

The Broadcaster & WIRELESS RETAILER

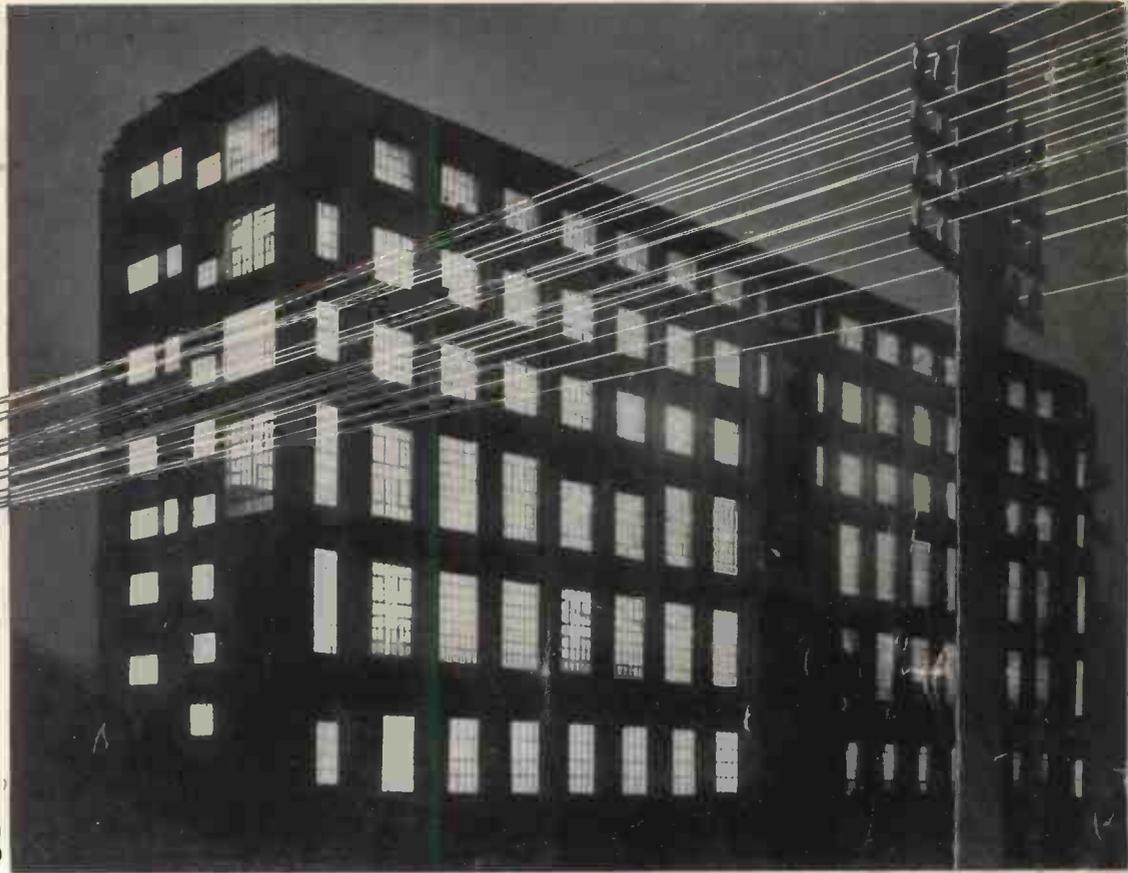
MANCHESTER REPORT

No. 206. Vol. XXI. SATURDAY, OCT. 1.

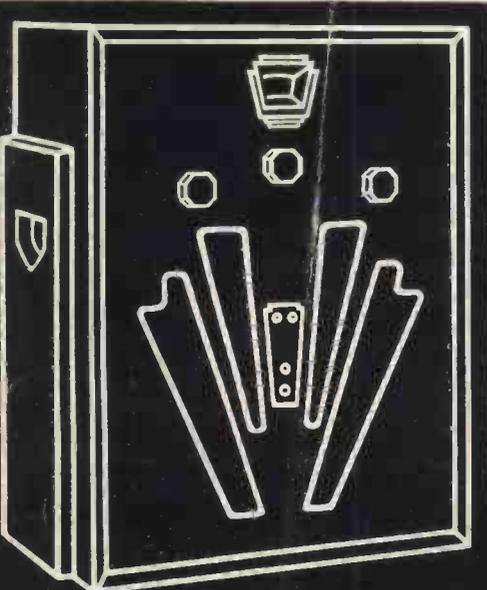
Circulated weekly to the Radio Music & Gramophone Industries at 7/6 per annum



THE SYMBOL OF "AUTHENTIC" RADIO



Thousands sold.....service practically nil!



Many thousands of Marconiphone 248's have been sold in the three months since it was first released. Of all these 248's, not **one in 200** has needed the least service or attention from dealer or purchaser before giving complete satisfaction!

This is a record which is probably without equal in the whole history of the radio industry.

But Marconiphone are going all out to ensure that their whole 1933 range attains at least the same extraordinary consistency and reliability. Model 248 is just a hint of what is now being achieved. The research laboratories and test rooms are working ceaselessly, standards of accuracy are being maintained which were never before thought possible in commercial production—and Marconiphone are hourly nearing their ideal of 100% reliability and efficiency.

MARCONIPHONE

MODEL 248. £4.19.6. (COMPLETE)



Here's Something
Really NEW

The first
factory-built
**DIRECT-
COUPLED
SET** !

Model WD23

RETAIL PRICE

15 Gns.

● Here is further proof of Lumophon's leadership. This splendid new A.C. mains model embodies the latest developments in direct coupling, resulting in amazingly lifelike and distortionless reproduction. The dual illuminated tuning dial is calibrated in wave lengths and station names, and the set incorporates a field energised moving coil speaker and gramophone pick up tapings.

For full technical details and Test Report see "Practical Radio," No. 5.

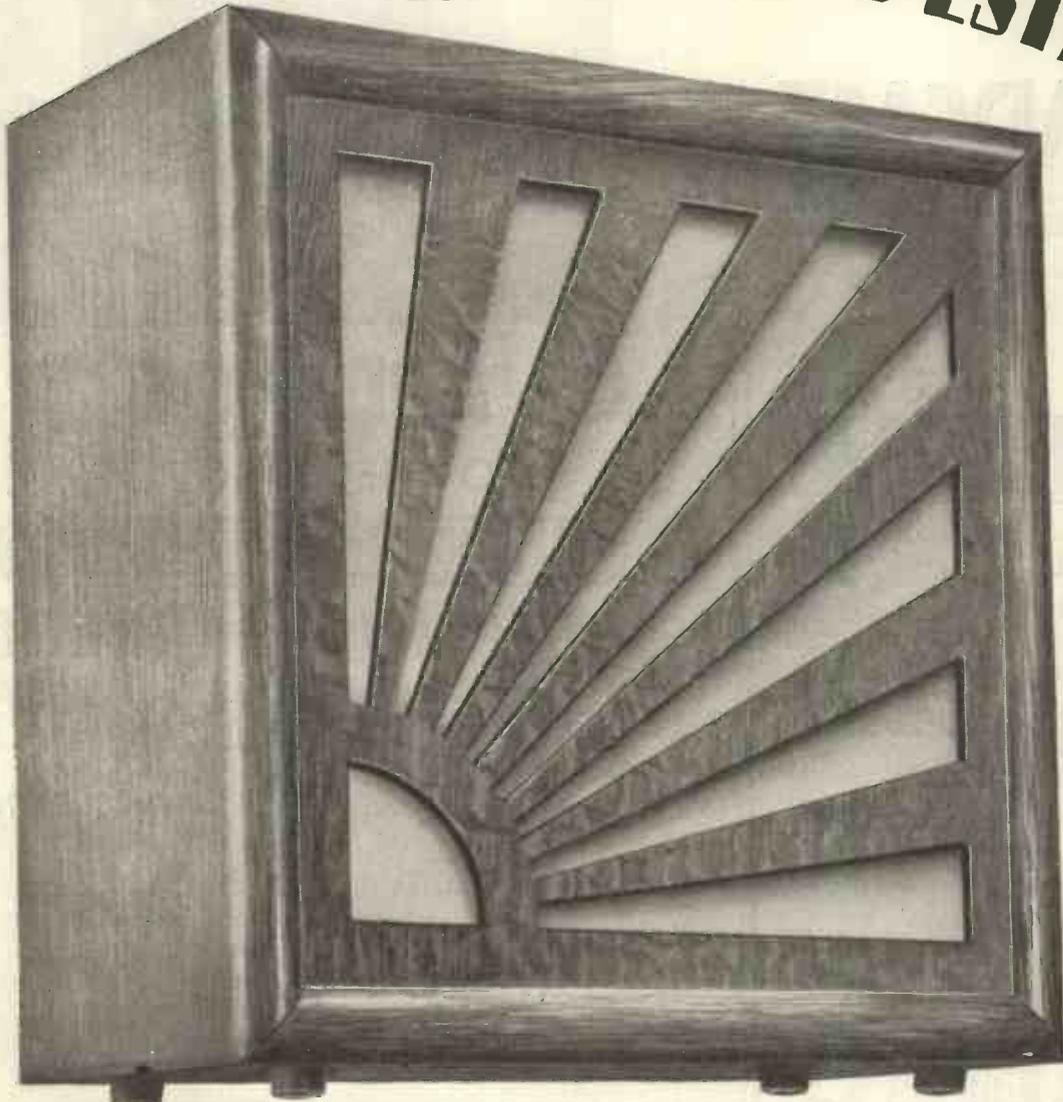
Lumophon

BRITISH LUMOPHON LTD., STAL HOUSE, Judd St., LONDON, W.C.1

Visit us at
STAND
77
MANCHESTER
RADIO
EXHIBITION



**STILL IT REIGNS
SUPREME IN THE
PUBLIC ESTEEM!**



The
ORMOND
"Popular"
**LOUD
SPEAKER**

This famous Ormond product, king among popularly-priced speakers, adds to its multitude of loyal subjects every day. Its handsome appearance and its first-rate performance ensure it a right royal welcome from every radio enthusiast. It exemplifies such a combination of quality and value as only ORMOND can offer.

Fitted with the Ormond No. 1 Four-Pole Adjustable Unit, together with a cone of specially selected material, the whole being mounted in a beautifully finished cabinet in either Oak or Mahogany. An Adjustment is fitted at the back of the cabinet in a readily accessible position.

Size: Height 12 in., Width 12 in., Depth 6 in.

In Oak Cat. No. R.452. In Mahogany Cat. No. R.453.

THE ORMOND ENGINEERING CO., LTD.,

Ormond House, Rosebery Avenue, London, E.C.1

Tel.: Clerkenwell 5334-5-6 & 9344-5-6.

'Grams: "Ormondengl, Isling."

29/6

ENGINEERING
ORMOND
Brit. Regd. Trade Mark

FOR PUNCH POWER & PURITY!

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

More Masterpieces
on the Famous Three-

BROADCAST

TEN INCH

ROY HENDERSON

3231 Toreador's Song
Oh! Star of Eve

16
EACH

IMPERIAL

TEN INCH

JACK PAYNE
AND HIS BAND

2754 Underneath the Arches
The Clouds Will Soon
Roll By

2745 A Bungalow, A Piccolo,
And You
Everybody's Goin'
But Me

13
EACH

BROADCAST

NINE INCH

SANDY POWELL

884 Sandy the Boxer
Parts 1 & 2

14
EACH

THE CRYSTALATE GRAMOPHONE
RECORD MANUFACTURING CO., LTD.
60-62, CITY ROAD, LONDON, E.C.1.



AN ADDITION

TO THE RANGE OF

WESTINGHOUSE

BATTERY CHARGERS —THE NEW R. G. C. 5

THREE CIRCUITS ARE PROVIDED GIVING OUTPUTS
AS FOLLOWS:

- No. 1 CIRCUIT - 1 to 50 cells at 0.5 amp.
or 60 cells at 0.25 amp.
- No. 2 CIRCUIT - 1 to 50 cells at 1.0 amp.
- No. 3 CIRCUIT - 1 to 50 cells at 3.0 amps.

PRICE £40

This charger is, in general detail and construction, identical with the established models, but it has been designed to cover new ranges of output for which a demand has arisen.

**IT WILL BE IN OPERATION
ON STAND 73
MANCHESTER RADIO EXHIBITION**

IF YOU ARE UNABLE TO VISIT THE EXHIBITION
WRITE FOR FULL DESCRIPTIVE LITERATURE TO

THE WESTINGHOUSE BRAKE & SAXBY
SIGNAL CO., LTD.

82, YORK ROAD, KING'S CROSS, LONDON, N.1



What's the rush?.....

"Oh, just the usual—Ray and Fay, of Purley, just rang up. Said they'd a customer in for a LOTUS 3-VALVE D.C. Hadn't one in stock . . . Could we deliver one before 6 o'clock . . . so . . . well, you know our motto . . . always at your

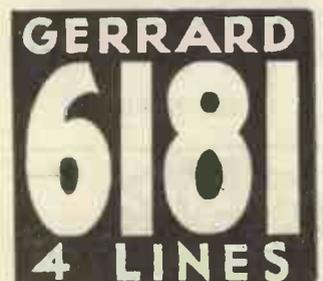
Beck & Hall

- ★ Lotus 3 Valve Band Pass Receiver, A.C. or D.C. 16 Gns.
- ★ Lotus 2 Valve Bud or 3 Valve Battery, immediate delivery.
- ★ Pye M.M. K. Q. or S. Models always in stock.
- ★ Zetavox full range of all models, 5 Valve, 19 Gns.; 8 Valve, 24 Gns.; Radiograms, etc.
- ★ Ekco M.23 at 17 Gns., with Moving Coil Speaker, S.H.25 latest super heterodyne in stock.
- ★ Philips, the sensation of Olympia, 4 Valve Model, 16 Gns., all other models at your call.
- ★ McMichael, Suitcase or Transportable, 17 Gns., Mains 4, 21 Gns., and Radiogram with twin Speakers, 40 Gns.
- ★ Cossor, G.E.C. Radio for the Million, Lotus Landmark or any type of Kit from stock.

Delta Radio

DISTRIBUTORS LTD

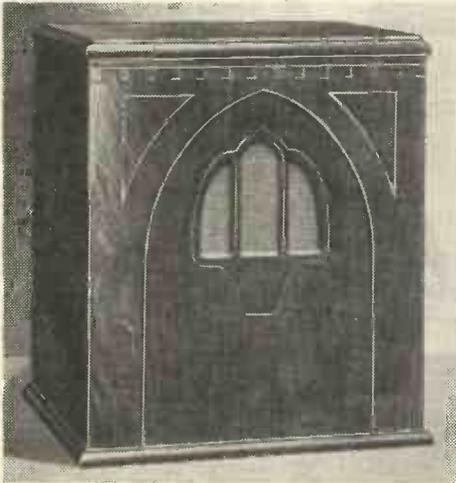
Number One, Soho Square, London, W.1



The Cabinet News

No. 14 OCTOBER 1932

STOCK THE CABINETS THAT THE PUBLIC DEMAND



THE CAMCO "TABLEGRAM" CABINET

An attractive Radio-Gram Cabinet that is ideal for use where lack of space is an important factor. It is sturdy and handsomely finished in shaded walnut. Your customers can convert their sets into Radio-Grams by using this cabinet. Price only 55/- complete.

THE CAMCO "MELODEE" CABINET

Here is the famous Camco Cabinet that is reputed to make "a good speaker better." It is specially designed and definitely gives improved tone and volume to any unit housed in it. Finished in oak, mahogany or walnut it presents a very attractive appearance. Sell your customers the cabinet that will definitely improve their speakers. Supplied in two sizes: No. 1 size, Oak 22/-, Mahogany or Walnut 24/-, No. 2 size, Oak 30/-, Mahogany or Walnut 33/-.



THE CAMCO "POPULAR" CABINET

This is without doubt the most attractive proposition you can put up to your customers—a complete Radio-Gram cabinet complete with shelf, baffle board and automatic stop with ample room for batteries and eliminators. Only 75/- complete. Attractively finished in shaded walnut, this is an extremely attractive cabinet that you should not fail to push this season.

Send for a FREE supply of the new Camco Catalogues giving full particulars of the complete range.



THE "POPULAR"



CARRINGTON MFG. CO., LTD.,

Showrooms: 24, Hatton Garden, LONDON, E.C.1

Phone: HOL. 8202. Works: S. Croydon

3 new ETA VALVES

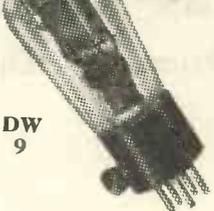
NOTHING SO GOOD EVER KNOWN BEFORE
A Marvellous Achievement

The demand for ETA valves is growing steadily—a fact well known in the Trade. ETA valves great increase in popularity is due to three important factors.

Their quality is as good as any valves made to-day—and a good deal better than most. Their price is reasonable—to pay less is to court disappointment, to pay more is to waste money.

There is an ETA valve for every purpose and every set—even American sets.

Now we are able to announce the introduction of three wonderful new valves which set up an entirely new standard of valve efficiency, and which will sell as well and quickly as all the other ETA valves. Order your stocks without delay and remember that ETA valves show a better margin of profit than ordinary valves—rebates included.



ETA D.W.3 PENTODE.

Directly Heated, 4-volt.

Price 15/-

(state when ordering whether with 4 or 5 pin base)

ETA D.W.8 VARIABLE-MU SCREEN GRID.

Indirectly Heated, 4-volt valve.

Price 15/6

ETA D.W.9 PENTODE.

Indirectly Heated, 4-volt.

Price 16/-

TO SET MANUFACTURERS: ETA valves are of the finest quality you could possibly buy and yet their prices are such that higher priced valves are an extravagance. Write to-day for a sample set and put them through any test you like.

The **ELECTRICAL TRADING ASSOCIATION, Ltd.,** Aldwych House, Aldwych, London, W.C.2
Scottish Agents: **RADIOVISION LTD.,** 233, St. Vincent Street, C.2. Glasgow.



WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



The
"Sunbeam"
 BATTERY MODEL B.33
 now a
best seller!

"...SORRY, MR. TRADER!"

"The demand for the B33 'Sunbeam' has temporarily exceeded supplies, but we would inform those who have not yet received delivery that orders are being despatched in strict rotation. I strongly urge you not to miss this great new selling opportunity—enquire without delay before all districts are allocated for full particulars of our exceptionally attractive agency terms and 'No Risk' H.P. system."

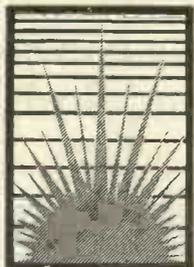
Walter Barraclough Sales Manager

Stand 148, Scottish National Radio
 Exhibition, Edinburgh. October 12—22

SPECIFICATION

3-Valve selective circuit with super-power output stage.
 Band pass tuning.
 P.M. moving-coil speaker.
 Cadmium plated steel chassis.
 Low H.T. Consumption 8-12 m/a.
 Single knob tuning control with trimmer, illuminated dial.
 Combined wave-change and on/off switch. Wave-length calibration. 2-volt "B.V.A." valves.
 "Exide" 2-volt 45 amp. accumulator and "Drydex" H.T. battery, standard.
 Extra speaker and pick-up terminals.

Complete **£8-8-0**
 "No-Risk" Hire Purchase
 15/- per Month.



SUNBEAM RADIO

SUNBEAM ELECTRIC LTD., Sunbeam Rd., North Acton, London, N.W.10.

Phone: Willesden 1575 (3 lines).

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Use & Study

TRADE & TECHNICAL JOURNALS

FOR TRADE DEVELOPMENT AND PROGRESS

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FOR THE VERY LATEST NEWS AND INFORMATION

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If you are seeking new markets, or desire to get first-hand information about a trade or industry you cannot go to a surer or more authoritative source than the trade and technical journals serving it. The address of any paper in this list will be furnished on request.

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Official Handbook, giving particulars of over 500 papers, post free 1/-.

Periodical, Trade Press & Weekly Newspaper Proprietors' Association, Ltd.,

Telephone: Central 2441.

6, Bouverie Street, E.C. 4.

Telegrams: Weneppa, Fleet, London.

100%

ADVERTISING VALUE

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Clarion

100% BRITISH MADE



RADIO

NATIONAL PUBLICITY CAMPAIGN

Extract from World's Press News:

"A big national advertising campaign is shortly to be started for British Clarion, Ltd., to appear in the leading London and provincial daily and weekly newspapers. The advertising will be placed through Godbolds, Ltd."

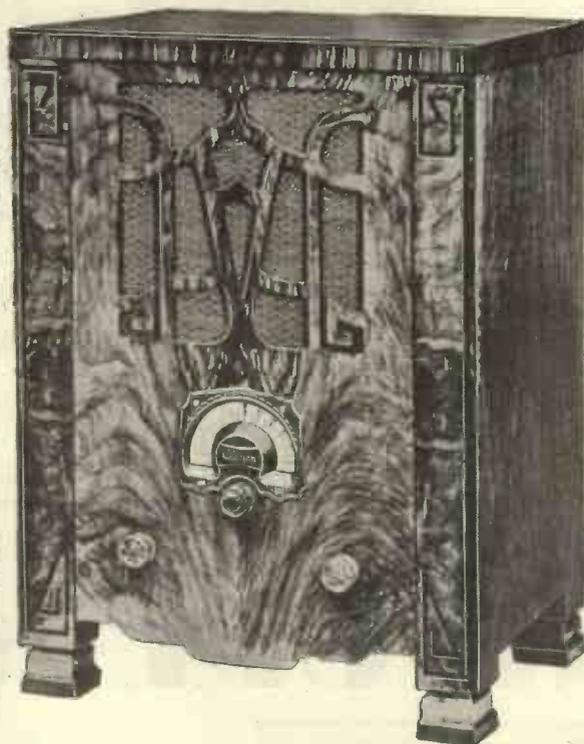


TABLE MODEL

£18 : 18 : 0

OTHER MODELS

CONSOLE MODEL
RADIO-GRAMOPHONE
RADIO-GRAMOPHONE with
Automatic Record Changer

**MR. TRADER — 'BE IN TIME
DON'T BE WITHOUT *Clarion*
WHEN THE PUBLIC DEMANDS IT**

Write for particulars of National front page co-operative scheme and details of accredited dealership to Wholesale Distributors:

MANCHESTER—ALTHAM RADIO CO., 25, MOSLEY STREET
BIRMINGHAM—BOYNTON & CO. LTD., 65-68, STAFFORD STREET and
139, CORPORATION STREET (Opposite Grand Theatre)

BELFAST—J. C. HOLLAND & CO., 27, FRANKLIN STREET

SHEFFIELD—H. H. B. SUGG, LTD., 28, ANGEL STREET

HULL—H. H. B. SUGG, LTD., 58-60, KING STREET

NOTTINGHAM—H. H. B. SUGG, LTD., 15, KING STREET

or to

BRITISH CLARION CO., LTD.

