Monitor

A prominent attorney, who had won many cases by what he termed "keeping to the main point", desired to employ an office boy who possessed the same talent. He assembled a group of youthful candidates for the position and told them a story.

"A certain farmer," he began, "was troubled with a red squirrel which gained access to his valuable seed corn through a hole in the barn. One day he fired upon the quirrel and set the barn on fire."

"Did the barn burn?" inquired one of the boys.

Ignoring the question, the lawyer continued: "And seeing the barn on fire, the farmer seized a pail of water, and ran to put it out."

"Did he put it out?" asked another.

"As he passed inside, the door slammed shut behind him, and the barn was soon enveloped in flames. When the hired girl rushed out with more water—"

"Did the hired girl get burned?" asked another boy.

The lawyer went on without an answer: "The farmer's wife came out and all was noise and confusion and everybody was trying to put out the fire."

"Did they all get burned?" inquired another.

"There, there," concluded the lawyer, "that will do. You have all shown great interest in the story." Then, observing

one bright-eyed little fellow sitting in thoughtful silence, he said: "Now my little man, what have you to say?"

The youngster blushed, grew uneasy, and stammered: "I want to know what became of that squirrel."

"You'll do," exclaimed the lawyer: "you're my man. You have not been diverted by the burning barn, the hired girl, the water pails, or the confusion—you kept your eye on the squirrel!"

The Right Spirit.

Mr. Graham Carey, who recently started the Radio Engineers and Serviceman's Course, writes from Melbourne. "I am 71 years of age to-day and reputed to be the oldest commercial airman in the world. . . . I am a Motor and Aviation Engineer with over thirty-five years experience in the business. It occurred to me that you may be able to assist me to become a first-class Radio Engineer."

So there you have it, students of all ages, a man just turned 71 years of age, already a Motor and Aviation Engineer, sets off with the energy, the confidence, and the ambition of youth to master one of the world's newest and greatest of sciences. All honour and respect to Mr. Graham Carey's spirit, with the same spirit, what wonderful opportunities are open in the electronic field for men of far less than half Mr. Graham Carey's years.

SOUND IN AN ENVELOPE

RECORDS CAN BE MAILED LIKE A LETTER

Developments in two of America's newest industries—plastics and electronics—have been combined to produce the SoundScriber, a voice recording—reproducing apparatus, which is now seeing wide use in business offices, hospitals, radio studios, government bureaus, and whenever permanent sound records are required. Important in the success of this instrument are the "Vinylite" wafer-thin plastic recording discs, durable, economical, and so light that they can be mailed in ordinary envelopes at regular letter postage rates. Used on the many types of SoundScriber recorders, these discs make it easy to preserve—and file—realistic voice records of interviews, conferences, talks, instructions, "live voice" messages, and other communications in original sound.

By the application of modern electronic principles, the SoundScriber takes voice dictation through a sensitive microphone and plays back the record in distinct, natural tones at the flick of a switch. Easy to operate, this instrument makes it possible for the executive to move about freely at his desk while dictating. It is also used to record interviews, conferences, and meetings of all kinds—because as many microphones as circumstances require may be used with a single recorder.

Another exclusive feature of this recording instrument are the plastic discs. Made from rigid sheet, they cannot be damaged by bending or dropping—and they may be played back up to 100 times. While recording, a diamond-tipped stylus embosses 200 grooves to the inch. In this way, fifteen minutes of dictation can be taken on each side of the record. The recordings need not be transcribed at once, because, under normal conditions of temperature and humidity, the discs can be stored indefinitely without warpage, breakage, or distortion.

These discs—only 7 inches in diameter and .01 inches thick—can be stored in ordinary filing cabinets. One inch of file space preserves 100 discs for future reference—and in that one inch are recorded approximately 450,000 words—or 2,200 average letters. The light weight and small size of these plastic records makes possible the newest development in communication: "sound letters"—personalized messages, mailable at regular postage rates.

A most unusual application of the SoundScriber, says the "Bakelite Review" is found in the Pavlovian Laboratories of John Hopkins University where Dr. W. Horsley Gantt is using this device in his research on the nervous reactions of dogs. Key to the dogs' emotional responses to stimuli is the nature of their barks—but efforts to remember the barks, or to transcribe them in writing proved fruitless. Now Dr. Gantt records the ac-



tual barkings before, during, and after treatment, providing a durable audio-record of a significant scientific research.

