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## FOREWORD

**T**HIS Company is unique in the Radio Field to-day, inasmuch as it is the only one in existence specializing exclusively in small parts, raw materials and everything in fact, that goes into the making of standard modern radio apparatus.

A glance through our catalogue, which is unusual in many respects, will readily confirm this.

It is the only catalogue containing a great assortment of radio vacuum tube hook-ups, which are printed in the back of the book. This feature alone is quite important and will be the cause to keep this catalogue in your pocket at all times. The diagrams are the 75 most important vacuum tube hook-ups in use today. They will prove very handy and instructive at all times.

Note that this company has factories in Brooklyn, N. Y., and Elkridge, Md., and that most of the material shown here, on account of our own manufacture, can be sold cheaper and better than most other houses offer.

If in rare cases our prices are higher, remember that our materials must be better, besides we prepay all postage, or express on the great majority of all goods. You will find that by dealing with us, in the long run, you will not only save money, but annoyance as well, for our material is absolutely the best that money can buy.

When ordering, always be sure to give catalogue number. Goods by mail and parcel post are at your risk. In 99 cases out of 100 the goods will arrive without fail. If you wish to be absolutely sure, enclose a small fee for insured parcel post, 3c for \$10.00 insurance, 5c for \$25.00 insurance. We carry the

most complete stock of its kind in New York City, and ship invariably the same day the order is received. Just try us once.

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We accept no order for less than \$0.50. C.O.D.'s are only accepted if a 25% deposit accompanies your order. We make no C.O.D. shipments to points outside of the United States.

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Remittances can be made by New York Draft, Post Office or Express Money Order, or by registered mail. Never send money unregistered. Out of town checks accepted if 10c for exchange is added. United States stamps if in good condition are accepted instead of cash, in any amount.

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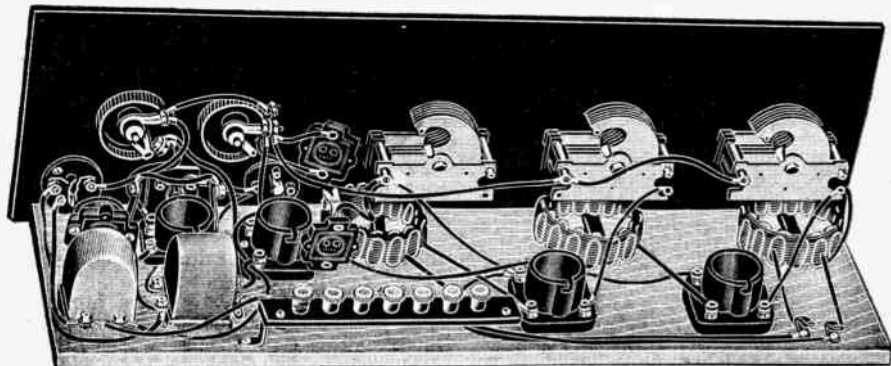
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# RASCO 5-TUBE TUNED RADIO \$17<sup>95</sup> FREQUENCY RECEIVER



No. 9216A

In laying out the wonderful receiver we are offering you, we decided to incorporate within this Radio Kit all of the best features to be found on commercially built Radio sets, selling for as high as even \$200.00. But the following natural obstacles, all purely electrical, had to be first considered:

The lower the wave length to be received, the greater will be the tendency for the radio frequency tubes to fall into oscillations, commonly termed "whistles" and "squeals."

If this tendency is curbed, then it severely impairs the efficiency of reception on the higher wave lengths, especially when distance reception is desired. And, vice versa, if you allow the higher wave lengths to come in near the point of oscillation, and set your adjustment there, with respect to the suppression of these oscillations, then, as you go lower down the wave length band, these oscillations become more and more severe, finally preventing you from even hearing the broadcasting station behind those oscillations.

Too short an aerial will promote extreme selectivity, that is, enable you to tune in distance stations while "locals" are broadcasting, but at the same time, those self-same oscillations will become violent on the average self-neutralized type of Radio kit or factory assembled set. To eliminate this condition, you must on those sets lengthen your aerial, but this will impair your selectivity, making your tuning "broad," working to a decided disadvantage in big cities where two to fifteen stations are broadcasting at one time.

Where a long aerial and lead-in is employed, through necessity, true, a fixed condenser, say, measuring .00025 to .001 mfd. may be inserted in the antenna lead, but this will produce the same effect as experienced with too short an antenna.

Our engineers, realizing these fundamental obstacles are ever present, decided to design a set that would embrace a universal circuit, in which the Radio set could be immediately suited to the correct conditions for your particular length antenna, and at the same time adjusting

the receiver for maximum efficiency at every wave length. Summing up, distance stations on 500 meters wave length can be tuned in with as much volume and clarity as those stations operating around 225 meters.

And strange to say, the operation of this most unusual Radio set we are offering you is no more difficult than other 5-tube receivers—there are but three tuning dials, which can be logged for future reference, and this one additional dial, which permits of all this wonderful reception. It is simply adjusted to a point at which the station will be received in a flood of volume, yet never with any sacrifice of clarity.

And remember, this is not a small set thrown together with questionable parts—refer to our list of parts, and notice the nationally advertised items used. The average concern would, and does, sell sets of this type (5 tubes) on a 7 by 18-inch panel in a 7-inch deep cabinet. We use a 7 x 24-inch panel. The crowding together of instruments always results in unwanted feed backs, uncontrollable howls, etc., which are completely overcome in our engineered product. And there is no other concern in this country who can compete with us offering the self-same value—our tremendous volume of business has made this low price possible, in the same way that tremendous volume of business made the Ford car what it is to-day.

Note that the panel comes to you already drilled and engraved, which means that a ten-year-old child can assemble this receiver. Our blue print and detailed instructions furnished will show you how to first assemble and wire the panel, independent of the baseboard, then to assemble and wire the baseboard independent of the panel, finally attaching the panel to the baseboard, and completing the assembly in a few minutes.

## Build Your Own Receiver—

It's Easy The "No-Sod-er" Way  
Revolutionary Improvement in Assembling Radio Sets



# BIGGEST VALUE IN AMERICA

**No solder—No bare wires—No poor connections—No dissatisfaction.**

**No tools needed except a common screw-driver and common pliers.**

All connections are made by the use of our flexible, insulated eyeletted connecting wire in place of bus bar or wire, and solder.

And in a fraction of the time usually required when using the old fashioned way. And when the job is done it is neat and your connections are tight.

**We Furnish a Special Blueprint Free With Each Kit**

### Connections Always Perfect

The binding posts are numbered in pairs, two marked No. 1, two marked No. 2, etc. All you have to do to make your connections is to take one of our flexible wires of the proper length, which we furnish, to run from one of the posts numbered 1 to the other post bearing the same number; another between the two posts marked No. 2, and so on. You place the eyelet at the end of our wire over the post, and with your pliers screw the cap down tight, and you have made a perfect connection complete in only a fraction of the time it would take you to cut and bend a bus wire and heat the now useless soldering iron.

### No Expense for Soldering Tools

In addition to the saving of time and bother, you save the expense of a soldering outfit. This is only one of the many benefits you gain in dealing with us.

### — NOTICE — To Experimenters

You can change your "No-Sod-er" Connectors from one hook-up to another as often as you please. No danger of damaging, or destroying a connector or instrument, such as jacks, switches, etc., as in tearing off tight, soldered bus-bar.

### No Skill or Knowledge Required

When you consider the fact that it is very difficult for most people to do a neat job of soldering and that no matter who you are you could attach a connecting wire by our method without any previous knowledge or practice whatsoever, and without any skill in radio, you will realize what a tremendous improvement this is over the old way.

Had you seen, as we have seen, hundreds of wired sets looking as though they had just been through a cyclone, you would see that a neat job of assembling by a novice or one not expert is the rare exception.

### Cannot Break

Our wire is stranded, and covered first with rubber insulation and then fine woven webbing, and may be bent and twisted without danger of breaking. The eyelets cannot come off, so you have a connection that is firm, safe, durable, permanent, and you know that in merely moving or shaking your set there is no fear of shaking a connection loose.

### No Short-Circuits

As our wires are insulated, you will never have the danger of a short circuit and the burning out of your tubes from these connections through accidentally bringing them together and touching each other or dropping over them a bare wire or a tool as in using the old-style solder and bare wire connection.

**OUR Balanced Interflex Set is also equipped with "No-Sod-er" Connectors.**

### SPECIAL FEATURES:

- Maximum efficiency on all wave lengths.
- Any length aerial can be used with this set.
- Indoor aerial may be employed.
- Radically improved plan of assembly.
- Provision of "C" battery insuring perfect clarity and doubling life of "B" Batteries.
- Provision for power amplification in last stage with accompanying "C" battery changes.
- Employs a perfect volume control.



No. 9216

## Parts included in this Receiver

Cabinet, mahogany finish, 7" x 24" x 7".....	\$5.34	Grid Leak, 2 Megohms Patent.....	\$0.32
Panel, drilled and engraved, Bakelite Dilecto 7" x 24".....	3.50	Fixed Condensers Pilot .002.....	.62
Baseboard, laminated.....	.40	Binding Post Strip, Rasco (with binding posts).....	.35
3 Freshman Type Coils—Our No. 2629.....	1.05	No-Sod-er connecting wires, full set.....	1.75
3 Pilot Variable Condensers .00018 S.L.P.....	.81	2 Carter 4 ohm Resistances.....	.30
Modified.....	5.10	Necessary hardware, screws, angles, etc.....	.25
3 1" Pilot Bakelite Dials.....	1.75	Blue Print and Instruction Sheet.....	1.00
2 Transformers, Audio Frequency, Patent @ \$0.75.....	1.50	<b>Total Price of Set.....</b>	<b>\$33.01</b>
1 6 ohm Pilot Rheostat.....	.46	<b>Our Price, Catalogue No. 9216.....</b>	<b>\$22.95</b>
1 400 ohm Potentiometer Pilot.....	.81	<b>9216A Same as above, but without cabinet.....</b>	<b>\$17.95</b>
5 Sockets, Pilot Bakelite low loss.....	1.25	<b>9216B Same as 9216A, but with Patent U.X. Sockets.....</b>	<b>\$19.45</b>
Jack double circuit improved.....	.70	<b>9216C Same as 9216B, but with Patent No. 9372 Superaudioformers.....</b>	<b>\$24.55</b>
Jack single circuit filament control improved.....	.85		
Switch, Pilot.....	.36		
Fixed Grid Condenser and Mountings, Pilot.....	.35		

**Make Big Money by assembling these Kits into sets and selling them complete to friends and business houses who need a First Class Radio. Many of our customers sell these completed sets from \$30.00 upwards.**

# THE RASCO ONE-DIAL CONTROLLED 5-TUBE TUNED RADIO FREQUENCY RECEIVER

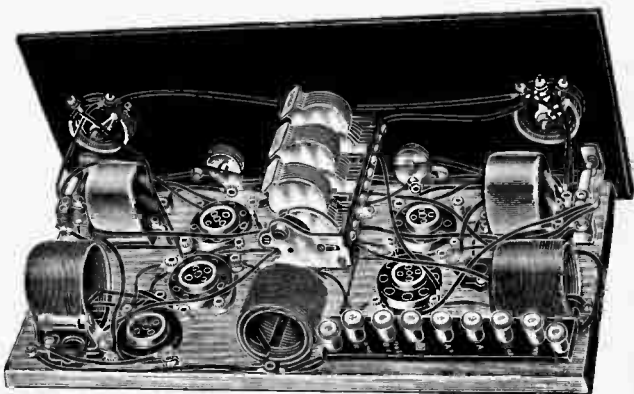
## \$23.95 POSTPAID

COUNTRY-WIDE  
RECEPTION  
AS FAST AS  
YOU CAN TURN  
THE SINGLE  
CONTROL DIAL.

A LABORATORY  
PRODUCT

SELECTIVITY  
SENSITIVITY  
CLARITY  
VOLUME  
LOW UPKEEP  
QUICKLY BUILT

NEW MODE OF  
ASSEMBLY



No. 8888

For the past few years we have been selling our No. 9216 5-tube tuned radio frequency receiver kit to our customers in every quarter of this world. The unsolicited testimonials all acknowledged the superiority of that receiver to commercially assembled models of other makes selling for many times its modest cost—about 6 out of every 10 such testimonials requested us to post them immediately upon our offering of a one dial receiver incorporating the self-same circuit. And, thus, for the past two years we have been experimenting to perfect this receiver of apparent universal appeal. We are indeed proud to offer it in its now completed and perfected form—We have been entirely successful in accomplishing the goal of every serious radio fan and experimenter. . . . A perfect one-dial controlled 5-tube receiver. To accomplish this, we long since realized the absolute necessity of standard quality parts—our list appended below will certainly testify to our selection thereof. Then, after carefully weighing the matter from its every angle, we decided to so construct this receiver, that in a moment, without lifting the cabinet cover or re-aligning the tuning instruments, you could avail yourself of the unquestionable superiority of the conventional 3 dials for extreme long distance reception. This is very simply accomplished: You will note on either side of the triple gang condenser, a small 7-plate midjet condenser, each of which is shunted to the center and front sections of the main condenser, and are controlled by very small knobs on the panel with engraved white arrows thereon. The center vernier dial is rotated to the desired wave length setting, and then these midjet condensers are used to complete the perfect tuning of that wave length, taking but a moment's time. To revert back to true one dial operation, these small knobs are set with the arrow immediately beneath a predetermined pencil mark on the panel. The radio frequency inductances are of the solenoid type, air spaced wound and

2 inches in diameter; the three of them are very carefully matched, as are the 3 sections of the triple condenser, insuring a wave length range of 200 to 550 meters. The sockets will accommodate any standard U X base tube, and for this reason, this receiver can be successfully used with either dry cell or storage battery tubes. The oscillations in the R.F. stages are very easily controlled with a potentiometer, and by virtue of this method, truly remarkable long distance reception with surprising volume is at all times within the range of this receiver—incidentally, this control is also used to subdue the enormous volume, in any degree you may desire. In our latest models, these kits are furnished with one single filament control jack, eliminating the necessity of a separate battery switch (removing the phone or speaker plug from the jack automatically disconnecting the batteries from the receiver) and simplifying the construction and assembly for your every benefit. In appearance, this receiver will most certainly grace any room in which it is placed—perfect symmetry of design and convenience of the few simple controls are very evident. The panel is handsomely engraved Bakelite, and is scored around its edges with an attractive and pleasing border. The 10 ohm rheostat affects the brilliancy of the 2 R.F. bulb filaments, greatly assisting in elimination of interference due to nearby local stations, and preventing over-loading of the detector tube, which always causes distortion. In fact, the final design of this receiver represents the incorporation of all the improvements that we have found out in our own laboratory efforts, and suggested to us by our many friends. And we claim that every kit must perform as we have herein set forth, or it is subject to immediate return to us. Furthermore, any 10-year-old youngster can assemble this receiver in a few hours, for the mode of assembly we have adopted insures this. Included with each kit, we supply a detailed picture diagram blue print, and each

part used has a letter designation, which, when referred to on the blue print, tells you what this instrument is, and what it does. The base board layout is full size, therefore, you could not possibly go wrong at this stage of the assembly—you merely lay the blue print on the baseboard and mark the center holes where every screw will hold down any particular item, removing the blue print, as soon as you are ready for this assembly. As the panel is drilled, there certainly will develop no trouble at that stage, either. No soldering of wires is at all necessary—we furnish various lengths of wires with lugs soldered thereto and which you simply slip over a screw, tightening it, bolt theron—a woman's task! The wiring instructions tell you to run a 6-inch wire from such and such a point, to such and such a point. How could you go wrong? Why, you do not even have to know why you must make that connection—simply do it—we have done all the thinking for you! Furthermore, the instruments on the panel are wired before the panel is attached to the base board, for your mechanical convenience—and the same is true of the wiring on the baseboard. Completing the latter, you attach the panel to the baseboard, and complete the few remaining connections between the instruments on the panel, and on the baseboard. Should you wish to use a Power stage of audio frequency amplification, the directions clearly cover this point. "C" battery connections on the A.E. transformer are provided. Separate H.F. "B" battery binding post is also provided. A trouble shooter list will quickly determine any snag you may run into, and at once assist you in the elimination thereof. As the wires furnished are appropriately insulated, you need never fear the possibility of burnt out tubes, incidental to bare, or poorly insulated wires, short circuiting. Once you have screwed or bolted the lugs of the NO-SOD-ER wires to their respective terminals, you need never worry of any troubles arising, incidental to noisy contacts, loosening connections, etc. The system of wiring we have employed is as fool-proof as possible—all leads are as short as possible—every electrical law of inductance, capacity and resistance has been complied with—remember, we did not just "happen" into this circuit—it is so neat, so novel, and it recognizes no alibis! Kindly bear in mind that only the very best of accessories must be used in conjunction with this exceptional quality receiver—and be particularly careful of your choice of a very efficient and powerful loud speaker to deliver successfully the enormous volume afforded by this receiver, and render its reproduction thereof with 100% pleasing clarity.

**Parts Included in This Receiver**

1 Panel 7" by 18 inches drilled and engraved Bakelite	\$3.50
1 Baseboard, 7 1/2" by 17 inches Laminated (non-warping)	.60
3 Coils, 2-inch diameter Solenoids—air space wound	5.00
1 U.S.L. Triple .00035 Variable Condenser	5.75
1 Pilot Kilograd Vernier Dial	1.00
1 7-plate Midget Condensers	1.50
2 Engraved Miniature Knobs	.50
2 Patent Shielded Audio Transformers	7.50
1 10 Ohm Pilot Rheostat	.46
1 400 Ohm Pilot Potentiometer	.81
3 Carter Fixed Filament Resistances	.75
5 Pilot Fit-all Sockets	1.40
1 Pilot Single Circuit Filament Control Jack	.50
1 Pilot Grid Leak Condenser and 2 Megohm Leak	.85
1 Pilot .002 Fixed Condenser	.35
1 Pilot .005 Fixed Condenser	.50
1 Binding Post Strip, Complete with Posts, Angles, etc.	.35
NO-SOD-ER connecting wires—complete set	1.75
Necessary hardware, screws, angles, etc.	.25
Blue Print and Detailed Instruction Sheet	1.00

No. 8888 Our Very Special Price **\$23.95** <sup>\$34.32</sup>  
PREPAID

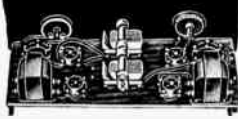
No. 8889 Above Kit, with 7 x 18 Walnut Cabinet, 8 inches deep. **\$28.95**  
(Cabinet is shipped via Express Collect.)



No. 8888

**Silver Marshall Single Control No. 620 Silver Cockaday Kit**

**\$59.25**  
POSTPAID



No. 9967

Next to the 5-tube 3-dial tuned Radio frequency circuit, the most widely one used is the Roberts type—one that employs a stage of tuned Radio frequency followed by a regenerative detector and the usual stages of audio frequency amplification. Appreciating this fact, the Silver Marshall engineers have introduced their version of this circuit, making several valuable improvements thereto. Note that this kit is a one dial control job. By virtue of the plug-in coils, the wave length range is variable at will from 50 to 2500 meters. The regenerative detector employs a fixed regenerative coil, controlled by a C.R.L. variable resistance on the panel. U.X. sockets permit the use of any type of tubes—including a power tube in the 2nd audio stage. Wiring is extremely simple—Belden cable harness being furnished—all wires are cut to exact length. The enormous volume produced by this exceptional receiver is due to the use of the new super-Thordarson transformers, and the quality and clarity are perfect. The panel and sub-panel furnished are beautifully drilled and engraved Bakelite. By reason of the carefully engineered layout, the assembly of this remarkable receiver can be accomplished in surprisingly rapid time, by even the layman who has never assembled a receiver before. The overall dimensions of the kit, when assembled, are 7 inches high, 18 inches long and 6 1/2 inches deep. Licensed under Armstrong U. S. Regeneration Patent No. 1,113,149.

**Parts Supplied in the Silver Cockaday**

2 No. 316 Silver-Marshall .00035 Condensers.	
2 No. 315 Silver-Marshall Coil Sockets.	
1 No. 110A SM Coil.	
1 No. 114A SM Coil.	
4 No. 510 SM Tube Sockets.	
1 Vernier Dial.	
1 No. 113P Midget Condenser.	
1 Pair Mounting Brackets.	
2 S-C Thordarson Power Transformers No. 200.	
1 Yaxley 6 Ohm Rheostat.	
1 No. 1 Yaxley Open Circuit Jack.	
1 No. 2A Yaxley Two Circuit Jack.	
1 Yaxley Battery Switch.	
1 Centralab Resistance, 25,000 Ohm.	
1 Belden Wiring Harness.	
1 Polymet .00175 Condenser with Leak Clips.	
1 Polymet .002 Condenser.	
1 Polymet .005 Condenser.	
1 Polymet 2 Megohm Leak.	
1 7x18 Drilled and Processed Front Panel.	
1 Drilled Sub-panel.	
1 Wiring Instruction and Color Chart.	

No. 9967 Complete Kit, as Listed, **\$59.25**  
Without Cabinet



No. 9967A

No. 9967A The same with Cabinet

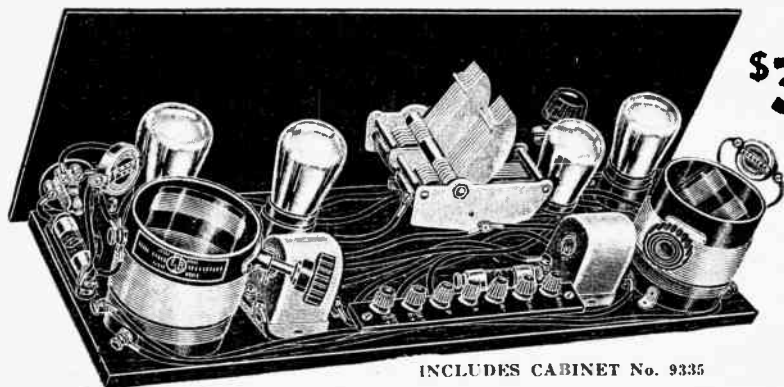
**\$75.45**

# Balanced Interflex Four-A Four Tubes One Control

## A Revolutionary Improvement!

The Single-Dial One-Control Receiver the World Has Been Waiting For!

The Discovery and Development of Hugo Gernsback, Editor of RADIO NEWS



# \$31<sup>85</sup>

Range  
1000  
Miles  
on the  
Loud  
Speaker

INCLUDES CABINET No. 9335

### An Innovation—Ahead of All Other Sets

The Balanced Tuned Interflex Four-A comprises one stage of tuned radio frequency, crystal detector and three stages of audio frequency amplification, of which the two last stages are transformer coupled.

This is the first real single control tuned radio frequency set. Only one dial or control—no compensation of any kind. Its volume is not only great, but tremendous. It does not howl or squeal, and brings in the stations by turning one lone knob. This feature makes it greatly to be desired by the old folks and others who do not wish to bother with several controls. Stations can be logged with a single row of figures. The most easily tuned receiver in existence. And you will be surprised at the high selectivity.

### Automatic — No Switches

When through receiving with the Balanced Interflex Four-A you pull out the loud speaker (or phone) plug, which automatically disconnects all the vacuum tubes.

### Only ONE DIAL—Only ONE CONTROL

This circuit is the result of a determination which Mr. Hugo Gernsback has had for a long time to originate the ideal receiver. Such a receiver as he had in mind to have these distinctively good qualities:

1. Single control—just one knob and nothing else;
2. Should not oscillate—should not howl and shriek at any point between 200 and 600 meters;
3. Should bring in stations without any disturbing noises.

The Balanced Interflex Four-A here described does all of these things and quite a good many more besides.

No two sets work alike because there are differences of tubes, differences of condensers, differences in coils and many other differences which are apt to throw the set out of balance. The inventor discovered a method of overcoming all these differences or defects in a way, so far as known, entirely original. By means of this, the Balanced Interflex Four-A may be adapted to whatever the local conditions may be.

If the tickler coils, of which two are used, are correctly adjusted when you begin using this receiver, this set does a most surprising thing. The ticklers can be adjusted at the lowest available wave, say 200 meters, so that the circuit is on the point of oscillation. If correctly adjusted, impossible as this sounds, the same condition will prevail through the entire broadcast range up to 600 meters, and you will never need to adjust them again!

In other words, stations of 290 meters up to 545 meters will come in with the same intensity, with the stations in between as well.

### THEORY OF THIS SET

In all tuned radio frequency circuits, if the set howls and squeals on regeneration, it is necessary to provide losses. There are several methods of obtaining such losses, but the one most customary now is to place the inductances in the magnetic field of the condenser in such a way that there are certain absorption losses. But it is apparent that this is a very crude way of accomplishing these losses. In the first place, moving the coils even 1/64 of an inch closer to or further from the condensers will make a tremendous difference in signal strength. Furthermore, the losses are not always fully realized, and in spite of some constructors' claims, the majority of the sets thus made squeal and howl most annoyingly.

The coils could, of course, be made adjustable so that they could be moved toward or from the condenser. This, however, would necessitate a number of extra controls, which are not wanted.

In the Balanced Interflex Four-A the balancing principle provides the necessary losses efficiently with very little or no loss of signal volume. Once set, the balancing coils keep the receiver just below the oscillation point at all wavelengths within the broadcast range and it is then tuned by means of only one dial, which operates the condensers. It is, therefore, a real one-dial-control receiver combining greatest simplicity of operation with maximum efficiency.

### RESULTS OBTAINABLE

In New York, in midsummer, this set, on a 60-foot aerial, brought in KDKA, East Pittsburgh, Pa., at a dial setting of 50, and the volume was tremendous—stronger than many of the locals. The locals, of course, came in with great volume, regardless of the wave-length. Distant stations that have come in on a single evening are listed on next page. This should not be considered a record or the best this set can do, because receiving conditions here are poor. The log represents the results on a sultry August night when transmitting conditions were notoriously poor and there was so much static it was impossible to get the calls of many more stations whose programs were heard and otherwise could have been logged.

### BALANCED INTERFLEX RECORDS

Mr. Elliott Carriger, of Wakarusa, Kans., 12 miles south of Topeka, reports having received with the Balanced Interflex Four-A Circuit on loud speaker 20 sta-



tions in these cities in one hour, between 8:10 and 9:25 p. m., one hour and fifteen minutes: Cedar Rapids, Council Bluffs and Shenandoah, Iowa; Hastings and Lincoln, Neb.; two in Kansas City, Mo.; Bristol, Okla.; Elgin, Ill.; and five in Chicago; Minneapolis, Minn.; Denver, Colo.; Dallas, Texas; Detroit, Mich.; Cincinnati, Ohio; and New Orleans, La. He used 13 batteries which had been used six months, 75 volts. He says he is more than satisfied.

I just want to outline my successful results with the Balanced Interflex. I built according to the description and, believe me, it is the best and simplest outfit yet, and for purity of tone unexcelled. Extremely low tones and also extremely high tones perfect and without the least distortion. Selective beyond even my fondest hope, as I can get KDKA easily without any interference from our local WSAI, only fourteen miles distant. My youngest daughter, only 6 years of age, tunes with the skill of a professional, as do all the rest of my older children, and wife. I certainly am very proud and am showing and demonstrating to all my friends and acquaintances this wonderful Interflex, and when I say I certainly am an Interflex booster, I am putting it mildly. My log to date is as follows:

WSBC Chicago, WRHO Chicago, WIBJ Fort Wayne, WOK Homewood, WBHM Chicago, WLIR Elgin, KSO Clarinda, Iowa, WREO Lansing, Mich., WBGN Chicago, KOA Denver, WSOB Milwaukee, KMA Shenandoah, WSM Nashville, WCCO Minneapolis, WBT Deerfield, KIRC Houston, WSMK Dayton, Ohio, KFZ Fort Worth, WJAX Jacksonville, Fla., KTNT Muscatine, Iowa, WBZ Springfield, Mass., KOIL Council Bluffs, Iowa, WJAZ Mount Prospect, WGEN Oak Park, KFNF Shenandoah, KFAB Lincoln, Neb., WGNB Chicago, WMBF Chicago, WDAF Kansas City, WEHL Chicago, WGN Chicago, WGY Schenectady, WLS Crete, WLW Harrison, KDKA East Pittsburgh, KFKX Hastings, Neb., WCBZ Zion, Ill., WOC Davenport, WQJ Chicago, WSAI Mason, WTAM Cleveland, WWJ Detroit, WIAD Milwaukee.

L. H. WENSEL, 611 Clark Street, Middletown, Ohio.

We have constructed two machines with the Balanced Interflex circuit. The performance of the circuit is wonderful.  
GUY SHUTER, 631 Park Avenue, Ploua, O

I am glad to say that, with the Balanced Interflex made recently, I have been able to log the following stations:  
WNYC, WEAF, WJZ, New York, WJY New York, WOR Newark, WMCA New York, WAHG Richmond Hill, WIN New York, WAAM and WGCP Newark, WBBR Roselle, N. Y., WGIS New York, WIP Philadelphia, WGBB Freeport, N. Y., WLIT Philadelphia, WRNY New York, WOrd Chicago, WMBF Miami Beach, WGBU Miami Beach, WOC Davenport WHAZ Troy, N. Y., WGN Chicago, WDAF Kansas City.

WTAM Cleveland, WSAI Mason, Ohio, WOO Philadelphia, WHAP Brooklyn, KDKA East Pittsburgh, KKW Chicago, WFG Atlantic City, WRC Washington, WEJ New York, WFBH New York, WCCO Minneapolis, Minn., WGY Schenectady, WLW Cincinnati.

J. SCHULTZ, 98 Parkville Avenue, Brooklyn, N. Y.

The article on the Single-Control Interflex read so well that I decided to build one; and I wish to say the results were most gratifying. After balancing I was able to log 25 stations in one evening, with equal volume on my five-tube set, and with more clearness and stability.

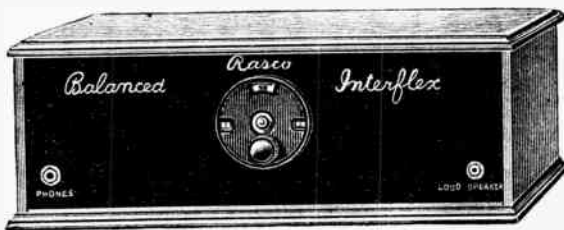
H. C. WATTERS, Jr., 1111 Eighth Street, Huntington, W. Va.

**ALL ON LOUD SPEAKER**

This is what the Balanced Interflex Four-A brought in on the loud speaker in one evening for Mr. Hugo Gersback, Editor of RADIO NEWS. No interference when two stations were within three points of each other: WIP Philadelphia, WRC Washington, WJZ New York, WJ Chicago, WEBB Chicago, WGN Chicago, WHN New York, WCBZ Zion, Ill., WMCA New York, WGY Schenectady, WOR Newark, WSAI Mason, O., WGT Buffalo, WGBS New York, WAHG Richmond Hill, N. Y., KDKA, East Pittsburgh, Pa., WTAS Elgin, Ill., WFG Atlantic City, WCAU Philadelphia, WMAK Lockport, N. Y., WJAZ Chicago, WRNY, New York, WGCP, Newark, WNJ Newark, WOKO New York, WODA Paterson, N. J., WIBJ Chicago.

The Balanced Interflex Four-A takes in the entire broadcast range.

**A BEAUTIFUL LOOKING RECEIVER**



**EASY FOR GRANDMOTHER**

The old folks do not get the same "kick" out of playing with a half dozen or so dials that some of us do. They want simplicity, directness, ease of tuning. This is why they will be thankful for the chance to use this, the only single-dial and real single-control receiver.

**PARTS INCLUDED IN KIT**

**Set Not Assembled**

(List)

Cabinet, mahogany finish, 7x21x8	\$4.18
Panel, drilled and engraved, 7x21. Bakelite-Dilecto	3.75
Baseboard, non-warping, 6½x20	.45
Inductance coils, special type, 2 at \$5.50	7.00
Coupler Knobs, 2 at 18c	.36
Variable Condenser, Double Straight Line, .00035, U. S. Lab. or Capacitrad.	5.75
Fixed Condensers, .005, Hilo, 2 at 75c	1.50
Dial, Vernier, specially good, no backlash.	2.50
Transformers, audio frequency, ½ to 1. Patent, 2 at \$5.00	10.00
Rheostats, automatic, Amperite, 3 at \$1.10	3.30
Rheostat, one Filkostat	2.00
Fixed Crystal Detector and Mounting, Carborundum	1.50
Sockets, low loss Bakelite Pilot, 1 at 10c	1.60
Jack, single, filament control, Jones Improved	.90
Jack, double, filament control, Jones Improved	.85
Holding Posts, moulded, Aristocrat, 7 at 7c	.49
Binding Post Strip, engraved	.25

"No-Sod-er" flexible, insulated, eyeletted connecting wires	1.25
Necessary Hardware (screws, angles, etc.), outfit	.50
Blue-print and Instruction Sheet	1.00

**Kit, total, regular price** ..... \$49.13  
**Our special price, transportation paid** ..... **\$31.85**  
 Catalog No. .... **9335**

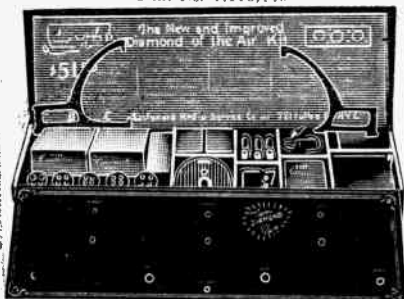
**ACCESSORIES**

Vacuum Tubes, UV-201A type, 4 at \$1.25	\$5.00
*Storage A Battery, 6-volt, 100 a. h.	9.50
B Batteries, 45-volt, large, 2 at \$2.30	4.60
Headphones, 2000-ohm	4.50
Phone Plug	.75
Aerial Equipment	4.50

**Accessories, total, regular price** ..... **\$28.85**  
**Our price, postpaid\*** ..... **\$27.40**  
 Catalog No. .... **9321**  
 \*Exception: We do not pay transportation on any batteries.

## Bruno 5-Tube Diamond of the Air Kit

Licensed under Armstrong Regenerative  
Patent No. 1,113,119



**\$45.85**  
POSTPAID

Radio receivers employing multi stage radio frequency amplification, are only truly effective, if they are laboratory designed and checked when completed by Technicians well versed in the science. In fact, a poorly designed, 5-tube receiver is often not even as good as an average 3-tube model. For all general purposes, a receiver, consisting of one Radio Frequency stage, with its tendency to oscillate either permanently neutralized, or slightly variable (very effective in the hands of an experienced Radio fan), and one ARMSTRONG REGENERATIVE Detector stage, followed by the usual stages of audio frequency amplification is proven to satisfy the wants, expectations, and receiving conditions of many broadcast listeners. Next to the 5-tube Tuned R.F. system of reception, this type of receiver is most universally used, being in principle very similar to the Roberts, Browning, Drake, etc. The R.F. stage employed in this Radio set has an amplification power of at least 10—and this it can be readily seen that not only all the virtues of the time tried and accepted Regenerative receiver are retained in this Diamond of the Air Kit, but also further improved upon, by the virtues of the R.F. stage just mentioned. You are assured extreme sensitivity on all distance reception, as well as selectivity which will not

"cut side bands" in its mission of better tuning, for that produces distortion. The Audio frequency system employed consists of one Audio transformer, coupled in the usual manner, followed by two Resistance coupled stages. A handsome drilled and tastefully decorated Bakelite panel, in conjunction with Bruno brackets and sub-base panel assures a very simple receiver to build. Detailed wiring instructions and general information included with each kit. Note the extreme high quality component parts we furnish with this outfit. Hear in mind this apparatus is not of questionable quality, nor, of any infringement on any patents—no make shift "schemes" are employed to evade the Armstrong Patents.

### Parts For The Improved Diamond Of The Air Kit

1 Bruno No. 99 R.F. Coil @ \$3.00	\$ 3.00
1 Bruno No. 99 Tuning Coil @ \$5.50	5.50
2 No. 101 .0005 S.L.F. Bruno Condensers	8.00
1 Bruno Pilot Light Switch	1.75
3 Bruno Bakelite Vernier Dials @ \$2.00	6.00
3 ¼ Amp. Amperites (mounted) @ \$1.10	3.30
1 ½ Amp. Amperite (mounted) @ \$1.10	1.10
1 3½—1 Bruno Trutone Model D Transformer	4.00
2 .1 megohm resistors	1.50
1 .5 megohm leak	.50
1 Bretwood Variable Grid Leak	1.50
2 Double Circuit Jacks @ .10	.80
1 Single Circuit Jack @ .30	.30
1 Century 7x24 Drilled and Engraved Panel @ \$5.00	5.00
5 Patent U.X. Spring Sockets @ .50	2.50
1 Century Drilled Socket Strip @ \$1.25	1.25
1 Pair Bruno Brackets	1.00
2 .25 Mfd. Aerovox By-Pass Condensers @ .70	1.40
1 5 Strand De Luxe multi-colored battery cable	.75
1 Push Pull Battery Switch	.50
1 .0025 Mfd. Aerovox Fixed Condenser	.40
4 Bruno Binding Posts @ .05	.20
5 Battery Cable Markers @ .15 set	.15
2 Flexible Leads for 6 Battery @ .10	.20
1 Mounts @ .20	.20
Bus Bar, Screws, Spaghetti, etc.	1.00

TOTAL COST ..... \$51.90

YOUR SPECIAL PRICE

No. 9050 Complete Kit..... **\$45.85**

## Bruno Basic Diamond of the Air Kit

Armstrong Regenerative Patent License No. 1,113,119

**\$20.45**  
POSTPAID

You may wish to build this wonderful circuit employing certain parts which you may have on hand, and which will serve the purpose. To you, we offer this basic kit, consisting of:

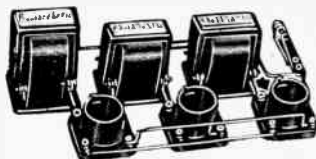
- 1 Bruno Jr. Tuning Coil.
- 1 Bruno No. 99 Jr. R.F. coil.
- 2 Bruno 101 Bakelite Shaft S.F. Condensers.
- 3 Bruno Vernier Dials.
- 1 Bruno Light Switch.

Or, you may order this essential kit, and wish to make up your own choice of the rest of the parts required, referring to the various pages of this catalogue. Very neatly boxed and furnished with an explanatory BLUE PRINT.

No. 9051..... **\$20.45**



## Rauland Lyric Trio



**\$18.95**  
POSTPAID

It has been proven, through much experimentation by the Rauland Lyric engineers and other competent authorities, that the combination of one stage of audio frequency amplification of the Rauland Lyric high quality type followed by two stages of IMPEDANCE COUPLED HAU- LAND LYRIC TRANSFORMERS will produce a quality of reception well worth the installation cost thereof. It is a happy combination of the merits of the two best amplifying systems, further enhanced by the determination of the Rauland Lyric organization to produce QUALITY AP- PARATUS, IRRESPECTIVE OF MANUFACTURING COSTS. The transformers are very attractively enclosed in black crystallized metal cases, with binding post connections, properly designated. This kit consists of one R-500, one R-300 and one R-310 Rauland Lyric transformers, complete with explicit instructions, wiring diagrams, etc. Can be installed in a few minutes.

No. 9004 Consists of 3 Transformers Described and Illustrated, but Without Sockets and Jack..... **\$18.95**

## Our Leader Console With Built-in Loud Speaker

# \$29.85

### With Utah Balanced Armature Unit

The extremely low price that we name for this handsome console cabinet and built-in loud speaker is no reflection on the quality or appearance of same—in fact, it represents more value for your money than such similar combinations offered elsewhere for \$10.00 to \$20.00 additional cost! We believe in a large volume of sales, with small profits—your generous support substantiates our business principles. The batteries and chargers, or "A" and "B" battery eliminators can be housed within the spacious shelf room available for this purpose. The back of the battery compartment is removed for immediate access to the batteries, and proper ventilation thereof. The panel space is 7 inches high by 18 inches long, and has been especially designed to accommodate any of our receivers and kits built upon a 7 by 18-inch panel. Included with every console, is a \$9.00 Utah Balanced Armature Type Loud Speaker Unit, attached to the metal throat of a correctly designed wooden horn loud speaker, capable of enormous volume and perfect clarity. Handsome scrolled grill covers the speaker. Console is tastefully designed and finished in two-tone effect mahogany. The wood used is Genuine Mahogany Plywood—edge banded top. Overall size, 31 inches long, 37 inches high and 13½ inches deep. Shipped Express Collect. No. 9041 Console, with Speaker \$29.85 and Utah Unit—No Receiver..



#### Note

By including with your order the list of accessories described in detail under No. 9071 (note that receiver chassis No. 8910 requires 6 tubes instead of 5) your Radio Receiver will be complete, and will represent The greatest possible value for every penny you have invested with us for a thoroughly dependable Radio Receiver—your every satisfaction guaranteed.

## Crosley One Tube "Pup" Receiver

**\$9.63**  
POSTPAID



A complete one tube regenerative set, completely assembled and ready for immediate use for this very low price of \$9.63! It is hard to believe that such value could be possible, even with American methods of mass production—but, the Crosley nameplate and absolute guarantee Uercon is every assurance of the integrity of the 100% performance possible with this miniature radio. With a

well constructed antenna, ONE DRY CELL, one dry cell tube, ONE 2½" small "B" BATTERY, and a pair of head phones, it is possible to receive broadcasting stations even as far away as 500 to 1000 miles. Later on, you can add our 2-stage Raco amplifier kit No. 9966, for loud speaker operation. Overall dimensions 7 inches by 6 inches by 5 inches. Only two very simple dials to operate—can be installed in a few minutes. Licensed under Armstrong U. S. Patent No. 1,113,149.

No. 9800 Crosley Set, Without Tube \$9.63  
or Batteries, etc.....

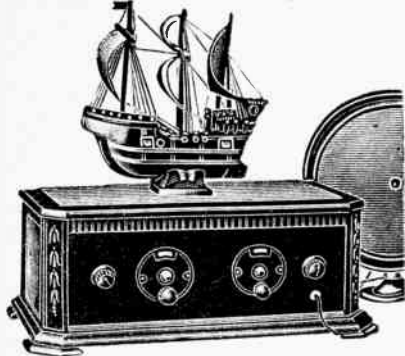
#### Notice

For your convenience we herewith list your cost price of the above console and Utah unit, with any of the following receivers, the price of the regular cabinet regularly furnished therewith having been deducted:

No.	Your TOTAL COST
8940 6-tube TROPADYNE, and No. 9041 Combination	\$60.70
8941 5-tube Rasco EXPLORER, and No. 9041 Combination	\$58.80
8942 5-tube Rasco LEADER, and No. 9041 Combination	\$52.80
8943 5-tube 1 Dial Control Kit, and No. 9041 Combination	\$53.80
8944 5-tube 2-Dial Control Receiver, and No. 9041 Combination	\$60.70
8945 5-tube MELODEE Receiver, and No. 9041 Combination	\$50.80

(All of the above shipped Express Collect)

## The New Shielded Hammarlund-Roberts 5-Tube HI-Q Receiver Kit



**\$57.35**

The underlying basic principles that have been most rigidly adhered to by this country's 10 leading Radio engineers are the principal causes for the ultra efficiency of this most marvellous receiver. True, due credit should be given to the unusually high standard of quality apparatus used throughout this set, but the total stage shielding and automatic variable coupling between the primary and secondaries of the 3 R.F. coils have made this receiver the exclusive choice of those who know sufficient about the art of Radio to logically determine that this Radio kit will perform in a manner that has long since been their fondest hopes. The circuit itself is composed of two stages of tuned radio frequency amplification, fully neutralized (or left slightly within the oscillating condition for extreme efficiency on very long distance, controllable in this state by the R.F. Rheostat on the right of the panel)—one distortionless non-regenerative detector stage and two stages of extremely powerful audio frequency amplification. By using a clever tandem condenser on the 2nd R.F. and detector stages, the operation of this receiver reverts to only 2 vernier dials. The total shielding used for house and completely enclose the 2nd R. F. and detector stages accounts for the remarkable selectivity possible in this sensational receiver, for it prevents outside interferences (nearly local stations, static, radiating receivers, electrical disturbances, etc.) from affecting the tuning characteristics of these stages, and prevents the ever ruinous inter-stage coupling which throws radio frequency circuits into terrific oscillation, sometimes only controlled with attendant losses. Last, but not least, the almost uncanny sensitivity of this modern receiver is mainly due to the automatic coupling, effected by the adjustments of the condenser shafts, raising and lowering the primary coil in the field of the secondary coil, in correct unison with the settings of the condenser, or, in other words, the coupling is automatically corrected for any wave length being received. Any old-timer will attest to the superiority of three-tube receivers 6 to 8 years ago, over most of the present vintage of five-tube receivers. Why? Because the variocouplers in those days were used as their very name implies: The secondaries of those coils were always adjusted to the wave length being received, and this adjustment was so critical, that its most necessary influence in the receiver was discarded in favor of the very inefficient "simplified controls," used to entice "new-comers" into purchasing receivers. In the old days, a receiver of the Hammarlund-Roberts HI-Q type would necessarily have to resort to 3 additional coupling dials, each very critical in their setting. But, on this masterpiece of the Hammarlund-Roberts engineers, the masterpieces of the coupling are yours with not one additional dial to adjust, nor even a thought to be given to it. Stations heretofore regarded as extreme distance pour in with thrilling volume and clarity—stations never

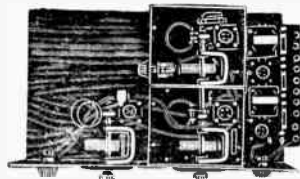
heard before, are yours at your very finger tips. And, the volume and clarity on all reception is typical of the high standards set for this receiver—it cannot be possibly improved upon. Wired for power amplification in 2nd stage. The instructions that accompany each kit are so explicit, and the mechanical layout so well engineered that this most marvellous receiver can be completely assembled by you in an evening. The following parts are included in the standard kit:

3—17-plate, 00035 Mfd. Hammarlund Midline	.....	\$14.25
2 Condensers @ \$4.75	.....	9.50
1 set of 3 Auto-Couple Coils	.....	10.00
1—9-plate 32-mmfd. Hammarlund Jr. Condenser	.....	1.80
2 H. W. A 3 (3-1 ratio) Sanson Audio Transformers @ \$5.00	.....	10.00
2 Mar-co Vernier Dials, No. 192 @ \$2.50	.....	5.00
2 No. 1 A Amperites @ \$1.10	.....	2.20
1 No. 112 Apperlite	.....	1.10
3 Benjamin Sockets with bases, No. 9040 @ \$0.75	.....	2.25
2 Benjamin Sockets without bases, No. 9049 @ \$0.50	.....	1.00
2 Mex. Darbin Metallized Resistors	.....	.50
10 Eby Engraved Binding Posts @ \$0.15	.....	1.50
1 .0025 Mfd. Sangamo Fixed Condenser	.....	.40
1 .001 Mfd. Sangamo Fixed Condenser	.....	.50
1 pr. Sangamo Grid Leak Clips	.....	.10
1 No. 10 M 8 Carter Combined Midget Rheostat and Filament Switch, 10 ohm	.....	1.00
1 No. 1 Carter Short Jack	.....	.25
1 No. 12 Carter "Tap" Switch	.....	.20
1 Hammarlund-Roberts HI-Q Foundation Unit	.....	10.50

Complete parts (without cabinet).....\$63.05

No. 9815 Your price, with above list of parts (ship model and cone speaker) **\$57.35** (not included)

Shipped Express Collect.



Looking down on the New Shielded Hammarlund-Roberts 5-tube HI-Q set.

## Hammarlund-Roberts HI-Q Foundation Unit

**\$8.38**  
POSTPAID



Although the contents of this kit are primarily intended for use in our No. 9815 kit, they can be adapted to your own special requirements. Consists of handsomely Drilled and Engraved Bakelite Panel, drilled bakelite sub-panel, two complete aluminum shields, extension shaft, equalizers, fixed resistance, wire, screws, etc.

No. 9817..... **\$8.38**



## How to Build the Hammarlund 5-Tube HI-Q Receiver

Complete instructions for assembling, wiring and operating the Hammarlund-Roberts HI-Q receiver. Prepared under the direction of the Hammarlund-Roberts Board of Engineers.

No. 9814..... **\$0.25**



## Daven Bass Note Circuit 6-Tube Kit



**\$52.25**  
POSTPAID

Built around the famous Daven Bass Note coils elsewhere described in this catalogue, and the Daven resistance coupled amplifiers, this 6-tube circuit offers possibilities of tonal reproduction and long distance reception that makes the performance of this kit, when assembled, equal to any commercially built Radio usually selling for \$300.00. The very best parts are only included in this kit, and a handsomely engraved drilled Bakelite panel 7 inches by 28 inches will facilitate your assembly thereof. Full detailed directions, blue prints, etc., accompany each kit. Your complete satisfaction is unreservedly guaranteed. The complete kit consists of the Daven Bass Note kit of coils—3 very high quality variable condensers, rheostats, jacks, sockets, complete parts for resistance coupled amplifier (3 stages), Bakelite tuning dials, binding post bridge, drilled and engraved Bakelite panel, baseboard, miscellaneous hardware, grid condenser and leak, rubber covered hook-up wire, blue print and wiring instructions.

No. 9854 Complete Unassembled Kit, Without Cabinet ..... **\$52.25**

### Pilot

## Radio Frequency Essential Kit



**\$6.15**  
POSTPAID

Please do not confuse the quality of these parts with that ordinarily offered in such kits—the very fact that we use the very same materials in our No. 9216 5-tube kit is proof of its exceptional merit. Consists of 3 17-plate Pilot condensers, in either the S.L.F. or S.L. modified type, 3 special coil mounts made of bakelite, and three Freshman type No. 2428 R.F. coils. Using these parts, and that material which you may have on hand from an old set, you can build a very efficient 5-tube receiver. In addition to above, you need rheostats, panel sockets, audio transformers, etc. If you wish to build a receiver of the non-oscillating type, you simply reverse the plate coil leads to that side on which such oscillations are not present. However, the more efficient receiver will allow for precisely introduced oscillations, controllable by either a potentiometer (100 ohms) across the "A" battery, with the return filament leads of the antenna and 2nd stage R.F. transformers connected to the movable blade or arm thereof, or, controllable by a variable resistance (Clarostat—C. R. L. products, etc.) in the R. F. "B" battery circuit. We can supply you with a special drilled and engraved bakelite panel, 7 x 23 inches, for this circuit, for \$3.50. Also Print and Baseboard layout for \$0.50 and wiring instructions (No-Sol-Br method) for \$0.50.