Clarion Works, Miller Street, Camden Town, N.W.1

Phone : Museum 3624-5.

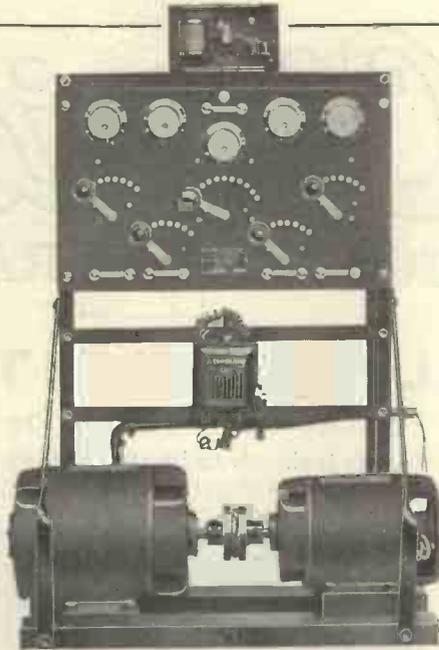
Telegrams : "Crosradcla, Norwest, London."

CHARGING PAYS

WHEN YOU HAVE THE RIGHT PLANT

GET

THE RELIANCE
 Can be tested on your own premises FREE
 PRICES FROM £7 down and 12 instalments of £1 - 17 - 8



NO VALVES to BURN OUT
 NO INTERFERENCE

THIS PLANT CHARGES BATTERIES — IT DOES NOT RUIN THEM BY THE SO-CALLED CONSTANT POTENTIAL METHOD.

IT PUTS PURE DIRECT CURRENT INTO THE CELLS—NOT RECTIFIED A.C. — NO BOLTING — NO SPECIAL FOUNDATIONS.

AND MAKE MONEY THIS WINTER!

Plant illustrated—our type 1a—will charge 250 cells in a week for 3/- worth of current at 1d. per unit. Size 15" wide, 2' 6" long, 3' 6" high.

Simple to use—fully automatic—shock proof.

Sole Maker: A. DIGGLE & Co. Jane St., ROCHDALE. EST. 1884. Phone 2869

Let this "Silent Salesman" help you to sell

FURNITURE!



THE ATHERLEY.

A Complete Dining-Room Suite of selected Oak, comprising 4-ft. roomy side-board with two drawers and two cupboards. 5-ft. by 3-ft. Draw-leaf Table. Four solid oak small chairs and one armchair, with loose seats upholstered in Rexine. Fireside chair, two-tier wagon on Rubber Casters. PRICE 18 Gns. NETT

PORT OF LONDON CABINET WORKS (Dept. Z), CUTLER STREET, LONDON, E.1.



Write for your copy to-day.

Write for copy of new Babette Catalogue. Popular Models from 2 Gns. nett.



"The Babette" Baby Car

The most comfortable easy running and luxurious car in the Trade.



Do you stock the new Mullard
Pentode which works economically
off an ordinary 100-volt battery?

YES, THE P.M.22A
PRICE 17/6 • MADE IN ENGLAND
Mullard
THE • MASTER • VALVE



Advt. The Mullard Wireless Service Co., Ltd., Mullard House, Charing Cross Road, London, W.C.2.

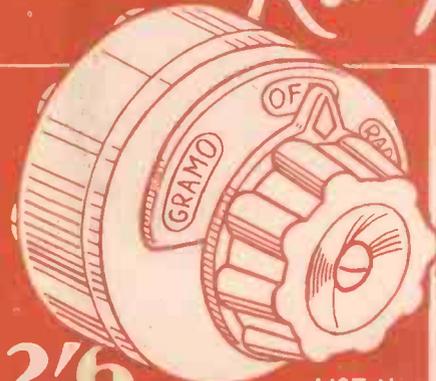
Arks

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

A Complete Range

ROTARY SWITCHES

RECORD SALES — REDUCED PRICES



2/6 SUBJECT LIST No. S.110



LIST No. S.86

1/9 SUBJ.



LIST No. S.85

1/6 SUBJ.



80 PAGE CATALOGUE AND MANUAL

BULGIN ROTARY SWITCHES are firmly established in the estimation of the technical press and constructors alike. They represent the Zenith of rotary switch construction—the public according them the highest praise for unique mechanism, modern design and positive action in use. Factors and Traders all over the country have expressed the greatest pleasure at the record sales which these switches have inspired and also the resultant price reduction. The demand to-day is greater than ever. Be Prepared—Be sure your stocks are adequate to cope with the demand which this season's large advertising appropriation is bound to create.

"RADIO—OFF—GRAMO." A unique double-pole double-throw change-over rotary switch with **CENTRAL "OFF" POSITION**. Eminently suitable for complete control of a receiver combining **RADIO-GRAM** or **WAVE-CHANGE SWITCHING**.

Yet another strong selling point. Engraved indicating plate is reversible **"RADIO—OFF—GRAMO"** on the one side, **"SHORT—OFF—LONG"** on the other. Special snap action mechanism, self cleaning contacts. **2/6**
List No. : S.110.

"ROTARY-CHANGE OVER." The famous single pole change-over snap action switch in use everywhere. Ideal for Gramo-Radio switching or in any position where a really reliable Single Pole Double Throw switch is necessary ; will handle current up to 1a at 250V. **1/9**
List No. : S.86

"ROTARY ON & OFF." A totally enclosed dustproof snap-action, quick make and break switch. All fixing bushes are insulated to permit mounting to metal panels, etc. For current up to 1a at 250V. **1/6**
List No. : S.85

REMEMBER—BULGIN FOR SWITCHES!
ROTARY : PUSH-PULL : TOGGLE
SEND FOR NEW 80 PAGE CATALOGUE "B" & MANUAL



A. F. BULGIN & CO., LTD., ABBEY RD., BARKING
Telephone : Grangewood 3266-3267.
London Showrooms : 9, 10, 11, Cursitor St., E.C.4.

SUPPLIED IN WALNUT, MAHOGANY OR BLACK BAKELITE

Someone is looking in your window!

October 2; lights are going on an hour earlier, men are settling down by the fire and a hand in almost every home is switching on the wireless. Loud speakers are busy once more—and all the time current is being drained steadily out of the batteries, every hour sees all these people getting closer and closer to another battery purchase.

Now: who is going to supply those batteries? We'll tell you. It is the man who puts the batteries in his window. When *you* switch on your window lights as the men come back from business, let them see Britain's Best Battery reminding them of that battery soon to be needed at home. Why shouldn't they get it now, and save time and trouble? And that is precisely what they *will* do, if they see the name Ever Ready, and a battery or two in your window.

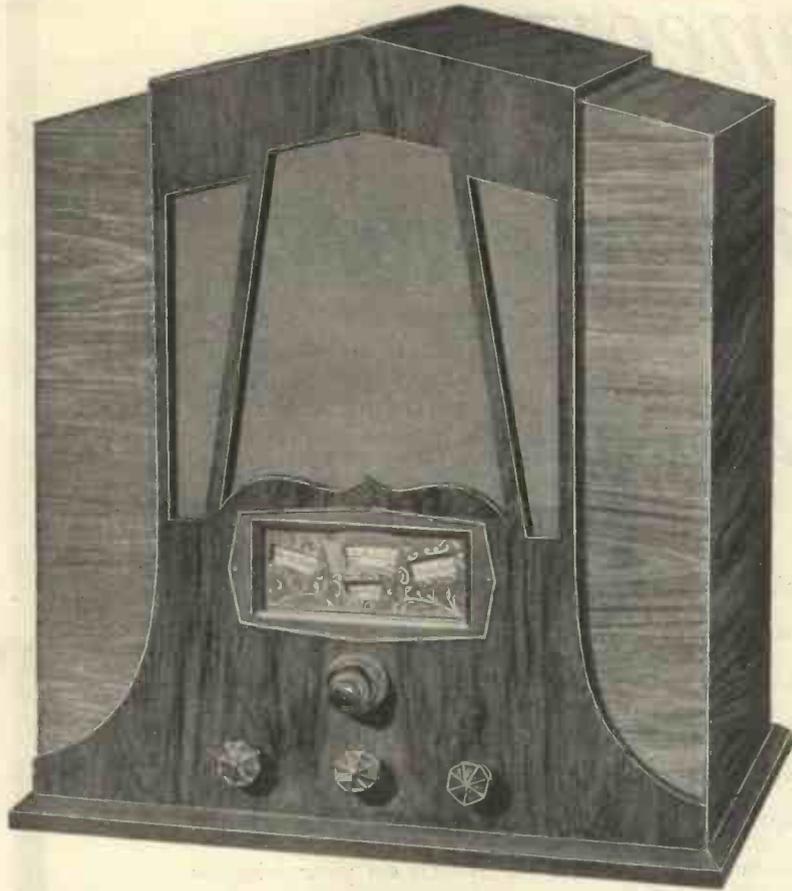
EVER

READY

THE EVER READY CO.
(GREAT BRITAIN) LTD.,
HERCULES PLACE,
HOLLOWAY, LONDON, N.7.

BATTERIES

VISIBLE CONTROL



3-VALVE MODEL A.R. 3

Self contained 3 valve all electric receiver employing S.G. detector and Pentode circuit, two aerial tappings with alternative mains aerial. Loose coupled. Variable Mu S.G. H.F. valve Power Grid Detector coupled to 3 watt Power Pentode, Parallel fed L.F. transformer. Gramophone pickup may be left permanently connected and switched from front of set, Pre-detector volume control operating on S.G. valve, Provision for external loud speaker. Tone control for speech and music, full wave rectification, Mains energised Moving coil speaker, "Visible control" tuning exclusive to Kenwell. Walnut cabinet.

PRICE

£15 - 15 - 0

(Including royalties).

**HEAR THEM [DEMONSTRATED AT
300 DEANSGATE
during the Manchester Radio Exhibition**

Do you know about the AREA DEALERS SCHEME?

One dealer and only one in each district receives 100% benefit from our extensive publicity. Big sales and profit are assured—learn more about it. Come to 300, Deansgate, or write to Head Office for full particulars:—

KENWELL

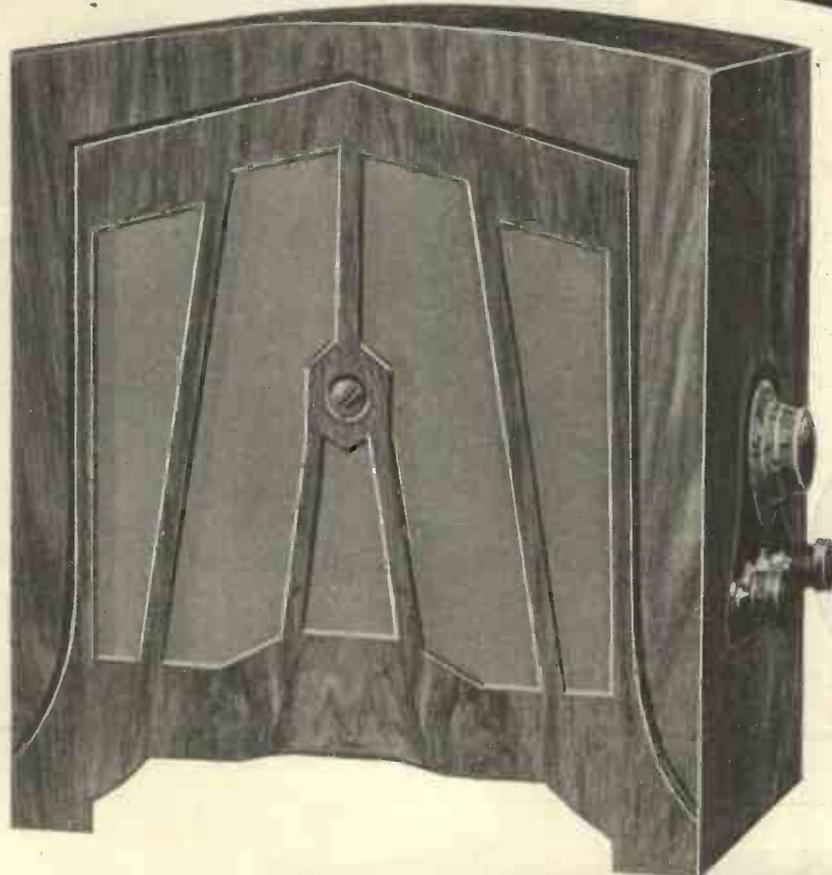
ALL ELECTRIC RADIO

KENWELL RADIO LTD., 200, City Road, E.C.1.

'Phone: Clerkenwell 3323-2.

A.C. & D.C.

2 VALVE *with* POWER PENTODE



The "BAIRN"

2-VALVE ALL MAINS

A.C. and D.C.

Self-contained all electric 2 valve receiver, Loose coupled aerial circuit, 2 alternative aerial tappings, Mains aerial, Pentode output circuit. Full wave rectification in A.C. model. Balanced armature, loud speaker. Side control. Fully screened all metal chassis, walnut cabinet.

PRICE

£7 - 10 - 0

(Including royalties.)

MODEL A.S.2.

2-VALVE DE LUXE

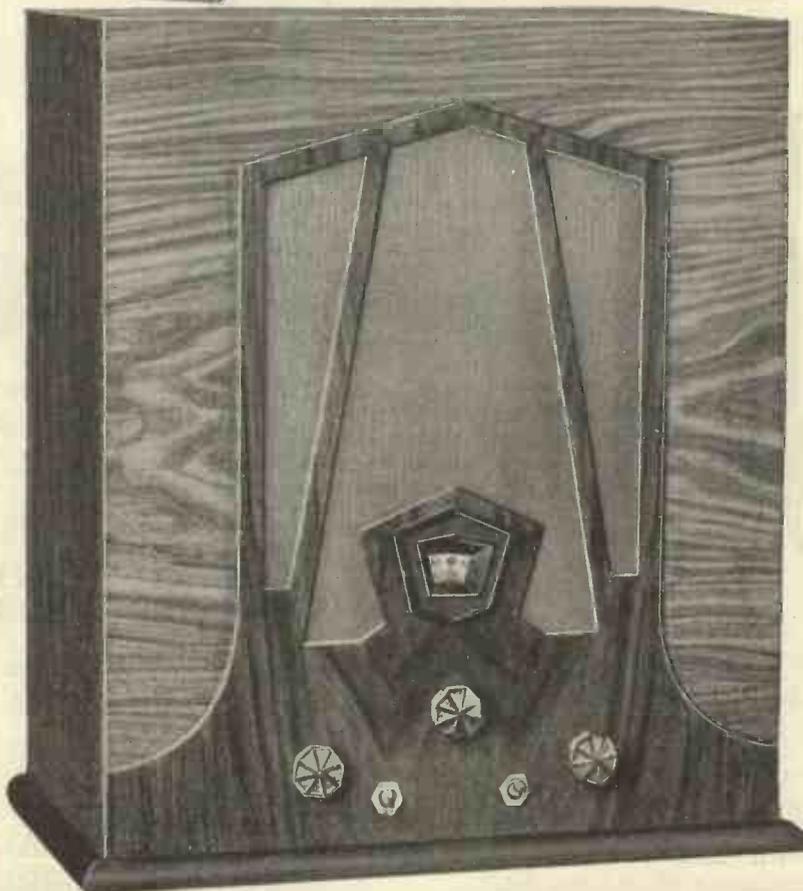
A.C. only.

Self contained all electric. Loose coupled input circuit, 2 aerial tappings, mains aerial, 3 watt Power Pentode, semi-power Grid detector, Gramophone pickup, illuminated control dial, tone control for speech and music, permanent magnet moving coil speaker, full wave rectification, fully screened all metal chassis, walnut cabinet.

PRICE

£9 - 15 - 0

(Including royalties.)



A TRIUMPH OF PRECISION

● Gives extremely fine tuning. Similar in construction to the "NUGANG" Condensers, but the trimmer of front section is operated independently from the receiver panel by means of a second knob concentric with the main tuning knob. Rigid one-piece chassis, very robust construction. Trimmer to each stage. Heavy gauge wide spaced aluminium vanes. Special bearings to rotor ensure permanent accuracy, Capacity .0005.

Matched to within $\frac{1}{2}$ mmfd. plus $\frac{1}{2}$ per cent. Complete with disc drive and bakelite escutcheon plate.

2 gang 18/6 3 gang - 27/-

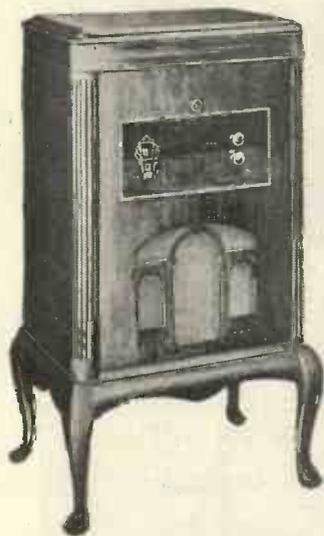


J.B. UNITUNE

PRECISION INSTRUMENTS

Advertisement of Jackson Bros., 72, St. Thomas' Street, London, S.E.1.

Telephone: Hop 1837.



**6-valve MAYFAIR
SUPERHET RADIO-
GRAM**

6-valve "MAYFAIR"
Super-het. Price 36
Guineas, or £3 9s. 6d.
down and 12 monthly
payments of £3 9s. 6d.



**3-valve MARLBOROUGH
A.C. or D.C.**

3-valve "MARLBOROUGH."
Price 14 Guineas or £1 7s. 6d.
down and 12 monthly payments
of £1 7s. 6d.



**4-valve S.G. BELGRAVE
(Hide Case)**

4-valve S.G. "BELGRAVE" in
Hide Case. Price 10 Guineas, or
19/6 down and 12 monthly pay-
ments of 19/6; or in Rexine, price
9 Guineas, or 18/- down and 12
monthly payments of 18/-.



**3-valve MARLBOROUGH
RADIOGRAM
A.C. or D.C.**

3-valve "MARLBOROUGH"
Radiogram Price 24 Guineas, or
£2 7s. 0d. down and 12
monthly payments of
£2 7s. 0d.

**See us at Stand 43
MANCHESTER EXHIBITION.**

*Send for Complete Catalogue and Full
Details of Authorised Dealers' Scheme*

**E.R.P. (1931) LTD.
EMPIRE WORKS, SALFORDS
REDHILL, SURREY**

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Sweeping all before it!

“Performance is such that
 “it merits discussion from
 “an absolute standpoint...
 “reproduction of bass below 100
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Can more be expected
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TRANSFORMER
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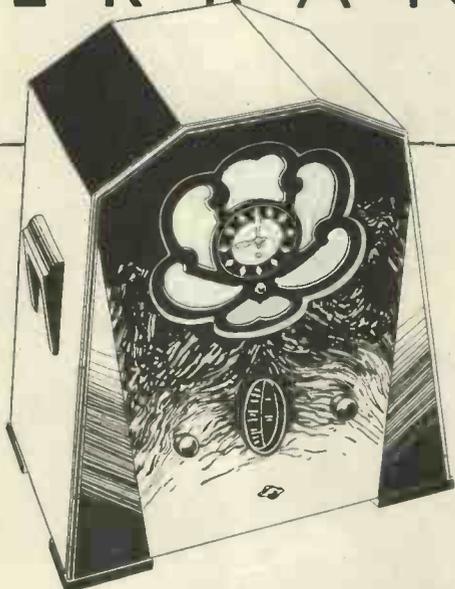


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1933 is clearly going to be a super-het year! The Ferranti 7-valve Super-Heterodyne—already an outstanding success—will be in greater demand than ever. Demonstrate this up-to-date receiver to your customers, and they will quickly recognise that here is the super het in its most efficient form. Ferranti advertisements are emphasising that sharp selectivity is essential under modern conditions—the Ferranti Super-Heterodyne provides it.

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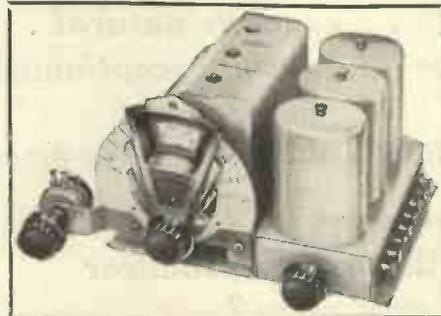
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That the "Radiopak" is generally recognised as the best solution to modern selectivity problems is borne out by the enormous number of enquiries already received, and their increasing number from day to day. The bandpass "Radiopak" will simplify your selling as well as it simplifies selectivity.



