

## LEVENSON'S

Introduce and Invite you to visit...

## RADIO CHEAPSIDE

ABARN FULL OF BARGAINS Sydney's new wonder Gigantic Wireless Goods Bargain BAZAAR
Where over half a million wireless snaps await you. A rendezvous of the thrifty, where you can purchase from a small Solder Lug to a Multivalve Superheterodyne Receiver.

Note the address: 240A Pitt Street Directly opposite Sydney School of Arts (Between Market and Park Streets)

# 11! [1! ! 

## POST THIS COUPON TO-

 LEVENSON'S RADIO
## THE PALACE OF WIRELESS

## 226 PITT STREET

SYDNEY
ALONG WITH A POSTAL NOTE OR MONEY ORDER FOR 5/-
and you will be forwarded by return mail a $10 /$ - parcel of simple illustrated Charts and Booklets How to Build $1,2,3,4,5$ and 6 valve sets both for Battery or Electric operation, Crystal Sets, Portable Sets, Eliminators, Transmitters, Chargers and Short Wave Sets.

Each one so simply described and illustrated any novice or child could follow and construct a set from them. No previous knowledge required.

## DO IT NOW

A MONEY ORDER TELEGRAM SAVES TIME

## CONCESSION COUPON

## IT'S WORTH MONEY

PRESENT THIS COUPON to the Salesman or post it along with order, and $4 /$-will be deducted from your first $£ 1$ purchase (with the exception of Proprietary and Special Bargain Lines).

One Ccupon only with each order accepted.

## LEVENSON'S RADIO

Head Office \& Wholesale Dept. 226 PITT STREET, SYDNEY Opp. Palace Theatre

RADIO CHEAPSIDE, 240A PITT STREET, SYDNEY Overflow Store

Phones: M 2525-2526.

Established 1906
28 years ago

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## Locate Your Needs Quickly from this Ready Reference



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Noise Eliminators
Needles, Phono.
Postage Rates and Charges

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# Cash The Valuable Voucher Attached 




## Levenson's ‘500’ Radio




JOIN QUICKLY, OR YOU MAY BE TOO Late:
SEND 5/-
FOR ONE YEAR'S MEMBERSHIP
Even though you may not want ANY RADIO MATERIALS TO-DAY

## SOUTHERN SEAS

PACIFIC ISLES H ULLOA! !
LEVENSON'S Leaders in Radio, Sydney, Australia, specialise in Island Radio Trade. Our Mail Order Manager and Head Mechanic have been engaged in radio work in your part of the globe and know your conditions thoroughly. They are fully equipped to give $100 \%$ service -with $100 \%$ attention and value for money. Backed by Levenson's.

All orders and mail despatched by next outgoing steamer. All goods thoroughly tested and goods supplied that will thoroughly suit your requirements. We cater for this Radio Trade right throughout the Southern Seas. MONEY BACK GUARANTEE
Cable or Radio Instructions, our cable address:
"Leveradioh," Sydney.
We Welcome Inquiries.

## REMITTANCE BY OPEN CHEQUE

Many of our customers make remittance by open cheque-this method is very safe and more economical than any other manner of remittance. Be certain to cross out the word "bearer" and substitute the word "order." Cross cheque "not negotiable," make payable to Levenson's Radio. Do not fill in amount but underneath the $£$ sign on cheque write distinctly "Not over $£ 1$, $£ 2$, $£ 3$," as the case may be, namely the amount nearest the next highest pound of approximate valueviz., if the approximate amount would be £13/13/6 insert "Not over £14."
We encourage this method of payment because it means almost instantaneous service and despatch.

## CLUB SECRETARIES, HOTEL LICENCEES, STOREKEEPERS, TOBACCONISTS, NOTE!

Levensnn's Radio know all there is to know of carnivals, fancy fairs, bazaars, slot machines, automatic ticket issuing personal weighing machines, chocolate wheels, sandown race machines, "Housie Housie."
We supply all the necessary goods required.
We have stocks available on hire commission or for purchase of all kinds of games, coin operated slot machines, poker machines, etc. Ticket-issuing personal weighing scales. A great money maker suitable for any business that has a fairly wide doorway facing the main business street of any town.
See full particulars of this new money maker-. THE DIGGAR BOARD-Back Inside Cover.

## Foreword

THIS book has been compiled for the Home Radio Set Constructor, amateur or Professional, the Listener In and. Radio Dealer. The pick of the most modern circuits, incorporating all that is new in Radio Engineering are contained within these pages. It lists every worth while Radio item available in Australia, many of which are only available from us. Every important Radio Manufacturer and wholesaler has given us their support by advertisement; which has made this publication possible and for which we thank them. All lines listed within these pages are true to description. We have no desire to mislead you.

## RAPID DELIVERY

The Cheapest, Fastest and Safest way in which to remit money is by crossed limited open cheque. If you estimate the approximate expenditure at, say, $£ 6 / 15 /-$ mark your cheque "Not Over \&7." Sign and cross your cheque and we will fill in the exact amount when our invoice is drawn.

## NOTICE TO OUR COUNTRY FRIENDS

We can buy in the best market for you. Let us quote you.

Electrical Goods of all kinds.
Linen Goods of all kinds-Plain and Hand Embroidered.
Kitchen and Hotel Kitchen Towels.
Hotel Bar Towels.
Household Towels.
Working Boots.
Walking Boots.
Sporting Goods of all kinds.
Leggings.
Rain Coats and Oilskins.
Tyres, Retreads \& Motor Accessories. Tarpaulins.
Canvas Goods of all kinds.
Crockery and Hardware.
Photographic Materials.
IN FACT, ANYTHING YOU WANT! Our staff of Trained Buyers are for ever purchasing and they know the best markets where to secure better value for your money.

## GIVE US A TRIAL

Join our " 500 " CLUB. 5/- per annum subscription entitled you to $10 \%$ Discount!

## Levensons Radio

## LEADERS IN WIRELESS

## 226 PITT STREET,SYDNEY

Phones: M2525, M2526
Also "CHEAPSIDE," 240A Pitt Street
All Wholesale Orders are subject to Sales Tax
II Specialists in all Radio requirements.
(T) We guarantee a cheaper price and will not be undersold.
T Radio Repairs? Yes, we do them and do them well and cheaply. Actual mechanic's time plus materials used. That's our charging basis.
I Valve Testing Service-FREE.
II Our Mail Order Department covers the Earth where accessible by Post, Rail, Steamer, or Air Mail.
d] Your nearest post office is our nearest branch. We send goods V.P.P. Post.

1) We cannot afford to pay freightour Sane-Profit Prices won't stand itif others pay freight note their prices. 1] We make a small charge 'for packing cases when we think extra care should be taken-customers appreciate this.
T] For crating Accumulators in special crates we charge $2 / 6$. This is necessary.
II Residents in the Southern Sea-we have trained men who know your re-quirements-men who know your part of the world.
II Goods forwarded C.O.D. by Post or Rail if desired.
(I) We trade for cash only.

- All orders must be accompanied by Cheque, Treasury Notes, or Limited Open Cheque, Stamps, Postal Notes, or Money Orders.
I Call, phone, wire, telegraph-cable address "Leveradioh"-or write. Special attention to urgent phone calls or telegrams.
I Money may be Telegraphed.
II Add $3 / 6$ for packing radio cabinets.
II We accept Cash Orders on all Proprietory Lines. Cut price lines excepted.


# Levenson's $\frac{\text { He Pulic Preterecee }}{\text { Miress }}$ Order Service <br> <br> Rapid Radio Mail <br> <br> Rapid Radio Mailis at your Disposal 

is at your Disposal}

C.O.D. INSTRUCTION

Goods may be forwarded anywhere in Ausralia or surrounding islands by post providing parcel does not exceed 11 pounds weight. It is possible to forward these goods V.P.P.-that is to say Cash on Delivery. An additional commission is charged for this service by the Post Office, a minimum of 9 d . is charged for the first 10/- and 3d. for every $10 /$ - above that amount.

Goods may be forwarded by passenger train C.O.D. to any atiended railway platform in N.S.W. Commission is charged, 6 d . for the first $£$ and 4 d . on each $£$ extra. Passenger train ensures quicker delivery but where a parcel weighs in excess of 14 lbs. goods train is cheaper but not so fast.

Our only terms, to all individuals and business houses, are: FULL NET CASH REMITTANCE WITH ORDER, or C.O.D. To extend credit, would so greatly increase our cost of doing business, that higher net prices, than those quoted herein, would have to be imposed! We save this additional "book-keeping" expense, and accordingly pass it right on to you! Our method of doing business must be universally approved, for some of our best customers are very highly rated concerns!

## HULLOA! THERE!!

## PACIFIC ISLANDS! BORNEO! BATAVIA! NEW HEBRIDES! JAVA!

> We make a special bid for your trade. We are fully equipped to serve you perfectly. Our Mail Order Chief lived for some years in your part of the world. WE PROMISE 100\% SERVICE AND VALUE JUST AS WE OURSELVES WOULD DESIRE TO OBTAIN!

Send remittances by Money Order, Open Cheque, Postal Note, Bank Draft, Telegraph, or we accept Australian and New Zealand Postage Stamps in any denomination and for any Amount, as Full Payment of Goods Ordered! When remitting cash please register. Remittances from other countries or Pacific Islands should be made payable on a Sydney bank, in Australian money funds. All net prices in this catalogue are subject to change without notice-you are given the benefit of all reductions that may occur. Quantities available are naturally based upon market conditions and are subject to lim-itations-we therefore reserve the right to return any remittance received, and consider the order cancelled.

## RETURNING OF MERCHANDISE

If you are not pleased with any shipment of goods received from us, write us at once -we will then issue you instructions relative to its return. Rest assured we will endeavor to please you, and keep you pleased. Any complaint, no matter how trivial in nature it may be, is not handled as routine matter by clerks, but is turned over to one of our Managing Executives.

This system, which we believe is exclusively employed by us, entails a considerable expense to us, but that is more than compensated for by the favorable reaction to it of our trade.

You will readily realise in studying this Catalogue that certain lines will become depleted. Therefore, we operate a LAY BY SYSTEM, whereby you may secure any line by the payment of a small deposit. $10 \%$ of the price will do.
This publication would need to be twice as big to list all our lines. Your enquiry is invited.

THIS CATALOGUE AUTOMATICALLY CANCELS ALL PREVIOUS LISTS, PAMPHLETS AND CATALOGUES PRODUCED BY LEVENSON'S RADIO.

## DOES RADIO TROUBLE TROUBLE YOU?

If so, set forth the symptoms of the complaint as completely as you can in a letter addressed to our Radio Doctor, who will reply comprehensively by mail. Enclose 1/- in Stamps for Expert Advice which just about covers cost of stationery and stamps.

## ENCLOSE 1/- IN STAMPS

Thrifty and wise radio purchasers from all over Australia and surrounding islands save money at LEVENSON'S LEADERS IN RADIO, 226 PITT ST., SYDNEY. Phones M2525, M2526. Let's get acquainted. Write for any quotation. It's a pleasure to answer, without any obligation whatsoever.

See FREIGHT RATES on Page 5


## AERIALS

## "LAKER" STEEL AERIAL MASTS

 25ft. High .. .. 25/-. 30ft. High ..... 30/-A feature of the "Laker" steel mast is its handsome appearance when set up. Neater, lighter, and cheaper than a wooden pole and more efficient. It has no projections and offers proctically no resistance to the wind, and it will withstand any gales and storms.

The mast and accessories pack into a small bundle which occupies very little storage space. Weight complete, $42-\mathrm{lb}$.


Very easily put together. The only tool required is a small wrench or spanner. The assembly takes only a few minutes. A special feature is the ease with which the mast can be erected. One man can raise it in the matter of a minute or two.
The erected mast occupies very little space in the garden. It may be erected with safety with the ground pegs 6 ft . from the mast. Rests in a socketed metal foot rest. It is unnecessary to dig a hole for it. A permanent structure, and, being made of steel, will last for years without attention.
The steel mast is a protection against lightning striking the aerial wire. Being higher than the aerial it acts as a conductor and any electrical disturbance is conducted harmlessly to earth.

Complete as illustrated, including the following accessories:-
Three sections, each 10ft. best British Steel Tubing, 18 inch diameter, tapering, with necessary bolts.
Rain Plug.
Eye-bolt with pulley attached.
Three Steel Mast Rings.
Galvanised Halyard Eye-bolt.
Galvanised Stranded Steel Wire.
Solid Metal Foot Rest.
25 feet high . . . . . . . . . . . . . . . . . . . . 25/-
30 feet high .. .. .. .. .. .. .. .. .. .. 30/-
Complete with Fittings.

## METAL HOLD-OFF BRACKETS

Metal Hold-off Brackets
3/6
With Large Porcelain Insulator
For holding Aerial or Lead-in from walls, obstructions, etc. 18 inches long $\ldots \ldots \quad . . \quad 3 / 6$ Should be used. where ever aerial wire or lead-in runs close to iron sheeting roofs, gutterings, etc.


## NEEDS NO INSULATORS

Now Available to the Public. Like adding a Valve to Your Set.
This American Aerial Wire, as used on police patrol cars, WILL DEFINITELY IMPROVE ANY SET-scrap your old-time aerial now! A good Aerial saves batteries or electricity - improves selectivity, and volume, increases range, enhances tone.
Police Patrol Aerial consists of ten strands of pure copper wire heavily tinned, substantially rubber clad harness woven insulated. Will not corrode, extremely sensitive, strong, and durable. Complete . $\qquad$ $\therefore$ Aerial, Earth, and Lead-in
50 feet coils .. .. .. .. . . . . . .. .. 2/6
80 feet coils .. .. .. ... .. .. .. .. .. $3 / 9$
100 feet coils .. .. .. .. .. .. . . .. .. 5/-

## "THE LIFELINE OF YOUR RADIO"

The 100 ft . Coil is exactly the correct electrical measurement for a complete Aerial system.

## TOO OLD AT 12 MONTHS!

You may think you are getting good results from your receiver-but you are not. If your aerial is more than 12 months old. The ravages of wind rain and sun cause the aerial to corrode and rot at the joints thereby reducing efficiency.

## SAVES YOUR AERIAL FROM SNAPPING OR SWINGING



## ADMIRALTY AERIAL WIRE 10d. Yard

Exclusive to Levenson's.
Needs no Insulators. Needs no Lead-in. Used extensively by professionals, including ship's wireless operators. The Greatest Aerial Ever Produced!

Sold in any length to suit your requirements . . 10d. per yard.

Ideal for outlying districts; wonderful for areas where static and other weather conditions are annoying; perfect for the South Sea Islands; wonderful results given in the Far North; for Central Australia there is nothing to equal it!
This superior 16 stranded aerial is perfectly insulated and is far different from the ordinary type of aerial offered in the trade today. Although it is somewhat expensive, it is cheapest in the long run for its lasting qualities and will never corrode. Taking this into consideration with it's wonderful receiving properties it is indeed the cheapest of all aerials.

Insulated High Grade Rubber Covered Stranded Lead-in Wire, yard ...... Dozen yards

## "ALPHA" PLUG IN AERIAL AND EARTH ADAPTOR

Plug and Socket type, Polished Bakelite . . 2/6

## THE MORRIS BALL AERIAL KIT

Aluminium All-direction Ball Aerials. Adjustable Roof Brackets. Glass Insulators. It improves reception. Easy to erect. Spendid for Flats, City Dwellings, etc. NOW ... .. ..... 15/-

Small Stand-off Insulators for indoor use. Screws into woodwork. 2 readydrilled holes. Each

## VULCANISED LEAD-IN TUBES

With Brass Terminals each end.
In THREE SIZES-

| 6 inches; | 9 inches | 12 inches |
| :---: | :---: | :---: |
| $1 /-$ | $1 / 3$ | $1 / 9$ |
| Doz. lots | Doz. lots | Doz. lots |
| $8 / 6$ | $11 / 6$ | $11 / 3$ |
|  | Plus Tax |  |

## Instructions for Installing the "Golden Ball" Aerial 6/6 with lead-in wire complete

The GOLDEN BALL aerial may be used under conditions prohibiting the uses of an indoor aerial around the room, or where an outdoor aerial cannot readily be installed. Alternatively, the Ball will improve either an existing indoor or outdoor aerial of any type whatever owing to this area of metal exposed to the incoming wave.

## Golden Ball used as Indoor Aerial

Fit insulating, bakelite base disc to flat base of Ball so that the ball may be stood any way, without its metal or screws holding the insulating base coming into contact with whatever the Ball is mounted on. The Ball may be mounted on the top of the cabinet, the floor thereof, on the floor, shelf or any other convenient place; a piece of insulated stranded wire (provided) should connect from the aerial terminal on the set to the terminal provided at the base of the ball aerial.

When Indoor Aerial is already in exist-ence:-

Fit insulating Base to Ball, and connect the bared free end of the indoor aerial to the terminal on the Ball. Stand in convenient position, such as on plate rail, shelf, etc.

Ball used as Outdoor Aerial
The insulating base may be screwed up under an eave or on the barge-board of a gable, the metal thread screw having first been placed through the centre hole in the bakelite with its head towards the wood. The metal ball base is then bolted to the metal thread screw and then the ball fitted to the base.

It will be noted that the screws holding the base to wall pass through countersunk holes so that they will not touch the metal hase. When same is fitted, likewise the metal thread screw is in a coun-ter-sunk hole and must not touch the wood-work.

A sufficient length of the wire provided should be connected to the terminal on the
ball, passed through a ventilator or window and connected to the aerial terminal of the set.

Other outside positions may be found for the ball, such as on top of a convenient pole, or hanging from some overhanging portion of the house. But be sure the ball is well insulated from whatever it is attached to.

## The Golden Ball attached to existing Outdoor Aerial

The Ball may be fitted with an attaching lug top and bottom so that one side may be in electrical connection with the free end of the aerial and the remaining lug wired to the supporting insulation so that the ball occupies a position between the end of the aerial and the insulator by which it is supported. This method provides a vast improvement to any existing aerial system.

## The Golden Ball used as an Earth

Used as an earth the Ball is very efficient. The earth-wire from the set should be attached to the terminal on the ball, a little of the salts provided for the purpose should be placed in the ball together with earth until the ball is full. The ball should be buried about a foot below the earth's surface, the remainder of the salts should be scattered around the ball as the earth is filled in. A position where the earth is moist is the most suitable; say, handy to a water tap, or well in the shade.

## Alternative uses for

## THE GOLDEN BALL

Many alternative uses for the Golden Ball will suggest themselves, such as in a car, in conjunction with a portable where an auxiliary aerial is desired, or as an earth when camping, etc.. etc.


## IUNDATION OF

YOU paid good money for your setfor even a low-priced set is a considerable item of expenditure. Why ruin the whole effect by using an inferior battery? Your set deserves the best battery you can buy.

EVER-READY Batteries have a worldwide reputation for power and length of life - so don't be penny wise and pound foolish, get an EVER-READY Battery and give your set the basis of reliable power it needs.

Manu'factured by THE EVER-READY CO. (Gt. Britain) LTD., Sy'dney \& London


## AERIALS

HARD DRAWN COPPER AERIALS

| $3 / 22$ | S.W.G. | 80 feet each | . | .. | .. | .. | $2 / 6$ |
| :--- | :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| $3 / 20$ | B.\&S. | 80 feet, each | .. | . | .. | .. | $2 / 6$ |
| $3 / 20$ | B.\& S. | 100 feet, each | .. | . | .. | .. | $2 / 9$ |
| $3 / 20$ | S.W.G. | 80 feet, each | . | . | . | .. | $2 / 9$ |
| $3 / 20$ | S.W.G. | 100 feet, each | . | . | .. | .. | $3 /-$ |
| $7 / 20$ | S.W.G. | 80 feet, each | . | . | .. | .. | $6 / 6$ |
| $7 / 20$ | S.W.G. | 100 feet, each | .. | . | . | . | $7 /-$ |

## HARD DRAWN ENAMELLED COPPER AERIALS



Something Special in Aerials-Just Arrived!!
THE "LIKE A FLASH" BRITISH MADE

## SUPER-POWER TAPE AERIAL

Manufactured from Multi-stranded fine strong copper wires plaited into a Braided Tape. A Real Distance Getter. Like adding more Valves to your set. Ideal for all Locations. Recommended for in- or out-door use. For far away from Broadcast Stations results will surprise. For the Southern Seas ... A Perfect Aerial at last!
Shorter lengths are needed than those usually used-it is almost everlasting.
PRICE, per yard
For areas in Metropolis and near Broadcast Stations-36ft.
For middle distance locations-72ft. .. .. 13/6
For far North Queensland. Northern Territory, Central Australia or the South Sea Islands- 108 ft .

18/6

## A NEW SIMPLE ELECTRIC INTERFERENCE ABSORBER

For radios troubled with hideous unwanted manmade static picked up from surrounding electrical units, power stations, rail or tramway wires, etc.
Circular Flexible Copper Tube Shielding, together with 50 ft . of insulated lead-in and earthing wire and earth clip $5 /-$, or with Laker Earth Tube, 10/-.
The flexible tubing covers the insulated lead-in wire and then the copper tubing is earthed with part of the insulated wire supplied.
Tubing alone sells for $15 /-$ in Great Britain, where it has proved most successful in crowded areas.

## "LIKE A FLASH" AERIAL KIT, 6/9

Comprises 80 ft . Police Patrol Insulated Aerial. 6 egg Insulators.
1 Ebonite Lead-in Tube.
9 ft . of Rubber Covered Lead-in Wire.
1 One Hole Mounting Lightning Arrester.
COMPLETE KIT
6/9
Special Rubber Covered Copper Stranded Aerial Wire, for indoor aerial, Auto aerials, lead-in wire, etc., yard

3d.
Dozen yards
2/9
"LITZ" STRANDED WIRE
The correct Frame or Indoor Aerial. Worth $30 /-\mathrm{lb}$.

2-oz. Reels
. . 2/-
Flexible Black Insulated Weather-proof Lead-in Sleeving. 1 yard length

Levenson's can supply every item in Electrical Installation Material in Trade or Retail Lots. COP
Usually $10 / 6$
NOW
5/- each

A Limited Number Only. ORDER EARLY!

## INSULATED TUBE

Varnished Empire Cloth. Very pliable. Approx. 1 yard. 1/- per length

## PHILIPS AERIAL



## SPRING COPPER AERIALS

For eliminating Interference and Station Jamming.

Ideal for Indoor or Outdoor use.
 May be placed between two posts at a close distance-yet giving the same effect as a long aerial. PRICE, EACH

Send us your Name and Address and we will forward you a large selection of the Latest Advice on Radio. Include 2d. stamp.

## RADIO AERIALS, ETC.

G.E.-Indoor Aerial Kits consisting of 50ft. 14/.0076 V.I.R. Flexible in either brown, white or fawn finish, complete with Staples, packed in carton. Price, per kit

4/-


## AT YOUR SERVICE

No long waiting-your set available at full power all the time. These Sack Type Cells can be recharged at home by adding a solution of Siebrosal and water. No spilling and creeping. No damage or mess from spilt acid. Can be built up to any voltage required.

## XCEL

 ELECTRIC SOLDERING I R O N S"Built like a Gun"


## "XceL" SOLDERING IRONS

Keep continuously at a uniform heat. The hand grip is always cool.

WE CONFIDENTLY CHALLENGE YOUR TRIAL OF AN XceL SOLDERING IRON.

PRICES ON OPPOSITE PAGE

(AUSTRALIA) PTY. LTD.

PRICES ON OPPOSITE PAGE

## A CORRECT EARTH

Discard your makeshift waterpipe earth connection. Eliminates noise. Improves Selectivity. Aids distance reception.


## "LIKE A FLASH"

## EARTH TUBES

Galvanised to form a non-rusting surface of high conductivity, thus making a perfect earth connection for radio reception. The driving head and point are made of solid
 metal, and may be driven hard without injury to the tube. Salt laden water percolating through the holes drilled insure everdamp moist earth surroundings.


$$
25 \% \text { Discount in lots of } 12 \text { or over to Traders. }
$$



Pars Multi Strand Phosphor Bronze 100ft. Aerials 2/6

3-inch Porcelain Lead-in Tubes, each .. 3d.

## "LITZ" WIRE INDOOR AERIALS

This specially covered wire is ideal for indoor aerials and for winding radio loops, and is easily concealed on a picture moulding or window frome. Enough for any indoor aerial.

Price per 2oz, reel . . . . . . . . . . $2 /-$

## AERIAL MAST PULLEYS



Non-Jam Aerial Pulley...
With
With Screw Eye . $\quad . \quad .$.
With Screw Eye Bolt
With Halyard and Bolt . . . . . . . . . . . . $1 / 6$
Insulated Lead-in Tubes with Terminals each end. 6 -inch .. $1 /-\quad 9$-inch .. $1 / 3 \quad 12$-inch .. $1 / 9$ Doz. Lots $8 / 6 \quad$ Doz. Lots $11 / 6 \quad$ Doz. Lots $11 / 3$

AERIAL SWITCHES
With Lightning Gap.
S.P.D.T., Porcelain Base 1/6 D.P.D.T., Porcelain Base 3/6
S.P.D.T., Bakelite Base 1/6

3
Earth Clips, each 3d.
INSULATED EARTH WIRE
1d. per foot.


HIGH GRADE COLLAPSIBLE "TOBE DEUTCHMAN" DIRECTIONAL


Varied Tappings Mounted on Plated Swivel Base. A Splendid Article
Polished Mahogany. Silk Litz Wire. Swivel Base allows directing aerial to Broadcast Station for clearer sharper tuning and longer distance. Were $£ 9 / 15 /-$ OUR PRICE NOW ... $£ 2$

## Masse Wireless Batteries are Used

WHERE DEPEND-
ABILITY IS
ESSENTIAL


Derby, W.A., 10/10/33. Masse Batteries, Masse Batteries functioned perfectly throughout all flights . . CHARLES ULM.


2MX-7R
A 4 -volt cell designed for sets with 4 -volt valves. 60 ampere hour cap-
acity ..... 44. Type of cell is for use in sets fitted with 2 volt valves. It has a 40 amp . hour capacity

## 1-MR 7

 pacity ... $18 / 6$

2MX-9R
Is a 4 -volt Masse Wireless Battery. It has an 80 amp . hour cap-
acity $\ldots 21$

1MX-11R
A de-luxe Battery for 2 -volt multi-valve sets. 100 amp. hour capacity.

## 29/6



3MX-9R
Constructed for 6 - volt multi - valve sets- 80 amp . hour capacity. 80/-

3MX-7R
A 6 -volt cell for sets requiring 6 -volt batteries. 60 A.H. capacity. 671.

## ACCUMULATORS

BRITISH BUILT
"FULLER" RADIO
ACCUMULATORS

2 volts, 60 amp . NOW
$1 / 2$ 17/6
 interior structure. 2 volt units in unbreakable ebonite cases. 2 -Volt Units connectable into 4 or 6 volts as desired.

WOODEN ACCUMULATOR CARRIERS<br>With Leather Carrying Handle. Sizes<br>$7 \times 6 \frac{1}{2} \times 7 \frac{1}{2}$ inches and $6 \frac{1}{2} \times 4 \times 7$ inches.<br>Were 4/6.<br>NOW<br>2/- EACH

## SPECIAL 2-VOLT ACCUMULATOR OFFER! <br> Clyde 2C-11, 100 amp. Hour Actual

Accumulator
29/6

## MASSE ACCUMULATORS

Guaranteed 18 Months.
Type 1MR7, 2v. 40 amp , hour . . . . .
Type 1MX11 2 v 100 mp hour 186
type 1MX11R, 2v. 100 amp . hour $\quad . . \quad$ £l 96
Type 2MX7R, 4v. 60 amp , hour . . .. $£ 240$
Type 2MX9R, 4v. 80 amp hour. . . .. $£ 3 \quad 70$
Type 3MX7R, 6v. 60 amp . hour .. .. £3 70 Type 3MX9R, 6v. 80 amp . hour . . . . $£ 4 \quad 0 \quad 0$ Type 3ME13R, 6v. 100 amp . hour .. £4 120 Free Freight and Packing to any Station in N.S.W. by Goods Train. This concession applies only to Masse Accumulators sold at full list price. Full Trade Dicounts available to legitimate Dealers plus freight and packing.

## PERRINE POWER UNIT

Perrine "A" Supply power unit to operate from 240 volt A.C. mains. Contains first quality accumulator and heavy duty charger whicn constantly keeps a ccumulator acid at correct specific gravity. Has "peephole" for liquid level
 included. Rubber covered twin flex in all. A first class job. 12 Months Guarantee. 2, 4, or 6 volt Taps.

SOLVES THE BATTERY PROBLEM IN THE COUNTRY

## A.D. CARBON CELLS

## Air Depolarising. Self-generating.

1 Solves the Battery Problem in the Country.
2 Generates its own current.
3 No power supply required.
4 Ample flow of current at all times.
5 No acids or vicious alkalis.
6 Will efficiently operate any type of Wireless set.
7 The most efficient primary battery made.
8 Absolute satisfaction guaranteed.
9 Manufactured in AUSTRALIA.
10 Successfully marketed throughout Australia for over 7 years.
Carbon Batteries are now available in three types, details of which are shown hereunder:-
Light Duty 229 type .3 amps max. discharge 450 hours. Price .. ......... $£ 180$ Medium Duty 217 type .5 amps max. discharge 1000 hours. Price $\because \ldots . . . .$. Heavy Duty 222 type 1.0 amps max. discharge 1000 hours. Price
Each Carbon Cell generates $1 \frac{1}{2}$ volts.

|  | CARBON CELLS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Type | Type | Type |
| SPARES - |  | 229 | 217 |  |
| Carbons .. | . .. .. | 19/3; | £1/2/6; | £1/12/- |
| Zincs . |  | 71-; | 8/3; | 12/- |
|  |  |  |  |  |
| Salts |  | 5/6; | 5/6; | $5 / 6$ |
| Covers . . . | . . . . . . . | - | 2/9; | 2/9 |


"CZ" EXIDE TYPE "A" BATTERIES
These are 2 -volt cells in ebonite containers and will give heavy currents for long periods. They are regarded as the standard popular type of Exide Low Tension Battery, giving absolute reliability at the lowest price consistent with the highest class of maturial and workmanship.

| Type | Volts | Amp. Hr. Cap. <br> at 100 hr. rate | Retail Prices |
| :--- | :---: | :---: | :---: |
| CZE2 | 2 | 23 | $14 /-$ |
| CZE3 | 2 | 35 | $16 / 3$ |
| CZE4 | 2 | 46 | $18 / 6$ |
| CZE6 | 2 | 70 | $26 /-$ |

## "XH" EXIDE TYPE "A" BATTERIES

The Exide "XH" Series of "A" Batteries are made in ebonite containers and in 2, 4 and 6 volt types. They have a much larger capacity than the "CZE" Series and require recharging less often.

| Type | Volts | Amp. Hr. Cap. <br> at 100 hr r. rate | Retail Prices |  |  |
| :--- | :--- | :---: | :--- | ---: | ---: |
| 1XH11 | 2 | 100 | $£ 1$ | 9 | 6 |
| 2XH7 | 4 | 60 | $£ 2$ | 4 | 0 |
| 2XH9 | 4 | 80 | $£ 2$ | 12 | 0 |
| 3XH7 | 6 | 60 | $£ 3$ | 7 | 0 |
| 3XH9 | 6 | 80 | $£ 4$ | 0 | 0 |

EXIDE "DTG", "DFG" "A" BATTERIES
These are 2 -volt batteries in glass containers and are primarily designed to give current up to .3 or .4 of an ampere -that is slow discharge without the necessity of frequent
charging. They are ideal for two or three valve sets, taking not more than .35 of an ampere.

| Type | Volts | Amp. Hr. Cap. <br> at 100 hr. rate | Retail Prices |
| :--- | :--- | :---: | :---: |
| DTG | 2 | 12 | $12 /-$ |
| DFG | 2 | 27 | $£ 1$ |

EXIDE "W.H.E." "B" BATTERIES
The idcal source of High Tension Current for Wireless. Can be recharged again and again.

Retail Price
In 10 volt units: 5000 milliamps
15/-
Also obtainable in crates of 40,50 and 60 volts.

## EXIDE MOTOR CYCLE BATTERIES

## TYPE 3ET5A, 6 VOLTS . . 36/-

For Chater-Lea, Douglas, Humber, New Imperial, Radco, Rudge Whitworth, Velocette and Zenith motor cycles.

TYPE 3EK5A, 6 VOLTS . . 36/-
For Abingdon, A.J.S., Ariel, B.S.A., Douglas, Enfield, Excelsior, James, Matchless, New Hudson, Norton, P. \& M., Raleigh, Sunbeam, Triumph and Zenith motor cyeles.

TYPE 3HZ4, 6 VOLTS . . 60/-
For Indian and Harley Davidson motor cycles.


The Exide range of Car Batteries exceeds 50 different types -a type for every make of car.


## RECHARGEABLE BATTERIES LECLANCHE TYPE <br> $1+$ VOLT CELLS FOR "A" BATTERIES

Size "O"-Complete cell with Charging
Salt . . . . .. .. .. .. .. .. .. .. .. 12/6
SPARE PARTS
$\underset{\text { Jars, each . . .. ... .. ... .. ... .. ... .. .. }}{\text { Element }}$

Jars, each .. .. .. .. .. .. .. . . .. .. $2 / 9$
Zincs, each .. .. .. .. .. .. .. .. .. .. 3/9
Charging Salt, per lb. . . . . . . . . . . . . . . $2 /-$
SIEMENS INERT SALAMONIAC CELLS $1 \frac{1}{2}$ Volts. Max. Discharge 100 M.A.
To charge, you fill only with water. 1/6 EACH . . . Worth 4/-

## BATTERY CLIPS

 Leaden Non-Corrosive Battery Clip. $2 \frac{1}{6}$ inch non-solder type.9d. EACH


CROCODILE BATTERY OR COIL CLIPS These clips are neatly made and have tapered serated jaws which give perfect contact by reason of strong spring pressure. Nickel Plated. Solder or Non-solder types, each, 3d.; per gross 21/-


## BATTERY CLIPS

Leal Covered to prevent corrosion. Teeth are of saw cut style, assuring positive contact.
No.
1 h - in .
No. 3
No. 1
${ }^{3}-\mathrm{in} . \quad 1 \frac{1}{2}-\mathrm{in} . \quad 2 \frac{1}{2}-\mathrm{in} . \quad 4-\mathrm{in}$.
1/3 nickel, non-solder type
23 in. nickel, non-solder type
$2 \frac{1}{2} \mathrm{in}$. nickel, non-solder type
${ }_{1}^{1}$ 2in. nickel, non-solder type
$1 \frac{1}{2}$ in. nickel, non-solder type

## REBUILT AS GOOD AS NEW ACCUMULATOR CLEARANCE

| 2 Volt, 60 amps., 10/6; 100 amps. .. .. 12 4 Volt, 60 amps., $21 /-; 100$ amps. . . . . 25 |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |

LEVENSON'S RADIO

## FULLER BRITISH PLATELESS

 ACCUMULATORNo plates to buckle. No sulphating. No trouble. 2 VOLT UNITS-80 AMP. HOURS Size: $6 \frac{1}{2} \mathrm{in}$. high x 4 in . wide x 4 in . deep. 63 pounds in weight.

## HYDROMETERS



Very Accurate, Large Size

Very Large Size 5/-
Large size Spare Fioats, each ... ... ... .. $1 / 6$
Large Size, Barnett Glass make .. .. .. 5/6
Large Size Floats, $1 /-$ and 1/6
Rubber Bulb or Nozzle .. ... .. .. ... $1 / 6$
Glass Barrell
1/-


Scientific, accurate. Simple, efficient accumulator tester. Only pocket size. Clean and handy. A Thousand per cent. Better, Handier, Accurate. A positive scientific action, therefore constantly perfect. Every car or radio owner should have one. Price each

1/6

## BOLTS, NUTS AND SCREWS

FOR SET BUILDERS


For attaching panel brackets and parts to base board, etc. Round Head Bolts. Prices include nuts.


ROUND HEAD SCREWS
Nickel $\frac{1}{2} \mathrm{in}$. x 5 RH .. . . $4 / 2$ gross
Nickel $\frac{3}{4}$ in. x 5 RH . . . . 4/6 gross
5d. doz.
6d. doz.

## ACCUMULATORS

$12 /-, 15 /-, 17 / 6$, and $21 /-$ per 2 Volt Unit.
2 Units necessary if using 4 volt valves.
3 Units necessary if using 6 volt valves.
WILL NOT BE UNDERSOLD

## CLYDE RADIO BATTERIES <br> More Power to You <br> Price List <br> (Subject to change without notice) <br> Clyde Heavy Duty

2-Volt Battery

## C.R. TYPE RADIO BATTERIES

| Type | Volts | Actual Capacity | Ignition Capacity | Price |
| :---: | :---: | :---: | :---: | :---: |
| 6 CR7 | 6 | 60 amperes | 120 amperes | £3 1 10 |
| 6 CR9 | 6 | 75 " | 150 | 236 |
| 6 CR11 | 6 | 90 | 180 | £4 40 |
| 6 CR13 | 6 | 105 " | 210 " | £4 15 |
| 4 CR7 | 4 | 60 | 120 " | £2 6 |
| 4 CR9 |  | 75 | 150 | £2 120 |

## S.R. TYPE RADIO BATTERIES

| Typa | Volts | Actual Capacity | Ignition Capacity | Price |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | SR5 | 4 | 25 | amperes | 50 | amperes | $£ 1$ |
| 14 | 0 |  |  |  |  |  |  |
| 6 | SR5 | 6 | 25 | , | 50 | $n$ | $£ 2$ |
| 4 | SR7 | 4 | 40 | $n$ | 80 | $n$ | 8 |

HEAVY DUTY 2-VOLT LARGE CAPACITY BATTERIES
Fitted in Hard Rubber Container, complete with Carrying Handle, specially designed for use with Battery Operated Sets using 2 Volt-Valves.

| Type | Volts | Amp. Hour Capacity <br> at 100 Hour Rate | Price |
| :--- | :---: | :---: | :---: |
| 2VC11 | 2 | 100 | $£ 1 \quad 9 \quad 6$ |

## HEAVY DUTY 2-VOLT CELLS

These Cells can be coupled together and used in either 2, 4, or 6 Volt Units. Connecting Links supplied without extra charge.

| Type | Volts | Actual Capacity | Ignition Capacity | Price |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S5 | 2 | 25 | amperes | 50 | amperes | $£ 0$ | 16 |
| 0 |  |  |  |  |  |  |  |
| S7 | 2 | 40 | $"$ | 80 | , | $£ 0$ | 17 |
| S9 | 2 | 50 | $"$ | 100 | $\#$ | $£ 1$ | 8 |

## CLYDE SERVICE AND GUARANTEE

Every Standard Clyde Battery is guaranteed to be free from defects in either material or workmanship and is covered for 15 months by a fully protective policy.

## AMPLIFYING UNITS



Tonal reproduction unsurpassed. Supplied for Battery Sets. 7/6 each Stage-with Resistances

## Set Manufacturers!

Let us quote you for your particular design in Aluminium or Steel Chassis. You can't beat our price for reasonable quantity lots.

3-STAGE AMPLIFIER DE JUR 3-STAGE AMPLIFIER


Complete with all Resistances. Ready to hook up. Usually $£ 3$.

NOW ... . . . £1

## SEND 5/-

And we will forward you a Selection of many Diagrams explaining the construction of receivers from Crystal to Multi-Valve. Also Portables, Eliminators, Chargers, etc.
SEE COUPON, INSIDE FRONT COVER

# A MEAD CHASSIS - is what you need! 

 $5\left[\begin{array}{l}\text { The Technical Editor of "Wireless Weekly" } \\ \text { selects Mead Chassis for all his circuits .... }\end{array}\right]$ Ready made Mead ChassisThe Baby Super Chassis
The 9/58 Chassis
The Universal Four Chassis
The Golden Super Chassis
The Simplified Super Chassis

The Auditorium 8 Chassis
The Straightforward Battery 3 Chassis
The Duplex Diode Chassis
The 1933 Advance Chassis
The 1933 Super Chassis

$$
a t \mathrm{~L} \mathrm{E} E \mathrm{NSONS}
$$

STEEL MEANS STRENGTH in your chassis and accurate tracking in Super. Hets. ANY "WIRELESS WEEKLY" MEAD CHASSIS $8 / 6$

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

## ALUMINIUM CHASSIS AND PANELS

Cut and Bent Free while you wait. 18 gauge d. per square inch. English, Polished, Guillotine Cut. Drilling also done.



Made of best English Polished Aluminium. Perfect cut, square and solid. Chassis are also available drilled at a small extra cost.

## 

You have never heard a Real Battery Operated Radio until you have heard THE "SKY RAIDER" 4, BATTERY SET. See page 153.
For tone it is perfect. For distance it is supreme. Stations you have always missed. you will now hear. It's perfect, and, best of all, you can build it yourself. Designed the new all-metal way. It comes to you with ready built and drilled chassis. The valve sockets and all the little components mounted. Easy to assemble and a real pleasure. Turn to the simple circuit in the Kit Section and note how simple it all is. Even to the new Radio Fan.
"Like-A-Flash" STEEL CHASSIS
For all "Wireless Weekly' featured Circuits,. Ready Drilled

6/-
4, 5 or 6 pin wafer sockets fitted, each, extra

9d.
With 7 pin, each, extra
1/-

## ALUMINIUM CHASSIS

18 GAUGE
Total Area (all over size), per square inch
Wafer Sockets fitted: 4, 5 or 6 pin, each, extra

9 d.
7 pin, each, extra
1/-

## ALUMINIUM SHEETS FOR

18 GAUGE
Chassis Construction, Shield, Chassis and Boxes, etc.
WE CAN CONSTRUCT ALUMINIUM CHASSIS, SHIELDS, OR POWER PACK BOXES TO SUIT ANY SPECIFICATIONS. We also carry a stock of Readv Made Chassis as under. Drilling your specification extra.

METAL CHASSIS ACCESSORIES



## Make Radio a Profession!

not merely a hobby. Hundreds of leading RADIO EXPERTS ARE I.C.S. STUDENTS.
YESTERDAY'S Knowledge is not enough ! You must KEEP STEP WITH PROGRESS in order to meet TO-DAY'S Problems !

## An I.C.S. Course is your only Chance

Tho Instruction is under constant revision by the World's greatest experimenters, and the ILLUSTRATION METHOD makes everyth ng clear and practical. You can become an EXPERT in your own Home. WRITE FOR FREE ADVICE WE HAVE A COURSE FOR YOUI
International Correspondence Schoo's (Australasia) Ltd. 140 elizablth street, sydney
Sirs,- Please send me Free Prospectus giving details of the Radio Course marked with an $X$
-Complete Radio Eng. Radio Malhs. Radio Servicemen's Exam. Radio Servicing Ralkie Operating
Radio Examinations
Name....................................................................... Age............

## Adíress




## There's an Exide for every Purpose

EXIDE have been making batteries for forty-five years and are the World's Largest Manufacturers of Batteries for every purpose.
There are Exide factories in England, Canada, Australia, United States, and Italy - furthermore there are more Exide Batteries sold than any other make.
Everywhere where there is need for a battery you will find Exide Batteries giving unfailing service. Sir Charles Kingsford Smith, Admiral Byrd, Sir Douglas Mawson, Captain Amundsen, Sir Alan Cobham, Sir Hubert Wilkins, used Exide Batteries on their perilous ventures.
Catalogues dealing with any type of battery sent free on request to

## Exide Batteries of Australia Limited GRACE BUILDING, YORK STREET, SYDNEY

## Dry Batteries

SAVES MONEY

## "LIKE A FLASH" BATTERIES

Made by Australia's leading Battery Manufacturers expressly for Levenson's Radio.

PL EASE
ADD
FREIGHT
TO ALL "L.A.F." BATTERIES

No. B1 - "Like a Flash" Triple Duty 45 volt "B" Batteries. Weight, 133 lbs . Price . . 14/6 Lots of $611 / 4$ each plus Sales Tax.

No. B2-"Like a Flash" Heavy Duty 45 volt "B" Batteries.

Price . . 11/9
Weight, 9 lbs .
Lots of $69 / 1$ each plus Sales Tax.


No, B5-"Like a Flash" 9 volt "C" Battery. 13ozs. .. 2/Lots of $121 / 5$ each plus Sales Tax.


No. B6-"Like a Flash" 4 ${ }^{\frac{1}{2}}$ volt "C" Battery. 1 lb. 2 ozs. 2/-
Lots of $121 / 5$ each plus Sales Tax.

## DIAMOND BATTERIES

MAMMOTH "B" BATTERY- $45 \mathrm{MV}-45 \mathrm{v}$. vertical ..... 30/-
TRIPLE CAPACITY "B" BATTERIES- $45 \mathrm{TF}-45 \mathrm{v}$. flat ..... 18/-
$45 \mathrm{TV}-45 \mathrm{v}$. vertical ..... 18/-
$60 \mathrm{TV}-60 \mathrm{v}$. vertical ..... 28/-
HEAVY DUTY "B" BATTERIES-
$60 \mathrm{HF}-60 \mathrm{v}$. flat
$60 \mathrm{HF}-60 \mathrm{v}$. flat ..... 18/- ..... 18/-
$60 \mathrm{HV}-60 \mathrm{v}$, vertical ..... 18/-
$45 \mathrm{HF}-45 \mathrm{v}$. flat ..... 14/6
$45 \mathrm{HV}-45 \mathrm{v}$. vertical ..... 14/6
$22 \frac{1}{3} \mathrm{HF}-22 \frac{1}{2} \mathrm{v}$. flat ..... 7/3
LIGHT DUTY "B" BATTERIES-
$90 \mathrm{LL}-90 \mathrm{v}$. long ..... 17/6
60LS-60v. square ..... 11/6
$60 \mathrm{LL}-60 \mathrm{v}$. long ..... 11/6
$45 \mathrm{LL}-45 \mathrm{v}$. long ..... 8/9
45 LS - 45 v . square ..... 8/9
30LS-30v. square ..... 5/10
$22 \frac{1}{2} \mathrm{LL}-22 \frac{1}{2} \mathrm{v}$. long ..... 4/5
HEAVY DUTY "C" BATTERIES-
C4 $\frac{1}{2}-4 \frac{1}{2} \mathrm{v}$. vertical ..... 2/3
LIGHT DUTY "C" BATTERIES- C15-15v. vertical ..... 3/9
C9-9v. vertical ..... 2/3
$1 \frac{1}{2}$ VOLT DRY CELLS
6-112 y . buzzer round ..... 2/7
TORCH REFILLS -
DR2- $1 \frac{1}{2} \mathrm{v}$. standard round ..... 6 $\frac{1}{2} \mathrm{~d}$.
DR4-1 $1 \frac{1}{2}$ v. intermed. round ..... 6 d .
DR6- $4 \frac{1}{2} \mathrm{v}$. flat $2 \frac{1}{2} \mathrm{in}$ rd. ..... 9d.
DR8-3v. junior round ..... 6 d.
IGNITION BATTERIES- Starter-6v. ..... 14/9Goods Train Freight Free in N.S.W.
Interstate to Border.

Safeguard your Battery Valves against Burn-outs USE AN-
HELIOGEN SAFETY FUSE, 2/6


RED OR BLACK
Plugs into "B" Batteries as Wander Plug. Rubber Grommets, $1 \frac{1}{2} \mathrm{~d}$. and

## OLD GOLD AND SILVER

As payment or part payment for your radio requirements send along to us any old gold or silver of which you desire to dispose of.
WE GUARANTEE TO ALLOW YOU THE
BEST VALUE FOR SAME IN SYDNEY.
We will also supply radio goods to the value of 20/- for a golden half sovereign and goods to the value of $40 /$ - for a golden sovereign.

LEVENSON'S RADIO

## Dry Batteries



## IMPEX DRY BATTERIES

Forwarded Freight Free by Goods Train anywhere within N．S．W．

## TRIPLE CAPACITY＂B＂BATTERIES

45 volts Flat type
45 volt Upright type...

## HEAVY DUTY＂B＂BATERIES

60 volt Flat type
18／－
60 volt Upright type ．．．．．．．．．．．．．．．．．．．．
45 volt Flat type ．．．．．．．．．．．．．．．．．．．． 14 ． 6
45 volt Upright type ．．．．．．．．．．．．．．． $14 / 6$
2213 volt Flat type ．．．．．．．．．．．．．．．．7／3
LIGHT DUTY＂B＂BATTERIES
90 volt Long type ．．．．．．．．．．．．．．．．18／6
60 volt Square type ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． $11 / 6$
60 volt Long type ．．．．．．．．．．．．．．．． $11 / 6$
45 volts Long type ．．．．．．．．．．．．．．．．．．． $8 / 9$
45 volt Square type ．．．．．．．．．．．．．．．．．． $8 / 9$
HEAVY DUTY＂C＂BATERIES
4亲 volt
LIGHT DUTY＂C＂BATTERIES
15 volt 3／6

$1 \frac{1}{2}$ VOLT＂A＂DRY CELL
$1 \frac{1}{2}$ volt Super type $2 / 7$
TORCH UNITS
11 $\frac{1}{2}$ volt Standard type ．．．．．．．．．．． $6 \frac{1}{2} d$.
$1 \frac{1}{2}$ volt Intermediate type ．．．．．．．．．．6d．
$4 \frac{1}{2}$ volt Flat type ．．．．．．．．．．．．．．．．9d．
3 volt Junior type 6 d ．
Goods Train Freight Free in N．S．W． Interstate to Border．

SAFETY IN BATTERY BUYING
We have the largest battery turnover in the State，thereby assuring customers of fresh goods always．
Hundreds of Reconditioned Philips＂B＂BATTERY ELIMINATORS in stock．Guaranteed perfect as new．Complete ready to install，with valve．Price，each
$25 /-$

## BATTERY LINKS

A reliable and efficient Connector，for making up a High Tension Battery from the Standard pocket lamp batteries．With hole for Wander Plug．

$$
\text { PRICE: Each .. 2d.; Dozen .. } 1 / 6
$$

Send 2d．Stamp for illustrated Folder of＂Like A Flash＂Radio Cabinets and De Luxe Combina－ tions．Each a piece of furniture which proudly holds its place in any room．


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B BATTERY EXPENSE GONE FOREVER!


RETAIL PRICE £11/10/-

Protected under Commonwealth Patent No. 21387.

Weight . 61b. Length . $7_{3} \mathrm{in}$. Width . 6 in . Height . ${ }^{3}{ }^{3} \mathrm{in}$.
A. Brochure giving full particulars and Discounts on Application

NEW CRYSTAL "ROTORIT"


Suits any type of detector.
Now
2/6
Nothing Better.
Every part is sensitized.


ROTORIT . . 6/6
With Mounting Sockets, 6d. extra The new ever-set yet variable Continental type Crystal Detector.

## 8 MODERN CIRCUITS FOR 6d.

EDUCATIONAL CIRCUITS

Include
Single Circuit Crystal Set. Two Circuit Crystal Set. Audio Amplifier Stage. 1 Valve Solodyne. 1 Valve Reflex. Radio Frequency Stage. 2 Valve Reflex. Harkness Reflex.

SEND NOW FOR THIS LOT

NOW WE INTRODUCE THE
"Blue Ribbon" Crystal Set . . . . . . ... 30/-
A recent Prize Winner in its class. With Cabinet, extra

Switch Arms
Studs and Nuts
per doz.
Stops and
per doz.
per
Mounted
with 14
switch
and 2
studs
Series
switch
parallel

9d.
6d.
1/-

2/6
Series parallel switch


THE "MAIESTER" CRYSTAL SET .. 45/SURE TO PLEASE
Coils adjustable to suit location. Housed in Polished, Well Made Neat Cabinet.
All parts to build cost 21/-. Send 6d. for circuit. Levenson's Midget Crystal Set . . .. .. .. 21/Needs no Cabinet. Small, compact-yet a real little job.

## LEVENSON'S INTRODUCE THE

MINIATURE "LIKE A FLASH" CRYSTAL SET

12/6
Employing a surprisingly up-to-date improved circuit. Without Cabinet.
Not a Toy! ... A Real Receiver.

The popularity of the Crystal Set is ever growing despite the modern Battery and A.C. Sets. Like the Babbling Brook, onwards goes this popular type of Receiver. Reception with the Crystal Set is recognised as the purest of all. Our Technical Staff never neglects this branch. We keep on adding New Circuits and Kits for those who desire this type of Receiver.


## ALL STATIONS CRYSTAL SET

The ALL STATION CRYSTAL SET is a "Like a Flash" Levenson Creation and the greatest seller of all this type of Radios. We have sold thousands of Kits and know of no failures to give 100 per cent. satisfaction. At Kensington, Sydney, almost under 2BL's powerful aerial, this little wonder brings in all local stations on a small indoor aerial. THIS IS NOT JUST ADVERTISING TALK. -~ IT IS A POSITIVE FACT.


As good as a 1 -Valve Set. Selective, Good Tone, Long Distance - Easily Built. ALL PARTS . . .. .. 28/6
Or READY BUILT .. 45/In Cabinet
High Grade Phones, 13/6, $15 /-$ and 19/6.

Simplified Assembly and Wiring Diagrams ..... 6d.


THE ALL STATION CRYSTAL SET in Cabinet Complete . 45/Cabinet only

8/6

# Crystal Sets and their Component Parts 

$$
\begin{aligned}
& \text { ANY CRYSTAL SET WILL CARRY ANY } \\
& \text { NUMBER OF PHONES-ALL MAY LISTEN } \\
& \text { Phone Duplicators, per pair ........... } 6 \mathrm{~d} . \\
& \text { Reliable Head Phones, per pair, } 22 / 6 . \text { Now } \\
& \hline \text { Earphone Rubber Pads } 19 / 6 \\
& \text { 3 Crystals and 5 Catswhiskers for } . . . . . . . \\
& \hline
\end{aligned}
$$

You will build two fine sets from the simple diagrams below.

## SELECTIVE CRYSTAL SET

ALL PARTS ..... 19/6
READ BUILT for ..... 28/6

For use when close to broadcast stations. These splendid crystal circuits, especially designed for simplicity of construction, yet giving first-class results. The reduced price at which

these sets are being offered was made so as to induce as many as possible to make a start at the wonderful hobby of Radio constructionwhich is simple, always advancing instructive, and all absorbing.
Also Eleven (11) other Crystal Circuits for $2 / 6$


LOUD TONE CRYSTAL SET
ALL PARTS
READY BUILT for .. .. .. .. .. .. .. 28/6
For use when over 3 miles from nearest broadcast station. White lines represent connecting wires.


#### Abstract

THE "AUSTRALIAN LISTENER" SUPER CRYSTAL SET Build it yourself for experience, pleasure and better results. Full Kit of Parts cost $£ 1 / 3 / 8$. Many people think that Crystal Sets are toys, and only for children. This is not so. It is estimated that one-third of the sets in operation are Crystal Sets. Crystal Sets give the clearest and purest reception. Running costs are nil. To the intending radio amateur a crystal set is the only logical starting point. We welcome Crystal Set fans. They are the experts of to-morrow. Send 6d. for "Australian Listener" Circuit.


Full Card of Crystal Detector Parts, $1 /$ - and $1 / 6$

## SEND FOR SELECTION OF CRYSTAL CIRCUITS <br> Prices, Kits Below

| The R.J.L. Kit of Parts Ready Built . | $\begin{array}{r} 18 \\ £ 1 \end{array}$ |
| :---: | :---: |
| The XPURT, Kit of Parts | 19 |
| Ready Built | 8 |
| The No. 1 Professional Testing Se |  |
| Kit of Parts | 11 |
| Ready Built | 111 |
| The Twin Crystal. Kit of Parts | 17 |
| Ready Built | 17 |
| The High Power Crystal Set. Kit of |  |
| Parts . | 1 |
| Ready Built | 111 |
| The Ultimate Crystal Set. Kit of Parts | 19 |
| Ready Built | 10 |
| cuits for the |  |
| polis |  |



For Advanced Home Crystal Set Assemblers we introduce the New Revolutionary Receiver

THE HIGH POWER CRYSTAL SET
A long distance champion and recent Chicago Prize Winning Circuit..
IT COSTS ONLY $£ 1 / 2 / 3$ OR $£ 1 / 8 / 3$ TO BUILD Blue Print and Instructions, 6d. Post Free or Chart Free with kit of parts.
Cabinets to suit .. .. . . .. .. .. .. .. 8/6
Ready Built by us, including Cabinet .. 45/Headphones Extra-See this Catalogue.

## COIL FORMERS

## Moulded Coil Former BOBBIN DISCS



BOBBIN DISCS．Walnut or Black．Per pair ．．．．．．．．．．．．．．．3d． Per dozen 2／6

## PEERLESS PLUG－IN RIBBED COIL FORMERS

This former is suitable either for Broadcast or Short－wave work．Coils are wound giving a maximum of air space which allows the greatest efficiency to be obtained．

PRICE
1／6 each

## PEERLESS SPECIAL PLUG－IN SHORT WAVE COIL FORMER

Ribbed to allow coils to be air－wound for max－ imum efficiency．Obtainable in Red，Green， Mahogany，Black，Walnut and in 4， 5 and 6 pin． PRICE
．．．．． $1 / 3$ each

## PEERLESS SELF－CENTRING COIL FORMERS

With one hole fixing into can and $2 \frac{3}{4}$ inch wind－ ing space．Available in either $1 \frac{1}{4}$ inch round or $1 \frac{1}{4}$ inch ribbed．There are no holes to drill for connecting lugs．
PRICES－Former only，both types
Cans for same，both types
1／－

> WE SUPPLY £1 WORTH OF GOODS FOR A GOLDEN HALF SOVEREIGN! OR £2 WORTH FOR ONE SOVEREIGN


BAKELITE COIL FORMER
Any Standard Diameter up to $3 \frac{1}{2}$－inch．
Per Inch，all sizes 3d．

## RADION HARD RUBBER TUBE

Any Standard Diameter to 4－inch
Per Inch
6d．
$3 \times 1$ INCH BAKELITE FORMERS
Natural Colour．Ready Cut． 4／6 Dozen
TO SET MANUFACTURERS AND DEALERS！ We can supply a special price for any type of coil to be wound to your own specification． ATTRACTIVE LOW PRICES FOR QUANTITY LOTS

LET US QUOTE YOU


BAKELITE COIL TUBING All Diameters from 1 inch to 3 inches．
Price per inch 3d．
Like－a－Flash Black Bakelite Tubing．Specially Imported． 1in．diam．Like－a－Flash 3d． 1⿳亠丷厂⿰㇒⿻土一𧘇 diam，Like－a－Flash 3d． 13 diam．Like－a－Flash 3d． 2 diam．Like－a－Flash 3d． $2 \frac{1}{2}$ diam．Like－a－Flash 3d． 3 diam．Like－a－Flash 3d．


1 inch Bak－ elite Tripod Coil Form－ ers ．．．6d． to clear ${ }^{1 \frac{1}{4}}$ inch 9 d ．

## COIL FORMERS

8 Ribbed Short Wave Former fitted with 4， 5 or 6 pin adaptors． Walnut finish．Diam－ eter equiv，to $1 \frac{1}{3} \mathrm{in} .2 \frac{1}{4}$ in．winding space．Over－ all height $3+\mathrm{in}$ ．．． $1 / 6$

Manufacturers＇Type Standard 8 Ribbed Coil Former for Chassis or coil can mounting．Di－


PLUG－IN FORMERS Short Wave 3／6
Broadcast type

PEERLESS COIL FORMERS
SHORT WAVE
With Cap．Assorted Colours， 4 or 5pins．Each$1 / 3$
ROUND－ $1 \frac{1}{4}$ inch．For Broadcast Work．Each ..... 9d．
RIBBED－
For Broadcast Work．Each ..... 9d．
RIBBED－
Short Wave Former for Shielding ..... 1／6

## PEERLESS SOLDER LUGS

Tinned. For use with Bakelite Formers. Gross

| A JOB LINE TO CLEAR! <br> Manufacturers type Midget R.F. or Aeria Coils, 2/6. NOW <br> Coil Cans, extra . |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |

## RACOPHONE PLUG-IN COIL FORMERS

Four or Five pin .. .. . . . . . . . . .. ..
Sockets, extra, each..
9 d Black, Red, Green or Mahogany.

## BAKELITE MOULDED TRIPOD COIL FORMERS

| 1in. formers. Bla |  |
| :---: | :---: |
| in formers. Black or Walnut, with clips fitted | 11d. |
| 1 l in . formers. Black or Walnut | 10d. |
| 1 lin. formers. Black or Walnut, with |  |
| clips |  |

Black Bakelite Coil Formers, 4 -inch diameter, 6 -inch lengths


GENUINE RADION POLISHED FORMERS-
2 inch diameter, inch

| $2 \downarrow$ | " | " | " |  |
| :---: | :---: | :---: | :---: | :---: |
| ${ }_{3}^{27}$ | " | " | " | NOW |
| ${ }_{01}^{3}$ | " | " | " |  |
| 32 | " | , | " | PER |
| 4 | " | " | " | INCH |

[^0]-J. LEVENSON.

CARDBOARD COIL FORMERS

VARIABLE

| $\begin{aligned} & \text { IGRANIC } \\ & \text { 2-COIL } \\ & \text { HOLDERS } \end{aligned}$ | 复 VARIABLE |
| :---: | :---: |
| Usually $27 / 6$. |  |

## FORMERS



Bakelite Formers, $1 \times 2 \frac{3}{4}$ inches with baseboard mountings and solder lugs fitted. $1 / 3$. NOW

9d.

Moulded Bakelite Tripod Formers, 1 inch diameter. 1/-. NOW .

LARGE BLACK BAKELITE ROTORS . . 4 INCH

Usually $2 / 6$
NOW $\qquad$ 1/- each


For Metal Chassis Mountings
FIBRE WASHERS Assorted Box of Various Sizes.
Price . . . . 2/6 box

## Coils - and Coil Kits

## TO SUIT EVERY CIRCUIT

## LEWCOS 6-PIN PLUG IN SHORT WAVE COILS

40 to 90 metres. A few left. 18/6. NOW, each


Lewcos 6-pin Coil Bases, were $12 / 6$, each Or complete with Base and Aluminium Shield

## PILOT TYPE TUNING COILSRADIO FREQUENCY



Suitable all tuned circuits. Special low loss winding and compactness of dimensions ensure maximum efficiency. FULL KIT OF THREE .. .. 3/-

Listed to sell at 15/-

TYPE 02 VALVE OR SET TESTING LEADS .. .. 4/6 THE SET With Spade Ends, Banana Plugs and small size leaded clips as illustrated.

## TYPE 03

Complete kit of parts for this Handy Experimenter's Kit .. . . 6/Including ready wired insulated handles. All parts as illustrated.
Non-solder Types


Hook your Crystal Set up to
PARS MULTI-STRANDED PHOSPHORBRONZE AERIAL
Definitely gives Better Results
PRICE: Per 100 feet . . . . . . 2/6

## RADIOKES SHIELDED COILS

Now<br>... 4/6 TO CLEAR Aerial or R.F.

Were 9/6.


## REINARTZ COILS <br> 3/6

On 3 inch or $2 \frac{1}{2}$ inch Black Bakelite Formers

RADIOKES CRYSTAL SET
COILS ..... $3 / 6$
Crystal Set (unshielded), 5/3. NOW .. $3 / 6$
Preselector (shielded), for Battery and Electric Sets, 9/6. NOW .. .. . . .. Standard Aerial Coil (shielded), $9 / 6$. NOW 4/6

Standard Radio Frequency Coil (shielded), 9/6. NOW
Standard Oscillator Coils (shielded), for Super Het. Sets, $9 / 6$. NOW .. .. .. $4 / 6$
Special Offer of Reinartz Coils-Midget Types: Manufacturers' Type 9d. Also R.F. and Aerial 9d. A JOB BÜY!

## DUFFY SHORT WAVE CALIBRATED COILS

In boxes of Six covering all wavelengths from 16 to 100 metres. Consisting of six coils, which includes Detector and R.F. Stages. 25/DETECTOR KIT, THREE COILS .. .. 15/-

[^1]
## A RADIO JOKE!

It's worth spending $1 / 9$ for the fun of it. Have it on your friends.
The World's Smallest Receiving Set. 1/9 each

## HONEYCOMB COILS

25 turns ..... 1/-
50 turns ..... 1/-
75 turns ..... 1/6
100 to 250 turns ..... 2/6
Over 250 to 500 turns ..... 4/6
Over 500 to 750 turns ..... 6/6
Honeycomb Coil Plug and Mount, pair ..... 2/-

## R.C.S. COIL KITS

R.C.S. SUPER KITS: 175 K.C.-
K 2 A R ..... 33/6
K 2 A. ..... 30/-
K 2 A P ..... $33 / 6$
R.C.S. SUPER KITS: 460 K.C.-
H 2 A ..... 30/-
H 2 A R ..... $33 / 6$
Simplicity ..... 40/-
T.P.T.G. ..... 37/6
Eclipse or Alpha (also in 175 K.C.) ..... $37 / 6$
R.C.S. SUNDRY COIL KITS-
T.R.F., in carton (without cans) ..... 7/6
T.R.F., in carton (with cans) ..... 10/-
Duplex Diode Kits ..... 22/-
Straight Forward Battery 3 ..... $10 /-$
Preselector 3/4 ..... 12/6
Long Range Battery ..... 10/-
B Class Battery 7 ..... 16/6
Short Wave Battery 2 ..... 15/-
Short Wave Super Het. Converter ..... 44/-
Marco Four Kits ..... 4/6
R.C.S. SUPER HET. COIL KITS
175 K.C.-Standard 5/6 (K2AR)
X/K2AR ..... 33/6
Y/K2AR ..... 41/8
460 K.C.-Standard 4/5 (H2A) X/H2A ..... 33/6
Y/H2A ..... 41/8
Standard 5/6 (H2AR)
X/H2AR ..... 33/6
Y/H2AR ..... 41/8
Simplicity $3 / 4$ (HSA)
$\mathrm{X} / \mathrm{HSA}$ (only) ..... 28/-
Simplicity 4/5-Tuned Plate Tuned Grid Y/TPTG (only) ..... 41/8
Preselector 4/5 (H2AP)
X/H2AP ..... 33/6
Y/H2AP ..... 41/8
Standard Preselector 4/5 (K2AP)
X/K2AP ..... 33/6
Y/K2AP ..... 41/8
SUNDRY COIL KITS-
B Class Battery Seven ..... 18/4
Duplex Diode ..... 20/-
Long Range Battery ..... 11/2
Marco Four ..... 5/- ..... 5/-
Preselector 3/4 ..... 14/-
Short Wave Battery Two ..... 16/8
Short Wave Superheterodyne Converter ..... 49/-
Straight Forward Battery Three
10/-
10/-
T.R.F. (in carton) In Cans . . ... ..... 6/10

## R.C.S. SHORT WAVE COIL KITS

All R.C.S. low-wave coils are oscillator matched in our own laboratories, and minutely calibrated for wave length cover; therefore will definitely tune the complete bands with a reasonable margin of overlap to ensure complete coverage. They are air wound on Marquis 8 -ribbed formers with special pin bases.
S.W. Superhet, Converter .. .. .. .. ..
S.W. Battery Two .. .. .. .. .. .. ..
16/8

## LEWCOS BATTERY SUPERHET. KITS

Shielded. For use 20 to 40 metres and 235 to 550 metres. Long Waves 1000 to 2000 metres. 130/-. NOW 80/-
Consists of 1 Oscillator Coil, tapped various wave lengths; 3 Intermediates, 126 K.C., for use with look or external aerial; 5 Valves, including oscillator.

EVERY AMATEUR SHOULD SEND FOR A 2/6 BUNDLE OF

## ASSORTED BAKELITE CUTTINGS th INCH THICK

POLISHED BOTH SIDES-BLACK, WALNUT AND MAHOGANY ASSORTED
ALWAYS WANTED. ALWAYS HANDY.

CODE FOR R.C.S. COIL KITS
Group X.-Uses new type Stromberg Carlson, old type Stromberg Carlson, old type Airzone, Essanay or any condenser from .0004 to .0005 mfd. capacity.
Group Y.-Uses new type Airzone, Efco, new type Saxon, or any condenser . 0003 to .0004 mfd . capacity.

K stands for 175 Kilocycles.
H stands for 460 Kilocycles.
The numeral following either H or K denotes number of intermediates in kit.

A stands for Aerial coil.
R stands for R.F. coil.
P stands for Preselector coil.
If 2 aerial coils required signify "A.A."
If 2 R.F. coils required signify "R.R."
If 2 preselector coils required signify "P.P."
Always advise whether 57 or 55 valves to be used when ordering kit.

