

**RADIO**  
*Retailing*  
**TODAY**

**JULY**

**STUDY**

**APPLICATION**

**LEADERSHIP**

**IN THESE STORMY TIMES**

**STEER BY SAFE BEACON-LIGHTS FOR POST-WAR BUSINESS**

# The Need for Civilian Radio Service Men is Great...

## Will You Help?



Enlistments and drafting of radio service engineers has cut deeply into the ranks of the service men whose job on the home front is to "keep 'em listening."

In some communities, home set servicing is seriously crippled because of lack of service skill. The need for developing new radio service engineering skill is acute. Yet there are thousands of "old timers"—old "radio bugs" if you please—as well as youngsters who have a technical turn of mind, who will be eager to help—if told of the existing need.

Here is a patriotic chance for those of you who remain on the home front. You have the facilities, the know-how, the sources of information to organize radio servicing classes, secure competent instruction and provide the knowledge that will enable set owners to receive help.

You have a big opportunity to help "keep 'em listening" in your community. It is an important service in wartime. And Mallory will be glad to help, with technical information and answers to the questions you may pose.

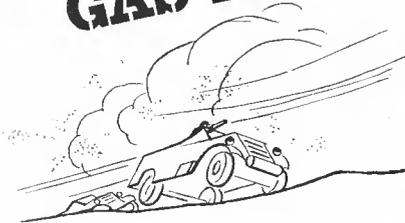
P. R. MALLORY & CO., Inc., INDIANAPOLIS, INDIANA

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



Approved Precision Products

... EVER HEAR OF A  
**GAS MASK**



Desert bound radios built by Admiral wear 'em . . . here's why. Heat generated by the tubes of a radio makes ventilation imperative. With the average home radio the problem is comparatively simple . . . but radios serving in tanks, jeeps and scout cars are exposed to clouds of dust, sand storms on the desert . . . all sorts of abrasive particles that can ruin a set within a very few minutes. Admiral engineers solved the problem with bricks of spun glass . . . a "gas mask" that assures adequate ventilation yet keeps all damaging particles out. Because of the knowledge that Admiral engineers are gaining now in solving the problems of war, the Admiral of the future will be a better radio than ever.

**Continental Radio and Television Corporation**  
Chicago, U. S. A.

TUNE IN . . . 2:30-2:55 p.m. New York time, Sunday afternoon. Admiral Radio brings you "World News Today" over C. B. S., with direct short wave reports from world news centers.

**FOR A RADIO?**

*Admiral*

**R A D I O**

**AMERICA'S SMART SET**



## Electronic Gunsmith

● Her job is to assemble the complex gun of a cathode ray tube — a precision electronic gun that shoots billions of electrons a second with unerring accuracy.

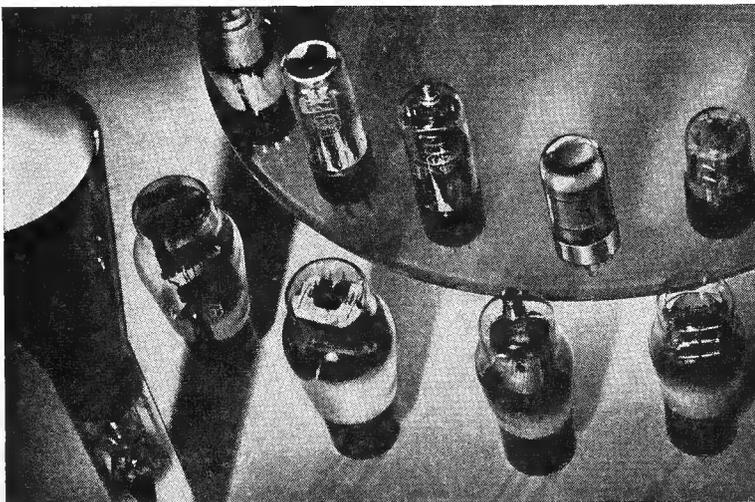
That makes her an “electronic gunsmith.” Here she is shown welding a “no tolerance” gun part held in perfect alignment by a specially designed jig.

To the making of cathode ray tubes and other important

electronic elements, Sylvania brings long and specialized radio tube experience. You know what the Sylvania reputation for painstaking craftsmanship is in the radio field.

You can confidently specify Sylvania Radio Tubes as replacements for wartime radios — and Sylvania Cathode Ray Tubes for television sets and many other purposes when victory is won.

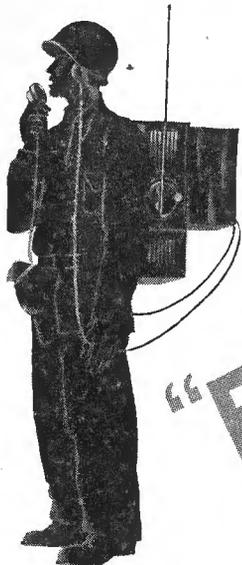
QUALITY THAT SERVES IN WAR



**SYLVANIA**  
ELECTRIC PRODUCTS INC.

Emporium, Pa.

INCANDESCENT LAMPS, FLUORESCENT  
LAMPS, FIXTURES AND ACCESSORIES,  
RADIO TUBES, CATHODE RAY TUBES,  
ELECTRONIC DEVICES



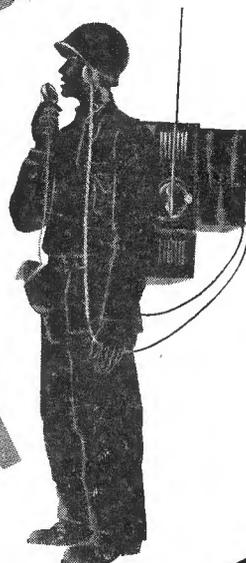
“EMERSON IN WAR



BRINGS ITS STORY

AND PEACE”

TO THE NATION



**Emerson** ELECTRONIC RADIO



Right now on the far-flung battle fields of the world, *Radar by Emerson*, is the "seeing eye" through impenetrable fog and hazardous darkness... *Walky-Talkies built by Emerson* are supplying a vital life-line of communication for troops in the field... compact, durable *Sending and Receiving sets, precision-built by Emerson*, connect mobile units with headquarters behind the lines. Radar... Electronics... Radio... Emerson's contribution to war. ... and Emerson's contribution to a richer, happier, peacetime life when victory is finally won. For under the grim necessities of war there are being born today the peacetime Emerson Electronic Radios of tomorrow.

This is the story which Emerson is about to bring to the nation... to bring to every village and town and city in the United States through one of the most dramatic and powerful magazine campaigns ever undertaken by a radio manufacturer. ... to bring to your customers in your own community through a unique and powerful radio program. ... a story and an advertising campaign worthy of the largest manufacturer of home radio sets in the world. ... a story and a campaign worthy of the radio retailers who have done so much to build Emerson leadership in the past and who will maintain it in the future.

EMERSON RADIO AND PHONOGRAPH CORPORATION, NEW YORK 11, N. Y. "WORLD'S LARGEST MAKERS OF HOME RADIOS"



# Small Plants **NEED** Teletalk

WEBSTER ELECTRIC  
REG. U.S. PAT. OFFICE

● War orders won't wait whether a factory has one smoke-stack or a dozen.

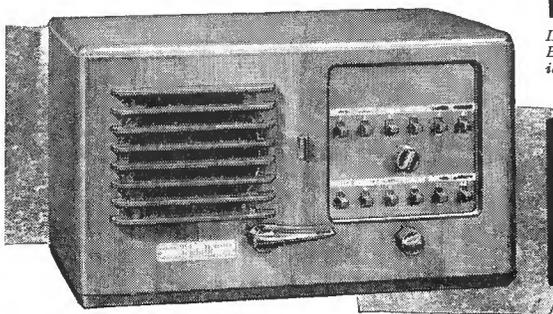
All about you are small factories, busy on war work, which are wasting many man-hours every day through the lack of a modern, efficient communication system.

Show them how with Teletalk Paging System they can save those lost minutes, speed information on orders, check shipments or stock on hand. Point out how much less confusing it is to call for Joe quickly . . . not run after him.

Available in systems with as few as six speaker outlets, Teletalk Paging Systems almost sell themselves in these days when man hours are too precious to waste. War orders give priority even to small plants.

Teletalk Paging Systems are easy to install, operate from the light circuit. Investigate Teletalk today. You may find it a most profitable addition to your business.

Write us for full information.



## BUY WAR BONDS

Licensed under U. S. Patents of Western Electric Company, Incorporated, and American Telephone and Telegraph Company.



WEBSTER ELECTRIC COMPANY, Racine, Wis., U.S.A. • Established 1909 • Export Department: 100 Varick St., New York City • Cable Address: "ARLAB" New York City

# WEBSTER ELECTRIC

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

# RADIO *Retailing* TODAY

JULY, 1943

featuring

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Cover photo—Ewing Galloway

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NEW YORK



## SH-H-H-H! THE ENEMY IS LISTENING!

● Sailors at sea couldn't listen to their favorite radio programs until one of our foremost radio manufacturers was commissioned to build a special sea-going receiver. It was found that ordinary radios "rebroadcast" and tipped off the ship's location. And without any radio, morale suffered.

Now, it's different! Sailors around the world are listening to radio programs from home through this low-radiation receiving set. The speed with which it was produced and put in service is a tribute, in part,

to the *E·L* engineers asked to provide a suitable power supply. They did it—fast, and well.

This is just one of the many contributions to America's war effort which *E·L* research and specialized knowledge of vibrator power supplies and electronic circuits has made possible. You'll find *E·L* Vibrator Power Supplies on the job in all types of service, and on every front where the United Nations are fighting.

Wherever electric current must be changed, in voltage, frequency or type, *E·L* Vibrator Power Supplies and Converters offer a wide range of advantages, for peace, as well as for war.



*Electronic*  
LABORATORIES, INC.

INDIANAPOLIS

*E·L* ELECTRICAL PRODUCTS—Vibrator Power Supplies for Communications . . . Lighting . . . Electric Motor Operation . . . Electric, Electronic and other Equipment . . . on Land, Sea or in the Air.



**For Operating Radio Transmitters in Lifeboats**  
—*E·L* Model S-1229-B Power Supply. Input Voltage, 12 Volts DC; Output Voltage, 500 Volts DC; Output Current, 175 MA; Dimensions, 7½" x 5½" x 6¼".

**For Operating AC Radio Receivers from DC Current**—*E·L* Model 262 Marine Power Supply. Input Voltage, 110 Volts DC; Output Voltage, 110 Volts AC; Output Power, 250 Volt-Amperes; Output Frequency, 60 Cycles; Dimensions, 10½" x 7½" x 8¼".





## Sweet Music — FOR MOM!

"HI MOM!" . . . A sailor speaks into the "mike."  
The spinning disc records his voice for the folks  
back home to hear.

Hi Mom . . . I'm getting along okay! There is the  
same familiar lilt as he says, "Hi" . . . the same hesitant  
way of talking, as he tells of his new adventures.

Then it's over . . . but no . . . Mom will play that precious  
little record again, again—and again! The sound of his  
voice . . . his nestness will continue to bring comfort  
and assurance. It's her son talking to his mom!

Mom's treasured recording was made possible  
by the versatile SONORA RECORDER—a compactly  
designed recorder-phonograph-radio—all-in-one. A  
triumph of radio-engineering, pioneered and per-  
fected in the Sonora Laboratories.

One of the greatest names in radio and music.  
"SONORA" has come to mean "Clear As A Bell" tone  
reproduction. The achievement of this tone fidelity at  
modest and reasonable prices is SONORA's notable gift  
to home entertainment.

Some happy day, when the "Home Front" can once  
more be served, Sonora's enchanting tone-mystery  
will again be yours to choose and enjoy.

SONORA RADIO & TELEVISION CORPORATION  
125 NORTH HOVNE AVENUE, CHICAGO, ILLINOIS

**Sonora**  
Clear as a Bell



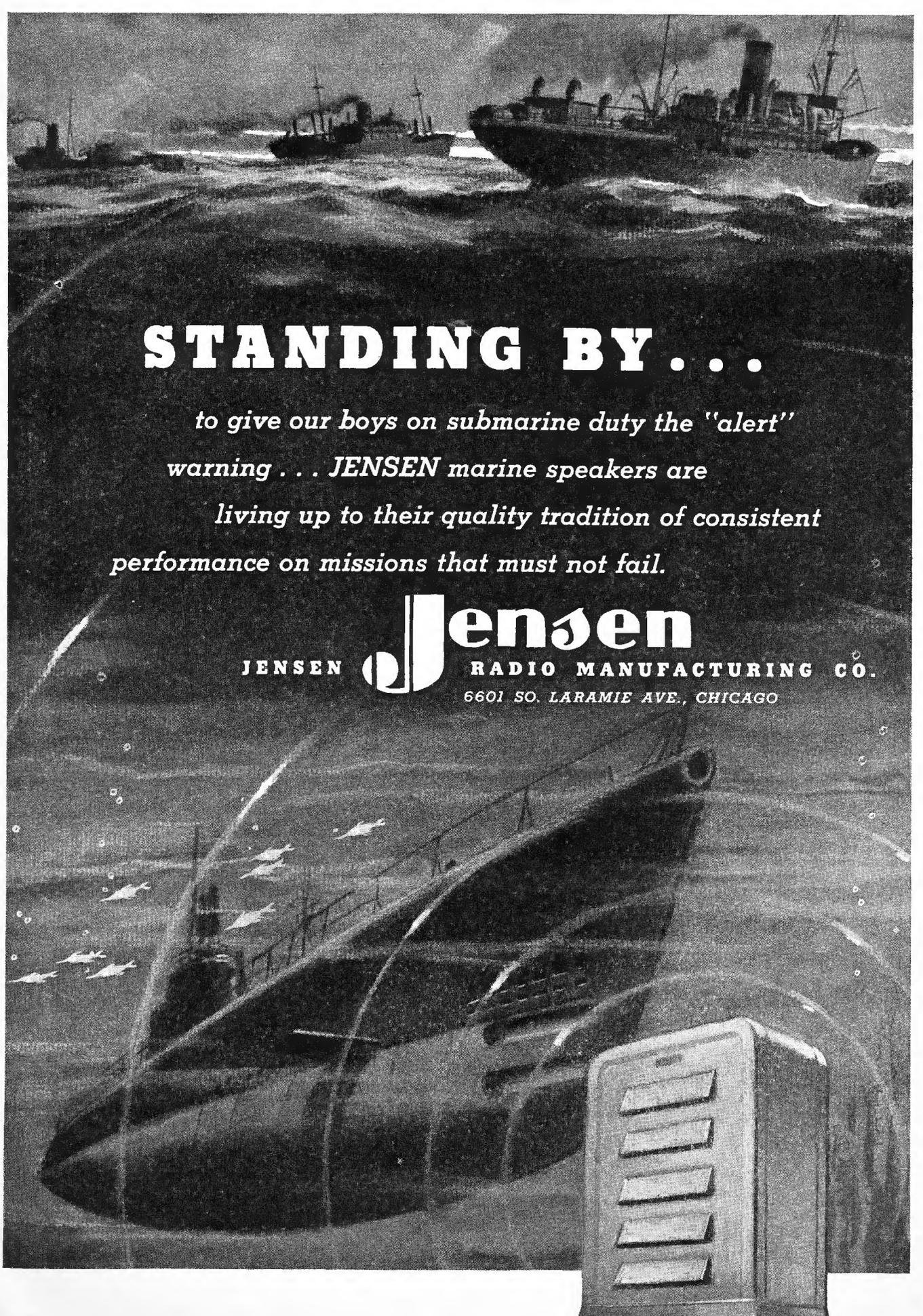
RADIOS • PHONOGRAPHS • RADIO-PHONOGRAPHS • RECORDS • RADIO-PHONO-RECORDERS

You're looking at the first in a series of full page, full color, Sonora magazine ads for 1943. This striking Sonora campaign will appear in Life, Esquire, American Weekly, Redbook, American Magazine, Cosmopolitan, Time, American Home—to

benefit the jobbers of America and retailers they serve. Remember, Sonora, is the one nationally advertised Radio which jobbers can be sure will be theirs to cash-in on when merchandise is again available. SONORA RADIO & TELEVISION CORPORATION • CHICAGO

"IT'S GOING TO BE THE JOBBER"

**Sonora**  
Clear as a Bell



# STANDING BY...

*to give our boys on submarine duty the "alert"  
warning . . . JENSEN marine speakers are  
living up to their quality tradition of consistent  
performance on missions that must not fail.*

**Jensen**  
JENSEN RADIO MANUFACTURING CO.  
6601 SO. LARAMIE AVE., CHICAGO

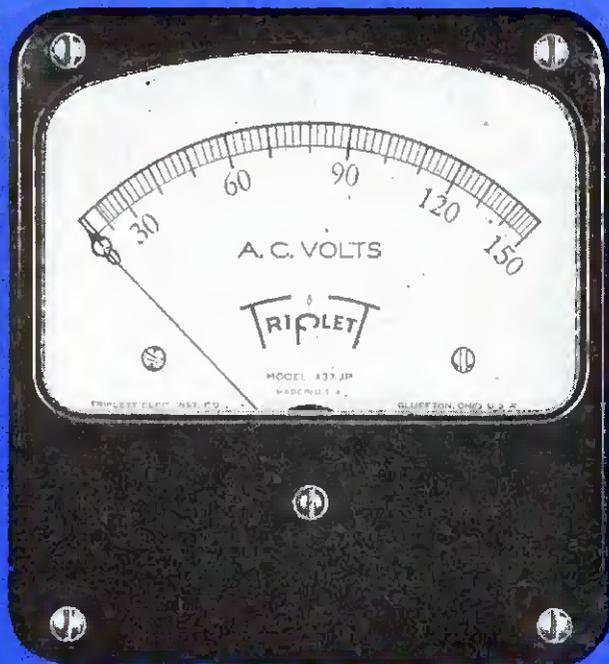
# TRIPLETT

**NEW**

*Combat Line*

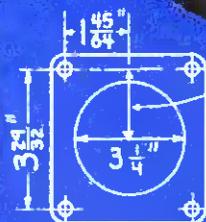
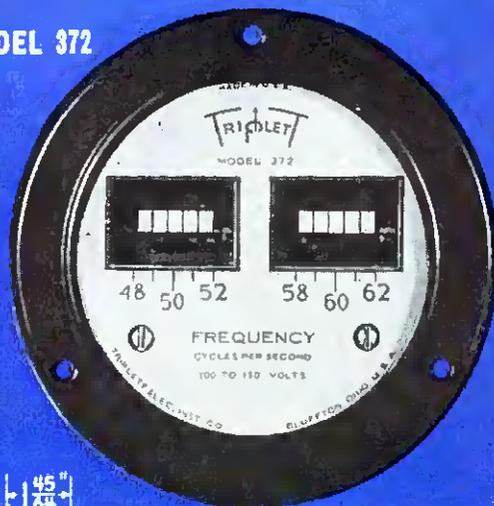
**INSTRUMENTS**

THESE PHOTOGRAPHIC REPRODUCTIONS ARE THREE-QUARTER SIZE



**MODEL 437-JP**

**MODEL 372**



Model 437 - J P

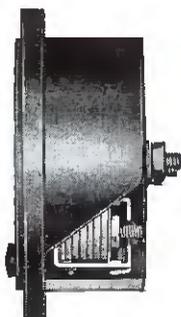
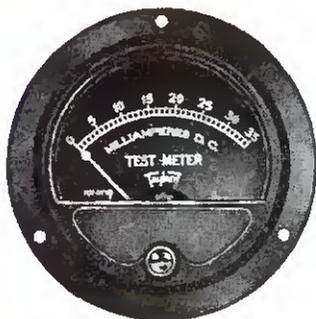
SIMPLE  
INSTALLATION  
DIAGRAMS



Model 372

Maximum Service in Minimum Space

**TRIPLETT *Thin Line* INSTRUMENTS**



Precision performance by new *thin* instrument with *standard* Triplett movement housed in either metal or molded case. No projecting base; wider shroud to strengthen face; simplified zero adjustment; balanced bridge support; metal bridges at both ends; doubly supported core. For "Precision in limited space" write for Triplett Thin Line Bulletin.

## The Triplett Combat Line

New Answers to specialized needs of War; Production Speed-up and Standardization; Performance under the Stress and Vibrations of Combat Service.

**Model 437 J P**—A rectangular line of meters to meet dimensions shown (see diagram). Wide-open scale for maximum readability. Complete coverage AC-DC Voltmeters, Ammeters and Wattmeters. Magnetic or static shielding provided on order. Molded Plastic Case for maximum protection in high voltage circuits. Pivots, Jewels and other component parts designed to meet severe vibration requirements.

**Model 372**—Frequency Meter—"All-American make" Vibrating Reed Frequency Meter. Maximum readability by grouping of Reeds, Range-Frequency-Voltage to meet specific requirements. Protected against excessive panel vibration. In standard 3 inch mounting or on special order in any cataloged Triplett Case.

### A WORD ABOUT DELIVERIES

Naturally deliveries are subject to necessary priority regulations. We urge prompt filing of orders for delivery as may be consistent with America's War effort.

TRIPLETT ELECTRICAL INSTRUMENT CO.  
BLUFFTON, OHIO





**THEY WILL NOT FORGET THIS NAME!**



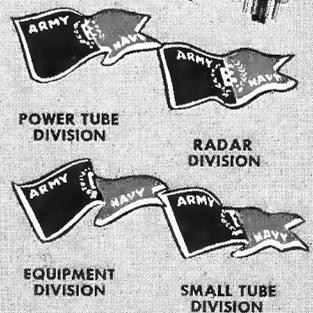
**RAYTHEON**  
TUBES  
RADIO & TRANSMITTING

They who are fighting under every climatic condition know the superior performance qualities of RAYTHEON tubes . . . their unfailing response even under war-time rigid requirements.

They will not forget that RAYTHEON tubes in war even surpassed their peace-time records for long life, trouble-free operation and high quality performance.

The RAYTHEON trade mark will be a familiar name to the thousands of servicemen and dealers when they come back to their peace-time work . . . they will not forget that RAYTHEON tubes unfailingly performed their duty in every emergency.

*Raytheon Production Corporation*  
Newton, Mass.  
Los Angeles • New York • Chicago • Atlanta



**Four "E" Awards**

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



*“We’re puzzled!”...*

*“If we start talkin’ about plans for the future a lot of you people are going to say: ‘Why those so an’ so’s... don’t they know there’s a war on!’ And you’ll be right. The war is far from won... the tough part is yet to come!*

*On the other hand if we talk only about our war job a lot of you people are going to say: ‘Why those so an’ so’s... they’ve forgotten all about their old friends!’*

**But you’ll be wrong!**

For here is exactly what we’re planning for you...

**One:** Immediately after this war is won you’ll have a fine line of Stromberg-Carlson radios to sell... a line that will win customers... a line that will offer value in a wide range of prices.

**Two:** The Stromberg-Carlson name in radio will be even more widely and more favorably known than ever before.

**Three:** The Stromberg-Carlson policy of distribution will permit every authorized dealer to have a real opportunity for profit on the postwar line.

That is what’s in store for you when our wartime job is done... make it a part of your postwar planning!”

**STROMBERG-CARLSON**  
ROCHESTER · NEW YORK



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

### **"Essential" Status for Home Receivers, Too!**

The entire civilian radio set-up is built for and around the home listener. Studio audiences, or even the largest mass meetings, are only a drop in the bucket, compared numerically to radio's vast listening audiences.

For the purpose of granting additional gasoline, the Office of Defense Transportation has just made a complete revision in the list of civilian industries to be accorded "preferential treatment," with revisions being based upon the respective importance of these industries to the war effort and to prime civilian requirements.

There are three listings, A1, A2 and A3, "very critical," "critical" and "important," respectively.

Civilian radio communication and broadcasting is listed "A1" in this revision—which is fine. But the servicing of home radios is not included at all!

And, in the same Eastern area, the delivery or pickup by truck of new, used or repaired radios was first prohibited, and is now curtailed, receiving sets thus being classed with ornamental shrubs, nursery stocks, toys, novelties, jewelry, furs and antiques.

This procedure recognizes the *undeniable* importance of the *source* of the radio program, but overlooks its *only outlet*, the home receiver, which should be considered just as essential as its lifeblood, the broadcast system.

Such a short-sighted policy will eventually add up to something like the old adage about a "chain" being "no stronger than its weakest link."

### **Dammed-up Radio Purchasing Power**

FCC Chairman Fly had some interesting things to say about post-war radio during the RMA War Conference at Chicago. His comments will interest every radio man whether manufacturer, distributor, dealer or servicer. Said the Commission chairman:

"At the moment when radio manufacturing was converted to war production, a great transformation was taking place within the industry. Frequency modulation was a practical reality; some 500,000 receivers were FM-equipped and a ready market for millions of additional FM receivers was opening faster than they could be supplied. Television, an art probably more fascinating to the public than the first loud-speaker, had been given the green light, and there was, and is, good reason to expect tremendous growth in this field.

"Facsimile and other special radio services were already more than laboratory curiosities. Finally, international radio communications, aviation services, police mobile units, and other communication services were occupying an increasingly important role in the radio spectrum and in manufacturers' production schedules.

"None of the opportunities existing in all these fields," continued Mr. Fly, "has been lost simply because our efforts have been diverted to war production. The opportunities remain, and what is more, there is dammed-up purchasing power there too. Our only hope should be that we open the flood gates carefully so that we will have an orderly flow of post-war civilian goods."



# Prepare

• When, in the not far distant future, the war is won, we will *still* have to win the *peace*. We of the production front, business of the home front, and men of the fighting front, all will have to return to peacetime pursuits, in an orderly manner, to preserve the peace we have fought so hard to win.

We of radio have a future peacetime opportunity far greater than anything which has gone before. Aviation and electronics are destined to forge a new, a greater, a broader economy than the world has heretofore seen. But it will not drop fortune, or "easy profits" into our laps.

## **Foresight Now**

Much hard work, earnest preparation, sincere study, will be required and the rewards will go to those who have best earned, and deserve them.

War born radio inventions, applications, and methods differ greatly from what we knew only a few years ago.

You will have to start studying *now*, and keep studying sincerely, till your knowledge of the new radio is complete and current, if you would hold your place in the postwar radio world.

## **Normal Future Development**

Not that the postwar home radio will be anything like the Rube Goldberg contraption which a manufacturer recently cartooned. Of course it won't. Nor will it be the \$6.95 "loss-leader" midget, either. But the public will buy, and you will sell, and service—

(a) Short-wave sets—and that means *short wave*.

The "short-wave" sets of the future will make the short-wave sets of today seem like *long-wave mastodons*. Their frequency range will be measured in hundreds, in thousands, perhaps in tens of thousands, of megacycles.

We may each have our own frequency, and our own "walkie-talkie" for "person to person" 'phone communication "wherever you are."

It can be done—and it will be done.

*Photo by Frederic Lewis*

# For Peacetime—NOW!

**In the Confusion of the Many Postwar "Flying Dutchmen" Now Rampant on Merchandising Horizons . . . Steer by the Well Known Beacon-Lights of Study, Leadership and Application To Be Ready for that Potential Postwar Market**

And there is much for you to learn about it.

(b) FM sets, with their faithful reproduction, and freedom from interference, will probably be the preferred "home-radio" of the new peacetime.

(c) Television most certainly will be in demand in the home, but the receivers themselves will be a far cry from the pre-war variety.



## STUDY

(d) Traffic, on the highways, and the skyways, will one day be controlled by radio and radar of a type the radio dealer has not even dreamed of yet.

(e) And Panoramic radio, that gives a "broad view of the radio-spectrum," may well ride every aircraft that flies, every auto that runs, and every ship that floats.

(f) Cooking in the house may well be done by "high frequency radio," and countless electronic devices will add to our living comfort, our industrial progress, our peacetime economy.

### Study Important

To take your place, and obtain your share, in this electronic business, you must sell and service these new electronic equipments. To sell them and to service them, you must understand them. And to understand them you must *study*—and *learn*, and *study* some more. *Study* the theories, in the new devices, study their applications, and their possibilities. And *now* is the time to start. In postwar merchandising — *reputation, leadership*, will also be priceless ingredients in maximum success. And these are

factors, too, on which the *present* may be made to exert a great influence. There is *much* that you can do, as a *radio-man now*, to keep favorable local attention focused on you and your business.

Windows and displays and advertising can be freely devoted to the work of the Red Cross, selling War Bonds, news of the local "boys," and active participation in all local "drives," celebrations, and other civic activities.

### Display and Your Community

Some enterprising radio men are making unique reputations by listening to all foreign broadcasts on which our service-men may speak, and recording their messages, which are then presented to the families of the "boys."

Others are establishing their leadership, radio-wise, by donating sound equipment for local "drives," recording speeches of officials for reproduction, and other similar activities.



## LEADERSHIP

*Every* way of keeping *yourself* and *your business* favorably before your prospective future customers will be advantageous to you when peacetime business once again "opens up."

And a third vital factor in your future radio business will most certainly be a sound knowledge of your business. Wartime restrictions and controls over business certainly will be reduced. But just as certainly, governmental controls of the over-all economy must be expected to continue for a long time, in various forms.



## APPLICATION

The most likely controls which government may be expected to exercise over business are:

1. Profits
2. Inventory
3. Prices
4. Merchandising methods
5. Wages and hours
6. Taxes and yet more taxes.

When all the war-pent-up buying power, and war-born new devices are released, the radio business will surge to greater heights than it has ever before reached.

*But*—if you want to be a part of that radio business, you will certainly have to *earn* the right. The day of the "cloak-and-suiter" is nearly gone. And the "screw-driver" mechanic will be lost completely in servicing the electronic equipment and the home radio of the future.

As never before you will have to *know* your *radio* and *know* your *business*, and your customers must *know* you, *favorably*, too.

### Work Now for Future

Plainly, your job soon will be *much* more than "how much to buy" and "how little can I sell it for?"

**STUDY** you must, to learn *what* you must of the *radio* of the future and *your business* of the future.

**LEADERSHIP** which you now establish, will make your place in the postwar radio business more certain, and more favorable.

**APPLICATION** to *radio*, to your *business*, to your *community*, will one day pay handsome dividends, and these you may neglect *now* only at the *peril* of your *future*.

## **Despite Help and Equipment Shortages, Connecticut's Radio Men Keep Their Footing in the Maelstrom of a War-Production Locale**

• The orderly steady pulse-beat of business in two of Connecticut's cities, Hartford and Bridgeport, is a tribute to the usual level-headed commercial faculties of New England's sons.

Despite the mass influx of approximately 70,000 outsiders into each of these cities, business, while *not* as usual, progresses at its increased pace with more flatfooted dignity than might be expected, and everyone, including the radio and record dealers, are holding their own.

Like all other sections, the shortage of help, parts and tubes was prevalent before the war plant tidal wave. Now, these shortages have become extremely

cameras and film, and is the only dealer in his territory handling movie film. On the other hand, this particular retailer was foresighted enough to overstock in tubes and parts. He now sells to other dealers who are concentrating on repairs in neighboring sections.

### **Back to the Roots**

In particular, it is most interesting to note that each individual dealer in seeking to hold the line, has dug back to the very rudiments of his success in his own business. The born serviceman (and, we are told, servicemen are born, not made) has moved in on re-

# **DEALERS IN A**

acute, while call for repair work has of necessity increased. More than ever before, both distributors and dealers are exhibiting proof of that good old New England quality, ingenuity.

One of our most truly American products, the American radio business man, certainly has come to the fore in these trying times. He is our greatest proof that a democracy really "works." His appreciation of his American right to use his own abilities in his own business as he best sees fit to survive any crisis contributes as much to his remaining in business today as does the actual working out of his technical problems.

Without any fuss or furor, these Connecticut dealers have, whether by intent or just excellent ability to live with their neighbors, segregated their talents by specializing, each to his own best abilities.

### **Cooperation Is Evident**

Thus in a community where pre-war conditions permitted several of the same specialists, we now find *one* radio dealer doing all the recording in the city. One dealer doing the majority of the sound equipment rental and installation. One specializing in repair work on certain sets in certain communities, leaving the other man to service his own type of customers.

Another has made a specialty of

pair work with every ounce of concentration at his command. The general music dealer who originally started out strong with piano sales, seeks out the army camps and combines salvage of record scrap with piano sale, rental, and repair. The dealer with more of a flair for selling than mechanics is the one who just naturally went without a whole year's new wardrobe to buy up parts and batteries and tubes two years ago, and is now supplying those dealers specializing in repair, and even on occasion has sold some tubes back to the manufacturers he bought them from originally.

### **Helpful Notes Contributed by Individual Dealers**

All dealers seemed most cooperative so far as their fellow workers are concerned. In the Hartford area, Tuckel's make a specialty of recordings, and have the business for that area. Their recording studio and control room are efficiency itself, in addition to being most attractive in design. Also in the appliance, record and radio business, this portion of their setup has proved exceptionally lucrative and has many uses. Among these are recording for the broadcasting stations and the broadcasters, themselves; permanent recordings for soldiers and all branches of our fighting forces to send home; artists' trial auditions; recording of



Army-Navy "E" awards; political speeches, etc.

### **Repair Work Up 150 to 300%**

Also in the Hartford area, Gallup & Alfred, musical instrument, radio and record dealers, have an interesting tie-up with a nearby aviation camp for collection of record scrap, a vital item in all record dealers' operations. Aside from their regular business, they have found that music-box novelty containers (powder boxes, etc., which play when the lid is lifted) have been selling extremely well at \$6.00 and have a fast turnover even at this time of the year.