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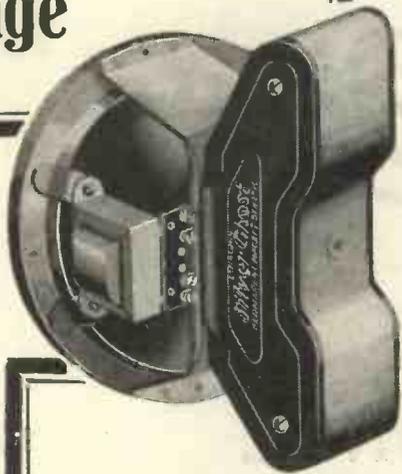
Telephone - - Midland 5941 (Pte. Branch Ex.)
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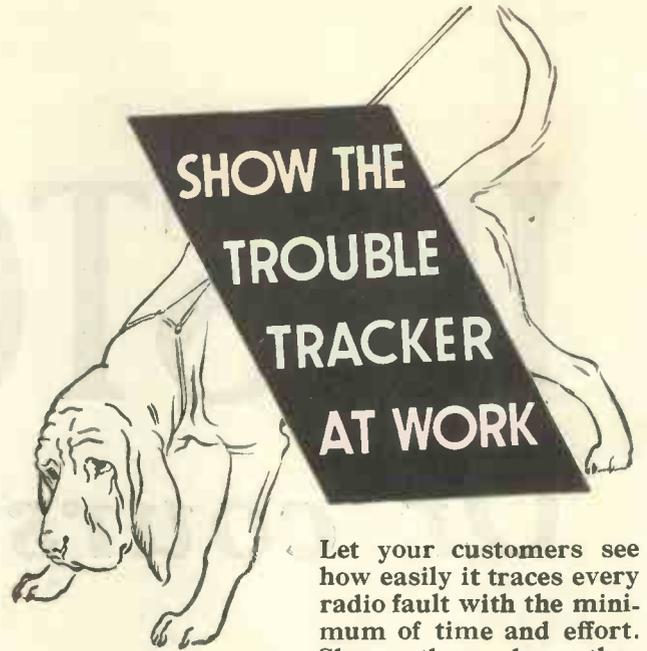
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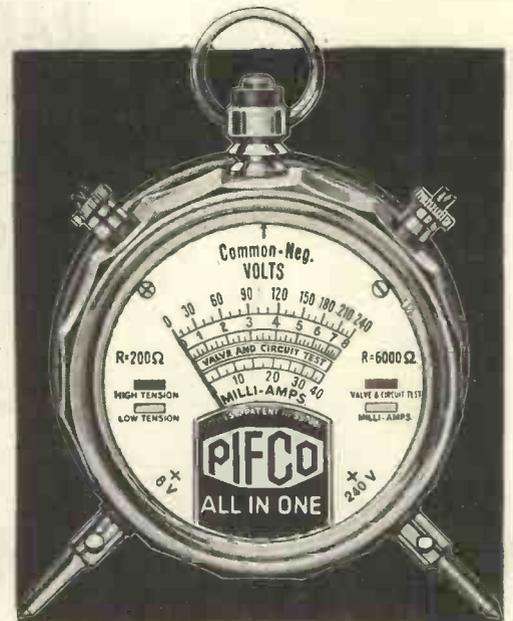
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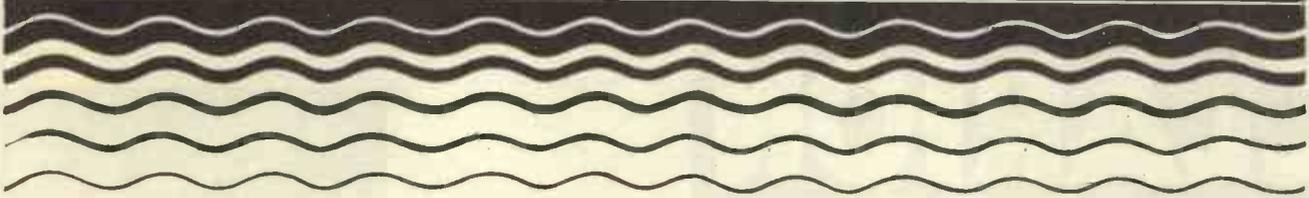


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PIFCO ALL IN ONE RADIOMETER

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The Multitone Tone Control Transformer is [specified
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"DIODE QUALITY FOUR"

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"MULTONE RADIOGRAM"

and in the "Manchester Evening Chronicle"

"MAINS BATTERY THREE"

*Supplies can be had for stock from all the leading
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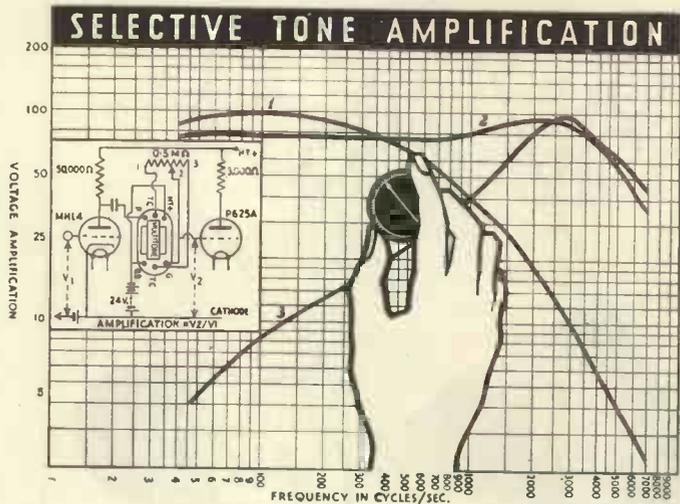
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Two-way tone control is therefore at your disposal.

For all sets there is a position of the potentiometer knob which will give you straight line output. Any good potentiometer can be used, but the best results will be obtained with the Multitone Graded Potentiometer (Price 3/6) which has been specially made for the purpose.



17/6



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Telephone: North 5063.

Consider CLARION Quality

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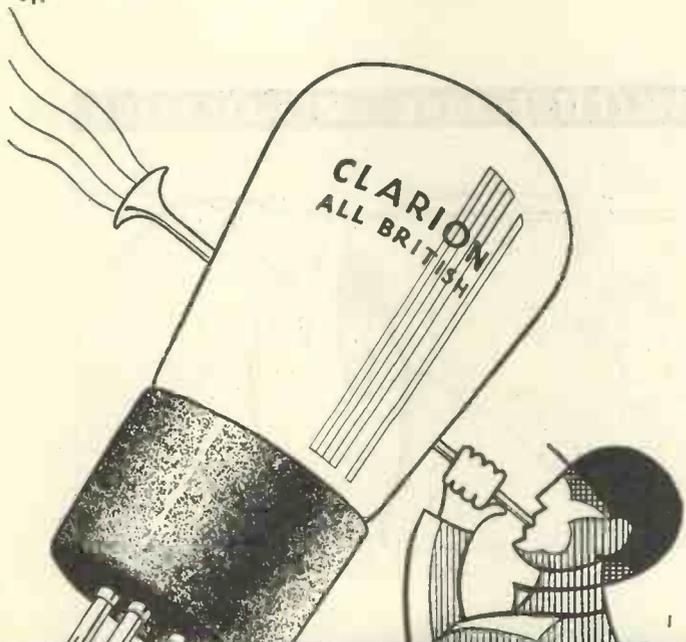
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from
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MONTHLY
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... Crowds thronging the "ATLAS" Olympia Stand, constant specifications in all the radio periodicals, a 100% increase in advertising expenditure and lavish supplies of attractive folders and display matter are all proofs that "ATLAS" means bigger business than ever. Business for you and every "ATLAS" Dealer. Write now for details of Service Agency and H.P. Terms, or call at Stand No. 54, Manchester Radio Exhibition.

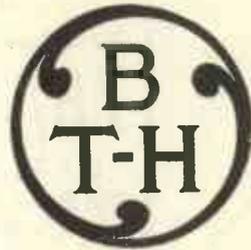
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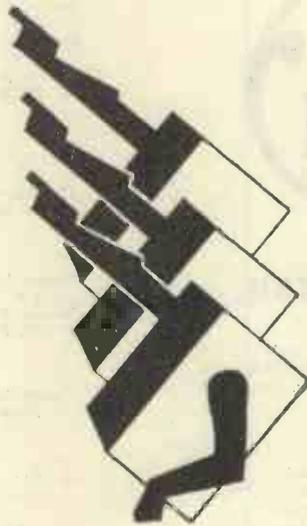
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COLLARO

Combined PICK-UP & MOTOR UNIT

Retail Price

76/-

in U.K.

With Built-in
Volume Control

80/-



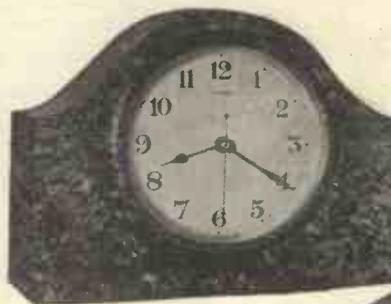
Fully Automatic starting and stopping, no setting required. A complete self-contained unit; all that is required for the Gramophone side of a Radio Gram. "Collaro" Pick-up and Arm with Volume Control, Retail Price 30/-; without Volume Control 26/-.

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3. The Pick-up runs on ball-bearings giving perfect freedom of movement, thus reducing record wear and ensuring freedom from "chatter" on the most heavily recorded passages.
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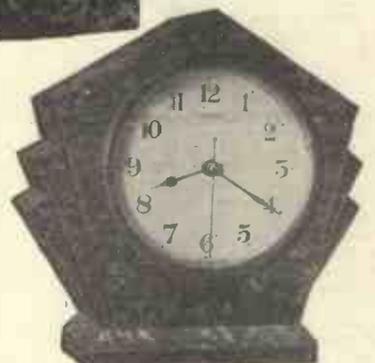
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A Selling line delivered on time



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SONOCHORDE

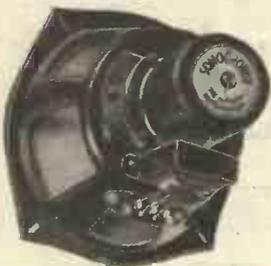
the Supreme Reproducer . . .



STANDARD P.M. 7" Cone



JUNIOR P.M. 5" Cone



MAINS ENERGISED MODEL 7" Cone



SONOCHORDE DUAL MATCHED UNITS

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Sonochorde is the only speaker with a permanently aligned speech coil. There is no spider to warp and throw the speech coil out of centre.

All Sonochorde moving-coil speakers are equipped with universal input speech transformers having terminals for ease in connecting.

The concentric disc suspension ensures a better overall frequency response with added sensitivity.

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All prices complete with universal input transformers.

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Name

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"Premier" complete with valves, batteries and speaker **£7 7 0**

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We specialise in the manufacture of high-grade battery-operated sets at reasonable prices. Send at once for details of full range.

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The Amplion M.C.22 Permanent Magnet Speaker has rapidly won for itself the premier position by sheer quality of performance. Its multi-ratio input transformer, tapped for push pull makes it a truly universal speaker. It can be connected direct to any good valve set with confidence. A first-class product, backed by a name of world-wide repute and selling at a figure that defies competition—a line for you to handle. **PRICE 39/6**



THE AMPLION PICK-UP AND ARM

The finest pick-up on the market. Hand-some Bakelite, smooth movement, no tracking wear, wide range of volume control, perfect reproduction—a line that will do you credit. **PRICE 25/-**

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3-Valve All-Electric

A quality Receiver in modern Walnut Cabinet, designed by an Artist and constructed by Craftsmen. The Chassis is built on the "Two-Unit" principle, i.e., the Receiver proper is separated from the smoothing circuit, thus eliminating hum. The Tuning is of the latest "Semi Band Pass" type, which gives wonderful selectivity with sensitivity. Circuit employed is one S.G., Det., and Pentode output. Mains energised Moving-Coil Speaker. Mains Aerial, Pick-up Terminals, etc. PRICE: Including Royalty and "B.V.A." Valves **15 Gns.**



MONARCH B3
3-Valve Battery

Housed in a large Veneered Walnut Table-type Cabinet of very modern design. The Chassis is of simple straightforward construction, the body being of Aluminium. The circuit employed is of the Detector and 2 L.F. variety so arranged that the Tuning is very sharp. A very sensitive Speaker is incorporated in the Cabinet and there is ample room for Batteries. PRICE: Including Royalty and "B.V.A." Valves **4½ Gns.**

ORDER NOW



"CROMWELL 404"
4-Valve All Electric

A super Receiver in a most delightful Cabinet of feathered and figured Walnut. Designed expressly with the object to overcome all the difficulties of present-day reception with a 10 Kilocycle "wipe-out." The circuit is very much out of the ordinary; it has two "Multi-Mu" S.G. Stages, "Multi-Mu" S.G. Detector and a Super Pentode (P.M.24M.) output, feeding a Mains energised "Magnavox" Moving-Coil Speaker. A special feature is the one-knob tuning which operates the Wave-change and also controls Mains Supply and Volume both for Radio and Gramophone if required. PRICE: Including Royalty and "B.V.A." Valves **18 Gns.**

W.M. DIBBEN & SONS, LTD.
ST. MARY'S ROAD SOUTHAMPTON

The Broadcaster

& WIRELESS RETAILER

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"ETHER KING"
Radio Gramophone

Dual Compensated Speaker—Station Selector indicating over 70 definitely obtainable stations. A superfine instrument.

Price 69 Guineas
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Fitted with Automatic Record Changer,

79 Guineas

"UNIVERSAL" Model U.53 can be changed instantly for A.C. or D.C.

Price 78 Guineas



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Model R.G. 32

A Radiogramophone with band-pass tuning. Beautiful tone and wide range. Easily converted to either A.C. or D.C. Remarkable value at

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Two Screened Grid with band-pass tuning—Station Selector—Superb reproduction.

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The **DAVENSET H.T.3 CHARGER** (illustrated) has been designed to charge concurrently both small and large capacity High Tension Accumulators. It has a maximum D.C. Output of 150 volts, 3½ amps., and it contains three independently controlled circuits.

PRICE: Complete with Instruction Chart and twelve months' guarantee, 28 Gns. Nett Trade.

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MANCHESTER RADIO EXHIBITION
STAND 75

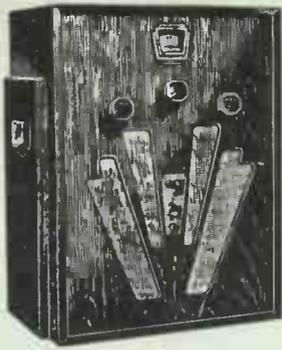
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Scottish Branch: 200, St. Vincent Street, Glasgow, C.2.



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See These and Other Popular Receivers at the
—MANCHESTER RADIO EXHIBITION
STAND No. 42 NEW HALL.



Marconiphone 2-Valve Battery Receiver.
 This receiver has ample selectivity necessary for easy programme separation, with range enough for the reception of numerous foreign stations. In solid oak cabinet. No. RR.33/53/6908. Each £4 : 19 : 6



Alba 3-Valve Battery Receiver.
 Employs a modern circuit with an original type of band-pass filter, tuned with a triple-gang condenser. Housed in a handsome cabinet with a built-in balanced armature speaker. No. RR.12/5/12300. Each £9 : 19 : 6 Plus 45/- Royalty.



Radio for the Million. Station Master 3 Kit.
 This circuit is designed for simplicity of assembly and quality of appearance and performance. Assembly is made on rigid chassis of cadmium-plated steel. No. RR.70/55/7904. Each £5 : 11 : 0

Practically every worth while receiver and Radio-Gram. for the 1932-33 season has been arranged on this stand for your inspection. You can see them all side by side—compare and examine the various makes and, on reference to our staff in attendance, secure fullest information on construction, operating and other selling features.

At Deansgate and other branches stocks have been secured to meet the anticipated demand and prompt delivery of orders is thus assured.

Receivers, Speakers and Components by the following leading manufacturers are available:—

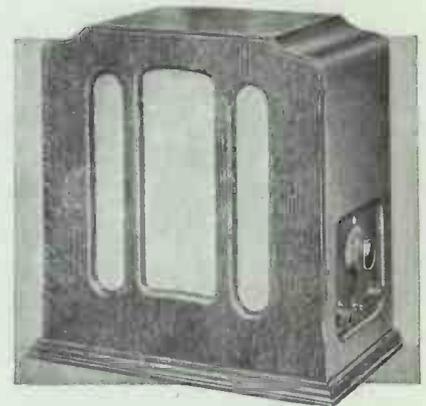
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|--------------|-------------------|
| Alba | McMichael |
| Beethoven | Oldham |
| Belling-Lee | Ormond |
| Blue-Spot | Osram |
| C.A.V. | Philips |
| Cossor | Pye |
| Ekco | Ready Radio |
| Ever-Ready | Regentone |
| Ferranti | Radio Instruments |
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| Igranic | Ultra |
| Magnavox | Varley |
| Marconiphone | Etc., Etc. |

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To all those interested in Battery Charging a visit to our stand is advised. We are specialists in Battery Charging Plant, and advice and help in choosing the most suitable equipment is freely offered. Our booklet, "Battery Charging," giving much valuable information, is free on request.



Ekco 5-Valve Console, A.C. Mains.
 This circuit ensures low running costs and ease of operation. Fitted with new and improved Ekco station dial to facilitate tuning. No. RR.30/29/31600. Each £25 : 4 : 0 Plus 30/- Royalty.



Cossor 2-Valve Receiver, A.C. Mains.
 This circuit is of special design, providing good tone with ample volume. A Cone Loudspeaker fully in keeping with the receiver unit is fitted inside the cabinet. No. RR.22/23/12500. £8 : 18 : 6



Philips 4-Valve Battery Receiver.
 This circuit gives wonderful selectivity and quality of reproduction. The Loudspeaker incorporated carries large volume without distortion. No. RR.36/36/16109. Each £11 : 11 : 0

Brown Brothers Limited
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THOMSON AND BROWN BROTHERS LTD
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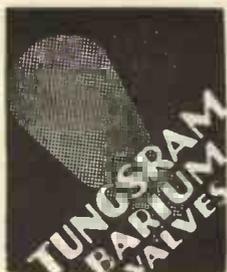
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**BUILD UP YOUR
BUSINESS ON**



THE PROFIT MAKER



The Broadcaster

& WIRELESS RETAILER



No. 206. Vol. XXI.

SATURDAY, OCTOBER 1.

ALL BRITISH RECORD COMPANIES BAN PUBLIC REPRODUCTION

Performing Right Society Says "All Clear" on Its Repertoire

AS exclusively announced in last week's BROADCASTER a definite ban on the reproduction of records, but for two exceptions, has been issued as a "warning" by the E.M.I. Associated Companies—H.M.V., Columbia and Zonophone.

Every other maker of gramophone records has taken, or is taking, similar action. There have been several meetings between the companies concerned pointing to the formation of a Patent and Copyright Gramophone Pool.

According to H.M.V., Section 19 of the Copyright Act of 1911 (referred to at length on page 37 of this issue) gives the record manufacturer absolute control over use of his own records.

B.B.C. Unaffected

A contract has been made with the B.B.C., who are unaffected by the new move.

Continental misuse of records for broadcast purposes is given as one of the more important reasons for the step.

The only exceptions to the ban are the use of records for educational purposes and their use with P.A. equipment made by the Gramophone Co., such use apparently being only allowed when the express permission of the company is obtained.

Indications were also given by H.M.V. that there was a desire to make the scale of fees charged at present more consistent, or even reduced them.

"It is hoped," said the Gramophone Co., "that the present position will be of a temporary nature."

An H.M.V. official is acting as Chairman of the Committee, who are representative of all makers concerned with this new move.

The Company instances Germany, Italy, Czecho-Slovakia, Yugo-Slavia and Austria as countries in which broadcast authorities have already agreed to limit the record broadcasting to 60 hours per month. In some instances almost 100 per cent. programmes were previously derived from records.

One record was broadcast 73 times in one day in Australia, according to H.M.V.

The attention of the Company was also drawn to the fact that the R.G.2 Licence permits of the "manufacture and sale of radio-gramophones and sets of parts as defined (and no other apparatus whatsoever) to proprietors of, for use in public-houses, hotels, restaurants, cafés, tea houses, boarding-houses and

small dance-halls (only) not attached to or forming part of a theatre or cinema."

It is obvious that one cannot "use" a radio-gramophone without a record, but the record companies' argument is that if such permission is given by the R.G.2 Licence it is now withdrawn.

H.M.V. and Columbia are signatories to the R.G.2 Licence, which is granted until 1934. This licence cannot be withdrawn, neither can any of its provisions be altered, except under conditions (none of which affect this question) specified in the Licence.

The Crystalate Co. is lining up with other companies, but intimated that a fee will probably be charged in respect of public record reproduction.

The Homophone Co. stated that all makers, including small ones, were interested in the move.

Edison Bell stated that the record makers had already signed an agreement which governed their policy in the whole matter.

Marconi's Wireless Telegraph Co., Ltd., who were approached by THE BROADCASTER as signatories and operating members of the radio-gramophone pool, stated that the two matters—the R.G.2 Licence and the new warning—had nothing in common.

The P.R.S. Attitude

The only definite statement issued so far comes from the Performing Right Society.

"Certain gramophone record manufacturing companies," says this statement, "claim that they are entitled to forbid the use of records of their manufacture for the purpose of public entertainment."

"It is not for the Performing Right Society to advise as to the rights of the gramophone record companies in this matter, which is one to be decided by the Courts."

"So far as the Society is concerned its position is that it controls the right of public performance in the copyright musical works in its repertoire, and anyone holding its Licence is entitled thereunder to perform such works within the terms of the Licence, irrespective of the means of performance."

Pending a clearer declaration of the intentions of the record makers, it is apparent, therefore, that those interested in the public performance of records must rest content with the protection afforded them by the Performing Right Society Licence and the R.G.2 Licence.

DETAILS OF P.R.S. LICENCE

PROVISIONS AND WHAT IT COVERS

The Performing Right Society Licence for an annual fee, which varies according to the premises concerned, gives permission for the licensee "to perform publicly any and every musical work for the time being in the repertoire of the Society, and of the Foreign Societies for the time being affiliated thereto," on the premises licensed.

The full "Conditions and Provisions" of the licence are as follows:—

The Conditions

1. This licence shall not extend to or be deemed to include—

(a) Oratorios, choral, operatic or dramatico-musical works (including plays with music, revues and ballets) in their entirety, or songs or other excerpts from operas or musical plays accompanied either by words, pantomime, dance, or visual representation of the work from which the music is taken; but fragments or instrumental selections from such works may be performed without words, dialogue, costume, dramatic action or scenic accessory, and unaccompanied by any stage action or visual representation of the work of which such music forms a part.

(b) The broadcasting or other transmission of any performance, or the public audition of such performance, beyond the precincts of the premises hereby licensed; and, conversely, the public audition at the premises hereby licensed by broadcasting or other transmission of a performance taking place elsewhere.

2. If the premises hereby licensed shall be temporarily or permanently used by the licensee for any performance or class of entertainment different from the class of entertainment being given thereat on the grant of the licence, this licence shall not be taken to extend to or authorise such different entertainment without the previous written sanction of the society.

3. The licensee shall not assign or part with the possession of this licence without the previous consent in writing of the society. If the society shall grant such consent, the licensee shall pay a fee of 2s. 6d. for each such written consent.

4. The society, by its duly authorised agent, shall have the free right of entry in and upon the premises hereby licensed during all times of public performance thereat.

5. The licensee shall, for the duration of this licence, supply to the society or its authorised agent weekly by post, on the forms obtainable free from the society, a list signed by or on behalf of the licensee of all the music performed and of all songs sung at the premises hereby licensed, with the names of the author, composer, arranger and publisher of each such composition, and the number of times each has been performed during the week.

6. If the licensee shall commit any breach of the conditions and provisions hereof, the society may, notwithstanding anything hereinbefore expressed to the contrary, forthwith annul this licence, or if the licensee shall fail to make any payment herein provided or to comply with any other of the terms of this licence on the day herein named or thereafter within seven days from the date of any demand for payment or compliance, this licence may thereupon be determined by the society by written notice sent by registered post to the licensee at the address given herein, and thereupon this licence shall determine, save as to the right of the society to recover any moneys previously due hereunder.

Glasgow Show twice Previous Size Competition for Exhibitors

The second annual Glasgow Radio Exhibition, organised by the *Glasgow Weekly Herald*, was opened in St. Andrew's Hall, Glasgow, on Wednesday afternoon by General Sir Ian Hamilton.

The chair was taken by Lieut.-Col. F. N. Westbury, Postmaster-Surveyor for Glasgow. Others present were Mr. D. Cleghorn Thomson, Scottish Regional Director of the B.B.C., and Mr. Alex. Steuart, Edinburgh, Chairman of the Scottish Radio Retailers' Association.

Increased Space

The hall is much bigger than the one in which the exhibition was held last year, and there are more than twice the number of stands, there being 68 in all. The space available for spectators is three times that of last year.

For the first time the B.B.C. are co-operating with the organisers, and are broadcasting from the show. The G.P.O. are demonstrating radio interference and its cure.

Among the general attractions at the exhibition is "George the Robot" and "Stagecraft," the Marconiphone show.

A window-dressing competition open to all stand-holders is being held. The Publicity Club of Glasgow has agreed to judge it.