No. 9623 Set of 3 R.F. Coils—3 Mounts—3 Condensers ..... **\$6.15**

## Aero Tuned Radio Frequency Kit



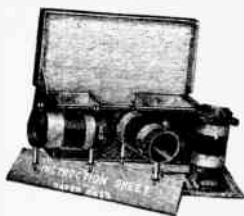
**\$10.28**  
POSTPAID

## Daven DRF Bass Note R.F. Coils

**\$7.15**  
POSTPAID

Although especially designed for use in the famed Daven Bass Note circuit, these coils are so efficient that they can replace any existing type of R.F. coil, and produce unexcelled results. Scientifically designed to give greatest selectivity with perfect balance. Very small fields, no self-oscillation, no feed back, De-gree of coupling between primary and secondary has been perfected. Smallest R.F. coils made: Wound on bakelite tubes 1 1/2 inches in diameter by 3 inches long. Connections can be twisted under cap nuts, nickel plated. Complete instructions for building the Daven Bass Note circuit furnished.

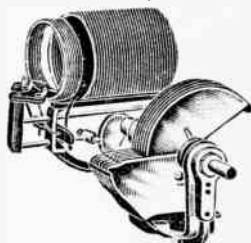
No. 9748 ..... **\$7.15**



## Hammarlund Auto Couple Tuned Radio Frequency Unit

**\$7.78**  
POSTPAID

Comprises the Hammarlund S.L.F. Middle .00035 variable condenser with special rear extension shaft, upon which is mounted a cam. When condenser shaft is rotated, this cam bears against a movable member of the primary of the coil, the



primary being mounted on a special track is therefore able to vary in and out of the secondary coil, thus varying the coupling thereof. Automatically, the coupling is set at the correct distance with respect to the secondary and the wave length being received. This principle has been known for many years by experts and laboratories to be the very essence of a perfect tuned radio frequency circuit—and if took the Hammarlund engineers to apply this accepted theory and actually make it possible for the layman, mechanically, to enjoy this feature WITHOUT REQUIRING ONE ADDITIONAL CONTROL. This principle is conducive of SENSITIVITY, SELECTIVITY, VOLUME AND CLARITY AT ALL WAVE LENGTHS IRRESPECTIVE OF ANY LENGTH AERIAL BEING USED. Condenser plates are non-corrosive brass, soldered to both of their respective frames. Reinforced ribbed standards—one hole mounting, with additional anchoring screw if desired—brass spring tall—friction hand brace—design of plates assures no crowding of stations on any wave length.

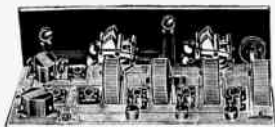
No. 9816 Complete Unit, Coil and Condenser ..... **\$7.78**

Consists of three MAT-TIED units. Antenna coupler has variable primary, assuring maximum efficiency under all adverse conditions. Packed with 8-page color circuit, layout and instruction sheet for building the famed super-sensitive 5-tube Aero-Dyne. For .00035 or 17-plate capacity condensers. The unusually high electrical efficiency of these coils permit their use in many varieties of circuits. Air space wound—minimum of insulation in their field.

No. 9603 (Set of 3 Coils) ..... **\$10.28**

## The New Bremer Tully Counterphase Power Six Kit

### \$78.15



Employing three stages of ultra sensitive tuned radio frequency, in which interstage coupling effects have been reduced to a minimum and in which the external pick-up is practically nil, this latest product of the Bremer Tully Laboratories is daily making extreme long distance reception records. The shortest possible aerials will produce results on this new receiver kit not even possible on other receivers using long aerials, proving its sensitivity. There are only two major tuning dials, two tandem condensers being employed. Wired for power stage amplification, assuring maximum volume and total reproduction second to no other receiver. Is very simple to assemble due to unique color coded wiring harness. Note the very high quality parts furnished in this kit—its performance warrants it.

#### PARTS REQUIRED

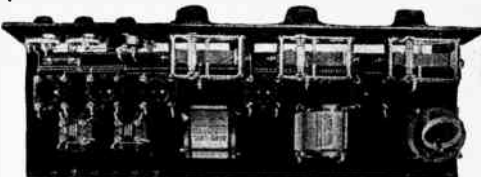
	Retail Value
1 TA Torosity Transformer.....	\$ 4.00
3 TC Torosity Transformers @ \$1.00.....	12.00
2 LI-17 Condensers @ \$9.50.....	19.00
3 B-T Mmf. Condensers @ \$1.00.....	3.00
1 B-T 500,000 Ohm Resistance.....	2.70
3 1500 Ohm Resistances @ 50c.....	1.50
1 Set color charts and diagrams.....	.90
1 Panel, 7x24, drilled and engraved.....	6.00
1 Wood Baseboard, 9 3/4 x 23 1/2.....	1.25
1 B-T Euphonic Audio Transformer; 2.2 to 1.....	5.00
1 B-T Euphonic Audio Transformer; 4.7 to 1.....	5.75
2 B-T Tuning Controls @ \$2.50.....	5.00
1 .001 Mfd. Fixed Condenser.....	.40
1 .0025 Mfd. Fixed Condenser.....	.65
3 .006 Mfd. Fixed Condensers @ 75c.....	2.25
2 1 Mfd. Fixed Condensers @ 90c.....	1.80
5 B-T Type UL or UXA Sockets @ \$1.00.....	5.00
2 Meg. Grid Leak.....	.50
1 B-T UL "Silent" or UX Detector Socket.....	1.25
1 Double Circuit Jack No. 101.....	.70
1 Single Circuit Jack No. 101.....	1.00
1 Filament Switch.....	1.00
3 Ohm Rheostat.....	1.00
1 Single Pole, Double Throw Jack Switch.....	.90
1 Binding Post and Mounting Strip.....	.40
1 Jones B.M. Multi-plex Set.....	4.50
2 C Batteries—4 1/2 volts @ 60c.....	1.20
Lugs, Screws, Hoop-up Wire.....	1.00

Total Retail Value.....\$91.05

No. 9867 Your special net cost **\$78.15**  
(unassembled)

Shipped Express Collect.

## The Famous 5-Tube Super-Sensitive Aero Dyne Receiver



### \$59.45

POSTPAID

This extraordinary receiver, employing the Aero Dyne No. 9603 Tuned Radio Frequency Kit, represents the very finest Radio set that can be made, whether it be custom built or even a factory assembled Radio receiver costing several times the price of this kit.

It is the receiver you have long wished for, as it combines extreme selectivity and its attendant result—distance reception, perfect clarity, ample volume, foolproof, trouble-proof and very simple to assemble. An 8-page instruction sheet in color wiring, with actual size panel and baseboard lay outs, and comprehensive directions and wiring instructions, is furnished with this kit.

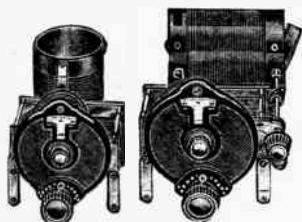
#### List of parts furnished with this Kit:

9 Binding Posts
1 .00025 Grid Condenser and Clips
1 5 Megohm Grid Leak
1 1 Mfd. By-Pass Condenser
1 .001 Fixed Condenser
1 Open Circuit Jack
1 Closed Circuit Jack
1 Set of No. 9603 Aero Coils (TRF-120)
1 Verihromed Aero Dyne Panel, drilled and engraved, 7 inches by 28 inches
1 Drilled Sub Panel
3 Sub Panel Brackets
1 20 Ohm Pilot Rheostat
1 10 Ohm Pilot Rheostat
5 Paent U.X. Sockets (cushioned)
3 3-inch Dials
1 C.R.L. to 200,000 Variable Resistance
2 Paent No. 2811 Transformers
1 1/2 Ampere Amperite Audio Tube Resistance
3 Paent S.L.P. Condensers
1 Reel of Hook-up Wire No. 4426 or Bus Bar Wire
1 Dixie Assortment Screws and Lugs.

Total List Value.....\$71.80

No. 9607 Complete kit as above. **\$59.45**  
Our Price, Prepaid.....

## "National" Tuning Units for Browning Drake Circuit



B D-1B

B D-2B

### \$9.95

POSTPAID

The Browning Drake circuit is one of the huge possibilities, but for most efficient results the laboratory designed instruments should be used, for logical reasons. The coils must not only be of a certain inductive value, but the inductive relation to each other, and the over all distributed capacity must be of a known value. Then again, the proper coupling must be rigidly determined, on the one hand, and be properly variable, on the other. The National Coils are

wound with enameled wire on very thin bakelite forms, and are precision space wound. Lowest dielectric losses, with greatest possible transfer of energy. Both coils are attached to nickel plated brass angle strips, and are set at a predetermined electrically correct distance from the rear plate of the condenser. The coupling coil in the type B D-2B unit is controlled by a shaft which is supported in a bearing on the front end of the condenser, to insure stability in its rotation. A small tapered bakelite knob is furnished for the adjustments of this rotor on the panel. The National Eucyclec condensers furnished are unique in that they rotate in an arc of 270° instead of the conventional 180°, the additional sweep further adding to the S.L.F. characteristics, especially at the lower and higher band of wavelengths. The B D-1B unit employs a .0005 variable condenser, whereas the B D-2B unit employs a .00025 variable condenser. A National type B Vernier dial (described in detail under our No. 9618) is furnished with each condenser.

No. 9626 Type B D-1B.....	\$9.95
No. 8998 Type B D-2B.....	\$13.27

## Karas Equamatic 5-Tube Receiver Kit



**\$88.50**  
POSTPAID

The sensational results possible with this new receiver are solely attributed to the very heart of the circuit—the Karas Equamatic coils, fully described under our No. 9009. The quality of reception places this radio set in a class by itself. Due to variable coupling feature, it is even superior to Radios selling for \$400.00—and proves it, too. Automatic oscillation control. Drilled and engraved front and sub panels assure a very simple mode of assembly. Directions and wiring instructions cover every possible detail. Note the very high quality list of parts that are furnished with this receiver—the exceptional results obtainable with this receiver certainly justifies its seemingly higher cost price. The quest of every Radio fan is **SELECTIVITY, SENSITIVITY, CLARITY AND VOLUME**, with ease of operation. **THE KARAS EQUAMATIC RECEIVER WILL DELIVER A 100% SHARE OF ALL THESE QUALITIES.** It is truly an investment, not a cost.

### List of Parts

- 3 Karas Equamatic R.F. Transformers.
- 3 Karas Orthometric .00037 Extended Shaft Condensers.
- 3 Karas Micrometric Vernier Dials.
- 3 Karas Harmonik Auto Transformers.
- 2 Karas Equamatic Retard Coils.
- 3 Karas Sub Panel Brackets, Set.
- 1 7x28 Bakelite Panel, Drilled and Engraved.
- 1 Formica Drilled Sub Panel.
- 1 Carter 10-ohm Rheostat with Knob.
- 1 Carter 20-ohm Rheostat with Knob.
- 1 Carter Double Circuit Jack.
- 1 Carter Imp. Filament Switch.
- 1 Sangamo .00025 Grid Condenser with Clips.
- 1 Carter Open Circuit Jack.
- 1 Ansco 2 neg. Grid Gate.
- 2 No. 1-A Amperites.
- 1 1½-volt "O" Battery.
- 1 Jones Multiplying with Mounting and 8-ft. Cable.
- 5 Benjamin UX Cushion Sockets.
- Binding Posts, Screws, Bus Wire, Soldering Lugs, Spaghetti.

No. 9010—Complete Kit of Parts. **\$88.50**  
YOUR COST

## Pilot 2-Dial 5-Tube Kit

**\$6.60**  
POSTPAID

The conventional form of 5 or 6-tube Tuned Radio Frequency receivers is always equipped with three 17-plate variable condensers, and therefore needs 3 tuning dials. Should you offer any objection to the necessity of having so many dials to manipulate, yet wish to build a receiver using this ever popular and most efficient circuit, this problem is very satisfactorily solved by employing this 2-DIAL TUNED RADIO FREQUENCY ESSENTIAL KIT. You will note in the illustration that one of the condensers is composed of two 17-plate sections, with common rotary plates, but with electrically independent stator plates. Thus the 2nd R.F. and the Detector stages are simultaneously tuned WITH ONE DIAL. The other condenser tunes the antenna R.F. stage. To compensate for any electrical differences that would, and do exist between the two stages tuned by this tandem condenser, a 7-plate Midget condenser is shunted across either the



2nd R.F. section of the condenser, or, the Detector section thereof—whereas this adjustment can be determined in a few moments, and left at that setting, it would be more preferable to place this midget condenser directly on the panel, using same for vernier adjustments on extreme distance reception. The coils furnished with this kit are the BABY compact basket weave type, and have special fibre mounts attached thereto. Tuning range: 200 to 550 meters. Quality apparatus throughout—the circuit involved demands it. The kit includes one 17-plate S.L.F. condenser, one Tandem 17-plate condenser, one Pilot 7-plate Midget condenser, 3 Baby Basket weave coils, 3 special coil mountings.

No. 9624 ..... **\$6.60**

## Single Dial Control 5-Tube Receiver Essential Kit



**\$6.85**  
POSTPAID

The ever popular 5 or 6-tube tuned radio frequency receiver is now easily controlled by one vernier dial with the use of this essential kit. The 3 condensers ordinarily employed in a conventional tuned radio frequency receiver are combined into one triple condenser, the rotors of which are electrically and mechanically attached to a common shaft. To compensate for any differences between the three radio frequency stages, two 7-plate Midget condensers are included in this kit—they can either be mounted within the receiver, being permanently adjusted, or attached to the panel, for vernier adjustments thereto when tuning extreme distant stations. There is a wonderful thrill awaiting you, as you slowly rotate the one control vernier dial, stations from all over the country snapping in and out with hair line selectivity, from the lowest to the highest broadcast wave lengths. The 3 coils furnished are very carefully matched, and will cover the full broadcast band of 200 to 550 meters in conjunction with the 17-plate .00035 Mfd. condensers included in this kit. Mounting supports for the coils provide for mounting thereof either to a sub-panel or base board.

No. 9625 As Illustrated ..... **\$6.85**

## The Rasco De Luxe Console

FULL THROATED  
HORN AND  
ADJUSTABLE UNIT

ENORMOUS VOLUME  
AND PERFECT  
TONE QUALITY

**\$36.45**

No. 9037 CONSOLE ONLY

LUXURIOUS  
APPEARANCE

**\$54.15**

No. 9656 With 5-tube  
Tuned Radio Frequency Re-  
ceiver and Powerful Loud  
Speaker Unit.

ULTRA SENSITIVE  
AND SELECTIVE



OPEN VIEW

### OUR SENSATIONAL BID FOR YOUR PATRONAGE

We cannot properly describe this console to you with all its inherent beauty and extreme usefulness—but the most convincing statement we can make is that this Console exceeds all of our previous efforts to offer our many friends the very best values at the lowest possible prices—no other mail order concern, nor in fact your local dealer, could afford to sell the above illustrated cabinet and set at the very low price that we name—for we depend on large sales with very small profits. Therefore, if we admit that this is our greatest bargain in a Radio Console and receiver combination, it must be a most unusual opportunity—and just as much an opportunity for us, as it is for you, for any customer purchasing this merchandise, will be the means of securing for us additional business—his further re-orders, and the orders that result directly from pleased recommendations of our customers to their many friends.

#### The Console Cabinet

The first impression that the De Luxe Console will make on you, is that it is a most beautiful piece of furniture—for it is most tastefully designed, with a hand-rubbed piano finish in two-tone mahogany. The loud speaker

chamber is screened with a gold-silk-covered, artistically scrolled grille in harmonious contrast to the general decorative effect of the Console. The two front legs are gracefully formed, yet of very sturdy construction. The top is edge banded, and the edges of the Console are attractively scored. The drop leaf, which conceals the Radio receiver when same is not in use, is large enough to be used as a writing desk—it also affords a most convenient arm rest while tuning in stations and recording them in your log. The battery compartment is readily accessible on the front of the cabinet, having a hinged door for this purpose, an exclusive feature only found on consoles selling for double our price. It is commodious enough to house all your batteries, chargers or eliminating devices, measuring 21 inches long, 13½ inches deep (behind the closed doors) and 10½ inches high. Any receiver whose panel does not exceed 8 inches by 21 inches can be placed in the space available for this purpose. The back of this cabinet is removable, for access to the receiver itself, the loud speaker unit (for any adjustments thereto) and to the batteries. It is therefore plain to perceive that this De Luxe Radio Console will not only enhance the beauty of any living room, music room, parlor, etc., but, it is extremely useful, and can be adapted to your particular requirements.

Gentlemen:

Received my Radio set in very good condition—am more than pleased with same. Please rush to me another order blank, so that I can send you a re-order in a week.

ELOREO ROLAND. 81: Vattier St., Manhattan, Kans.



## The Built-In Loud Speaker

We realize that everybody judges the quality of any Radio receiver by what they actually "hear"—that is,



CLOSED VIEW

their judgment is solely dependent on the limitations of the loud speaker. And so, we decided to incorporate in this console the very finest, acoustically perfect loud speaker. The unit is attached to a universal ferrule located in the battery compartment section of the cabinet, and then there is a scientifically designed tapering throat that extends practically to the top of the cabinet, where it opens out into a wooden tone chamber of ample proportions—is it any wonder then that every purchaser of this console is so enthusiastic over the sonorous and beautiful natural tones, only possible because we have spared no expense in our efforts to offer you the most possible value for your money?

### Loud Speaker Unit

Appreciating the fact that you may have your particular choice of a loud speaker unit, we do not include one when simply the console is ordered—however, the unit that we do furnish with the receiver combination is very powerful, and of the adjustable type, for maximum volume and clarity.

### The Receiver Furnished in This Combination

You will find this receiver described in detail under our No. 9657. When you remove the De Luxe Console from its crate you simply have to slip the chassis into the panel space cut to the exact size and perfectly centered, drive in a few screws into holes already started for you and attach the batteries—a few minutes' work. Detailed instructions included. Shipping weight, about 100 pounds. Shipped express collect.

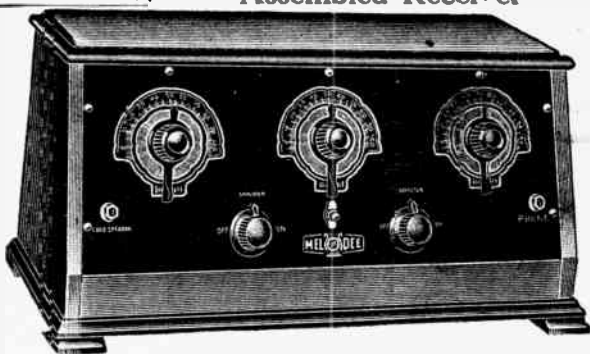
No. 9656 De Luxe Console, with No. 9657 5-tube Tuned Radio Frequency Receiver, and Adjustable Loud Speaker Unit.....\$54.15  
 No. 9037 De Luxe Console, without receiver or loud speaker unit.....\$36.45  
 Kindly state what size panel you intend to use.

### Notice

Any of our assembled receivers, one dial control—Balanced Interflex—and No. 9216 5-tube kits can be set into this Console. If you intend to purchase this Console for a No. 9216 kit, we shall include special instructions for the assembly of that kit on a 7 inches by 21 inches panel, instead of the 7 inches by 24 panel, as furnished, or you can build any circuit of your own choice therein, ordering either of the following panels:

- No. 8927 8 inches by 21 inches by 3/16 inch Dialectryte Panel .....\$2.69
- No. 8928 8 inches by 21 inches by 3/16 inch Bakelite Panel .....\$3.89

## Rasco Melodee 5-Tube Assembled Receiver



**\$23.45**

No. 9657  
POSTPAID

Determined to offer our many friends a 5-tube Assembled Radio Receiver at the lowest possible price, we instructed our Radio Engineers to submit to us 6 receivers in which would be combined, not only the very latest and up-to-date improvements of this current season, but also their own new suggestions and ideas of both a mechanical and electrical nature. From these receivers we condensed all these features and improvements, incorporating them into the Rasco Melodee 5-Tube Tuned Radio Frequency Assembled Receiver. Because of the large volume of sales we enjoy we are able to sell you a high quality receiver, completely assembled, for a price even lower than several un-assembled kits. The only difference between this receiver, and The Rasco Sonata is the cabinet—which does not contain a built-in speaker—and the panel (size 7 inches by 18 inches)—which is set on a slight angle to afford you better view of the dial readings. The overall size of the cabinet is 19 inches long by 8 1/2 inches wide by 8 1/2 inches deep. The finish is mahogany on well selected and seasoned gum wood. A very pleasant surprise awaits you on your first audition of this receiver—and you will be very much impressed by its appearance and durable mechanical construction. Every receiver is very carefully tested on actual radio reception. A 100% binding guarantee of your complete satisfaction forms the veritable consideration of your purchase of this high quality Radio Receiver.

- No. 9657 5-Tube Receiver with Cabinet.....\$23.45
- No. 9659 Without Cabinet—Chassis Only.....\$20.95

## Walbert Penetrola

**\$29.48**

POSTPAID



This instrument will give you selectivity with a vengeance. Any Penetrola demonstration will show you results that certainly can attest for all that is claimed for it. The wanted station is immensely intensified—the unwanted stations and other interference are overwhelmed. Distance reception is even possible with a short aerial because of the Penetrola action. Re-radiation from your receiver is suppressed. Your dial readings will remain substantially the same. The Penetrola represents theory put into practice with 100% success. It takes but a few minutes to attach to any Radio receiver. Furnished in Black, metal crystallite cabinet.

- No. 9673.....\$29.48

# TROPADYNE--6 RECEIVER

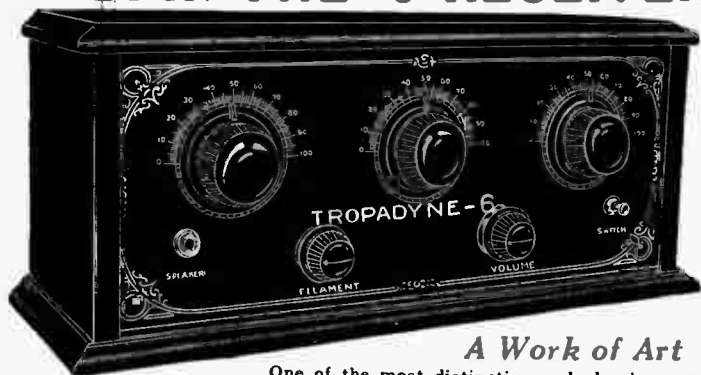
ASSEMBLED  
Ready for Use

ONLY

\$34<sup>75</sup>

No. 9487

6-Tube  
Tuned  
Radio  
Frequency  
Balanced  
Amplifier



## A Work of Art

One of the most distinctive and pleasing external features of the set is the exquisitely-grained bakelite panel, faithfully conveying the impression of the finest walnut. Bakelite manufacturers say it is the handsomest panel they have seen in any radio set. Kurz-Kasch Dials and Knobs used throughout to enhance the beauty. The limitations of production do not permit us even to approximately represent the beauties of the set.

Bakelite panel walnut finish—etch-o-gravure and gold decorations—bakelite sub base—universal sockets, adapted to either UV or UX types of tubes—Kurz-Kasch bakelite walnut pointers, gold-filled to match—Kurz-Kasch bakelite gold-filled rheostat knobs—straight line frequency condensers—special coils, double silk enameled, primary and secondary—Shore audio transformers—distinctive Caswell-Runyan walnut-finish cabinet, 7 x 18 ins.—superior design and workmanship.

Easily tuned—no oscillations or squeals—no potentiometer—no resistances—self-equalized—low-loss materials used throughout.

*Both of  
These Sets  
Receive*

Broadcasts from  
**OVER 2000  
TO 3000  
MILES**



ONLY  
**\$32.35**

No. 9488

5-TUBE  
TUNED  
RADIO  
FREQUENCY

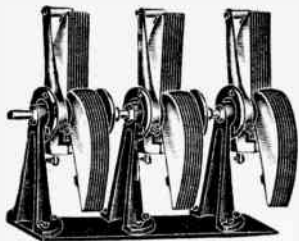
Both these sets are noted for clearness of tone. Programs of distant stations come in as clear as a bell. The refinement of tone is a revelation to all who hear these well-nigh perfect receivers.

Same specifications as for the Tropadyne-6, the chief difference being that this set uses only five tubes and the distance and volume of reception are a little less.

No. 9055 Chassis Only, Set Minus Cabinet....

**\$28.85**

## Patent Triple 17-Plate Condenser



**\$9.93**  
POSTPAID

For mechanical ruggedness and electrical efficiency, this triple condenser has no equal. It is composed of three 17-plate Patent S. L. F. condensers, mounted on a common shaft—electrically independent of each other, therefore, the rotary plates or positive film any other tandem

electrically connected to the same shaft. Furthermore, the rotary plates of any of the condenser sections may be shifted to the right or the left and then permanently set, to compensate for any electrical differences between these various sections, eliminating the necessity of employing compensating or midjet condensers for this purpose. A hardened steel set screw in this bushing grips this shaft, with no lost motion being effected. The shafts of each of the condensers revolve in bearings attached to the 3 reinforced cast metal standards which are screwed to the metal base plate, in which there are two mounting holes for anchoring the condenser to the base board. From the center of the shaft which passes through the panel, and to which is attached a vernier dial, to the under surface of the base plate, it measures 3 1/4 inches. The baseplate measures 2 inches wide by 7 1/4 inches long. Overall dimensions of the condenser with the plates unmeshed is 4 1/4 inches wide, 6 inches high and 7 1/4 inches deep from the rear of the panel. Capacity of each section .00035 mfd. No. 8931 ..... \$9.93  
No. 8990 (Two Gang) ..... \$7.95

can be attached to either the negative or positive terminal return circuit, not possible with a midjet condenser, because the rotary plates thereon are always

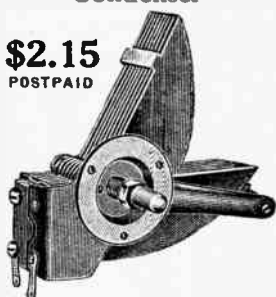
## Amsco Low-Loss S. L. F. Double Condenser

**\$5.95** POSTPAID

Precision made by the famous Amsco Laboratories. Grounded rotor. Curve—Perfect straight line frequency curve obtained by scientifically designated plates will separate stations equally at 10 kilocycles per division. Bearings—Combined ball and cone, which automatically take up the wear, assuring perfect alignment at all times. Insulation—Special grade of rayon, exactly proportioned to prevent warping in any direction and to cut down losses to a minimum. Frame—Heavy rugged aluminum construction, using hexagon supporting posts. Rotor—Extra

## Patent True Straight-Line Frequency Condenser

**\$2.15**  
POSTPAID

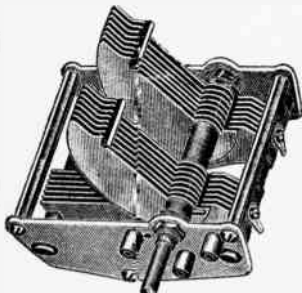


Stations can be equi-spaced according to frequencies. Grounded rotor in continuous connection with metal end-plate—meets all requirements of low loss design. Perfect insulation. Isolantite properly placed. Special brass plates. Riveted and soldered. Rigid channel frame construction. Permanent plate alignment. Extra tie bars. Oversize, dust proof uni-bearing. Positive enclosed stop. Optional one-hole mounting. Design provides for uni-control tandem mounting. 17 plates recommended for neutrodyne and all tuned radio frequency circuits. 00035 Mfd. Max. 23 plates for super-heterodyne circuits. .0005 Mfd. Max. Size open 3 3/4" long; 1 1/2" wide, 4 1/2" high. Size closed 3 1/2" long, 1 1/2" wide, 2 1/2" high.  
No. 8903 7-plate ..... \$2.15  
No. 8904 11-plate ..... \$2.65  
No. 4432 17-plate ..... \$2.95  
No. 4433 23-plate ..... \$2.95

## Pilot Midget Condenser

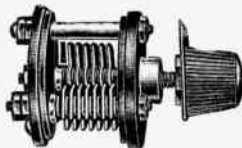


Small in size and the price is small. Low loss. One hole mounting. Can be used as a vernier condenser. Builders of super-heterodyne sets find it most desirable. Well-made. It will surely please you. No. 9468 (7-plate) **\$0.50**  
No. 8802 (13-plate) ..... \$0.97



hard heavy gauged aluminum plates, with swaged end and brace, assuring permanent, perfect alignment. Size—Extra hard heavy gauged aluminum plates, braced and swaged at three points, assuring rigidity and permanent alignment. Capacity—Low minimum with uniform maximum capacities. Used in the Superior Balanced Interflex Receiver. Size open 3 3/4" long; 4 1/4" wide, 4 1/2" high. Size closed 3 1/2" long, 4 1/4" wide, 2 1/2" high. No. 9513 .0005 mfd. .... \$5.95

## Chelton Midget Condenser



Has been on the market several years and is increasingly popular. Used as a vernier. In great demand in superheterodyne circuits. Low loss design. One-hole mounting. Brass plates. Variable. No. 9174 9-plate ..... \$1.17  
No. 9512 13-plate ..... \$1.34

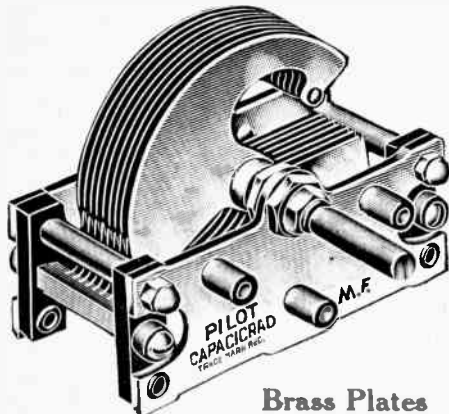
## Neutralizing Condenser



For use where capacity balance is desired. The Balcon neutralizing condenser consists of two nickel-plated electrodes enclosed in a 1/4 inch glass

tube. Around the outside a piece of nickel-finished split brass tubing is fitted so that it may be moved from one end to the other, thus forming a condenser of very low capacity, the glass tube being the dielectric. The base is Radon. Maximum capacity is obtained when center of brass tube coincides with center of space between electrodes. No. 9377 ..... **\$0.29**

## Pilot Capacigrad Straight Line Modified Condensers



Brass Plates

**\$1.30**  
POSTPAID

Necessity is the Mother of Invention, and hence was responsible for the manufacture of the above type of condenser. In the earlier days of Radio, the conventional variable condenser had rotary plates and stationary plates both shaped in the fashion of a half moon. It was noted that this type seemingly "jammed" all the lower wave lengths over a very small portion of the dial controlling that instrument, whereas the highest wave lengths generally terminated at 2/3 of the arc, rendering the remaining 1/3 of the condenser useless. Thus, between 60 to 70 degrees on the dials, wave lengths from 200 to 550 meters were crowded in an uneven fashion. The first improvement resulted in the lower wave length section of the rotor being slightly slanted off from the circular form, allowing slightly better relief on the lower wave lengths, but not of much consequence. Then came the first radical improvement: Our Pilot S.L.F. condensers, as described under Nos. 3580 to 3582. Although the fixed plates were not altered in shape, the rotary plates were, their form being altered from that of a half moon to that peculiar shape as illustrated under No. 3580. Furthermore, the shaft was so placed that the rotary plates described an eccentric arc, while being meshed into the stationary plates. The result: The lower wave lengths were spread over a much wider portion of the dial, greatly assisting in the tuning and selectivity thereof, and the highest waves came in very near the complete meshing of the rotary plates into the stationary plates, or, between 95 and 100 on the dial. But here again two obstacles presented themselves, necessitating the above illustrated departure from the heretofore accepted S.L.F. type—first, mechanically the S.L.F. type occupied considerably more space than previous types, due of course to the eccentric orbit the rotary plates cut, while being completely unmeshed; secondly, electrically, so much attention was paid to the more gradual distribution of the lower waves by shaping the rotary plates above referred to that the higher wave lengths were actually becoming huddled together, as was the case with the lower wave lengths in the original models. It was then apparent that a happy medium must be sought, a condenser that would allocate evenly over its 180° cycle the lower wave lengths as well as the higher wave lengths. In the modified condenser, the rotary plates are shaped in a half moon fashion on its circumference, but a considerable portion of the body has been removed, as the illustration clearly denotes, in a like manner, the stationary plates have been shaped, thus accounting for the happy medium of wave length distribution long sought for. The shaft is placed in the exact center of the instrument, therefore, the rotary plates describe an arc within the outer edges of the condenser, accounting for very small overall length on

your panel of 3 3/8 inches compared to 4 1/2 inches with the rotary plates completely unmeshed of the S.L.F. model. The 17-plate condenser, the most popular size, measures 1 3/16 inches high and 1 1/2 inches deep from back of the panel. End plates composed of bright aluminum, with solid brass rotary and stationary plates—minimum bakelite insulation—screw terminals. Note that this type condenser should be used in conjunction with a No. 9915 2 Gang S. L. Modified condenser, and the S. L. F. Model No. 3581 must be used with the No. 3590 2-gang condenser, so as to retain the same dial settings.

- |          |   |        |
|----------|---|--------|
| No. 9911 | 8-plate .00017 Capacigrad S. L. Modified Condenser  | \$1.30 |
| No. 9912 | 13-plate .0003 Capacigrad S. L. Modified Condenser  | \$1.50 |
| No. 9913 | 17-plate .00038 Capacigrad S. L. Modified Condenser | \$1.70 |
| No. 9914 | 23-plate .0005 Capacigrad S. L. Modified Condenser  | \$1.80 |

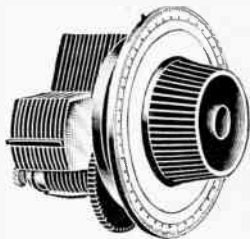
### Two Gang Capacigrad S. L. Modified Condenser

- |          |   |        |
|----------|---|--------|
| No. 9915 | 17-plate .00038 Capacigrad S. L. Modified Condenser | \$3.20 |
|----------|---|--------|
- Composed of two electrically uniform 17-plate condensers, having the same features as the single condensers above referred to.

### Remler 360° Variable Condenser Twin Rotor Type

**\$4.47**  
POSTPAID

This most unique condenser has two rotors which mesh into each other, both moving at the same time, actuated by a set of bakelite gears to which they are rigidly fastened—and these gears are in turn in mesh not only with each other, but also with a very small diameter gear which is attached to the operating shaft and dial. This small ratio gear produces a very realistic vernier effect. The Dial moves in a 360° arc, but the rotors only move in a 90° arc. All electrical connections are foreign to the metal shaft, and operating dial, insuring no trace of body capacity effects. The plates are "pebbled" brass, for rigidity, and are soldered to their shaft and at their tops with a common strip. A special 4-inch aluminum front 360° etched dial is included, together with a paper disc, which is removable at will, and upon which the station call letters may be written. The dial is locked to the 1/4 inch shaft with a split bushing and bolt, and the bakelite knob is threaded so that it may be screwed on and off the dial plate. Stop and marker included.



- |          |                          |        |
|----------|--------------------------|--------|
| No. 9667 | .00035 capacity 17-plate | \$4.47 |
| No. 9668 | .0005 capacity 23-plate  | \$4.47 |



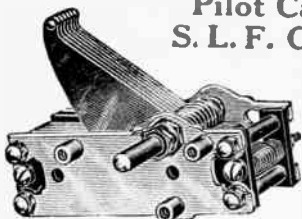
### Pilot Lug Jack

The special connecting lugs, while designed to abolish soldering (connections being made thereto with a nut and screw) may be used for solder connections. The sturdy frame helps support sub-panel. Easily attached with screws through holes provided for the purpose. The lug-jack illustrated is No. 9897, the filament-control double jack.

- |          |                               |        |
|----------|-------------------------------|--------|
| No. 9894 | Single circuit open           | \$0.32 |
| No. 9895 | Single circuit closed         | \$0.36 |
| No. 9896 | Filament control, Single Jack | \$0.41 |
| No. 9897 | Filament control, Double Jack | \$0.45 |



## Pilot Capacigrad S. L. F. Condenser



**Brass  
Plates**

**\$1.30**  
POSTPAID

Here are the condensers with the "velvet feel." A TRUE straightline frequency condenser with solid brass plates. Built like a watch, it is the pinnacle of precision. Special bushings give that "velvet feel," free from chatter and noise. These condensers cost no more than ordinary condensers for the simple reason that they are produced by the world's largest radio parts manufacturer. A minimum of insulation gives rise to a minimum of losses.

It is not necessary to dwell upon the advantages of using straightline frequency condensers today. They will separate the lower wave stations and will give you better results all the way through. These condensers are all equipped with 3 screws; and plates are solid brass. Friction bearings, adjustable end plate bearing to adjust tension, etc., the highest class job in America, not only for those who build their own, but for set manufacturers as well. Where a high class condenser is a necessity.

**DUE TO THE EXTRAORDINARILY CLOSE SPACING OF THESE PLATES, THIS CONDENSER TAKES ACTUALLY LESS ROOM THAN THE OLD STRAIGHT-LINE WAVE TYPE.** Dimensions of .00017 type, closed, 4" long, 1 1/2" high; open 4" long and 3 1/4" high.

The larger types are of the same dimensions except that they are somewhat wider due to the additional plates.

No. 8902	8-plate, .00017 Capacigrad Condenser	\$1.30
No. 3580	13-plate, .00025 Capacigrad Condenser	\$1.50
No. 3581	17-plate, .00038 Capacigrad Condenser	\$1.70
No. 3582	23-plate, .0005 Capacigrad Condenser	\$1.80

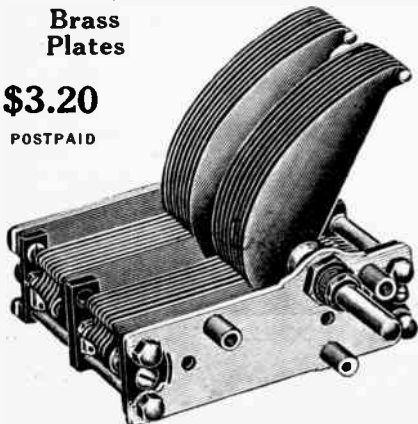
## Two Gang Capacigrad Pilot Condenser

This is the same type condenser as described under our No.'s 3580, 3581 and 3582, and is made especially

**Brass  
Plates**

**\$3.20**

POSTPAID

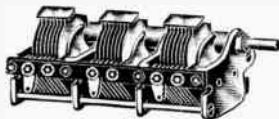


for tuned radio frequency, neutrodyne, and super heterodyne receivers. The important thing to remember about gang condensers is that the capacity of the two units must be absolutely uniform. Both of these condensers are within 2 per cent. accurate in their capacities, so it is a very simple matter to balance the set. Although of large capacity, the size of this condenser is remarkably small, measuring only 3 1/2" long and 1 1/2" high when closed, and 3 3/4" high when fully opened. The total width from panel to rear bearing is only 3 1/2". Carried in one size, namely, 17-plate, .00038 mfd. Rugged in design, with pigtail and stout end plates, you will find this condenser to be the acme of perfection.

No. 3590 Two Gang, 17-plate, .00038 Capacigrad Condenser **\$3.20**

## U. S. L. 3-Gang 17-Plate .00035 Condenser S. L. Corrected Frequency

**\$5.45**  
POSTPAID



Extreme compactness and perfect efficiency is a rare combination in three-gang tandem condensers! But we

have succeeded in attaining this goal—offering you a triple condenser in a high quality precision instrument for less than half the price of a larger, and less efficient type. The three sections are EXACTLY ALIKE, and as the condenser is very strongly built, it will NEVER vary. The metal parts are all aluminum, with the result that there is 3 times LESS WEIGHT on the panel than with other types—thus you do not have to support the rear end of the condenser on the base board. The common rotor shaft, upon which the rotor plates are most rigidly attached, is 1/2 inch in diameter, terminating, at the panel end, in the conventional 1/4 inch diameter. For extreme durability the rotor plates are strapped together, as the illustration will suggest. Minimum of Radion insulation. Connections to the various stators and the common rotor are possible on either the right or left side of the condenser. When the plates are fully unmeshed, the overall dimensions of this mechanical triumph are 3 1/2 inches wide, 3 3/4 inches high, and ONLY 5 inches from rear of panel. Choice of one hole mounting, or 2 anchoring holes. FURNISHED ONLY IN 17-plate capacity. IDEAL FOR ONE DIAL CONTROL 5 or 6 TUBE TUNED RADIO FREQUENCY CIRCUITS.

No. 8932..... **\$5.45**

## Silver Marshall Interlocking Condenser

**\$5.75**  
POSTPAID



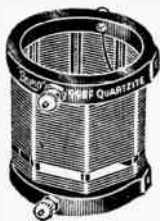
This condenser is unique in that it can be used singly, or, due to the special mechanical arrangement provided therewith, a similar condenser can be interlocked by inserting the shaft of the next condenser (or even the shaft of a variable coupling primary coil) into the special hole in the rear portion of the condenser preceding it. After being adjusted for final electrical uniformity, they are firmly interlocked, and the tuning is thus confined to one dial. In this manner, any number of condensers can be employed, for multi R.F. stage assembly. Double bearings, fully adjustable, provide for smooth operation. Rigid die cast frame. Plates are lacquered brass. Provided with single or double hole mounting, and two-hole base mounting. Capacity .00035—17 plates.

No. 9971..... **\$5.75**

## Bruno Compact Tuning Inductances

**\$2.72**  
POSTPAID

Where space is at a premium, but a 100% EFFICIENT coil is to be used, the Bruno No. 99 will admirably serve this purpose. The diameter of this coil is only 2 1/2 inches. It is 3 inches long. The wire is very attractively wound in two colors of orange and green, upon a low loss Quartzite form, assuring a coil of utmost efficiency. There are 12 turns in the primary, 54 in the secondary and 45 in the rotating coil. For .0005 variable condensers. Will tune from 200 to 575 meters. Single hole mounting. Ends of maulted bakelite.



No. 9631

No. 9074 3-Circuit Tuner ..... **\$4.99**

### Bruno No. 99 R. F. Coil

Illustrated—same characteristics as above coil, mechanically as well as electrically, but without a rotating coil, or tickler. Same number of turns in the windings of both the primary of each coil, and secondary thereof, assures equal "logging" on the tuning dial.

No. 9631 ..... **\$2.72**

## Quartzite Winding Form

**\$1.81**  
POSTPAID

Laboratory tests have conclusively proven that these winding forms will assure the least possible losses. Will lend distinction to the appearance of any set. Can be supplied in either a 3-inch diameter with a 2 1/2-inch winding space, or, in a 2 1/4-inch diameter with a 2-inch winding space. Supporting rods made of transparent Quartzite, moulded bakelite ends.



No. 9634 Either size ..... **\$1.81**

## Karas Extended Shaft "Equamatic" Condensers

**\$6.55**  
POSTPAID

Especially designed for use in the Equamatic receiver because of its extended shaft from the rear plate of the condenser. This product is symbolic of the Karas efforts to offer the Radio public the very finest instruments that skilled engineers can design, and patient craftsmen can build. Mathematically designed plates assure perfect S.L.F. results in tuning. Frame is very heavily nickel plated, and substantially formed. Plates are heavy lacquered brass. The shaft revolves with a velvet-like feeling. Extended shaft model only supplied in .00037 Mfd. capacity—17 plates.

No. 9011 ..... **\$6.55**

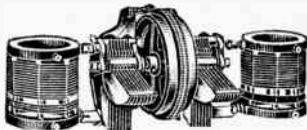


### Other Karas Condensers

No. 8912	5 plate	.0001	.....	\$5.98
No. 8913	7 "	.0014	.....	\$5.98
No. 9459	11 "	.0025	.....	\$5.98
No. 9458	17 "	.0037	.....	\$6.29
No. 9457	23 "	.0005	.....	\$6.55

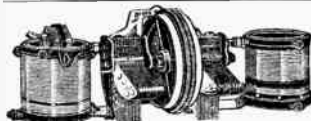
## Bruno Unitune

**\$15.28**  
POSTPAID



This combination represents the very latest improvements in Radio receiver construction. Consists of the Bruno Unitune No. 9635, with two No. 9072 Bruno R. F. Coils rigidly attached thereto. Can be used for two R. F. stages or in any variety of circuits. Tuning range—200 to 550 meters. Its appearance will enhance the appearance of any Radio receiver. Refer to No. 9635 and 9072 for detailed descriptions of condenser and coils.

No. 9637 ..... **\$15.28**



**\$18.09**  
POSTPAID

No. 9636.—Same as No. 9637, only the right-hand condenser holds a standard three-circuit tuner. For Roberts type receivers, or many other similar circuits. .... **\$18.09**

## Bruno Unitune Condensers

**\$9.93**  
POSTPAID

The Bruno contribution to localized controls of multi stage tuning variable condensers has met with deserving praise. As the illustration will suggest, this unit consists of two condensers, both electrically matched yet electrically independent of each other in their rotors. Both dials can be turned TOGETHER with a one dial effect, and then either can be further adjusted independent of the other. Mounts to the panel by means of only two screws which also hold handsome bronze indicating plates. .0005 Mfd. straight line frequency. The plates are of brass and shaped for S.L.F. tuning. The frame is of aluminium and is very durable. The drums are of moulded bakelite, and on the circumference thereof, the dial numbers are clearly engraved. The edges of the drums are knurled for tuning purposes.

No. 9635 ..... **\$9.93**

### Notice

You can adapt your present condensers for localized tuning control, by attaching to them the Bruno Drums (2), panel plate and frame. Takes but a few minutes.

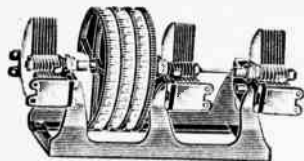
No. 8947 As Described ..... **\$3.45**

### Gentlemen:

I am getting good results with the same condensers I ordered from you several years ago—thus am sending you another order.

WILLIE L. BULLOCK,  
674 Vance St., Henderson, N. C.

## Na-Ald Localized Control Tuning Units



**\$6.65**  
POSTPAID

The Na-Ald Localized Condensers are the latest contributions to the art of radio set building. The tendency among all standard receivers of this season is to localize all the tuning controls, and at a very modest expenditure you, too, can avail yourself of this luxury. All dials can be turned at once, or singly, independent of each other, all within range of your FINGER TIPS. The dial numbers are to be found on the drums, and are handsonely set off in a frame of embossed polished bronze furnished with each condenser. Very compactly made. The drum is moulded of genuine Bakelite, reinforced with cleverly formed "spokes." The circumference of these drums not only furnishes the means whereby the condensers are rotated, but also there is attached thereon, the strip containing the dial readings. As these figures are milled below the surface, they are not accessible to your finger tips, therefore, will not rub off. The drums are milled to allow the finger tips to grip them. The condenser plates are aluminum, and are of the corrected frequency type. The mounting bridge is nickel plated brass. To offset any undue tension at any point on the condenser, several mounting holes are provided, according to the type of condenser.

No. 9711 Double 17-plate .000375..... \$6.65  
No. 9710 Triple 17-plate .000375..... \$8.18  
No. 9713 Quadruple 17-plate .000375..... \$13.45  
No. 9075 Double .0005 23-plate..... \$8.95  
No. 9712 Double .0005 23-plate with tickler  
drum control, for Roberts type circuits, etc..... \$8.95

## Na-Ald Connectorald

**\$1.39**  
POSTPAID



This new UX171 and UX112 storage battery power tubes may be used in your present 2nd stage audio amplifier socket without having to resort to any internal changes of wiring, either to the "C" or "B" battery connections. Any additional voltages applied feed to the power tube only. As this adapter does not raise the tube, it may be safely used in receivers with limited head room. Substantially moulded of bakelite. Connecting wires are furnished with engraved tags with proper designations.

No. 9716..... **\$1.39**

## Isolantite Adapter

**\$0.32**  
POSTPAID



With the advent of the small UX type base tubes, the UX199 and the new power tube—the UX120—and similar types, there are occasions when it is desirable to use these small base tubes in STANDARD SOCKETS. This adapter takes the small base UX tube, and adapts the tube to the standard socket. As it is moulded

of ISOLANTITE, a superior insulating material, it is a pure low loss instrument.

No. 9774..... **\$0.32**

## Bremer Tully Shock Absorber Socket

**\$0.88**  
POSTPAID



Microphonic conditions in a detector tube (and possible in all of the tubes) will cause a steady, monotone hum or roar in the loud speaker. This is caused by the vibrations of the loud speaker, or even passing vehicles, and footsteps in the room, setting the elements within the tube vibrating. To overcome this condition, the side arms of this socket not only absorb these vibrations, but also prevent them from starting. The base is of genuine bakelite. There is a shock absorbing material between the base and U X socket holder. Contacts are positive, yet cause no undue strain on socket studs, thus necessitating no undue jerks to remove the tube.

No. 9868..... **\$0.88**

## Howl Arrester

**\$0.73**  
POSTPAID



The McDonald Howl Arrester is used to eliminate any microphonic tube hum or roar by simply sliding it over and on the offending tube. In principle, the weight of this device and the gripping effect of the stretched rubber tends to stave off any external vibrations which cause the elements of the tube to vibrate in turn, with a resulting hum. This is very noticeable in console cabinets, or wherever the loud speaker is immediately adjacent to the receiver. Particularly effective on detector tubes. Only the best grade of rubber is used in its construction.

No. 9627..... **\$0.73**

## Na-Ald Connectorald

**\$1.25**  
POSTPAID



This Na-ald product serves the same purpose as our No. 9716 Connectorald, only it is solely intended for using the UX120 (the UV199 power amplifier tube) in a UV199 socket. The tube is

raised a minimum amount, as the illustration will suggest. Additional voltages can be directly applied to this tube without disturbing the other tubes in the circuit, or changing their battery requirements. For true reproduction of radio reception, a power tube must be employed, with additional voltages. Durably moulded of bakelite.

No. 9714..... **\$1.25**

## UX120 Na-Ald Connectorald

**\$1.08**  
POSTPAID



This adapter will allow you to use a UX120 or UV199 power tube in any UV201A type of socket. The additional voltage required on the power tube can be applied direct to this tube, without disturbing the battery requirements of the remaining tubes. This socket does not raise the tube. Battery leads are provided with engraved markers for safety.

No. 9036..... **\$1.08**

## New York Midget By-Pass Condensers

For by-pass work we offer a condenser of sterling quality that for by-pass work is unequalled by the best mica condensers yet is available at greatly reduced cost made possible by the employment of especially manufactured condenser paper, vacuum impregnated in a synthetic compound (no wax used) which gives the condenser a very high capacity factor and makes it unaffected by dampness in any climate. Equal in this particular to those moulded directly into bakelite. The special strap clamps employed maintain a constant pressure and afford a most convenient electrical connection. For resistance coupled amplifiers and by-pass work it is unequalled. The price is the same for all capacities ranging from .005 to .1 MFD.



No. 9406 ..... **\$0.41**

## Aerovox By-Pass Condenser

For any service where low impedance path for audio- or radio-frequency current is desired. The by-pass condenser prevents the loss of power in A or B batteries by keeping the fluctuation in the current out of the batteries. Essential in construction of B battery eliminators. Sturdy mechanical construction features this item. The lugs provide for either horizontal or vertical mounting. Finished attractively in black.