## R.C.S. SHORT WAVE COILS

Wound on Moulded Bakelite Ribbed Formers. The Coils are designed and matched to ensure complete Band Coverage over the Short Wave Spectrum.

| Detector Coils | Oscillator Coils. |
| :---: | ---: |
| $14-28$ metres | $14-28$ metres |
| $28-50$ metres | $28-50$ metres |
| $48-100$ metres | 18100 metres |
| PRICE | . |

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

## R.C.S. COILS

Oscillator Matched. Guaranteed to . 1 of $1 \%$ All T.R.F. and 175 K.C. Coils are wound on $1 \frac{1}{2}$ inch Marquis formers, while straight formers are used for 460 K.C. Coils. Plate Coils are wound with silk covered enamelled wire and are lacquered with special insulating dope. They are tested between primary and secondary with 800 volts A.C., thus ensuring insulation between primary and secondary. They are guaranteed oscillator matched to .1 of 1 per cent.
Primaries are specially space wound to give maximum gain. Coils are matched to suit the following groups of variable condensers.
T.R.F.-Wound on $1 \frac{1}{1}$ inch Marquis Formers Aerial-Standard $\because$. . . .. .. .. .. .. 2/With Bobbin Primary .. .. .. .. 2/9 Battery .. .. .. .. .. .. .. ., $2 / 3$ Tapped .. .. .. .. ... .. ... .. $2 / 3$ Special Tapped for Golden Series Valves 2/9
Band Pass ..... 2/3
Reinartz ..... 2/3
Radio Frequency (R.F.) ..... 2/-
R.F.-With Reaction ..... $2 / 3$
R.F.-With Resistance Primary ..... 3/4
Preselector ..... 2/3
Preselector Aerial ..... $2 / 3$
SUPER HET., 175 K.C.
Wound on ${ }^{1} \frac{1}{4} \mathrm{in}$. Marquis Formers
Aerial-Standard ..... 2/3
With Bobbin Primary ..... 2/9
Battery ..... 2/3
Preselector ..... 2/3
Tapped ..... 2/3
Special Tapped for Golden Series Valves ..... 2/9
Band Pass ..... 2/3
Oscillator-Audiodyne ..... 2/9
Electron, Coupled ..... 2/9
Electron, Separate ..... 2/9
T.P.T.G. ..... 2/9
Radio Frequency ..... 2/3
R.F., with Resistance Primary ..... 3/4
Preselector ..... 2/3
SUPER HET., 460 K.C
Wound on Straight Formers
Aerial-Standard ..... 2/3
With Bobbin Primary ..... $2 / 3$
Preselector ..... 2/3
Tapped ..... 2/3
Special Tapped for Golden Series Valves ..... 2/9
Band Pass ..... $2 / 3$
Oscillator-Audiodyne ..... 2/9
Electron, Coupled ..... 2/9
T.P.T.G. ..... 2/9
Radio Frequency R.F., with Resistance
Primary ..... 3/4
Preselector ..... $2 / 3$
R.C.S. ALL WAVE KIT ..... 45/-
Easy Hook-up. Chassis tested on the air.Definite oscillation over all Wave Bandsassured. Employs latest all wave switch.

## LEKMEK 1933 KITS ARE ALL UNIVERSAL A.C. OR BATTERY SUPER-HET. KITS

## TYPE 356-R KIT. Price .. .. .. .. $55 / 5 /-$

Comprises- 3 shielded coils (aerial, R.F. and oscillator); 2 I.F. transformers; 1 padder condenser; 13 -gang condensez ( $1 / 4$ inch shaft clockwise) : hook-up wire; circuit diagrams for battery $54-\mathrm{B}$ and A.C. $60-\mathrm{E}$. Utilises for A.C. 6 valves, 2/58 (R.F. and I.F.; 2/57 (Det. Osc. and 2nd Det.) ; $1 / 47$ or 59 (power) ; $1 / 80$ (rectifier) ; or battery 5 valves, 2/39 (R.F. and I.F.) ; 2/36 (D-O and 2nd D); $1 / 38$ (power). Excellent for country, daylight reception certain.
TYPE 345-S KIT. Price
£5/5/-
Comprises-3 shielded coils (aerial, selector and oscillator) ; 2 I.F. transformers; 1 padder condenser;1 3-gang condenser $1 / 4$ inch shaft clockwise); hook-up wire ; circuit diagrams for battery $53-\mathrm{BS}$ and A.C. 51-E. Utilises for A.C. § valves: $1 / 58$ (I.F.) ; $2 / 57$ (D-O and 2nd Det.) ; $1 / 47$ or 59 (power) : $1 / 80$ (rect.); or for Battery 4 valves: $1 / 39$ (I.F.) ; 2/36 (D-O and 2nd Det.) : 1/38 (power). Good interstate sensitivity.
TYPE 345-D KIT. Price $\quad . \quad . \quad . \quad$.. $14 / 4 /-$ Comprises-2 shielded coils (aerial and oscillator); 2 I.F. transformers; 1 padder condenser; 12 -gang condenser ( $1 / 4$ inch shaft clockwise) ; hook up wire; circuit diagrams for 53 B. Battery. Utilising Cathode valves which may be operated from A.C. Requires 4 valves: $1 / 39$ (I.F.) ; 2/36 (D-O and 2nd Det.) ; 1/38 (power). Operates from 6 volt D.C. or A.C. A simple efficient Super but not recommended for use near broadcast stations owing to double spot tuning. Very sensitive.

## SPECIAL NOTE

Lekmek Kits $356-\mathrm{R}, 345-\mathrm{S}$, and 345 D will not be sold less any portion of the Kit, as Condensers, Coils and Intermediates are matched together. Clients, however, may make their Kit further interchangeable by purchasing Lekmek Selector Coil and Shield 345 S with diagram $6 / 6$ Oo Lekmek R.F. Coil and Shield $356-\mathrm{R}$ with diagram $6 / 6$ Thus by purchasing Kit $345-\mathrm{S}$ and R.F. Coil $356-\mathrm{R}$, you are enabled to use the Kit as a $356-\mathrm{R}$ or $345-\mathrm{S}$ and similarly by purchasing Kit $356-\mathrm{R}$ and a Selector Coil $345-\mathrm{S}$, you achieve the same interchangeability.
Lekmek Kits may be built to the circuits furnished with each Kit, but they will also be found suitable for the various circuits des ribed by Mr. Hull, Technical Editor in "Wireless Weekly", from time to time, and in his Superheterodyne book-including circuits A.V.C., Manual and Automatic Silent Tuning, and Tone Compensation.

## 1932 LEKMEK KITS

Types 53-B $(£ 4 / 4 /-)$; $51-\mathrm{E}, 60-\mathrm{E}, 54-\mathrm{B}(£ 5 / 5 /-)$ (with $1 / 4-$ inch shaft anti-clockwise type C/S.C. condensers), are stil] available to those who have standardised on these types.

## LEKMEK TUNWNG COILS

Wound on Bakelite Formers and furnished in Shields osclllator matched; Aerial or R.F.
To suit S.C. Condensers Type C. Price

## LEKMEK ALL WAVE UNIT

With the Lekmek All-Wave Unit, type S.W. 10/200, and the Lekmek 356R Kit, you have all the coils and tuning condensers necessary for a powerful All-Wave receiver. The Lekmek All-Wave Unit contains four sets of Coils comprising four Aerial and four Oscillator Coils for 10-20, 20-40, 40-80 and 80-200 metres wave bands, special change-over switch for these various bands, special low capacity 2 -gang Condenser, I.F. Transformer, type 585-all mounted in container with necessary colour code leads. In addition, the All-Wave Unit includes Midget Trimmer Condenser, and Lekmek ShortWave Coupler, type S.W.C.1.
Prices: All-Wave Unit, Type S.W., 10/200, $£ 5 / 5 /-$; Superhet. Kit, Type 356R, £5/5/-; Extra I.F.T., Type 186, $12 / 6$. Also available-Special Lekmek Kit, type T.R.F.3, for Reaction 3 (includes 2 -gang Condenser, Aerial and Preselector re-action Coil). Price: T.R.F. 3 Kit

22/2/-

## STANTON'S UNIVERSAL RADIO STATION <br> INDICATOR. Price <br> 5/-

Get the stations you prefer with greater accuracy. See how many more additional Stations you will discover.

5/- EACH


## BRITTANIC ALL WAVE COIL

With change over knob and dial fitted. All housed in Aluminium Case with cover 59/6

"LIKE A FLASH" SUPERHET. KIT PRICE

42/6 C.S. Type. For Saxon Gang Condenser Kit.
"Like a Flash" Ready Wound Plug-in
SHORT WAVE COILS
Bakelite Type, 15 to 25 metres; 22 to 40 metres; 38 to 62 metres; 64 to 100 metres

$$
4 / 6 \text { EACH COIL }
$$

Sockets, extra . . . . .. . . ...... .. . . ... 9d.
Special Broadcast Coil
4/6
"LIKE A FLASH" PENTA-GRID SUPERHET. KIT ..... . . 33/6 C.S. Type.

## PEERLESS COIL CANS

For Round or Ribbed Former

RADIOKES 4/5 VALVE SUPERHET. KIT
Consisting of:-
1 Aerial Coil
1 Oscillator Coil
NOW .. 42/-

Was 84/-
yards Hook-up Wire
3 Floral Knobs
1 Stromberg Carlson 2 Gang Condenser
Coil Kit designed for Universal Battery or Electric 4/5 Superhet.
Price, 84/-. NOW . . 42/-

## RADIOKES SIMPLIFIED 6/7 SUPERHET. KITS

Consisting of:-
1 Aerial Coil
1 R.F. Coil
Usually 95/-.
NOW
45/-
2 Intermediate Coils
Oscillator Coil
Padding Condenser
6 yards Hook-up Wire
3 Floral Knobs
1 Stromberg Carlson 3 Gang Condenser This Kit is designed for any $6 / 7$ Valve Superhet.

SET MANUFACTURERS \& TRADERS NOTE Levenson's will manufacture for you any type of coil you may require at most attractive prices for quantity lots, and providing your order warrants it, the trader's name or trade make will be stamped on each finished article.

QUOTATIONS FOR THE ASKING
AND WITH PLEASURE!


Size $1 \times 23$ inches with Mounting Brackets fitted.

NOW
$1 / 6$ EACH Aerial or R.F.
Or Wound on Moulded Bakelite Tripod Formers. Were 9/6. 4/6

## WIRELESS ITEMS OF INTEREST

Those employed in this country making wireless components number many thousands, and:-

It is said that more than $1,000,000$ people are employed in the Radio industry in England. At a recent Exhibition of wireless goods in England, the amount of capital represented by the Firms exhibiting represented eight millions of money.

## LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

# PEEILESS MOULDINGS OF PERFECTION 



FIG. 2
PEERLESS SHIELDED SELF-CENTRING COIL FORMERS

Special self-centring formers, with one hole fixing into can and $23 / 4 \mathrm{ins}$. winding space. Available in either $11 / 4$ inch round (fig. 1) or $11 / 4$ inch ribbed (fig. 2). Fig. 2 shows the ribbed former adapted for short wave work. The can has two hole
mounting, which secures both the can and former rigidly in place. There are no holes to drill for connecting lugs.
Price for Former only
(both types) .. .. .. 9d, each
Cans for same .. .. .. 1/- each

PEERLESS COIL FORMER LUGS (TINNED) . . 2/6 GROSS

PEERLESS PLUG-IN RIBBED COIL FORMER

Illustrated at left, this former is suitable either for broadcast or short wave work. Coils are wound giving a maximum of air space which allows the greatest efficiency to be obtained

Price .. .. 1/6 each

SPECIAL PLUG-IN SHORT WAVE COIL FORMER
Ribbed to allow coils to be air-wound for maximum efficiency. Obtainable in Red, Green, Mahogany, Black, Walnut and in 4,5 and 6 pin.

Price .. .. $1 / 3$ each


OBTAINABLE FROM ALL LEADING RADIO DEALERS*
THE PEERLESS MANUFACTURING Co. Ltd.
73-75 GEORGE STREET, REDFERN, N.S.W.

The Standard Components of Radio because of their Quality, Accuracy and Keen Prices.


PEERLESS VALVE SOCKETS
A reversible socket suitable for sub-panel or top of panel mounting with heavy gauge positive contact adequately spaced and firmly fixed without eyelets, etc. Twohole mounting. PRICES

> 4,5 and 6 pin ...... $1 /-$
> 7 pin and 7 special pin $1 / 3$


PEERLESS STAND-OFF INSULATORS

Diameter $21 / 2 \mathrm{in}$. ; Height 2ins. Nickel plated fittings. Screw is securely moulded into top of insulator.

$$
\text { PRICE ... .. } 1 / 6
$$



PEERLESS SPEAKER PLUGS
Solidly constructed with perfectly threaded cap having minimum projection from chassis 4 pin, 9 d .; 5 pin, 10d.; 6 pin, $1 /-; 7$ pin and 7 special pin

## 'LIKE-A-FLASH' COILS AND COIL KITS <br> ALL COILS GUARANTEED MATCHED TO . 1 OF $1 \%$ <br> Special Price in Quantity Lots to Retailers and Manufacturers

| duplex diode 5 Shielded co Comprising three coils. Price . . . | $\begin{aligned} & \text { KIT } \\ & 13 \quad 0 \end{aligned}$ |
| :---: | :---: |
| MARCO FOUR UNSH |  |
| Wound on tripod formers. Comprising two coils. Price <br> Coil Cans, each extra . | 36  <br>  8 |
| BROWNING DRAKE UNSHIELDED COIL KIT |  |
| Comprising two coils one fitted with rotor. Price . . | 106 |
| REINARTZ COILS <br> Unshielded, wound on tripod formers. Price <br> Coil Shields, each, extra | 6 <br> 8 |
| STANDARD AERIAL UNSHIELDED <br> Wound on tripod formers. Price Shields, each, extra | 1 |
| STANDARD R.F. COILS <br> Unshielded - wound on tripod formers. Price <br> Coil shields, each, extra | $\begin{array}{r}16 \\ \\ \hline\end{array}$ |
| STANDARD PRESELECTOR UNSHIELDED COILS |  |
| Wound on tripod formers. Price Coil Shields, each, extra | $\begin{array}{r}20 \\ \\ \hline\end{array}$ |
| STANDARD PRESELECTOR COILS |  |
| Unshielded-with reaction. Wound on tripod formers. Price .. .. .. .. Coil Shields, each extra . | 208 |

## STANDARD R.F. COILS

With reaction. Wound on tripod for- mers. Price
Shields, each .. .. ... .. ... .. ... .. 8
RENOWN THREE VALVE COIL KIT

Unshielded; wound on tripod formers; consisting of two coils. Price

46
Coil shields, each, extra

## FORTY-FOUR COIL KIT

Unshielded; wound on tripod formers, consisting of three coils. Price .

69
Shields, each, extra 8

## NEW ERA FOUR UNSHIELDED COIL KITS

 Wound on tripod formers-three coils in kit. PriceCoil shields, each extra

## 1930/3 UNSHIELDED COIL KIT

Wound on tripod formers, two coils in
kit. Price

Shields, each, extra

## ... 8

1930/4 UNSHIELDED COIL KITS
Wound on tripod formers; three coilsin kit. Price46
Coil shields each, extra ..... 8
SUPER SIX AND HUNDRED PER CENT. UNSHIELDED COIL KITS
Wound on tripod formers; three coils in kit. Price ..... 46
Shields, each, extra ..... 8
INFINITE SIX COIL KITS
Unshielded; wound on tripod formers,four coils in kit. Price66
Coil shields, each, extra ..... 8
NEW ERA THREE UNSHIELDED COIL KITSWound on tripod formers; two coils inkit. Price36
Shields extra, each ..... 8
QUOTATIONS GIVEN FOR ANY TYPE
OF SPECIAL COII, INCLUDING
all Wireless weekly featuresSHIELDED SUPERHETERODYNE COIL KITFor 1933 Standard Super.
Comprising one aerial coil; one R.F.coil; one autodyne oscillator coil;two intermediate coils, and paddingcondenser. Price$26 \quad 9$
SHORT WAVE COILS
Wound on Marquis plug-in formers, each ..... 46
"STRAIGHT FORWARD BATTERY THREE"
Unshielded coil kit comprising one aerialcoil, wound on marquis tripod for-mers; one R.F. coil with reactionwound on Marquis tripod formers;two cans for same. Price410
UNSHIELDED REINARTZ COIL
For Levenson's "Little Duke" two valveset26Shielded coil kit for "COUNTRYMÄN'SFOUR VALVE RECEIVER". Price49
LAKES SHORT WAVE SINGLE VALVE SET COIL KIT
Consisting of four coils covering wave-length range from 15 to 80 metres.Wound on Marquis plug-in formers.Price100
Broadcast coil extra ..... 76

SKYRAIDER FOUR VALVE BATTERY SET COIL KIT
Comprising one aerial coil; two R.F. coils; three coil cans. Price

## VARIABLE CONDENSERS

## VARIABLE CONDENSERS TO

## FILL AN ORDINARY STORE

## IN STOCK AT LEVENSON'S

## BREMER TULLY CONDENSERS

The Ace-high in condenser value. Originally priced,
 37/6 each. One hole mounting. Very sturdy and strong.
COMBS THE AIR FOR BROADCAST
All capacities available.
.00025, now .. .. .. $5 / 9$
.00035, now .. .. .. 5/9
.0005, now ...... $\quad$ 5/9
Worth 15/-
Suitable for transmitting. Very heavy plates.

## ORMONDE CONDENSERS

## 100 to 1 Ratio.

. 00015


Provided with special brackets for base mounting to aluminium at no extra charge, if required.


## EFCO HIGH GRADE VARIABLE CONDENSERS



Levenson's have much pleasure in introducing and recommending

EFCO DIALS AND CONDENSERS

## EFCO GANGED CONDENSER

Efco Ganged Condensers can be obtained with certain dial fitted as a "unit" such as Moderne," Floral, Organ, Ship, Gothic . . and Cameo. We show illustrated the popular "Gothic dial." These condensers are made of best quality steel and plates of double rolled aluminium, which are securely "caulked." Shaft mounted on ball-bearings. These units matched to an accuracy of $\frac{1}{6}$ of $1 \%$.

> CAPACITY OF CONDENSER EFCO 15-PLATE CONDENSER

Maximum Plate, Minimum Trimmer, equals .000364 Maximum Plate, Minimum Trimmer, equals .000384 Maximum Plate, Minimum Trimmer, equals .00002
HIGH GRADE
EFCO GANGED CONDENSER
2 gang, complete with trimmers ..... 14/9
3 gang, complete with trimmers ..... 20/-
EFCO CONDENSER-DIAL MOVEMENT COMBINATIONS
2 gang with bakelite movement and two escutcheons ..... 19/6
2 gang with bakelite movement and one escutcheon ..... 19/3
2 gang with Senior or Gothic Dial ..... 22/9
2 gang with new Lion Dial ..... 19/-
2 gang with Avon Dial ..... 21/9
3 gang with Avon Dial ..... 27/-
3 gang with Senior or Gothic Dial ..... 27/9
3 gang with new Lion Dial ..... 23/9
New Lion Dial (just released) ..... 5/3
Efeo Triple Gang Condenser only ..... 20/-
Efco Twin Gang Condenser only ..... 14/9

## PRECISE VARIABLE CONDENSER

Precise extra heavy brass plate .00035 variable condensers. A real job, small and compact, $22 / 6$ NOW

10/-

| A Few to Clear PILOT . 00035 CONDENSERS Enclosed in shielded case. 28/6. NOW .. . . . . 10/- |  |  |
| :---: | :---: | :---: |
| A Few to PILOT Enclosed |  | DE JUR COND <br> Perfect D |
|  |  | 7 Plate <br> 14 Plate |
| LEVENSON'S CAN SUPPLY ANY ITEM REQUIRED FOR ELECTRICAL INSTALLATION OR HOUSEHOLD USE. |  |  |
|  |  |  |
|  |  |  |



## STROMBERG-CARLSON CONDENSERS



ALL REDUCED

| 1 Gang, old type $8 /-$. New type NOW | .. | $8 /-$ |
| :--- | :--- | :--- | :--- | :--- |
| 2 Gang, old type $14 /-$. New type NOW | . | $16 /-$ |
| 3 Gang, old type $19 / 9$. New type NOW | .. | $22 /-$ |
| 4 Gang, old type $26 /-$. New type NOW | .. | $27 / 9$ |

TYPE S.M.P.X. MICA PADDING CONDENSERS 6 plate for use with 465 K.C. . . . . . . . . . $1 / 6$
7 plate for use with 465 K.C. .. . . . . . . $1 / 9$
10 plate for use with 175 K.C. .. .. . . . . $2 / 3$
12 plate for use fith 175 K.C. . . . . . . . . $\quad 2 / 9$

LEVENSON'S CAN SUPPLY A SWITCH FOR EVERY RADIO OR ELECTRICAL PURPOSE!

## TRADERS NOTE!

We have a special line of CUTLER-HAMMER RADIOLOC SWITCHES with 2 keys to dispose of at a liberal price in quantity lots, or $2 / 6$ each. WRITE FOR QUOTE

RACOPHONE VARIABLE CONDENSERS
PRECISION MAXIMUM
2 Gang, each
20/-
3 Gang, each .. .. ............................... $27 / 6$
4 Gang, each 33/6

## ALPHA CONDENSERS <br> ALPHA GANGED BRASS PLATE

2 Gang, each . . . . . . . . . . . . . . . . . . .. $12 / 6$
3 Gang, each . . . . . . . . . . . . . . . . . . $17 / 6$
4 Gang, each .. . . . . ... ......... 25/-
With Trimmers and Padders.

## NEW TYPE ALPHA CONDENSERS WITH DIAL ESCUTCHEON AND PILOT LIGHT

Single Gang, each .. .. .. .. .. .. 146
Double Gang, each . . . . . . . . . . . . £1 0
Triple Gang, each . . . . . . . . . . . . . . $£ 1$ 4
Four Gang, each . . . . .. .. .. .. .. £1 89

From RADIO CHEAPSIDE, 240A Pitt St. Removed from Tradedin Radio Receivers. We have stocks of all leading makes of Variable Condensers all in perfect condition. As good to use as a new job. All capacities. $2 / 6$ and $3 / 6$ each

We select for country customers.

## A NATION-WIDE

 SELLERThe Famous "SKY RAIDER 4" Battery Operated Radio. See Home Assembly Section of this publication for full particulars.

## LIKE-A-FLASH

 VARIO-COUPLER MOUNTINGWith Knob and all fittings . . . . . . . . $\quad 2 / 3$

## RADIOKES MIDGET CONDENSERS

3-Plate, complete with Knob, each .. .. 2/-
5-Plate, complete with Knob, each .. .. 2/-
7-Plate, complete with Knob, each ..... $2 / 3$
11-Plate, complete with Knob, each .. .. $2 / 6$
13-Plate, complete with Knob, each .. .. 2/9
17-Plate, complete with Knob, each .. .. 3/-
19-Plate, cmoplete with Knob, each .. .. 3/3
23-Plate, complete with Knob, each .. .. 3/6
VALVE OR SET TESTING LEADS

TYPE 01
VALVE OR SET TESTING
LEADS
With removable Crocodile Clips
Per Set
4/-

## VARIABLE CONDENSERS ORDER NOW PROMPT

A host of makes taken out of old rereceivers. All capacities. A variety of prices, $3 / 6,4 / 6$ and $5 / 6$. We guarantee extra special

DE JUR 2-MEG GRID LEAK AND . 00025 CONDENSER. Price $3 /-$

ENGLISH "TRIX' 'GRID CONDENSERS 2/6 With Clips. A splendid British Job. value.

## AMSCO VARIABLE CONDENSER

.00035 Amsco extra heavy grade allocating straight line Variable Condensers. A sturdy, everlasting professional job, $30 /$. NOW $17 / 6$

## MANUFACTURERS' CONDENSERS

## ADOPTED BY MANY AUSTRALIAN SET MANUFACTURERS

Rigidly built to withstand transportation or abuse; of sturdy construction, bakelite base; low minimum, true capacity, removable shaft, pig tails, automatic constant tension, perfectly insulated, and adaptable for either base, panel or gang mounting.
$.0005, .00035$ and .00025 . List Price .. . . $12 / 6$
Traded-in models, as good as new
5/6

##  <br> LIKE-A-FLASH <br> One hole fixing, ball bearshaft. .00035 and .0005 , Like-A-Flash Aluminium. ing action. Quarter in $<\mathrm{k}$ each <br> ORMOND CONDENSERS <br> BRITISH BUILT. VARIABLE. <br> 00035 with 4 inch dial. Price, each <br> LIKE A FLASH S.X. TYPE MIDGET 1934 TYPE VARIABLE CONDENSERS

With Trimmers. For New Midget Receivers. 2 Gang
3 Gang 15/6
4 Gang
Small Neat Metal Escutcheons to match, with Celluloid Back-panel Reading Discs, extra
Small Neat Metal Escutcheons in pairs, with Celluloid Back-panel Dises, one with novel facial illustrations. The other numbered: Quote S.X. Type, set

## VARIABLE CONDENSERS

$.0003, .00035, .001, .001$ with vernier. All
one price
$3 / 6$

| R.C.S. SHORT WAVE VARIABLE TUNING CONDENSERS |  |
| :---: | :---: |
| Fitted with Trimmers. Capacity 000175 mfd .Single Gang |  |
|  |  |
| Two Gang . . . . . . .. .. .. .. .. 15/9 |  |
| Three ${ }_{\text {Special }}$ Compression Type $^{\circ}$ Wave Trap |  |
|  |  |
| Heplin EMMCO STRATELYNE |  |
|  |  |
| CONDENSERS |  |
| Used but in good condition Price each .. .. .. $3 / 6$ |  |
|  |  |
| Also practically every |  |
|  |  |
|  |  |
| \% \% LIKE A FLASH |  |
| ENG ENGLISH .0003 |  |
| 3 - 晨 . 0005 CONDENSERS |  |
|  | 1 Hole Mount |
|  | Ebonite Ends |
| $9 / 6$ value .. .. 6/9 |  |

Pyramid .0005 variable condensers, Brass plate, with vernier Friction Drive, 25/NOW

10/6
Compression type Wave Trap Condensers 3/6
CONDENSERS
Ready with all Mounting Clips.
$2 / 6$ NOW . . . $1 /-$

## AIRZONE VARIABLE CONDENSERS

2 Gang, 3 Gang and 4 Gang.

## AIRZONE GANGED CONDENSERS

Without Dial but with Trimmers.


## AIRZONE PADDING CONDENSERS

3-Plate . . . .. $2 / 6 \quad$ 7-Plate . . . . . $5 / 8$

| CLYDON BRITISH VARIABLE |
| :--- |
| CONDENSERS |
| FOR TRANSMITTERS |
| Transmitting Condenser, $00025 \ldots \ldots$ |
| 3000 volts working, $.0035 \ldots 17$ |
| 3000 volts wroking, $.0005 \ldots \ldots$ |

## HIGH GAIN MICA FIXED CONDENSERS

$100025-.0005, .002-100$ volts working $1 \mathrm{amp} . \mathrm{R} / \mathrm{F}$
$10 \quad 6$

## H.F. INDUCTANCES

 FOR TRANSMITTERSN.P. Copper Tubing Coils, in all sizes. Price on application.

THE WIDEST SELECTION OF VARIABLE CONDENSERS THE TRADE OFFERS
 MIDGET CONDENSERS
A good sturdy make of Midget 13-Plate Condensers. $3 / 9$. NOW

2/-
Compression Type Variable Condensers for Wave Traps, etc.

3/6

LEVENSON'S SUPPLY REPLACEMENT PARTS AND VALVES FOR EVERY TYPE of radio NEW OR OLD!
 ELECTROLYTIC CONDENSERS
Twin 8 mfd.. Peak voltage: 500 volts. Use on D.C. only $. . \quad \cdots \quad \cdot \quad \because \quad . \quad 3 / 3$
SPRANGE DRY ELECTROLYTIC CONDENSERS
Capacity: 8 mfd . Voltage Rating, 450 P.C. Waxed. Manufacturers' Type $7 / 6$. NOW
R.C.S. PADDING CONDENSERS
175 and 460 K.C., each ..... 3/11

## FIXED CONDENSERS

2 mfd . HELSLEY Self Healing Mainsbridge Condensers; $4 \frac{1}{2} \times 13 \times 1$ inch, $7 / 6$ NOW 3/9

## PADDER CONDENSERS

```
465 K.C. and 175 K.C., each
    2/-
```


## DUFFY TRANSPOSER

Battery Type. With all Valves .. £17/16/4 Batteries extra.

## COLVILLE CRYSTAL PARTS

## FOR TRANSMITTERS

Quartz Crystals, $3.5 \mathrm{M} / \mathrm{C}$, from . . . . 150

Crystal holders, open .. .. .. .. .. 10 . 6
Crystal holders, covered .. .. .. .. 12 . 6
Crystal Holders, adjustable .. .. .. \&1 76
Stand-off Insulators .. .. .. .. .. 1 6


## FIXED CONDENSERS



POLYMET FIXED CONDENSERS
$.5,1$, and $2 \mathrm{mfd} .3 / 6,4 / 6,5 / 6$. Now . . . . . . . . . . . . . . 1/6

## ENGLISH MADE TRIX

 CONDENSER.00025 Grid Condenser with clips. Bakelite Type, 2/6 Pilot Grid Condensers, . 00025

2/-
A reliable little job.


## TOBE CONDENSER BLOCKS

Tobe Condenser Blocks 25/Now . . . . . . . . . . . . 5/-$1-8 \mathrm{mfd}$., $3-1 \mathrm{mfd}$. 1500 volt test.
Levenson's can supply a Condenser for any Radio or Electrical purpose.

## A WIDE RANGE OF FIXED CONDENSERS OF ALL TYPES

Magnus . 00015 Fixed Condensers .. .. .. 1/Hilco Metal Base . 0005 Fixed Condensers 1/Electrad . 0003 Fixed Condenser .. .. ... $1 / 6$
T.C.C. . 003 Bakelite Fixed Condensers with Terminals, 5/6. Now

$$
\text { Magnus . } 0005 \text { Condensers .. .. .. .. .. } 1 /-
$$

Chanex 4 mfd . Fixed Condensers, 3000 volt test. List Price 22/6. Now 7/6

## L.A.F. FIXED MICA CONDENSERS

Capacity .0001 to .0005 , each . . . . . . . 10 d.
.0006 to .0009 , each . . . . . . . 11 d .
. 001 to . 003 , each . . . . . . . . $1 / 3$
. 004 to .006, each . . . .. .. .. $1 / 6$
.01, each . . . . . . . . . . . . . . $2 / 3$
.02, each . . . . . . . . . . . . . . .. 3/9
MICA CONDENSERS, FIXED
.003 mfd , each . . . . . . . . . .. .. . . $2 /-$
.006 mfd , each . . . . . . . . . . . . . . . . $2 /-$
.01 mfd , each . . . . . . . . . .. .. .. . . $1 / 9$

Lissen English Bakelite Neutralising Condensers panel or baseboard mounting, 7/6. Now .3/6


JUST THIS.
That value for your Money is assured at Levenson's Radio.

If it is obtainable cheaper elsewhere (and we think not) we will refund the difference to you by credit note redeemable for stock at our store providing the quotation is legitimate.


WILL NOT BE UNDERSOLD

## Improve Results with Philips Condensers - Here's How . . .



PRICES:

2 MFD, each
2/8 1/8 each in doz. lots
3 MFD, each .. 3/8 $2 /-$ each in doz. lots 4 MFD, each .. $4 / 8 \quad 2 / 4$ each in doz. lots

Uses for Philips Condensers in Radio Operation.
Line filters and bl-pass arrangements of various capacities. Referring to diagram: FIG. 1 illustrates the use of the condenser connected directly across a source of interference on a power supply line, such as faulty or noisy switching or commutator gear, the brushes on electric motors, driving fans, machinery, dental apparatus, etc.
FIG. 2-Illustrates an extension of the system shown on No. 1. Except that two condensers are used across the source of interference and a terminal on each condenser is in turn connected to earth.
FIG. 3-Illustrates the same condenser arrangement connected right across the two power lines connecting to a motor field and armature system in order to reduce noises emanating therefrom.
FIG. 4-Illustrates an arrangement similar to Fig. 1 in which the condenser is connected one side to each line supplying the motor field and armature.
FIG. 5-Illustrates a line filter for use where the supply is being led to a radio receiver. Two Radio Frequency chokes are used in series with the leads. Then on the radio side of the chokes two condensers are arranged ,with their centre connection earthed as shown. Such a system is useful in eliminating Radio frequency interference that may be arriving at the receiver via power supply line.
FIG. 6-Illustrates the use of a condenser connected between the earth terminal of a radio receiver and the usual earth connection. In this way the receiver is isolated from earth as far as direct current is concerned but is free to operate in the usual way as regards radio frequency reception. Such a system is advisable when the receiver is being used off a power supply obtained from D.C. power mains.

FIG. 7-Illustrates the use of condensers in a battery set in order to obtain the best performance. The condensers are shown connected to the usual terminal strip and so arranged that each "B" positive supply is separately by-passed to " $B$ " negative.
FIG. 8-Illustrates the use of condensers in the usual " $B$ " eliminator or power pack of an A.C. receiver. One condenser being connected to the input to the filter choke on the rectifier filament side. The high tension positive or output side of the choke being also connected to a condenser. The remaining terminal on each condenser being connected to the "B" negative return which in the average A.C. receiver would be the metal chassis.
FIG. 9-Illustrates the use of condensers for by-passing a voltage divider either in an eliminator or A.C. receiver. One condenser terminal being connected to each H.T. positive terminal. The remaining condenser connection connecting to " B " negative and (i.e., chassis).

FIG. 10 -Illustrates the use of condensers in by-passing a bias resistor. Incidentally illustrating the method of obtaining bias from the UX type valve in an A.C. receiver.
FIG. 11-Illustrates the condenser for bias by-pass purpose as in Fig. 10 except that the bias is being obtained from a UY base type of valve.

ATMOSPHERICS - Not being restricted to any particular wavelength such as the wayes of a Broadcasting Station, atmospherics travel just where they please. These electrical disturbances cause all forms of hideous noise in your loud speaker. They are more persistent in tropical climates. A cure for this form of interruption is out of the question at present though recently I have read of some research engineers having succeeded, by what method I cannot yet say.

## T.C.C. HIGH VOLTAGE \& TRANSTUBULAR CONDENSERS

Tested at from 1,000 volts to 50,000 volts.


## T.C.C. CONDENSERS TYPE 84

Tested at 600 V.A.C., 900 V.D.C.
Working at 300 V.A.C., 450 V.D.C.

E.T.C. MICA CONDENSERSMoulded Bakelite Containers
$.00005, .0001, .0002 .00025 \mathrm{mfd} .$, each ..... 1/6
$.0003, .0004, .0005 \mathrm{mfd} .$, each ..... 1/7
.006 mfd ., each ..... 1/10
$.001, .0015, .002, .003 \mathrm{mfd}$. , each ..... 2/-
.004, . $005, .006 \mathrm{mfd}$. , each ..... 2/3 ..... 2/3
.008 mfd ., each ..... $2 / 6$
.01 mfd ., each ..... 2/9
TUBULAR CONDENSERS
Paper Dielectric:
Hydra Tubular: .1 mfd .300 v . working, each ..... $1 / 6$
Hydra Tubular: .5 mfd .300 v . working, each ..... 2/6
Solar Sealdtite: .1 mfd .300 v . working, each ..... 1/-
Solar Sealdtite: .1 mfd .400 v . working, each ..... $1 / 3$
Polymet Waxtite: . 1 mfd 300 v . working, ..... 1/-
Polymet Waxtite: .5 mfd . 300 v . working ..... 2/3
T.C.C. MICA MOULDED
$.004, .003, .001, .005$, each ..... 3/6
T.C.C. Mainsbridge Type
$.02, .03, .04, .05, .06$, each ..... 4/-
New "M" Type T.C.C. for Set Builder
$.0001 .0005, .00025, .0002, .0003$, each ..... 1/10
"M" Type . 00025 Set Builders' Type, with
Grid Leak Clips, each ..... 2/11
.01 mfd , each ..... 3/-
$.001, .002, .003 \mathrm{mfd}$, each ..... 2/3 ..... 2/3
$.004, .005, .006 \mathrm{mpd}$, each ..... 2/6
T.C.C. Pig Tail Tubular Condensers,
Non Inductive
02250 v. A.C., each2/3
. 250 v. A.C., each ..... 2/9
100 v type, each ..... 3/625 volts working, 40 volts peak. Pigtailtype, each3/-
25 mfd "DULYTIC" CONDENSER25 volts working, 40 volts peak. Pigtailtype, each3/6

## HYDRA CONDENSERS

| Type Capacity | Test Voltage | Vorking | Pric |
| :---: | :---: | :---: | :---: |
| 1301.1 mfd . | 500 v . D.C. | 250v. D.C. | $2 /$ |
| 1303 . 5 | 500 | 250 | 2/6 |
| 1304 1 | 500 | 250 | /10 |
| $1305 \quad 2$ | 500 | 250 | 4/6 |
| 1307 4 ", | 500 | 250 | 71. |
| 4072/5072 . 25 | 700 | 300 | 3/- |
| 4073 . 5 " | 700 | 300 | 3/- |
| 4074 1 | 700 | 300 | 3/2 |
| 6051 . 1 " | 1505 | 500 | 3/- |
| 6052.25 " | 1500 1500 | 500 500 | $3 / 9$ $4 / 6$ |
| $\begin{array}{lll} 6053 & 5 & \\ 6054 & 1 \end{array}$ | 1500 1500 | 500 500 | 4/6 |
| $6057 \quad 4$ | 1500 | 500 | 11/6 |
| 7207 4 | 2000 | 750 | 19/6 |
| 7257 4 | 2500 | 900 | 22/- |
| $11413 \times .5$ " | 700 | 300 | $6 / 6$ |
| 6017 2x.1", | ${ }^{2000}$ " | 750 | 3/9 |
| $2101 \quad .01 \text { ( } 12000 \text { c.m.) }$ | 1000 v. A.C | 700 |  |
| 70802 x .1 " | 2000 v . D.C. | 750 | $7 / 6$ |
| 7082 2x. | 2000 | 750 | 16/ |

## 

Over 5,000 Radio Fans can't be wrong.
Levenson's have sold over 5,000 kits for Home Assembly of the Linguist 3 , whole world battery operated radio receiver. There is a real thrill in listening to the foreigners and remember you too can build this remarkable easily constructed set. Hear London, Paris, Berlin and all Japanese American and overseas stations. Turn to the Linguist 3 circuit listed within these pages. Note how simple it is to build it. Note the price is well within your reach.

##  CHANEX CONDENSERS



A BARGAIN Chanex 4 mfd .3000 volt test condensers, .. 22/6

NOW, each .. 7/6


Trix English .00025 Grid Condensers, with clips, price each

2/6
EVERY AVAILABLE MAKE OF ELECTROLYTIC CONDENSERS IN STOCK.
TO THE TRADE \& SET MANUFACTURERS On all Proprietory Lines a full Trade Discount is allowed to legitimate traders. As many of our Like a Flash and clearing lines are cut so fine we cannot extend this courtesy to them. However, there's no harm in asking. Drop us a line. Legitimate proven Traders or set manufacturers only.


## ELECTROLYTIC TYPES

[^2]T.C.C. ELECTROLYTIC CONDENSERS
 2000 mfd .
Guaranteed to eliminate all A.C. Hum from Dynamic Speakers.
For Stepidower Units 15/- each Usually 25/-

ELECTROLYTIC CONDENSERS POLYMET ELECTROLYTIC CONDENSER


Polymet 8 mfd Electrolytic Price each

## LO-MIL ELECTROLYTIC

 CONDENSERS8 mfd ., each

## SPRAGUE ELECTROLYTIC CONDENSERS

8 mfd .500 volt test condensers. Wet type, each

3/8
THE CHEAPEST AND SAFEST MANNER IN WHICH TO REMIT MONEY
Forward open cheque, crossed, and made payable to Levenson's Radio. Mark cheque distinctly "NOT OVER $£$ ?" making the amount mentioned the next highest $£$ to the approximate value $o^{f}$ goods; hence, if goods are approximately $£ 5 / 12 / 6$ value mark cheque "Not over 56 ." It saves time and ensures prompt despatch of goods.


Fixed condensers in original packages. Brand new stock guaranteed.
2 m.f.d., 500 volt test . . .. .. .. .. .. .. $2 / 8$
3 m.f.d., 500 volt test . . . . . . . . . . . . . . $3 / 8$
4 m.f.d., 500 volt test . . .. .. . . .. .. . .. 4/8
All fully tested. Special reduction, dozen lots.

## CHANEX FIXED CONDENSERS

150 VOLTS D.C. WORKING VOLTAGE
(Double tested 500 Volts D.C.)


400 VOLTS D.C. WORKING VOLTAGE (Double tested 1500 Volts D.C.)


500 VOLTS D.C. WORKING VOLTAGE
(Double tested 2000 Volts D.C.)

| 1. | mfd, each | . | .. | .. | .. | .. | .. | .. | . | $3 / 4$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| .25 mfd, each | . | . | . | . | .. | .. | . | . | $4 /-$ |  |
| .5 | mfd, each | . | $\ldots$ | . | .. | .. | .. | . | . | $4 / 9$ |
| 1 | mfd, each | . | . | . | .. | .. | .. | . | . | $5 / 2$ |
| 2 | mfd, each | . | .. | .. | .. | .. | .. | . | . | $7 / 6$ |
| 4 | mfd, each | .. | . | .. | .. | .. | .. | .. | .. | $12 /-$ |

400 VOLTS D.C. WORKING VOLTAGE (Double tested 1500 Volts D.C.)
$3 \times .5 \mathrm{mfd}$, each
$2 \times 5 \mathrm{mfd}$, each
$2 \times$. 5 mfd . each .. .. .. .. .. .. .. .. 5/-


| BUFFER Condensers <br> ( 600 Volts D.C. Working Voltage) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| .1-0-. 1 mfd , each <br> L.A.F. Padding Condenser, each |  |  |  |  | 3/9 |
|  |  |  |  |  | 1/9 |
| Simplex | " | " | " |  | 1/9 |
| Airzone |  |  |  |  | 3/ |

POLYMET FIXED CONDENSERS
.5, 1 and 2 mfd , each
SIEMENS HALSKE CONDENSERS. 1500v. test.
$.1 \mathrm{mfd} .$, each ..... $1 / 7$ ..... $1 / 7$
.25 mfd ., each ..... 1/10
.5 mfd ., each ..... 2/-
1 mfd. , each ..... $2 / 3$
2 mfd ., each ..... 3/4
4 mrd., each ..... $7 / 4$
$2 \times .1$ mfd., each ..... 2/5
$2 \times .5 \mathrm{mfd}$., each ..... 3/1
$3 \times .5 \mathrm{mfd}$., each ..... 3/10

## WETLESS TUBULAR CONDENSERS



## MICA FIXED CONDENSERS



## HYDRA CONDENSERS

BUFFER TYPE

| .1-0-1 mfd. 1000 A.C. test3 x .5 mfd .700 D.C. test . |  |  |  | 4/- |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 6/10 |
| Tested | Working |  | acity | Price |
| 650 v. D.C. | 325 v. D.C. |  | mfd. | $2 / 6$ |
| 500 v . D.C | 240 v. D.C. | . 1 | " | $2 / 2$ |
| ") | ., | . 5 | " | 2/8 |
| ", |  |  | " | $3 /-$ $4 / 9$ |
| " | " | ${ }_{4}^{2}$ | ", | $7 / 6$ |
| 500 v. A.C. " " |  |  |  |  |
| $700 \stackrel{\text { or }}{\mathrm{v}}$. D.C. | 325 v. D.C. | (1)80. 1 | mfd. |  |
|  | 325 v. D.C. | . 5 | " | 3/2 |
|  | " |  | * | 3/4 |
|  | " | ${ }_{4}^{2}$ | " | $5 / 10$ |
| 1000 v. D | 425 \%. D.C. |  | mfd. | $9 / 6$ $3 / 3$ |
|  |  | . 25 |  | 3/8 |
| " | " | . 5 |  | $4 / 8$ |
| ". | - " | 2 | ". | 4/6 |
| 1500 棠. D.C. |  | 4 |  | 11/5 |
|  | $500 \mathrm{v}$. D.C. |  | mid. | 4/9 |
|  | , | $\frac{1}{2}$ |  | 5/3 $7 / 8$ |
|  | , | 4 | , | 12/3 |

## T.C.C. TYPE "M" MICA CONDENSERS

.0001, . $00015, .0002, .00025 \mathrm{mfd}$. ..... 1/6
.0003, .0004, 0005 mfd . ..... 1/7
$.0006, .0007, .0008, .0009 \mathrm{mfd}$. ..... 1/10
$.001, .002, .003$, mfd. ..... 2/-
$.004, .005, .006 \mathrm{mfd}$. ..... 2/3 ..... 2/3
.007, .008, . 009 mfd . ..... 2/6
.01 mfd . ..... $2 / 9$
.0001 mfd . (with clips) ..... 2/-
.0002 mfd . (with clips) ..... 2/-
.00025 mfd . (with clips) ..... 2/-
T.C.C. CONDENSERS TYPE 87
600 V.A.C. Test. 300 V.A.C. Working.

## REMITTANCE BY OPEN CHEQUE

Many of our customers make remittance by open cheque-this method is very safe and more economical than any other manner of remittance. Be certain to cross out the word "bearer" and substitute the word "order." Cross cheque "not negotiable," make payable to Levenson's Radio. Do not fill in amount but underneath the $£$ sign on cheque write distinctly "Not over $£ 1, £ 2, £ 3$," as the case may be, namely the amount nearest the next highest pound of approximate value viz., if the approximate amount would be $£ 13 / 13 / 6$ insert "Not over $£ 14$."

## SPECIAL EXTRA SPECIAL!!! <br> NEW TYPE TUBULAR FIXED CONDENSERS

BEST KNOWN AND POPULAR MAKE
Because we are slashing into the fixed prices of these wanted goods we will not mention the maker's name. New tubular fixed condensers, all wanted capacilies.

All One Price
6d.
Or Assorted ... : 5/6 dozen
Or $3 / 6$ in Gross Lots Capacities:

| .1 mfd. | .004 mfd. |
| :--- | ---: |
| .008 mfd. | .005 mfd. |
| .006 mfd. | .0005 mfd. |

A TELEGRAM RECEIVES INSTANT ATTENTION.
Cash Remittances may be Telegraphed.
Miscellaneous Radio Parts


TUBULAR BACK PANEL GLOBES .. ...... 6d. PHILIPS MAKE ..... 1/6

## ELKON DRY

 RECTIFIERSPrice . . .. 25/-
Guaranteed as New.


INSULATED SCREW EYES
Price
2d. each

ELECTRIC BELLS Reliable Make
Price

```
4/6
```



SINGLE GRID LEAK CLIPS
6d., $1 /-$, and $1 / 3$ each

A few of our
Manufactured Lines

## J.J.Hoelle \& Co.

Electrical Engineers<br>47-49 ALMA STREET, DARLINGTON

SYDNEY, N.S.W.
Telephone: MA 5762

All particulars as to Prices and Discounts on Application


BED READING LAMP
Stands or Clamps Anywhere.

The only "BAKELITE" Reading Lamp Manufactured! LYMNATO or PLAIN
Available in many Colours.


Double Soldering Lugs
Ca Hole, 9/32 inch diameter
Cb Hole, $\frac{1}{2}$ inch diameter
Cc Hole, $\frac{1}{8}$ inch diameter
In Tinned Copper or Steel.

Single Soldering Lugs
Fa Hole, 5/32 inch diameter
Fb Hole, 11/64, and $\frac{1}{8} \mathrm{in}$. dia.
Fe Hole, $5 / 23$, $\frac{1}{8}$ and $3 / 16 \mathrm{in}$. diameter.
Prices on Application.

ALLIGATOR CLIPS
H. Nickel Plated.

## BATTERY CLIPS

Z. $5,10,25,50 \mathrm{Amps}$.

# PRICE <br> SIEMENS "XceL" SOLDERING IRONS 

| Cat. No. | Diam. of Bit | Weight oz. | Watts | Price |
| :---: | :---: | :---: | :---: | :---: |
| S516 | $5 / 16 \mathrm{in}$. | ${ }^{8} 8$ | 60 | 25/- |
| S038 | $s_{8} \mathrm{in}$. | 10 | 95 | 35/- |
| S048 | $\frac{1}{3} \mathrm{in}$. | 16 | 130 | 40/- |
| S068 | 3 in . | 24 | 200 | 55/- |
| S100 | 1 in . | 36 | 380 | 67/6 |
| S114 | 13 in . | 45 | 500 | 75/- |
|  | FOB | THE | OME U |  |
| R616 | 3 in . | 10 | 95 | 17/6 |
| H3438 | ${ }^{3} \&{ }^{3} \mathrm{~s}$ in. |  | 250 | $32 / 6$ |

## "XceL" H. 3438 SOLDERING IRON

(As illustrated opposite)
This is a general utility iron fitted with a 3 -inch bit, having a pencil point on one end and a chisel point on the other. This bit is locked in position by a grub screw on end of barrel.

A ${ }^{8}$-inch auxiliary bit is also supplied and can be attached to the iron by removing both the grub screw and the larger bit and putting the small bit in end of barrel. The element is arranged to accommodate either the ${ }^{\frac{3}{3}}$-inch or the ${ }^{3}$-inch bit without detriment to the iron or element.
Even for intermittent use the convenience and economy of these XceL Irons make them invaluable; for straight work they are unchallengeable in service.

## SIEMENS "SACK" TYPE CELLS

$11 / 2$-VOLT. MAXIMUM DISCHARGE 0.5 AMPS. Size " O "-Complete cell with 7oz, charging salt, each

## SPARE PARTS

Elements, each
Jars, each ..... 2/9
Charging Salt, per lb . ..... 2/-

The Siemens Sack Type Cell has, been developed to provide a source of power which can readily and easily be renewed on the spot. Country listeners particularly have always had to face the problem of A current supply for their Radio receivers. The inconvenience of sending their accumulators to a garage for periodic recharge and overhaul needs only to be mentioned to recall one of the most vexatious and annoying details appertaining to their Radio reception. Further, the employment of the standard Dry Cell as an A battery supply, whilst convenient, has proved altogether too extravagant, and the frequent complete replacement is by far too costly to be considered as a practical solution of the problem.

# LIST <br> SIEMENS-ELLIOTT MINIATURE RADIO MEASURING INSTRUMENTS 



Including Milliampmeters, Microampmeters, Voltmeters, Galvanometers.

Moving coil type for the measurement of direct current with the greatest degree of accuracy.

High-class instruments, designed and constructed on identical lines to larger patterns and having a guaranteed accuracy in accordance with British Standards servicing Specification-more reliable and accurate and lower-priced instruments now on the market.

These instruments have many applications in connection with small D.C. Switchboards, Testing Equipment, Radio Apparatus, Automobile Dashboards, Aeronautical Work.

A complete range of modern type instruments, in bakelite case, open dial, for switchboard and other mounting - in various types and sizes.

Prices and full details on application.


Each cell when first charged will give a voltage of $1 \frac{1}{2}$ volts. During use the voltage will gradually fall, but the cell can continue to be used till the voltage falls to 1 volt, after which it should be recharged.

Recharging can be continued until the Sack Element becomes exhausted or the Zinc consumed.

Since the cells can be used till the voltage of each falls to 1 volt, the number of cells necessary to make up a battery will be equal to the voltage required. For example, to make up a 6 -volt battery, 6 cells are required.
To take up the excess voltage during use, a variable resistance in series with the battery is necessary, which will be gradually cut out so that the correct voltage is always impressed on the valves. A pamphlet giving full information is available.

## PARTICULARS OF SIZE 0 TYPE

Dimensions: $5 \frac{1}{4}$ inches $\times 9$ inches; Normal Output, $0.25 \mathrm{amps} . ;$ Maximum Output, $0.5 \mathrm{amps} . ;$ Initial Voltage, 1.5 volts; Charging Salt per cell, 7 ozs.


## RADIO CABINETS

## WIRE TABLE <br> NUMBER OF TURNS PER INCH

| Size W <br> B\&S <br> Gauge | D.c.C. | S.C.C. | D.S.C. | S.s.c. |  | Enamel and | Enamel S.S.C. s.s. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 15.2 | 14.2 | 14.7 |
|  | 13.7 | 14.6 | 14.7 | 15 | 17.0 | 15.8 | 16.5 |
| 15 | 15.0 | 16.2 | 16.4 | 17.0 | 18.7 | 17.6 | 18.4 |
| 16 | 16.7 | 18.0 | 18.2 | 19.0 | 21.4 | 19.5 | 20.5 |
| 17 | 18.5 | 20.0 | 20.0 | 21.2 | 24.0 | 21.7 | 22.9 |
| 18 | 19.6 | 22.3 | 22.3 | 23.6 | 27.2 | 24.2 | 25.8 |
| 19 | 22.5 | 25.0 | 25.2 | 27.0 | 30.1 | 26.5 | 28.4 |
| 20 | 24.5 | 27.5 | 27.5 | 29.5 | 33.6 | 29.6 | 31.5 |
| 21 | 27.5 | 30.8 | 30.8 | 32.8 | 37.7 | 32.7 | 35.0 |
| 22 | 30.0 | 34.0 | 34.0 | 36.6 | 42.3 | 36.1 | 39.0 |
| 23 | 32.7 | 37.5 | 37.5 | 40.7 | 47.2 | 39.7 | 43.1 |
| 24 | 35.5 | 41.5 | 41.5 | 45.3 | 52.9 | 43.7 | 47.9 |
| 25 | 38.5 | 45.7 | 45.7 | 50.3 | 59.0 | 47.8 | 52.8 |
| 26 | 41.8 | 50.2 | 50.2 | 55.7 | 65.8 | 52.1 | 58.1 |
| 27 | 45.0 | 55.0 | 55.0 | 61.7 | 73.9 | 57.0 | 64.4 |
| 28 | 48.5 | 60.0 | 60.0 | 68.3 | 82.2 | 61.9 | 70.6 |
| 29 | 52.0 | 65.5 | 65.5 | 75.4 | 92.3 | 67.4 | 77.9 |
| 30 | 55.5 | 71.3 | 71.3 | 83.1 | 103.0 | 72.8 | 85.3 |
| 31 | 60.0 | 77.3 | 77.3 | 91.6 | 116.0 | 79.1 | 93.9 |
|  | 62.7 | 83.7 | 83.7 | 101.0 | 130.0 | 85.6 | 103.0 |
|  | 66.3 | 90.3 | 90.3 | 110.0 | 145.0 | 91.7 | 112.0 |
| 34 | 70.0 | 97.0 | 97.0 | 120.0 | 64.0 | 98. | 123.0 |

## MANTLE MODEL CABINETS

From 16/6, 18/6 21/6 to $45 /-$.
A great variety of highly polished mantle cabinets. A cabinet at any price you mention. When ordering, give dimensions and size of baffle hole. We promise absolute value for money.

Special Designs made to order.

## TABLE MODEL METAL RADIO CABINETS

Size: 17 inches x $9 \frac{1}{4}$ inches $\times 7$ inches high.. . 30/NOW ONE THIRD PRICE

6/6

## RIPPLE OLD GOLD CRYSTALLINE

FINISHED - WELL VENTILATED
Imported from U.S.A.
Thoroughly Made. Well Finished. Light and Extra Strong.
Escutcheons to suit, extra
$2 / 6$

Miniature High Grade

## RADIO CABINET

Perfectly Modern Design. Size: $12 \frac{1}{2} \times 8 \times 7$ ins. PRICE . . . . .. 21/-
For design see Levenson's Miniature 4 Valve Superhet. in Electric Set Section of this Catalogue.

BLACK LEATHERETTE SMALL PORTABLE OR TEST CASES $\qquad$ 21/-
Nickel Fittings, and fitted with Carrying Handles Size $11 \times 11 \times 6$ inches.

## PORTABLE RADIO CABINETS

Fitted with Aerial Frame $15 \times 14 \times 8 \frac{1}{4}$ INCHES Lid 3 -inches deep for Speaker. Price. $27 / 6$ and $39 / 6$
All covered with Imitation Crocodile Skin Leatherette. Heavy Nickel Fittings and Locks with Corner Protectors. Steel Carrying Handle.

WELL BUILT, STRONG, YET LIGHT
Hinged Flap Conceals Batteries, etc. Silk Portable Set Aerials, 50 ft .

2/6
PORTABLE CABINET: $15 \frac{3}{4} \times 16 \frac{3}{4} \times 7 \frac{3}{4}$ INCHES
All covered with Strong Black Leatherette.
Heavy Nickel Fittings and Locks with Corner Protectors Extra Strong Carrying Handle.

STRONG LIGHT AND DURABLE.
Hinged Flap for Speaker conceals Contents.
FITTED WITH AERIAL FRAME
Price

$$
\ldots . . .30 /- \text { and } 45 /-
$$

WOODEN CRYSTAL SET CABINETS 8/6 VERY NEAT. NICELY POLISHED. EXCEPTIONALLY WELL MADE AND FINISHED. HINGED LID.
Overall size: $13 \frac{1}{3}$ inches $x 7$ inches $x 7$ inches.
Panel size: 12 inches $\times 6$ inches.
Panel of Black Bakelite, extra ......... 3/-
Black or Brown Bakelite, per sq. inch .. $\frac{1}{2} d$.


## TABLE MODEL CABINETS

Price from
10/- to 25/-
Give approximate size and approximate price.
We guarantee good value.

## MANTLEPIECE CABINET

Highly Polished Seasoned Timber. 173 inches high $x 14 \frac{3}{4}$ inches wide $x 8$ inches depth, price
$16 / 6,25 /-$
TABLE MODEL SPEAKER OR SMALL SET CABINETS
Polished. Escutcheon hole cut. Size: 15 $\frac{1}{2}$ x $9 \times 1$ Өinches. Were $25 /$.

$$
\text { NOW . . . . . . } 5 / 6
$$

Piano Finished Extra High Grade
BEARD WATSON TABLE MODEL CABINETS Neat new design. Size: $19 \times 8 \frac{1}{1} \times 11$ inches deep. Were $38 / 6$. NOW

# DIALS OF ALL DESCRIPTIONS 

## ALPHA 4-INCH <br> VERNIER DIAL

Vernier Dial in the real sense of the word. Never before a dial like this brown, polished bakelite with stippled aluminium engraved face plate. Very smart appearance hairline framed pointer-has Dual-action, each .. 6/6


DIORA Dial Knob As illustrated. Numbered 0 to 10 .

Looks like Vernier Dial but is direct drive. Two inches in diameter. Each 2/6

## EFCO DIALS

Ship Senior. Now ..... 9/6
Gothic. Now ..... 9/6
Junior Organ. Now ..... 7/3
Junior Floral. Now ..... 6/6
Cameo. Now ..... 6/6
Lyric Drum. Now ..... 8/9
Avon. Now ..... 8/9
Beam. Now ..... 6/6
Lion Beam. Now ..... 6/6
Clarion Drum. Now ..... 8/9
Visual Tuning Meter. Now ..... 9/9
New Efco Lion. Now ..... $5 / 3$


Radiokes Full Vision Dials Cogged drive. Beautiful in appearance. Includes two illuminated lamps and knob. Price, 22/6. NOW, each

IT'S A BEAUTY
M.K.b. VERNIER DIALS Type B.
Made of Black Bakelite. Kurz-Kash Pattern.
33 inches is the Overall Size.


LIKE A FLASH MKB Black Bakelite VERNIER DIALS $3 \ddagger$ inch Neat appearance Non-slip action
$4 / 6$
EACH

DIAL ILLUMINATOR With Lamp .. .. $2 / 6$ | 4 and 2 volt lamps | 6 d. |
| :--- | :--- |
| 6 volt lamps . ... | 6 d. |
| Philips .. .. .. | $1 / 6$ |

LEVENSON'S 24 -HOUR MADE TO ORDER
(your own specifications) -
Power Transformers. Power Chokes.
Input Transformers. Midget Power Transformers.
Speaker Field Coils. Audio Transformers, etc.

AT ROCK BOTTOM PRICES

## EMKABE TYPE IV.a

Black Bakelite Vernier Dial, 3 $3 \frac{1}{2}$ inches
diameter. PRICE


## RADIO IN THE SCHOOLROOM

Mr. Headmaster-if you are interested in securing the finest Radio money can buy we can supply it for your school. Write for Special Circular


Ormond Midget Back Panel Dials, overall size $4 \frac{1}{2}$ inches. 0 to 180. Illuminated. As illustrated. 7/6. NOW . . . . . $5 / 9$

RADIOKES STRAIGHT VISION DIALS


Were 22/6. NOW . . . . . 8/-
Better price in quantity lots.


Racophone Drum Dial, with escutcheons .. 15/Racophone Full Vision Dial, with escutcheons, minus lamp and knob
Price complete
Emmeo Vernier Dials, removed from traded in sets. Reconditioned as new
Replacement Dials to suit all receivers in stock, including-

$$
\begin{aligned}
& \text { Pilot Kilograd } \\
& \text { Pilot Art Dial } \\
& \text { Traded in. New Condition. }
\end{aligned}
$$



## SPECIAL!

PILOT SINGLE DRUM DIALS

Neat, Brass Escutcheons. Vernier and direct drive. Clearly numbered. Suitable for all condensers. List Price .. 32/6 NOW, each . 6/9 Or 60/- Dozen

## SPECIAL

## PREFERRED VERNIER DIALS

A. Special Line Greatly Reduced to Clear BAKELITE DIALS-usually $5 / 6$. Now . $3 / 6$ METAL DIALS—usually $5 / 6$. Now ...... $2 / 3$


## DRUM DIALS

Very suitable for short wave usage. Celluloid scale registers $0-100$. Fits standard shaft. 100 to 1 ratio. Very neat Bakelite escutcheons …15/Extremely Slow. Designed for Short Wave.

Emmeo Metal Dial Illuminators, Now .. $2 / 6$

## MICA DIAPHRAGMS

##  <br> $2 \frac{1}{2}$ in., 3 inch <br> 1/-

Metal Torch Globe Holders

We do the Radio trade right throughout the Southern Seas.
RESIDENTS OF CENTRAL AUSTRALIA THE FAR NORTH - COUNTRY AND OUT OF TOWN FOLK - RESIDENTS IN THE SOUTHERN SEAS.
You too, will shop at Levenson's Radio Store.
We know our magnetic low prices will induce you to partake of the Million RADIO BARGAINS offered.

Order by Mail, Cable or Telegram


## 

 RADIO CABINETS-(Continued)Cabinets quoted in this list are in limited quantities. However, we are always in the position to supply them at the same prices and approximate sizes.

## POLISHED SPEAKER OR MIDGET SET CABINETS

Length: $17 \frac{1}{4}$ inches; Height 7 inches; Depth, $11 \frac{1}{4}$ inches. PRICE 6/6 With Cut Fret backed with Brocaded Cloth. PRICE 9/6 Any size Fret cut to order.


## "بHCOn DTATE ANNOUNCES THESE NEW SERIES OF DIALS WITH STANDARDISED MOVEMENT AND A CHOICE OF ESCUTCHEON DESIGNS

The travelling Light feature throws a beam of light on to the dial, so giving a quick vision of the tuning location. All EFCO dials are made by experienced workmen in a thoroughly organised factory of long standing. All Sizes of Spindles provided for. Clockwise and Anti-Clockwise Scales. Escutcheons finished in Florentine Bronze.


Send 2d. stamp for full list of EFCO DIALS.

## LEVENSON'S

Leaders in
RADIO
226 Pitt St., Sydney
Send 2d. Stamp to Levenson's for the attractive

EFCO DIAL BOOKLET


JUNIOR ORGAN
Usually .. ....... $11 / 6$
Levenson's Price .. .. 7/3 Levenson's Price ..... 6/6

## 

 LEVENSON'S RADIO WILL NOT BE UNDERSOLD
## 



WE invite enquiries from manufacturers
We will quote on special quantities and exclusive designs, as we are concentrating on this class of manufacture.

Full vision, fixed light, sloping vision, no stooping to read. Usually .. $12 / 3$ Levenson's Price .. .8/9


## LEVENSON'S

Leaders in RADIO

## 226 Pitt St., Sydney

 Send 2d. stamp for full list of EFCO DIALS

Send 2d. Stamp to Levenson's for the Attractive EFCO DIAL BOOKLET


THE LYRIC Usually .. .. .. . . .. 13/6 Levenson's Price .. .. 8/9
Escutcheons finished in Bronze. Size, $41 / 2$ inches $\times 21 / 4$ inches. Suitable for Short or Long wave reception in the one cabinet. Panel showing Lyre Bird can be removed and individual customer's design inserted, also name placed above panel. Available in clockwise or anticlockwise movements. Scale in Tan or Opaque White.


LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO


## BAKELITE VERNIER DIAL

Millions of these dials have been sold-it has proven to be one of the most popular! Offers micrometic tuning- ideal for all test equipment, short wave and super-hetrodyne receivers. Accommodates $\frac{1}{4}$ inch diameter condenser shafts. Overall diameter: 3 inches. The friction drive is guaranteed not to slip, even under hard usage! Splendid Value! Each 3/6 Vernier Dials, all Types, $2 / 6$. . . . . . . $3 / 6$


METAL DIALS
$2 \frac{3}{4}$ inches wide .. $2 /-$ Bronze or antique silver finish.
Escutcheons for Drum Dials, various kinds, 2/6 each.
Genuine S.T.C. Vernier Dials with escut-
cheons as above .. ............. $4 / 6$
Plain Bakelite Black Dials, 2 inch, 3 inch, and 4 inch
Alpha Vernier, 4-inch Bakelite-a beautiful dial

6/6

## BOBBIN DISCS MOULDED COIL FORMER

Bobbin Dises can be made up to provide for a wide variety of coil devices (so necessary in Radio Trade). Two discs make up a bobbin, and other devices can be built up such as H.F. Choke formers, I.T. formers, etc. Each dise is slotted to permit of the start and finish of winding wire being brought to their respective terminals, and the spigot fitting in each disc prevents the dises from turning. Particularly adaptable for high impedance primary windings, etc. The discs fit neatly into the MCF7, $1 \frac{1}{2}$-inch former.
MCB1-3d. per pair; $2 / 6$ dozen .. 29/6 gross


## LECLANCHE CELLS CELLS FOR "B" BATTERIES

Size HT.1-Complete Cells with Charging Salt, dozen
HT. 2 -Complete Cells with Charging Salt, dozen

" HT.3-Complete Cells with Charging
Salt, dozen

## SPARE PARTS

HT. 1 HT. 2 HT. 3

| Elements $\ldots$ | .. | .. | .. | .. | doz. | $3 / 6$ | $6 / 9$ | $9 /-$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| Zinc | . | .. | .. | .. | .. | .. | doz. | $1 / 3$ | $2 / 6$ | $3 / 3$ |
| Jars | .. | . | . | . | . | doz. | $4 / 3$ | $8 / 9$ | $11 / 9$ |  |

## D UFFY

The first organsation in Australia to specialise in Short-Wave Radio Sets and Components.

## DUFFY 8-VALVE ALL-WAVER

Receives overseas as well as local stations. Truly to-morrow's radio and the most wonderful value ever offered. Perfect tone, effectively selective on both broadcast and short wave, remarkably easy tuning, distant stations without static, magnificent cabinet, highest quality components obtainable.

CASH PRICE £37/10/-
(Complete)

Please mention this Catalog when ordering goods.

## STOP PRESS SPECIAL!

Handy ELECTRIC SOLDER IRONS, 240
volt. Wiorth $25 /-$ NOW, each.
9/6
R.C.S. ALL WAVE KIT ..... 55/-Uses R.C.S. Intermediates and Padder.
7/10
Intermediates ..... 3/1i
Coils, switch and lead are shielded and alreadyconnected for shortest length permitting easyhook-up. Employs latest Marquis Switch.

## MULTI CHANGE WAVE TYPE SWITCHES

For use in All Wave Super Het. features by "Wireless Weekly." PRICE
Ideal for all Wave Change Coils.
CHARGING SWITCH. Now ..... 10/-Usually $25 /-\quad$ Automatically switches set on
when charger turned off, and charger on when set is switched off.
Small Terminal Lugs- ..... Doz.
Brass or Copper
Brass or Copper ..... 5d.
Tinned Steel ..... 4d.
Spike Terminal Lugs- Copper ..... 8d.
Tinned Steel ..... 5d.
Small Spade Lugs-
Brass, Nickel Plated, or Copper ..... 3d.
Tinned Steel ..... 5 d .
Tooth Terminal Lugs-
Brass or Copper ..... 8d.
Tinned Steel
Tinned Steel ..... 5d. ..... 5d.