BISHOP AUCKLAND

LORD GAINFORD TO OPEN THIRD DISPLAY

Lord Gainford, former chairman of the B.B.C., has accepted an invitation to open the Bishop Auckland Radio Society's third annual radio exhibition, which is to be held in the Town Hall, Bishop Auckland, on November 1, 2 and 3. The official opening will take place on Tuesday evening, November 1.

The whole of the arrangements for the exhibition are now almost complete, and there has been an exceptionally good response by traders throughout the whole of the North-East.

An official catalogue is to be published, and will contain a congratulatory message from Lieut.-Colonel J. T. C. Moore-Brabazon, M.P., President of the Radio Manufacturers' Association.

ST. LEONARDS DEALER'S EFFORT

Mr. Edgar G. Page, of 46, Bohemia Road, St. Leonards, is to give a radio exhibition at the Palace Pier Pavilion on October 4 and 5.

It is to be opened by the Deputy Mayor, Councillor H. E. Johnson, J.P.

Mr. Page, in his local advertisements, is announcing that the exhibits are direct from Olympia.

Competitions are being organised, the prizes for which will be presented by Alderman Arthur D. Thorpe, J.P. The exhibition will conclude with an Ethatrope dance.



Leicester turned out in force to attend the one-night show which was arranged by members of the Convoy at Leicester Palais de Danse on Monday night.

CAMBRIDGE TRADERS PLAN ATTRACTIVE SHOW

Some attractive features are planned for the second annual wireless exhibition by members of the Cambridge W.R.A., to be held in the Guildhall at Cambridge from October 22 to 29.

The eight trade stands comprising the show have lent themselves to a highly convenient scheme of arrangement, by which maximum frontages and equality of depth have been assured. Four stands have triangular areas in the corners of the hall, the remaining four also occupying triangles in a central diamond.

No Congestion

The public will thus have the freedom of an ample gangway, giving access to all stands with a minimum of congestion.

A central pillar is to be erected to carry an illuminated globe with the initials W.R.A. Other lamps will be placed at the points of the diamond.

The exhibitors are: Cambridge Electric Wiring Co.; G. H. Edwards; Harvey and Son; R. Lathbury; A. W. Matthews; Miller's; Morley and Duke; and Renbro Wireless Service.

It is expected that the Mayor of Cambridge (Alderman W. L. Raynes), who is noted for his antipathy to what he calls "canned music," will open the exhibition.

As a result of continual pressure by local retailers, Hastings Tramway Company has given permission for P.O. engineers to conduct experiments with a view to suppressing the trouble.



How to reach The Northern National Show at the Manchester City Exhibition Hall. The Hall is close to the Central Station and is not far from Deansgate.

Brighton's First Exhibition

Well-known Firms Take Part

Brighton's first collectively undertaken show is to be held next week.

It will be opened at 3 p.m. on Monday by the Mayor, Alderman T. J. Braybon, at the Georgian Room in the Regent Theatre. The last day will be Saturday, October 8.

The promoters of the exhibition are the Brighton Radio Stores, of Hampton Street, Brighton.

A number of prominent manufacturers have taken space, and the other stands—there will be over thirty in all—will be occupied by local retailers.

Among the manufacturers who will display their own products are Ormond Engineering, Belling and Lee, Baker's Selhurst Radio, Celestion, and British Blue Spot.

Well-known Lines

The lines of practically every well-known maker will be seen on the retailers' stands.

The exhibits and the show as a whole are fully described in a catalogue which is now available.

A feature of these is a number which are both interesting and amusing. There are, for example, a list of "don'ts," an article on "The Romance of Radio," by Mr. H. J. Dyer, of the Marconiphone Co., Ltd., and a collection of technical hints and tips.

There are pages of jokes, rhymes and humorous articles—some of which are provided by retail advertisers. A film announcing the exhibition is now being shown in seven of the local kinemas.

Comparatively early this week it was understood that eleven thousand tickets had already been sold.

BANGOR SHOW'S SUCCESS

To-day (October 1) the radio exhibition organised by G. M'Cartney and Co., of 65, Main Street, Bangor, closes.

This exhibition, following the Belfast Radio Exhibition, has had considerable success.

It has been open daily and closes to-night at 10 p.m.

Well-known makes of sets, radiograms and speakers have been displayed.



Alex Moody, of the R.M.A. (centre), makes sure that the Convoy is on the right trail for Manchester. Left, are seen some of the vans during a halt at Luton and, right, shows a section of the convoy at Aldwych, London, before the start on Monday morning.

Convoy Holds up Leicester Traffic

SHOW IN FULL SWING IN 2 HOURS

LEICESTER, 7.0 P.M., MONDAY, 26.

"Drivers! Please turn round and return the same way as you came, then take the first turning on the right. Hurry, please; the police are getting peevish!"

This announcement, made at 6.30 p.m. in Leicester from a P.A. van, is a sidelight upon the impression which the Radio Convoy made at Leicester.

Between 60 and 70 radio vans congested the 'bus parking place opposite the Palais de Danse and, coupled with the crowds which had assembled, created such a traffic crisis that despite the fact that all police arrangements had been made previously, the Convoy was asked to move.

At 6.30 p.m. the Palais de Danse, Leicester, was just an ordinary dance hall. At 8.30 p.m. it was a wonderful advertisement.

Twenty-nine stands had been erected in those two hours and in the gallery fifteen minutes after the doors were opened the representatives of those firms who had taken their part in the convoy were busy answering questions and distributing literature.

Two Thousand Visitors

It was estimated that at least 2,000 people visited the hall for the one night show, many of whom stayed to dance.

A mobile P.A. van parked by the side of the hall provided part of the dance music, while a local band supplied the rest.

The convoy, which had kept "schedule" time all the way from London, had been advertised in the windows of every Leicester radio trader of any importance by means of window bills, and was, in addition, heralded by P.A. vans which toured the town for some time before the opening of the exhibition and dance.

One prominent manufacturer said, "If I have achieved nothing else to-day, the thousands of handbills and catalogues which I have distributed in towns and villages en route has made the Manchester convoy worth while."

Demonstrations were given in numerous centres, one of the most successful being at Bedford, where a civic reception had been arranged, and where the Mayor was supported by a local manufacturer and vice-president of R.M.A., Mr. J. T. Mould, of the Igran Electric Co., Ltd.

So far the convoy has achieved its object of announcing to Leicester, some half-dozen centres of equal importance and double the number of smaller towns, the fact that radio is going to Manchester this week.

By far the smartest work from a publicity

point of view has been achieved by C.A.C. Radio, who have two vans in the convoy.

On the first is the "Heart's Content," the plane in which Mollison flew the Atlantic. On the second are the wings of the plane.

Prompt Arrival

The final stages of the convoy were continued on Tuesday, and the vans arrived at the City Hall, Manchester, prompt to time.

It is estimated that 50,000 people saw the parade of vans.

Ashbourne schoolchildren were given a half-holiday in order to view the display.

Every town employing automatic traffic signals disconnected them as the Convoy arrived.

A flight of three aeroplanes escorted the Convoy on the last stages of its journey, the pilots being Mr. H. Diggle, Northern representative for Celestion, Mr. Hall, and Flight-Lieut. Hattersly.

On arrival at Manchester the vans were inspected by a committee consisting of Messrs. T. Barratt, Chairman of Manchester W.R.A.; J. R. Carter, Vice-Chairman, Manchester W.R.A. and Secretary, North-Western Area Executive; H. G. Jenkinson and H. Nightingale, Joint Secretaries, Manchester W.R.A.

Prizes, consisting of silver-framed photographs of the vans, were awarded to Lotus for the best publicity van, and Kolster-Brandes for the van best featuring the exhibition.

Smartest Van

Exide won the prize for the neatest and smartest van on arrival, with G.E.C. a close second.

The civic welcome at Manchester was postponed until Wednesday, and took place at 10.30 a.m., the Convoy delivering a letter of greeting from the Mayor of Derby to the Lord Mayor of Manchester.



ZENITH VICE-PRESIDENT ON BRITISH RADIO

In the opinion of Mr. Paul B. Klugh, Vice-President and General Manager of Zenith Radio Corporation of U.S.A., which company now has a stake in the Radio Manufacturing Industry in this country through Zetavox Radio and Television Co., Ltd., and its sole concessionaire, Kenneth Brooks (Radio

and Television), Ltd., there are two points of outstanding interest which have attracted his attention during his visit.

British manufacturers, according to Mr. Klugh, have an enormous advantage over their U.S.A. contemporaries in the matter of price control.

In the U.S.A. price control is illegal.

"When I see in THE BROADCASTER dealers and factors being compelled to apologise to the extent of a full advertisement for cutting the price of a product," said Mr. Klugh, "then I am frankly envious."

"Our laws do not allow us to control prices in any way or to form trade associations for the same purpose. So far as Zetavox products in this country are concerned, we propose to take full advantage of our powers to uphold our list prices."

On the other hand, Mr. Klugh sees the valve situation and the uncertainty of the

licensing arrangements as the weakest features of British radio.

"We have come into this market," said Mr. Klugh, "by accepting at the outset the conditions of trading here. We have accepted both the valve and licensing situations."

Mr. Klugh is fond of a good cigar, and over an excellent "smoke" confided to THE BROADCASTER his opinion that the sale of valves in this country would suffer from the same complaint as has the sale of cigars.

"I pay more than double for my cigars in this country compared to U.S.A. prices. The same applies to the valve. At the same time I have accepted those conditions, and Zetavox will abide by them in this country and use only British valves."

So far as the licensing conditions were concerned, Mr. Klugh was mainly interested in the question of uncertainty.

"What is to happen next year?" he asked.

Definite Policy

"In the States we have a definite policy under which each maker knows he will operate until—I speak from memory—roughly 1938.

Asked his verdict on the activities of his own company in the U.K. up to the present, Mr. Klugh expressed himself as thoroughly satisfied. "But I am much more interested," he said, "in what Zetavox will be like in five years' time than I am in this year's profits."

Mr. Klugh, as already stated in THE BROADCASTER, is one of the representatives of the American R.M.A. at the Madrid Conference, and left London for Madrid last Thursday.

BRISTOL RADIO TRADE ENTERTAINS THE PRESS

"NO TOWN IN ENGLAND RECEIVES MORE PUBLICITY"

A number of the exhibitors at the West of England Radio Exhibition and members of the Bristol radio trade entertained the Press at a supper on Friday, September 23, at the Full Moon Hotel, Bristol.

Mr. W. G. Sutton, secretary of the Bristol branch of the W.R.A., presided, and said they were glad to have as their guests that night representatives of the lay and trade Press. No town in England received more publicity in the Press where radio was concerned than Bristol.

Mr. A. G. Lewis (Blue Spot), proposing the toast of "The Press," said no guest could be more welcome to the Bristol trade than members of the Press, who had so generously helped the Radio Trade.

Mr. J. Booth, organiser of the W.R.A., supporting the toast, remarked that he was not sure if the trade realised the value of the great amount of publicity which the Press had given it.

Mr. A. L. C. Evers, news editor of the *Bristol Evening Post*, responding, referred to the spirit which the radio trade was showing in these trying times.

"Spirit of Enterprise"

If every trade showed the same spirit of enterprise the amount of unemployment in the country would be reduced.

Mr. R. T. Lewis, managing editor of the *Bristol Evening World*, who also responded, said the Bristol radio trade had set an example to every town in the country.

Mr. J. Thomas, THE BROADCASTER Bristol correspondent, responded for the Trade Press.

Mr. J. Mitchell (Cossor) proposed the toast of "The Chairman," and Mr. J. Booth supported.

Mr. W. G. Sutton, responding, said he was amply repaid for anything he had done if they had all enjoyed themselves that evening.

RADIO SOCIETY MAY BE ALTERED

COUNCIL AFFECTED

At an extraordinary general meeting of the Radio Society of Great Britain, to be held at the Institute of Electrical Engineers, at 6.15 p.m. on October 21, a resolution for the alteration of the Articles of Association is to be proposed.

The object of the proposal is chiefly to ensure that the Articles shall be construed with reference to the provisions of the Companies Act, 1929, and not the Companies (Consolidation) Act, 1908, as hitherto.

It will also be proposed that in future there shall be only Honorary Members, Members and Associates.

The proposed article regarding candidates for membership does not contain the provisions that they shall be over 21, shall have been engaged in research or experimental work for two years, and shall satisfy the Council that they possess necessary qualifications or training.

The constitution of the Council may also be slightly altered.

The reorganisation meeting of the Swansea centre of W.R.A., which was fixed tentatively for September 21, has been deferred.

FOUR NEW BRANCHES AND THIRTY MORE W.R.A. MEMBERS



The whole of the executive staff of E.K. Cole, Ltd., have gone to Manchester. Here they are seen with Mr. J. W. Gilbert, of Woburn, who is also in Manchester. Left to Right: Mrs. Ivce Smith, Messrs. J. W. Gilbert, W. S. Verrells, Barry Kay, W. M. York.

AN EDITOR'S VIEW OF OLYMPIA

FURTHER SEGREGATION OF FACTORS' STANDS

At the meeting of the Radio Industry Luncheon Club, held on Wednesday, September 21, at the Connaught Rooms, Great Queen Street, W.C.2, Mr. E. M. Lee in amusing terms introduced the speaker for the occasion, Mr. S. G. Willby, Editor of *The Wireless Trader*, who recounted his impressions of Radiolympia.

Among the points dealt with were the date of the Show and a suggested show for the Trade only, at an earlier date than Olympia.

Later Closing

Mr. Willby advocated a further segregation of the wholesalers in a position easily seen by the trade visitor.

In view of the success of the demonstration theatres, he considered 10 p.m. too early for closing time. Retail stands, he thought, were undesirable.

A fitting vote of thanks was proposed by Mr. W. J. Salaman, and a vote of thanks to the chair by Mr. Edgar Houghton.

The next regular luncheon will be held on Wednesday, October 26, at the usual time.

LANCASHIRE DEALERS TAKE CUSTOMERS TO MANCHESTER

Numbers of Lancashire retailers are organising motor-coach parties to visit the Northern National Radio Exhibition at the City Hall, Manchester.

Parties of twenty or more persons can obtain admission to the show at the reduced price of 1s. instead of 1s. 6d. per person.

Dealers are quoting an inclusive figure to cover the return journey and admission to the Exhibition.

BRISTOL LUNCH CLUB

The Bristol Radio Trade Lunch Club has changed its venue, and in future the fortnightly gathering will be held at the Full Moon Hotel, North Street, City.

The next lunch will be held on Monday next, October 3.

East London Joins National Body

Thirty new members and four new branches were announced at a meeting of the National Council of the W.R.A., held on Wednesday, September 28, at 2.15, at Anderton's Hotel, Fleet Street, London, E.C.4.

The new branches have been formed at Wolverhampton, West Bromwich, Bourne-mouth, and East London.

Resolutions forwarded from the branches of the Association were discussed at some length.

H.-P. Scheme

Considerable time was also given to considering the recommendations of the Executive Committee.

It was reported that progress is being made with the H.-P. scheme for members.

Further development and expansion of the scheme under which Associated Radio Products, Ltd., are making receivers for sale only through members of the W.R.A., were also reported.

MAJOR H. C. BOBBETT

PORTSMOUTH CHAIRMAN'S SUDDEN ILLNESS

While on a visit to his daughter in London last week, Major H. C. Bobbett, the Chairman of the Portsmouth branch of the W.R.A., was taken seriously ill.

Major Bobbett was about to enter his car to return to Portsmouth when he suddenly collapsed. He had not been in the best of health for some time.

The usual meeting of the branch, which should have been held on Monday, was accordingly postponed. The best wishes of the members go out to Major Bobbett for a speedy recovery.

A. B. BROWN'S EXHIBITION CONTEST

ATTENDANCE FORECAST

A. B. Brown and Son, of Whiteladies Road, Bristol, who were exhibitors at the Bristol Radio Exhibition, ran a competition for visitors to their stand.

On application to the attendant at the stand, visitors were given a form, and on this they were asked to place their estimate of the attendance at the exhibition from Tuesday to Saturday.

For the correct or nearest correct estimate Brown and Son offered a three-valve set as prize.

HIRE-PURCHASE PRINCIPLES

The technique and less generally understood principles of hire purchase will be discussed by an expert at the next meeting of the Manchester W.R.A., to be held on Monday, October 17.

Arrangements have been made for the attendance of the secretary of a finance corporation, who will be willing to answer any questions that may be put to him by radio dealers.



Ian Donald, a Hendon dealer, entered this striking van in the Industrial Procession during Hendon's Charter Celebrations.

S. LONDON VIEW A.R.P. PRODUCTIONS

WEST MIDDLESEX MEETING POSTPONED

Seldom has a secretary received so many congratulations as did E. G. Mayhew at the South London W.R.A. meeting held at the Surrey Masonic Hall, Camberwell, on Tuesday.

An open meeting, timed for 7.30, the special attraction was a complete range of A.R.P. products.

Under the able demonstration of Messrs. J. S. Clark and A. W. Moir, the goods were made to speak for themselves.

A considerable number of orders were placed by dealers as a result of the demonstration.

It is thought that an increase in membership will certainly result from this meeting.

A Few Faithful

A few only of the faithful put in an appearance at the West Middlesex W.R.A. meeting on Tuesday at the Y.M.C.A. Rooms, Ealing.

The grievances under which the trade suffered were discussed.

At 9.30, a quorum not being present, the meeting stood postponed.

THREE NEW PHILCO FACTORS APPOINTED

Additions to the list of exclusive Philco distributors were announced last week.

Kent, Surrey and East Sussex are now covered by Philco Southern Distributors, Ltd., of 40, Station Road, Redhill, Surrey (Redhill 124).

Dealers in Ulster will be able to obtain supplies from Philco Distributors (Ulster), of 50, Bedford Street, Belfast (Tel.: 6557), and in the Irish Free State from Chas. F. Huet, of 106, Middle Abbey Street, Dublin 4 (Tel.: 43144).

CLARION SET STOLEN

A Clarion receiver was stolen from the car of Mr. S. M. Hades, a salesman of the British Clarion Co., Ltd., when he left his car for a few moments in the Hackney Road, London, during the afternoon of September 27.

The door of the car was forced open, and no sign of the thieves was left.

Dealers are asked to communicate with the company if the set, serial number 106754/695, comes to their notice.

North London Brighter Meetings Drive

Lectures Already Arranged

As a contribution towards the brightening up of the North London W.R.A. branch meetings, Mr. T. M. Petrie suggested, at the meeting held at the Alpha Café, Finsbury Park, on Tuesday evening, that members should undertake in turn to discuss points of topical trade interest reported in the weekly Trade Press.

"We have two splendidly conducted Trade papers in THE BROADCASTER and the *Trader*," he said.

Explaining his suggestion, Mr. Petrie pointed to several matters in the week's news which warranted further discussion.

He referred to the fact that the Luton W.R.A. Branch had agreed upon a minimum price for charging accumulators.

The N. London Branch, he said, had never decided upon a line of action where charges were concerned. The hiring out of accumulators tended to restrict sales, and almost amounted to unfair trading.

Help a Hospital?

He congratulated Manchester upon their joint action in presenting an inscribed wireless set to a local hospital.

"Is there a member of the North London Branch bold enough to make such a proposal for a London hospital?" he asked.

A resolution was unanimously passed "that the N. London Branch notes with pleasure and satisfaction the fact that the East London W.T.A. has decided to formulate itself a branch of the W.R.A., believing that such a step will add to the prestige of the association and benefit our own immediate circles."

Mr. Sam Weller reported that he had made good progress with regard to the suggestion of running a series of lectures on prominent trade matters. Several lecturers had offered their services, and it was hoped to start the series on October 25, with a talk on rectifiers.

On October 11, the principal feature of the meeting is to be a display of A.R.P. sets and accessories.

H.-P. Questions

Much of the time of the meeting on Tuesday was taken up with a discussion on various forms of hire-purchase agreements evolved by manufacturers and wholesalers.

Mr. Weller pointed out that it was the manufacturer, not the dealer, who first introduced hire-purchase. Yet the dealer was expected to shoulder the burden.

On the strength of the information collected by the Branch, a note is being sent to all members, offering information, pointers and advice if they will communicate with the secretary.

Pursuing the branch's membership campaign, a series of four circulars has been prepared, and these are to be mailed to 300 non-members in the area at regular fortnightly intervals.

Hon. Secretary: Mr. Sam Weller, 508, Hornsey Road, London, N.19.



One of the two window displays Eta are issuing to the trade. The complete display is available, packed into a box.

REVISED COSSOR H.P. TERMS

HOW TO ARRANGE PAYMENT FOR ACCESSORIES

Revised hire-purchase terms for their products are being introduced by A. C. Cossor, Ltd., of Highbury Grove, London, N.5.

Now, for example, the battery model of the Empire kit, which sells at £6, is obtainable for 15s. down with seven monthly payments of 15s.

The terms for the Melody Maker kit, selling at £7, are 14s. deposit with nine payments of 14s.

When it is desired to supply batteries, speakers and so on under inclusive H.P. agreements, 10 per cent. should be added to the list price of the goods, and the total sum divided equally between deposit and payments laid down for the instrument in question.

The extra goods supplied must, of course, be Cossor products.

MACNAMARA HAS THROAT OPERATION

BACK TO WORK SOON

Mr. A. W. Macnamara, managing director of the Telsen Electric Co., Ltd., Birmingham, is recovering from the effects of a minor operation to the throat.

He hopes to resume business after an absence of three weeks very shortly. He stated that he is making a complete recovery.

Recently the directors and shareholders of the Telsen Company insured Mr. Macnamara's life for £100,000.

REGENTONE GLASGOW DEPOT

Regentone, Ltd., the well-known manufacturers of mains sets and apparatus, have recently established a Glasgow depot.

The firm's representative at their new establishment is Mr. E. Turnbull, and his office is situated at 10, Commercial Chambers, Renfrew Street, Glasgow.

Dealers can 'phone Douglas 5780, and will be able to obtain immediate supplies, as the depot carries a complete range of stock for local requirements.

LITHAUER FIRE

The statement in the issue of September 24, that the premises of Mr. I. J. Lithauer, at 18, Ganton Street, London, W.1, had been burnt down, was incorrect.

The fire occurred on the adjoining premises and only one wall of Mr. Lithauer's offices was slightly damaged. Business has not been affected in any way.

The Broadcaster & WIRELESS RETAILER

GENERAL OFFICES: 93, LONG ACRE,
LONDON, W.C.2.

Telephone: Temple Bar 2468 (30 lines)

Telegrams: Broadcaster,
Southernwood, Rand. London

Manchester Office: 2, Chester St. (City 0303)

MANCHESTER

THE Radio Convoy, improved organization of the Exhibition itself, and better publicity in the North of England have all combined this year to produce a better Manchester Radio Show.

One point of interest with regard to Manchester is the fact that a uniform colour scheme similar to Olympia is not insisted upon.

We have heard particularly this year many opinions expressed for and against the latitude which is allowed to exhibitors at Manchester, both in the matter of stand design and in the use of colour.