Cat. No.	Capacity	Price
9429	.1 mfd.	\$0.43
9430	.25 "	0.49
9431	.5 "	0.55
9432	1. "	0.67
9433	2. "	0.99
9434	3. "	1.59
9435	4. "	2.19

## X-L Vario Densers



**\$0.89**  
POSTPAID

**MAKE POOR SETS GOOD — GOOD SETS BETTER**  
Endorsed and Used by the Foremost Radio Engineers.  
**ALMOST TOO GOOD TO BE TRUE**

**MODEL N**—Capacity range 1.8 to 20 micro-microfarads, for balance in Roberts two tube, Microving-11rake, McMurdo Silver's Knockout, Neurodyne and tuned radio frequency circuits.

**No. 9379** ..... **\$0.89**

**MODEL G**—Two capacity ranges, .0016 to .00055 and .0003 to .001 Microfarads, for the Cockaday circuit, filter and intermediate frequency tuning in superheterodyne and positive grid bias in all sets.

**No. 9380** ..... **\$1.39**

## Hammarlund Equalizing Condenser

**\$0.49**  
POSTPAID



Possessing the distinction of being the smallest variable condenser, this compactness does not rob it of any efficiency; in fact, it has a wider range than condensers many times its size, the above view being about full size—the bakelite base measuring 1 3/16 inches long by 5/8 inch wide. Can be used to compensate for differences between condensers in gang assembly, or for neutralizing oscillations by balancing the R.F. tube capacities. Maximum capacity is 50 micro microfarads and minimum 2 micro microfarads. Base is genuine Bakelite, uses a mica dielectric and a heavy phosphor bronze spring plate. Adjusting the center screw, raises or lowers the top spring plate, causing the variation in capacity. Mounts directly to socket or variable condenser terminals, or can be suspended on any connection wire.

**No. 9052** ..... **\$0.49**

## Aerovox Fixed Con- denser

**\$0.30**  
POSTPAID



Aerovox Fixed Condensers are made of the best grade mica insulation. Genuine bakelite layers. Sealed under pressure. Very popular with leading set manufacturers. Each condenser tested and guaranteed. These are Style 501.

No. 5080	.0001	.....	\$0.30
No. 5079	.00025	.....	0.30
No. 5078	.0005	.....	0.30
No. 5077	.001	.....	0.33
No. 5076	.002	.....	0.33
No. 5075	.0025	.....	0.35
No. 5074	.003	.....	0.41
No. 5073	.004	.....	0.41
No. 5072	.005	.....	0.50
No. 5081	.001	.....	0.61

## Pilot Bakelite Fixed Condenser



**\$0.32**  
POSTPAID

This is without a doubt the best condenser made. It cannot short. Unlike most condensers which are built in layers, permitting solder or flux to

flow in to the condenser to short the mica plates, these condensers are moulded in one piece under 20 tons of pressure. They are made of beautiful brown bakelite. Are 98 per cent perfect in capacity. Each condenser individually tested and guaranteed.

No. 5026	.0001	.....	\$0.32
No. 5027	.0002	.....	0.32
No. 5028	.00025	.....	0.32
No. 5029	.0005	.....	0.32
No. 5030	.001	.....	0.36
No. 5031	.002	.....	0.36
No. 5032	.003	.....	0.45
No. 5033	.004	.....	0.45
No. 5034	.005	.....	0.54
No. 5035	.006	.....	0.63
No. 5036	.01 By-pass	.....	0.81

Gentlemen:

I have received my order sooner than I expected, and I was not sure that it was my order until I opened the package. The time was two days before a letter that I sent the same day I sent the order. I received them in good condition with the RASCO Catalog. In my vacation, just after the examinations, I will order other parts, and I hope to receive them with the quick attention and prompt delivery accorded my first order.

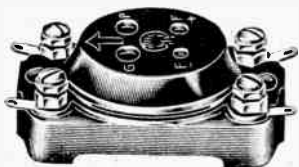
LUIS OUGPIN.

275 Luna Luna Street.  
Binondo, Manila, P. I.



## Cushioned Pacent U X Socket

**\$0.51**  
POSTPAID



This is the last word in socket construction—it is shock absorbing, therefore reduces microphonic sounds and hum. Capacity effects reduced to a minimum. Rugged, side wiping contacts. Bakelite Moulded. Very compact. Either binding post or solder connections.

No. 9602..... **\$0.51**

## "Rasco" Vacuum Tube Shell

Only very heavy brass is used. 4747  
Especially useful to the man who builds his own on account of its four perforated ears. To mount is simple. Drill a hole into your sub-panel the same size of the metal shell opening; the size of this hole being 1 3/8". The socket is then mounted over the hole, while the four contact fingers which come with the shell, are mounted below the panel with screws and nuts. This gives a workmanlike job. It saves you money and your set will look like the factory-made article. Complete with 4 Contact Fingers.



No. 4747 Complete with 4 Contact Fingers..... **\$0.16**

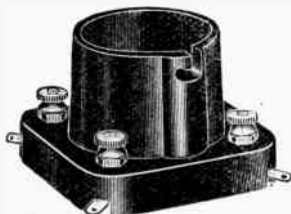
## Vacuum Tube Socket Contacts

These contacts are used in connection with our No. 4717 vacuum tube shell. Made of phosphor bronze and nickel plated. The turned-up lug fits into a small hole which you drill into the panel. After the contact finger has been screwed down by nut and screw it is impossible for the finger to shift sidewise.

No. 4718 Dozen..... **\$0.15**

## Rasco Vacuum Tube Socket

One of the best sockets made. Value unequalled anywhere. Made entirely of heavy composition and of course its use avoids the metallic ring and howling caused by metal sockets. Four springs giving maximum pressure against contact pins. Best finish. Nickel-plated binding posts. If not the best socket you have ever had, return it and your money will be refunded. There may be lower-priced sockets, particularly the porcelain kind, but these are usually worse than useless from breakage and other troubles.



No. 6500..... **\$0.35**

## Carter Adapter

**\$0.48**  
POSTPAID

With this adapter you can use any modern UX type base tube in a WD11 type socket, such as UX199, WX12, UX120 and UX201A.

No. 9715..... **\$0.48**



## Pilot Universal Socket

**\$0.28**  
POSTPAID



Here is a new bakelite socket for UV-201A tubes, with old style bases, as well as for the new UX tubes, both storage battery and dry cell types. Equip your set with these modern sockets and use whatever tubes you please. Equipped with four binding posts for quick and easy connections. Positive wiping contacts, a wonderful socket which you must see to appreciate. Genuine bakelite.

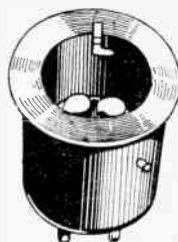
No. 6535 Pilot Universal Socket... **\$0.28**

## Pacent Adapter

**\$0.30**  
POSTPAID

This Adapter is made to place a UV-199 or U-299 tube in the ordinary 201A or 301A socket. The Adapter is made of bakelite throughout and has phosphor bronze contact springs in the bottom of the Adapter, which are carried through the base in slots that serve as a low loss part. Short-circuiting has been eliminated entirely. The best adapter on the market.

No. 6521, Pacent Adapter..... **\$0.30**



## Air Gap Sockets

**\$0.56**  
POSTPAID



No. 9798

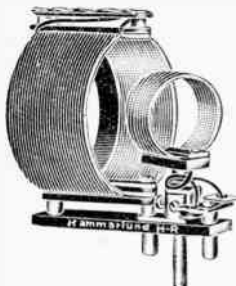


No. 9799

The inherent capacity existing between the grid and plate causes losses serious enough, without further adding to these losses, by using the conventional type of socket, for dust and other foreign conducting agencies can form an electrical path between the grid and plate terminals, impairing the general efficiency of the stage to which that tube is coupled—but, with the Air Gap sockets, this is impossible, for the base is so cleverly moulded that there is NO MATERIAL BETWEEN THE GRID AND PLATE TERMINALS—THEREFORE, THERE CANNOT BE ANY LOSSES. Base is of genuine moulded bakelite, with nickel plated phosphor bronze contacts. The Standard model is furnished with a nickel plated metal shell in which the pin of the Radio tube locks, whereas the U. X. type base will accommodate any radio tube, the prongs of the tube being pushed into the holes provided for them.

No. 9798 Standard Type Base..... **\$0.64**  
No. 9799 U X Base..... **\$0.56**

## Set of Hammarlund-Roberts Coils



**\$6.88**  
POSTPAID

The Hammarlund products are so well established in the minds of every Radio Fan, that further elaborations on their superior craftsmanship is unnecessary. These coils consist of an R.F. Stage or Antenna Coupler, the primary of which is tapped for maximum efficiency for any length aerial, 3 such taps being provided, and a 3-circuit tuner of exceptional efficiency, the primary of which is tapped for proper neutralizing. Both coils are wound on 3-inch diameter films of celluloid, precision space wound, assuring electrical uniformity between both coils. The insulating material is genuine bakelite, upon which are mounted the soldering lugs for all connections. For .0005 23-plate condensers only. For use in any variety of circuits.

No. 9749 Set of 2 Coils..... **\$6.88**

### Hammarlund Neutrodyne Coils

In appearance similar to the coil illustrated on the right, but wound on a 2-inch diameter film of celluloid. Consists of Primary and secondary, the most compact coil made, yet boasts of the Hammarlund high engineering attributes. Correctly tapped for neutralization. Can be used in any tuned R.F. circuit. Can be mounted closer together, with less interstage coupling. Small diameter means less pick-up, therefore helps eliminate interference and broad tuning. For 17-plate .00035 condensers only.

No. 9750 Set of 3 Coils..... **\$6.88**

## 180° Low Loss Three Circuit Tuner



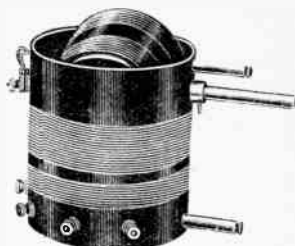
**\$1.69**  
POSTPAID

This coil represents the very best three-circuit tuner that is on the market to-day. It is not only very ruggedly made, but is also very pleasing in appearance, the windings being in two colors and metal parts handsomely nickel plated. Replace your present three-circuit tuner with this model, and marvel at the difference.

Can be used in the Ambassador type circuit, or in conjunction with our No. 9608 R.F. coil in the Roberts, Browning Drake, etc., type circuits. Wound on 3½-inch diameter tubing, 2¼ inches long.

No. 9609..... **\$1.69**

## Three-Circuit Tuner

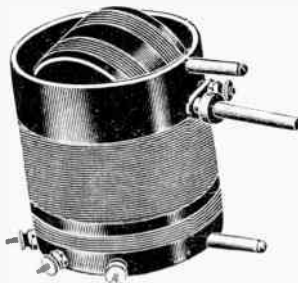


**\$1.45**  
POSTPAID

This three-circuit tuner has fine selectivity. It represents the latest in inductance design, having an untuned primary and a loosely coupled secondary. Its compactness and adaptability permit its use in the Ambassador circuit or any three-circuit receiver.

A fraction of a turn will tune out locals and bring in distant stations, clear and sweet.  
No. 9388..... **\$1.45**

## Balanced Interflex 3-Circuit Tuner



**\$3.50**  
POSTPAID

This special 3-circuit tuner was designed for the Balanced Interflex, as originally designed and described by Mr. Hugo Gerushack, Editor of "Radio News," and used in the Balanced Interflex kit described elsewhere in this catalogue. It can also be used as a standard three-circuit tuner where a .00035 or 17-plate condenser is to be used. If your present three-circuit tuner does not cover the full wave length band of 200 to 550 meters, replace it with this one. Very ruggedly designed and constructed, assuring you every satisfaction. There are 12 turns on the primary, 65 on the secondary and 40 turns on the rotor. Diameter is 3½ inches, 3½ inches long.

No. 9601..... **\$3.50**

## Antenna Coupler or Radio Frequency Coil

**\$1.18**  
POSTPAID

This coil is constructed according to the latest principles of low loss winding, and is highly approved. Primary and secondary are in two colors. For .0005 or 23-plate variable condensers. Can be used to precede our No. 9609 3-circuit tuner (or any other 3-circuit tuner) to convert a 3-tube set into a Roberts or Browning Drake 4-tube circuit. Can also be used as an antenna coupler in multi stage tuned radio frequency circuits, as well as for the radio frequency transformers. Wound on 3½-inch diameter tubing, 2¼ inches long.



No. 9608..... **\$1.18**

### Bruno Compact 3-Circuit Tuner



**\$3.15**  
POSTPAID

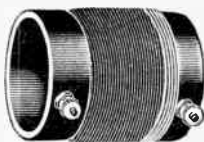
Although extreme compactness has been successfully accomplished in the design of this three-circuit tuner, the Bruno efficiency has not been sacrificed. Measuring only 2 1/2 inches long by 2 1/8 inches in diameter,

this coil can truly be called a baby coil. There are 60 turns in the secondary, 12 turns in the primary and 34 turns in the rotating coil. Designed for .0005 variable condensers. Wound on genuine Bakelite tubing—all metal parts are nickel plated brass.

**\$3.15**

No. 9632 One hole mounting.....

### Bruno Baby R.F. Coil



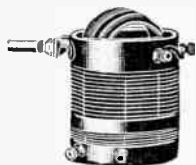
**\$1.88**  
POSTPAID

This small, but very efficient tuning inductance is a silver coil to the No. 9632 3-circuit tuner; in fact, it is the same size and of the same dimensions, only it has no rotating coil embodied within. It may also be used in any tuned radio frequency circuits, where the available space is at a premium. Measures 2 1/2 inches long and is 2 1/8 inches in diameter. There are 12 turns in the primary and 60 turns in the secondary. For .0005 variable condenser. Binding post connections. Wound on genuine bakelite.

**\$1.88**

No. 9633.....

### Rasco Leader Baby Low Wave Coil 3-Circuit Tuner



**\$1.79**  
POSTPAID

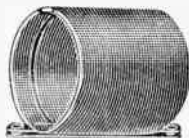
Your first descent into those seemingly mysterious wave lengths below 200 meters will thrill you and well repay you for your labor spent in constructing a SHORT WAVE 2 or 3-tube receiver. The BABY short wave 3-circuit

tuner is ideally suited for receivers of this type, covering a wave length band of 37 to 150 meters, when used with a 23-plate .0005 variable condenser. Its very compactness of size, measuring only 2 13/16 inches long by 2 3/8 inches in diameter does not detract from its electrical efficiency. The primary and secondary windings are bare wire wound, precision spaced. Wound on the least possible amount of insulation, and between machined slots. Fibre tubing used. There are 4 turns of wire in the primary, 14 turns in the secondary and 14 in the rotary coil. Pig tailed connections on rotary coil. Binding post connections. One hole mounting. Nickel plated brass hardware.

**\$1.79**

No. 8830.....

### Compact Air Wound R.F. Coils



**\$0.73**  
POSTPAID

The superiority of the solenoid coil over any other type is conceded. And, being air space wound with no insulation in its field, it is truly a low loss product. Another outstanding feature of this efficient coil is its extreme compactness, measuring only 2 1/4 inches in diameter and 2 inches long. This small size lessens the interstage coupling effects, and greatly reduces external pick up. The primary is enclosed within the filament end of the secondary. The ends of the wire are coiled, and are long enough to be run direct to their proper terminals. Precision wound, thus each coil is electrically matched with every other one. Ideal for use in shielded stages or wherever space is at a premium. Green silk covered wire. Can be used as an antenna inductance, or intermediate R.F. stage transformer. Can be screwed to base board through the heavy celluloid strip permanently attached to the coil. There are 12 turns in the primary, and 79 turns in the secondary—for 17-plate .00035 variable condensers—with which it will cover 200 to 550 meters.

**\$0.73**

No. 9836 Each Coil.....

### 180° Vario Coupler

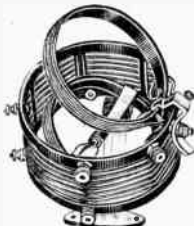


This is one of the best couplers on the market. Can be used for panel and table mounting. The bracket is an aluminum casting. As is the holder which secures the secondary to the coupler. Tubes are natural colored bakelite. Diameter of primary, 4"; height, 2". Diameter of secondary, 3 1/2"; height, 1 1/2". 1/4" shaft used. Two spring binding posts are provided for the secondary winding connections. By means of this, the instrument can be connected as a variometer. Primary has 13 taps. Wave length range, 180 to 550 meters.

**\$2.00**

No. 8150.....

### Bremer-Tully Tuner



The Bremer-Tully Tuner is justly celebrated because of its great merit—its popularity is increasing. Variable secondary and fixed absorption coil. Variation is permitted by adjustable, untuned primary. Wound on skeleton forms. Equipped with pigtailed. Can be used in any 3-circuit tuner. Full instructions.

**\$4.39**

No. 9507.....

### Low-Loss Quartzite Tuner



**\$4.64**  
POSTPAID

The well-known Bruno low loss quartzite tuner. Range 175 to 550 meters. Tickler rotor makes possible tuning without howls. Primary and secondary wound on quartzite glass and insures low losses. Substantially built. Silk wire wound. Pig-tailed.

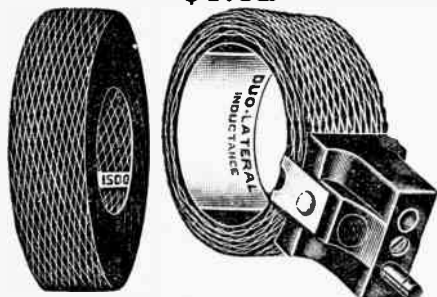
No. 2693.....**\$4.64**

Gentlemen: I was very much pleased with the Vario-coupler you sent me, and also highly appreciate your prompt service in dealing with customers.

LEWIS M. SANDFORD,  
91 Wright St., Newark, N. J.

## Pacnet Duo-Lateral Honeycomb Inductance Coils

**\$1.12** POSTPAID

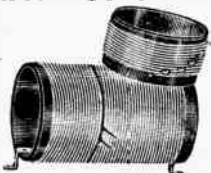


These very popular low-priced machine-wound Inductance Coils satisfy the needs of the amateur experimenter for concentrated inductances, at a very low cost and high efficiency. Compact and easily manipulated. They cover the entire wave length without the dead-end losses which exist when a tapped coil is used. Have low high frequency resistance and low distributed capacity losses. Unequaled. Successive turns of conductor are wound at an angle to preceding turns and spaced therefrom, which gives the coil the cellular structure from which it derives its name. These air cells and the angular dis-marked degree. With the proper condensers these coils will cover the entire range of wave-lengths used in radio. Two leads are brought out from each coil. All sizes are carried in stock as below. The range given is in meters when varied with a .001 Variable Condenser. In considering prices, please remember these are the high grade Pacnet brand.

Turns	Range	Un-Mounted		Mounted	
		No.	Price	No.	Price
25	120-250	5000	\$0.28	5016	\$0.75
35	175-450	5001	\$0.30	5017	\$0.90
50	240-720	5002	\$0.32	5018	\$0.96
75	390-910	5003	\$0.37	5019	\$1.00
100	500-1450	5004	\$0.42	5020	\$1.05
150	600-2000	5005	\$0.45	5021	\$1.10
200	900-2500	5006	\$0.50	5022	\$1.12
250	1200-3500	5007	\$0.53	5023	\$1.20
300	1500-4500	5008	\$0.59	5024	\$1.20
400	2000-5000	5009	\$0.60	5029	\$1.25
500	2800-6100	5010	\$0.70	5040	\$1.35
600	4000-10000	5011	\$0.89	5041	\$1.50
750	5000-12000	5012	\$0.92	5042	\$1.60
1000	7900-15000	5013	\$1.05	5043	\$1.78
1250	9750-18500	5014	\$1.70	5044	\$2.30
1500	14500-26500	5015	\$1.90	5045	\$2.15

## Cockaday Circuit Coils

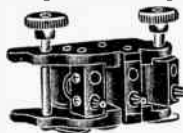
For all Cockaday circuits or similar circuits, using same combination. Three windings, two of the circuits being wound side by side and a tapped winding wound on a separate tube mounted at right angles to the large tube. Wound with great care and is properly calculated to give superior results. Tube especially treated cardboard, highly impregnated to do away with all losses. Not affected by temperature or weather conditions. Wound with No. 18 double cotton covered magnet wire. Tapped coil has seven taps. Two brass brackets for panel or base mounting.



No. 2750 ..... **\$1.89**

## Triple Honey Comb Coil Mount

**\$4.85**  
POSTPAID



Universally used by many ship Radio receivers — because of its never failing accuracy and stability. Center mount (Secondary) remains rigid, and the two end mounts are rotated over a wide arc by two knurled knobs. Flexible leads are brought out to the rear for connections. Moulded of Genuine Bakelite. Ideal for any wave length reception, up to 25,000 meters.

No. 9045 ..... **\$4.85**

## Baby Radio Frequency Inductance Coils



**\$0.47**  
POSTPAID

Most essential in tuned Radio frequency circuits, where the available space for the inductances is very limited. Basket weave construction assures maximum efficiency. Maroon cotton covered enameled wire used. The primary winding is at one end of the coil. Furnished with a fibre mounting insert, for attaching the coil to the rear frame of a condenser, or, to a baseboard, sub-panel etc. Completely air spaced wound. NO DOPE USED TO HOLD THIS COIL TOGETHER, a waxed cord upon which it is wound, taking care of this, assuring low loss characteristics. For .00035 Mfd. 17-plate condensers—range 200 to 550 meters. THIS IS THE MOST COMPACT COIL ON THE MARKET, MEASURING 1 1/2 INCHES LONG and 2 INCHES IN DIAMETER.

No. 8929 EACH COIL ..... **\$0.47**  
No. 8930 Set of 3 coils ..... **\$1.20**

## Low-Loss Coil

**\$1.05**  
POSTPAID

A new low-loss coil especially made for tuned radio frequency work. The same kind as used in the Freshman Masterpiece and many other popular sets. It is completely airwound, and has no dope or cement to keep the wires together; the entire winding is held together by means of wax string. To keep the set from oscillating, a special aperiodic primary is wound in the center of the secondary, which gives best results. The primary is silk-wound, the secondary double cotton covered. To be used with 17-plate or .00035 only. This coil is used for wavelengths between 200 and 550. Total diameter 3", width 1", 5/16" thick. Should be used only with a low-loss condenser. In order to get best results. There are four connections—two for primary, two for secondary. Usually mounted by using two 3/16" hard rubber or wooden rods, which pass through any two of the coil's holes, as is now standard practice.

No. 2628 Low Loss Coil, each ..... **\$0.40**  
No. 2629 Set of 3 ..... **\$1.05**

Gentlemen:

Thanks for your very nice settlement. I must say that the Radio Specialty Co. is absolutely the squarest firm that I ever did business with, and if I can ever do your house a favor in any way I will certainly be glad to do so.

O. STEVENS, Drake, N. Dak.



## Silver Marshall Plug-In Coils

**\$2.43**  
POSTPAID

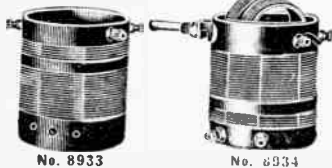


No matter what circuit you may wish to build, or one that you may wish to redesign, the Silver Marshall Plug-In Coils can be used, with superior results. Their qualities of low losses, reduced to a minimum, electrical uniformity, mechanical perfection, extreme compactness, less pick up possibility, least interstage coupling, accessible connections on base, have made these instruments famous all over the World. Their small diameter makes them ideally suitable for use in shielded stages, considering that at least 1 1/2 to 2 inches of space must intervene between the walls of the shield and the outside of the coil. To change from one coil to another, for different band of wave lengths, or, to another circuit, the coils are simply removed, and another substituted. A key section moulded in the coil form must fit into the special slot provided on the base, preventing shorts, wrong connections, etc. Small adjustable rotors, supported on brass springs, and easily adjusted for various conditions, circuits, etc., form a part of every coil. The form and base is genuine bakelite. Due to the ribbed effect on the winding form, the wire merely touches the form at these ribs. Connections to base may be twisted under cap nuts. Can be supplied in any of these 4 ranges:

- A Range 190 to 550 meters C Range 30 to 75 meters  
 B Range 70 to 200 meters D Range 500 to 1500 meters  
 with a 17-plate .00035 condenser.
- No. 9972 Type 110. Stator consists of two equal windings with an adjustable rotor, A, B or C range. Kindly state which range you wish..... **\$2.43**  
 D Range. Type 110..... **\$3.19**
- No. 9973 Type 111. Stator consists of a single winding, with concentrated primary in slot, and adjustable rotor. A, B or C range..... **\$2.43**  
 D Range. Type 111..... **\$3.19**

## The Rasco Leader All-Circuit Tuning Inductances

**\$0.99**  
POSTPAID

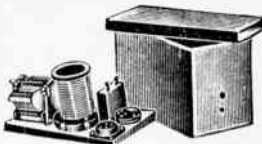


Where space is at a premium and the component parts must of necessity be very small, it is all important that your selection thereof be instruments of proven merit, correctly designed and mechanically durable. The BABY R.F. coil can be used in a variety of circuits, EITHER in conjunction with the BABY 3 circuit tuner, or, with a number of their own type, for neutrodyne, tuned radio frequency circuits, etc. It can also be used as an antenna inductance for super heterodynes, etc. There are 10 turns of wire in the primary and 58 turns in the secondary of both coils, for 23-plate .0005 variable condensers, with which it will cover the broadcast wave lengths from 200 to 550 meters. The rotary coil in the three-circuit tuner has 14 turns thereon, wound on a 1 1/4-inch diameter tube. The primaries and secondaries of both coils are wound between slots, in the latest low loss fashion, with the least possible insulation beneath the windings. Pig tail connection on rotary coil in 3-circuit tuner. Binding Post connections. One hole mounting on 3-circuit tuner—all metal parts nickel plated brass. The dimensions of the fibre tubes are 2 3/18 inches in diameter by 2 15/16 inches long.

No. 8933 BABY R.F. COIL..... **\$0.99**  
 No. 8934 BABY 3-CIRCUIT TUNER..... **\$1.79**

## R.F. Stage Shields

**\$2.00**  
POSTPAID



Although primarily designed for use with Silver Marshall apparatus (as used in their new Shielded Six) these total shielding boxes may be adapted to your own specific requirements. Stage shielding prevents interstage coupling, and also completely eliminates "outside pickup," greatly assisting in the final selectivity of your receiver. Made of aluminum. Note that the cover and side walls are removable. Measures 7 1/2 inches long, 5 inches high and 3 3/4 inches wide.

No. 9969 (Shield Only) ..... **\$2.00**  
**Collapsible Total Shielding Boxes**

The sides and ends of this cleverly designed shield are notched and grooved, thus can be slipped in and out of their positions, for immediate access to any part of the R.F. stage, for repairs or minor adjustments thereto without the walls of the shield in your way. All the input and output wires are led through the base section, which has sub-pressed holes provided for this purpose—you merely have to push these holes wherever they are most convenient to your requirements. By bolting a piece of copper bus bar wire to the bottom section, a hole also being provided for this purpose, all negative filament and ground leads can be soldered thereto. Multi stages of radio frequency amplification are only possible with these shields—ideal also for oscillators in super heterodynes, wave traps, etc. Made of aluminum—measures 3 3/4 inches long, 5 1/2 inches wide and 6 1/2 inches high. Will thus contain a complete R.F. stage consisting of coil, variable condenser, socket, neutralizing or by-pass condenser, etc. Dial and even rheostat can be mounted on front section, eliminating a bakelite panel, and cabinet, if so desired. Total stage shielding is now used in all commercial receivers—keep abreast of the times, and completely shield your receiver.

No. 9970 One Complete Stage Shield **\$2.88**  
 —7 Sections ..... **\$2.88**

## Steinite Interference Eliminator

**\$0.85**  
POSTPAID



Where the selectivity in your radio receiver is not all it should be, either through adverse conditions, such as too close proximity to local broadcasting stations, long aerials, etc., or, due to a broad tuning receiver, the insertion of this wave trap between the aerial binding post and the aerial lead-in wire will greatly improve the selectivity, by adjusting the small knob in the center thereof. No alterations in the wiring of your receiver are necessary, nor does this instrument require an additional tube, batteries, etc.

No. 9927 ..... **\$0.85**

## Sterling Microdenser

**\$0.89**



The variations in tandem condensers can be compensated for with these very efficient midget condensers. In fact, they are to be used wherever a balancing condenser is suggested. Ideal for neutralizing. They are so compact, measuring 1 inch by 1 1/2 inches, that they can be wired directly to the desired connections. Mica insulation used. Adjusts by screw in center. Can only be varied by a screw driver—adjustment remains constant. Maximum capacity approximately 5 micro-microfarads. Nature of construction assures lowest possible minimum capacity.

No. 9924 ..... **\$0.89**

## Karas Equamatic Coils

### Set of Three

**\$10.88**

POSTPAID

Long the dream and hope of every serious Radio engineer, at last it is possible TO MAINTAIN A CONSTANT EQUAL TRANSFER OF ENERGY between the primary and secondary inductances NO MATTER WHAT WAVE LENGTHS ARE BEING TUNED.

The conventional radio frequency coil has a fixed coupler, limiting its effective transfer of energy, through the rigid coupling employed, to a narrow band of wave lengths—and all wave lengths above or below this band proportionately receive less of this desired transfer of energy. The primary coil is wound on a special form with a metal sleeve variably attached thereto, which is slipped over the extended shaft of the Karas variable condenser No. 9011, and therefore describes an arc in accordance with any adjustments made to the condenser shaft. The secondary coil is mounted to the sub-panel, and is also variable, in angular position, with respect to this arc described by the primary, making possible further coupling effects. This equal transfer of energy assures a strong, clear and wonderfully pure signal, on any station being received, and also tends to eliminate overlapping of electrostatic and electromagnetic fields. The primary is wound on a 2-inch bakelite tube, with 14 turns of wire. The secondary consists of 60 turns of wire on a 2½-inch bakelite form. Complete with mounting screws, flexible leads, etc., and directions for building Karas 5-tube Equamatic receiver.

No. 9009 Set of Three Coils..... **\$10.88**

### Karas Retard Coils

Essential in the grid circuit of R.F. stages in a Karas receiver, these shielded, compact coils permit the tubes to operate higher on their characteristic curve, without producing oscillations.

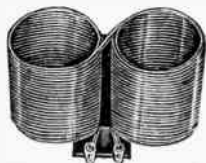
No. 8910 Set of 2 Retard Coils **\$1.88**

### Karas Equamatic Sub Panel Brackets

Essential in Karas Equamatic receiver, to insure mechanical accuracy of mounting of parts, greatly affecting electrical efficiency.

No. 8911 Set of 3 Brackets..... **\$0.68**

## Benjamin "Lekeless" Transformers



**\$3.15**

POSTPAID

This is the most ideal coil to use in any Radio frequency circuit, for it has uniformly high inductance, low distributed capacity and low resistance. It is "Leke-

less," for its figure 8 shape assumes a very close field, preventing the ever ruinous feedbacks and power leakage. Neutralization is very easily affected because of this, and no special angles or minimum distances between centers of coils need be employed. Precision space-wound by special machinery assuring an electrical uniformity. Minimum of insulation is used in the field of these coils. Covers entire broadcast wave length band with a .00035 condenser. Makes a very attractive appearance for the wire used is double silk green covered. Much more efficient than the toroidal principle, for a solenoid is conceded to be the ideal inductance. Equipped with special taps if used as an antenna inductance for best results on various length antennas.

No. 9852..... **\$3.15**

## Bremer Tully Torostyle

### Transformer

**\$3.59**

POSTPAID



This is the coil that has made the Bremer Tully Counterphase Power-Six the success that it is. It is a laboratory product—the result of many years of experimentation. The outstanding features are the almost entire elimination of inter-stage coupling effects and signal pick up, due to its closed field. The 7 binding posts on this instrument are cleverly arranged for simplified wiring. Frame is of moulded bakelite. Can be supplied in Type TA for antenna coupler, TC for intermediate R.F. stages and Type IA for 4-tube sets. Kindly state which type you are ordering.

No. 9934 Each Coil ..... **\$3.59**

## Benjamin Tuned Radio Frequency Transformers

**\$5.15**

POSTPAID

Benjamin products are synonymous with high quality apparatus. These coils are unquestionably of the most efficient type, being air spaced basket basket wound on air—no dope, or any tubing is employed therein. The primary is inserted within the secondary, at the filament end thereof. Can be used as an antenna coupler, being tapped for long and short antenna, or as a Radio frequency transformer in any tuned R.F. circuit. If neutralizing is required in the circuit, a special tap will take care of this. Bakelite insulation. Soldering lugs. Low loss design. 3-inch diameter. Wound with heavy green silk covered wire—looks as good as it is efficient. Will cover 200 to 550 meters with a 17-plate .00035 mfd. condenser.



No. 9851 Set of 3 coils..... **\$5.15**

No. 9850 Individual coil ..... **\$1.95**

## Benjamin Compact Radio Frequency Transformer

**\$1.85**

POSTPAID

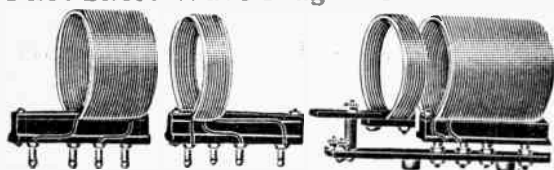
This coil differs from the 3-inch diameter model Benjamin Radio frequency transformers in its extreme compactness, due to its very small diameter of only 2¼ inches, and, in this type transformer, the primary and secondary coils are on the same plane, the capacity coupling being thus reduced to a minimum. Very essential where space is at a premium. For .00035 mfd. condensers—17-plate, with which it will cover from 200 to 550 meters.



No. 9846 Individual coil ..... **\$1.85**

No. 9847 Set of 3 coils ..... **\$4.99**

### Pilot Short Wave Plug-in Coils



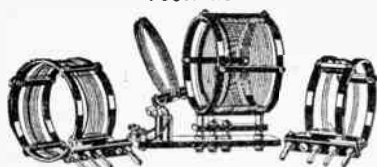
As soon as you reach ZERO on your present variable condenser dials, you reverse them, for "there is nothing beyond that." But were you to really know the "new worlds" that are yours to explore and delve in below the 200 meter wave length band allocated to amateurs and numerous high powered broadcasting stations all over the world, you would immediately re-align your receiver, to incorporate within it the above plug-in coils. And being instantly changeable, you can work your way (from as low as 19 meters right back into the regular broadcast band of 200 to 600 meters. It is no uncommon occurrence to pick up European stations—and it is most thrilling to listen to two amateurs conversing across the continent—they are all good fellows, too, for they want you to "listen in" and write them, with your report as to their reception in your town. Mechanically and electrically these plug-in coils have no superior. The mounts are solid bakelite, with the plugs and receptacles (the jacks) moulded within. The coils are air space wound, 3 inches in diameter, and practically self-supporting. The primary coil is adjustable for correct coupling advantages. The secondary and tickler are on the same interchangeable piece. Overall length of base 7 1/2 inches. The same primary coil is used no matter what wave length band you may be tuning—the secondary (with tickler attached) is the one that is removed, and the next higher or lower wave length range coil substituted. Must be tuned with an 8-plate variable condenser, as, for instance, our Pilot Nos. 8902 or 8911, or Patent 7-plate 8903. Either of these condensers will not only cover the lower waves, but will cover the 200-600 meter bands, with, of course, the proper coil. The fixed tickler coil must be tuned with a 11-plate condenser, to control regeneration, with the capacity feed back principle. Note that we can supply space wound coils 3 inches in diameter by 11 inches long wound with number 24 D.S. #1 wire 32 turns to the inch, and another coil wound with number 18 S.C.C. wire, 13 turns per inch. Set builders find them extremely useful in making their own plug-in coils, or in fact, any form of solenoid coil for any purpose.

- 1 Coil used as the primary, including main base.
  - 1 Coil Range 19 to 58 meters, including plug.
  - 1 Coil Range 38 to 105 meters, including plug.
  - 1 Coil Range 86 to 220 meters, including plug.
- Pilot Short Wave Kit consists of:

No. 9838 Complete ..... **\$8.23**  
 No. 9842 Range 200 to 600 Meters, Fits Same  
 Base as Supplied with Primary  
 Coil in No. 9838 ..... **\$2.23**

### Aero Short Wave Tuner Kit

**\$10.62**  
 POSTPAID



#### Completely Interchangeable

Constructed with strict accordance with low losses. Inductances are space wound on special forms and bases with provision for immediate removal to change over to another wave length band. This kit covers 15 to 130 meters.

No. 9604 (Set of 3 Coils) ..... **\$10.62**

### R E L-R.F. Choke Coil

**\$1.04**  
 POSTPAID



The correctly designed choke coil, single layer wound with No. 30 D.C.C. paraffined wire on a neatly finished black bakelite tube. Connections to screws or soldering lugs. Mounts in any convenient position by means of screw. Will safely carry 1000 milliamperes. Inductance .9 Mil Henrys. D. C. Resistance 3.1 Ohms. Measures 4 1/2 inches long, 3/4 inch diameter.

**\$1.04**

### Bremer Tully Short Wave Outfit

**\$7.63**  
 POSTPAID

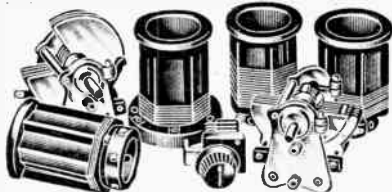
Short wave reception depends entirely on the quality of apparatus used—the Bremer Tully engineers, mindful of this fact, have produced this kit, which is without question one of the most efficient short wave outfits. Consists of a variable rotor wound on a bakelite tube, and four interchangeable coils, wound on special bakelite forms, with the least possible amount of insulation within the fields thereof—the turns are precision space wound. The coils cover the following ranges of wave lengths: 12 to 25 meters, 25 to 50 meters, 50 to 100 meters and 100 to 200 meters. Designed for a 7-plate .00015 mfd. condenser.



No. 9853 As Described and Illustrated ..... **\$7.63**

### Silver Marshall Short Wave Kit

**\$19.97**  
 POSTPAID



Consists of 4 coils which will enable you to tune in all stations broadcasting on wave lengths from 18 to 150 meters, the plug-in feature of these coils making this choice of various wave length bands a moment's work. Kit also comprises two .00011 Mfd., Silver Marshall Type 317 variable condensers and one antenna coupling condenser .000025 Mfd., Silver Marshall No. 310, and one Special 6 terminal base, with a slot allowing the plugs in coils to be inserted in only the correct manner. A harmonious assortment of well designed and engineered products, made to work with 100% efficiency in conjunction with each other. Condensers are most ruggedly made and are mounted upon a frame for base board or panel mounting. Plates are lacquered brass. Adjustable for tension on both front and rear bearings. Coil forms are solid bakelite. Complete directions accompany each kit. Licensed under Armstrong Regenerative patents No. 1,113,149.

No. 9629 Complete Kit as Illustrated ..... **\$19.97**

**Emcotran Transformer****\$2.49** POSTPAID

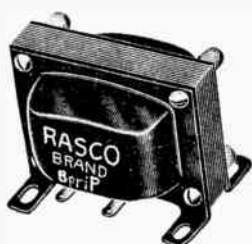
Windings are No. 40 wire—carefully layer wound highly insulated, reducing tendency to open circuit, vacuum impregnated to insure against

short circuits and changes in characteristic due to moisture. Laminations in the core of very thin rolled silicon steel so designed and assembled to insure even distribution of flux through entire magnetic circuit and low core losses. Connections plainly marked upon each transformer opposite the terminals.

Each transformer individually tested before the Emco guarantee tag can be attached. Coils have a surplus current carrying capacity—ample for any reweaving tube. Insulation has been carried out to the last degree—not only between coils, but also between coils and all metal parts.

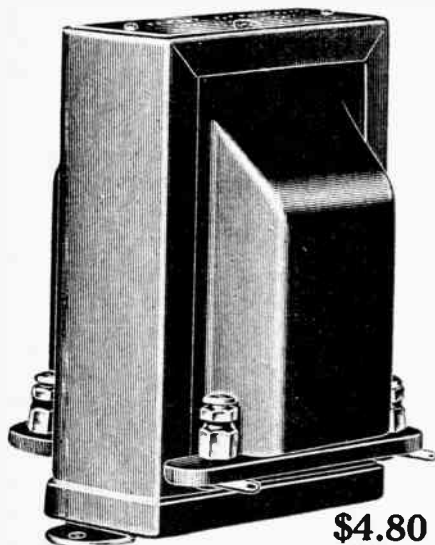
Uniform voltage amplification throughout the entire range of musical frequencies. The flatness of the Emeotran amplification curves throughout this range guarantees distortionless performance. Very compact. Provided with convenient holes in the base for mounting in any position.

No. 9503 Ratio 3 to 1...\$2.49  
No. 9568 Ratio 5 to 1...\$2.69

**Rasco Transformer****\$1.50** POSTPAID

This is made for us by the makers of the Emeotran described above and is of the same general character of construction. Very efficient and very low in price. Guaranteed by the manufacturer and us to be satisfactory.

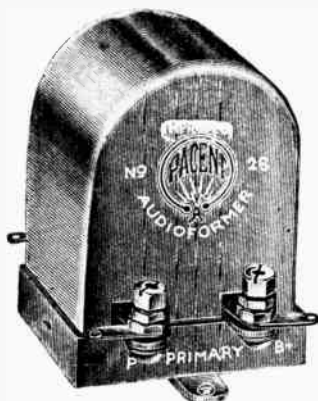
No. 9502 Ratio 3 to 1...\$1.50  
No. 9567 Ratio 5 to 1...\$1.60

**Pacem Super-Audioformer****\$4.80**  
POSTPAID**A 4-inch Miniature Power Plant**

The growing requirement for finer musical values in broadcast reception, causing a tendency for larger transformers, has resulted in the development of this giant brother of the Pacem Audioformer.

The ratio is 3 to 1—high enough for energy amplification of 500 to 1 per audio step (using 201A tube or equivalent) and yet low enough that higher frequencies are not distorted. Uniform amplification down to 100 cycles and up to 5000 cycles. Especially designed with power amplification requirements in mind, with insulation to stand plate potentials up to 500 volts.

No. 9372 Input Superaudioformer...\$6.05  
No. 9361 Unshielded Type...\$4.80

**Pacem Audioformer**

The Improved Audioformer, of striking and unique appearance, gives an exceptionally high degree of amplification over entire band of sound frequencies. Ratio of 3½ to 1 permits use in either first or second stage of audio frequency amplification without distortion and reaction. Case grounded to base. Binding posts located at bottom thus keeping wiring close to base below level of sockets. Size 2½" high, 2¼" wide.

No. 2811, Mounted...\$3.75

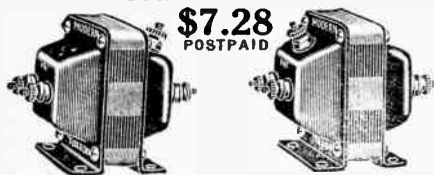
**Pacem Output Transformer**

For true and faithful reproduction of reception, an output transformer is used with voltages of 135 and over on the last audio stage. In fact, its use is imperative, for voltages of 135 and over, to keep the harmful D.C. currents out of the loud speaker windings. Can be attached outside of cabinet in a few minutes. Stands 4 inches high, and has the same physical characteristics as our No. 9372 Input Superaudioformer.

No. 9600...\$6.05  
No. 9273 Unshielded Type (Same dimensions as No. 9361)...\$4.80



### Modern Push Pull Transformers



**\$7.28**  
POSTPAID

When power amplification is employed, distortion immediately enters into the reproduction, even if power tubes are used. However, with a pair of push pull transformers, this condition is impossible, due to the important part they play in the audio circuit. The two transformers represent one stage of amplification (always replacing the last audio stage) and are used with 2 bulbs, preferably of the power type, as for instance, our Mogul Musselman tube. Each transformer measures 2 inches wide, 2 1/2 inches long and 2 1/2 inches high.

No. 9146 Per Pair (2 transformers) **\$7.28**

### F M C Double Impedance Audio Amplifier Units

**\$4.89**  
POSTPAID

Herein have been combined all the good features of audio frequency amplification transformers, and of impedance coupled transformers, by a very ingenious system, requiring no different wiring than a straight audio frequency transformer. It quadruples the power output of audio tubes, because grid currents are permissible, with no magnetic coupling. The volume is practically unlimited, and there is no tube blocking, due to the condenser discharge through the inductance. The high value of inductances causes all frequencies to be faithfully reproduced. The quality is perfect—a straight amplification curve being possible. Any number of stages may be used without howling. Enclosed in black, crystallized metal cases, all terminals clearly designated on bakelite insulation strips.



No. 9981 One Complete Stage..... **\$4.89**

### Polymet 3-Stage Resistor Kit

**\$3.49**  
POSTPAID

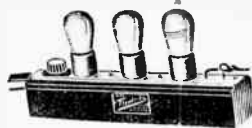
This extremely low price is no reflection upon the quality of these instruments included in this resistance coupled amplifier kit—the quality of reproduction and the volume is truly comparable to that of kits selling for considerably more money. It offers the convenience of compact assembly in a mechanically more desirable manner. Correct resistances and blocking condensers included, together with detailed instructions. Connections to terminals may be soldered to special lugs provided, or twisted under the nut and bolt. Resistor bases are genuine Bakelite, all metal parts nickel plated. Resistors and condensers are of Polymet manufacture, and are thus fully dependable. Represents splendid value.



No. 9674 3-Stage Resistance-Coupled Amplifier.  
Complete ..... \$3.49  
No. 9675 4-Stage Resistance-Coupled Amplifier.  
Complete ..... \$4.79

### Na-Ald Truphonic Amplifier

**\$17.97**  
POSTPAID



This radically different and better amplifier employs a new system of coupling which balances the essential coupling elements.

distortion is pre-empted and perfect reproduction is assured—yet, enormous volume is produced, and every frequency in the audible range is given full value in the reproduction thereof. It is not to be confused with any other system or form of amplification. Can be attached to your present receiver in a few minutes by means of a special cable furnished for the "A" and "B" battery connections, plus one simple additional connection to your receiver. Only three tubes are employed after the detector tube. The addition of this amplifier to your set transforms it into one that would sell for over one hundred dollars, for the total quantities will be the finest possible. It is attractive enough in appearance to be set outside of the cabinet, yet compact enough to even be installed within. The casing is of lacquered steel. The radio tubes fit into a genuine highly polished bakelite socket strip on which is also mounted a rheostat and phone tip jacks for the output. Size 12 1/2 inches long, 2 1/2 inches wide and 2 1/2 inches high.

No. 9709 Amplifier, including **\$17.97**  
cable, but no tubes.....

### Remler Infradyne

**\$21.29**  
POSTPAID

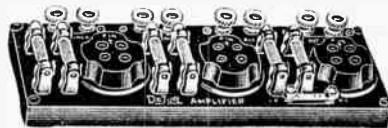
The heart of the Remler Infradyne Receiver. An entirely new principle Radio frequency amplifier.



Unlike Super Heterodynes, it profits by all the advantages to be obtained by amplification of multi-tube short wave stages. Complete within itself—consists of Remler sockets, Remler coils, special vernier condensers and fixed mica condensers, assembled in a highly polished lacquered copper, shielded casing. Can be wired into the cabinet of a set you will build, or can be set outside.

No. 9669..... **\$21.29**

### De Jur Resistance Coupled Amplifier—Assembled



Bottom View

**\$5.95**  
POSTPAID

A three-stage non-inductive resistance coupled amplifier, reproducing tonal qualities second only to your actual presence at the broadcast studio. Entirely moulded of Genuine Bakelite. U.X. sockets are adaptable to old U V type and new U X type. Connections (see illustration) are not soldered—no screws—nor no bolts; all connections are metal RIVETED STRIPS, assuring noiseless operation. Fool-proof. Productive of good volume with no distortion. All connections lead to patent blind-nut posts, plainly marked. Hook-up book included. Overall size is 3 1/2 inches by 8 1/2 inches.

No. 9644..... **\$5.95**

## "Rasco" Radio Frequency Transformer



**\$1.10**  
POSTPAID

R.F. Amplifying Transformers are coming into use more and more every day, as with the use of them distances can be covered not possible to do without their use. When compared to audio frequency amplification, radio frequency does not give as much amplification, for the simple reason that the purpose of a radio frequency amplifier is not to boost up the sound, but to increase the sensitivity of the outfit tremendously, thereby enabling the owner of the receiver to pick up distant stations that could never be heard with audio frequency amplifiers alone. Remember this motto: "Radio for Range—Audio for Audibility."

Our Radio Frequency Amplifying Transformer, which has been developed and designed for us by Mr. Robert E. Lacault, former Associate Editor of RADIO NEWS, is the latest word in this style of Transformer. Air core type.

Will give good results with any vacuum tubes now on the market, but it is recommended that "hard" tubes be used. It should be remembered the efficiency is greater than that of any iron core type on the broadcast band of wave-lengths.

The secondaries and primaries lie side by side in five grooves, reducing the capacity between windings. The diagrams Nos. 46, 49, 51 (in rear of catalogue), show how to connect our transformers to form a one, two or three stage radio frequency amplifier. The dotted lines mark the point where the circuit of an ordinary receiver should be cut to insert the radio frequency amplifier.

When an outside aerial is used, one or two stages of radio frequency are sufficient. For long distance reception with a loop, three stages should be used although within 10 or 20 miles from a broadcasting station, one or two stages are enough even with a loop. In connecting the amplifier, make all connections as short as possible and solder all contacts.

Our illustration is full size. The transformer has a central screw with an insulating bushing, as shown, so that it can be mounted on a panel or base, using but a single screw for attaching. Sold on a money back guarantee, if it is not all that we claim for it.

No. 2800 250-600 meters size, 1 7/8" x 2 1/2" ... \$1.10

### Acme Reflex Transformers



There has been a growing tendency recently to employ two or more tuned R.F. stages with an untuned detector stage instead of the conventional tuned detector stage. Thus, one condenser is eliminated, as well as one control. As the name implies, this transformer can also be used in a Reflex circuit.

No. 9368 .....

### Resistance Coupled Transformer



No. 1127

**\$0.85**  
POSTPAID

The latest in resistance coupled amplification. Complete information furnished. Sold complete with condensers and resistances or mounting alone.

No. 1125—Double resistance coupled mounting only ..... \$0.85

No. 1126—Single mounting only for condenser and resistance ..... \$0.38

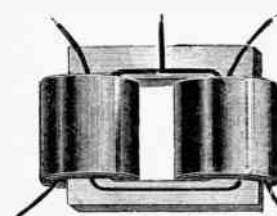
No. 1127—Complete resistance coupled amplifier, double mounting, Dubilier condenser, with resistances required ... \$2.57

### Daven Amplifier Kit

For 3 stages of amplification. Supplied (without sockets) for those who prefer self-assembly. All resistors and grid leaks included. Contains three Daven No. 42 Resisto-Couplers fitted with coupling condensers of proper capacity.