# Radiokes Products 

## LESS 4/- IN THE $£$ OFF LIST PRICE

## INTER-FREQUENCY TRANSFORMERS -LESS $20 \%$

Radiokes Inter-Frequency Transformer 175 K.C. (type 5-10) …......... $10 / 6$ $\begin{array}{llll}\text { Radiokes Inter-Frequency Transformer } \\ 465 \mathrm{~K} . \mathrm{C} \text {. (type } 5-11 \text { ) } & \text {. } & \text {. } & \text {. }\end{array}$

PADDING CONDENSERS-LESS $20 \%$
Radiokes Padding Condenser (type 6-38) 465 K.C.
Radiokes Padding Condenser (with Extra
Condenser)
(type $6-39$ )
175
K.C. ..

## RADIOKES COILS-LESS $20 \%$

Radiokes Aerial Coil
Radiokes R.F. Coil .. .. .. .. ... .. .. $6 / 9$
Radiokes R.F. Coil with Re-action .. ... .. 8/6


## DIALS-LESS 20\%

Radiokes "Pan" Dial (type 7-6) suitable only for $\frac{1}{4}$-in. condenser shaft. Escutcheon $5_{\frac{1}{3}}^{3} \mathrm{in}$. $\mathrm{x}{ }^{\frac{1}{2}} \mathrm{i}$ in. high
Radiokes "Roman" Dial (type 7-7) complete with reducing bush to suit ${ }^{\frac{1}{2}-\mathrm{in}}$. or ${ }^{3}-\mathrm{in}$. condenser shaft. Escutcheon 3 3-in. wide by $2{ }^{3}-\mathrm{in}$. high .. . .. ..
Radiokes "Excel" Universal Dial (type 7-8) complete with reducing bush as for "Roman" Dial. Escutcheon 413 in. wide by 4 in , high

7/6
CHOKES-LESS $20 \%$
Radiokes Radio Frequency Chokes

## RADIOKES MIDGET VARIABLE CONDENSERS-LESS $20 \%$

| Type | No. of <br> No. | Plates | Approx. Max. <br> Capacity |
| :---: | :---: | :---: | :---: |
| $6-21$ | 3 | 100 | Price |
| Les Knob |  |  |  |

[^3]
## POWER CHOKES

Power Choke (Type 2-5) shielded

## RADIOKES POWER TRANSFORMERS -LESS 20\%

Type: $1-12$; Specification: $375 / 375 \mathrm{v} .100$ M.A.; 5v. 2 A.M.P.; 2.5v, 10 A.M.Y. C.T.; 2.5v. 2 A.M.P.C.T.

Type: 1-20; Specification: $375 / 375 \mathrm{v} .60$
M.A.; 5 v .2 A.M.P.C.T.; 2.5v. 8
A.M.P.C.T.

19/6
Type: 1-21; Specification 75 M.A.; 5v. 2
A.M.P.; 2.5 v .2 A.M.P.C.T.; 2.5v. 8
A.M.P.C.T.

21/-
Type: 1 -23; Specification: $385 / 385 \mathrm{v} .7$
M.A.; 4v. 2 A.M.P.; 4v. 8 A.M.P.C.T. 21/-
Type: 1-26; Specification $375 / 376 \mathrm{v} .75$ M.A.; 5v. 2 A.M.P.; 2.5v. A.M.P.C.T.; 2.5 v . 8 A.M.P.C.T.

21/-
Type: 1-28; Specification $400.375 / 375 / 400 \mathrm{v}$. 120 M.A.; 5v. 2 A.M.P.; 2.5v. 8 A.M.P.; 2.5 v .4 A.M.P.C.T.; 4 v .4 A.M.P.
$37 / 6$
Type: 1-30; Specification: $400 / 400 \mathrm{v} .120$ M.A.; 5v. 2 A.M.P.; 2.5v. 10 A.M.P. C.T.; 2.5v. 4 A.M.P.C.T.

37/6
Type: 1-31; Specification: $385 / 385 \mathrm{v} .120$ M.A., 2 A.M.P.; 2.5v. 4 A.M.P.C.T.; 2.5 v . 4 A.M.P.C.T.
$32 / 6$
$\begin{array}{ccccc}\text { Audio Transformer (type 3-14) Ratio } 5 \text { to } \\ \text { 1—shielded .. .. ............. } & 18 / 6\end{array}$
Audio Transformer (type 3-6) "A" Class Amplifier, Ratio 3 to 1-shielded .. 14/-
Audio Transformer (type
Push-pull ...
.
Audio Choke (type 3-8) "B" Class Out-
put,, shielded... 14/-
Input Transformer (type 3-9) "A" Class
Audio Coupling Choke (Type 3-10) for "A" Class Amplifier with 1 screengrid Detector, 230 henries .......
Audio Transformer (type 3-11) Double Push-pullRADIOKES VOLTAGE DIVIDERS-LESS $20 \%$Voltage Divider (type 4-24) 15,000 ohms $3 / 9$
Voltage Divider (type $4-25$ ) 25,000 ohms $\quad 4 / 9$

## THE "LITTLE DUKE"

## 2-VALVE BATTERY SET FOR REAL RADIO RECEPTION

Assemble the "Little Duke"-All Parts cost 38/7 Assembly is simple - chassis is already drilled with terminals and sockets all mounted. All parts fit in like a hand into a glove. Results are startling-loud, clear, and splendid tone-due to new type valves and modern design.
Tuning is simple, just turn the dial. Selective as any set can be. Send $1 /-$ for Blue Print.
Bells for D.C. (Iron Box) ${ }^{3}$ in in. gongs ..... 4/-
Bells for A.C. (Iron Box) $2_{4}^{3}$ in. gongs ..... 4/9
Burglar Alarm Contacts for Doors orWindows1/9
Induction Coils ..... 4/6
Jacks, as used in Telephone Switch Boards ..... 3/-
Plugs-2- and 3-way as used in TelephoneSwitch Boards5/-
THREE-PINT ELECTRIC JUGS



PORCELAIN

# "SWITCHON" ELECTRIC HOUSEHOLD IRONS 

 6 lb . Weight. Nickel Plated. Mica Element. Heats Quickly.

> 12 Months' Guarantee.

Complete with 6 feet of flex 18/6

## "SWITCHON" UTILITY ELECTRIC LAMP

With Clamp or for Hanging.
In Gold, Blue, Jade, Pink, Orange, or Shot Rose.
Embossed Base and Reflector

## DO YOU WANT BARGAINS

Radio Cheapside our Trade-in Store is famous for their "Next to Nothing" prices for everything in Radio. Pay them a visit.
240A PITT STREET, SYDNEY Opposite School of Arts

GOOD-BYE NOISE. HERE IT IS
THE "NOISE ELIMINATOR"


KIT
12/9
READ Y
BUILT .. $17 / 6$
For use with all Electric Sets or Sets using "B" Battery Eliminators.
Complete Kit of Parts, including Cabinet $12 / 9$
Ready Assembled
17/6
Send 1/- for Blue Print Diagram.
Attachment is simple, between power point and power lead of set.

## LAY BYES

You will readily realise in studying this Catalogue that many of the bargains will not last, and that stocks of certain lines will become depleted. Therefore we operate a LAY BYE SYSTEM, whereby you may secure any line by the payment of a small deposit. $10 \%$ of the price will do.

This Catalogue would need to be twice as big to list all our lines. Your enquiry is invited for ANYTHING IN RADIO.

JUST RELEASED
THAT STATION YOU CAN ONLY JUST HEAR Bring him in loud and clear and strong with-

## LEVENSON'S "STATION MULTIPLIER"

$$
\begin{aligned}
& \text { Here we have a combination Aerial Tuner, } \\
& \text { Pre-selector, and Wave Trap. Do not confuse } \\
& \text { with ordinary wave trap. Will add many } \\
& \text { stations to your log card. Makes interstate } \\
& \text { reception possible. } \\
& \text { Simple connection-your aerial connects to } \\
& \text { a terminal on the Multiplier, and two wires from } \\
& \text { the Multiplier connect to the aerial and earth } \\
& \text { terminals of set. } \\
& \text { Ready Built ......................... } \mathbf{2 0 / -} \\
& \text { All Parts and Assembly Instructions .. } \mathbf{1 7 / 6} \\
& \text { Send 6d. for Circuit. }
\end{aligned}
$$

"A" BATTERY ACCUMULATOR. "A" Battery is a term used to denote a low tension battery or a battery to supply the heat for the valve filaments.
ALTERNATING CURRENT. An electric current which instead of flowing steadily in one direction continually reverses its direction.
AMPERE. A unit measuring the quantity of electricity. The Ampere Ohm capacity of an accumulator is the amount of electricity that it will store.

## RECONDITIONED "B" BATTERY ELIMINATORS

## ALWAYS ON HAND IN OUR TRADE-IN

 DEPARTMENT
## PRICES RANGE FROM .. ... 25/-

All include new valve and are in First Class Order We Welcome Inquiries

## A REAL INSIGHT TO RADIO FOR THE EXPERIMENTER <br> $\qquad$ 6 for 3/-

Six English Radio Publications, by Cassells and other well known publishers, by Leading Authors. Sold up to $3 / 6$ each. Some older editions, but still presenting all the knowledge of Radio Broadcasting and Reception.

```
THE BUNDLE OF SIX
3/-
```


## To owners of <br> "372" PHILIPS ELIMINATORS

We can supply a device to attach to your Eliminator and so provide you with an extra voltage tapping, made by Philips. Price, each .. 5/-

## RESIN CORE SOLDER

A very fine quality solder, made of pure Tin and Lead, in the approved manner. Wound on a generous size spool. ....................... 6d. Or per lb. .. .. .. .. .. .. .. .. .. .. 3/9

## PHILIPS ELECTRIC CLOCKS

Movement available in either black or mahogany Philite Bakelite Case. Complete with Plug and Flex. Guaranteed for 12 months.

> PRICE .. .. .. £3

The movement which has a 5 -inch Diameter dial draws less than 2 watts from the mains.

## MAZDA AUTO BULBS

3 C.P., Gasfilled. Voltage: 6-8, 12-16, each 1/6 C.P., Gasfilled. Voltage: 6-8, each ..... 1/$15,21,32$ C.P., Gasfilled. Voltage: 6-8, 12-16, each $1 / 6$
DOUBLE FILAMENT
$32 / 21$ C.P., Gasfilled. Voltage: 6-8, each 2/$21 / 21$ C.P., Gasfilled. Voltage: 6-8, each 2/$21 / 2$ C.P., Gasfilled. Voltage: 6-8, each . 1/9

OSRAM ELECTRIC LIGHT LAMPS
TO CLEAR
65 volts, 40 watts. Bayonet Cap, each .. 1/32 volts, 15 watts. Bayonet Cap, each .. 1/-

REPLACEMENTS FOR EVERY MAKE OF RADIO
NEW OR OLD SERIES AT THE LOWEST POSSIBLE PRICES.



## ELECTRICAL FITTINGS

Adaptors, Wood 6 d.
Bakelite . 9d. Twin Adaptors
2 Pin Plugs,
$1 / 1$ and
2 Pin Soc-
kets, $1 / 3$ and
Switches Wall ... Lamp Holders ...... 9d.
Metal Lamp
Socke ts , each ... 1/-
Electric Irons, for household use ...... 30/-
Insulationg tape coil
$6 d$.
Wall Toggle Switch for house lighting 1/-
All Bakelite type snap switch ..
Power Point Sockets .
Two point Power Plugs, wooden.
Two point Power Plugs, bakelite

1/-
Light Sockets, cord mount . . . . . .. .. 9d.
Electric Solder Irons, 15/-, 17/6 and .. .. 27/6
Light Sockets, ceiling or wall mount .. 1/-
3 -Point Power Pluugs, 9d. and . . . .. .. 1/-
Light Sockets, cord mount, completely
shrouded in bakelite .. ....... $3 / 6$
Twin Lighting Flex, yard, 3d., 4d. and .. 6d.
Standard 60 candle power electric light
lamps, each .. .. .. .......... $1 / 6$
Small Nickel Switches .. .. .. .. .. .. 1/6
Wall Switches .. .. .. . . .. .. .. .. .. $1 / 6$
Double Adaptor, $2 / 9$ and .. .. .. .. .. .. $3 / 6$
2 pin Wall Plugs, $1 /$ - and .. .. .. .. .. $1 / 3$
Sockets for same, $1 /-$ and .. .. .. .. .. 1/3
Electric Iron Plugs .. .. .. .. .. .. .. 1/6
Electric Lamp Holders, 9d. and .. .. .. 1/-
Electric Clocks, which operate from electric light socket. Attractively cased. 40/- and

ELECTRIC BED READING LAMPS<br>Complete with 6 ft . flexible cord. Stands or clamps anywhere.

PRICE<br>$13 / 6 \mathrm{EACH}$

## ELECTRIC ELEMENTS



Levenson's supply Electric Elements for all Purposes and Repair all kinds of Household Electrical Articles!

## UNIVERSAL FLATIRON ELEMENTS

Elements for Electric Jugs (spiral) .. .. $1 / 3$
Elements for Radiaotrs (spiral) .. .. $1 / 9$
Machine-wound Elements are the best
Iron Elements, fit all types .. . . . . . . . 3/-
Kettle Elements, 2, 3, 4 pint, per set ..... 7/-
Toaster Elements, all kinds .. .. .. .. .. 6/6
Bath Heater Spirals, set .. .. ... .. .. 2/-
Jug Bobbins .. .. .. .. .. .. .. .. .. $1 / 3$


Connects to light socket. The quickest and most economical manner in which to boil water. when immersed in water, it boils almost immediately.


Super Type (as illustrated)
7/6
Spiral Type of Immersion Heaters
5/6

## BEAUTIFUL TABLE LAMPS

## A Most Distinctive Gift

With hand painted silk shades. Porcelain Handsome figures in beautiful colours form stem of lamp holder. Most attractive and colourful-19/6 and .. IDEAL GIFTS.

25/-

## Gramophone-Radio Pick-ups and Accessories

## PAILLARD JUNIOR INDUCTION ALL ELECTRIC GRAMOPHONE MOTOR

Complete with all fittings and including turntable. $3 \frac{1}{2}$ lbs. weight. Dimensions: $4 \frac{1}{2} \mathrm{in}$. x 3 3ins. $x{ }_{2}^{21}$ ins.

$$
\text { PRICE .. .. .. } £ 6 / 15 /-
$$

De Jur Gramo-Radio Pick Up Arm, with Base, $10 / 6$. NOW
Amplion Gramophone Horn Unit, with adaptor. Converts your gramophone speaker box into a Loud Speaker by attaching Horn Unit to existing tone arm. $38 / 6$. NOW

20/-
Racophone Pick Up Jacks, with Shorting Link
Like a Flash 2 -pin Jack Mounting for Gramophone Pick Up. Mounts on Panel or Base. Moulded Bakelite, marked "Gramo." Master's Voice Gramophone Needles, per tin

High Grade Gramophone Tone Arm, with Speaker Sound Box, 25/-. A few only to clear. Now
แा.! BLUE SPOT GRAMOPHONE PICK-UP MODEL 88
GENUINE. Fitted with Volume Control. List Price, $90 /-$
LEVENSON'S PRICE
 GRAMOPHONE PICK-UPS
Amplion, W/volume control .. ..... \&3 0 a B.T.H. De Luxe, W/volume control .. 4776
B.T.H. Minor,

W/volume
control $\ldots 217$
(as illustrated)
Paillard .. $3 \quad 5 \quad 0$


Webster, W/volume control
4150
Whiting
220


Paillard Pick-up with Volume Control $£ 3 \quad 5 \quad 0$ Paillard Type N.T. Pick-up is attractively finished in Florentine Bronze, but other finishes can be supplied to order in quantities.
 Something New and Wanted. . Levenson's introduce a-
"B" BATTERY ELIMINATOR
which operates from a 6 -volt Accumulator
Buy this splendid simple unit in Kit Form or Ready-Built for Operation.
ALL PARTS FOR HOME ASSEMBLY .. 78/4 or READY BUILT in Neat Metal Cabinet 90/Chart Price .. .. 1/-; Free with Kit

List of Parts required to build this Sterling Modern Simple Unti

|  | 5-amp. Fuse and Clip . Small Rubber Grummets |  |
| :---: | :---: | :---: |
|  |  |  |
|  | Transformer: Prim. 6v. 2 amps ; Sec. 240 v .50 ma . "Like a Flash" 30 h. 50 ma . choke |  |
|  |  |  |
| Solar Twin 8 mfd. elec. condenser . . . .. .. . |  |  |
| 25 mfd . electrolytic condenser .. .. .. .. .. .. |  |  |
|  |  |  |
|  | "Like a Flash" Vibrator complete with rubbers, etc., in sound-proof screen can. |  |
|  |  |  |
| 4 X Plugs and Sockets |  |  |
| Bakelite Panel, 5 inches by 4 inches |  |  |
|  | .1 Chanex Fixed Condensers .. .. .. .. .. .. |  |
|  | Beldas 100,000 ohm 1-watt resistor .. .. .. |  |
|  | Beldas 25,000 ohm 2-watt resistor . . .. .. .. .. |  |
| Beldas 10,000 ohm 2-watt resistor |  |  |
| 1.01 Simplex Resistor . <br> 1 yard Twin Shielded Cable |  |  |
|  |  |  |  |  |
| yards 23/36 Flex .. .. .. .. .. .. .. .. .. .. |  |  |
| 2 Battery Clips, large nickel type .. .. .. .. .. |  |  |
|  | National Union NU 1 Rectifier valve ... $\quad$. |  |
|  | Packet Screws, including 1 doz. $1 / 2 \times 1 / 8$ inch brass screws and nuts, $61 \times 1 / 8$ inch brass screws and nuts, and condenser clamp |  |
|  |  |  |

1 Transformer: Prim. 6v. 2 amps; Sec. 240 v .50 ma . 69
"Like a Flash" 30 h .50 ma . choke
Solar Twin 8 mfd . elec. condenser
125 mfd . electrolytic condenser
UX Valve Sockets
Like a Flash Vibrator complete with rubbers, n can

2
1 Bakelite Panel, 5 inches by 4 inches
2.1 Chanex Fixed Condensers .. .. ..

1 Beldas 25,000 ohm 2-watt resistor
1 Beldas 10,000 ohm 2-watt resistor
. 01 Simplex Resistor
yard Twin Shielded Cable
yards $23 / 36$ Flex
Battery Clips, large nickel type
... .. .
1 National Union NU 1 Rectifier valve $\ldots$. $\because$ brass screws and nuts, $61 \times 1 / 8$ inch brass
$£ 318 \quad 4$
Price Ready-Built, enclosed in Metal Con-
tainer, ready for operation
90/-


## HAND WIND GRAMOPHONE MOTORS

Includes all fittings with turntable, speed regulatorlator, etc. Double sprung sturdy motors. Price Complete

25/- and 30/Reliable Makers. All samples.


## TRU-TONE! LONG-LIFE PHONOGRAPH NEEDLE

PLAYS MORE THAN 500 RECORDS! Composed of Osmium-Iridium, two mighty precipitous and extraordinarily hard
 metals. Scientifically shaped, and micro-metrically polished to perfectly fit record grooves. Prolongs record life - each needle gives astonishing performance, throughout its rendition of 2,000 records! Costs more - Yes - But Worth More! Price, each 6 d .

## GENERAL ELECTRIC MAINS OPERATED GRAMO MOTOR

The Best Electric Gramophone, Motor made, "G.E.", complete with turntable.

Were $88 / 10 /-$.
NOW .. 50/-. .
Operates from A.C. Guaranteed. Automatic stop, 7/6 extra.

## GRAMOPHONE TONE ARMS

Suitable for Pick-up Heads All Shapes.

Volume Controls to suit all Pick-ups in stock, see Potentiometer and Volume Control Sections.
A vast Assortment of Tone Arms-Swan Neck, "S" shape, etc., to fit all reproducers, each $2 / 6$ Also smaller sizes, $1 /-$ and 1/6 8 and 10 in . Tone Arms .. $. . . \quad . . \quad . . \quad . . \quad 2 /-$


## FIBRE NEEDLES

Packet of best Fibre Needles. Adds beauty of tone to records richer and fuller. Also preserves records as wear is practically negligible.
Price per packet of 50 .. 6d. List Price . 2/-
Excellent for Radio-Gramophone Combinations!

## AUTOMATIC GRAMOPHONE <br> MOTOR CUT-OUT .. .. 6/6



This simple yet clever device is so arranged as to automatically cut out the electrical supply driving the gramophone motor immediately the record has sounded its final note.
Takes just a moment to screw into position alongside the turntable of any gramophone.

## 100 Lincoln Noiseless Gramo. Needles,  <br> His Master's Voice Gramo. Needles, box $1 / 6$ <br> TO RADIO SET MANUFACTURERS AND DESIGNERS

Let us quote you a most attractive price for your Coil and Valve Cans or Shields in quantity lots. A QUOTATION WITH PLEASURE FOR THE ASKING!

Get this BARGAIN PACKET for your Gramophone. One-third Cost Price... includes
1 Clip Lock
1 Tone Arm Rest
THE LOT
1 Tone Arm Bracket
1 Needle Rest
FOR . 9d.

GRAMOPHONE REPRODUCERS


MANY TYPES
We select for Country Folk.

REDUCED
TO $2 / 6$
EACH

GRAMOPHONE PICK-UP DE LUXE JUST LANDED!
Because of the low price we are obliged not to mention the maker's name but the article is a beautiful piece of workmanship and is fitted with a volume control. If you are not satisfied with its performance we will exchange for any other make available or allow you a full credit for the purchase price.
List Price, nearly $£ 3$. OUR PRICE . . . . 45/-

## GRAMOPHONE ACCESSORLES AT NEXT TO NOTHING PRICES

Extra special, gold and nickel H.M.V. type Gramophone .Speaker, usually 22/6. NOW
Packet of Handy Hardware for Gramophones
Swiss Tone Arm as used in first class machines, will fit any Pick-up or Gramophone speaker. High nickel finish. Usually $9 / 6$. NOW
Heavy Duty Tone Arm; this type is used on machines requiring a tone arm for heavy work. Size from tip to base, 9 inches

Adpators for Gramophone Speaker to make them fit any tone arm, each .
Swiss Tone Arm-Swan Neck. This tone arm ensures perfect tracking on any Pick-up or Gramophone speaker for 12 inch or 10 inch records, usually 12/6. NOW
Portable Tone Arms, fits any Portable Gramophone, size 6 in. and $5 \frac{1}{2}$ in., standard fitting. Usually $5 /$-. NOW .
H.M.V. Type Gramophone Speaker, with metal front shield with best Ruby Mica diaphragm, usually 15/-. NOW
Standard Gramophone Speaker with three tone adjustments Loud, Medium, and Soft, usually $12 / 6$. NOW
The Salonola Gramophone Speaker, polished case, made in England. Usually $10 / 6$. NOW

3/6
No. 55 German Nickel Gramophone Reproducer

## BAIRDS TELEVISION KIT

Just Arrived. Complete. Cost $£ 25$ to land.

> Now . . . £15/15/-

## TRADED-IN GRAMOPHONE PICK-UPS

Reconditioned and perfect. A selection always on hand. Complete: 25/- and .. .. .. 27/6

WE WILL BUY FOR CASH OR ALLOW YOU A LIBERAL MARGIN AS CASH ON YOUR PURCHASE FOR YOUR UNWANTED RADIO MATERIAL


BRASS ROUND HEAD SCREWS


HEXAGON BRASS PRESSED NUTS

| $\frac{1}{\frac{1}{8}}$ inch .$3 / 16$ inch . . ... ..a |
| :---: |
|  |  |

RUBBER GROMMETS
都 inch, each .. .. .. .. $1 \frac{1}{2} d$.
inch, each .. .. .. .. 2 d.

For crating Accumulators for Transit we are forced to make a charge of $2 / 6$ which covers the cost of specially made Crates and Packing.

## DUFFY TRANSPOSER

All Electric Model. In Wooden Polished Cabinets. Complete with all valves PRICE .. .. . . $£ 21 / 10 /-$


Made in England.
13002 Carolina Sweetheart
Normandy
13004 Bam Bam Bamy Shore
Ukelele Abe
Annie Laurie
Auld Robin Gray

## Vox

 Humana and Grand Pree RecordsVox Humana Records<br>10 INCH DOUBLE SIDED.

13032 Always
Poem
13033 Sunny Havana Waltz
Waritone
When the Bloom is on the Heather ..... Baritone13036Valse Eric
Waltz Llewellyn
13037 Miss My Swiss ..... Fox Trot, Vocal ChorusWhy do Tall Girls Like Short Men?
13039 The Two of Us ..... Fox Trot
13041 Yearning ..... Fox Trot
ream of a Castle in the Air ..... Fox Trot ..... Fox Trot
13042 April Blossom
13042 April Blossom
3 Dinah Fox Trot
Quartette
13043 In the Gloaming ..... Brass Quartette
Brass Quartette
AND APPROXIMATELY 150 ASSORTED
Grand Pree Records
10 INCH DOUBLE SIDED.Saxaphone SoloSaxaphone SoloFox Trot, Vocal ChorusWaltz
Made in England.
KatinkaKiss Me, Curse You, Kiss Me ... Fox Trot, Vocal Chorus
Fox Trot, Vocal Chorus13045 I'm Lonely Without You .Fox Trot, Vocal Chorus
$\qquad$ Fox Trot, Vocal Chorus Fox Trot, Vocal Chorus
13048 Unless
Soprano
13050 An Old Garden $\begin{gathered}\text { Anyone Can Smile ................................................................... Trot }\end{gathered}$
Summer Rain Brings the Roses Again ...... Fox Trot
13051 Hoodle Du Doo ............... Fox Trot, Vocal ChorusThe Pump Song .............. Fox Trot, Vocal Chorus13052 The Owl and the Pussy Cat ............. Male Quartette
Honey, I Want You Now Male Quartette
13053 On the RivieraFox Trot, Vocal Chorus
a13054 That Night in Araby ......... Fox Trot, Vocal ChorusFox Trot, Vocal Chorus
13056 At Peace with the World
13056 At Peace with the World At Peace with the World ..... Baritone
To-morrow ..... Baritone
13058 Let Me Call You Sweetheart ........... BaritoneCharleston, CharlestonFox Trot, Vocal Chorus
Shake a Little Shoulder ..... r.........13061
I Know, I Know, I Know .....To-night's My Night with Baby,
Who'd be Blue? ..............
13063 What! No Spinach?Who Taught That?............ether?Fox Trot, Vocal ChorusFox Trot, Vocal ChorusFox Trot, Vocal ChorusFox Trot, Vocal ChorusFox Trot, Vocal ChorusFox Trot, Vocal ChorusBaritone13064 Can't ForgetBaritone
13065 Am I Wasting My Time? ..... Tenor
Just a Rose Tenor

## GRID LEAKS and WAVE TRAPS

## SPECIAL 0 to 5 MEG. MAGNUS ADJUSTABLE GRID LEAK-2/6

WITH FIXED CONDENSER Usually $9 / 6$
BELDAS GRID LEAKS
1 Watt, type "ML", each
1/-
2 Watt, type "ML" each. .. .. .. . . . . .. $1 / 4$
All sizes, from 2,500 ohms to 10 meg .


DE JUR Grid Leak Clips-
Single
1/3
Double
2/3


YOU SHOULD RENEW YOUR OLD
GRID LEAK AFTER 12 MONTHS' USE

| MULLARD GRID LEAKS |  |
| :---: | :---: |
| $1.5,2,3$, and 4 meg . . . . . . . . . . . . .or with Pigtails, each |  |
|  |  |
| 100,000 ohm; 250,000 ohm; 500,000 ohm $1 / 6$ |  |
|  |  |
| or with Pigtails, each |  |
| LEVENSON'S STATION MULTIPLIER A Sure Winner. See particulars in these pages. |  |
|  |  |
| SPOOL OF RESIN CORE SOLDER |  |
| A very fine quality solder, made of pure Tin and Lead, in the approved manner. A generous size |  |
|  |  |


| GRID LEAKS |  |
| :---: | :---: |
| New P | ig-Tail Type. 1 or 2 Meg . |
| Watt | 1/- 2 Watt |
| Mullard Grid | Leak Clips, Single |
| De Jur . 00025 | Grid Condensers. Moulded |
| Pilot, .00025, | Grid Condensers, with Clips |
| Trix, English | Grid Condensers, . 00025 , |

## AMSCO GRID LEAKS



New Type, each .. $1 / 3$
Clips, extra ....... $1 / 3$
complete with holder $2 / 6$
AMSCO GIANT GRID LEAKS
1 to 10 Meg .
$1 / 3$

## BRADLEY LEAKS

The Perfect Adjustable Grid Leak.
$\qquad$
"ALWAYS" GRID LEAKS
2 Meg Grid Leaks. 2/-. NOW .. . . . . 1/-
Lissen, English made 2-meg. Grid Leaks, $1 / 6$. NOW

## WAVE TRAPS

Without any change of equipment the wavetrap covers the complete broadcast band from 2SM to 5CL giving your set perfect selectivity. Price $17 / 6$. NOW .. .. 7/-


For Wave Traps for Home Assemblers
See Pages 133 to 135 .
Wave-Trap Variable Condensers, Compres-
sion type, each
3/6

## ELECTORGUARD <br> Security from Lightning, Always in Use, Improving Reception.

AERIAL SELECTOR HIGHTNING ARRISTE:

No set complete without this combination unit Lightning Arrester-Aerial Lead-in Tube-Volume Control Wave-trap, all combined.

$$
\text { NOW .. ... .. } 7 / 6 \mathrm{EACH}
$$

and LEAD-IN TUBE
combinea
$\begin{array}{r}\text { combined } \\ \\ \hline 6\end{array}$

A Good Reputation is hard to obtain and harder still to maintain! LEVENSON HAS ALWAYS AIMED AT BOTH, AND OUR GIGANTIC CLIENTELLE IS THE ANSWER TO OUR SUCCESS. WHY, BECAUSE OUR POLICY IS TO BETTER THE BEST IN VALUE.

## HEADPHONES

## Replacement Parts, Cords and Accessories

## LISTEN IN . . IN COMFORT

Sponge Rubber Ear Pads. Fits nicely around each 'phone and provides soft cushions for the ear, preventing room noises from causing annoyand interruption to programme.

PER PAIR
$1 / 9$

## "MORSE" BAKELITE 2-PIN ADAPTORS



For Lengthening Phone or Speaker Leads. Pins fit into each end as illustrated. $1 /-$ and $1 / 6$ each end as illustrated. 1/- and

## HEADPHONES



JUST LANDED!<br>LISSEN ENGLISH HEADPHONES 4,000 ohms.<br>PRICE . . . 19/6 and $13 / 6$<br>New Lightweight<br>Type.

"LIKE A FLASH" LIGHTWEIGHT CONTINENTAL HEADPHONES Complete with Cord. . Comfortable Head Band Price, per pair, 4,000 ohms $13 / 6$

| Insulated Wood or Bakelite Ear Caps, each | 1/6 |
| :---: | :---: |
| Bakelite Top Non-solder Phone Tips, pair | 6 d. |
| Lewcos 5ft. Telephone Cords | $2 / 9$ |
| "Like a Flash" Phone Cords | $2 / 6$ |
| 20ft. Speaker Extension Cord's .. .. . <br> Nominate Loops or Tipped ends. | 2/3 |

## HEADPHONE REPLACEMENTS

Be neat. Throw out that shoddy band.

| Head band replacement, .. | $2 / 6$ |
| :--- | :--- | :--- |
| Stirrups, each $\ldots \ldots \ldots$ | $1 / 3$ |
| Diaphragms, each $\ldots \ldots$. | $1 /-$ |
| Ear-caps, each $\ldots \ldots .$. | $1 / 6$ |

## Hotel Keepers

 Club Secretaries, Charity Carnival Pro-motersWrite to Levenson's for interesting Leaflet[^4]
## A WELL KNOWN MAKE OF HEADPHONES

comfortable to wear. Enjoy radio reception when the rest of the family are sleeping. They have never before been offered at this low price. Complete with five foot cord. Packed in original carton. Guaranteed 12 months.
4,000 ohms. $22 / 6$ list price. OUR PRICE 19/6


## STROMBERG CARLSON HEADPHONES <br> 25/-



TRADED-IN AND RECONDITIONED HEADPHONES
as new condition $8 / 6, \quad 20 / 6, \quad 12 / 6$ pair
Leading Makers.
MAGNUS 12-TAP SWITCH
For Crystal Set Coils. Tappings complete with Knob 2/6

Headphone Diaphragms cut to size from 1/-

## EMMCO HEADPHONES

Every detail in the Emmco Headphones is manufactured to the highest standard of efficiency. A light spring head band, with sliding adjustment, on each ear-
 piece, enables them to be worn with utmost comfort. One year's guarantee.
PRICE .. .. .. .. 22/.

Heavy Nickelled Terminals to take 2 pair of phones. Set of 2

1/-
Turn to the Home Set Assembler's Section of this Catalogue for full particulars of the "BIG BROADCAST" WIRELESS SET.

## INSULATORS

## STAND-OFF BAKELITE AERIAL INSULATORS

With Thumb Screw Complete.


1䨌 inch .. .. .. .. .. .. $1 / 6$
21 $\frac{1}{2}$ inch . . . . . . . .. .. $2 / 3$
3 inch
3/-

Three Sizes: $1 \frac{1}{2}$ in., $1 / 6$; $2 \frac{1}{2}$ in., $2 / 3$; 3in., $3 /-$ SMALL SIZE . Screws into Woodwork. For Indoor use. Takes two wires, each 4d.

## PEERLESS STAND-OFF BAKELITE INSULATORS

As above illustration.
Diameter, $2 \frac{1}{2}$ inches; Height, 2 inches; Nickel plated fittings. Screw is securely moulded into top of Insulator.

PRICE
$1 / 6$


PORCELAIN INSULATORS


Type 1 Large Barrell Insulators .......
Type 2 Small Reel Insulators, dozen
.. ..
6d.

Type 2 Small Reel Insulators, dozen 6d.
Type 4 Shell Insulators
BAKELITE AERIAL INSULATORS Ringed each end. PRICE

6d. each
 INSULATED SCREW EYES

2d. each Brass, 1/9 Dozen

BLACK ADHESIVE INSULATION TAPE

6d. coil


## ADHESIVE TAPE

"LIVERPOOL CABLES" BRAND
2oz. Rolls, $\overline{\text { Ein }}$. or ${ }^{3} \mathrm{in}$. wide, per lb. .. .. 5/4oz. Rolls, ${ }^{3} \mathrm{in}$. wide, per lb,
8 zoz . Rolls, $\frac{1}{\frac{1}{2}} \mathrm{in}$. in . or in . wide, per lb. 4/6

## JACK S

## MARCO SURE GRIP JACKS

Single or Double Filament, 3/6. Now .. 1/


To Clear - Single and Double Circuit Emmeo Jacks. Worth 3/6. NOW .. ..

## LIKE-A-FLASH <br> DOUBLE PIN JACKS

For Speaker, Phones or Field.
Price, each
1/6


Moulded Bakelite

## JONES MIDGET DOUBLE CIRCUIT JACKS <br> 1/6 each

One hole panel mount-non-solder type. May be used as a single or double jack.

## EMMCO PLUG IN JACKS

All varieties $3 / 6$. NOW . . . . . .. .. $1 / 6$
FROST PLUG IN JACKS-
All varieties, $3 / 6$ to $5 / 6$. NOW
1/6

RADIO CHEAPSIDE 240A PITT STREET, SYDNEY.


INSULATING STAPLES

For fastening wire to walls, timber, etc. 3d. per dozen. $1 / 6$ per box of 100 .

# A FINE ASSORTMENT OF 

## K N O B S

## FOR ALL <br> PURPOSES

## HEXAGON TWOTONE WALNUT KNOBS

Dia. $1 \frac{1}{4}$ in., $\frac{1}{4}$ in. insert and set screw.
Dia. $15 / 16$ in., $\frac{1}{4} \mathrm{in}$. insert.
All at .. .. 9d. each

## KNOBS OF ALL TYPES \& KINDS

## TWO-TONE WALNUT KNOB <br> ${ }^{3}$-inch bores to match

 any cabinet.6d. Each
Sizes $\frac{1}{2}$ inch and 1 inch


BLACK, BROWN AND WALNUT KNOBS Ornamental Knob, Brown .. .. .. .. .. 1/Large Two-tone Knob, Mahogany, each .. 9d. Octagonal Prism Knob, each ........ 9d Octagonal Prism Knob, with rim, each .. 9d. Fancy Metal and Bakelite Knobs, each .. 1/Metal covered Fancy Knobs

Each have ${ }^{\frac{1}{4}}$-inch bores.

## BLACK

BAKELITE KNOBS
With Pointer engraved, fit
${ }^{\frac{3}{3}}$-inch shaft, each .
6 d .
BUY FROM THESE PAGES Every line as represented.

You can Rely on us.


ASSORTMENT OF ONE DOZEN BLACK AND MAHOGANY
KNOBS .. 5/6 Dozen
All $\frac{1}{4}$-inch Bores
M.K.B. BLACK BAKELITE VERNIER DIAL ... .. 5/6 Size $4 \frac{1}{2} \times 3$ inches overall.

## MATCH UP!

. . . that odd assortment of knobs on your panel by making


[^5] BIG BARGAIN LIST


Extra Large Plain Black Knobs ....... $1 /-$
Mahogany Small Arrow Knobs ..
Pilot Small Dial Knobs ........
4 inch Black Dials .. .. .. .. .. .. .. 1/-
3 inch Plain Dials .. .. .. .. .. .. .. 9d.
2 inch Plain Dials . . . . . .. . . . . .. .. 9d.
All Standard $\frac{1}{4}$-inch Holes

## KNOBS

Fancy Round (Large) Brown Plain Round (Large) Brown . Octagon Two-Tone (Large) 6 d. Octagon Two-Tone (Large) .. 9d. Octagon Two-Tone (Small) .. 9d. Round Two-Tone (Large) .. 6d. Round Two-Tone (Small) .. 6d. Bakelite Knobs, with Pointer, small .. .. 6d.
Bakelite Knobs, with Pointer, large .. .. 9d.
Large Knobs, plain, Black . . .. .. .. .. 6d.
Arrow Knobs, Black .. .
6 d.
Arrow Knobs, Mahogany 6d.

SPECIAL $\qquad$ To Beginners in Radio! A BARGAIN KIT FOR THE EXPERIMENTER

## £3 WORTH FOR 25/KIT CONTAINS:

130 Henry Choke.
3 UY Sockets.
3 UX Sockets, spring.
3 Matched Radio Frequency Coils.
1 By Pass Condenser Block.
3 Coil Cans.
13 Gang Variable Condenser.
1 Bundle Mica.
1 Voltage Divider.
1 Philips Socket Terminal Board.
1 Back Panel Vernier Dial.

THE KIT

1006 Fixed Condenser.
1001 Fixed Condenser.
100025 Fixed Condenser.
3 Various Size Grid Leaks.
1 Variable Grid Leak.
1 Potentiometer.
THE LOT
25/-
Reconditioned goods, but all in first class condition.

## LEVENSON'S RADIO

# LIGHTNING ARRESTERS and MORSE KEYS here's a fine range to choose from 

"LIKE A FLASH" BAKELITE CIRCULAR LIGHTNING ARRESTERS
One Hole Mount in- or out-door use.
Easily fixed $\ldots \ldots \ldots \ldots . . .$.
Special Trade Price for the Asking. In Lots of 12 less $33 \frac{1}{3} \%$

## EMMCO LIGHTNING ARRESTER <br> PRICE . . .. . . $2 / 9$

## MORSE KEYS AND BUZZERS

Bakelite-enclosed High-Pitched Buzzers, 2/6, $3 / 9$ and .. .. .. .. .......... $4 / 6$ Morse Keys are made in our own Factory. All Heavy Nickelled and Brass fittings on Oak Bases
Small Metal Covers .. .. .. .. .. .. $2 / 6$
Small Bakelite Covers . . . . . . . .. .. 3/9
Large Bakelite Covers .. .. .. .. .. .. 5/9
Special Price to Trade or Schools in lots of 3 or over.


6/6

No. 1
No. 1-Morse Key and Buzzer, as illustrated. Ready mounted on base with high-pitched buzzer


No. 2
"LIKE A FLASH"
Morse Keys enable practice of Morse Code. Easy to learn; very interesting.
Very fine Morse Practice Key, as illustration No. 2. Nickel fittings


## COOK'S GUARANTEED LIGHTNING ARRESTERS

 As Illustrated.

## DON'T RISK IT

PROTECT YOUR LIFE, YOUR HOME, YOUR RADIO
against lightning for ever. Essential for any home with an aerial
LARGE SIZE PACKET OF LIKE A FLASH Assorted Solder Lugs . . 2/6 Packet Always wanted $\quad$ Keep a packet Handy.

PHILIPS RADIO "COP" List price $10 / 6$ Our Price 5/-


No. 4 (as illustrated) Morse Key, heavy brass fittings. Professional precision type, extra heavy

## MICROPHONE EQUIPMENT <br> AND PUBLIC ADDRESS ACCESSORIES, ETC.



## MICROPHONES

Suspension Pattern, Type 190 .. .. $£ 12000$
Desk Pattern, Type 192 .. .. .. .. 16000
STANDS (Microphone)
Table Type, Telescopic (includes clamping ring with 8 springs) .. $£ 215 \quad 0$ Floor Type, Telescopic (includes clamping ring with 8 springs) ..
Clamp and Suspension Springṣ (8)
3150
150

## GIANT DYNAMIC SPEAKERS

Type A 108, Unit only . . . . .. . . .. $£ 20$ 0 0
Type PS 21, Metal Projector (com-

Type PS 22, Wood Exponential (complete . . . . . . . . . . . . . Price on application

## TRANSFORMERS



| SPARES (Microphone) |  |
| :---: | :---: |
| Diaphragms, Rubber | £0 |
| Granules | 10 |
| Electrodes, Carbon (each) | 12 |
| Backs, Ebonite . . . . . | 12 |
| Microphone, Suspension pattern, type 190 | £12 |
| Desk pattern, Type 192 | 16 |
| Lion Microphone Combination .. .. | 65 |
| Diaphragms (Rubber) | 2 |
| Granules (Carbno) | £1 10 |
| Electrodes (Carbon) | 12 |
| Backs (Ebonite) .. | 12 |

## Public Address eltadio Advertising Systems

Levenson's specialise in all kinds of apparatus for the amplification of Speech or Music for Public Address or Entertainment. Microphones, large Loud Speakers, portable Amplifying Units, Turntables, Gramophone Pick-ups, etc., in stock.

> QUOTATIONS FOR LARGE OR
> SMALL SYSTEMS, PARTLY OR
> COMPLETE. WITH PLEASURE.

Rotary Tone Controls, one hole mounting, each

5/6
$\qquad$ Housed in Bakelite Case, with 6 variable types. Special price in quantity lots for Dealers and Set Manufacturers.

## MICROPHONE SPARES



## CARBON GRANULES

2/6 per quarter ounce. Diaphragms (Carbon) for Microphones
Ferrotype Diaphragms for Receivers .. .. .. .. .. .. Glass Phone Mouthpieces .. .. $2 / 6$
Ebonite Phone Mouthpieces .. $2 / 6$
Microphones, Solid Black type, Kellogg15/-

## LEARN MORE ABOUT YOUR WIRELESS

Whether you are beginner or expert, study of this comprehensive and up-to-date work will result in both pleasure and profit. Its author is acknowledged to be one of the most brilliant exponents of Modern Radio both in theory and practice, and this "Outline" is filled with knowledge. It should be on and this "Outline" is filled

## THE OUTLINE OF WIRELESS By RALPH STRANGER

15/-

## ALL ELECTRIC PANELLING

## SHIELDED

This latest innovation for the A.C. Set consists of the best quality highly polished Bokelite faced with aluminium. The two substances adhering as one piece gives all the beauty of Bakelite and the shielding and screening properties, etc.,
 of Aluminium.
PRICE .. 8 inches wide, 6d. Per Running Inch A Panel $10 \times 8$ inches costs .......... $5 /-$ In 8 -inch Strips . . . Any Length Cut.

## WOODEN BASEBOARDS

5-ply Wooden Baseboards, 9 inches wide price per running inch

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.
Orders will be accepted at present prices as long as possible. Orders for items on which prices have advanced will be accepted subject to negotiations.


## MAHOGANY, WALNUT OR BLACK BAKELITE PANELS

Any special size panel can be supplied. d. per square inch.

## PLASTIC WOOD

A REPAIR KIT IN ITSELF!
Like Putty . . . Hardens like Wood. For repairing and patching cabinets, panels, etc. PER TUBE $\qquad$ 1/6

[^6]PORTABLE BATTERY SETS


The Great Companion for Home and Outdoor use. Reconditioned as new. Always in stock. £7/10/- Complete


## "WIZARD" RADIO MICROPHONE

miniature
NON-METALLIC
For Trick Broadcasting in the Home. Be your own Broadcast Station. Entertain and mystify your friends. Full instructions supplied.

## MICROPHONE COMBINATION

The "Lion" Microphone Combination comprises a high-grade Microphone of the "hand set" type, complete with matched transformer, regulator, switch, and excitation battery. The transformer, regulator, switch and battery are housed in a small metal cabinet, to which the leads of the Microphone are fitted. Two other leads are also fitted to the metal cabinet, having phone tips fitted on ends of same.
To operate Microphone insert the loose leads of the "Lion" Microphone-Combination in the two "pick-up" jacks on back of receiver chassis, switch battery to "on" position, when Microphone will be in operation. PRICE
£6/5/-
Skinderviken Microphone Buttons-
Mounted 12/6


SPECIAL! HARD RUBBER BLACK POLISHED Genuine RADIO PANELS . . . 15/-

Original Price 25/-
20 inches $\times 24$ inches- $\frac{1}{8}$ th inch thick.


Levenson's Again Lead With Something New HIGHLY POLISHED BLACK BAKELITE, with Aluminium facing 1d. Per Square Inch CUT TO MEASURE
All the beauty of Bakelite with the extra advantage of Aluminium Shield.

## Meters for all Radio Purposes

## THE EXPRESS PREFERRED ANALYSER

An instrument of rugged and serviceable design to suit the Australian Service Man. The Meter movements are equipped with an over-sized magnet of genuine Swedish steel, manufactured for the exclusive use of Express.
The scale used is $3 \frac{7}{8}-\mathrm{in}$. long by 2 in . wide, divided into 12 cardinal divisions, each being sub-divided into 5 sub-divisions.
Readings Volts $30,120,300,600$. Current 12, 120, m.a. Ohms 500 to 500,000 .
The ohms per volt is 1,000 or $1 \mathrm{~m} . \mathrm{a}$, for full scale deflection.

Each Analyser is equipped with all facilities for the testing of 7 prong valves, and tests can be carried out on $4,5,6$, and 7 pin sockets. The standiard plug supplied is 6 pin base, with $6 / 5$, $6 / 4,6 / 7$ adaptors; while all necessary test leads and instructions are also included.

All voltages are read on the 600 v . scale, this range being decreased by means of non-locking push buttons. This exclusive feature makes it almost impossible to injure either the Analyser or Receiver under test. Of the 8 non-locking push buttons provided, 4 control the voltage ranges, while of the remaining 4,1 is the reverse switch for "off scale" readings, 1 for power penthode circuits and valves, and the remaining 2 for normal grid and screen grid mutual conductance tests.
The Express Pattern 45 Analyser is capable of testing any modern receiver, even those employing 7 prong valves. Furthermore, such valve and circuits may be tested under either class A or class B operating conditions.
The Express Pattern 45 Analyser will not read A.C. filaments or line voltages, but these are the only two voltages the instrument is not capable of giving. A Ruby Lamp offers constant indication of A.C. filament continuity and also indicates to a fair degree the actual voltage applied.
Nett Price, Plus Sales Tax
£10/15/-


## PIFCO RADIOMETER

"ALL IN ONE" Pifco De Luxe Meter does everything a meter can do. Moving Coil Precision type.


## USES FOR PIFCO RADIOMETER

Low Tension Voltmeter, 0-6 volts.
High Tension Voltmeter, 0-250 volts.
Milliammeter, 0-40 m.a.
Testing continuity of filaments of English 4 and 5 pin valves.
Continuity test for all parts of circuit.
Battery for continuity tests fitted in instrument. Adapter provided for testing filament continuity of American UX and UY valves.
PRICE
70/-


THE WORLD'S SMALLEST
RECEIVING SET 1/9 each A Man's Joke Take a rise out of your pal.

We do Radio Repairs Well and Cheaply.
Trade-in your old time battery set and enjoy

## REAL RADIO



## WATES UNIVERSAL METERS

Wates "Universal" Type .. ........ £1 5 . 0 The readings are divided into four separate scales as follows:-

1. 0-150 Volts for High Tension Supply readings.
2. 0-6 Volts for Low Tension readings.
3. 0-30 Milliamps for Anore current consumption.
4. 0-2000 Ohms for Circuit and Resistance testing Thus it can be seen that this guaranteed accurate Wates Universal Testing Instrument tests everything in Radio, the reading error being no greater than the thickness of the needle.
Price
25/-
(The Meter is supplied without battery and prica does not include same).

## The Best Makes of Meters Obtainable

LEVENSON'S offer a Complete Range of

## WESTON-JEWELL RADIO INSTRUMENTS

FOR SETS AND ANALYSERS

| Jewell 440 Analyser . . . . . . . . . . . £50 0 |  |
| :---: | :---: |
| Weston 660 Analyser | 32 |
| Weston 644 volt ohmm | 30 |
| Weston 662 oscillator | 25 |
| Jewell 675 tube checker | 15 |
| Jewell 677 tube seller | 45 |
| Weston 590 oscillator | 48 |
| Weston 571 output meter | 14 |
| Jewell 559 output meter | 5 |
| Weston 695 power level meter | 18 |
| Weston 659 soldering iron pyrometer | 1010 |
| Weston 564 volt ohmmeter | 1515 |
| eston 563 circuit tes |  |
|  |  |

## WESTON VOLT METERS

$3 \frac{1}{4} \mathrm{in}$. diameter, panel mount. Type 301, D.C. voltmeters, moving coil, accurate within $2 \%$. Models: 0 to 1,0 to $1.5,0$ to 2,0 to 3,0 to 5 , 0 to 7,0 to 8,0 to 10,0 to 15,0 to 20,0 to 25,0 to 30,0 to 50,0 to 75,0 to 100 .

> PRICE .. .. .. £3/15/-

Models: $\begin{array}{lllll}0 & \text { to } 150 & £ 4 / 10 /- & 0 \text { to } 200 & £ 4 / 15 /- \\ 0 & \text { to } 250 & £ 5 /-/- & 0 \text { to } 300 & £ 6 / 10 /-\end{array}$ $\begin{array}{lll}0 & \text { to } 250 & £ 5 /-/ \overline{-} \\ 0 & \text { to } 500 & £ 7 / 10 /-\end{array}$

Approximate resistance in ohms per volt of model 301 instruments: 1 to 40 v ., 62 ; 50 to 150 v ., 200 ; $200 \mathrm{v} ., 250 ; 250 \mathrm{v} ., 300 ; 300$ to 500 v ., 666.

MODEL 301 D.C. VOLTMETERS
1000 ohms per volt



Type 301, volt-ohmmeters, ranges as follows:1.5 v . ohms, scale 0 to $1,000 \ldots$.. $£ 410 \quad 0$ $1.5 \mathrm{v} .$, ohms scale 0 to 3,000 .. $410 \quad 0$ 4.5 v ., ohms scale 0 to 10,000 .. 4100 MODEL 301 D.C. AMMETERS
Models: 0 to $1,1.5,2,3,4,5,8,10$, 15 amps .
£3 $10 \quad 0$


TYPE 301 CHARGE-DISCHARGE AMMETER Central Reading
Models: $1-0-1 ; 1.5-0-1.5 ; 2-0-2 ; 3-0-3$; $5-0-5 ; 10-0-10 ; \quad 15-0-15 ; \quad 20-0-20$; 30-0-30; 50-0-50 $\begin{array}{lll}£ 3 & 15 & 0\end{array}$
TYPE 301 D.C. MILLIAMMETERS
Models: 0 to $1,1.5,2,3,5,10,15 \ldots$ £4 100
0 to $25,30,50,100,150,200$, $250,300,500,800,1000 \ldots 3150$
TYPE 301 MICRO-AMMETERS
Models:
0 to 200 . . . . . . . . . . . . . £6 10 0 0 to 500 .. .. .. .. .. .. .. 600 TYPE 476 WESTON METERS
Moving Iron Type, for A.C. only
A.C. Voltmeters-

0 to $1.5,2,3,5,8,10,15,20,25$, 30, 100
£3 $10 \quad 0$
0 to 150 .. .. .. .. .. .. .. .. $410 \quad 0$
0 to 250 . . . . . . . . . . . . . .. $510 \quad 0$
0 to 300 .. .. .. .. .. .. .. .. $510 \quad 0$
0 to 400 . . . . . . . . . . . . . . . $610 \quad 0$
Combination A.C. Voltmeters-
150/8/4 ............................ $615 \quad 0$
$150 / 15 / 3 \ldots . . . . . . . . . . . . . . . . . . . . . . . . ~ 6150$
$300 / 8 / 4$. $\quad . \quad . . \quad . \quad . . . . . . . . \quad 710 \quad 0$
$750 / 150 / 16 / 8 / 4 \ldots . . . . . . . . \quad 9 \quad 0 \quad 0$
1000/200/16/8/5 ................ $10 \quad 0 \quad 0$
A.C. Ammeters

0 to $1,1.5,2,3,5,10,15 \ldots \ldots$ £3 100
0 to 30,50 .. .. .. .. .. .. .. $410 \quad 0$
A.C. Miliammeters-

0 to $15,25,50,100,250,500 \ldots \ldots$ £3 100
WESTON 506 METERS, 2 in . DIAMETER
D.C. Volt Meters: 0 to $3,5,8,10,15$, $50,100,150$
$£ 2 \quad 12 \quad 6$
D.C. dual reading voltmeters: 0 to
$140 / 7,0$ to $150 / 7.5,0$ to $200 / 8$, 0 to $50 / 10$
$310 \quad 0$

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

METERS . . . A WONDERFUL SELECTION $\qquad$ WESTON METERS-(Continued)

|  | D.C. Ammeters: 0 to $1,1.5,3,5,10$, $15,20,30,50$ <br> D.C. Milliammeters: 0 to $1,1.5,2, .$. 0 to $35,10,15,50,100,150,300$, 0 to $35,10,15,50,100,150,300$, 500 .. .. .. .. .. .. |
| :---: | :---: |
|  |  |

## Weston Model 517 A.C. Instruments

A.C. Voltmeters: 0 to $1.5,2,3,5,10$, 15, 50 .. .. .. .. .. .. .. .. £3 12 0
0 to 150 .. .. .. .. .. .. ... .. 4100
0 to 250, and 300 .. .. .. .. .. 5100
A.C. Ammeters: 0 to $1,2,3,5,10,20 £ 3120$

0 to 50,50 .. .. .. .. ....... $410 \quad 0$
A.C. Milliammeters: 0 to $15,50,100$,

250, 500
£3 120
MODEL 301, UNIVERSAL METER
Designed to meet the requirements of the ser-vice-man wishing to construct a general purpose meter or special type of set tester using only one meter for both A.C. and D.C.


Supplied with four external connections and a shunt resistor which is adjusted to the meter. It is provided with a double scale, the upper scale for use when the instrument is connected to A.C. A.C. rectifier type is marked above the scale. The voltage range is 0 to 5 v . The lower scale is for use when the instrument is connected to D.C., the scale is marked 0 to 5 v . Below the scale is marked D.C. and volts-milliampere.

## PRICE .. . . .. \&8/5/-

EXTRA WIRE WOUND RESISTORS
For use with Universal Meter

## Ohms

 resistance 4,9505,000
40,000
50,000
100,000
150,000
250,000
33.33
2.083
.505

| Current <br> in Mas. |  |  |
| :---: | :---: | :---: |
| 14.3 | $\ldots$. | Price |
| 14.1 | $\ldots$. | $10 /-$ |
| 5 | $\ldots$. | $12 / 6$ |
| 4.47 | $\ldots$. | $12 / 6$ |
| 3.5 | $\ldots$. | $16 /-$ |
| 2.58 | $\ldots$. | $25 /-$ |
| 2 | $\ldots$. | $10 /-$ |
| 2.5 | $\ldots$. | $10 /-$ |
| 25 |  | $10 /-$ |

SPECIAL MULTIPLE SHUNT
100,25 and 2.5 ohms
20/-
Fos full particulars of all classes of Weston and Jewell Meters . . . Send 2d. stamp for Booklet.

##  <br> LEVENSON'S STOCK EVERYTHING IN RADIO <br> AND WILL NOT BE UNDERSOLD

Which means that you can buy each and every item on the Australian Radio Market at Levenson's at a price lower than any other firm in Australia. This is no idle boast, but one that we will stand by at all times.

World Standard Time Indicators. Adjustable. For short-wave fans, each 1/-
 SOMETHING NEW!
SUPPLYING A VERY URGENT NEED LEVENSON'S OWN CREATION TUNE YOUR AERIAL

## LEVENSON'S THREE-IN-ONE AERIAL TUNER

This device should not be confused with the more widely known wave-trap with which most listeners are familiar.
As an aerial tuner, it is distinctly different, and when used in this way it becomes possible for you to bring in strongly that weak distant station that you have always longed to receive at greater strength and clarity.
Many other stations will be added to your log of stations received-stations that you never before thought it possible for your receiver to bring in.

The small movement of the switch knob converts the unit to a wave-trap where the need for such is felt, as in the case of stations overlapping.

A further movement of the same switch converts the unit to a preselector stage, providing sharp tuning over the whole tuning range of your receiver, and eliminating the overlapping of stations on either side of the wave length to which you are tuned.

## Connections

The unit is simple to connect; your aerial connects to a terminal on the tuner and two wires from the tuner connect to the aerial and earth terminals respectively, on your receiver.
In evolving this tuning device, Levenson's have again fulfilled a long felt want, evidenced in the great amount of correspondence received from clients seeking a device to fulfil one or other of the above services.

The price of the unit ready built, in neat metal case, size 6 in. $x 3^{\frac{1}{8} i n}$. is . . . . . . . .. .. 20/Parts sunnlied to assemble the unit at time 16/Blue Prints and all Instructions .. .. . . . . 1/Free with Kit.

"Like-a-Flash"

## 3 IN 1 POCKET METERS

Hand Calibrated pocket meter, nickel plated case. Perfectly accurate and dependable. Three scale readings.

Reads:
0 to 32 milliamps
0 to 8 volts 0 to 160 volts
Price, .... 17/6
The Radio
Trouble Finder
Lots of 3 Less $33 \frac{1}{3} \%$.

## LIKE A FLASH <br> PANEL MOUNT METERS

Moving Iron, reads $0-8$ and $0-240$ volts .. 20/Moving Coil, reads $0-5$ and $0-250$ volts .. 25/Moving Coil, reads $0-6$ and $0-150$ volts .. $32 / 6$ Moving Coil, reads $0-10$ and $0-100$ milliamps.

30/-

## LIKE A FLASH

## VALVE AND SET TESTER

This very simple unit has been produced to aid those set-owners who prefer to do their own valve and set testing, or for the service man who desires a simple tester of equal utility either on his rounds, in the work-shop, or on the counter of his store. The latter use is sure to augment the sale of valves, as a practical demonstration of valve efficiency goes much further than a great deal of talk.
Simple instructions accompany the tester, so that no knowledge of radio is required to test valves. While the tester in the hands of the home-set builder or service man will provide a ready means of locating trouble due to open circuits in units or wiring, etc. Indeed, familiarity with the unit will soon suggest scores of ways in which the unit may be brought into service.
The primary cost of the tester should be very quickly recovered through the up-to-date service the user is in a position to render, while expense to the set owner is saved by the carrying out of his own service work.
This L.A.F. tester differs from the set analyser in that it is not essential that a receiver power supply should be available in order to test the valves. This, of course, refers to both A.C. or hattery-operated sets.
All parts for set tester, battery operated $£ 6 / 5 / 10$ Battery operated tester ready built .. $£ 7 / 5 / 10$

Send for Blue Print and Specifications, $1 /-$ All parts for set tester, A.C. operated .. $£ 5 / 3 / 2$ A.C. operated tester ready built .... £6/3/2 Suppied in first-class Black Leatherette, strongly built, extra

20/-
"LIKE-A-FLASH" POCKET VOLT METERS
Double Reading. 0 to 120 volts; 0 to 12 volts.
For reading "A" and "B" Batteries.
4/6 EACH
STOP PRESS
Small handy type of 240 volt All Electric SOLDER IRONS .. ... ... 9/6 each Worth 25/-

PURATRON 224
A.C. Screened Grid

Valves .. .. 7/6
New and Tested
A Well Known make of High Grade

280 RECTIFIERS
New and tested $8 / 3,9 / 6$ and $10 / 6$ each

MULLARD 227 A.C. VALVES $5 / 9$ To Clear Brand New in Original Carton. Each Tested.

MARATHON A.C. VALVES
Each Tested. 22/6
NOW
5/9

## The Beginner's Kit-

## "EDUCATIONAL RADIO"

Allows the experimenter to build many different Kits.
8 Circuits supplied, and all instructions. Send 6d. for Circuit only. Parts cost $£ 2 / 9 /-$ All parts to build a Browning Drake Battery Set

## Send 6 d . for Circuit. <br> 

WE GUARANTEE A CHEAPER PRICE AND WILL NOT BE UNDERSOLD!


## HERE'S A GOOD KWIDS WORTH!

Suitable for making a 3-Valve Set. All Parts Guaranteed 100 per cent. Here's what you get:
1 Table Model Cabinet.
1 Vernier Dial.
2 Variable Condensers.
5 Terminals.
1 Switch.
3 Valve Sockets on Bakelite Panel.
1 Reinartz Coil.
2 Audio Transformers.
1 Grid Leak.
1 Fixed Condenser.
1 Rheostat.
THE LOT FOR . . .. £1
Includes a proportion of used material in perfect condition.

WATES UNIVERSAL TYPE METER
For Bench or Hanging. 0 to 150 volts; 0 to 6 volts; 0 to $30 \mathrm{mil} / \mathrm{amp} ; 0$ to 2000 ohms

WATES POCKET TYPE METER
3 Reading: 0 to 30 milliamp.; 0 to 6 volts;
0 to 150 volts
15/-
Single Reading, 0 to 60 volts .. .. ... .. 10/-

## A Vast Range of Meters

## FERRANTI METERS

## FOR USE ON DIRECT CURRENT

MILLIAMMETERS-Panel Mounting Flush


Ammeters-Panel Mounting Flush Finish-


MICROAMMETER-Panel Mounting, Flush Type 250 to 0 to 250 . Type No. 8 AF £6 60 Stand for same, extra
VOLT METERS-Panel Mounting, Flush Finish. (200 ohms per volt)


VOLT METERS-Panel Mounting, Flush Finish. ( 500 ohms per volt) -
0 to 500 Type No. 35 F
£7 $7 \quad 0$
VOLT METERS-Panel Mounting, Flush Finish. ( 1000 ohms per volt)
0 to 150 Type No. 13 F
0 to 250 ", 14 F .. ...... 666
0 to 300 ", " 33 F .. ..... 6189

## FOR USE ON DIRECT CURRENT 3 RANGE TYPE

MILLIAMMETERS: Panel Mountisg, Projecting Pattern-
$7.5,15$ and 30 ma . Type No. 15,
200 ohms per volt .. .. .. .. \&5 50
$7.5,30$ an d150 ma. Type No. 36, 200 ohms per volt
$5 \quad 5 \quad 0$
VOLT METERS: Panel Mounting, Projecting Pattern-
$7.5,30$ and 150 v . Type No. 16, 200 ohms per volt ...... \&5 50
$7.5,30$ and 150 v . Type No. 25, 1000 ohms per volt .. ...
$618 \quad 9$
10,50 and 250 v . Type No. 17, 200 ohms per volt ..... 6009
10,50 and 250 v . Type No. 26, 1000 ohms per volt .. .. .. 7113
A.C. RADIO METERS-Moving Iron Type milliammeters: Panel Mounting Flush Finish


COMBINATION MILLIAMP AND VOLT
METER: Panel Mounting, Projecting-
0 to 5 ma .15 and 150 v . No. 18, 200 ohms per volt .. .. .. 2550
AMMETERS: Panel Mounting, Flush Finish-

volt meters: Panel Mounting Flush Finish-
0 to 5. Type No. 550F 10 ohms per volt
$£ 212 \quad 6$
0 to 7.5. Type No. 551F 10 ohms per volt .. $\because \quad \ddot{2} \quad \ddot{2} \quad \ddot{\text { ohms }}$
0 to 10. Type No. 552 F 20 ohms
 per volt.

2126
2126
0 to 15. Type No. 553F 20 ohms 25. Type No. 554 F 20 ohms per volt
$3 \quad 1 \quad 0$
$\begin{array}{lll}3 & 1 & 0\end{array}$
0 to 50. Type No. 555F 100 ohms per volt
$\begin{array}{lll}3 & 1 & 0\end{array}$
0 to 100. Type No. 556F 210 ohms per volt
0 to 120. Type No. 557 F 210 ohms per volt
$3 \quad 3 \quad 0$
$\begin{array}{lll}3 & 8 & 3\end{array}$
0 to 150. Type No. 558F 210 ohms per volt ...........
0 to 200. Type No. 560F 210 ohms per volt
$\begin{array}{lll}3 & 8 & 3\end{array}$
$\begin{array}{lll}3 & 8 & 3\end{array}$
0 to 250. Type No. 561F 210 ohms per volt

3136
0 to 300. Type No. 562F 210 ohms per volt
0 to 400 . Type No. 563 F 210 ohms per volt

440

3 RANGE TYPE, WITHOUT SWITCH
A.C. VOLT METERS-

0 to 5 and 10 v .
No. 601F, 10 ohms per volt

No. $\ddot{602} \ddot{F}, 10$ ohms per volt ........... 440
0 to 15 and 30 v . No. $603 \mathrm{~F}, 20$ ohms per volt
0 to 75 and 150 . No. $604 \mathrm{~F}, 100$ ohms per volt 100 and 200 v . $605 \mathrm{~F}, 210$ ohms per volt..$\quad 60$
0 to 75 and 300 v . $606 \mathrm{~F}, 210$
0 to 150 anl $300 \mathrm{v} . \quad 607 \mathrm{~F}$, 210 ohms per volt .. ......... $5 \quad 5 \quad 0$
0 to 100 and 400 v . $608 \mathrm{~F}, 210$ ohms per volt .. ........ 5156
0 to 200 and 400 v . $609 \mathrm{~F}, 210$

 210 ohms per volt .. .. ..
For complete range of all types of Ferranti Meters, and including special types which can be made to order, send for Ferranti Price List.

## Terminals . . . Lugs . . . Clips



Type A, Screen Grid Clips, nickel plated, per gross 10/per dozen 1/6
each 2 d.

Type A, Screen Grid Clips, tinned steel, per gross .. .. .. per dozen
each
1/-
$1 \frac{1}{2} \mathrm{~d}$.
Type B, Spade Terminals, brass or copper, per gross . . . .

8/-
per dozen.
1/-

Type B, Spade terminals, tinned steel, per gross
per dozen


Type Ca \& Cb , Double Soldering Lugs, tinned copper, per 1,000
per gross
per dozen
Type Ca \& Cb, Double Soldering Lugs, tinned steel, per 1,000
per gross
1/6
per dozen . . .. . .

Type Ce Double Soldering Lugs, tinned cop| per, per 1,000 | $\ldots$ | . | $11 / 6$ |
| :--- | :--- | :--- | ---: |
| per gross | .. | .. | . | per dozen . . . . .. 3d.

Type Cc Double Solder-

| ing Lugs, tinned steel |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| per 1,000 | . | .. | . | $8 /=$ |
| per gross | .. | .. | . | $1 / 5$ |
| per dozen | .. | .. | .. | $2 d$. |

## From LEVENSON'S RADIO

ㄹ․․․․․
Type $\mathrm{Fa}, \mathrm{Fc}$ and Fd , Single Soldering Lugs, tinned copper, per 1,000
per gross
1/9
per dozen
3d.
Type $\mathrm{Fa}, \mathrm{Fc}$ and Fd , Single Soldering Lugs, tinned steel, per 1,000 .. .. .. 8/per gross .. .. .. $1 / 6$
per dozen
2d.