Hartford's Radio Hospital reports a booming increase in repair work and, although short of help and repair materials, has been able to keep the sets playing. Has found use of the maintenance repair tubes that have been released very helpful. Mr. Augsten, owner, believes there will be a real opportunity for servicemen in aviation plants after the war, when radar becomes an integral part of all planes. He also states that he has found the public generally interested in knowing what to expect in television sets after the war.

Another Hartford radio man, owner of Malloy's Radio Service, specializes



in P.A. and the rental of sound equipment wherever and whenever the opportunity presents itself. He says the ball parks, fights, football, political meetings, bond rallies and general uses by the park department offer excellent opportunities of securing this business. Not to be overlooked is the police department's use of sound amplifiers on its cars, which Mr. Malloy successfully demonstrated by his recent installation on one of the local police cars. Also handling repair work, Mr. Malloy is versatile at making use of changeover circuit methods when vital tubes are not available. Claims that simplification is the key to all good and versatile repair work in these days of shortages of the most popular tubes.

#### **Bridgeport Dealers and Surrounding Territory**

Bridgeport's Radio-Camera Shop is humming with activity. Joe Snyder's snug shop on Fairfield Avenue presents the appearance of a beehive—just stuffed with tubes and parts. Foreseeing the shortage, Snyder invested to his advantage and today is doing an excellent repair business. In addition he also carries film and has practically the only large supply of movie film in the territory.

Mr. Snyder has developed a lot of hearing-aid repair work through his ingenious adjustment of ordinary receiving sets to deaf persons' listening. By adjusting earphones to a set, those who would ordinarily run the radio extremely loud for complete listening can hear without even turning on the speaker.

The help situation at Radio-Camera Shop is under control and Mr. Snyder advocates the use of the want-ad section in local newspapers as the solution of his advertising problem as well as for store help.

Another use for hearing aid batteries, Mr. Snyder reports, is their application to use in portables.

O'Neil's Radio Service in the Woodbridge section of Bridgeport does a large percentage of business in radio repair and finds many auto sets to service in this area of war plants where workers are allowed the use of their cars. Alternate lines that go well are needles, blank discs and what electrical appliances he can obtain. A forward-looking man, Mr. O'Neil has had articles in the local paper on conservation of home sets for the duration, advising the public how to take care of their radios and prevent the need for unnecessary repair.

A little further out in the section of Stratfield, Courtney's Radio Service does what it can to keep apace with the huge repair job they have on their hands these days. Answering the crying need for skilled radio technicians in neighboring war plants, Mr. Courtney now works days at the Sikorsky plant installing radios in planes. Mrs. Courtney, long his assistant in the shop, carries on with the repair work and services what sets she can, in the face of shortages of supplies, during his absence. Some persons' first reaction to a woman at the service bench is that of surprise, but Mrs. Courtney, garbed in her service coat and tackling her job in the manner of one who knows, soon succeeds in disarming her public of their doubts, and the proof is the completely serviced set returned in the expected excellent running condition.

#### **Time and Cause for Thought**

Throughout this entire war plant area, radio dealers are showing that business, *not* as usual, *can* be carried on. Confronted on every side with the shortages of help and supplies on the one hand, and increased repair work on the other, they are really doing a swell job.





**MILWAUKEE, Wis.**—Gordon Ische, well known dealer here, is concentrating on service. Mr. Ische and one other man work out of the shop, servicing radios and appliances in homes. He finds that contacting the customer in the home and doing some of the work there in an emergency is appreciated by the customer. Heavier work is brought to the shop.

Augie D'Amico, operating Modern Radio Sales, has boosted his service business and has increased his line of toys to make it an all-year-round proposition. He has also taken on a variety store line to appeal to women. Augie still has considerable radio stock on hand, mostly larger console sets. The toy business alone amounts to about \$8000 (wholesale purchases). His variety store line includes such items as flat iron, glassware, needles, goggles, hammers, plumbers supplies, etc. He thinks that every radio dealer can do something with lines fitted to his community.

Fairly large stocks of radios and appliances are still shown at Hermax, Inc., but Herman Bortin and Al Wiviott wanted another iron in the fire so they opened up a furniture department in a store across the street. Latter venture is going well and the plans are to keep both stores open after the war.

Plenty of repair work in radio and appliances is coming in to the Service Radio & Appliance Co., here. In radio servicing, the company uses a couple of defense workers on a part time basis to help solve the manpower problem.

**HARTLAND, Wis.**—New lines at the Schwager Electric Co., include gifts, pictures, table and floor lamps, odd pieces of furniture, etc. Schwager also took on an agency for a big city laundry and cleaning plant.

**BIRMINGHAM, Ala.**—How to get along with a minimum of help is the big problem facing radio dealers in this area. Women, school boys and part time workers have been enlisted to help handle the increased volume of repair work.

The Birmingham Electric Co., recently held a school for women workers, and half a dozen or more electrical distributors held series of schools for mechanics all over the state.

There are a number of examples where proprietors of radio shops hold down war jobs in addition to running their own establishments. J. Stokes, owner of Appliance Service Co., works in an airplane factory. Ralph G. Meyer, radio shop operator, teaches classes for the U. S. Signal Corps.

Most shops have limited or discontinued pickup and delivery service.

In an endeavor to prevent work from piling up, Prince Bros. mechanics are kept right at the bench. They are fed jobs one after the other, and the proprietor, H. M. Prince, sees that each mechanic has the necessary parts on hand, as needed. This prevents time lost in running around.

Most dealers still have a reserve of parts and tubes, but stocks are broken.

Phonograph records rank first in substitution merchandise. Department store radio departments have been practically converted to records, and the volume is large. The Pizitz Store has added musical instruments and sheet music in its appliance department.

**ENSLEY, Ala.**—At the Boggs Electric Co. here, the daughter of J. R. Boggs, the proprietor; the porter and Mr. Boggs himself pitched in to help clean out the log jam of appliances needing repairs.

**ROCHESTER, N. Y.**—Bickford Bros. Co., wholesalers, devotes the entire 3rd, 4th, and 5th floors of its building to the manufacture of products for the army. Handling RCA Victor and Bluebird records, the firm has taken over the following territories: Allegheny, N. Y. and the counties of Cataaugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming, and McKean, Pa.

The firm states that every endeavor is being made to supply its dealers with tubes and parts, and to render service to dealers on RCA instruments.

This company has been handling RCA products for a number of years.

**LOWVILLE, N. Y.**—Le Roy Williams has been experimenting with giftware for slightly over a year, and reports favorably on it. Williams says the supply is plentiful, the markup ample, and that women customers like the items. He has used motion picture film in the local theatre to exploit giftware goods. The film was supplied by a manufacturer, and he reports that good results were achieved.

**PHILADELPHIA, Pa.**—Harry Levin, who has been in the radio, hardware and appliance business for the past 18 years, has added many new lines since the manufacture of radio ceased, and has opened a special glass and plastics department.

**WASHINGTON, D. C.**—Simon Distributing Co., 25th and H Sts., N.W., is offering many unusual novelties as suggestions to radio retailers for alternate merchandise. Included in their catalog are ration book holders, 50 piece dinnerware sets, toys, an all-glass frying pan, glass handled sauce pans, toy wagons and scooters.

(Continued on page 26)



Schuyler Crail

# Summer Record Show

• There is a galaxy of sparkling entertainment to choose from in records this summer. Variety is the keynote. Popular bands are specialists in more than just "swing." Keeping a rapid pace with their swing fans, they also turn out many "stunt" features in other fields in varying techniques that soon gain a large following. Ballads, old time favorites, farm and folk songs, rendered in each band's inimitable manner. Spike Jones, not the least of these, records for Victor and has had many successes with his City Slickers' tactics.

## **New Album Display Rack**

Classics, of course, offer innumerable selections to draw from. New pressings are readied by the recording companies daily. With the public's increased interest in album collecting, these should have their own

**With Radio Listening at a New High Peak This Summer, Record Dealers Can Pick Their Hits From Customers' Listening Habits. Popularity of All Types of Variety Entertainment Offers a Wide Field to Choose From**

place as leaders in sales. Continuous display help is offered to dealers, and Columbia, for one, is bringing out a new album display rack guaranteed to be a material aid in the fast growing trend to customer self-selection. Easel type, it can be used anywhere on the sales floor, or may be propped against the wall, thereby eliminating the erecting of wall shelves.

With many record stars in important summer replacements on the networks, their popularity becomes even more of an established fact. And with radio listening at higher than the usual summer peak, this should increase record-makers' popularity with their buying public.

## **Record Stars on the Air Waves**

One of the outstanding season switches is the Dinah Shore-Paul Whiteman (Victor) combination which permits "Charlie McCarthy" to vacation from his regular Sunday night spot on NBC.

Another replacement for the summer line-up is the Frank Sinatra-Harry James (Columbia) tie-up on CBS' Broadway Band Box, replacing Lux Theatre Monday evenings from 9:00 to 9:30.

**At Left—**

**Spike Jones and his City Slickers in action. One of his Victor records, Oh By Jingo and The Sheik (No. 30-0812) is a recent one.**

Current favorite by this popular Sinatra-James team is Columbia's No. 35587, "All Or Nothing At All," which has had a sensational sales record.

The Blue Network comes up with a new record artist, Decca's Dick Haymes, who will beam over Evening in Paris' "Here's to Romance" show Sunday nights, 6:05 to 6:30. A musical variety feature emceed by Jim Ameche, Mr. Haymes will warble to the music of David Broekman. Dick Haymes' current hit recordings went over big, selling 500 discs of "You'll Never Know" (Decca No. 18556) in Canajoharie alone. (Canajoharie is reported to be practically ringing with Dick Haymes by now, we believe.)

The Song Spinners (Decca) are on Mutual's national hookup, which will keep them from getting out of the public's ear—during the temporary Petrillo ban on vocal chorus accompaniments on new recordings.

Another NBC replacement, Texaco Summer Theatre (Sunday's 9:30 to 10:00 P.M.) temporarily releasing Fred Allen, features James Melton (Victor) and his semi-classic repertoire.



**Dick Haymes, new Decca artist (In My Arms, No. 18557) will be featured on a national hookup show, "Here's To Romance", Sunday nights.**

**Metropolitan Opera and Columbia Recording star, Rise Stevens, is a frequent guest star on the airways. One of her recent Columbia releases is No. 71440D, arias from "Jeanne D'Arc" and "La Favorita."**



Further, CBS reports that Rise Stevens (Columbia) is a frequent guest star feature on Schenley's Cresta Blanca Carnival (Wednesdays 10:30 to 11:00 P.M.), Morton Gould (Columbia) conducting.

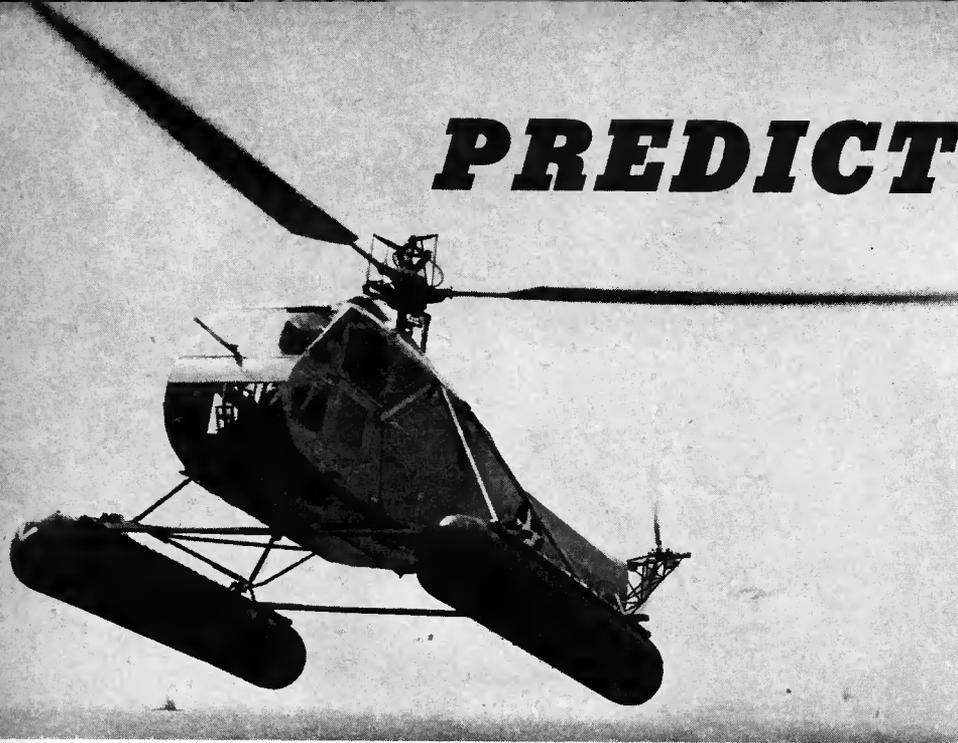
Note: Your customers who listen to the Guy Lombardo-Ogden Nash show over NBC, may be interested to know that Nash will soon make records for Decca, reading his own stuff.

**Radio Listening Habits  
A Key to Potential Buyers**

So, Mr. Record Dealer, the air is full of them—all leaders—all stars—all giving out with a variety of entertainment that ought to intrigue record buyers of *all* types and classes.

Get to know the radio programs and what your customers' listening habits are. They should be a key to your public's musical tastes; a signpost to window displays; and last but not least, the *essence of potential sales.*

# PREDICTS PEACE



cons, search equipment, altimeters, traffic control, instrument landing systems and other items of radar will greatly increase the efficiency of operation and the safety and economy of all forms of transportation.

## To Affect Civil Life

"The applications of war-developed techniques to the present-day television (the Chief Signal Officer viewed "a great and new field" in television which has been retarded from fruition by the war) and communications systems will also both improve performance and reduce costs; these will further contribute to wider service distribution.

"The return of large numbers of service-trained technicians to civil life may greatly increase the rate at which peacetime industry absorbs new electronic devices; new manufacturing processes and control methods turned out by this pool of trained personnel may well have more widespread effect in increasing the average of American living standards

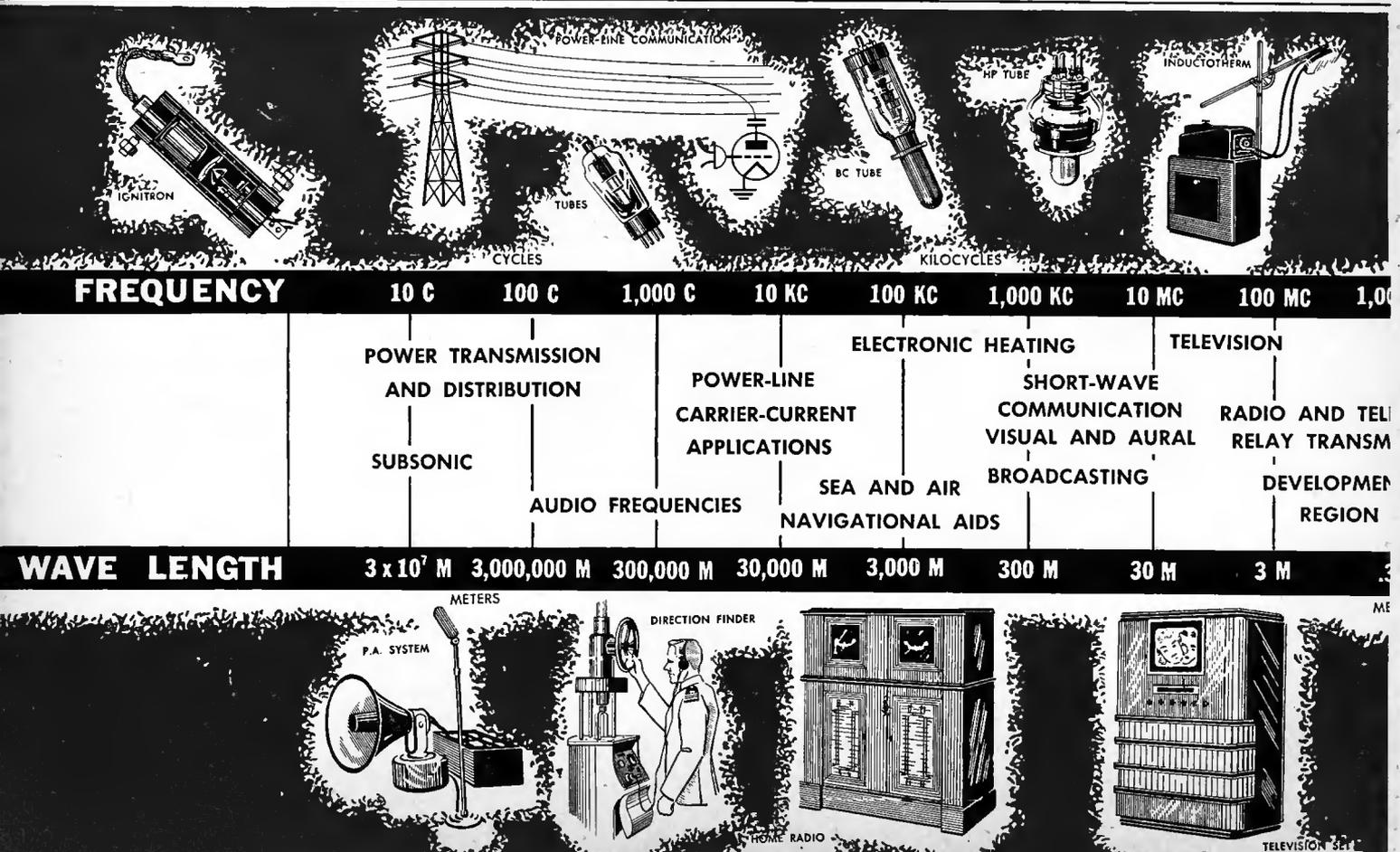
On the family helicopter of the future, a radar "elevation indicator" will be as commonplace as the speedometer on the modern automobile.

• Radar, when the war is over, is going to save many lives, Major General Dawson Olmstead, Chief Signal Officer of the Army for the past two years, has just predicted to Congress. (And Radar, he disclosed, performed a notable feat in the recent battle of Attu in the Aleutian Islands by landing the American troops in their small boats from the invasion craft

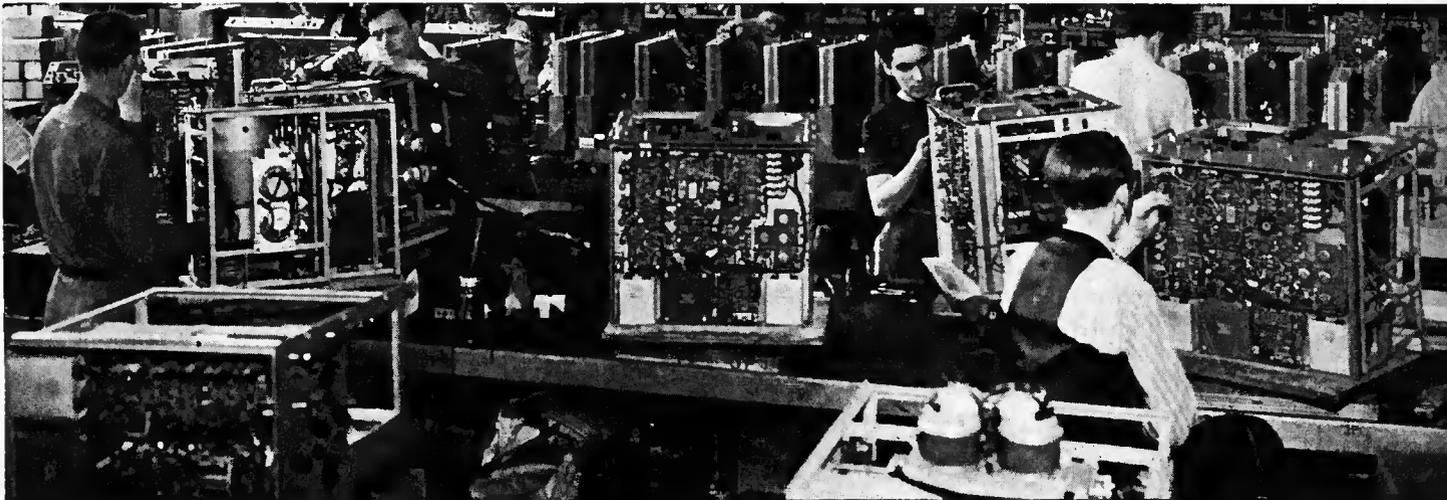
when the fog was so bad the water could not be seen from the deck.)

"Radar, although developed entirely for war, will have a profound effect in its peacetime applications," General Olmstead stated recently to the House Appropriations Committee. "Perhaps the most immediate and impressive use will be as an aid to marine and air navigation. Bea-

The present and future playground of electronic research. Chart of the wave-lengths and frequency channels from sound—



# REBOUND FOR RADAR



Somewhere in New England . . . General Electric manufactures radars for the U. S. Navy.

than the summation of all other peacetime applications of radar. There are many ways in which radar will undoubtedly affect postwar civil life and many additional ways in which effects are possible.

"The order in which applications come into use is speculative," General Olmstead stressed, "but there is not the slightest doubt that the inte-

grated effect will reach into the life of every American."

### Radar Ruled the Waves

As peacetime possibilities of radar continue assuming more and more promising aspects, authorities continue to divulge more about its war role. One such war incident is related by War Mobilization Director

James F. Byrnes, as follows:

"History will some day record the part radio and the radar have played in giving us fighting superiority over the Axis. But let me give you one instance. On the night of Nov. 14, off Guadalcanal there lay a Japanese battleship. It was a stormy night. Eight miles away was a ship of our

(Continued on page 62)

through radio and heat—to light and X-rays. Peacetime applications to civilians use have here a rich unexplored field to draw upon.

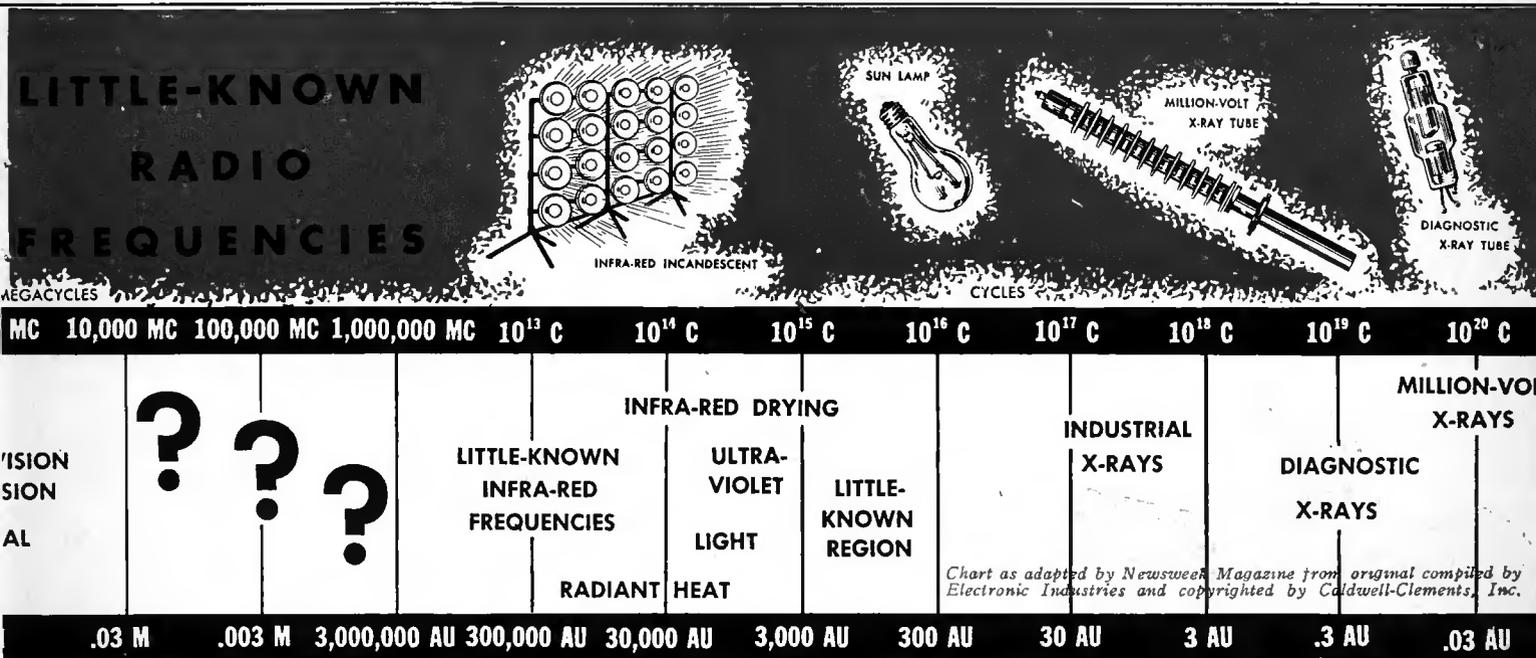
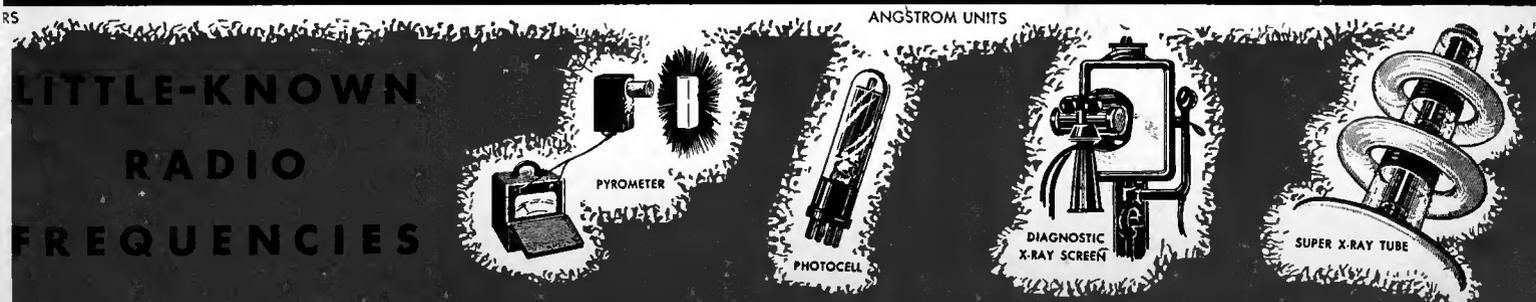


Chart as adapted by Newsweek Magazine from original compiled by Electronic Industries and copyrighted by Caldwell-Clements, Inc.



# Students As Service

• With the seasonal closing of schools throughout the country, radio service organizations seriously affected by the help shortage, are considering the possibilities of part time hiring of boy and girl students who have studied various phases of radio in the schools.

It is the opinion of many servicemen that such hiring can prove advantageous to both student and employer. The former, it is pointed out, gains valuable practical and technical knowledge, with which he augments his school work, and the serviceman gets a helper with valuable experience already learned.

The opinion of the radio man on this question is heartily subscribed to by educators. Ambitious students, working after school or during vacation for a radio repair organization, are certainly going to progress more rapidly with their school radio studies as a result, schoolmen agree.

A good example of school radio teaching activities is found in Sewanhaka Central High School in Floral Park, Long Island, N.Y. Here is a complete radio training program, and one which has had significance for local radio dealers.

## 300 Hour Radio Course

A "pre-induction" course heads the list at Sewanhaka. The radio section of this course is extremely valuable as is shown by the study outline which includes basic electron theory, circuit principles and ohm's law, electrical instruments, electrical power calculations, electro-magnetism, electrostatics, alternating current principles,

## Radio's Fledglings Prove Their Worth to Long Island Local High School Course Turns Out Real Aids for Men Who Are Finding the Help Shortage One of Their

vacuum tubes, power supplies, radio receivers and apparatus identification.

The course, which includes other subjects, in addition to radio, runs for 300 hours and there are 4 classes weekly.

There is another class called a "radio mechanics group," and shortly before school closed, this class, building radio receivers, consisted of 20 boys and 7 girls.

The technical electrical course at the school is 4 years long, and it also includes radio.

A course in light assembly work has also been concluded. This class consisted entirely of senior year girls. Special emphasis on the techniques of soldering was stressed. It can be seen that instruction of this sort would prepare students for work in radio shops in cases where students are able to schedule their spare time or vacation periods.

## Taught Paid "Trainees"

Aircraft assembly work was taught in another course, and the school also ran an 8-week course for women employees of a nearby war plant. These women were paid trainees. Still another course was in sending and receiving radio code. The course started with listening to Signal Corps records, and ended with actual sending and receiving by the students.

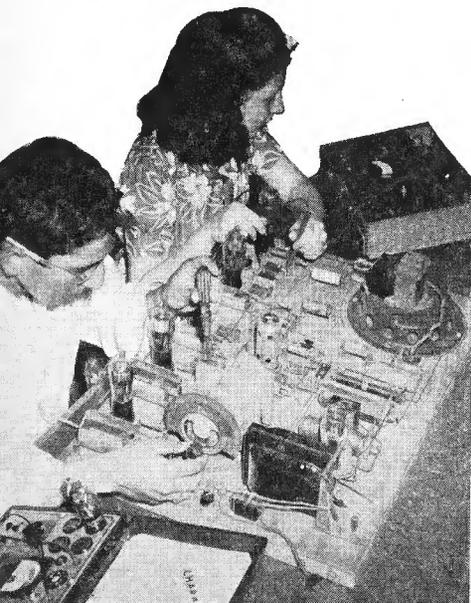
Sewanhaka has the best and most

modern equipment, including meters, oscilloscopes and radio material. So interested are the students in radio in this school that they have formed an organization called "The Public Address System Club." The club members service and maintain the school's public address system, and must be members of the technical electric course to qualify for membership in this club. Dr. A. T. Stanforth is principal of the school. H. W. Nordahl is coordinator of the pre-induction course, and the various radio classes are operated by E. E. Eberle and John W. Stahl.

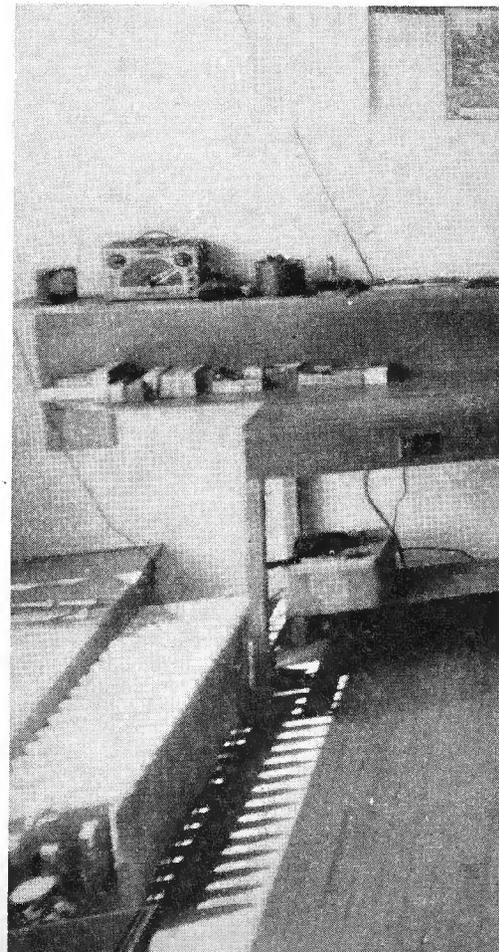
## Dealer Uses Students

Many former students of Sewanhaka radio courses have gone far in the communications fields in military and industrial work, according to members of the faculty.

R. W. Scofield, who for the past seven years has owned and operated the Scofield Electrical Appliance Co.,



Doing more than just seeing what makes it tick, Sewanhaka Central High School students are shown in three different classes (left and two upper right). Courses include instruction for radio mechanics, "pre-induction" and paid "trainees." (Right) Mr. Scofield in his sunny, well-equipped repair shop. Mr. Scofield is one of the dealers who believes in his young help (note young man at right in photo).



# Helpers

## nd, N. Y., Servicemen. r Busy Radio Repair Most Serious Problems

at Bellerose, N. Y., near Sewanhaka, is one dealer who can testify about the value of these students as helpers in radio servicing.

His place of business is extremely popular with the radio students. "Sort of an extracurriculum for them," explains Mr. Scofield, who specializes in radio.