No. 9350 ..... **\$7.60**

### Push-Pull Transformers



This is a new push-pull transformer for many new circuits. See any radio magazine or text book for circuits. Tremendous increase in the volume without distortion can be obtained. Most audio - frequency transformers distort the sounds. By means of these transformers not only is all distortion done away

with but a tremendous increase in sound volume is gained. We furnish a complete set of directions. For best results two of these transformers should be used. This Push-pull transformer is made in all respects as our No. 1100 transformer except that two coils are used. Full directions for assembling are furnished. We guarantee results. The ratio is 6 1/2" to 1". Dimensions, 2 1/2" x 3"

No. 1159 ..... **\$2.25**

Gentlemen:

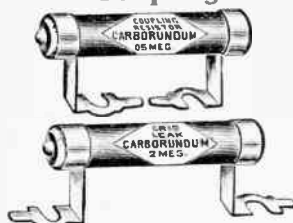
Sometime ago I ordered a set of your verniers. Wish to state that we were more than pleased with them, but the part that pleased us most was the prompt shipment. You no doubt have received quite a few orders from Gatun that can be traced back to that first order. Some of your radio and audio transformers are incorporated in sets here. Will you please send a copy of your catalog. G. D. POOLE. Gatun, Canal Zone.

Gentlemen:

Just a few lines to let you know I received the Rice Phones O. K. and find they are very powerful, as they give a clear tone. Thanking you for the favor—wishing you success.

JAS. A. SHERMAN, Wappingers Falls, N. Y., P.O. Box 75

### Coupling Resistor



**\$0.33**  
POSTPAID

The Carborundum grid leaks and resistors do not depend on any metallic film, but instead are made in the electric furnace, wherein a rock-like substance is obtained, and used as the actual resistance. They

will never disintegrate, and thus will never change their values or produce any noises. Note the unique mounting clips. You may fasten one of them directly to the grid terminal on the socket, and the other to the filament in the circuit used. The clips can be bent at any angle to accommodate all possible mechanical conditions—in fact, they can be bent so as to even allow this lead to fit into the conventional mounting clips of grid leak condensers. The slots in the clips are much more satisfactory than holes, for they permit more accessible mounting. The following values in grid leaks can be supplied, and your order should state just which ones you wish:  $\frac{1}{2}$ , 1, 2, 3 and 5 megohms.

No. 9077 ..... \$0.33

#### Resistors

No. 9078	100,000 (1 meg.) Ohms.....	\$0.33
No. 9079	50,000 (.05 meg.) Ohms.....	\$0.33

#### Note

The 50,000 Ohms Resistor is generally recommended for the plate circuit of 201A Type tubes, whereas the 100,000 Ohms Resistor is favored if you are using Hi Mu Tubes in your Amplifiers.

### Carborundum Stabilizing Unit

**\$3.39**  
POSTPAID



The stabilizing unit is an electrically controlled Carborundum detector, and is adaptable to all circuits, as the detector impedance, being adjustable by a very high resistance potentiometer and flashlight battery shunted across same, exactly matches the particular circuit requirements. Regulation is possible within 1/100th of a volt. There are provided clips for snapping in place the flashlight battery, a built-in mica condenser, a carborundum detector. Control may be effected from the panel, or unit can be mounted on a baseboard. Bakelite knob is supplied with white engraved arrow. Bakelite frame. Nickel plated brass. Only two connections required—same as any crystal detector. Overall dimensions: 2 1/2 inches wide, 3 1/2 inches long, extends 2 1/4 inches from rear of panel. No. 9639 (Without Flashlight Battery)..... \$3.39  
No. 8979 Flashlight Cell for Above..... \$0.35

### Poly Claro Plug



**\$1.29**  
POSTPAID

This plug gives your loud speaker reception new life. It eliminates all raspy noises and some distortion without changing a wire in the receiver itself.  
No. 9676 ..... \$1.29

### Bretwood Variable Grid Leak

**\$1.35**  
POSTPAID



We can heartily recommend this variable grid leak, as its merits warrant it. It has a smooth, noiseless variation of from 0 to 10 megohms. A cartridge type leak is never a cure all, but the Bretwood admirably solves the problem. The proper adjustment of your grid leak will bring in the most elusive distance stations with surprising volume and clarity. One hole panel mounting.

No. 9445 ..... \$1.35

### C. R. L. Modulator Plug

**\$2.24**  
POSTPAID



Give your loud speaker half a chance to prove its merits—perhaps it needs but the above plug shunted across its terminals to clarify the reproduction.

Replaces your present plug—the knob, when adjusted, will match the impedance of your loud speaker to the output impedance of your radio receiver, and also acts as a very effective volume control. Composed of genuine bakelite base, with bakelite knob and engraved white arrow thereon, and highest quality bakelite sleeves in the plug itself. Will fit any standard jack.

No. 9677 ..... \$2.24

### Daven Leakandenser

**\$0.89**  
POSTPAID



Where space is at a premium, this combined Daven grid leak and grid condenser is essential. It can be either soldered to the proper terminals with the soldering lugs furnished, or snapped into any standard resistance mount, and connections made to the latter. End caps are highly polished nickel plated brass and are threaded for a 6-32 nut. The cartridge is enclosed in a glass tube. Condenser value .00025—usual leak resistance furnished is 2 megohms—although we can also supply it with a 3 or 5 megohm leak.

No. 9006 ..... \$0.89

### Ayanbee Battery Tester



**\$0.68**  
POSTPAID

Measuring only 7 1/4 inches long. The walls of the float are covered with studs which thus prevents the float from sticking against the sides of the hydrometer.

No. 9866 ..... \$0.68

### Bell Wire

**\$0.34**  
POSTPAID



A very universally used form of wire. A plentiful supply of this should always be kept on hand. It is made of No. 18 B. & S. copper with double cotton covered insulation, heavily impregnated with a coating of paraffine. Can be used for a temporary lead-in wire—as an aerial for portable sets—for battery connections—for wiring a receiver—for winding certain forms of inductance coils, etc.

No. 9746 50-foot Roll..... \$0.34  
No. 9035 1/2 pound Roll..... \$0.49

## Amperite

**\$0.95**

POSTPAID

The self-adjusting rheostat. It does away with the common, adjustable rheostat, and in addition, prevents burning out of tubes. Regular price \$1.10.

- No. 9288 Type 1-A, for UV-201A or C301A or 201A on 6 volts.....\$0.95  
 No. 9185 Type 6-V for UV-199 or 299 dry cell tubes on 6 volts.....\$0.95  
 No. 9510 Type 4-V for UV-199 or 299 on 4 or 4½ volts.....\$0.95  
 All other types same price.

## Adjustable Grid Leak

**\$0.85**

POSTPAID

Employs a unique principle, which eliminates all sliding or pressing contacts. Free from microphonic noises. 1 3/4" in length and 3/8" in diameter. The glass cylinder, which is hermetically sealed, contains a smooth, heavy resistance liquid. As the grid leak is turned, the electrodes engage the liquid and it responds instantly, giving an accurate range from 1/2 to 5 megohms, adjustable to the exact value for tube circuit and signal. It is easy to operate—mounts in any standard grid leak clips. Its our regular grid leak mountings, No. 1509. These brackets are included in the price, and therefore constitute a complete unit. Nothing else to buy. We are the only company selling this turnable grid leak at the regular price, including the mounting.

- No. 5743 Adjustable Grid Leak with Mounting, complete.....\$0.85

## Pilot Bakelite Grid Condenser

**\$0.35**

POSTPAID

Best condenser on market. Fully moulded. No shorting. Moulded brown bakelite covers the entire resistance. Prices on condensers without grid leaks.

- No. 5182 .0001 Mfd.....\$0.35  
 No. 5183 .00025 Mfd.....\$0.35  
 No. 5184 .0005 Mfd.....\$0.35

## Lynch Metallized Fixed Resistors

**\$0.43**  
POSTPAID

Metal long has been recognized as the best electrical conductor—in a grid leak a certain unwanted electrical charge must be led from the grid of the tube to which it is connected and the Lynch resistor has no equal for this purpose, as it employs a CONDUCTIVE, non-arcing metallized resistance on a glass core, sealed within the outer glass tube. It is warranted absolutely noiseless, permanently accurate and forever dependable. Specify resistance wanted.

- No. 9687.....\$0.43  
 5-4-2-1-.5-.25 megohms  
 No. 9688.....\$0.64  
 1 or .05 megohm  
 No. 9689.....\$0.85  
 .005 or .002 megohms

## De Jur Grid Leaks

**\$0.19**

POSTPAID

We offer you a very dependable grid leak in the De Jur, for it will never change its electrical value. Absolutely moisture proof, air tight, and noiseless. Soldered caps assure permanency of mechanical construction. Laboratory tested to within 5% calibrated value. Supplied in the resistance values: 1/4, 1/2, 1, 2, 3, and 5 megohms.

- No. 9645.....each **\$0.19**

## Carter 4 Ohm Resistance

**\$0.13**  
POSTPAID

The most compact automatic rheostat on the market, and the most inexpensive. Just as effective as more costly and bulkier type. Wherever the filament setting is not critical, as in audio stages, the bulbs can be controlled by this simple resistance of 4 ohms. Eylets at either end provide for accessible mounting direct to terminal on socket, or a nut and bolt may be slipped on. Can be bent to any mechanically convenient angle. Measures only 1 15/16 inches long.

- No. 9663.....**\$0.13**

## 700 Ohm Pilot Adjustograd

**\$0.45**  
POSTPAID

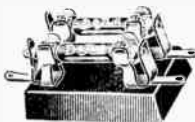
Various circuits call for resistances being connected in series with the grid circuits, to eliminate any self-oscillation. The Pilot Adjustograd is ideally suitable for this purpose, having an adjustable slider and contact arm, allowing for various capacities to produce the proper setting thereof, eliminating all squeals and howls. Screw cap terminals or soldering lugs. Fibre base. Measures only 2 3/4 inches long. Two holes for mounting directly to base board, condensers, sockets, etc.

- No. 9910.....**\$0.45**

## De Jur Resistor Unit

**\$1.38**

POSTPAID



Do not judge the quality of this complete resistance amplifying unit by its low price. The quality of reproduction possible in resistance coupled amplifiers is obtainable in full degree with this unit. Mechanically and electrically well designed. Moulded bakelite base. Patented phosphor bronze clips, heavily nickel plated, gripping the resistors at all points of contacts. The condenser is moulded in the base, and is therefore not subject to atmospheric conditions. Complete with De Jur Soldered Cap resistors. Kindly state which type you are ordering—For 1st Stage, 2nd Stage or 3rd Stage.

- No. 9641 1 Stage, Complete.....**\$1.38**

## Single Resistor Mounting



Moulded of Genuine Bakelite. Patented nickel plated phosphor bronze clips so designed that they grip the cartridge all around, insuring ever perfect contact. Can be used as an independent grid leak mounting, or for any other purpose involving a tubular device. Soldering lugs facilitate connections.

- No. 9642 Without resistor.....**\$0.24**



### Pilot Rheostat

**\$0.46**

POSTPAID

Consists of an oversize resistance winding on genuine moulded bakelite support. Slider is integral with special rotating bushing and rheostat knob shaft adjustable in and out for different panels. Locking means provided so positive that knob cannot loosen when once set. Threaded inserts moulded into body for panel mounting screws. Equipped with genuine bakelite knob with white arrow.



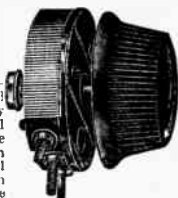
No. 1309 6 ohms .....	\$0.46
No. 1315 10 ohms .....	0.16
No. 4415 20 ohms .....	0.46
No. 1316 30 ohms .....	0.16

### Pilot Bakelite Potentiometer

**\$0.81**

POSTPAID

Consists of a rugged high resistance winding on a moulded bakelite form. The slider of heavy spring phosphor bronze is integral with its own bushing so that the correct adjustment is not lost when the knob is removed. A novel clamping means is provided which permanently locks the knob to the slider when in position. Threaded inserts are moulded into the body for the panel mounting screws.



No. 4313 200 ohms .....	\$0.81
No. 4314 400 ohms .....	0.81

### Pacnet Rheostats and Potentiometers

**\$0.59**

POSTPAID



The smooth-running Pacnet Rheostat is popular because it is different and better. Its efficiency and unusual beauty appeal to every radio user and to set manufacturers too, for you will find it on many well-known makes of receivers. Because of the two-unit construction the contactor and winding assemblage need never be disturbed. Thus the adjustment of the sliding contactor is carefully and permanently made at the factory. Will pass 1 1/2 amperes continuously without danger. The core and base will not crack or warp. 3/16" shaft.

Moulded composition base; black knob with silver dial.

No. 9416 Rheostat, 6 ohm .....	\$0.59
No. 9417 Rheostat, 10 ohm .....	\$0.59
No. 9418 Rheostat, 20 ohm .....	\$0.59
No. 9419 Rheostat, 30 ohm .....	\$0.59
No. 9420 Potentiometer 200 ohm .....	\$0.59
No. 9421 Potentiometer 400 ohm .....	\$0.59

### Carter "Imp" Rheostat

**\$0.89**

POSTPAID



Everyone knows that Carter-made goods are high class, and this rheostat is no exception. The smallest made. Diameter is 1 3/8" and it projects 3/4 of an inch back from panel. Metal parts nickel plated. Wide contact arm maintains constant pressure. 1-hole mounting. Includes knob.

No. 9371 6 ohms .....	\$0.89
No. 9511 25 ohms .....	0.89

### Filkostat



One of the best devices for controlling the filament current. Has shown its ability to give an absolutely accurate control of any tube on the market. This makes it possible to set the detector current at exactly the correct point for best results. With C-501A and 201A detector this is a great advantage, as it helps to bring in the distant stations with great clearness. Made with special resistance element that is constant in resistance and almost indestructible. Due to its fine current regulation, adopted exclusively by us in our "Balanced Interflex" set.

No. 9921 .....

### Carter Imp Potentiometer

**\$1.11**  
POSTPAID

This potentiometer, a sister to the Carter Imp Rheostat family, is unique in that it is the most compact instrument made of its type, yet it retains the same 100% efficiency to be found on much larger ones. Same size as the Carter Imp rheostats. Furnished in either 200 or 400 ohms. Diameter 1 3/8 inches, and projects only 3/4 of an inch from back of panel .....



..... \$1.11

### Carter Hi-Ohms Volume Controls

A non-inductive, variable wire wound resistance, same dimensions as Carter Imp rheostats. Invaluable wherever a volume control is essential. Furnished in 500, 000, 300,000, 200,000, 100,000, 50,000, 10,000 ohms. Diameter 1 3/8 inches. Projects 3/4 of an inch from rear of panel.

No. 9665.....\$1.79

### Amsco Double Rheostats

**\$1.13**  
POSTPAID

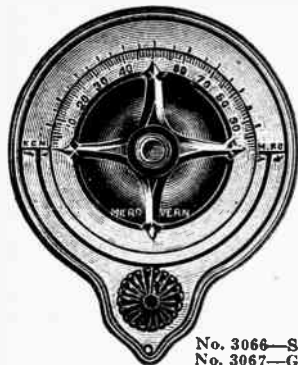


This most unique rheostat serves a double purpose—it enables you to install two rheostats of like or different resistance, in the space ordinarily occupied by one—and, accordingly localizes the adjustment controls thereof. Various combinations in resist-

ances can be adopted to your specific requirements; for instance, you may control the R.F. tubes with one knob, and the detector tube with the other. Occupies no more space than the conventional form of rheostat. A quality product—durably moulded of bakelite. The knobs are knurled for convenient gripping thereof, and embossed arrows guide the direction of adjustment. Screw terminal connections.

No. 9869	Combination 6 and 20 ohm .....	\$1.13
No. 9870	Combination 6 and 30 ohm .....	\$1.13
No. 9871	Combination 20 and 20 ohm .....	\$1.13
No. 9872	Combination 20 and 30 ohm .....	\$1.13
No. 9873	Combination 30 and 30 ohm .....	\$1.13

## Pacnet Microvern



**\$1.50**  
POSTPAID

A super tuning device. A vernier dial for extremely sharp tuning. No gears. No backlash. Permits permanent logging and direct reading of stations by name, wavelength or frequency. 5 to 1 vernier ratio. 4 1/2-in. diameter and provides an electro-static shield. Rakette knob. Easily attached.

No. 3066—Silver finish \$1.50  
No. 3067—Gold finish . . . 1.50

## Bakelite Knob

Highly polished bakelite—brass bushings solidly moulded within. Steel set screws. Diameter 2 inches.

No. 8907 Bushing threaded for 8/32 screw . . . . . \$0.13  
No. 8908 Bushing with 1/4 inch diameter hole . . . . . \$0.13  
No. 8909 Same as No. 8908, with white arrow, as illustrated. . . \$0.18



**\$0.13**  
POSTPAID

## Cornell Dial



**\$1.47**  
POSTPAID

This beautiful dial must be seen to be fully appreciated. It is finished in an unusually attractive, antique gold finish, and is etched embossed. Its vernier action, of 9 to 1, is so positive, there is no trace of back lash, even if it is turning a heavy double or triple condenser, nor will it slip. The Cornell Vernier Dial will modernize any radio set.

No. 9779 . . . . . **\$1.47**

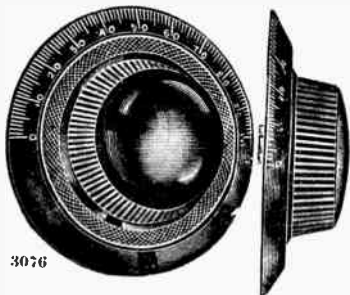
## Pilot All Bakelite Vernier Dial

Closely resembling the above Cornell dial, preference may be shown to the Pilot Art Dial due to its being almost completely moulded of genuine black, highly polished Bakelite. A very attractive design is beautifully embossed thereon. The shank which receives the shaft of the condenser is highly nickel plated—a steel set screw therein locks the shaft. A full 360-degree scale is provided—upon a white background are printed the dial settings reading from 0 to 100—and on a black background are printed in white letters, the dial settings from 100 to 0; therefore, the dial is adaptable to clockwise, and counter clockwise rotation. The vernier action is accomplished by a friction drive—always positive—never any back lash or microphone noises always incidental to gears. Diameter of hole in shank is 1/4 inch. Diameter of tuning knob is 1 inch. The outer surface of the dial protrudes 3/8 of an inch from the panel—the total depth from the knob to the panel is 1 1/4 inches. Overall dimensions are 3 1/4 inches at the widest portion and 4 inches long.

No. 8850 . . . . . **\$0.95**

## "Rasco" Molded Dials

**\$0.20** POSTPAID



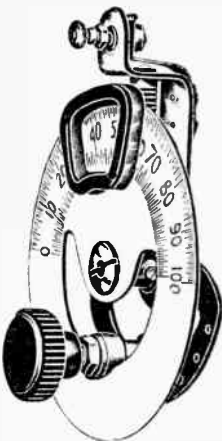
3076

These one-piece composition molded dials are the latest word in design, high grade throughout. The lettering and figures are inlaid in brilliant white enamel. The metal bushings are very heavy and will always remain firm, and the entire dial will sit positively true. The illustration shows the slight boss at the back of the dial, which makes the dial stand off from the panel about 1/16" so that the rim will not grind against the panel. Beveled edges. 3/4" bushings used. Set screw included. By using our No. 8886 adapter dials will fit a 3-16" shaft.

No. 3074, 2" Dial . . . . . \$0.20  
No. 3075 3" Dial . . . . . \$0.25  
No. 3076 4" Dial . . . . . \$0.30

## Illuminated Vernier Dial

**\$1.71**  
POSTPAID



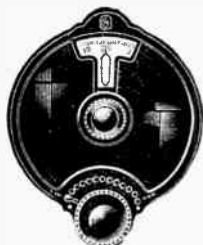
This latest improvement over pre-existing forms of vernier dials, is not only extremely useful, but also transforms the appearance of any home-built receiver to that of the very latest models, and gives to it a certain professional-like appearance, greatly enhancing its resale value—if you build Radios "on the side." It consists of a well printed scale on translucent celluloid, the numbers of which are 1/2 of an inch in height, showing from behind an attractive panel window, upon which is etched a very fine marker, for dial settings. Placed directly behind this "transparent" scale is a 6-volt, very small consumption (1/10th of an ampere hour) bulb, which is wired, through its socket, directly to the

plus and negative leads of your "A" battery within the receiver. When this bulb is lit, a most pleasing appearance is effected, for the light appears in a soft glow from behind the dial readings, making possible tuning entirely without any strain on the eyes, as would be the case were the general lighting effects in the room objectionable. To cut out this bulb, the switch on the top of the dial is used. The vernier action provides for "razor sharpness"—there is no back lash, or play, for a smooth friction drive is employed. Diameter of scale is 5 1/2 inches Bakelite knob used. All metal parts are brass, and the switch is nickel plated. Black figures against a white background.

No. 8672 Without Bulb . . . . . \$1.71  
No. 8920 Special Mazda 1/10th Ampere Bulb for Above . . . . . \$0.20

### National Velvet Vernier Dial

**\$2.47**  
POSTPAID



This dial truly represents the last word in vernier type construction for it has several very valuable and unique features embodied therein. The vernier action is positively noiseless, and will not produce any microphonic disturbances due to any gears, back lash, etc. The vernier ratio is also variable by a simple lever adjustment, located immediately above the operating knob, from 8 to 1 to 20 to 1. The latter ratio is certainly of great value when in the quest of long distance reception. Furthermore, there is provided a dual range, from 0 to 100 and from 100 to 0 to accommodate any tuning instrument, in its manner of rotation. This dial can also be supplied reading 0 to 200 or 200 to 0 in a 360° type—this must be specified in your order. Four-inch diameter, highly polished black Bakelite, with black figures clearly legible against a white background. No. 9648 Combination 0 to 100 and 100 to 0.....**\$2.47**

### Kurz-Kasch Vernier Aristocrat Dial

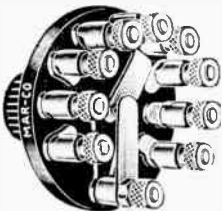
**\$1.79**  
POSTPAID



In this newly offered dial, no gears, chains, nor bands are employed. The shaft end of the instrument which it is tuning is not visible, but instead, a beautifully polished rounded Bakelite surface graces the panel front. The dial attaches to the shaft of the instrument to be tuned by the famous Kurz Kasch Split Bushing method. Friction action employed—with a spring ever ready to compensate for wear—vernier ratio 14 to 1. Readings are visible through a port hole in upper section of a dial. The outside of the dial is hand-machined in a very decorative effect. Four-inch diameter.  
No. 9984 200 to 0.....**\$1.79**  
No. 9098 0 to 200.....**\$1.79**  
No. 9097 100 to 0 to 100.....**\$1.79**

### Mar-co Inductance Switch

**\$0.90**  
POSTPAID



These switches can be used for varied purposes other than as a vario coupler tap switch. A special celluloid panel mounting numbered dial plate is included. The base is genuine Radion, and all the metal parts are handsomely nickel plated. Requires only one hole to mount.  
No. 9720.....5 point.....**\$0.90**  
No. 9721.....7 point.....**\$1.15**  
No. 9722.....9 point.....**\$1.15**

Gentlemen:  
My order arrived safely and in good time. Thanks.  
B. W. ELLIS, Jr.,  
124 6th Ave., McKeesport, Pa.

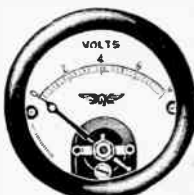
### Jewell Panel Mount Meters

**\$8.10**  
POSTPAID



The trade mark "Jewell" on any current measuring device is an immediate assurance of its superiority over any other such instrument. In the double reading types, the voltage condition of both your Storage and "B" batteries can be instantly determined on the panel. The milliammeters are used to determine how much "B" battery is being consumed, as well as a check on distortion. The serious Radio fan cannot afford to be without these gauges. Black Japanned Cases. No. 9650 Double Reading—0 to 7.5 volts and 0 to 150 volts. Two-inch case diameter. With wide flange front panel mounting. Self-contained switch with an automatic off position.....**\$8.10**

**\$6.55**  
POSTPAID



No. 9651 Same type as No. 9650 but with narrow cup-shaped flange, with back panel mounting. The 7 1/2-volt scale is always in the circuit, a built-in push button on meter being used to read higher voltages....**\$7.80**  
No. 9652 8-volt meter, same mount as No. 9651.....**\$6.55**  
No. 9653 0 to 25 Milliammeter.....**\$6.55**  
No. 9654 0 to 50 Milliammeter.....**\$6.55**

### Sterling Panel Meters

**\$2.97**  
POSTPAID



To obtain good Radio reception and long life for the radio tubes, the adjustment of rate of current flow from both the A and B battery voltages must be measured—not guessed at. An inexpensive and dependable means of checking this information at will, on your panel, is the use of Sterling Meters for this purpose. They may be left continuously in the circuit, or, in some instances, must be switched on and off, either by means of a push button provided on some models or by throwing a switch intended for this purpose. These meters are furnished with silver etched dials. The diameter of the body proper is 2 inches, and of the rim, 2 3/4 inches. Back clamp mounting included. No. 9690 Combination D.C. Voltmeter 0 to 7 1/2 volts and 0 to 150 volts.....**\$4.09**  
Supplied with Built-in Push Button.  
No. 9691 0 to 8 volts.....**\$2.97**  
No. 9692 0 to 150 volts.....**\$2.97**  
No. 9693 0 to 15 Milliammeter.....**\$2.97**  
No. 9694 0 to 50 Milliammeter.....**\$2.97**  
No. 9695 0 to 3 Ammeter.....**\$2.97**  
Numbers 9693 and 9694 with push button built in can be furnished for \$0.50 additional.

Gentlemen:  
I would like to say you have the lowest prices of any catalogue, so am enclosing my order.  
FRANK HANKINSON,  
c/o A. C. L. Rwy. Co.,  
Savannah, Ga.

## Rasco Special Phones



Here is a pair of phones that you could not duplicate in most stores for less than \$5.00. Yet our price is only a fraction of as much. We are in the heart of the best radio market in the United States and buying opportunities come to us which never come to the dealers less fortunately located. This is why we can offer you such a bargain as this and the many others you will find in this catalog. Take these phones at our low price and if they do not excel other phones at higher prices, or you are not fully satisfied, return them and we will refund your money. This applies as well to everything we offer.

These phones not only act the same as those more costly, but their appearance and construction are first class. The caps are of moulded composition, nicely finished. The headband is easily adjustable and comfortable. The cord is five feet long. In many homes several of these inexpensive phones could be used enjoyably attached to the one radio receiver.

- No. 2237, 2,200 ohms..... **\$1.99**
- No. 2238, 3,000 ohms.....\$2.23

## Rascophones



Remarkable for distance and clearness, especially when you consider the small price. 2200 ohms, 550 to each coil. Five foot cord. Extra light headband. Feels good on the head.

- No. 9493 ..... **\$3.49**

Geemen:

I received the "B" Battery in very good condition. It is the best battery that can be bought for the price. It is a lot better than I expected it to be. In the future you may expect more orders from me.

MR. CLEMENT PACK,  
131 Broad St., Menasha, Wis.

## Brandes Matched Tone Phones

**\$3.70**  
POSTPAID

No brand of phones is better or more favorably known than Brandes. This is because Brandes phones are always uniform in quality and we are able to offer them at very reasonable prices. Easy headbands. The windings are evenly matched which produces even tones. The cord is extra long, being six feet. You are always safe in choosing a Brandes.

- No. 2031, Superior model, 2,000 ohms... \$3.70
- No. 3037 Navy Type 3000 Ohms... **\$4.94**



## Frost Phones

**\$2.40**  
POSTPAID

This brand needs no introduction. Frost is one of the oldest telephone manufacturers and his product is good. The shells in these phones are of moulded bakelite. The headbands are light and comfortable. The tone quality is very satisfactory to all users.

- No. 9366 2,000 ohms, aluminum shells .....\$2.40
- No. 9365 3,000 ohms, aluminum shells ...\$3.10
- No. 9361 3,200 ohms, bakelite shells....\$4.93



## Double Phonograph Adapter

**\$0.65**  
POSTPAID



The body of this double phonograph adapter is moulded of polished hard rubber, and will adapt itself to any pair of head phones placed under the metal straps. The reception flows through the two channels, and issues forth at the nozzle, which will fit any standard phonograph, with or without a rubber bushing.

- No. 1320 .... **\$0.65**

## N & K Phones

Distinguished by remarkable clearness of tone and extreme comfort. Magnets of specially selected metal wound by an entirely new method which guarantees uniformity and long life. Extremely sensitive diaphragms 2 1/4 inches in diameter. This greater diaphragm area, together with the scientific design of the sound chambers, is responsible for the clear, natural tone. Highly polished hard rubber ear caps, accurately machine threaded to insure correct seating of diaphragm. Casting of rigid brass heavily nicketed. Head bands covered with genuine leather. Six feet of strong cord. 4000 ohms.

- No. 9412 ..... **\$6.95**



## Cone Speaker Units

**\$2.95**

POSTPAID



A cone speaker consists of a conically-shaped diaphragm, commonly termed a cone, made of cover stock, medium weight blotting paper or any material with very little grain in it, a coupling device, called an apex, which locks the end of the unit's stylus, receiving the vibrations thereof and in turn imparting them to the cone surface, which, when thus set in motion, reproduces the broadcast sounds with uncanny fidelity. In addition there is the unit proper. The unit we offer you (above illustrated) is constructed along principles recognized as theoretically and mechanically perfect. In fact, it will enable you to assemble your own Cone speaker, equal in efficiency, volume, clarity, fidelity of reproduction, etc., to the highest priced speakers—for, herein, lies the secret of any good cone: A PERFECT UNIT. Massive tungsten steel permanent magnet. Step down leverage of placement of stylus rod assures concentrated energy, producing tremendous volume. Ohmage is 1300—and the impedance will match the average receiver. Several tapped holes allow for various mounting positions. Armature (flapper upon which is attached the stylus) correctly adjusted between pole pieces. Pole pieces and armature are Norway Iron. Will operate successfully at 90 volts or up to 600 volts.

No. 9783 (As illustrated) ..... \$7.85

No. 9785 Competitive model—for voltages not exceeding 157 ..... \$2.95

No. 9784 Cone Apex, consisting of two conical caps (30° pitch)—bushing with center hole for stylus—threaded vertical hole—knurled screw for locking stylus to apex bushing—and 8/32 hexagon nut ..... \$0.69

### How To Build An Efficient Cone Type Speaker

Prepared by an expert on this subject, its contents imparts to you, in simple language, complete detailed information for building a cone speaker you will be truly proud of. This knowledge will not only save you money on your own cone speaker, but you will then be able to make them for your friends, putting dollars into your pockets.

No. 9098 ..... \$0.50

## Ultraphonic Phonograph Reproducers

**\$8.35**

POSTPAID



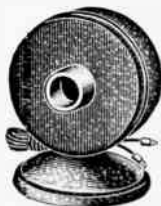
Although this instrument has no connection with radio apparatus, we are listing it for the improvement that this type of reproducer makes possible in the tone reproduction of ANY phonograph, is correlative to the trend of universal adaptation of cone speakers, for Radio reception—they both reproduce the lowest, the medium and highest registers of the full musical scale with startling fidelity. The special diaphragm used in this reproducer IS ONLY AS THICK AS A HUMAN HAIR—it is a scientifically proportioned aluminum alloy, blended from Manganese, Silicon, Iron, Copper, Zinc, Magnesium, Nickel and Aluminum. A most pleasant surprise awaits you on your first audition thereof—takes but a moment to install.

No. 9094 ..... **\$8.35**

## Utah Loud Speaker Unit

**\$9.03**

POSTPAID



Admirably suitable for attachment to either a loud speaker, or phonograph tone arm. It is capable of tremendous volume, yet clarity dominates the reception. Will respond to the lower and higher frequencies better than any other loud speaker unit. Employs a corrugated metal diaphragm, larger than others. Balanced armature type. Extremely powerful electro magnet insures extreme sensitivity on distance reception. Black crystallized case—phone cord furnished. Diameter 3 inches.

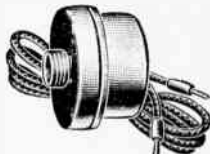
No. 9793 Without stand ..... \$8.48

No. 9792 With stand, as illustrated ..... **\$9.03**

## Baldwin Type "H" Unit

**\$7.03**

POSTPAID



Baldwin's reputation for loud speaker units and other reproducing devices was founded on merit alone. The type "H2" above illustrated represents the culmination of many years' experience.

The approved balanced armature is employed, actuating a specially laminated aluminum diaphragm, which will counteract any tendency to blasting, and render this unit sensitive to weak impulses. High quality workmanship—and high quality materials. Polished aluminum case. Durable phone cord included. Best value.

No. 9781 ..... **\$7.03**

## Dulce-Tone Radio Phonograph Attachment

**\$8.95**

POSTPAID



The objection to attaching phonograph loud speaker units to the tone arm is the fact that the vibrating box holding the needle must be removed for Radio reception, and vice versa, should you wish to use the phonograph. But now it is possible to have immediate access to either form of entertainment, for, in using the Dulce-Tone phonograph attachment, the needle of your vibrator box is simply rested in the special recess provided on this instrument, in the manner shown. The vibrating reed in the unit is set in motion by the electro magnetic response of same to the audio output of your Radio receiver, and these vibrations, imparted to the phonograph mica diaphragm, produce the most mellow and sonorous reception possible, due to the acoustically perfect tone chamber employed within. Adjustable type of unit. Phonograph may be in any room of the house, apart from the Radio, connected therewith by an extension cord of appropriate length. Crystallized metal case—phone cord included.

No. 9893 ..... **\$8.95**

### N & K New Loud Speaker



The Acoustic principle is "All directional." Sends the sound out equally strong on every side. TONE is exceptionally clear, natural, pleasing, with excellent volume. MATERIAL used is a scientific material that counteracts false sound vibrations, keeping the tone pure, clear and natural. FINISH is black "crackle" effect with simple, beautiful floral decoration. ADJUSTABLE UNIT an entirely novel design of N & K adjustable bi-polar unit. Large permanent magnets, with coils and pole pieces mounted on platform carried by plungers with over-size bearing, insure perfect alignment in every position. 2 1/4-inch diaphragm. SHAPE is original, suggesting a square-cornered jar with four feet, resting on a square, beveled base. SIZE is: height, 9 inches; base, 6 1/2 inches square. Very compact. No. 9387 Model S ..... **\$8.25**

### "Rasco" Senior Special Loud Speaker Unit



**\$2.27**  
POSTPAID

Loud speaker unit combines mellowness of tone with ample volume. It has been scientifically constructed to produce true tone without rattling or distortion. Tone may be varied by adjusting screw. Comes with bushing for connection to phonograph with rubber connector. It is specially built of cast aluminum and brass. Many \$15.00 units cannot compare with it for volume or clarity. No. 9384 ..... **\$2.27**

### Other Popular Loud Speaker Units

No. 9408 Amplion A-R 67	\$17.10
No. 9409 Music Master A-R 35	27.75
No. 9407 Tower Scientific	3.95

### "Rasco" Junior Special Loud Speaker

Cannot be equalled in tone quality or volume by many other high grade speakers even at twice our price. It is the same as the "Rasco" Senior Special except not quite so high in size. Attractively finished in black stipple. Bell diam. 9 in. Horn height, 19 in. Noted for great volume. Complete with 5-foot cord. No. 9351 ....

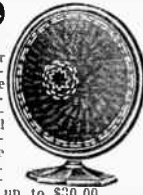
**\$5.95**



### Cone Loud Speaker

**\$12.50**  
POSTPAID

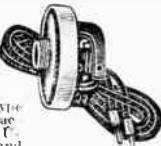
This loud speaker is made of parchment or wood fibre on the same principle as the Western Electric loud speaker. It is adjustable. Capable of great volume. This same quality usually sells up to \$30.00. No. 9376 ..... **\$12.50**



### Baldwin Phonograph Unit

**\$4.99**  
POSTPAID

This is the type H-1 unit characterized by its circular notes and clear tone. It is balanced in the center. Its beauty and volume of tone and its response to all frequencies of high notes and low notes make it a unit to be greatly appreciated and desired. The price is much lower than formerly. The unit comes complete with cord. No. 9382 ..... **\$4.99**



### "Rasco" Nonpareil Loud Speaker Unit

**\$4.99**  
POSTPAID

We give it to you as a positive fact that this unit is equal in merit to those used in many loud speakers retailing up to \$25.00 or more. The tone quality is rich and mellow and will please you. You are always safe in choosing any of our offers as every article is good value. No. 9373 ..... **\$4.99**



### Melotone Loud Speaker

**\$13.80**

POSTPAID

Every receiver of two or more tubes, and some 1-tube sets, should be equipped with a loud speaker, so all the folks may hear and enjoy the program. We have selected the Melotone as representing more value per dollar of price than any other speaker we know of. It is called "The Peak of Perfection" in tone, clarity and volume. It will give you perfect service in our "Interlex" set or used in connection with any set made. The height is 24 inches, and the diameter of bell is 12 inches. Has a beautiful helio finish. Fully guaranteed by manufacturer and us. No. 9131 ..... **\$13.80**



### Adjustable Table Talker

You will be surprised at the beautiful tone quality and volume coming from this celebrated low priced loud speaker compared with those at higher prices. 22 inches high. Fully guaranteed by manufacturer and ourselves. No. 9233 Reg. Mod. **\$8.93**



### Other Popular Loud Speakers

No. 9402 Amplion A-R 19	\$39.50
No. 9403 Amplion A-R 14	25.95
No. 9404 Amplion A-R 111	22.25
No. 9405 Kodol Microphone	17.97
No. 9101 Tower Scientific	8.50
No. 9144 Tower Meister-singer	15.00

### Baldwin Type "C" Loud Speaker Unit



Every one knowing anything of radio knows of the high quality of every Baldwin product, especially the most popular of loud speaker units. The diaphragm is unique, being corrugated, producing superior effects in tone and volume. Sure to satisfy you. No. 9381 ..... **\$4.85**

**Spartan Cone Loud Speaker**

**\$11.77**

POSTPAID

Exceptionally pleasing in tone, and covering the entire musical scale with excellent volume, this popular priced cone speaker is heartily recommended for replacement of your present type of horn speaker, or, as one of the accessories of any of our kits and assembled receivers. The bass notes, lacking in a horn speaker, are reproduced herein with surprising fidelity—and at all times, perfect clarity dominates the reproduction. It is unusually pleasing in appearance—the artistically formed frame (acting as a sounding board), the mahogany and gold PITH WOOD CONE PARCHEMENT and mahogany rubbed base give this speaker its distinctive appearance. Note that the actual vibrating surface of the cone is WOOD, only found on speakers selling for \$35.00. And the semi-balanced armature disc unit is a triumph of present day improvements in reproducing units. Dimensions: Height 15 1/2 inches, diameter 13 3/4 inches.

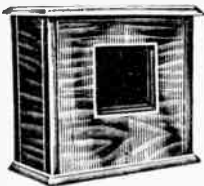


No. 9998..... **\$11.77**

**Cabinet Loud Speaker**

**\$8.57**

Free from all metallic blasting and possessed of a sonorous, natural reproduction, this speaker is proving a boon to all its satisfied users. There is no metal used in its construction (except the unit)—the throat, chamber and cabinet being made of specially selected Douglas Fir wood, and supplied in the natural finish—you can stain and varnish it in any color—full directions furnished. The square horn opening is covered with colored silk. Overall dimensions are 12 1/2 inches long, 6 3/4 inches wide and 13 1/2 inches high. Very good quality loud speaker unit included, ready attached. Shipped direct from factory in Illinois via express collect.



No. 9813..... **\$8.57**

**Utah Book Type Cone Speaker**

**\$17.40**

POSTPAID

This most unique speaker has rapidly come to the fore, and is now being sold in the same quantities as the conventional "cone" type of speaker—for it combines not only a most attractive appearance, but also, delivers a quality of reception second to no other speaker. Resembles a book, lying on a table, with its pages spread open, slightly arched—and upon these "pages" there are most attractive colored etchings depicting wood-land scenes. The actuating unit is concealed beneath these "pages"—there is no visible evidence of its being anything else BUT A BOOK! Can be set on a table, or stood up on a mantelpiece, etc. Measures 17 1/4 inches wide by 13 1/2 inches high—about two inches thick at the widest point. It will prove a revelation to you.



No. 9987..... **\$17.40**

**Laminated Wood Loud Speaker**

**\$11.95**

Without a doubt, this instrument represents the very finest loud speaker that can be purchased, irrespective of extravagant claims made for other horn types selling for even double the price of ours. After much extensive research, conducted by acoustical engineers and famous directors of music it was found that the Laminated Wood used in the bell of these speakers was conducive to the quest of every manufacturer of Loud Speakers, namely: TONE PLUS VOLUME. But, they did not stop here! Not yet satisfied, they culled the entire industry to select the loud speaker unit that would best adapt itself to the ideals and high measure of standards set for this speaker. There was only one choice: THE BALDWIN CONCERT TYPE UNIT! Is it any wonder then that this speaker enjoys the reputation it has earned, solely on its merits? The size of the bell is 12 inches, the height of the bell and throat is 15 inches, and the total overall height is 21 inches. The base is made of cast metal appropriately patterned and finished. The throat is cast aluminum—the recognized material for this purpose. Shipped direct from factory in Wisconsin, express collect. Shipping weight 10 pounds.



No. 9995..... **\$11.95**

**Saal Eccentric Cone Speaker**

**\$22.78**

POSTPAID



The eccentric construction of the cone diaphragm creates a natural reproduction of all tones, due to the higher notes vibrating to their best advantage on the short radii of the parchment (note that the apex is not set in the exact center of the cone, as is the usual procedure) and conversely, the lower base notes receive full justice on the longer sides of the parchment. The logic of this system of cone construction can be more readily understood by reminding you of the length of harp or piano strings, with their shortest ones reserved for the highest notes and their longest strings for the bass notes. Does not produce any objectionable drum or barrel effect. Efficient with or without a power amplifier—90 volts is even sufficient. Stands 22 inches high. Diameter of cone is 20 inches. Beautifully decorated scrollwork medallion, and outside border in gold.

No. 9993..... **\$22.78**

Gentlemen: I am ordering again from you because I am pleased with your safe and rapid deliveries.

LE ROY WILLIAMS,  
P. O. Box 525,  
Mountain View, Calif.

## Windsor Cone Loud Speaker



As a Pedestal Type



As Wall Type

**\$13.45**

It has been conclusively proven that a cone parchment of generous proportions and of correct pitch, vibrated by an efficiently designed cone speaker unit, will produce both high and low frequencies with a fidelity of performance that would command its immediate purchase by its listeners. The Windsor Cones not only approach the perfection of design and tonal qualities just referred to, but, also, offer you an instrument of such pleasing and tastefully decorated appearance, that you will always feel proud to invite your friends to "listen in." Note that it can be either set on the floor, or even on a table, or mantel piece, by means of the hinging pedestal, or it can be hung on the wall by the handle provided, the pedestal swinging in against the back of the speaker. The parchment is 22 inches in diameter, and its edge is very neatly bound in braid. The unit is readily adjusted in a convenient manner, to allow you to use this speaker with 90 volts, or even all the way up to 500 volts, as delivered by Power Pack amplifiers. The wooden back has the effect of a sounding board, further enhancing the beautiful tonal qualities of this Cone Speaker. **\$35.00 VALUE.** Shipped direct from factory in Chicago, express collect.

**No. 9989..... \$13.45**

## Spartan Cabinet Cone Speaker

**\$22.22**  
POSTPAID

The best features of the most expensive cone speakers are incorporated in this instrument—and for this reason, a most beautiful and well proportioned matched walnut cabinet is used to further reflect the exceptional quality of this Speaker. The PITH WOOD parchment, actuated by an

exceptionally sensitive and powerful semi-balanced armature cone speaker unit, will respond to the low booming notes of the great organ or bass drums as well as to those notes high in the treble scale of the violin, with surprising fidelity and volume. In fact, your first audition of this instrument will thrill you, for its reality truly brings the broadcasting studios into your own home. Therefore, the reproduction possible with this speaker will win the plaudits of any musical critic—and the appearance thereof will suit the fancy of the most fastidious tastes. Overall dimensions are 14 inches high, 16 inches wide and 6 inches deep.

**No. 9003..... \$22.22**

## Windsor Console and Built-in Cone Speaker



FRONT VIEW



BACK VIEW

**\$28.85**

This ensemble of cone type loud speaker built into a console to house the "A" and "B" batteries, etc., and upon which your present or any table type Radio receiver rests, as the illustration suggests, is so logical a combination, both from the electrical and mechanical angle, that it is a wonder it was not thought of long before this time. You will note that the cone speaker itself does not occupy any space within the console, allowing the entire area within for all your batteries and other accessories. The speaker itself is the identical one described under our No. 9989, and is 22 inches in diameter. The board upon which it is attached, forms not only a substantial support thereof, but also acts as an effective sounding board, which can be removed, allowing immediate and comfortable access to the batteries. This console is of generous proportions, to accommodate any length receiver. The back is removed, so as to provide the proper ventilation of the batteries. Overall dimensions are 30 inches long by 17 inches wide, and stands 29 inches high from the floor. The battery shelf measures 26 inches long by 11 inches wide. Shipped from Chicago, express collect. State whether you wish us to ship you the Mahogany or Walnut finished console.

**No. 9991 (Receiver not included) \$28.85**

## Windsor Table Cone Speaker

**\$18.85**

A very original and extremely useful piece of furniture—combining the choice of many uses. Here we offer you the celebrated Windsor cone speaker (described in detail under our No. 9989) in a 16-inch diameter size, suspended to the under side of the top of this tastefully finished table, with its conical point facing the floor. As the top only measures 20 inches long by 17 inches wide, none but any receiver whose panel length does not exceed 18 inches may be rested thereon. Then again, Mother may rather decide to simply throw a scarf or center piece over the top, and place thereon her favorite photograph or statuette, vase, etc.; just imagine serving tea to your guests over this table, while the speaker is in operation with appropriate tea music, now a regular feature of all broadcasting stations, producing an impression upon them they will never forget. Stands 26½ inches from the floor. Shipped Express collect from Chicago. Kindly state if you desire Mahogany or Walnut finish.

**No. 9044..... \$18.85**



## Windsor Combination Cone Speaker—Loud Speaker Console

**\$42.45**

Cone speakers are particularly well adapted for reproducing the low bass notes because of the large vibrating surface the cone parchment provides—the analogy of this can be best expressed by calling your attention to the length of the strings in a harp or piano—the longer they are, the lower the note is produced. But, on the other hand, a loud speaker of the conventional horn, or wooden chamber type (as in a Victrola) can reproduce the higher frequencies best. If you use either type of loud speaker to the exclusion of the other, you will lose either side of the tone register. It logically follows that if you use BOTH OF THEM AT THE SAME TIME, full justice will be given to the full musical scale—the cone speaker will reproduce the bass notes in its inimitable characteristic manner, whereas the loud speaker will do justice to the higher frequencies, with a rendition that places it on a parallel of reproduction to an old violin, in the hands of an accomplished virtuoso. The conclusive test that will thrill you is the first time you listen in to a 100-piece Symphonic orchestra. With both of these speakers connected to your receiver, with a simple arrangement of a single pole double throw switch, you can connect either type of speaker to your output, and with the switch arm disengaged from either contact, both speakers play at the same time, their leads being in series with each other. The cone parchment provided in this console is 18 inches in diameter, but otherwise the same speaker as described under No. 9989, and the loud speaker is the same type as described under Loud Speaker Console No. 9992. There is ample shelf space to set your "A" and "B" batteries, charger eliminators, etc., and the back of the console is left open, to provide for ventilation to batteries, eliminators, etc.—and to make access to same a very simple matter. The top is 30 inches long, 17 inches wide and stands 29 inches high. The battery shelf is 26 inches by 11 inches. Finished in either Mahogany or Walnut. Shipped Direct from factory in Chicago, express collect.



No. 9990..... **\$42.45**

## Sonochorde Cone Speaker

**\$22.85**

POSTPAID

The secret of Sonochorde superiority lies in its sound reproducing mechanism—a unit that is scientifically and basically correct. There are sixteen technical features of design exclusively Sonochorde, such as the use of four super-powered magnets capable of lifting more than ten pounds. These special magnets account for the exceptional volume. They are both scientifically balanced and angularly spaced, with a minimum air gap, thus producing a rich, deep, sonorous tone, wholly new and entirely free from distortion.

Add to the mechanical superiority of this Cone masterpiece, its unique and truly beautiful design! Octagonal in outline, the Cone itself is covered with deep wine-colored silk, its folds extending radially from the silk button in the center. The supporting frame is practically unbreakable. It is handsomely finished in rich semi-gloss mahogany, with base to match. The base rests upon a heavy felt pad, making it impossible to mar the finest surfaces. Thoroughgoing workmanship is to be noted in every detail. Height 18 inches. Width 16 inches.



No. 9993..... **\$22.85**

## Windsor Enclosed Loud Speaker Console

**\$35.85**

If your Radio receiver is one that you are very proud of, because of its performance, then the right place for it is in the parlor of your home; but, this you cannot do for its presence therein would clash with the general decorative effects because of the detached batteries, which would lie on the floor, and the loud speaker—which would have to be set elsewhere. And battery connection wires would give your parlor a "work shop" effect. The console above illustrated not only enables you to store within its capacious quarters all your Batteries, charger and even "A" and "B" eliminators, but it also has built in an acoustically perfect loud speaker. In addition to these features, bear in mind that it is a most beautiful piece of furniture—it will grace the decorative effect of any room. The specially shaped space under the loud speaker enables your knees to fit within, allowing you to tune in on your Radio for hours at a time, in absolute comfort. The Console measures 28 inches long, 18 inches wide and stands 29 inches high, thus it will accommodate any receiver; should your Radio set measure much less than the total length provided, a very pleasing effect can be produced by setting a lamp, or a vase, or a photograph on either end of it. The reproduction produced will thrill you with its marvelous fidelity, clarity and volume. The speaker is so designed that it does not occupy any undue space within the console, thus affording you an abundance of room for your batteries. Can be furnished in either Mahogany or Walnut finish. Shipped direct from factory in Chicago or Los Angeles, charges collect.



No. 9992 Including Loud Speaker **\$35.85**  
Unit .....

## Graydeon Electrical Phonograph Reproducer

**\$17.50**

POSTPAID

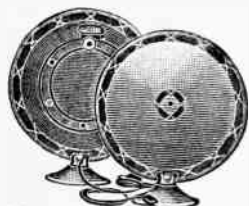
With the advent of the latest type phonographs which reproduce all notes with an "uncanny" reality, either through newly designed tone chambers and vibrating boxes, or through electrical pick-up and tube amplification with reproduction by means of a cone speaker, thousands of people throughout the world are foolishly discarding their present phonographs for the new improved type. We again repeat—foolishly—for by simply replacing the present tone box (the mica disc which holds the needle—simply slips off goose neck arrangement) with the one illustrated on the left, and connecting the socket on the right DIRECTLY TO YOUR PRESENT RADIO RECEIVER, USING THE SAME TUBES AND BATTERIES, the record is reproduced with that same "uncanny" reality in your loud speaker, which we presume is of the cone type. The instrument in the center of the illustration is a special modulator, controlling the volume, as well as the clarity of the reproduced music. Complete installation takes but a few minutes—and takes only a moment to allow you the use of your Radio, or phonograph at will! Detailed instructions accompany each Graydeon—a David Grimes, Inc. product. Imagine! For only \$17.50 you may enjoy all the luxuries of quality reproduction only possible on electric phonographs, the cheapest price for one on the open market being about \$250.00.