Type Fb, Single Soldering Lugs, tinned cop-

| per, per 1,000 | $\ldots$ | . | $11 /-$ |
| :---: | :---: | :---: | :---: |
| per |  |  |  |
| per dozs | $\ldots$ | $\ldots$ | .. |
| $1 / 9$ |  |  |  |
| dozen | $\ldots$ | . |  |

per dozen
Type Fb, Single Solder-

| ing Lugs, tinned steel |  |  |  |
| :--- | :--- | :--- | :--- |
| per 1,000 | $\ldots$ | .. | . |
| per gross | $\ldots$ | $8 /-$ |  |
| per dozen | $\ldots$ | . | .. |
| $1 / 6$ |  |  |  |

Type E, Spike Spade Terminals, tinned steel, per gross .. 5/per dozen

8d.
Type E, Spike spade Terminals, tinned copper, per gross ..
per dozen
8/-


Type H, Alligator Clips, nickel plated, $\begin{array}{ccccc}\text { per gross } & . . & . . & . . & 30 /- \\ \text { per dozen } & \text {. } & . . & . . & 2 / 9\end{array}$ per dozen $2 / 9$


Type J, Bulb Spade terminals, copper, per gross .. .. .. 8/per dozen .. .. .. 1/-

Type J, Bulb Spade Terminals, tinned steel, per gross .. 5/per dozen .. .. .. 8d.

Type L, Small Ring Terminals, brass or copper, per gross .. per dozen

5/-
8 d .

Type L, Small Ring Terminals, tinned steel, per gross .. 4/per dozen


Type N, Spike Terminals, copper per gross .. .. .. .. per dozen

1/-

Type N, Spike Terminals, tinned steel, per gross
per dozen
8 d .

Type R, Small Spade Lugs, brass, nickel plated, copper, per gross.

4/6
per dozen
Type R, Small Spade Lugs, tinned steel, per gross
per dozen
5d.


Type T, Tooth Terminals, brass or copper, per gross .. .. 8/-
per dozen 1/-

Type T, Tooth Terminals, tinned steel, per gross .. .. .. 5/per dozen .. .. .. 8d.

Type P, Brass Pump or Earth Clips-

5/16-inch.
per gross .. .. .. 20/-
per dozen .. .. .. 2/-
each .. . . .. .. .. 3d.
7/16-inch
per gross .. .. .. 22/-
per dozen .. .. .. 2/3
each .. . . .. .. .. 3d.
$\frac{3}{2}$-inch
$\begin{array}{ccccc}\text { per gross } & \text {.. } & \text {. } & \text {.. } & 24 /- \\ \text { per dozen }\end{array}$..
each .. .. .. .. .. 3d.


Type Z, Battery Clips

| $10$ |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |

Radio Retailers, Set Buliders and Service Men
Write for our Special WholeSale Bargain List.
Combination Pliers for cutting, bending, turning, twisting wire-indispensable to radio builders; designed for Radio use

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS

HANDY RADIO TOOLS .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 23

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters

Screwdriver, made of finest steel, with cutters          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire          for stripping wire .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9 .....  .....  .....  .....  .....  .....  .....  .....  .....  ..... 9

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers

4 Assorted Small Screwdrivers .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10 .....  .....  .....  .....  .....  .....  .....  .....  ..... 10

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with

Hand Drill, Archimedes type, provided with        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits        small suitable bits .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23 .....  .....  .....  .....  .....  .....  .....  ..... 23

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,

Small Patent Tool Kit, comprises Screwdriver,       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet       Reamer, Gimlet .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13 .....  .....  .....  .....  .....  .....  ..... 13

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades

Small Radio Saw, with 3 blades .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19 .....  .....  .....  .....  .....  ..... 19

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set

Insulated Electrician's Pliers, set .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20 .....  .....  .....  .....  ..... 20

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type

Claw or Engineer's Hammer, small type .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13 .....  .....  .....  ..... 13

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$

Card of 7 Drills, $1-16$ to $\frac{1}{4}$ .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10 .....  .....  ..... 10

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron

Solder Iron .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16 .....  ..... 16
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil
Resin-Cored Solder, coil ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6 ..... 6
Reliable Electric Solder Iron, guaranteed
Reliable Electric Solder Iron, guaranteed
Reliable Electric Solder Iron, guaranteed
Reliable Electric Solder Iron, guaranteed
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Reliable Electric Solder Iron, guaranteed
Reliable Electric Solder Iron, guaranteed
Reliable Electric Solder Iron, guaranteed 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages 12 months. All voltages ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110 ..... 110
A.W.A. RADIOLA
2 VALVE SET
In Cabinet as illustra-ted. Originally $£ 10$.NOW ONLY .. .. £2

Ideal for Experimenters. Valves and Batteries extra.

Country or Out-ofTown Folk Join the SKYRAIDER CLUB And hear Radio as Never Before

Thousands now possess a Skyraider 4 Battery Operated Interstate Radio Receiver. WHY NOT YOU? It's altogether different to others, and you can build it yourself or purchase it ready assembled. All Metal Chassis. Needs no C battery. Perfect Tone; stations you never heard before. $100 \%$ Perfect. Blue Print and all Instructions 1/-. Free with Kit.
$£ 4 / 15 / 2$ buys all the Parts. $£ 3 / 6 /-$ all the modern Valves. $£ 1 / 17 / 4$ all the Batteries. $£ 1 / 2 / 6$ the Fuller Accumulator. Speakers to suit from 22/6.
The Set ready assembled, with high-grade Speaker and Handsome Floor Model Cabinet .. .. .. .. .. .. .. .. £17/10/Chassis only ready drilled, with Mounted Sockets, etc, 11/6.

# Levenson's ${ }^{L E A A D E R S}$ Radio 

## 226 and $240 A$ PITT STREET, SYDNEY

Branch $\qquad$ 240A PITT STREET

The Home of Half a Million Wireless Bargains (Opp. Sydney School of Arts)
A VAST \& VARIED RANGE OF
POTENTIOMETERS
TO CHOOSE FROM

HIGH GRADE POTENTIOMETERS

$2,000, \quad 5,000,25,000$, $10,00015,000$ ohms Price each .. 3/6 200 and 400 ohm magnus Potentiometers, each $3 / 6$ TYPE MPP8 MQ Special Wire Wound Potentiometers 1 to 10,000 ohm to order, each . 5/9

High Grade POTENTIOMETERS in Moulded Bakelite Cases. I hole Mount.

Price 4/6 5,$000 ; 10,000 ; 15,000$ ohms. With Knob.


Spiral Wander Plugs
 Non-Solder Type Red or Black Ebonite ends 3d. each

## SOCKETS WITH PLUGS



Red or Black Ebonite, non-solder ends, each 3d.
Sockets to fit each

## SPADES



## Non-solder Type

With Black or Red ebonite ends, each 3d.

## POSITIVE GRIP SPADE ENDS

## Non-Solder Type

Neat and well finished spade end, nicely nickel plated and supplied with six assorted colours. Price each

Banana Plugs and Sockets. Assorted Colours. Non-solder type, pair . . .. .. .. .. 6d. Small neat Spiral Plugs with Sockets. Assorted Colours. Famous TRIX make. Non-solder type. 3d. each, 6d. per pair.

## Like a Flash POTENTIOMETERS

GRAPHITE TYPE
5/6
25,000 ohms, 50,000 ohms, 100,000 ohms, 200,000 ohms, 250,000 ohms, 300,000 ohms and 1 meg.

## 7/6

THE PERFECT POTENTIOMETER
The Bradleyometer is a variable resistance which can be used either as a potentiometer or a rheostat and has been designed chiefly as an audio level and tone control for radio receivers.
The following resistance values are available from stock:
3 Terminal
5,000 ohms, 10,000 ohms, 15,000 ohms, 25,000 ohms, 50,000 ohms, 100,000 ohms, 250,000 ohms, 500,000 ohms, each .. .. .. .. .. .. .. 7/6 4 Terminal Type
In 500,000 ohms

## SOCKETS WITH PLUGS

For lengthening speaker cords.
4 Plugs and 2 sockets in set, 6 different colours. The set
Portfolio of All Electric Circuits.


## THE GUARDSMAN LEVER WATCH

Very fine Guardsman lever, strong, sturdy watches, accepted in payment of debt. We offer to clear at less than landed cost.

$$
7 / 6 \text { Each }
$$



HOW WOULD YOU LIKE TO AA WIIH RADIO FANS IN OVERSEAS COUNTRIES? Levenson's 5-Watt Transmitter and Linguist Short Wave Receiving Set makes this possible. Send $1 / 6$ for all partciulars of Transmitter. Includes Instructions and Diagrams.

LEVENSON'S ADD ANOTHER GLORIOUS PAGE TO THEIR ASTOUNDING RADIO ACTIVITIES BY PURCHASING AT AUCTION 10 TONS OF HIGH GRADE PHILIPS WELL KNOWN AND TESTED WIRELESS GOODS. MANY LINES NOW OFFERED AT LESS THAN ONE TENTH OF THEIR ORIGINAL LISTED PRICES.


PHILIPS TELEVISION NEON LAMPS
Type 3500 . Brand New, in original carton. List price 90/-. While they last. OUR PRICE .. .. .. .. 20/-

PHILIPS 2v. BATTERY SCREEN GRID VALVES
New and Tested. While they last ... .. .. 9/6 PHILIPS 4 OR 6 VOLT BATTERY VALVES Unboxed. Used but show O.K. reading on testing machine. Guarantced (All types except S.G. and Penthodes) .. 7/6 PHILIPS 4 VOLT SERIES A.C. VALVES
Used, but show O.K. on test. Guaranteed .. .. 7/6 each

## All Parts to assemble MID-POT Speaker, ( $\mathrm{a}^{\circ}$ Auditorium . No. 2045 illustrated. <br> ONLY 5/- Each.

Freight Country Customers must add $2 / 3$ for packing cases.
Comprises: Cone, Voice coils, Cone Chassis, 2 Terminal strips, 2 Washers, Prespahn strip, Pot, Ring and Rubbers.
You may like to wind the Transformers and Field Coils yourself, if not we can supply, as follows.

PHILIPS TUBULAR CONDENSERS, with Pigtails 001 and . 005 each PHILIPS C.T. $2 \times .1 \mathrm{mfd}$. Fixed Condensers .. 9d. PHILIPS 30,000 OHM VOLTAGE DIVIDER Tapped $8,000,11,000$ and 18,000 ohms. PRICE .. $1 /-$ PHILIPS POWER CHOKES, 40 ma .30 henry .. 3/PHILIPS 2 CIRCUIT OR S.P.D.T. SWITCHES $3 \times 21 / 4 \times 2$ inches. Black metal case with 4 terminals and bakelite pointer control knob .. .. $2 /-$


PHILIPS MODEL 2108 18-in. SPEAKER CABINET .. .. .. 5/- each Brown Mottled Moulded Bakelite. Includes Baffle on feet, Bakelite front, magnet cover. The lot for .. . . . . . 5/- each $4 /-$ each in lots of 6. $3 /-$ each in lots of 12 . Cone with wound voice coil .. .. .. $2 / 3$ extra SPEAKER CORDS. Ringed or Tipped Ends. Worth 2/6. NOW

PHILIPS BIAS RESISTOR. 2 windings on one tube. 2000 ohms and 500 ohms . . . . . . . $1 /-$


> A real lightning arrester. Will last forever. Usually $10 / 6$

NOW ONLY 5/-
Philips TUBULAR RESISTORS On Glass. 7,500 and 9,500 ohms. 6d. Each 4/6 Dozen PHILIPS 2 MEG. RESISTORS With pigtails .. .. .. 6d. each


PHILIPS AUDIO
TRANSFORMERS
Reconditioned. Cases are only shop-soiled. Guaranteed 12 months. List price, $27 / 6$.
PRICE
10/- Each

PHILIPS
TRANSFORMERS For 3002 B Battery Eliminators. 240v. Primary, 4 v . tapping; 200 v . secondary. PRICE .. 4/-

PHILIPS 3, . 5 CONDEN SERS, 5 Terminal points supply various
$2 / 6$ PHILIPS $3, .5$ CONDEN SERS 4
points Terminal 2/6 PHILIPS RESISTORS 20,000 ohm ; 8,000 गhm, 2 meg. Each 6d. PHILLPS TUBULAR CONDENSERS
001, . 00015 , each
6d.

PHILIPS AUDIO
TRANSFORMERS Manufacturers' type, in metal case. As used in Philips Radioplayers PRICE

6/- each


Cone Type. While they last. List Price, £7/7/-. NOW 35'-
PHILIPS PETER PAN CONE SPEAKER UNIT
Mounted on $111 / 2 \mathrm{in}$. cone. With terminals. Worth easily $30 /=$ OUR PRICE .. .. .. .. 15/PHILIPS "PCJJ" SPEAKER UNIT AND CONE . . . . . $15 /$ Mounted. Worth easily $30 /$ Philips $73 / 4 \mathrm{in}$. Floating Cone for "PCJJ" Speakers, with
Washers .. .. .. $1 / 6$ PHILIPS SPEAKERS - FLOOR MODELS
No. 2021 Dynamic Type. List Price
£19/10/-
No. 2012 Permagnetic Type. List Price
£14/10/-
OUR PRICE .. .. 75/- each. Brand New and Tested.

[^7]
## RESISTANCES OF ALL TYPES

\author{

DURHAM I.R.C. FIXED RESISTANCES <br> | 1 Watt Type. 10,000 ohms to 1 | Meg. .. | $2 /-$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 Watt Type. | 2000 ohms to 1 | Meg. | .. | $3 /-$ |
| 2 and 3 Meg. . . . . . . . . . . . . . . . . | $3 / 6$ |  |  |  |

}

## BELDAS M. FIXED RESISTANCES

With Pigtails
1 Watt M M/A. 5,000 to 10 Meg . .
2 Watt with Pigtails. 3,000 to 1 Meg.


4/6 each
$0-200,000$ ohms $0-500,000$ ohms VARIABLE RESISTANCES

Were $9 / 6$
Now 4/6 each
For Voltage Control, Volume Control, etc.

## RESISTANCE COUPLED UNITS



De Jur Resistance Coupling Units, 7/6 each Stage Double Mounting Clips only as illustrated $\quad 2 / 3$ Single Mounting Clips

[^8]
## ERO VARIABLE RESISTANCES

Variable 30 ohm Resistances with knob .. $2 / 6$
Panel Mounting 30 ohm Variable Resistance, with plunger, one hole mount

2/6

## "LIKE-A-FLASH" WIRE WOUND RESISTANCES GUARANTEED ACCURATE



50 m.a. TYPE RESISTORS
Up to 1000 ohm 50 m.a. . . . . . . . . 7 d.
2000 " " " .. .. .. .. .. 9d.
2500 ", " " . .. .. .. .. 10d.
3000 " " " .. .. .. .. .. 1/-
4000 " " " .. .. .. .. .. $1 / 3$
$5000 \quad$, $\quad$, . . . . . . .. $\quad 1 / 6$
$6000 \quad$ " $\quad$ " .. .. .. .. .. $1 / 9$
7000 " $\quad$, $\quad$. . . . . . . . $1 / 9$
$8000 \quad, \quad, \quad . \quad . \quad . \quad . . . \quad 2 /-$
9000 " " " .. .. .. . . . $2 / 3$
$10000 \quad$ " $\quad$ " $\quad$ " . . . . . . . . . . $\quad 2 / 6$
$100 \mathrm{~m} . \mathrm{a}$. TYPE RESISTORS
Up to 1000 ohm 100 m.a. . . . ... .. .. 9d.
$1250 \quad$ " $\quad$ " . . . . . . . . 9 d.
$1500 \quad, \quad, \quad, \quad . \quad . \quad . . . . . \quad 9 \mathrm{~d}$.
2000 " $\quad$ " . . . . . . . . $1 /-$
$2500 \quad, \quad, \quad . . . . . . . . . \quad 1 / 3$
$3000 \quad$ ", $\quad$ " .. .. .. .. .. $1 / 3$
$4000 \quad$ " $\quad$, $\quad$. . . . . . . . . $\quad 1 / 9$
$5000 \quad$ " $\quad, \quad$. . . . . . . . 2/-
Mullard $100,000,250,000,500,000$ Resistors 1/6
With Pigtails . . . . . . . . . . . . . . . . $1 / 9$


PILOT C.T. RESISTORS
25 ohm and 50 ohm.
Now . . 6d. Each


PILOT OR TORCH LAMPS
To fit all standard holders. Round or tubular bowl, $6 \mathrm{~d} ., 9 \mathrm{~d}$., and 1/-. $2.3,3.5,3.8,6$, and 6.5 volts. Porcelain or Metal Holders for above lamps

6d.

## LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

METAL RECTIFIERS
Type H.T. (High tension type): For general use as Rectifiers in all types of Radio Receivers.

| Rated output |  | Max. Current Output M.A. | Max. A.c. Volts Input |  |  |  | Reservoir Condensers (For 50 cycles only) Half Voltage |  | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rat Volts | M.A. |  | Half WaveVolts |  | Voltage Doubler |  |  |  |  |
| 120 | 30 | 30 | 135 | 30 | - | - | 4 mfd |  | $39 /$ |
| 150 | 50 | 50 | 135 | 30 | 135 | - | mfd | 4 mfd . | 69/- |
| 120 | 20 | 30 | 135 | 30 | 80 | 60 | 4 mfd . | $4 . \mathrm{mfd}$. | 15/- |
| 175 | 25 | 30 | 210 | 40 | 110 | 75 | 4 mfd . | 4 mfd . | 18/- |
| 200 | 28 | 30 | 250 | 45 | 135 | 90 | 4 mfd . | 4 mfd . | 19/6 |
| 250 | 60 | 60 | 375 | 90 | 200 | 200 | mf | 4 mfd . | $30 /-$ |
| 300 | 60 | 60 |  | - | 240 | 200 | - | 4 mfd . | $33 /-$ |
| 200 | 100 | 100 | - | - | 150 | 300 | 三 | 8 mfd . | $33 /-$ |
| 500 | 120 | 150 | - |  | 300 | 550 | - | 8 mfd . | 66/- |
| 320 | 75 | 75 | - |  | 256 | 220 | - | 4 mfd . | $34 / 6$ |

## BRADLEYUNITS

MOULDED CARBON FIXED RESISTORS
1 Watt-all values up to and including 1 meg., each
3 Watt-2 meg. and over, each ... ... .. $\quad 2 / 6$
3 Watt-All values up to and including i meg., each

3/-
1 Watt-2 meg. and over, each...

## 20 OHM MIDGET VARIABLE RESISTANCE

With knob. May be used as C.T. Resistance 2/6


## KRIESLER FIXED RESISTORS

450 Ohm at $100 \mathrm{M} / \mathrm{A}$ 5000 Ohm at $50 \mathrm{M} / \mathrm{A}$ 400 Ohm at $100 \mathrm{M} / \mathrm{A}$

1000 Ohm at $50 \mathrm{M} / \mathrm{A}$ 4500 Ohm at $50 \mathrm{M} / \mathrm{A}$ 1000 Ohm at $50 \mathrm{M} / \mathrm{A}$ Were $2 / 6$ to $3 / 6$.
NOW .. .. .. .. .. $1 / 3$ EACH


12 Assorted WIRE WOUND RESISTORS

Wanted Capacities Usually up to 2/6 each
Now $10 / 6$ dozen


## RESISTORS FOR EVERY RADIO PURPOSE



## BELDAS FIXED CARBON RESISTORS

Pigtails. 2 Watt. Carrying $8 \mathrm{M} / \mathrm{A}$. 5,000 ohms; 10,000 ohms; 15,000 ohms; 20,000 ohms; 25,000 ohms; 50,000 ohms; 75,000 ohms; 100,000 ohms; 250,000 ohms; 500,000 ohms

3/9

## BELDAS FIXED RESISTORS

1 Watt, 1,000 ohms to 10 Meg. . . .. .. 1/-
2 watt, $1,000 \mathrm{ohm}$ to 10 Meg . . . . . . . . $1 / 6$
BELDAS W.W. BIAS RESISTORS 0 to $500,50 \mathrm{~m} / \mathrm{a}$. ..... 1/-
0 to $500,100 \mathrm{~m} / \mathrm{a}$. ..... 1/3
550 to $25,000,50 \mathrm{~m} / \mathrm{a}$. ..... 1/8
R.C.S. FIXED RESISTORS
200 to $2,000,50 \mathrm{~m} / \mathrm{a}$. ..... 9d. 2,000 to $3,000,50 \mathrm{~m} / \mathrm{a}$. ..... 9d.
3,000 to $6,000,50 \mathrm{~m} / \mathrm{a}$. ..... 1/3
6,000 to $10,000,50 \mathrm{~m} / \mathrm{a}$. ..... 2/-
200 to $2,000,100 \mathrm{~m} / \mathrm{a}$. ..... 1/-
CARBORUNDUM RESISTORS

| 1,000 | ohms. | 50,000 | ohms. |  |
| :---: | :---: | :---: | :---: | :---: |
| 2,000 | " | 75,000 | " |  |
| 3,000 | ", | 100,000 |  |  |
| 4,000 | " | 150,000 | " |  |
| 5,000 8,000 | ", | 200,000 250,000 | " | 13 |
| 10,000 |  | 500,000 |  |  |
| 15,000 | " | 1 | Meg. |  |
| 20,000 |  |  | " | EACH |
| 25,000 | " | 3 | " |  |
| 30,000 40,000 |  | 4 5 |  |  |




100,000 ohms, 250,000 ohms, 500,000 ohms.


## DE JUR

Metalised RESISTORS
The Best Made.

$$
\begin{aligned}
& 1 / 6 \\
& \text { each }
\end{aligned}
$$

$10,000 \mathrm{ohm}$. $200,000 \mathrm{ohm}$ $20,000 \mathrm{ohm} . \quad 250,000 \mathrm{ohm}$ $50,000 \mathrm{ohm} . \quad 500,000 \mathrm{ohm}$ With Pigtails .. .. 1/9

A WIDE RANGE
OF

## RHEOSTATS

## FOR ALL RADIO

PURPOSES

## DE JUR RHEOSTAT



DE JUR Bakelite Rheostat With Knob 3/6 10 or 30 ohm.

AMSCO 30 ohm Midget 2/6

20 ohm Midget $P a n e l$ Mounting Rheostats,
Each 3/6
30 ohm Pilot Rheo .... 3/6 30 ohm Variable Resistances, with knob to control. Midget type

Picolo Variable 30 ohm Rheostats, with porcelain base for Baseboard or Panel Mounting

## RHEOSTATS

All Leading Makes. With Knobs supplied. EMMCO-

6, 10 and 30 ohms . . . . . . . . . . $3 / 6$
MAGNUS-
10 ohms
析
.. .. .. .. .. .. .. .. .. 2/-
RELIANCE-
10,20 and 30 ohms ............. $2 / 6$
W.R.C. MIDGET- 10 and 20 ohm .............. $2 / 6$
H. \& H.-

Air Cooled, 20 ohm. . . . .. .. .. .. $2 / 6$
ELECTRAD-
10 ohm. Usually $3 / 6$. NOW .. .. .. $1 / 6$
MARWOL-
6 ohm . Usually $3 / 6$. NOW .. .... $1 / 9$
DE JUR THERMOTROLS
AUTOMATIC RHEOSTATS


Both with Knobs supplied.

## 2/3 Complete

Fixed Filament Resistance.
There is a Thermotrol to suit every valve.

## 15/- EFCO стиомй рйтер 15/-

THIS FEATURE OF A POINT OR "PROW" ON
THE BASE IS IDEAL FOR IRONING AROUND AND UNDERNEATH BUTTONS.


Regd. Design No. 10486. - 240 Volts, 550 Watts.

OBTAINABLE AT LEVENSON'S

The special feature of this perfect Household Iron is the new point which the Black Arrow denotes. This enables the user to cover ground hitherto inaccessible with other makes of electric iron, such as seams, underneath the buttons, etc.

GUARANTEED FOR 12 MONTHS!

Australian Made by the
EFCO Manufacturing Co. Ltd. Arnciiffe, Syditey, N.S.W.

## SWITCHES

## CUTLER-HAMMER KEY LOCK SWITCHES <br> 

"Key Lock" type. Provided with two detachable keys. Safely lock your set preventing operation. Price, each, with two keys

2/6

## A.C. TOGGLE SWITCH WITH PIGTAILS $2 / 6$

Magnus Series Parallel Switch .. .. .. $2 / 6$
Magnus Inductance Switch with 14 contacts
2/6
Magnus Switch Arm
9d. each
Nickel switch studs and nuts, dozen ..
Nickel switch stops and nuts, dozen .. 1/Levenson's invite Traders to send 2 d. stamp for Wholesale Bargain List.

No. 1-2-WAY ROTARY SWITCH Price .. .. .. 2/6

No. 4-D.P.S.T. ROTARY SWITCH Price

3/-


No. 3-D.T.S.T. TOGGLE SWITCH. $\frac{3}{8} \mathrm{in}$. Neck.
2 Nuts . . . . . . . $2 / 6$ each

No. 2-2-WAY TOGGLE SWITCH. ${ }_{8}^{3} \mathrm{in}$. Neck.
2 Nuts .. .. .. .. .. 2/6
$\frac{7}{8} \mathrm{in}$. Neck. 2 Nuts .. 3/-


SPECIAL TRADE PRICE IN QUANTITIES.


EMMCO BATTERY SWITCH
With on-Off Plate
PRICE .. .. 2/6

LIKE A FLASH TONE CONTROL SWITCHES
Four Point, One Hole Mounting
1/9 Handy for all Radio Experimenters.

MAGNUS TOGGLE SWITCHES
Flush Metal; Black Panel, marked "On" and "Off"


Panel Mounting S.P.D.T. Switches .. . 1/9
D.P.D.T. . . .. . . . . . . . . . . . . . . . $2 /-$

Mounted on Bakelite Base, extra .. .. 2/6

## HAKA TOGGLE SWITCH



Haka Toggle type switch. Red or black knob. One hole mount. 240 volts, A.C. 2 amps. Many uses "on-off," two way, "make one break one circuit."

$$
\text { PRICE .. .. } 2 / 6
$$

FRONT OF PANEL MOUNTING BLACK BAKELITE

## ON-OFF SWITCH

Neat Appearance
Price, each
$1 / 9$
S.P.S.T. SWITCHES

On Fibre Base.
PRICE . . $1 / 3$

WHITE SPOT Bakelite Knob Push-Pull Switch. Efficient in every way. Price, each


## PUSH-PULL SWITCH

Hart and Hegeman push-pull switches with metal face plate and nickel plated knob push-pull type. Suitable car or radio use.
PRICE .. .. .. .. 1/- each


No. 2: D.P.D.T., Switch Porcelain base .. .. $3 / 3$ No. 1: S.P.D.T. Porcelain Switches

## 3/3

(Includes Lightning Arrester spark gap) S.P. Single Throw Switch, Porcelain Base 1/3

## ROTARY and TOGGLE SWITCHES



Double Pole, Single-Throw Toggle Switch.
Bin. Neck with two Hex. Nuts. Price . . 2/6 each.

Manufactured by
ALPHA ENGINEERING CO. LTD.

62-68 LAYTON STREET, Camperdown, N.S.W.

Telephone: L 2045
City Office and Sales Dept.:
30 GROSVENOR STREET, SYDNEY
Telephone: B 4630


Two-Way Toggle Switch. gin. Neck with Hex. Nuts 2/6 each, $\frac{7}{3}$ in. Neck with Hex. Nuts .. .. .. 3/-


Double Pole, Single-Throw Rotary
Switch. Price . . . .. .. 3/-

Obtainable at LEVENSON'S RADIO
Special
Prices in
Lots to


Two-Way Rotary Switch. Price . 2/6 each

## M.Q.S. 2-WAY HEADPHONE PLUG

This device is rugged and well designed and made to fit most standard types of jacks. Ample internal space permits of easy attaching terminal of two sets of circuits, the external dimensions being of such size as to make for easy insertion in and withdrawal from jack.

PRICE . . . . . . 1/9

## CLIX SPIRAL WANDER PLUGS

Non-Solder. Red or Black ebonite ends. Ensure a rigid full-surface contact. The tubular plug has a helical cut. 3d. each.


## EYELETS

For Coil or Transformer making.
Dozen
3d.
Gross
2/6
SPEAKER CORD EXTENSION COUPLINGS Should you desire a neat combination to extend your Speaker Cord we can supply a neatly made Male and Female coupling for same. The full set of six Bakelite pieces cost $1 / 6$


Flat Tinned, dozen
Pind .. .. .. .. .. .. .. .. 3d.
Ringed each end, gross .. .. .. .. .. .. $2 / 3$
Open End Copper, small, 3d. doz. Large .. 6d.
Open Ends Tinned, small 3d. doz. Large .. 6d.
With Red or Black non-solder Ebonite Ends
each .. .. .. .. .............. 3d.
Resin Core Solder, coil .. .. .. .. . . .. 6d.
Solder Sets, complete . . . . . . . . . . . . . . $2 /-$
Set of 9 Radio Drills .. . . . . . . . .. .. 1/9
Radio Breast Drill .. .. .. .. .. .. .. .. 5/6


## SPEAKER OR PHONE PLUGS

Like a Flash Bakelite Tubular Base Phone or Speaker Plug. No. 5
Buffalo Bakelite and Metal, standard size, No. 4
Alpha De Luxe phone or speaker plug, No. 2
Magnus Multi Point phone or speaker

plugs, No. 1

Like a Flash with fix-

ing terminals, No. 3 ..... $2 / 6$

Non Solder phone tips, each ..... 3d.

Speaker Tips, solder type, each
1 d.

$$
\begin{array}{lll}
\text { Speaker Cord Extension Adapters } . \ddot{0} \\
\text { Porcelain, Double Wire Joiners, each .. } & 1 / 6 \\
\text { 3d. }
\end{array}
$$

Porcelain, Double Wire Joiners, each


No. 2
$1 / 9$
No. 3
$2 / 6$
No. 1 3/6



## NEW SPEAKER PLUGS

For Dynamic Speakers

4 prong, 5 prong and 6 prong Speaker
Plugs

1/-

7 prong Speaker Plugs...
Sockets to suit, 4, 5 and 6 pins .. .. .. 9d.
7 pin . . . . . . . . . . . . . .. .. .. . . .. 1/-

## MONEY FOR YOU!

Know all about the PUNCH BOARDS and DIGGAR BOARDS Hotelkeepers and Tobacconists specially note.
See particulars on inside of cover page.

## FIBRE WASHERS

| Giant Packet of ASSORTED SOLDER |  |  |
| :---: | :---: | :---: |
| LUGS. | A year's supply for experi- |  |
| menters. | Packet-1 gross . . | 2/6 |

$4 \times \frac{1}{2} \times 1 / 32$ inch, dozen ..... $2 d$.
$\frac{1}{2} \times \frac{1}{8} \times 1 / 32$ inch, dozen ..... 41.
Giant Packet of ASSORTED SOLDER menters. Packet- 1 gross ..... 2/6


## Retail Price of

## Jensen

## Dynamic Speakers

Jensen Speaker Service Charges:

TYPE D17 New Cone, 12/9; Rewinding Field, 10/6; New Input Transformer, 7/6; fitted, $10 / 6$.

TYPE D9 New Cone, 19/-; Rewinding Field, 12/9; New Input Iransformer, 7/6; fitted, $10 / 6$.
MIDGET TYPE New Cone, 7/6; Field Coil, 7/6; New Input Transformer, $7 / 6$; fitting, $8 / 6$.

$5 \frac{1}{4}$ inch T1, 2,500 or 8,000 ohms
73 inch D-17, 2,500, 4,500 or 8,000 ohms
10 inch D-9 2,500, 4,500 or 8,000 ohms .. £3 50
10 inch D-8 Concert Unit 6 volts D.C. .. .. $\quad £ 710 \quad 0$
10 inch D-8 Concert Unit, 12 volts D.C. .. .. £7 $10 \quad 0$
10 inch D-8 Concert Unit, 32 volts D.C. ...... £7 $10 \quad 0$
10 inch D-8 Concert Unit, 2,500 ohms ... .. \&7 10 0
$\begin{array}{lllllll}10 \text { inch D-8 Concert Unit, } 4,500 \text { ohms } & . . & . . & £ 7 & 10 & 0 \\ 10 & \text { inch D-8 Concert Unit, } 8,000 \text { ohms } & . . & . . & £ 7 & 10 & 0\end{array}$
$\begin{array}{llllllll}10 \text { inch D-8 Concert Unit, } 4,500 & \text { ohms } & . . & . . & £ 7 & 10 & 0 \\ 10 & \text { inch } & \text { D-8 Concert Unit, } 8,000 & \text { ohms } & . . & . . & £ 7 & 10\end{array} 0$
10 inch D'A-8 Auditorium Junior for 110-180
10 inch DA-9 Auditorium Junior for $180-300$
volts D.C.
10 inch DA-9 Auditorium Junior Unit for 240
volts A.C. .
12 inch DA-6 Auditorium Senior for 110-180
volts D.C. .. .. .. .. .. .. .. .. .. £20 0
12 inch DA-7 Auditorium Senior for 180-300
volts D.C.
12 inch DA- 7 A.C. Auditorium Senior for 240
volts A.C. . .
$£ 1 \quad 5 \quad 0$
£2 50
$\qquad$ . .
12 inch DA-6 Auditorium Senior for 110-180
12 inch DA-7 Auditorium Senior for 180-300 volts D.C.
12 inch DA-7 A.C. Auditorium Senior for 240 volts A.C. . .
$\begin{array}{lll}£ 13 & 0 & 0\end{array}$
$£ 20 \quad 0 \quad 0$
£20 00
£25 $0 \quad 0$

## International Radio Co. Ltd.

Send
for
Free
Catalogue

254 Castlereagh St., Sydney 403 Bourke St., Melbourne
Brunswick Buildings, Queen Street, Auckland, N.Z.

## A Fine Assortment of LOUD SPEAKERS to Suit all Sets

## SPEAKERS

The most wonderful range of Loud Speakers ever offered to the public. Every possible and available type of Dynamic, Permagnetic, Horn and Cone Speakers in stock.
Speaker Units of all types and makes, Cones and Cone Papers, etc., at prices that defy competition.
Remember this. Should you be discontented with any Speaker purchased at Levenson's, you have the right to exchange same within 7 days. What could be fairer?

We have installed a Gigantic Baffle Board in our Main Store where you may hear every available make of modern speaker before you make your selection.

## VARIOUS TYPES OF

## DYNAMIC SPEAKERS

25/- $\underset{\text { TYPE " } \mathrm{M} \text { " }}{\text { SPEAKER }}$ 25/that operate from a 6 volt Accumulator. The Ideal Countryman's Dynamic Speaker. All Reconditioned as New. Special Offer .. 45/-

## AMPLION MIDGET DYNAMIC

Overall Diameter 5 inches. Cone $4 \frac{1}{2}$ inches. Available in 6 volt Field. Also 1250 ohms, 2,500 ohms and 7,500 ohms.

## OXFORD SPEAKERS

D y n amic Speakers for operation from non-electric sets or from electric sets not specially fitted with outlets for dynamic field supply.


NOW 63/- to Clear. Were $£ 6$ and $£ 9$

## LIKE A FLASH PERMAGNETIC SPEAKERS

Latest Model. For Battery Set Operation.

OXFORD DYNAMIC SPEAKERS
These
 speakers have their own transformers, rectifier and filter sy stem. One lead plugs into your power point and the other connects to your set in the same manner.

63/- to clear
Were $£ 6$ and $£ 9$ each

## "LIKE A FLASH" DYNAMIC SPEAKERS

D.C. D y n a mic Speakers for operation by connection to power packs of A.C. Receivers. Very pow erful. Full range and natural tone, any type always on $h$ and. 2,500 or 7,500-8,000 ohm. Penthode or 245 types.


12 months' guarantee. Could you wish for more?

$$
\text { 7-nich Model, } 2500 \text {. . . . . . . . . . . . . . } 24 / 6
$$

7 -inch Model, 7500 24/6
11-inch Model, 2500 .. ... .. .. .. .. .. .. 27/6
11-inch Model, 1200 27/6
11-inch Model, 7500
27/6

## All Australian Manufacture

## STOP PRESS!

Like a Flash Midget Dynamic
Speakers
19/6

For all types of A.C. sets
5 inch Model

## LATEST MODELS IN

## AMPLION SPEAKERS

## DYNAMIC TYPES



## DUAL DYNAMIC TYPE



## PERMAGNETIC MODELS

Type 01-Unit and Chassis . . . . . .. $£ 317 \quad 6$
Type 02-Unit and Chassis, in cabinet $£ 517 \quad 6$
Type L1-Unit and Chassis .. .. .. \&5 00
Type L2-Unit and Chassis, in cabinet £7 $0 \quad 0$
Any of these Speakers fitted with any type of Input Transformer required.

## JUBILEE DYNAMIC SPEAKERS

JUbilee Speakers (Chromium Plated)
Full Power and Guaranteed
2500 ohm for 245 or 247 tubes......
7500 ohm for 245 or 247 tubes...


Grawor Adjustable Cone Speaker Units .. 21/-


Traded in and now as new. Reconditioned Magnavox Dynamic Speakers. A.C. Models

Or to operate from a 6 - volt Accumulator. 45/-

LEVENSON'S RADIO

## PHILIPS MAGNUM DYNAMIC SPEAKER

Type 150, 61 $\frac{1}{2} \mathrm{in}$. Cone, 2500 ohm.<br>50/-<br>Typee 154, 8 in . Cone, 2500 ohm .. .. .. .. 54/6<br>Type $172,10 \frac{1}{2} \mathrm{in}$. Cone, 2500 ohm 74/6

## DUAL DYNAMIC SPEAKERS

As used on all high-class Receivers where a reproduction of every note at its correct value is essential.

Combination A.-Comprising two Type 150 (61 $\frac{1}{2}$ in. Cone) Speakers
£4/11/8
Combination B-Comprising one Type 150 (63 in. Cone) ane one Type 154 (8in. Cone) Price
£4/16/3:
Combination C-Comprising two Type 158 (8in. Cone)

25/0/6
Combination D-Comprising one Type 154 (8in. Cone) and one Type 152 ( $10 \frac{1}{2} \mathrm{in}$. Cone). Price
£6/1/-
For best results we strongly recommend either Combination "B" or "D".

## PRECISION BUILT

Genuine HEGRA-Original Dynamic Speakers. Easily the foremost of Dynamic Speakers. Includes Dry Rectifier. Operates from 240 A.C. Wonderful Value. NOW . . . . . . . . . . 90/-
Cast Aluminium Speaker Chassis
wide; 3 inches
No Cone.

Ready-made Cone and Baffle- 12 inches square

5/6
With All Fittings.
Celotex Baffle Boards, $18 \times 15$ inches, 7 inch hole


ORMOND PERFECT CONE: SPEAKERS 45/-
Just to hand. In handsome Cabinet. British and Best.


Grawor 4-pole Adjustable Cone Speaker Units, perfect reproducers . . .. .. 25/-


Blue Spot 66R Cone Speaker Units. Our Price only .. .. 30/-

Reductions in R.C.A. Speakers


## R.C.A. Model 100B Magnetic

The Radiola Model 100B Speaker is one of the most popular magnetic reproducers on the market. The unit, one of the finest made, is housed in a cabinet of modernistic beauty. Thousands of these speakers have been sold for many times our extraordinarily low price. Ideal for use as an "extra" speaker with any radio, A.C., D.C., or battery operated. Capable of withstanding considerable volume without distortion. Each of these speakers is packed in its original factory sealed carton. Price ......................... $£ 3$

## TIMMONS CONE CHASSIS

As illustrated.
Complete
$\underset{\text { Speaker in }}{\text { Spal }}$ 25/-

Same speaker without metal cabinet com-prises-
Special Cone; Large Steel Magnet;

Heavy Coils.

$$
\begin{gathered}
\text { COMPLETE } \\
\text { CHASSIS } \\
\text { ONLY }
\end{gathered}
$$



TIMMONS SPEAKER
Housed in Metal Cabinet; Gold Braid Grille

$$
22 / 6
$$

Price 25/- $\qquad$
BRANDES AMERICAN CONE SPEAKER CHASSIS
Mounted. With Output Transformer to safeguard speaker against excessive flow of current. Size of Baffle: $18 \times 12 \times 6$ inches. Usually $50 /-$ NOW

$$
\text { . . . . . } 25 /-
$$

From our Branch, Radio Cheapside, 240A Pitt St.
TRADE-IN RECONDITIONED
SPEAKERS
All types and models, $10 /-, 15 /-, 17 / 6$, £1, 25/-

We select for you with the right of exchange if not to your satisfaction.

## CABINET SPEAKERS

Always a stock of all types. Peconditioned. Were up to $£ 5 / 5 /-$.
Now $25 /-$ and $30 /-$ each Just like New. Guaranteed 12 months.
 Silver Cone Loud Speaker. Adjustable, 35/NOW 22/6
 mature Cone Speaker Unit. A Lifelike Reproducer . . 21/LEVENSON'S REPAIR ALL KINDS OF RADIO EQUIPMENT Specialising in the adjusting and repairing of Gramophone Pick-ups. All kinds of Dynamic Speaker Transformers and Field Coils made to order or repaired. Quotations with Pleasure.

## GRAWOR ORCHESTRA SPEAKER . . $£ 3$

 Old Gold with Sectorphane Cone. This superb speaker has beauty of tone and appearance.
## BETTER THAN DYNAMIC



SECTOPHANE SPEAKER CHASSIS
$11 \frac{1}{2}$ inches square. Fitted with monster steel 4-pole Unit 40/-

SPEAKERS FOR CABINET MOUNTING


ORMOND 4-POLE UNIT.
Famous throughout the country for Punch, Power and Purity.
The Ormond Cone Unit and Chassis has by reason of its amazing worth and value proved to be the most popular. It is a product worthy of the Ormond Reputation.
Amazing performance combined with remarkable low price makes the Ormond Cone Unit and Chassis most attractive. Complete .. .. 30/Includes 12 $\frac{1}{3}$ inch square Baffle Board. Total Depth is $15 \frac{1}{2}$ inches. Unit is adjustable.
UNIT ALONE AVAILABLE AT . . . . . 17/6

LEVENSON'S PORTFOLIO OF A.C. CHARTS SIMPLE EASY TO FOLLOW LAYOUTS. 2.5 Series or 4 volt Series. Were originally $2 / 6$.

$$
\text { NOW } 1 /- \text { EACH }
$$



SAXON MIDGET SPEAKER . . 19/6
Specially designed for Automobile
Radio. 6 volt field.

New JENSEN D17 Auto Dynamic
Speaker Chassis 35/-
With 6 volt field and mounting bracket. Specially designed for Automobile Radio

## TRIOTRON

## HIGH GRADE 4-POLE DOUBLE BALANCED CONE SPEAKER UNIT

With large Magnet. A most excellent piece of workmanship. A Great Reproducer . . .. 30/-

Send 2d. Stamp for Envelope of Radio's Most Recent Developments. Price Lists Pamphlets, etc.

## TRADE-IN RECEIVERS

All kinds of Battery Operated Radio Receivers-Trade-in models-each tested before being forwarded . . $3,4,5,6,7$, and 8 valve Sets. Ideal for Country districts

## FOR NEXT TO NOTHING PRICES!

## NATHANIEL BALDWIN LOUD SPEAKER UNITS

- Baldwin products are famous in the radio field. These units incorporate the latest developments of the most critical tone enthusiast. New added improvements, capacity and tonal range. One of the finest units built. Ideal for use with expotential horns or use in automobile receivers.


Lowest price ever quoted. Extra large size. Price . . . $45 /-$ NOW .. .. .. 15/-

# CONE SPEAKER UNITS AND BAFFLES 



BAFFLE BOARDS FOR SPEAKER MOUNTING CELOTEX BAFFLE BOARDS

Ready Made or Cut to Order
As a sounding board its qualities are most ideal, a fact which is borne out by its extensive use in the studios of broadcasting stations. The most expensive receiver console speaker compartments are lined with Celotex. Standard size Baffle 15 x $18 \times \frac{1}{2}$ inch . . . .. .. $2 / 6$ 7 inch hole.
Same sizes double thickness, double the price. Odd sizes cut but charged for at rate of next largest stock size.
All 1/- extra with standard Aperture Cut


GOLDEN BROCADED GRILLE CLOTH FOR CABINETS
For back of Speaker Frets 24 inches wide
Price
1d. per running inch

## CARBON GRANULES

High Class English, per $\frac{1}{4}$ oz. . . . . . . . . $2 / 6$
May be used in hundreds of different ways.

## BELL PUSHES

Small Bakelite Bell Pushes ..... 1.6Small Bakelite Bell Pushes, with WhiteButton2/-

## SPECIAL SPARK PLUGS FOR AUTO SETS

Special Champion Spark Plug fitted with Suppressor Resistance for Automobile Radio Set. List Price, each

8/6

| WESTINGHOUSE ELECTRIC |  |
| :---: | :---: |
| A.C. AND D.C. TYPES |  |
| -8in. Non Oscillating (A.C. only) |  |
| RR - 8in. Oscillating (A.C. on |  |
| RR-10in. Non Oscill |  |
| $\mathrm{RR}-10 \mathrm{in}$. Oscillating |  |
| RR-10in. Oscillating Ivory |  |
| $\mathrm{RR}-12 \mathrm{in}$. Non Oscillating |  |
| RR-12in. Oscillat |  |
| RR-16in. Non Oscillating (D.C. only) | ${ }_{68} 10$ |
| RR-Oscillating |  |
| RR-36in. Ceiling |  |
| RR-52in. Ceiling |  |
| RR-12in. Exhaust |  |
| RR-16in. Exhaust |  |
|  |  |
|  |  |

## THE "WESTECTOR"

A development of the well-known Westinghouse Metal Rectifier, suitable for the rectification of high-frequency currents.
Model W.4: Half-wave type .. .. .. .. 15/-
Model W.6: Half-wave type .. .. ..... 15/-
Half-wave Westector, type W. 4 or W.6, suitable for use in place of a diode detector.
Model WM.24: Full-wave centre tapped type

21/-
Model WM.26: Full-wave centre tapped type .. .. .. .. .. .. ............ $21 /-$ Centre-tapped Westector WM. 24 or WM. 26 (actual size). Full-wave rectification is obtained, and these types can conveniently replace a duodiode detector valve.

## R.C.S. CENTRE TAPPED RESISTORS

Fit directly across filament valve contacts eliminating need for long pigtails. 20 ohm and 50 ohm, each

9d.
The New R.C.S. Line Filter
20/-

## RADIO EXPERIMENTER'S TOOL KIT <br> 15/- the Lot

1 Solder Iron.
1 Coil Resin Core Solder.
1 Tin Tinka Solder Flux.
1 Pair Special Radio Plyers.
3 Small Radio Screwdrivers.
1 Radio Combination Tool-Screwdriver, Wire Insulation Stripper, etc.
1 Pair Heavy Plyers with Shock-proof Insulated handle.
1 Pair Extra Lnog-nosed Radio Plyers.
1 Radio Metal-cutting Saw with extra blade.
1 Card of Radio Metal Drills.
1 Pair of Insulated Valve and Set Testing Leads.

"ELODEN" CONE LOUD SPEAKER
Beautiful Cabinet. Excellent Reproduction. Selected by authorities in Germany for installation on the recent World Tour of the Giant Graf Zeppelin. Usually $£ 4,4 /-$ NOW $. .30 /-\& 35 /-$


SEERAVOX CONE SPEAKERS
Imitation of Famous "Sferavox" Speaker.

Silver Cone. Was 35/-
NOW $\qquad$
$\qquad$
Thousands of Speakers atLEVENSON'S
To suit every pocket!
WE GUARANTEE A CHEAPER PRICE!

1500 TRADED-IN LOUD SPEAKERS Horn or Cone Types. Reconditioned as New Prices: $7 / 6,9 / 6,11 / 6,12 / 6,15 /$-, $£ 1,25 /-$ Country Customers We Select For You


Genuine French SFERAVOX
Silver Cone - Silver Tone Loud Speakers
Original Price £3/3/NOW

30/-

Traders and Set BuildersSend for our Special Trade Bargain List.

STOP PRESS

## NEW "AW" EFCO ALL WAVE

 BACK PANEL DIALThe speed ratio permits ease of short-waye tuning with ample Vernier motion, yet is quick enough for normal tuning.

## "WIRELESS WEEKLY" CIRCUITs

6d. EACH $\qquad$ FREE WITH KIT
The Midget Super-Het. 4-5 A.C. Radio.
The Reaction 3 A.C. Radio.
The Standard All Wave 10-11 A.C. Radio. The All Wave De Luxe 8-9 A.C. Radio. The International All Wave 6-7 A.C. Radio.

## FINE ART CONE SPEAKER

Extra Fine Tone, Special Lever Control, adjustment allows matching to any set. Were 84/-. Now £1


AMPLION
A.C. 2 and A.C. 21 Speakers
Reconditioned, as new .. 25/-
Guaranteed Perfect.
ㅆ․․․․․․․․
Thousands of Cone or Horn Type Speaker Units.
Reconditioned as new.
PRICES
$7 / 6,10 /-$ and $15 /-$ each
 OUR
"BUILD YOUR OWN RADIO"
SECTION WILL INTEREST YOU PAGES 133 TO 194

## LEVENSON'S GUARANTEE A CHEAPER PRICE FUR EVERYTHING IN RADIO




STEWART WARNER DYNAMIC CONE SPEAKERS
Unit with Chassis. Price ... .. . . 30/Lots of $3,25 /-$ each
"GRAWOR" VIERPOOL CONE SPEAKER
Adjustable. Giant Magnet. Price .. 25/-

## 15/

Double cone chassis. Small and large cone covers, complete tonal range.
$\begin{array}{llll}\text { NOW } \\ \text { Units to fit. } & \ldots \ldots \ldots . . & 15 /-17 / 6\end{array}$
See page $88-$ Levenson's $\mathbf{1 0}$-Ton Auction Buy of PHILIPS RADIO GOODS

Parts to assemble Philips
"MID-POT" DYNAMIC SPEAKER . . 5/-
Everything included excepting Input Transformer and Field Coil.

Input Transformer $7 / 6$ extra with kit
Ready Assembled-
Field Coil only: 7,500 ohms, $28 / 9 ; 1,250$ ohms, $21 / 9 ; 1,500$ ohms, $20 / 3 ; 2,500$ ohms, $24 /-$


"GRAWOR" HIGH GRADE CONE
SPEAKER UNITS Perfect Reproduction Now .. .. . . 21/W.B. Cone Unit to fit .. .. .. .. 13/6
"GRAWOR" DOUBLE MAGNET CONE SPEAKER UNIT

Balanced armature movement. A highly recommended piece of workmanship. Superb Tone. Now . . 21/-
R.C.A. 100B American Cone Speakers Now . . . . 60/-


## STOP PRESS - Two Specials

Special
A well-known make of
4-VOLT HALF WAVE RECTIFYING VALVES
UX Base. Equivalent to Philips 373 . Listed to sell at 18/NOW 10/- EACH NETT NEW AND TESTED.
Also a Full Wave 4-Volt Rectifier replaces Philips 506-UX Base NOW $7 / 6$.
PHILIPS MANUFACTURERS' TYPE RELIABLE AUDIO TRANSFORMERS
(As used in Philips Radioplayers)
IN METAL CASE WITH MOUNTING BRACKETS

## THE PRIZE WINNING CONE CHASSIS

Easily the very best cone. Suspended by leather edge. Beautifully finished throughout. Worthy of the best Set and Unit. 12 -inch Diameter. NOW ONLY .. .. ..... .. .. .. .. .. 17/6


RADIOKES FULL VISION DIALS,
as illustrated, $8 /-$.
Also inclined $8 /$, or half-circle full vision, 6/-.
All Complete with Lamps and Knobs,
Special

## ENGLISH W.B. MOUNTED UNIT AND

 CHASSISWere 65/-
New and Tested. Guaranteed. Size of Chassis: 12 in . x 12 in .

> NOW
$\qquad$

$$
30 /-
$$



## DYNAMIC SPEAKERS

A Well Known and Trusted Make. Guaranteed 12 months.

| Midget size, 5 inch cone | 19/- |
| :---: | :---: |
| Type 18, 7 inch cone |  |
| Type 9, 10 inch cone |  |

## A Real Novelty Loud Speaker

Imported to sell at 65/-. NOW TO CLEAR 15/- EACH
Much the size of an ordinary mantel timepiece. Splendid reproducer for all type Battery Sets. Neat and Novel Mottled Slate coloured. Marble-like Composition.


TRIOTRON Magnetic Cone Type Loud Speaker, new design .. 25/-

$\begin{array}{ll}\text { Small size...... } \\ \text { Large size } & 1 / 6\end{array}$


BAKELITE SPEAKER OR PHONE CORD JOINERS
Plug-in tips each end.


COUNTRY CLIENTS REMEMBER!!
We will select from stock for you any speakerNew or Traded-in Reconditioned Models-to suit your pocket. We extend this privilege to our clients. Should you not be perfectly satisfied with your Speaker purchase after 7 days of receipt of same, we will gladly exchange for full purchase price on the understanding the article is in the same condition as we delivered.

## LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

## PHILIPS DYNAMIC SPEAKERS

In beautiful metal and bakelite case. Stands 29 inches high.
Model 2071 - list price, $£ 19 / 10 /-$

Levenson's Price, £3/5/-

Permagnetic Model, 2012, equivalent to above, but not dynamic, employing instead a special development Philips which gives a "dynamic" result. It is built on the magnetic principle, but the magnet is of tremendous size and of first quality steel. This, together with the improve-
 ments, result in a wonderful speaker. Particularly suited for country sets where A.C. current is not available. List price, £14/10/-.
Levenson's Price
£3/5/-

HAVE DYNAMIC TONE FROM YOUR BATTERY SET


## STEWART WARNER AMERICAN PERMAGNETIC SPEAKERS

Connects to battery or all-electric sets just like ordinary speaker. Needs no electrical energising delivers deep resonance and solid tone. Originally $£ 4 / 4 /-$. NOW only .
$30 /-$
In Lots of 3 to Traders . . . . . . . 25/- each

From our TRADE IN SECTION we are able to choose for you a very fine reconditioned HORN OR CONE TYPE SPEAKER to suit your pocket. Splendid Models are available at $10 /-, 15 /-, 17 / 6, £ 1,25 /-$ and $30 /-$

## AMPLION OAK FLARE LOUD SPEAKER

## AMPLION

## A.R. 19 LOUD SPEAKER

Oak Flare.
Now
50/-
Lots of 3 to Traders, 35/- each

## RUSH YOUR ORDER AT THIS PRICE!

Eliminate your worst Radio Enemy-Line Noises and all man-made Static. Ready to Install. SENIOR TYPE .. .. .. .. .. .. .. .. $25 /-$
New Type . . .. .. .. .. .. .. .. .. .. 17/6


LIKE A FLASH FABRIC COVERED
SPEAKER LEADS
FOR DYNAMIC SPEAKERS
4 -ways, with plug and socket, 1 yard lengths, 4 separate coloured leads ..
High Grade Insulated Leads. 4 separate colours

## IF YOU USE A HORN OR CONE TYPE

 SPEAKERImprove results; protect your speaker. Have purified tone by using a Philips Tone-purifying Overplug, 7/6. NOW . . . . . .. .. . . .. $2 / 9$ Plugs into speaker jack phone plug, plugs into "overplug."


LEVENSON'S RADIO

․․․․….............
Large AMPLION RADIOLUX LOUD SPEAKER Usually $16 / 10 /-$ NOW
Trade-in Models 35/Condition Perfect.


TIMMONS CONE CHASSIS
Metal Chassis, special cone large steel magnet, heavy coils. Original Price, £3/3/-
Sane Profit
Price .. 22/6

"BRAND NEW" R.C.A. 103
"Decorative Magnetic Speaker"
PRICE
A decorative Speaker of beautiful design as well as superb in its ability to reproduce music and speech faithfully.
Size 15 inches high $\times 13 \frac{1}{2}$ inches wide $\times 6$ inches deep. "All Brand New"-Individually packed. Special Price in Trade lots of $3 \ldots 35 /$ - each

## AMPLION AR88 METAL FLARE SPEAKER

With extra large metal clad unit. Life-long guarantee. Specially suitable for use in districts where moisture-1aden air exists.

Special Price, 30/-

WE WILL NOT BE
UNDERSOLD


Special Price in lots of $3 \ldots \ldots . .20 /-$ each


Metal Speaker Cradles to hold Cone Paper.
9 inch diameter
2/6

SAXON DYNAMIC SPEAKERS
All ohmages.
Midget Model, 19/6
7-inch Model, 25/-
10-inch Model, $27 / 6$

PAGE 88
Will be Sure to Interest YOU:

Levenson's buy 10 Tons of Philips Radio Goods at Auction.
See Remarkable Offers


Genuine GECOPHONE

## Height . . 21霊 inches

 Diameter - 163 inches This speaker finished in rich Coin Bronze. Will harmonise with almost any furnishing scheme> Usually . . £8/8/-

Now . . . 83
A few only to clear. Rush Your Order.

## SPEAKER REDUCTION

AMPLION "G" TYPE CONE LOUD SPEAKER Diameter of cone, $10 \frac{1}{2}$ inches. Suitable for hanging or for mounting into cabinet.
15/- advertised everywhere. Levenson's Sane Profit Price, each 10/6 Shopkeepers-Buy 6 at ............ $8 / 3$ each


CONES, CONE PAPERS, CONE WASHERS
Like a Flash Ready Made Cones-
9 inch
$1 / 3$
"Crown" New Type Potentiometer
Wire wound. $2500,5,000,10,000$ ohms. 3/9 EACH
In Moulded Bakelite Case. One Hole Mounting

## You can Build Your Own Speaker and Save Money!

## CONES, CONE PAPERS AND CONE WASHERS AND REEDS

Like a Flash "Kraflite" special weather resisting Cone Paper with all directions for Cone making.
$12 \times 12$ inch, per sheet .. . . . . . .. $1 /-$
$18 \times 18$ inch, per sheet ........... 1/6
Six Sixty Cone Papers, ready laid out to cut and stick or stitch-
12 inch .. .. .. .. .. .. . . .. .. .. 1/9
19 inch . . . . . . . .. .. .. .. .. .. $2 / 9$
Cone Speaker Washers, per pair .. .. .. 1/-

## PHILIPS $7_{4}^{3}$-INCH FLOATING CONE

From PCJJ Speakers. With Washers attached. PRICE 1/6
Philips Ready Made Floating Cone to fit Philips
Type 2108 Cone Speaker


LIKE A FLASH UNIVERSAL CONE SPEAKER ASSEMBLY.
With all Fittings or fitted with ....... $5 / 6$
Continental Cone Speaker Unit, complete, adjustable

## ATTENTION!

Here's the greatest Revelation the Radio Engineering World has yet produced.
As important to Radio as the Petrol Driven Engine to the Motor Industry.
JUST IMAGINE WHAT IT MEANS TO BATTERY SET OWNERS.

Here's a new, simple little unit any child could build, that actually steps up a 6 -volt accumulator to give a smooth, noiseless flow of
High Tension or "B" Battery current up to 150 -volts.
HARMLESS. SIMPLE, FOOLPROOF AND ESTABLISHED. NOT AN EXPERIMENT. DO YOU UNDERSTAND ITS PURPOSE?

From a 6-volt accumulator you can now obtain your "B" Battery supply.
The whole kit of parts cost only £3/18/4. $90 /-$ Ready Built.
Remember, a school boy could assemble this remarkable yet simple unit.
The Blue Print and all instructions cost only $1 /-$ post free.
We charge $12 / 6$ extra for assembling this unit ready for operation. It comes to you housed in a neat and presentable little cabinet.

## STEWART WARNER MAGNETIC CONE SPEAKER CHASSIS Complete with Unit.

Here, without doubt, is one of the most sensational speaker bargains ever offered in the history of radio. Stewart-Warner-a name with a history of remarkable success-offers a remarkable product at a remarkable price. This excellent speaker gives clear dynamic tone and volume, without distortion. Sturdily, compactly built. Individually packed in original cartons for your protestion. Shipping weight 5 lbs. Now 30/Lots of Six .. .. .. 25/- each

# "HEGRA" FOUR-POLE BALANCED ARMATURE UNIT 



The name is sufficient recommendation.
1st
Prize Winner at Leipsig Fair. Now .. .. 21/ULTRA CRITICAL. Weighs $2-\mathrm{lb}$.
"HEGRA" SUPER POWER CONE SPEAKER UNIT 30/-

> Clearer and Sweeter Whispering Words

You remember the name. A Giant of Power. Large Magnets assure purity.


WHITELY
BONEHAM
CONE UNIT
A perfectly designed unit 4pole Balanced Armature, incorporating a Brit-ish-made Cobalt Steel Magnet, central adjustment and housed in an attractive Bakelite case
PRICE
17/6
Worth more
A BRITISH JOB
W.B. CONE SPEAKING CHASSIS

Frame and Floating Cone
13/6

1. Radio Traders, Professional Set Builders, and Manufacturers. Send for our Special Wholesale Radio List-it will pay you.
2. Levenson's Welcome Trade Inquiries for all wanted lines. Full Trade Discounts to Legitimate Traders on all proprietary lines. Special prices available for any Like a Flash line. Quotations with pleasure for all types of Metal Work, Coils and Coil Kits, etc.
3. Hotel Keepers, Club Secretaries, Carnival and Charity Fete Promoters. Write to Levenson's for full particulars of the Greatest Money Getter of all time. Shopkeepers! "Diggar Boards" will bring to you Big Profits, new Customers and tremendous Profits.
4. Levenson's are Specialists in all Coin Operating Machines. Inquiries welcomed, all types of coin operating machines Bought, Sold or Exchanged.

## ORION CONE SPEAKER ASSEMBLY KIT

Everything to build a perfect cone speaker, 35/-. NOW A Few to Clear.

## DYNAMIC SPEAKERS

 hear within
5 minutes 12 different Dynamic Speakers for comparison from one set Jensen, Amplion, Magnavox, Jubilee, Hegra, Oxford, B.T.H., Like-a-Flash, Saxon, etc., all at Sane Profit Prices. Any ohmage, any type, any quantity. Prices Absolutely Right.

IMITATION CARVED MARBLE SPEAKER A very fine design. Similar to mantle shelf clock $35 /-$ NOW 15/-

## SELECTITE

CONE SPEAKER UNIT
With Speaker Cord complete. Compactly built in neat metal container. A Real Reproducer.

## TIMMINS CONCERT MODEL SPEAKER

Stand 3 feet 6 inches high-of cast metal. Artistically Finished in rich Coin Bronze.


For-
Fidelity in tone Exquisite beauty Sweetness and Volume. It has no superior
$\mathcal{E 2}$
Worth £10 Original Price £17/17/-
now

# $\pm 2$ 

The New
"Empire"
SPEAKER
Pedestal Model
An instrument of rare quality.
Rendering unerring fidelity of tone.

A PERFECT CONE SPEAKER ENGLISH MAKE



BETECO CONE SPEAKER
Handsome Beteco Gold and Cedar Cone Speakers
Price
25/-

Other types in neat polished cabinet . 15/to clear. Brand New!


British right through. Double action. Never a rattle.

Vast beauty of tone. Housed expotential horn.
Extra large Baldwin Unit. Reproduction unexcelled.

Large demonstration models, suitable for Auditoriums
$£ 10$

## 

## TOOLS THAT MAKE WORK A PLEASURE RADIO SOLDER IRON

With solid copper head $1 / 6$

Straight type or "L" shaped head. RADIO'S HANDIEST TOOL
For Home Set Assemblers, each
Made Abroad exclusively for Levenson's
A combination Screw Driver with 2 stripping Blades for removing quickly Braid or Insulation from wiring wires.

## HANDY RADIO TOOLS

Small Radio Saw, with 3 blades ......... 19
Small Patent Tool Kit, comprises Screwdriver, Reamer, Gimlet .. . . .. ...... Hand Drill, Archimedes type, provided with small suitable bits

10


## RADIO COMBINATION PLIERS

Cuts, bends at right angles, loops, turns, twists wire. $2 / 3$ a pair. Makes wiring a set twice as quick and a pleasure.
 Made abroad for LEVENSON'S RADIO

SEND 1/- FOR LEVENSON'S PORTFOLIO OF ALL ELECTRIC CIRCUITS

COMBINATION TOOL
In wooden handle. Interchangeable Gimlet or Screwdriver

TOP CUTTING PLIERS

$5 \frac{1}{2}$ inches .. .. .. .. $\quad . . \quad . . . . . .2 /-$ and $2 / 6$
TOOLS FOR EVERY TRADE
Levenson's can quote you for every available make or type of Tradesman's Tools whether for Radio, Carpentering, or Engineering use.

ALL METAL SCREW DRIVERS<br>Wood Handles-Everlasting

5d.


4-inch .. . . .. 5d. 6-inch .. .. .. 7d.
5 -inch .. .. .. 6d. 8-inch .. .. .. 9d.
Small size Radio Screwdrivers, 3d., 4d., 5d., 6d.
4 in set for
1/-

## LONG NOSE RADIO PLIERS



Nickel points, $6 \frac{1}{2}$ inches .. .. .. .. .. .. $1 / 3$
All nickel, $5 \frac{1}{2}$ inches .. .. .. . . . . .. .. $1 / 6$
Radio Long-nose Pliers, side cutting. .. .. $1 / 3$
Top Cutting Pliers .. .. .. .. .. .. .. 2/-


EMERY WHEEL
Small carborundum emery grinding wheel, with bench fittings. Very handy, useful and convenient.

2/6 each.


## LIGHT WEIGHT HAMMERS

Engineer or Claw type. Price, each ...... 1/3
Engineers' Hammers, medium size . . . . . . 1/3
Claw Hammers, Radio size
TOOLS FOR RADIOPliers, long nose .. .. .. .. .. .. .. ..
Breast Drills .. .. .. .. .. .. .. .. ..
$5 / 6$
Electric Solder Irons, 9/- and .. .. .. 11/-
Small Radio Screw Drivers, 3d., 4d., and ..... 5 d .
Radio Screw Drivers- $2 \frac{1}{2} \mathrm{in}$. 4 d .; $2^{\frac{1}{2} \mathrm{in}}$. 5 d .; 3in. 6d.; 4in. 7d.; 6in., each ..... 9d.
Pliers, Insulated 1000 volt test, $1 / 92 / 3$, ..... 2/6
Screw Drivers ..... 6d.
Soldering Sets ..... 2-
Hotpoint and Siemens Electric Solder Irons ..... 25/-
Solder Irons$\stackrel{1}{2 / 6}$


CARDS OF 6 ASSORTED WARDING FILES . . 2/6

SCREW DRIVERS
All Metal Throughout With wood handles


RADIO TWIST DRILLS Card of 9 drills $1 / 9$ $1 / 16 \mathrm{in}$. to $3 / 16 \mathrm{in}$. Card of 7 drills .. 1/$1 / 16-\mathrm{in}$. to $\frac{1}{}-\mathrm{in}$.
Combination Saw, with 3 extra blades ..... $1 / 9$ Specially for Radio use.


## INSULATED SIDE-CUTTING PLIERS



1,000 volt test insulated handles-

$5 \frac{1}{2}$ inches long

1/9

$6 \frac{1}{2}$ inches long

2/3
$7 \frac{1}{2}$ inches long
$2 / 6$

## LEVENSON'S ELECTRIC SOLDERING IRON-50 WATT

This electric soldering iron has been designed to meet the requirements of all service men, radio repair men and, etc.
An ideal soldering iron measuring only $11 \frac{1}{2}$ inches overall. Nickel plated barrel, hard wood black finished handle and heavy copper point. Heating element guaranteed for 12 months. Fitted with 6 ft . of braided flex

17/6

## ELECTRIC SOLDER IRONS

## 9/- EACH

Standard Electric Solder Irons. Worth 21/-. Consumes only the same amount of current as an ordinary household lamp. Now

11/6
As illustrated.
240 volt A.C. or D.C. Models 12 Months Guarantee
Small Solder Sets. Flux, Iron and Solder 1/-
Levenson's can supply any Electrical Article required for Household use; also all Electrical Accessories for House, Shop, or Factory Wiring. RETAIL OR IN WHOLESALE QUANTITIES!


## RESIN CORE SOLDER

Ready for use. 6 d . and $1 /-$ per coil $3 / 9$ per lb .

TINKA SOLDER FLUX
Solders all metals, including aluminium Usually $2 /-$
Now
1/- TIN

## NEEDS FOR HOME TRANSFORMER BUILDERS EMPIRE CLOTH

( 36 in . wide), Rolls of 25 yards.