Frankly, we do not think that a uniform colour scheme is either advisable or possible at Manchester.

It is inevitable that the Manchester Show must be in the nature of an "echo of Olympia."

A uniform colour scheme at the City Hall would undoubtedly accentuate this disadvantage.

Because of posters, window displays, exterior showrooms of firms not exhibiting at the City Hall, public address vans, the Ekco Show at the Paramount Theatre and the Marconiphone at the Albert Hall, one cannot travel far within the boundaries of the City without realising that this is Manchester's Exhibition Week.

RECORD RUMPUS

CONSIDERABLE "fog" surrounds the action of the record manufacturing companies' action in banning public performance of records.

No definite statement of any real value can be elicited from them.

It would appear, however, that the problem really involves a divergency of views between record makers and the Performing Right Society.

So far as THE BROADCASTER can understand this decidedly obscure position at the moment, the record firms maintain that they have both copyright and patent interests in their own records, and that they are entitled to some sort of return from those rights.

We are inclined to agree.

As a first step, they have definitely forbidden performance of records in public without making any exceptions or offering any conditions under which such performances may take place.

This is a step with which THE BROADCASTER decidedly and definite disagrees.

It is a ban which, in our opinion, record makers cannot maintain, and which will only cause ill-feeling between the Radio and Gramophone Industries.

NORTHERN LIGHTS

Manchester W.R.A.'s Gesture: A Very Junior Partner: Pye

Patter; E.T.A. Valves' Stiff Test:

Walnut or Coconut?

WHAT with their local Illuminations and the Northern Radio Exhibition at Manchester, Blackpool dealers should be having one of the most successful sales periods of their year in the next week or so.

I am told that 300,000 people are expected to visit the Illuminations at Blackpool, and I am also optimistic of the number of visitors to the Radio Show.

* * *

In the sweet name of charity, Manchester dealers are to subscribe 5s. each, with which to purchase a three-valve radio receiver, to be installed, as a gift, in the crippled children's ward of the Pendlebury Hospital.

The question arose at Monday's meeting of the branch as to the type and make of set to be purchased. Eventually a vote was taken of about five trade names—and Ultra won.

An inscription plate will be affixed on this receiver. It will be on view at the W.R.A. stand at the Northern National Radio Exhibition. Arrangements are being made for the receiver to be handed over to the hospital authorities with befitting ceremony.

* * *

I am always specially interested to hear that a Trade friend has decided to strike out on his own.

Now, Mr. William Riley, who founded the Radio department of the Murdoch Trading Co., and resigned his position as manager of it in June, has done so. His firm, Wm. Riley and Son (Manufacturers and Distributors), is situated at 51, Farringdon Road, E.C.1.

I understand that the "Son," who is only five, is already giving his orders.

* * *

Did you receive a nonsensical little leaflet about Pye's removal to Africa House? It mixed up radio with elephants and gave one visions of business men setting addresses to music and singing them.

I found out later that the humorist was none other than K. R. G. Browne.

Now here's a promise to radio firms: employ K. R. G. Browne—or any other good humorist—to write your advertisements, and I'll read them!

* * *

Apropos the present cult of the dual speaker, Mr. W. A. Bliss, of Redcar, Yorks, tells me of an interesting experiment he carried out six years ago.

So as to match his output valve he decided to use two speaker units of the type then fitted to the Bullphone posthorn model in parallel.

One he fitted with a mahogany horn 3 ft. long, and the other with an H.M.V. horn 4 ft. in length.

It so happened that he first used the speakers at a military tattoo. It seemed, he

says, that the metal horn handled the "brass" while the mahogany horn dealt with the drums.

The results were startlingly realistic—for those days.

* * *

Listen to this.

A West Country dealer urgently required a special set of Eta valves. Stocks of one type were temporarily depleted so, in record time, a parcel of the valves was despatched from the firm's Paris factory by air.

On landing at Croydon something went wrong and the plane was seriously damaged. Mr. F. B. Carrodus, Eta S.M., on getting the news, immediately sent a technical man to the aerodrome.

There a badly torn packet was recovered



How Philips contribution to the Convoy did NOT look—an amusing sketch from the current "Philips News."

from the wreck. The valves were taken out and tested on the spot. Every one was in perfect condition.

They were at once repacked and despatched to the dealer. An epic of service and proof of the strength of the valves, eh?

* * *

Here's congratulations to Mr. Horace Shackleton and Miss Ellen Spink, who were married at Holy Trinity Church, Burnley, last Saturday, September 24.

Among the presents the pair received was an electric standard lamp from Mr. Shackleton's colleagues at J. G. Coates, Ltd., the factors.

* * *

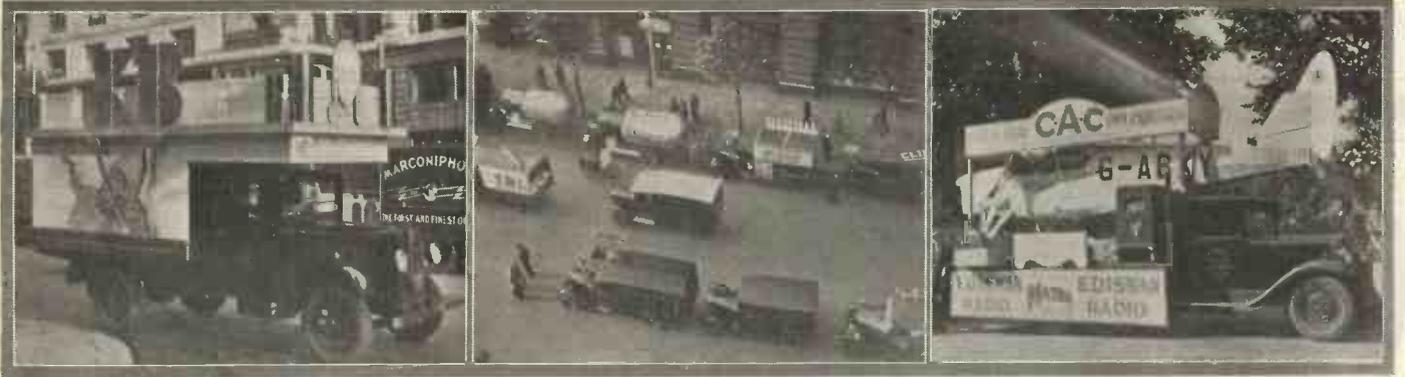
To have constructed the smallest radio set in the world—one that fits into a nutshell—is the claim of an 18-years-old Italian youth.

It is stated the receiver is the result of months of arduous toil, but nothing is said of the size of the nut.

If it is something of the size of a walnut, it is a remarkable achievement, but there are such things as cocoanuts.

And long ago a British manufacturer built a receiver into a hat which could still be worn.

The Speaker.



Close-ups of the London-Manchester radio van Convoy (story on page 33). Left, the Kolster-Brandes van which won the Manchester W.R.A. prize for the best van featuring the Exhibition. Centre, an overhead "shot" from the R.M.A. offices in Aldwych, London, before the start. Right, Mollinson's plane, "Heart's Content" on the C.A.C. van.

REPRODUCTION of RECORDS in PUBLIC

The Position Examined

FOLLOWING the issue by the E.M.I. record manufacturers—His Master's Voice, Columbia, and Zonophone—of the new "Warning," a number of questions have been put by THE BROADCASTER to various record makers to ascertain the position as it affects the Radio Trade.

The wording of the warning is:—

"CAUTION.—' His Master's Voice ' gramophone records are manufactured under British, Irish Free State, Australian and New Zealand patents, and are licensed for sale only at authorised prices, and only for private performance. Any sale at other than authorised prices, or any unauthorised broadcasting or public performance of such records, constitutes an infringement of the above-mentioned patents, and will render the infringer liable to an action at law. Copyright subsists in records by virtue of the Copyright Act of 1911. The Company reserves all its rights under Copyright Law."

According to the Patent Department of the Gramophone Co., Ltd., reliance is placed upon the Copyright Act of 1911, and upon patents involved in the actual manufacture of gramophone records.

The Copyright Act

The Copyright Act is divided into three parts. Part 1 deals with Imperial Copyright, Part 2 with International Copyright, and Part 3 with Supplemental Provisions.

Copyright is defined under the Act as the sole right to reproduce a work or any substantial part of it—" and shall include the sole right—in the case of a literary, dramatic, or musical work—to make any record, perforated roll, cinematograph film, or other contrivance by means of which the work may be mechanically performed or delivered, and to authorise any such Acts as aforesaid."

Clause 2, Sub-section 2, states that infringement takes place if any person sells, hires, or offers for sale or "by way of trade exhibits in public" any work which to his knowledge infringes copyright.

" Copyright in a work shall also be deemed to be infringed by any person who for his private profit permits a theatre or

other place of entertainment to be used for the performance in public of the work without the consent of the owner of the copyright, unless he was not aware, and had no reasonable ground for suspecting that the performance would be an infringement of copyright."

The normal life of a copyright is fifty years after the death of the author.

Section 19 of the Act, which has eight sub-clauses, deals specifically with records and has particular application to the question of radio performance of records.

How Records Come In

" Copyright shall subsist in records, perforated rolls, and other contrivances by means of which sounds may be mechanically reproduced, in like manner as if such contrivances were musical works, but the term of copyright shall be fifty years from the making of the original plate from which that contrivance was directly or indirectly derived, and the person who was the owner of such original plate at the time when such plate was made shall be deemed to be the author of the work, and, where such owner is a body corporate, the body corporate shall be deemed for the purposes of this Act to reside within the parts of His Majesty's Dominions to which this Act extends if it has established a place of business within such parts.

" It shall not be deemed to be an infringement of copyright in any musical work for any person to make within the parts of His Majesty's Dominions to which this Act extends records, perforated

rolls, or other contrivances by means of which the work may be mechanically performed, if such person proves:—

(a) That such contrivances have previously been made by, or with the consent, or acquiescence of, the owner of the copyright in the work; and

(b) That he has given the prescribed notice of his intention to make the contrivances, and has paid in the prescribed manner to, or for the benefit of, the owner of the copyright in the work Royalties in respect of all such contrivances sold by him, calculated at the rate hereinafter mentioned."

Royalty Point

The Royalty rate given is 2½ per cent. of the retail price of the record when the " contrivance " is sold within two years of the commencement of the Act (July 1, 1912), and " in the case of contrivances sold after expiration of that period, five per cent."

The Board of Trade is given power to increase or decrease the Royalty rate as a provisional measure to be confirmed by Parliament.

Interpretation

Clause 35 of the Act deals with interpretation, and states that " performance " means " any acoustic representations of a work and any visual representations of any dramatic action in a work including such representation made by means of any mechanical instrument."

" Plate " includes any stereotype or other plate, mould, transfer or matrix by which records are produced.

A full examination of the Copyright Act as it affects the electrical and radio reproduction of records will be published next week.

* * *

Statements of the position regarding the reproduction of records in public reflecting the views of the various companies concerned are given on page 31 of this issue.

Some of the reasons for the move are given, and a statement from the Performing Right Society is reproduced.

The full conditions and provisions of the Performing Right Society licence are also detailed.

A leading article on the whole position appears opposite.

MANCHESTER REPORT

(See page 95)

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THE ENTIRELY 1933

HOW THE ANNUAL HELPS YOU :

Here are a few typical questions among the hundreds that are likely to crop up and to which the Trade Annual provides immediate answers.

What are the copyright regulations concerning the use of radio music for dance halls? Is 9in. by 16 in. a standard panel size?

What is the procedure for forming a company?

What firms make receiver kits?

What is the comparative surface resistance of ebonite?

How do I register my business name?

What is the safe current for .064 in. bare copper wire?

Where can I obtain fieldless coils?

What are the voltages required for mains units in neighbouring districts?

The
Broadcaster
& WIRELESS RETAILER

RADIO & GRAMOPHONE

NEW EDITION of this greatest TRADE REFERENCE BOOK

● ORDER YOUR COPY NOW — LAST YEAR'S WHOLE FIRST EDITION WAS SOLD OUT IN THREE MONTHS. ●

IN October the greatest reference book ever offered to the trade—the 1933 edition of “The Broadcaster” Radio & Gramophone Trade Annual—will be available. Last year the whole of the first edition was sold out in the first 3 months of publication. The orders this year already exceed last year's. Order your copy now—and make sure of getting one at the time you want it.

In the 1933 Radio & Gramophone Trade Annual, the latest technical knowledge and the work of many years' research is presented in simple, easily-understood form. Its 300 pages give an immediate answer to the hundreds of questions which crop up every day in the course of business. They contain countless tips and practical points that will lead to increased sales.

You will find a complete review of radio trade conditions during the past 12 months, and hundreds of items of general and technical information, including: An extensive Service Section compiled by “The Broadcaster” Test Department, giving some very valuable Abac charts and solutions to repair and maintenance problems. Innumerable tables of statistics which include wave-length data for the main broadcast stations and a United Kingdom Supply Voltage date table. In addition, there is a technical dictionary. A hire purchase section. A trade directory and buyers'

guide section of 1,000 entries, occupying over 140 pages. This includes “The Broadcaster” Radio Trade Directory which has been so popular in the trade for the past eight years, No progressive Radio and Gramophone Dealer, wholesaler or Manufacturer, can afford to be without this invaluable work.

NEW FEATURES

The R.G.2 Radio Gramophone Licence.

An Electrical Survey of the Country showing the number of households on A.C. or D.C. and the number which are not electrified.

A “Who's Who” of the Radio and Gramophone Trade, and a Valve Chart, giving full technical data of the whole of the better makes of valves on the British market.

The Annual is handsomely bound in cloth boards, crown 8vo. size, and the price is 5/- to non-subscribers and 2/6 to subscribers of “The Broadcaster.”

Already there is a big demand for the Annual. Make sure of getting your copy by filling up and posting the Order Form below.

TRADE ANNUAL

ORDER FORM

To the Publishers,
The “Broadcaster Radio and Gramophone Trade Annual”
93, Long Acre, London, W.C.2.

Please reserve and forward post free, when published..... copy
of “The Broadcaster Annual, 1933” to the address below and invoice
me at the rate of *2/6 per copy as I am a subscriber to “The Broadcaster,”
5/- per copy as I am not a subscriber to “The Broadcaster.”

NAME

FIRM

ADDRESS

DATE

*Delete words which do not apply.
Post in an unsealed envelope bearing halfpenny stamp. B/C. 1-10-32.

Your Shop a Show

by John May

TO any radio dealer who has just completed stocking up his shop with 1933 models I would say, "Call it an exhibition!"

"There is nothing the British nation loves more than a show," a wise man said once. I am convinced he meant a radio show.

People who want to look at the new sets are shy of coming into a shop without money and the purpose to buy. But say you are running a radio show in your shop, and they will come in hundreds.

To many men a radio show is as magnetic as the spring sales are to women.

* * *

TO nine hundred and seventy odd names from the "Telephone Directory" a dealer friend of mine sent a simple invitation card.

It was under a halfpenny stamp, and requested the pleasure of the recipient's (name written in) company at a week's exhibition of radio.

No letter went with it. There was just the plain invitation on a pale blue card in a pale blue envelope.

Within a week that mail shot brought in over £500 of worth-while inquiries.

* * *

A FOLLOW-UP circular letter, which went out four or five days later, brought in another £70 of inquiries.

Of course, the two figures I give are not final. Inquiries will trickle in for weeks as a result of these two circulars.

And, as my friend reckons on a good two-thirds as his conversion coefficient from inquiries to sales, it looks as if he may sell £400 worth of goods.

* * *

THE circular, by the way, is well worth reproducing. Here it is:—

Dear Sir,

Have you seen Radiotown's own Radio Show yet?

It started last week, and is such a big success we are continuing it for days more.

All the latest 1933 instruments are on show, and the models exhibited have been specially chosen for their suitability for Radiotown.

You can come and hear any of these in a comfortable demonstration room, or you can have them demonstrated in your own home.

Any questions you have to ask will be answered by a salesman who knows all about the secrets of radio. Why not come along to-night? You will not be pestered to buy.

* * *

WHEN running a show of this kind the shop must naturally be furnished up for the occasion. It must look as if something is going on.

People must ask, just because they see it as they pass, "What's happening at the radio shop this week?"

It would not be a bad idea to have a huge poster on the building above the shop. It could bear the words "Radio Show," and at night should be flood-lit.

* * *

ONE bright little stunt at the Olympia Exhibition was the fake coins used to advertise the Ekco show.

They were circular pieces of cardboard,

Coming Events

Details of any future event of interest to the Wireless Trade are invited for inclusion in this feature

Monday,	Oct.	3-	Brighton Radio Exhibition	...	...	Georgian Rooms, The Regent Theatre, Brighton.
Monday,	"	8				
Monday,	"	3	Wolverhampton Mass Meeting.	...	...	Chamber of Trade.
Monday,	"	3	Rochdale W.R.A. ...	...	...	Grosvenor Hotel, Bristol.
Monday,	"	3	3 p.m. Western Area Council	...	...	Full Moon Hotel, North St.
Monday,	"	3	Bristol Luncheon ...	...	...	Wattle Lounge, Preston St.
Tuesday,	"	4	8 p.m. Brighton W.R.A. ...	...	...	Armytage Hall, 224, Great Portland St., London, W.1.
Wednesday,	"	5	3.30 p.m. Music, Gramophone and Radio Trade Conference.			
Tuesday,	"	11-	Scottish National Radio Exhibition	...	...	Edinburgh.
Tuesday,	"	22				
Tuesday,	"	11	8.15 p.m. Watford W.R.A.	...	...	6, Derby Road.
Tuesday,	"	11	8.30 p.m. Bristol W.R.A. Annual meeting.	...	...	Crown and Dove Hotel.
Tuesday,	"	11	8.30 p.m. N. London W.R.A.	...	...	Alpha Café, Finsbury Park.
Friday,	"	14-	Nice Wireless and Gramophone Exhibition	...	...	Nice.
Saturday,	"	22-				
Saturday,	"	29	Cambridge W.R.A. Exhibition	...	...	Guildhall.
Tuesday,	"	25	7.30 p.m. Colchester W.R.A.	...	...	Joscelin Café.
Wednesday,	"	26	Radio Industries Luncheon Club Luncheon.	...	...	Connaught Rooms, Great Queen Street, W.C.2.

printed one side with a replica of an early Victorian penny and the other with an advertising message.

Scattered on the floor, many people picked them up, thinking themselves a penny better off—till they felt the weight and saw the message on the other side.

This idea could be used at any local show.

mind of the recipient with the sales promotion matter he has previously received and thus prevents waste of effort.

But while there should be a family resemblance, there should be novelty as well, or you kill your chances by boring your "prospect."

* * *

HAVE you realised that the pages of your local paper are an invaluable source of information when you are compiling a mailing list?

Not only will you find names and addresses there, but information about the owners which will often give you a good lead for a sales argument.

It would pay any wide-awake retailer to have a regular search made in all his local Trade papers every week for this kind of opportunity.

* * *

NUMBERS of retailers have been asking for lay-outs for folders and pamphlets lately. Here is a warning for them.

One fundamental error made in his early attempts by the user of printed sales promotion matter is cramping the cost.

He does not look at the problem as would the production manager of a factory. He does not ask himself: "What percentage of the cost must I put aside for material?"

Almost invariably he asks, "What is the cheapest quotation I can get for the job?"

This is the wrong way to look at printing. Even the best BROADCASTER-designed lay-outs will not pull if they are badly printed.

SHORT WAVE TESTS SOON

It is the intention of the B.B.C. to radiate test transmissions from the Empire short-wave station at Daventry before the end of the year.

If these tests prove satisfactory, there will be a full service for the Dominions and Colonies before the summer of 1933.

In the initial stages of the service the B.B.C. will endeavour to provide a programme of about two hours' duration between the hours of 6 p.m. and midnight, local time.

For this purpose the Empire has been divided into zones, and three distinct programmes will be radiated on different wavelengths at different times of the day.

SALES LETTERS.

A LARGE number of dealers are writing and asking me for sales letters without saying what they want them to deal with. Others are asking for a letter dealing with as many as six things.

Sales letters must have a subject. The dealer who asks for a letter probably has one in mind. He should mention it in his request.

Too many subjects lead one to shoot at six sales and miss all the lot. It is better to aim at one only and hit the bull's-eye.

P.S.—Sometimes a subsidiary matter can be mentioned profitably in a P.S.

IT pays to keep a careful check on results from postal advertising. Most interesting facts can be learned.

Of course, you will find that certain seasons of the year give the best results. But you will find that certain copy pulls like a Clydesdale, while some other appeal brings nothing like satisfactory results.

And you will find that printed salesmanship, intelligently used, is of far more use to your business than you suspected.

* * *

YOU will find, too, that the first "shot" is only part of the campaign. Direct mail, like all advertising, should be kept up to give the best results.

The thoughtful dealer, when planning his first letter will also plan his follow-up, whether he decides to send out two, three or four successive letters.

Broadly speaking, it may be said that all the shots in a mailing campaign should bear a family resemblance so far as type display is concerned. This links the product up in the

YOU get more than a weekly trade newspaper when you subscribe to "Broadcaster." You get a free Information and Advice Service second to none in the Radio Industry. Read below exactly what this means and how it can help your business.

If you are the one radio dealer in Britain—there cannot be more than one—who wants neither money nor more time, there is no need for you to read this.

If, however, you are just human, five minutes spent reading what THE BROADCASTER does for its subscribers may save you considerable time, trouble and money.

Whatever quandary a reader of BROADCASTER finds himself in, he has access to all BROADCASTER'S wisdom for advice; whatever query faces him, the whole of BROADCASTER'S sources of information are at his disposal.

That the advice and information are of good quality is proven by customers that come again.

Every week of the year some hundreds of dealers pick up their receivers, ask for Temple Bar 2468 (London), and are put through to Extension 241. Many more who are further afield write to BROADCASTER INFORMATION BUREAU, at 93, Long Acre, London, W.C.2.

Dealers in distant districts in a hurry send wires to BROADCASTER, Southernwood, Rand, London, and get a reply in an hour or two.

A dozen or so more every week call personally with their problems when they happen to be in Town. We like meeting our readers, and so look forward to early closing day.

Exhibitions are better still. The same information and advice are available at THE BROADCASTER'S Stand.

"What kind of advice and information?" you ask.



TECHNICAL ADVICE

Most common among requests from readers are those for technical advice. As such requests usually entail consideration of wiring diagrams we cannot deal with technical inquiries by telephone.

They can be as intricate as you like on paper, and we do not mind—providing full details of components being used, circuit, and so forth, are sent with the query.

THE BROADCASTER LABORATORIES specialise in solving the reasons for the most queer antics on the part of sets. They are expert in the diagnosis of the cause of whistles, howls, yells and bellows.

What they do not like is working out an electrical equation with six unknown quantities and only one vague "known."

There are other queries beside the technical sort, of course. Many concern the names and addresses and trade marks of manufacturers.