### Engineering Background

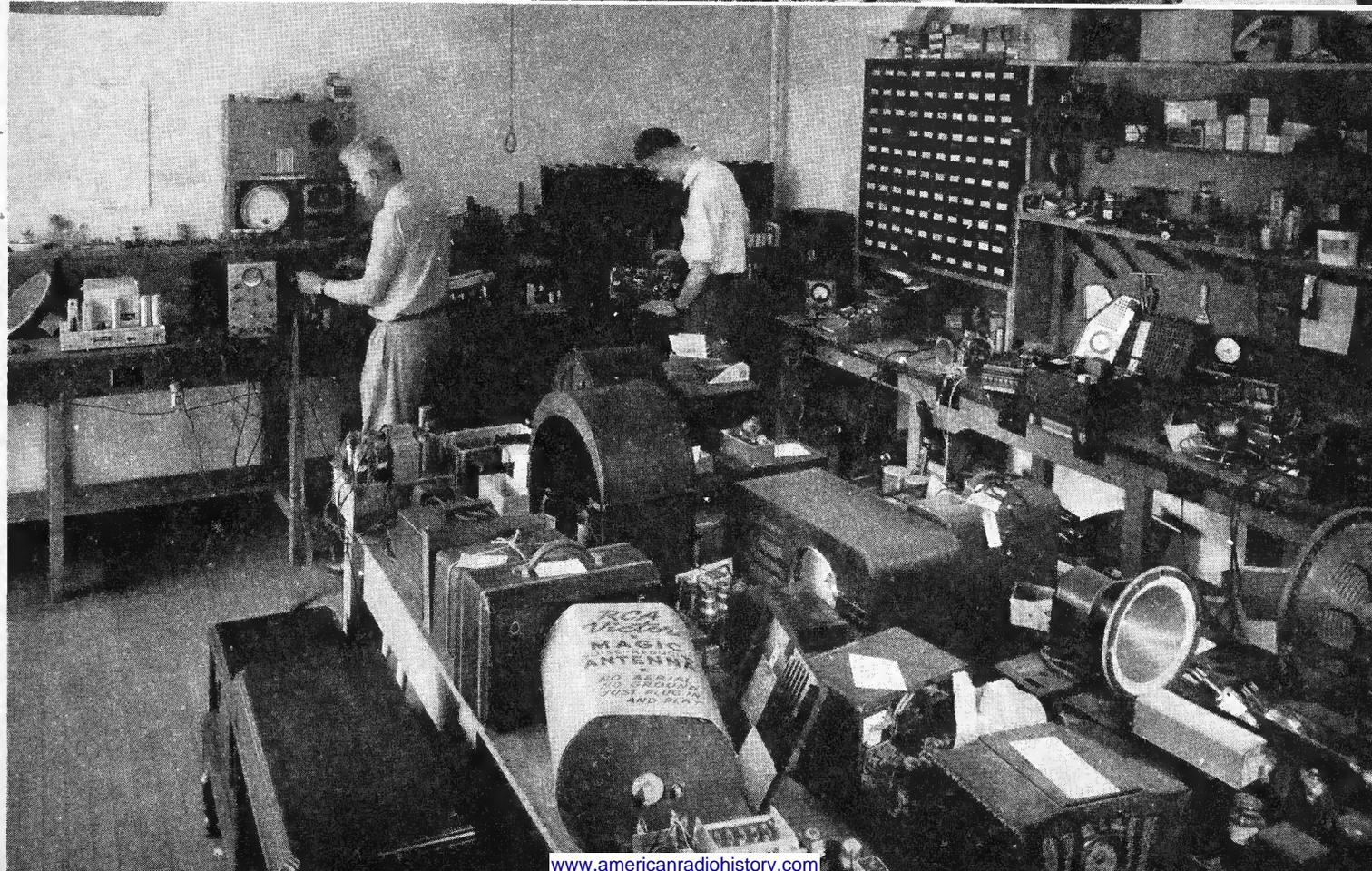
With an extensive engineering background, Mr. Scofield, who has held important positions with American Telephone and Telegraph, Western Union, and New York and Queens Power & Light Co., is well qualified to answer questions asked by the students, "although many of them are posers," he says.

Mr. Scofield's interest in the students and their problems, it will be seen, is one way the radioman can identify himself with community activities.

Mr. Scofield, who has had a former

Sewanhaka student of the technical electrical course working for him for some time, agrees that the plan for hiring these students for part time work is entirely feasible for radio repair organizations. "While it is impossible for the radio serviceman, in most instances, to compete with big industries for the services of graduates or those who have left schools permanently, it is entirely practical and possible to secure the services of students after school hours or during the vacation period," said Mr. Scofield.

(Continued on page 58)



# They Remember The Dealer!

• Despite the fact that between 80 and 90 per cent of their business is being done with war plants, armed services, schools and colleges, Hatry & Young, whose main establishment is in Hartford, Conn., find time to take care of their radio dealer and serviceman accounts in the state.

By diligent use of PD-1X and L-265 they have managed to keep a good inventory on hand, with the exception of certain types of tubes. They have also kept the trade informed on various new regulations and procedures as soon as they are put into effect.

## Thanks from General Arnold

Hatry & Young's experience with procurement and supplying of electric components and equipment to war plants started about two years ago when the firm began receiving priority orders from the aircraft manufacturers in Connecticut. Last year the firm advertised extensively to buy all types of used test equipment, and they were very successful in procuring used meters and communication equipment, which they turned over to the Signal Corps, Army, Navy, Coast Guard and war plants.

Two technical consultants in the

employ of the firm spend all their time on the road calling on war industrial plants.

Recently, Hatry & Young received the following telegram from General H. H. Arnold, Commanding Officer of the U.S. Army Air Forces: "To the men and women of Hatry & Young:

"American men and women on the production line may well be proud of

their record of achievement in the building to 100,000 aircraft. The Army Air Forces is thankful to every one of you. You are making victory possible."

These electronic specialists, consultants and expeditors have lost many employees to the armed services and to the war industries. The organization normally consists of 24 employees, but during the last year and a half they have lost 39 employees. Despite this situation, they have managed to keep up production records, and are now serving not only Connecticut war plants, but many others throughout the country. They also manufacture considerable special electronic equipment.

## Appointed Distributors

Recently appointed as Stromberg-Carlson sound distributors for the entire state of Connecticut and for the city of Springfield, Mass., Hatry & Young have branches in Bridgeport and New Haven, Conn., thus occupying strategic positions in vast war production centers.

The partnership consists of N. T. Young and L. W. Hatry. The latter has been elected a director in the National Electronic Distributors Association, and attended the sessions of that organization in Chicago last month.



In Laboratory are shown L. W. Hatry, standing, right, and N. T. Young, left, front of speaker.



*We are proud of our part  
in arming the United Nations*



**WILCOX-GAY CORPORATION**  
CHARLOTTE, MICHIGAN  
Pioneer Manufacturers of Electronic Equipment



## Radio Across U.S.A.

(Continued from page 17)

**OCONOMOWOC, Wis.**—At the Service Electric Co., Ned Smith and Bob Kuenne were doing a fine service business. They even repaired postage cancelling machines for the local post office, and repaired various equipment used by fancy stock breeders, in addition to the regular run of radio work. Recently they closed up their shop to take positions as radio instructors at Truax Field, Madison.

**WATERTOWN, N. Y.**—The help situation is reported as acute. Radio servicemen who have trained women, report that many leave after training is completed to join armed forces or to secure technical jobs elsewhere.

Radiomen Mattraw, Curtis-Shearn and Glen Smith know that the Waac's are in nearby Pine Camp, due to the rush of work on portables owned by women in this branch of the service. According to report, Waac's don't kick about prices; are interested in watching the work being done, and want it done while they wait. Many portables are owned by the Waac's, say the radiomen, and most of the sets are of recent make.

**DENVER, Colo.**—Herbert Names, Inc., 1522 Stout St., finds it must adjust conditions to suit the times, and notes that service equals sales in volume.

The shift in emphasis from sales to service has resulted in a personnel change from nine salesmen and one service man to two salesmen and six service men. In the former setup, the volume ratio was 30 to 1; today service is even with sales in volume. Substantial display space in the classified section of the Denver telephone directory and in a popular radio log newspaper supplement, make up with the window display the promotional effort responsible for the increase in service volume.

**LAKE MILLS, Wis.**—E. Engsberg of Engsberg Electric Co., sells a lot of electric fence to farmers on priority. Two of his men have gone to the Army and his shop is jammed full of radios and appliances waiting for repairs. Mr. Engsberg now works single-handed, while his wife takes care of the office work and does minor repair jobs.

**HARTSELLE, Ala.**—Here is what Doss Hardware Co., Hartselle, Ala., did to clear out the log jam of work in its radio service department

1—It discontinued outside service and pickups. This takes too much time and manpower is too short for that right now.

2—It put school boys to work in the department—boys under 18 and not subject to the draft. These boys work after school and during vacation and help get out the volume of work. Some of the boys, incidentally, know radio hookups like a book.

3—It instituted a \$1.00 service charge. This fee is charged for diagnosing the trouble with the set. If the owner then has the work done, the \$1.00 is absorbed in the total bill for the job. The object of this was to eliminate free set testing.

Under this setup mechanics are kept engaged a maximum number of hours at the bench. N. T. Tidwell, manager of the department, sees that his men are quickly supplied with needed parts so that there will be no delay on that account. He has done his best to install factory production methods.

This concern has been selling and servicing radios for 15 years and enjoys a tremendous country trade. As the war has made farmers more radio conscious the volume of repairs has doubled and tripled. "We just had to do something to speed up operations through the shop," said Mr. Tidwell. "We have no rules that we don't break sometimes, but where a shop is crowded with work there must be some system and some dispatch."

**JANESVILLE, Wis.**—Paul Paulsen, in charge of the radio and appliance repair department at Douglas Hardware Co., says that a soldering iron is a mighty handy thing to have around these days. He makes a business of soldering milk cans, wash boilers, tea kettles, and all kinds of milk utensils for farmers. The store has added baby furniture and supplies, unpainted furniture, work and sports clothing.

**HOMEWOOD, Ala.**—The Radio Service Shop uses school boys for service work, employing 16 and 17-year old youths, too young for the draft.

**SYRACUSE, N. Y.**—Stocks of receiving sets are at a new low here. A survey shows that only high priced combinations and very cheap radios are available. Merchants feel that the combinations will sell well to people unable to take vacations this year.

The parts and tube situation here is not a rosy one. Replacements for fairly modern sets are available, but difficulty is being experienced getting components for the many very old sets being brought in to local men for repair.

**WAUKESHA, Wis.**—New lines at the Oak & Abbott shop, include ice refrigerators, soap and bottled gas. The firm is also buying used appliances for reconditioning and resale.

**HOUSTON, Texas**—When new radios and electrical appliances began getting very scarce, Ben Duffie, owner of the Ben Duffie, Inc., 1009 Westheimer St., Houston, Texas, began capitalizing on his hobby—flower growing. Mr. Duffie had taken a lot of prizes at flower and garden club shows—he put in a small line of flower seed and other garden supplies and today this part of the business is a major line that keeps the store open while Ben Duffie yet retains a going concern and retains his identity as a radio and refrigerator merchant.

**MOBILE, Ala.**—The Sigler Electric Co., uses defense workers, who do service work in the shop in their spare time.

**DENVER, Colo.**—Le Moine Bechtold of the Le Moine Music Co., adapts business to wartime conditions.

Among the outlets for bargain units are those who have plans for fixing over a few rooms into little apartments to be rented furnished. Increasing housing difficulties make this market substantial. Hung conspicuously in the middle of the store is a large banner reading "BUY NOW—GROWING SCARCITY—BUY NOW." As a means of squeezing the maximum yield from available stock, a big renting business has been developed in radios, pianos and refrigerators, the ceiling on the latter being eased somewhat by permission to make delivery charge of five dollars (covering both ways.)

# RADAR

## Helps Destroy Enemy Raiders

**Every Day On Shopping To Help Win the War**

Buy the best quality goods at the lowest prices. Buy the goods that are made in the U.S.A. Buy the goods that are made in the U.S.A. Buy the goods that are made in the U.S.A.

**BELOMONT RADIO, working directly with the U. S. Army Signal Corps and Navy Department, helps arm our forces with one of this war's greatest weapons—Radar!**

Radar "sees" through fog, clouds, and darkness—spots enemy ships and planes—gives the range—a never-failing sentinel on land and sea.

Even the famous American bomber was never guarded more jealously or surrounded with such secrecy as Radar. But thanks to the vigilance and engineering genius of the U. S. Army Signal Corps and Navy Department, some of our outposts were equipped with Radar even before Pearl Harbor.

When an undeclared war raged down from the skies that peaceful Sunday, the Signal Corps and Navy Department immediately went into action. Belmont immediately went into action. Belmont immediately went into action. Belmont immediately went into action.

**A PROMISE FOR THE FUTURE**

The development and production of Radar is an achievement in which we are proud to have played a part. And we are proud to have played a part. And we are proud to have played a part. And we are proud to have played a part.

BELOMONT RADIO CORPORATION • ONE N. DICKENS AVE. CHICAGO, 39, ILLINOIS

**AURORA DEFENSE CORPS DISPUTE LANDS IN COURT**

A dispute between the Aurora Defense Corps and the Aurora Defense Corps has been taken to court. The dispute is over the land in the Aurora Defense Corps. The dispute is over the land in the Aurora Defense Corps.

# Belmont Radio

TELEVISION \* FM \* ELECTRONICS

## A Message to Millions

The story of Belmont's important contribution in the engineering and production of Radar equipment adds even greater meaning to the keynote in Belmont's advertising message—"Look to Belmont for great new things to come!" In dominant newspaper space and in full color magazine pages, these stories of wartime achievements are blazing a name for Belmont Radio and preparing a vast

post-war opportunity for Belmont distributors. Right now, all of Belmont's engineering and manufacturing facilities are fully concentrated on winning the war. This must continue to be the objective before us all. But when victory is achieved, and when radio broadcasting is ready for a great move forward, Belmont Radio will be ready too. So, keep your eyes on Belmont!

BELMONT RADIO CORP., 5921 WEST DICKENS AVENUE, CHICAGO, 39, ILLINOIS

# Belmont Radio

TELEVISION \* FM \* ELECTRONICS

# Variety Lines

• With many of the large jobbers and distributors "out of ideas" for alternate lines for radio retailers to sell; with some of the former head over heels in supplying critically needed war materials, and with others still thinking the matter over, one enterprising radio retailer urges his fellow dealers to get busy and do some "shopping."

This dealer says you can't stay in your place of business and hope some line will come in. He says "go out and look for the hard-to-get-easy-to-sell" merchandise. Don't overlook any sort of clue to the whereabouts of existing stocks of pre-war products. This dealer has limited store space, yet a representative of RADIO RETAILING TODAY found he had about 150 receiving sets on hand, all new, including a few television receivers. This dealer also stated that he'd recently sold a couple of \$400 television sets in one week, and that is good business in these times, or in any times.

## Buying Used Stock

This retailer, like a number of others, is going out and buying up all the old electric fans he can get. He then reconditions them for resale. He also buys used commercial hair dryers to resell, and numerous other electrical appliances for the same purpose.

In his store and show windows one sees a large stock of radio parts, microphones, crystal radio sets, juice extractors, beverage sets, vacuum cleaners, door chimes, health scales, electric egg cookers, used reconditioned hand irons, flashlights, and even quite a stock of electric clocks.

Heretofore this dealer was exclusively in the radio business.

## Like What You Sell

The advice one distributor has to give radio retailers who are looking for alternate lines is to "like what you sell," and to learn all about the item or items you decide to take on. "Adopting an unfamiliar item is like

adopting an orphan," said this distributor. "If you don't like children, you're certainly not going to make a success of the adoption."

Another point stressed was the suggestion that an endeavor should always be made to select lines as nearly allied to radio as is possible. This, it was pointed out, is one of the reasons that radio retailers have been so successful with records, record players, record racks and other accessories, when they took on this line.

In one large city a representative of RADIO RETAILING TODAY found much reputedly scarce merchandise for sale. This included radio receivers, vacuum cleaners, electric clocks, sunlamps, baking lamps, glass coffee maker

stoves, electric roasters, door chimes, fluorescent lighting fixtures, and even new electric fans.

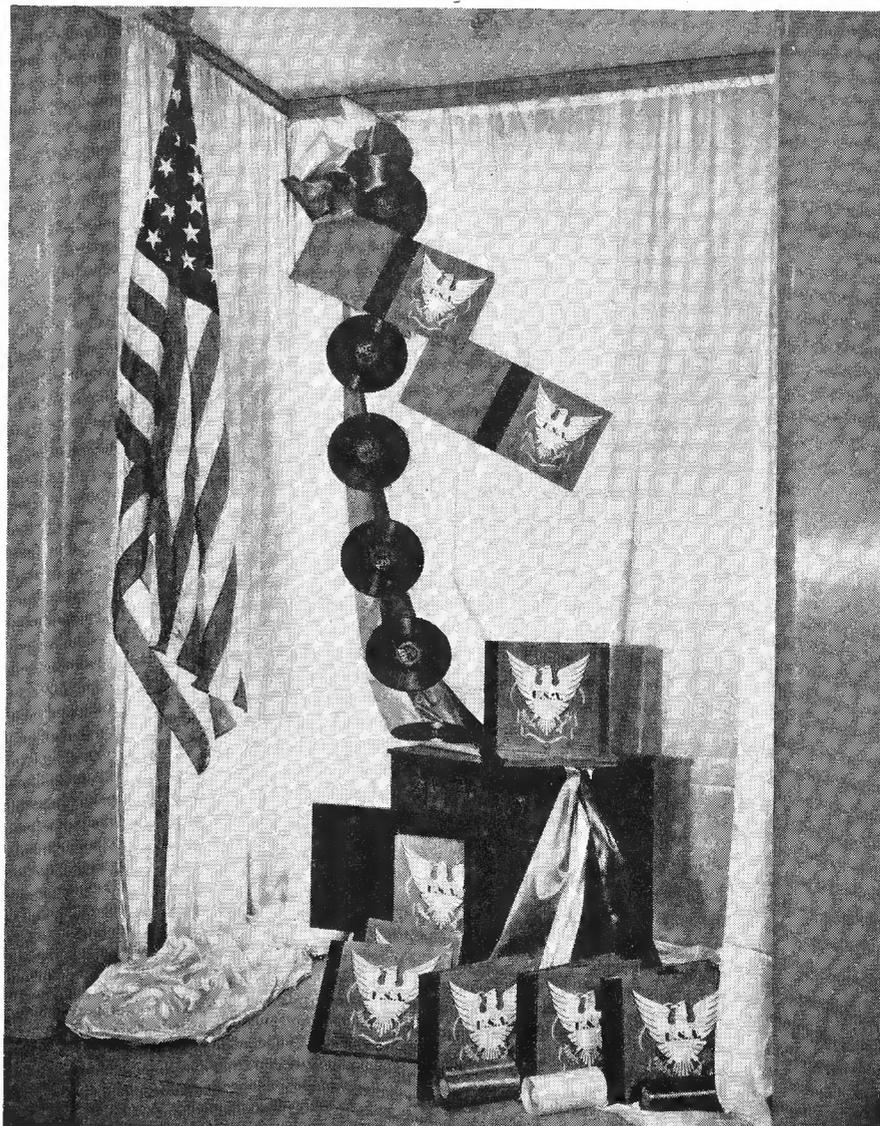
## Cheap Items Plentiful

That there is a big supply of cheap electrical appliances still left is evidenced in the displays by chain outlets of vibrators, hair dryers, low priced electric fans, sandwich grills, etc., in some of our large cities.

A number of distributors and jobbers, heretofore exclusively in the radio or electrical appliance fields are selling paint. Some are stocking odd lots of glass table lamps, and many go in for glass and wood bar accessories.

A new glass coffeemaker in 2-cup size has made its appearance in stores from coast to coast. The makers claim that this product "extracts coffee, using less or giving more."

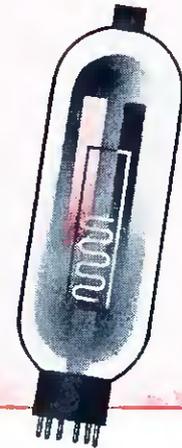
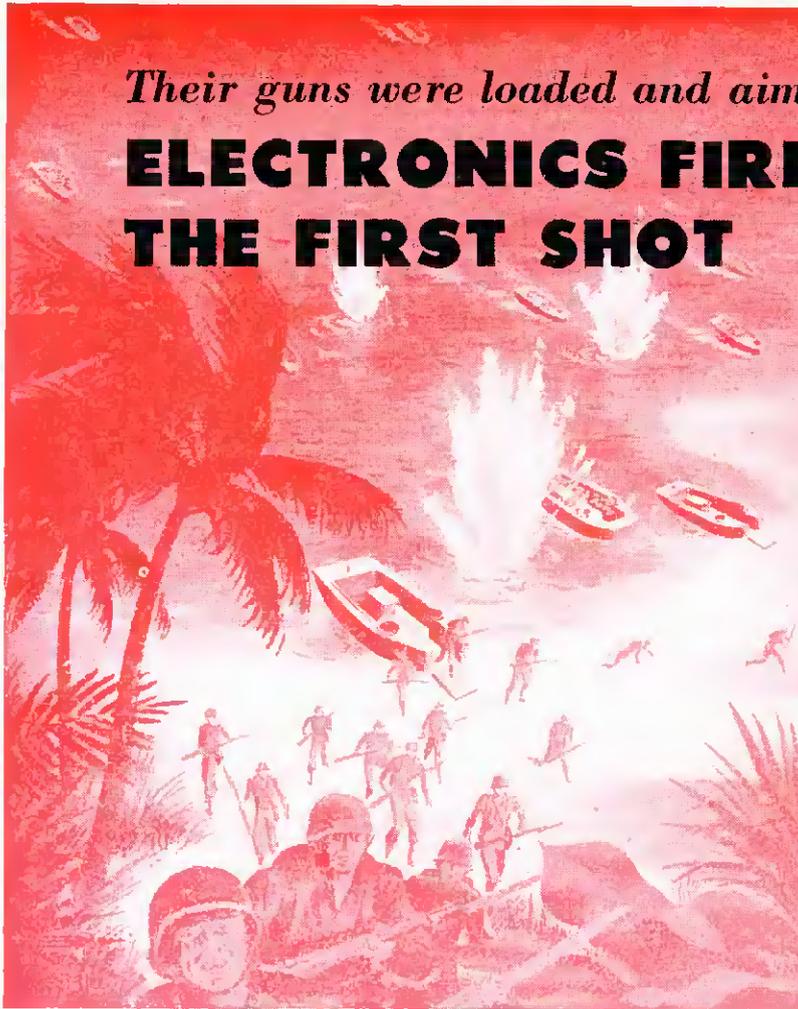
## PATRIOTIC RECORD WINDOW



This attractive wartime window by Higbee Co., Cleveland, features an album of patriotic music and service songs (Hit album No. H-103).

*Their guns were loaded and aimed...yet*

## **ELECTRONICS FIRED THE FIRST SHOT**



*On Sunday, November 8,*  
in North Africa, the sound  
which broke the peaceful still-  
ness of that eventful night was  
not the booming of allied guns,  
nor the throbbing engines of  
countless landing barges. It was  
a VOICE—the friendly voice  
of the President of the United  
States saying “We come among  
you to repulse the cruel invaders  
—Have faith in our words—  
Help us where you are able.”

*At many points where our boys landed along the North African coast there was little, if any, resistance because electronics had already won the day. By short wave radio America's motives had been made clear. Days of fighting were avoided. Thousands of lives were saved.*

This historic military achievement and many others on today's world battle fronts have won the electronic tube a place among the great weapons of modern warfare. Yes, electronic tubes can fight! And to supply these fighting tubes for our fighting forces the men and women of National Union have doubled and redoubled production. We know the day is coming when these tubes and the knowledge and

skill which build them will be reconverted to the needs of peace. In National Union's plans for this new age of electronics that lies ahead, your job, as a service engineer, will be more important than ever before. All that you'll need to gear up your business to this bigger job—tubes, test equipment, guidance in servicing and selling—National Union will have ready for you at the word “go”.

**NATIONAL UNION RADIO CORPORATION • NEWARK, NEW JERSEY • LANSDALE, PA.**

# **NATIONAL UNION RADIO AND ELECTRONIC TUBES**

Transmitting Tubes • Cathode Ray Tubes • Receiving Tubes • Special Purpose Tubes • Condensers •  
Volume Controls • Photo Electric Cells • Exciter Lamps • Panel Lamps • Flashlight Bulbs

# Wartime Parts Supply

## \$25 or More for Farm Radio Batteries

• Under a new priorities regulation (No. 19) the WPB has put into operation a program worked out by the Office of Civilian Requirements, enabling farmers to buy \$25 worth of farm radio batteries, or more with certain approvals.

The regulation is extremely simple to operate under, and it pertains not only to batteries but to 143 other farm items.

In order to secure items under the regulation the farmer gives the dealer a certificate which states:

"I certify to the War Production Board that I am a farmer and that the supplies covered by this order are needed now and will be used for the operation of a farm." This certificate is not a WPB form. It may be furnished by the dealer or written by the farmer himself.

### No Waiting for Dealer

To enable the dealer to stock up without delay on farm supplies he

expects to sell, he may place such orders without waiting for farmers' certificates, by certifying to his supplier that he expects to sell the goods covered by the order and that the goods covered by the order plus the goods on hand will not exceed a month's normal inventory.

It is explained also that a dealer may sell any of the items on the emergency or long-range list to a farmer without a certificate, but he cannot get a priority for replacing the supplies without a certificate.

There are 66 items in the "emergency" listing, in which radio batteries for farms are included. The "long-range" program includes the 66 items in the "emergency" list and also 78 additional ones. The "emergency" list represent items most urgently needed by farmers.

### Dealer's Certificate

A farmer may buy \$25 of any of the items on the list, and may buy more if his certificate is approved by his local County Farm Rationing Committee.

## "WERS" WANT PARTS

Mignon R. Rosenfeld, "WERS" operator, New York City, and well known to metropolitan radio men as the energetic assistant to Ben Gross, Stromberg-Carlson distributor, makes an appeal for radio parts, asking that prospective donors call V. T. Kenney, radio aide, "WERS," Room 7, City Hall, New York. Miss Rosenfeld writes: "We need anything that can be used for building or converting into 2.5 meter receivers and transmitter: any available transmitters and receivers — acorn tubes, high frequency tubes, batteries, vibrators to be used with storage batteries for auxiliary power supply; 2.5 measuring instruments, 5 to 30 MMFd condensers, etc.

Miss Rosenfeld also needs an auxiliary power supply for her precinct, and states that anything "loaned" will be returned after the war is over.

## RADIO CADETTES AT PURDUE



A dealer can use the farmers' certificates which he has received to get priority on his own orders for listed farm supplies up to 75 per cent of the dollar amount of his sales. He does not have to use certificates to get the same kind of supplies as those he has sold, but can use them to get any of the farm supplies covered by the regulation, except for a few items for which other methods are provided.

To get priority, the dealer signs the following statement on the purchase order he places with his supplier:

"I certify, subject to criminal penalties for misrepresentation, that the dollar amount of this order is not more than 75 per cent of the sales price of farm supplies which I have sold under Priorities Regulation No. 19 against farmers' certificates now in my possession, and that I have not used the same certificates as the basis for getting a priority on any other order."

"Radio Engineering Cadettes," these two young women, paid trainees of RCA, are shown studying voltage indicators under the supervision of one of Purdue's professors.

# RADIONICS

with its subdivisions of Radar—Electronics—Radio  
will provide *practical* new post-war radio features

After the war—Zenith will *not* give you the impractical fantastic “dream-models” produced by crystal gazing designers. Zenith’s post-war planning is *extremely practical*.

Advanced design, better and service-free performance, finer tone, wide choice of *advanced practical design*, strategic pricing with full value for the customer’s dollar; features you can see, hear, feel, touch—these are the stuff of which Zenith leadership in radio is built, and will continue to be built.

As *we* are planning, practically, so we ask *you* to plan.

*Now* is a good time to ask yourself some down-to-earth questions about your radio business. Ask yourself:

## Question:

Which radio line has in the past given me the most salable features, greatest choice of line designs, least service troubles, best trouble-free phono-combinations, finest tone, unusual tone devices, most “first-time” improvements?

Now is a good time to check—

- \_\_\_\_\_ My finest over-all price—feature—design—service—performance radio and radio-phonograph line.
- \_\_\_\_\_ Second choice.
- \_\_\_\_\_ Third choice.
- \_\_\_\_\_ Fourth choice.

Questions like these, if you answer them with care—put the answers down—will help you make your decisions for post-war business. When you pick a horse to win, you study his background and bet on his future.



So ask yourself that question and get your answers, for the sake of everything you have built into your business. And after the war, watch Zenith!

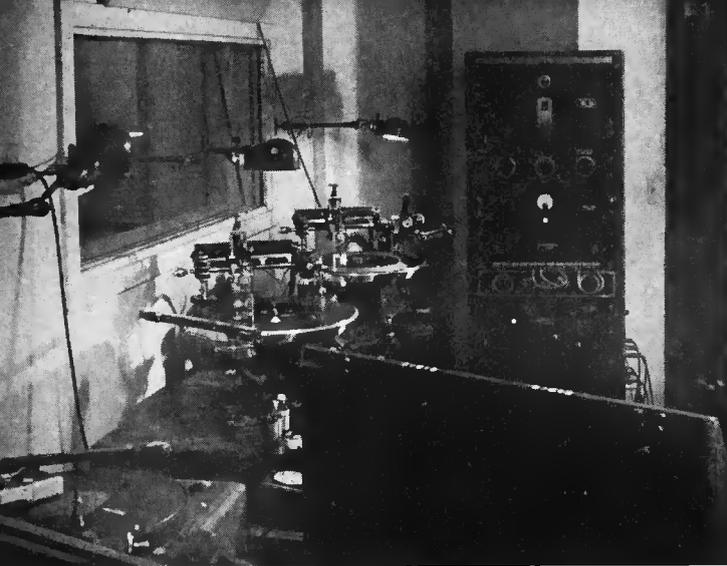
*Next month—some more important questions it will do you good to answer. ZENITH is making post-war plans. Why not you?*

ZENITH RADIO CORPORATION, CHICAGO

## BETTER THAN CASH

U. S. War Savings Stamps  
and Bonds

**ZENITH**  
REG. U. S. PAT. OFF.  
LONG DISTANCE  
RADIO  
RADIONIC PRODUCTS EXCLUSIVELY—  
WORLD'S LEADING MANUFACTURER



Partial view of control room (left) and of studio "A," at right.

# Recording Offers Variety

*Never a Dull Moment in the Disc Business as New Uses Develop Daily*

• The instantaneous recording business has many angles of interest to the radio man, and its widespread acceptance and adaptability assure its position as an important adjunct to the radio business.

New uses for recording services are developing every day. A notable example of this is furnished by the Schirmer Recording Studios, 3 E. 43rd St., New York City, where the studios began as a novelty and grew to major operation.

A complete report of this activity has been prepared for **RADIO RETAILING TODAY** by R. V. Hyndman, sound engineer at Schirmer's.

"As a service feature for the company, a wide range of recording is provided our clientele, from the casual amateur to the world-renowned professionals of radio, stage and screen. We record sopranos who bring their canaries to sing with them, and five-year-old prodigies who insist on a piano with a soul. We have lecturers who request that their accents be removed from the records, and love-enthralled swains who propose marriage by record. We take care of composers with weird systems of musical notation which avoid the customary staves and notes, who ask our studio accompanist to read their hieroglyphics at sight.

We record masses for Peruvian indians, Barnitzvoh speeches, lectures on autohypnosis, Halloween

jokes and sound effect without limit.

"Started a little over five years ago as a novelty, with one small home-type recording mechanism in one of our practice rooms, recording soon began to outgrow these facilities. Then a modern studio with professional equipment was installed and the Schirmer Library of Recorded Music began to appear in record shops throughout the country. The success of the albums and single discs released by the company, plus the always increasing demands for studio recordings caused another change.

## **Have Modern Studio**

"We then inaugurated the present set-up. Our facilities now include two large, well-equipped recording studios, a capacious waiting room, sound-proofed control room and a large rehearsal hall where programs may be rehearsed or complete recitals held.

"The studios are now an integral part of one of the largest music houses in the world. They serve both to make masters for release under the Schirmer label and to supply master recordings for some twenty independent record companies.

"The acoustical treatment was done by experts in the field and the recording equipment is the best obtainable.

"Not only do we record greetings from "Googie" to "Bobo" such as an occasional girl will send her boy

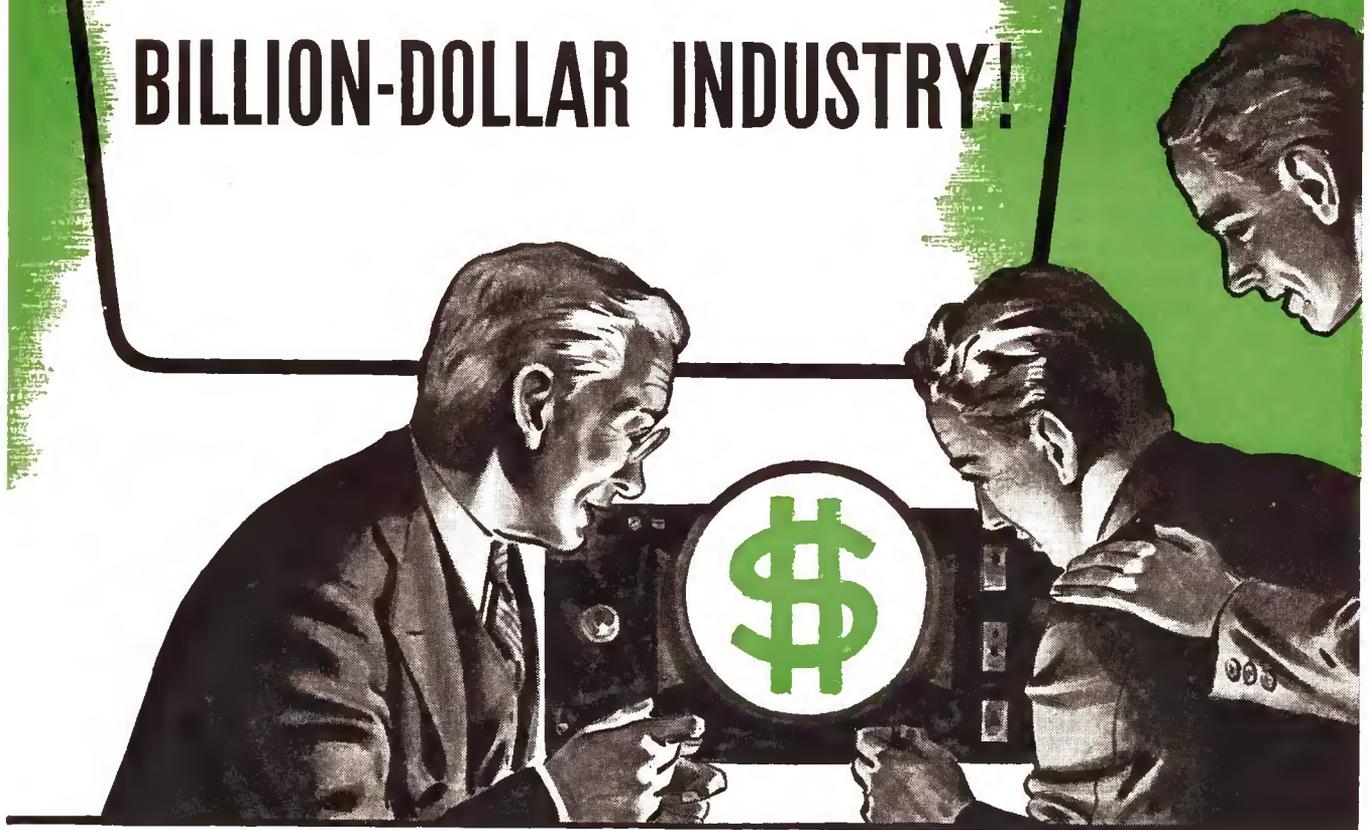
friend in the service, but we record oral letters from soldiers and sailors of many lands to their wives, sweet-hearts and kin. Screen stars making a checkup on new parts or radio lines, opera singers rehearsing new roles, music students of vocal and instrumental schools, composers trying out new numbers, and night-club singers seeking new effects all record with us.