## OILED SILK

5 Mils. thick, 36 in . wide, per yard

## PARAFFINED PAPER

1 Mil thick (white), per lb. . ......... 3/-

## OILED COTTON SLEEVINGS



## A SPLENDID RANGE OF <br> TORCHES

FOR EVERY USE

All Torches are Complete with Batteries and Lamp.


3-Cell Nickel, complete . . .. .. .. .. .. 8/6
3-Cell Black, complete .. . . . . . . .. .. 7/6
3-Cell Black, small lens, complete .. . . . . $5 / 9$
3-Cell Black, Red or Green, complete .. . . 6/6
2-Cell Black, small lens, complete .. .. . . 5/6
2-Cell Black, large lens, complete .. .. 6/9
2-Cell Nickel, large lens, complete .. .. 7/6

Small Porcelain Torch Globe Holders


2-Cell Black, large lens, complete ...... 6/6
2-Cell Black, small lens, complete ...... $3 / 6$
For Torch Batteries - See Pages 21 and 22


BICYCLE AND HAND LANTERNS
$6 / 9,7 / 9,8 / 6$ and $9 / 6^{\circ}$ complete with Lamp and Battery. With handle or handle bar bracket
Torch Globes
$6 d$.

FLAT TORCH BATTERY
Opal or Colored Finished, with Blue, Red and White Ligḥt, complete .. ..
$3 / 6$
With White Light only complete.

2/6
TWO CELL ALUMINIUM TORCH 3/- complete


LADIES' VANITY OR POCKET TORCHES Opal, Black or Gold Finish 3/- each complete


TELEVISION
Is in the offing. All there is to learn about it is included in our "A" Course without extra cost. The new Microray brings it nearer day by day. Get ready for this gigantic fortheoming industry by mastering its early principles FREE. The syllabus is shown in our free Booklet.

EASY PAYMENTS EQUIPMENT FREE NO BINDING CONTRACTS

Let the facts about the A.S. of R.E. successes prove that YOU can train for a highly important job in your spare time. Send for our FREE Booklet, "Radio and Sound Projection Engineering." Investigate. You will be amazed when you learn that you can qualify for British Degrees with authorised letters after your name, and this by a practical home study
plan. There is nothing difficult about it-it is the simplest, shortest step-by-step method you

# SHOOLRADIO ENGINEERING 

 WEMBLEY HOUSE, RAILWAY SQUARE, SYDNEY. can imagine. You owe it to yourself to get the facts NOW.

## Our TEN COURSES inclade . . .

- Simple Theory.
- Radio Practice
- Radio Engineering
- Sound Projection.
- British Diplomas.
- Service Engineering.
- Morse Code.
- Television.
- A.O.P.C. Certificate, etc.
TERMINALS OF ALL TYPES
Nickel Plated Terminals with nut at bottom3 sizes, each$3 \mathrm{~d} ., 4 \mathrm{~d} ., 6 \mathrm{~d}$.
Wood Screw Type nickel plated terminals ..... 3d.
Nickel Plated Terminals, to enable use of two leads. Phones, speakers, etc., each ..... 6 d .
Clix Spiral Plug3d.
Large Nickel Terminals. Will take two wires, each ..... 6d.
Small Nickel Telephone Terminals, each ..... 3d.
TO MANUFACTURERS OR TRADERS
We can supply you with a fine price for ter-minals in quantity lots. A quotation withpleasure for the asking!

ENGRAVED BAKELITE TERMINALS
Ant.; Grd.; A-; A+; B-; B+; B DET;B AMP; B AMPLY; C-; C+; TEL.EACH3d.
Spaghetti Covering-2MM, various colours, per yard ..... 3d.
Solder Sets ..... 2/-
Solder, Resin Core, yard ..... 6 d .
Spade Ends, nickel, dozen (large) ..... 6 d.
Spade Ends, nickel, dozen (small) ..... 4d.
Spade Ends, copper ..... 6d.
Speaker Tips, dozen ..... 1/-


## NATIONAL AMERICAN SHORT WAVE AND TRANSMITTING GEAR

VN-B/E Velvet Vernier Metal Dial ..... £2 150
VAC-B/E Velvet Vernier Bakelite Dial ..... 126
SE.100-Midget .0001 Condenser, 270 ..... 1100
SE. 50 -Midget .00005 Condenser, 270 ..... 150
2SE. 100 - Midget Ganged Condenser, 270 ..... 2100
ST.50-Midget Condenser, 160 ..... 160
ST.100-Midget Condenser ..... 100
SEU.20-Band Spread Special Con- denser, 270 ..... 150SEU. 25 -Band Spread Special Con-denser, 270150
TM -100 mmfd .6000 volts Transmit- ting Condenser ..... $410 \quad 0$
TM- 100 mmfd. 3000 volts Transmit- ting Condenser ..... 200
TMP. $100-100 \mathrm{mmfd}$. Split 3000 voltsTransmitting Condenser5120
All National equipment insulated with Isolantite

LARGE BLACK BAKELITE TERMINALSNon-removable Tops.
Markings: A pos.; A neg.; B pos.; B neg.;AER.; GRD.; or plain.

## It's that "Inbuilt Quality" of AIRZONE COMPONENTS



2, 3 and 4 Gang straight type; also oscillator tracking type for 175 K.C. Capacity er section: Minimum, 18 mmfd ; maximum, 365 mmfd . Rotation: Anti-clockwise. Dimensions Overall:

|  |  | Dimensions Overall: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wide | High | Long | Retail |
| 2 | Gang | $41 / 2$ | $33 / 4$ | $27 / 8$ | 31/6 |
| 3 | Gang | $41 / 2$ | $33 / 4$ | $41 / 8$ | 39/9 |
| 4 | Gang | $41 / 2$ | $33 / 4$ | 51/2 | 48/- |

Dealers: Ask your Wholesaler for Trade Discount.


The Airzone Dial is of the very latest deign and employs a cord drive a which drive which
gives a velvetgives a velvet-
smooth action and positively no backlash. Cord tension is adjustable, supplied fitted to the condenser. Escutcheon plate of pleasing pleasing.
design.

Components which gives them the Extra Efficiency which has made them recognised as the finest made in Australia.

$$
\begin{aligned}
& \text { AIRZONE NEW SHIELDED VARIABLE } \\
& \text { CONDENSER, WITH DIAL ASSEMBLY } \\
& \text { (Illustrated at left) }
\end{aligned}
$$

Design follows closely the most modern practice. Materials carefully chosen and of highest quality. Rotor plates shaped giving wide separation of stations over whole broadcast band. No over-crowding at lower end.
The frame of heavy gauge bright cold-rolled steel completely blanked and pierced in one operation, ensuring accuracy and positive interchangeability. End plates are of heavy gauge steel, ball races formed integrally. High shields fitted between sections to prevent interaction. Whole assembly machine rivetted, giving complete rigidity. Spindle of special steel, ground and polished, running in adjustable ballbearings.
Stators and rotors of aluminium. Stators bonded at four points to ensure rigidity and maintain alignment. Rotors fitted to centres of bronze alloy, permanently staked in position and bonded.
Each rotor has a separate wiping contact with solder lug, avoiding unwanted coupling between sections. Trimmer condensers technically correct, of ample capacity, conveniently located and very accessible for adjustment. Each section closely matched to fine limits by precision testing apparatus to ensure perfect ganging. Let us quote you.

Manufactured by AIRZONE [1931] LTD.- Camperdown

A WONDERFUL SELECTION OF WANTED GOODS FOR SET ASSEMBLERS－AMATEUR OR PROFES． SIONAL．THE RANGE IS HARD TO OBTAIN ELSEWHERE．STILL THERE IS A BETTER PRICE FOR LEGITIMATE MANUFACTURERS OR DEALERS WHO BUY QUANTITY LOTS．QUOTES A PLEASURE．
ASBESTOS FLEX－
12 B．\＆S．，per foot ..... 7 d.
14 B．\＆S．，per foot ..... 5 d.
16 B．\＆S．，per foot ..... 4d．
AUTO CABLES－
Ravine 18，per 100 feet ..... 11／8
（Braided and lacquered）
16，per 100 feet， ..... 12／－
14，per 100 feet ..... 13／6
12，per 100 feet ..... 15／11
Bakelite Moulding Powder，Black，Brown and Walnut，per lb ． ..... 2／5
Bakelite Resin，per lb． ..... $4 / 9$
Bakelite Sheet（Dilecto），per lb． ..... 12／6
Note：－20 cubic inches equal $1-1 \mathrm{lb}$ ．
Canvas Bakelite， $1 / 32$ to $3 / 32$ in．，per $\mathrm{lb} .$. ．． $10 / 4$
COPPER BRAID－
$3 / 16 \mathrm{in}$ ．wide， $102 \mathrm{ft}=\mathrm{lb}$ ．，per lb ． ..... 13／5
$1 / 4 \mathrm{in}$ ．wide， $51 \mathrm{fe} .=1 \mathrm{lb} .$, per lb ． ..... 13／－
$9 / 32 \mathrm{in}$ ．wide， $39 \mathrm{ft}=\mathrm{lb}$ ．，per lb ． ..... 11／7
$3 / 8 \mathrm{in}$ wide， 25 ft ．$=1 \mathrm{lb}$ ．，per lb ． ..... 9／－
COPPER PIG－TAIL－
$3 / 64 \mathrm{in}$ ．dia．， $232 \mathrm{ft} .=1 \mathrm{~b}$ ．，per lb ． ..... 25／－
$1 / 16 \mathrm{in}$ ．dia．， $123 \mathrm{ft}=\mathrm{lb}$ ．，per lb ..... 13／－
$5 / 64 \mathrm{in}$ ．dia．， $77 \mathrm{ft}=1 \mathrm{~b}$ ．，per lb ． ..... 12／8
$7 / 64 \mathrm{in}$ ．dia．， $49 \mathrm{ft} .=\mathrm{lb}$ ．，per lb ． ..... 11／2
$1 / 8 \mathrm{in}$ ．dia．， 30 ft ．$=1 \mathrm{lb}$ ．，per 1 lb ． ..... 11／2
COTTON SLEEVING－
$1 / 32 \mathrm{in}$ ．dia．， 1250 ft ．$=1 \mathrm{lb}$ ．，per lb ． ..... 43／9
$1 / 16 \mathrm{in}$ ．dia．， $954 \mathrm{ft} .=1 \mathrm{~b}$ ．，per lb ． ..... 33／6
$3 / 32 \mathrm{in}$ ．dia．， 863 ft ．$=\mathrm{lb}$ ．，per lb ..... 31／1
$1 / 8 \mathrm{in}$ ．dia．， $600 \mathrm{ft} .=\mathrm{lb} .$, per lb ． ..... 31／1
COTTON TAPE，First Quality．
1／2in．wide ..... 5／3
5／8in．wide，yard ..... $5 / 9$
$3 / 4 \mathrm{in}$ ．wide，yard ..... 8／6
简 THE＂CREELA＂ Eliminates noise picked up by your aerial System． PRICE ．．25／－
Ready to Install


DILECTO ROD－
1／8in．diameter，per foot ..... 2／9
$3 / 16 \mathrm{in}$ ．diameter，per foot ..... 3／3
1／4in．diameter，per foot ..... 3／9
$3 / 8 \mathrm{in}$ ．diameter，per foot ..... 6／5
$1 / 2$ in diameter，per foot ..... $7 / 2$
DILECTO TUBE－
$1 / 8 \mathrm{in}$ ．inside dia． $1 / 4 \mathrm{in}$ ．outside dia．，．． ..... 3／3
$3 / 16 \mathrm{in}$ ．inside dia． $7 / 16 \mathrm{in}$ ．outside dia． ..... 3／8
$1 / 4 \mathrm{in}$ ．inside da． $5 / 8 \mathrm{n}$ outside dia． ..... 4／9
$1 / 2 \mathrm{in}$ ．inside dia． $3 / 4$ in outside dia． ..... 5／3
$3 / 4 \mathrm{in}$ ．inside da．1in．outside dia． ..... 6／5
EMPIRE TAPE（For H．T．work）－
$1 / 2$ in wide，grs yards ..... 10／2
$3 / 4 \mathrm{in}$ ，wide，grs，yards ..... $12 / 9$
$14 / 5$
EMPIRE CLOTH－
5 mil．，square yard ..... 3／8
8 mil．，square yard ..... $4 / 9$
10 mil．，square yard ..... 5／3
12 mil．，square yard ..... 5／3
EMPIRE PAPER－
1 mil．，square yard ..... 2／5
2 mil．，square yard ..... 2／5
3 mil．，square yard ..... 3／－
5 mil．，square yard ..... 3／－

## DON＇T SMASH THAT OLD JUNK

## Let us have the fun．We allow credit on

 old goods against purchases．EMPIRE SILK－
4 mil．，square yard ..... 8／9
6 mil．，square yard ..... 11／2
FIBRE SHEET－
$1 / 32 \mathrm{in}$ ．thick（ 20 cubic inches $=1$－lb．） ..... 6／3
$1 / 16 \mathrm{in}$ ．， $3 / 32 \mathrm{in}$ ．， $1 / 8 \mathrm{in}$ ．， $3 / 16 \mathrm{in}$ ．per lb． ..... $4 / 9$
FIBRE ROD－
$1 / 4 \mathrm{in}$ ．dia．， $34 \mathrm{ft} .=1 \mathrm{~b}$. ，per lb． ..... 43／－
$3 /$ in．dia．， 15 ft ．$=\mathrm{lb}$ ．，per lb ． ..... 26／8
$1 / 2 \mathrm{in}$ ．dia．， $8 \frac{1}{2} \mathrm{ft} .=\mathrm{lb}$ ．，per lb ． ..... 22／4
$5 / 8 \mathrm{in}$ ．dia．， 5 弪ft．$=1 \mathrm{~b}$ ．，per lb ． ..... 22／4
$3 / 4 \mathrm{in}$ ．dia．， 3 疋ft．$=1 \mathrm{~b}$ ．，per lb ． ..... 22／4
FIBRE TUBE
$1 / 4 \mathrm{in} . \times 3 / 8 \mathrm{in}$. dia．， $32 \mathrm{ft} .=\mathrm{lb}$ ．，per lb ． $33 / 6$
$3 / 8 \mathrm{in}$ ．x $5 / 8 \mathrm{in}$ ．dia．， $8 \mathrm{ft}=1 \mathrm{lb}$ ．，per lb ． ..... 17／6
$1 / 2 \mathrm{in}$ ．$\times 3 / 4 \mathrm{in}$ ．dia．， $6 \frac{1}{\mathrm{fift}}=\mathrm{lb}$ ．，per ..... 15／11
$3 / 4 \mathrm{in}$ ， x 1 in ．dia． $4 \frac{2 \mathrm{ft}}{}$ ．$=1 \mathrm{lb}$ ．，per lb ， ..... 13／6
Belden hook－up wire（ 1000 ft ．spool） 100 ft ． ..... 4／－
Lead wire（habitual） $7 / 35 \mathrm{in}$ ．， 1620 ft ．$=1 \mathrm{lb}$ ． ..... $25 / 6$
Lead－in wire shielded，per 100 ft ． ..... 14／5
Leatheroid 5 mil．to 30 mil．，per lb． ..... 5／7
Light Air H．C．R．，per doz． ..... 12／－
Mica，per square inch per lb． ..... 1／7
MICANITE－
Commutator，per lb ． ..... 12／9
Flexible per lb ． ..... 9／8
Moulding，per 1 lb ． ..... 8／5
Panel material（cheap bakelite）per lb． ..... 7／6
PRESSPAHN－
10 mil．，per lb ..... 2／5
15 mil．，per lb． ..... $2 / 3$
20 mil．，per lb． ..... 2／2
30 mil．，per lb． ..... $2 /$
40 mil．，per lb． ..... 1／11

# POWER TRANSFORMERS AND CHOKES 

## FOR ALL PURPOSES INCLUDING A \& B CLASS AMPLIFICATION

## LEKMEK TRANSFORMERS AND CHOKES

## POWER TRANSFORMERS

Primary tapped, 200 to 260 volts; Secondary, $385 / 385$ volts 75 mas.; Filaments, 5 volts 2 amps; $2 \frac{1}{2}$ volts 9 amps centre tapped. Electrostatic Shield. Complete with Cover Shield, Mounting Bolts and Terminal Strip. Overall dimensions $4 \frac{1}{8} \mathrm{in}$. $x \quad 3 \frac{5}{5} \mathrm{in}$. $x$ 35in. Mounting centres, 3in. x $3-7 / 16 i n$. Chassis Cut-out, $2 \frac{1}{2} i n$. $x{ }^{7}$ in.
PRICE: 51-T . . . . ... . . . . . . 10 .
$70-\mathrm{T}$, as above, but 125 mas. $£ 1150$
$42-\mathrm{T}$, as above, but 50 mas. . £1 50 Transformers with special windings to order.

## AUDIO CHOKE 53-B

High Impedance, Layer-wound. Excellent for Audio choke coupling in Battery or Electric Receivers. Overall limensions, $3 \frac{1}{3} \mathrm{in}$. x $2 \frac{1}{2} \mathrm{in}$. x $2 \frac{1}{2} \mathrm{in}$. PRICE

## POWER FILTER CHOKES

Type $30 / 75,30$ Henry 75 mas., or Type 30/100, 30 Henry 100 mas. Layerwound. Manfs. Type. Overall dimensions $3 \frac{1}{3} \mathrm{in}$, $\times 2 \frac{1}{4} \mathrm{in}, \times 2 \frac{1}{4} \mathrm{in}$. PRICE

## INTERMEDTATE FREQUENCY

 TRANSFORMERType 186, as supplied in all Lekmek Kits. Special Bakelite Bobbin Coils designed for low noise level, and high amplification. PRICE

12/6
Type 465, ditto . . . . . . . . . . . . . . . . . . 12/6
AUDIO TRANSFORMER (B.C.2.)
"B" Class Transformer specially designed for "B" Class Amplification. Core is same size as Audio Transformer. Overall dimensions $3 \frac{1}{8} \mathrm{in}$. x $2^{\frac{1}{4}} \mathrm{in}$. $\times 2 \frac{1}{4} \mathrm{in}$.
PRICE .
£1 1
10

## HENDERSON POWER TRANSFORMERS

Type H/70: $375 / 375$ volts 70 M.A.-
5 volts $2 \mathrm{amps} ; 2 \frac{1}{2}$ volts $2 \mathrm{amps} ; 2 \frac{1}{2}$ volts 8 amps. Price .. ......

22/6
Type H/100: $375 / 375$ volts 100 M.A.-
5 volts $2 \mathrm{amps} ; 2 \frac{1}{2}$ volts $3 \mathrm{amps} ; 2^{\frac{1}{2}}$
volts 10 amps. Price $\dddot{1} 20$ M.A. -
5 volts $2 \mathrm{amps} ; 2 \frac{1}{2}$ volts $3 \mathrm{amps} ; 2 \frac{1}{2}$
volts 10 amps . Pric e.
32/6
Type H/140 B Class: $375 / 375$ volts $140 \mathrm{M} . \mathrm{A}$.
5 volts C.T. $3 \mathrm{amps} ; 2 \frac{1}{2}$ volts 3 amps ;
$2 \frac{1}{2}$ volts 10 amps . Price ........ $37 / 6$
Type H/250: $650 / 650$ volts 200 M.A.-
$7 \frac{1}{2}$ volts C.T. $3 \mathrm{amps} ; 75$ volts C.T.
$3 \mathrm{amps} ; 2 \frac{1}{2}$ volts C.T. 10 amps . Price $90 /-$
All the above transformers can be supplied with a 4 volt tapping if required.

## UNIVERSAL POWER TRANSFORMER KIT

(KIT OF PARTS)
BUILD IT YOURSELF! For all-electric receivers, as featured by "Wireless Weekly." Of great value to the experimenter, this transformer will suit every type of electric set. COMPLETE SET OF PARTS IN KIT:
1 Set Laminations, $43 / 16$ th inch square.
1 Pair End Clamps for Core.
Sheet Fibre, $12 \mathrm{in} . \times 11 \mathrm{in}$. x 16 gauge.
Round Head Bolts, 4in. x $3 / 16$ ths inch.
12 Hexagon nuts $3 / 16$ ths inch.
22 Eyelets.
22 Small Soldering Lugs.
Piece Empire Cloth, $12 \mathrm{in} . \mathrm{x} 2 \mathrm{in}$.
Length Spaghetti.
lb. 26 Enamelled Wire.
lb. 34 Enamelled Wire.
lb. 18 D.C.C. wire.
feet 14 D.C.C. wire.
SPECIAL PRICE . . . . 15/-
READY CONSTRUCTED
23/6

## HENDERSON PRODUCTS

## "B" CLASS EQUIPMENT

A kit specially recommended by the Editor or "Wireless Weekly", comprising-
1 Power Transformer designed for "B" Class service.
1 Low Resistance Input Choke.
1 Low Resistance Smoothing Choke.
1 Audio Choke.
1 Class B Step-down Audio Transformer.
1 Output Transformer matched to a load of 7,000 ohms.

PRICE . . . . $£ 7$
The Power Transformer is suitably wound for 282 or 283 type Rectifier.

AUDIO CHOKES
300 Henries, 8 M.A. Price .. .. .. .. 17/6
500 Henries, 8 M.A. Price .. .. .. .. 19/6
FILTER CHOKES
TYPE H/75-
30 Henries, 75 M.A.. Price
7/9
TYPE H/100
30 Henries, 100 M.A. Price . . .. .. 10/-
TYPE H/250 5-
50 Henries, 200 M.A. Price .. . . . . 20/-
Specified carrying capacity guaranteed with perfect smoothing.

## LEKMEK AUDIO TRANSFORMER (B.C.2.)

"B" Class Transformer specially designed for "B" Class Amplification. Core is same size as Audio Transformer. Overall Dimensions 31 in. $\times 2$ in $\mathrm{in} . \times 2$ 긍.

PRICE .. .. .. £1/1/-

# ' B ' CLASS CHOKES and AUDIO POWER TRANSFORMERS 

LEKMEK AUDIO CHOKE 53-B
High Impedance, Layer-wound. Excellent for Audio choke coupling in Battery or Electric Receivers. Overall dimensions, $3 \frac{1}{3}$ in $x 2^{\frac{1}{4}} \mathrm{in}$. x $2^{\frac{1}{4}} \mathrm{in}$. PRICE 15/-

## LEKMEK POWER FILTER CHOKES

Type $30 / 75,30$ Henry 75 mas., or Type $30 / 100$, 30 Henry 100 mas. Layer-wound. Manfs. Type. Overall dimensions $3 \frac{1}{8} \mathrm{in}$. $\times 2 \frac{1}{3} \mathrm{in}$. $\times 2 \frac{1}{4} \mathrm{in}$.

PRICE
8/6

## CREELA POWER TRANSFORMERS

Type M/50-Midget core, size outside overall $3 \frac{1}{4}$ $\mathrm{x} 3 \frac{1}{2} \mathrm{in}$. Prim, $220-240 \mathrm{v}$. ; Sec., $385 / 38550$ $\mathrm{m} / \mathrm{a}$.; Fil., 5 v . at $2 \mathrm{amps}, 2 \frac{1}{2} \mathrm{v}$. at 6 amps .

PRICE
8/9
Type A/70-Prim., $220-240$; Sec., $385 / 38570 \mathrm{~m} / \mathrm{a}$; Fil., 5 v . at $2 \mathrm{amps}, 2.5 \mathrm{v}$, at 8 C.T. PRICE

12/3
Type B/70-Prim., 220-240; Sec., 285/285 at 70 $\mathrm{m} / \mathrm{a}$.; Fil., 5 v at $2 \mathrm{amps}, 2.5 \mathrm{v}$, at 2 amp . C.T., 2.5 v . at 8 amp C.T.

PRICE
12/9
Type A/75-Prim., 220-240; Sec., $385 / 385$ at 75 $\mathrm{m} / \mathrm{a}$; Fil., 5 v , at $2 \mathrm{amp} ., 2.5 \mathrm{v}$. at 8 amp . C.T. PRICE

12/9
Type B/75-Prim., $220-240$; Sec., $385 / 385$ at 75 $\mathrm{m} / \mathrm{a}$; Fil., 5 v . at $2 \mathrm{amp} ., 2 \frac{1}{2} \mathrm{v}$., at 2 amp . C.T., $2 \frac{1}{2} \mathrm{v}$. at 8 amp . C.T.

$$
\text { PRICE .. .. . . . . } 13 / 6
$$

Type L/150-Prim., $220-240$; Sec., $400 / 400$ at 150 $\mathrm{m} / \mathrm{a}$; Fil., 5 v . at 3 amp ., $2 \frac{1}{2} \mathrm{v}$ v. at 4 amp ., $2 \frac{1}{2} \mathrm{v}$. at 10 amp .

PRICE
26/-
Type A/80-Prim., $220-240$; Sec., $385 / 385$ at 80 $\mathrm{m} / \mathrm{a}$; Fil., 5v. at $2 \mathrm{amp} ., 2.5 \mathrm{v}$. at 8 amp . C.T. PRICE

$$
13 / 6
$$

Type F/60-Prim., $220-240$; Sec., $385 / 385$ at 60 $\mathrm{m} / \mathrm{a}$; Fil., 5 v . at 2 amp ., 2.5 v . at 6 amp .

PRICE
11/3
Type B/80-Prim., 220-240; Sec., $385 / 385$ at 80 $\mathrm{m} / \mathrm{a}$.; Fil., 5 v . at 2 amp ., 2.5 v . at 2 amp ., 2.5 v . at 8 amp .

PRICE .. ...... $14 / 3$
Type B/4/80-Prim., 220-240; Sec., $385 / 385$ at $80 \mathrm{~m} / \mathrm{a}$; Fil., 4 v . at 2 amp . C.T.; 4 v . at 2 amp., 4 v . at 8 amp . C.T.

PRICE . $\because \therefore 15 /-$
Type C/100-Prim., 220-240; Sec., 385/385 at 100 m/a; Fil., 5 v . at 2 amp ., 2.5 v . at 3 amp . C.T., 2.5 v . at 8 amp . C.T.

$$
\text { PRICE . } 15 / 6
$$

E/125-Prim., $220-240$; Sec., $385 / 385$ at $125 \mathrm{~m} / \mathrm{a}$.; Fil., 5 v . at $3 \mathrm{amp},{ }^{2.5 \mathrm{v}}$. at 4 amp. C.T.; 2.5 v . at 9 amp . С.T.

PRICE
19/9
CREELA POWER CHOKES
30 henri 50 ma . $5 / 6 \quad 30$ henri 100 ma . $7 / 3$
30 henri 75 ma . $6 / 6 \quad 30$ henri 150 ma . 8/9

RECONDITIONED-BUT IN PERFECT CONDITION
FERRANTI TRANSFORMERS


OP1, Output
Transformer OP2, Output Transformer 20/6 OPM3C, Multiple Ratio Output Transformer
$33 / 3$
OPMIC, Multiple Ratio Output Transformer OPMC, Output Transformer OP6C, Output Transformer
AF4, Audio Transformer
AF3, Audio Transformer
B1, Choke, 20/40 hanry 21/9
. . . . . . . . .. 20/-
B2, Choke, $6 / 10$ henry
All Fully Tested and Guaranteed All other types at reduced prices.

## FERRANTI AUDIO TRANSFORMERS

Type AF3. Ratio, 3亲 to 1 , inductance 70/110 Henrys
$\begin{array}{ll} & 19 \\ 3\end{array}$
Type AF4. Ratio, $3 \frac{1}{2}$ to 1 , inductance 20/45 Henrys

216
Type AF5. Ratio, $3 \frac{1}{\frac{1}{3}}$ to 1 , inductance 120/170 Henrys

3113
Type AF6. Ratio, 7 to 1 ......... 3113
Type AF7. Ratio, 1 to 1 , inductance 150/280 Henrys
$311 \quad 3$
Type AF8. Ratio, 32 to 1 , inductance 20/45 Henrys

173
Type OPM1C. Ratios, 1 to $1,1.6$ to 1 , and 2.7 to 1 .. ...........
Type OPM5C. Ratios, 4 to 1,7 to 1 ,
 1 , anl 45 to 1
$3 \quad 3 \quad 0$

Type OPM6C. Ratios, 15 to $1,22 \frac{1}{2}$ to
Type AF3C. Ratio, $3 i_{2}$ to $1 \cdots$...... $\quad 3 \quad 8 \quad 9$

| 3 | 3 | 0 |
| :--- | :--- | :--- |

Type AF5C. Ratio, $3 \frac{1}{2}$ to $1 \ldots . . . .{ }^{2} \quad 0 \quad 9$
Type AF7C. Ratio, 1.75 to $1 \ldots . . .{ }^{2} \quad 40$
Type AF5CC. Ratio, $3 \frac{1}{2}$ to $1 \ldots \ldots \quad 430$
Type OPM1. Ratios, 1 to $1,1.6$ to 1 , and 2.7 to 1 Ratios, $\|_{4}$ to $^{1},{ }_{1}, 7$ to
Type OPM5. Ratios, 4 to 1,7 to 1 ,
and 10 to
 1 , and 45 to 1

2136
Type OPM8. Ratios, 1 to 1,15 to 1
2136
Type AF10. Ratio, 32 to 1

| 1 | 9 |
| :--- | :--- |

We will gladly supply on request a Ferranti booklet giving full specifications of all transformers manufactured by this wel-known English Company.

## LIKE - A - FLASH Power Transformers

No. $50 / 1$. $-375 / 375$ at 50 ma .; 5 v . at 2 amps ; 2.5 v . at $1 \mathrm{amp} ; 2.5 \mathrm{v}$. at 2 amps .

PRICE .. . . . . . $9 / 6$
No. $50 / 2$. $-225 / 225$ at $50 \mathrm{ma}. ; 5 \mathrm{v}$. at 2 amps ; $2 \frac{1}{2} \mathrm{v}$. at $2 \mathrm{amps} ; 2 \frac{1}{2} \mathrm{v}$. a t 2 amps .

PRICE . . . . . . . . 9/3
No. 50/3.-240/240 at 50 ma ; 5 v . at 2 amps ; $2 \frac{1}{2} \mathrm{v}$. at $4 \mathrm{amps} ; 2 \frac{1}{2} \mathrm{v}$. at 2 amps .

$$
\text { PRICE . . . . . . . } 9 / 3
$$

No. 50/4. $-325 / 325$ at 50 ma.; 4 v . at 1 amp ; $2 \frac{1}{2} \mathrm{v}$. at $5 \mathrm{amps} ; 5 \mathrm{v}$. at 2 amps .

$$
\text { PRICE . . . . . . . } 10 /-
$$

No. $50 / 5$. $-325 / 325$ at $50 \mathrm{ma}. ; 7 \frac{1}{2} \mathrm{v}$. at $1 \frac{1}{2} \mathrm{amps}$; 4 v . at 2 amps ; $2 \frac{1}{2} \mathrm{v}$. at 5 amps .

$$
\text { PRICE . . . . . . . } 10 / 3
$$

No. 50/6. $325 / 325$ at $50 \mathrm{ma}$. ; 4 v . at 1 amp ; 4 v . at $5 \mathrm{amps} ; 4 \mathrm{v}$. at 1 amp .

PRICE . . . . . . . . 10/3
No. $75 / 2$. $-275 / 275$ at $75 \mathrm{ma}$. ; 5 v . at 2 amps ; 5 v . at $1 \mathrm{amp} ; 2 \frac{1}{2} \mathrm{v}$. at 5 amps .

$$
\text { PRICE . . . . . . } 13 / 6
$$

No. $75 / 3 .-300 / 300$ at 75 ma ; 5 v . at 2 amps ; $2 \frac{1}{2} \mathrm{v}$. at $5 \mathrm{amps} ; 2 \frac{1}{2} \mathrm{v}$. at 2 amps .

$$
\text { PRICE . . . . . . . . } 13 / 6
$$

No. $75 / 4 .-275 / 275$ at $75 \mathrm{ma}$. ; 5 v . at 2 amps ; 5 v . at $1 \mathrm{amp} ; 4 \mathrm{v}$. at 5 amps .
PRICE . . .. .. .. 14/-

No. 75/5.-240v. Primary; 385/385 at 70 ma.; 5 v . at $2 \mathrm{amps} ; 2$ windings 2.5 v . at 8 amps .

No. 60/1.-Special Transormer for the Like a Flash A.C. Tester; H.T. 150 and 100 v . at 60 ma .; $7 \frac{1}{2} \mathrm{v}$. at 2 amps. Tapped at 5, 4, $2 \frac{1}{2}$ and $1 \frac{1}{2}$ volts.

PRICE . . . . . . . . 10/-
No, 6/2.-Vibrator transformer. 240/240 at 75 ma .; 6v. at 2 amps .
$\begin{array}{cccc}\text { PRICE } & . . . & . & 6 / 9 \\ \text { Also see next page- } & 118\end{array}$
Also see next page-118
LIKE A FLASH POWER 15/TRANSFORMER
$400 / 400$ at 100 ma .
Fitted with static shield. 15/- each
200, 230 and 250 Primaries.
5 volts at 4 amp .
$2 \frac{1}{2}$ volts at 10 amp .
$2 \frac{1}{2}$ volts at 4 amp .


12 MONTH'S GUARANTEE

## A.W.A. TRANSFORMERS

New Manufacture-Under Chassis type Input Push-pull, A Class . . . . . . . . . . . . $13 / 6$
Output Push-pull Choke, A Class .. .. 13/6
Audio Trnasformers: $3 \frac{1}{2}-1$ ratio; 5-1 ratio $13 / 6$


## The New 1934 Creela Line Filterizer

Positively eliminates line noises or manmade static - compact - measures only $6 \times 2 \frac{2}{2}$ in. The "Creela Filterizer" solves the problem of line noises and man-made static in a thoroughly satisfactory manner, in addition, installation is simplejust plug in. No more crackling, no more interference or noise from Motors, Vacuum Cleaners, Refrigerators, Elevators, High Tension Lines, Price, $17 / 6$
etc.
WRITE for COMPLETE LIST OF CREELA PRODUCTS


# 'LIKE-A-FLASH' <br> AND POWER CHOKES FOR ALL PURPOSES 

( P ANCLUDING "A" AND "B" CLASS AMPLIFICATION ARE MADE BY LEVENSON'S RADIO, BEING HAND MADE BY A 100\% EFFICIENT AND THOROUGHLY TRAINED TRANSFORMER EXPERT.
We do not employ unskilled workmen or automatic machinery. We believe that each finished article is as perfect as can be and contains more solid first class stalloy iron and English copper wire than any transformer of equivalent specifications available in Australia. Each Transformer receives 36 hours of continuous working test before passed as O.K. This test ensures that the Transformers can carry an overload of 25 per cent. for the test period. We maintain that no other Transformers manufactured in this country are subjected to such a severe trial.

Consequently we are able, with the utmost confidence,
to guarantee each Transformer

## AGAINST NORMAL OVER-LOAD

LIKE-A-FLASH POWER TRANSFORMER UNIVERSAL TYPE 125/1. SPECIFICATIONS Unconditionally Guaranteed for 12 Months. Any Special Transformer Made to Order. Primary. -200 and 240 volts.
Secondary. $-400-400$ volts at $125 \mathrm{~m} . \mathrm{a} . ; 350-350$ volts at 125 m.a.; $300-300$ volts at $125 \mathrm{~m} . \mathrm{a}$. ; 800 volts at $125 \mathrm{~m} . \mathrm{a}$., at 125 m.a., half wave; 575 v.alts at 125 m.a., half wave; 475 volts at $125 \mathrm{~m} . \mathrm{a}$., half wave; 450 volts at 125 m.a., half wave; 400 volts at 125 m.a., half wave; 350 volts at 125 m.a., half wave; 300 volts at $125 \mathrm{~m} . \mathrm{a}$., half wave; 250 volts at $125 \mathrm{~m} . \mathrm{a}$., half wave; 225 voltg at 125 m.a., half wave; $71 / 2$ volts at 2 amps. tapped at 5 and 4 v .; $71 / 2$ volts at 4 amps. tapped at 4 and $21 / 2 \mathrm{v}$.; 4 volts at 9 amps. tapped at $21 / 2 \mathrm{v}$.
PRICE

27/9 EACH

STANDARD 1933 TYPE 125/2. SPECIFICATIONS:
Primary. -200 and 240 volts.
Secondary. $-385-385$
volts at
Secondary. $-385-385$ volts at 125 m.a. ; 5 volts at 2 amps. C.T.; $21 / 2$ volts at 5 amps.; $21 / 2$ volts at 4 amps.
PRICE . . . . 19/9 EACH

## L.A.F. POWER TRANSFORMER. TYPE 100/1

Primary. -200 and 240 volts.
Secondary, $-385-385$ volts at 100 m.a.; 5 volts at 2 amps .
C.T.; 2.5 volts at 3 amps.; 2.5 volts at 9 amps.
PRICE . . . . 15/6 EACH
L.A.F. POWER TRANSFORMER. TYPE 75/1 Primary. -200 and 240 volts.
Secondary. $-385-385$ volts at 75 m.a.; 5 volts at 2 amps.
C.T.: 2.5 volts at 5 amps.; 2.5 volts at 3 amps.

PRICE
$13 / 6 \mathrm{EACH}$
L.A.F. POWER TRANSFORMER. TYPE 100/2 Primary.-200 and 240 volts.
Secondary. $-375-375$ volts at 100 m.a.; 4 volts at 2 amps. C.T.; 4 volts at 2 amps. ; 4 volts at 4 amps.

PRICE

$$
15 / 9 \mathrm{EACH}
$$

RADIO TRADERS AND SET BUILDERS - SEND FOR SPECIAL WHOLESALE BARGAIN LIST.

$$
\begin{aligned}
& \text { LIKE-A-FLASH "B" CLASS AND "A" CLASS } \\
& \text { TRANSFORMERS AND CHOKES }
\end{aligned}
$$

$$
\begin{aligned}
& \text { L.A.F. "A" CLASS AUDIO TRANSFORMERS } \\
& \text { Shielded- } 5 \text { to } 1 \text { Ratio } \\
& 31 / 2 \text { to } 1 \text { Ratio } \\
& 2 \text { to } 1 \text { Ratio }
\end{aligned}
$$

L.A.F. "B" CLASS PUSH-PULL INPUT TRANSFORMER Shielded

108
L.A.F. "B" CLASS PUSH-PULL OUTPUT CHOKES Shielded
L.A.F. "B" CLASS PUSH-PULL INPUT TRANSFORMERS For 46 and 59 valves-Shielded

| ERS |
| :--- |
| 18 |

$$
\begin{aligned}
& \text { L.A.F. "B" CLASS PUSH-PULL OUTPUT CHOKES } \\
& \text { For } 46 \text { and } 59 \text { valves-Shielded } . . . .
\end{aligned} ._{l} . . .
$$

L.A.F. HIGH IMPEDANCE AUDIO CHOKE
Shielded-For coupling sereen
to audio valve..

30 Henry 50 m.a.
30 Henry $75 \mathrm{~m} . \mathrm{a}$.
30 Henry $100 \mathrm{~m} . \mathrm{a}$.
30 Henry 150 m.a.


## INTERMEDIATE

RACOPHONE INTERMEDIATE FREQUENCY TRANSFORMERS .. 12/6
6 POINT TONE CONTROL, in Bakelite case. 1 hole mounting, 2 connections

5/6

## LEKMEK INTERMEDIATE FREQUENCY TRANSFORMER

Type 186, as supplied in all Lekmek Kits. Special Bakelite Bobbin Coils designed for low noise level, and high amplification. PRICE
Type 460. PRICE . . . . . . . . . . . . . $12 / 6$

## AIRZONE NEW INTERMEDIATE FREQUENCY TRANSFORMER

The Airzone new intermediate frequency transformer. Moulded porcelain base for high efficiency, and low high frequency loss. Adjustable phosphor bronze plates specially designed to provide practically straight line capacity increase. The tuning inductances are honey-comb coils precision wound on specially treated formers. Aluminium cans.
Retail Price, each .. .. .. .. .. .. .. .. 12/6 These units are tuned to 175 K.C. and 46 K.C.

## TRANSFORMERS

SAXON INTERMEDIATE TRANSFORMERS In Cans. 465 or 175 K.C. . . . . . . . . . $8 / 6$
R.C.S. INTERMEDIATE TRANSFORMERS


460 K.C. .. .. . . . . . .. .. .. .. .. 7/10
175 K.C. . . . . . . . .. . . . . . .. .. 7/10
465 K.C. .. .. .. .. .. .. .. .. .. .. 17/-


1 Impervious to Moisture.
2 Noise level guaranteed LOWER than any other resistor.
3 Temperature co-efficient averages $0.34 \%$ per degree Centigrade.
4 Ability to withstand overload.
5 Resistance ratings Accurate.
6 Defy humidity.
There is only one genuine Durham
I.R.C. Metallized Resistor

## An efficient Circuit demands Durham I.R.C. RESISTORS <br> AND <br> T.C.C. CONDENSERS

## T.C.C. MICA MOULDED CONDENSERS

Tested at 1500 volts D.C.; Minimum Insulation Resistance 5000 megohms.

| .0001 | to | .00025 | $\ldots$ | . | . | $1 / 6$ | .004 | to | .006 | .. | . |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| .0003 | to | .0005 | $\ldots$ | $\ldots$ | . | $1 / 7$ | .007 | to | .009 | .. | . |

Also T.C.C. Electrolytic Wet and Semi-dry Types
THE NEW T.C.C. ELECTROLYTIC CONDENSER 8 mfd .600 volt peak, 500 volt working, $7 / 6$
NOYES BROS. (Sydney) LTD.
Wholesale Distributors
RADIO DEPT.: 78 Clarence St., Sydney, HEAD OFFICE: 115 Clarence St., Sydney Phone: B7581 ( 10 lines)
1 WATT STREET, NEWCASTLE
KEEN STREET, LISMORE
ELIZABETH STREET, BRISBANE

## AUDIO TRANSFORMERS

CROSLEY AUDIO TRANSFORMERS
Most suitable for Replacements, being very compact. Replaces any ratio, suits any set 6/9


An output transformer carefully designed for connection between the last valve of set and loud speaker. Eliminates rattling and distortion. Increases volume. Decreases speaker breakdown possibilities. Price .. .. .. 15/-

## AUDIO TRANSFORMERS

 Of all Kinds and Makes. Replacements for all sets . . for Less Money

## BURNT-OUT SPEAKER UNIT

 TRANSFORMERSWant rewinding one side. Stalloy Iron. Approximately $2 \frac{1}{2} \mathrm{in}$. x 2 in . May be used as a small choke. Excellent for home made Audio Transformers, building small Chokes, etc. NOW . 9d. EACH

WE ARE PARTS EXCHANGE EXPERTS Your discarded set or old junk is worth real money! Let us take your unwanted radio goods in part payment for new season's components and accessories or kit of parts-in fact any radio apparatus.

BEST PRICES ALLOWED
FULL WAVE TRANSFORMER
For 280 or 1560 valve. 240 Primary, 480 Output C.T. 5 volts at 2 amp .
$10 / 6$


LISSEN
British Built Transformers
Shielded Case 12/6 (As Illustrated)
Super Model 24/-
Famous for Tone
Standard Ratio 3交 to 1
12 Months' Guarantee.

VARIOUS TYPES OF TRANSFORMERS
Push-Pull Input Transformer for "B" Class Amplifier in $100 \%$ Receiver (Unshielded)

14/-
S.P.A.C. Output Choke for "B" Class Amplifier in $100 \%$ Receiver (Unshielded) 14/-
A.T.C. Transformer, First Grade Audio Transformer, Ratio 3-1
Crosley General Purpose Audio Transformers. Now

6/9
H.I.A.C. High Impedance Audio Choke .. 14/-
A.T. 4 Audio Transformer, Second Class .ir 14/6

Trade-in Audio Transformers, as new. All leading makes

6/6
Send your inquiry stating goods you wish to dispose of and the new goods you desire to secure.

WE GIVE YOU BETTER VALUE


## PHILIPS TRANSFORMERS



Type 4003, Audio, Usually $27 / 6$ Now only 10/- EACH
Buy one now! This phenomenal value cannot last. Guaranteed 12 months. Slightly soiled appearance, due to loose packing.

## EMMCO TRANSFORMERS

All Ratios. A large stock removed from battery sets, each, 6/6, 7/6

Condition as new.
"A" CHARGER TRANSFORMER
For use with Dry Rectifier
6/9
FILAMENT TRANSFORMER
For 4 -volt valves. 240 volt Primary, Secondary 4 volts at 8 amps . C.T.

6/9
Send 2d. Stamp for Illustrated Cabinet and Radio Combination Cabinet Folder.

## LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

## AUDIO AND BELL-RINGING TRANSFORMERS



RECORD
BELL RINGING TRANSFORMER Converts 240 volts down to 3 volts, 5 volts, or 8 volts, as desired.
PRICE . . . . . 7/6
Philips Reliable Audio
Transformers
Manufacturers, Type (as used in Philips Radioplayers). In metal case with Mounting Brackets,
PRICE . . . . 6/-

A.W.A. AUDIO

## Transformers

$3 \frac{1}{2}$ or 5 to 1 Ratio
"IDEAL" Type,
Reconditioned \& guaranteed .. 10/-

Unshielded Manufacturers type Push Pull 13/6
Ideal Unshielded Audio Transformers .. 13/6

DE JUR Output Transformers 1 to 1 Ratio.

$$
\text { PRICE . . } 15 /-
$$

Improves Tone Eliminates Distortion


LEVENSON'S RADIO

## A SPLENDID

TRANSFORMER Lissen Super Audio Transformers. Bakelite Moisture Proof Shielding.

Price
24/-
Smaller Model .. 12/-
British and Best. A splendid crackle proof job.


## - 0 -

CROSSLEY MIDGET AUDIO TRANSFORMER
In Original Cartons, 15/NOW . . . . 7/6
$-\circ-\circ-\circ-\circ-\infty$


STALLOY STEEL LAMINATIONS

Measure 4 inches $x \quad 24$ inches. 6d. per lb. weight.

LAMINATIONS FOR POWER TRANSFORMER BUILDING .. .. 2/- Ib.

```
PILOT Bakelite Moisture Proof Audio Transformers. Bankrupt Stock. 18/6 NOW
Reconditioned as New.
```



No. 1


No. 2

EMMCO AUDIO TRANSFORMERS

Traded in and removed from assembled Battery sets. Tested, Reconditioned, and sold as new.
No. 1 Type . . . . . . . $7 / 6$
No. 2 Type . . . . . . . 6/6
No. 3 Type . . .. . . . . 8/6


Nmin No. 3
Emmeo Pep-Punch Standard Audio Trans-

Like a Flash Manufacturers' Type Audio
Transformers
8/9

## BATTERY SETS

# A SIX-VALVE BATTERY UNIVERSAL SUPEREETERODYNE 

"REALISM IN RADIO"<br>Unequalled for Country Long - Distance Reception

The Universal Five Valve Battery Superheterodyne has up till the present time been the most powerful long distance receiver, but it is out of the reach of many people on account of the heavy battery current consumption.

At last this problem has been solved, as the new type of indirectly heated cathode 2 -volt valves are now obtainable. One of these valves, the No. 15, is an indirectly heated 2 volt screened grid tube specially designed as a detector oscillator in an autodyne circuit. The No. 19 valve is a new "Two-in-one" class " B " output tube which consists of two sets of elements in the one glass envelope.

Using these two valves in conjunction with the four others of the $30-32$ types, we have now available a battery chassis which we claim unbeatable for range and tone.

The output of these six valves is equivalent to that of an ordinary eight valve super. but the current drain is less than half.

A two volt accumulator of say 50 amp . hour is recommended and a 135 volt triple capacity B battery. No C battery is required.

The A drain by the six valves is only .7 amps and the $B, 12$ milliamps.

We are in the happy position of now having this receiver available for our country clients and we predict that even the prenomenal sales record of the "Universal Five" will be beaten with this remarkable outfit.

The factory built chassis and other necessary material all obtainable as follows:-
1 Six valve Universal Super Chassis $£ 917 \quad 3$ 1 Set of valves comprising: 2 No. 32,

2 No. 30, 1 No. 15, and 1 No. 194123 12 volt 50 amp . accumulator .. .. 1226

| 3 | 45 | volt triple capacity "B" batteries | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- |

1 Permagnetic Loud Speaker .. .. .. 3 0 0
1 "Brownmore" Console Cabinet .. .. 219 6
Cost of fitting chassis and speaker to
cabinet
100
Aerial Material .. .. .. .. ...... 56
Price Complete
$£ 2410 \quad 6$

## EDISON BELL 2-STAGE AMPLIFIERS

In neat Oak Cabinet .. . . . . .
Valves and Batteries extra.
Ideal for all amplifying purposes, Crystal sets, ete. Ready Assembled.

If round $1 \frac{1}{2}$ volt dry cells are used" as "A" battery, 4 will be required connected in a seriesparallel arrangement The cost will be 9/-.


If Siemens rechargeable Le Clanche cells are substituted for accumulator, four size "O" cells will be required, connected in series-parallel. Price 45/-.

Extract from a letter received from a client in Natimuk, Victoria, reporting on results obtained from this set.
.. . Last night I logged Australasia from Western Australia to Wellington, New Zealand.

The selectivity is extraordinary, six stations within 4 degrees on the dial.

This morning between 7 and 8 a.m. I logged 17 stations with full loud speaker strength on an outside aerial.

My friends were thrilled with the idea of reproduction on a battery set equal to an all electric set

Here's a Snap for the Experimenter or Home Set Builder-

Absolutely phenomenal value but suitable only to those prepared to dismantle and reconstruct to modern circuit.
A.W.A. RADIOLA

2-VALVE SETS
Original Cost .. $£ 10$ NOW .. . . .. £2

The whole set housed in Highly Polished High-grade Cabinet with nickel carrying handle.
We supply charts free of charge with set for those who desire to modernise this Splendid Bargain.

## The "Universal" 5 Valve Superhet.

is by far the Most Outstanding Battery Operated Set yet presented to the listen-ing-in public! A definite long-distance getter. Ideal for all conditions - admirably suited for far outlying locations and Islands in the Southern Seas. This most excellent Radio is a development of the popular 4-Valve Universal Superhet. from "Wireless Weekly". By adding a R.F. stage we claim the efficiency has increased 200 per cent. It is the finest Daylight Receiver yet to come under our notice. The indirectly heated valves are fed from a 6 -volt Accumulator. Only $\mathbf{2 2 3} / \mathbf{1 0} /=$ £23/10/- complete with Permagnetic Speaker housed in polished handsome Floor Model Cabinet. Everything from A to Z ready to "listen in" with THE BATTERY OPERATED

## RADIO SUPREME

At last a Radio Receiver that is positively perfect in every detail
For Islands in the Southern Seas and out lying Districts - HERE'S THE RADIO YOU NEED!

The special price for this Air Wizard is set out as follows:-

The modern ready built metal Chassis complete with matched Philips or Mullard Valves .. $£ 13 \quad 13$
The 3 Heavy Duty "B" Batteries 115
The Accumulator, 6 volt, 105 amp. hour
The New Like a Flash Permagnetic Speaker. Our Price ..

300 or R.C.A. Cone Speaker

2100

Cabinets to Suit, see Cabinet Section, page 58or send 2d. Stamp for Illustrated Cabinet Foller.

THE RADIO WORLD KNOWS NO BETTER WIRELESS PERFORMER.

A DAYTIME RECEIVER.
"IT'S THE BEST WE CAN OFFER YOU"

# Unsolicited Testimonials 

## Selected at random from hundreds of others

Telegram from Dr. Kelly, Wowan, via Rockhampton:-
"Results perfect, reception beautiful, Brisbane, Sydney, Melbourne, Adelaide stations. 2 p.m.-Dr. Kelly."
A. F. MeGrath, Stonehenge, Q'ld., writes-

I have heard many sets, but since I heard The Universal Super Het. I am satisfied I never heard a real Radio before.

Les. V. Scott, "Clifton", Allena, via Barmedman-
On the afternoon Mr. Scott received his set he reported loudspeaker reception by daylight of 22 stations and the same evening between 8 and 11,52 stations.

The following is an extract from his letter-
"Here is a list of stations logged here between 8-11 p.m.: $3 \mathrm{CO}, 7 \mathrm{ZL}, 3 \mathrm{AR}, 5 \mathrm{CK}, 2 \mathrm{FC}, 6 \mathrm{WF}, 5 \mathrm{CL}, 4 \mathrm{QG}, 3 \mathrm{LO}, 2 \mathrm{BL}$, $6 \mathrm{PR}, 7 \mathrm{HO}, 4 \mathrm{RK}, 3 \mathrm{UZ}, 2 \mathrm{~GB}, 5 \mathrm{DN}, 3 \mathrm{BO}, 3 \mathrm{HA}, 2 \mathrm{UE}, 5 \mathrm{PI}$, $2 \mathrm{CA}, 4 \mathrm{MB}, 2 \mathrm{KY}, 2 \mathrm{SH}, 7 \mathrm{LA}, 2 \mathrm{HD}, 2 \mathrm{UW}, 4 \mathrm{BE}, 3 \mathrm{YB}, 2 \mathrm{WG}$, $4 \mathrm{TO}, 3 \mathrm{DB}, 2 \mathrm{CH}, 2 \mathrm{NC}, 2 \mathrm{SM}, 3 \mathrm{TR}, 4 \mathrm{BK}, 3 \mathrm{BA}, 5 \mathrm{AD}, 3 \mathrm{KZ}$, $4 \mathrm{BH}, 2 \mathrm{GN}, 3 \mathrm{GL}, 2 \mathrm{KO}, 3 \mathrm{AW}, 7 \mathrm{UV}, 2 \mathrm{AY}, 3 \mathrm{AK}, 2 \mathrm{AY}$ Wellington, N.Z., 3YA Christchurch. Good daylight reception of $2 \mathrm{CO}, 3 \mathrm{AR}, 5 \mathrm{CK}, 2 \mathrm{FC}, 5 \mathrm{CL}, 3 \mathrm{LO}, 2 \mathrm{BL}, 3 \mathrm{UZ}, 2 \mathrm{~GB}, 3 \mathrm{HA}$, $2 \mathrm{UE}, 2 \mathrm{KY}, 2 \mathrm{UW}, 3 \mathrm{DB}, 2 \mathrm{SM}, 3 \mathrm{KZ}, 2 \mathrm{GN}, 3 \mathrm{AW}$ and weakly 4QG, 2HD, 3GL, 2AY."

Telegram from Mungindi, N.S.W. (near Q'ld. border) :-
"Results exceed all expectations with the Universal 5 Superhet. Brisbane, Sydney, Melbourne, Adelaide stations full loud speaker strength midday."-Toombs, Commercial Hotel.

"03" TYPE.-A "2 claw" Per-Mag. Dynamic Speaker for battery operated receivers.

"01" TYPE.-Similar to 03, but employing a heavier Magnet.

"L" TYPE.-Similar to types 03 and 01 but employing a tremendously powerful " 4 claw' Magnet.


Cabinet to house any type of Per-Mag. or ElectroMag. Dynamic Speaker.

## AMPLION

 The most complete range of Dynamic Speakers ever offered on the Australian market"Nearly half a century of research and experimental work in the perfecting of electrical loud speaking apparatus of every description have assured the name of Amplion, standing, as it does to-day, as symbolical of all that is best in the manufacture of loud speaking apparatus."
Amplion Speakers were the first standard equipment in Australia. Amplion Dynamic Speakers were the first speakers manufactured in Australia. Amplion Dynamic Speakers to-day are standard equipment in all leading makes of Radio Receivers throughout Australia, and are entirely trouble-proof.

## Leaders Since 1885

PRICES

| "03" Type | .. | .. | .. | .. | .. | $£ 3$ | 0 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| "01" Type | .. | .. | .. | .. | .. | $£ 3$ | 17 | 6 |
| "L" Type | .. | .. | . | .. | . | $£ 5$ | 0 | 0 |
| "M" Type | .. | .. | .. | .. | .. | $£ 1$ | 5 | 0 |
| "Q" Type | .. | .. | . | .. | .. | $£ 2$ | 0 | 0 |
| "P" Type | .. | . | .. | .. | .. | $£ 4$ | 7 | 6 |
| "A108" Type | .. | .. | .. | .. | .. | $£ 14$ | 0 | 0 |
| Cabinet | .. | .. | .. | .. | .. | $£ 2$ | 0 | 0 |

ELECTRO DYNAMIC TYPES

'M" TYPE.-A miniature Amplion for "Midget" and Auto Sets.

"Q" TYPE.-For all Standard A.C. Receivers

"P" TYPE.-For "de luxe" Receivers, Amplifiers, or Talkie apparatus.

"A108" UNIT.-For large Amplifiers, also large Talkie Apparatus.

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

# Country Folk! 

 LOOK! THE GREATEST RADIO SNAP YOU WERE EVER OFFERED:

## KOLSTER BATTERY SETS

Nothing Better. Definitely better than any A.C. set yet devised. Excellent for long distance reception. South Africa and Japanese stations not infrequently received on these very fine sets. This set is used professionally in the highest Radio Departments. There's a recommendation! As illustrated.
WORTH THREE TIMES THE MONEY 7 -valve Shielded Set in Cabinet as above .. £7 8 -valve Shielded Chassis only .. ....... £8 Speaker, Valves and Batteries Extra.


## AUDIOLA 6-VALVE SET

In Table Model Cabinet.
3 stages R.F., single-drum dial tuning, totally shielded metal chassis, in neat table model cabinet with grained metal front panel. Excellent allround set. Priee, set only With all High Grade Accessories and
R.C.A. Cone Speaker
£15 $10 \quad 0$ In Console Cabinet . . . . . . . . . . . . $£ 1710 \quad 0$

Australia's Leading 4-Valve Battery Set.
"THE SKYRAIDER 4"
Will do everything a Real Modern Radio is expected to do. Price, with Permagnetic Speaker
£17/10/-
£16/10 $/$ - with R.C. $\ddot{\text { A. }}$. Cone Speaker
12 Months Guarantee.
Including New Metal Way Chassis; housed in handsome Console Cabinet with Amplion Permagnetic Speaker or-

## THE LITTLE DUKE "TWOVALVER"



A wonderful Midget Battery Set capable of exceptional long distance reception. Complete in cabinet with Amplion Cone Speaker
£6/4/-

## "PFANSTIEHL" 7-VALVE SET

IN HANDSOME TABLE MODEL CABINET
Single dial tuning. Illuminated, reading directly in wavelengths, 3 stages tuned radio frequency. One of the best sets we have ever handled for long-distance reception, with the greatest ease of tuning, and has a great reserve of volume. Excellent all-round city or country receiver.
Price
Price of Chassis in Table Model Cab-


## RECONDITIONED

## TRADED-IN BATTERY SETS

We have hundreds of all kinds and makes in stock
3 Valve Sets .. .. .. .. .. ... .. .. $£ 110$ 0
4 Valve Sets . . . . . . . . . . . . . . . . $£ 2$ 0 0
5 Valve Sets .. .. .. .. .. .. .. ... $£ 210$ 0
6 Valve Sets EACH COMPLETE WITH CABINET.
Batteries, Valves and Speaker extra. See the various lists in this catalogue.


## AMERICAN BATTERY OPERATED RECEIVERS!

A selection of the best imported American Receivers, at one third of landed cost. Miracle price $£ 1$ per valve socket. 5 Valve Sets, £5. 6 Valve Sets, £6. 7 Valve Sets, £7. Valves, Batteries, Speakers extra.
All fully tested and guaranteed brand new direct from factory. These sets are of modern types, one dial control, will receive interstate stations anywhere-are part of the latest shipment of imported sets to arrive in Australia before the Government prohibition of imported receivers.

## DIAMOND T. 5-VALVE SET

As illustrated above.
2 Stages Radio Frequency. Standard Neutrodyne 3 tuning dials, with built-in speaker. Table model cabinet. Excellent for interstate reception, Good country set.
Price of Set in Cabinet . . . . . . . . . \&5 0 \&
4230 L.A.F. Valves . . . . . . . . . . . . 3 3 9
1231 L.A.F. Valve $\ldots \ldots . . . .$.
12 volt Clyde Accumulator, 40 amp hour

150
245 volt L.A.F. H.D. B Batteries ... $1 \quad 3 \quad 6$
19 volt L.A.F. C Battery .. .. .. ... $\quad 20$
Total Cost
£10 $17 \quad 0$
£13/10/- Complete with High Grade Cone Speaker

[^9]TURN TO PAGE 88 AND EXAMINE THE WONDER OFFERS

## AGAIN WE SAY

## WE WILL NOT BE UNDERSOLD!

Levenson's Policy is to give their customers the finest values obtainable in the radio field. It has been, and is, our belief that every customer is entitled to the lowest current prices on all merchandise.

We intend to continue this policy, even in the face of rising prices and increased costs brought about by the overseas exchange rate. Should you see any item in our catalogue listed in a mail order competitor's catalogue at a lower price for the identical merchandise, write and tell us about it, giving the name of competitor and his catalogue page number, AND WE WILL SHIP THE ITEM TO YOU AT THE SAME PRICE.

Should the price on any of our merchandise be reduced after this catalogue has been printed, when your order is filled, you will be charged at the reduced price. In other words you can never buy from anybody cheaper than you can buy from Levenson's Radio. WE WILL NOT BE UNDERSOLD!

## G.E. RADIO SETS



## LEVENSON'S MINIATURE "LIKE-A-FLASH" ALL ELECTRIC 3-4 VALVE SUPERHET. RADIO RECEIVER

In handsome exclusive polished cabinet, ${ }^{12 \frac{1}{2}}$ $\times 8 \times 7$ inches (not much larger than a cardboard boot box) Dynamic Speaker High Grade Matched Components - Wonderful Life-like Tone.

PRICE ... £10 CASH


As modern as the very morn. Made by hand by Senior Expert Mechanics in our own workrooms. Each one individually made and perfectly tested. (A midget with the power of a Giant).


For Cabinet to suit this Series turn to the CABINET SECTION of this Catalogue.
Five Valves and Rectifier. Three ControlsStation, Volume and Tone. Ultra-sensitive, with extremely wide daylight range. Full Interstate night reception.
Valves required-
Two .. .. 57

One .. .. 59
Two .. .. 58
One .. .. 80
Chassis Price .. .. .. .. .. .. .. £11 12 6
Valves Price . . . . . .. . . . . . . .. 410 0
Saxon Dynamic Speaker . . .. .. .. 150

## MODEL 5LRE CHASSIS

Four Valves and Rectifier.
Three ControlsStation, Volume and Tone. Wide daylight range. Full Interstate and Overseas night reception. Valves Required-


We Specialise in Repair Work. Quick, Cheap, and Efficient Work.
Speakers and Earphones a Speciality.
Get an estimate now.


MODEL 7LRE SUPERHETERODYNE CHASSIS
Six Valves and Rectifier. Latest development of 1933 Standard Super. Outstanding features are Selectivity, Sensitivity and excellent Tonal Quality. Tuning dial calibrated in kilocycles
as well as regular logging numbers 0 to 100 . We maintain this receiver to be the best value for the money offered by any radio firm in the Commonwealth.
Valves required-

| Two $\because 58$ | Two R25 or Two 2A5 |
| :--- | :--- |
| One $\because 57$ | One 80 |
| One |  |

One .. 57
One .. 55
One 80

| hassis Price | £13 |
| :---: | :---: |
| Valves Price . . . | 5 |
| Jensen D9 Large 1200 ohm Dynamic Speaker |  |
| Speaker |  |

## MODEL 6a LRE CHASSIS

Five Valves and Rectifier. Four controlsStation, Volume, Tone and Silent. Ultrasensitive with extremely wide daylight range. Full Interstate night reception. Almost equal in sensitivity to 6LRE but with special tonal quality of reproduction.
valves required-

| One . . . | 57 | One . . .. | 59 |
| :--- | :--- | :--- | :--- |
| Two | .. | . | 58 |
| One .. .. | 55 | One . . .. | 80 |

Chassis Price
Valves Price .. .. .. .. .. ... .. .. .. 411 6
Saxon Dynamic Speaker ... .. ...... 1 I 50

## MODEL 4LRE CHASSIS

Three Valves and Rectifier. Two ControlsStation and Volume. Electro-power output. Local reception day and night; Interstate reception at night.
Valves required-


WILL NOT BE UNDERSOLD

## AIRZONE MƠDEL 333

4 Valve Table Superheterodyne
It uses four of the most modern valves including the No. 59 power valve. The latest Magnavox Dynamic Speaker; Cadmium plated steel chassis; full floating variable Condenser; a special circuit giving extreme selectivity and freedom from hum; glowing arrow station finder.
Price, Complete in Table Model Cabinet, £14/19/6

## AIRZONE MODEL 303

4 Valve Table Superheterodyne
All the power and volume necessary for the ordinary home, bringing in distant stations with clarity. As with several other Airzone Models the 303 is just slightly higher than your table telephone. This little Airzone 303 can be transported easily, taken from room to room, and used anywhere there is a power point handy. Uses the most modern valves including the new No. 59 power valve.
Latest Magnavox Dynamic Speaker; Cadmium plated steel Chassis, of compact design; full floating variable condenser; special circuit giving extreme selectivity, absolute freedom from hum. Price, Complete in Table Model Cabinet, £13/19/6


AIRZONE 5 VALVE CONSOLE SUPERHET. MODEL 550 (Piano Finished Cabinet)
MODEL 510 (Velvet Finished Cabinet)
Fulfilling a much needed want Airzone have here produced a delightful console 5 -valve Superheterodyne which is as pleasing to the eye as it is to the ear. Inside, Airzone's usual high grade craftsmanship in which every detail has been given utmost consideration so that fault and failure MUST be negligible. Five newest type 6 and 7 pin valves: $2-57$ 's, 58,59 and 280. Magnavox newest type Dynamic Speaker; latest Airzone variable condenser, floating on rubber bushes; Cadmium plated chassis and gramophone pinjacks, complete a splendid chassis.
PRICE COMPLETE (in piano finish) $£ 23 / 19 / 6$ (In velvet finished cabinet)

## DIRECT CURRENT ELECTRIC

 4-VALVE RADIO RECEIVER READY FOR OPERATION. $£ 14 / 10 /-\ldots$ or in Kit form KIT OF PARTS1 Chassis $14 \times 10 \times 2 \frac{1}{3}$ inches ..... $6 \quad 3$
5 UY sockets at 7d. ..... 211
5.5 condensers, at $1 / 8$ ..... 4
22 mfd . condensers, at 2/8 ..... 54
24 mfd . condensers, 500 v . test, $4 / 8$ ..... 4
1.01 mfd . condenser ..... 0
1.05 mfd . condenser ..... 0
1.0005 mfd . condenser ..... 6

1. 0001 mfd condenser ..... 6
110,000 ohm wire wound resistor, vari- able ..... 310
115,000 ohm wire wound resistor, vari- able ..... 310
130,000 ohm wire wound resistor, vari- able ..... 0
1250 ohm wire wound resistor, variable ..... 3
1500 ohm wire wound resistor, variable ..... 3
1600 ohm wire wound resistor, variable ..... 3
11 meg . wire wound resistor, variable ..... 6
130 ohm wire wound resistor variable, tapped at 10 ohms ..... 6
175 C.P. carbon fil. lamp, special ..... 6
175 ma . choke ..... 0
13 gang condenser ..... 6
1 Vernier dial, with pilot lamp, 6 v . ..... 6
1 Coil kit, 2 R.F., 1 Ant., $1 / 6$ each ..... 6
2 Coil cans, at 9d. ..... 6
2 Valve cans, at 9 d . ..... 6
1 Philips high impedance choke ..... 6
1 R.F. choke ..... 4
1 Coil hook-up wire ..... 6
3 yards circular flex ..... 6
1 Adaptor ..... 9


COST OF MAKING . . $50 /-$
Like a Flash 1933 STANDARD 6/7 Electric Super Heterodyne


Chassis fitted with Philips Valves .. $£ 12 \quad 311$ Jensen D17 1200 ohm P.P. Dynamic

Speaker, extra
$\begin{array}{lll}1 & 11 & 6\end{array}$

## Reliable Electric

## Radios



> For areas where only Direct Current Electric Supply is availbale

Each model individually made in our own workrooms by senior mechanics.

"LIKE A FLASH"<br>A 4-VALVE DIRECT CURRENT ELECTRIC SUPER-HET. RADIO SET WITH DYNAMIC SPEAKER AND HANDSOME FLOOR MODEL CABINET £14/10/-<br>Guaranteed 12 months.