No. 9054 Complete as Illustrated **\$17.50**

## Paent Cone Speaker

**\$23.45**  
POSTPAID



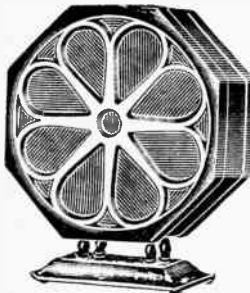
For unexcelled and faithful reproduction of reception, a Cone Speaker is necessary to do justice to the low, medium and high notes. The Paent Cones will perform this task in so perfect a manner, they are conceded to be THE MOST SUPERIOR

CONE SPEAKERS. They will transform a low priced set into one of substantial value—and are most necessary on high priced receivers. Will work satisfactory at 90 volts or in conjunction with a power pack amplifier employing considerable voltage. Illustration shows front and back view.

No. 9616 17-inch Model ..... **\$23.45**  
No. 9034 36-inch Model ..... **\$71.65**

## Octacone Cone Loud Speaker

**\$18.98**  
POSTPAID

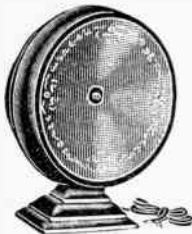


Mechanically, a cone speaker is always subject to damage due to its nature of construction. In the Octacone, however, every benefit of the best Cone Speakers is incorporated within, together with a most unique metal shell housing. The complete speaker. You can deliberately drop this cone speaker on the floor, with no resulting damage. The metal diaphragm case measures 1 3/4 inches high, 4 3/4 inches deep and 11 inches wide, and is beautifully finished in golden bronze, blending artistically with any color scheme in your home.

No. 9670 ..... **\$18.98**

## Zeco Cone Loud Speaker

**\$16.27**  
POSTPAID



Although this is a free edge cone, and full floating, a very ingenious metal "drum" protects it from damage, a valuable feature. The full musical register is produced on this cone speaker with remarkable fidelity—and volume. The actuating unit is sensitive to voltages as low as 90 applied to the audio stages, or will withstand the tremendous volume delivered by power tube amplification. The rear of the metal drum is meshed, allowing the sound vibrations to properly distribute themselves.

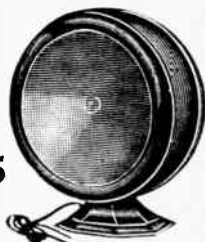
The metal is attractively finished in dark tan. The cone parchment is tastefully decorated. The base is covered with felt, and can thus be set on the finest furniture. The overall dimensions are 15 inches high, 7 inches long and 3 3/4 inches wide. The diameter of the drum is 11 inches. Splendid value. 5-foot length of phone cord included.

No. 9099 ..... **\$16.27**

## Acme Cone Speakers



K-3



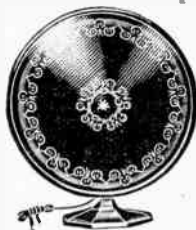
K-1

**\$16.95**  
POSTPAID

Acme acoustical engineers can well be proud of their two latest contributions to the Radio art—their cone speakers above illustrated. They possess a power of volume second to none, yet, with no sacrifice in quality of reproduction. The K-1 is a double FREE EDGE cone speaker—each cone is 14 inches in diameter. Having an adjustable unit, this speaker can be immediately adopted for utmost satisfaction if your "B" battery supply is only 90 volts or even 500 volts, as delivered by "power pack" systems. The metal drum casing is finished in tan, and will harmonize with the decorative effects of any room. The K-3 employs a single free edge cone of 11 inches in diameter, and is very similar to the K-1 in general design and principle. Can be adapted to hang on the wall with a tassel, by removing the base. The metal case and base are finished in green bronze, making this product unusually attractive. Capable of enormous volume—and retains the same 100% perfect clarity as the K-1.

No. 9985 (K-3) ..... **\$16.95**  
No. 9986 (K-1) ..... **\$22.45**

## Crosley Super-Musicone Speaker



**\$14.75**  
POSTPAID



The Crosley organization have made themselves world famous through their efforts to give to the Radio fan THE GREATEST POSSIBLE VALUE FOR HIS MONEY. And, in fact, your perusal of this catalogue will also suggest to you that this is OUR SLOGAN, TOO. The Crosley Musicone exemplifies their values, for it is truly equal in performance to any cone speaker selling for much more money. A beautifully decorated (on both sides) 16-inch diameter parchment is used, full of the high standards set by the Crosley engineers—AND ACHIEVED BY THEM. Overall dimensions are 18 inches by 16 inches by 5 3/4 inches. The outer edge of this speaker is protected by a tastefully finished metal ring. Can be detached from the cast base, and hung upon the wall as illustrated above.

No. 9999. Crosley Cone Speaker  
(No Tassel Cord) ..... **\$14.75**

### Single Phonodapter

Your phonograph now a loud speaker. The Phonodapter is made to fit any phone unit. The pure soft rubber stretches over the phone. Brass tube furnished, which is inserted as shown. Fits all Columbia phonographs; remove the brass tube and it fits Victor and Sonora machines. In an emergency you can slip a horn made from Bristol or other stiff paper into the brass tube, which will give you quite a good loud speaker temporarily.



No. 1310 ..... **\$0.38**

### Benjamin Adjustable Metal Brackets

An improvement upon our No. 9501 self-supporting brackets inasmuch as the section which fits against the front panel is adjustable at will to any angle due to a clever pivoting feature. Especially suitable for sloping front panels when it is desirable to mount the sockets, transformers, etc., on a level plane. Made of very rigid aluminum, and finished in dull nickel. Mounting screws furnished for panel.



No. 9791 ..... **\$1.12**

### Fonekushions SPONGE RUBBER

No matter how good your head set it will press too hard on your ears and temples, after wearing them for a few hours. By our sponge rubber cushions, make it a positive pleasure. They exclude all outside noises, which is important when listening for long distance stations. Made of the best and most expensive sponge rubber of great elasticity. They are light and can be slipped on any pair of phones. Highly sanitary because they can be washed with soap and water.



No. 5050 Pair ..... **\$0.35**

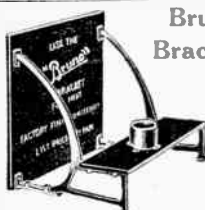
### 5-Tube Sub-Panel

**\$2.60**  
POSTPAID



For standard 125-200A type 6L tubes. For 5-tube radio frequency set 17x3x1/16 inch black hard rubber. 5 nickel plated socket shells secured to base with eyelets. Contact springs of nicked phosphor bronze, with turned tips for soldering.

No. 0490 ..... **\$2.60**



### Bruno Brackets

Supports the front panel, to which it is screwed and bolted, at the four corners thereof, preventing sagging of panels in time, due to the weight of the condensers, etc., on them. They are die-cast of aluminum. Designed to be used with 7-inch high panels and 7-inch deep cabinets.

No. 9007 (Per Pair) ..... **\$0.97**

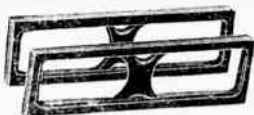
### Self-Supporting Brackets



For use in mounting sub-panels. The space provided underneath gives plenty of room for small parts and wires, reducing short-circuit risks. Drilled for attaching to front panel, drilled flange takes grid leak panel. Metal in dull nickel finish. Screws included.

No. 9501, Pair ... **\$0.69**

### Non-Metallic Sub-Base Brackets



Made of moulded Bakelite. They prevent dielectric losses and electrical disturbances. Will not vary the inductive capacity value of coil or condenser. Mechanically true right angles. They leave plenty of room underneath for small parts and wires.

No. 9531 Each... **\$0.46**

### Pilot Snap Terminal Connecting Strip



**\$0.46**  
POSTPAID

This item fills a long felt want where quick and positive connections are necessary. Will take all standard phone tips, or the special terminal, illustrated under No. 2900. Separable "Cold Tip," the wire being slipped within same and quickly tightened. Insulation is hard rubber. Metal parts handsomely nickel plated, with the characters engraved in white enamel.

No. 9898 ..... **\$0.46**

### Rasco Binding Post Strip



**\$0.35**  
POSTPAID

This is an excellent binding post strip, equipped with our well-known Aristocrat posts. These are mounted on a hard rubber strip, and the denominations are engraved in gold. The entire strip is supported by two brackets, 1" high, to clear wiring and other obstacles. The best strip on the market, barring none. There are 7 hard rubber binding posts. The markings are "Antenna"; "Ground"; "A-"; "A+"; "B-"; "Det B+"; and "Amp. B+."

No. 870, Binding Post Strip ..... **\$0.35**

Gentlemen:

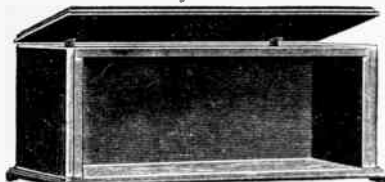
I received the order you sent me in good condition. I certainly do appreciate your promptness in sending out orders. I have dealt with other large firms, but none of them give as much satisfaction as you do.

LEONARD MAYERS,  
2809 Hollybeach Ave., Winwood, N. J.

## Radio Cabinets

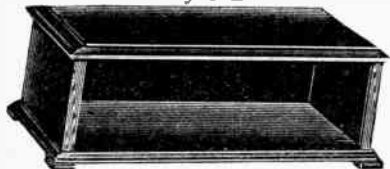
We offer a variety of sizes, patterns, finishes and qualities to suit every customer. You will be well pleased with any Cabinet you get from us. Shipped direct from factory in Wisconsin express collect.

Style A



Imitation Mahogany—Made substantially and of neat design of good hard wood with fine hand rubbed finish in imitation of mahogany. Each one is fitted with hinged top. The front is fully rabbeted to fit the panel.

Style B



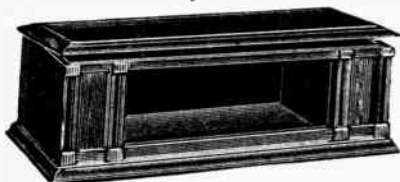
Imitation Walnut and Genuine Black Walnut—Fine looking, sturdily built and elegantly finished, and will greatly improve the appearance of the receiving set. It is a "dandy" in the way many users express themselves. The black walnut Master cabinets have continuous piano hinges and lid holders. The imitation walnut have regular hinges, three to each cabinet supplied with lid holders.

Style C



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

Style D



This style has ample space in end compartments for B and C batteries. The space under top is 4½" wide, 10" deep and 8½" high. They also can be used with sets having 7" mounting, the three remaining inches

used for dry cell space if a portable set is wanted. Has continuous piano hinges and lid holders. Space back of panel is 10". Top and ends are of figured walnut special built five-ply stock. Cannot warp. Base built upon massive molding. Pillars on front made of solid black walnut accurately fitted.

Panel Size	Style A	Style B		Style C		Style D
	Imitation Mah. 7" Deep	Imitation Walnut 8" Deep	10" Deep	Genuine Black Walnut 8" Deep	10" Deep	Genuine Black Walnut 10" Deep
7" x 10"	2.60					
7" x 12"	3.00					
7" x 14"	3.35					
7" x 18"	3.60	4.69	6.40	6.56	8.80	9.36
7" x 21"	3.90	5.04	6.80	7.28	9.40	10.08
7" x 24"	4.40	5.69	7.20	8.05	10.05	10.80
7" x 26"		6.66	7.84	8.48	10.68	11.28
7" x 28"		7.09	8.64	8.90	11.48	11.76
7" x 30"		7.20	8.96	9.44	12.24	12.24
8" x 36"			9.92		13.44	16.24
8" x 40"			10.32		14.64	17.44

## Radio Dilectryte Panels

\$0.65

POSTPAID



These panels are meeting with approval because they are good and cheap, and which, moreover, fit our wood cabinets listed elsewhere. These panels are accurately cut and are the best on the market at anywhere near our price. The finish is a high polish on both sides. Can be drilled and tapped where necessary, by tools which are ordinarily used by radio set builders and amateurs. Dilectryte Radio Panels are highly recommended because they have the following properties: (1) high dielectric strength; (2) high surface resistivity; (3) high volume resistivity; (4) grained surface; (5) ample tensile strength; (6) splendid tooling properties; (7) low cost. 3/16" thick. We do not cut sheets to order.

No. 7100	7" x 10"	\$0.65
No. 7120	7" x 12"	\$0.79
No. 7140	7" x 14"	\$0.89
No. 7180	7" x 18"	\$1.15
No. 7210	7" x 21"	\$1.31
No. 7240	7" x 24"	\$1.46
No. 9786	7" x 26"	\$1.69
No. 9787	7" x 30"	\$1.89

## Bakelite Panels

IN GLOSSY BLACK FINISH  
3/16-INCH THICK

No. 9516	7" x 6"	\$0.55
No. 9517	7" x 10"	\$0.88
No. 9518	7" x 12"	\$1.22
No. 9519	7" x 14"	\$1.39
No. 9520	7" x 18"	\$1.74
3/16-INCH THICK		
No. 9521	7" x 10"	\$1.27
No. 9522	7" x 12"	\$1.77
No. 9523	7" x 14"	\$1.92
No. 9524	7" x 18"	\$2.42
No. 9525	7" x 21"	\$2.89
No. 9526	7" x 24"	\$3.24
No. 9527	7" x 26"	\$3.44
No. 9528	7" x 30"	\$4.44
No. 9529	8" x 36"	\$5.93



## Standard Drilled-Engraved Panels



**\$3.57**  
POSTPAID

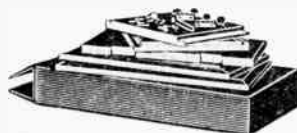
The problem that always confronts the Radio set builder, whether he is assembling his first receiver, or the professional custom set constructor, is the drilling of the front panel. And, at its best, it is always a drab, colorless looking affair, inviting no praises. But now, you can build a receiver utilizing any Standard circuit which will have all the appearances of a commercially designed set, for we can supply you with these panels, as described by the originators of the various circuits, drilled to their specifications, AND HANDSOMELY ENGRAVED IN A VERY PLEASING MANNER. A partial list of the standard panels we can supply is as follows:

No.	Type	Tubes	Size	Each
No. 9622	Bremer Tully Nameless	5	7x26x3/16	\$4.97
No. 9080	Bremer Tully Counter-phase	6	7x24	\$4.57
No. 9081	Hammarlund Roberts	5	7x18	\$3.57
No. 9082	Browning Drake	4	7x21	\$4.65
No. 9083	Browning Drake	5	7x24	\$4.65
No. 9084	Freshman Tuned R.F.	5	7x18	\$3.69
No. 9085	Madison Moore Superhet.	8	7x28	\$6.17
No. 9086	Victoreen Superhet.	8	7x24	\$4.97
No. 9087	Silver Marshall 6	6	7x21	\$4.79

### Note

We can supply Standard drilled and engraved panel for any circuit not listed above, such as: Karas Equamatic, Daven Bass Note, Samson, Aerodyne, Hammarlund Roberts Hi-Q, Henry Lyford, Aene, Ultradyne, Ambassador, 3 Circuit 3-tube receivers, Controlladyne, Isosfarad, Nine in One Super Het, Fenway Super Het, L-C Cockaday, Camille Doudney, Rasco 9216 5-tube Rasco 5-tube One Dial control, Rasco 2-stage amplifier, Rasco Tropadyne, etc. Further information and prices cheerfully furnished.

## Knock Down Cabinets



**\$2.03**

The knock down form of cabinet not only offers you an appreciable saving in cost, but also enables you to finish it

in any manner you may please, to better harmonize with your requirements. The wood is beautifully sanded—all the metal hardware is nickel plated brass. All sections are machine cut to size and planed, therefore insuring a perfect assembly. Corners of cabinet rest on rubber tack bumpers. Can be assembled in a few minutes. Shipped express collect direct from factory in Iowa.

No. 9803	For 7 by 14-inch panel. 7 inches deep.	\$2.03
No. 9805	For 7 by 18-inch panel. 7 inches deep.	\$2.24
No. 9806	For 7 by 21-inch panel. 7 inches deep.	\$2.73
No. 9807	For 7 by 21-inch panel. 7 inches deep.	\$3.17

## Carter Short Jack

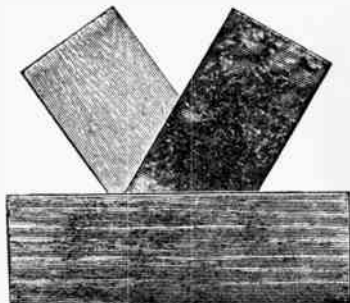
**\$0.21**  
POSTPAID



Smallest jack made—ideal in cramped quarters, yet contacts are perfect. Single hole mounting in 5/8 inch hole. Is about 3/8 inch long.

No. 9662	Open Circuit	\$0.21
No. 9095	Closed Circuit	\$0.26

## Grained Bakelite Panels



**\$0.99**  
POSTPAID

Custom built Radio sets can be made to harmonize with any home surroundings by using one of our beautifully decorated Bakelite panels, finished in a natural wood grain effect of Mahogany, American Walnut and Creas-sian Walnut. Or, you can select a panel to match your console or cabinet. Only the very best grade of Bakelite insulation is used in these panels. Kindly specify which grain finish you are ordering.

1/8 Inch Thick		3/16 Inch Thick		
No. 9752	\$0.99	7x10	No. 9762	\$1.48
No. 9753	1.29	7x12	No. 9763	1.84
No. 9754	1.47	7x14	No. 9764	2.07
No. 9755	1.87	7x18	No. 9765	2.66
No. 9756	2.09	7x21	No. 9766	3.11
No. 9757	2.46	7x24	No. 9767	3.54
No. 9758	2.61	7x26	No. 9768	3.84
No. 9759	2.71	7x28	No. 9769	4.14
No. 9760	2.94	7x30	No. 9770	4.43
No. 9761	3.54	7x36	No. 9771	5.31

### Notice

We can also supply the above grained Bakelite Panels in special sizes cut to your measurements—accuracy guaranteed. Kindly state which grain effect you are ordering.

1/8 inch thick	\$0.03 a square inch
3/16 "	0.04 " " "
1/4 "	0.05 " " "

(For example, you may wish a special panel to fit a vitrolite console, or a desk, drawer, etc. If it measures 17 inches by 13 inches, multiply the length by the width, and that will give you the square inches. Therefore, 221 square inches at \$0.02 a square inch would cost \$6.63.)

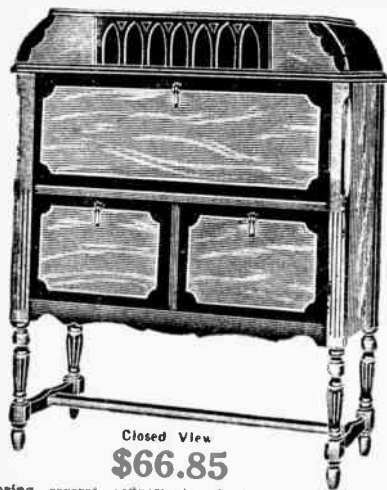
## Baseboards



Made of non-warping material. 5/8 inch thick.

No. 9549	6 1/2 x 6	\$0.23
No. 9550	6 1/2 x 9	0.26
No. 9551	6 1/2 x 11	0.26
No. 9552	6 1/2 x 13	0.28
No. 9553	6 1/2 x 17	0.29
No. 9554	6 1/2 x 20	0.33
No. 9555	6 1/2 x 23	0.42
No. 9556	6 1/2 x 25	0.46
No. 9557	6 1/2 x 27	0.48
No. 9558	6 1/2 x 29	0.54
No. 9559	9 x 17	0.54
No. 9561	9 x 20	0.67
No. 9562	9 x 23	0.78
No. 9563	9 x 25	0.85
No. 9564	9 x 29	0.93

## Excello Radio Consoles



Closed View  
**\$66.85**

Offering several refinements of design and decorative effect, besides several valuable mechanical advantages over our No. 9043 Excello Console, this model will appeal not only to the Radio fan of more fastidious tastes, but is especially recommended for Radio panels that are wider or longer than 9 inches by 30 inches provided in our No. 9043. In this console, it is possible to adapt the space to any size panel not exceeding 10 1/2 inches wide by 32 inches long, an adjustable panel being supplied to provide for any smaller size. A very unique and valuable feature is the clever sliding leaf upon which the storage battery (or eliminator) is rested, enabling you to slide it forward, for recharging, testing, etc. The dimensions of this masterpiece Radio Console are 37 inches wide, 18 inches deep and 45 inches high. Made of selected American Walnut, with five-ply walnut veneer top and panel doors of matched butt walnut, finished over all in a two-tone Walnut PLANO FINISH. Shipped from our factory in Illinois, express collect, shipping weight 150 lbs.

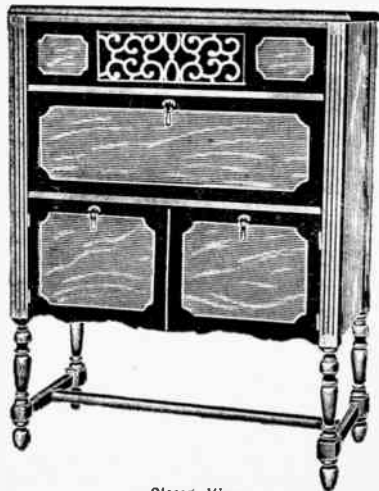
No. 9039 (No Radio Receiver included)..... **\$66.85**



Open View  
**\$55.85**

Constructed by Master Cabinet Makers, of 5-ply Walnut veneer top, and Walnut end panels with matched butt Walnut doors. It is truly in keeping with the best appointed homes. The panel size is adjustable up to 9 inches by 30 inches—any of our Radio receivers, kits or chassis will fit within. The self-enclosed loud speaker consists of a tone chamber and metal throat truly capable of unexcelled perfection of clarity, and volume. The top hinges to provide more convenient access to the receiver. The battery compartments opening from the front with two doors, will hold any possible form of "A" and "B" devices—with chargers. Overall dimensions are 35 inches wide, 16 inches deep and 45 inches high. Two-tone Walnut PLANO FINISH of unusual beauty. Shipping weight, 150 lbs. Shipped express collect from our factory in Illinois.

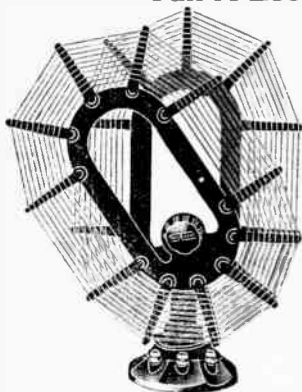
No. 9043 (No Radio Receiver included)..... **\$55.85**



Closed View

Open View

### Tun-A-Loop



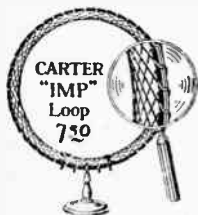
**\$13.38**  
POSTPAID

The advantages of Loop reception are very well known and conceded. The Tun-A-Loop, on the other hand, has decided advantages over any other type of Loop. By adjusting the over-size knob, this loop can be tuned to the peak of the wave length range, assuring maximum pick-up ability on distant stations. Incidentally this tuning effect enables you to match your tuning

dials, regardless of the capacity of condensers being used. The Tun-A-Loop can be used in conjunction with any superheterodyne, neutrodyne, straight radio frequency, or Reflex receiver. No portable loop receiver is truly portable or efficient without this instrument. It is made of genuine Bakelite, and the wires are spider web wound—only genuine phosphor bronze silk covered wire employed. It is as attractive as it is efficient.

No. 9655..... **\$13.38**

### Carter Imp Loop



**\$6.59**  
POSTPAID

The radically different loop. Only 16 inches in diameter—weighs but one pound, due to compound progressive form of winding. As efficient as larger loops.  $\frac{1}{4}$  and center taps provided.

No. 9089..... **\$6.59**

### Aero Loop

**\$10.49**  
POSTPAID

The advantages derived with an outside aerial over any loop are extreme long distance reception, and, increased volume on all stations. The advantages of a loop and those of an antenna system are combined in the AERO LOOP, when it is used in conjunction with an antenna, acting as a very effective "booster" with added inductance, and thus, increased selectivity. The inside loop can be rotated, too, resulting in a marked decrease in static reception, thus further greatly aiding selectivity. Its many uses are listed in a special pamphlet furnished with every loop. The strands are wound on Bakelite strips, and the binding posts are also brought out to a Bakelite strip. The wood work is beautifully mahogany finished, and in keeping with the furniture of any finely appointed room.

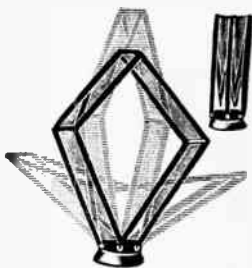
No. 9649..... **\$10.49**



### Aalco Loop

**\$10.23**  
POSTPAID

The virtues of a large size loop are sometimes disregarded due to their cumbersome appearance when not in use. Logically, a larger loop will collect more of the feeble radio waves than a smaller one. The Aalco loop stands 30 inches high when opened, and only 21 inches when closed. In the right-hand

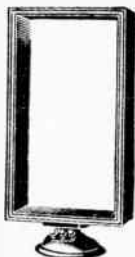


corner of the accompanying illustration is to be noted the compactness of the self same loop when folded, compared to it when ready for use. Wound with 43 strands of very low resistance wire on a genuine walnut frame. Can be supplied for use with either a 17 or 23-plate variable condenser. The hanging frame provides for adjustments of the shape of the loop, as illustrated, varying results being obtained from such angular positions.

No. 9047..... **\$10.23**

### Signal Encased Loop

**\$8.15**  
POSTPAID



There are two objections to a loop on which the turns of wire are exposed. These are first, they may loosen due to frequent contact with your hands, furniture, etc., and, second, they never ADD to the appearance of any room. In this loop, all of the turns are encased in a walnut frame, very attractively antique finished. As the frame plugs into a jack in the base, there are no wires visible even at that point, or wires to become twisted from constant swinging of the loop. Three connections are brought out to a bakelite strip, one of them being the exact center of the loop. The wires are wound around bakelite strips—no losses—very efficient in every manner. Height 21 inches.

No. 9742..... **\$8.15**

### Steinite "Aerialiminator"

**\$0.85**  
POSTPAID

When an outside aerial cannot be conveniently installed, you can plug this device into your house current socket, and unroll the 25-foot length of double wire, which carries the "aerial" and ground impulses, connecting the ends thereof to the aerial and ground binding posts on the receiver. A special condenser self-contained in this attachment prevents the house current from entering the receiver—therefore, is absolutely safe. Takes only a few minutes to install—the most practical aerial substitute on the market.



No. 9928..... **\$0.85**

## Folding Loop Aerial

**\$3.50**

POSTPAID



This is the best collapsible loop of its kind. It is 36" high and 28" wide. It is electrically and mechanically correct. It has a heavy cast base, nicely finished in black, upon which the loop turns easily. The wire winding consists of special stranded, flexible, multiple standard super-antenna wire. The loop easily folds to fit into a 1-inch tube. It is beautifully finished throughout. Hard rubber insulation only is used. The wires are held in place by polished hard rubber strips. Two hard rubber binding posts are attached.

**No. 2610, Collapsible Loop Aerial .....\$3.50**

## Knocked Down Loop Aerial

This aerial is 35" high, 21" on each side. Made entirely of well-seasoned wood. Comes to you knocked down. Can be put together in less than five minutes. Enough No. 22 enameled wire is furnished to make ten rounds.

**No. 2600 Knocked Down Loop Aerial .....\$0.85**

## Aerial Insulators

**\$0.15** POSTPAID

The larger ball insulator is the popular style.  $3\frac{1}{2}'' \times 2\frac{1}{4}''$ . The smaller is used for light work, size  $2\frac{1}{2}'' \times 1\frac{1}{2}''$ . High grade insulation compound, not affected by the weather. Mechanically right; will stand several thousand pounds pull.

**No. 7914 Small .....\$0.15**  
**No. 2012 Ball ..... 0.30**



## Rasco Ground Clamp

**\$0.15**

POSTPAID



Has long been a favorite among amateurs. Is inexpensive, never comes loose, and fits any pipe from  $\frac{1}{2}''$  to 3". Strap is adjustable and galvanized and will not rust. Has binding post to clamp wire.

**No. 2236 ..... \$0.15**

## Rasco Antenna Lead-in Connector

Here is the solderless Connector that you can trust. Eighty per cent of all radio troubles are caused by a faulty connection between the aerial and the lead-in. The plunger and screw holds both aerial and lead-in with a vice-like grip that is never relaxed.

Our illustration of the connector is full size. Once tried you will never discard it. Nothing to wear out. Brass, nicely nickel-plated with a good plating. Diameter of connector is  $\frac{5}{8}''$ , height  $\frac{1}{2}''$ . (Patents pending.)

**No. 4244****\$0.20**

## Universal Lightning Arrester

**\$0.87**  
POSTPAID

Very fine outdoor. Made of brown glaze porcelain. Easily attached to window sill or against wall. Generous binding posts with lugs for connections. Passed by Fire Underwriters. Well made, and when used insures your house against lightning and your instruments against damage. Guaranteed in all respects. Size over all,  $3\frac{1}{2}'' \times 1\frac{1}{2}''$ .

**No. 2300 .....\$0.87**

## Copper Antenna Wire

**\$0.48**

All the wire we offer is of the dependable kind, the best grade. The stranded wire is hard drawn copper cable and is preferred generally by those desiring the best results.

**No. 9227 Solid Copper, single, No. 14, 100 ft. \$0.48**  
**No. 9228 Stranded, No. 22, 100 ft. ....\$0.49**

## Enameled Aerial Wire

Will insure superior reception as the usual increased resistance caused by corrosion of plain wire is prevented by the enamel coating. Made of the copper strands, each coated with enamel insulation.

**No. 6401, 100-foot coil ..... \$0.52**

## Antenna Connector

**\$0.35**  
POSTPAID

Made entirely of aluminum. Light and will not rust. The only connector of its kind. The 4 antenna wires go to the upper holes; the low-metal to metal contact as in using this connector is better than nearly all solder connectors. Dimensions 2" high,  $1\frac{1}{2}''$  wide,  $\frac{5}{8}''$  thick.

**No. 999 .....\$0.35**

## Aerial Lead-in



It is a flat strip of metal, entirely insulated with weatherproof material. Fits under any window. Can be bent into any shape. Neat and durable. It can be mounted on the window sill or clamped in at the upper part of the window. The insulation is perfect. Length,  $18\frac{1}{2}''$ ; width,  $\frac{3}{8}''$ .

**No. 8628 .....\$0.25**

## Another Popular Aerial.

**No. 9451 Talking Tape, ribbon, per 100 feet.**

**\$0.89**

## SAVE OVER 10%

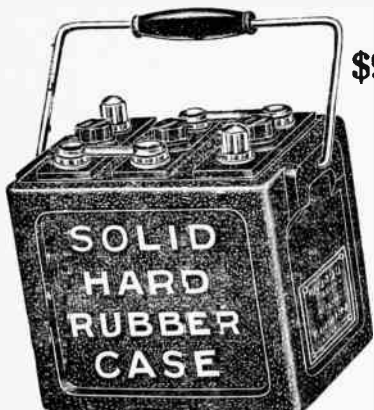
Do not forget that the Prices on all goods in this Catalog—although exceedingly low—are really subject to a discount of over 10 per cent.

**YOU SAVE OVER 10% WITH US—AS WE SHIP NEARLY ALL GOODS PREPAID IN U. S. A.**



## Hard Rubber Case Storage Batteries

**\$9.50**



We have specialized in storage batteries a number of years and this battery, although called a radio battery, is really an auto-mobile battery. That means that it has been constructed for extra hard work. While used in the automobile the battery is shaken up all day long and endures a terrific wear and tear. Only the highest grade batteries can stand this constant jarring, consequently you know what to expect from our battery. We use only the very best materials and guarantee not only results, but guarantee the batteries for two years. We will replace any battery that becomes defective within two years.

Certain low priced batteries are made of plates taken from old batteries and made over. Such batteries cannot last. Our new plates are extra heavy and guaranteed to last. Another important point is that our battery will withstand sulphation, i. e., coating of the plates even if the battery has been run down quite low. Solid hard rubber case. We furnish only acid-proof terminals that will outlast the battery, full automatic vents are provided. Positive (+) and negative (-) terminals are marked in a distinctive manner. Impossible to make a mistake. Acid-proof. too. In addition to all this our battery is sold at the most attractive price. 7" wide, 10" long, 9 3/4" high.

No. 9100 6 Volt, 100 Ampere Hour **\$9.50**  
 No. 896, 6 Volt 60 Ampere Hour 7" Wide; 9" long; 8 3/4" high **\$8.50**  
 Shipped transportation collect.

## Tungar Charger

**\$15.30**

The world famous Tungar bulb type battery chargers are too well known for further detailed information here. They are noiseless in operation and practically fool-proof for they do not require any chemicals or vibrators, which must be re-wired. For 110-volt A.C. lines only. Tungar bulb included.



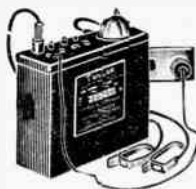
No. 9718 60-Cycle, 2 Ampere Rate.....\$15.30  
 No. 9224 25-Cycle, 2 Ampere Rate.....\$18.70  
 No. 9325 60-Cycle, 5 Ampere Rate.....\$23.80  
 Battery chargers are shipped Express Collect.  
 Shipping weight, 15 pounds.

### New Genuine Tungar Bulbs

No. 9026 2 Ampere Rate Bulb.....\$3.88  
 No. 9027 5 Ampere Rate Bulb.....\$7.78

## Tungar Trickle Charger

**\$9.95**



This latest product of the General Electric Co. will charge any 4 or 6-volt storage battery up to a 1/2 ampere rate. Its construction and principle is similar to the higher rate Tungar battery chargers. Bulb included.

No. 9028... **\$9.95**  
 Shipped Express Collect.

## Tapped "B" Batteries



2250

Our "B" batteries are made of the finest and best material obtainable, by one of the largest battery manufacturers in the country. We positively guarantee these batteries to be noiseless and the longest lived. We carry only fresh stock at all times. The output of these batteries is very uniform. With fair use they will last a year or more. We only list the tapped styles, as we have

found by experience that they are the best for all experimental work, and the difference in price is so negligible that our customers will welcome this departure.

No. 2250, Small size, 15 cell, 22 1/2 volt type, tapped, each.....**\$0.85**  
 No. 2251, Medium Navy size battery, 22 1/2 volt, tapped from 16 1/2 to 22 1/2 volt, in 1/2 volt steps, each...**\$1.20**  
 No. 4500, Combination tapped 45 volt, 30 cell battery tapped to give 45, 22 1/2, 21, 19 1/2, 18, 16 1/2 volts. This battery is designed especially for detector and amplifying tubes, each.....**\$2.30**  
 No. 4509, LARGE Size, 15-volt, 30-cell Battery, tapped for 45, 22 1/2, 21, 19 1/2, 18, 16 1/2 volts. This is an extra large size giving 50 p. c. more service than No. 1500, Made for heavy duty, for 5, 6, 7, 8 bulb sets. Size, 3" x 8" x 6 1/2", each.....**\$2.75**  
 No. 4503 Tapped 4 1/2-volt "C" Battery, for negative grid bias on I.F. and A.F. tubes. Eliminates distortion, permits high "B" battery voltages and lengthens life of "B" batteries. Also used as an "A" battery in portable sets using 199 type tubes. Each.....**\$0.51**

Shipped Express Collect.

## Balkite Trickle Battery Charger

Charges 4 and 6 volt "A" batteries. Slow charger. Can be operated while set is in use. For any number of tubes. Size - 5 1/2 x 3 x 5 inches high. Charging rate 1/2 ampere. Shipped dry. For 110 volt A.C. 60 cycle current.



No. 9358

**\$9.25** Shipped Express Collect.

## Balkite Model J Two Rate Charger

### \$18.85



Combining a trickle charging rate of .5 of an ampere per hour and the maximum rate of 2.5 amperes per hour, this new Balkite charger is making itself invaluable to its many users. There are times and conditions when either of these two rates are necessary—and in this one instrument both are combined.

Takes but a moment to swing over from one rate to another. It is so efficient that even while your receiver is in operation the charger can be functioning, while locals are being received. The electrolyte level is at all times visible—only at infrequent intervals is it necessary to add distilled water thereto. This is the only upkeep attached to this charger. Furthermore, while in operation it only costs about 1/2 cent per hour. It will also charge a 1-volt battery at a high rate of .8 of an ampere per hour, and 2 of an ampere per hour at the low rate. Operates from 110-volt A.C. current, at 60 or 50 cycles. It can also be supplied to operate from a 25 to 10-cycle 110-volt A.C. current with a 1.5 ampere high rate.

No. 9941 Combination Model J Balkite Charger, with Cord, Plug, Battery Leads and Clips ..... **\$18.85**

## Full Wave Battery Charger

### \$16.85

The radical improvements incorporated in this charger permit the complete charging of a run down battery OVER NIGHT for, in using the FULL WAVE OF the A.C. cycle, INSTEAD OF ONE-HALF OF IT, a charging rate of 6 to 8 AMPERES PER HOUR is delivered. Entirely fool-proof—will last a life time. A black crystallized finished metal case encloses the entire mechanism and rests on durable rubber feet. Note the folding handle. Generous length of cord and detachable plug is included. The clips that snap on the battery terminals are lead covered, to resist acid corrosion effects. For 110-volt, 60-cycle A.C. current. Shipped express collect.

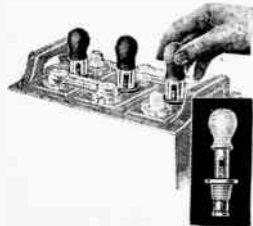


No. 9936 ..... **\$16.85**

## Scranton Battery Cap Tester

### \$1.83

POSTPAID



A recent innovation which will prove its value to you many times its modest cost. You simply replace your present battery caps with three of these combined battery caps and built-in hydrometers. It is always ready for immediate use—there is no chance of spilling any acid with its ever ruinous effects. To test, simply squeeze these caps, you can glance at the floats as they rise, denoting the condition of charge IN EACH OF THE CELLS. The solution will then slowly drain back. The solution is then it is proof positive that no solution arise, replenishing of distilled water. The conventional vent for battery gases is provided. The ball and cap are the best quality rubber, and will withstand the acid for many years. Universal plug fits all batteries.

No. 9865 Set of Three ..... **\$1.83**

## Holmes Tungar Bulb Type Battery Charger

### \$9.45



This 2 ampere Tungar bulb type storage battery charger is not to be confused with any other low priced charger, whether it be of the bulb or vibrator type. In fact, our customers have told us that this instrument is as efficient as even those selling for double its low price. In operation, there is no noise to disturb you—there are no acids or liquids to contend with, nor burning out of vibrator contacts. Simply snap connections from charger to battery terminals, plug into your lighting circuit

—the Holmes charger will do the rest, at a 2 ampere charging rate. Can be permanently mounted in your Radio console, due to small size, and special mounting holes provided for the purpose, or, picked up and moved around at will. Charges both "A" and "B" batteries, of the wet cell type—also any automobile battery. The transformer is heavily shielded with a black japanned iron case, and is of generous proportions. The Tungar socket and fuse block is made of high quality insulating porcelain. The connection to the Tungar element is a specially treated coil spring. Size overall: Height 7 1/2 inches, width 4 inches, length 1 inch. For 60 cycle, 110 volts A. C. current.

No. 9076 With 2 Ampere Tungar Bulb, Cord and Plug ..... **\$9.45**  
No. 9090 With 5 Ampere Tungar Bulb, Cord and Plug ..... **\$19.95**

FOR 25-CYCLE 110-VOLT A.C. CURRENT  
No. 9091 With 2 Ampere Bulb, Cord and Plug ..... **\$15.85**

### Note

All battery chargers are shipped Express Collect from factory in Chicago.

## Chaslyn Sink or Swim Hydrometer

### \$0.69

POSTPAID



This hydrometer does not depend on a float therein for determining the condition of charge of the battery, but instead, three differently colored balls. If all three float, the battery is fully charged, if one ball sinks, the charge is almost full, if two balls sink, the charge is low, and if the three balls sink, then the battery is totally discharged, and should be immediately attended to.

No. 9788. **\$0.69**

## Storage Battery Clip

### \$0.14

POSTPAID



These large size clips are non-corrosive and are warranted to make a positive, ever gripping connection. Lead wire is attached to the clip by twisting it under a screw and then tightening same. Lead covered.

No. 9719 ..... **\$0.14**

**Apco "B" Battery Charger**



**\$3.95**  
POSTPAID

Supplied without bulb. Charges at any desired rate. Use ordinary light bulb for charging. Full instructions accompany it. The neatest charger using your ordinary 50, 75 or 100 watt electric light bulb. Charges at 1-10 to 1/2 amperes. According to wattage of bulb.

No. 9375 "B" Battery Charger, without lamp.....\$3.95  
For Alternating Current Only.

**Valley Battery Charger \$16.25**

Charges any 6-volt storage battery at a 6 ampere rate, or any 12-volt battery at a 3 ampere rate. The most efficient high rate battery charger made. Equipped with full length cord to attach to your lighting circuit, clips and leads to attach to your battery, and a very accurate ammeter, registering rate of charge. Transparent moulded cover. Rests on rubber feet. For 110-volt A.C. current. Size 6 x 6 3/4 x 7 1/2 inches.

No. 9671 .....\$16.25  
No. 9073 For 25-30-40 Cycle 110-volt A.C. current.....\$19.10  
Due to excessive weight, Valley chargers are shipped Express Collect. Shipping weight 21 pounds.



Test your B storage battery with this hydrometer. It will save you money by warning you in time. It will help you get the best results from your set. Priced very low.

**"B" Storage Battery Hydrometer**



No. 9225. **\$0.29**

**Apco "A" and "B" Battery Chargers**



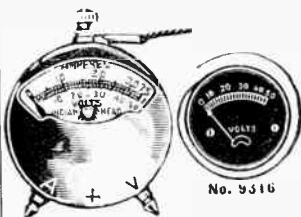
**\$11.47**

Fully guaranteed by the manufacturer and us. The finest quality, small in size, nationally known. A big bargain at our cut price. Sure to please you. Complete instructions for operation. For 110-volt 60-cycle A.C.

No. 9357 "A" Battery Charger, 2 amp. rate, no tubes required.....\$11.47

Battery Chargers Are Shipped Express Collect.

**Voltmeters**



No. 9316

No. 9515

An accurate indicator of the strength of your B batteries. Specially useful in testing 25% and 45-volt batteries, but registers from 0 to 50 volts. Case is cast metal, nickel finish, glass crystal, flexible contact cord.

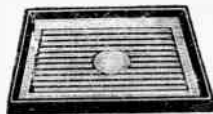
No. 9316 For "B" Batteries. 0-50 volts.....\$0.87

No. 9515 Combination meter 0-50 volts, 0 to 50 amperes. tests "B" Batteries and Dry Cells also.....\$1.39

A very fine quality instrument for testing your A and B Storage batteries. The proper construction of the float and barrel assures accuracy of readings.

No. 9001.....**\$0.47**

**Battery Tray**



We hardly need suggest the wisdom of placing your wet batteries in this tray so no acid can get to the rug. It may save its cost many times over and the women folks will appreciate your thoughtfulness. Full size to your battery. Heavy black rubber.

No. 4512.....**\$0.57**

**Sterling 6-Volt "A" Battery Charge Indicator**

**\$1.63**  
POSTPAID

To the Radio fan who objects to the use of a Hydrometer, because of its attendant possibilities of dripping acid and its ruinous effects, for testing the condition of his storage battery, this charge indicator is indeed invaluable. By applying the two contacts included with this device to both terminals of the storage battery the arrow will advise you whether to start charging the battery—when it is nearly full charged—and when you should stop charging it. Handsomely nickel plated.

No. 9741.....



**\$1.63**

**Brach Non-Drip Hydrometer**

**\$0.95**  
POSTPAID

Your first thought upon examining this unique hydrometer is to wonder why this non-drip feature was never thought of before. The moulded cup that catches any drips from the nozzle is attached to two very pliable rubber standards which arswung out of the way while the nozzle is inserted into the vents of the battery, and, when the nozzle is removed, this cup swings back into its original position ready to catch any drips of acid. Another very valuable feature is the use of the famous Chaslyn system of three colored balls of various weights which sink according to condition of charge in the battery.

No. 9696.....



**\$0.95**

## Tobe By-Pass and Filter Condensers



**\$0.56**  
POSTPAID

In every manufacturing industry there is always one outstanding concern whose products are the recognized leaders, and by which competitive products are compared. The Tobe Deutschmann By-Pass and Filter condensers are conceded to be the most efficient made. Their handsome silvered metal cases will lend grace to any receiver. Although the By-pass type can be used in "B" battery eliminators at low voltages, the Filter type is solely recommended. The By-pass type are used in any Radio receiver, in the Radio Frequency or Audio Frequency circuits. Connections may be made by soldering to the timed lugs provided, or screwed and bolted thereon.

### BY-PASS TYPE

Cat. No.	Capacity	Price
No. 9728	.1 mfd.	\$0.56
No. 9730	.25 "	0.60
No. 9731	.5 "	0.72
No. 9732	1. "	0.86
No. 9733	2. "	1.58
No. 9734	4. "	2.85

### FILTER TYPE

Cat. No.	Capacity	Price
No. 9735	.1 mfd.	\$0.60
No. 9736	.25 "	0.65
No. 9737	.5 "	0.80
No. 9738	1. "	1.11
No. 9739	2. "	1.58
No. 9740	4. "	2.85

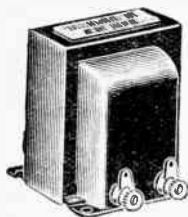
### TOBE HI-VOLTAGE POWER PACK CONDENSERS

D.C. Working Voltage 1000 Volts

Cat. No.	Capacity	Price
No. 9030	.5 mfd.	\$1.48
No. 9031	1. "	2.18
No. 9032	2. "	3.48
No. 9033	4. "	5.95

## Thordarson Filter Choke Coil

**\$4.48**  
POSTPAID



The name of Thordarson on any transformer is an immediate assurance of a quality product. Every "B" eliminator is only as good as its Filter system, and the choke coil therein plays the main role. The Thordarson choke coil will serve these requirements with 100% efficiency. Inductance 30 Henries—current carrying capacity of 70 milliamperes—D.C. resistance

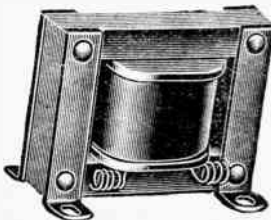
of 280 ohms. Can also be used as a filter choke for keeping high voltages off your loud speaker. Measures 2 1/2 inches by 2 1/2 inches by 3 inches high. **\$4.48**

No. 9646

## Choke

**\$1.55**  
POSTPAID

This excellent choke, especially manufactured for "B" battery eliminators, and used in the KONITE NO-11UM Eliminator, has about 40-milliamperes capacity, (10,000 turns of No. 32 wire) and is warranted to do the work right. Will not heat or burn out under normal load.



No. 4002 Choke .....\$1.55

## Tobe "B" Eliminator Blocks

**\$7.65**  
POSTPAID



Any "B" eliminator is only as good as the Filter system employed. The Tobe Deutschmann Filter Blocks offer you the assurance that your completed eliminator will be an absolute success. Attractively sealed within a silvered case. For all Raytheon and other plate supply circuits where the working D.C. voltage does not exceed 300 volts.

For use in small "B" eliminators in which there will be no intermediate voltages used—or where separately encased filter condensers would by pass these intermediate voltages, if they were to be used. Contains one 8 Mfd. and Two 2 Mfd. condensers—heavy binding posts are on the top of this model.

No. 9725 ..... **\$7.65**

Especially designed for use with the Raytheon Tube Type B and contains one 8 Mfd., two 2 Mfd., and two 1.0 Mfd. Tobe Filter Condensers. Height is only 5% inches, width 4 inches and depth 2 1/4 inches. Binding posts are brought out on the bottom of the case for safety sake.

No. 9726 ..... **\$8.65**

Very similar in appearance and size to our No. 9726 Block, but contains Three 4 Mfd., and two 1.0 Mfd. Tobe Filter Condensers—specially designed for use with an R. C. A. or Cunningham 213, or two 216 or 316 Thermionic Rectifying Tubes.

No. 9727 ..... **\$8.65**

Same as our No. 9726—designed especially for the new BI Raytheon Tube. Contains two 4 Mfd., one 6 Mfd., and two 1 Mfd. Tobe Filter Condensers.

No. 9728 ..... **\$10.15**

## Tobe Raytheon Buffer Condenser Unit

The Raytheon circuit requires two .1 Mfd. condensers on the A.C. side of the tube.

No. 9060 ..... **\$1.19**

## High Capacity Condensers

**\$0.60**  
POSTPAID



These are standard condensers and are of the best vacuum impregnated paraffin type. The insulation is specially-prepared paper, and the units are compressed hydraulically before they are sealed in their metal casings.

All of our condensers are tested for 500 volts breakdown; each condenser comes in an enameled black tin casing.

There are two metal terminals to which wires or bus bar can be readily soldered. We have developed these condensers especially for "B" eliminator work, and we believe our prices are the lowest in the country. Try connecting a number of these condensers together. You can make any capacity "Filter Block" for any style "B" or "A" eliminator.

No. 4007	4-Mf.	Condenser, each	\$2.00
No. 4008	3-Mf.	Condenser, each	1.65
No. 4009	2-Mf.	Condenser, each	1.30
No. 4010	1-Mf.	Condenser, each	0.75
No. 4011	1/2-Mf.	Condenser, each	0.60
No. 4012	1/4-Mf.	Condenser, each	0.50

Gentlemen:

Recently I ordered a triekle charger, and am very much pleased with same.

S. W. DEARTH,  
Deer Creek, Ill.



### Rectifier Cells

**\$0.60**  
POSTPAID

These rectifier cells, of which four must be used for the complete full-wave rectification, are standard with us, having been specially designed for "B" eliminator work. These 4-oz. jars, with acid- and heat-proof rubber screw covers, are furnished with two electrodes, namely, pure aluminum and lead. A vent cap is also provided. The special connectors listed below should be used for connecting the cells together. Size  $4\frac{1}{2}$ " x  $2\frac{1}{2}$ "



**No. 4003 Rectifier Cell (but no connectors nor salts) complete with cover and electrodes.....each \$0.60**

### Connectors

**\$0.25**  
POSTPAID

These special connectors are used in order to connect four of the rectifier cells together. Set of 4 special connectors sold as one unit. These connectors snap over the round electrodes, giving a positive binding contact at all times, that stays put. No loose connection possible. Illustration shows how connector clamps over  $\frac{1}{4}$ " rod. Center hole is used for screw and nut binding post.