## **Work to Aid the War**

"As a hook-up with our radio and record shops, we are often able to advise our salespeople on the best kinds of home recording machines to handle, the best needles to use and the care of records. In addition, we are able to turn many a discriminating buyer into these shops when asked our opinion, as sound engineers, on the best radios, phonographs and other equipment.

"In line with the war effort we turn out discs for a number of government agencies, propaganda material for several embassies, on-the-spot recording for the Naval Reserve and Maritime stations, and foreign-language records for rebroadcast to European underground channels. Our war work is steadily increasing and we are not always able to take prompt care of the non-military work, but we are glad to serve the war effort and our clients cooperate readily in giving up their appointed time to that end when necessary."

# THE NEXT AMERICAN BILLION-DOLLAR INDUSTRY!



Dealers and distributors who have been successful in radio are looking forward to television as the next great industry to present outstanding profit opportunities.

The business this huge post-war industry will bring can be yours. *For today's radio dealers will be tomorrow's television dealers!* The market, the background and the service organization will be very like radio's.

Farnsworth was a pioneer in the creation of electronic television. Today,

all our promotional work is devoted to preparing the tremendous market that you will serve when peace comes.

Farnsworth production now is entirely precision devices that serve as the eyes and ears of our fighting men. But after Victory comes, there will be finer radios and phonograph-radios to fill a great demand; then television equipment for countless commercial, institutional and industrial jobs; and finally, the wonder of television for every home.

## ADVERTISING BUILDS THE MARKET

All Farnsworth advertising is directed at your post-war market, creating demand for the better sets to come, explaining what television will bring.

Serving this market will be your job — with greater business possibilities than you can imagine.

- Look for the current Farnsworth national magazine advertisement in July *The Atlantic*, July 19th *Time*, July 24th *The New Yorker*, July 26th *Life* and *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-Radios.

# Dehydrators Coming Up

*Retailers See Victory Gardeners as Buyers*

• Something besides the vegetables being raised in Victory gardens is coming up . . . and that is the dehydrator!

In the face of material shortages on every side, plus restrictions on civilian supply, of canning equipment, including kettles, cookers, containers and sugar, the dehydrator is already finding itself in demand.

True, part of the food raised for preservation will be canned or pickled, stored in cellars. Most fruits and vegetables have a large percentage of water content. Dehydration is helpful in conserving the vitamin content to a greater extent, while it also allows water loss.

## **Various Heat Sources**

There are several types of dehydrators that can be grouped into two general classes: those used in sun drying and those employing controlled heat. Originally brought into popular use by the larger farms some years back, the dehydrator is not new, but at that time was largely home-con-

structed and heated either by the sun, by being hung over the kitchen coal-stove, by an oil stove placed within, or in some cases by electricity.

It is this last that will probably emerge in smaller size for suburban use in these days of Victory gardening when most of the people with a small backyard in areas surrounding metropolitan districts are raising as much food as they can. Electricity has replaced the oil, coal and sun methods of heating almost exclusively.

Reports from the U. S. Department of Agriculture say there are very few factory-made dehydrators on the market and at the present the supply is small, but that at least one manufacturer has applied for authorization to build 50,000 of the small home-sized unit, to sell for between \$30 and \$40.

Interest in the trade is evidenced by the fact that at least one large mail order house has recently been testing a number of these driers with a view to manufacture of complete

units for home use. Capacity of these dehydrators varies from nine to sixteen pounds of vegetables, but they have not at this writing announced a line for sale. Large electrical manufacturers such as Stewart-Warner and General Electric Co. have evinced definite interest in the product's possibilities. One power company in West Virginia is at present making home units with glass trays for sectional distribution, another in the southeast is testing.

## **Ready to Manufacture**

A well known electrical manufacturer in the New York metropolitan area, among others, is practically ready to go on the manufacture of a small dehydrator made of wood, equipped with fan and electrical heating units. They plan to distribute through wholesalers, who in turn may be able to route the merchandise through to the dealers. At present, however, this company estimates the demand to be four to one, and cannot ensure that the units will at first reach the retail channel. However, they expect that the second batch will find its way to a very profitable market via the dealers.

Meanwhile, it should be worth the dealer's attention to follow dehydrator development carefully through his distributors, for when they are released, they should be a very profitable source of business in all sections of the country.

Two of the smaller types of dehydrator are reported on sale. A unit operated by the heat of a 300-watt bulb is on sale at a New York department store for \$5.95 and is manufactured by Landsman & Moody, Houston, Texas. Another, the type placed over any kitchen range, is manufactured by the Eastern Manufacturing Co. of Philadelphia, Pa., and sells for \$6.00 plus shipping charges.

With food a vital factor not only in winning the war, but equally so in winning and maintaining the impending peace, dehydrators should have a good sale, not only the minute they become a merchandising possibility, but for several seasons thereafter.

## **ZENITH "RADIO-IN-WAR" PROMOTION DESIGNED FOR DEALER SHOW WINDOWS**



For the purpose of maintaining public interest in radio, and to help dealers take part in the war effort, Zenith has prepared a complete kit with 5 displays, plus a card and window streamer. An attractive layout is shown above, using the display



*These, too, are fighting flags of freedom . . .* In ever-increasing numbers, flags like these fly over America at war. They are symbols of the strength of a free people, aroused in spirit, united in purpose. Battle flags of Victory today . . . they are won by the energy and skill that will build a better world tomorrow.

**SERVICES OF RCA WHICH  
HAVE WON OUR COUNTRY'S  
HIGHEST WARTIME AWARDS**

*Army-Navy "E" flags awarded to:*  
RCA Victor Division, Camden, N. J., January, 1942—with two stars for continued excellence.

RCA Victor Division, Harrison, N. J., August, 1942—with one star for continued excellence.

Radiomarine Corporation of America, New York City, September, 1942—with one star for continued excellence.

RCA Laboratories, Princeton, N. J., May, 1943.

*Maritime Commission "M" Pennant and Victory Fleet Flag awarded to:*  
Radiomarine Corporation of America, New York City, February, 1943.



**Radio Corporation of America**

# Washington Says

## Revised Rules to Give More Gas

A complete revision, on the basis of the degree of essentiality, has been made in the Eastern gasoline shortage area, according to the Office of Defense Transportation, for the purpose of according "preferential treatment."

In the same bulletin, industries affected are described under headings, A-1, A-2, and A-3, "very critical, critical and important," respectively. Radio communication and broadcasting is placed under the "A-1" rating.

## Test Instruments Output Speeded

The standardization of electrical indicating instruments, used primarily in military radio and radar, is encouraged by an amendment to Limitation Order L-203, issued recently by the War Production Board. The amended order is expected to raise output 10 per cent.

The amendment permits manufacturers to accept without preliminary WPB approval purchase orders for less than 500 instruments which conform to standards published by the American Standards Association or to specifications of the Armed Services. Automatic approval also is given on orders for less than 500 instruments any dimension of which exceeds 3½ inches and on orders for any number of polarized vane non-jeweled instruments, the most familiar of which is the ammeter on an automobile dashboard.

Instruments governed by L-203 are redefined to exclude portable instruments which measure more than one electrical quantity. The definition thereby differentiates between "meters" administered under L-203 and "test equipment" covered by General Scheduling Order M-293.

## Car Radios May Be Purchased

Jobbers, dealers and the public may now purchase automobile radios and automatic phonographs manufactured before April 24, under a recent amendment to the L-265 order. The original order, issued in the spring, prohibited the sale of any car sets, but on June 5th the order was amended to permit such sales "to any consumer." This phrase was eliminated from the original order by the latest amendment, and all sales of auto radios and automatic phonographs (made before April

24) were exempted from the L-265 restrictions, although transfers of automatic phonographs continue under L-21.

## Americans Get British Radios

Contributions of materials of war as reciprocal lend-lease by the United Kingdom to American troops serving abroad is indicated in reports released in London by the British Air Ministry, and in Washington by Edward J. Stettinius, Jr., head of U.S. Lend-Lease Administration.

Radio-telegraph equipment given the American pilots in North Africa, between October and April, was transferred at the expense of immediate reserves of the British units, the Air Ministry reports.

## Civilian Tube Types Cut in Half

According to a bulletin on simplifications and substitutions in consumer goods, issued by the OWI, just about half the former types of radio tubes

are now being produced—349 of a former 710.

As a result of cutting the former number of 3,500 electric light bulbs to 1,700, a saving of 8,000 pounds of valuable tungsten was effected. In addition, it made available about 325,000 square feet of floor space which was turned over to the production of radio tubes for military use.

Radio replacement parts are included in the 1,000 items which form good prospects for worthwhile 1943 simplification economies, without disrupting civilian living practices, the bulletin also states.

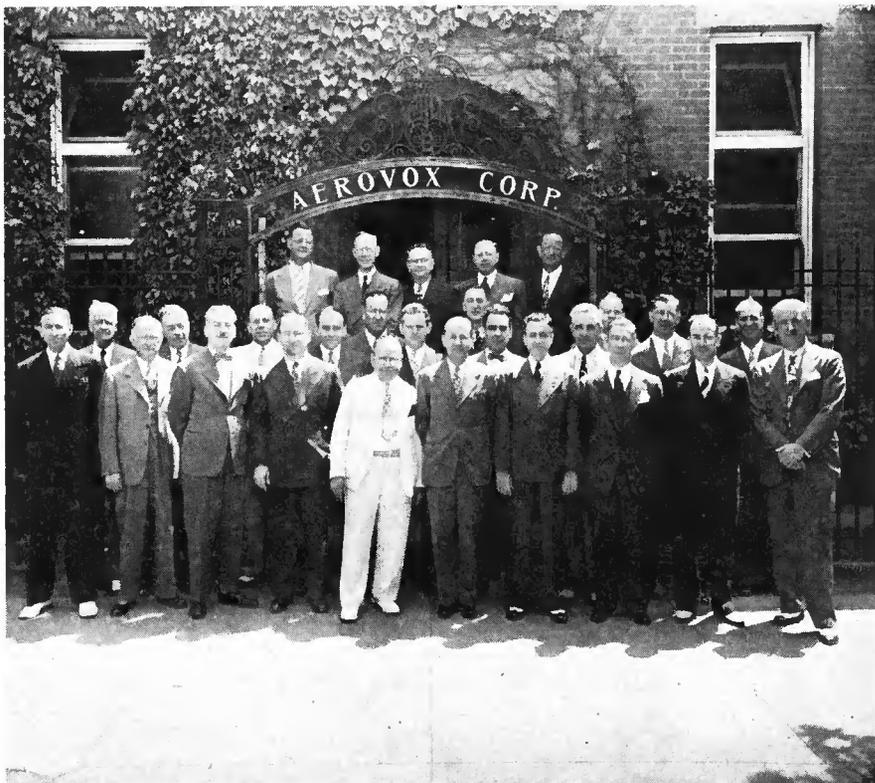
## Delivery Ban Eased Up on Radio

The ODT now allows two retail and two wholesale deliveries of radio in the Eastern gas shortage area, according to an announcement recently released.

Ornamental shrubs, nursery stocks, toys, novelties, jewelry, furs, radios, phonographs or antiques are among the products not specifically mentioned in the new table. The statement reads: "Two retail deliveries and two wholesale deliveries may be made of these and other unlisted commodities from one point of origin to one point of destination in one calendar week."

The ODT has also prohibited the retail delivery, in this same area, of packages which measure less than 60 inches in combined length and girth or weighing less than 5 pounds.

## AEROVOX REPRESENTATIVES AND OFFICIALS



On recent tour of inspection of Aerovox plants in Hamilton, Ontario, Taunton and New Bedford, Mass., the group poses in front of the executive offices in New Bedford. S. I. Cole, the president, is in white suit.

# after Victory . . .

A STATEMENT BY E. A. TRACEY, PRESIDENT  
MAJESTIC RADIO AND TELEVISION CORPORATION, CHICAGO



Since five months before Pearl Harbor, Majestic has been engaged in war production. The "Walkie-Talkie," famous radio of the firing line, and airplane marker beacons are Majestic products. Our engineers have developed, and our factory has built, several different types of communications equipment. Thousands of quartz crystals are being produced. Majestic has placed its entire facilities, resources and personnel exclusively at our government's disposal. All this has made its mark upon the Majestic organization. There are new names in executive positions,—names of men that are well known throughout the radio industry for their accomplishments in engineering and production, that are accustomed to doing things largely and well. In its key positions, Majestic is today one of the strongest organizations in our industry.

Under the stress of war time schedules, new standards of production have been established in the Majestic factory. Manufacturing tolerances, requiring precision unheard of in days of civilian radio, are now commonplace, and yet, production rolls from the assembly lines in an unbroken stream and at a higher tempo than ever before. Even so, one hundred per cent capacity is still a mythical figure we have not even approached. Majestic today is a more efficient,—a more capable organization.

After Victory, this strong Majestic organization will turn to civilian radio. Already plans are being prepared and the groundwork is laid.

Tempered in the crucible of war time production, led by dynamic, experienced veterans of the radio industry, with improved facilities and larger resources, Majestic cannot help but be an important, outstanding factor in the post war radio industry.

There will be new luster added to an already famous name in radio.

  
*Majestic*  
MIGHTY MONARCH  
OF THE AIR



*Builders of the Walkie-Talkie—"Radio of the Firing Line"*

# Viewing Vacation Record Scene

## You Can Take It With You

• Portable record players are going over in a large way in vacationland. Unable to get batteries for portable radios, those seeking rest and relaxation to music are putting records on portable phonograph turntables all over the land. And, naturally, they're buying records.

Gasoline use has been curbed drastically, but the vacationer is a hardy individual when it comes to transportation. No matter where one lives in the United States, he's comparatively near some place deemed suitable for a well-earned rest. And, he'll get there by hiking, bike, bus or train. Being a hardy individual, while he may miss his portable radio, he's not to be thwarted so easily, for if he doesn't own a record player, he'll most certainly borrow one.

Dealers report peaks now in summer selling, with a good portion of the vacation period still remaining.

"You can take it with you" is a cash register tinkling theme tied in with portable phonographs and vacation time.

## Recording Free for Service Men

In Houston, Texas, free recordings at the U.S.O. for service men of all branches are made for four hours each Sunday by the Lil' Pal Radio & Record Store, 1817 Main Street. J. G. Bradburn, owner of this store, explains: "We make an average of 45 records each Sunday for the boys—we send down two portable machines and two operators. The men donate their time and we pay the cost of the records and equipment. All records are censored and played back to the boys—all records are in English. The contact is good; the boys appreciate

this service; and we keep a steady stream of civilian and service men coming to our store to make similar recordings."

## Record Sales Up

This radio dealer has sold records for several years and in spite of the fact that new releases are very limited, because of James C. Petrillo situation, says Mr. Bradburn, he has been able to show a steady increase in business each month over the other. Record sales are running approximately \$100 per day. He has been able to get some new lines such as the Capitol line of records from Hollywood which sell out instantly.

## Farm Batteries

"The farm battery radio set situation has improved a bit," says Mr. Bradburn. "We have received about 75 sets of batteries during the past 30 days which are shipped out by parcel post the day received to a long waiting list. The supply is not sufficient to meet demand, but it is improving a little in this field."

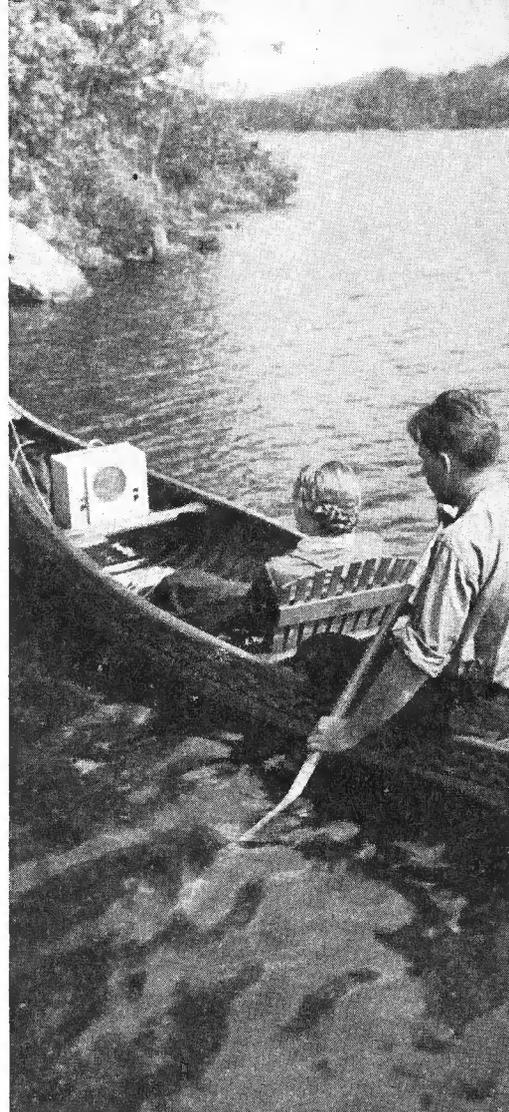
## Permo Changes Name

The name of the Permo Products Corp., Chicago, Ill., makers of the 5000-play Fidelitone phonograph needles for home use, and the Permo Point needle for coin phonographs, has been shortened to Permo, Inc.

## Invents Record Thread Remover

One indication of post-war improvements in recording is the granting of a patent to Roy Sinclair, an employee of the Muzak Co. in New York.

This patent is on a thread receiver and remover, and it covers a simple device that may be utilized by amateurs and others, to automatically remove the shavings or thread from



Music is a must with modern vacationers and record sales are boosted.

any disc being instantaneously recorded.

The device is also to be used as a receiver for shavings or thread from the transmitting stylus and it automatically adjusts itself to untrue or wobbly turntables and record discs. The Sinclair invention employs a cylinder cone which rolls on and by contact with the disc. The support for the cone or cylinder is resilient, and the device may be fastened to the instrument, if desired.

## Has New Record Changer

A new and revolutionary automatic phonograph record changing mechanism has been patented by the Stromberg-Carlson Co. The patent was issued to Dr. R. H. Manson, vice president and general manager, and Albert E. Schell, a member of the research department and assigned to the company.

Adaptable to a series of mixed 10 and 12 inch records, it is designed to play continually for a period of more than an hour, limited only by the number of records contained in the magazine.

# Hits! DECCA has them

HERE THEY ARE...  
ON AMERICA'S FASTEST SELLING RECORDS!

YOU'LL NEVER KNOW

18556 *Dick Haymes and The Song Spinners*

COMIN' IN ON A WING AND A PRAYER  
JOHNNY ZERO

18553 *The Song Spinners*

IN MY ARMS

IT CAN'T BE WRONG

18557 *Dick Haymes and The Song Spinners*

DON'T GET AROUND MUCH ANYMORE

18503 *Ink Spots*

18479 *Glen Gray and The Casa Loma Orchestra*

AS TIME GOES BY

6205 *Jacques Renard Orchestra (Brunswick)*

LET'S GET LOST

18532 *Jimmy Dorsey and His Orchestra*

IT'S ALWAYS YOU

\*3636 *Bing Crosby*

\*3638 *Russ Morgan and His Orchestra*

PAPER DOLL

18318 *Mills Brothers*

EAST OF THE ROCKIES

18533 *Andrews Sisters*

ALL OR NOTHING AT ALL

\*2580 *Jimmy Dorsey and His Orchestra*

\*List Price 35c — All others listed 50c

Prices do not include Federal, State, or local taxes



## DECCA DISTRIBUTING CORPORATION

ORDER FROM YOUR NEAREST BRANCH LISTED BELOW

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36 Bainbridge St., Brooklyn, N. Y.  
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# WALT DISNEY

introduces Donald Duck to the useful  
Mr. Electron and an amazing science—

# ELECTRONICS

A respectable electron can't have a private life any more. Curious people everywhere, hearing of this minute electrical particle, pry into his affairs, wonder how he makes a living.

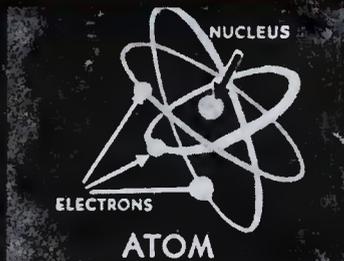
Spurred by mounting war needs, scientists probe the mighty midget's habits, harness his amazing energy—to warn against attack, help win air, sea and land battles, speed production.

After Victory, further knowledge of electronics will give impetus to industry, transportation, communication, medicine, touch our lives at every turn.

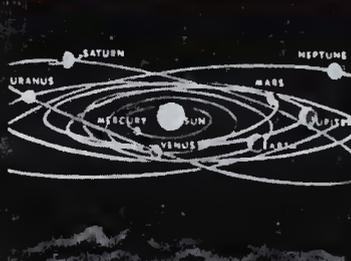
The incomparable Walt Disney and his artists, who have made many training films for our armed forces, are now working on a movie about the electron. For LOOK, they have prepared this special primer, in one easy lesson.



1 "Well, well," says Donald, "so you're Mr. Vacuum Tube!" Electronics deals with the control of electrons within such tubes, which may be tiny or giant-sized globes.



2 An electron is the smallest thing in the universe—an invisible particle of electricity. One or more rotate around a nucleus, this group forming an atom.



3 Think of the sun as nucleus and planets as electrons, and you see Mr. Atom as a miniature solar system. Like a planet, Mr. Electron spins on his own axis.



4 All matter—gold, leather, food—is made up of these atoms. Atoms of each element differ in structure; a hydrogen atom has 1 electron, a uranium atom 92.



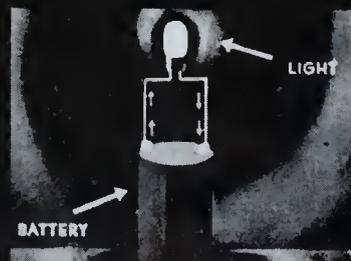
5 If Donald could magnify copper wire millions of times, he'd see countless copper atoms—including their electrons, of which 25 trillion in line equal one inch.



6 Meet Mr. Electron of the copper wire, as Walt Disney has depicted him. Actually, scientists have never seen an electron particle, nor will they ever see one.



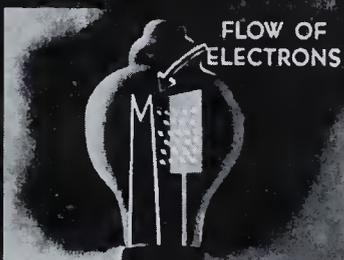
7 If Mr. Electron is moved along the wire, electric current flows. But he must be pushed, and the pressure comes from Mr. Volt, who emanates from a battery.



8 It's fairly easy to move Mr. Electron along a wire; causing a light to go on. But to isolate—and then control him—we must depend upon that vacuum tube.



9 Electrons flow best in a vacuum, Dr. Irving Langmuir of General Electric found in 1913. In its simplest form, the airtight tube has two elements: filament and plate.



10 For the tube to operate, electrons must flow in a continuous stream from filament to plate. The positive-charged plate will attract the negative electrons.



11 If Donald could see inside the filament, he'd notice that when it is heated with electric current, the atoms making up the filament keep moving rapidly.



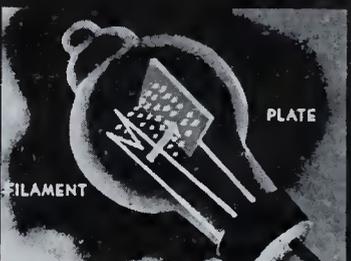
12 Scuffling around, the atoms smash against each other, jarring loose one of the electrons from the atom. Thus, Mr. Electron has flown right off the filament.



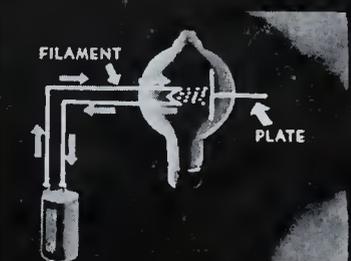
13 Now Mr. Electron finds himself free in the tube—on his way toward a new home, at the plate. At this point, the facts of Mr. Electron's free, active life begin.



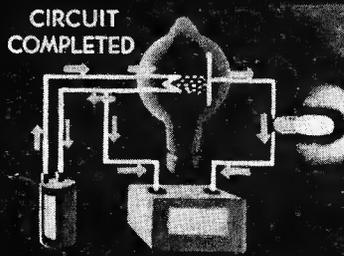
14 Since Mr. Electron is a negative individual, he is pulled toward the positive plate—just as a comb charged with electricity is able to attract pieces of paper.



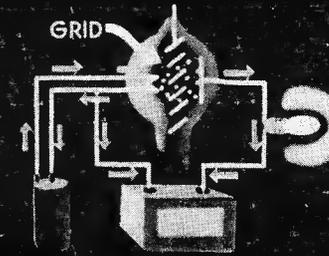
15 As long as the tube's plate stays positive, current will flow (in only one direction) in the form of millions of electrons from the filament to the positive plate.



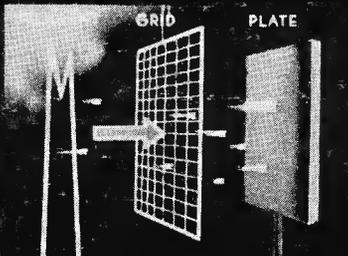
16 To show how a tube operates, this drawing illustrates an electronic circuit, with one battery heating the filament so that it can throw off the free electrons.



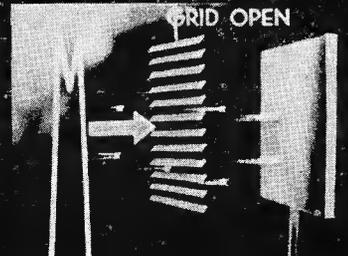
**17** Another battery is added to the circuit to operate a lamp. The light will continue to burn as long as the circuit is completed through the vacuum tube.



**18** To control this light, a third element—called the grid—is added to the tube. This grid can regulate the flow of electrons to any extent the scientist desires.



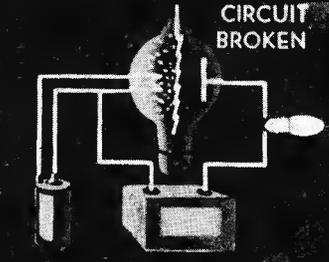
**19** The grid is generally made of fine mesh copper and looks like a piece of screen from your window. In the average tube (radio size) it's about an inch square.



**20** Like a Venetian blind which, when open, pours light into a room, the grid will permit the electrical circuit to be completed. Electricity regulates the grid.



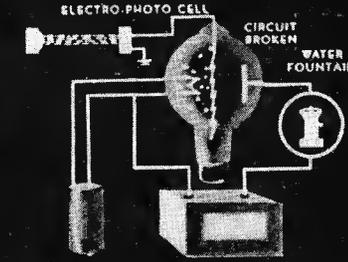
**21** By closing the Venetian blind (or grid) we would in effect be applying negative voltage, which would stop the flow of electrons and control the circuit.



**22** Here we see the circuit broken and the lamp out because the negatively charged grid has turned back electrons which were released from the filament.



**23** "So what!" says Donald. "You could do all that with a switch." But let's put Donald at a "magic" fountain and find out why electronics makes it so magical.



**24** Light shining on a photo-cell plate activates electrons which supply negative voltage to grid of the tube. This will prevent the fountain from functioning.



**25** But when Donald leans over to drink, he interrupts the light beam, thereby breaking the circuit supply to the grid. Electrons thus flow to the plate again.



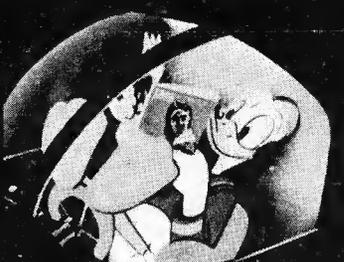
**26** As electrons move to the plate, and electricity thus flows to the mechanism operating the fountain, Donald gets his drink without having to turn a faucet.



**27** Photo-electric cells such as this—known as the "electric eye"—are now being used for fire and burglar alarms, horse-race timing, many signal devices.



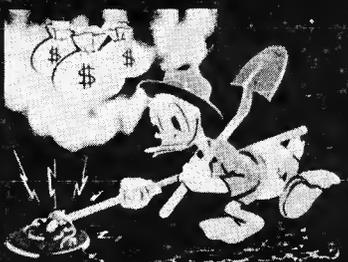
**28** Besides use in X-rays, electrons are being employed for electro-cardiograph, electric knife in surgery, high-frequency therapy, many other medical purposes.



**29** Today, the electronically controlled "automatic pilot" relieves our fliers, enables them to keep a set course on a long trip and relax with a good magazine.



**30** Walkie-talkies and many other electronic devices furnish communication between headquarters and field forces, tanks and planes, battle fleets at sea.



**31** Electronic "locators" can detect oil and minerals underground. In war, locators point to shrapnel imbedded in wounded men, detect buried land mines.



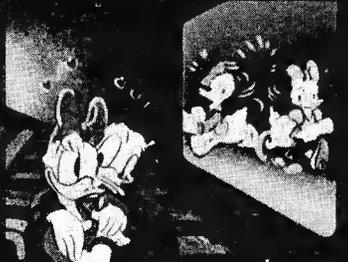
**32** Formerly, height indicators gave pilots only altitude above sea level. Now, radio signals show the altitude above ground level, making flying much safer.



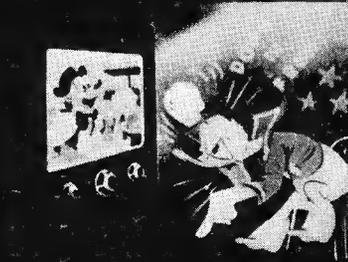
**33** Credit electronics for the high quality of today's phonograph records. Imperfect recordings are caught by electronically controlled play-back systems.



**34** Approaching enemy planes, ships, submarines can be detected by means of electronic apparatus. Virtually all such ingenious instruments are military secrets.



**35** In our movie houses, the sound system—controlled by electronics—makes it possible for anyone to hear screen voices just as well in the last row as in the first.



**36** Television, produced by photo-emission of electrons, is a crowning achievement of the tiny particle responsible for this great Era of Electronics.

# Profits in Paging

Intercommunicating Systems Being Included in Building Plans

• Something new is being added to commercial building plans—provision for paging systems!

Intercommunication setups in modern factories and in a wide variety of businesses is becoming more and more a must. Radio dealers, who are able to get the necessary priorities now, are in position to do business with war plants. Those who have no such contacts, or who are unable to secure the necessary priority ratings, can see profits in paging in the post-war future.

In a survey of the situation, RADIO RETAILING TODAY has the assurances of manufacturers, distributors and retailers that intercommunicator sales and maintenance in war plants at this time has reached a new high. This volume, they agree, is growing daily.

## Prospects Old and New

That its peacetime aspect presents a picture of even greater variety than its wartime application seems to be a foregone conclusion. There appears to be no end to its possibilities.

Entirely aside from its commercial applications, which include factories, large and small hotels, restaurants, garages, repair shops, business office, hospitals, large farm operations,

ships of all classes, department stores, etc., it is even a prospective sales and service item for the more pretentious home.

Indeed, today, a considerable number of intercommunicators are to be found in large homes, estates and in ultra-modern apartments.

The installations now operating in war plants, war camps, naval stations, and airfields are educating countless thousands of future prospects to the good features of paging systems.

## Potential Market

In view of the generally accepted fact that paging systems save money and time, it is apparent that those now using them will never be willing to be without them. It is also apparent that a big backlog of desire is being built by those unable to buy the equipment now. The prospective buyer who *cannot* secure necessary authorization to buy intercommunicator installations *now*, is going to *demand* them as soon as it is possible for him to make the purchase.

The "repeat" aspect of selling sound equipment is bright. As the user's business expands so does his need to enlarge the paging system grow. Being more and more sold on the fea-

tures of this equipment, the customer will feel that it is good business to elaborate upon it.

A sale of intercommunicators can easily lead to the sale of a public address system. This is particularly true of the present period, and will be even more true of the postwar era, with the growing interest in music as a work stimulant.