#### Abstract

AIRZONE-MODEL 909 9 Valve Dual Speaker Superheterodyne "Radio Magnificent" 9 Valves (latest 6 and 7 pin type); Glowing Arrow Station Finder; Tone Compensation, perfect tone balance; Magnavox Dynamic Dual Speakers; Distinguished Cabinet Design; as well as every known worthwhile modernity in Radio. Utmost simplicity has been aimed at, and achieved by the elimination of mere gadgets.

PRICE COMPLETE £49/10/-


## AIRZONE-MODEL 909C

Combination Radio and Gramophone
This model uses the same receiving set as the excellent Airzone 909 Model with the exception that it also embraces the most wonderful gramophone combination you have yet heard. Truly this is music at its best.

PRICE COMPLETE
£75

## THE AIRZONE "NEW CENTURY" 5

The Airzone "New Century" Five Valve Superheterodyne is not by any means a "midget", "Cigar-box" set, but a full-sized receiver, condensed into the minimum space. It contains:Full sized Magnavox Dynamic Speaker; Five of the newest 6 -pin type Valves, including the new 2.A5 full sized Power Tube, which delivers 3 watts undistorted output; Tuning Control illuminated and graduated in metres; Volume Control illuminated and graduated tone scale; Cabinet Work in smart lacquer or distinctive Veneers.

## AIRZONE 4 VALVE CONSOLE SUPERHET. MODEL 315 (Piano Finished Cabinet) MODEL 305 (Velvet Finished Cabinet)

Its cabinet work is well ordered and chassis comprises latest Magnavox Dynamic Speaker; full floating variable condenser; a special circuit giving extreme selectivity; Cadmium plated steel chassis; and the following newest valves: 57 (detector oscillator); 58 (I.F. amplifier); 59 detector amplifier); and 280 (Rectifier).
PRICE COMPLETE (in piano finished cabinet)
£18/18/-
(In velvet finished cabinet) £16/19/6

## THE NEW AIRZONETTE PORTABLE

All Electric Home and Travelling Companion. Offering in two types with 4 Valves and 5 Valves respectively. You can take this excellent little set anywhere you go-in the car, tram, train or 'bus-use it in the living room, bedroom, dining room, porch or week-end cottage, to partiesanywhere there is a power point handy, and have on hand always the best programmes-(Interstate Reception is guaranteed)-music, education, sporting, etc., etc.
4 VALVE AIRZONETTE COMPLETE, £14/19/6 Weighs only a few pounds-offering in neat imitation leather cases in the following colours: Red, dark blue, dark brown, black and green.

5 VALVE AIRZONETTE COMPLETE, £17/17/-


THE NEW AIRZONE MODEL 501

## 5 Valve Table Superheterodyne

It is barely 18 inches high. A year ago it would not have been deemed possible-to-day AIRZONE offers you the latest development in the Superhet. field- 5 valves (the latest six-pin valves: two 57 's, 58 , 59 , and 280 ); Interstate reception guaranteed; Magnavox latest type Dynamic Speaker; Airzone variable Condenser floating on rubber bushes; Cadmium-plated chassis; gramophone pin-jacks.

# But, like all other mains-operated devices, they must be <br> correctly installed. Read here some of the points to be 

## watched in handling them.

## FROM WIRELESS WEEKLY

The electric power mains are used nowadays so extensively for radio receivers that it is only logical to allow connection to them as much respect as is given to any other electrical devices. The comparative homeliness of a radio receiver is in itself disarming-it is difficult to imagine how such a harmless-looking and benign an instrument could be capable of any recalcitrant behaviour-until something goes wrong !

## RADIOS ARE SAFE

The safety of the modern radio set is beyond question. It has been gained by care in design and sane manufacture. Properly installed, an all-electric radio is actually safer than the majority of electrical devices. But, as is the case with all these things, there is a right and a wrong wase of installation. As long as a few standard rules are followed, and a knowledge of what constitutes a permissible connection is possessed by the home-builder, it should be possible to avoid any pitfalls which later might lead to trouble.

## INSTALLATION

The most important thing to remembier about the connection of a radio set is that the power flex must be plugged to an approved wall plug or socket placed there by a regular electrician. This requirement is set out in the regulations, and must be followed. How many people consider that a two-way adaptor attached to a lamp pendant for instance, is sufficient to supply their radio with power? And, yet, this connection, however convenient, is not permissible for a permanent fixture such as a radio set.

The ideal conection is to a separate power-point, installed for the exclusive use of the set. If the radio is switched on and off at this plag switch, the user may be reasonably certain that he has complied with everything to assure safety on this score. A switch in the power line should never be placed on the chassis itself.

## USE POWER FLEX

Another most important point to be watched is that the connection to the receiver is by means of circular power flex. No damage must be possible to the wire under reasonable conditions, and no risk run of having the insulation rubbed off, and causing a short circuit.

Lighting flex, such as is allowable for light pendants, should never be used for radio sets. Where such things as carpet-sweepers and vacuum-cleaners are apt to take their daily toll, there is considerable wear and tear on the average connecting wire, and the inference is obvious.

## BREVITY FOR SAFETY

Keep the power leads to your radio set as short as possible. The maximum length of flex which any set should have is about nine feet. Anything longer than that begins to look very much like a permanent installation, and, as such, would come under the same heading and any other, and call for installation by an electrician.

It is extremely probable that the temptation to run the lead to the radio set from a power point some distance away has proved too great for many and, therefore, a long cord has ben tacked to the skirting by means of insulated staples. This is a practice which is strongly to be condemned. There is no doubt, in this case, that such an installation is permanent, and, therefore, incorrectly installed, and actually contrary to regulations.

## EXTENSIONS

It is also bad practice to carry an extension wire to a radio set from one room to another. If the set is to be operated in one room, it should be connected to the power plug installed in that room, as the proper and authorised source, and not be operated at the end of a long flex, which may be broken in a door hinge, or torn from its support by an unlucky member of the household.

## CONNECTION OF THE SET

The actual connection of the power to the set transformer usually takes the form of two soldered joints, suitable lugs being provided on the transformer terminal strip. Only enough of the flex should be bared to make a solid joint. More important is the provision of something to take the strain of an unexpected pull on the flex.

The hole stamped in the chassis through which the flex passes should be fitted with a rubber bushing to stop the metal cutting through the insulation. Just inside the chassis, tie a solid knot in the flex. The knot will not pass through the hole, of course, and thus will form an ample anchorage sufficient to stand any reasonable tug on the wire.

All connections to high voltage will, in the modern set be under the cover of the chassis. If they are not, they must be provided with a cover of some kind, and fitted in such a manner that no accidental contact will cause danger.

## AERIALS AND EARTHS

With the electric set, it is important that care should be taken with the aerial. Most people realise that aerials should never be erected to pass under or over power leads, Should one or another blow down and come into contact with the aerial, obviously the set would become alive, and possibly cause trouble for someone who touched it. In any case, take care that the aerial is anchored firmly at both ends, and not merely strung up on crazy-looking poles, such as one often sses round the place. An aerial which is liable to como down is a nuisance and possible danger to everyone.

## EARTH WIRES

The earth wire is rather an important part of an electric set, as it is more or less a safeguard, should the occasion arise. It should be made of heavy insulated cable, firmly connected to the set chassis, and clamped to an earth pipe or point. Its insulation is important in case other electrical appliances should become alive. For instance, if a vacuum cleaner developed a fault of insulation, and the housewife while holding the metal portion of it, also touches an earth wire, most probably she would get a shock. Therefore it is inadvisable, in case such a rare occasion should arise, ever to have a bare earth wire in a room where electrical appliances are also being used.

BE SURE-AND SAFE
Finally, remember that alterations or adjustments to a radio set which entails investigation where high tension currents are about, should be made after the power is switched off, and the plug actually removed from the socket. When this has been done, it is impossible to receive a shock from the mains. In this, as in all other matters of installation, it should be the aim of every radio man to observe correct methods in the interests of himself, of satisfactory operation, and of good practice.

## BUILD YOUR OWN

## HALF-AMP. BATTERY CHARGER <br> AS SIMPLE TO ASSEMBLE AS A SET OF BLOCKS

The Transformer, $240 / 50$ tapped at 4 v . ..... 15
Philips Valve No. 328 ..... 6
2 yards Circular Lighting Flex ..... 10
2 Terminals ..... 6
1 Baseboard ..... 6
9
1 coil De Jur Hook-up Wire
1 coil De Jur Hook-up Wire
Charts supplied only with Kit£1 $16 \quad 3$
READY ASSEMBLED ..... 45/-
TRANSMITTING STATIONS FOR AMATEUR OR COMMERCIAL PURPOSES

Levenson's Radio specialise in the building of Transmitting Stations, large or small. Practical Engineers will draw up on request specifications and prices to suit all requirements on application. For all Component Parts, Valves, etc, covering this Department of Wireless we are in a position to give liberal quotations for the asking.

## Purchase a'Like=at- Flash' <br> Tuned Radio Frequency



At Levenson's "JUST PROFIT PRICE"
The total of the prices represents the cost of the complete Radio $\mathscr{\&} / 10 / 0$ of the prices represents the cost of the complete Radio! In the case of the gramophone combination Radio add cover cost of gramophone pick-up, electric motor and fitting. All prices are strictly nett. Definitely no Trade Discount.

5 VALVE T.R.F. WITH PRESELECTOR STAGE
four receiving valves and ONE RECTIFIER

Price of Chassis, with Philips or Mullard Valves .. .. .. £11 0 9
Jensen D17 Dynamic Speaker . 1116
$£ 12123$
For Cabinets see Cabinet Section. Page 58
PARTICULARLY SELECTIVE. MOST SATISFACTORY WHEN OPERATED CLOSE TO BROADCAST STATION.

## 5 VALVE STANDARD T.R.F. RADIO

FOUR RECEIVING \& ONE RECTIFYING Price of Chassis with Philips or Mullard Valves .. .. .. $£ 9 \quad 7 \quad 0$ Jensen Dynamic Speaker, type D17 $£ \longdiv { 1 0 \quad 1 8 \quad 6 }$

For Cabinets see Cabinet Section. Page 58

MOST SATISFACTORY WHEN OPERated at a distance of not less THAN TWO MILES FROM BROADCAST STATION.


5 VALVE T.R.F. RADIO FOUR RECEIVING AND ONE RECTIFYING Using New Philips Golden Valves Price of Chassis, with Philips
Valves .. .. .. .. .. .. .. £9 15 9 Jensen D17 Speaker .. .. .. .. $\quad 111$ 6
$\begin{array}{lll}£ 11 & 7 & 3\end{array}$
For Console Cabinets see Cabinet Section.
Page 58
SPECIALLY SUITABLE FOR GRAMOCOMBINATION TONAL QUALITY BEING UNSURPASSED.

## [ Purchase a 'Like-a-Flash' Superhet. All-Electric Radio ... this commonsense way

Select Separately . . . from these Pages Speaker, Radio Chassis and Console Cabinet.

The total of the prices represents the price of the "Superhet." complete. In the case of the Gramophone Combination Consoles an additional charge of $£ 6 / 10$ - is made to cover price of Electric Motor, Pick-up, and Fitting.

MODERN AS THE MINUTE . . . . THIS SPLENDID

## FIVE VALVE SUPERHETERODYNE RECEIVER

FOUR RECEIVING AND ONE RECTIFYING VALVE


AS GOOD AS A RADIO CAN BE
THIS

## SEVEN VALVE SUPERHETERODYNE RECEIVER

 SIX RECEIVING AND ONE RECTIFYING VALVE

Turn to Cabinet Section for Cabinet Prices and Designs. PAGE 58.
ALL PRICES
ABSOLUTELY NET.
NO TRADE DISCOUNT


WE BUILD TO YOUR SPECIAL REQUIREMENTS THE MOST SUITABLE RECEIVER TO OPERATE UNDER YOUR PARTICULAR REQUIREMENTS

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

LEVENSON'S MULTI TUNED WAVE TRAP
 ๑
HCNHがNNN


3
foOK ON AUDIO STAGE

## No. 1. "Like-a-Flash" Hook on Stage of Radio Frequency

Coil Data: L1- 15 turns; L2-80 turns. LIST OF PARTS
Bakelite Panel, 6in. x 6in. .. .. 16
Baseboard, 6 in. x 6 in. .. .. .. .. 9
Like a Flash variable condenser, 0005
69
2 Terminals 6
2 yards flex 56

1. Vernier dial
1 UX socket
1 Former, 3in. x 2 in. diam.
$\frac{2}{2} 26$ D.C.C.
TOTAL COST OF PARTS .. .. $19 \quad 3$
No. 2. "Like-a-Flash"
Wave Trap sce Paene iso
1 variable condenser, . 0005 .. .. 56
1 Former, 3 in. x 4 in. .. .. .. .. 10
2 Terminals .. .. .. .. .. .. .. 6
1 Dial .. .. .. .. .. ... .. .. 9
1 Baseboard, 6 in. x 6 in. .. .. .. 9
1 Piece bakelite, 6 in. x 6 in. .. .. $\quad 1{ }^{6}$
${ }_{1}^{1} 20$ D.C.C. .. .. .. .. .. .. .. $1_{2}^{6}$
26 D.C.C. .. ......... 2
TOTAL COST OF. PARTS ... ${ }^{13} 6$ Coil Data: L1-12 turns 26 D.C.C.; L2each 25 turns 26 D.C.C. wound in same direction and joined.
No. 3. "Like-a-Flash" Hook on Audio Stage
130 ohm De Jur rheostat
1 UX socket.......
1 Audio transformer .. .. .. .. 10 0
1 Panel, 4in. x 4in.
1 Baseboard, 4 in . x 6 in.
2 Terminals
2 yards rubber covered flex 6

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"LIKE-A-FLASH" AERIAL NOISE REJECTOR And hear Radio at its best. Reject all those hideous interfering noises caused by trams, electric signs, sweepers, electrical machinery and unseen electrical
atmospheric disturbances. Installed in a jiffy without any alteration to your set. You will be surprised at the improvement.

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# Simplified Diagrammatical Circuit of THE HIGH GAIN THREE/FOUR A.C. RECEIVER Originally appearing in Wireless Weekly 

LEVENSON'S DIAGRAMMATICAL RADIO CHARTS<br>General Points for the Uninitiated

In all circuits it is assumed that the home set builder is carrying out the construction on a specially designed metal chassis. This form of construction is both neat and efficient and provides quite a considerable amount of desirable screening and has the added advantage of eliminating quite a lot of wiring. Attention is drawn to the EARTH sign which is the only theoretical symbol used throughout the charts. This sign theoretica takes the form of three or four diminishing lines and indicates that a wire is to end here and to be made a good electrical contact to the metal chassis by means of the wire being soldered to a lug (soldering tag) held under the nut of a convenient bolt holding some component to the chassis. Where the set is being built on the once popular wooden baseboard, all these earthed points should be connected up to a common wire leading to the earth terminal.

Wiring the Set-It is important that all wires be as short as possible and run to the various components by the shortest route with due consideration for neatness, etc. Where the wires pass through the chassis they should be provided with extra insulation (rubber bushes are available) and not pulled so tight that there is risk of the metal of the chassis cutting through the insulation. Efficient soldering is very important, use resin-core solder and NO SPIRITS. Use a clean tinned iron and see that the joint receives sufficient heat to cause the solder to flow to a perfect joint. It is not sufficient to have the joint stuck with a lump of solder.

Many of the modern electric sets are much more involved than the older battery type circuits but there is not the slightest reason why anyone who can handle a pair of pliers and a small soldering iron should not succeed in producing a set to be proud of from one of the circuits in this series. The circuits are drawn diagrammatically so that those who are new-comers to the fascinating art of home set building will have no difficulty in recognising the similarity between the various components illustrated on the charts and the components they have secured for the assembly of the set. Further to this, the producers of these charts can be relied upon for any information on doubtful points and are always ready to aid with helpful advice, and if necessary the finished set will be tested in our own workshops and any troubles located or recommendations made, at a nominal charge.

On this diagrammatical chart a small layout is shown which is really a suggestion as to the most convenient manner in which to arrange the major components on the chassis. No attempt is made to show the smaller components used in the set. It is advisable to set out all the components in a preliminary manner before doing any drilling or attaching of any component permanently and to consider as to whether there is sufficient clearance between one and another component; also note that when the variable condenser is turned so that the plates are out of mesh it takes up more room than when closed-allowance should be made for this.
It is advisable to keep the power supply components such as transformer, choke, etc., at one end of the chassis. The smaller components are fitted on to the under side of the chassis. These include the fixed by pass condensers, all resistors, radio frequency chokes, etc., and these should be arranged so as to be as clear of the wiring running to radio frequency (R.F.) coils, etc., as possible. At the same time they should be so placed that the wiring to them is no longer than absolutely necessary.
A little thought spent on considering the best positions for these various minor components will be well repaid by producing a neat job and at the same time increasing the efficiency. Resistors feeding plate (P.) or the screens (S.G.), of the valyes, should be as close to the valve socket as possible. Regarding wires which are earthed, very often the earthed filament connection of the valve socket may be connected with a very short length of wire to a lug under the bolt holding the socket in position. If all other units are considered in this way when earthing is necessary much wiring will be eliminated.

SEE PAGE 140
Terminals for the aerial, etc, where they are bolted through the chassis will need to be insulated therefrom. Small fibre washers are provided for this purpose. A hole much larger than the screw on the termina! should be provided. The terminal is then mounted with first a brass washer, a large fibre washer, then a small washer to fit inside the hole when after the terminal screw is passed through the hole in the chassis the remaining fibre washer is put in place and the terminal bolted on. The earth terminal of course, is bolted straight into the metal chassis to make definite electrical connection thereto.

In this set using radio frequency stages we have included a small variable trimmer condenser across the aerial tuning condenser, and although coil kits are claimed to be matched the influence of the aerial and of this extra trimming condenser tend to make this input coil tune above the wavelength of the other coils in the kit and it is very often an advantage to remove anything from ten to eighteen turns from the grid (G. see chart) end of the aerial secondary coil. Although not vital one of the $F$. connections on the 235 valve socket should be connected to earth to reduce any hum.

NOTE.-Each pair of wires running from the filament voltage connections on the transformer to the filament connections of the valve sockets should be twisted together throughout their length. This helps to reduce hum.

Note that in mounting electrolytic condensers that the centre screw at the bottom of the condenser should always be connected to the positive side of the circuit, such as those connections that run from the filter choke or 280 rectifier valve filament.
Regarding the pilot light for the dial. The voltage for this may be taken from one of the $21 / 2$ volt windings, preferably that feeding radio frequency or detector valves, such as type No. 224 or 235 . In some of the modern circuits such as the High Gain 3, Direct coupled circuits, etc., considerable improvement in performance is often


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obtained by diverging somewhat from the actual value of the resistors used and if you are not perfectly satisfied with the results you are obtaining, two or three spare resistors for detector cathode, screen grid supply or detector plate supply will be found an asset as these resistors are not always up to the standard claimed and a faulty one may interfere greatly in the overall efficiency of the set. Filter condensers for the power pack should be at the power pack end of densers for
the chassis.
Regarding power transformers, while the charts illustrate specifie types these are liable to change from time to time according to manufacturing practice, although provided with the same voltage outputs so that the important thing to watch is not that the transformer agrees so much in appearance with the chart but that the voltages therefrom are correct. However, the high tension voltage supplied to the rectifier valve may vary to some degree, without any real detriment to the performance of the set, although we would certainly recommend a lower rather than a voltage higher than that indicated.
The circuits are all very clearly drawn in the simplified diagrammatical fashion in which the many circuits printed by Levenson's in the past have been done. This method has been proved very satisfactory, no radio knowledge being necessary for one to build a very fine set.
The circuits are available direct from Levenson's at 6d. each; or any three for $1 /-$. The full list of 12 can be had for .......... $2 /$.

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A Portfolio of 8 Simple All Electric A.C. Circuits, tried, tested, and proved, for Co........................................................ ${ }^{1 /-}$ 6 d . each; or the three for . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 d . A circuit of "B" Eliminator using 280 valve for operation from A.C. current " B, " and " C ", Eliminator using 280 ........................ 6d. each
 from A.C. current ........................................................ 6 d Circuit of "B" Eliminator for operation from D.C. mains .... 6d.
Circuit of "B" and "C" Eliminator for operation from D.C. mains . 6d. The latest type of Short Wave Circuit, using Battery, 3 Valve 6d. The latest type of Short Wave Circuit for A.C. operation, 4 valves
plus Rectifier ..................................................... 6d. each


For suitable Cabinet see page 58. For General Assembly Instructions see page 139 Factory Cost Assembling and Wiring if required $50 /$ -

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LEVENSON'S RADIO

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO

Simplified Circuit Including Shight Modifications and Improvements of DIRECT COUPLED A,C. TWO VALVE SET The Details of this Circuit Originally appeared in "Wireless Weekly"

## CHASSIS LAYOUT DIRECT COUPLED 2. <br>  <br> CONDENSER <br> 

1 Aluminium Chassis, $12 \times 9 \times 2$ ins. 1 L.A.F. 30 henry $50 \mathrm{~m} . \mathrm{a}$. choke 24 mfd .1500 v . D.C. test condensers 1.1 mfd . 1500 v . D.C. test condenser 2.5 mfd . Condensers 11 mfd .700 v . D.C. test Condenser 1 Reinartz Coil
L.A.F. 0005 mfd . Variable ConBack of Panel Dial
23 plate Midget Condenser
15,000 ohm Resistor
1500,000 ohm Resistor
2250,000 ohm Resistors
12 meg. Leak
2 UX Wafer Sockets
1 UY Wafer Socket
2 Terminals (A. and E.)
1 S.G. Clip
6 yards Hook-up Wire
$21 / 2$-doz. $1 / 8 \pi 1 / 2 \operatorname{in}$. serew
1 Aluminium Shield, $4 \times 21 / 2 \mathrm{in}$.
$\$$ Aluminium Shield, 4 x $2 \% / 2 i n . .$.
3 yards Power Flex and Adaptor . .
1 L.A.F. Half Wave 475 v .
PARTS FOR CHASSIS
$\begin{array}{rll}\text { Valves- } & 1 & 224 \mathrm{~A} \\ 1 & 245 \\ 1 & 280\end{array}$.
.
126
$\begin{array}{ll}11 & 7 \\ 11 & 0\end{array}$
$11 \quad 0$
Speaker-Jensen D17 Dynamic 2500 ohms

TOTAL COST PARTS, VALVES
AND SPEAKER

Factory Cost Assembling and Wiring 22/6

TO THE RADIO TRADE

LEVENSON'S AERIAL INTERFERENCE REJECTOR, 17/3 Nett In Lots of Three. Plus $5 \%$ Sales Tax.

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WANTED A.C. SET

SPECIAL
THE SENSATIONAL A.C. SET OF 1933

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(CIRCUIT APPEARS ON OPPOSITE PAGE)
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## GUIDE TO WIRELESS SYMBOLS



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Number 4 Outfit

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Know all about the PUNCH BOARDS and DIGGAR BOARDS. Hotelkeepers and Tobacconists specially note $\qquad$ See Inside Cover.






## SPECIFICATIONS

This receiver has been designed to meet the demand for a low priced receiver economical in running cost and possessing a high degree of reliability. The circuit is the well known Reinartz and is very simple to construct.

The battery supply in conjunction with the valves selected for operation in the set ensures ample volume to operate a loud speaker at comfortable room strength. If desired, headphones may be used in place of the speaker with a single "B" battery instead of the two specified; in which case both "B" positive wires would connect to positive maximum of the one " $B$ " battery.

## CONSTRUCTION

The chassis has the valve sockets ready mounted, also the speaker jack. The remaining holes for the major components are drilled so as to relieve the constructor of this work, which is rather irksome when the correct tools are not to hand.

The chart (page 149) illustrates the top panel view together with batteries and the connections thereto. There is also an under panel view of the chassis as it should appear when completed, and all wiring is clearly shown.

## AERIAL AND EARTH.

Insulating washers are provided so that when the aerial terminal is bolted to the chassis it does not make electrical contact thereto. Contrary to this, the earth terminal is bolted directly into the chassis in order that perfect electrical contact may be obtained.

## THE REINARTZ TUNING COIL.

An elevation of this coil is illustrated, showing the position of the various wind-

## WIRING.

As one or more terminals of the various components have to be earthed to the chassis, such earthing connections are indicated by the letters EC. In light of this it will be noted that one side of the switch is earthed, both the E and F terminals of the coil, and one end of the 450 ohm resistor, also one F terminal on each of the valve sockets.

Theoretical Diagram. This will help the builder to follow out the connections; index letters correspond to those on other illustrations. Remember to earth the lines terminating in $\quad$ to the chassis.

Front Panel. The nuts holding the 23 plate condenser and switch in place also serve to clamp the front panel to the front edge of the chassis. Condenser C1 bolts into the upper centre of panel.

Speaker. See that this is connected with its positive lead to the positive side of the speaker jack; performance is best when connected correctly.
 <br> \title{
Just produced by Levenson's <br> \title{
Just produced by Levenson's Technical Department
} Technical Department
}

THE NEWEST OF ALL A.C. RADIOS The GOLDEN COMPANION

With R.C.S. Coil Kit-continued from page 151 2 Rubber Grummets, one $7 / 16$ th inch, ane 5/16th inch
Knob on dial and 2 Variable Resistors to match
3 yards Circular Flex


FOR PARTS
$£ 6 \quad 15 \quad 2$

## Valves for Levenson's $4 / 5$ Golden Companion Super Heterodyne

 Philips Golden E452 Valves -.$$
1410
$$

E455
1410


1 D17 Speaker, Pent. 2,500 ohm
£1 110 Cabinet-See Page 58.
Oddments to clear from Overflow StoreRADIO CHEAPSIDE, 240A PITT STREETThe Home of Half a Million Wireless Bargains!UV Sub-Panel Sockets, each
Stromberg-Carlson UX Sub-Panel Sockets ..... 4d.
Gramophone Tone Arms, each
6d.
6d.
Swan Neck Tone Arms, each ..... 2/6
Portable Swan Neck Tone Arms, each ..... 9d.
Special Gramophone Tone Arm and Speaker to play all types of records, each ..... 7/6
Philips Trickle Charger Case with Bakelite Top for 1018 and 1016 type chargers ..... $57-$
Philips Eliminator Cases, type 3002, each ..... 5/-
Philips Shielded Switch, S.P.D.T., each ..... 2/-
8,000 ohm Speaker Coil, each ..... $2 / 6$
R.F. and Aerial Coils wound on $1 \frac{1}{1} \mathrm{in}$, former with mounting legs for .0005 or .00035 condensers, each ..... 6d.
Philips Audio Chokes, 50,000 ohms, each ..... 3/6

[^10]
## WITH LEKMEK COIL KITS

1 Chassis, steel, drilled and fitted with $3-5$ pin, 2-4 pin, 1-6 pin sockets, erial and earth terminals
$10 \quad 6$
1 Super Het. Coil Kit, Lekmek 460 K.C. Autodyne complete with padder, Ant. Oscil. 2 Int. F. Tran, and 2 gang Condenser
£3 $7 \quad 6$
2 Condensers, 8 mfd. Electrolytic, $5 / 9$ each

116
1 Condenser, 25 mfd . Electrolytic, $2 \ddot{6}$ each
2 Condensers, .5 mfd . Chanex, $1 / 8$ each
4 Condensers, .1 mfd. Chanex, $1 / 2$ each 34
2 Condensers, . 01 mfd. Chanex, $1 /-$ each
1 Condenser, .001 mfd . Simplex, $1 / 6$ each

16
1 Condenser, 002 mfd . Simplex 1.6

1 Resistor, 25,000 ohm Voltage Divider each
1 Resistors, 500,000 ohm leak type with pigtails

30
1 Resistor, 2 meg. leak type with pig tails
1 Resistor, 250,000 ohm leak type with pigtails
1 Resistor, 400 ohm leak type with pigtails
1 Resistor, 5,000 ohm Radiohm with pigtails
1 Resistor, 10,000 ohm Volume Control
1 Resistor, 25,000 or 50,000 ohm Variable
1 Resistor 20 ohm Centre Tapped
1 Resistor 4,000 to 4,500 ohm Radiohm
1 R.F. Choke
1 Power Transformer . . . . . .. .. 17 6
1 Vernier Dial, Efco, clockwise ... .. $\quad 96$
2 Rubber Gummets, one 7/16th inch, one $5 / 16$ th inch
Knob on dial and 2 Variable Resistors to match
3 yards Circular Flex
1 Adaptor or Plug
Pea Lamp for Dial
7 yards Hook Up Flex
PARTS FOR
Golden Valves for Levenson's $4 / 5$ Golden Companion Super Heterodyne
Philips Golden E452 Valves

£3 150
1 D17 Speaker, Pent. 2,500 ohm
£1 110

This receiver presents something ultra modern in radio design. The
important features are simplicity, efficiency and economy.
A high degree of efficiency for only four valves is made possible by using
the new P.H. 234 valve in the radio frequency stages. This valve is a
the new P.H. 234 valve in the radio frequency stages. This valve is a
super control radio frequency penthode with an amplification factor of 360
when operated with only 135 volts on the plate. These radio frequency when operated with only 135 volts on the plate. These radio frequency is possible to use a comparatively large aerial primary coil which makes the aerial coil of factory coils, but in most cases the standard windings will

# Battery Radio 

of volume, However, we recommend builder to try the alternative method should he strike any trouble in obtaining satisfactory control. If you do not desire to assemble the set yourself, we will construct the chassis only, for $30 /$ extra. Accessories and speaker, of course, are extra.

Let us now consider the gang condenser. In the first place the trimmer which is usually fitted on section G1 must be removed and fitted to section G3. The condenser C1 compensates the condenser G1. Leads from the fixed plates of the gang condensers should he connected to that side which is nearest to the chassis and should be soldered on before the condenser is screwed into position as this would be a difficult connettion to make after the condenser is assembled. The underneath view of the chassis shows clearly how these wires from the gang condensers are run under the chassis to the various coil grids, thence through the coil cans to the valve cap, except in the case of L3.G3, where a connection from G3 runs to L3 in the usual way and an additional lead runs above the chassis from G3 to C5 the other side of which runs up outside V3 valve can to the cap of the detector valve (P.H.232). C5 is the grid condenser and R6 the grid leak.

Another glance at the chassis wiring and you will see that the radio frequency components are located at one end and the audio channel is isolated and lies at the opposite end of the chassis. This layout arrangement is most important and no variation should be attempted. With reference to the radio frequency chokes numbers 11 and 13 should connect directly to the screen grid lug on the valve socket. The chokes 12 and 14 may be mounted on a small strip of fibre which in turn is supported in a convenient position as illustrated:

As the receiver is battery operated we must consider the requirements in this direction. The four valves of the P.H. series recommended for this receiver have a total current draw of only 0.38 amps and consequently a single 2 -volt accumulator cell will be sufficient for the filament supply. Three 45 -volt "B" batteries joined in series to give 135 volts are recommended for the high tension, but good results can be obtained with only 90 volts. Under either condition the sereen grid lead remains connected to the 67.5 volt tapping.

The builder will note a supplementary sketch to the left of the diagram. This serves to illustrate an alternative method of connecting up the automatic bias for the last valve and bias control for the radio frequency valves.

In this arrangement a 750 , ohm. resistor is not used, the negative filaments of the valves are earthed to the chassis as also would be the chassis side of the switch. The 1,000 ohm. resistor would need to have its bushing insulated from the chassis and instead, one of the outer terminals must be earthed. L1F and L2F along side wires leading to the 4 mfd . condenser and earthe . R 1 indicatc that the F end of those respective coils are centre terminal of R1 indicate that the F end of those respective coils are to be disconnected from the chassis and run as illustrated. The original B negative lead should be soldered to a small contact arranged to make contact with the wire on R1. It should be in a position about $1 / 3$ from the end of that wire resistor, as iliustrated. A small piece of metal foil or shim brass

Parts Kit for the Skyraider
Four . . . . ........... $£ 41210$ Four . . . . . . . . . . . . .
VALVES
(Mullard or Philips)


SPEAKER
SPAKER-Flash" Permag-
"Like a Fic Unit and Chussis
TOTAL COST FARTS,
VALVES, BATTERIES
AND SPEAKER
£13 $18 \quad 4$
Factory Cost of Building if required: £2/10/-

PARIS KIT FOR THE SKYRAIDER FOUR
13 gang 0005 L.A.F. Condenser,

6 R.F. chokes, 1
3 Double . 1 condensers,
1.00025 fixed condenser C5
1.01 fixed condenser C6

14 mfd . fixed condenser C 7
$1 \quad 1 \mathrm{mfd}$. fixed condenser C8
1 1,000 ohm variable resistor R 1
1756 ohm wire wound resistor R2
I 50,000 ohm resistor R3
$1 \quad 100,000$ ohm resistor $\mathbf{R}$
1500,000 ohm resistor R5
1 Battery switch
1 Vernier dial
Knobs, 1 -inch, 6d.
3 Valve cap clips, 3d.
1 6-way battery cable
1 Double speaker tip jack
2 Aerial terminals, 4 d .
1 Earth terminal
Aluminium chassis, size $14 \times 9$
3 Coil cans, 8 d
3 Coil cans, 8 d . 9 d .
1 Coil hook-up wire, 7 yards
1 Package hardware: screws, nuts, lugs, ete.; one 2 -meg. grid leak to the constructor it will be found to provide exceptionally smooth control

Fixed condenser, 0005
£4 1210
Ready Made and Drilled Metal Chassis with Sockets. etc., ready mounted, as included in Skyraider Kit

and the variable condensers and screen grid valve as is consistent with neat same is insulated from the chassis. A small piece of bakelite bolted to the chassis with the terminal passed through same but being clear of any contact with the chassis will usually suit these requirements. The earth terminal is straight to the chassis, with the two bakelite projections carrying the contacts protruding into the chassis through holes large enough to accommodate same. Insulation thus becomes perfect here. The six-way cable for battery connec-
tions may be soldered directly on to those connections of the components to which they ultimately connect.

Note that the 23 plate midget condenser is the main tuning control, whilst the 13 plate midget condenser controls reaction. In practice, this control should be adjusted so that the set is on the verge of oscillation (howling) tuning will soon indicate the best adjustment for the reaction condenser. There is one remaining midget condenser of three plates. This should be
placed on the left of the front panel; it does not need a great deal of attention, except when the case arises where no reaction can be obtained with the 13 plate condenser. Then the three plate condenser may be brought into blind spot from the tuning. The coil L2 consists of six turns wound on a $21 / 2$-inch former. This coil is so arranged that when the short wave coil is
plugged into the short wave socket, Coil L2 entirely surrounds the windings on the short wave plug.

Referring to the winding of the short wave coils, the diagram clearly to P. and G. Coil L3 is the reaction winding and connects to the two usual filament pins. Too much care cannot be exercised in ensuring that the top view of the plug-in coil former base, and that the wiring to the coil socket in the chassis is identical with that indicated on the chart.
Coil winding data is as follows:
STIOD GAVA LYOHS

| Wavelength | Grid | Reaction | All windings are of 24 D.S.C. wire The |
| :---: | :---: | :---: | :---: |
| 64-85 | 22 | 15 | roadcast coil consists of 165 turns for |
| 38-64 | 14 | 12 | coil, and both windings are of 34 enamelled |
| 24-40 | 9 | 9 | copper wire. All windings must be in the |
| 15-25 | 5 | 7 | same direction. |


| Wire your | Remember to study | PARS MULTI |
| :---: | :---: | :---: |
| Money with | particulars given elsewhere regarding | STRANDED |
| your Order. | our . . . | AERIALS |
| FOR INSTANT <br> ATTENTION | 500 CLUB | Phosphor Bronze. |
| It's quite safe, and saves time. | IT WILL PAY | 100 feet long. Splendid for results, 3/9. |
| Thousands do! | YOU TO JOIN. | Now 2/6 |



Levenson's Radio are pleased to present for the consideration of the Radio Home Builder, the Countryman's 4, which represents a vast improvement on many of the older types of battery sets at presert in service, Most bwilders will recognise certain similarity between it and the old Marco 4 which was always very popular. The improvements are, inclusion of Screen Grid R.F. Stage in place of the old triode valve in this socket, also volume control per medium of variable resistor between filament and chassis, whereby the bias of the R.F. penthode type 234 is regulated for varying degrees of sensitivity.

The various stages in this set represent careful thought so that desirable gain, selectivity and general eticiency can be obzained with not more than four valves.
The circuit illustrates a two-gang condenser. It is essential when using a twogang condenser to provide also a five plate miaget as illustrated, which allows the first tuning stage L2 to be brought into line with L4.
In order that this may be accomplished anything up to 15 turns at most may be removed from the grid end of coil L1.
Many home-kuilders will have two separate condensers on hand which they may desire to use in place of a two gang assembly. In this case the 5 plate midget may be eliminated and coil L1 left as when purchased.

This set represents a considerable degree of economy in operation, in that a 2 -volt accumulator only is necessary for all filaments, whilst drain from " P " battery is also as light as pessible considering volume which may be obtained.

Some builders may desire to use 232 type screen grid valves in place of the 234 R.F. Penthode. In this case a 400 ohm potentiometer may be used in place of the $1,000 \mathrm{ohm}$ illustrated. Although the 1,000 ohm potentiometer will suit both types of valves.

Mounting of Components Above Chassis.
The gang condenser should be arranged so as to allow the shaft to point towards the front, and exactly in the centre of the front edge of the chassis. See that the trimmer adjusting serews are uppermost, whilst the connections to the fixed plates of each section are close to the chassis. The connections to the fixed plates should be made before fixing the condenser in place and fairly large holes provided in $t$ he chassis in order that the wires may be passed through in readiness for wiring up, and only then should the condenser be bolted securely into position.

Coil L1 L2 is mounted alongside the gang condenser whilst L345 is directly in line with L1 L2, close to the gang condenser and about 1 inch or $11 / 2$ inches back from the frent edge of the chassis.

OIGA夕 LEVENSON'S RADIO

# Marco-4 Owners . . . Modernise your Set <br> THE COUNTRYMANS <br> A modernised version of the Famous <br> Marco 4 Interstate Receiver <br> <br> Battery Operated Radio 

 <br> <br> Battery Operated Radio}

The valve sockets are fitted between the coil cans, and the left hand edge of the chassis, and ample room will be found here to accommodate same. The kit is sold complete with the valve sockets already mounted.

First audio valve occupies position at the right end of the chassis near the front, the transformer is arranged either above the baseboard or below same, slightly behind the first audio valve, followed by the 231 power valve near the back edge of the chassis on the right.
When the coils are mounted, wires which were previously connected to the fixed plate terminals and which should be protruding through to the underside of the chassis should be led up and soldered to the grid connections of coils L2 L4, also a flexible wire should be lead from the $G$ end of L2 through the top of the coil can. fitted with a valve cap clip so as to occupy the cap on top of the screen grid valve.

A wire should also be provided from the detector section of the gang condenser connecting to the .00025 mfd . grid condenser which in turn is connected to the grid of the detector valve socket.

The builder is strongly advised not to use smaller capacity than 4 mfds. between the " $A$ " negative wiring and earth as this
has a great bearing on the smoothness of operation of the whole outfit.

## POSITIONS OF THE CONTROLS.

Of course the main tuning dial occupies the centre position, and its knob will be an inch or two above the top of the chasis. The volume control will be on the left as you face the chassis, and the reaction condenser on the right, whilst the small trimming condenser of 5 plates may occupy the position directly under the main dial. Many positions for the switch may be found, or positions of the controls may be slightly varied in order to ensure a balanced appearance.

Alternatively the switch may be connected to separate twin lead so that it may be in turn fitted to side of radio cabinet and so operate in this manner.
Fixed condensers and radio frequency chokes should be arranged as close as possible to the valve socket terminals, cte. to which they ultimately connect, in order that there shall be no long leads. Although it is not so necessary to worry about those wires which extend from the power side of the chokes, resistors, etc. to the various battery leads.

The resistors are provided with pigtails and same should be left only sufficiently long so that they will rigidly support the
resistors in a convenient position with the shortest of leads.

A small junction strip is supplied with the kit of parts, which is really a piece of fibre provided with eight solder eyelets. The ends of the battery cable should connect one to each of these points, and a lead from these connections in the set which must have an outlet to the battery should be run to the necessary points on the junction strip.

This ensures that the wiring will remain neat under the chassis and also provides a convenient point for checking up veltages, etc., when the set is completed.

The builder is particularly recommended to ensure that all components are tightly fixed in position, that insulation is as perfect as humanly possible, and that no greater length of wire connecting up the various components be used than is absolutely necessary.

## TUNING THE SET.

There should be no trouble in lining up this set, which has a separate trimmer across the aerial and secondary coil. It may be necessary to let up or tighten one or the other of the condenser trimmers,

We wish the builder every success in the construction of this very up to late 4 -valve Receiver, and we are always pleased to be of assistance to you.

## PRICE LIST OF PARTS

1 Chassis, $14 \times 9 \times 3$ inches, complete with 4 Marquis valve sockets fitted, also aerial and earth terminals and twin speaker jack
1 Aerial coil on Marquis former
1 R.F. coil with reaction on Marquis former
2 Bayonet fitting coil cans
1 Valve can
1 2-gang variable condenser
1 Alpha bakelite vernier dial
1 5-plate midget condenser
2 x .1 fixed condenser
3 R.F. chokes, H.C.C. type
1 23-plate midget condenser
1.01 tubular fixed condenser

1100,000 ohm 2 watt resistor
$1 \frac{1}{1}$ meg. 1 watt leak
12 meg. 1 watt leak
1 Crosley audio transformer
1.00025 ohm De Jur fixed rheostat
$1 \quad 1,000 \mathrm{ohm}$ potentiometer
14 mfd . Philips fixed condenser
1 Battery cable, 8 -way

## BATTERIES-

| 1 | Fuller | 2-volt Accumulator | . |  | $£ 1$ | 0 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | L.A.F. | 45v. H.D. B Batteries, | $11 / 9$ | 1 | 3 | 6 |  |
| 1 | L.A.F. 9v. C Battery | ................. |  | 2 | 0 |  |  |

$£ 2 \quad 5 \quad 6$

## SPEAKER-

R.C.A. 103 Mantle Type Cone Speaker
$210 \quad 0$
or Stewart Warner Cone Speaker, $£ 1 / 10 /$.
TOTAL COST PARTS, VALVES, BATTERIES AND SFEAKER
$\begin{array}{lll}11 & 7 & 5\end{array}$
Factory Cost Building and Wiring . . . . .. £2
FOR SUITABLE CABINET SEE PAGE 58

## Watch our "WIRELESS WEEKLY" FULL PAGE ADVERTISEMENTS for future Home Construction Kits. Watch for

"The Linguist No. 2"<br>"Lakes Improved Short Wave"

Simple Circuits for Home Constructors will be available. AT 1/- EACH
1 Valve cap clip......
$10 f \mathrm{f}$. 20 gauge tinned copper wire
4 lengths spaghetti
2 yards insulated single flex cotton covered
1 coil solder
1 Cable junction strip
1.1 mfd . condenser, fixed, tubular type

PARTS TO BIULD CHASSIS
VALVES-

| One 234 | $\ldots$ | .. | .. | . | .. | .. | .. | .. | .. |  | 15 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: |
| Twe 230 | $\ldots$ | .. | . | . | . | . | .. | .. | .. | $£ 1$ | 5 | 6 |
| One 231 | .. | .. | .. | .. | . | . | . | .. | .. |  | 12 | 9 |

# Wiring Data for Lakes One-Valve, Whole-World Battery Set 

ORIGINALLY FEATURED IN "WIRELESS WEEKLY"

```
1 \text { Aluminium Chassis, 9in. x 9in. x 2in., fitted}
with: 2 UX wafer sockets; 1 De Jur phone
    jack; two A. and one E. terminal
1 Panel, aluminium, 9in, x 6in, drilled
4 Marquis UX plug in formers
4. Marquis UX plug in formers .. .. .. ... .. . . 
1. m meg. grid leak (pig-tail)
15 meg. grid leak (pig-tail)
1 H.C.C. R.F. choke
1 3 \text { plate midget condenser and knob}
18 1/2in. x 1/8in. metal thread screws and nuts
1/4 lb, 24 D.C.C. wire
2}\mathrm{ Diora vernier dials
1 . \mp@code { M u l l a r d ~ g r i d ~ l e a k ~ m o u n t }
1 Coil hook up wire
3 yards single flex
1 Piece bakelite 2in, x 1/2in.
1.Coil solder
1 Pee wee clip
PARTS FOR CHASSIS
&2 8 10
Extra materials for Coils for Broadcast Band }\quad1.
VALVE
    1 230 2 volt general purpose valve
BATTERIES-
    1 2v. Exide DTG Accumulator
    1 2v. Exide DTG Accumulator
1 2 0
HEADPHONES -
    1 pair Guaranteel Phones
110
SPECIAL PRICE FOR KIT OF PARTS
    VALVE, BATTERIES & HEADPHONES &4 13 2
Factory Cost of Assembling and Wiring; including all
coils .. .. .. .. ...... .. .. .. .. .. .. &1/10/-
Ready Wound Coil Kit with Parts ..... .. 9/3 Extra
EXTRA MATERIAL FOR BROADCAST COIL-
    1 Bakelite former, 51/2in. x 21/2in. diameter
    I Old valve base
        ADDING AN AMPLIFIER TO
        LAKES ONE VALVE SET
        Material Required:
Crossley Audio Transformer
1 Valve Socket
230 2-volt Valve
1 Extra 45-volt B Battery
Extra for larger Chassis
Hook-up Wire, Terminals, Lugs, etc. Hook-up Wire, Terminals, Lugs, etc.
``` \(\qquad\)
```

120
6
Marg, aluY (.). . }
11

```
\(\qquad\)
```

12 9
+
BAT
TOTAL FOR EXTRAS ...................... 10 10 By adding this stage you will increase the output by

```
chart. When using the short wave coils the serial
should be connected to the Short Wave Aerial Terminal.
A Metal Panel is used on the chassis and should be
in direct metallic contact with the metal chassis. The
two variable condensers, . 00025 , are earthed by being
bolted directly to the panel, the 3 -plate midget con-
bolted directly to the panel, the 3 -plate midget
denser should be well insulated from the panel.
The Short Wave Coils are wound with 24 D.C.C.
Copper Wire.
Wavelength
                                    Reaction Coil
Waveleng
                                    Grid Coil
3 Turns
                                    covered
                                    8 Turns
15 to 25 meters
                                    8 Turns
15 to 35
35 to 50
12
14
12
14
16
35 to 50
50 to 80
6
9
9
13
16

In this circuit the connecting (hook-up) wire is defined by the white lines shown connecting one component to another. It will be noticed that in some instances where the lines cross a half circle is indicated; where this appears it is intended that the wires are NOT to be connected at that point. However, if two lines cross at right angles without any diverging of the lines it is intended that the wires ARE to be connected lines it is intended that the wires ARE to be connected
THERE. Similarly if one line meets another and ThERE. Similarly if one line meets another and there terminates
at that junction.
When the receiver is built using condensers that are fitted by means of screws through the front panel into fitted by means of screws through end plates it will be necessary to connect the moving plate terminal to the chassis using an extra wire.
 easily 200 per cent.

\section*{COIL WINDING DATA FOR LAKES'} ONE VALVE SET
The Broadcast Coil is wound on a \(21 / 2\)-inch tube, the Grid coil has a total of 65 turns of 24 D.C.C. copper wire. Tappings are made at every five turns up to the fortieth, then at 50 and 60 . The taps are made by holding the wire at the point at which the tap is to be made, between the thumb and forefinger and giving it a few turns or twists this will leave a small loop standing out from the side of the coil and these loops may later be cleaned so as to provide a good contact for the clip connected to the Long Wave Aerial Terminal. The clip is only used on the broadcast band. The Reaction winding consists of 50 turns of the same gauge wire wound on the former alongside the grid coil but spaced about \(1 / 4 \mathrm{in}\). from it, both windings must be in the same direction.
The Short Wave Coils are wound on Valve Bases. The Grid and Reaction coils are in the same relative positions as on the broadcast coil and connect to the pins in the base in the same order as illustrated on the

We Supply TWO POUNDS Worth of Goods for ONE GOLDEN SOVEREIGN LEVENSON'S RADIO

\section*{Simplified Diagrammatical Circuit of LAKES ONE-VALVE SET}


See Page 162
"LINGUIST" FOUR VALVE SHORT WAVE RECEIVER
This circuit is similar to the three, the only difference being that there is a
second audio valve added, which increases the output for loud speaker operation禺 \(\quad 00006\)
 Extra for larger 1 Suitable Valve....
 LOUD SPEAKER.-Amplion " \(G\) " Chassis and 5 ft . Cord .. .. \(\begin{array}{llll} & £ 1 & 5 & 0 \\ 1 & 1 & 9\end{array}\) 1 Extra Material for Commercial Ship to Shore Wavelengths: \(\begin{array}{ll}1 & \text { Two-coil holder } \\ 1 & \text { Four-pin plug } \\ 4 & \text { ft. flexible insula }\end{array}\) .0005 mfd L.A.F. variable condenser 4-inch dial
H.C.C. panel plug
75-ohm mounted
\(\begin{array}{ll}2 & 75-o \mathrm{om} \text { mounted H.L. Coils } \\ 1 & 100 \text {-ohm mounted H.C. coils }\end{array}\) \(1 \mathrm{~m}, \mathrm{ohm}\) mounted H.C. colls 9
a
a NOTE.- When used as commercial long wave receiver the resistance across
aerial and earth must be removed. WAVE BAND
64 to 100 Metres
38 to 62 Metres
22 to 40 Metres
15 to 25 Metres




Full kit of parts and
Matched Valves
IF we construct ........... 1 Extra.



 This price also includes necessary "C" battery.

 but as most of the assembling takes place beneath the chasssis and also
most of the wiring is done there, you must take this feature into accouint so as to eliminate error reegaraing the various connections. The only wires
necessary above the sub-panel are from the serial coil P connection to the necessary
cap of the valve tand also to the fixed plates of the R.F. also the wire from G of the R.F. coil socket to the fixed plates of the detector tuning condenser, also the wire running from the cap of the enser
detector valve. We would advise these wires connecting to the condenser be run above sub-panel and only wires run up through the sub-panel to the various components where absolutely necessary. The coils are wound on
low loss ribbed formers which are available in either UX or UY base and low loss ribbed formers which are available in either UX or UY base and
in various colours. We would suggest using one UY and one UX of a distinctive colour for each section of the wave band covered by the various
coils. In the illustration of the coil winding we show beneath an elevation view of the former a plan looking down on the inside of the former base.
If this angle of view is remembered there should be no difficulty in winding the various windings on the coil to the correct pin comections. Too much are colrect windings on the coils
 separated one-eighth of an inch, no more and preferably not less, and all
windings must be in same direction. COIL WINDING DATA


sub-panel and as near as possible to the positions as shown.
of course the usual type of sub-panel socket is employed, and in this the chassis but accessible through iuc The
usual practice at the present time. The chassis тиวuodu Publd
aitens
and
and pure pay эuo of
 terminal of the rheostat is in direct contact with the metal panel per medium Chokes are usually provided with a mounting bracket or bolt and nut provided for this purpose and should be bolted directly on to the chassis
in the position indicated. Regarding speaker connections in case the illustration is not quite
clear note that B positive 135-volt connects to one contact of the speaker clear note that B pasitive 135 -volt connects to one contact of the speaker
jack and the other speaker jack connects to P of the 231 value socket.
Only one connection is shown to the switch. Only one connection is shown to the switch; this is the wire marked A
negative 2 2-volt \(B\) negative \(C\) positive. The fact of the switch being bolted negative 2-volt B negative C positive. The fact of the switch being bolted
to the metal panel should complete the circuit for this wire through to the to the metal panel should complete the circuit for this wire through to the
metal chassis. If the swite plunger does not earth in this wroy as is the
case in some switches the other side of the switch should be connected to case in some switches the other side of the switch, should be connected to
the metal chassis or panel. Note that two double dotted lines are shown
running from front running from front to back across the chassis; these represent the sereens
the

 of bolting the screen to the chassis. Note that in assembling the com--
ponents and wiring same up that you are looking at the top of the chassis.

\(1 /\) Condensers, non-inductive
\(\qquad\)
fd. Fixe
500.000 ohm Leak type Resistor, 2 watt

Earth Terminal, 1 Aerial Terminal, 4d
Piece Fibre, \(4 \times 4 \times 18 \mathrm{~g}\). for bushings
UY Socket \({ }^{2}\)
Em Kabe Aluminium Faced Diai

Simplified Diagrammatical Circuit including Slight Modifications and Improvements of
\({ }_{36}^{4}\) yards Pounting Screws and Nuts..................... \(1_{2}^{4}\) it
 1 Coil Hook-up Wire
1
1
1
1
C.H.C. Key Lock Switch

B.C. Adaptor \({ }_{3}^{1}\) Terminals
\[
\begin{aligned}
& \text { VALVES } \\
& \text { One } 227
\end{aligned}
\]











BATTERIES
AMPLION AR. 88 SPEAKER READY BUILT
READY BUILT-in Table Model Cabinet \(£ 9 / 16 / 2\)
\[
\begin{aligned}
& \text { One } 227 \\
& \text { One } 247 \\
& \text { One } 280
\end{aligned}
\]


\title{
‘THE BIG BROADCAST’ A.C. \(3 / 4\) RECEIVER
}

\begin{abstract}
Aerial Trimmer.
Although not always included in factory built sets, the aerial trimmer is a great help in tuning in distant stations or weak stations that would otherwise not be received. In order to accommodate this condenser it may be necessary to remove approximately six turns from the top end of the coil L2; this should not be done, however, until the set is in operation as adjustment of the trimmers on the gang condenser may render this provision unnecessary. Stations at the lower end of the dial should tune with the trimmer condenser not quite all out of mesh while stations such as 2 CO or 2 FC should not require the trimmer quite all in mesh.

\section*{Power Transformer.}

The power transformer itself is not illustrated but instead the transformer terminal plate is shown having only those connections that are necessary for this receiver. Almost any of our transformers could be used to operate this set but the voltages that must be available should be as
\end{abstract} follows:-

> We have a Library of over 103 Modern Circuits. Send 6 d . for the one you want.

\section*{PRICE}

1 Power transformer: \(375 \mathrm{v} . / 375 \mathrm{v}\)., 75 ma . \(5 \mathrm{v} ., 2\) a., L.A.F. \(2.5 \mathrm{v} ., 4\) a. C.T. .
1 Chassis drilled to include A. and E. terminals, 4 valve sockets and speaker socket, and phone jack
\(12 \quad 6\)
\(12 \quad 6\)
1 Aerial coil, R.C.S. ..... 16
1 R.F. Coil, R.C.S. ..... 16
2 Coil cans ..... 14
2 Valve cans ( \(58 / 57\) types) ..... 18
2 6-pin sockets; 17 -pin socket; 2 4-pinsockets; 1 aerial terminal; 1 phone2-pin jack, included in chassis prices.
28 mfd . electro condensers\(7 \quad 6\)
3.5 mfd . tubular condensers (Chanex) ..... 50
1 2-gang Alpha condenser ..... 126
17 plate trimmer condenser ..... 20
1 Vernier back of panel illuminated circular spotlight dial ..... 60
15,000 ohm variable resistor ..... 310
1 Voltage divider, \(15,000 \mathrm{ohm}\) to 20,000 ..... 26
1400 ohm 1 watt resistor, 75 ma .
1250.000 ohm 1 watt resistor10
\(110,000 \mathrm{ohm} 1\) watt resistor ..... 10
1 1-meg. 1 watt resistor ..... 10
1 R.F. choke ..... 4
1.0005 fixed condenser ..... 16
1.01 to .05 fixed condenser ..... 10
20 ft . hook up wire ..... 16
\(1 \frac{1}{2}\) inch rubber gummutt ..... 16

240 v . Primary, 385 v . each side of centre tap is recommended for the secondary, although 375 will give excellent performance.
The transformer must be capable of supplying 75 ma . One \(5 \mathrm{v}, 2 \mathrm{amp}\). C.T. winding and one \(21 / 2 \mathrm{v} .4 \mathrm{amp}\), C.T. winding.

\section*{Tone Control.}

No provision is made on the chassis or list of components for a tone control, the use of which is optional; but same is very easily fitted as shown on dotted lines on the right hand side of the chart. This control consists of a 1 mfd. condenser and a \(50,000 \mathrm{ohm}\) variable resistor combination connecting from the plate of the penthode to the chassis. The condenser may be fitted under the chassis with one contact wired to the penthode plate. Two wires may be led out from the chassis, one from the remaining condenser terminal, the other from the chassis itself. To the ends of these wires may be fitted the variable resistor R7 which in turn may be fitted in a convenient position on the side of the cabinet.

\section*{LIST}

A New Set designed by us each Fortnight Send 1/- for the Latest
1 Adaptor or power plug ..... 9
\(12 / 3\) dozen \(\frac{1}{2} \times \frac{1}{8}\) brass screws and nuts ..... 9
1 set Aerial terminal insulating washers ..... 6
1 dozen solder lugs ..... 3
1 length resin core solder ..... 6
PART SFOR CHASSIS ..... £4 311
EXTRAS FOR TONE CONTROL IF REQUIRED
\(1.1 \mathrm{mfd} .1,500 \mathrm{v}\). condenser ..... 26150,000 ohm variable Chanceryresistor69
\(9 \quad 3\)
Extras for Tone Control if required-
1 . 1 mfd . condenser \(\ldots . . . \quad 1 \quad 2\)
1. 50,000 ohm potentiometer \(4 \quad 9\)511
VALVES -
\(\begin{array}{ll}1 & 58 \\ 1 & 57\end{array}\) ..... \(13 \quad 3\)
1
1
1 59 ..... 13
180 ..... 110
SPEAKER-
Jensen D17 2500 ohm Dynamic ..... \(111 \quad 6\)
Total Cost of Parts. Valves and Speaker \(£ 813 \quad 7\)
Factory Cost Building and Wiring ..... \(110 \quad 0\)

\section*{THE LINGUIST SHORT WAVE 3-VALVE BATTERY SET} (Concluded from page 162)
IMPORTANT.-Regarding the lead to cap (plate) of the screen grid valve, On no account shouid this be allowed to come into contact with the metal chassis or valve can whilst the " \(B\) " batteries are connected. The best plan is to insert the sereen grid valve, make the connection to the cap (plate) and place its screening can in position. Only after this is done should the " \(B\) " batteries be connected. If the above rule is not followed the flex lead to the cap of the screen grid valve is liable to come in contact with the chassis and this would result in the blowing of the filaments of all valves in the set.
COILS. The coils are wound on \(11 / 4\) inch ribbed formers, with No. 28 DSC wire. The coil bases are UX and fit the unshielded socket. An elevation of the coil former shows the relative position of tuning and reaction coils. Also is shown a top view of the former base, and the coil connections thereto. The wire naturally being passed down the centre of each pin and soldered to its tip.

Enjoy Whole World Radio with-

\section*{The Duffy All Wave Two}

A Set specially designed with Duffy Short Wave Parts. Less valves, speaker, and power pack, exactly as specified
※7/5/-
Or including all valves, made up, adjusted and accurately calibrated on oversea stations \(£ 10\). Speaker and Power Pack extra.
For suitable Cabinet see page 58

SPECIFICATIONS FOR THE "BIG BROADCAST"

\section*{The Chassis.}

Everything has been done to simplify the work of assembling this receiver and to this end the chassis is supplied with valve sockets and screen bases ready fitted. This is a great help to the constructor as it eliminates a great deal of time that would otherwise be taken up in drilling and otherwise working the aluminium. The result is that the finished receiver will favourably compare with any factory built chassis.

\section*{Mounting the Components.}

Note that the two gang condenser C1 and C2 should be mounted on its side with the trimmers uppermost thus greatly facilitating any necessary adjustment of same. Also note that the electrolytic condenser shown on the chart as nearest the 280 valve must be insulated from the chassis; insulating washers are provided for this purpose.

\section*{Speaker Connections,}

A four pin socket is provided on the back flange of the chassis and should be wired exactly as shown on the chart. This socket accommodates the dynamic speaker plug and care should be taken to ensure that the field cords of the speaker connect to the thick pins of the plug and the voice coil leads to the thin pin. Also note that the field coil wires are those which run to the main body of the speaker whilst the voice coil leads terminate at the small input transformer attached to the speaker.

\section*{Valves.}

This receiver is designed to accommodate the latest types of valves on the market and to this end the chassis is fitted with six and seven pin sockets. However, the receiver may be used with excellent results with five pin sockets and fitted with a 235 or 224 in the radio frequency stage, a 224 detector and a 247 penthode. In the latter case the leads from chassis to C and aux. G are omitted, the sockets being wired otherwise as illustrated except that the lead S.G. would now occupy the usual cathode contact on the five pin socket. Also, the contacts on the six pin sockets marked SPG do not exist on five pin sockets and that lead is consequently omitted. The relative positions of the other contact being as indicated.

The Voltage Divider.
Some little adjusting of the clips may be necessary but experience has shown that the average receiver works excellently with the clips arranged to occupy exactly the same position on the divider as illustrated on the chart. Phono Jack should be shorted with a wire link as illustrated, otherwise the receiver will not work.


FOR GENERAL WIRING INSTRUC TIONS SEE "SUPER 6" RECEIVER

9000
0



TRADE－IN TOUR UNWANTED RADIO GODDS

\section*{KーADE－LN}
\[
\overline{3}
\]
S\&GYVGdS DIWVNAG 马【VЩŋ HЮIH SdI'IHd

In handsome Bakelite front cabinet. Splendid appearance. Will
In handsome Bakelite front cabinet.
\[
29 \text { inches high. NOW }
\]

PERMAGNETIC MODEL 2011．Now ．．． 75
List Price，\(£ 14 / 10 /-\) ．This model particularly suitable for country
sets where no domestic electric current is available．Now \(. .75 /-\)

LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO
Levenson's Modern Simplicity 4 Valve Portable Set


0
-
\(\%\)

๕

\section*{PARTS FOR CHASSIS}

\section*{VALVES}

\section*{Mullard PM22A Pentode}
BATTERIES
＂L A．F
\(8 / 2\)

SPEAKER
＊Amplion＂G＂Chassis connected to terminal E．on the frame aerial terminal strip．Fur－
ther directions than above should be unnecessary，as the wiring and type of component used tend to greatly simplify matters．

\section*{＇4＇}
 possesses a most desirable simplicity of tuning．The frame aerial is wound on a frame which fits into the lid of the portable cabinet flustrated，and the aerial wire is wound on the outson the inside dimensions of the cabinet，viz．： \(15 \times 14 \frac{1}{2}\) ins．

13 turns are wound on commencing at G．at the 13th turn a tapping is mase ine direction and finished at \(P\) ．This final section which is the reaction portion of the loop possesses 7 turns so that the loop aerial has 20 turns in all．A frame should be built up on the main baseboard as illustrated with \(4 \frac{1}{2} \mathrm{in}\) ．width white pine
and in this way it will be seen that a separate compartment is and in this way it will be seen that a separate compartment is may be left out until wiring is completed．The panel screws down on to a front section of the frame as illustrated，and the batteries rest on the baseboard extending towards the back of

 fitted into the compartment in a slanting position and this is done uonsod ə्दt pieces of wood screwed into the frame at an angle at the position
in which the valves are to be mounted will serve for mounting

 the shortest lead between points is the best．Flexible wire should be run along the sides，inside the cabinet for the frame aerial and the loud speaker．Also on some portion of the lid the small order to facilitate connection of the frame aerial through the set． The loud speaker occupies the centre inside of the lid．


The 1 Valve Selective Reinartz Battery Set.

\section*{TWICE the RANGE -Half the price}

\section*{Radio Sets for Hire}

\author{
5/- PER WEEK
}

Convenient for HOSPITALS, WEEK ENDS, VISITORS, ETC., ETC, ETC.

WHEN ORDERING AERIAL WIRE

(HIGH CONDUCTIVITY COPPER)
Available in the following Types and Sizes:
HARD-DRAWN COPPER AERIALS
\begin{tabular}{lllllllll} 
Size & & \multicolumn{4}{c}{ Length } & & & \\
& & & & Price each \\
\(3 / 22\) & S.W.G. & 80 & feet &. &.. &. &. &. \\
\hline
\end{tabular}

HARD-DRAWN ENAMELLED AERIALS


\section*{LEWCOS SILK COVERED INDOOR AERIAL WIRE (Six Colours)}

14/0076, 50 feet
14/0076, 100 feet : SPECIFY: \(\qquad\)
L1: 10 turns
L2: 50 turns
L3 35 turns
4in. x 3in. Bakelite Former
\(\frac{1}{4}\) lb. 26 D.C.C.
or 1 Like a Flash Reinartz Coil, \(2 / 6\).
1 Bakelite Panel, 12in. x 7in.
1 Baseboard, 11 in, x 9 in.
1 Coil hook-up wire
1 UX valve socket


1 Amsco terminal strip
I
1 De Jur rheostat, 30 ohms
1 Like a Flash variable condenser, . \(00035 \quad 6 \quad 9\)
1 Magnus grid leak, 2 meg. .. .. .. ..... 1 . 0
1 De Jur . 00025 grid condenser .. ....... \(\quad 16\)
1 Like a Flash reaction condenser .. ... .. 3 . 6
1 Bakelite knob
- 6

1 Vernier dial .. ................... ... 3
3 yards single battery flex .. .. ..... .. 6
PARTS_FOR CHASSIS ............... £1 \(13 \quad 0\)
\(\overline{\text { VALVE-1 }} 1\) Mullard PM2DX 2 volt valve
BATTERIES-2 Dry cells A Battery 46
\begin{tabular}{lllllll}
1 & "L.A.F." 45 volt & & \\
& Light Duty Battery & 7 & 3 & & \\
& & & & 11 & 9
\end{tabular}

HEADPHONES-A Leading Maker, \(10 / 6\) \& \(13 / 6,17 / 6 \quad . . . . \quad . \quad\).. 1
Total Cost of Parts, Valve, Batteries and Phones at \(17 / 6\)
\(\begin{array}{lll}£ 3 & 14 & 3\end{array}\)
Table Model Cabinet to suit, 8/9 extra.
Factory Cost of Assembling and Wiring, 10/- extra.

90/- READY BUILT AND COMPLETE IN CABINET, WITH PHONES

Special Attention to Mail Orders. Please Add Freight. \(\qquad\) Mail Orders. Phones: M2525, M2526

Send 2d. Stamp for List of Radio Cabinets and Radio-Gramophone Combinations.

it is important that coil L1 be at right angles to coil L2 and 3 as illustrated. A ten point switch is used for obtaining tuning of the aerial circuit which circuit is inductively coupled to the secondary circuit per medium of coil L2 setting up magnetic
field which induces the received broadcasting in coil L3. Regarding coil L2, this consists of 1 inch length of 23 inch diameter tubing on which are wound 12 turns of 22 D.C.C.; this coil is arranged to fit into the end of
coil L3 and the diagram shows the latter coil cut away in order to show the position of coil L2 when in place. Coils L1
 also wound with those who should like to obtain the ultimate in efficiency and selectivity coil
 running through the inside of ine so
 -

 vantage. If coil L 2 is made to slide
in this way the wire from the earth ter-
 L1 should be of light flexible wire in
order not to hamper the moving of L2. No. 1 Kit No. 2 Kit.

\[
\begin{aligned}
& 000 \\
& 10-1
\end{aligned}
\]

\section*{MATERIALS REQUIRED:}
 Nickel Terminals
4 inch Dial Crystal Detector Contact Studs \begin{tabular}{l} 
Contact \\
Stops \\
\hline
\end{tabular}
10
2
1
6
1
1
7
1
7

This circuit has been designed and tested with the object of producing a set for the home constructor that while being simple in construction at the same time affords facility of obtainng the ultimate of efficiency in crystal set reception. All construc-
tional data is really clearly indicated on the circuit diagram
\[
\begin{aligned}
& \text { which gives back panel view of the front panel and baseboard } \\
& \text { and shows the position of the various components. Note that }
\end{aligned}
\]

8 g .