Other applications fit more closely into the pattern of contemporary living, but are no less important. SoundScriber is used by the Armed Forces for recording complete running accounts of battle action . . . for spot information from patrol groups . . . for permanent records of radio and authorized telephone communications . . . and for dozens of varied services at Army camps, shore bases, aboard ships, and from planes. It is used by hospitals in compiling case histories . . . recording X-ray and laboratory observations . . . in simplifying routine clerical activities. Field men—investigators, salesmen, inspectors, expeditors—take advantage of the mailable qualities of the plastic discs to eliminate the inaccuracies and drudgery of writing reports after the event by forwarding "sound records" of their activities via the nearest mail box.

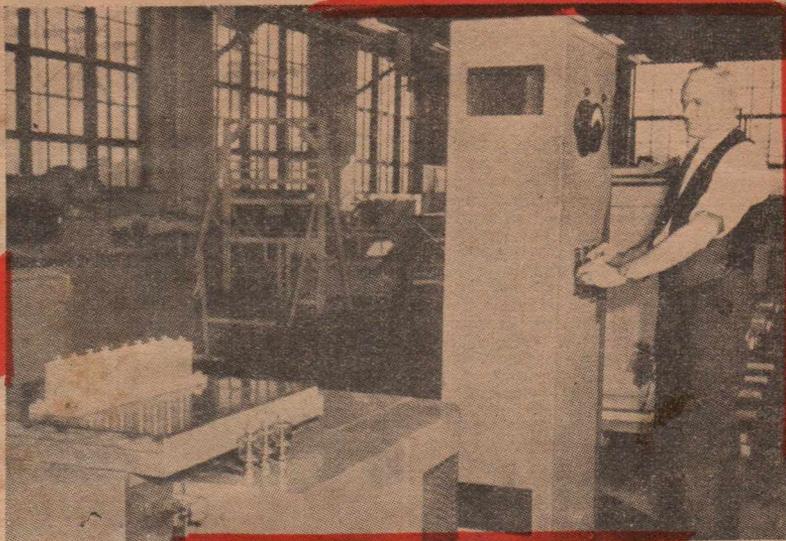
"Australasian Manufacturer."

CIVILIAN RADIO PRODUCTION RESUMED

As from Monday August 27, Australian radio manufacturers were advised by the Directorate of Radio and Signals Supply, that they could immediately commence production of their latest model radio receivers. By latest model is meant, the last type made by them in the period just prior to the switch over to defence production.

There is no limit placed on the models, but there is a requirement that the same proportion of electric, vibrator, and battery operated sets be produced as were produced in 1939.

—Radio & Electrical Retailer (Australia)
August 30 1945.



"Shacky" is the name for the machine shown in this photograph. It is in the test laboratory at the Hawthorne plant of the Western Electric Company and it helps to make sure that war products will withstand the vibration encountered in tanks, jeeps, planes and ships. The table of the device vibrates, simulating actual field conditions.

Cinema Television.

Reports from America indicate that there is a growing tendency to link television and cinema interests. This is borne out by the proposals recently made by the Society of Motion Picture Engineers for television frequency allocations for the cinema industry.

The proposals include an allocation of 60 channels in a band of 1,200 Mc/s for an immediate cinema television service with a standard of definition of 800 lines. It is pointed out, however, that 1,200-line transmission is necessary, even for monochrome, to equal the definition of modern films.

For future development of the service it is requested that a band of 10,000 to 20,000 Mc/s above 6,000 Mc/s be allocated for relay services and colour transmission.

Proposals for the allocation of 75 channels of 20 Mc/s bandwidth for a cinema television network have previously been made by the U.S. National Theatre Television Service as recorded in our January issue.

The bride of a few weeks noticed that her husband was depressed.

"Gerald, dearest," she said, "I know something is troubling you, and I want you to tell me what it is. Your worries are not your worries now—they are our worries."

"Oh, very well," he said. "We've just had a letter from a girl in Melbourne, and she's suing us for breach of promise."

**"Friends, in this world of hurry,
And work and sudden end,
If a thought comes quick of doing
A kindness to a friend,
Do it this very instant!
Don't put it off—don't wait!
What's the use of doing a kindness
If you do it a day too late!"**

Nothing is more simple than greatness; indeed, to be simple is to be great. — Emerson.