## "Natural" for Radiomen

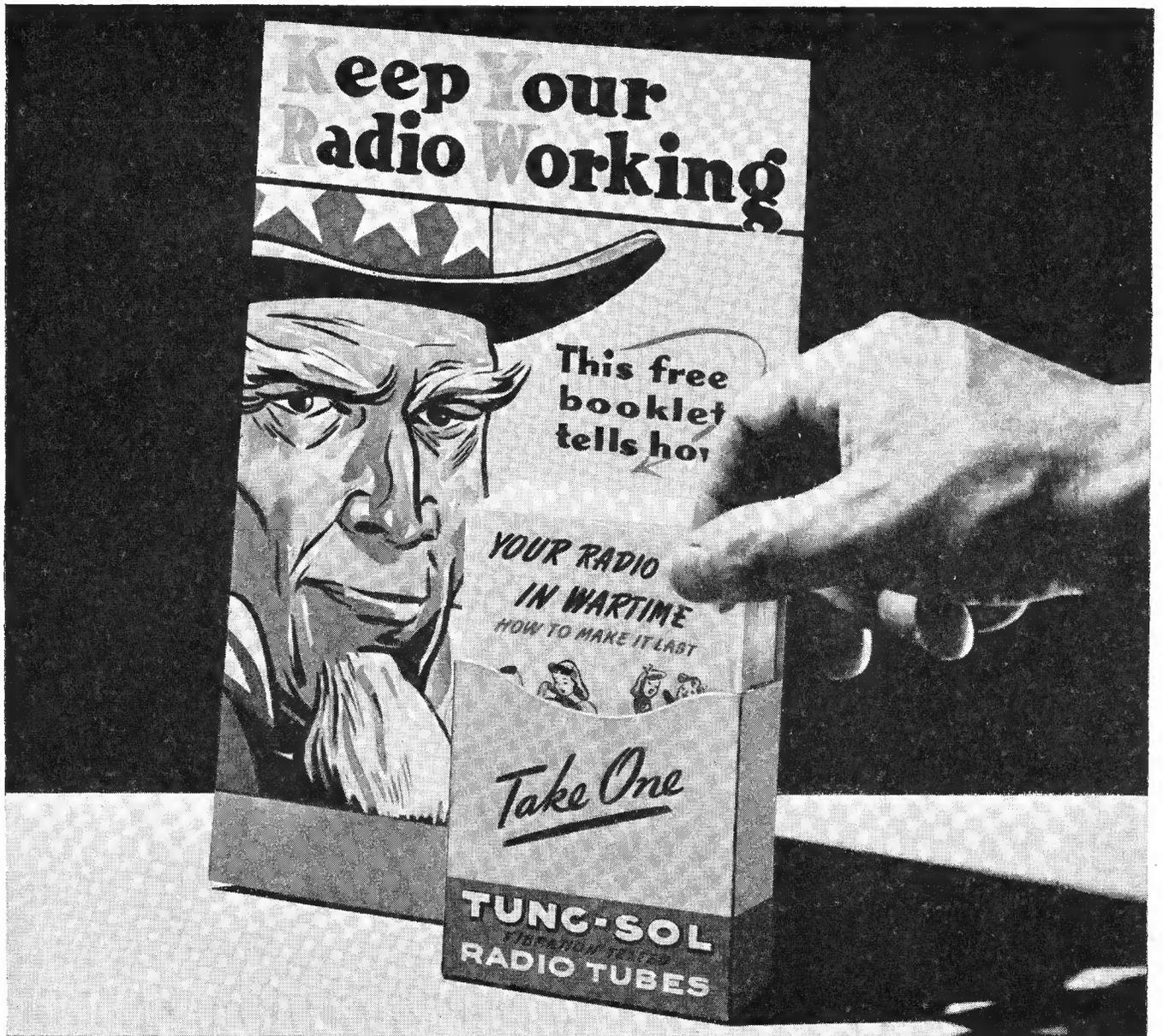
In stressing the importance of intercommunicators to radiomen, manufacturers feel that these devices "speak the language" of the craft. They are definitely allied with the radio business, it is pointed out, and when a retail organization takes them on, they are already familiar items.

The great interest in the commercial aspects of this business is evidenced by the many reputable manufacturers in it today. The equipment is being built better, and engineering staffs are constantly working on improvements.

With public acceptance an already well established fact, we see the intercommunicator business emerged from the novelty field to occupy a well entrenched position in modern industry, commerce and home life.

Something New's Being Added to Building Plans—Intercommunicator Systems.





# YOU CAN DO BUSINESS TODAY

These consumers' booklets and this display-holder will give you a means of telling your customers how to make their radios last longer. With some TUNG-SOL tubes available, you want to get your share of the service work they make possible. Ask your jobber to include a display-holder with booklets with your next order for TUNG-SOL tubes.

**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 THERMAL SWITCHES

# Letters to the Editor

## Wants to Know What Washington Does

Editor, *Radio Retailing Today*:

I enjoy RADIO RETAILING TODAY very much, particularly articles concerning radio servicing. I hope you will keep us informed what they are doing in Washington, D. C. to relieve the parts shortages situation. The articles of "How to Keep Sets Playing Despite Wartime Parts Shortages" are very helpful. All the way through your magazine is swell. Keep up the good work.

Willard Hess

Allenton, Wisc.

## Liked Article on Circuit Changes

Editor, *Radio Retailing Today*:

A nearby radio repairman was in my shop recently and watched me change a tube circuit as per M. G. Goldberg's suggestions in your May issue. I am enclosing the name of this serviceman, who wants to subscribe to your publication.

Mr. Goldberg deserves a lot of praise for this valuable technical matter, and I am sure every reader appreciates this type of service as much as I do.

H. B. Matthews

Texas Radio Shop,  
Houston, Texas

## Another War Plant Installs PA System

Editor, *Radio Retailing Today*:

M. W. Kellogg Co., Jersey City, has just installed in its five plants a public address system for the purpose of providing entertainment for the employees throughout the day. These plants are 100 per cent War Production plants, actively engaged in the production of Butadiene for synthetic rubber, Toluene for High Octane Aviation gasoline, and condensers and piping for the Navy and Maritime Commission. The workers at these plants are putting in long hours at hard work, and we feel that these programs help to sustain their energy and morale throughout the day. The programs are still in their formative stage, and our program material is being added to daily.

An article entitled "Music on the MacArthur Shift" appeared in your February, 1943, edition which, we have been informed, is an excellent partial bibliography of the growth of music in industry. We would very much appreciate your forwarding us

a copy of this article, if it is at all possible to do so, and wish to thank you in advance for your courteous attention in the matter.

Monte Meacham

Broadcasting Director,  
M. W. Kellogg Co.,  
Jersey City, N. J.

## Replacement Ruling

Editor, *Radio Retailing Today*:

This copy of a letter from WPB clears up a point in regard to tubes which must be puzzling many as it did us. Namely, do tubes have to be replaced in stock by the exact type:

"This will answer your letter of May 31, requesting clarification of General Limitation Order L-265.

"1. When ordering replacement parts, those parts ordered must be similar in kind and equal in number to those sold since April 24, 1943, but not necessarily identical in type. For instance, tubes may be ordered to replace tubes and resistors to replace resistors, but those specific types of tubes and resistors ordered need not be the same type as those tubes and resistors sold. This enables a supplier to order the faster moving types of a kind of equipment.

"2. One of the purposes of Order L-265 is to freeze dealers' and suppliers' inventories at the April 24 level, and by ordering material that has not been sold since that date, the above mentioned purpose would be defeated. Therefore, replacement parts may not be ordered on the "Supplier's

Certificate" basis except to replace in the inventory of the receiving supplier parts similar in kind and equal in number, which have been delivered on or after April 24, 1943, by the receiving supplier to consumers against defective or exhausted parts or consumers' certificates, or to fill orders for the repair of electronic equipment then in the supplier's possession.

"3. PD-IX applications will only be processed in those cases where the supplier can show that operation under Order L-265 would create undue hardship or that inventory, as of April 24, was not at a minimum working level. If you elect to file a PD-IX, a letter explaining the situation should accompany the application.

Glenn C. Henry, Chief,  
Methods and Procedure Section,  
Radio and Radar Division."

A. B. Clark

Clark Bros. Radio Co.  
Albia, Iowa

## Canadian "Ceiling" On Tubes, Radios

Ceiling prices have been established in Canada on used radio receivers and tubes, S. Godfrey, administrator of used goods, Wartime Prices and Trade Board Ottawa, announces. A schedule of maximum prices to be charged, based on age and type of set, has been issued. Rebuilt radios in the schedule are defined as receivers which have been completely overhauled and perform almost like new. Prices of used radios which have not been rebuilt will be 50 per cent of the rebuilt price. The order provides that dealers must guarantee every used radio sold; if the set sells for \$50 or less, the guarantee must be for 30 days. If the selling price is more than \$50 the guarantee must extend to 90 days. The price charged for used radio tubes must not be more than 25 per cent of the price charged in the same district for the same kind of tube when new.

## Export Expansion Planned by Zenith

According to a joint statement issued by Commander E. F. McDonald, Jr., president of Zenith Radio Corp., Chicago, and H. W. McAteer, president of American Steel Export Co., New York, the latter company has been appointed exclusive sales representative to handle future export market development and distribution of Zenith radios.

Mr. McAteer has also announced his resignation from the board of directors of Philco International Corp.

Prior to the outbreak of the war, Zenith's export activities covered 98 countries.



"Can you please come up to our house and look over the radio? My husband is just finishing reading 'How to Repair Your Own Radio' in three volumes."



# THE ENEMY CAN'T HIDE FROM RADAR

No longer can the enemy lurk securely in the black shadows of night or a blanket of fog. Radar is on guard...the miraculous radio weapon that locates unseen enemy targets, warns against the approach of hostile forces, pierces the veil of fog, clouds and darkness.

★ ★ ★

NOW THAT THE SECRET of Radar is officially revealed, the real story of Philco's vital contribution to victory can be told. Throughout its long years of leadership in radio, Philco research has made important contributions to the science of ultra-high frequency waves, upon which Radar is based. When our sea and air forces called upon the electronic industry of America to produce Radar quickly and

in quantity "to turn the tide of Axis conquest," the research and production experience of Philco was ready. And, with the close cooperation of the scientific branches of the Army, the Navy and the government, Philco delivered!

That is the story of Philco at war. When Victory is won, these wartime achievements will appear as peacetime miracles of radio, television, refrigeration, air conditioning and electronics for the homes and industries of America... under the famous Philco name. And *Philco All Year 'Round* will be, more than ever, the most valuable franchise in the appliance field!

## PHILCO CORPORATION

# Set Conversion

• In reply to readers' requests for more details on the tube substitution techniques, another installment covering many common "shortage" tubes follows. These suggestions come from serviceman M. G. Goldberg, 142 E. 4th St., St. Paul, Minn.

When the customer is willing to pay for a complete filament rewiring job, a change that will often save time and trouble in trying to work out a substitute for a scarce type tube is the conversion from series to parallel filament systems. This means that a 6.3-volt transformer will have to be installed; however, these are inexpensive and not too hard to get in most localities. The necessary circuit changes are given in Fig. 1.

A 6X5GT is used as the new rectifier with the plates tied together for half-wave operation. Only minor changes need be made in the filament wiring. All the No. 7 pins are tied together and returned to the ungrounded side of the secondary of the filament transformer. All the No. 2 pins can be grounded to the chassis as well as one side of the transformer primary and one side of the secondary. In some AC-DC circuits, the B— bus is not the chassis but a common insulated wire. If this is the case, connect one side of the primary to this common lead instead of grounding it is shown in the diagram Fig. 1. The new pilot light should

be supplied by the secondary of the filament transformer.

A number of substitute tubes are listed in Fig. 1 as possible replacements for the series string types. No other socket rewiring is required for the types shown. Other types can also be employed but may call for some changes in pin wiring.

These points should be kept in mind when changing to the parallel type circuit. Keep the transformer and filament leads away from volume control and audio grid leads. In most sets, the change from series to parallel will reduce the hum due to lower heater-cathode leakage. The 6SR7

can be used in place of the 6SQ7 with reduced gain. The 6SD7 or 6SG7 can be used in place of the 6SK7 (see May issue of RADIO RETAILING TODAY). When selecting the power output tube, pick one which will have a recommended plate load resistance as near as possible to that of the tube being replaced. If a 6X5GT is not available, the 84 can be used but will require another socket.

## 1A7GT and 1N5GT Circuits

These "battery" type tubes are still being used in many portables operating from the power line. The 1A7 converter tube can be made to work

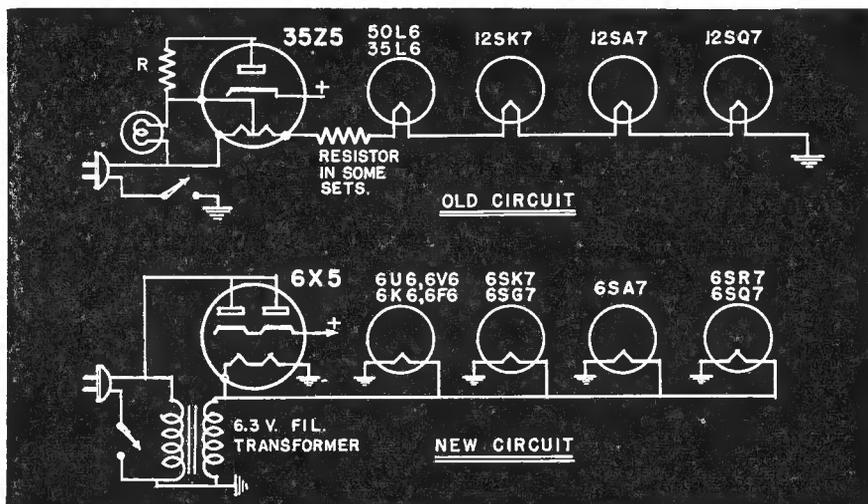
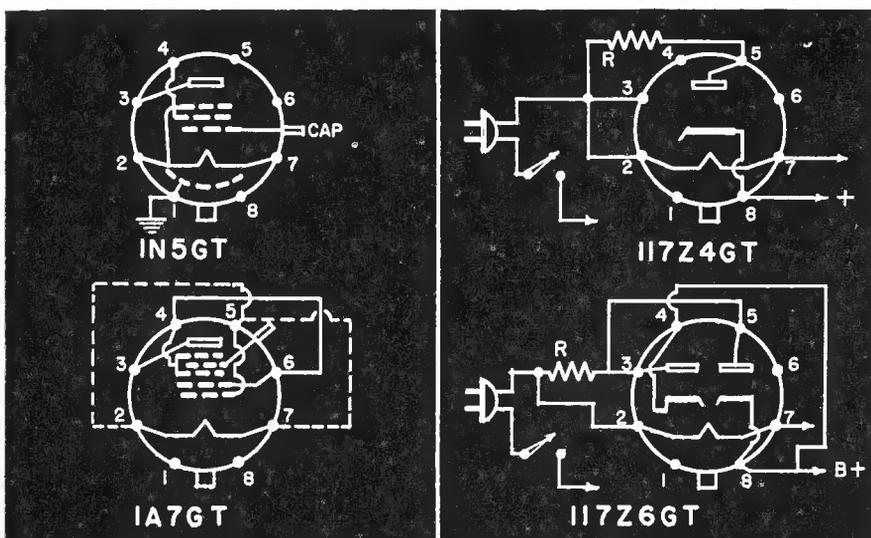


Fig. 1—Where several series type tubes are impossible to get, the circuit can be rewired for parallel operation as shown. A 6.3-volt transformer and equivalent 6-volt tubes are only parts required.

Fig. 2—New socket wiring required to replace 1N5GT with 1A7GT is shown at left. Pin No. 5 on 1A7 should be connected to either No. 2 or No. 7, which ever gives the greater gain. Rectifier changes shown at right permit interchange of these two 117-volt tubes.



in place of a 1N5 with a few changes in base wiring. The only changes necessary are to remove and tape together any wires which may be anchored at lugs No. 5 or No. 6 on the 1N5GT socket. Connect a lead from lug No. 4 to lug No. 6 and connect No. 5 to either No. 2 or No. 7 which ever gives the greater gain. These are the only wiring changes required, but as in replacing in RF tube with another type, some realignment will be necessary. The wiring changes are shown in Fig. 2.

## Rectifiers and Power Tubes

A 1P5GT can also be used to replace a 1N5GT without any socket changes. It is a remote cutoff tube and requires about 1.5 ma. more plate current than the 1N5GT.

The 117Z6 full wave rectifier is a

# Circuits

## Putting Receivers Back in Operation With Circuit Changes to Use Available Tubes

popular tube for three way portables and the 117Z4, a half-wave rectifier, is used in many electric phonographs. Since the 117Z6 is almost always used as a half-wave rectifier by tying the plates and cathodes together, it is possible to replace this tube with the 117Z4 if the load current is not too great. The 117Z6 can be used to replace the 117Z4, of course, when that tube is short. Required wiring changes are shown in Fig. 2.

The changes shown in the March issue of RADIO RETAILING TODAY for the 50L6 and the 35L6 also apply to the 35A5 loctal output tube. Where

With the SA7 tubes the "high" side of the antenna coil is connected to pin No. 8 (the control grid) and usually the detector tuning condenser gang has one lead connected to this pin while another lead on the top of the chassis goes to the antenna coil. In the K8 tubes, the control grid is brought out to a cap on the top of the tube. Thus the lead from the tuning condenser to pin No. 8 must be removed in the change. The next change is to move the lead from No. 6 to No. 8. The last change is to solder a lead from No. 4 to No. 6. All other wiring is left as before. It

will be necessary to realign the set, of course.

If the SA7 tube was not a GT type, any lead between No. 1 and No. 6 should be removed.

### Replacing SK7 Tubes

Some instructions were previously given for the use of substitute types for the 12SK7, such as the use of the 12SJ7 and the 12SG7 if such tubes were available in the serviceman's territory. The 12K7 tube may be used in this problem but will call for socket wiring changes.

First, lift the grid lead from pin No. 4 and run it up inside the IF can if possible and bring out through a hole in the top as the grid lead for the 12K7. Keep this lead as short as possible. Second, put a jumper from lug No. 4 to No. 6. It is not necessary to remove any wiring from No. 6. Third, lift the suppressor lead from No. 3 and let it float for the time being. Fourth, lift plate lead from No. 8 and connect to No. 3. Fifth, lift cathode lead from No. 5 and connect to No. 8. Sixth, connect free suppressor lead to No. 5.

Be certain to hold the control grid lead to a minimum of length. The higher capacities of the 12K7 will call for re-alignment. In some cases

(Continued on page 48)

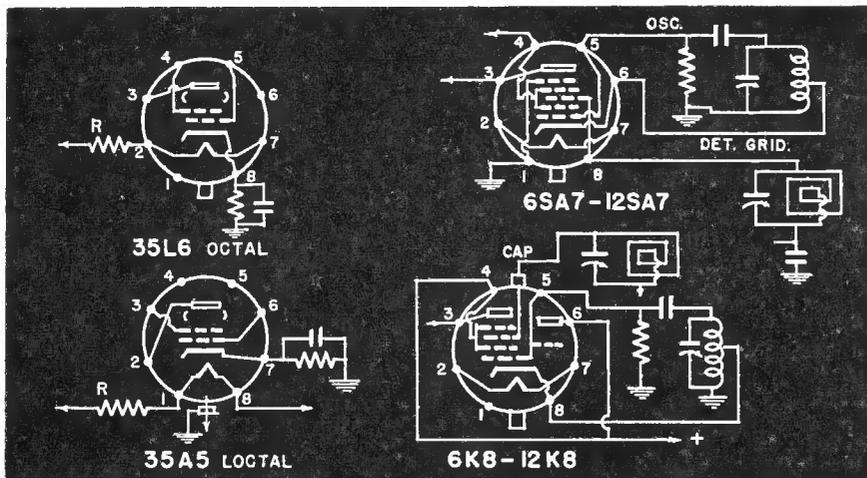


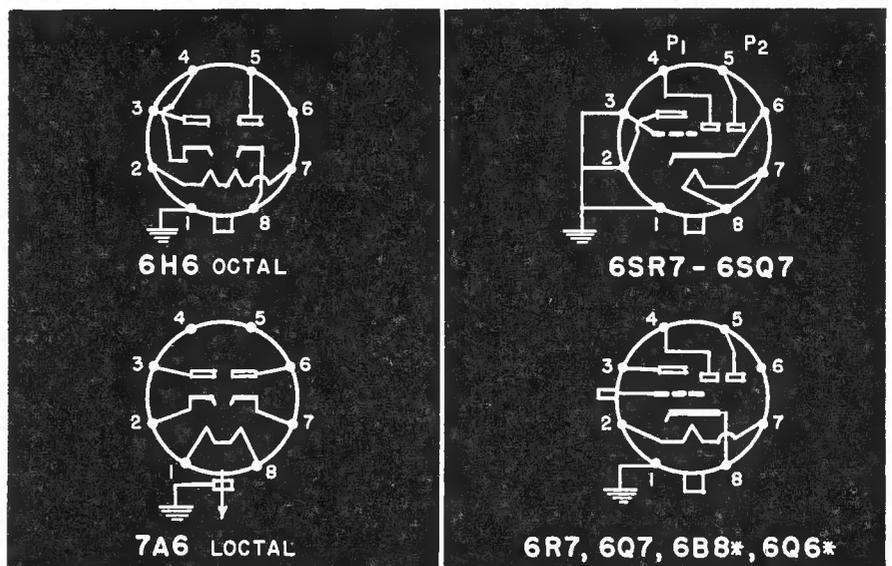
Fig. 3—Hard-to-get 35L6's can be replaced with 35A5's by changing type of socket. Circuits at right show changes from 12SA7-6SA7 tubes to 12K8-6K8 types. See text for full details of these changes.

this tube is available, it may be used to replace the 35L6 by changing to the loctal socket. The pin wiring for these types is shown in Fig. 3. The 35A5 may also be used to replace the 50L6 tubes by following the instructions given in the March issue. An 85 to 100-ohm resistor 3 watts will be required in series with the filament string when this change is made.

### Converter Changes

A very difficult tube to obtain in most localities is the 12SA7. This tube can be replaced with the 12K8 and a minimum of rewiring. Fig. 3 shows the usual converter circuits of the two types and the few changes required. Notice that the change also applies to the 6SA7, and 6K8 combination.

Fig. 4—The double diode 6H6 can be replaced with loctal equivalent, 7A6 by changing socket. If common cathode circuit is used, duplex tubes shown at right may be used. The 6B8 has a screen which should also be grounded if pentode section is not used. The 6Q6 has only one diode element.





# Television

## WEAPON ON THE HOME FRONT NOW...



*In the future—*

## THE GREAT NEW INDUSTRY FOR YOU TO SHARE IN

ONE PICTURE is worth a thousand words. This is especially true of Air Raid Warden instruction. No wonder the OCD has turned to Television to bring the lessons of civilian defense to Air Raid Wardens in a number of principal cities throughout the country.

For example, the National Broadcasting Company is now televising English films that show the workings of the enemy's newest explosive types of incendiaries and how to deal with them. This telecast goes out twice every Monday on the NBC revised Air Raid Warden's course over Station WNBT, New York. These televised lectures have been attended by more than 250,000 wardens since February 1942, through television sets installed in eighty-two New York police pre-

cinct stations. And wherever Television is doing this important job, you are sure to find RCA equipment.

After the war Television may spread rapidly to major U. S. cities; you will become a vital part of this great new industry. What better way to speed Television's coming than by helping to win the war? And the best way to do that is to buy more War Bonds, conserve critical materials, and keep America's radios in top condition.

Whatever the future may bring, here is a thought to guide you in building a profitable business: Look to RCA, recognized leaders in the fields of Radio, Television and Electronics, for the finest, most advanced instruments on the market.



RCA VICTOR DIVISION

# RADIO CORPORATION OF AMERICA

CAMDEN, NEW JERSEY



# Service Notes

## Service Group Issues Emergency Circular

"What You Should Know About Radio Service During the National Emergency" is the subject of a handbill prepared by the Radio Technicians' Association of Long Beach, Cal., for distribution by its members.

According to Harry E. Ward, Jr., of RTA, 85,000 copies will be issued, and any other servicemen's group wishing to carry out a similar idea, may use the RTA theme.

The circular, addressed to the public, runs as follows:

## WHAT YOU SHOULD KNOW ABOUT RADIO SERVICE During the National Emergency

In this National Emergency, our radios become increasingly important to us all. The present day radio is the most complicated device in the public's hands. They keep us in touch with our Government's Defense Program and other events of utmost significance. They stand as safeguards to national unity and as aids to national defense. Thus, the desirability of keeping old radios operating efficiently becomes evident, since the conservation of materials has stopped all production of new radios for the duration.

Actually, the average radio receiver requires little attention. What it does require, however, should not be neglected. Amateur repairs slow down your serviceman's repair of the radio. This delay is man hours wasted.

## MORE TOLERANCE IS NECESSARY FOR THE DURATION

It is not surprising that the radio industry has been affected by the war. So has every business where critical parts and supplies are used. Consequently it will be required that your radio be left in the repair shop a minimum of three days to whatever time is necessary to complete repairs. Availability of parts will govern this somewhat. All RTA (Radio Technicians' Association) stores are cooperating in this emergency, that no radio be given a priority over another, and each must wait his turn in the repair of his equipment. To save time and the expense of a house call we urge customers, when possible, to bring their radios to the repair depot, particularly if the radio is small. In the case of large radios, remove the radio chassis and speaker from the cabinet and bring them in. House calls will be made only when necessary.

Due to the shortage of parts and tubes Limitation Order L-265 limits over-the-counter sales. Parts should be installed by a technician; this will conserve materials as technicians make

necessary tests before installation or repairs. Wasteful use by set owners of parts and tubes will place sets on the shelf for the duration for lack of supplies.

## SALVAGE PARTS ARE VITAL AND MUST BE RETURNED

The availability of parts and tubes is very critical. There will definitely be a shortage of some types of tubes and some parts. In such cases the set will have to be changed to suit available parts on hand. Tolerance and patience is asked of the set owner as time will have to be utilized for this repair.

We ask your patience as one American to another to assist us by cutting conversation to a minimum. Do not contact the serviceman for questioning in regard to repairs. The attendant will answer your questions honestly and take care of any needs.

We ask you to be honest with us and to assist us in the conservation of parts by having only one radio operating at a time. We trust you to use your own judgment as to whether or not a second radio is necessary and will assist you in keeping all necessary radios operating.

## Radio Data Handbook

Edited by LT. NELSON M. COOKE, USN  
Published by Allied Radio Corp.  
833 W. Jackson Blvd., Chicago, Ill.

This is a comprehensive, condensed handbook of formulas, charts and data most commonly used in the radio and electronic fields. Lieut. Cooke, who edited it is in the U. S. Naval Research Laboratory at Washington, D. C.

The subjects are presented with clarity, conveniently arranged and cross-indexed for ready reference. The work is divided into four parts consisting of mathematical data, radio and electronic formulas, engineering and servicing information, and includes a complete set of four-place log and trig tables.

## On Radio Color Codes

The data section contains information on radio color codes, interchangeable tubes, pilot lamps, plug-in ballast resistors, coil winding, etc., and formulas are given for decibels, resistance, capacitance, inductance, reactance, resonance, frequency, "Q" factor, impedance, conductance, susceptance, admittance, transients, peak average, and R.M.S. voltage and current values, meter shunts and multipliers, vacuum tube constants, etc.

This handbook is 6x9 inches, has 48 pages, and should prove of value to students, servicemen, experimenters and engineers. It sells for 25c postpaid, and may be purchased directly from the publisher.

## Vibrator Service Note

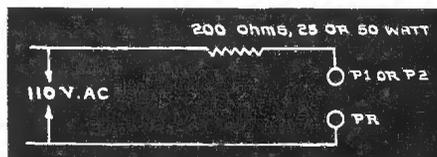
There are many instances reported wherein new vibrators just taken from stock will not start when first installed in the radio receiver. The Radiart Corp., Cleveland, Ohio, reports that a frequent cause of this trouble is a slight coating of oxide on the points formed when kept on the shelf over a period of time.

## Remove Oxide Film

To correct this condition, it is only necessary to remove this oxide film, after which no further trouble will be encountered. This is very easily done as indicated below.

The base diagram symbol for any Radiart vibrator is indicated on the vibrator label and on the carton, or may be determined by checking the numerical listings. After the base diagram symbol has been determined, check the base diagram drawings for location of contacts.

Connect 110 volts A.C. through a 200 ohm, 25 to 50 watt resistor to the reed (P-R) and to either point "P-1" or "P-2" of the vibrator. Only one of the latter will draw current and actuate the reed. With the vibrator held so that the prongs face you, determine the location of the prongs connected to "P-R," "P-1," and "P-2," as indicated on the drawings referred to in the preceding paragraph.

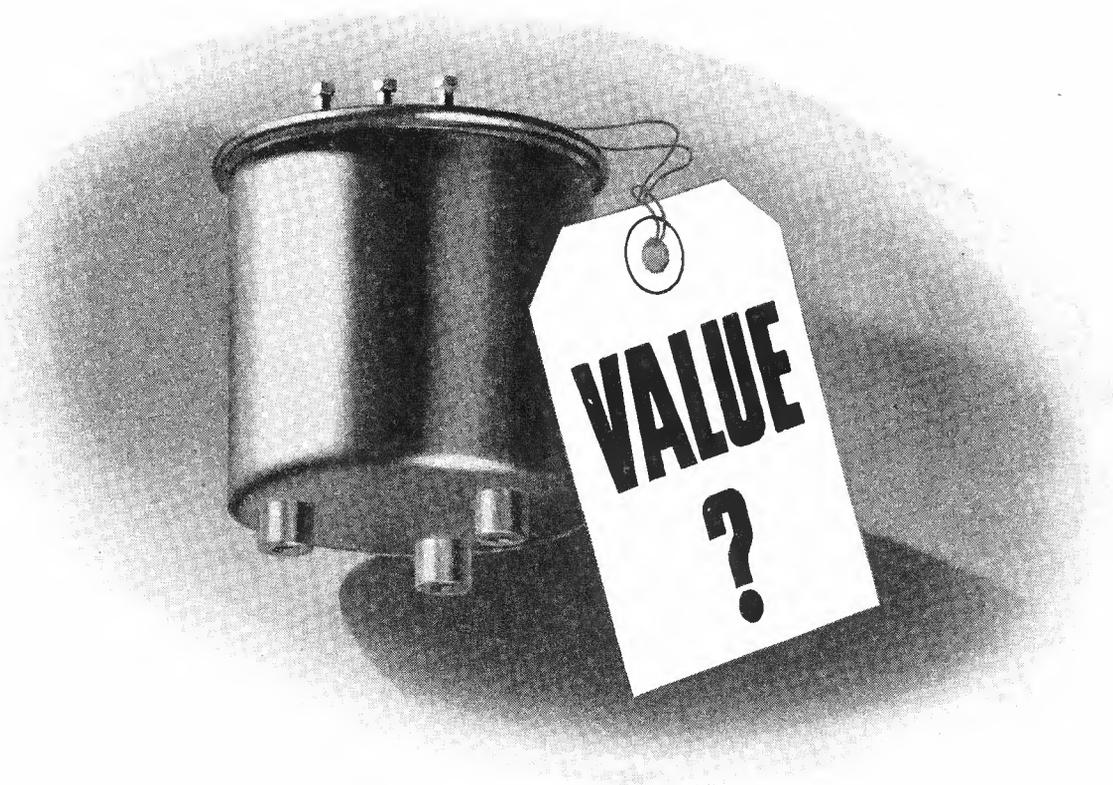


Vibrator Diagram.

It will usually require from one to ten seconds to start the vibrator running and to remove all oxide film from the points. This will not, in any case, damage the vibrator; and after this treatment the vibrator will start and function properly in its normal application. This method may be used to remove oxide film and start any make of shunt-type vibrator. All manufacturers selling a general replacement line employ the shunt-type construction.

## Issues New Folder

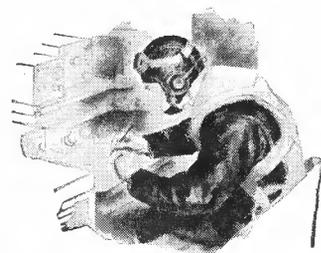
A new 4-page folder in color has been issued by the Radio & Technical Publishing Co., 45 Astor Pl., New York, describing Ghirardi's newly revised and expanded 3rd edition of "Radio Troubleshooter's Handbook." The booklet has a detailed listing of the manual's 75 topic section titles, and also points out the specific advantages the handbook offers radio technicians. Copies of the folder are available from local radio supply houses, radio dealers and bookshops, or direct from the publishers.



*W*ith the fate of a quarter-million-dollar airplane...and the precious lives of its crew...so dependent upon the performance of the Communications system, even so seemingly simple a part as a transformer becomes vitally important. **Its value is not measured in dollars and cents, but in the service it performs.**

ROLA, now streamlined for war work, is producing transformers, head sets, choke coils and other communications equipment for Army and Navy aircraft in unprecedented volume—built to standards of perfection never before

attempted "commercially." This has meant a transition in processes, in equipment, in testing and inspection, but thanks to the experience gained from twenty years of leadership in the radio field, the task has been accomplished, speedily and effectively.