OUR TRADE IN DEPARTMENT have available in Perfect Condition and GuarCartloads of good Audio Transformers, \(3 / 6,5 / 6,6 / 6,7 / 6\). Huge quantities of Valve Sockets, UX or UY, at 3d. \& 6d. each. Vernier Dials, cases full of all leading makes at \(2 / 6\) and \(3 / 6\). If you cannot call to select them we will do that for you and
guarantee satisfaction or you have the privilege of exchanging them. YOUR ORDER TO-DAY!! MIL RADIO CHEAPSIDE, 240A PITT STREET

?
beautiful job. Never
rattle. Exclusive to
Levensons.
JUST LANDED
Price \(\quad\).. \(\quad\). 84

1 Table model cabinet ..
1 pair High grade phones
Aerial material .. ...
Factory Cost of Making
R.C.A. 103 TYPE American High Grade
Handsome Design. 35/- each to
R.C.A. 100B TYPE American High
Grade
Perfect \(\begin{gathered}\text { Speakers. } \\ \text { Gun-Metal }\end{gathered} \begin{gathered}\text { Now } \\ \text { Cabinets. }\end{gathered}\)
Perfect
\(40 /-\) each to Traders in lots of 3

It is absurd to judge a lamp on its price without considering its efficiency. Just as absurd as buying a 10 -mile-per-gallon car because it costs half the price of a 20 -mile-per-gallon job. In its life the cheaper car will cost \(£ 500\) more to run than the more economical cor.
The man who sells you a cheap, inferior lamp ought to give you at least \(5 /-\) with it to pay for the current it wastes.
See the name behind the lamp - if it's a Siemens' it's guaranteed. When you buy Siemens' you buy Light-efficient and economic.

\section*{SIEMENS (AUST.) PTY. LTD.}

\section*{257 CLARENCE STREET \\ SYDNEY}

Co-Distributors: W. G. Watson \& Co. Ltd.
S. Hoffnung \& Co. Ltd.

\(\square\)

cardboard. L1 comprises 60 turns of 22 gauge double cotton covered wire tapped at every 5 turns and a lead taken to the inductance switch. L2 has an interior winding of 10 turns quite separate from an outer winding of 60 turns also wound with 24 gauge double cotton covered wire. L1 is mounted flat on the
baseboard and L2 is mounted on a small bracket at right angles to L1. The tuning condenser is of .0003 capacity. Terminals for aerial and earth may be mounted on the panel or baseboard right hand side of the front panel. The inductance switch for which may be substituted a contact arm and studs should be as
close to the L1 coil as possible. The crystal detector should be of good manufacture such as the R.U.F. brand.

\section*{PARTS REQUIRED:}

\section*{No. 2 KIT:}
ance lies in the flat wound 12 finger spider formers which have


\section*{Circuit of Levenson's 'B' Battery Eliminator}


Showing Layout of Parts and Connections. All the parts to build this fine

Eliminator for A.C. Current
£2 \(10 \quad 0\) THOROUGHLY TESTED
Includes new type transformer tested and approved of by City Council of Sydney. Always Reliable Service. NO HUM; NO CRACKLE PARTS REQUIRED:


\footnotetext{
"STEWART WARNER" MAGNETIC CONE
In Lots of 3
. \(25 /-\) each
F.O.B. Sydney.
}

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\[
\text { PRICE . . . . } 7 / 6 \mathrm{EACH}
\]


DUFFY SHORT WAVE
CALIBRATED COILS
An accurately wound and calibrated kit, tuning from \(16-32\) metres, \(28-57\) metres, and 49-99 metres. Supplied with graph which enables you to tune to the exact dial reading of the station you want. Matched to Duffy Tuning Condensers.
Set of 6 Coils, R.F. and Det Set of 3, Detector only

25/-
SEND FOR FREE COPY OF "SHORT WAVE NEWS", CHOCK FULL OF VALUABLE SHORT WAVE INFORMATION. ENCLOSE 1d. POSTAGE.

\section*{THE DUFFY RADIO CO. LTD.}

Research Laboratories and Factory: 73-75 GEORGE STREET, REDFERN, N.S.W.


DUFFY SHORT WAVE
AERIAL COUPLER

A unit connecting the aerial to a short wave receiver which has proved most efficient. Can be used with any receiver. Matched with Duffy Short Wave Kits. Appearance same as R.F. Choke.

PRICE . . . . 2/6 EACH


R.C.A. CONE SPEAKERS. Levenson's Price: Model \(103 \ldots \ldots 50 /-\); Model \(100 \mathrm{~B} \ldots\). ... \(60 /\) BRAND NEW GOODS

and "C" TYPE
边 ELIMINATOR " UKEF
\[
\frac{c-M E D}{C-M A X}
\]
Everything in this Unit Guaranteed Mechanically for 12 Months

producing an Eliminator to be proud of from one of the circuits in this series. The circuits are drawn diagrammatically so that
those who are new comers to the fascinating art of home set building will have no difficulty in recognising the similarity between the various components illustrated on the charts and the components they have secured for the assembly of the Eliminator. Fur-
ther to this the producers of these charts cater particularly for the home constructor and can be relied upon for any information on doubtful points and are always ready to aid with helpful advice, workshops and any troubles located or recommendations made, at a nominal charge.

LEVENSON'S DIAGRAMMATICAL RADIO
CHAR'TS-General Points for the Uninitiated
 NO SPIRITS. Use a clean tinned iron and see that the joint joint. It is not sufficient to have the joint stuck with a lump There is not the slightest reason why anyone who can handle a pair of pliers and a small soldering iron should not succeed in
R
Why not trade in your old time radio receiver for a modern

\title{
Levenson's Like-a-Flash Aerial Noise and Interference Rejector 21/6
}

\section*{DEFINITELY SHUTS OUT MAN MADE STATICS INTERFERENCE AND NOISE REJECTOR}

Effectively eliminates noises collected by your aerial system, and also acts as wave trap, separating interfering stations. For use on all kinds of Radio Sets.
Ready Constructed .. .. .. .. ........ 21/6
Full Kit of Parts for Home Assembly .. 17/6 Send 6d. for Assembly Diagram and Instructions.
The rejector is designed to eliminate that type of radio inductive interference which arrives at the receiver via the aerial and lead-in system.

\section*{ASSEMBLY KIT FOR HOME CONSTRUCTION \(17 / 6\)}
(PARTS ONLY)

READY CONSTRUCTED 21/6

It is distinct from the mains noise eliminator which deals with electrical interference arriving via the power connection to the set.

The rejector is equally efficient with both A.C. and battery operated receivers, and should prove effective in all those cases where line filters have proved ineffective.

The system allows of the aerial being placed at such a height or distance from sources of interference that should allow of unmarred reception.
There is a shielded transmission line connecting Rejector R1 and Rejector R2, which may be of practically any length, as it does not act as part of the aerial and so upset the efficiency of the receiver.
Fifty feet of transmission line is supplied with the kit and this length may be greatly increased if necessary.
The aerial may be placed on top of a high building or at the end of the property farthest from the source of interference. Also it may be run in which ever direction gives the least pick-up of interference.

\section*{Installation}

The method of installation will vary somewhat with different requirements, and an average installation is shown on this chart. A and AL
represent an average aerial and down lead, although AL should be kept as short as possible. Rejector R1 has red and white wires protruding from its base. This rejector should be placed at the receiver end of the aerial, and AL must be connected to the red wire, twisting the ends well together and taping same. It is also preferable to solder the joints.

The end of the transmission line LT is held in place by passing it under the small protruding clamp on the bracket and hammering same back sufficiently tight to hold it firmly.

A little slack wire should be left above the clamp to allow the inside core of the transmission line being connected to the white wire from R1. The transmission line may follow any course from the aerial to the receiver. It may be tacked along a fence, follow the contour of walls, or lay across a roof. The other end of the transmission line is connected to Rejector R2 in the same way as in the case of R1 (to the white wire).

The green wire running from R2 should be connected to the earth terminal of the receiver. This lead also earths the metal casing of the transmission line.
There is a short shielded lead from R2, the end of which should be connected to the aerial terminal of the receiver.

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THIS CATALOGUE AUTOMATICALLY CANCELS ALL PREVIOUS LISTS


Interference and Noise Rejector

\section*{Assembly of Interference Rejector Unit}

Coil L is wound on a former \(3 \frac{1}{4}\) inches long \(\times 1 \frac{1}{4}\) inches diameter, it consists of 85 turns of 28 g . D.C.C. wire tapped at the 20th turn.

The illustration shows clearly how all necessary connections are made. The drawing of the Rejector unit should be studied in conjunction with the printed matter dealing with the installation of the system. EC is a small screw through the base holding two lugs, one on each side. These will provide a convenient means of earthing both coil and transmission line-casing.

Make a few turns of wire around the shielding of the transmission line near each rejector and solder this wire both to the metal mesh covering and to one of the lugs on the rejector can base. This should be done at both ends of the transmission line. If the line is longer than 50 feet, an additional earth wire should be run direct to earth from the end of the line nearest R1. See ET on chart.

Both Rejectors B1 and R2 are identical except for their leads. - Connection 2, from the coil tapping, connects via the white wire to the transmission line in both cases. Connection 3 bottom of the coil is earthed in both units. Connection from the top of the coil (1) connects via the red wire and \(A L\) to the aerial. In the case of rejector R2, an 18 -inch or \(2-\mathrm{ft}\). length of shielded wire cut from the coil of transmission wire is connected to the top of the coil (1), thus providing the connection to the aerial terminal on the receiver.

The metal casing of this wire should also be earthed as suggested for the transmission line casing.

FITTING THE COIL. Coil is held in position by means of two 1 -inch metal thread screws and nuts, which also serve to hold the mounting brackets firmly in position.

The builder may find it difficult to put a nut on the screw inside the top end of the coil former. However, if the inside nut on the lower screw is done up tightly, tbe former will be held securely in position without the necessity of fitting the top inside nut.

\section*{ELECTRIC SET OWNERS}

You should also use a "MAINS NOISE ELIMINATOR". The use of two units will ensure Real Radio Reception. Both units described in this book.

One clears the electrical noises the other clears the aerial noises.
ALL PARTS COST
\(12 \quad 9\)
READY CONSTRUCTED
\(17 \quad 6\)
Agents wanted in every district. Get in touch with us

\section*{TRADE-IN \\ THAT UNWANTED RADIO MATERIAL}

Send us anything and everything in Radio that is of no use to you; we will assess their value for credit against purchases. Or let us know what you have and what you want in exchange. NOTE.-All sec-ond-hand goods that are taken in by us are sold at our Radio "Cheapside," 240A Pitt Street, at Bargain Prices. Let us quote you on anything you may require from this department.

\section*{LEVENSON'S LINE FILTER \\ Good-bye \\ Electrical}

Interference
"Man-Made Static"
Not suitable for Sets using "B" Batteries
In many locations where an all electric receiver is being operated from the A.C. or D.C. mains, trouble is sometimes encountered in the form of interference or in the form of foreign noises, crackling, or interference due to some broadcast station dominating that station to which the receiver is tuned. The latter trouble being very often due to what is termed tuning on the mains.
A lot of the crackling that can come over the mains to a receiver may be of a radio frequency nature and when this is the case the line filter herein described would either completely eliminate this trouble or at least provide greatly improved reception.
In the case of a receiver "tuning on the mains" the filter usually entirely eliminated this troublesome phenomena.
The fitting of the filter to an existing radion installation is an extremely simple matter when the filter is purchased ready built, and indeed the home construction of the filter itself presents very little difficulty, there being very few parts and the connections being very simple.
First, we will describe the method of connecting a ready-built filter to an existing installation.
The filter is provided with a three-pin plug and socket for same, the plug being attached to the end of the short cord of the filter and this plug should be plugged into the wall socket in place of the lead at present connecting the wireless set to the power.
This latter lead from the wireless set should now be plugged into the three pin socket on the line filter.
The connection has now been completed between the wall power outlet and the radio set via the line filter and the set may be operated in the usual manner.

An additional wire should be run from the earth terminal which is screwed into the case of the line filter to the centre contact of the plug. It is also an additional advantage to run a wire from this terminal either to the earth terminal of the set which in turn should be earthed, or directly to an earth connection such as a water pipe.

In cases where a two pin wall

\section*{NEW Revolutionary. \\ Absolutely necessary for Electrically Operated Sets}
socket is the only connection or where the set has to be run from an ordinary light socket, then the method is to remove the plug or adaptor at present on the end of the wireless set cord and connect same to the cord affixed to the line filter. The three pin plug should then be fitted to the cord which normally connects the wireless set to the power, this plug is then inserted into the three pin socket on the filter. Where no third wire is available the centre contact on the plug should be left vacant. Construction: The three diagrams should prove almost self-explanatory especially when considered with the parts on hand. The wooden rod, fibre discs and wood pins for constructing the former should be assembled as shown in Fig. 1, thus providing two slots in which the coils may be wound.

At the start, about 6 or 8 inches of the wire should be left protruding through a hole in the disc near the wooden former, 150 turns should be wound off and it is advisable not to aim at neatness in the manner of how the wire is laid on, as the more jumbled the wire is, the greater will be the efficiency of the coil for its purposes. The end of the wire should be brought through a small hole in the edge of the disc.

Fig. 2 shows a view of the two completed coils mounted on the wooden rod. This illustration also shows both ends of the coils and how same are connected together with components in the filter, the only additional unit being a twin .1 condenser. Note that the short flex which is to connect to the power point terminates at the two outside lugs on the condenser. The inside connections of each coil are also soldered here. The outside wires of each coil connect one to each contact on the two pin plug, the centre contact of this plug being connected to the centre lug on the twin condenser and to the metal cabinet. The earth terminal which is screwed to the side of the can, provides a convenient point for fixing this internal earthing wire. Fig. 3 shows a theoretical diagram of the filter and should prove helpful in tracing out the various connections.

All Parts to Build . 12/9 THE LINE FILTER READY BUILT \(17 / 6\)

Also see the Aerial Noise Rejector THE COMPANION UNIT
Agents wanted in all Districts _ Get in Touch with Us


Ю Ю Юールー 000 H

\footnotetext{
LSIT ЯDIXd
PRICE


Wooden coil support，and wood pins
}
LEVENSON'S RADIO TROUBLE FIN DING HELP SHEET FOR A.C. SETS
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline MAY BE
LIKELY
SOURCE OF
TROUBLE & NO RECEPTION & \[
\begin{gathered}
\text { FAINT } \\
\text { RECEPTION }
\end{gathered}
\] & CRACKLING & INTERRUPTED
RECEPTION & VARIOUS NOISES \& DISTORTION & WHISTLES \\
\hline POWER PACK & Rectifier valve burnt out. & Faulty rectifier valve. & Faulty valve. Faulty choke. Bad contact in valve socket. & Loose or shorting connection. & If loud hum, then broken-do wn filter condenser or other short. & \\
\hline VALVES & Faulty detector or audio valves. & \begin{tabular}{l}
Faulty valves. \\
Valves not making contact in sockets.
\end{tabular} & \begin{tabular}{l}
Faulty indirectly heated ( 5 pin ) valve. \\
Faulty contact in socket. \\
If screen grid valves \(t h e n\) possibly loose cap connection.
\end{tabular} & Faulty indirectly heated valve. Intermittent interval short in valve. & \begin{tabular}{l}
Incorrect bias resistor. \\
Broken resistance. \\
Resistance of incorrect value.
\end{tabular} & \begin{tabular}{l}
Valves in need of screening. \\
Screening n ot earthed. \\
Faulty valve.
\end{tabular} \\
\hline \begin{tabular}{l}
AUDIO \\
TRANSFORMER
\end{tabular} & Broken down Transformer. & \begin{tabular}{l}
Transformer winding corroded. \\
Incorrect transformer connections.
\end{tabular} & \begin{tabular}{l}
Faulty transformer. \\
Corroded windings, needs replacing.
\end{tabular} & & \begin{tabular}{l}
P oor quality transformer. \\
Unsuitable type.
\end{tabular} & \begin{tabular}{l}
Poor transformer. \\
Transformers badly shielded or too close.
\end{tabular} \\
\hline COILS AND CONDENSERS & \begin{tabular}{l}
Broken connection to coils. \\
Shorting condenser plates.
\end{tabular} & \begin{tabular}{l}
Aerial coil too small. \\
Reaction coil connected wrong way round. \\
Roar of faulty condensers.
\end{tabular} & \begin{tabular}{l}
Bad insulation of coils. \\
Shorting condenser plates.
\end{tabular} & Loose connection to coils. & \begin{tabular}{l}
Feed-back between coils. \\
Reaction coil too large.
\end{tabular} & \begin{tabular}{l}
Coils not spaced sufficiently apart. \\
Shielding not sufficient.
\end{tabular} \\
\hline AERIAL AND GROUND & \begin{tabular}{l}
Aerial down. \\
Earthing switch closed. \\
Aerial disconnected. \\
Faulty earth connection.
\end{tabular} & \begin{tabular}{l}
Aerial disconnected. \\
Shorting to iron guttering. \\
Aerial too short. \\
Screened by iron buildings.
\end{tabular} & Aerial rubbing on iron guttering or iron roof. & \begin{tabular}{l}
Aerial swinging and touching guttering at times. \\
Lead-in connection to aerial faulty.
\end{tabular} & Aerial too close to power lines. Parallel to tramway overhead wires, etc. & Induction from nearby power lines. \\
\hline SPEAKER & Broken cord. Burnt out. Disconnected. & \begin{tabular}{l}
If "dynamic," field power not on. \\
If magnetic type, cord connections reversed.
\end{tabular} & \begin{tabular}{l}
Faulty cord. \\
Not suitable type for A.C. sets.
\end{tabular} & Cord faulty or loose connection. & \begin{tabular}{l}
Speaker too close to set. \\
Of unsuitable resistance. \\
Cord connections reversed.
\end{tabular} & \begin{tabular}{l}
Feed-back from speaker to set affecting microphonic valves. \\
Feed-back from speaker eord to circuit.
\end{tabular} \\
\hline GENERAL & Power plug not making contact. & Set insufficiently powerful. & \begin{tabular}{l}
Faulty connections. \\
S e t incorrectly tuned. \\
Loose connection in power lines.
\end{tabular} & Loose connection to power point. Faulty switch. & Induction from nearby substation, trams, works using electric machinery. & \begin{tabular}{l}
Volume control too full on. \\
Components badly arranged on chassis.
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline MAY BE
LIKELY
SOURCE OF
TROUBLE & NO RECEPTION & \begin{tabular}{l}
FAINT \\
RECEPTION
\end{tabular} & CRACKLING \& DISTORTION & INTERRUPTED
RECEPTION & VARIOUS
NOISES & WHISTLES \\
\hline "A" BATTERY & \begin{tabular}{l}
Battery flat. \\
Leads reversed. \\
Leads off.
\end{tabular} & Battery low. Leads reversed. Corroded contacts. & Battery flat. Loose contact. Battery in need of cleaning out. & Loose connection in battery leads at set or battery. & \begin{tabular}{l}
Charger not switched off. \\
Battery low.
\end{tabular} & Battery low. Battery voltage not suitable for valves. \\
\hline \[
\begin{aligned}
& \text { "B" BATTERY } \\
& \text { OR" BATTERY } \\
& \text { "C" }
\end{aligned}
\] & Battery exhausted or not properly connected & Battery flat. Wrong connections. & \begin{tabular}{l}
Faulty battery. \\
Loose connections.
\end{tabular} & Loose connections. & Defective or exhausted battery. & Voltage too low. Incorrect connections. \\
\hline \[
\begin{gathered}
\text { "B" } \\
\text { ELIMINATOR }
\end{gathered}
\] & \begin{tabular}{l}
Not switched on. Bad connection to mains. \\
Rectifier valve faulty.
\end{tabular} & \begin{tabular}{l}
Overloaded. \\
Valve low in emission.
\end{tabular} & \begin{tabular}{l}
Badly fitting power plug. \\
Faulty valve. \\
Faulty choke.
\end{tabular} & Bad connection. & \begin{tabular}{l}
Poor choke. \\
Insufficient capacity in filter. \\
Incorrect connections. \\
Faulty resistor.
\end{tabular} & \begin{tabular}{l}
Voltage too low or too high. \\
Poor filter circuit. \\
Incorrect connections.
\end{tabular} \\
\hline \[
\begin{aligned}
& \text { AERIAL } \\
& \text { AND } \\
& \text { GROUND }
\end{aligned}
\] & \begin{tabular}{l}
Aerial down. \\
Aerial - Earth switch closed. \\
Aerial disconnected. \\
Earth connection faulty.
\end{tabular} & \begin{tabular}{l}
Aerial disconnected. \\
Shorting to iron guttering. \\
Too long or too short.
\end{tabular} & Aerial rubbing on iron guttering or iron roof. & \begin{tabular}{l}
Aerial swinging and touching iron guttering at times. \\
Lead-in connection to aerial faulty.
\end{tabular} & Aerial too close to power lines. Parallel to tram overhead wires & Induction from nearby power lines. \\
\hline VALVES & \begin{tabular}{l}
Filaments burnt out. \\
No filament current at socket. Examine switch and rheostats.
\end{tabular} & \begin{tabular}{l}
One or more valves burnt out. \\
Valves poor in emission. \\
Radio frequency valves not functioning. \\
Have valves tested.
\end{tabular} & \begin{tabular}{l}
Faulty valves. \\
Incorrect "C" bias. \\
Faulty socket.
\end{tabular} & Bad contact in socket. & \begin{tabular}{l}
Microphonic valve. \\
Incorrect type. \\
Faulty valve.
\end{tabular} & \begin{tabular}{l}
Incorrect type. \\
Incorrect \\
bias. \\
Faulty valve. \\
"C" \\
Filament voltage too low.
\end{tabular} \\
\hline CIRCUIT & Open Circuit. Transformer broken down. & Grid leak missing Incorrect wiring. & \begin{tabular}{l}
Transformer faulty. \\
Shorting condenser plates. \\
Over regeneration Interaction be tween valves.
\end{tabular} & \begin{tabular}{l}
Grid leak out of clips. \\
Shorting condenser pates.
\end{tabular} & Poor transformer. Incorrect adjustment of controls. & \begin{tabular}{l}
Transformer incorrectly connected. \\
Not sufficient bias. \\
Too much regeneration. \\
Set not neutralised.
\end{tabular} \\
\hline SPEAKER & Coil burnt out. Out of adjustment. & \begin{tabular}{l}
Incorrect adjustment. \\
Magnet demagnetised.
\end{tabular} & \begin{tabular}{l}
Reed or diaphragm striking magnets. \\
Faulty contact to cone.
\end{tabular} & \begin{tabular}{l}
Broken cord. \\
Loose connections.
\end{tabular} & \begin{tabular}{l}
Speaker too close to set. \\
Valves microphonic.
\end{tabular} & \begin{tabular}{l}
Speaker too close to set. \\
Feed-back from cord to radio stages.
\end{tabular} \\
\hline GENERAL & Dia1s slipping, not operating condensers. & Aerial too small. Pool ground connection. & Loose connection in power lines in street. & Trouble at broadcast i n g station. & Induction noises from nearby sub-station. & Neighbour listening to station; oscillating set. \\
\hline
\end{tabular}

A SET TO
SUIT EVERY POCKET

\section*{kits Suact to Specification} BY LEVENSON

Levenson's EASIWAY Home Construction Charts lead definitely to Success!

\section*{SHORT WAVE TWO} VALVE BATTERY SET

Featured in "Wireless Weekly" 21st July, 1933.
A simple experimental yet practical receiver for the Home Builder. Remarkably easy to construct.
Parts for Chassis
\(\begin{array}{rrr}22 & 6 & 8 \\ 1 & 0 & 6 \\ 1 & 8 & 6\end{array}\)
Valves
Batteries
Speaker
TOTAL
High grade Headphones .. \(21 /\) extra Cost of building .. .. .. 20/- extra If Ferranti Transformer preferred in Kit add

\section*{SIX WATT POWER AMPLIFIER}

\section*{BATTERY OPERATED}

This outfit is designed for conditions requiring heavy volume such as dance halls, etc., which have no electric current available.
The high tension supply is obtained from 12 super service " \(B\) " Batteries arranged in series-parallel connection, thus giving an even light distribution of load.
Parts to build Chassis .. 23 \& 11
Valves
L.A.F. Senior Permagnetic

Unit and Chassis
6 volt 105 amp . Acumulator 1245 volt Triple Capacity
L.A.F. "B" Batteries

3ft. x 3 ft . Baffle for Speaker 20ft. Triple Cord for Speaker

TOTAL COST - . . . . . . . 24 3 11

Cost of Building and Adjusting .. 60/(if required)

\section*{FIDELITY ELECTRIC SUPER HET.}

A Seven-Eight Valve Electric Push-Pull Outfit. Featured in "Wireless Weekly" 21st April, 1933.
For outstanding performances probably this receiver is the most remarkable product of the 1933 season. The reproduction and power are unquestionably sxcellent. It is a receiver par-excellence !
Parts to build Chassis _. \&11 3 4
Valves
Saxon 11 inch Dynamic Speaker .. .. .......

TOTAL COST .. .. .. .. \&17 12 2
Cost of building £3. For suitable Cabinet see page 58

\section*{NOVICES 4-5}

\section*{PRESELECTOR ELECTRIC} RECEIVER

Featured "Wireless Weekly," July 14, 1933

This particular outfit has become a very popular seller. It is remarkably efficient and simple to build
Parts for Chassis . . .. .. \&5 6
\(\underset{\substack{\text { Valves } \\ \text { Jensen }}}{\text { - }}\)-inch \({ }^{\text {Dynamic }}\)
Speaker
TOTAL COST
\(\begin{array}{r}1100 \\ \hline 2993\end{array}\)
Cost of Building
. £1/10/-
For suitable Cabinet see page 58

\section*{THE 3-4 "BABY" SUPER HET.}

\section*{ALL ELECTRIC RADIO RECEIVING SET}

Is a real Wonder. Its Excellent Tone is so lifelike it almost deceives one. Blue Prints only with Kits. The simple Tuning is right up to the moment. Volume and Tone is controllable and you tune to suit yourself.

The whole Kit of Parts, in-
cluding the Philips or
Mullard Valves
The Jensen Speaker
TOTAL COST
\&7 410
\(\qquad\) \(2816 \quad 4\)

There's nothing intricate in the assembling of this simple set.

\section*{THE STRAIGHT FORWARD}

BATTERY OPERATED 3-VALVE
RADIO is something new-something different. One Radio you will be proud to own. A Most Recent Circuit.

All High-grade Componets
and Philips or Mullard Valves
The Accumulator
2 Heavy Duty 45v. "B" Bat-
teries, 11/9
The Ormonde English Cone Speaker
TOTAL COST .......... \&8 \(17 \quad 9\) FOR MAKING BY US ADD .. ... 22/6 Blue Prints only with kit

\section*{SUPREME 6-7 \\ Electric Superhet.}

Featured in "Listener In," July 15th, 1933.

This is probably the most popular feature issued by the well known Victorian Technical Journal. The circuit is outstanding as regards efficiency and simplicity.
Parts to build Chassis .. \(27 \quad 6 \quad 7\) Valves .. .............. 41911 11 inch Dynamic Speaker 1100 TOTAL COST £13 \(16 \quad 6\) Extras for Tuning Meter and Tone Control if required . . . . .. .. .. 18/7
Cost of building .. . . . . . . . 52/6
For Cabinets see page 58

\section*{FAMOUS HUNDRED PER CENT. SEVEN VALVE RECEIVER}

\section*{FOR BATTERY OPERATION}

The Hundred Per Cent. Series are perhaps the best known receivers in Australia today.
In 1932 the Hundred Per Cent. Six established impregnable sales records and is still easily the most popular model in that category.
The Hundred Per Cent. SEVEN has even greater efficiency and as a distance getter is already famous.
Parts to build Chassis .. \&5 120
Valves . . . . . . . . . .
2512
L.A.F. Permagnetic Speaker 300
Batteries including 4 volt 80
amp. Accumulator
31810
TOTAL COST .. .. .. £17 910
Cost of building \(52 / 6\). For suitable Cabinet see page 58

\section*{LONG RANGE BATTERY FIVE}

Featured in "Wireless Weekly," 9/12/32.
An excellent outfit for country use and
one of the most popular features in "Wireless Weekly" last year. Very simple to build and operate.
Parts to build Chassis .. \(2413 \quad 2\)
Valves .
Batteries, including 2 volt Clyde Accumulator
L.A.F. Permagnetic Unit
and Chassis
TOTAL COST
£13 \(19 \quad 1\)
\begin{tabular}{c} 
Cost of Building \\
For suitable Cabinet see page \\
\hline
\end{tabular}

\section*{SUPER-SENSITIVE FIVE VALVE BATTERY RECEIVER \\ IDEAL FOR THE COUNTRY \\ Easy to build and fascinating to operate! Parts to build Chassis .. .. £4 0 0 \\ Valves \\ Batteries .. .. .. ... .. ... £2 19 9 \\ L.A.F. Permagnetic Speaker £3 0 0 \\ Or Stewart Warner Magnetic Speaker .. .. ... .. .. .. \(£ 110\) 0 TOTAL COST .. .. .. £13 \(5 \quad 9\) \\ Cost of building .. .. .. .. .. .. .. 30/- extra For Cabinet see special page 58 \\ DUPLEX DIODE FOUR-FIVE ELECTRIC RECEIVER}

Featured in "Wireless Weekly" 18th Nov., 1932 A most popular model with the home constructor and renowned for its efficiency and simplicity to build.


\section*{THREE-FOUR ELECTRIC SHORT WAVE CONVERTER}

As featured in "Radio News," 21/7/33
This very efficient and valuable unit enables anyone with an ordinary electric broadcast receiver to "listen-in" to the short-wave bands, thus increasing the range of the set a thousandfold. Overseas short-wave broadcast stations such as FYA, Paris, will be reproduced with excellent speaker strength.
\begin{tabular}{|c|c|c|}
\hline Cost of Cost of & Parts to build Chassis Valves. & \[
\begin{array}{lll}
£ 6 & 4 & 1 \\
£ 2 & 9
\end{array}
\] \\
\hline & TOTAL COST & £8 14 \\
\hline Cost of & building & EXTRA \\
\hline Table 1 & Model Cabinet & \\
\hline
\end{tabular}

BUILD FOR YOURSELF A

\section*{SET AND VALVE TESTER}

You Can - ANYONE COULD - its so simple. Our Blue Prints lead you to definite success!

\section*{THE "LIKE A FLASH" VALVE AND SET TESTER FOR BATTERY OPERATED SETS}

Cost of all Parts, including Leatherette Covered Carrying Case .. .. .. £7/5/10 £1 EXTRA FOR MAKING BY US Blue Prints and all instructions 1/-, Free with Kit

\section*{THE "LIKE A FLASH" VALVE AND SET TESTER} FOR ELECTRICALLY OPERATED SETS The Parts, including Leatherette Carrying Case, cost
£5/16/8
£1 EXTRA IF WE ASSEMBLE IT
Blue Prints and all instructions \(1 /-\), Free with Kit

\section*{DANCE BAND ELECTRIC AMPLIFIER}

An efficient and powerful unit for the Home, Hall and all locations where heavy volume is required.
Parts to build Chassis .. .. .. .. .. £4 59
Valves .. .. .. .. .. . . .. .. .. .. £3 1210

\section*{TOTAL COST \\ £7 \(18 \quad 7\)}

Extras Required-
Jensen D9 11-inch Speaker .. .. \(£ 210 \quad 0\)
G.E. Induction Motor .. .. .. .. £2 10 0
B.T.H. Pick-up .. .. .. .. .. .. £2 17 6

Cost of Building, 45/-. Table Model Cabinet 12/6

\section*{1933 ADVANCE 4-5}
electric superheterodyne


\section*{THE SIMPLIFIED 3-4 A.C. RADIO}

Is "Something out of the Box" as far as Wireless Performance is concerned.

It's just as easy to assemble as a little crystal set. Charts go with each Kit.

We assemble it for you for 30/-. You may select a cabinet to house this ultra modern chassis, speaker, ete., from the range illustrated on page 10 or send 2d. stamped envelope for sheet of Cabinet Illustrations, Prices, Sizes. The price for the whole Kit of selected parts, together with the matched range of Philips or Mullard Valves \& 7152 The Jensen Dynamic Speaker \&1 10 0 Or the Like a Flash Dynamic

Buys everything, including Dynamic Speaker and Floor Model Cabinet to Assemble the-

\section*{THE GIFT 2-3 ALL ELECTRIC RADIO} CHART INCLUDED
This price includes all Philips or Mullard Valves, Speaker, Kit, and Cabinet. If assembled by us add .. .. 22/6

HERE'S A FINE OPPORTUNITY OF SECURING A MOST EXCELLENT LITTLE MODERN PERFORMER। The Dynamic Speaker is guaranteed as all others for Twelve Months. YET YOU CAN BUILD IT YOURSELF IN FACT

ANY NOVICE CAN:
\(£ 17 / 10 /-\) to \(£ 18 / 10 /-\) is the shop price asked by our competitors for this set.

\section*{"LEVENSON'S OWN CREATION" \\ A LOW-POWER THREE-BAND TRANSMITTER}

A constructional Illustrated Booklet describing a suitable short-wave telegraphy and telephony transmitter of simple but efficient design for the experienced amateur, the newcomer to amateur transmission, and the prospective amateur.

\section*{SEND FOR THIS BOOKLET TODAY 1/6 . . . POST FREE}

Parts for Levenson's L.A.F. 5-WATT EXPERIMENTAL SHORT - WAVE TRANSMITTER:
2 Reveille Brackets ..... 16
15 -ply Baseboard \(16 \times 9 \times\) inches ..... 20
1 Bakelite Panel \(16 \times 6 \times \frac{1}{8}\) inches ..... 40
1 Bremer Tully N.P. Low-loss Con- denser, . 0005 ..... 76
1 Bremer Tully N.P. Low-loss Con-denser, .0003576
1 T.C.C. Fixed Condenser, . 00025 ..... 16
1.002 T.C.C. Fixed Condenser ..... 20
2.006 Simplex Fixed Condensers ..... 0
110,000 ohm Wire Wound 7 ma . Re- sistor ..... 16
120 ohm Wire Wound C.T. Resistor ..... 13
3 UX Valve Sockets, baseboard mount- ing type, at 9d. each ..... 23
1 R.F. Special Short-wave Choke ..... 19
2 Vernier Dials, "Diora," at \(3 / 6\) each ..... 70
1 Milliammeter, \(0 / 80\) seale ..... 86
2 Porcelain P. Lampholders, at 6 d . ..... 10
4 P. Lamps, 6.5 v . (two spares) ..... 20
6 Stand-off Insulators at \(1 / 9\) each ..... 106
2 'Phone Plugs at \(1 / 6\) each ..... 30
2 'Phone Jacks, 1 Single-circuit, 1 Double-circuit ..... 30
1 Yard 14 gauge Tinned Bus Wire ..... 2
1 Length (4 yards) Fry Wire ..... 10
5 Alligator Clips ..... 13
Foot 24 gauge Tinned Copper Wire ..... 1
1 Foot 6 inches \(\frac{1}{8}\) or \(3 / 16\) Copper Braid ..... 9
6 'Phone Tips ..... 6
1 Packet Screws and Nuts ..... 10
1 Morse Key
£1 100
1 P.M.G.-type Solid Back Microphone
30
30
1 Ounce 28 gauge D.S.C. Wire ..... 10
116 ft . Coil \(3 / 16 \mathrm{in}\). Copper Tubing ..... 46
1 UX Cable Plug£6 \(6 \quad 3\)
List of Parts for POWER PACK
1 Power Transformer-L.A.F. SpecialTransmitter type \(400 / 400 \mathrm{v}\), at 100ma., 5 v . \(2 \mathrm{a} ., 2.5 \mathrm{v} .2 \mathrm{a}\).176
2 Power Chokes, L.A.F. 100 ma . ..... 0
1 UX Valve Socket ..... 9
24 mfd .3000 v . Test Chanex Conden- sers ..... 150
125,000 ohm Wire
V.D. type), R.C.S.
36
1 Rotary On-off Power Switch ..... 20
2 Yards Fry Wire ..... 6
1 Baseboard, 5-ply, \(16 \times 9 \times 5\) inches ..... 20
3 Yards Twin Circular Flex ..... 16
1 Adaptor or Power Plug ..... 9
1 Packet of Hardware, screws ..... 9
2 Reveille Brackets ..... 16
2 End Boards for Rack Mounting, 9 \(\mathrm{x} 6 \times \frac{5}{8}\) inches ..... 16
£ ..... 5
VALVES AND ACCESSORIES
1 Type 45 Power Valve ..... 1410
1 Type 80 Rect. Valve ..... 120
AERIAL EQUIPMENT
380 ft . lengths \(3 / 20\) Copper Wire ..... 36
3 Large Shell Insulators, at 3d. each ..... 9
2 12in. Lead-in Tubes, at \(1 / 9\) each ..... 36
6 Feeder Spreaders, 8in., Prepared ..... 26
MONITOR
1 Special Aluminium Shielding Case, drilled ..... 106
2 UX Valve Sockets, base mounting types, at 9 d . each ..... 6
1 Short-wave Choke. ..... 19
1 Single Circuit Filament Jack ..... 6
1. 000025 Midget Condenser ( 7 plate) ..... 24
1 Vernier Dial, "Diora" ..... 36
1.0001 mfd . Fixed Condenser ..... 16
1 Yard Fried Wire ..... 3
3 Marquis UX Coil Formers ..... 30
1 Packet Hardware ..... 9
£1 \(6 \quad 7\)
ACCESSORIES FOR MONITOR
1 PM2DX Valve ..... 120
1 11 \(\frac{1}{2} v\). Dry Cell ..... \({ }^{2} 3\)
1 "B" Battery, 30v.£1 10
SUMMARY
All Parts Transmitter ..... \(\begin{array}{lll}£ 6 & 6\end{array}\)
All Parts Power Pack ..... \(\begin{array}{lll}3 & 5 & 3\end{array}\)
Valves, \(-245,-280\) ..... 1610
Aerial Equipment ..... 103
Monitor ..... 167
Monitor Accessories ..... \(\begin{array}{lll}1 & 1 & 3\end{array}\)£13 \(16 \quad 5\)

If desired to operate the Transmitter from batteries, then the power pack is omitted and batteries as listed below are used.
6 Super Service "B" Batteries, 45v.,at \(14 / 6\)£4 70
12 -volt Accumulator ..... 6
\(\begin{array}{ll}55 & 9\end{array}\)

The Transmitter may be operated on four 45 -volt Super Service "B" Batteries with very good results.
Transmitter, complete with Monitor, for operation off six "B" Batteries \(£ 16 \quad 0 \quad 2\)
Transmitter, complete with Monitor, for operation off four "B" Batteries

14114

\section*{Most Excellent RADIOS for those who require Something better. REAL RADIO RECEIVERS FOR REAL RADIO RECEPTION}

\section*{HERE'S A RARE SNAP IN RADIO RECEIVERS}

THE

\section*{Selective 3-4 Radio}

For operation from the electric mains Either in Kit form or ready made by Levenson's

So simple to assemble a school boy could successfully complete the job! The Ideal Radio for Home Construction. BLUE PRINTS 6r. - FREE WITH KIT
The whole Kit of High Grade Parts and Philips or Mullard Matched
Valves cost only \(\qquad\) £6 10 The L.A.F. Dynamic Speaker . . ...... 1446 Cabinets to suit \(\qquad\) See Cabinet Section

\title{
1933 Simple Reinartz 3 Radio \\ \\ 는
} \\ \\ 는
} FOR BATTERY OPERATION As well known a Circuit as Wireless Itself! MOST SIMPLE TO ASSEMBLE Blue Prints 6d. . . . Free with Kit Failure is impossible. Definite Success Assured. Interstate Stations without any trouble at all outside city area.
£5/4/6 buys all the Philips or Mullard Valves and the whole kit of parts. £2/18/- buys all the necessary Batteries and Accumulator. Add 22/6 if to be assembled by us. For Range of Cabinets to suit this very fine Radio, see Cabinet Section Table Model Cabinets from 10/6. Worth \(30 /\) -

\title{
High Grade Radio Parts
}

NATIONAL AMERICAN SHORT WAVE AND TRANSMITTING GEAR
VN-B/E Velvet Vernier Metal Dial ... .. \&2 15 VAC-B/E Velvet Vernier Bakelite Dial .. 112
SE. 100-Midget . 0001 Condenser, 270 ..
S. 50-Midget .00005 Condenser, 270

2SE.100-Midget ganged Condenser, 270 110 150

ST. 50-Midget Condenser, 160 2100 160
ST. 100-Midget Condenser
SEUU.20-Band Spread Special Condenser, 270
SEU. \(25-\) Band Spread Special Condenser, 270
TM- 100 mmfd. 6000 volts Transmitting .
TM- 100 mmfd .3000 volts transmitting
512
CLYDON BRITISH VARIABLE CONDENSERS
Transmitting Condenser, 00025
3000 volts working, . 00035
3000 volts working, . 0005
S. V. COLVILLE, M. Inst. R.E. Aust.

COLVILLE CRYSTAL ACCESSORIES
Quartz Crystals, \(3.5 \mathrm{M} / \mathrm{C}\), from .. .. .. .. 150
Crystal Holders: Open
Covered
Adjustable
126
Stand-off Insulators
£1 76

HIGH GAIN MICA FIXED CONDENSERS 10025-. 0005 : \(.002-100\) volts working 1 amp. R.F. .
H.F. INDUCTANCES
N.P. Copper Tubing Coils in all sizes.

Price on application.
PRICE ON APPLICATION FOR THE FOLLOWING: Short Wave Receiver.
Short Wave Transmitter.
Receiver and Transmitter Components.
Specialists in . . Battery Broadcast Receivers.
Most up-to-date Stock of Experimenters' Accessories in Australia.

\section*{Colville Moore Wireless Supplies 4 Rowe Street, Sydney. 'Phone B226I}
(Continued from page 164)
LIST OF COMPONENTS, ete .. £4 16
Extra Materials to construets Coils for B.C. Band

\section*{BATTERY EQUIPMENT-}
\(\begin{array}{lllllllllllll}3 & \text { L.A.F. } 45 \text { volt Heavy Duty B Batteries, } & 11 / 9 & \text { each } & . & £ 1 & 15 & 3 \\ 1 & \text { Like a } & \text { Flash } 9 \text { volt C Battery } & \ldots & . & . & . & . . & . . & . & & & 2 \\ 0\end{array}\)
LOUD SPEAKER-R.C.A. 103 Mantel Type Cone Speaker .. .. .. \(210 \quad 0\)
TOTAL COST PARTS, VALVES, BATTERIES AND SPEAKER .. £13 \(8 \quad 4\)
HEADPHONES-Leading Maker
Factory cost of Building, Wiring, \(30 \ddot{/} \cdot \cdots \cdots \ddot{\text { For suitable Cabinet see page } 58}\)

\title{
These Circuits are Indispensable to the Set Builder
}

\section*{LEVENSON'S "EASIWAY" HOME ASSEMBLERS' CHARTS}


FOR ELIMINATOR CIRCUITS-See Assembly Chart Section-

TRANSMITTER CIRCUITS-
5 Watt Transmitter.
All Diagrams and Instructions
SHORT WAVE CIRCUITS-
Lakes Whole-World 1-valve Battery Set 6d.
Whole World Short Wave 2 -valve bat. 6 d .
M.A.C. Whole World Short Wave \(2-\) valve battery
6 d.
L.M.S. Short Wave 4 -valve battery ... 6d.
L.M.S. Short Wave 4 -valve plus Rectifier, All-Electric to operate with Dynamic Speaker
6 d.
Short Wave Adaptor for use with battery sets. Also one for use with A.C. sets

\section*{PORTABLE CIRCUITS-}
R.J.L. Latest English Design Portable 6 d.
Magic 4-valve Portable . . . . . . . .
6 d .

Magic 4 -valve Portable

\section*{SEND}

1/6 FOR 6 MODERN ALL-ELECTRIC CIRCUITS.
1/- FOR 4 MODERN SHORT WAVE CIRCUITS.
1/6 FOR 6 MODERN CRYSTAL SET CIRCUITS.
OUR 5 - BUNDLE OF HOME AS-
SEMBLY "EASIWAY" CHARTS ARE
WORTH OWNING . . . SEND FOR
THEM
TODAY!

\section*{CHARTS OF 1933 XMAS "WIRELESS WEEKLY" CIRCUITS-}

The Midget 3-4 A.C. Radio, each .. .. 6d.
The International All Wave A.C. Super Het., each

6d.
The Standard All Wave A.C. Radio, each 6d.
The Reaction 3 A.C. Radio, each .. .. 6 l.
The De Luxe All Wave A.C. Radio each

6 d.
Variable M.U. 3 .. .. .. .. .. .. .. 6d.
Selective 3/4, A.C. .. .. .. .. .. .. 6d.
High Gain 3/4, A.C. .. .. . . . . .. .. 6d.
Direct Coupled, 3/4, A.C. .. .. .. .. 6d.
Improved 1930 4/5, A.C. .. . .. .. 6d.
Valve and Set Tester, for battery set 1/-
Valve and Set Tester, for electric sets 1/-
The Big Broadcast 3-4 A.C. Set ..... 1/-
Levenson's new "B" Eliminator Chart 1/This Eliminator supplies your High Tension Current from a 6 -volt Accumulator.



\section*{LEVENSONS STOCK}

Levenson's specialise in valves of all kinds. Levenson's Radio Store, where over a quarter of a million Replacement Valves for any type of set are always in stock. Valves of all types, sizes and makes. Before purchasing elsewhere, we invite you to secure a quotation from us. No trouble to us-no obligation to you.
Levenson's are wholesalers as well as retailers. Legitimate proved traders or set manufacturers have the right to claim full trade discounts on all proprietory lines of valves as well as other goods quoted at full list prices.

\section*{VALVES TESTED FREE! ON AUSTRALIA'S MOST EFFICIENT TUBE CHECKER}

Bring your valves along . . . we will gladly test them for you.
```

MULLARD 227 TYPE A.C. VALVES
Now .. .. .. 5/9

```
Worth more than double. Thoroughly
        tested before we wrap.

VALVES FROM AN ORDER OF MERIT JUST LANDED


Puratron Valves, 224 A.C. Now 7/6

226 Speed A.C. Valves. Now \(7 / 6\)


\section*{SPEED A.C. VALVES}

226 Type A.C. Valves, 15/-. NOW .. .. 7/6 Battery Set Owners using 2, 4, or 6 volt valvesWe are in a position to offer 25,000 perfect and tested new valves. Usually sold at \(15 /-\) and \(15 / 6\).

PRICE . . . 11/6 EACH
Replacements for all other types excepting Screen Grid and Penthode types.

\footnotetext{
"LIKE A FLASH" VALVES
BRIGHT EMITTER BATTERY TYPE
6 volt Special Amplifier Valve
6 volt Special Detector Valve 6/6
UX Bases
EACH
}
"LIKE A FLASH" VALVES
3 to 4 -volt valve, with Standard V.T. Base. PRICE
Valve socket to fit also supplied free if required.

\section*{EDISWAN VALVES}

4-volt Bright Emitter valve, with Standard
V.T. base and suitable socket Free. Useful as test valve for experiments
or eliminators. PRICE, with socket

\section*{"RATHEON" RECTIFYING VALVES, \(31 / 6\) each}

Type B.H. 125 M.A. Full Wave Rectifier

\section*{TUNGAR VALVES}
1. Type \(12 \times 8252\) ampere valve \(25 /-\)
2. Type 2065012 ampere valve \(25 /-\overline{6}\) Both types for charging 2, 4 , or 6 batteries.
3. Type 1890486 ampere valve \(50 /-\)
4. Type 1890496 ampere valve \(50 /-\) No. 3 for charging 6 batteries. No. 4 for charging \(10,12 \& 15\) batteries.

LEVENSON'S INTRODUCE

\section*{RADIO CHEAPSIDE}

SYDNEY'S NEW GIGANTIC WIRELESS GOODS BARGAIN BAZAAR
Where over Half a Million Wireless Snaps await you. NOTE THE ADDRESS-

240A PITT STREET, SYDNEY
Directly opposite Sydney School of Arts
(Between Market and Park Streets)

\section*{WIRELESS TEXT BOOKS}

No. 7-"Seeing by Wireless" (Television) 2/-
No. 9-"Wireless Communication and Broadcasting" .. .. .. .. .. .. \(2 /-\)
No. 10 -"Modern Valves" .. .. .. .. .. 2/-
No. 11-"How to understand Wireless Diagrams"

2/-
No. 14-"Amplification of Wireless Signals" 2/-
No. 16 -"Wireless Receiving Circuits" .. 2/-
No. 17-"Wireless Measuring Instruments" 2/-
ALL PRICED 2/- EACH - POST 3d.


LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO


\section*{OSRAM MH4 VALVES}

General Purpose A.C. Valves. 5-pin base. Guaranteed new and tested. Usual Price 21/-. NOW

\section*{VALVE SPECIALS}

A well-known make of Highest Grade Valves guaranteed New in original cartons. Each one thoroughly tested.


Bankrupt Stock. Perfect Condition!
COSSOR A.C. VALVES
Brand New and Tested
\begin{tabular}{lllllll}
227 &.. &. &. &.. &. & \(11 / 9\) \\
245 &.. &. &.. &. &. & \(11 / 9\) \\
224 &.. &. &. &.. &. & \(12 / 6\)
\end{tabular}

ONLY THESE TYPES AT THE ABOVE PRICE

\section*{LIKE A FLASH VALVES}

4 Volt Indirectly Heated A.C. Valves.
UY Base. A Well Known English Make.
EQUIVALENT TO-
PHILIPS E415;
OSRAM MHL4;
COSSOR 41 MLF.
Usual Price 16/6. NOW
5/9

SEND THE NAME AND ADDRESS OF 12 RADIO SET OWNERS IN YOUR DISTRICT (Metropolitan Area excepted) AND WE WILL FORWARD YOU BY RETURN POST A WASHABLE RADIO LOGGING CHART FREE

THREE WONDERFUL OFFERS IN WANTED VALVES



\section*{PUROTRON VALVES PUROTRON 224 A.C. SCREEN GRID VALVES}

Originally .. \(18 / 6\)
NOW .. .... .. 7/6
Type 235 A.C. 16/9
NOW .. .. .. 7/6

Build or buy the popular

\section*{COUNTRYMAN'S FOUR}

\section*{BATTERY RADIO}

Inter-State and distance as never before. A 1934 edition of the renowned Marco Four, designed in the modern all metal way. Charts 1/-. Free with Kit. Chassis ready drilled and mounted. Nothing tricky about assembling this splendid set.
\begin{tabular}{|c|c|}
\hline \begin{tabular}{l}
Prats \\
Il Valves
\end{tabular} & \(\begin{array}{rr}\text { £13 } & 17 \\ 219\end{array}\) \\
\hline All Batteries & 37 \\
\hline Speakers from & 15 \\
\hline
\end{tabular}

Ready-built, in Console Floor Model Cabinet, with R.C.A. Cone Speaker . . . . . . . . £15/13/10

\title{
philips VALVE PRICE LIST
}

THE "GOLDEN RANGE" OF 4-VOLT A.C. VALVES
\begin{tabular}{|c|c|c|}
\hline E452T & Screen Grid & 18/6 \\
\hline E445 & Variable-Mu & 18/6 \\
\hline E444 & Diode Tetrode & 19/6 \\
\hline E455 & Variable-Mu & 18/6 \\
\hline E443H & Penthode & 18/6 \\
\hline E443N & Penthode & 22 \\
\hline 1561 & Full-Wave Rectifier & 15 \\
\hline
\end{tabular}


THE "P.H." 2.5-VOLT A.C. VALVES
\begin{tabular}{|c|c|c|}
\hline P.H.2A5 & Power Penthode & 17/- \\
\hline P.H.2A6 & Duplex Diode High Mu Triode & 17/6 \\
\hline P.H.2A7 & Pentagrid Converter & 18/6 \\
\hline P.H.2B7 & Duplex Diode Penthode & 18/- \\
\hline P.H. 46 & Power & 14/- \\
\hline P.H. 55 & Duplex Diode Triode & 15/6 \\
\hline P.H. 56 & General Purpose and Oscillator & 14/- \\
\hline P.H.57 & Screen Grid & 15/6 \\
\hline P.H. 58 & Variable-Mu Penthode & 15/6 \\
\hline P.H. 59 & Triple Purpose Power & 17/- \\
\hline P.H. 82 & Full-Wave Rectifier (Merc. Vap.) & 14/6 \\
\hline P.H. 224 & Detector and Amplifier (S.G.) & 15/6 \\
\hline P.H.224A & Detector and Amplifier (S.G.) & 15/6 \\
\hline P.H. 227 & General Purpose . & 13/- \\
\hline P.H. 235 & Variable-Mu (S.G.) & 15/6 \\
\hline P.H. 245 & Power & 14/- \\
\hline P.H. 247 & Penthode & 15/6 \\
\hline P.H. 280 & Full-Wave Rectifier (5V.) & 12/6 \\
\hline P.H.281 & Half-Wave Rectifier (7.5V.) & 26/- \\
\hline
\end{tabular}

\section*{THE "P.H." 2-VOLT D.C. VALVES}


\section*{THE "P.H." 6.3-VOLT VALVES}


\section*{STANDARD D.C. VALVES}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline A109 & & 3 Volts & s, General Purpose & & . & 15/- \\
\hline A209 & 2 & Volts, & General Purpose & & & 15/- \\
\hline B242 & 2 & & Screen Grid & & & 21/- \\
\hline A409 & 4 & , & General Purpose & & & 15/- \\
\hline A415 & 4 & " & Det. \& Amp. & & & 15/- \\
\hline A425 & 4 & , & Res. Coupling & & & 15/- \\
\hline A435 & 4 & " \(\mathbf{H}\) & High Imp. R.F. & & & 15/- \\
\hline A442 & 4 & , S & Screen Grid & & & 21/- \\
\hline A609 & 6 & " & General Purpose & & & 15/- \\
\hline A615 & 6 & , D & Detector \& Amplifie & & . & 15/- \\
\hline A630 & 6 & , F & Res. Coupling & & & 15/- \\
\hline A635 & 6 & & High Imp. R.F. & & & 15/- \\
\hline A642 & 6 & " S & Screen Grid .. & & & 21/- \\
\hline
\end{tabular}

\section*{PENTHODE POWER VALVES}


STANDARD POWER VALVES
\begin{tabular}{|c|c|c|c|}
\hline B403 & 4 Volts & & 18/6 \\
\hline B405 & 4 & .. .. .. .. .. & 18/6 \\
\hline B406 & 4 & .. \(\quad . . \quad\). & 15/6 \\
\hline B409 & 4 & .. .. .. .. .. & 15/6 \\
\hline E406 & 4 & High Power, 240V. & 18/6 \\
\hline E408N & 4 " & High Power, 400V. & 30/- \\
\hline F410 & 4 & High Power, 550V. & 55/- \\
\hline B605 & 6 & .. .. .. .. .. & 18/6 \\
\hline C603 & 6 & .. .. .. .. .. & 13/6 \\
\hline C606 & 6 " & .. .. .. .. . & 17/6 \\
\hline P.H. 250 & 7.5 " & Large Power, 450 V . & 32/- \\
\hline
\end{tabular}

\section*{SPECIAL PURPOSE VALVES}
\begin{tabular}{|c|c|c|}
\hline A442K & Screen-Grid (Eng. Base only) & 22/- \\
\hline A442R & Screen-Grid (Eng. Base only) & 22/- \\
\hline A414K & Special Detector for 2802 Radio player & 17/6 \\
\hline E414 & Special Amplifier (Eng. Base only) & 17/6 \\
\hline F215 & 2.5 Volt Detector & 27/6 \\
\hline
\end{tabular}

\section*{MULLARD VALVES}

\section*{A.C. 4 VOLT TYPES}

SCREEN GRID 4 Volt 1 Amp. (Heater)
Type Comparative Types

S4V E442, MS4 ............... 18/6
S4VA E452T, MSG/HA .. .. .. .. .. \(18 / 6\)
S4VB MS4B, MSG/LA .. .. ... .. .. \(18 / 6\)
TRIODE Det. and Ampl. 4 Volt 1 Amp. (Heater) Type Comparative Types


354 V E438, МНї \(\quad . . \quad\).. ... .. ... .. \(16 / 6\)
904 V 41MH .. .. .. .. .. .. .. .. 16/6
TRIODE POWER 4 Volt 1 Amp. (Filament)
Type Comparative Types
\begin{tabular}{|c|c|}
\hline AC 104 & B409 .. .. .. .. ... .. .. .. .. 16 \\
\hline AC 064 & 18/6 \\
\hline AC 044 & E406 .. . . . .. .. . . .. .. .. 18/6 \\
\hline
\end{tabular}

AC 044 E406 .. .. .. .. .. .. .. .. .. 18/6


\section*{RECTIFIERS}
\(\begin{array}{lllll}\text { Type } & \text { Comparative Types } \\ \text { DU } & 10 & 373 & \ldots . . . & \\ \text {. }\end{array}\)
DU 2 506, U9 .. .. .. .. .. .. .. .. 18/-
DW 3 - .. .. .. .. .. .. .. .. .. .. 15/-


\section*{MULLARD BATTERY 2, 4 AND 6 VOLT valves}

SCREEN GRID (Battery)
\begin{tabular}{lllll} 
Sype & SCREEN GRID (Battery) \\
Comparative Types
\end{tabular}

\section*{MISCELLANEOUS TRIODES (Battery)}


\section*{PENTONES (Battery)}


MULLARD STANDARD \(2 \stackrel{\downarrow}{\downarrow}\) VOLT A.C. TYPES GROUP I.
PM 226 (A.C.3), Triode Amplifier, 1.5 volt Filament .. .. .. . . ... .. .. 13/-
PM 227, Triode Amplifier, 2.5 Volt Filament \((\dddot{A C} 4)\), Triode Power \(\ddot{5}\) Voit
PM 171A \((A C 4)\), Triode Power 5 Volt
Filament
13/-

PM 245, Triode Power, 2.5 Volt Filament 14/GROUP II.
PM 224A, Screen Grid 21 Volt Heater .. 15/6
PM 235, Var. Mu \(2 \frac{1}{2 \frac{1}{2}}\) Volt Heater . . .. . . 15/6
PM 247, Penthode 21 \({ }^{2}\) Volt Heater .. .. .. 15/6 GROUP III.
PM 55, Duplex Diode 2弪 Volt Heater .. .. 15/6
PM 56, Triode 21 \(\frac{1}{2}\) Volt Heater .. .. .. .. 14/-
PM 57, Triple Grid 21 \(\frac{1}{2}\) Volt Heater .. .. 15/6
PM 58, Triple Grid (Super Control) 21
Volt Heater . .. .. .. .. .. .. 15/6
PM 59, Power Triode \(2 \frac{1}{2}\) Volt Heater .. 17/-
RECTIFIERS
PM 280, Rectifier, 5 Volt Filament .. .. 12/6
PM 82, Mercury Vap. Rectifier, 2.5 Volt Filament

14/6

\section*{THE BEST 4-VOLT BATTERY VALVE EVER MADE}
"Standard Telephones' Type P425."
Sold cheap because of UV type base.
\[
\text { NOW . . . } 3 / 6
\]

With suitable socket FREE!
Suitable for all Battery Sets; for 4 -volt power valve in A.C. Sets; and Philips Valve in Halfwave Eliminators.

\section*{NATIONAL UNION VALVES}


\section*{PHILIPS VALVES}
THE "GOLDEN RANGE" OF 4-VOLT
A.C. VALVES
E452T: Metal Clad Screen Grid ..... 18/6
E445: Metal Clad Variable-Mu ..... 18/6
E444: Metal Clad Diode Tetrode ..... 19/6
E445: Metal Clad Variable-Mu ..... 18/6
E443H: Penthode ..... 18/6
E443N: Penthode ..... 22/-
1561: Full-Wave Rectifier ..... 15/-
ADDITIONAL 4-VOLT A.C. VALVES E442: Screen Grid ..... 18/6
E442S: Screen Grid Detector ..... 18/6
E424: Special Detector (High Gain) ..... 16/6
E406: Special Power ..... 18/6
E409: Power ..... 16/6
E438: Metal Clad Res. Coup. ..... 16/6
THE "P.H." 2.5-VOLT A.C. VALVES
P.H.2A5: Power Penthode ..... 17/-
P.H.2A6: Duplex Diode High Mu Triode ..... \(17 / 6\)
P.H.2A7: Pentagrid Converter ..... 18/6
P.H.2B7: Duplex Diode Penthode ..... 18/-
P.H.46: Power ..... 14/-
P.H.55: Duplex Diode Triode ..... 15/6
P.H.56: General Purpose and Oscillator ..... 14/-
P.H.57: Screen Grid ..... 15/6
P.H.58: Variable Mu Penthode ..... 15/6
P.H.59: Triple Purpose Power ..... 17/-
P.H.82: Full-Wave Rectified (Merc. Vap.) ..... 14/6
P.H.224: Detector and Amplifier (S.G.) . . ..... \(15 / 6\)
P.H.224A: Detector and Amplifier (S.G.) ..... 15/6
P.H.227: General Purpose ..... 13/-
P.H.235: Variable-Mu (S.G. ..... 15/6
P.H.245: Power ..... 14/-
P.H.247: Penthode ..... 15/6
P.H.280: Full-Wave Rectifier (5V.) ..... \(12 / 6\)
THE "P.H." 2-VOLT D.C. VALVES
P.H.230: General Purpose
P.H.230: General Purpose ..... 14/- ..... 14/-
P.H.231: Power ..... 14/-
P.H.232: Screen Grid ..... 16/-
P.H.233: Penthode ..... 17/6
P.H.234: Variable-Mu Penthode ..... 17/6
HEAVY DUTY RECTIFYING VALVES
367: For 366 and 1369 Battery Chargers 30/-1063: For 1064 Battery Charger130/-
1029: For 1370 Battery Charger ..... 50/-
1039: For 1371 Battery Charger ..... 90/-
1326: For 1330 Battery Charger ..... 25/-
1049: 25 Amps ..... 170/-
1119: For 1020 Battery Charger ..... 30/-
DC 1/50: For 2760/5 Amplifiers, Nett ..... 90/-
RECTIFIYING VALVES
P.H.280: Full-Wave, 125 mA .2 x 350 V . ..... 12/6
P.H.281: Half-Wave, 110 mA .750 V . ..... 26/-
P.H.82: Full-Wave, \(125 \mathrm{~mA} .2 \times 500 \mathrm{~V}\) ..... 14/6
1561: Full-Wave, 120 mA .2 x 500V. ..... 15/-
373: For Power Unit, Type 372 ..... 24/-
505: Half-Wave, 60 mA .400 V . ..... 18/6
506: Full-Wave, \(75 \mathrm{~mA} .2 \times 300 \mathrm{~V}\)., for Philips 3002, 3003 and 3009 Power Units and Radioplayers ..... 18/-
1002: For 1001 Battery Charger ..... 17/6
328: For 327 Battery Charger ..... 17/6
451: For 450 and 1453 Battery Chargers ..... 17/6
1010: For 1009 and 1013 Battery Chargers ..... 27/-
1018: For 1017 Trickle Charger ..... 17/6
3006: For 3003 Power Units ..... 9/-
1831: For Philips 2701 Amplifier ..... 45/-

\section*{PENTHODE POWER VALVES}
P.H.233: 2 volt \(. . . . . . . . . . . . . . . . . . . . \quad 17 / 6\)
\(\begin{array}{lllllllll}\text { P.H.41: } 6.3 \text { volt } . . . & . & . . & . . & . & . . & . & . & 16 /- \\ \text { P.H.247: } 2.5 \text { volt . . . . . . . . } & \text {. } & \text {. } & \text {. } & \text {. } & 15 / 6\end{array}\)
B443: 4 volt .. .. . . . . . .. .. .. .. .. .. .. .. \(21 /-\)
C243: 2 volt .. .. .. .. .. .. .. .. .. 21/-
C443: 4 volt .. .. .. .. .. .. .. .. .. .. 22/-
C643: 6 volt . . . . .. .. .. .. . . . . .. 21/-
C243: 2.5 volt .. .. .. .. .. .. .. .. .. .. .. \(21 /-\)
E443H: 4 volt . . . . . . . . . . . . . . . . . \(18 / 6\)
E443N: 4 volt .. .. .. ... .. .. .. .. \(22 /-\)
F443: 4 volt, 550V. . . .. .. .. .. .. .. 39/6

\section*{STANDARD POWER VALVES}

B403: 4 volts . . . . . . . . . . . . . . . . . \(18 / 6\)

B406: 4 volts, Medium Power .. .. .. .. 15/6
B409: 4 volts, Medium Power . . . . . . \(15 / 6\)
B406: 4 volts, High Power, 240V. . . .. .. \(18 / 6\)
E406: 4 volts, High Power, 240V. .. .. ... 18/6
E408N: 4 volts, High Power, \(550 \mathrm{~V} . . . .\).
B605: 6 volts . . . ... .. ... .. .. .. .. \(18 / 6\)
C603 (117A): 6 volts ... ... .. .. .. .. .. \(13 / 6\)
C606: 6 volts, Medium Power, 250V... .. 17/6
P.H. 250 (F704): 7.5 volts, Large Power, \(32 /-\)

STANDARD D.C. VALVES
A109: 1.3 volts, General Purpose .. .. .. 15/-
A209: 2 volts, General Purpose .. .. .. 15/-
B242: 2 volts, Screen Grid .. .. .. ... .. 21/-
A409: 4 volts, General Purpose .. .. .. .. 15/-
A415: 4 volts, Det. \& Amp. .. ... .. .. 15/-
A425: 4 volts, Res. Coupling .. .. ... .. 15/-
A435: 4 volts, High Imp. R.F. . . . . . . . . 15/-
A442: 4 volts, Screen Grid .. .. .. ... .. 21/-
A609: 6 volts, General Purpose . . . . . . . \(15 /-\)
A615: 6 volts, Detector and Amplifier .. 15/-
A630: 6 volts Res. Coupling .. . . . . . . . . 15/-
A635: 6 volts, High Imp. R.F. .. .. .. .. \(15 /-\)
A642: 6 volts, Screen Grid . . . . .. .. .. 21/-
THE "P.H." 6.3-VOLT VALVES (Auto Radio or D.C. Mains)
P.H.85: Duplex Diode Triode .. . . .. .. 16/-
P.H.6F7: Triode Pentnode .......... . . 17/6
P.H.89: Triple Grid Power Ampliler .. .. 16/-
P.H.236: Screen Grid . . . . . . . . . . . . . . 16/-
P.H.237: General Purpose .. .. ... .. .. \(14 / 6\)
P.H.238: Penthode . .. .. .. .. .. .. 17/-
P.H.239: Variable-Mu Penthode .. .. .. \(16 / 6\)
P.H.41: Penthode . . . . . . . . . . . 16/-
P.H.79: Class B Twin Power .. ... .. .. \(17 / 6\)

RESISTANCE LAMPS
329: For 327 Battery Charger . . .. .. .. 6/-
452: For 450 Battery Charger . . . . . . . . 6/-
1003: For 1001 Battery Charger . . .. .. 6/-
1011: For 1009 Battery Charger .. .. .. 12/-
1457: For 1453 Battery Charger .. ..... 6/-
HEAVY DUTY RESISTANCE LAMPS
340: For 366 Battery Charger . . . . . . . . 15/-
1012: For 1025 Battery Charger ....... 15/-
1331: For 1330 Battery Charger . . . . . . 12/6
1014: For 1013 Battery Charger . . . . . . 4/-
SPECIAL PURPOSE VALVES
A442K: Screen-Grid (Eng Base only) .. 22/-
A442R: Screen-Grid (Eng. Base only) ... 22/-
A414K: Special Detector for 2802 Radio- \(17 / 6\)
E414: Special Amplifier (Eng. Base only) 17/6
F215: 2.5 Volt Detector . . .. .. .. .. .. \(27 / 6\)

\section*{Cossor Valves}


KINGS OF
THE AIR

Cossor Valves are \(100 \%\) British. They are the result of long and diligent research in the Cossor laboratories. They lead the world in Valve design. Put Cossors in every socket of your set. You can be certain then that you are getting the utmost your set is capable of providing.