The polite telephonist on the end of Extension 241 gets every hour:—

- "Who makes the Silent speaker?"
- "Where can I get an 'X.Y.Z.' set?"
- "What is the address of No-ohm, Ltd.?"
- "Are Busters still in business?"

Most of the questions he can answer right away. Sometimes he has to look up his files. And when the inquiry is about some particularly obscure firm or product, he may promise to find out and 'phone later. But whatever

At Your Service!



happens, the question is satisfactorily answered.

Some retailers who are attracted by the idea of financial magnate-ism try to induce it in themselves by running their own H.P. schemes. We do our best to help them by providing the names of reliable financing houses.

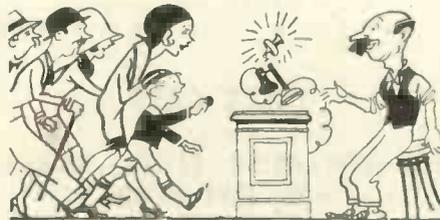
Others with political ambitions and ideas wish to know the name and address of the local secretary of the nearest retail association. We are always pleased to help them on their way to Parliament.

Readers overseas at times inquire for agencies. We pass their names to manufacturers at home, and so help forge another link in the chain of Empire.

As BROADCASTER readers are the smartest men in the country at their jobs, many require no assistance in matters above mentioned.

But no man can be a specialist in everything, so where we cannot help a reader in one way, sometimes we can help him in another.

Often, for example, a man who is past-master with a soldering iron is not so slick with printed salesmanship.



CUSTOM CATCHING IDEAS

If he wants a circular letter drafted, he need only put the facts before THE BROADCASTER.

A layout for an advertisement is as readily provided as a circuit for a set.

Anything we can do to bring the customers rushing into his shop (with the idea of buying), we are ready and willing to do.

Window display ideas do not come too freely to some dealers. But if they are BROADCASTER readers, they can save themselves many grey hairs by asking the Service Bureau for suggestions for display settings.

Some lucky traders have won competitions with window ideas supplied by BROADCASTER experts. All who use them win approval and more custom from their "prospects."

Retailers who have started employing outside salesmen have found our advice useful. So have retailers with insurance problems.

In fact, there are very few matters which affect a retail shop about which the Information Bureau has not at some time answered a query.

No matter how hard to solve the problem is either. No amount of trouble is too great for the Bureau to take in helping a reader.

A genuine case of "something for nothing" is seldom found these days. Especially when the something is worth having. But this is what BROADCASTER Service is. It is entirely free to every bona-fide retailer who pays his 7s. 6d. subscription to BROADCASTER.

What this 7s. 6d. brings in the way of a weekly newspaper is worth examining also.



LETTERS TO THE EDITOR

Many a subscriber gets back more than the cost of his subscription by writing a letter to the Editor for publication in "The Letter Bag." (This week, pages 45 and 46.) Letters published in this lively section are paid for at usual rates.

Not that this is the only part of the paper which pays a dealer a dividend.

Many pages every week are devoted to descriptions of the latest lines brought out. In every case a date is given when deliveries will be available.

Much money which might be spent on stock which would later be superseded can be saved by study of these details, many retailers find.

The "Test Report" section (this week on pages 50 and 53) helps again in this way. No dealer can personally test everything he wants to buy for stock. But he knows he can rely on what the BROADCASTER LABORATORIES say.

Time is saved in many ways. Apart from the news which keeps a man up-to-date in trade movements, there are such services as the "Poster Postage Saving" pages.

As will be seen from pages 54 and 55 this week, these enable a retailer to order the new posters he wants by filling in and sending one coupon to BROADCASTER instead of writing letters to a score of manufacturers.

Articles on service, selling, repair work—we could continue *ad lib.* a description of what goes in BROADCASTER.

No description can give a dealer a really fair idea of the paper, however. He must read it regularly to appreciate it.

Nobody can say that under 2d. a week is dear. In fact, BROADCASTER at 7s. 6d. a year is one of the biggest bargains the retailer has ever been offered.

COMPETITIVE MAINS SET

BRITISH GENERAL CO.'S
SCREEN-GRID
THREE

ENERGISED M.-C. SPEAKER

Supplies: Within a week.

To meet the competition in the popularly priced mains set market, the British General Manufacturing Co., Ltd., of Brockley Works, Tyrwhitt Road, Brockley, London, S.E.4, have produced a S.G.3 mains set at £14 10s.

The set is housed in a two-colour table cabinet of modern design, and follows modern practice in that it is chassis-constructed.

Pentode Output

Reproduction is through an energised moving-coil speaker driven by a pentode output stage.

Covering both long and short waves, the set is tuned by a single-dial illuminated control. Selectivity can be regulated by the provision of three aerial tappings.

Sockets have been provided for the attachment of a pick-up, and there are also facilities for the addition of an external speaker.

Valve rectification is used.

CLARION CABINET

FOR SET DESCRIBED IN "PRACTICAL WIRELESS"

Supplies: Since September 24.

Clarion Radio Furniture, of 28-38, Mansford-street, London, E.2, are manufacturing a cabinet specially designed to house the "Dolphin Three" transportable receiver described in the September 24 issue of *Practical Wireless*.

Oak Cabinet

The cabinet is of oak, and has the control panel above the speaker fret, which is modernistic in design.

A feature is the provision of a wooden chassis, which will take the baseboard, speaker and frame aerial. This unit can be easily removed and replaced in the cabinet, and thus facilitates construction.

The cabinet sells at 19s. 9d., and the chassis at 7s. 6d.

SIMPLE STATION FINDING CHART

INEXPENSIVE LINE

Supplies: Immediately.

A station-finding calibrator based on a simple indicating method has been introduced by Wireless Calibrator, of 11, St. Bride's Avenue, Fleet Street, London, E.C.4.

The principle of the calibrator lies in finding the dial readings of two key stations, and positioning a special scale to correspond with these. Thereafter this can be used to distinguish other stations.

Both long and short waves are covered, and the calibrator is printed on stout cardboard. The price is 1s.

Z. Electric Lamps and Supplies Co., Ltd., have opened a new branch at 62, Dingwall Road, Croydon.

SUPER CAPACITY H.T. BATTERIES

BY S. SMITH

Construction Under High Pressure Process

Supplies: Now available.

Super types of "Anodex" H.T. batteries manufactured by S. Smith and Sons (Motor Accessories), Ltd., of Cricklewood Works, Cricklewood, London, N.W.2, are now available.

It will be remembered that "Anodex" batteries were first introduced at Radiolympia, and details and prices published in the August 27 issue of *THE BROADCASTER*.

The ranges now introduced consist of Extra Power and Triple Power.

Extra Power

The Extra Power series comprise SA plus 66, SA plus 99, and SA plus 108, which give voltages to correspond to the type designation. They cost 8s. 6d., 13s. and 14s. each respectively. Tappings are arranged at 15 and every 3 volts.

Triple Power types are TSA60, TSA105, and TSA120, retailing at 12s., 21s., and 24s. each respectively. These batteries have 6, 9, and 12 tappings respectively.

Grid Bias Types

Grid-bias batteries are also available. Type GS9 gives 9 volts and is tapped at every 1½ volt, while GS16½ gives 16½ volts. This battery is also tapped at every 1½ volt. They cost 1s. and 1s. 9d.

In the manufacture of "Anodex" batteries it is stated that a special high-pressure process is employed, while patented connecting wires are used for inter-cell connections.

NUVOLION PRODUCE P.M. SPEAKER

SEAMLESS MOULDED CONE

Supplies: Since September 17.

Following the introduction of their energised moving-coil speaker, Nuvolion Electric, Ltd., of Meredith Yard, Park Crescent, Clapham Park Road, London, S.W.4, have now produced a P.M. version.

This has a flux density of 7,200 lines per sq. cm., and is fitted with a cobalt steel magnet of the two-claw type.

A seamless moulded cone is used, and a feature is that the cone and speech-coil former are moulded in one piece as in the energised model.

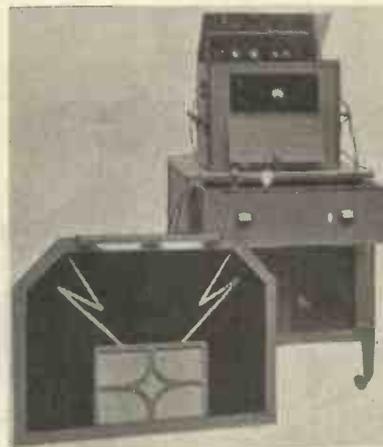
The speaker is constructed on a pressed steel chassis, and is fitted with a universal transformer. The speaker sells at 35s.

INTERNATIONAL EXHIBITION OF INVENTIONS

The International Exhibition of Inventions, organised by the Institute of Patentees (Inc.), is to be held at the Central Hall, Westminster, S.W.1, from October 5 to October 15.

The exhibition is to be opened by the Lord Mayor of London (Sir Maurice Jenks), at 12.15 on October 5. The show will open daily at 11 p.m.

C. Jones, junr., has moved from Aston's Quay to 26, Pearse Street, Dublin.



The three stage amplifier and speaker to be used in the National Broadcasting Contest. The speaker is a Celestion "Auditorium" model. Story on page 56.

Agency Scheme for Receiver from Wm. Riley

Supplies: Immediately.

The first product of a recently formed organisation—Wm. Riley and Son, of 51, Farringdon Road, London, E.C.1, is a three-valve all-electric set.

The circuit incorporated comprises two screened-grid and pentode power stages. Valve rectification is used.

Chassis Built

Chassis-built, the set is housed in a walnut table cabinet, and is guaranteed for 12 months. The cabinet itself is of two-tone walnut and is modern in design.

Pick-up connections are provided, and alternative aerial sockets enable selectivity to be varied.

The set sells at £15 15s. with B.V.A. valves and at £14 14s. with non-ring valves. An agency scheme is being applied to the sales of the set.

EELEX CARD

FOR DISPLAYING PLUGS, SOCKETS AND TEST PRODS

J. J. Eastick and Sons, of Eelex House, 118, Bunhill Row, E.C.1, are providing display cards holding their plugs, sockets and testing prods.

Cards holding the plugs and sockets are available in two sizes—one holding six dozen and the other three dozen.

The testing prods are carded in three pairs at a time. The cards are provided free of charge.

COLOUR CODING FOR BULGIN FUSES

As from now the range of cartridge fuses manufactured by A. F. Bulgin and Co., Ltd., will be available with their values coded in colour.

This is in addition to the marked ratings. The fuses are available in ratings from 60 m.a. to 3 amps.

NO OTHER RADIO

GIVES SUCH PERFORMANCE

AT SO REASONABLE A COST

AND YIELDS **SO HIGH A**

PROFIT FOR

DEALERS



There is nothing hit-or-miss about Tecalemit Radio. Its name stands too high in other great industrial fields to permit that. In performance it is in the forefront of radio development; in price absolutely in keeping with to-day's economic needs. In addition its modern factory is organised to meet any demand and a sound trading policy assures dealers the fullest measure of support. These convincing facts prove its soundness and stability.

★ Tecalemit profits are different from any other. Not only the usual discount of 33 $\frac{1}{3}$ % plus 5% — **THERE IS SOMETHING MORE!** Hundreds of the keenest buyers in the trade have been intrigued by these unique terms. So will you. Get to know what they are! **USE THIS COUPON NOW!**

TECALEMIT RADIO

RETAILING AT **£16 - 16 - 0**

To TECALEMIT RADIO COMPANY,
 (Proprietors: Tecalemit Ltd.)
 Great West Road, Brentford, Middlesex.
 Phone: Ealing 6138.
 Please send me full details of your Special Trade Terms.

Name.....
 Address.....

FOR BONA-FIDE MEMBERS OF THE TRADE ONLY.

B.1

D.C. "Falcon" from Mains Radio

16 Gn. Model's Efficient Smoothing

Supplies: October 10.

A D.C. model of their "Falcon" self-contained three-valve receiver is to be introduced by Mains Radio Manufacturing Co., of 103a, Parchmore Road, Thornton Heath, Surrey. The A.C. Falcon was described in the September 3 issue of THE BROADCASTER.

Smoothing in the D.C. model is claimed to be of a high order. The receiver is suitable for operation from 200/250 volts only. It retails at 16 guineas.

Multi-mu Stage

Circuit arrangement of the "Falcon" comprises a variable-mu screen-grid H.F. stage, followed by a detector and pentode output. A parallel-fed high-inductance transformer is used in the output stage.

The set is built upon a cadmium-plated steel chassis and is housed in an attractive walnut cabinet.

Provision is made for the use of gramophone pick-up, which can be switched in if desired.

SINCLAIR M.-C. SPEAKER

FIELD WINDING TAPPED TO GIVE ALTERNATIVE RESISTANCES

Supplies: Immediately.

An energised moving-coil speaker is now being marketed by Sinclair Speakers, of Caledonia Street, London, W.1.

This speaker has an unusual feature in that the energising field winding is tapped to give resistances of 2,000, 2,250, 2,500, 2,750, and 3,000 ohms.

The speaker has also a fuse inserted in series with the winding.

Built on a pressed-steel chassis, the speaker has a moulded cone centred by a conventional spider arrangement.

An input transformer is mounted on the chassis, and the complete unit sells at 30s.

M.-L. GRAMOPHONE MOTOR AND TRANSFORMERS

SELF-STARTING TYPE SOON

Supplies: Within three weeks.

The M.-L. synchronous gramophone motor, introduced by Rotax, Ltd., of Willesden Junction, London, N.W.10, at Olympia, will be marketed at £2 10s.

This motor is of compact design, and runs at 79 r.p.m. Operating current is 200-250 volts 50 cycles.

At present the motor is started by giving the turntable a slight twist, but it is understood that a self-starting model will be available shortly.

Rotax mains transformers, which will be available within three weeks, have also had their prices fixed.

These transformers are made in three models for use with Westinghouse metal rectifiers H.T.8 and H.T.9. Four-volt windings are also provided.

In the advertisement of A. J. Balcombe, of 52-8, Tabernacle Street, London, E.C.2, in THE BROADCASTER last week, it was stated that the firm was marketing all mains Alba receivers from £14, and radio-gramophones from £16. These prices should have been 14 gns. and 16 gns. respectively.



The Lumophon W.23 receiver is notable for its use of "direct coupling" which is stated to be very efficient.

"DIRECT COUPLING" IN LUMOPHON W. 23

Supplies: Almost Immediately.

"Direct coupling" is used in the new Lumophon W.23 receiver, produced by British Lumophon, Ltd., of Stal House, Judd Street, London, W.C.1.

This method of connecting the anode of an L.F. valve straight to the grid of the following valve without intermediary coupling element is stated to have the advantage of independence of frequency.

In the W.23 two S.G. stages are followed by a pentode output valve; the set is for mains operation, and employs a rectifier valve.

Moulded Escutcheon

Chassis built, the W.23 is housed in an attractive walnut cabinet and is fitted with a moulded escutcheon plate.

Selectivity control is effected by a potentiometer device in the aerial input circuit; this control is also combined with the on-off switch.

Pick-up sockets are fitted, and the set may be used on a mains aerial.

An energised moving-coil speaker is part of the equipment of the set, which retails at 15 gns.

The terminal strip on the rear of the chassis also provides for the attachment of an external speaker.

IMPROVED CELESTION PPM STANDARD SPEAKER

Several improvements have been made in the construction of the PPM Standard permanent-magnet moving-coil speaker manufactured by Celestion, Ltd., of London Road, Kingston-on-Thames.

An improved universal transformer will in future be fitted, allowing the speaker to be accurately matched to both power and pentode valves. Also, an improved "Hyflex" moulded diaphragm will be used in place of the present type.

Outside Suspension

A feature is the fact that an outside suspension will replace the internal metal suspension used at present, and a special speech coil with a moulded former will give added reliability.

The improved model has been renamed the PPM19, but the price will remain at 47s. 6d.

The PPM19 was released to-day, and all orders in hand will be satisfied by this improved model.

'One Knob Control' Receiver

Hardy Electrical Co.'s Battery Three

Modern construction, giving very smart appearance, are two features of a range of receivers which are being produced by the Hardy Electrical Co., of Worpole Way, Acton Vale, London, W.3, for sale by other firms.

The first is a battery-three, employing band-pass tuning, and detector and 2 L.F. valves. The latter are resistance and transformer coupled respectively.

There is only one knob on the front of the set. The control of the two ganged condensers has concentric knobs for reaction and switching.

The set is chassis-built, with screened coils, on very clean, symmetrical lines.

Alone, the chassis sells to the trade at 30s. Complete in a walnut cabinet with a P.M. speaker, valves and Exide batteries, it is only 65s.

A.C. Chassis

Next is an A.C. chassis employing a band-pass screen-grid, detector and pentode circuit.

Simple control is again a feature. The tuning condensers are ganged, there is no reaction control, and the one-volume control also operates on record reproduction, a connection for a pick-up being provided.

A wavelength calibrated scale is fitted, and it is claimed that it is really accurate.

The standard chassis sells to the trade at £3 15s. Models are obtainable slightly modified to suit special requirements.

Last in the range is a D.C. model which is similar in all essentials to the A.C. chassis.

The manufacturers claim a very high standard of performance for these sets, and are pleased to give demonstrations.

J. W. BOWLEY MAINS AND BATTERY SETS

RELEASE SHORTLY

Supplies: Shortly.

Two mains sets and two battery models are shortly to be introduced by J. W. Bowley, of 28, Mossbury Road, Clapham Junction, London, S.W.

No prices have yet been fixed, but it is understood that they will be competitive.

A two-valve all-mains set will be an item of interest in the new range. This will incorporate detector and pentode stages, and will drive a moving-coil speaker of the energised type.

Chassis-built, the set will be housed in a walnut table cabinet. Pick-up sockets are provided, and the set may be operated from a mains aerial.

The second mains instrument is a three-valve radiogram housed in a walnut pedestal cabinet.

The circuit used in this receiver will comprise S.G./H.F., detector, and pentode output stages. The chassis will have plugs fitted to take an extra speaker, and the turntable will be driven by an electric motor.

Of the battery sets, one will be a straight three-valve transportable holding a frame aerial. Provision will also be made, however, for attaching exterior aerial and earth to the set.

The same set will be available in a pedestal type cabinet, but will not be fitted with a frame aerial.



Before leaving the Ediswan works, every battery is tested for amperage. This girl tests hundreds every day.

FAIR PLAY FOR RELAYS

NEWPORT'S ATTITUDE CRITICISED

SIR,—In last week's issue of THE BROADCASTER it is reported that the Newport W.R.A. expressed appreciation that a certain local paper refused an invitation to attend the opening dinner of a relay company, consequently precluding it obtaining any publicity.

Is this fair? I say no, definitely!

Take a reliable two-valve all-mains receiver at £10. At 2s. weekly it would take two years to pay for.

Comparisons

The actual market value of such a set at the end of two years would be practically nil, so that the owner would have almost worthless property.

With a good relay service you can have alternate programmes for a small sum—usually 1s. 6d. weekly.

This is a free country, and the public can have receiving sets or relay at will. Let the two compete fairly and openly.

GEOFFREY D. HOWSE.

Swindon.

DEALERS WHO FINANCE OWN H.P.

Sir,—I notice in the columns of your journal the announcement that certain firms are now prepared to relieve the radio dealer of all responsibility with regard to hire-purchase transactions, neither deducting an accommodation fee, or expecting the dealer to shoulder any of the loss on sets returned by defaulters.

Where is this going to end, and how does the dealer fare who finances his own credit transactions? It seems that he loses all the advantage that he previously enjoyed by reason of paying his accounts with cash instead of hire-purchase notes.

Which would the manufacturer rather have—cash, or an agreement? If the answer is obviously cash, then he who pays cash should receive an advantage, and this must take the form of an accommodation fee to the dealer who pays with an agreement.

My opinion is that extended payments are the affair of the dealer and not the manufacturer.

HIRE PURCHASE.

EXPORT MISTAKES MADE BY OUR MANUFACTURERS

Indian Market Will Expand Rapidly Says Lahore Retailer

SIR,—It would appear that although the radio business is booming in Britain, British firms are not getting their fair share of overseas markets. It is interesting to try and discover the reason or reasons.

Goods usually are not bought because:—

- (1) They are unsuitable.
- (2) Unattractively got up.
- (3) Too high in price.
- (4) Insufficiently advertised by the maker or the dealer.
- (5) The dealer will not sell them.

Applying the above to the market in North India, let me give my opinion, remembering that our nearest transmitter (2½ kw.) is 875 miles away.

(1) I know of no reasonably priced set, with the possible exception of the Philips 2802 (selling at about £22, with batteries, etc.), suited to our peculiar requirements. We want something to receive short, medium and long waves. Quality is not so important as quantity, so to speak.

Component Faults

Components are legion, of course, but even the best makers send out unimpregnated transformers and condensers filled with tar. A temperature of 115 deg. in the shade and a humidity of 85 or more do not help keep these in good condition.

(2) The usual British carton never arrives whole, and one is lucky if the contents are undamaged. Thin bakelite cases are neat but not particularly strong, and it is asking for trouble to put a 3-lb. transformer in a one-sixteenth inch bakelite shroud. Lurid greens and reds do not always attract, as one well-known firm seems to imagine.

(3) Prices are far too high. We pay 50 per cent. duty on c.i.f. prices. After all, the overseas dealer cannot 'phone or send a postcard when he is short of stock, and must, therefore, be overloaded if he is to supply even the majority of the needs of his customers. This means so much dead capital.

Coupled with high prices, I would mention too wide a selection. Take valves, for instance. How can any dealer in a small way ever hope to stock the 1,001 types available? Isn't there much to be said for the American idea?

(4) In this country people are inherently conservative, and ask for and accept only such goods as they see advertised in the usual popular magazines. Blue Spot speakers out-sell all others. Lissen and Telsen products and Mullard valves all go well.

Boom Soon

The dealer naturally stocks what he can sell, and is disinclined to push lines of probably equal merit that are, however, comparatively unknown. The manufacturer who nurses India for a time will reap his reward. Wireless will boom out here within the next three years.

(5) There are many reasons for the refusal of dealers to handle any but certain lines. One of them is the question of sole agencies.

Personally I strongly object to selling articles on which some other firm is drawing a rake-off, although the chances are ten to one they have no stocks themselves. Manufacturers should give the same discounts on all direct orders from accredited firms

but should resolutely discountenance dabblers. It is very common for some back-street bazaar firm to adopt a high-sounding title and print impressive stationery and get away with it. They never by any chance maintain prices and are content to take 5 per cent. profit.

There is also the question of damaged goods. To return the damaged article to England and to pay the charges on the replacement kill the profit. It would be preferable to allow an extra discount to cover small claims. This is done by some American manufacturers in the case of valves.

Data Needed

Finally, the British manufacturer seems to forget that a picture carries very little weight with a technical man. Only to-day we have received a leaflet from London dealing with a pick-up. It omits to state:—Performance curve, weight on needle, whether there is any provision for feather-weighting, impedance, discounts.