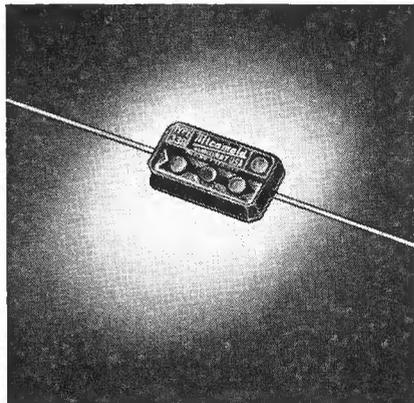
**We can do still more:**

*Today, Rola's greatly expanded facilities are dedicated completely to making materials of war. If transformers... or related electronic items... are a part of the product you make, we're sure it would be to your advantage to discuss your requirements and your problems with us. The Rola Company, Inc., 2530 Superior Avenue, Cleveland, Ohio.*

★ **ROLA** ★

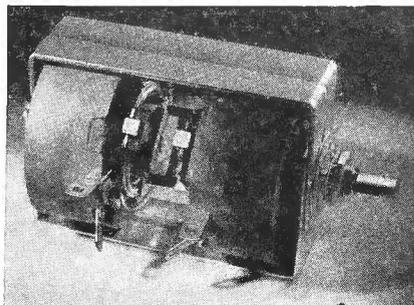
MAKERS OF THE FINEST IN SOUND REPRODUCING AND ELECTRONIC EQUIPMENT

# New Products

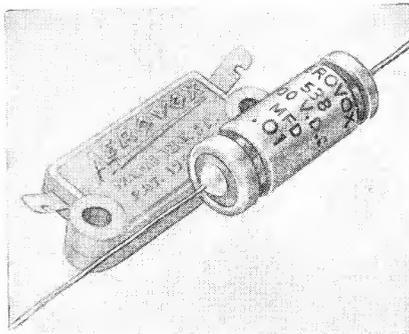


**MICAMOLD TYPE 338 SMALL-SIZE CAPACITOR**, has body dimensions of 3/4" long by 7/16" wide and 7/32" thick. Has widespread application possibilities in compact radio, sound and electronic equipment. Available in capacities up to .01 mfd., with a rating of 120 volts d-c working. Hermetically sealed, the 338 will operate in a satisfactory manner under highly humid conditions, and it has been approved in a series of tests, including immersion tests, meeting all rigid government specifications. Micamold Radio Corp., 1087 Flushing Ave., Brooklyn, N. Y.—RRT.

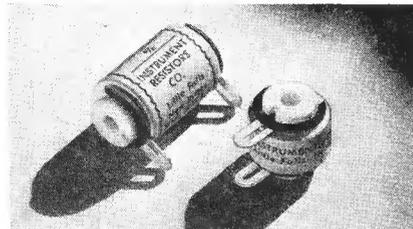
**TANDEM POWER RHEOSTATS**. Compact, sturdy assemblies of 2 or more sections. Made up of 225-watt or 250-watt rheostats, rigidly coupled together and held in metal cradle. One-hole mounting and locking-projection features retained. Individual rheostats can be of any standard resistance value, taper, tap and hop-off. All units go through same degree of rotation as single shaft is turned. Units fully insulated from each other and from ground. Made only on special order. Clarostat Mfg. Co., Inc., 285-7 N 6th St., Brooklyn, N. Y.—RRT.



**AEROVOX MICA CAPACITOR ALTERNATES**, metal-cased. Ultra-small oil-impregnated, oil-filled capacitors for use in assemblies where space and weight are at minimum. Originally designed as metal-cased alternatives for mica capacitors, these type 38 oil tubulars are now being used for newly designed equipment. Metal case capped by Aerovox rubber bakelite terminal insulator assembly. Units available with both terminals insulated or with one terminal grounded to case. Pigtail terminals. Normally supplied without outer sleeve but can be had with insulating jacket, adding 1/16" to diameter and length. 1 and 3/16" long, 5/16" and 7/16" diameters. Castor (Hyvol) or mineral oil impregnant and fill. 300 to 800 v. D.C.W. Capacitances from .001 to .01 mfd. Aerovox Corp., New Bedford, Mass.—RRT

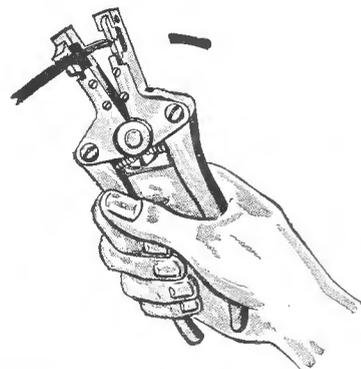


**GENERAL ELECTRIC FLUORESCENT LAMP STARTER** with 3-year average rated life. Called the "Watch Dog," it is a manual-reset type for 40-watt lamps, whose mechanical features conserve life of the starter, conserve life of the lamp, life of the ballast, power consumption and maintenance service. "Watch Dog" is timed to light lamp at right instant, conserving emissive material essential to long lamp life. Has dead lamp lock-out. Close tolerances in the starter's mechanism make possible a quick and positive performance in the lockout of dead lamps, eliminating blinking and flickering when a lamp burns out. When dead lamp is removed, the "Watch Dog" is reset simply by pressing a button on top of the starter. The starter is painted for easy identification. Catalogue number FS-40. General Electric Co., Bridgeport, Conn.—RRT.

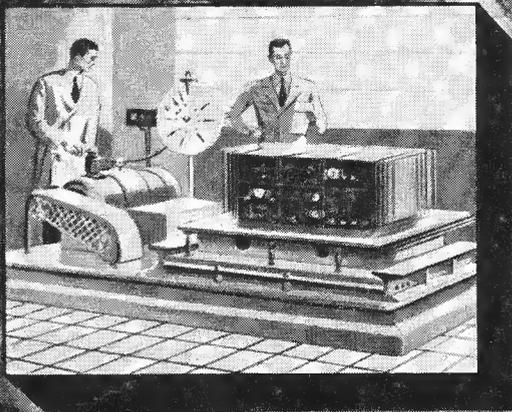


**INSTRUMENTS RESISTORS CO. PRECISION RESISTORS** with slotted terminals of high accuracy, designed to meet the requirements of precision apparatus, where available area is at a minimum, and where weight is important. Type P-2 has 1/2 watt rating with a maximum resistance of 500,000 ohms, and measures 9/16" long with a diameter of 9/16". Type P-4 has a 1 watt rating and maximum resistance of 1 megohm, and measures 1" long and 9/16" in diameter. Terminals on both types are .025 hot tinned copper, slotted to take standard stranded or solid wire. Instruments Resistors Co., Little Falls, N. J.—RRT.

**POLECTRON**, a new synthetic material to use as a mica replacement. Resists heat, oil and moisture and has low-loss characteristics. Obtainable in sheets uniform in thickness within 1/10,000 of an inch. Claimed to possess many of the qualities which mica possesses for electronic equipment. Manufactured by General Aniline & Film Corp., 230 Park Ave., New York.—RRT



**SPEEDEX WIRE STRIPPER**. An effective tool for speedily stripping insulation from any type of electric wire. It can also be used for a production tool or for occasional spot stripping and cutting. 800 to 1000 wires per hour can be obtained. A special model with a "hold open feature" can be used for stripping fine stranded wires. The Speedex automatically holds jaws open until the wire is removed, and strips without crushing the wire. Wood Specialty Mfg. Co., Rockford, Ill.—RRT.



A G-E vibration test for military radio

## Radios for tank busters **HAVE GOT TO BE TOUGH!**

**Another reason why your post-war G-E radios will have the quality to win consumer appeal!**

TO TAKE the beating that a tank destroyer gives it . . . and come up fighting! That's the first requirement of a tank buster's radio!

At General Electric plants today, volume-produced G-E military radios rehearse for battle in torture tests that would completely disable ordinary equipment.

A radio is fastened to a table and shaken at the shattering speed of 60 times a second through a 1/16-inch space . . . faster than the eye can see. Then engineers check the set's operation for hours . . . in test rooms that simulate searing desert dryness, steaming tropical humidity, sub-zero arctic cold! All to make sure their radios will take the punishment of battle.

As a result not only tanks and tank

destroyers but every Flying Fortress and Liberator are equipped with General Electric radio.

Skilled engineering, fine materials, expert workmanship, and testing assure performance quality. Through many national advertisements like the one at the right, in mass consumer magazines, G. E. is educating the public to expect quality in the post-war G-E radio line. . . . *Electronics Department, General Electric, Bridgeport, Connecticut.*

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC.



This full-color advertisement appears in:

- Collier's . . . . . June 19, 1943
- The Saturday Evening Post . . . . . June 26, 1943
- Look . . . . . June 29, 1943
- Life . . . . . July 5, 1943
- Farm Journal . . . . . July, 1943
- American . . . . . August, 1943



GENERAL ELECTRIC IS BUILDING MORE MILITARY RADIO EQUIPMENT THAN ANY OTHER HOME-RADIO MANUFACTURER

# Window Displays

● Radio retailers and repairmen are hard put nowadays to keep up with the window dressing problem, and many of them are losing interest because they haven't enough merchandise to show.

The importance of an attractive window, however, is still an existing fact, and there are many unusual methods of display being used these days by radio shops.

One service shop devotes a window to a display of "critical" materials taken from a junked radio, and describes each, using a small hand-printed card for the purpose. Another dealer, who incidentally has gone into the photo business as a sideline, has made up a large display board upon which are mounted photographs of neighborhood boys who have gone into the service.

## Action Counts

There is general acceptance of the value of motion in a window, and there are many simple ways to achieve this. A discarded brush-type motor, in series with an ordinary electric

lamp, will operate at slow enough speed, depending upon the amount of resistance used, to operate many novel displays. A small pump, such as an Autopulse, may be utilized to create falls, rivers and other phases of water in motion. This latter method is recommended to dealers having a few ultra violet ray lamps to sell. A little sand, a miniature beach scene and some water in motion, makes an effective and easily built traffic-stopper.

A hand vacuum cleaner, with a blowing nozzle replacing the bag, will provide wind to create many interesting illusions. A tin pie pan, placed on top of a water tumbler, and a couple of colored ping pong balls are all the equipment needed. The cleaner, and of course the nozzle, are hidden from view, and the stream of air is directed slightly over the top of the balls, causing them to rotate in a most perplexing fashion. Placed in a vertical position, the air from the cleaner nozzle will also keep a ping pong ball mysteriously suspended in mid-air.

Many of these ideas are old, but

## Novel Record-and-Frock Combination Display



One of six attractive windows devoted to record and dress display by B. Altman & Co., New York department store. Appropriate dance frocks are shown against a background of enlarged Columbia records and album covers. In this one, Xavier Cugat's Columbia album (Set C-74) is featured.

are being used consistently by radio retailers and others, who believe in the slogan "Keep 'em looking."

## Variations With Lamps

Radio shops, where incandescent lamps are not sold, can adapt light lamp ideas to radio tubes. There are many intriguing versions and methods. One of the most effective and simple to use with the ordinary lamp is accomplished with some beach sand and a small goldfish bowl. Drill a hole in the bottom of the bowl, bring a pair of wires through to an ordinary socket. Cover the socket up to the top of the neck in sand, then screw an ordinary 30 watt, "D" lamp, inside frosted, into the socket. Take the ferrule from a burned out 30 watt "D" lamp, clean the edges thoroughly and glue to the top of the lamp in the socket. Then cover the feed wires carefully with crepe paper, and you have an easily made, though extremely effective display. Through clever concealment of small feed wires, many other "light-without-wires" schemes may be utilized, such as lamps hanging from a shoestring, suspended from the show-window ceiling, etc.

## Patriotic Display Used

Show windows these days lend themselves well to exhibits by Boy Scouts, air-raid officials, Red Cross and other patriotic groups. A successful radio store has for years encouraged the use of one of its large windows by Boy Scouts. Devices operated by a customer pushing a painted "button" on the showroom glass, and activated through the use of an "electric eye," tied in with a relay, have been used by dealers, also, with more than ordinary success.

The prime purpose of window dressing being to induce customers to come into the establishment, some tangible offering included with other displays, is generally indicated.

Dealers have used "pioneer" sets as displays, foreign-made receivers, and "horse-and-buggy days" phonographs.

There are endless opportunities today to tie in windows with patriotic movements, scrap and bond drives, etc., and the dealer who plans to stay in business after the war, will find it a good investment to dress up his windows to attract new customers and keep the good will of the old.



*and women*  
**MEN AT WORK**

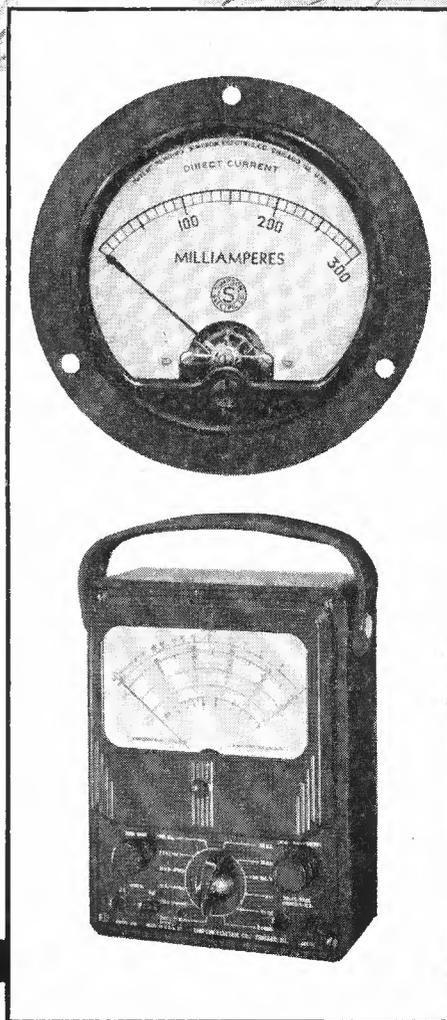
WINNING a war is not an easy job. Victory goes to the side that *fight*s harder, and *work*s harder. ★ From all reports our fighting men will stand up to anybody, anywhere. It is our job, here at home, to prove that we can work as hard as they can fight. ★ The way the women of America have accepted this responsibility is worthy of tribute. Here at Simpson much of our *man*power has changed to *woman*power—good soldiers all, taking the place of husbands, brothers and sweethearts. ★ Like all men and women in American industry, we know but one resolution—to make *all* the electrical instruments and testing equipment we can, the *best* we can, as *fast* as we can.

SIMPSON ELECTRIC CO.  
 5200-5218 Kinzie Street, Chicago, Illinois

**Simpson**

INSTRUMENTS THAT STAY ACCURATE

Buy War Bonds and Stamps for Victory



# Why WPB Should Provide Home-Recording Discs for the Public

Editor Radio Retailing Today:

The War Production Board recently prohibited the manufacture and sale of all recording discs and blanks (except of AA-4 and higher priorities). I have therefore filed with the Board an appeal asking it to distinguish between "professional" discs and "home" recording discs, and feel that your readers will be interested and concerned in seeing that the important issue thus raised is sustained by WPB.

The two varieties of recording blanks herein discussed are so totally different, one from the other, as to be in all respects dissimilar, except that they bear the same general idea.

## Professional-type Records

The professional type recording or transcription disc starts at 10 in. in diameter and is made in sizes up to and including 17½ in. Such discs are made on glass base of a very exacting formula under most exacting methods of production.

It is understandable that professional recording discs should be considered electronic equipment because of the type of equipment on which these blanks are cut and played back, because of the type of personnel which cuts or plays these discs back, and because of the establishments in which they are used.

It is logical to consider a recording disc electronic equipment in the professional type because it is used by an electronic engineer in most cases on specially developed and built recording machines for broadcast stations which are in themselves electronic institutions.

What critical materials are used in professional recording blanks for the most part are fixed and cannot easily be substituted, if the exacting and demanding requirements of the uses for professional blanks for professional purposes are to be maintained.

For this reason it is understandable, without any question, that professional recording blanks be considered electronic equipment.

## Home Recording Blanks

But it is inconceivable that "home recording blanks" shall be considered electronic equipment even though they are called recording discs.

I make this appeal as the world's largest manufacturer of "home recording discs." I make this appeal as a manufacturer who dares to say he knows more about the home-recording-blank business than any other man alive today, because from the birth of home recording (which came into be-

ing only about two and a half years ago) to this very day, more than 65 corporations, some of them very large and "listed" by New York Stock Exchange, attempted to manufacture and to market "home recording discs" but were unsuccessful.

The appellant avers that today he produces more than ninety percent of all the "home recording blanks" used in the entire country from coast to coast.

The "home recording disc" is as different from the professional recording disc as day is from night. The "home recording disc" is as different from professional recording blanks as black is from white, so wide are the differences.

"Home recording discs" start at 6½ in. and come up to 10 in. Currently they are made on paper base. In

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**Says Sidney S. Gould  
of RecordDisc Corp.—**

**Professional recording discs are entirely different from home discs.**

**Home discs do not require critical materials.**

**Raw materials used can be changed from time to time as shortages develop.**

**Phonograph - record constituents are far scarcer and more critical.**

---

selling price, in proportion to the size, they are about one-quarter as expensive as the professional type. They are made on a cardboard base and are coated with material which is priority free. In fact, there is not a single item required for the manufacture of "home recording discs" for which a priority is needed.

"Home recording discs" different from the professional type described above, have very wide range of elasticity and materials which are readily available can be substituted time and time again for other materials which may from time to time become scarce.

The formula for "home recording discs" as we have them, changes from week to week and from month to month as various open-market supplies become more available.

The use of "home recording discs"

is so far away from the practical application of recordings except in its original idea and conception, as to become more similar to a phonograph record than to a transcription blank.

## Inconsistencies

For the purpose of this appeal certain inconsistencies must be pointedly brought before your attention:

Why should a "home recording disc" (blank and uncut or used and cut) be interpreted as "a component part of an acoustic phonograph" in L-265 and a commercial pressed phonograph record which must be played on an acoustic phonograph not be considered "electronic equipment."

It is public information that the materials used in making phonograph records and the substitute materials now being adopted are far more scarce and many times more critical than the most critical material used in "home recording discs."

Why should "home recording discs" be restricted and phonograph records in no way affected?

The use, purpose and value of phonograph records cannot be understated. Everyone knows their value for entertainment at home and for our armed forces. Everyone also knows the cultural value of phonograph records. However—the uses of recording discs—both the varieties known as professional and home types, have all of these uses and hundreds more. Recording discs are used in addition to broadcast transcription (for which the War Production Board has made provision), but the home recording type is also used universally in schools, colleges, conservatories, commercial institutions, libraries, institutions for the blind, army camps and canteens (for which the War Production Board made no provision) police departments, voice letters, etc., including historic home recording especially of events of the war.

The uses for "home recording discs" can be established to be many times more needed than phonograph records. The materials in phonograph records are many times more critical than the scarcest home recording disc material. They are both played on an acoustic phonograph and use exactly the same component parts of acoustic phonographs—yet phonograph records are not restricted and "home recording discs" are. Why? By what standards are "home recording discs" electronic equipment and phonograph records considered not to be such?

Because of the two very distinct and different uses, requirements, materials and processes, "recording discs" as a generic term cannot be used for the specific terms "Professional recording discs" and "Home recording discs." The two types are as different as cotton from silk; as different as paper from leather; as different as day from night. Neither



## TESTED ON AN ATOLL

ON a tiny strip of coral . . . an observation post pierces the dawn with cryptic messages that may spell the difference between victory and defeat. Duty on this speck on your map calls for iron men and dependable equipment.

Under the toughest of conditions . . . under the roughest of handling . . . far from sources of replacement . . . parts must work—for men's lives hang in the balance. Utah Parts are passing this final test on tiny atolls, in steaming jungles, on burning sands in all parts of the world—from pole to pole.

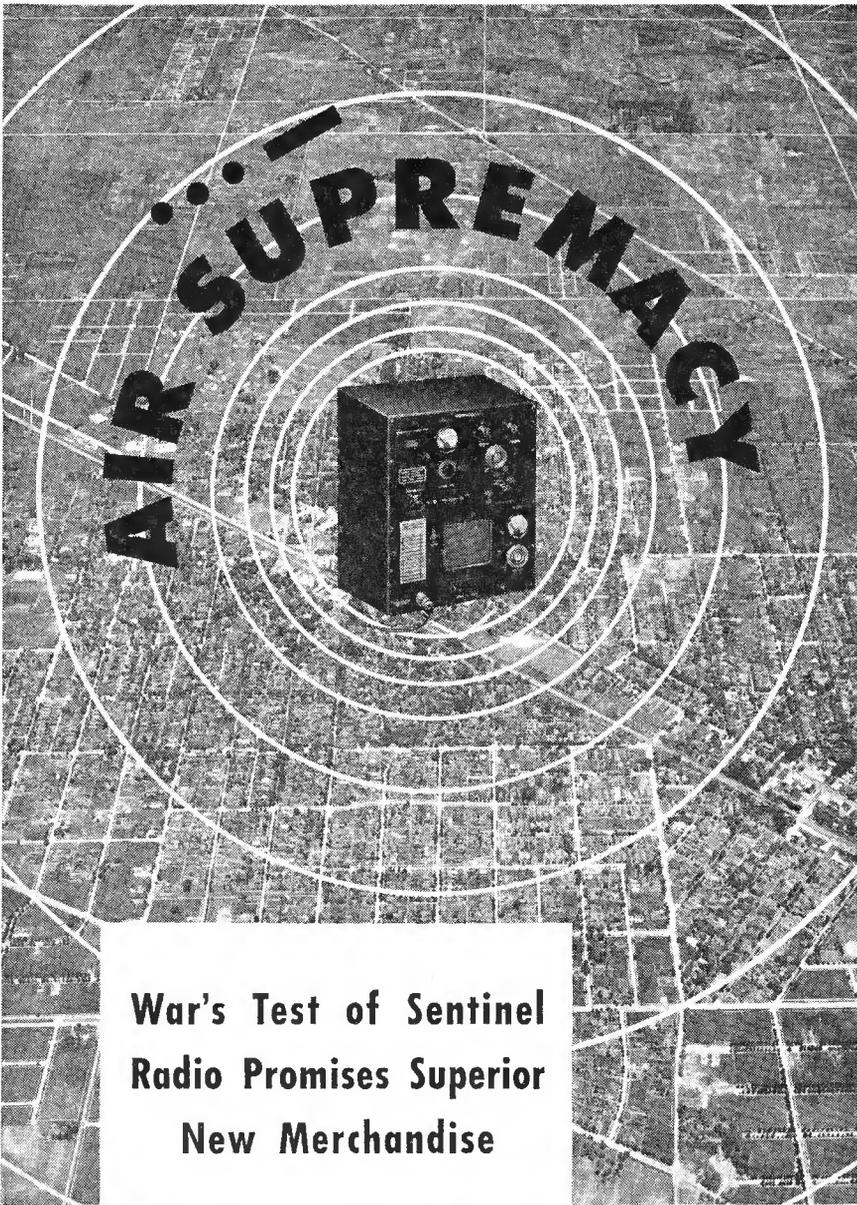
A shooting war is also a talking war. The weapons of communications must have the same dependability and non-failing action as weapons of destruction. These qualities are built into Utah Parts at the factory where

soldiers of production are working 100% for Victory. In Utah laboratories, engineers and technicians are working far into the night developing new answers to communication problems—making improvements on devices now in action.

But "tomorrow" all this activity, all this research, all this experience learned in the hard school of war, will be devoted to the pursuits of peace. Thanks to the things now going on at Utah—there will be greater convenience and enjoyment in American homes . . . greater efficiency in the nation's factories. UTAH RADIO PRODUCTS COMPANY, 810 Orleans Street, Chicago, Ill. Canadian Office: 560 King Street West, Toronto. In Argentine: UCOA Radio Products Co., SRL, Buenos Aires. Cable Address: UTARADIO, Chicago.

**PARTS FOR RADIO, ELECTRICAL AND ELECTRONIC DEVICES, INCLUDING SPEAKERS, TRANSFORMERS, VIBRATORS, VITREOUS ENAMELED RESISTORS, WIREWOUND CONTROLS, PLUGS, JACKS, SWITCHES, ELECTRIC MOTORS**





## War's Test of Sentinel Radio Promises Superior New Merchandise

● America's domination of the air over many battle fronts is not only an aircraft achievement. Radio has played an outstanding part in flying successes—and to this Sentinel has contributed a tremendous volume of important equipment.

The new radios, radar, and electronic equipment to bear the Sentinel name after the war will reflect the extreme precision built into today's battle front models.

**SENTINEL RADIO CORPORATION**  
2020 Ridge Ave., Evanston, Ill.

# Sentinel RADIO

*Quality Since 1920*

### FUTURE FEATURES:

are still a laboratory secret but we pledge, improved Performance, increased Value and Traditional Sentinel Quality

one is interchangeable with the uses and applications of the other. They are not made of the same materials and they are not used for the same purposes.

### About the Appellant

The appellant is a pioneer in the field of home recording discs and is acknowledged to be the world's largest manufacturer of this type disc in addition to being one of the three largest manufacturers of professional discs. During normal times we enjoyed the distinction of being exclusive suppliers to a number of phonograph-radio manufacturers. This type of business is long discontinued and shall be discontinued for the duration. Our business now is with the following: National USO, YMCA, Salvation Army, Jewish Welfare Board, Churches, Canteens, Post exchanges, Army camps, Naval training stations, Flying fields, Army and Navy hospitals, etc., etc.

The appellant avers that the materials required to make "home recording discs" are freely obtainable from the basic suppliers without the necessity for priority.

This appeal to WPB is being made with the hope that the Board will concur with our contention and will reasonably agree, upon review, that "home recording discs" have no place in the consideration of "electronic equipment" and are not part of an "acoustic phonograph."

The appellant desires to be considered friendly to and cooperative with the Radio and Radar Division of WPB and has put himself completely at the disposal of this division should consultation or conferences be necessary and respectfully volunteers to be of service to his government and to WPB by assisting to the extent of his ability wherever and whenever he may be called upon.

*Sidney S. Gould, President  
The RecordDisc Corp., New York City.*

### STUDENT HELP

*(Continued from page 23)*

An interesting sideline of the Scofield establishment has been airplane models, accessories and supplies, which the proprietor has had to soft-pedal now because of the press of radio repair work.

As an interesting psychology side-light on the selling of the above equipment, Mr. Scofield stated that to be successful in selling the above line, youthful purchasers should not be hurried into making decisions. He says that they resent this, and that the seller should treat his model-

# The SPRAGUE TRADING POST

EXCHANGE — BUY — SELL

## Your Own Ad Run FREE

The "Trading Post" is Sprague's way of helping radio servicemen obtain the parts and equipment they need, or dispose of the things they do not need during this period of wartime shortages. Send in your own ad today—to appear free of charge in this or one of several other leading radio magazines on our list. Keep it short—WRITE CLEARLY—and confine it to radio items. "Emergency" ads will receive first attention. Address it to:

SPRAGUE PRODUCTS CO., Dept. RRT 37  
North Adams, Mass.

**AMPLIFIER WANTED**—60 to 100 watt or larger, with or without speakers and mike. T. E. Spackman, Monticello, Ind.

**FOR SALE OR TRADE**—2 Triplett 0-1000 volts DC 1000 per volt; 15 Hickok 0-1 Mil. 4 range scales; 1 Clough-Brengle condenser and resistor bridge; 1 Triumph AC signal generator; 3 battery-operated signal generators; 1 Weston counter-model tube checker; 2 Triplett tube checkers; 1 Dayrad tube checker; 1 Dayrad test panel—4-meters and signal generator—ac and dc volt ranges to 1600 volts—4 mil. amp ranges—ohmmeter, etc.; Triplett v.o.m. 2000 per volt twin meters; various other volt and milliammeters. Want Smith and Wesson or Colt revolvers and pistols, or what have you? C. H. Finley, R.R.1, Forest, Ohio.

**FOR SALE**—3" Weston meter model 301 0-8 volts DC, \$4; Weston model 528, AC meter 0-15V and 0-150V, \$6.50; Weston 3" meter model 301, 0-5 amp. DC, \$4. Reuben H. Horn, 274 1/2 So. Rampart Blvd., Los Angeles, Calif.

**FOR SALE OR SWAP**—Crystal Microphone, Shure model 74B spheroid type, ultra wide range. Mike only, less cable and connector in original carton. Also have Radio and Chemistry laboratory equipment. Write Raymond H. Ives, RT 1c; U. S. Coast Guard; Communications Base, Portsmouth, Va.

**CASH OR TRADE**—Want good condenser analyzer; also 35Z5, 12SK7, 50L6 tubes. Have RCA station allocator and Clough-Brengle oscillator. G. R. Roska, 1434 2nd St., N. E., Canton, Ohio.

**WANTED**—Hallicrafter receiver SX-28, SX-32, S-20-R. Will pay cash. Roger Lane, Mansion House, Greenfield, Mass.

**FOR CASH OR TRADE**—New Weston thermo-ammeter range 0-5, model 425; Raytheon 3API/906-P1 cathode ray tube, like new. Want photo equipment. F. W. Madaris, EM Mcl. 16th Batt. N.T.S., Newport, R. I.

**RIDER'S MANUALS WANTED**—Complete used set or any volume; also need 6" slide rule, any good make. Peerless Radio Co., 3721 Geary Boulevard, San Francisco, Calif.

**FOR SALE OR TRADE**—Triumph tube tester, model 420. Will trade for firearms only. William Nicolodi, Nuremberg, Pa.

**TEST EQUIPMENT FOR SALE**—Hickok model 51X comb. tester and model 17 oscillator, these units mounted in a blue crackle-finish case about 28" x 16" x 7"; also Superior channel analyzer. Want 3" scope or graph, or make best cash offer. John Repa, Jr., Richlandtown, Pa.

**TUBES WANTED AT ONCE**—Types 12SA7 (or GT/G); 70L7GT; 50L6GT. Give prices and quality. Irby Kolb, 319 N. Bainbridge St., Montgomery, Ala.

**URGENTLY NEEDED**—Electronic multimeter or Rider chanalyst; late model tube tester, and oscilloscope, and signal generator suitable for receiver alignment; also want set of Rider's Manuals. Highest cash price paid. Elwood Carson, 3412 Duk St., Portsmouth, Va.

**WILL SELL OR TRADE**—New Hartman converter 6V DC to 110 AC about 65 watts; American high voltage transformer Pf-250; 2 5M audio transformers No. 220-No. 230; 2 5M Unichokes No. 331; 2 American audio transformers No. 678; all in excellent condition. Interested in a late tube tester and manuals. Clifford D. Lessig, Manual Arts Dept., Frenchtown High School, Frenchtown, N. J.

**FOR SALE OR SWAP**—Heavy duty General Electric tungar charger, complete with bulb and test panel with two 6 inch meters, battery condition meter and battery capacity meter (panel practically new), capacity of charger 20 batteries. Need cathode ray oscillograph; any quantity of used small late radios (must be worth repairing); Rider's Manuals No. 11 to No. 5. Write Cash & Carry, Utica Radio Service-Dealer, 321 Columbia St., Utica, N. Y.

**TUBES TO TRADE**—Have 35L6GT and 12SQ7GT and other scarce tubes to trade for your 35Z5GT or 12SA7GT tubes, or will pay cash for the latter. Write. Granger Radio Service, 62 Spring St., Rochester, N. Y.

**WANTED**—Recording equipment, dual speed turntable 16"; lead screw overhead cutting mechanism, crystal or magnetic head—500 ohms. Will consider record-changer-recorder. Pay cash or part in trade. What do you need? F. U. Dillion, 1200 North Olive Dr., West Hollywood—46, Cal.

**WANTED**—Station allocator (RCA, Philco or Precision); vibrator tester; resistance indicator; Aerovox capacity kit; bridge and L-C checker; Hickok 202 electronic V.M. capacity analyzer, and capacity decade (Solar, Sprague, Cornell, Dubilier, or R.S.E.); ABC portable battery eliminators; Sprague Tel-omike; C.D. test-mike; good radio and electrical courses. Give condition and cash price. Radio Electric Service, 431 S. Broad St., Grove City, Pa.

**WANTED**—Hickok model 510K combination 1942 tester. Must be in A-1 condition. Will pay cash. Give full particulars and price. L. M. Burtis, 2333 S. E. 53rd Ave., Portland, Ore.

**WANTED AT ONCE**—Output transformer, universal type, 117N7GT type tube, 2 of each, or a cheap tube audio oscillator for code practice. Will pay cash. Pvt. Jesus F. Flores, 932 T. E.F.T.S., Marfa Army Air Field, Marfa, Texas.

**WANT CONDENSER ANALYZER**—Solar model. Must be in operating condition. Give details and price. All letters answered. Beacon Radio Service, 532 E. Blancke St., Linden, N. J.

**WANTED**—Any standard make A.C.-D.C. voltohmmeter, also Solar condenser analyzer. Must be in good condition. Give full details and cash price. William E. Caron, 133 Boren Ave., No. Seattle, Wash.

**FOR SALE**—One almost new Philco all-wave signal generator, model 070. Will take \$25. Frank P. Rose, Rose Garage, Glasgow, Md.

**WANTED FOR CASH**—Aerovox model 95 L-C checker, also a signal generator. State price and condition. Herbert Wenzlaff, Toluca, Ill.

**WANTED**—Volt-ohm-milliammeter; also good signal generator. Will pay cash. Describe in detail and give price. Hurley Ogan, Jr., RR. 5, Box 24, Clarksville, Tenn.

**RCA VOLTOHMYST WANTED**—Will pay original list price for Jr. model unit in good condition. Roy McAfee, 3613 Belair Road, Baltimore, Md.

**NEEDED IMMEDIATELY**—Hallicrafter's receiver S-20R or S-19R; also Howard 435-A or 436-A. Clay Smith, 606 East Pryor St., Athens, Ala.

**WANTED**—RCA Voltohmyst, Radio City Products Electronic multimeter No. 662 or similar equipment. Sam Posen, 1432 S. St. Louis Ave., Chicago, Ill.

**WANTED**—The following Superior instruments: dynameter, utility meter, and model 1280 set tester. Have in trade Powers trans. audio trans. 0-1 milliammeters, 0-20 A.C. milliammeter and amplifiers. Chester Hyde, 111 North Havar St., Hartford, Mich.