**No. 4004 Set of 4 Electrode Connectors...\$0.25**

### Resistances

**\$0.50**  
POSTPAID

These resistances are standard for eliminators and will carry about half a Watt on continuous load. Glass enclosed, cartridge type. Two of these must be used in standard eliminators. The resistance is 10,000 Ohms per unit. Resistances come complete with two spring clip mountings.



**No. 4005 "B" Eliminator Resistance, 10,000 Ohms.....each \$0.50**

### Rectifier Salts

**\$0.20**  
POSTPAID

Only long experience can produce the correct "B" eliminator rectifier salts. Borax and similar salts "creep" over the electrodes and usually short circuit them. Our patent salt combination is guaranteed to keep electrodes clean and will not "creep." Sold only in units for our No. 4003 rectifier cells. One filling charges one cell.

**No. 4006 Rectifier Salts, per box (one complete charge).....each \$0.20**

### Electrodes

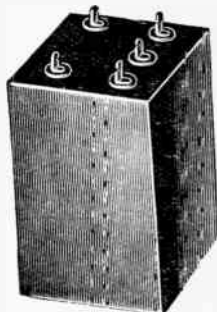
For those who wish to make their own rectifiers we supply electrodes. The success or failure of a rectifier lies in the purity of the aluminum used. We use only 99.5 per cent pure Aluminum in connection with our rectifiers. The small electrodes measure  $3\frac{1}{4}$ " long by  $\frac{1}{2}$ " diameter. The large electrodes are  $4\frac{3}{4}$ " long by  $\frac{1}{2}$ " diameter, and are equipped with Fahnestock clips rigidly screwed into one end thereof. The large electrodes are intended for pint jars.

**No. 4015 Small Aluminum Electrode.....\$0.10**  
**No. 4016 Small Lead Electrode.....0.08**  
**No. 4017 Large Aluminum Electrode.....0.35**  
**No. 4018 Large Lead Electrode.....0.30**  
PRICES POSTPAID

### Konite Filter Block

**\$3.65**  
POSTPAID

This is the high capacity 500-volt tested condenser system used in the NO-HUM "B" Battery Eliminator. Contains 4 condensers, all in one housing, as follows: One each 4-mfd., 2-mfd. and two  $\frac{1}{2}$ -mfd. Complete as illustrated, with 5 terminals; in tin shell, size  $2\frac{1}{2}$ " wide,  $1\frac{1}{4}$ " deep,  $1\frac{1}{4}$ " high.



**No. 4001 Block.. \$3.65**

### Large Size Rectifier

**\$1.17**  
POSTPAID

Commonly termed a "pint" size rectifier jar, it can be used in either a Trickle charger rectifier, or in a "B" battery eliminator. In the former instance, only one jar is required. In the latter, four jars are required. Consists of a heavy jar, with a threaded "neck" upon which is screwed the moulded cover, and through which are inserted the  $\frac{1}{2}$  inch diameter lead and aluminum electrodes (No. 4017-4018) separated by  $1\frac{1}{2}$  inches. A removable vent cap completes the unit. Note the Fahnestock clips which are screwed into the electrodes for convenient and positive connections—also note the notches on the moulded cap, for gripping same, when unscrewing it from the jar. Besides this unit, you need a lamp cord and plug, and our No. 8804 resistance to assemble your own trickle charger. Overall dimensions are  $5\frac{3}{4}$  inches high,  $3\frac{1}{4}$  inches diameter.



**No. 8803 As Illustrated..... \$1.17**

### Trickle Charger Resistance

**\$0.99**  
POSTPAID

Constructed to our specifications for use in a trickle battery charger. You are assured every satisfaction when used in conjunction with our No. 8803 Rectifier. The resistance itself consists of a long "spring," wound around the porcelain standard, in which are moulded the grooves to receive this resistance. The ends of same are connected to a plug which screws into the porcelain standard base plug furnished. Two mounting holes and two connection terminals are conveniently provided on the base. The capacity is rated at 75 watts. Overall length of resistance is  $4\frac{1}{4}$  inches, and including the socket, 5 inches.



**No. 8804..... \$0.99**

Gentlemen:  
I was well pleased with the "B" eliminator parts I received from you, and the results obtainable therewith.  
W. A. SANDERS  
2005 12th St., Charleston, W. Va.

## Ford Raytheon "B" Battery Eliminator Tran-Choke Unit

**\$8.88**



Using this instrument, and a few others listed below, any Radio fan can assemble in a few minutes a "B" battery eliminator to work direct from your 110-volt A.C. line, delivering results as good as only obtainable on eliminators ready built and selling for as high as \$50.00. Mass production, with accompanying heavy sales, enables this combination of transformer and two chokes to be sold at this extremely low price, considering the 100% efficient results obtainable therewith, and unusually attractive manner in which it is finished. In addition to this unit, you need a filter condenser block, containing one 8- two 2- and two 1 Mfd. filter condensers, a "buffer" condenser of two .1 Mfd. filter condensers, a line switch, a tube socket, a Raytheon bulb, two variable resistances for intermediate voltages and a fixed resistance of 10,000 ohms. (Also, such incidentals as binding posts, base board, screws, etc.) Note that the connections to this unit are all on the bottom, for safety sake, as well as ease in assembly. You have a choice of either a "High" or "Low" output of "B" battery voltages, the actual difference in voltages being about 1/3 as per the following table, showing voltages obtainable according to amount of current required. (An average 5-tube receiver draws about 30 milliamperes.)

### "B" Eliminator Output at Power Terminal Voltage Output

Milli-amperes	Voltage Output	
	Low	High
20	135	212
30	116	194
40	96	173
50	...	153
60	...	132

Above table was derived with Raytheon "B" tube. Measures 9 inches long by 3 1/4 inches wide by 3 1/4 high. Beautifully finished in a shielded black crystallized metal case. Binding post connections mounted on a genuine Bakelite strip, and are engraved for reference thereto. Splendid value. Detailed and explanatory book-up and instructions are included with each Tran-Choke Unit. Guaranteed to produce NO HUM, even while standing close to the speaker.

**No. 9789** ..... **\$8.88**  
Shipping weight, about 10 lbs. Sent Express Collect.

## \$1.93 Clarostat

POSTPAID  
In 5 complete turns of the knob, the resistance of this instrument can be varied from practically zero to 5,000,000 ohms—thus it can be adapted for practically any purpose where a variable resistor is called for. Although the resistance is variable at will, it is positive once set. The Clarostat is extremely useful in "B" eliminators, where it is used to reduce the voltages for the Detector and R.F. tubes.



Connected across the secondary of the 2nd stage audio transformer, it will eliminate all sassy noises, and eliminate distortion. Connected in the R.F. plus "B" battery lead, it will very admirably control the oscillations in the R.F. stages. Connected across a fixed tickler coil, it will control the regeneration therein. Can be used in resistance coupled amplifiers, with pronounced success, as the resistance required therein can be varied for best results. Encased in a compact insulated shell, and is equipped with a bakelite knob with engraved white arrow thereon.

**No. 9983** ..... **\$1.93**

## Aerovox "B" Eliminator Filter Blocks

**\$5.95**  
POSTPAID

Aerovox offers a very high quality filter block at a modest price due to the large sales enjoyed therefrom. The Reason guarantee is a further assurance of the 100% efficient performance at all times possible with these blocks. Each one of them is tested at 100 volts D.C. Encased in an attractively finished metal case. The terminals are plainly marked, and are flexible for direct connections to proper instruments. Most compact blocks made.



<b>No. 9880</b>	Consists of 2-2-8 Mfd. Filter Condensers	..... \$5.95
<b>No. 9881</b>	Consists of 2-2-8-1 Mfd. Filter Condensers	..... \$6.70
<b>No. 9882</b>	Consists of 2-2-8-1-1 Mfd. Filter Condensers	..... \$7.47
<b>No. 9883</b>	Consists of .1 and .1 Mfd. in Series (Buffer Condenser)	..... \$1.08

## Aerovox "B" Eliminator Filter Condensers

Where it is desirable to mount the various capacities of filter condensers in mechanically convenient assembly, rather than have them all self-contained, the following condensers are ideally suitable. Each one tested to 400-volt D.C. breakdown. Flexible connection leads. Metal cased.

<b>No. 9884</b>	1 Mfd.	..... \$0.49
<b>No. 9885</b>	.25 Mfd.	..... \$0.58
<b>No. 9886</b>	.5 Mfd.	..... \$0.73
<b>No. 9887</b>	1.0 Mfd.	..... \$1.09
<b>No. 9888</b>	2.0 Mfd.	..... \$1.54
<b>No. 9889</b>	3.0 Mfd.	..... \$2.59
<b>No. 9890</b>	4.0 Mfd.	..... \$3.39

### Note

By connecting any two like condensers in parallel, the micro-farad capacity is doubled, thus two 4 Mfd. so connected will be the equal of an 8 Mfd. condenser.

For Power pack filter condensers, the voltage test must withstand 750 volts D.C. For such condensers, add 50% to above listed prices, specifying all details in your order.

## Crescent Lavite Resistances



**\$1.48**  
POSTPAID

These resistances are truly laboratory products and in fact, almost every broadcasting station employs them for the speech amplifier gain control. They are non-inductive and produce distortionless amplification in Resistance Coupled Amplifiers. Guaranteed to remain constant and noiseless.

<b>No. 9610</b>	12000 ohms	..... \$1.48
<b>No. 9611</b>	48000 ohms	..... \$1.48
<b>No. 9612</b>	50000 ohms	..... \$1.48
<b>No. 9613</b>	100000 ohms	..... \$1.48

## Aerovox Lavite Resistances

Dependable and accurate. Will carry 10 watts, and will fit any standard grid leak or resistor mount. Can be supplied in the following sizes, laboratory tested: 2,000, 5,000, 10,000, 15,000, 20,000, 25,000, 30,000, 50,000, 75,000, 100,000, 200,000, 250,000, 500,000 ohms. Kindly state which type you are ordering.

**No. 8939** Each, Any Resistance .. **\$0.88**

## Thordarson Power Compacts

**\$10.88**

The wonderful and extremely useful possibilities of power pack amplification devices, with built-in "B" battery eliminators, similar to the PACENT POWER-FORMER and the POWERIZER described elsewhere in this catalogue, has doubtless convinced you that it should be used in conjunction with your Radio receiver—but perhaps you would rather assemble your own Power Pack and "B" battery eliminator incidentally, there are only 11 wires to connect!) deriving therefrom a valuable fund of knowledge, and the praises of whom-  
ever may listen to its performance. The Thordarson Power Compacts are symbols of their high standards of electrical efficiency, mechanical perfection, and pleasing



### No. 9038 Power Compact R-171 **\$13.95**

Contains a power supply transformer for full capacity operation of Raytheon BH rectifier, 2 filter chokes of 80 milliamperes capacity, a five-volt center tapped filament supply for one UX 171 power tube, and 2 buffer condensers—all in one compound filled steel case. Equipped with 6-foot cord and separable plug for attachment to the 110-volt, 60-cycle light circuit. Shipped express collect. Dimensions 3 3/4 by 5 1/2 by 6 inches high overall.

#### Maximum Voltage Output

The voltage table below represents the maximum voltage output of the B-supply, using the power tube UX 171 on the last stage. The average current drain of a normal set with the power tube is approximately 40 milliamperes.

The C bias for the power tube is automatic, varying proportionately and directly with changes in the plate voltage.

Total Output M. A.	Total Output Volts	2000 Ohm C Bias Volts	171 Tube Plate Voltage
40	225	45	170
50	255	55	190
10	275	60	205
30	300	65	225

### No. 8924 Power Compact R-210 **\$18.45**

Contains a power supply transformer for full capacity operation of the UX 210-B rectifier furnishing 100 volts to the plate of the power tube UX 210. 2 filter chokes, a 7 1/2-volt center tapped filament supply for one UX 210 power tube and all intermediate voltage—all in one compound filled case. Equipped with a 6-foot cord and separable plug for attachment to the 110 volt, 60-cycle light circuit. Dimensions 5 1/2 by 5 3/4 by 6 1/2 inches high overall. Shipped express collect.

### No. 8926 R-198 Power Amplifier **\$10.88**

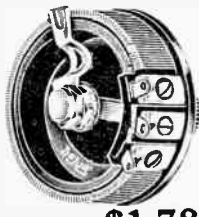
Furnishes power for both plate and filament of power tubes UX 210 or CX 310. Supplying 7 1/2 volts for the filament and 100 volts for the plate. In addition the amplifier supplies "B" voltages for the complete receiver. Core clamped and sealed to prevent hum. Dimensions 4 by 5 by 3 3/4 inches high. Weight 9 1/2 pounds. Shipped express collect.

## De Jur Power Rheostat

**\$1.78**

POSTPAID

This rheostat was designed for a large current carrying capacity. It has a large bakelite base, 2 3/4-inch diameter, and has a single-hole mounting. The resistance element ranges from 1 to 2000 ohms, its variation furnishes the required negative grid bias to power amplification tube.



**\$1.78**

No. 9643

## Tubes for Power Pack "B" Eliminators and Power Amplification Stages

UX—Made by Radio Corp. of America.

CX—Made by General Electric Co. for Cunningham.

No. 8915 UX 171 or CX 371 Power Amplifier. \$5.85

5-volt, .5 amperes—for up to 180 volts.

No. 8917 UX 210 or CX 310 Power Amplifier. \$8.65

6.0 to 7.5 volts—1.25 amperes (max.)

Can be used up to 450 volts. For Power Packs.

No. 8916 UX 216B or CX 316B Single Wave

Rectifier.....\$7.35

7.5-volt; 1.25 amperes. For single wave rectifiers in "B" battery eliminator circuits—heavy

duty type.

No. 8918 UX 213 or CX 313 Full Wave

Rectifier.....\$5.85

5 volts, 2 amperes. Will deliver full wave

rectification up to 65 milliamperes, the rectified

voltages not to exceed 220 volts A. C.

## Raytheon Tube

**\$6.00**

POSTPAID

Until the advent of the Raytheon Tubes, the success of "B" battery eliminators was never a certainty, but to-day, practically 7 out of every 10 eliminators, assembled or home built, use this tube exclusively for the rectification of the alternating current. This tube gives full double rectification.

### No. 8921 Raytheon **\$6.00**

"BH" Tube.....

Delivers about 1/3 more output voltage than No. 9790 Raytheon tube.

### No. 9790 Raytheon **\$6.00**

"B" Tube.....

### No. 8922 Independent Double Rectifier Type Bulb **\$4.95**



## Thordarson

### "B" Eliminator Transformer

**\$6.35**

POSTPAID

For those Radio fans who will build their own "B" eliminators we heartily recommend the Thordarson Raytheon tube type transformer, solely because of its recognized efficiency. The 110-volt primary is supplied with a 6-foot cord and separable plug for attaching to the lighting circuit. The secondary is tapped at the exact electrical center. There are provided two secondary voltages, to suit the particular requirements of any receiver as to its current consumption. These voltages are 255 "Low" and 285 "High." The transformer itself is mounted in a compound filled steel case, and will not heat up in continuous service. Conservatively rated. Dimensions are 4 1/4 inches by 3 3/4 inches by 3 inches high.



No. 9647..... **\$6.35**

## UX213 Transformer

This transformer supplies necessary voltages for operating B-eliminators employing the UX 213 or CX 313 full wave rectifying tube. Eliminators built with this transformer will satisfactorily furnish B voltage up to 180 volts with sufficient capacity to operate any receiver. Dimensions: 4 1/2 by 3 1/2 by 3 3/4 high. Weight 6 lbs.

No. 8925 R-197 B-Eliminator

Thordarson Transformer..... **\$6.33**

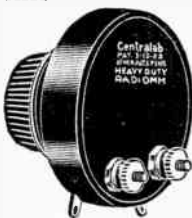
Shipped Express Collect.

## Heavy Duty Centralab Radiohm

**\$1.89**  
POSTPAID

These variable resistors are recent additions in the family of Centralab products, and have been especially produced and offered to the public to answer a demand for a heavier carrying capacity resistor for "B" battery eliminator work. The Raytheon Laboratories have placed their stamp of approval on them, and for good reason, too. Although they are variable, the voltage is constant at any setting, and thus, the panel to which they are affixed can be calibrated for various voltage readings. Insulation is tested to withstand 1,500 volts.

No. 9678 0 to 50,000 ohms. Principally used as the detector voltage control. **\$1.89**  
No. 9679 0 to 10,000 ohms. Used as the intermediate voltage control. **\$1.89**  
No. 9029 2,000 ohm potentiometer, for providing "C" bias from any eliminator. **\$1.89**



## Centralab Radiohm

**\$1.79**  
POSTPAID

The Centralab Radiohms are constructed in the same manner as our No. 9029 Modulator, but has only two connections. This instrument has lately sprung into popular favor due to its efficiency when used as an oscillation control in any tuned radio frequency circuit. Connected in the "B" battery circuit feeding the R.P. tubes, it effectively



and noiselessly diminishes the voltage to a point or setting just before the tubes begin oscillating. Our No. 9683 is recommended for this purpose. It can also be used to control the regeneration in a fixed tickler circuit. Single hole mounting. Dial has an attractive white arrow engraved thereon.

No. 9680 2,000 ohms maximum. **\$1.79**  
No. 9681 50,000 ohms maximum. **\$1.79**  
No. 9682 100,000 ohms maximum. **\$1.79**  
No. 9683 200,000 ohms maximum. **\$1.79**

## Centralab Modulator

**\$1.79**  
POSTPAID

For a volume control in any audio frequency amplifier, there is no equal to the 500,000 ohm Centralab Modulator, for it is a non-inductive NOISELESS variable resistance, smoothly variable from zero, affording the only satisfactory means of regulating the output of the amplifier, with improved quality of reproduction, from a whisper to maximum loudness. The outer shell is Bakelite, encasing the element in a novel dust-proof transparent case. Single hole mounting. Same size as a potentiometer or rheostat.

No. 9686. **\$1.79**



## Centralab Potentiometer

This potentiometer is of the same construction and principle as our No. 9686 Modulator.  
No. 9684 400 Ohms **\$1.59**  
No. 9685 2,000 Ohms **\$1.79**

## Bradleyohm Type E

**\$2.21**  
POSTPAID

This heavy duty variable resistance is ideal for varying the output of any "B" battery eliminator, so as to obtain a lower reading voltage for the detector tube, or any intermediate voltage, using one Bradleyohm for each tap desired. It will successfully dissipate up to 4 watts but must not be used where the full voltage exceeds 250. Fluted knob provided. Top and bottom is heavily nickel plated brass, with white porcelain walls. Terminal screw connections. Dimensions: 2 inches long, 1 inch wide and extends about 1 1/2 inches from rear of panel. One hole mounting on panel or baseboard mounting.



No.	Type	Range	Ohms	Each
9922	E	1 to 100	.....	\$2.21
9923	1E	100 to 5,000	.....	\$2.21
9924	5E	1,000 to 50,000	.....	\$2.21
9925	10E	10,000 to 500,000	.....	\$2.21
9926	25E	25,000 to 1,500,000	.....	\$2.21

## Ward Leonard Vitrohm Resistor Kit

**\$7.95**  
POSTPAID

For use in all "B" battery eliminators, Power packs, transmitting sets, etc., where the highest grade of resistor is essential. The resistors are wound with wire only half as thick as a human hair, and then covered with vitreous enamel. Will never change in value, and will dissipate from 2 to 8 watts continuously, thus can be successfully used with voltages as high as 500 volts surging through them, down to 50 and 150 volts. The 5000 ohm resistor measures only 2 inches long. Soldering lugs provided. Detailed instruction sheet with diagrams show use to supply intermediate voltages in eliminators, etc. The 8 Vitrohm Resistors in the Kit have the following values:

1	.....	750 Ohm
3	.....	1500 Ohm
1	.....	3000 Ohm
1	.....	3500 Ohm
2	.....	5000 Ohm

They are hard to break but easy to use.  
No. 9935 Complete, with 8 Resistors **\$7.95**

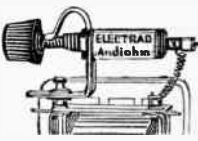


## Audiohm

**\$1.38**  
POSTPAID

Raspy or nasal reproduction in your loud speaker can frequently be traced to the secondary of your 2nd stage a t d o transformer. By shunting the Grid and Filament terminals thereof with this variable resistance, you can adjust the output in your speaker to your own satisfaction. A cleverly arranged mounting bracket and flexible coil spring permits the immediate installation of this device on the secondary of any transformer, without any drilling, special tools or soldering.

No. 9899. **\$1.38**



Gentlemen:  
I have already received a supply of Rasco parts from you which I found to be very satisfactory.

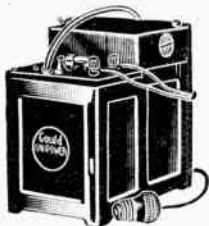
F. A. LEITH,  
92 Avenue A. Bayonne, N. J.



## Gould Unipower "A" Battery from Your House Current

**\$33.85**

By simply plugging in to your house current and connecting the "A" positive and negative "A" battery leads on your Radio to this instrument, you have a perpetual source of "A" battery current. This is accomplished by the use of a Gould Storage Battery (and there is no finer storage battery made), a genuine Balkite Trickle Charger with variable charging rates (on the No. 9861) and an Automatic Relay switch, all encased in a handsome black rubber case. The moment your receiver switch is turned off, the relay switch is actuated, causing the Trickle charger to charge back into the battery the current you may have consumed. Thus, at all times your storage battery supply is up to full capacity, very essential for clear reception—extreme volume and long distance results. The moment your receiver switch is turned on, the relay disconnects the charger, eliminating every trace of any hum. Has gas-tight cover, with special vent tube. Can be set in battery compartment of console cabinet, or left on the floor—its appearance will not mar the room. The No. 9861 also controls a "B" battery eliminator, if one is to be used. Shipped express collect. Acid-proof heavy flexible rubber covered wire and plug included. Installation takes only a few minutes. Detailed instructions furnished.



- No. 9861 Model AC 6. For 6-volt tubes. 1 1/2 inches long, 7 5/16 inches wide and 10 inches high. For 110-volt, 60-cycle lines. . . . . \$39.45
- No. 9862 Model AC 4. For 4-volt 193 tubes. 8 1/4 inches long, 5 inches wide, 8 3/8 inches high. For 110-volt, 60-cycle lines. . . . . \$33.85
- No. 9863 Model AC 6A. Same as No. 9861 but for 110-volt 25-50 cycle A.C. lines. . . . . \$44.45
- No. 9864 Model AC 4A. Same as No. 9862 but for 110-volt 25-50 cycle A.C. lines. . . . . \$36.85

## Brach Controllit



**\$4.95**  
POSTPAID

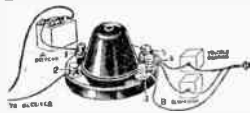
If you employ a trickle or regular rate charger and wish to automatically disconnect same while your receiver is in operation, and then, to automatically switch it back to its charging position, the Brach Controllit will solve the problem. Your battery switch, or rheostat, when turned on, automatically causes this relay to SWITCH OFF, and vice versa. Can also be used with B eliminators. No alterations to your set required—a few minutes to connect. This switch has made possible an "A" battery current supply direct from your house current, in conjunction with a trickle charger and storage battery.

No. 9697. . . . . **\$4.95**

## Automatic Control Switch

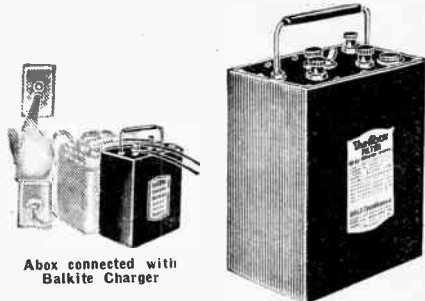
**\$1.79**  
POSTPAID

Connect this switch to your receiver, Trickle charger and "B" eliminator. Turning on the bulbs in your receiver will automatically cause this switch to disconnect the trickle charger, and vice versa—will also control them independently. Or, "B" eliminators can be controlled in same fashion—in fact, it is very essential with every "B" eliminator. Instructions cover varied uses. All parts sealed in durable black porcelain base—very attractive. 3 inches in diameter.



No. 9005. . . . . **\$1.79**

## Abox Filter for "A" Battery Eliminator



Abox connected with Balkite Charger

**\$18.83**

The Abox filter is not a storage battery—it is not a trickle charger and it is not an "A" battery eliminator in itself. It is used in conjunction with a 2 1/2 ampere rate Balkite charger, with which it will deliver steady 6-volt current with no trace of an audible hum, and is always at your service, no matter how long it may have stood idle. The moment your current is turned off from your Radio tubes, the Abox filter stops drawing current from the house line. Only about half the size and weight of a 100 ampere hour storage battery. In theory, the house current flows to the 2 1/2 ampere Balkite charger, within which it is reduced in voltage to about 6 volts, and converted into direct current, through the electrolytic action within. But, at this point, this current has every trace of the A. C. hum present, and it is the SOLE PURPOSE OF THE ABOX FILTER TO THOROUGHLY ELIMINATE THE A.C. HUM, WHICH IT DOES MOST EFFECTIVELY, passing on to your radio receiver a pure supply of 6-volt current, for up to 6 201A 1/4 ampere tubes. Only requires DISTILLED WATER—NO CHEMICALS—NO SALTS—NO "TRICKLE" COST. It can also be used with a 2 ampere Tungar bulb type charger, following special instructions furnished, but is not recommended with any vibrator type charger. Very ruggedly constructed. Black metal case. Binding post connections. Takes a few minutes to install. Shipped express collect

No. 9615. . . . . **\$18.83**

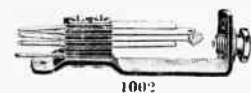
## Majestic "B" Battery Eliminators

**\$30.95**



A very widely advertised and highly recommended "B" Battery eliminator. The Majestic Super B (No. 9939) will deliver a maximum voltage of between 150 and 180 volts to receivers using as high as 12 tubes. Is provided with a separate switch to control the current from the light socket. Four terminals are provided: reading: Negative, Detector (adjustable), Intermediate (Adjustable) and Amplifier (Adjustable). A special switch controls the "Low" or "High" output, offering a wide range of voltages. The Majestic Master B will deliver between 150 and 180 volts at 60 milliamperes, assuring more than ample output voltage to operate a 171 or 371 power tube. This model has an additional adjustable resistance, for controlling all the voltages. Both eliminators are supplied complete with Raytheon tube, plug, cord, directions, etc. Shipped express collect. Shipping weight about 25 pounds.

No. 9939 Super B. . . . . \$30.95  
No. 9940 Master B. . . . . \$35.75

**"Rasco" Jacks**

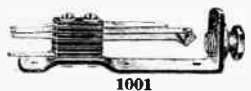
1002



1000



1001



1001

We spring to the radio fraternity the Rasco line of plugs and jacks. After having studied all the other plugs on the market, we have eliminated all the disadvantages of the poor ones and have incorporated in our own all of the good points of the best plugs, and have added several improvements of our own. By having our own metal factory, which has for twelve years made plugs and jacks for the Postal Telegraph Company, we are in a position to sell these plugs and jacks at a lower price than those of high quality offered by other reputable concerns. Rasco jacks are made of the best material that money can buy, and the construction is correct, behind it being the soundest engineering practice. The springs are very heavy and the tension is right. The jacks are rugged, have positive action at all times, while the pure silver contacts are very large, insuring absolute electrical contact. The construction of the bracket is brass, heavily nickel-plated and buffed.

No. 1000 4 springs, double circuit. Price . . . . . \$0.35

No. 1001 3 Springs. Price 0.35

No. 1002 Automatic 5

    Springs . . . . . 0.49

No. 1004 1 spring, open circuit . . . . . \$0.25

No. 1005 2 spring, closed circuit . . . . . 0.30

**Jack Nameplates**

Set of 13. Maybe mounted behind the hex nut of a jack to indicate the purpose of the jack. Silver or gold, finished brass with black lettering, most attractive and useful.



Thirteen titles: Detector Jack, 1st Stage Jack, 2nd Stage Jack, 3rd Stage Jack, External Jack, Input Jack, Output Jack, Loud Speaker Phones, Loop Aerial, Antenna Ground, Voltmeter, and "On and off."

No. 9362 Silver finish ea. \$0.05

No. 9359 Gold finish ea. 0.05

**"Rasco" Cord Tip Jack**

**\$0.15**  
POSTPAID

This specialty has been developed by us as we have realized for a long time that experimenters require something better than binding posts for attaching telephone cord tips to instruments. It takes up less room than a binding post, and when attached to a panel does not extend more than 1/4" in. It is particularly useful in connection with instruments where neat appearance is desired, and not much room can be spared. Right mechanically as well as electrically. The novel feature of this jack is that the connecting wire is attached to the eccentric hexagon nut by means of a small screw which fastens on the nut. No soldering is necessary, and there are no complications. Simply drill a hole in your panel, insert the jack, then by means of pillars screw up the hexagon nut on the threaded shank. The connecting wire is then attached to the screw in the hexagon nut. This finishes the job.



The four slots of the jack give enough spring tension to grip the cord tip tightly, but at the same time do not give too much friction so the cord will be pulled out from the cord tip, as is the case with many other similar devices. The construction is such that almost the entire part of the large shank of the cord tip extends from the panel so the fingers pull on the cord tip itself, not on the cord. Once you have adopted the RASCO Cord Tip Jack you will always use it. Will take any standard cord tip.

No. 1500, Cord Tip Jack (patent applied for) 2 for. \$0.15

**Yaxley Battery Switch and Pilot Light**

**\$1.09**  
POSTPAID

With the use of this combination switch and pilot light there is no danger of your leaving the current on when you cease using the receiver.

It does not take long to save its cost in current saved. The light from the lamp shines through the red jewel set in a hole in the panel. Switch is snap off type. Complete with switch, 6-volt lamp and jewel.

No. 7921 Complete . . . . . \$1.09

No. 7922 Pilot light only.

including Jewel and lamp . . . . . \$0.67

**Pacnet Battery Switch**

**\$0.36** POSTPAID



Produced under highest standards of workmanship. Its action is positive. Solderless contact screws used. No. 7986 . . . . . \$0.36

**Pilot Switch**

**\$0.40**  
POSTPAID

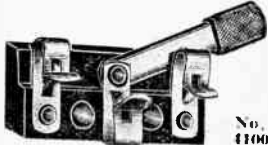


Compact, well designed, well constructed. Only Bakelite and metal used. One hole mounting. Makes or breaks contact with a quarter turn. Binding post connections means no soldering. Dial plate furnished. No. 9464 . . . . . \$0.40

**Carter Lock Switch**

**\$0.63**  
POSTPAID

Lengthens life of tubes and batteries by reducing chance of accidentally leaving the tubes lit or tampering. A quarter turn of the key lights the tubes. When key is not in, the set cannot be operated. Neat, small and durable. No. 9378 . . . . . \$0.63

**Throw Switch**

**\$0.25**  
POSTPAID

Mounted on composition block. Solid composition handle. Spring binding posts which give quick and better contact than the ordinary kind and they stay tight. No. 4100, Single pole, single throw switch . . . . . \$0.25  
No. 4101, Single pole, double throw switch . . . . . 0.35

**"Rasco" Lubricated Panel Switch**



**\$0.29**  
POSTPAID

After fussing around with switches that came loose, and otherwise did not stay put, had loose contacts, etc., we designed the "Rasco" switch, which we claim to be superior to anything offered heretofore.

Our patent spring fork holds the switch handle always under a uniform tension, at the same time it insures the best contact possible. The double-leaf springs are nickel plated and polished and in addition we are now using the new winging contact, which covers every point of the switch point.

The rifled ribbed bushing, forced into the wood or bakelite, stays there forever—cannot come loose. Vastly better construction all the way through.

The lock fork assumes three differ-

ent positions to accommodate the switch to various thicknesses of panels. No screw threads used in bearing. Our bearing is a true mechanical machine bearing; no threads to wear and tear. Then comes the best improvement, the groove for vaseline or heavy lubricating oil. This makes it the only lubricated switch on the market. You will be surprised at the silent, smooth action. You have never experienced anything like it. The price is so low it must appeal to anyone. Blade radius  $1\frac{1}{2}$ "

No. 1921 ..... \$0.29

**Panel Switch Lever**



New style switch lever with lock fork. Impossible not to make positive contact at all times. The blade radius is  $1\frac{1}{4}$ ". Blade is nickel plated and polished. Fork is phosphor bronze. The lock fork holds the screw (in which it rotates), securely.

No. 200 Complete ..... **\$0.23**

**Weston Plug**

**\$0.59** POSTPAID



This is the justly celebrated Weston plug. On the market for years and always giving perfect satisfaction. Cord tips held firm. Cannot pull out unless released by pressure on spring which releases the grip.

No. 9565 ..... **\$0.59**

**Bakelite Plug**

**\$0.28**  
POSTPAID



Moulded plug, efficient operation, good appearance, perfect electrical contact. Cord tips easily inserted in this connector. Value high, price low.

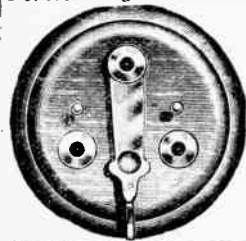
No. 9437 ..... **\$0.28**

**Wood Base Switch**

**\$0.10** POSTPAID

Low price set well made and equipped with spring binding posts in the back for quick connections. Will do anything any other wood base switch will do.

No. 707 Single Point ..... **\$0.10**



**Battery Switch**

**\$0.15**  
POSTPAID

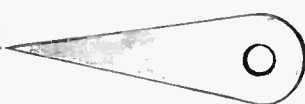
Same as No. 707 except equipped with double point. It is a well made switch and well worth the money.

No. 888 Double Point ..... **\$0.15**

**Nickel Pointer**

Made of brass and is nickel plated and highly polished. Hole clears  $8/32$ ".

No. 726 ..... **\$0.05**



**Switch Lever**

Brass, nickel plated and polished. It is used on our No. 200



switch. The new thing about it is that it has a central elongated slot which makes it possible to use it on a radius from  $1\frac{1}{4}$ " to  $\frac{3}{4}$ ", therefore adjustable. Entirely nickel plated and polished.

No. 728 ..... **\$0.06**

**Patent Auto Plug**

**\$0.51** POSTPAID

Entirely shock-proof.

Entire length of cord tips is incased by plug shell and no metal parts exposed. Cord tips are quickly connected and held with a biting grip. Cannot pull out unless buttons are pressed. Polarly indicated by red and blue push-buttons. Shell is genuine bakelite. No screws. Nothing to work loose or cause trouble. No. 9343 Nickel-plated metal parts..... **\$0.51**  
No. 9400 Gold-plated metal parts..... **1.00**



**"Rasco" Phone Plug**



A solid composition shell plug which usually sells from 75 cents to \$1.00. Nicely finished. Mechanically and electrically right. Patented cord tip holder which holds tips tight. Size over all "24x1".

No. 1030 ..... **\$0.23**

**Switch Blade**



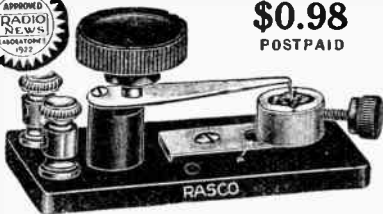
Made of brass, nickel plated and highly polished. Radius  $1\frac{1}{4}$ ".

No. 727 ..... **\$0.06**

## "Rasco" Crystodyne Detector

(Patents Pending)

**\$0.98**  
POSTPAID



### For the Famous Oscillating Crystal Circuits

The invention of the oscillating crystal by Mr. O. V. Lossev has created a sensation in radio circles. The following is an abstract from Radio News, Mr. Hugo Gernsback, Editor. Has this to say about it:

"We are happy to present to our readers this month an epoch-making radio invention that will be of the very greatest importance within the next few years. It is the invention of a young Russian inventor, Mr. O. V. Lossev. It is now possible to do anything and everything with a crystal that can be done with a vacuum tube. The crystal now not only detects but oscillates and can, therefore, be used for amplifying purposes in both radio and audio frequency circuits. It has already been used to transmit C. W. While we do not look forward to having the crystal displace the vacuum tube, nevertheless it will become a very powerful competitor of the tube. We predict great things for the new invention."

Here is a detector which has been especially developed by us for the new Crystodyne circuits. This detector while using the natural mineral zincite can be used with any other crystal as well. Several unique features are embodied in this detector. To begin with it is the only detector that has a sliding crystal cup with perfect contact arrangement and which cup not only slides but rotates with an eccentric motion. By means of the small knob the cup slides easily so that any point of the crystal can be brought into contact. A new crystal can be inserted immediately by un-crewing the small knob. The contact point which at the same time forms the cat-whisker is made of spring steel. The combination of steel-zincite is the only one that was found practical by Mr. Lossev for the oscillating crystal. Note the micrometric adjustment that can be made by the large knob bearing against the steel spring. This raises and lowers the steel point to the finest possible degree. The base is of moulded bakelite, all parts nickel plated and polished.

No. 6900 Crystodyne Zincite Detector

with Mounted Zincite Crystal .....\$0.98

No. 6901 Natural Zincite Mounted Crystal  
especially tested for Crystodyne work,  
fits any crystal cup .....\$0.19

## "Rasco" Baby Detector

GALENA PATENT  
NICKEL DETECTOR  
CUP AND BINDING  
POST

SLIDING HARD  
RUBBER KNOB

NICKEL HOLDER  
AND BINDING  
POST

SOLID  
COMPOSITION  
BASE

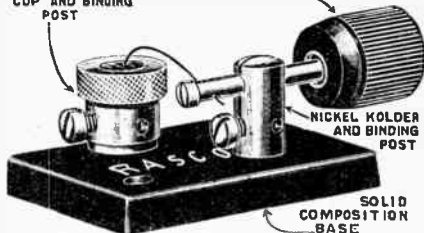
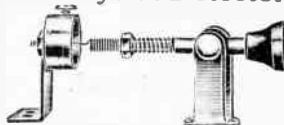


Illustration is full size. Base is solid, black composition. Mounted on same is a nickel holder and binding post which holds a fluted hard rubber knob with its sliding rod member.

This rod turns in slotted holder, and can be pushed from one side to the other to move the cat-whisker wire. Cat-whisker is attached by a screw so it can be taken off when desired and replaced. The outstanding part of the Detector is the patented nickel detector cup and binding post. The knurled cup unscrews and you place the galena crystal in the cup, then replace the knurled cap and the galena crystal is held secure. The crystal can be renewed in two seconds. Wire connections can be made quickly. Metal highly nickel plated and polished. Complete in all details. Furnished complete with cat-whisker and one galena crystal. Sizes overall: 1 1/2" x 1 1/2".

No. 1898 Detector .....\$0.40  
No. 1899 With Galena and Radiocite  
Crystals ..... 0.50

## Crystal Detector Stand



**\$0.35**  
PREPAID

The one which we offer is perhaps the best cat-whisker that money can buy. Entirely nickel plated, all brass parts. It takes the swivel adjustment, of the ball-socket type. It is possible to move the arm in every direction.  
No. 1350 Unassembled, complete. **\$0.35**  
each

## Pacent Detector Stand



Dust-proof and easily adjusted. The crystal is always readily accessible. Top and base are high-grade moulded insulation. Metal parts are highly nickled. Ideal for reflex circuits, for when once adjusted it does not easily jar loose.

No. 9374 .....**\$0.40**

## Permanent Carborundum Detector

**\$1.29**  
POSTPAID



Heavy five-pound contact pressure makes this detector permanently sensitive. Carborundum manufactured by the Carborundum Co., in the great electric furnaces at Niagara Falls, is the only rectifying substance that can be used with a heavy pressure contact; consequently, it is the only material suited for permanent detectors. Built solidly and holds its adjustment indefinitely. Guaranteed not to "burn out". When used with the controlling unit, Carborundum Detectors excel all other crystals in permanency, efficiency, selectivity, sensitivity, volume and perfect adaptability to any set.

No. 9310 .....\$1.29

## Radiocite Crystal

We recommend Radiocite as the best all-around radio crystal in existence. The size of this mounted crystal is 1/2" x 1/2". It contains a piece of the best tested radiocite. The crystal will fit any standard cup.

No. 317 .....**\$0.25**



**Crystal  
Cups**  
**\$0.25**  
POSTPAID

This crystal cup is well made and has a knurled set screw. Nickel plated and polished; complete with screw and nut. Fits all standard mounted crystals.

No. 318 .....\$0.25



## Minerals and Crystals

We are headquarters in the United States for all kinds of minerals and crystals. We carry a very large stock of all the minerals which we list below. Our long experience in this line is a guarantee that you will get the correct crystal, that is sensitive. All our minerals and crystals come direct from the mines, and we only accept such material that we know has passed rigorous tests for certain characteristics which we know from experience make for high sensitivity. You will find that our crystals, even if sold at a very low price, are superior to many of those so-called tested ones on the market today, which as a rule are not tested but are simply crystals taken as they come.



### Galena (Argentiferous)

This mineral is thought by many to be one of the most sensitive discovered. Used to best advantage by having a fine phosphor bronze or brass wire spring, size about No. 26 B. & S. Press very lightly on the Galena. We carry only a specially selected argentiferous crystal grade.  
No. 2001 Per oz. ....\$0.25

## Bornite

Very popular abroad. Can be used with a phosphor bronze contact wire, or with zincite. Marvelously sensitive.

No. 2000 Per oz. ....\$0.45

## Copper Pyrites

Very sensitive and very stable. Even sensitiveness along whole surface. Not easily jarred out. Use phosphor bronze contact wire. Guaranteed 100 Per Cent. Pure.  
No. 2002 Per oz. ....\$0.45

## Zincite

The aristocrat of all wireless minerals. Too well known and too far famed to need to praise it here. Undoubtedly the most sensitive of all crystals. Guaranteed 100 Per Cent. Pure.  
No. 2003 per oz. ....\$1.75  
No. 2004 1/4 oz. .... 0.45

## Silicon

There are two kinds: Silicon crystals and fused Silicon. The former, manufactured in this country, is absolutely unfit to use; the latter imported by us, is the only kind that should be used. It comes in chunks and somewhat resembles graphite. It is very hard and extremely brittle.  
No. 2005 Per oz. ....\$0.45  
No. 2006 1/4 oz. .... 0.20

## Iron Pyrites (Ferron)

Our iron pyrites are all imported Spanish stock that may be used for years without deterioration. Very sensitive.  
No. 2007 Per oz. ....\$0.40

## Mineral Sets

No. 2010 Zincite and Copper Pyrites (Perikon), per set .....\$0.95

## Mineral Assortment

(Consisting of generous pieces of each of the six minerals and crystals shown on this page. An excellent assortment for the wireless experimenter. Each mineral in a separate box. No Radiocite supplied.)  
No. 2025 ..... \$1.00

## Galena Mounted Crystal

RASCO Galena Mounted Crystals are all tested. Each spot is sensitive. We use only striated (argentiferous) "steel" galena.  
No. 327 ..... \$0.15

## "Rasco" Cat Whisker



\$0.05 POSTPAID

Made accurately of phosphor bronze spring wire, and specially recommended for use with our mounted crystals. So cheap that you will not wish to make your own after you have seen them. Can be either soldered to the adjusting screw or the conical wire can be slipped over the screw itself without soldering.  
No. 1420 ..... \$0.05

## Selenium



\$0.50  
POSTPAID

This metalloid is used for a variety of purposes, particularly to make selenium cells, etc. We carry only the chemically pure kind. Sold only in one ounce lots.  
No. 557 1 ounce .....\$0.50

Gentlemen:

I have sent you several orders in the last few months and have been pleased with the quality of the goods.

FRED COUSINS,

Maravia, Iowa.

## Tested Radiocite



\$0.30  
POSTPAID

The most famous crystal in existence. Used by U. S. Navy and all up-to-date Radio companies. The only crystal that does not wear out or burn out as do others; as sensitive as galena and more stable. Sold only by the piece; packed in tin foil in a wooden box.

No. 900 Per piece .....\$0.30

### HERE IS AN INTERESTING FACT

At the head of our business are men of wide experience and good reputation for knowledge and skill in the radio field. The present management issued the first radio mail order catalog in the United States in 1904. Every man and woman in the organization, from the head engineer to the office boy, is hand-picked. The result is reflected in the superb quality of our products—which are so good that they can be sold on an unconditional guarantee of satisfaction or money back. The large volume of business per year reduces our overhead expenses so that it amounts to very little on each item we sell. This helps explain the wonderful values we give and why you save money in doing business with us.

## Magnet Wire

The very best grade, sold only by the spool as offered here.

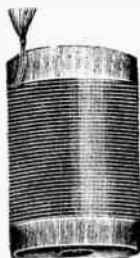
No. 2500, Double Cotton covered, 18 B. & S., 8-oz., spool ..... \$0.10  
 No. 2501, Double Cotton covered, 20 B. & S., 8-oz., spool ..... \$0.12  
 No. 2502, Double Cotton covered, 22 B. & S., 8-oz., spool ..... \$0.16  
 No. 2503, Double Cotton covered, 24 B. & S., 8-oz., spool ..... \$0.18  
 No. 2504, D.C.C., 26 B. & S., 8-oz., spool ..... \$0.17  
 No. 2505, D.C.C., 28 B. & S., 8-oz., spool ..... \$1.03  
 No. 2506, D.C.C., 30 B. & S., 8-oz., spool ..... \$1.13

**\$0.40** POSTPAID



## Litz Wire

**\$0.02**  
POSTPAID



Litzdraht High Frequency Cable is used more and more for winding coils, and for radio instruments. Made of many thin enameled wires twisted into a thin cable. The difference in results between solid conductor and Litz cable is tremendous, and can not be appreciated (till a trial has been made). No. 893 is used particularly for C. W. transmission. No. 323 and 830 are used in connection with vario-coupler rotors, variocouplers, bank windings, etc. The B & S size given is the size of the cable.

No. 323, 20 No. 38 wires stranded, Double white silk insulation. Equivalent to No. 25 B&S, per foot ..... \$0.02  
 Per 100 feet ..... 1.15  
 No. 890, Litz Wire; 10 No. 38 wires stranded. Double white silk insulation. Equivalent to No. 28 B&S, per foot ..... \$0.01  
 Per 100 feet ..... 0.75  
 No. 891, Litz Wire; 48 No. 38 wires braided. Double white silk insulation. Equivalent to No. 21 B&S, per foot ..... \$0.03  
 Per 100 feet ..... 2.25  
 No. 892, Litz Wire; 60 No. 38 wires cabled into 3 strands of 20 wires each; all cabled together. Double white silk insulation. Equivalent to No. 20 B&S, per foot ..... \$0.01  
 Per 100 feet ..... 3.50  
 No. 893, Litz Wire; 24 No. 28 wires cabled 6 strands of 4 wires twisted and separately silk insulated. Double silk insulated outside. Equivalent to No. 14 B&S, per foot ..... \$0.12  
 Per 100 feet ..... 10.50

Single Green Silk		Per Spool		B.&S. Gauge		Enameled	
No.	Spool	Per Spool	B.&S. Gauge	No.	Spool	Per Spool	
2507	4-oz.	\$0.50	20	2514	8-oz.	\$0.45	
2508	4-oz.	\$0.55	22	2515	8-oz.	\$0.55	
2509	4-oz.	\$0.60	24	2516	8-oz.	\$0.60	
2510	4-oz.	\$0.65	26	2517	8-oz.	\$0.65	
2511	4-oz.	\$1.05	30	2518	8-oz.	\$0.70	
2512	4-oz.	\$1.30	32	2519	8-oz.	\$0.80	
2513	4-oz.	\$1.85	36	2520	8-oz.	\$1.00	
.....	.....	.....	38	2521	1-oz.	\$0.85	
.....	.....	.....	40	2522	1-oz.	\$1.15	

## Rheostat Wire

**\$0.01**  
POSTPAID

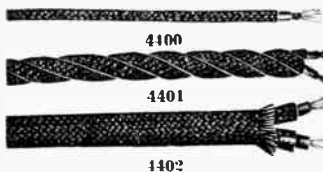


Designed especially for rheostats. A special grade that will not crystallize in use and will always keep clean and bright. The only wire for Rheostats. Resistance is 1 ohm. per foot. Not less than 25 feet sold.

No. 1650, per foot....\$0.01

## Flexible Silk-Covered Rubber Insulated Wire

**\$0.02**  
POSTPAID



We list three styles, two of which are rubber insulated. These are not to be used for telephone receiver work. They are used to make temporary connections on instruments, and can also be used for carrying small amounts of current such as for lighting battery lamps, to connect the leads to the filament of Vacuum Tubes, etc. Tinsel Cord can only be used for telephone work.

No. 4100, 1 conductor rubber insulated;  
 14 No. 34 copper wires, green silk cover, per foot ..... \$0.02  
 No. 4401, 2 conductors rubber insulated;  
 14 No. 34 copper wires, silk braid cover in green, per foot ..... \$0.05  
 No. 4402, 2 conductors Tinsel Cord. Each conductor insulated with cotton braid, the whole outside covered with green Silk Braid. Used on telephones, per foot ..... \$0.06

## Tinsel Cord

**\$0.10** POSTPAID



Two tinsel conductors, each of 3 strands of tinsel, insulated by two cotton wrappings. The two conductors surrounded by cotton wrapping. One of the black wrappings has a tracer in color, for polarity. This cord is useful for extension purposes, to connect the loud speaker with instruments, etc., etc.

No. 6450, per foot ..... \$0.10

### Extension Cord



To enable you to place your loud speaker or phones at a distance from the receiver. Fine quality. Connecting plugs included.

- No. 9491 20 feet.....\$0.89
- No. 8818 30 feet.....\$0.99
- No. 8819 40 feet.....\$1.09
- No. 8820 50 feet.....\$1.19

### 5-6-7-8-9 Wire Cable



**\$0.09**  
POSTPAID

Ideal for connecting receiver to battery placed at a distance as in basement. Insulation of each wire marked so you can distinguish instantly. Comes in any length up to 100 feet.

- No. 9494 Per ft. (5 wires) \$0.09
- No. 8806 Per ft. (6 wires) \$0.12
- No. 8807 Per ft. (7 wires) \$0.15
- No. 8808 Per ft. (8 wires) \$0.18
- No. 8809 Per ft. (9 wires) \$0.19

- No. 8814 (6 wires) .....\$0.85
- No. 8015 (7 wires) .....\$0.91
- No. 8016 (8 wires) .....\$0.97
- No. 8017 (9 wires) .....\$1.03

### Bus Bar Wire

This copper, tin-plated and polished bus bar wire is square and measures 1/16" x 1/16". Very easy to solder, because the wire is tinned already. Comes only in 24" length. No. 6400 10 lengths.....\$0.20  
No. 6402 Round, 10 lengths.....\$0.20

### Rubber Covered Hook-up Wire

Extensively used for wiring sets. Consists of a stranded copper wire size 18, covered with layer of gray black rubber. Smooth, neat appearance. Flexible and easily handled.