Let the British manufacturer remember that trade in England is not always going to be as good as at present, and although our orders are almost negligible just now they will rapidly expand.

P.p. Parco,
B. J. SILVER.

Lahore.

BIRMINGHAM BATTERY H.P. SCHEME

"VERY SUCCESSFUL"

SIR,—I was interested to note in your last issue that the Birmingham W.R.A. had decided to adopt a scheme whereby dry batteries may be purchased by small additional payments in conjunction with the hire-purchase of receivers.

I may state that in my own business I have had the scheme in operation now for the last two years, and have found it very effective and successful.

I say to my customers: "You ought to pay an extra shilling per week, together with your payment towards H.T. batteries," and after having explained to them that the average life of a dry battery is approximately three months, and that 1s. per week for each quarter will purchase a good H.T. battery, they invariably fall in with the idea.

"RAMBLER."

MAKERS' SELLING METHODS

SIR,—It is time that the methods used by many manufacturers in selling their products to the dealer were criticised.

The makers referred to are those who have a staff of salesmen on the road and at the same time sell through factors.

I am not criticising the manufacturers for seeing that their goods are adequately pushed, but I do believe the methods in question could be considerably improved.

A dealer should have one source of supply—either through the manufacturer or factor, but never both.

"CRITIC."

(More Letters on page 46)

Simplifying the Definition

Photograph Proof of Status

SIR,—I think the following single point is all that is necessary to define the *bona-fide* dealer.

In my opinion, "A person or firm should only be considered eligible for trade terms when in the occupation of business premises, a portion of which has been allotted entirely to the display of radio goods."

If this were adopted a number of people who are at present mixing trades would have to make some attempt to do the thing properly or drop out.

In the case of new accounts, manufacturers and wholesalers, when not represented on the spot, would have to ask for photographs of the premises before supplying any goods.

Makers' Attitude

I have made the above definition as concise as possible, for I think that these conditions are as much as the average manufacturer and wholesaler will agree to look for before doing business with anyone.

Unfortunately, there are too many wholesalers in the country who will send catalogues to anybody. Two friends of mine, one a haulage contractor and the other a draper, have recently received radio catalogues without asking for them from wholesalers with whom they do business.

In this town (with a population of 2,500) the following people supply radio goods:—

A railway booking clerk, a hairdresser, a fishmonger, two electricians living in private houses with no other place of business, a rate collector, a retired saddler still using his old address, a school teacher, and four garages, not one of which makes any sort of radio show

"HOPEFUL."

RECORD SOCIETIES

DANGER OF OVERDOING NEW SELLING IDEA

SIR,—May I ask, through your columns, the recording companies not to lose their heads and overdo this record society business? Five have already been launched.

All dealers, I'm sure, appreciate the heavy cost involved in securing world-renowned artistes to record compositions by famous composers.

Nevertheless, if the idea is overdone the custom of the poor man, who buys his classical discs one at a time, will be lost. He is bound to be annoyed when he is informed that he must subscribe 42s. immediately and wait several months for the records.

Annoying Clients

Again, the client who desires a particular sonata, for instance, will only be annoyed when told that he cannot have it, as only a limited number was issued to private subscribers.

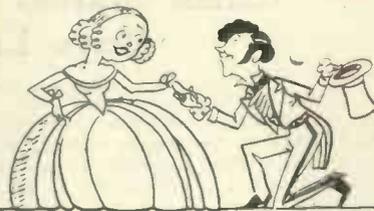
The suggestion I offer the companies is that if they continue developing the societies, they should, after several months, make the records available to the general public.

If the idea were adopted, all would benefit. The companies would lose few subscribers, their ultimate sales would be greater, and the public would be pleased.

H. L. M.

London, W.1.

A Proposal



—to make radio a better trade to work in is only of use if the Industry is told about it.

Many a scheme is born to blush unseen. But yours need not.

Write a letter to the Editor for publication. We pay for all letters published on this page.

ANOTHER FIELD FOR BATTERY SET MAKERS

SIR,—Referring to your leader concerning the lack of battery sets, we are being asked continually for a four-valve table model (without a speaker) employing one screen-grid H.F. valve, a detector, and resistance and transformer coupled L.F. stages.

We are at a loss to know what to offer except the Burndept Screened Four (by the 1928 company) and the same firm's Universal V.

Big Demand

Is there anything like these available now? If not, will manufacturers supply the need? There certainly would be a big demand for a set if its price was within the reach of middle-class pockets.

There are thousands to whom A.C. or D.C. mains are not available, and may not be for years yet. Besides, what better silent H.T. is there than one gets from wet batteries?

We trust that some manufacturers will respond and offer something good to the Trade.

SHORT AND THORN.

Exmouth.

CURE FOR SWELLED HEADS

DEALER STATUS

SIR,—Who has given us this inflated idea about ourselves? Most retailers are in the Wireless Trade to get bread and a little butter: I do not think it quite fair to compare us with the medical profession.

We have not a fraction of the responsibility of a doctor; our training does not cost a fraction of what he pays to get the letters M.D.

If it were such a skilled profession, should we have so many successful dabblers?

I wonder if a string of letters after a dealer's name will prevent the local public from purchasing sets from the Co-op., or a friend who knows a friend in the Trade?

E. E. S.

Watford.

W. Area Council Situation

Next Meeting to Decide Fate?

SIR,—The next meeting of the Western Area Council is due on October 3, and it may be that the future of the Council will be decided by this meeting.

The meeting called for the early part of the present month had to be abandoned, owing to the fact that there was not a sufficient number of members present to form a quorum.

Besides wasting the time of the officials and those delegates who do attend, a farce of this description tends to bring ridicule upon the Council, and also upon the Association of which it forms a part.

Must Be Active

If the Council cannot function it is far better that it should be wiped out entirely. The sole reason for its existence is that it should be active on behalf of the retail trade in the West of England.

It was formed as a body to which the W.R.A. branches in the territory could bring their troubles and complaints. The Council could make recommendations and suggestions regarding these, and could in certain cases arrange for combined action by the branches to eliminate a particular evil.

If the Council were an active body it could perform a very useful function, and would help to weld the retail trade of the West together, but if it is going to be a Council in name only it is useless for this purpose.

For this reason the next meeting will be an important one, and if the branches have any interest in the future of the Council, and if they feel that its existence is of value to the retail trade then they will be represented at the meeting in full strength.

"A RETAILER."

TELL THE WORLD!

CLEVER RETAILERS WHO HIDE THEIR LIGHT

SIR,—Since my criticism of Medway dealers in THE BROADCASTER it has been brought to my notice that a number of dealers have placed a misconstruction on my remarks. It is suggested that my criticism constituted a reflection on the dealers' technical knowledge and ability.

No such reflection was intended.

I should be the last to suggest that the dealers in this area are technically inefficient.

Experts

I know that the majority of them are experts at their job.

My contention was, and still is, that they, and possibly others elsewhere, do not "tell the world" of their technical ability.

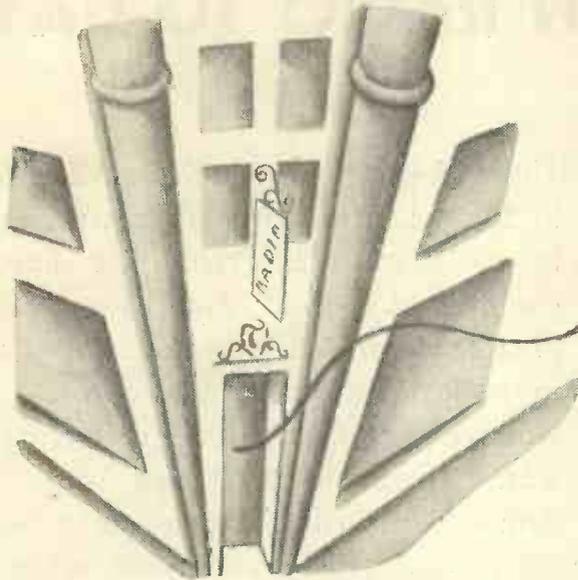
A potential customer who knows but little of the technicalities of radio feels more comfortable if he knows a dealer in whose guidance he can place implicit faith.

A dealer cannot hope to get at these "prospects" unless he uses some diverting publicity campaign.

How few Medway dealers appreciate this point!

C. A. BASSETT,
Medway Towns Correspondent to
THE BROADCASTER.

68, Clive Road,
Rochester.



"I don't want to complicate my stock—that's why I concentrate on PHILCO"

PHILCO MAKES YOUR JOB MUCH SIMPLER

No need to lock up your capital in stock that won't leave your shelves. No need to stock a dozen different makes when the Philco line covers all radio requirements. Concentrate on Philco and see how much simpler your job is! Philco 5-valve superhets are available for A.C. or D.C. mains and for battery users.

Luxury sets and Radiogram buyers have the model 256 5-valve Radiogram, the 71X. 7-valve set and the 71XL. 7-valve Radiogram to choose from. There's a short-wave converter for the long-distance fan! And an extension speaker. And last year's Philco Five T.R.F. Sets for those who won't pay more than 14 gns. What a line! Be solid for Philco—the firm who also look after your interests.

And your Customers can buy on Hire Purchase Terms.

All electric; 7 tuned circuits with single dial control, dual wave length—no leak between bands; 5 new Philco High Efficiency Valves; improved energised moving coil loudspeaker; illuminated dial; no reaction; chassis and tuning condenser floating on rubber; beautiful walnut cabinet. Amazing range and knife-edge selectivity; height 16½ ins.

BABY GRAND 16 GNS.
A.C. Model 56



A marvellous Radiogram incorporating the new Philco 5-valve superheterodyne chassis; energised moving coil speaker; new Philco valves; exclusive Philco pickup and tone-arm; dual wave length; illuminated dial; all-electric; executed in a distinctive and graceful walnut console cabinet. Height 41½ ins.

RADIOGRAM 35 GNS.
Model 256



Here are PHILCO'S EXCLUSIVE DISTRIBUTORS

- Brunwec, Ltd., 28, Cumberland Street, St. Paul's, Bristol. (North Wiltshire, Somerset, Gloucestershire—south of and excluding Stroud.) Phone: Bristol 20958.
- Cheshire and North Wales Manufacturing Co., Ltd., 161, Foregate Street, Chester. (South Cheshire, North Wales, Shropshire.) Phone: Chester 1873.
- Colmore Depot, 85, Station Street, Birmingham (Warwickshire, Worcestershire, Staffordshire and Northampton.) Phone: Birmingham, Midland 0062.
- Douglas Barton and Co., 62, Union Street, Plymouth. (Devon, Cornwall and Channel Isles.) Phone: Bristol 25815.
- Furse Wholesale Ltd., Traffic Street, Nottingham. (Nottinghamshire, Leicestershire, Derbyshire—South of Bakewell and Dronfield—South Lincolnshire and Peterborough.) Phone: Nottingham 8213.
- Irish Free State, Charles F. Huet, 106, Middle Abbey Street, Dublin. Phone: 43144.
- Kent, Surrey and East Sussex, Messrs. Philco Southern Distributors, Ltd., 40, Station Road, Redhill, Surrey. Phone: Redhill 124.
- Philco Distributors (Lancs.) Ltd., The Baum, Yorkshire Street, Rochdale. (Lancashire, North Cheshire and Isle of Man.) Phone: Rochdale 4151.
- Philco Distributors (Yorks) Ltd., 3, Queen Square, Leeds. (South Yorkshire and North Lincolnshire.) Phone: Leeds 27655.
- Philco Eastern Distributors, Ltd., 49, Spencer Street, St. Albans. (Bedfordshire, Buckinghamshire, Hertfordshire, Essex, Oxford and Berkshire.) Phone: St. Albans 1431.
- Philco East Anglian Distributors, Britannia Road, Norwich. (Norfolk, Suffolk, Huntingdon and Cambridge.) Phone: Thorpe 195.
- Philco Distributors (Ulster), 50, Bedford Street, Belfast. Phone: Belfast 6557.
- Radiovision Limited, 233, St. Vincent Street, Glasgow (Scotland.) Phone: Glasgow Central 3059.
- George Robinson and Son, Ltd., River Plate House, South Place, E.C.2. (Greater London, excluding Romford, Dartford, Leatherhead, Walton, Weybridge, Egham, Windsor, Slough), Phone: Metropolitan 5886.
- George Robinson and Son, Ltd., 7, Marton Road, Middlesbrough. (Middlesbrough and North Yorks, Durham, Westmorland, Cumberland and Northumberland.) Phone: Middlesbrough 2835.
- Watts (Factors), Ltd., Lydney, Glos. (South Wales, Monmouthshire, Herefordshire, North Gloucester.) Phone: Lydney 92.
- Wessex Service Factors, Ltd., 78a, Holdenhurst Road, Bournemouth. (South Wiltshire, West Sussex, Hampshire, Dorset, Isle of Wight.) Phone: Bournemouth 419.
- Philco Radio and Television Corporation of Great Britain, Ltd., 1, Argyll Street, London, W.1. (Handling Irish Free State, Direct.)

THE GREATEST VALUE IN RADIO TO-DAY!



Three Regentone Receivers each first in their class; each the greatest value in radio to-day! Prices low beyond comparison. And for that price, greater in efficiency, in appearance and in performance than any other. No wonder Regentone's large factory is working double to cope with the demand! Orders now mean early deliveries. It's worth your while to sell Regentone!



The Regentone "Straight Three" Receiver with Power Pentode Output. Three Valves, (Power Detector, L.F., Power Pentode Output) Westinghouse Metal Rectification, Moving-Coil Loud-speaker, Tone filter. Two-tone dark walnut, £12—or 30/- down, including B.V.A. Valves and royalties.



The Regentone Two-Valve Receiver with Power Pentode output. Two valves (detector and Power Pentode output) Westinghouse Metal Rectification. In handsome moulded bakelite cabinet, without speaker, complete, £6 15 0, or 20/- down. In two-tone dark walnut cabinet with built-in speaker, complete, £8, or 25/- down.



THE SYMBOL OF INDIVIDUAL CRAFTSMANSHIP.

REGENTONE LTD., Regentone House, 21 Bartlett's Buildings, Holborn Circus, London, E.C.4— Telephone : Central 8745 (5 lines).
Northern Distributors : W. E. Beardsall & Co., Victoria Bridge, Manchester.



Two processes in the making of valves at Ediswan's Brimsdown factory. Left is the metal spraying equipment and, right, capping machines.

Experts on Selectivity

RESEARCH BOARD AND SIDE-BAND THEORY

The findings of a committee appointed by the Radio Research Board to examine the properties of *High Selectivity Tone Corrected Radio Receiving Circuits* are given in a report published under that title by H.M. Stationery Office.

The committee set out to answer these two questions:—

Is the performance of highly selective receivers consistent with accepted theory?

What are the advantages or disadvantages of such receivers in relation to the practical problem of discriminating between wanted and unwanted transmissions?

With regard to the first, the committee find that super-selective circuits behave quite in accordance with the side band theory.

Practical Aspect

Passing to the practical aspect, the report defines two types of interference. With the first, the unwanted transmission is heard intelligibly. The second is due to interaction of the wanted carrier wave with the carrier wave and side bands of the unwanted station and is unintelligible.

The committee find that if the selectivity of the receiving circuit is increased sufficiently, the first type of interference can be cut out. In practice, however, the required degree of selectivity is not always permissible, due to conditions of circuit and transmission stability.

Interference

With the second kind of interference, increase of selectivity will only be beneficial if the interfering note is outside the audio-frequency range essential to satisfactory reproduction. Then the selectivity may be increased until the interference and some of the side bands are no longer received.

If the interference occurs in the audible range necessary for reproduction, it can only be reduced by special circuits sacrificing the particular frequencies on which it occurs. The reproduction will necessarily be impaired.

What the committee's findings mean is that a receiver can only give interference-free reception if its response is limited to audio-frequencies less than half the frequency difference between two neighbouring transmissions. The audio-frequency range of the transmitters must be similarly limited.

The minimum carrier frequency separation between stations is, therefore, ultimately dependent on the audio-frequency range considered necessary for satisfactory reproduction.

VARIED SELECTION IN PARLOPHONE DISC ISSUE

DARK BLUE LABEL. 10 inch. Price 2s. 6d.

Home Sweet Home (after Bishop). Parts 1 and 2. Patricia Rossborough (pianoforte) with orchestral accompaniment. R. 1289. We were more impressed with this disc than the label led us to expect. "Home Sweet Home" rendered on a pianoforte is rather apt to conjure up visions of early music lessons, but right from the commencement of playing this illusion was dispelled. The orchestra figures as much on the disc as the piano, more in fact, and some interesting variations are rendered. This rendering of the old melody introduces just the necessary modern touch to eliminate any suggestion of a hackneyed tune, and the disc should prove a good seller. Recording is just a trifle heavy at times, but is not unpleasant.

Thank You for the Flowers and Wherever You Are. Dinah Brook with orchestral accompaniment. R. 1295. Neither of these melodies need any introduction and although they are nearing the end of their life so far as dance tunes are concerned, this disc should still command good sales. Dinah Brook has a style all her own, and very clear diction. The orchestra is well worth listening to, while recording is of Parlophone's best.

Ooh that Kiss and The Seat Song (foxtrots). Harry Roy and his Rkolians. 1298. Both these numbers, which, by the way, are new, are quick foxtrots. They are rendered in a cheery style and are full of pep from start to finish, even the vocal refrains depart from the lethargic style to be found with most dance tunes. Dancers who like "hot stuff" will find the 2s. 6d. asked for this disc well repaid. Harry Roy and his Rkolians know their job. Recording is good.

Kunstlermarsch (Artist's March), played by the Vinobona Schrammel Quartet and Ich Musswieder Einmar in Grinzing Sein (I want to be in Grinzing once again). Franz Hoffmann (tenor) with Schrammel Quartet (sung in German). (Nos. 11 and 12 of "Music of all Nations" series). R. 1279. The value of this record lies merely in the fact that it goes towards the completion of a series. If it is typical of Austrian music (shades of the Viennese orchestras, forgive!) we prefer the much-derided English. Franz Hoffmann is harsh, and neither tune is very attractive. The quartette has the appeal of novelty only.

MULLARD P.A. VAN TO TOUR MANCHESTER

During the run of the Northern National Radio Exhibition at the City Hall, Manchester, the Mullard public address van is to make an ambitious tour of the city and the surrounding districts.

Further Mullard publicity is to be secured for the co-operation of the *Manchester Evening Chronicle*, which is to tie up with the tour whenever possible.

During August the Air Ministry placed an order for valves with G.E.C. Ltd., while the G.P.O. divided one for rectifiers between Westinghouse Brake and Saxby Signal Co., Ltd., and Edison Swan.

COLUMBIA R.A.F. FORMED

RADIO ADVERTISING FORCE STARTS CAMPAIGN

On Friday, September 23, dealers received a large card carrying just the wording—"Wanted, for the new R.A.F., all ambitious dealers to share in the new campaign for bigger radio business this season. Tomorrow! look for more about this."

That is the manner in which Columbia first introduced their new R.A.F.—Radio Advertising Force—scheme to the Trade.

"Contact"

The next day dealers received a large folded broadsheet with "Contact" on the cover. This told the story of the autumn radio sales "attack"—how Columbia intend to aid the trade with their support.

Then, on Monday, September 26, dealers received "The first shot in the new Columbia radio campaign." This contained details of the many national and provincial papers in which the firm's advertisements are to appear, with details of blocks which dealers can obtain for their own advertisements.

WIRELESS FOR THE BLIND

BURNE-JONES OBTAIN ANOTHER RECEIVER ORDER

Further orders have been placed with Burne-Jones and Co., Ltd., of Magnum House, Borough High Street, S.E.1, for radio sets for the use of the blind.

Already over 21,000 sets, including crystal, one-, two-, and three-valve sets, have been manufactured and distributed throughout the kingdom in connection with the British "Wireless for the Blind" fund.

The present contracts are for three-valve sets (det. and 2 L.F.), and also three-valve S.G. receivers.

GOLTONE INVITATION TO TRADE

Ward and Goldstone, Ltd., of Frederick Road (Pendleton), Manchester, as they are not exhibiting at Manchester are extending an invitation to dealers and their customers to visit the factory.

Their products are being shown by many of the leading wholesalers.

The firm with the Trade to know definitely that they do not make receivers.

NEW ZEALAND WIRING REGULATIONS

New radio wiring regulations came into force in New Zealand on June 10.

The regulations apply to apparatus which is used or adapted for radio reception or radio transmission or both, and which is, or is intended to be, connected directly or indirectly with a source of supply of electricity. Battery chargers and apparatus of a similar nature are also included.

Copies of the regulations are available for inspection and loan at the Department of Overseas Trade.

B.N.B. Wireless, Ltd., of 65, Renshaw Street, Liverpool, have been appointed sole distributors for Ireland for Grampian Reproducers, Ltd., of Station Avenue, Kew Gardens, Surrey. The B.N.B. Irish addresses are 9, Brunswick Street, Belfast, and 51, William Street, Dublin.

EDISON BELL SUPERHET FIVE PERFORMS WELL

Combined Detector and Oscillator Valve: Scales for Both Wavebands

Overall Dimensions	14½ in. × 21½ in. × 18½ in.
Wavelength Range	200-550, 850-1,950 metres
Loading	57.5 watts
Ripple Voltage	0.3 volts.
Price	25 gns.

THE Edison Bell five-valve superheterodyne is mounted in a very large cabinet of polished walnut. The top is rounded, and there is a moulding round the base.

Unusual Dial

A decorative grille is used for the speaker, and below it are three controls and two bakelite escutcheons, one for each of the two wavebands. An interesting dial is fitted, which gives a complete rotation. This is accomplished, of course, by a 2-1 step-up gearing.

The chassis is of pressed metal, spray-finished. On the top are the six valves, the two intermediate screened coils, and the triple gang condenser. A very interesting detail is the mounting of the pilot lamp on a pivoted lever that can be pulled forward to facilitate changing the lamp when required.

Connection is made to the mains by 6 ft. of flex fitted with a moulded plug and adaptor. There is a small removable plate at the back of the chassis, beneath which is the mains voltage adjuster. There are also sockets for aerial and earth, pick-up and external speaker. A plug provides for a mains aerial.

Moving-coil Speaker

The speaker is an Edison Bell energised moving-coil type. It is fitted with a large diaphragm which is exceptionally free, and it is fed by an input transformer that is much larger than usual.

The valve combination appears to consist of an initial stage of high-frequency amplification carried out by a variable- μ valve. An oscillating detector valve is used in the next stage, followed by an intermediate amplifier, a second detector, and a pentode output valve. The valves used are two Mullard MM4V's, a Mazda AC/SG, a Mullard 354V, a Mazda AC/PEN, and an Osram U.12 rectifier.

Very sound and sturdy construction characterises the set. The components are of good quality and are neatly assembled and mounted.