**WANTED FOR CASH**—Volttohmmeter or test tube tester. State make, price, and condition. David S. Miya, Blk. 29-11-2, Manzanar, Cal.

## Their Little Ads Brought BIG Results!

### A FEW TYPICAL COMMENTS FROM AMONG HUNDREDS WE HAVE RECEIVED

"I have had excellent requests from the Trading Post ad you ran for me—seven requests in three days, and they're still coming."—W. T. N., Illinois.

"Thank you for my advertisement in the Sprague Trading Post. Received 4 replies to my request for an oscilloscope."—O. B., Brooklyn.

"I have made a trade on a Rider Manual for the micrometer. Thank you again."—C. D. L., New Jersey.

"Thanks for running my ad—I sold two meters right off the bat."—A. R. D., New York.

"I received an answer to my ad two days after the magazine came out, and a week later I had the oscillator I wanted."—F. L., Conn.

"Received several replies and purchased the condenser tester I needed. I gave the other replies to other servicemen who also needed such equipment."—J. A. S., New York.

"Please accept my sincere thanks. I was literally swamped with replies to my Sprague Trading Post ad and had no difficulty in disposing of the apparatus at a good price. This is a splendid service you are rendering—and just one more reason why we servicemen will continue to buy Sprague Condensers."—R. B., New York.

### SEND IN YOUR AD TODAY!

Ask for Sprague Atoms (midjet drys) by name! Use them universally on EVERY electrolytic condenser replacement job!



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

building customers courteously and patiently. "I always made it a point to allow the customer the privilege of opening the kit and examining it," said Mr. Scofield.

The Scofield organization has a large, light showroom, with two show windows, a comfortable office, and a well-lighted big repair department, having a separate entrance on a side street. Scofield uses a light delivery truck for outside work.

Another nearby radio man says

that he believes the hiring of students who have studied radio in schools is "very satisfactory."

This repairman is F. Cruypelandt, who operates Flo's Radio Service on the Jericho Turnpike, Floral Park, also near Sewanhaka. He has been in business for 9 years at this location, and up until recently had a Sewanhaka student working for him.

This employee is now in the armed forces, and is in radio communications work in the military organiza-

tion of which he is a member.

Flo's Radio Shop is now a "one-man" shop, and like thousands of other shops throughout the country, is piled high with work.

"I was very well pleased with the services of the student I employed," said Mr. Cruypelandt. "The basic work and theory he received in the school saved me a lot of time I would have had to devote to instructing him if he had not had this background."

The public school system is America's largest business, and many new teaching trends are definitely on the technical side. Schools have the best teaching talent at their disposal, the finest equipment, and the willingness to cooperate, and servicemen may turn to the schools as one solution of the critical shortage of help in the radio repair business.

Jeeps and engineer cars in India and Persia use Ken-Rad Tubes in electronic equipment for maintenance of communication Radio the infant of World War One is number 1 in communications today

Ken-Rad proudly keeps up its expanded production of electronic tubes the nerve centers of our battle units Going ceaselessly from us to all allied forces are the precision mechanisms which implement the miracles of electronic engineering And you who wait for your supply of Ken-Rad Tubes are helping in the all-out effort

# KEN-RAD

RADIO TUBES • INCANDESCENT LAMPS • TRANSMITTING TUBES

OWENSBORO • KENTUCKY

## Workers Pledge Speed



Emerson Radio employees promise peak production and take stand against absenteeism. Photograph shows White House presentation of workers' pledge to President Roosevelt. Left to right: General Watson (for the President), Philip Gillig and John Avezzano of the Emerson Labor Management Committee.

## New Supreme Booklet

"How to Use Diagrams in Radio Servicing" is the title of a new booklet just issued by Supreme Publications, 328 S. Jefferson St., Chicago, Ill.

The booklet, by M. N. Beitman is intended to aid radio students, beginner servicemen and members of the armed forces in understanding how to apply circuit diagrams to radio servicing problems. The price of the publication is 10 cents.



# You are going to be a bigger man

Keep this fact clearly in mind: *electronics* is the growing art of harnessing electron tubes—in many cases, familiar types of radio tubes—to new applications; and it means everything to your future.

Big as the radio and communications industry has been, it is only *one phase* of electronics. Hitherto your opportunities have been practically limited to that one phase—transmission of sound. At the start of the war, television—transmission of sight—was just opening up.

When the war is over, television will arrive—but *it won't be alone*. RCA electron tubes will be put to work on thousands of *new jobs*—new electronic devices.

As a Tube and Equipment Distributor and Serviceman *YOU* will service these devices—sell replacement tubes they will require.

*YOU* will draw income from this vastly widened field. You will be a *bigger man*—expanding, reaching out, grasping opportunity. RCA Engineers and RCA Tube and Equipment Distributors and Servicemen, working together, can help enormously to make electronics the biggest industry, and the greatest public service, this country has ever known!



## RCA ELECTRON TUBES

RCA Victor Division • Radio Corporation of America • Camden, N. J.



## WHEN YOU NEED AN UNBREAKABLE RECORDING BLANK



### USE THE PRESTO MONOGRAM

... a paper composition base disc that will safely withstand mailing, all ordinary handling, shipment anywhere. Monogram discs are lightweight, unaffected by temperatures above 40°F. or excessive humidity, have a remarkably long shelf life.

While the composition base is not as smooth as the glass base used for the highest quality recording discs, the coating material is exactly the same, giving the same cutting qualities, frequency response and long playing life. Surface noise is slightly higher than that of glass discs but at the same time well below that of the best commercial phonograph records.

With metal discs withdrawn from use, the Presto Monogram has become the most practical disc for recording in the field, for recordings to be mailed to distant points and those subjected to frequent handling. Thousands of monograms are used by the military services of the United Nations and by the larger radio stations for delayed broadcasts. Made in all sizes, 6, 8, 10, 12 and 16 inches. Order a sample package of 10 discs today.

**PRESTO**  
RECORDING CORP.  
242 WEST 55th ST. N.Y.

In Other Cities, Phone . . . ATLANTA, Jack. 4372 • BOSTON, Bel. 4510  
CHICAGO, Mar. 4240 • CLEVELAND, Me. 1565 • DALLAS, 37093 • DENVER,  
Ch. 4277 • DETROIT, Univ. 1-0180 • HOLLYWOOD, Hil. 9133 • KANSAS  
CITY, Vic. 4631 • MINNEAPOLIS, Atlantic 4216 • MONTREAL, Mar. 6368  
TORONTO, Hud. 0333 • PHILADELPHIA, Penny. 0542 • ROCHESTER,  
Cul. 5548 • SAN FRANCISCO, Su. 8854 • SEATTLE, Sen. 2560  
WASHINGTON, D. C., Shep. 4003—Dist. 1640

World's Largest Manufacturers of Instantaneous Sound Recording Equipment and Discs

## RADAR

(Continued from page 21)

fleet. With the use of the radar our ship, with its second salvo, sank the Jap battleship in the blackness of night, eight miles away. Is there any wonder that the Japanese Admiral Yamamoto who boasted he would dictate the peace to the United States in the White House, has quietly passed away?"

Credited by Rear Admiral Harold G. Bowen with changing the whole course of history in the present war, radar, in the opinion of many, will serve us equally well in the coming peace it is now helping to earn.

## Fan Service Is Profitable

• For radio retailers and servicemen who find themselves in a position to handle a little more business, the summertime repair of electric fans has been suggested. This has been described as a profitable, clean and quick business, though for the most part a short-season one.

The fan repair work comes in bunches. Every hot spell brings out sick fans of all ages, types and designs. Customers being human, even as we are, the work is put off as long as possible. Fans that should have been repaired last fall and stored away for the hot days to come, were forgotten, and only a couple of days and nights of extremely uncomfortable hot weather will cause the customer to rush out with them, seeking a repairman.

It is interesting to note that at least half of all fans brought in for repair because they "hum, but won't run," are merely "dry." Perhaps when the owner brought out the appliance and plugged it in, it started, ran for a few minutes, then heated up and stopped. Barring electrical trouble, through test, and trying the wheel for stiffness, the repairman may determine that all the fan needs is a good cleaning, new wicks and new oil. If the fan is of the oscillator type, the old grease must be washed out of the oscillator mechanism, and new lubricant added. Testing the wheel of an

# FADA Radio

## Fada - and Radar -

### Proudest Assignment in Our History

Now that secrecy restrictions are partially lifted, we can reveal that FADA has had a decisive hand in radar . . . that remarkable invention made by Dr. A. Hoyt Taylor and Leo C. Young of the U. S. Naval Research Laboratories almost twenty-one years ago. So significant was their invention that we wonder if Winston Churchill's famous phrase . . . "Never have so many owed so much to so few" may not have paid tribute as much to these two American inventors . . . to the scientists, British and American, who carried onward their initial invention . . . as it did to the R. A. F. For without Dr. Taylor and Mr. Young's pioneering in the finest of American traditions, the bravest of little R. A. F. fighter groups could never have been where they were needed . . . when they were needed . . . to defeat the Luftwaffe . . . to save England.

Our hats are off . . . our heads are bowed . . . in respect and admiration for Dr. Taylor and Mr. Young. We are humbly proud that we were deemed worthy to have a hand in the perfection and application of radar . . . savior of the United Nations in their hour of greatest peril. One of FADA'S many military tasks has been the painstaking construction of complex and complicated radar test equipment . . . test equipment upon the multitude of functions of which many another American manufacturer has had to depend to turn out his own radar production.

What this means to you . . . what even newer . . . secret . . . FADA equipment today serving our boys in the air, on land, at sea, means to you is new radios by FADA . . . radios embodying today's newest secrets . . . startlingly changed . . . simplified . . . improved . . . for you . . . post war.

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

1920 SINCE BROADCASTING BEGAN 1943

# 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.



## L. S. BRACH MFG. CORP.

World's Oldest and Largest Manufacturers of Radio Aerial Systems

55-65 DICKERSON STREET • NEWARK, N. J.

### AEROVOX CONDENSERS

PRS 450—8 MFD	Net .45
PRSB 450—8+8 MFD	" .99
PRSV 450—12 MFD	" .54
PRSA 200—16+16 MFD	" .84
PRSB 150—20±20 MFD	" .99
Tubular Type	

**KEN-RAD RADIO TUBES**  
When Available

**WRIGHT**  
**P-105 P.M. SPEAKERS**  
5 Inch Less Outputs  
\$2.26 Net

**BLACK SPAGHETTI TUBING**  
30 Inch Length .11

Send for Catalog  
Postage Extra

Include Certification L-265

Radio Troubleshooters Handbook—Third Edition \$5.00

**Anchor Radio Distributing Service Co.**  
Box 21, Ithaca, N. Y.

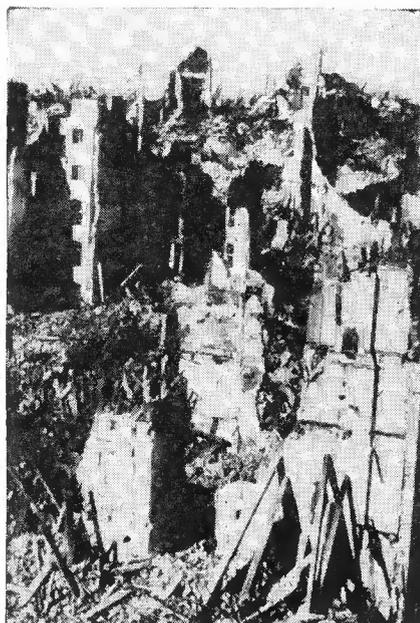
electric fan for stiffness is a little deceptive, but it must be remembered that the blades must spin freely, because motors are not powerful enough to start and maintain motion when bearings are dry.

Many fans of incorrect voltages are brought in. Every fan repairman will blush a little when he reads this, because we've all fooled around with a fan in our AC current supply, only to discover that the fan is DC.

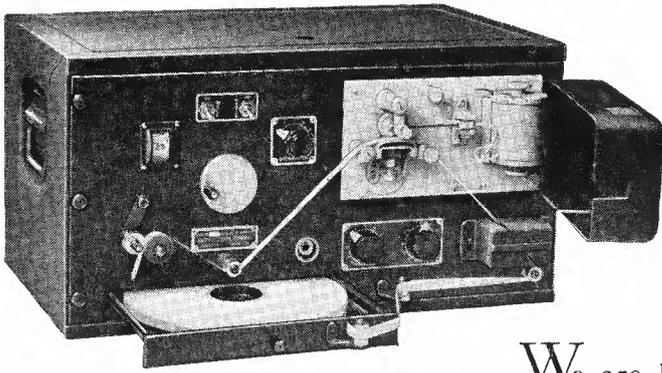
Unless the fan is of a very expensive commercial design, it doesn't pay to have any wiring changes made, or to use converters of any kind, from one current to another. However, there is an angle to consider, and that is the "trade-in" prospects. If, for example, you are operating in an AC area, and a customer brings in a DC fan, it is possible for you to find an outlet for such a fan in a DC area, and to make an exchange with a dealer in the latter place.

A great many fan jobs entail nothing more serious than the installation of a new service cord, or perhaps only a new end-plug. Armed with a pair of prods fed through an ordinary electric light lamp in series, the repair-

### Not Our Erla!



There is no connection between the Electrical Research Laboratories, Inc., of Evanston, Ill., manufacturers of Erla and Sentinel Radios, and the Erla Works pictured in this Press Assn. photo. This photo, which appeared in various newspapers, shows the Erla Aircraft Works, which was severely damaged by United Nations flyers in the bombing of Antwerp, Belgium. The Electrical Research Laboratories' three plants in Evanston, Ill., continue capacity production of radio and electronic equipment for the U. S. Navy and Army Signal Corps.



We are busy, busy, busy producing these recorders for our Armed Forces and our Allies . . . amazing devices that translate high-speed radio code signals into ink marks on paper tape. Considerable research by our laboratory was required for this important contribution to the electronics-communication field . . . a valued factor in the war that will have important after-use in peacetime.

# Waters Conley

---

## COMPANY

- No one can tell today what the peacetime needs of the world will be, but some of the Waters Conley research and engineering developments are sure to open important new civilian markets for you.

*Phonola*

WATERS CONLEY COMPANY

*In peacetime, America's oldest and largest manufacturers of portable phonographs*  
ROCHESTER, MINNESOTA

17 E. 42nd Street, New York

224 S. Michigan Avenue, Chicago

WHEN THE LIGHTS  
COME ON AGAIN...

# MIRROR-TONE WIBBOB-TONE

MADE BY THE MAKERS OF AUDIOGRAPH

FOR *Entertainment* IN THE HOME

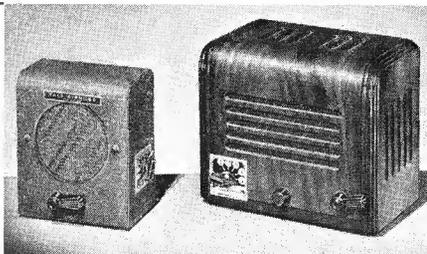
Life again will be reasonably carefree and happy. When that time comes MIRROR TONE Recreating Phonographs will be available again, to entertain you in your home with music more faithfully mirrored than you have ever known. Thus, the hard lessons of today's experience will be translated into tomorrow's enjoyment.

**JOHN MECK INDUSTRIES**  
PLYMOUTH, INDIANA



**NEW!**

**Talk-A-Phone**  
Model LP-77



Here's a flexible inter-com system which makes possible the hook-up of several master stations with selective type sub-stations. Sub-stations originate calls, selecting the master to which they wish to talk. Has all latest Talk-A-Phone features. Low in price, dependable operation, a worthy addition to this famous jobber line. Write for details today.

★ ★ **Talk-A-Phone Mfg. Co.** ★ ★  
1219 W. VAN BUREN ST. CHICAGO, ILL.

man can easily test for grounds or breaks in the service cord.

Motor brush type fans sometimes fail to operate because of dirty commutators, worn motor brushes or weak brush springs. These repairs are simple for the average mechanic to make.

### **Blade Trouble**

"Walking" fans are due to bent blades, a condition which will also cause objectionable noise. Bending fan blades to the correct pitch is a job calling for careful operation and patience, but it is easily learned after some experience has been had.

Another common trouble is the fan blade coming off the shaft. This, naturally, is due to either a stripped set-screw, stripped set-screw opening, or merely to a loose screw. Where stripping is responsible, re-threading is indicated.

Whether you want it or not, you're probably going to be offered some fan repair business this summer, due to the general shortage of service help, and if you don't want it, that's one thing, but if you do, you'll find electric fan repairing a nice adjunct to radio repair work.

It will be noticed that the foregoing is chiefly concerned with portable fans, but there is still another big field for the man who wants outside work, and that is the servicing of attic and kitchen ventilating fans, the latter found in every modern house, and the former in more than most people would think likely.

### **Predicts Television Will Boost Profits**

Harry S. Wolfe, general manager of Wolfe Radio Dist. Co., 34 W. 17th St., New York City, predicts that television will provide the greatest source of profit to the radio dealer after the war.

Right now, though, he states, the radio dealer's job is to carry on and keep the sets playing. Mr. Wolfe says his organization has a very large stock of parts and is doing everything possible to keep the radioman supplied with the necessary components.

The Wolfe organization is one of the oldest and largest radio wholesalers in the business. Mr. Wolfe, the manager, is associated in this company with his three brothers, Joseph R., Sidney J., and Milton M. Wolfe.

*Immediate Delivery*  
**on Meissner**  
**"Plastic" I.F.**  
**Transformers!**



Meissner "Plastic" I.F. Transformers are ideal for replacements . . . especially where space is limited, yet superior performance is required . . . only 1¼ inches square and 2½ inches high.

SUPERIOR CONSTRUCTION . . . one-piece molded plastic coil form and trimmer base eliminates separate parts . . . unit has greater stability . . . fully protected against the effects of humidity and temperature changes.

No. 16-6649 . . . 175 kc. . . . No. 16-6652 . . . 262 kc. . . .

No. 16-6658 . . . 456 kc. . . . Can be used in either input or output positions . . . List price \$1.10 each.

For better performance replace with Meissner "Plastic" I.F. Transformers . . . See your Meissner distributor.

 *Meissner*  
 MT. CARMEL, ILLINOIS

**"PRECISION-BUILT ELECTRONIC PRODUCTS"**



## Grimes Sees Rapid Television Growth

David Grimes, vice president in charge of engineering for Philco Corp., in a recent address on "Electronics, FM, and Television," before the New York Institute of Finance, predicted the rapid expansion of existing television broadcasting facilities after the war.

"Much of the research and engineering now being carried on at unprecedented speed to meet emergency war needs will advance and improve the television art in the postwar period," Mr. Grimes said. "Even before the war, television had advanced to the

point where it was possible to provide pictures of the same clarity and sharpness of detail as home movies."

## In Production on "Victory Parts"

Peerless Electrical Products Co., of Los Angeles, Calif., states that its new Victory Line of transformers are now in production. These are being made to meet WPB's limitation order L-293, which permits only a limited group of transformers to be made for home radio replacement.

Peerless includes the line in Supplement 1 to its bulletin No. 430.

## Guides Huge Enterprise



E. A. Tracey, President of Majestic Radio & Television Corp., sees Majestic break business records.

## Majestic Radio Has Record Billing

According to an announcement by President E. A. Tracey, the Majestic Radio and Television Corporation, Chicago, closed its fiscal year in the month of May with the largest billing in the company's history to date.

"Majestic, completely converted to war work, had a billing in May of over \$550,000," says the statement, which points out that this was considerably better than the next highest month, February, 1942, with \$361,000 in net billing.

## Harry G. Sparks New Sparton President

At the special June meeting of the board of directors of The Sparks-Withington Co., held in Jackson, Mich., Harry G. Sparks was named president and general manager. Mr. Sparks takes over the position long held by his father, Capt. Wm. Sparks, who died recently.

Other members are Winthrop Withington, chairman of the board, Clifford M. Sparks, vice pres., W. J. Corbett, vice pres., David L. Johnson, treasurer. In addition, H. K. Hall, L. S. Bisbee and Chas. J. Kayko are directors, the latter being a new member elected to fill the vacancy of the late Capt. Sparks.

## "Reps" Met in Philadelphia

The June meeting of the Mid-lantic Chapter of "The Representatives" of Radio Parts Manufacturers, Inc., was held at the Engineer's Club, Phila. The meetings were formerly held each month at the Essex Hotel, but through an arrangement made by one of its members, Martin Friedman, all future meetings will be held at the club.

Some Things are REALLY Scarce Right Now\*



\*(Especially Radio Servicemen)

THERE are no substitutes for some things that are scarce today. There are no "ersatz" servicemen to take the places of those called to the colors.

But, there are just as many, and more, sets needing repair. And you, brother 3A or 4F, have to see that they're repaired.

Today it's your patriotic duty to ration your time; use it so you get the utmost production out of each unit of labor.

Use your testing instruments—employ the latest servicing techniques—and reach for one of your thirteen RIDER MANUALS before you begin each job. These volumes lead you quickly to the cause of failure; provide the facts that speed repairs.

It isn't practical or patriotic to waste time playing around, guessing-out defects. Today you must work with system and certainty. RIDER MANUALS provide you with both.

### RIDER MANUALS

Volumes XIII to VII.....	\$11.00 each
Volumes VI to III.....	8.25 each
Volumes I to V, Abridged.....	\$12.50
Automatic Record Changers and Recorders.....	6.00

### OTHER RIDER BOOKS YOU NEED

The Cathode Ray Tube at Work Accepted authority on subject.....	\$3.00
Frequency Modulation Gives principles of FM radio.....	1.50
Servicing by Signal Tracing Basic method of radio servicing.....	3.00
The Meter at Work An elementary text on meters.....	1.50
The Oscillator at Work How to use, test and repair.....	2.00
Vacuum Tube Voltmeters Both theory and practice.....	2.00
Automatic Frequency Control Systems —also automatic tuning systems.....	1.25
A-C Calculation Charts Two to five times as fast as slide rule. More fool-proof. 160 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"	90c each

### JOHN F. RIDER PUBLISHER, INC.

404 Fourth Avenue • New York City  
Export Division: Roche-International Electric Corp.  
100 Varick Street New York City. Cable: ARLAB

**RIDER MANUALS**  
**SPEED REPAIRS — AND VICTORY**

## Plans Redrawn to Include Paging System

An interesting sidelight on intercommunicators is provided by a spokesman of David Bogen Co., New York City manufacturers. He states that plans for a new department store in the Middle West were ordered redrawn to include an intercommunication system. It was pointed out to the builders that this system was just as necessary as routine heating, lighting and plumbing in a modern building.

The Bogen Company knows radio dealers can be successful in the selling and servicing of paging systems, because they do business with plenty of them. The firm has over 300 selling outlets, and works very closely with its dealers. Its distributors are equipped to give valuable technical and selling aid to dealers, the spokesman said.

## Phileo Predicts Production Increase

That Phileo Corporation's production of war materials will increase further in coming months as engineering work is completed on additional new equipment for the government, is the prediction of Larry E. Gubb, chairman of the board of directors.

The statement was made in a letter to stockholders accompanying the June 12th dividend checks.

## New Sonora Campaign

Sonora Radio & Television Corp. is launching a national consumer advertising campaign in 4-color pages in leading magazines.

The campaign has been carefully planned with special regard for the intensive cultivation of territories to be covered by Sonora jobbers.

## Electrical Jobbers' Electronic Committee

The National Electrical Wholesalers Association, with headquarters at 500 Fifth Avenue, New York, formerly had a radio and tubes committee which is now known as the "Electronics Committee." The chairman and members of this committee are as follows:

- Percy Stern, Chairman, Interstate Electric Co., Magazine & Girod Sts., New Orleans, La.
  - W. S. Blue, Columbian Elec'l Co., 2603 Grand Ave., Kansas City, Mo.
  - J. T. Morgan, Charleston Elec'l Supply Co., 914 Kanawha Blvd., Charleston, W. Va.
  - G. M. Nutter, The Mookk Elec. Supply Co., 5th St. & Cleveland, N.W., Canton, Ohio.
  - W. B. Stringham, General Elec. Supply Corp., 1330 New York Ave., N.W., Washington, D. C.
- Charles G. Pyle is the managing director of NEWA.

**A CLUE FOR YOU!**



**HOMER G. SNOOPSHAW**

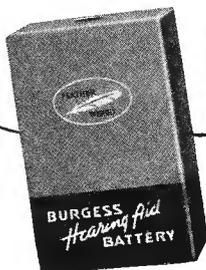
Solves the case of the

## DWINDLING PROFITS!

"Aha! It's elementary! Wartime restrictions cutting down sales and profits . . . must be replaced somehow . . . what is more logical or more natural than Hearing Aid Batteries? The brand that's in demand is BURGESS!"

Pioneers in the hearing aid battery field, Burgess Batteries are already established with agents and consumers.

**BURGESS BATTERY COMPANY, FREEPORT, ILLINOIS**



*Don't Overlook*

**BURGESS**

*Hearing Aid*

**BATTERIES**

No. XX30E, a 45 volt "B" Battery for vacuum-type aids

THERE'S A

**STANCOR**  
TRANSFORMER

*For Every Practical Application!*



**STANDARD TRANSFORMER**

• CORPORATION •

1500 NORTH HALSTED STREET . . . CHICAGO

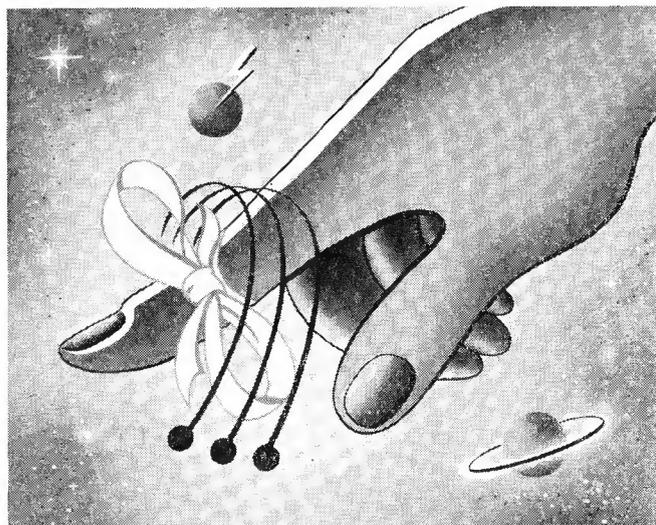


## JOBBERS ATTENTION

These are some of the items that Universal is manufacturing for the Armed Forces. These, and many new items, too, will be available to you after the war. In the meantime, most of the regular catalog items are available on priorities at standard discounts. Contact the factory representative nearest you.

Howard F. Smith, 259 West 14th Street, New York  
 L. G. Cushing, 540 North Michigan Ave., Chicago  
 Dick Farris, 127 East 31st St., Kansas City, Mo.  
 James J. Backer, 2321 2nd Ave., Seattle, Wash.  
 Sigmund Cohn, 2533 South Hill St., Los Angeles  
 Robert Milsk, 15,483 Steel Ave., Detroit, Mich.  
 E. C. Edwards, 530 Erie Bldg., Cleveland, Ohio  
 Stan Wallace, Lutz, Tampa, Florida  
 Atlas Radio Corp., Ltd., 560 King St. W., Toronto 2, Canada

**UNIVERSAL MICROPHONE CO., LTD.**  
 INGLEWOOD, CALIFORNIA



### Remember Monarch Testing and Calibrating Equipment

offers the solution to many a problem in the laboratory and on the production lines. Our special measuring and testing instruments, to accompany various units turned out for military purposes, have won unqualified praise for their complete accuracy and dependability. Consult us also, if you have any problem in securing almost any type of small machine parts.

**MONARCH MFG. CO.**  
 2014 N. Major Ave. Chicago, Ill.

*All-out for Victory...*

to Speed the Day of

"Unconditional Surrender"

**NOBLITT-SPARKS INDUSTRIES, INC.**  
 Columbus, Indiana

**ARVIN**

*Peacetime Products*

**HOT WATER CAR HEATERS  
 HOME AND CAR RADIOS  
 BATHROOM ELECTRIC HEATERS  
 METAL FURNITURE**

## Canada Sales Drop

Figures showing the drop in radio set sales in Canada since the start of the war have been released by the Dominion Bureau of Statistics, Ottawa. In 1939 the Dominion produced 384,507 receivers, manufacturers sold 370,608 receivers that year valued at \$20,005,000. In 1940 production was cut by wartime measures and last year production of new broadcast receivers for civilian use was stopped when parts were used up. The 1942 production amounted to 176,287 new receivers, with sales by manufacturers amounting to 209,163 receivers valued at \$14,404,000.

## Mellick Sales Manager

Carlton Mellick, who for the past twelve years has been associated with Miehle Printing Press & Mfg. Co., has been appointed sales manager of Goat Metal Stampings, Inc., Brooklyn, N. Y. Mr. Mellick will serve in the same capacity for the Fred Goat Co., Inc., and Swing-O-Ring, Inc., both also in Brooklyn.

## "Reps" Secure New Members

Two local chapters of the Representatives of Radio Parts Manufacturers report the recent acquisition of two members each. The Mid-Lantic Chapter has added to its roster I. R. Blair, North Wales, Pa. and C. H. Fryberg, Philadelphia, Pa.

The Missouri Valley Chapter's new members are H. C. Roes and F. C. Somers, Jr., both in Kansas City, Mo. Mr. Somers, Jr. is a member of the firm of Fred C. Somers & Co., who recently moved to the above address.

N. W. Kathrinus of the Missouri Valley Chapter has moved to Kirkwood, Mo.

## Aid for Women Workers After the War

Readers who have been following *Radio Retailing Today's* stories on women workers in radio, will be interested to learn that the Women's Advisory Committee of War Manpower Commission, has agreed upon a declaration affecting postwar women in industry. Expressing alarm "at the threat of widespread postwar unemployment among women," the declaration follows: "The government and industry must not assume that all women can be treated as the reserve group during war only, nor should those who wish to stay in the labor market be accused of taking men's jobs. The right of the individual woman to work must be recognized and provided for, just as the right of the individual man to work."

The action was taken at a two-day conference of the WMC committee devoted to study of postwar prospects.

**MEMO TO: Jobbers and Dealers —**  
*Ads like this one from Business Week are building good sound business for you! Get details on this BELL Voice Paging Equipment now, and keep in touch with this active market!*

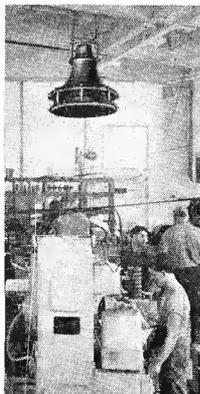
**Speed plant communications through this vocal "NERVE CENTER"**

## BELL VOICE PAGING and amplifying SYSTEM

With a BELL Voice Paging System, your switch-board operator can double *her* efficiency and that of your whole plant communications system. She can *instantly* call any message to any — or *every* — individual within your plant or grounds.

She becomes a smooth-working "nerve-center" of coordination between all departments and individuals. The system also enables you to broadcast announcements, talks by management, alarm or time signals, and recorded music.

BELL Voice Paging Systems are *first* to be designed especially for industrial use. You'll see the difference in BELL specifications. Heavy-duty *standard units* combine to fill requirements of any type or extent, and can readily be rearranged or expanded at any time. Write for details.



**BELL SOUND SYSTEMS, Inc.**

1186 Essex Avenue

Columbus, Ohio

Export Office: 5716 Euclid Ave., Cleveland, Ohio

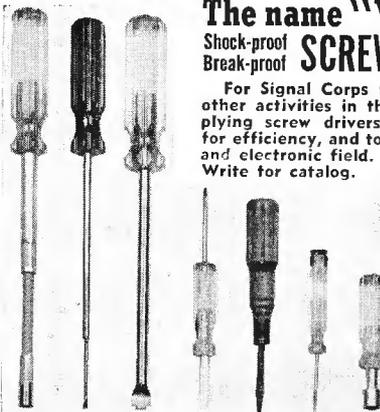


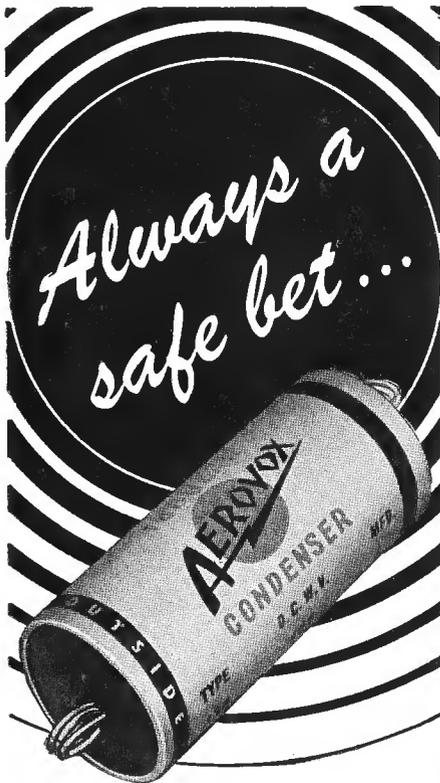
The name "VACO" means  
 Shock-proof Break-proof **SCREW DRIVERS** AMBERYL HANDLE

For Signal Corps trainees . . . for a host of other activities in the war effort, Vaco is supplying screw drivers and small tools designed for efficiency, and to speed up work in the radio and electronic field. Over 173 sizes and types. Write for catalog.

Vaco's ability to create special drivers and small tools is aptly illustrated in the panel at left, showing some of our unusual developments.