No. 4426, 25 ft..... **\$0.44**

When Comparing  
Prices — Remember  
we prepay transportation  
on practically all  
items—a saving of  
more than 10%

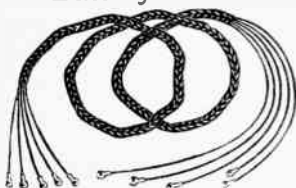
### Battery Cable



Consists of five wires of different colors of insulation for convenience and accuracy in connecting your set to the batteries. Rubber insulation covered with woven thread. Highest grade. 2 large storage battery clips furnished.

No. 9003 ..... **\$0.79**

### Battery Wire Assembly



**\$0.47**  
POSTPAID

Make your A and B battery connections quickly and easily. Made of different colored rubber and cotton covered insulated wires woven together. Eliminates unsafe and unsightly wiring as when using the old style wires with their ragged appearance. Five feet long. Reaches from table to floor. Can be used with any type of cabinet. Lugs on one end.

- No. 9224 (5 wires) .....\$0.47
- No. 8010 (6 wires) .....\$0.53
- No. 8011 (7 wires) .....\$0.59
- No. 8012 (8 wires) .....\$0.65
- No. 8013 (9 wires) .....\$0.71

### 10-Foot Length Cable

Very indispensable if you intend to install your batteries in a closet, or in the cellar, another room, etc. Length 10 feet.

- No. 8821 .....\$0.94
- No. 8822 .....\$1.06
- No. 8823 .....\$1.18
- No. 8824 .....\$1.30
- No. 8825 .....\$1.42

### Phone Cords



**\$0.31**  
POSTPAID

We carry two styles of telephone cords, as illustrated, one 5 ft. long, the other 3 ft. Made of best tincl through-out. We do not carry the cheaper and worthless kind of cord, where stranded wire is used, for the reason that constant bending of 'phone cords destroys and breaks these wires in short order, giving rise to terrific amount of 'phone noises. Black only, mercerized cotton. The three-foot cord comes with 2 loops and 2 tips. The loops can be used on 'phones that are made for the tip cord. All that is necessary to do is to flatten the metal loops by means of a pair of pliers, which make a tip out of the loop.

- No. 5500 5 ft. with 6 tips, each .....\$0.31
- No. 5501 5 ft. with 2 tips and 4 loops, ea. 0.31
- No. 3300 3 ft. with 2 tips and 2 loops, ea. 0.16

### 5-in-1 Connector



With this ingenious and inexpensive device attached to the positive and negative phone binding posts you can use from one to five pairs of phones on any radio receiver. The spring sockets grip any phone tip. Loose contact is impossible. Works while loud speaker is in operation. Licensed under Gernsback Patent No. 1,557,248.

No. 7117, Pair ..... **\$0.23**

## Yaxley Cable Connector Plug



**\$3.27**  
POSTPAID

This battery cable operates on the same principle as any plug and jack—you simply insert the plug, and that is all there is to it. There are 7 vari-colored strands of insulated stranded copper wire, each one of them plainly designated with an engraved metal tag, corresponding with prong to which it makes contact. The connecting plate is mounted, as a rule, on the rear of the base board, sub panel, etc. The plug can be inserted or removed at will. As plug can only be inserted one way, there is no chance of making an error. The ends of the cable and prongs are tinned, to facilitate soldering thereto. The plug proper is made of genuine bakelite, richly polished. Contacts therein are phosphor bronze, and the contact prongs are brass. Length of cable 5 feet. Your first thought on adapting this device to your Radio is how you could have ever done without it.

No. 9708..... **\$3.27**

## Yaxley Multiplug

**\$2.19**  
POSTPAID



This device fits into the space occupied by any standard house current outlet box—or it may be separately attached to the base-board, near the floor, or, even in the floor itself. The batteries to which this receptacle are attached, may be placed in an adjacent closet, or even in the cellar, the lead wires running to the proper terminals of the outlet, then through the plug to their respective terminals in the Radio receiver. You simply plug in the special attachment furnished—there is only ONE way it can be done, as a safeguard. When you have shut off your Radio, the plug can remain in the receptacle, or can be removed. Complete directions for wiring furnished. Handsome brass finish.

No. 9088 Complete, with Plug... **\$2.19**

## Battery Lead Tags



SET OF 8  
**\$0.19**  
POSTPAID

These little tags are indispensable to any Radio set—time and again their use has prevented short circuiting of batteries and blowing out of costly tubes. Illustration is

full size. Made of polished aluminum. Prongs will clamp any size battery lead or cable. Full set consists of A+, A-, B-, B+, Detector, B+ Amp. 90, B+ 135, C+, C-.

No. 9780 Set of 8..... **\$0.19**

## Screw Eye Insulator



**\$0.09**  
POSTPAID

A very handy type of insulator for keeping the lead-in away from walls or any foreign object. Galvanized iron screw. Porcelain insulator. Length of screw 2½ inches.

No. 9980..... **\$0.09**

## Lead-in Wire



**\$0.39**  
POSTPAID

No aerial installation is truly complete and efficient unless this rubber covered lead-in wire is attached thereto, for it is a positive means of properly insulating against any losses in the antenna system should the lead-in wire rub against any object, whether it be the leaves or limb of a tree, a roof, a gutter, etc. This wire can also be used to very good advantage as the ground lead to an outside ground, or through the flooring to the cellar, etc.

No. 9743 25-foot Roll..... **\$0.39**  
No. 9744 50-foot Roll..... **\$0.73**  
No. 9745 100-foot Roll..... **\$0.95**

## Flexibus Hook-up Wire

**\$0.72**  
POSTPAID



In the early days of Radio receiver construction, square wire connections of bus bar were universally used—and at a great loss in efficiency, due to the longer leads involved, as well as necessitating a tedious task. Point to point wiring is now safely re-ported to, for the leads are always as short as possible for greatest efficiency. Besides, there are no angles to "figure out." Flexibus wire is covered with a varnished cambric flameproof insulation finished in the following colors: Red, Green, Yellow, Brown, Black. The wire itself is flexible tinned stranded copper.

No. 9747 Per 25 ft. Roll..... **\$0.72**  
State which color you wish.

## Brach Arrester

**\$1.98**  
POSTPAID

The price of this very efficient lightning arrester is more than compensated for in the absolute faith you can place in it as a 100% CERTAIN arrester. You enjoy that feeling of complete safety no matter how severe an electrical storm may be raging. It is intended for out-door use, and attaches directly to the lead-in wire just outside the window. The ground wire is bolted to the lower section. The ground wire can be replaced and thus can be readily examined. Protecting hood is of bakelite. Approved by Underwriters.

No. 8999..... **\$1.98**



## De Jur Lightning Arrester



**\$0.46**  
POSTPAID

Moulded of a high heat dielectric material. The accepted commercially used air gap is incorporated in this arrester. It is weather proof and is intended for both outdoor and indoor use under any climatic weather condition. Transparent casing covers the air gap. Connections are made to large Ealnestock clips. Approved by Underwriters Laboratories.

No. 9640..... **\$0.46**



### "Rasco" Clip Leads



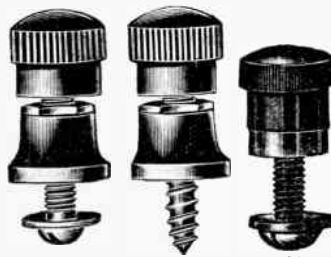
**\$0.12**  
POSTPAID

This is a flexible silk-covered conductor to the ends of which are soldered powerful brass spring clips. Instead of using wires to make your connections—screwing and unscrewing binding posts—a clip lead hooks in a jiffy onto any wire, and binding post or other conductor to

make a safe experimental connection. Two colors, green and red, to distinguish connections. Length of clip lead, one foot.

No. 7887 "Rasco" Clip Leads, each .....\$0.12  
Dozen lots ..... 1.35

### "Rasco" Binding Posts



All Cuts  
of  
Binding  
Posts  
Full Size

**650** Well made of composition. Will give good service. No. 650 has 8/32 machine screw and No. 651 has a wood screw; both have a hexagonal brass nut in center. No. 202 is nickel plated at bottom and has a machine screw.  
No. 650 .....\$0.05  
No. 651 .....\$0.05

Dozen, either style, \$0.50

No. 202 .....Each \$0.04 doz.\$0.41



028

No. 028 Binding Post is of a smaller type and looks mighty nice on Switch Boards, etc. No. 029 and 030 are used for telephone connecting cords, etc.

No. 028 .....\$0.08  
No. 029 ..... 0.04  
No. 030 ..... 0.03



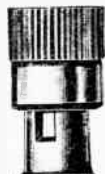
030



029

### Lock Binding Posts

**\$0.25** POSTPAID



325

Something new. The top screws down and clamps the finest wire. A clamping action and not shearing action. Figure 325 shows top open. Figure 325 shows top closed.

No. 325 Large, ea. \$0.25  
No. 326 Small, ea. \$0.15



326

### Binding Posts

Our binding posts are all accurately made, of brass only; illustrations are full size. We have specialized for years in binding posts and you will find them right in every respect. Each post comes with screw and washer, not shown in illustration. We furnish all style posts, either nickel plated or brass lacquered. State which style you desire.



025

### Instrument Posts

**\$0.15**  
POSTPAID

No. 02 is an old timer, well known by every experimenter. Height over all 1 3/4"; dia. 5/8". No. 02 1/2 is 1" high; dia. 5/8".



No. 02

No. 02 .....\$0.15  
No. 02 1/2 .....\$0.10

### Initial Binding Posts

Set of 8 ..... **\$0 26**

These binding posts are somewhat similar to to our No. 202, only larger and better. Tops are inlaid with white enamel in various denominations. Tops are of full composition bottom brass part, nickel polish.

Nos. 122, Antenna; 123, "I"; Battery—; 124, "A"; Battery—; 125, "R"; Battery—; 126 "A"; Battery—; 127, Ground; 128 Telephone; each style, \$0.04.



### "Rasco" Slant Binding Posts



201

The slant shaped bottom part gives these posts a very classy appearance, something not seen elsewhere. Top of composition, the bottom brass nickel plated polish.

No. 201 8/32 thread each .....\$0.05  
doz. \$0.50  
No. 600 8/32 thread each .....\$0.08  
doz. \$0.80



600

### Aristocrat Binding Post

**\$0.06** POST PAID

The latest style and has been enthusiastically received. Illustration full size. Hard rubber composition. Each type knob, nickel plated bottom piece. Brass screw furnished. Will greatly improve the appearance of your set.

No. 202? Each .....\$0.06  
Dozen ..... 0.60



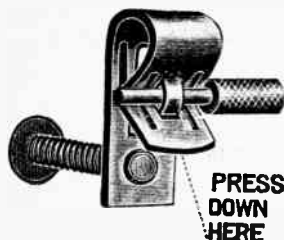
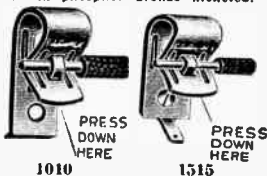
## Spring Binding Posts

A favorite with all experimenters. Absolute contact at all times—simply press down prong, insert wire and the connection is made. Too well known to require much description. All finished in phosphor bronze nickel.

No. 1010 Takes No. 11 B. & S. wire. Width 5/16"; length 3/4"; screw hole clears 6/32 screw. Each, \$0.05; Dozen **\$0.50**

No. 1515 Takes No. 16 B. & S. wire; has lug to which wire can be soldered. Width 7/32; length 3/4". Each, \$0.03; per dozen .....\$0.30

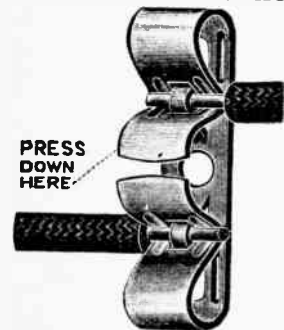
No. 33 Takes No. 12 B. & S. wire. Length over all, 3/4"; width, 3/4"; clears 6/32 screw. Same as No. 43, except without screw. Each, \$0.06; per dozen .....\$0.60



**\$0.03**  
POSTPAID

No. 44 Takes No. 10 wire. Length over all, 1"; width 3/4"; screw hole threaded for 8/32 screw. Each \$0.03; per dozen, \$0.25

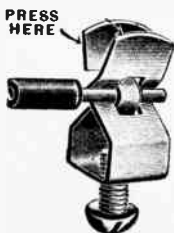
## Double Connector



**\$0.04**  
POSTPAID

No. 99 Takes No. 10 B. & S. wire. Length over all 1 3/4"; width 3/4"; screw hole passes 8/32 screw. Each .. \$0.04  
Dozen .. \$0.38

## Panel Post



**\$0.04**  
POSTPAID

Can be mounted on panels. Stands upright. One of the handiest connectors made. Has tapped hole which takes an 8-32" screw. Furnished with post.

No. 45  
Each ...\$0.04  
Dozen ..\$0.40

## Engraved Character Binding Posts

**\$0.16**  
POSTPAID

If you want the best binding post, here it is. Not only are these Bakelite tops non-removable, but they are beautifully engraved in white enamel, with any of the following characters:

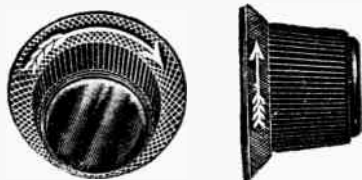
ANT. GND. A— A+ B— B+ DET.  
B+ C— C+ Platin.

The non-removable head prevents short circuiting of batteries and burnt out tubes. If heads were incorrectly spun back on to the thread at any time.

No. 8914 (State which posts you wish). Each ..... **\$0.16**



## Indicator Knobs

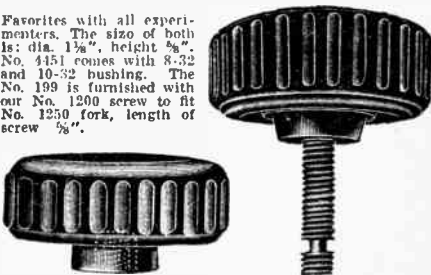


A most modern knob, used entirely by some of the largest set manufacturers. Has an arrow engraved as shown. Made of black hard rubber composition, of generous size. Total diameter is 1 1/2". Height over all, 1 1/4". There is also molded into it a brass insert to take standard quarter-inch shaft.

No. 5321 ..... **\$0.15**

## Twirler Knobs

Favorites with all experimenters. The size of both is: dia. 1 3/8", height 3/4". No. 4451 comes with 8-32 and 10-32 bushing. The No. 199 is furnished with our No. 1200 screw to fit No. 1250 fork, length of screw 3/4".



No. 1451 (at left) ..... **\$0.06**  
No. 199 (at right) ..... \$0.10

## Bushing

**\$0.03**  
POSTPAID

No. 791 Bushing for use with our No. 650 posts is 1/2" dia. x 3/8" high; clears 8/32 screw.

No. 791 ..... \$0.03



### Shank Knob

**\$0.15**  
POSTPAID

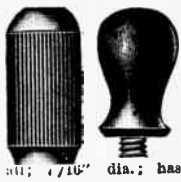
This beautiful knob is a special favorite with all amateurs. It has a nickel shank  $\frac{3}{8}$ " long with a central hole of  $\frac{1}{8}$ "; side hole is tapped 8-32 for screw. Dia. is  $1\frac{1}{2}$ ", thickness 9-15".  
No. 2401...\$0.15



### Switch Handles

**\$0.10**  
POSTPAID

These handles are used for switches and other similar purposes. No. 05 measures 13/16" high;  $\frac{5}{8}$ " dia.; furnished with 8/32 bushing only. No. 59 handles measures 13/16" over 8/32 screw imbedded.



No. 05 (left) .....\$0.10  
No. 59 (right) ..... 0.04

### Fluted Knobs

**\$0.15**  
POSTPAID



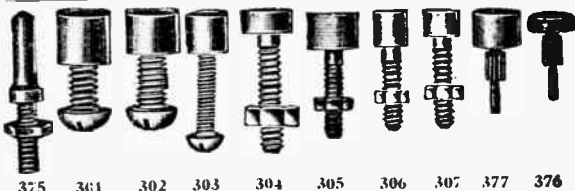
No. 2054

Our latest fluted knobs with inserts. The insert is provided with 8-32" bushing. Black composition.

No. 2054, Without shoulder,  $\frac{3}{4}$ " high,  $1\frac{1}{4}$ " dia., ea. \$0.15  
No. 2055, With shoulder, 1" high,  $1\frac{1}{4}$ " dia., each, \$0.15



No. 2055



### "Rasco" Switch Points

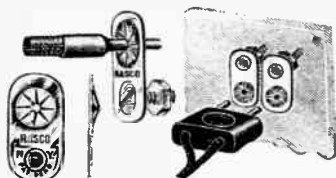
**\$0.15**  
POSTPAID

Our switch points are made of brass, nickel plated and polished. The following nine sizes have been found the most popular. Illustrations are all full size. Size may be ascertained by measuring cuts.

No. 301,  $\frac{3}{4}$ " x  $\frac{1}{4}$ ", 6-32 thread, ..... Doz. \$0.15  
No. 302, 2-16" x  $\frac{1}{4}$ " diam, 6-32 thread \$0.15  
No. 303, 1-16" x 3-16"; 4-36 thread, ..... \$0.15  
No. 304,  $\frac{1}{4}$ " diam,  $\frac{1}{4}$ " thick; stem 6-32 \$0.15  
No. 305,  $\frac{3}{8}$ " diam., 3-16" thick; stem 4-36 0.15  
No. 306, 3-16" dia., 3-16" thick; stem 4-36 0.15  
No. 307, 3-16" dia.,  $\frac{1}{4}$ " thick; stem 4-36 0.15  
No. 375, switch Stop, can be used with all

switch levers.  $\frac{3}{4}$ " long, 6-32 thread, complete with nut, ..... \$0.15  
No. 376, New style Switch Point, to be pressed into bakelite panels with forced fit. Wire is soldered to pin end. Head  $\frac{1}{4}$ " diameter; 1-16" thick ..... \$0.15  
No. 377, same as above, but head is  $\frac{3}{4}$ " diameter by 3-16" thick .....\$0.15

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



**\$0.15**  
POSTPAID

JIFFY JACKS are the simplest, and most efficient Cord Tip Jacks ever designed. Stamped from a single piece of metal they grip any style cord tip from any make phone or loud speaker. The JIFFY JACKS take minimum room. Drill two small holes in your panel and mount the JIFFY JACK with screw and nut furnished. No soldering neces-

sary as the wire goes right on the screw. X-ray view shows how two of the jacks are used in conjunction with our Jiffy cord plug. The jacks go on in back of panel, only screws show in front. Made of best spring brass that will not wear out. Hundreds of other uses for our JIFFY JACKS. We will pay \$1.00 for every new use for JIFFY JACKS that is accepted by us.

JIFFY PLUGS are made of semi-hard rubber into which the tips of your phones or loud speaker are pushed. The cheapest and simplest plug ever designed. Its small size and neatness made it famous overnight. Size 1" long,  $\frac{3}{4}$ " wide and  $\frac{3}{8}$ " thick. No tools required. Just wet the metal cord tips and push through openings. Plug can be used with any standard cord tip jack, but best with RASCO JIFFY JACK.

No. 4875 Two Jiffy Jacks with nuts and screws and one Jiffy Cord Plug, ..... \$0.15  
No. 4870 One Jiffy Jack complete with nut and screw ..... 0.05  
No. 4871 Jiffy Jacks without nuts or screws, two for ..... 0.05  
No. 4860 Rasco Jiffy Plugs (semi-hard rubber part only) ..... 0.10

Getlemen:

RASCO Service is sure all it is cracked up to be. I have received three different orders from RASCO and I am still waiting for an order from another company, which was sent in before the first RASCO order.

GEO. B. INGRAMHAM,  
41 Rodney Street, West S. John, N. B.

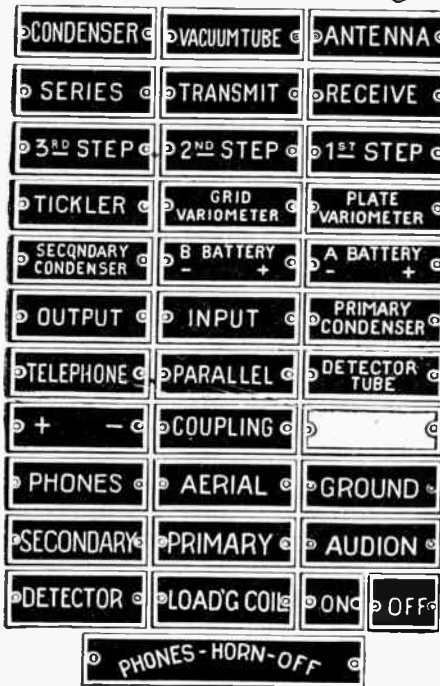
## "Rasco" Name Plates

Our name plates are of brass with a black background. Letters are polished nickel, standing out strongly against black background. Each name plate has two screw holes. They are well made and will outlast your outfit. Order by name and number. Name plates measure 1" x 3/4".

No. 839 "Increase Current" No. 840 "Increase Current" (Right) (Left)

No. 806 "Phones-Horn Off"

Each Style \$0.08



No. 6050 Condenser  
No. 834 Series  
No. 821 3rd Step  
No. 827 Tickler  
No. 823 Secondary Condenser  
No. 817 Output  
No. 829 Telephone  
No. 837 + -  
No. 807 Phones  
No. 811 Secondary  
No. 814 Detector  
No. 813 Vacuum Tube  
No. 831 Transmit  
No. 820 2nd Step  
No. 826 Grid Variometer  
No. 835 B Battery -- +  
No. 818 Input

No. 828 Parallel  
No. 822 Coupling  
No. 809 Aerial  
No. 812 Primary  
No. 808 Loading Coil  
No. 6051 Antenna  
No. 830 Receive  
No. 819 1st Step  
No. 825 Plate Variometer  
No. 836 A Battery -- +  
No. 824 Primary Condenser  
No. 833 Detector Tube  
No. 841 "Blank"  
No. 810 Ground  
No. 813 Audion  
No. 866 on 865 off

EACH STYLE, \$0.02 1/2

Price of all our name plates, in dozen lots 25c., with the exception of the two "Increase Current" Plates, and "Phones, Horn, Off," the price of these is \$0.75 per doz.

## "Rasco" Binding Post Name Plates



6000



6010



6013

Here is a name plate that goes under your binding post, that fits any binding post, and looks good no matter what type of post you use. The RASCO Binding Post Name Plates can be mounted on all instruments, and on account of their small size greatly enhance the appearance of your set. Each denomination is repeated twice on each Name Plate. It is also possible to read the designation on a panel above and below the binding post. Illustration is full size.

No. 6000. "Phones."  
No. 6001. "Ground."  
No. 6002. "Output."  
No. 6003. "A Battery."  
No. 6004. "B Battery."  
No. 6005. "C Battery."  
No. 6006. "Loud Speaker"  
No. 6007. "Grid."  
No. 6008. "Load."  
No. 6009. "A Battery."  
No. 6010. "Aerial."  
No. 6011. " + - "  
No. 6012. "Input."  
No. 6013. "A Battery +"  
No. 6014. "B Battery +"  
No. 6015. "Loop."  
No. 6016. "Tickler"  
No. 6017. "Plate"  
No. 6018. "C Battery +"  
No. 6019. "Filament"  
No. 6020. New "A" Battery +, "B" Battery +.

All Styles..... \$0.02  
Dozen Lots..... \$0.20

## "Rasco" Vacuum Tube Sockettes

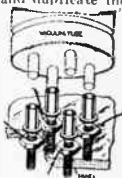
Substitute for Vacuum Tube Sockets



A distinct novelty, originated by us. Four make a complete Vacuum Tube Socket for panel mounting. The Sockettes are used on panels and bases where there is a scarcity of room, as when many tubes are to be mounted in a small space. Positively the best means for making contact, and holding tubes. The reason is clear. In all other sockets contact is made only by the lower tips of the Vacuum Tube touching the flat surface. Not so in the RASCO Sockettes. Here the tube pins actually engage with a 3/4" contact and this contact surrounds the entire surface of the pin. If you have ever been exasperated by tube noises due to poor contacts, you will welcome the RASCO Sockettes. Each Sockette has a shank which is split into four

parts, which gives enough springiness to allow sufficient variation for the varying thickness of the tube contact pins. To mount, take your tube and press it down hard on a piece of paper. This gives the exact location of the four pins. Secure the exact center of each pin, by means of a pin prick punching right through the paper. Then transfer the piece of paper, on the panel, and duplicate the location of the holes by another pin or sharp instrument. Then drill your holes, insert the Sockettes, and the job is done.

Two brass nuts are furnished with each Sockette, and when connections are made to these brass screws underneath the panel, no better contact is possible. Once you have used the Sockettes you will never do without them. They hold the tube with a vise grip. One set of 4 Sockettes is sufficient to hold one Vacuum Tube. No. 1550 made to take the Standard V.X. base, long prong (or V.V. base), tube.

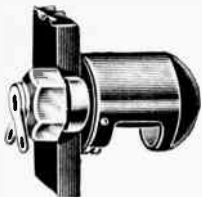


No. 1550, Brass Sockettes, nickel-plated, per set of 4..... \$0.15



### Panel Light

**\$0.48**  
POSTPAID



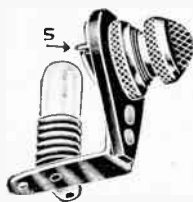
A great convenience for every Radio set. The set can be placed in any part of the room, independent of the lighting within, as this Panel Light illuminates the dials with a pleasing effect. Consists of a handsome reflector and metal socket. One hole mounting, easily wired.

No. 9707 Less bulb ..... \$0.48  
No. 9776 6-volt bulb for above..... \$0.30

### Bruno Light Switch

**\$0.73**  
POSTPAID

This instrument combines both a battery switch and a ruby pilot light which glows in an attractive manner when the switch is turned on. This is a truly one hole mount device, for the glow is visible through the center of the switch button. Its cost is insignificant in the saving of batteries if effects, warning you that your switch is ON, and should be turned off. Red ruby jewel supplied. Uses our No. 9776 6-volt bulb.



No. 9777 Without Bulb..... **\$0.73**

### Pilot Light

**\$0.35**  
POSTPAID



The Pilot Light is practically indispensable on any set. Tells at a glance when tubes are lit from the front panel, thus preventing waste of battery current, when your Radio is not in operation. Single hole mounting. Attractive as well as useful.  
No. 9775 Without bulb... \$0.35  
No. 9776 6-volt bulb for above..... \$0.30

### Omnigraph

**\$22.85**  
POSTPAID



Model 4

In order to own a transmitter either for phone or key (code), you must be able to transmit and receive code messages, and there is a new World awaiting you, as soon as you start transmitting—for you soon list your friends in every corner of the Union, especially on the ever increasing popular short wave band. The New Omnigraph consists of a dependable clock motor, which revolves a turn table upon which are nested removable plates, on the edge of which raised characters cause the machine to "transmit" to you its message which you decipher. The speed of this turntable is governable from 5 words to 50 words a minute at will. The spring runs motor for 45 minutes. Complete with 5 Dials, size 8 inches by 6 inches by 5 1/2 inches. In a short time, you can amply for a license (no charge), this machine having quickly taught you the code.

No. 9638..... **\$22.85**

### Miniature Bakelite Base Knife Switches

**\$0.47**  
POSTPAID



These knife switches can be adapted for many purposes. They are the most compact switches made, yet their insulating qualities are as dependable as switches twice their size. Mechanically and electrically perfect. Base is genuine Bakelite—all metal parts are brass, heavily nickel plated. Binding post connections provided. A comparative suggestion of their compactness can be given by mentioning the size of the No. 9604 switch, 2 1/2 inches long by 1 3/8 inches wide.

No. 9061	Single Pole, Single Throw.....	\$0.47
No. 9062	Single Pole, Double Throw.....	0.56
No. 9063	Double Pole, Single Throw.....	0.65
No. 9064	Double Pole, Double Throw.....	0.82
No. 9065	Triple Pole, Single Throw.....	0.99
No. 9066	Triple Pole, Double Throw.....	1.41
No. 9067	Four Pole, Single Throw.....	1.58
No. 9068	Four Pole, Double Throw.....	1.78
No. 9069	Five Pole, Single Throw.....	1.78
No. 9070	Five Pole, Double Throw.....	1.98

### Porcelain Base Throw Switches



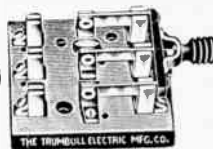
No. 9856



No. 9855



No. 9857



No. 9858



No. 9858

**\$0.23**  
POSTPAID

No experimenter can afford to be without a full supply of these most necessary switches—for many purposes. Genuine high insulating quality porcelain bases. Copper contacts. Wood knobs. Fibre insulation cross bar. Terminal screw connections. No 9858 measures 2 3/8

Inches wide by 4 inches long.		
No. 9855	Single Pole—Single Throw.....	\$0.23
No. 9856	Double Pole—Single Throw.....	0.33
No. 9857	Single Pole—Double Throw.....	0.33
No. 9858	Double Pole—Double Throw.....	0.49
No. 9859	Triple Pole—Double Throw.....	0.97

### Time-Lite Radio Clock Switch

**\$7.48**  
POSTPAID



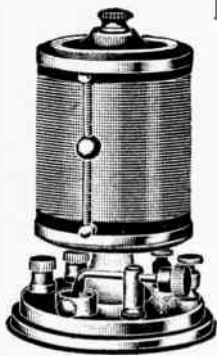
Herein is contained not only a very efficient and highly ornamental clock, but an automatic, controllable means of pre-determining the exact moment you wish your Radio receiver to be turned on or off. Prevents the oversight of allowing your tubes to burn all night. Does not require any current to actuate. Its own mechanism. Takes one moment to install—adaptable to any and all receivers. Keeps perfect time. An attractive ornament for any mantelpiece—the case is hand rubbed, and hand polished mahogany finish.

No. 9860..... **\$7.48**

## Pandora Crystal Receiving Set

**\$1.73**

POSTPAID



This is not a toy, but a scientifically correct crystal detector receiver. Simplest operation—no batteries ever required. Complete. Pair of head phones and aerial only required. Can only be used where local broadcast stations are no further than 25 miles. Handsomely finished in rich Russet Bronze. Binding posts and trimmings are bright lustre nickel plated. Overall size 3 inches in diameter by 5½ inches high.

No. 9982..... **\$1.73**

## Radio Tools

No. 8792 **SIDE CUTTING PLIERS**..... **\$1.19**



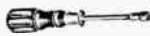
Indispensable for cutting wires in cramped quarters — for stripping insulation, etc. Forged and tempered.

No. 8793 **SQUARE JAW PLIERS AND SIDE CUTTER**..... **\$1.49**



The handy all around tool, should be in every experimenter's tool kit. Forged from crucible steel. Knurled gun barrel handle.

No. 8794 **HEXAGONAL NUT WRENCH**..... **\$0.29**



For tightening hexagonal nut—the projecting screw fits into hollow of handle. For 4/32, 6/32, 8/32 and 10/32 nuts. State which size you are ordering.

No. 8795 **RATCHET SCREW DRIVER**..... **\$0.99**

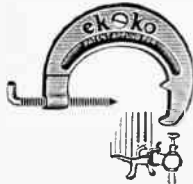


The advantages of an automatic ratchet screw driver are well known. Ratchet mechanism is perfect. A quality product. Especially designed for Radio experimenters.

## Ground Clamp

**\$0.23**

POSTPAID



No more laborious scraping off the paint or rust on your ground pipe, for proper contact thereto! The hardened steel points on the screw and frame bite into the metal, assuring a perfect contact. In a few moments, the job is over. Will fit any pipe. ¼ inch to 1¼ inch in diameter. Terminal screw connection on frame.

No. 9929..... **\$0.23**

## "No-Sod-er" Wires



The use of the up-to-date "No-Sod-er" wire connectors makes easy what until now has been difficult and annoying in many cases. Besides it gives you a better connection than nearly all cases where solder is used. Made of highly insulated flexible stranded copper wire, with brass eyelets. Order the quantity of each length you desire.

No. 9571 Length, 2, 3 or 4 inches, each.. **\$0.04**  
 No. 9572 Length, 5, 6 or 7 inches, each.. **\$0.05**  
 No. 9573 Length, 8, 9 or 10 inches, each.. **\$0.06**  
 No. 9574 Length, 11, 12 or 13 in., each.. **\$0.07**  
 No. 9575 Length, 14, 15 or 16 in., each.. **\$0.08**  
 No. 9576 Length, 17, 18, 19 or 20 in., ea.. **\$0.10**

## Nail-It Knobs

**\$0.09**

POSTPAID



This insulator is made of good quality porcelain, and has a nail through its center for driving into wood, stone, etc. The wire is set into the recess shown and the upper section of the insulator is then closed tightly upon it. Very useful.

No. 9795..... **\$0.09**

## Brach Totem Pole Antenna

**\$5.68**



Where conditions will not permit the erection of an aerial, the Brach Totem pole can be installed in a few minutes, with superior results. Stands about 44 inches high, and very substantially built. It consists of a non-inductive wound coil of enameled wire, scientifically and theoretically designed to serve as the most suitable substitute for an antenna. Can be mounted at any angle, or erected like a flag pole. An adjustable iron base, clamp, screw eyes and 25 feet of guy wire are included with this instrument. Shipped express collect, due to excessive weight involved.

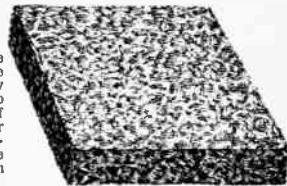
No. 9698..... **\$5.68**

## Sponge Rubber

**\$0.10**

POSTPAID

Some tubes are notorious for the ringing sounds they give out due to rattling. The use of our sponge rubber cushion will eliminate the noises. Use one piece for each tube.



Size 2½" x 3" x ¾" thick.

No. 8989..... **\$0.10**

## Antenna Spring Tightener

**\$0.45**

PER PAIR. POSTPAID.



Consists of two porcelain high insulating quality insulators, rigidly attached to both ends of a coil spring, which takes up all slack, or yields, if either end of your antenna is attached to a swaying tree limb or clothes pole. Over all length about 9 inches.

No. 9796. Per Pair..... **\$0.45**

## "Rasco" Radio Cement

**\$0.36**  
POSTPAID

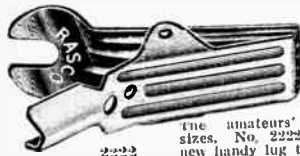


For all radio work. It is highly insulating, water-resisting, and quick-drying. Used particularly for cementing covered wires together. A cotton or silk wound coil is wound upon any form, while the form is first covered with a piece of thin paper. Then the wire is wound on top of this. Apply the Cement by means of a brush that comes with the bottle. The Cement dries quickly and the wire form can be removed in twenty minutes. The paper is then removed from the inside of the coil and another coat of Cement is applied to the inside. You now have a wire form that holds together without any visible support. Variocouplers, loose couplers, etc., can thus be made without using the usual tube or mandrel. The furnish enough Cement for many

two-ounce bottle will windings.

No. 1750 ..... **\$0.36**

## Spring Clips



**\$0.12**  
POSTPAID

the amateurs' favorite. Three sizes. No. 2222 is provided with new handy lug to slip under binding post. The others are plain.

No. 2222, 1 1/2" over all ..... **\$0.12**  
No. 4411, 1 1/4" over all ..... **0.07**  
No. 777, 1 1/4" over all (light type) ..... **0.05**

## "UX" Tube Bases

**\$0.15**  
POSTPAID

For the serious experimenter who wishes to assemble his own plug-in coils, these bakelite "plugs" are indispensable. After the coil is mounted within the hollow of the base, the "plug" can be inserted into a tube socket, or into our No. 1550 Sockets. Contact pins are 9/16" long. The plug measures 1 3/8" in diameter by 1 3/8" high.



No. 8790 ..... **\$0.15**

## Sliders

**\$0.18** POSTPAID

Of this patented slider probably more have been sold than of all others combined. It is furnished with ball and spring. Holder fits 3/4" square rod, the size over all is 3/8" x 3/8" x 1/2". Comes in red and black rubber composition only.

No. 875 Black ..... **\$0.18**  
No. 876 Red ..... **\$0.18**



## "Rasco" 16-in-1 Radio Tool



Here it is! Here is a tool that does 16 different things and does them well. A tool that does practically everything required in building your radio set. The tool is built of hardened steel, exactly as per illustration, highly finished. Here are some of the uses: 1. Screwdriver. 2. Center punch. 3. Countersink. 4. Bus bar and wire bender. 5. Bus bar and wire bender for 8-32 screw. 6. Bus bar and wire bender for 6-32 nut. 7. Socket wrench for jacks. 8. Socket wrench for 4-36 nut. 9. Socket wrench for 6-32 nuts. 10. Socket wrench for 8-32 nuts. 11. Wrench for knurled nuts. 12. Screw gauge for 4-36 screw. 13. Screw gauge for 6-32 screw. 14. Screw gauge for 8-32 screw. 15. Screw gauge for 10-32 screw. 16. Knife for wire skimming.

These are only the important uses of the tool, but many other uses will readily suggest themselves to every radio experimenter. You will wonder how you have gotten along before without the 16 in 1 radio tool. Size 4 1/2 x 1 1/4 in. No. 4800 Rasco 16 in 1 Radio Tool **\$0.27** each

## Radio Dial Button



For you and every radio enthusiast the new radio dial button has been created. It identifies you immediately and will help you to become acquainted. 3/4" in diameter. An exact replica of a standard modern radio dial. Raised knob, dial graduations are like the best radio dial. "RADIO" is set in gold. The dial is best black enamel. Lettering, figures and graduation marks are in gold. Best gold plate is used. Equipped with a screw back

No. 7799 ..... **\$0.25**

## Set of Drills

**\$0.59**  
POSTPAID



These Carbon steel drills are for use in our or any standard hand drill, being the most widely used sizes. This set of four drills consists of one each: 4/32, 6/32, 8/32 and 14/20 screw, for clearance thereof.

No. 9046 Set of four drills ..... **\$0.59**

**"Rasco" Universal Bearing****\$0.25** POSTPAID

Bearings designed by us to fill a distinct need. We have often felt that it was necessary to have a bearing and bushing combined when we mounted certain apparatus directly on the panel. Useful with rotors, rheostats, in connection with honeycomb coils, for various other coupling purposes, and dozens of other uses. A few of these Bearings will quickly pay for themselves. Made of brass, and comes in five parts, inner shank, bushing that holds whole device in panel, large washer, which screws against inside of panel, and two hexagon nuts to secure the work to the center of shaft. The illustration of the Bearing is full size. The outside of the shaft is  $\frac{1}{4}$ " ; the length of the thread is 1"; the total length of bearing is  $2\frac{1}{2}$ " ; the length of the threaded sleeve is  $\frac{3}{4}$ " over all. Made heavily of brass throughout. So strong it will hold up a heavy rotor without sagging.

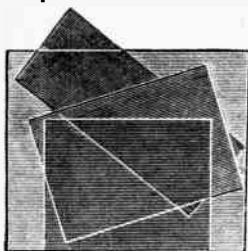
No. 1375 ..... **\$0.25****"Rasco" Cardboard Tubing****\$0.20** POSTPAID

Used to wind inductances, to make tuning coils, loose couplers, vario-couplers, etc. This is the only kind that will stand up. It is not the ordinary spiral-wound tubing such as is used in mailing tubes, which is worse than useless. No straw-board used. Ours is made of grey pulp, well seasoned and is the only seamless tubing made in the United States. Wire wound upon our tubing will never come loose. Tubing does not shrink; very heavy. The wall thickness is  $\frac{1}{8}$ ". This gives a tremendous strength to the tube and it is almost impossible to crush it.



	Inside dia.	Outside dia.	Length	
No. 6600	3	3 $\frac{3}{4}$	7	\$0.20
No. 6601	3 $\frac{1}{2}$	3 $\frac{3}{4}$	7	0.25
No. 6602	3 $\frac{1}{2}$	3 $\frac{1}{2}$	5	0.18
No. 6603	3 $\frac{3}{4}$	4	5	0.20
No. 6604	4	4 $\frac{1}{4}$	5	0.35
No. 6605	2 $\frac{3}{4}$	3	2 $\frac{3}{4}$	0.15

No. 6600 fits into No. 6601 for loose couplers.  
No. 6602 fits into No. 6603 for loose coupler.  
No. 6605 is used as a vario-coupler rotor and can be used with No. 6604.

**Mica****\$0.01** POSTPAID

We carry the best grade of electrical mica only. Sheets can be split readily into any thickness.

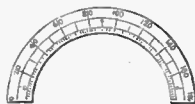
	Per sheet
No. 860 1 $\frac{1}{2}$ "x3"	\$0.01
No. 861 1 $\frac{1}{2}$ "x2"	\$0.01
No. 862 2"x3"	\$0.02
No. 863 2 $\frac{1}{4}$ "x3"	\$0.04
No. 864 3"x5"	\$0.07
No. 865 4"x5"	\$0.10

**Zinc Spark Gap End**

These are used on spark gaps. The plugs measure  $\frac{3}{8}$ " x  $\frac{3}{8}$ ", tapered 8/32 thread. They are machined accurately and well worth attention.

No. 324 Each **\$0.04**  
Dozen ..... **\$0.40****Dial Marker****\$0.05** POSTPAID

Using our patent dial marker you do not need to spoil your panel by scratching a mark. Illustration full size. Made of a single piece of brass with shank to take a nut. Just drill a single hole, mount the marker point, tighten up nut on back of panel and that is all. Heavy milled-in line takes place of the old scratch line. Point is nickel plated. It improves appearance of set. Thickness  $1/16$ ". Mount with tip nearly touching dial.

No. 7788 ..... **\$0.05**  
3 for 10c**Metal Panel Scale**

Heavy brass stamping, large black figures, readily distinguishable. Total diam. 3 $\frac{1}{2}$ ", width  $\frac{1}{2}$ ". 3 holes for attaching.

No. 725 ..... **\$0.10****Micanite Tubing****\$0.86**

POSTPAID

Needed wherever a very high grade material is required. This Tubing is especially suitable for C. W. work, on account of its exceedingly high insulation quality. Nothing better on the market at any price. The color is natural, a very dark brown. It is seamless and smooth inside and outside. It can be readily machined, drilled, etc. The thickness is  $3/32$ ".



No. 250, 4" dia. by 6" long.  
Each ..... **\$0.86**  
No. 251, 6" dia. by 6" long.  
Each ..... **\$1.10**  
We recommend for C. W. transmission either of these two tubes and our No. 893 Litz Wire.

**Metal Panel Scale**

A very neat 90° metal scale made entirely in brass. Silver background. Black letters. Size 2 $\frac{1}{2}$ ".

No. 715 ..... **\$0.10**

Gentlemen:

To my satisfaction and happiness I forgot to write you that I received the merchandise in excellent packing. I wish to thank you for your service in handling my order for radio parts. They are still better than I expected and also the big, clear blueprint you sent. I am recommending your service to my friends. Have also given away your catalog. Wish you would send me another one of your Radio Set catalogs, and some order blanks.

DELFIN PIOPONGCO.,  
Pasig Rizal, P. I.



## "Rasco" Set Builder's Assortments

This Lug Assortment includes fifty of the most important lugs for the man who "Builds His Own" as follows: 10 Brgs for 8-32; 10 for 6-32; 10 prong lugs (solderless) 6-32 and 10 8-32; 10 flat 6-32. All lugs are tinned.

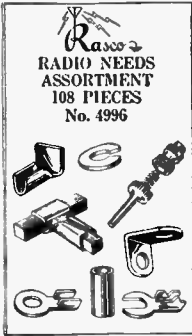
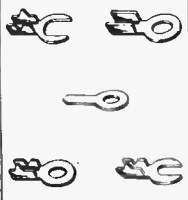
**No. 4995** ..... \$0.22  
This assortment includes 108 pieces as follows: 36 "T" Wire Bus-Bar Connectors; 4 Adapter Bushings (to fit 1/4" dial to 3/16" shaft); 4 Separable Phone Tips; 4 Angle Brackets; 21 Lock Washers; 36 Assorted Lugs, already tinned for easy soldering.

**No. 4996** ..... \$0.48  
Here is an assortment that everyone building a radio set needs. Includes the following: 12 Assorted "Perfect" Lugs; 6 Grid Leak Mountings; 4 Dial Markers; 6-1475; 6-1476; 3-1490; 2-1505 Brackets. Price of all separately, \$1.32.

**No. 4997** ..... \$0.68

**\$0.22**  
POSTPAID

**Rasco**  
LUG ASSORTMENT  
50 LUGS  
5 DIFFERENT STYLES  
No. 4995



**Rasco**  
RADIO NEEDS ASSORTMENT  
108 PIECES  
No. 4996



**Rasco**  
RADIO HELPS ASSORTMENT  
No. 4997

## Adapter Bushing

Designed so that a dial or other attachment normally equipped with a 1/4" bushing can be fitted to a 3-16" rod. Slotted so that it will take up slight unevenness of rods. Perfect fit assured. Comes only 1/2" long.

**No. 8866** ..... \$0.04



## Phone Tips

No. 315. Standard Telephone Cord Tip, nickel plated and polished.



**Per Dozen** ..... \$0.15

## Separable Cord Tips

Replaces the usual cord tip, or when it is necessary to make connections with flexible conductors. Requires no solder. The flexible wires are bared and inserted in one end of the ferrule, then the shank is screwed in. Wires can't pull out.

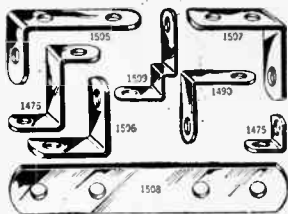
**No. 2900 Each** ..... \$0.06  
**Dozen** ..... \$0.35



## "Rasco" Radio Brackets

Can be used to hold tuning coil tubes; inductances; spider webs, etc.; to hold up panels; to attach various instruments to baseboards and in many different ways. Stamped from heavy metal, nickel-plated and carefully finished. Illustrations are half size. Thickness varies. Where special strength is required we recommend Nos. 1505, 1506, 1507 and 1508. All of these are heavy

## RASCO BRACKETS IN STOCK



brackets made for the best outfits to hold heavy panels or heavy sub panels. Thickness of all of these is a full 1-16". Brackets Nos. 1475, 1476 and 1490 are lighter and are not for such heavy duty work. Bracket No. 1509 is really not a bracket but is used in connection with all other grid leak tubes. Two of these are mounted opposite each other and go directly on the panel or sub panel instead of using separate insulating pieces. It is the cheapest and most practical grid leak mounting. Made of spring phosphor bronze. No. 1475 is used to attach all cardboard or bakelite tubes (inductances) to panels. No. 1476 is used for the same purpose. Bracket No. 1508 is used for special work and can be bent by the builder into any form. Note particularly that all brackets are nicely nickel plated.

**No. 1475 Brass Angle Piece, 5/16" wide by 7/16" high. Each** ..... \$0.03  
**No. 1476 Brass Bracket, 3/4" high by 2 lugs 1/2" long. Each** ..... \$0.05  
**No. 1490 Brass Angle Piece, size 3/4" by 3/4". Each** ..... \$0.04  
**No. 1505 Brass Angle Piece, size 1 1/2" high by 3/4" long** ..... \$0.05  
**No. 1506 Size 3/4" high, 3/4" long and 1/2" wide. Each** ..... \$0.04  
**No. 1507 Size 1" long by 1" high by 1/2" wide. Each** ..... \$0.03  
**No. 1508 Size 3" long by 1/2" wide. Ea.** ..... \$0.06  
**No. 1509 Size 7/8" high by 1/2" long by 3/8" wide. Each** ..... \$0.04  
**Dozen lots, each style 20% discount.**

## Brass Nickel Plated Screws

Machine Screws. We carry the following sizes of machine screws: 4-36, 6-32, 8-32 and 10-32 in flat head and round head styles. in the following lengths: 1/4", 3/8", 1/2", 3/4", 5/8" and 1".

**No. 1401 Price, all size threads, 1/4", 3/8", 1/2", per dozen, nickel plated** ..... \$0.15  
**No. 1402 Price, sizes 3/4" and 1". dozen.** ..... 0.18



**\$0.02**  
POSTPAID

NICKEL PLATED

**1300 1300** ..... \$0.02  
**No. 1300, Screw, 8/32 top, wood screw bottom, each** ..... \$0.02  
**No. 1200, Screw, 8/32 thread, 1" long. Fits lock fork No. 1250, each** ..... \$0.02  
**No. 1400, washer head iron machine screw 8/32, 3/4" long, each** ..... \$0.01

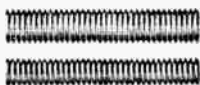
## Threaded Brass Rod

**\$0.06**

POSTPAID

We carry two styles, 6-32 and 8-32 thread. Only 6" lengths sold. No others.

No. 8032 8/32 thread, per 6" length.....\$0.06  
No. 6032 6/32 thread, per 6" length.....\$0.08



## Brass Strip

This strip is particularly handy for the experimenter, and is a size for which we have had much demand. Width  $\frac{1}{2}$ " - 1-10" thick; comes in 6" lengths only. No other sizes are furnished.

No. 1430

**\$0.10**

## Brass Tubing

To satisfy an insistent demand we are listing this brass tubing, favored by all radio experimenters and used particularly in connection with variocouplers, etc. Outside diameter,  $\frac{1}{4}$ " inside diameter, 3-16". Comes only in 6" lengths. No other lengths furnished.

No. 1431

**\$0.15**

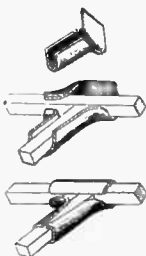
## Round Brass Rod



We carry only two sizes of plain round brass rod; 3-16" and  $\frac{1}{4}$ " diameter. Both are popular with radio constructors, as each can be used with variocouplers, variometers, as shafts, bearings, etc. Furnished only in 6-inch lengths. No other sizes furnished. Ends carefully milled and squared.

No. 1425  $\frac{3}{16}$ " .....**\$0.10**  
No. 3616 3/16" .....\$0.06

## "T" Wire Connector



This big little article will solve your problem when making "T" wire connections. Nickel plated brass. Can be used without solder but you can solder over the connector if you wish. Illustrations show how connector is attached to bus-bar wire. It is made to take wire 1-16" square or round wire 1/16" diameter. A pair of pliers is all you need. This "T" wire connector will give you set a workmanlike appearance. Now used by nearly all the highest set manufacturers.

No. 2975, dozen **\$0.05**

## Switch Handle



This switch handle is of a well known design and has hard rubber knob. All metal parts are nickel plated, center from knob to center of screw is  $1\frac{1}{4}$ ". Used on panels in connection with switch points, etc.

No. 300 .....**\$0.20**

## Hexagon Nuts

**\$0.05**

POSTPAID



We specialize in Hexagon Nuts. We furnish the best kind only, in six sizes, 4-36, 6-32, 8-32, 10-32, 10-24 and 12-24.

Nos. 4-36 and 6-32, per dozen .....\$0.05  
Nos. 8-32 and 10-32, per dozen ..... 0.08  
Nos. 10-24 and 12-24, per dozen ..... 0.15

## "Rasco" Brass Washers

**\$0.05** POSTPAID

63 247

These washers are standard and are accurately stamped and as flat as it is possible to make them. The experimenter recognizes that for many purposes that for many purposes warped washers are worse than useless, particularly when they are used for spacing purposes, etc.