Aust. Rep for A. C. Cossor Ltd., London:
C. D. MACLURCAN

26 JAMIESON STREET. SYDNEY
\begin{tabular}{|c|c|c|}
\hline For 2-v & It "A" Batteries. & Filament \\
\hline 210 H.F. & H.F., Detector or L.F. & . 1 amp . \\
\hline 210 L.F. & First L.F. Stage & . 1 amp . \\
\hline 210 R.C. & R.C.C. or Detector & . 1 amp. \\
\hline 215 P. & Normal Power Use & . 15 amp . \\
\hline 220 P.A. & Normal Power Use & 0.2 amp . \\
\hline 230 X.P. & Extra Power & . 3 amp . \\
\hline 215 S.G. & Screened Grid & . 15 amp . \\
\hline 220 V.S.G & Variable M.U. S. Grid & 0.2 amp . \\
\hline 230 P.T. & Pentode & . 3 amp . \\
\hline 220 H.P.T P- & Pentode & 0.2 amp . \\
\hline 240 B. & "B"' Class Amplifier & 0.4 amp . \\
\hline 220 B . & "B"' Class Ampl & 0.2 amp . \\
\hline
\end{tabular}

\section*{For 4-volt "A" Batteries.}
\begin{tabular}{|c|c|c|}
\hline 410 H.F. & H & .1 amp . \\
\hline 410 L.F. & First L.F. Stage & \\
\hline 410 R.C. & R.C.C. or Detector & . 1 amp . \\
\hline 410 P . & Normal Power Use & . 1 amp . \\
\hline 415 X.P. & Extra Power & 15 amp . \\
\hline 425 X.P. & Super Power & .25 amp . \\
\hline 410 S.G. & Screened Grid & \\
\hline 415 P.T. & Pentode & 5 \\
\hline
\end{tabular}
\begin{tabular}{r|r|r|r}
\(75-150\) & 20,000 & 20 & \(15 /-\) \\
\(75-150\) & 8,500 & 15 & \(15 /-\) \\
\(75-150\) & 60,000 & 40 & \(15 /-\) \\
\(75-150\) & 4,000 & 8 & \(15 / 6\) \\
\(75-150\) & 1,500 & 4.5 & \(18 / 6\) \\
\(100-150\) & 2,000 & 7 & \(16 /-\) \\
\(120-150\) & 200,000 & 200 & \(21 / 6\) \\
\(100-180\) & 20,000 & 90 & \(21 / 6\)
\end{tabular}

\section*{For 6-volt "A" Batteries.}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \(10 \mathrm{H} . \mathrm{F}\). & IR.1 & m. & 75-150 & 20,000 & 20 & 15/- \\
\hline 610 L.F. & First L.F. Stage & . 1 amp . & 75-150 & 7,500 & 15 & 15/- \\
\hline 610 R.C. & R.C.C. or Detector & .1 amp . & 75-150 & 60,000 & 50 & 15/- \\
\hline 610 P . & Normal Power Use & .1 amp . & 75-150 & 3,500 & 8 & 15/6 \\
\hline 610 X.P. & Extra Power & . 1 amp . & 75-150 & 2,000 & 5 & 18/6 \\
\hline 610 S.G. & Screened Grid & .1 amp . & 120-150 & 200,000 & 200 & 21/6 \\
\hline 625 P & Super Power & .25 amp . & 100-200 & 2,500 & 7 & 16/- \\
\hline 615 P.T. & Pentode & .15 amp . & 100-200 & 20,000 & 90 & 21/6 \\
\hline
\end{tabular}

\section*{Mains Valves.}

4 -volt Indirectly Heated Cathode. Heater Amps.
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline MS/Pen-A & Pentode II.F. or Detector & 1 mmp . & 200 max. & 1 - & & 22/6 \\
\hline 41 M.H.F. & H.F., or Ditector & 1 amp . & & 14,000 & 52 & 16/6 \\
\hline 41 M.L.F. & First L.F. Stage & 1 amp. & & 7,900 & 15 & 16/6 \\
\hline 41 M.R.C. & I.C.C., or Detector & 1 amp. & " " & 20,000 & 35 & 16/6 \\
\hline 41 M.P. & Normal Power Use & 1 mmp . & & 5,000 & 13 & 16/6 \\
\hline 41 M.X.P. & Extra Power & 1 amp. & " & 2,000 & 6 & 20/- \\
\hline M.V.S.G. & Variable M.U. S. Grid & 1.0 amp . & & 200,000 & - & 18/6 \\
\hline 41 M.S.G. & Screened t.rid & 1 amp. & & 400,000 & 1,000 & 18/6 \\
\hline M.S.G.-L.A. & Screen Girid & 1 amp. & & 200,000 & 750 & 18/6 \\
\hline MP/Pen & Pentode l'uwry & 1 aimp. & 250 & & & 22/6 \\
\hline Americar & n A.C. Replicas. & Filament Volts. & Anode Volts. & Impedance. & Amp. Factor. & Price. \\
\hline 46 C & Pentode & 2.5 & 250 & 24,000 & 2.3 & 14/- \\
\hline 56 C & Gen. Purposes & 2.5 & 250 & 9,500 & - & 14/- \\
\hline 57 C & Screen Grid & 2.5 & 250 & 1,500,000 & - & 15/6 \\
\hline 58 C & Variable M.U. S. Grid & 2.5 & 250 & 800,000 & - & 15/6 \\
\hline 235 C & Variable Mut Screened Grid & 2.5 & 200 & 300.000 & 450 & 15/6 \\
\hline 224 C & Screen (irid & 2.5 & 200 & 400.000 & 450 & 15/6 \\
\hline 227 C & General I'urposes & 2.5 & 180 & 8.000 & 8 & 13/- \\
\hline 245 C & Power & 2.5 & 250 & 1,900 & 3.5 & 14/- \\
\hline 247 C & Pentode & 2.5 & 250 & & - & 15/6 \\
\hline 171 A.C. & Power & 5 & 180 & 2,200 & 3 & 13/6 \\
\hline Rectifyi & ng Valves & & & & & \\
\hline 812 B.U. U.X & . Full Wave Reetifier, 6-vol & 4 amp . & 250 & & 50 m . & 20/ \\
\hline 612 B.U.A. & Full Wave Rectiffer, 6-volt & 4 amp . & 250 & & 50 mm . & 22/6 \\
\hline \(44 \mathrm{S.U}\). & Half Wave Rectifier, 4-vol & 4 amp . & 2 CO & & 20 ma . & 22/6 \\
\hline 280 C. & Full Wave Incotiflur, 5.rol. & 2.0 amp . & 300 & & \(25 \mathrm{~m} . \mathrm{m}\). & 12/ \\
\hline
\end{tabular}

\section*{KEN-RAD VALVES}

90 (KR20), A.C. Double Grid Detector .. 16/-
30, D.C. General Purpose .. .. .. .. .. 14/-
31, D.C. Power Amplifier .. . . .. .. .. 14/-
32, D.C. Screen Grid R.F. Amplifier .. .. 16/-
33, D.C. Power Pentode .. .. .. .. .. 17/6
34, D.C. Power Pentode . . . . .. .. .. 17/6
35, A.C. Variable Mu R.F. Pentode .. .. 15/6
36, A.C. Screen Grid R.F. Amplifier .. .. 16/-
37, D.C. or A.C. Detector-Amplifier .. .. 14/-
38, D.C. or A.C. Automotive Output \(17 /-\)
39, A.C. Super Control R.F. Amplifier .. 16/6
2A3, A.C. Power Amplifier Triode .. .. 32/-
2A5 (KR25), A.C. Power Amplifier Pentode 17/-
2A7, A.C. Duplex Diode Triode .. .. .. 17/6
2A7, A.C. Pentagrid Converter .. .. .. 18/6
2B7, A.C. Duplex Diode Pentode .. .. .. 18/-
6A4, D.C. or A.C. Power Amplifier Pentode \(18 / 6\)
6A7, A.C. Pentagrid Converter .. .. .. 18/6
6B7, A.C. Duplex Diode Pentode .. .. .. 18/-
6F7, A.C. Triode Pentode Converter .. .. 17/6
80, A.C. Full Wave Rectifier .. .. .. .. 12/6
81, A.C. Half Wave Rectifier .. .. .. .. 26/-
82, A.C. Full Wave Rectifier .. .. .. .. 14/6
83, A.C. Full Wave Rectifier .. .. .. .. 15/-
\(84-6 Z 4\), D.C. or A.C. Full Wave Rectifier 16/-
25Z5, D.C. or A.C. Full Wave Rectifier ..
5Z3, A.C. Full Wave Rectifier
17/-
(KB.C. D.C. Wa. He .. .. . . .. 16/-
1 (KR-1), D.C. or A.C. Half Wave Rectifier \(15 / 6\)
7 -V, D.C. or A.C. Half Wave Rectifier .. \(15 / 6\)
112A, D.C. or A.C. Half Wave Rectifier .. 14/6
171A, D.C. or A.C. Power Amplifier .. .. 13/6
201A, D.C. General Purpose .. .. .. .. 13/-
210, A.C. Audio Amplifier .. .. .. .. .. 32/-
224A, A.C. Screen Grid R.F. Amplifier .. 17/-
226, A.C. Amplifier
13/-
227, A.C. General Purpose .. .. .. .. .. 13/-
KR5, D.C. Output Pentode .. .. .. .. .. 17/-
41, D.C. or A.C. Intermediate Power Amp. 16/-
42, D.C. or A.C. Power Pentode .. .. .. 16/-
43, D.C. or A.C. Power Pentode .. .. .. 17/-
44, A.C. Super Control R.F. Amp. .. .. 16/6
45, A.C. Power Amplifier .. .. .. .. .. 14/-
46, A.C. Amplifier .. .. . . .. .. . . .. .. 14/-
47, A.C. Power Pentode . . . . . . . . . .. 15/6
48, D.C. or A.C. Power Amplifier Tetrode 26/-
49, D.C. Power Amplifier . . . . . . . . . . . . 15/6
250, A. C. Power amplifier .. . . . . .. .. 32/-
53, A.C. Class B Twin Power Amplifier .. 17/-
55, A.C. Duplex Diode Triode .. .. .. .. 15/6
56, A.C. Audio Amplifier .. .. .. .. .. 14/-
57, A.C. R.F. Amplifier Pentode .. .. .. 15/6
58, A.C. Variable Mu R.F. Pentode .. .. 15/6
59, A.C. Triple Purpose Amplifier . . . . .. 17/-
75, D.C. or A.C. Duplex Diode Triode .. 16/6
77, A.C. R.F. Amplifier Pentode .. .. .. 16/6
78, A.C. Variable Mu R.F. Pentode .. .. 16/6
79, A.C. Class B Twin Power Amplifier .. 17/6
85, D.C. or A.C. Duplex Triode .. .. ... 16/-
89, D.C. or A.C. Triple Grid Power Amplifier

\section*{RADIOTRON VALVES}

\section*{BATTERY OPERATED 2.0 VOLT SERIES}

RCA1A6-Oscillator and Mixer . . . . . . . . 18/-
RCA19-Class B Twin Amplifier ... .. ... 17/-
RCA 30-Detector and First Audio Stage .. 14/-
RCA31-Audio Amplifier .. .. .. .. .. 14/-
RCA32-Screened Grid Amplifier . . .. .. 16/-
RCA33-Audio Amplifier .. .. .. .. .. 17/6
RCA34-Screened Grid R.F. Amplifier Pentode
RCA-49Dual-Grid Power Amplifier ..... 15/6
RCA864-Amplifier Detector (low micro- phonic design)

\section*{A.C. OPERATED 2.5 VOLT SERIES}

RCA24A-Screened Grid Detector and R.F. Amplifier
\(15 / 6\)

UV227-Detector Amplifier .. . . \(\quad\) GCA35-Super-Control Screened \(\ddot{\text { R.F. }}\)
Amplifier
\(15 / 6\)
RCA45-Power Amplifier (Medium) ..... 14/-
RCA46-Dual Grid Power Amplifier .. .. 14/-
RCA47-Power Amplifier Pentode .. .. .. 15/6
RCA53-Class B Twin Amplifier .. .. .. 17/-
RCA55-Duplex-Diode Triode .. ...... 15/6
RCA56-Super Triode Amplifier, Detector 14/-
RCA57-Triple-Grid Amplifier, Detector .. 15/6
RCA58-Triple-Grid Super-Control Amplifier

17/-
RCA59-Triple-Grid Power Amplifier .. 17/-
RCA2A3-Power Amplifier Triode . . . . .. 32/-
RCA2A5-Power Amplifier Pentode .. .. 17/-
RCA2A6-Duplex-Diode High-Mu Triode . 17/6
RCA2A7-Pentagrid Converter . . .. .. .. 18/6
RCA2B7-Duplex-Diode Pentode .. .. .. 18/-
3.3 VOLT SERIES

UV199-Detector Amplifier .. .. .. .. 20/-
UX199-Detector Amplifier . . . . . .. 20/-
RCA22-Screened Grid R.F. Amplifier .. 18/-
UX120-Power Amplifier .. .. .. .. .. 26/6

\section*{5 VOLT SERIES}

UX112A-Amplifier Detector .. .. .. .. 14/6
UX201A-Detector Amplifier .. .. .. .. 13/-
UX71A-Power Amplifier . . .. .. .. .. \(13 / 6\)

\section*{AUTOMOBILE OR D.C. OPERATED 6.3 VOLT SERIES}

RCA36-Screened Grid R.F. Amplifier .. 16/-
RCA37-Detector Amplifier .. ..... . . . 14/6
RCA38-Power Amplifier Pentode .. ..... 17/-
RCA39-Super-Control R.F. Amplifier \(16 / 6\)
RCA41-Power Amplifier Pentode . . . . .. 16/-
RCA42-Power Amplifier Pentode . . .. .. 16/-
RCA75-Duplex-Diode Triode (High-Mu) . 16/6
RCA77-Triple-Grid Detector Amplifier .. 16;6
RCA78-Triple-Grid Super Control Ampli-
fier .. .. ..
RCA79-Class B Twin Amplifier .. .. .. 17/6
RCA64A-Power Amplifier Pentode .. .. 18/6
RCA85-Duplex-Diode Triode . . . . . . . . 16/-
RCA89-Triple-Grid Power Amplifier . . . . 16/-
RCA6A7-Pentagrid Converter . . . . .. .. 18/6
RCA6B7-Duplex-Diode Pentode .. .. .. 18/-
6F7-Triode Pentode

A.C. OPERATED 7.5 VOLT SERIES

RCA10-Power Amplifier Oscillator
RCA50-Power Amplifier
25-30 VOLT D.C. OPERATED SERIES
RCA43-Power Amplifier Pentode (25v. heater)
RCA48-Power Amplifier Tetrode ( 30 v . heater)

\section*{RECTIFIERS}

RCAIV-Half-Wave (heater type 6.3v.) .. \(15 / 6\)
RCA5Z3-Heavy-Duty Full Wave (5 volt)
RCA12Z3-Half-Wave (heater type 12.6v.) 16/-

RCA12Z3-Rectifier-doubler with uni-potential cathodes ( 25 v .)

17/-
RCA80-Full Wave Rectifier (5 volt) .. .. 12/6
RCA81-Half-Wave Rectifier ( 7.5 volt) . 26/-
RCA82-Full Wave Mercury Vapour (2.5v.) 14/6
RCA83-Full Wave Mercury Vapour (heavy duty 5 volt)
RCA84-Full Wave Mercury Vapour (heater type 6.3 v .)

15/-

\section*{REGULATORS}

UX874-Voltage Regulator, operating 10.50 d.c. ma.

UV876-Current Regulator, operating 1.7 amps.
UV886-Current Regulator, operating 2.05 amps.

60/-
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{OSRAM VALVES 4-VOLT A.C. MAINS VALVES} \\
\hline R.F. Screen Grid & 18/6 \\
\hline MS4: R.F. Screen Grid & 18/6 \\
\hline VMS4: Screen Grid Variable M & 18/6 \\
\hline VMS4B: R.F. Screen Grid, Var. Mu High & \\
\hline & 10/6 \\
\hline MH4: R.F. Amplifier or Detector & 16/6 \\
\hline MHL4: R.F. or A.F. Amplifier or Detector & 16/6 \\
\hline ML4: Small Power & 16/6 \\
\hline MHD4: Double Diod & 21/6 \\
\hline PX4: Super Power & 18/6 \\
\hline PT4: Pentode & 21/- \\
\hline MPT4: I.H.C. Pentode & 217- \\
\hline P425: Super Power & 16/- \\
\hline PX25: Power Amp. Triode & 40/ \\
\hline PX25: Special Super Power & 40 \\
\hline PT25: Power Pentode & 55/6 \\
\hline D.C. MAIN VALVES & \\
\hline DSB: Screen Grid H.F. Amplifier & 26/6 \\
\hline DS: Screen Grid H.F. Amplifier & 26/6 \\
\hline VDSB: R.F. Screen Grid, Var. Mu High Gain & 26/6 \\
\hline VDS: Screen Grid Variable Mu & 26/6 \\
\hline DHD: Double Diode Triode & 26/6 \\
\hline DH: H.F. and L.F. Amplifier and Detector & 20/- \\
\hline DL: L.F. Amplifier and Small Power & 21/6 \\
\hline DPT: Penthode Power & 26/6 \\
\hline 2-VOLT BATTERY VALVES & \\
\hline S21: R.F. Screen Grid & 23/- \\
\hline S22: R.F. Screen Grid & 23/- \\
\hline VS2: Variable Mu Scre & 23/- \\
\hline H2: High Mag. Non-microphonic Detector & 14/- \\
\hline H210: R.C.C. . . . . . . . . . . . . . . & \\
\hline HL210: R.F. Amplifier or Detector & 14/- \\
\hline HL2: Non-microphonic Detector and & \\
\hline Amplifier & \\
\hline 210: 1st Stage Amplifier & \\
\hline
\end{tabular}
LP2: Power Amplifier ..... 16/6
L2: Last Stage Power ..... 18/6
P215: Small Power ..... 15/-
PT2: Penthode ..... 23/-
P240: Super Power
21/6
B21: Power Amp. Class B ..... 35/-
DG2: Frequency Changer for Superhets.
21/6
S410: R.F. Screen Grid
14/-
H410: R.C.C. ..... 14/-
L410: General Purpose ..... 14/-
P410: Small Power ..... 15/-
P415: Super Power ..... 16/6
P425: Super Power ..... 16/-
PT425: Penthode ..... 21/6
6-VOLT BATTERY VALVES
S610: Screen Grid ..... 24/-
H610: R.C.C. ..... 14/-
HL610: R.F. Amplifier or Detector ..... 14/-
L610: General Purpose
14-
14-
P610: Small Power ..... 16/6
A.C. or D.C. POWER VALVES
PS625: Super Power ..... 201-
P625A: Super Power ..... 201- ..... 201-
PT625: Power Penthode
18/6
PX4: Super Power
21/-
21/-
PT4: Penthode
21/-
PX25: I.H.C. Penthode ..... 
40/- ..... 
40/- ..... 40/-
MPT4: Special Super Power 25w
MPT4: Special Super Power 25w
PT25: Special Super Penthode 25w. ..... 55/6
LS5: Special Power 10 w . ..... 34/6
LS5A: Special Power 13.5w. ..... 34/6
LS5B: Special Power ..... 34/6
LS6A: Special Power 25w. ..... 55/6
RECTIFIERS
U8: Full Wave ..... 28/6
U10: Full Wave ..... 16/6
U12: Full Wave ..... 20/-
U14: Full Wave ..... 21/6
GU1: Half Wave ..... 55/6
80: Full Wave ..... 12/6
82: Full Wave Mercury Vapour (2.5v.) ..... 14/6
83: Full Wave Merc. Vap. (5.0v.) Heavy Duty ..... 15/-
5Z3: Heavy Duty Full Wave 5.0v.) ..... 16/-
25Z5: Voltage Doubler ( 25 volt) ..... 17/-
EMPIRE SERIES (American Replicas)
224: R.F. Screen Grid ..... 15/6
227: General Purpose ..... 13/-
235: Screen Grid Variable Mu ..... 15/6
245: Power Amplifier ..... 14/-
247: Pentode ..... 15/6
46: Dual Grid Power Amplifier ..... 14/-
55: Double Diode Triode ..... 15/6
56: Triode Amplifier or Detector ..... 14/-
57: Triple Grid Amplifier and Detector ..... 15/6
58: Triple Grid Super Control Amplifier ..... 15/6 ..... 15/6
59: Triple Grid Power Amplifier ..... 17/-
2A3: Triode Power Amplifier ..... 32/-
2A5: Pentode Power Amplifier ..... 17/-
2A6: Double Diode Triode High Mu ..... \(17 / 6\)
2A7: Pentagrid Converter ..... 18/6
2B7: Double Diode Pentode ..... 18/-

\section*{OSRAM (CATKIN) VALVES}

Type M.S4B-S. Grid Amplifier and Detector
V.MS4-"Variable Mu" S.G. High Frequency Amplifier
M.H4-H.F. and L.F. Amplifying and Detector Valve

17/6
M.PTA-Pentode Power Amplifying Valve 23/-U12-Rectifier (glass tube for use with above)

13/6
Bulldog (Feba) Valve Sockets for Catkin Valves, each

9d.

Hot from our Mechanical Branch comes the New 1934 Electric Superhet. The

\section*{GOLDEN COMPANION 4-5 RADIO}

A smart, reliable set. The Trade in general accepts it as the ideal model. You, too, can build it.
\begin{tabular}{lllllllll} 
All Parts &.. & \(\ldots\) & \(\ldots\) & \(\ldots\) &. &. & \(£ 6\) & 15 \\
\hline
\end{tabular}

Ready built in Neat Console Cabinet, \(£ 14 / 18 / 8\). Charts 6d. Free with Kits.

Special Valve Purchase and Clearance at extraordinary Low Prices. Well known

\section*{ENGLISH DU2}
make of Valve, in original cartons guaranteed tested and brand new.
The equivalent of Philips 506 Full Wave Rectifier, with English or UX base, 16/6.

NOW
7/6

\section*{RELIABLE ENGLISH VALVES}
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|c|}{New and Tested.} \\
\hline Standard & Cur. List & Special Nett \\
\hline Type & Price & L.A.F. Price \\
\hline 55 & 15/6 & 9/9 \\
\hline 56 & 14/- & 9/- \\
\hline 57 & 15/6 & 9/9 \\
\hline 58 & 15/6 & 10/- \\
\hline 59 & 17/- & 10/9 \\
\hline 80 & 12/6 & 8/3 \\
\hline 2 A 5 & 17/- & 10/6 \\
\hline 2 A 7 & 18/6 & 11/9 \\
\hline 2 A 3 & 32/- & 21/- \\
\hline 2B7 & 18/- & 11/3 \\
\hline 224A & 15/6 & 8/9 \\
\hline 227 & 13/- & 8/- \\
\hline 235 & 15/6 & 9/6 \\
\hline 245 & 14/- & 8/6 \\
\hline 247 & 15/6 & 9/6 \\
\hline
\end{tabular}

\section*{ARCTURUS VALVES}

Special New Type Valve Offer. New and Tested.
\begin{tabular}{cccc}
\begin{tabular}{c} 
Stan'd \\
Type
\end{tabular} & \begin{tabular}{c} 
Arcturus \\
Spec. Mark
\end{tabular} & \begin{tabular}{c} 
Cur. List \\
Price
\end{tabular} & \begin{tabular}{c} 
Spec. nett \\
L.A.F. Price
\end{tabular} \\
46 & 46 & \(14 /-\) & \(9 / 6\) \\
247 & PZ & \(15 / 6\) & \(9 /-\) \\
55 & 55 & \(15 / 6\) & \(8 / 9\) \\
56 & 56 & \(14 /-\) & \(8 / 3\) \\
57 & 57 & \(15 / 6\) & \(9 / 3\) \\
58 & 58 & \(15 / 6\) & \(9 / 3\) \\
59 & 59 & \(17 /-\) & \(10 /-\) \\
230 & 130 & \(14 /-\) & \(9 / 6\) \\
231 & 131 & \(14 /-\) & \(9 / 3\) \\
233 & 133 & \(17 / 6\) & \(11 / 4\) \\
234 & 134 & \(17 / 6\) & \(10 / 4\) \\
235 & 551 & \(15 / 6\) & \(7 / 10\) \\
236 & 136 & \(16 /-\) & \(9 / 6\) \\
237 & 137 & \(14 / 6\) & \(7 / 10\) \\
238 & 138 & \(17 /-\) & \(9 / 3\) \\
239 & 139 & \(16 / 6\) & \(9 / 9\) \\
224 A & 124 & \(15 / 6\) & \(7 / 10\) \\
227 & 127 & \(13 /-\) & \(7 / 3\)
\end{tabular}

POSITIVELY NETT PRICES

A WELL KNOWN RELIABLE MAKE OF 171A VALVE-6 VOLT POWER

Usually \(15 /-\)
NOW
\(12 / 6\)
New and Tested For A.C. or D.C. Sets

\section*{VALVE CONVERSION ADAPTORS}

\section*{LATEST TYPES}

First Figure denotes Socket. Second the Plug 4 to 5 pin
4 to 6 pin
5 to 4 pin 5 to 6 pin

7 to 4 pin
6 to 4 pin
6 to 5 pin
6 to 6 pin.
2/.

7 to 6 pin
7 to 6 pin
6 to 7 pin
6 to 7 pin

\section*{2/6}

5 to 7 pin
TO ORDER
Other combinations to special order ..... 3/-
Small 6 and 7 pin type will be available.

\section*{"REAL PHONES" \\ THE PAIR \\ 45/-}

For room to room conversation. Just like real phones. Worked with small \(1 \frac{1}{2}\) volt battery. Simple instructions with each set, 2 sets of phones, etc. WILL LAST A LIFETIME!

ONLY 45/- THE LOT

\footnotetext{
LEVENSON'S can supply at a Better Price any wanted Electrical item, whether for Household use or Installation Purposes. . Electrical Con-tractors-Let us quote you for your next order!
}

\title{
-worth their weight \\ Page 214 in GOLD!
}

GVERY grain in the structure of Philips
Golden Valves is realised in better radio efficiency.
The Golden Range of valves are worth their weight in gold to the set owner who seeks a finer standard of performance.
In the matter of price, Golden Valves cost no more than ordinary types, so see that your set is equipped with these new valves.

E452T, \(18^{\prime}\) 6d. E445, \(18^{\prime}\) '6d. E444, \(19 / 6 d\). E455, 18'6d. E443H, 18 '6d. E443N, 22'1561, \(15^{\prime}=\)

THE "GOLDEN RANGE" INCLUDES THE MOST MODERN SIX - PIN VALVE - THE E444.
\[
\begin{aligned}
& \text { PHIU\|IDS } \\
& \text { COLDEN RANGE }
\end{aligned}
\]


VALVE ODDMENTS AND END OF LINES
\begin{tabular}{lllllll} 
UV199 & \(\ldots\) &. &.. &.. &.. & \(10 /-\) \\
UX199 &.. &.. &.. &.. &.. & \(15 / 6\)
\end{tabular}

Odd makes.

\section*{DEALERS AND SET BUILDERS}

Write for our Special Wholesale Bargain List of Parts, Valves, etc.

\section*{MULLARD VALVES}


Five-pin UY Base. Equivalent toUY227 valve, 2.5 volt English Make. Fully Tested. PRICE .. .. .. 5/9 each

Oddments in High Grade 4 VOLT RECTIFIERS UX or English Base. New and Tested. Were 18/6

NOW .. .. 7/6

UNBOXED
VALVE BARGAINS

All Thoroughly Tested New and Tested.


E415 valve equivalents
4 volt Electric 5-pin valves, Screened Grid Whilst they last!
A well known and trusted make of 280 valves in original cartons. Sold with a positive test, each

2 Volt Screen Grid Osram Battery Valves UX Base 21/-. Now 9/6
Whilst they last. This line cannot be repeated. Rush Your Order.

> PHILIPS B242-2 volt Sereen Grid Battery Valves, \(21 /-. \quad\) NOW \(. . . . . . . . . \quad 10 / 6\)

A limited number only and cannot be repeated at this Price. BRAND NEW!
L.A.F., MSG41 4 Volts are equivalent to E442

7/6
Osram ML4 4 Volt A.C. General Purpose
equivalent to E409 .. .. .. .. .. .. \(7 / 6\)

\section*{THE "LIKE A FLASH" VALVE AND SET TESTER}

For Electrically Operated Sets.
The Parts, including Leatherette Carry-case, cost \(55 / 16 / 8\).
£1 extra if we assemble it.
Blue prints and all instructions, .. .. .. . . 1/-
Free with Kit.
PUROTRON 235 and 224 A.C. Valves .. \(7 / 6\)

\section*{"LIKE A FLASH" VALVES}

Sold with a Thorough Test

POSITIVELY NETT PRICES
Philips Type 4 -volt A.C. Valves, E415,
E409 \(\cdots \cdots \quad . \quad 9 / 6\) Unboxed but guaranteed perfect.
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{OSRAM VALVES} \\
\hline \multicolumn{2}{|l|}{TYPES MHL4 and MH4} \\
\hline Equivalent to Philips E415, E435, E424, E438 & 7/6 \\
\hline DU2 Mullard Valve, equivalent to 506 & \\
\hline Philips & 6 \\
\hline L4, equivalent to Philips E409 & \(7 / 6\) \\
\hline Mullard 102 T , equivalent to UY227 & 5/9 \\
\hline \multicolumn{2}{|l|}{LIKE A FLASH"} \\
\hline Fully Tested. Guaranteed Valves. & \\
\hline UY224.... \(7 / 6\) UX245 & 10 \\
\hline UY235 .. .. 7/8 UX247 & 10/6 \\
\hline UY227 .... 5/9 UX280 & 9/ \\
\hline and 6 volt Battery Valves, each, unboxed & 7/6 \\
\hline volt A.C. valves, General Purpose, & \\
\hline Special Detector, Screened G & 7/6 \\
\hline 280 Valves, well known English make .. & 8/3 \\
\hline Types UX 226 and 227. PRICE, each .. & 5/9 \\
\hline 2.5 AND 4 VOLT A.C. VALVES & \\
\hline General Purpose A.C. Valves. Now only .. & 5/9 \\
\hline 4 volt Battery valve, with socket to fit. Were \(20 /-\) Now & 3/6 \\
\hline
\end{tabular}

WILL NOT BE UNDERSOLD

\section*{VALVE SOCKETS}

\section*{FOR EVERY MAKE OF VALVE AT}

LEVENSON'S

Aluminium Standard U.V. Sockets, will fit any 44 -pin valve

1/-


\section*{BAKELITE SPRING SOCKETS With Terminals To fit}

English Base \(\ldots \ldots \ldots \ldots\)
UX Base \(\ldots \ldots \ldots \ldots .2 / 3\)

AMSCO FLOATING VALVE SOCKETS
UX Base, Shock Absorbing, each
Racophone Valve Sockets UX type 4 pin .. 1/-
Racophone Valve Sockets UX type 5 pin
Racophone Valve Sockets UX type 6 pin 1/Racophone Valve Shield with Base \(1 / 3\) 1/3
6 pin type ..... 1/6
Shield Base only ..... 6 d.

\section*{PEERLESS VALVE SOCKETS}

A reversible socket suitable for sub-panel or top of panel mounting, with heavy gauge positive contact, adequately spaced and firmly fixed, without eyelets, etc., two hole mounting.
\(\begin{array}{lllll}\text { Prices: } 4,5 \text { and } 6 \text { bin ...ial pin .............. } & 1 / \\ \text { Prices: } 7 \text { pin, and } 7 \text { special } & 1 / 3\end{array}\)
UV199 Type Valve Sockets ..... .. .. \(1 / 6\)
Standard 201A Type Valve Sockets .... 1/-
3 Gang Standard 201A Type Valve Sockets, Originally 15/- NOW .. .. .. .. .. 3/-

Kenrad Valve Sockets, Wafer Type, 4, 5 and 6 pin, each

7 d.
7 pin, each .. .. .. .. ... .. .. .. .. .. 8 8d.
English 4-Pin Wafer Sockets . . . . . . . .. 6d.
Pilot Sub-panel UX Valve Sockets, 1/6. Now
Frost Radio UV199 Type Bakelite Valve Sockets, each

\section*{WAFER TYPE SOCKETS \\ FOR ENGLISH VALVES. UX OR UY BASE. 4d. each 2/6 dozen}

415, 409, 405, 615, 609, 605 Type Battery Valves. New and Tested. Best Known Makers. Now .. . . . . 11/6

\section*{}

Double Pole D.T. Toggle or Rotary Switch.
not illustrated. 1 hole mount .. .. \(3 / 6\)
Special Price to Traders or Manufacturers in Quantity Lots.

MOULDED BAKELITE VALVE SOCKETS


\section*{a genuune \\ snap-}

Suitable for either sub-panel or baseboard mounting.
\begin{tabular}{llllllllll} 
UX & \(\ldots\) & \(\ldots\) &. & \(1 /-\) & 6 & pin & \(\ldots\) &.. &.. \\
UY & \(\ldots\) & \(\ldots\) &.. & \(1 /-\) & 7 & pin & \(\ldots\) &.. &. \\
\hline
\end{tabular}
"Like a Flash"
English made 5-PIN
UY SOCKETS \(2 / 3\)
With Terminals. First Quality Bakelite
NOW


\section*{BALANCED SOCKETS}
\begin{tabular}{|c|c|}
\hline & A perfect push \\
\hline \multirow[b]{2}{*}{9 FOR Lex} & type balan \\
\hline & valve socket. The \\
\hline & valve \(p\) ins fit easily into the \\
\hline 80 & easily into the
socket, and are \\
\hline & gripped tightly, \\
\hline THREE FOR .. .... \(2 / 6\) & thus ensuring \\
\hline ILOT 5-PIN SUB-PANEL & positive contact. \\
\hline SOT S-PIN SUSTSANEL & All microphonic \\
\hline & ly eliminated. \\
\hline On Bakelite, usually \(2 / 9\) & Balanced Socket \\
\hline NOW . . . \(1 /-\) & Socket Type 524 \\
\hline & Price . . . \(3 / 8\) \\
\hline
\end{tabular}


LEVENSON'S GUARANTEE A CHEAPER PRICE FOR EVERYTHING IN RADIO


\section*{Bakelite Valve Conversion ADAPTORS \\ 2/- each}

UX to 5 Pin UY UX to 6 Pin
6 Pin to UY
UY to 6 Pin UY to UX 6 Pin to UY
ADAPTORS TO CONVERT-

\section*{UX to English}

English to UX
With these devices van \(2 / 3\) and chassis brought up to date without the necessity of internal wiring alterations, etc., etc. Particularly adaptable for test sets, valve analysers, etc., etc.

\section*{VALVE AND COIL CANS}

57 Valve Lighthouse type Valve Cans \(4 \frac{1}{2} \times 2\) in. Coil Cans
Standard Coil Cans
236 type Valve Cans, with Bayonet type Bottom
Small Valve Coil Cans with lid
Valve Cans for 35 type, \(4 \frac{1}{4}\) \(\times 2\) tins.
Coil Cans, \(4 \times 2\) ins.
 Decial Price in Lots to suit Dealers or Manufacturers.

When a Hen lays an egg she tells the world! She has accomplished something and she feels pleased about it all. WHY NOT?
LEVENSON'S RADIO will tell the world of its accomplishment because they too have something to tell about. Before Levenson's introduced to the public the ALL STATION CRYSTAL SET, crystal set devotees were satisfied with what they had. But now we have disturbed their peace of mind by introducing the ALL STATION CRYSTAL SET-It's a Winner and a Wonderand you can build it inside ONE HOUR.
All the Parts cost only 28/6. Send 6d, to us for Assembly Chart.
Set Ready-Built in Cabinet
45/-
Boy's Minature Electric Motors, 2/6
Complete Set of Parts and full instructions for building this Electric Motor. Attractively boxed. Build it yourself-it is quite simple, and gives more pleasure than any other present.

Can be run off your
4 or 6 volt Car or
Radio Battery.
Teaches more in 30
minutes than hours of study. Will work Meccano Sets and other mechanical toys.


For "Wireless Weekly" Xmas, 1933,
Featured Radio Receivers

\section*{The Reaction 3 A.C. Receiver}
Kit of Parts ..... £3 \(10 \quad 7\)
Valves ..... 7
Dynamic Speaker ..... £1 6
    If we Assemble, \(50 /-\) extra.

The Midget Superhet. A.C. Receiver
Measures 9 in . long; \(5_{\frac{1}{4}} \mathrm{in}\). wide; 8 in . high. Kit of Parts

If we Assemble, 50/- extra.

The All-Wave 5-6 A.C. Superhet.
Features in "Wireless Weekly" 10/11/33 All Parts . . . . . . . .. .. .. .. .. £7 3 All Valves ...... .. ... .. ... ... ... \(£ 3{ }^{27} 1^{3} \quad{ }_{0}^{4}\) Dynamic Speaker .. .. .. ... .. .. £1 4 6 £3 Extra for us to Assemble.

\section*{The Standard All-Wave 11-Valve A.C. Radio}


\section*{The De Luxe All-Wave 9-Valve All Electric Radio Receiver}


Our Charge to Assemble is \(£ 5\)

\section*{The International All-Wave 7-Valve All Electric Superhet.}

All Parts .. .. .. .. .. .. .. .. .. \(£ 71311\)
All Valves .. .. .. .. .. .. .. .. £4 4 5
Dynamic Speaker .. .. ... .. .. ... .. £2 10 0
Price for Assembling . . . . \(£ 5 / 10 /\) - extra

\section*{VOLTAGE DIVIDERS}


RADIOKES VOLTAGE DIVIDERS
S.D. 129 Standard Voltage Divider (fixed). Total Resistance in ohms 12,900 . Overall length 6 in . Tapped at \(180,135,90\) and 45 volts. Bleed Current at 180 volts \(14 \frac{1}{2}\) m.a.; at 120 volts 12 m.g. Will carry a overload up to 25 m.a. 7/6. NOW 3/-
"LIKE-A-FLASH" VOLTAGE DIVIDERS


\section*{ANY VOLTAGE DIVIDER}

Any Special Voltage Divider made up to 20,000 ohms and tapped. Price .. .. 5/-

WITH ADJUSTABLE CLIPS
LIKE-A-FLASH VOLTAGE DIVIDERS



Beldas Voltage Dividers, 12,000v. . 50 m.a. \(2 / 10\) Beldas Voltage Dividers, 15,000v. . 50 m.a. \(2 / 10\) Beldas Voltage Dividers, 20,000v. . 50 m.a. \(4 / 3\) Beldas Voltage Dividers, 25,000v. . 50 m.a. 4/11

\section*{R.C.S. VOLTAGE DIVIDERS 50 MA .}
\begin{tabular}{|c|c|c|}
\hline 9,000 ohm & & 2/8 \\
\hline 18,000 ohm & & 3/ \\
\hline \(15,000 \mathrm{ohm}\), & 5 inches, 2 clips & 2/10 \\
\hline \(25,000 \mathrm{ohm}\), & \(7 \frac{1}{2}\) inches, 3 clips & 4/ \\
\hline
\end{tabular}
VARIABLE VOLUME CONTROLS
\(0-15,000\) ohms ..... 4/6
\(0-200,000\) ohms ..... 4/6
\(0-500,000\) ohms ..... 4/6

RADIOKES WIRE
WOUND VOLUME
CONTROLS . . . . 4/6
1,000 ohms; 5,000 ohms, and 10,000 ohms.
List Price, 9/6
15,000 ohms .. 5/6
\[
\text { NOW } 4 / 6
\]

\section*{MACLURCAN TONE} PURIFIER
Eliminates distortion from your reception. Allows music and speech to be reproduced without any trace of distortion. Were 35/-. NOW .. . . . 6/6

"LIKE A FLASH" TYPE SX WIRE WOUND VOLUME CONTROLS

Potentiometer Type Moulded Bakelite, long shaft.

5,000
10,000 ohms
3/3
With Knob to match. 6d. each

CHANCERY POTENTIOMETERS
25,000
50,000
250,000
100,000
500,000
6/6

COMPEL YOUR RADIO TO GIVE BETTER RESULTS BY HOOKING IT UP TO

\section*{ADMIRALTY AERIAL WIRE}

Unaffected by Gales, Hurricanes or Tempests! Provides that selectivity so necessary to ensure loud and clear reception under modern Broadcasting conditions. Heavy Rubber Insulation.

Stranded Special Copper Alloy Wires.
PER YARD \(\qquad\) 10 d .

\section*{COLOURED VULCANISED RUBBER CONNECTING WIRE, COPPER STRANDED}

Easily bared for quick connection. Gives to your set a distinctive tradesmanlike finish. Supplied in Three Colours
3d. per yard - dozen yards 2/9


Pair

\section*{1/-}

"Crown" New Type Potentiometer Wire Wound. \(2,500,5,000\), and 10,000 ohms. 3/9 Wound on Tube in Bakelite Case 3/9


\section*{BELDEN HOOK-UP WIRE Radio Assembly Wire} Silk covered, single stranded, tinned copper. Push back quality.

Usually 6d, per yard.
NOW: 3d. Yard or \(2 / 6\) Dozen


DE JUR STRANDED
INSULATED ACID
PROOF HOOK-UP WIRE

60 inch length
9d.
Green, Blue, Black, Brown, Yellow or Red.


HOLLOW COPPER SHIELDING BRAID
For Wire up to \(\frac{1}{8}\), diameter, per yard .. 6d
For Wire up to \(\frac{1}{2}\) in. diameter, per yard ... \(2 /-\)
For Wire up to \({ }_{4}^{3} \mathrm{in}\). diameter, per yard .. 3/-


40 gauge enamelled English Wire. Special price in \(1-\mathrm{lb}\) coils, per lb .

\section*{DOUBLE FLEX}

23/36 double wiring flex for A.C. mains, etc. Twisted flex.
 Price per yard, 4d. guage flex (two leads under one cover) for power

Twin Circular Electric Power or Lighting Flex. 2 wires in fabric and rubber insulated covering, yard

6d.

BELL WIRES, Enamelled, D.C. and Paraffined 1/.029, Single Core, per 100 yards . . . . . \(6 / 6\) 1/036, Single Core, per 100 yards .. .. .. 7/6 \(1 / 036\), Twin, Twist, per 100 yards . . . . .. 16/\(1 / 036\), Twin, Lead Covered per 100 yards \(55 /-\) Per yard. 8d.

\section*{BELL WIRES, I.R., D.C.C. and Paraffined}
1.029, Single Core, per 100 yards . . . . .. 6/6

1/.036, Single Core, per 100 yards .. .. .. \(7 / 6\)
\(1 / .044\), Single Core, per 100 yards .. .. .. \(9 / 6\) Per 100 feet .. .. . . .. .. .. .. .. 3/6
Baby double flex for carrying small current various colours, per yard

3d.
Beldin Silk covered push back hook up wire assorted colours, per yard

3d.
6-way Cable with lugs . . . . . . . . . . . \(\quad 2 / 9\)
6-way Cables tinned ends . . . . . . .. .. \(2 / 3\)
7 -way Cables, lugs and tinned ends \(\quad . . . \quad 3 /-\)
7-way Cables with lugs ................... \(\quad 3 / 3\)
7-way Cables with "A" battery clips ... .. \(3 / 9\)
8 -way Cables continuous length, yard .. 1/6


Fabric Covered Battery Wire
Various colours. Yellow, Black, Red.

Yard . . . ... .. ... 3d.
Dozen Yards . . . . . . \(2 / 9\)

\section*{}

5 2hand
Double Fabric Covered Speaker Cord, yard 6d. Strong and Sturdy.


\section*{LITZ COIL WIRE}

15 strands of 38 gauge, Enamelled Wire, cotton covered. \(\frac{1}{4} \mathrm{lb}\). coil, 194 yard's. Usual price 21/Now, per \(\frac{1}{4} l \mathrm{lb}\). coil .. .. 2/-

\section*{"POLICE PATROL" ULTRA-SUPER AERIAL} AT LAST A REAL AERIAL All tinned copper strands, rubber insulated and Fabric Braid covering
50 Feet
80 Feet

Louder, sharper, purer reception and longer distance. Replace your old steel aerial now.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & Diam. & \[
\begin{array}{r}
\text { Doul } \\
\text { Cotton }
\end{array}
\] & Covered & \[
\begin{gathered}
\text { D } \\
\text { Silk }
\end{gathered}
\] & ble vered & & Enam & lled & & & ed Cob & \\
\hline Gauge & in & 1lb. & 4oz. & 1lb. & \[
4 \mathrm{oz} \text {. }
\] & 1 lb . & 8 oz . & \[
40 \mathrm{z}
\] & \[
2 \mathrm{oz} .
\] & 11 b. reels & 8 oz. reels & \(40 z\). reels \\
\hline S.W.G. & ins. & reels & reels & reels & reels & reels & & reels & reels & reels & reels & reels \\
\hline 14 & . 08 & 3/- & 1/- & - & - & 2/11 & 1/8 & - & - & 2/8 & - & \\
\hline 16 & . 064 & 3/3 & 1/1 & 4/6 & 1/6 & 2/11 & \(1 / 8\) & 11 d. & - & 2/8 & - & 1/- \\
\hline 18 & . 048 & \(3 / 8\) & 1/2 & 4/11 & \(1 / 7\) & 2/11 & \(1 / 8\) & 11d. & - & \(2 / 9\) & - & 1/1 \\
\hline 20 & . 036 & 3/11 & 1/3 & 5/3 & 1/8 & 2/11 & 1/8 & 11d. & - & 2/11 & - & 1/2 \\
\hline 22 & . 028 & 4/5 & 1/4 & 6/5 & 1/10 & 3/- & 1/9 & 1/- & - & 3/- & -11 & \(1 / 3\) \\
\hline 24 & . 022 & 4/11 & 1/5 & 7/2 & 2/- & 3/- & 1/9 & 1/- & - & \(3 / 3\) & 1/11 & \(1 / 4\) \\
\hline 26 & . 018 & \(5 / 8\) & 1/8 & 8/3 & 2/3 & 3/1 & 1/11 & 1/1 & - & 3/6 & \(2 / 1\) & 1/4 \\
\hline 28 & . 0148 & \(6 / 8\) & 1/11 & 9/- & \(2 / 5\) & 3/2 & 1/11 & 1/1 & - & 4/2 & \(2 / 3\) & 1/5 \\
\hline 30 & . 0124 & - & 2/7 & 10/- & \(2 / 10\) & 3/8 & 2/- & 1/2 & 8 d & 4/6 & & 1/6 \\
\hline 32 & . 0108 & - & 3/- & - & \(3 / 3\) & 4/- & \(2 / 3\) & 1/3 & 9 d & 5/3 & 2/7 & 1/6 \\
\hline 34 & . 0092 & - & 3/5 & - & 4/2 & 4/5 & 2/5 & 1/5 & 10d. & - & & 1/6 \\
\hline 36 & . 0076 & - & 3/9 & - & 4/6 & 4/9 & \(2 / 7\) & 1/6 & 11d. & - & - & 1/9 \\
\hline 38 & . 006 & - & 4/2 & - & 6/- & \(5 / 3\) & 3/- & 1/9 & 1/- & - & - & 1/11 \\
\hline 40 & . 0048 & - & 5/8 & - & 7/6 & 5/8 & - & 1/11 & 1/2 & - & - & 2/3 \\
\hline 42 & . 0040 & - & - & & - & 7/4 & - & - & 1/6 & - & & \\
\hline 44 & . 0032 & - & - & - & - & - & 5/3 & 3/- & 2/- & - & & \\
\hline 46 & . 0024 & - & - & - & - & - & 10/3 & - & 3/- & - & - & - \\
\hline 48 & . 0016 & & & - & - & & & & 11/3 & & & \\
\hline
\end{tabular}

\section*{COIL WINDING WIRES}


See Table above for Prices.
"Like a Flash" Variocoupler Mounts and
fittings, with Bakelite knobs ....... \(2 / 3\)

Porcelain connectors for joining wires. Single or double, each

3d.
Rubber covered hook-up or Battery flex, Stranded Wire, per yard 3d.
Dozen yards 2/6

Let us quote you for any article you may be requiring from our Trade-in Department . and remember . . Every Article is Reconditioned and in a perfect state for immediate use.

\section*{FRIED HOOK-UP WIRE.}

Various Colours. Fabric Covered. The new popular Assembly Wire.

3d. yard; 2/6 dozen yards

INSULATED SINGLE HOOK UP


Yellow, White, Black, Blue, Red, per yard 4d.

Pigtails with loop solder lug ends, 3 in., 6 in. and 9 in . long, price each now.

CABLES
SPEAKER OR BATTERY
4 way with 4 Pin Plug, 1 yard length \(\quad 2 / 9\)
Sockets, extra . ...................... 9d.
5 way with 5 Pin Plug, 1 yard length \(3 / 3\)
Sockets, extra . . . . . . . . . . . . . . . ... 9d.
Banana Plugs and Sockets-variety of colours. Plugs

3d.
Sockets
3d.


Bus Bar, round or square, dozen . . . . . 10 d .
Insulated Bus Bar 10ft. coil. Assorted colours
22 gauge Tinned Copper Bus Bar, \(1-\mathrm{lb}\). Reels ... . . . . . . . . .
Coils of tinned copper bare Professional\(3 / 8\)

Hook-up wire ..
Hook-up wire . ..... 1/-

\section*{HOOK UP WIRES}
Rubber covered hook up stranded wireprice per yard
De Jur insulated hook up stranded wire 6 colours. 5 feet coils ..... 9d.
Fabric coloured standard hook-up Fry wire 4 colours, per yard ..... 3d.
per dozen yards ..... 2/8 ..... 2/8

6-way Acid Proof Battery Cables. Each a different coloured insulation. Complete with solder lugs attached, \(5 / 6\). NOW
```

Acid Proof Battery Lead Wires. 6 as-
sorted colours. 60in. lengths, each
9d.

```
EUREKA (Advance) WIRE-
\begin{tabular}{|c|c|c|}
\hline & D.S.C. & Enamelled \\
\hline 36 S.W.G. & \(47 / 9 \mathrm{lb}\). & \(30 / 9 \mathrm{lb}\). \\
\hline 38 S. & \(\xrightarrow{3 /-1 / \mathrm{oz} .}\) & 1/11
\(38 / 3 \mathrm{lb}\)
lb \\
\hline & 4/5 oz. & 2/5 oz. \\
\hline 40 S.W.G. & \(79 / 8 \mathrm{lb}\). & \(43 / 2 \mathrm{lb}\). \\
\hline S.W & 5/- oz. & \(2 / 8 \mathrm{oz}\)
\(68 / 1 \mathrm{lb}\) \\
\hline & 6/6 oz. & \(4 / 3 \mathrm{oz}\). \\
\hline 44 S.W.G & 167/4 lz. & \(97 / 3 \mathrm{lb}\). \\
\hline & 10/6 oz. & \(6 / 1 \mathrm{oz}\). \\
\hline 46 S.W.G. & 30/7 lb. & \[
162 / 7 \mathrm{lb} .
\] \\
\hline
\end{tabular}

Red Rope Paper used for making dynamic speaker cones, per lb.

\section*{OXIDISED NICHROME RESISTANCE WIRE}

No. 38, B. and' S. Equivalent No. 2 S.W.G. 39 ohms per foot, 75 m.a. 4oz. nett per reel.

\section*{AERIAL WIRE}

Like a Flash Insulated Stranded Wire, 80ft
2/6 Phosphor Bronze Multi-strand wire, 100 ft . 2/6 3/20 Copper Wire, 80ft. 2/6
BELL WIRES
Assorted colours. India rubber, D.C.C., andParafined. 100 yards.
. 028 - Standard Finish ..... 6/6
.036-Standard Finish ..... \(7 / 6\)
.044-Standard Finish ..... 8/9
ENAMEL D.C.C. AND PARAFINED
.028-Standard Finish ..... 4/-
.036-Standard Finish ..... 5/-
044-Standard Finish ..... 6/6
.036-Enamel D.C.C. \& P. twin lead covered ..... 31/6
.028-Enamel D.C.C. \& P. twin lead covered ..... 28/-
HENLEY LEAD-IN OR BATTERY CORD
Standard Medium Insulation Vulcanised Rubber Flexible Lead-in or Battery Cord, per yard ..... 3d.
Per dozen yards ..... 2/6
VARIOUS COLOURS
LEWCOS BATTERY CABLES
4 -way, Blue and White, per yard ..... 1/-
5 -way, Blue and White, per yard ..... 1/3
7 -way, Blue and White, per yard ..... 1/6
8 -way, Blue and White, per yard ..... \(1 / 6\)
"CONNECT-UP"WITH 66 LJTMCOS99
RADIO WIRES AND FLEXIBLESGLAZITE (RIGID)18 S.W.G., 10 feet Coils ( 6 colours)9 d.
GLAZITE FLEXIBLE ( 6 colours)
7/016, 25 feet Coils2/-
"STAYPUT" CONNECTING WIRE ( 6 colours)
10/010, 25 feet Coils ..... 1/-
\(16 / 010,25\) feet Coils ..... 1/6
"RAPID" ASSEMBI, W WIRE (several colours), "PUSH BACK" INSULATION
10/010, 25 feet Coils ..... 2/6
SCREENED '(RAPID" ASSEMBLY WIRE
\(10 / .010\), per yard9d.For Wire up to \(1 / \mathrm{in}\). diameter, per yard ... 6 d .
For Wire up to \(1 / 2 \mathrm{in}\) diameter, per yard..
\(2 /-\)
For wire up to \(3 / 4 \mathrm{in}\). diameter, per yard ..... 2/-
\(3 /-\)MULTIWAY BATTERY CABLE
(14/0076 Conductor)
4-way, Blue and White, per yard .. .. .. 11d.5 -way, Bue and White, per yard..
7 -way, Blue and White, per yard ..... \(1 / 3\)
LOUD SPEAKER CORDS
5 feet, each .. .. .. .. .. .. .. .. .. \(1 / 5\) ..... 1/5
10 feet, each 10 feet, each
2/11
HEADPHONE CORDS
5 feet, each ..... 2/6
TWIN FLAT ART SILK SPEAKER CORD
\(\frac{\text { Type L.S.7, Maroon, per yard . . . . . . . } 7}{\text { When ordering by mail be sure to specify "LE WCOS" }}\)


\section*{LEWCOS "STAYPUT" RADIO ASSEMBLING WIRE}
( 6 Colours)

10/010, 100 feet Coils ..... 3/11
16/010, 25 feet Coils ..... 1/6
16/010, 100 feet Reels ..... 5/6
"RAPID" ASSEMBLY WIRE (several colours) "PUSH BACK" INSULATION 10/010, 24 feet Colis ..... 2/6
10/010, 100 feet Coils ..... 8/-
SCREENED "RAPID" ASSEMBLY WIRE10/010, 100 feet Reels, per yard . . .. .. 9d.

HOLLOW COPPER SHIELDING BRAID For Wire up to \(\frac{1}{8} \mathrm{in}\). diameter, per yard .. For Wire up to \(\frac{2}{2}\) in. diameter, per yard . For wire up to in diameter, per yard

CHROMAX HOOK-UP WIRE-Single Strand: Black, Red. 10 ft lengths .. 9d.


\section*{SPAGHETTI CUVERING-}

For bare hook-up wire. Various colours. Approx. 38 inches, per length


20ft. Coils of Highly Insulated
HOOK-UP WIRE Stranded, Flexible. Various bright Colours.
NOW .. . . \(2 / 9\)
Wires of All Descriptions for All Radio Purposes.
Aerial Wires- See Aerial Equipment.
2-colour Battery Flex, single, yard .. .. 3d.
Twin Wire Joiners, Porcelain, each .. .. 3d. Wire Joiners, Plug-in type, Bakelite, \(1 /-\& 1 / 6\) Speaker Cord, double, yard .. .. . . .. .. 6d. Lead cover single wire, yard . . . . . . . . . 6 d . Insulated Staples, doz .. .. .. . . .. .. .. 3d. Box of 100 .. . . .. .. . . .. . . . . .. \(1 / 6\)
BUS WIRE-Round or Square, per dozen 10d.
16 gauge Tinned Copper hook-up wire, lb. 2/8
18 gauge Tinned Copper hook-up wire, lb. \(\quad 2 / 9\)
20 gauge Tinned Copper hook-up wire, lb. 2/11
Tinned copper hook-up wire, 22 gauge, 4 oz. coil

1/3
Single Strand Tinned Copper Hook-up
Wire. Well insulated with a variety
of different colours, per yard .. ..
3d.

\section*{WIRE JOINERS}

For Phone or Speaker Cords. Pins fit in both ends. In Moulded Bakelite, each, 1/- and 1/6 Non-solder Tips, pair

6d. For Phone or Speaker Cords.
 At your Service!


Our Merchandise, Low Prices, Service and Guarantee, have earned us the largest Mail Order patronage in Australia. This service must therefore be perfectly satisfactory to warrant such valuable Patronage! Permit us to serve you! Mail your order NOW!
We guarantee that all our goods are illustrated and described accurately. Should you be displeased with any of our merchandise, please return same within five days of its receipt for prompt exchange.

\section*{ACTIVE LIST \\ 2 J.L. - LEVENSON'S SERVICE Short-Wave Stations of the World}
\begin{tabular}{|c|c|c|c|}
\hline Wavelength Metres & Call Sign & Location & Australian Eastern Standard Time \\
\hline 19.63 & DJB . . . . . . . . & Zeeson, Germany & Midnight-3 a.m. \\
\hline 19.68 & FYA . . . . . . . . & Paris & 11 p.m. 2 a.m. \\
\hline 19.68 & KEL . . . . . . . . & California & 10.30 a.m.-mid-day. \\
\hline 19.7 & W8XK . . . . . . . & Pittsburgh & 10 p.m.-8.30 a.m. \\
\hline 23.2 & Radio Moroc. . . . & Rabat, Morocco & 7 a.m. -8 a.m. \\
\hline 25.0 & Medan Calling . . & Medan & 9 p.m. -10 p.m. \\
\hline 25.3 & GSE . . . . . . . . . & Daventry & 12.30 a.m.-2.30 a.m. \\
\hline 25.4 & I2RO & Rome & 3 a.m. -6.30 a.m. \\
\hline 25.5 & XDA . . . . . . . . & Mexico & 7 a.m.-8.30 a.m. \\
\hline 25.5 & GSD & Daventry & 7.30 a.m. -9.30 p.m. \\
\hline 25.63 & FYA & Paris & 7 a.m.-9 a.m. \\
\hline 29.0 & DIQ . . . . . . . . . & Berlin & 1 a.m.-3 a.m. \\
\hline 30.24 & EAQ . . . . . . . . & Madrid & Sun. 6 a.m. -10.30 a.m. \\
\hline 31.28 & VK2ME . . . . . . . & Sydney & Sun. 4 p.m. \({ }^{-6}\) p.m. 8.30 p.m.- 12 midnight. Mon. 5.30 a.m.- 7.30 a.m. 12.30 a.m. -2 a.m. \\
\hline 31.3 & GSC & Daventry & 12.30 a.m. -2.30 a.m. \\
\hline 31.35 & W1XAZ . & Springfield, Mas. & \[
\begin{aligned}
& 7 \text { a.m. }-8.30 \text { a.m. } \quad 10 \text { p.m. }-11.30 \\
& \text { p.m. }
\end{aligned}
\] \\
\hline 31.38 & DJA & Zeeson & 6 a.m.-7 a.m. \\
\hline 31.48 & W2XAF & Schenectady & 7 a.m. -9 a.m. 9.30 p.m. -10.30 p.m. Irregular. \\
\hline 31.5 & GSB . & Daventry & 7.30 p.m.- 9.30 p.m. \\
\hline 31.55 & VK3ME . . . . . & Melbourne & Wed. and Sat., 7.30 p.m. -9.30 p.m. \\
\hline 31.8 & PLY . . . . . . . . & Bandoeng & 9 p.m. \\
\hline 32.2 & Radio Moroc. . . . . & Rabat, Moroceo & 6 a.m.-8 a.m. Monday. \\
\hline 36.9 & PLJ .. .. .. .. .. & & 8 p.m. -8.35 p.m. \\
\hline 39.0 & In Chinese . . . . . & China & \begin{tabular}{l}
10 p.m. -11 p.m. \\
Jammed by a Jap. at present.
\end{tabular} \\
\hline 45.35 & REN & Moscow & 2.30 a.m.-8 a.m. \\
\hline 46.67 & VE9BY & Ontario & 12.30 p.m. -1.30 a.m. \\
\hline 48.2 & I2RO & Rome & 2 a.m. \\
\hline 48.8 & VE9CL . & Winnipeg & 10 a.m. -12.30 p.m. \\
\hline 49.4 & W9XAA & Chicago & Noon-3 p.m. Sunday \\
\hline 49.5 & VE9C8 & Vancouver & Irregular. \\
\hline 49.5 & W8XAL . . . . . . . & Cincinnatti & 9 p.m. 10 p.m. \\
\hline 49.5 & VQ7LO . . . . . . . & Nairobi, S. Africa & \(2-3\) a.m. 6.30-7.30 a.m. \\
\hline 49.8 & XEW . . . . . . . . . & Mexico & Noon-2 p.m. \\
\hline 49.8 & W9XF & Chicago & 11.30 a.m. -4 p.m. Sunday. \\
\hline 50 & RV59 . . . . . . . & Moscow & 2 a.m. -7.30 a.m. \\
\hline 50.26 & HVJ & Vatican City & 6 a.m. -6.30 a.m. \\
\hline 51 & XDA & Mexico & 2 a.m.-3 a.m. \\
\hline 70.2 & RV15 & Khabarovsk & 8.30 p.m.-12.30 a.m. \\
\hline
\end{tabular}

\footnotetext{
* Only those stations that have been heard reliably have been itemised. List by H. A. Warby.
}
SIEMENS ELECTRIC LAMPS
FOR ALL PURPOSES
VACUUM LAMPS
\begin{tabular}{lllllll}
20 & to 260 & Volts. & \begin{tabular}{c} 
BC or \\
Color
\end{tabular} \\
& Clear & Pearl & Spray & Color & Ruby & Daylt. \\
15 watts . & \(2 /-\) & \(2 /-\) & \(2 / 3\) & \(3 / 3\) & \(4 / 3\) & \(2 / 9\) \\
25 watts . & \(2 /-\) & \(2 /-\) & \(2 / 3\) & \(3 / 3\) & \(4 / 3\) & \(2 / 9\) \\
40 watts . & \(2 /-\) & - & \(2 / 3\) & \(3 / 3\) & \(4 / 3\) & \(2 / 9\) \\
60 watts . & \(2 /-\) & - & \(2 / 3\) & \(3 / 3\) & - & \(2 / 9\)
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{7}{|c|}{GASFILLED LAMPS} \\
\hline & & & Pearl & & & \\
\hline 15, & 20/95 & 2/3 & - & 2/9 & & 3/6 \\
\hline 25, & 20/165 & 2/3 & - & 2/9 & 4/- & 3/6 \\
\hline 40, & 20/260 & 2/- & 2/- & 2/6 & 4/- & 3/- \\
\hline 60, & 20/260 & 2/- & 2/- & 2/6 & 4/6 & 3/- \\
\hline 75, & 20/260 & 2/9 & 2/9 & 3/6 & 6/- & 4/6 \\
\hline 100, & 20/260 & 3/9 & 3/9 & 5/6 & 8/3 & 6/- \\
\hline 150, & 20/260 & 6/6 & & 8/- & 11/9 & 9/9 \\
\hline 200, & 20/260 & 8/6 & & & & 11/ \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & & & & Color & & Day- \\
\hline & & Clear & Pearl & Spray & Color & \\
\hline 300, & 20/260 & 12/6 & & 14/3 & - & 17/- \\
\hline 500, & 25/260 & 16/- & - & 18/9 & - & 22/6 \\
\hline 750, & 35/260 & 24/- & - & 26/- & - & 29/6 \\
\hline 1000, & 50/260 & 29/- & - & - & - & 36/- \\
\hline 1500, & 75/260 & 42/- & - & - & - & 51/6 \\
\hline 2000 , & 100/260 & 51/- & - & - & & - \\
\hline 3000, & 100/260 & 66/- & & & & \\
\hline
\end{tabular}

\section*{STREET SERIES LAMPS}
\(4.0,5.5,6.6\) and 7.5 Amps


\section*{SHOW WINDOW LAMPS}

Price each
lear \(1 / 2\) silvered
30 watts; 8 3in. long; 1in. diam.; §in. cap

6/9 10/-
30 watts; 11 rin. long; 1 in . diam.; Sin. cap \(\because . .\).
60 watts; 11 rin. long; 1 in . diam.; 5in. cap \(\because . . .\).
100 watts; \(12 \frac{1}{8} \mathrm{in}\). long; 1 in . diam.; \({ }^{3 i n}\) cap 100 to \(\ddot{2} 60\) volts.

6/9 10/-
\(7 / 3\) 11/-
9/- 14/-

\section*{MISCELLANEOUS LAMPS}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{15 watts} & Reinfed. & \multicolumn{2}{|l|}{Candle} & \multicolumn{2}{|c|}{PILOT} \\
\hline & Constn. & Plain & Twisted & Clear & Red \\
\hline & - & 3/6 & 3/9 & 2/- & 2/3 \\
\hline 25 watts & 2/9 & 3/6 & 3/9 & - & \\
\hline 40 watts & 2/6 & 3/9 & 4/- & - & \\
\hline 60 watts & 2/6 & & & & \\
\hline
\end{tabular}

\section*{RADIATOR LAMPS}

20/260 Volts, 250 Watts, Frosted or Flame 7/9

\section*{CARBON FILAMENT LAMPS}

20 to 260 volts, BC or ES Cap


The above prices are per each lamp, and are subject to alteration without notice. The prices apply only to lamps of standard voltages, as follows:- \(20-74\) volts in 1 volt steps; \(75-260\) volts in 5 volt steps.

OBTAINABLE AT LEVENSON'S RADIO

\section*{SMITH ELECTRIC CLOCKS}

\section*{Imported Cases}

Robin or Wren Bakelite Alarm Clock \(\begin{array}{llll} & 9 & 6\end{array}\) 8in. Durham Bakelite Wall Clock, .. 4176 10in. Durham Bakelite Wall Clock .. 5176
8 in . York Bakelite Wall Clock .. .. 4150
12in. Lincoln Bakelite Wall Clock . 6126
6in. Derby Bakelite Wall Clock, White 400
6ni. Derby Bakelite Wall Clock, Walnut or Mahogany

450
Dover 12 in . Wall Clock in metal cases
Rugby Bakelite Mantel Clock, \(3 \frac{1}{2}\) in. dial, Round
Tenby Bakelite Mantel Clock, \(3 \frac{1}{2}\) in. dial
2150
Clifton Bakelite Mantel Clock, \(4 \frac{1}{4} \mathrm{in}\). dial, Square

4150
Burnham Bakelite Mantel Clock, \({ }^{-3}\) in in . dial, Round
\(3 \quad 2 \quad 6\)
KC1-Hanging Clock, illuminated, 18 \(x 18\) in. dial
\(1615 \quad 0\)
KC3-Hanging Clock, illuminated, 11 \(x 11 \mathrm{in}\). lial
KS5-Wall Clock, illuminated, 18 in. dial
KS6-Wall Clock, non-illuminated, 18 in. dial

1100
1300
11110
\(\begin{array}{lllll}\text { KS8-Wall Clock, non-illuminated, } & 18 \\ \text { in dial, weather-proof .. .. .. .. } & 15 & 15 & 0\end{array}\)
Truro Double-sided Clock (hanging or bracket type), 12 in . dial
\(17 \quad 0 \quad 0\)
Australian-made Wood Cases-Mantel Clocks
Sherwood, Oak, \(3 \frac{1}{2} \mathrm{in}\). Round dial .. \(£ 3 \quad 7 \quad 6\) Blackwood or Maple, 3izin. Round dial .. .. .. .. 310 Oak, \(1 .{ }^{2} 100\) Maple, 5in. Round dial .. 500 Oak, 6 in. Round dial .. .. 4176 Maple, 6in. Round dial .. \(5 \quad 76\)
Chalfont-Dial \(6 \frac{3}{3} \mathrm{in}\). wide
Clevedon-Dial, \(5 \frac{1}{4} \mathrm{in}\). wide
Glamis-Dial, \({ }^{\frac{1}{4}} \mathrm{in}\). wide
Bedford- \(4 \frac{1}{1} \mathrm{in}\). Sq. Dial
Wynyard-Dial, \(6^{3} \mathrm{in}\). wide
Bath- 41 in. Sq. Dial .
Grafton-Square Dial Wall Clock . .
5tin. Strike Movements in Australian
\(6 \frac{1}{9}\) in. Strike Movements in Australian case.
\(617 \quad 6\)
Grandmother Clock, complete .. .. 2100
Grandfather Clock, complete

\section*{LEVENSON'S}

Each Hole contains a number. The customer's object is to "DIG" out the nominated numbers to secure the prizes offered.

NOTE.-In the event of the Board ordered being out of Stock, we will send nearest available size.

You nominate your own Prize and your own charge per "Dig." Space provided on each Board for Prize List.

Remit CASH WITH ORDER or GOODS Forwarded by Post CASH ON DELIVERY. YOU PAY FREIGHT.

All kinds of Automatic Slot Machines Available.


THIS BLANK
SPACE PROVIDED
ON BOARDS
FOR PRIZE LIST

\footnotetext{
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[^5]:    a selection from our range.
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[^7]:    PHILIPS BLOCK CONDENSERS, 500 VOLT TEST
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    2/8 each or
    20/- dozen
    4 mfd .
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[^10]:    Cabinet-See Page 58.
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