**VACO**  
 Products Company  
 317 E. ONTARIO ST.  
 CHICAGO, ILL.





• Yes indeed, these Aerovox paper tubulars Type '84 are thoroughly dependable. Millions of them are in daily use, establishing enviable service records. The non-inductive section is sealed in wax-impregnated paper tube with extra-generous wax-filled ends. Varnished and colorful jacket label makes them look as good as they really are. Maximum protection against moisture. Adequate selection of voltages and capacitances.

**PAPER TUBULARS**

Type 484 — 400 v. D.C.W.  
.01 to 1.0 mfd.

Type 684 — 600 v. D.C.W.  
.001 to .5 mfd.

Type 1084 — 1000 v. D.C.W.  
.001 to .1 mfd.

Type 1684 — 1600 v. D.C.W.  
.004 to .05 mfd.

• Consult our Jobber . . .



AEROVOX CORP., NEW BEDFORD, MASS., U. S. A.  
In Canada: AEROVOX CANADA LTD., HAMILTON, ONT.  
Export: 100 VARICK ST., N. Y. C. • Cable: 'ARLAB'

## Stromberg P. A. for 100 Ships

The sound systems division of the Stromberg-Carlson Co., Rochester, N. Y., recently received a contract to provide sound systems on 100 special ships being built for the United States Army this year by Higgins Industries, Inc., New Orleans, La.

The Higgins company was awarded a \$40,000,000 contract for the construction of the ships. These cargo carriers will be built of steel, and will be 168 feet long and 32 feet wide, and will be delivered by the end of the year, according to a special announcement of the War Department.

Details of the Stromberg contract could not be made public by A. R. Royle, sales manager of Stromberg's sound systems division, since it will embody not only some standard items but sound systems of new design built to meet a wide variety of operating conditions.

## OCD Broadcasts Dramatic Programs

"Not For Glory" is the title of a series of dramatic programs being broadcast over NBC. The series portray actual cases in which men and women are solving wartime problems of their communities through Civilian Defense.

Communities whose stories are being told are being chosen by OCD Director James M. Landis. Script writers visit the locale of each story, meet the people involved. Real names and places are used.

The first program was broadcast June 26th, at 5 P.M. (EWT), the scene of the story being Wheeling, W. Va., and the second, July 3rd, Elkridge, Md.

## Gail G. Geddes in Naval Aviation

Gail G. Geddes, who is the son of Bond Geddes, executive vice president of the Radio Manufacturers Association, has accepted a commission in the Navy as an ensign, and has been assigned to naval aviation service.

Mr. Geddes, who is a graduate of Dartmouth College and the Amos Tuck School of Business Administration, has been on the executive staff of the National Assn. of Manufacturers, New York City.

## Canadian Firm Named

Universal Microphone Co., Inglewood, Calif., has appointed Atlas Radio Corp. Ltd., 560 King St., W. Toronto, 2, Canada, exclusive representatives for the Dominion of Canada and Newfoundland. The Atlas firm is an authorized supplier for the Canadian Signal Corps and for prime government contractors.

**★ OUR JOB ★**  
**IN THIS WAR**

Is to produce the finest of coal heaters for those who NEED new stoves to maintain life, health and comfort—Armed Forces—Defense Housing—Civilians.

We are justly proud of the

**STIGLITZ**  
WARM-AIRE HEATER



Victory Model V-618  
with exclusive Air-Jet Carburetion

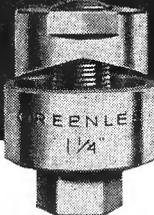
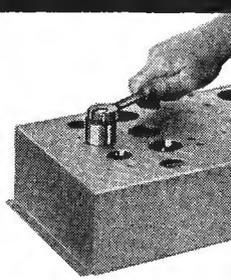
- Saves 1/3 on coal
- One firing lasts up to 3 full days
- Burns the smoke and soot

Proven Satisfactory from Coast to Coast

**STIGLITZ**  
*A Generations of Manufacturing Heating Equipment*  
**FURNACE & FOUNDRY CO.**

"The Oldest Stove Factory in America"  
2007 PORTLAND AVE., LOUISVILLE, KY.  
Marketed Through Leading Distributors — Exclusively

**CUTTING HOLES IN RADIO CHASSIS?**

**Save Time with GREENLEE PUNCHES**

- 1 No Drilling**—Making small holes larger without drilling is a simple task with Greenlee Punches. Holes as small as 3/8" are enlarged in a jiffy with a few turns on the cap screw.
- 2 No Reaming**—Range of sizes from 3/4" to 2 3/4" cut accurate holes—eliminate reaming. Knockout Punches up to 3 1/2" size are also available.
- 3 No Filing**—Die supports the metal and tool cuts clean, smooth holes fast and easy—leaves no ragged edges.

**WRITE FOR CATALOG 33E**

Find out how these and other Greenlee Tools can save you time—write for Catalog 33E. Greenlee Punches are available for essential users.

**GREENLEE TOOL CO.**  
1907 Columbia Ave., Rockford, Ill.

## Top Speed Output Keynote of RMA Meet

Need for utmost speed on the four-billion-dollar military radio program was stressed at the RMA War Production Conference held recently at the Palmer House, Chicago, in connection with the 19th annual convention of the RMA membership, and meetings of divisions, committees and many other groups.

Over 500 representatives of manufacturers and many high government officials, including the Army and Navy, attended.

While the war program was given the right of way, other phases of activities were planned, including technical engineering, studies of peacetime radio services and products, television, facsimile and radar.

Addresses were given by President Galvin, Chairman James L. Fly of FCC, and Director Ray C. Ellis of WPB Radio and Radar Division.

A special RMA committee was authorized to confer with a committee from the Institute of Radio Engineers and also with FCC officials to develop a definite program for the establishment of a radio engineering planning board for technical studies of peacetime radio problems.

## Bell Installs Sound In Columbus Plant

A voice paging system and an intercommunicating system, manufactured by Bell Sound Systems, Inc., Columbus, Ohio, has been installed in the plant of the Denison Engineering Co. of the same city.

Diagrams furnished show that this is a most important and all-complete set-up. The voice paging system has a mike at the receptionist's desk, and three loudspeakers in the office corridors. In addition, there are three more loudspeakers at strategic points in the plant and one in the plant superintendent's office.

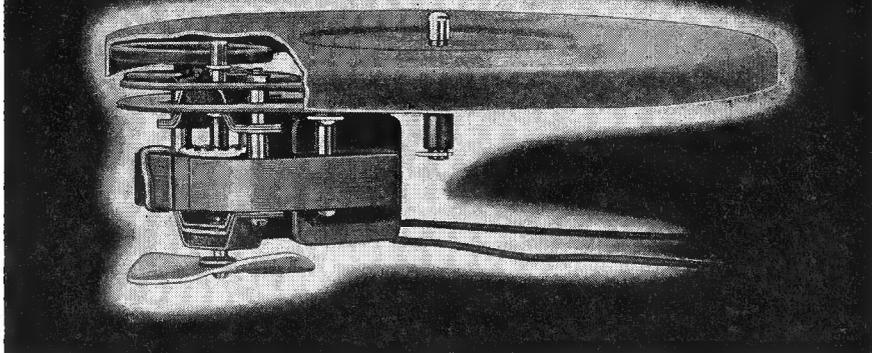
The Belfone intercommunicating system at Denison's reaches various executives and the receptionist. There are master control units at all stations of this complete, 2-way setup.

## Supreme Offers Service

According to an announcement, Supreme Publications, Chicago, is now offering the facilities of its organization to manufacturers of radio, electrical and telephone equipment, who have government contracts calling for the preparation of technical manuals of instruction.

The new department is under the supervision of M. N. Beitman, well known technical author. Required manuscripts can be checked, prepared and printed on a contract basis, it is stated.

# remember ALLIANCE Phono-motors?



*Let's Swing*

Hitler and his gang from a sour apple tree! . . . we're doing our part by putting Alliance dependability and skill into Dynamotors and other types of precision motors for our flying fighters. Alliance is serving on all fighting fronts. After we Win, and when joy again is unconfined, we'll tell you about some new and startling ideas in Phono-motors — Ideas that will help you in Peace as you are now helping in War. Why not put that in your notebook now? . . . under A.

**REMEMBER ALLIANCE! . . . Your Ally in War as in Peace!**

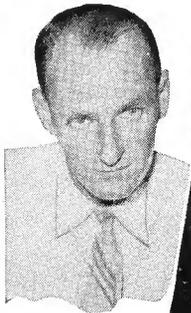
**ALLIANCE MANUFACTURING COMPANY**  
ALLIANCE, OHIO

**PERFECTION**  
*from a*  
**HUNDRED PAIRS**  
**OF HANDS**

The "human element" so consistently mentioned as a necessary part of every great accomplishment, is exemplified in the high quality of Thordarson transformers. From engineering laboratory to final inspection, countless pairs of hands and minds work in harmony to bring about in each complete transformer a coordination of effort that makes for superb performance.

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

*Transformer Specialists Since 1895*  
ORIGINATORS OF TRU-FIDELITY AMPLIFIERS



Geo. B. Thomson

# 256% INCREASE WITH

## AMPLICALL

### INTERCOMMUNICATION & PAGING SYSTEMS

"A sales increase of 256% over a 12 month period," reports George B. Thomson of the Radio Parts Distributing Co., of Norfolk, Virginia, another of the many RAULAND jobber "go-getters." Consistent national advertising backed up with quality equipment is opening up contacts for jobbers with increasing numbers of plants all over the land—contacts that will result in a steady after-war business, too. The RAULAND FB Distributing plan makes possible a better earning power and best customer-relationships. Write for it today.

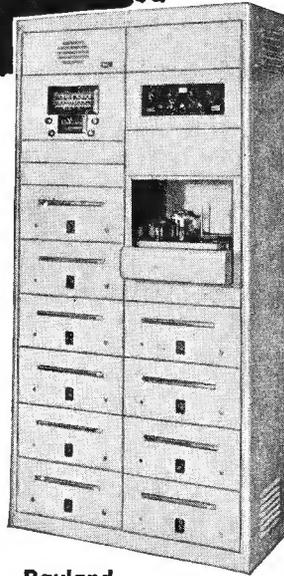
**THE RAULAND CORPORATION**  
(Rauland-Webster Sound Division)

4245 North Knox Avenue • Chicago, Illinois

*Electroneering is our business*

# Rauland

RADIO . . . SOUND . . . COMMUNICATIONS



### Rauland Industrial Sound Unit

The heart of the AMPLICALL Industrial Sound System, combining all the latest electronic engineering features that supply the instantaneous inter-department, inter-building communication and sabotage and fire protection so vitally needed today by war plants.

## 425,000 Radio Batteries Monthly

Radio battery production has been boosted to a rate of 425,000 a month, the Consumers Durable Goods Division of the WPB announces. According to the statement, this exceeds the pre-war volume, and is designed to bring relief to farmers in non-electrified areas of the nation. It is these farmers, the release states, who have felt the battery shortage most severely, depending as they do upon radios for daily war and food program news, as well as for entertainment.

This battery program, initiated last March, at the present rate of production, and if continued over a 12-month period would easily cover normal requirements for the 3,200,000 radios estimated to be on farms. The present monthly rate, which is more than double the mid-March output, is 50,000 more than the 1941 average monthly output of 375,000 radio batteries for the 2,700,000 sets estimated on farms that year, says the report, continuing with the statement: "It is impossible to state now whether the present rate of production can be continued indefinitely."

### Farm Listeners Increase

A breakdown of these comparative figures reveals that in 1941 the production allowed an annual use of 1.4 batteries per radio per year. If continued, the current rate would exceed this allowance, and permit 1.62 battery sets per radio.

Reports show that farm radio listening-in time has increased about two hours a day, and the goal of the supply program is not only to meet normal requirements, but to "satisfy an abnormal anticipated need for 2.0 batteries per radio per year."

### Two Adverse Factors

The article concludes with the following statement: "Two factors in this supply problem dim the brightness of today's picture. One is the abnormal backlog of radio battery requirements which has accumulated in the last nine months of curtailed production. It will take some time to balance supply and demand with such an initial handicap.

"The other is the uncertainty of maintaining present revived production. Facilities, manpower, and the critical materials that are involved in the production of radio batteries, are subject to prior claimants, including the Army and Navy. The present reversion to civilian production is possible through a temporary lag in prior claims. For this reason it is not possible to predict how long production will continue at the present rate, whether it will be increased, or cut back again."

# READRITE

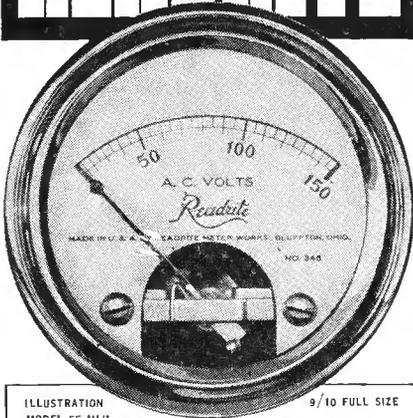


ILLUSTRATION MODEL 55 "L"

9/10 FULL SIZE

## A.C. D.C. METERS

Available in all catalogued models and ranges

**Scale**—80°—11/2" on enameled metal plate.

**Construction**—Full bridge moving iron type with hard steel pivots.

**Accuracy**—± 5% Full Scale or ± 2% any one point to order.

**Mounting**—2 3/8" diameter hole. 7/8" depth behind flange.

Specify Range A.C. or D.C. Add "L" after catalog model number



READRITE METER WORKS, Bluffton, Ohio



*University*

**REFLEX SPEAKERS**  
now the accepted **STANDARD** for all **WAR USE**

**EVERY UNIVERSITY REFLEX** the result of years of pioneering research and development.

**EVERY HIGH EFFICIENCY SPEAKER** in University's extensive line of power speech reproducers has a vital part to play in the WAR program.

**REMEMBER** University is now producing many special speakers for the Army, Navy & Signal Corps. Submit your special problem direct to the engineering dept.

UNIVERSITY LABS., 225 VARICK ST., NYC

## FM Audiences Give Opinions

According to a study announced recently by R. S. Peare, manager of General Electric's broadcasting the average FM radio set owner in the Schenectady area tunes in 2.9 hours per day and prefers classical music.

The objectives of the study were to obtain information on the listening habits of FM owners, the opinion of the listeners concerning FM reception features, and their preferences for various types of programs.

The results of the study showed that 76 per cent of the FM radio set owners tune in frequently on Station W85A, Schenectady, during the 7 to 10 p.m. period, 37 per cent during the 6 to 7 p.m. period, and 15 per cent during the 3 to 6 p.m. period.

### Want Classical Music

96 per cent of the audience preferred classical music. News and news commentators came next in popularity, with 89 per cent. 72 per cent opera, 65 per cent popular music, with variety shows, dramatic sketches, and quiz shows next in popularity in that order.

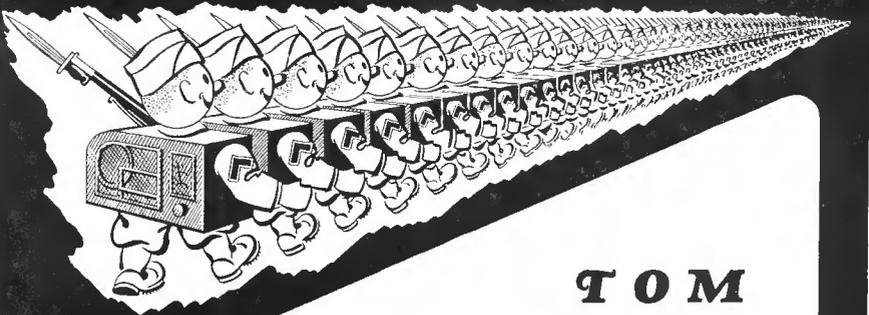
Two basic reasons dominated among those given for preferring FM to standard broadcasting stations. These reasons were better reception and better programming. 93 per cent felt that FM offered better tone quality, 30 per cent referred to better programs. "The FM feature of higher fidelity reception is also reflected in the previous question as to types of programs preferred, since the better tone quality of FM broadcasting is particularly noticeable in opera and orchestral music," says the statement.

The study disclosed the fact that the average FM set owner has had his receiver a year and a half. Three-fifths of those answering own combination FM and standard sets, and the others have separate translators for FM reception with standard radio receivers.

## Sees No Early Civilian Production

Stating that the demands of the government upon the radio industry are for even greater production, Commander E. F. McDonald, Jr., president of Zenith Radio Corp., says: "It would be preposterous for us to think of taking one moment of our engineers' time or any fraction of our production facilities for civilian products." The Zenith executive's statement was aimed at rumors that there may be an early return to production of civilian radios.

Praising American supremacy in radionics, Commander McDonald said that "fortunately, the Germans, Italians and Japs have never been outstanding in their production of radio or radionic devices of any type."



**T O M  
T H U M B  
H A S G O N E T O W A R !**

But when the last shot is fired he's coming back to make a "killing" over here—to capture BIG VOLUME and REAL PROFITS for aggressive Distributors and Dealers . . . everywhere!

Make *your* plans NOW. Tom Thumb won't let you down.

**Automatic**  
RADIO & TELEVISION CO., Inc.  
122 Brookline Avenue, Boston, Mass.



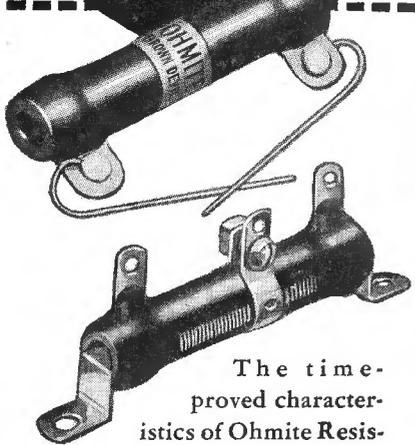
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Performance  
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The time-proved characteristics of Ohmite Resistors enable them to meet every condition of service . . . and keep going. This has meant longer operating life for existing equipment—and consistent performance in today's critical wartime applications.

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**Send for Ohm's Law Calculator**

Figures ohms, watts, volts, amperes—quickly, accurately. Solves any Ohm's Law problem with one setting of the slide. Send only 10c in coin for handling and mailing. (Also available in quantities).



**Newcomb Speaks On Postwar Appliances**

At a recent meeting in New York's Waldorf Astoria Hotel, T. J. Newcomb, Westinghouse sales manager of the appliance division, likened postwar "crystal gazers" to curbstone strategists. The occasion was the company's annual peacetime display of its new line of electrical appliances.

Mr. Newcomb stated that it will be a year, two years and in some cases five years after the war before "Mrs. Housewife should expect to reap the fruits of proven scientific advance." He added, however, the assurance that "out of this war will be born many new conceptions of electrical appliances."

The American public was cautioned not to expect fantastic, radical, war-born dream products to become actual realities in the immediate postwar period.

**Show War Products**

Westinghouse men exhibited some of the war products the company is now making, including binoculars and projectiles, and said that though the company is making no appliances now, as far as patriotic conditions will permit, their engineering laboratories are perfecting improvements in household appliances.

It was stated that refrigerators must ultimately meet the requirements of the growing frozen food industry, and that electric ranges and laundry equipment will see many remarkable improvements, but that these improvements will be tested in the laboratories first.

Other speakers at the meeting were J. H. Ashbaugh, manager of the electric appliance division, and Mrs. Julia Kiene, director of the Westinghouse Home Economics Institute.

**National Union Expands**

National Union Radio Corp., Newark, N. J., has purchased a modern plant from Wm. F. Muller, Inc., hosiery manufacturer, in Robesonia, Pa., it has been announced by S. W. Muldowny, president of National. This factory will provide additional facilities for the increasing production of radio tubes for highly important Army and Navy communications and radar detection equipment.

**Honor RCA Labs.**

The Army-Navy "E" award for high accomplishment was presented to RCA Laboratories at Princeton, N. J., recently.

The award conferred on the RCA Laboratories is the fourth such flag won by the RCA organization,

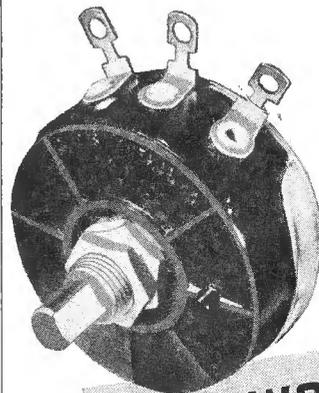
**International Morse Code Now Ready on Records**

One of the new features for record dealers is the set of International Morse Code lessons now offered by one of the large recording companies. The lessons cover transmission and receiving of all radiotelegraph signals and code, producing on records the actual sound of the signals as well as oral instruction. Included with the album is a Morse Code Manual, to be followed by the student while listening to the records.

Schools should be a good market for this album, which in itself could be tied in with a dealers sales efforts by window display, particularly if the dealer is also in the radio retailing field. Selling for \$6.50, list price, these records are made by Victor.

**RMA New Members**

The following companies have been elected to membership in the RMA: Amperex Products Corp., Brooklyn, N. Y.; The Audio-Tone Oscillator Co., Bridgeport, Conn.; Detrola Corp., Detroit, Mich.; Eckstein Radio & Tel. Co., Minneapolis, Minn.; Kerrigan Lewis Mfg. Co., Chicago, Ill.; Radell Corp., Indianapolis, Ind., and Universal Television System, Kansas City, Mo.



**WIRE-WOUND  
Controls**

★ That smooth, velvety rotation of a Clarostat wire-wound control sums up these features: Precision winding on bakelite strip; positive, long-wear contact; perfected lubricant; shaft accurately fitted in brass bushing; years of trouble-free service. ★ Indispensable in military and naval equipment, these controls necessarily carry highest priorities. ★ Nevertheless, bear in mind Clarostat wire-wound controls when you want "tops" in performance. ★ Ask our jobber.



# Fidelitone\*

## De Luxe

### FLOATING POINT PHONOGRAPH NEEDLE

MORE THAN

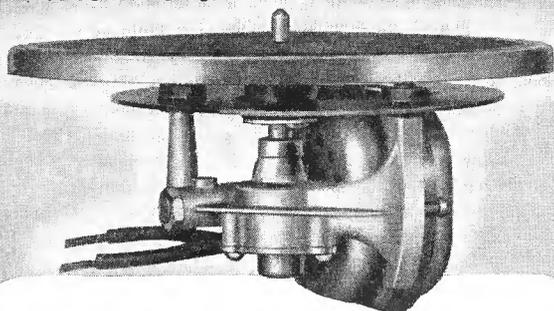
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**WHEN DEALERS GET THEM**

The name of Fidelitone DeLuxe Floating Point Phonograph Needles is well known to phonograph owners everywhere through constant national advertising, attractive counter and window displays and as original equipment on many new phonographs. Cash in now on Fidelitone's reputation as the nation's favorite long-life phonograph needle. A Fidelitone DeLuxe counter salesman will identify you.

**PERMO PRODUCTS CORPORATION**  
6415 Ravenswood Avenue, Chicago, Illinois

## GENERAL INDUSTRIES Smooth Power MOTORS



### MANY TYPES MEET WARTIME NEEDS

Be sure to consult General Industries when you have need for small-power motors for wartime jobs. Among the wide range of standard types and sizes of G. I. motors you may find one already fitted to your requirements. G. I. engineers are prepared to work with you to build small-power motors and electronic devices on war orders with the assurance they will fully meet every specification.



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Department 15, ELYRIA, OHIO

# ONAN

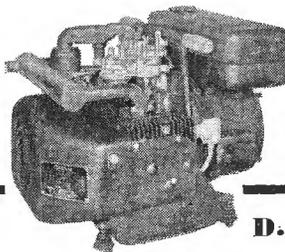
ELECTRIC PLANTS



*Electricity for  
Any Job Anywhere*

★ ONAN GASOLINE DRIVEN ELECTRIC PLANTS provide electricity in locations where it is not otherwise available, and for emergency and standby service for all communications work.

Thousands of these reliable, sturdy Plants are doing a winning job on all the fighting fronts by providing electricity for Communication and other war tasks. Ratings from 350 to 35,000 watts. A.C. 50 to 800 cycles, 110 to 660 volts. D.C. 6 to 4000 volts. Also dual A.C. and D.C. output models. Air or water cooled.



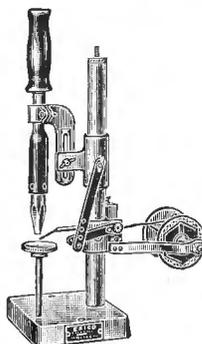
Details gladly furnished on your present or post-war need for Electric Plants.

**D. W. ONAN & SONS**

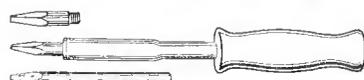
638 ROYALSTON AVE. • MINNEAPOLIS, MINN.

# ESICO

REG. U. S. PAT. OFF.

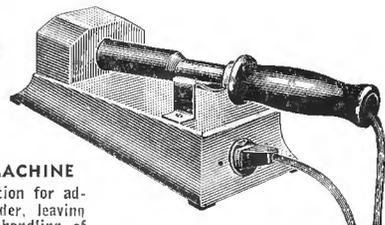


**SPOT SOLDERING MACHINE**  
designed for treadle operation for advancement of iron and solder, leaving operator's hands free for handling of product.



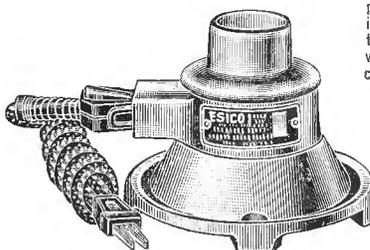
### SOLDERING IRONS

are widely used in industrial plants throughout the country. They are designed to withstand the strain of continuous service required of factory tools.



### SOLDERING IRON TEMPERATURE CONTROLS

prevent overheating of soldering irons between soldering operations. Irons do not deteriorate when being used. The idle period causes oxidation and shortens life.



### SOLDER POTS

ruggedly constructed pots of various sizes designed for continuous operation and so constructed that they are easily and quickly serviced, should elements have to be replaced.

*Write for Catalog*

**ELECTRIC SOLDERING IRON CO., INC.**

237 WEST ELM STREET, DEEP RIVER, CONN.



## Random Thoughts Remaining from the Radio Convention

The concern over post-war products and the necessity for sane thinking on that subject . . . Maurice Despres' sincere explanation of the function of ERSAs before the Sales Managers Club and EP and EM groups . . . Frank McIntosh patiently reiterating the provisions of Limitation Order L-265 again and again . . . George Barbey's pride in the membership of NEDA . . . Tom White's election to the Chairmanship of RMA Amplifier and Sound Division . . . Paul Galvin's statement that the real test of our industry will be our ability to provide jobs quickly after the war but admonishing us, for the present at least, to use the orange light instead of the green in our planning . . . Jim Quam's mystifying rope tricks . . . Ray Ellis' astounding figures, 4 Billions in radio and radar equipment . . . Chairman Fly's beautiful and sensible picture of radio to come . . . the serious tone of the conversations . . . Elliot Wilkinson's picture of the twins . . . Sid Shure's story of the salesman's retort to his customer, "What, only an AA2X priority—where did you get it, from the Japs?" . . . the friends and acquaintances of past and present . . . what an industry . . . what people . . . there's nothing more American than the Radio Industry.

*Hein Staudland*  
**QUAM-NICHOLS CO.**  
 33rd Place & Cottage Grove, Chicago



## Galvin Relected RMA President

At the recent nineteenth annual meeting of the Radio Manufacturers Association, held at the Palmer House, Chicago, Paul V. Galvin was relected president. Other officers chosen to serve the 1943-1944 term were: R. C. Cosgrove, M. F. Balcom, W. P. Hilliard, Ray Sparrow and Thomas A. White, vice presidents; Leslie F. Muter, treasurer; Bond Geddes, executive vice president and general manager, and John W. Van Allen, general counsel.

The newly elected RMA directors are John Ballantyne, Floyd G. Best, George R. Blackburn, A. Bloom, Walter A. Evans, Robert C. Sprague and Thomas A. White. The following directors were relected: P. S. Billings, H. C. Bonfig, Paul V. Galvin, W. P. Hilliard, J. J. Kahn, E. A. Nicholas, David T. Schultz and Ray Sparrow.

President Paul V. Galvin was presented with a set of cuff links and shirt studs, in token of his services during the past year.

## Institute Reports Plan Progresses

The Institute of Radio Engineers, 330 W. 42nd St., New York, reports that encouraging progress has been made toward the organization of the radio technical planning group proposed by the organization.

Following a meeting between representatives of the Institute and of the Radio Manufacturers Association, it appeared that a number of points of difference between the respective proposed plans of these groups had been ironed out. It seems possible that, following further discussions, the remaining points can also be satisfactorily handled," an Institute statement declares.

## Wibel to Kelvinator

A. M. Wibel, until recently vice-president and director of the Ford Motor Co., has been elected vice president of Nash-Kelvinator Co., is the announcement made by President George W. Mason. Mr. Wibel joined the Ford organization 31 years ago, and has recently had the added responsibility of all the company's government sales contracting involving more than \$4,000,000,000.

## Discuss Problems After "V-Day"

Lee McCanne, assistant sales manager of Stromberg-Carlson Co., was the chief speaker at the annual meeting of the Springfield, Mass., Sales Managers Club. General business discussions were held, and a feature of the meeting was the talk by Mr. McCanne on "Sales problems after V-Day."

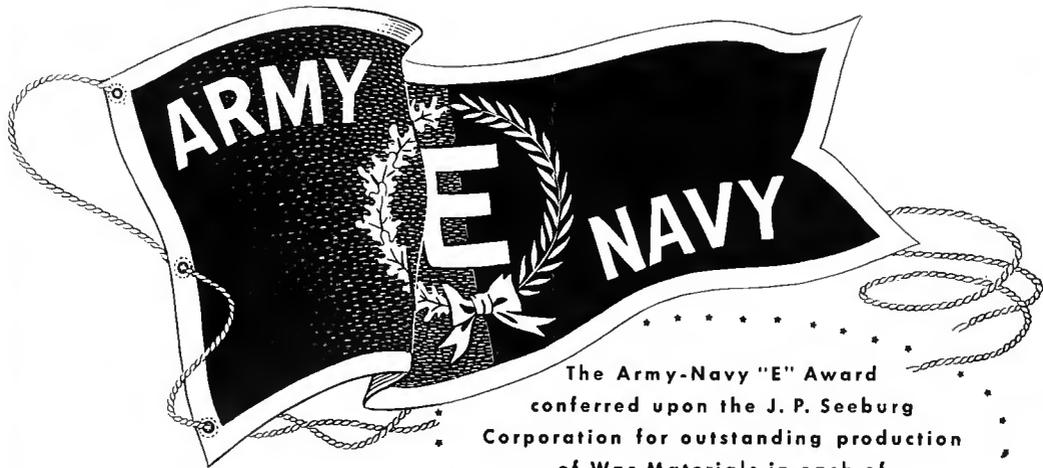
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The Army-Navy "E" Award  
conferred upon the J. P. Seeburg  
Corporation for outstanding production  
of War Materials in each of  
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*This honor is sincerely appreciated by each and every  
one of us, and is accepted with sober consideration  
of the greater responsibilities it demands.*

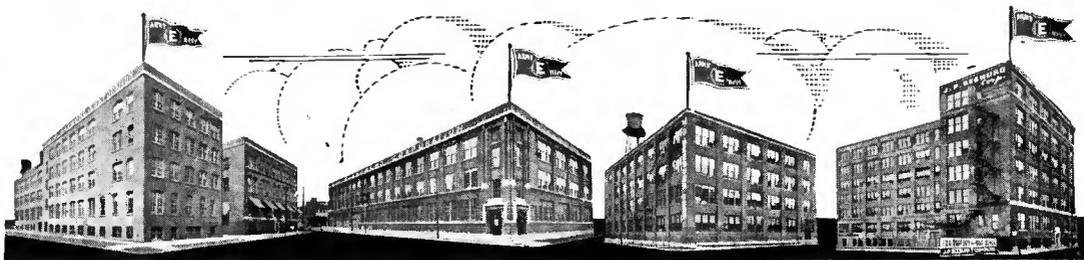
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*H. Marshall Seeburg*  
PRESIDENT

Makers of Fine  
Musical Instruments  
Since 1902 . . . .

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AIR CRAFT RADAR • AIR CRAFT CONTROLS • TANK COMMUNICATION EQUIPMENT • AVIATION TRAINING DEVICES • AIR CRAFT GUN TURRET EQUIPMENT • AIR CRAFT TRANSMITTER EQUIPMENT



## what price Star-Gazing?

To dream and plan realistically for the future is both good and necessary. However, to indulge in Star-Gazing through the wrong end of the telescope is an extravagance which no industry can afford. RADIO can point with pride to its achievements and its miraculous progress made under the impetus and emergency of war. But to promise that the miracles of Radar and other Electronic development will be ready for delivery on V-Day . . . is to damage an otherwise glorious record.

**THE FUTURE IS BRIGHT . . .**

**BUT LET'S KEEP OUR EYE ON THE BALL!**

Our number one job right now is the production of Radio Communications Equipment and Radar for the armed services. These are weapons which will help win the war. The application of new Electronic knowledge to peacetime radio production will, of necessity, be a gradual and evolutionary process. Your number one mass market immediately after the war will be radio and phonograph sales, and you can bet on *this*—it's going to be a "whale" of a market!

**You May Expect Big Things from Motorola. We can't say when but we can say . . . no one will be ready sooner!**



*For the development and production of Radio Communications Equipment for our armed forces, the Motorola organization was awarded the Army-Navy "E" with added Star for continued excellence of performance. Motorola is proud of the part it has been privileged to play in the speeding of Victory.*

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**GALVIN** FOR CAR & HOME  
 MANUFACTURING CORPORATION • CHICAGO