Cat. No.	Clears Size of Machine	Out- sidi- diam.	Insidr Diameter	Thick- ness	Price Doz.
49	No. 4	9-32	.125	.025	\$0.05
63	No. 6	3-8	.150	.032	0.05
83	No. 8	3-8	.170	.032	0.10
107	No. 10	7-16	.195	.036	0.12
121	No. 12	1-2	.228	.040	0.15
149	No. 14	9-16	.260	.043	0.18
165	No. 16	5-8	.285	.040	0.20
181	No. 18	11-16	5-16	.051	0.22
203	No. 20	3-4	11-32	.064	0.25
247	No. 24	7-8	.385	.064	0.30

Not less than 1 doz. sold. 10 per cent dis. in 100 lots.

## "Rasco" Lock Washers

**\$0.05**

POSTPAID



Made of phosphor bronze. Split as shown, but the two flat surfaces are not on the same plane; there is a difference of about 1-16". When the blinding post or screw is driven in tight against the lock washer, the latter is always under tension which is not possible with other devices. The washers are about 1-32" thick when compressed.

No. 3001, for 1/32" screw, doz. ....\$0.05  
No. 3006, for 6/32 screw, doz. .... 0.05  
No. 3008, for 8/32 screw, doz. .... 0.10

## Lock Nuts

**\$0.04**

POSTPAID



Something new. Screwed down, will never loosen. Numerous uses readily found for this useful article. Brass, nickel plated. For 8-32 only.

No. 312, Lock Nut, each .....\$0.04  
Dozen ..... 0.40  
No. 313, Wing Nut, each ..... 0.04  
Dozen ..... 0.40

## Lock Fork



Made of phosphor bronze. Used on switch No. 200 and screw No. 1200. The only device to keep screw from coming loose. No. 1250, Lock Fork, each.....\$0.10

## RASCO STANDARD LUGS

### "Perfect" Lugs



**\$0.02**  
POSTPAID

Made of brass tubing and flattened at the ends. To attach lead wire hold the lug by the flat end with a pair of pliers and heat over an alcohol, gas or match flame and when sufficiently hot, insert a little solder in the tube part with a little flux. Then insert the bare wire. When cool you have the most perfect connection. Shown full size and will take up to 10-32 screw. Fully nickel plated and will improve the looks of your set very greatly. Very popular.

No. 3110, Open ..... \$0.02  
No. 3080, Closed ..... \$0.02  
Dozen ..... \$0.20

**\$0.06**  
POSTPAID



Brass, nickel plated, used for making connections. Only for 6-32 screw.  
No. 308, dozen ..... \$0.06

No. 309, Copper Lug, made in 3 styles for No. 4, 6 and 8 screws ..... doz. \$0.10

No. 310, Brass Lug, made only for No. 8 screw ..... dozen ..... \$0.10

No. 311, Copper Lug comes for No. 6 and No. 8 Machine Screw ..... dozen ..... \$0.10

## "Rasco" Nosolder Lugs



This small lug, shown full size, grips either round or square bus bar with a vise-like grip. Bus bar can now be connected or disconnected in a jiffy direct from the lug. It saves at least 25 per cent of time and when it comes to dismantle your set you do not have to throw away your bus bar wire for it can be used all over again.

Soldering is positively done away with. Perfect contact. The tension always powerful, yet it is easy to slip the bus bar wire into the friction grip. Use No. 15 square or No. 14 round bus bar for best results. Finally, if you insist on soldering, you'll be pleased to see that the lug is fully tinned.

No. 3727, Ten only **\$0.05**

## Cap Nuts



**\$0.03** POSTPAID

No. 314, Nickel plated brass cap nut, 8-32 or 6-32, each, .... \$0.63  
Dozen ..... \$0.25

## Thick Brass Washers

**\$0.04** POSTPAID

All washers are brass, nickel plated and polished.

No. 340, 7/16" dia.; 1/8" thick; 3/16" hole, each ..... \$0.04

No. 341, 7/16" dia.; 1/16" thick; hole for No. 10 screw, each ..... \$0.02

No. 342, 7/16" dia.; 1/8" thick; hole tapped 8/32", each \$0.04

## Screw and Lug Assortment

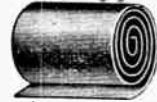


**\$0.39**

POSTPAID  
Contains 100 pieces, all handy, in useful standard sizes. Includes a good assortment of all standard screws, copper lugs, machine screws, wood screws. All screws plated. Cheapest.

buy you could think of. Saves time, trouble and money.  
No. 9413 ..... \$0.39

## Copper Foil



**\$0.10**  
POSTPAID

Useful for many experiments, such as, for instance, condenser work, where it is often necessary to have a material that is better than tinfoil, which latter has not a high conductivity, whereas copper, being the second best conductor, is much superior. Very flexible, and the best made. Annealed, and can be flattened out perfectly. Any length, but only 4 in. wide. Thickness .001 inch.

No. 5025 Per running foot ..... \$0.10  
10-ft. length ..... 0.80

## Copper Ribbon



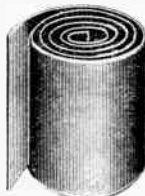
**\$0.01**  
POSTPAID

This ribbon is used for connecting and other purposes and is .005" thick. Not less than 10 feet sold.  
No. 700 3/4" wide, per ft. \$0.01  
No. 701 1/2" wide, per ft. .01  
No. 702 3/16" wide, per ft. .01

## Silicon Steel

**\$0.08** POSTPAID

This is an article for which we have had much demand. Silicon steel is specially used for transformer purposes, and is now used in all audio frequency transformers. It is a much better material than soft iron sheeting, as it will not give rise to eddy currents as much as iron. Exceedingly soft. Can be cut with pair of old scissors. One size which is standard—2 1/2" wide and .007" thick. Sold by the foot only.



No. 4900 Per running foot ..... \$0.08

## Tin Foil



**\$0.45** POSTPAID

Standard for all electric purposes. We carry two grades. The thin type running 1,500 sq. ins. to the lb is suitable for all radio receiving condensers, and heavy type, 700 sq. ins., for transmitting condensers. Per pound:

No. 850, Thin ..... \$0.45  
No. 851, Heavy ..... 0.47

## VACUUM TUBE HOOK-UPS

In the following pages will be found 75 of the most important V. T. Hook-ups. Only the best and most popular hook-ups have been illustrated and described. Special hook-ups furnished at \$0.50 each.

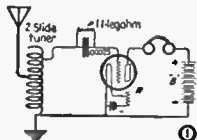


Fig. 1 This is the simplest VT hook-up. K is the grid condenser and L the grid leak. For a Radiotron V 200, the capacity and leak used are .00025 mfd. and  $\frac{1}{2}$  mfd. and  $\frac{1}{2}$  megohms, respectively. Fig. 2 shows how a VT detector is connected in a receiving circuit using a loose coupler and also how a crystal detector is connected. By opening switch A audion may be used.

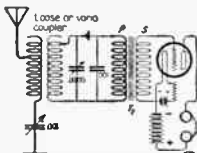
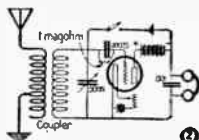


Fig. 3 is a simple circuit for a crystal detector and a one-step amplifier. T2 is an amplifying transformer. The secondary is connected to grid and negative side of the filament. Fig. 4 is the typical regenerative circuit: a coil having about 2-3 or  $\frac{1}{4}$  the value of the secondary is connected in the plate circuit. The coupling is critical and gives a high amplification. With tight coupling, undamp waves may be received.

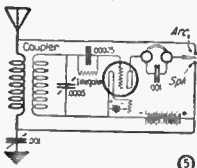
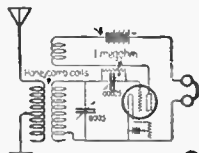


Fig. 5 is a circuit in which the primary of a loose coupler is used as plate inductor; by means of a switch it can be connected between the "B" battery and the plate, allowing the reception of undamp waves. Fig. 6 shows the typical hook-up for three honeycomb coils and a VT detector. The functioning of this circuit is explained in Fig. 4.

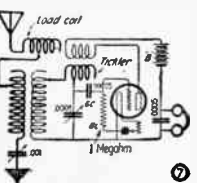
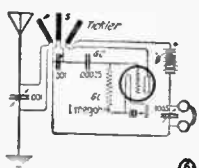


Fig. 7 is a hook-up for long waves using a short-wave coupler. In this case, the primary is loaded with a coil and the secondary wavelength also increased with an additional inductance coupled to a plate coil for the reception of undamp waves, as explained in Fig. 4. Fig. 8 is a receiver using a sodion tube detector. Our No. 3150 variocoupler permitting very loose coupling is necessary, and the secondary should have little resistance. R2 is 100 ohms and R3 200 ohms.

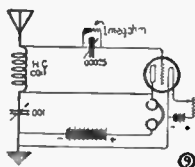
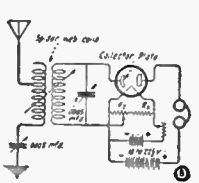


Fig. 9 This circuit is the well known De Forest ultraudion. A single inductance is used with a .0015 or .002 mfd. variable condenser in series. This circuit is particularly suitable for portable sets where little space is had and where simplicity is required.

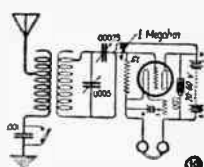


Fig. 10 is the ultraudion circuit to a loose coupler. This circuit oscillates on any wave-length and allows undamp waves to be received with a loose coupler without any external inductance.

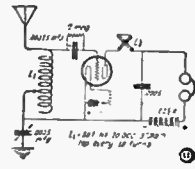


Fig. 11 is a single circuit regenerative receiver in which our No. 3350 variometer is employed to obtain regeneration. This circuit is very simple to assemble and may be built in a compact form for portable sets. Fig. 12 is another simple hook-up for a loose coupler to receive undamp waves and spark signals. The coupling between the coil T and the primary should be variable.

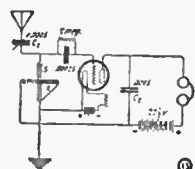
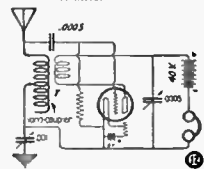


Fig. 13 is another simple regenerative receiver in which our No. 3350 variometer acts as the tuning and the feed back coil. A connection is taken at the contacts between the fixed and the movable coils. Fig. 14 is the hook-up for a loop aerial with a VT detector especially adapted for long waves. By connecting the positive side of the filament to the center of the loop, the set is made to oscillate for the reception of undamp waves.

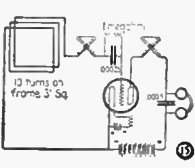
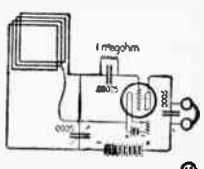


Fig. 15 When a loop is used only for the reception of short waves, it should consist of two or three turns only and the tuning made by variometers or variable inductances in order to have a regenerative effect.

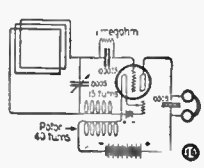


Fig. 16 is the Armstrong circuit used in conjunction with a loop aerial. By using inductances of suitable size, this circuit is equally efficient on short or long waves.

Gentlemen:

Enclosed find the sum of seventy cents (\$.70) for which please send me one 30-ohm Rheostat No. 4311 at 4c, as advertised in Radio News. Also, one C-299 type Bakelite socket, No. 6511, for 26c as advertised in your No. 12 catalog. Would like to say that the No. 3100 variocoupler, which I received a short time ago, is one of the most wonderful instruments I have ever had. I was almost afraid to buy it, it was so cheap, but now can see that it is equal in value to a \$4.00 coupler. My last order arrived in good shape and was quickly filled.

WALKER TOMPKINS,  
Turlock, Calif.



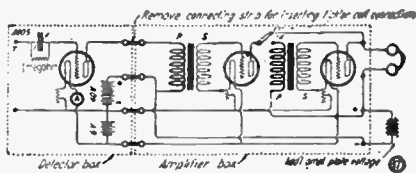


Fig. 17 shows the connections of a two-step amplifier and how it is connected to a detector tube. A two-point switch is used to connect the transformer to the first or second step of amplification.

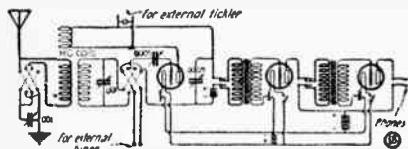


Fig. 18 is a practical, complete receiving circuit with detector and two-stage amplifier. The detector and amplifier may be used with another set, such as a regenerative one, by means of a series parallel switch. This circuit is designed especially for use of honeycomb coils.

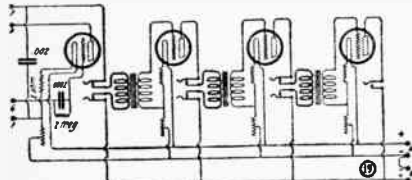


Fig. 19. Complete circuit of a detector and three-stage audio frequency amplifier. The proper negative grid potential is obtained by inserting a one-ohm resistance between the filament, and secondary of the transformer. By means of jacks and plugs, the tune may be connected to any number of step of amplification.

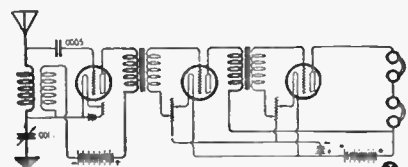


Fig. 20 is an unusual hook-up for short waves, using only one variable or two steps of amplification.

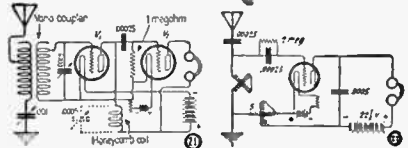


Fig. 21 shows a one-step Radio frequency amplifier and detector. The value of the coil L3 depends upon the wave to be tuned in; it should have about the same value as the secondary of the coupler. If a honeycomb coil is used, tune with variable condenser (Dotted Lines). Fig. 22 In this circuit two of our No. 5350 variometers are used to tune and to cause regeneration. As may be seen, the lower variometer has a center tap between the fixed and the movable coils so that the rotor is the feed back coil. If a short antenna is used, the .00025 µf. fixed condenser is not necessary.

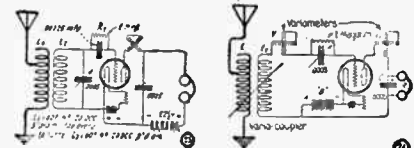


Fig. 23 is the same circuit as that shown in Fig. 11, but with loose coupling between the antenna and the secondary circuit. This circuit provides greater selectivity and is recommended for a long antenna. Fig. 24 This circuit is well known among amateurs as the short-wave regenerative one. It uses two variometers and a variocoupler. A variable condenser should drive the fumes and at other one could be used to advantage in series with the primary of the coupler.

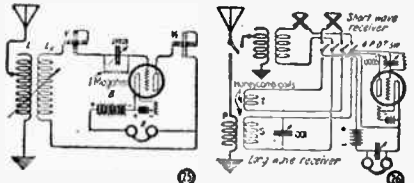


Fig. 25 is the same circuit, but with the tune connected outside the oscillating circuit, thus suppressing the use of a condenser to shunt them and which is used as a pass-by in the former hook-up. Fig. 26 By the use of a 4-PDT telephone, or anti-capacity switch, the same VT detector may be connected to a short-wave regenerative circuit or a long-wave tuner using honeycomb or other inductances.

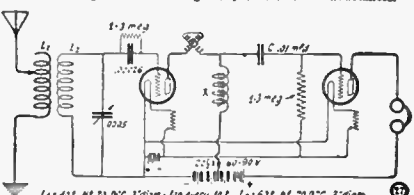


Fig. 27 shows a standard regenerative receiver similar to the one shown in Fig. 23, but with one stage of choke coil coupled audio frequency amplification. The choke coil L3 should have an iron core and be of fairly large size. This type of audio frequency amplification gives very good quality.

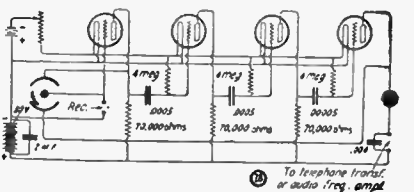


Fig. 28 is a four-stage Radio frequency amplifier using resistance coupling. The four tubes act as amplifier and detector at the same time. A small condenser having two fixed and one movable plate is used as a coupling capacity between the plate of the last tube and the grid of the first one to make the tubes oscillate and produce beats for the reception of undamped waves. For waves over 500 meters.

Gentlemen:  
You are to be congratulated on your quick service for small orders such as was sent me some time ago, so I am enclosing another small order on the reverse side of this sheet which I feel sure will receive the same quick accurate attention.  
JAMES WAY, Lowell, Ohio.

Gentlemen:

In reference to your advertisement in the March Radio News I am writing for your new Rasco catalog No. 12. I have used several Rasco parts and found them of very good quality indeed. Hoping to hear from you soon, I remain

M. J. WARD,  
Christchurch, New Zealand

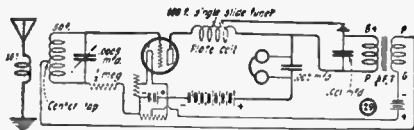


Fig. 29 shows a one-tube reflex receiver using a crystal for detection. By making connections to the detector and from the secondary of the audio frequency transformer to the center of the coils, a great amount of stability is obtained and the circuit does not howl or whistle. This arrangement is to be recommended when only one tube is to be used. Use our No. 1899 Crystal Detector in this circuit; our No. 1150 audio transformer will be found excellent here.

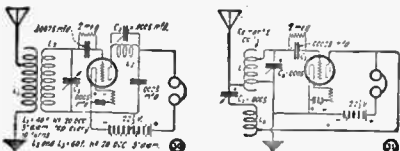


Fig. 30 Another regenerative circuit using the tuned plate circuit system. This circuit is exactly the same as that of Fig. 23 except that instead of a variometer a coil and variable condenser are used in the plate circuit.

Fig. 31 is the well-known Reinartz circuit. The tuning unit consists of a special spider web coil. Nos. 2650 or 2660, with taps and two variable condensers. If audio frequency amplification is to be added the primary of the first transformer is connected in place of the telephone.

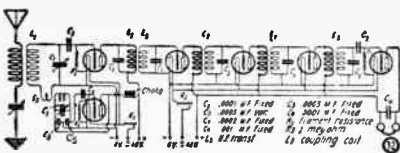


Fig. 32 shows the hook-up of an inductively coupled amplifier. Instead of transformers or resistances, tuned circuits are used. For 'undamp' waves, a local oscillator is used to produce the "beats."

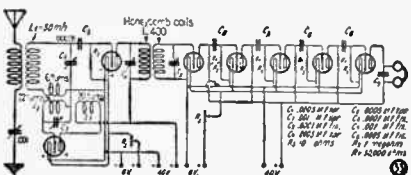


Fig. 33 This circuit is the Armstrong Superatodyne system for the reception of short waves with resistance amplifiers which are especially efficient for long waves.

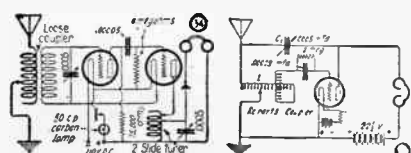


Fig. 34 shows a Radio frequency amplifier for long waves using a crystal detector. If DC is available, it is a simple matter to use it directly on the plate and through a 50-w. carbon lamp to the filament. Fig. 35 is a modified Reinartz circuit. The tuner is our standard variometer, No. 3150, the secondary of which is connected in series with the primary. The lower part of the primary is tapped every two turns for 50 turns.

Gentlemen:

I have received my order sooner than I expected, and I was not sure that it was my order until I opened the package. The time was two days before a letter that I sent the same day I sent the order. I received them in good condition with the RASCO Catalog. In my vacation, just after the examinations, I will order other parts, and I hope to receive them with the quick attention and prompt delivery accorded my first order.

LUIS OUGPIN,

275 Juan Luna Street, Binondo, Manila, P. I.

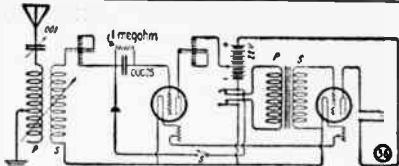


Fig. 36 Here is a combination circuit of a vacuum tube detector and one-stage amplifier. A crystal detector is also connected to the receiver so that it may be used for nearby stations by simply cutting off the current of the vacuum tube detector and by closing the switch, S1.

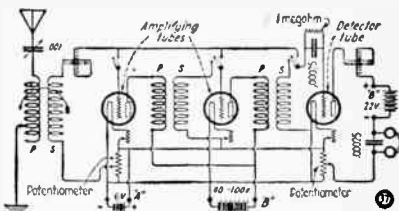


Fig. 37 This is the hook-up for a two-stage radio frequency amplifier and detector with feed-back coupling to obtain regeneration. By means of the switches connected to the grids of the tubes, any number of stages may be used.

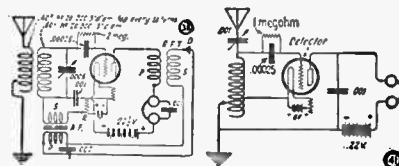


Fig. 38 This is a standard one-tube reflex arrangement using a crystal detector as a detector. The potentiometer R1, controls the grid potential to prevent oscillations.

Fig. 41 The owner of a two-side tuning coil need not incur extra expense to make a regenerative receiver. The above diagram shows how to connect it to a vacuum tube to obtain a feed-back effect.

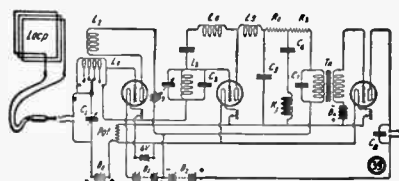


Fig. 39 This is the famous Armstrong super-regenerative circuit. The constants are as follows: L1, L2—Short-wave Variocoupler. Secondary 200 turns; C1—0.002 M.F.; L3—D.L. 1,250; C2—0.01 M.F.; C3—0.02 M.F.; C4—0.01 M.F.; L4—D.L. 250; L5—D.L. 1,500; C5—0.05 M.F.; R1, R2—12,000 Ohms each; C6—0.05 M.F.; K1—1 Henry Iron-Core Choke; C7—0.02 M.F.; Tr—A.F. Transformer C8—0.02 M.F.

On page 89 there is listed the most advanced Radio Receiver Blue Prints, which have been compiled by the Laboratory Engineers of the "Radio News." Any receiver built from these Blue Prints will represent the most up-to-date and efficient Radio set.

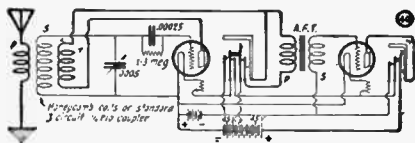


Fig. 40 This diagram shows a standard regenerative circuit with one stage of audio frequency amplification in which automatic filament control takes care of the tubes light automatics. When the telephone plug is inserted in one or another of the jacks.

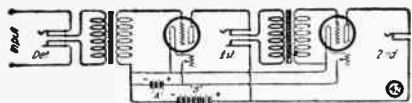


Fig. 42 Here is a circuit of a two-stage audio frequency amplifier. It may be used with any form of detector, either a vacuum tube or a crystal. In the latter case, the input is connected in place of the telephone in the receiver.

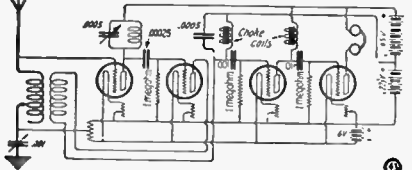


Fig. 43 This circuit is very sensitive and may be used with Myer tubes and choke coils. It consists of one stage of radio frequency, detector and two stages of audio frequency with a feed-back coupling to the first tube.

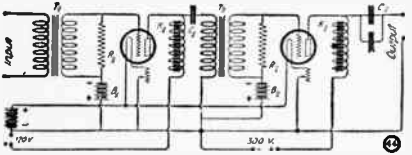


Fig. 44 When it is desired to operate a loud-speaker and obtain great volume of sound, a power amplifier is necessary. A two-stage amplifier of this type is shown in the circuit above with the constants. The 30-Henry choke coils, K1 and K2, may consist of the primary of a W-type bell-ringing transformer, the secondary of which is left open. R1, R2 and leaks, C1 C2 .05 M. P. condensers.

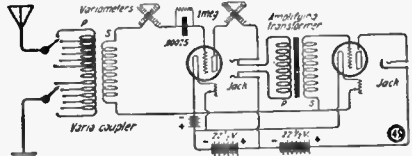


Fig. 45 This hook-up of a regenerative receiver and one-stage amplifier is very efficient for all-around use, as well as for DX work. The variometers and variocoupler should be chosen, wound with large size wire, not smaller than No. 22.

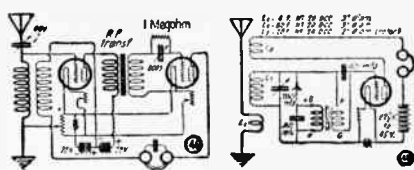


Fig. 46 This diagram shows how to connect a one-stage radio frequency amplifier between any tuner and the detector unit. The radio frequency transformer, if of the air core type, should be preferably shunted by a small variable condenser. Use this hook-up with our R. F. transformer.

Fig. 47 This diagram shows how the tuner and amplifier units may be mounted in separate chassis. In the tuner, either a variable condenser or a variometer may be used for tuning in the secondary circuit.

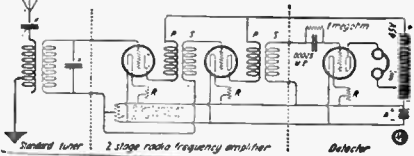


Fig. 48 This circuit is another one-tube reflex, in which the detector and audio frequency amplifier are connected in parallel with the secondary circuit. In this diagram coil L3 is for the purpose of causing regeneration to take place.

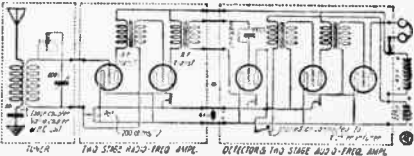


Fig. 49 Hook-up for a two-stage radio frequency amplifier and detector. The dotted lines show where the connections from the tuner to the detector should be cut to insert the amplifier. The correct hook-up for our No. 2900 R. F. transformers.

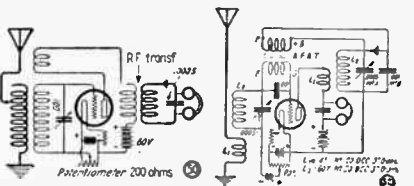


Fig. 50 When only one tube is available, it is sometimes preferable to use it as a radio frequency amplifier, as shown here, a crystal detector being used for rectification. The transformer may be our standard radio frequency transformer No. 2900 or a variocoupler tuned to the incoming waves.

Fig. 52 In this reflex circuit a tuned radio frequency transformer is employed in the plate circuit of the tube. This provides sharper tuning and should be used when interference from other stations is experienced.

Gentlemen:  
 Congratulations on your quick service. Every-  
 thing arrived o.k. Am sending you another order  
 which I hope you will fill just as quickly. I remain,  
 a booster for Rasco.  
 ROBERT W. ACKER, Millsboro, N. Dak.

Gentlemen:

I have found your JIFFY JACK one of the most useful parts of my radio sets. I experiment with hook-ups, and so like to change connections easily. I fastened a JIFFY JACK to each binding post on my variable condenser and I used round bus bar wire to connect the condenser to the other instruments. I did the same on my tube sockets. I also soldered two clips on my aerial and ground and I use JIFFY JACKS for the binding posts.

EDWARD KELLY,

1559 East 73rd Street, Cleveland, Ohio

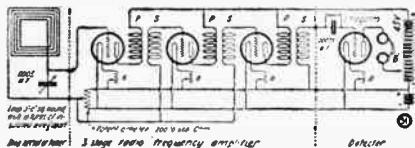


Fig. 51 This three-stage radio frequency amplifier and detector is very sensitive and permits reception on a small loop aerial or with an indoor antenna. The dotted lines mark the separation between the tuner and the detector. Correct hook-up for our R. F. transformers.

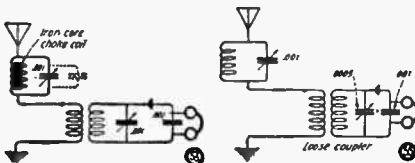


Fig. 53 This trap circuit composed of an iron core choke coil, is useful to eliminate low frequency induction from nearby power lines. The size of the choke coil depends upon the frequency of the interfering buzz, but fixed condensers may be added to the variable one in parallel as shown by the dotted lines, to obtain the proper capacity.  
Fig. 55 By means of a "trap" inserted in the antenna circuit, it is possible to eliminate a station causing interference by tuning this trap to the particular wave-length of the interfering signals. This may be used with any type of receiver.

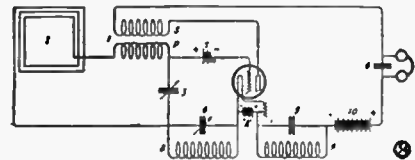


Fig. 54 This is a diagram of the one tube super-regenerative receiver. The constants are as follows: 1—vacuum tube with secondary re-wound with 80 turns of No. 22 D.C.C.; 2—loop aerial 3' square, 12 turns of lamp cord  $\frac{1}{4}$ " apart; 3—.0005 M. F.; 4—.0025 M. F.; 5—.001 M. F.; 6—.005 M. F.; 7—3 to 6 volts; 8—L-1250 honeycomb coil; 9—L-1500 honeycomb coil; 10—90 to 120 volt "B" battery.

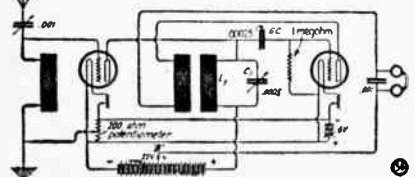


Fig. 56 Here is a very sensitive receiver using two tubes and honeycomb coils for the reception of any wave-length. The coil connected in the aerial circuit should be at right angles or away from the two others.

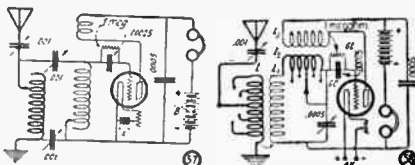


Fig. 57 This is a circuit of a capacity-coupled tuner. This circuit is very selective and gives sharp tuning. The coils may be honeycomb pancake or spider web and should be at right angle.

Fig. 58 This diagram shows how to build a short-wave regenerative receiver with two variocouplers. L and L1 constitute the aerial and secondary circuit, while L2 is the primary of the second coupler acting as a load in the secondary; L3, rotating inside of L2 acts as a tapper coil.

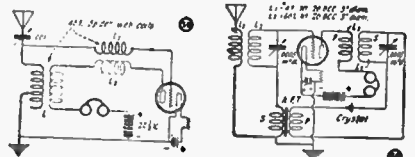


Fig. 59 is another type of single-circuit regenerative receiver in which regeneration can be very finely controlled by means of two spider-web couplers.  
Fig. 60 is a reflex circuit which is stabilized by grounding the secondary circuit. This form of reflex circuit gives good results.

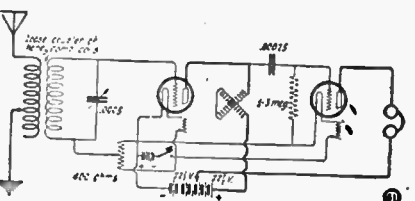


Fig. 61 This circuit shows a one-stage radio frequency amplifier and detector in which the plate circuit of the first tube is tuned by means of a variable capacitor. This circuit is very sensitive and is recommended when the reception of distant stations is desired.

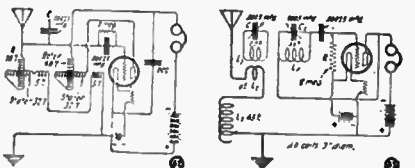


Fig. 62 This regenerative circuit is tuned by means of two No. 6850 variometers and uses two small coils of 5 turns each to couple the tuner to the feed back variometer. All the coils shown horizontally are wound on the same tubing.

Fig. 63 is the Cockaday four-circuit tuner which is another form of regenerative circuit. In this tuner only one turn of wire couples the antenna circuit to the secondary and provides great selectivity.

## Notice

The regenerative or feed-back circuit is covered by Armstrong Patent 1,113,149, and the superheterodyne circuit by Fessenden Patents, 1,050,441 and 1,050,728 and Armstrong Patent 1,342,865. The parts listed in this catalogue were not designed or intended to be used in these circuits.



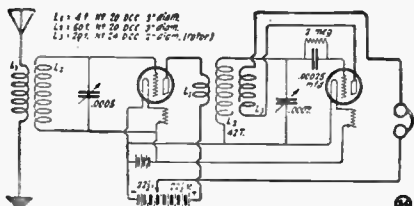


Fig. 64 This circuit has one-stage radio frequency amplification and detector. The latter is made regenerative by a special coupler. This is recommended as it prevents radiation of energy in the antenna circuit even when the detector tube oscillates.

TRANSMITTERS

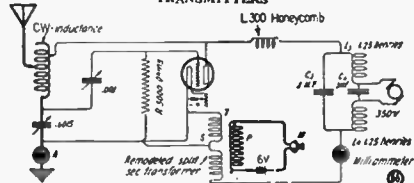


Fig. 65 is a Radiophone using the plate and grid system of modulation. A special modulation transformer having a split secondary should be used. Circuit gives fair results with any number of tubes.

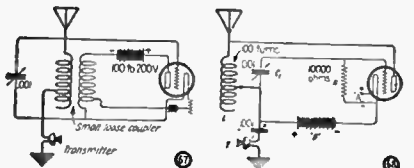


Fig. 66 shows a simple experimental Radiophone that the experimenter may build, using an ordinary short wave coupler and a V. T. A range of a few miles may be obtained with this set using a hard tube.

Fig. 67 a type of oscillating circuit which is suitable for C. W., or phone. If the circuit does not oscillate readily insert a .001 variable condenser in the ground lead and ground the negative of the filament battery.

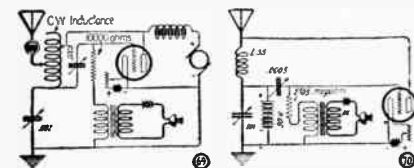


Fig. 68 A very efficient one-tube Radiophone is shown in this sketch. The modulation transformer may be a load-spark coil, and the H. T. supply a generator or three or more "B" batteries.

Fig. 70 Another simple Radiophone using a honeycomb coil for inductance. This hook-up is also very efficient and simple to operate.

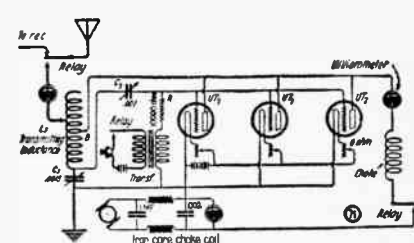
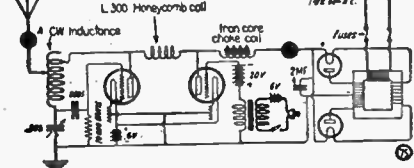


Fig. 71 This Radiophone uses the Colpitts oscillator circuit. Three or more tubes may be used in parallel and a long range is obtained when using transmitting tubes with a 350 V. motor generator.

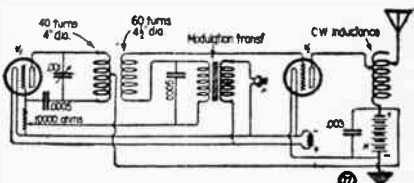


Fig. 72 In this circuit one tube is used as an oscillator and the other as an amplifier. The modulated current is applied upon the grid of the amplifier tube. This gives very good modulation and greater output than the conventional circuit.

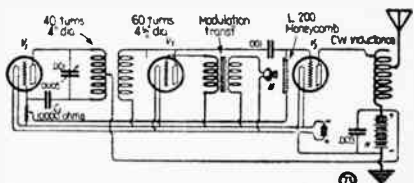


Fig. 73 is well adapted for greater power. One tube is used as oscillator, one as modulator and one or more as amplifier. Excellent results and a very long range may be obtained with this circuit. The same number of tubes should be used as amplifier and modulator.

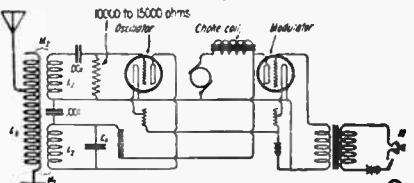


Fig. 74 This is one of the best hook-ups for two tubes. The output is uniform over the entire range of wave-lengths of the set. L1 may consist of 10 turns of heavy wire on a tube 4 1/2" in diameter; L2 and L3 may consist of 14 turns on a tube of the same diameter. The coupling condenser between the two coils may be of .00075 M. P. and C1 of .00015 M. P. The coil on the right of this condenser is a honeycomb L-200.

Fig. 75 This circuit uses one tube as modulator and one as oscillator and is supplied with A. C. The H. T.-D. C. is obtained through two rectifier tubes connected to the H. T. winding of the transformer. A low voltage winding with a grounded center tap may also be provided to supply the filament current to the two V. T.s.

Gentlemen:

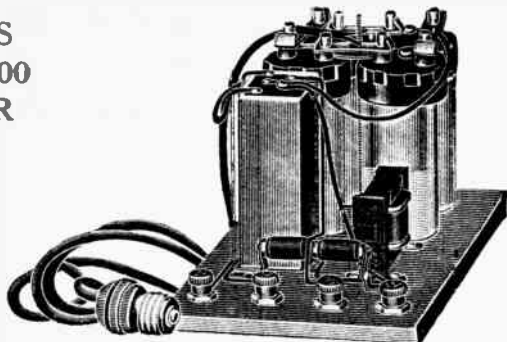
Enclosed you will find an order for a number of your small parts, some of which I have found to be entirely satisfactory. If the order is given the same prompt attention as my first, it will afford me the utmost satisfaction.

W. E. ZINGG.

112 Abbott Ave., Ocean Grove, N. J.

## RASCO "B" ELIMINATOR KIT

USES LESS  
THAN \$1.00  
PER YEAR  
OF YOUR  
HOUSE  
CURRENT



**\$10.25**

COMPLETE  
NO TUBES  
NO ACIDS  
TO BUY

Perfect reception in your loud speaker is always limited by the condition of your "B" batteries in series therewith. A 45 volt "B" battery is only considered "good" if it registers ABOVE 38 volts—when they register less than that, they cause "frying" and every conceivable form of noise background in your speaker. The solution to this problem is the installation of this "B" eliminator, drawing its current from your light socket—assuring you an ever constant "B" battery supply of between 90 to 100 volts, with two intermediate voltages of 22½ to 45 (or any voltage if a variable resistance is inserted in the positive output lead). Should your receiver require 135 volts in the last stage for a power tube, the addition of a 45 volt "B" battery in series with this eliminator (the positive lead of the latter being connected to the minus of the "B" battery) will solve the problem. And, as the power tube will be the only tube to draw current from this added "B" battery, it should last you from 6 to 9 months. The electrolytic principle of rectification has long since been accepted AS THE MOST SATISFACTORY SYSTEM.

The electrolyte lasts about one year, and perhaps only twice a year need distilled water be added thereto. Can be assembled in less than one half hour—nothing further to buy. The kit consists of: 4 Rectifier Jars, complete with Electrodes—Connectors—Filter Condenser Block—Choke Coil—2 Resistances with mounts—full charge of Salts—special base board furnished with 4 hollows cut therein to receive the jars—binding posts—lamp cord with detachable plug—fibre disc and threaded rod—hook-up wire—miscellaneous hardware—Blue Print and Instructions. Shipped Express collect.

No. 4000—Unassembled "Rasco" "B" Eliminator as described..... **\$10.25**

## "RASCO" 2-STAGE AMPLIFIER

"NO-SOD-ER" CONNECTORS



9966

ONLY

**\$8.20**

POSTPAID

IMPORTANT: Note that in this set, too, we use our famous "No-Sod-er" connectors, making it possible for any one to put the amplifier together within less than an hour's time. Only tools required are a pair of pliers, a screw driver, and your hands.

PARTS INCLUDED IN RASCO 2-STAGE AMPLIFIER:

No. 710—1 Mahogany Cabinet, 7x10".....	\$2.60
No. 7100—1 Dilectrite Panel.....	0.65
No. 9502—2 Rasco Transformers, 3 to 1, ea.....	3.00
No. 6335—1 Jones 2-Circuit Jack.....	0.75
No. 6515—2 Bakelite Sockets, each 25¢.....	0.50
No. 4308—1 Bakelite 8-ohm Rheostat, Patent.....	0.48
No. 6068—1 Binding Post Nameplates, each 2¢.....	0.20
No. 201—1 Rasco Binding Posts, each 4¢.....	0.40
No-Sod-er Wire Connectors, full blueprints and directions.....	0.75

Total \$9.51

No. 9966 OUR PRICE ..... **\$8.20**

Most sets require a two-stage amplifier. This two-stage amplifier is needed particularly when you have a 1-tube set, or our reflex set, illustrated elsewhere in this catalog. Where the usual 1-tube set, as a rule, brings in stations on the headphones only, the addition of a 2-stage amplifier will make it possible to use the loud speaker on the set.

This set uses all of our standard apparatus and is offered at a real bargain price, as an inducement to buy our parts. Full directions, with blueprints, are furnished and we guarantee results from this amplifier to equal any other two-stage amplifier on the market.

# THE RASCO SONATA RECEIVER

**No. 9658 Complete, Receiver, Adjustable unit, Built-in Loud-Speaker and Cabinet**

**\$35.95**

**No. 8923 CABINET ONLY \$17.45**

Only RASCO could offer such value as this receiver for so reasonable a price. We guarantee you 100% satisfaction with this receiver! And by satisfaction we mean it will be capable of very selective tuning, maximum sensitivity to the most distant stations, volume and clarity as you would desire it. In fact, it is very comparable to our Rasco LEADER No. 9056, to which you may refer for general description. The panel is genuine bakelite, with very pleasing decorations. The dial numbers are etched directly upon the panel. An oversized knob, attached to the condenser tuning shafts, is used for the tuning. Two jacks on the panel allow an optional use of an external loud speaker or head phones. Two rheostats and a battery switch complete the panel layout. You will note the very exclusive feature on this Radio receiver—when it is not in operation, the hinging front cover completely conceals the panel; this makes a very striking and pleasing appearance—for, once you have tuned in a station, and wish to "stand by" to enjoy its program, you can close the cover, incidentally preventing anybody from disturbing the dial settings. When this cover is down, it makes a very convenient arm rest, while tuning the receiver. The top cover also hinges to provide for immediate access to the tubes for adjusting the loud speaker unit, or, for inspection of the actual interior of the Radio receiver. The loud speaker furnished is composed of an unusually well designed metal throat and wood tone chamber covered by a very attractive scrolled grill. The unit is very powerful, for, to meet the requirements of this receiver, it MUST BE; once adjusted, it need never again be touched. The tubes fit into the latest type of U.X. sockets, which are built into the sub-base panel—and which provide for the use of either UX-199 dry cell tubes (3 volts), or the 201A storage battery type. The variable condensers are the latest straight line corrected frequency models; the audio transformers are equal in performance to the same type used in very much more expensive receivers—in fact, we have made NO SACRIFICE in the ELECTRICAL QUALITY or MECHANICAL DURABILITY of any of the component parts used in this receiver. We fully realize that you as a pleased customer will be our very best advertisement; for you will recommend all our products to your many friends—extensive newspaper and magazine advertising would make this self-same receiver sell for 5 times its modest cost. To make you ever boastful to show this receiver to your friends and to warrant its entry into your living room, we have enclosed it in a very attractive two-toned MAHOGANY CABINET, with a finish thereon usually found only on high priced furniture. The overall dimensions of this receiver are 28 inches long by 11 inches deep by 8 inches high.

**No. 9658 Rasco Sonata Radio Receiver, Complete with Built-in Loud Speaker and Adjustable Unit. \$35.95**

Due to weight, sent by Express Collect.

**No. 8923 Cabinet Only, Without Receiver, Built-in Loud Speaker and Adjustable Unit Included. Panel size: 7 inches high by 18 inches long. Overall dimensions: 28 inches long, 11 inches deep, 8 inches high. \$17.45**

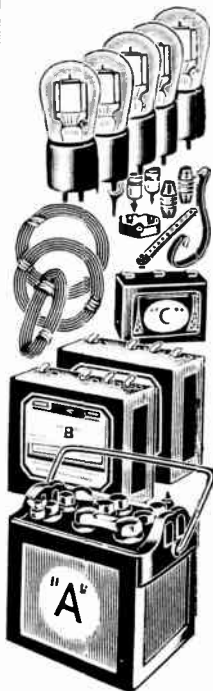
Due to weight, sent by Express Collect.



## Radio Receiver Accessories

**\$26.55**

**COMPLETE AS SHOWN**



Any Radio receiver is only as good as the batteries that supply it with the necessary power, the radio bulbs that are really the heart of every receiver, and the aerial equipment. And for that reason, we exercise extreme care in selecting only those accessories which will be the very best that we know of for the purpose in mind—these are the accessories we recommend for all our kits and sets.

The storage battery is of the latest type, our Number 9100; its purpose is to light the bulbs. The two "B" batteries are our Number 4500; their purpose is to place a positive polarity on the plates in all the tubes as well as to furnish the current to the electro magnets in the loud speaker, causing the diaphragm within to vibrate in accordance with the variations controlled by the tubes. The 4½-volt "C" battery, recommended in some of our kits and sets is guaranteed to render service for one year. The bulbs are of our superior Muselman tubes described elsewhere in this catalogue—Laboratory tests have conclusively proven them to be superior to any other make of tube. The aerial equipment is of the very best manufacture, and

comprises whatever materials are necessary for the construction of an average antenna.

1	100 ampere four 6-volt storage battery.....	\$9.50
2	15-volt large size "B" batteries at \$2.30.....	\$4.60
1	1½-volt "C" battery.....	\$0.55
5	Muselman 5VA 5-volt tubes at \$1.80.....	\$9.00
1	Complete Aerial Kit as illustrated.....	\$4.50

**\$28.15**

**No. 9071 Your Special Price..... \$26.55**

If your receiver does not call for a "C" battery, you may omit same, and deduct from your remittance. Due to the excessive weights of the batteries, the above material must be shipped via Express Collect. We do not list head phones or loud speakers in the above, as you may wish to make your own selection.

# The Rasco 5-Tube Radio Receiving Set

## OUR LEADER



No. 9056

### De Luxe Appearance

In this current model we have dispensed with the conventional bakelite panel, and substituted a much more costly panel of Walnut 5-ply wood, beautifully grained and finished. The instruments attached thereto do not require any electrical insulation, therefore, the bakelite can be successfully eliminated. The dial plates are very attractively antique gold finished, with the dial numbers handsomely etched thereon. The large knobs are a perfect match to the finished surface of the panel. The rheostat and switch plates and knobs are identical in general appearance. The cabinet is highly polished, three finished walnut, and will grace the appearance and general decorative effects of any room. The panel is slightly set at an angle, for easier manipulation of the dials, and better vision thereof. The screws holding the panel are also gold plated.

### Simple Operation

The three large knobs are rotated together, and, as a rule, they will each be set to the same corresponding number on each of the dial plates. For instance, WRNY may come in at 60 ON EACH OF THE DIALS. Once you have recorded a station, with its dial readings and station call letters to listen in again to that self-same station, you merely have to set your three large dials to these previously recorded settings. One of the two smaller knobs controls the volume, which can be regulated from the softest whispers to the mightiest crescendo of a masterpiece selection, in any degree you may desire. The other knob turns the batteries on and off—the simple little quarter turn. Any child can successfully operate this receiver.

### Ultra Selective

If you live in a large city, or comparatively near one, it is all important your choice of a receiver be for one that will be able to tune out any unwanted station completely. In some cities, like New York, Chicago, etc., there are as many as 20 such stations, and unless your receiver is correctly designed, and assembled, two stations will be heard at once. Laboratory and practical tests with this receiver enables us to assure you that it will positively tune in only one station at a time.

### Ultra Sensitive

The thrill of distance reception is bound to impress you and make of you a Radio fan—millions of whom "explore" the ether every night throughout the world. Many a one "sits up" for a while and with a disconcerted shrug of the shoulder, turns off the set, with the belief that there are no other distance stations broadcasting that night other than what he has tuned in. But he is mistaken—if he owned one of these Radios, he would find himself still "listening in" to stations located in every nook and corner of the United States till the very small hours of the morning. The very fact that this receiver is so ultra sensitive also assures you that if your hometown is located a few hundred miles from the nearest broadcasting station, you will enjoy their programs with surprising volume and clarity, whereas other machines of inferior sensitivity might receive the same station under the same adverse conditions, as if it were the most distant one.

# \$25.55

as illustrated

# \$23.45

without cabinet

### Volume With Perfect Clarity

There are many receivers which can be forced to produce volume at the costly expense of clarity—and after all your sense of enjoyment of the Radio Programs is solely dependent on the clarity with which you may receive these programs. Our efforts to produce clarity with volume have met with success, but it required many months of deliberate and laborious experimenting. The first passages of music that you will hear over this Radio will thrill you with its 100% fidelity of rendition.

### The Circuit Employed

Nine out of every ten receivers in use today use two stages of tuned radio frequency amplification, one tuned detector stage and two stages of audio frequency amplification. So do we, but, herein lies the difference: The quality of parts used, and the method employed to eliminate self-oscillations. If this is to be the first Radio receiver you will have owned, let us assure you that we have striven to give you the very best possible apparatus, but, if you are acquainted with Radio circuits, let the following description convince you: The variable condensers are of the latest straight line corrected frequency type—the sockets are the U.X. model, enabling the choice of either storage battery or dry cell tubes (U.X. 199 type)—the coils are of approved low loss design, and will cover all wave lengths between 200 and 750 meter—the detector and amplifying tubes are controlled by fixed resistances, whereas the two R.F. tubes are controlled by the rheostat on the panel, as a volume and partly oscillation control (very essential on the most distant stations)—the audio transformers are of low ratio, perfectly matched and capable of tremendous volume—the coils are placed at angular positions to each other, and correctly separated, to reduce self-oscillations. Point to point bus bar, carefully soldered at joints, system employed for maximum efficiency. All wiring, coils and audio transformers are rigidly attached on the under side of a bakelite sub-base panel, preventing mischievous handling thereof. The last stage of audio frequency has separate binding posts for additional voltages for both "B" and "C" batteries, should you care to use a Power tube for maximum clarity, volume, etc. Remaining battery wires are connected to the receiver by means of 5-wire cable, correctly tagged for identification. Detailed instructions for installation and operation included with each receiver. Panel size, 7 inches by 18 inches—about 6½ inches deep. We recommend the list of accessories described elsewhere in this catalogue, and any of our loud speakers. Shipped express collect.

No. 9056 5-tube Receiver as illustrated and described. . . . . **\$25.55**

No. 9057 Same receiver as above, but without a cabinet. Can be installed in any of our consoles or in your own cabinet. . . . . **\$23.45**