Control of the set is very easy, because there are only a single tuning knob and a volume control, in addition, of course, to the wave-change switch. The volume control switches the set off in the minimum position. The dials are reasonably accurately calibrated.

"Definitely Good"

The performance on both wavebands is definitely good. On the long waves all the main stations were received quite free from interference at good room strength. Zeesen was received with substantially no background from either 5XX or Radio Paris.

On the medium waveband the selectivity was good, although it was not quite as good as on the long waveband. We were unable to receive Stuttgart clear of London Regional at a distance of 10 miles.

The strength from all the usual Continental stations was ample for a large room, and the sensitivity was sufficient to give reasonable strength from some of the weaker transmissions. Considerable use had to be made of the volume control on all the usual powerful stations.

As regards quality, we found that there is a slight difference with the medium and long wavebands, due, presumably, to greater side-band cutting. The general nature of the reproduction is crisp and clear, with a reasonable amount of bass. The middle frequencies are well in evidence.

The reproduction is by no means coloured, and the general nature of the tone is such that it should make a very good appeal.

The set gives a very pleasing performance, and we think that, with its good appearance and reasonable price, it should sell easily.



Five valves, excluding the rectifier, are employed in an unorthodox circuit in this Edison Bell set.

STOKMAR MAINS STRIKING CLOCK

Overall Dimensions	9 in. × 5 in. × 12½ in.
Dial Diameter	6 in.
Insulation Resistance	Substantially infinity ...
Price	£4 10s.

A SYNCHRONOUS mains clock fitted with a striking mechanism is more than usually interesting. Under the name, "Stokmar," a range of these is made by Stockall, Marples and Co., Ltd., of 6, 8, and 10, Clerkenwell Road, London, E.C.1.

The model tested is a mantelpiece type mounted in a polished, relieved oak cabinet with a figured front and decorative edge. The dial is fitted with a handsome, chromium-plated bezel, and is itself silvered and provided with black letters.

A self-starting synchronous motor drives the hands through the usual hour train. For the striking mechanism the driving power is derived from a small barrel spring which is energised through the hand movement. Rotation of the hands, while the clock is working, winds up the spring.

From the striking point of view the clock behaves just like a spring model. There is the usual strike warning, and the mechanism employs, presumably, one of the conventional systems.

There is a red spot indicator which shows if the clock has stopped.

The clock is extremely well made throughout. Careful examination of the mechanism revealed that cut gears are used, and the mechanism is by no means a cheap production. Workmanship is of a very high order.

The motor is reasonably powerful and is able to drive the hands without the least suspicion of hunting. It must be remembered that although the motor is small, it is extremely powerful, as it operates through a reduction gearing. Quite appreciable force is required to rotate the hands, especially as they work against the action of the striking spring.

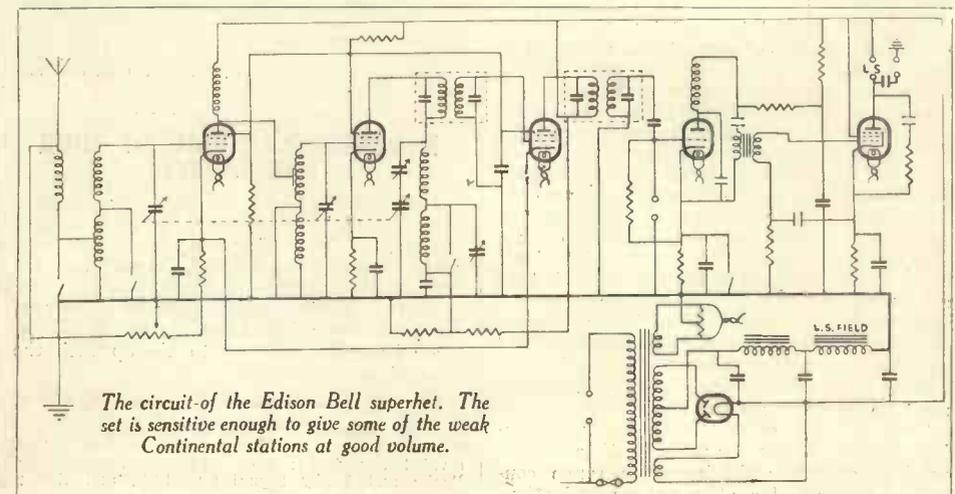
The fact that the motor is powerful enough to do this shows that there should be no possibility of it failing through carelessness, arising out of dust clogging the mechanism. The delicate part of the train in the region of the driving wheels is, in any case, completely enclosed, and therefore dustproof.

The insulation resistance and loading, which is negligible, are extremely satisfactory, as indicated in the table. The plug connection is a neat affair, and we regard the clock as a very good production from every point of view.

R. AND A "BANTAM"

The method of mounting the cone of the "Bantam" moving-coil speaker made by Reproducers and Amplifiers, of Wolverhampton, was not correctly described in the test report in the September 17 issue.

The ring used in the construction is not of cardboard, as stated, but is of leather board. It is not riveted to the chassis, but is clamped by six heavy gauge steel sectors which are riveted on with solid aluminum rivets.



The circuit of the Edison Bell superhet. The set is sensitive enough to give some of the weak Continental stations at good volume.

The Result of 7 years Specialisation

The famous

PPM

range of speakers



Not one, but a complete range, each speaker a masterpiece of design and construction.

Celestion's reputation is already well established, but their latest achievements, which are far in advance of anything they have yet produced, greatly enhance their popularity. Remarkable tonal quality, volume and sensitivity are the most outstanding features of the P.P.M. range, the wonderful Hyflex diaphragm, an invention that is available only for Celestion's speakers, ensures the outstanding results we claim being obtained.

On performance alone these speakers would sell, but backed as they are by an extensive advertising campaign, success is ensured.

Stock and sell these wonderful speakers and make certain of having a bumper season.

P.P.M.29.

The sensitivity of this speaker is really amazing. Tonal quality is remarkable, and because of its ability to handle tremendous volume, this instrument is recognised as a wonderful speaker achievement. Price 77/6, including universal transformer.

P.P.M. SOUNDEX CHASSIS.

The smallest of the Celestion range, even so its ability to handle tremendous volume is remarkable. Tonal quality and sensitivity are well up to Celestion's standard. Price 27/6, including universal transformer.

CABINETS.

All these speakers supplied in Cabinets designed on strikingly handsome lines. P.P.M.29 housing P.P.M.29 chassis, £6 6s., Oak £6 10s., Mahogany or Walnut. P.P.M.59 housing the P.P.M.9 chassis, 70/-, in Walnut only. P.P.M. Soundex Cabinet 50/-, Walnut only.

P.P.M.9.

A permanent magnet speaker that will give high standard reproduction at remarkable low costs. A famous Hyflex diaphragm and universal transformer are included. Price 35/-.

CELESTION

The Very Soul of Music

FOREMOST NAME IN SOUND REPRODUCTION

Gecophone D.C. Set's Robust Construction

EXCELLENT ALL ROUND PERFORMANCE GIVEN

HIGHLY SELECTIVE

Overall Dimensions 19½ in. x 18½ in. x 12½ in.
 Wavelength Range 200-560, 980-2,180 metres.
 Loading 66 watts.
 Price 23 guineas.

THE Gecophone Nomad four-valve D.C. receiver is one of the most solidly built we have yet examined. The cabinet is a very substantial affair, built on bold, modern lines from heavy walnut which has a dull finish. The grille is severe and follows the modern lines of the cabinet.

There is a deep, illuminated escutcheon, below which are three small knobs. One is a push-pull switch giving distant and local positions. On the right is a combined volume and on-off control, and to the left is a combined waveband and gramophone switch.

An energised moving-coil speaker is fitted, screwed to the baffle board in the usual manner. It has a fairly free cone and an input transformer of reasonable size.

The chassis is very rigidly built. On the top are mounted a three-gang condenser, the tuning coils and the valves, which are arranged in line. The voltage adjuster, large replaceable fuses, and some of the other components are also on the top.

At the back are plugs for pick-up, speaker, earth and two alternative aerial connections. The back consists of a thin sheet of wood with very large gauze-backed holes to minimise box resonance. The set is exceptionally sturdily built throughout.

Pleasing Reproduction

The performance is excellent. Dealing first with the quality, this is very crisp and clean and definitely free from marked resonances. The response falls away a little in the lowest bass, but the balance is extremely pleasing. Ample volume can be obtained for quite a large room without overloading.

On the long waves, all the main stations were received very easily without any trace of hum. There was no break-through from the medium waves whatever.

The better performance, however, is undoubtedly obtained on the medium waveband, when really excellent strength is obtained from many of the weak Continental stations. The local transmissions were easily separated, and a large number of stations received between them.

Neither of the London transmissions spread



A performance highly satisfactory in every way is given by the 23 gns. Nomad.

more than a few degrees over the dial. Toulouse, for example, was received perfectly clear of interference from Midland Regional. Stations such as Rome, Langenberg, and Fécamp all came in excellently.

All the controls have a nice action, and the set is accurately ganged. The overall amplification is very considerable, and it was almost

CIRCUITS FOR SET TESTS

Will manufacturers submitting receivers for test please supply, in addition to a catalogue describing each instrument, a copy of its circuit diagram?

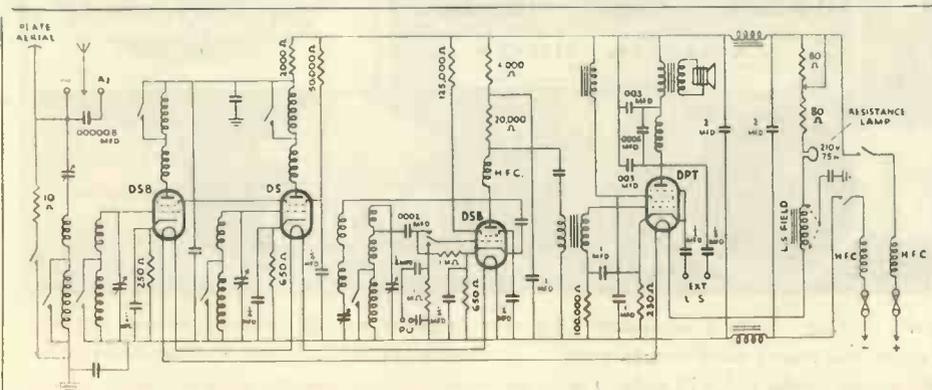
Circuit details will be regarded as confidential and for the use only of the Laboratories when desired.

Without knowledge of the circuit it is not possible to give an accurate description of an instrument.

Because of the value of circuits to retailers, manufacturers are urged to give permission for publication with Test Reports whenever possible.

impossible to make full use of the volume control except on extremely weak stations, when, however, the background tended to become rather excessive during our particular tests. Reaction is very smooth, although a little uncertain at one or two places on the long waves.

The Nomad is altogether an excellent proposition. It is made, of course, by the General Electric Co., Ltd., of Kingsway, W.C.2.



Three screen-grid valves—one of them the detector—and a pentode are employed in the Gecophone Nomad. All are types with 16-volt filaments.

BOOSTING THE BASS

Technical Hints and Tips

IN the normal parallel-feed L.F. circuit, a suitable value for the coupling condenser is .5 mfd.

When it is desired to obtain a resonance with the primary inductance to boost the bass values from .02 to .1 mfd. are required, however.

Particularly with mains sets, stimulating the bass frequently leads to trouble. Deficiencies in decoupling may become obvious and residual hum may be amplified unpleasantly.

Push-Pull Input

IT is a simple matter to use two ordinary L.F. transformers for the input to push-pull output valves.

A resistance-fed circuit can be used, the primaries of the two transformers being connected in series between the coupling condenser and earth. The H.T. terminal of one goes to negative, and its anode terminal is joined to the H.T. of the other.

The secondaries are each connected to one of the output valves in the usual way, separate provisions for bias being made in each case.

This has the advantage that the bias can be adjusted to suit each valve.

An Advantage

ONE advantage of push-pull output is that for a given volume, smaller valves with higher amplification factors can be used. Thus the over-all gain of the set will be greater.

Actually, a greater grid swing can also be applied to a push-pull valve than could be done without distortion if the valve was used separately. This is because even if the swing does go beyond the straight part of the characteristic curve in one direction, due to the other valve, a sine wave output is still obtained.

P.A. Speakers

SPEAKERS for P.A. should always be placed high in a room so that the sound is thrown forward over the heads of the audience.

Another point particularly to be observed with speakers on large baffles, is that if they are mounted near a wall they should be at an angle to it and not parallel. In the latter position results may be impaired by reflection effects between the wall and the baffle.

If one speaker mounted on a baffle is being used for dancing, it is a good idea to place it high up in the centre of the hall so that the sound is more evenly distributed.

A tone control is a useful fitting to a P.A. unit. It can be used to give crisp reproduction for speech when above everything clarity is wanted, and a rounded tone with predominate bass for, say, dancing.

In readiness for tours this season, the G.E.C. travelling showroom has been extensively overhauled. The interior shelving has been removed and has been replaced by a modern radio display.

Twenty Three Showcards Free

1 **C.A.V.**
The Original
JELLY ACID ACCUMULATORS
Unspillable in any position

2 **LEWCOS**
SPAGHETTI
FLEXIBLE RESISTANCES

3 **Ferranti**
SUPER-HETERODYNE
RECEIVER WITH WAVE LENGTH DIAL
22 GUINEAS
DEFERRED PAYMENTS 42. DOWN
FIVE MONTHLY PAYMENTS OF 38.6

4 **CLIMAX**

5 **CLIMAX**

6 "GOOD RADIO IS A JOY FOREVER"
TELSEN
RADIO COMPONENTS
all British
Radio's Choice
For Better Radio Reception
BUILD BETTER ON TELSEN

7 **SIEMENS**
FULL-O-POWER
RADIO BATTERIES
Maintain steady flow
of current
EXCEPTIONAL POWER AND TONE FROM
BEGINNING TO END OF A LONG LIFE

8 less than a
five pound note
-or under 2/6 a week
Battery Two
Model 333 **£4.19.6**
Columbia Radio

9 **JACKSON BROS.**
72, ST THOMAS STREET LONDON BRIDGE, S.E. 1.
TELEGRAMS: WALSFOCO BORO LONDON TELEPHONE: HOP 1637

10 WE STOCK
LEWCOS
RADIO PRODUCTS
For Better Reception

11 RENEW YOUR SET WITH
TUNGSRAM
BARIUM VALVES - PRICES FROM 3/6 TO 1/-.
WE STOCK THE COMPLETE RANGE

12 **ULTRA**
RADIO
RADIO'S RICHEST VOICE
TIGER
PANTHER
BLUE FOX

The C.A.V. showcard (1) is 20 in. by 14 in. Measuring 15 in. by 7 in., the Lewcos standup (2) uses dummy spaghetti for the lettering of the word Lewcos. The firm's window sticker (10) is 10 in. by 8 in. Ferranti have recently issued three sales aids. The price ticket (3) is 5 in. by 6 in.; the set display card (14) is, of course, to fit on top of a Ferranti super-het, and the standup (17) is 14 in. by 10 in. Climax have issued two showcards and a price ticket. The showcards (4 and 5) are 25 in. by 19 in., and the price ticket (22) 6 in. by 4 in. The base of the Telsen display stand (6) is 27 in. by 15 in. by 23 in. It has three platforms. Siemens H.T. battery showcard (7) is 19 in. by 12 in. Columbia have issued two posters. That for the two-valver (8) is 15 in. by

To Make Your Sales Soar

13 **ULTRA**
RADIO

14 **FERRANTI**
7-VALVE SUPER-HETERODYNE CONSOLETTA

15 **R. & A. BANTAM**
PERMANENT MAGNET MOVING COIL REPRODUCER

16 **ULTRA**
RADIO

17 **FERRANTI**
7-VALVE SUPER-HETERODYNE CONSOLETTA
WAVE LENGTH DIAL MODEL - 22 GUINEAS
STATION DIAL MODEL - 23 GUINEAS
ELECTRIC CLOCK MODEL - 25 GUINEAS

18 at everybody looks for in RADIO

- 1 Tone purity
- 2 Easy Station-selection
- 3 Choice of European programmes
- 4 Great Volume-when desired
- 5 Few and simple controls
- 6 Modern cabinet designs
- 7 Built for long Service
- 8 Low price
- 9 Low running costs
- 10 British Made

19 MODERN BROADCASTING CONDITIONS DEMAND THE SUPERHET

EVERY NEW PHILCO A BALANCED-UNIT SUPERHET!

20 **ULTRA**
1933 TIGER
CONSOLETTA MODEL
4 VALVES INCLUDING A.C. or D.C. MAINS
12 Monthly Payments of 3 1/6
18 Gns

21 **STATIONMASTER THREE**
A RADIO FOR THE MILLION CIRCUIT

22 **CLIMAX**

23 **TELSEN**
RADIO COMPONENTS

20 in., and the other (18) is 20 in. by 15 in. The J.B.s condenser poster (9), which is for hanging in the shop, is 22 in. by 17 in. The Tungram strip (11) which has been issued in connection with Tungram's "push" is 27½ in. by 10 in. The Ultra strip (12) is 30 in. by 9 in.; the poster (13) 24 in. by 18 in. and the price card (20), for which several price tickets are available, 7 in. by 5 in. The firm's sales aid (16) is available both as a showcard and a poster. It measures 12 in. by 15 in. The R. & A. bantam showcard (15) is 12 in. by 15 in., and the Philco strip (19) 50 in. by 12 in. The Stationmaster Three strip (21) issued by United Radio Mfrs., is 40 in. by 9½ in. Telsen's components strip (23) is 40 in. by 12 in.

POST THIS COUPON TO-DAY

The Broadcaster and Wireless Retailer,
93, Long Acre, London, W.C.2.

Please send me the following publicity aids illustrated in "THE BROADCASTER" dated Oct. 1. I have crossed out those I do not require.

- | | | | |
|-------------------------------|------------------------------|---------------------------------|-----------------------------|
| (1) C.A.V. showcard. | (6) Telsen display stand | (12) Ultra strip. | (18) Columbia poster. |
| (2) Lewcos Spaghetti standup. | (7) Siemens showcard. | (13) Ultra poster. | (19) Philco strip. |
| (3) Ferranti price ticket. | (8) Columbia poster. | (14) Ferranti set display card. | (20) Ultra price card. |
| (4) Climax showcard | (9) J.B. poster. | (15) R. & A. showcard. | (21) Stationmaster 3 strip. |
| (5) Climax showcard | (10) Lewcos window stickers. | (16) Ultra showcard. | (22) Climax counter card. |
| (2). | (11) Tungram strip. | (17) Ferranti standup. | (23) Telsen strip. |

Name..... PLEASE WRITE IN BLOCK LETTERS.

Address.....

OLDHAM FORTNIGHT IN S. WALES

WITH WINDOW DISPLAY COMPETITION

The Oldham Service Association has now completed its plans to stage an "Oldham Fortnight" in South Wales and Monmouthshire.

The "Fortnight" will be between October 17 and October 29.

During the fortnight a window-display competition will be held, and three prizes, one of £6 6s., one of £4 4s., and one of £2 2s., will be awarded to the three best-dressed windows. There will also be a special diploma prize for the runner-up.

Entry Forms

Entry forms for the competition can be obtained from Mr. J. W. Elliott-Garwood, 72, Llanfair Road, Cardiff, and must be returned to Oldham and Son, Ltd., Denton, Manchester, by noon on October 22, marked "Competition" in the top left-hand corner.

On Thursday, October 27, a dinner, whist drive and dance will be held in Cardiff.

Among those who will attend will be Mr. John Oldham, managing director; Mr. S. J. Wigglesworth, general manager; and Mr. M. Smith, the radio and service sales manager.

It is expected that several hundred Welsh and Monmouthshire radio dealers and friends will attend the function, at which prizes won during the "Fortnight's" competitions will be presented.

HOUGHTON CATALOGUES

CAN BE OVERPRINTED FOR DEALER DISTRIBUTION

Dealers' own catalogues containing a comprehensive selection of new season's lines are to be available from Houghtons the Wholesalers, of 88-89, High Holborn, London, W.C.1.

This catalogue will contain at least 24 pages, measuring 8½ in. by 5½ in. There is a special section dealing with electric clocks.

Prices for 100 copies are 7s. 6d., and 10s. 6d. overprinted. Corresponding prices for greater quantities are 250 copies, 15s. 6d. and 20s.; 500 copies, 29s. 6d. and 35s.; and 1,000 copies, 55s. and 65s. Orders should be placed now.

HEREFORD DEALERS' OWN EXHIBITIONS

Traders in Hereford and Ross have staged special exhibitions of 1933 Olympia models this week.

Mr. A. A. Wallis, of Eign Street, Hereford, turned the whole of his spacious premises into an exhibition showroom. Mr. Wallis, who is specialising in Murphy products, claims to have shown the largest selection of new products in the West of England. An extensive Press and handbill advertising campaign preceded the show.

The Ross exhibition is being held by Butcher at their Gloucester Road show-rooms. It opened on Thursday, September 22.

NICE SHOW

Nice is to hold an exhibition for radio, gramophone and allied lines. This show is to be held in the Palais des Fêtes et des Expositions, 32, Boulevard Victor Hugo, Nice, from October 14 to 24.

Foreign exhibitors are to be specially invited for this show.



Delivery vans loading up outside Bush Radio's factory at Woodyer Road, Shepherd's Bush, W.12.

COMPETITION FOR BROADCASTING TALENT

A new vaudeville act styled "The National Broadcasting Contest" will shortly commence a tour of British kinemas.

In this act members of the audience will be invited to give a show of their own with a view to discovering fresh talent for broadcasting. At the end of the tour finalists will be invited to compete in a final in London.

By an arrangement between the organisers of the contest and the B.B.C., successful competitors will be given a trial at Broadcasting House.

A special soundproof glass studio has been constructed, which will be erected on a stage in order to give correct atmosphere to competitors, and the "turns" relayed to the theatre audience by means of a three-stage amplifier and speaker.

The speaker is the new Celestion "Auditorium" model, while Celestion, Ltd., have also constructed the amplifier to the design of the organisers of the contest.

SWANSEA PASSES NOISY SPEAKER BY-LAW

COUNCIL MEMBERS PROTEST

Swansea Council on September 23 adopted an anti-noise by-law which aims at control of speakers and gramophones used in trade premises.

Some members questioned the advisability of such a regulation and deprecated interference which might hamper wireless sale and use.

Assurance was given by the chairman of the Watch Committee that there should be no "capricious prosecutions."

MAGISTRATE DEPLORES BAZAAR COUNTER SELLING SYSTEM

The growth of the bazaar counter arrangement in the trade to facilitate the display and sale of parts and accessories gives interest to a comment of the Merthyr stipendiary magistrate.

Fining a man 10s. for stealing a box of gramophone needles from a bazaar counter display, he observed that he had little sympathy with the firm. The system seemed to provide special facilities for thieving, and it would not cost much to have glass or other type of screen to protect goods.

S. Whitehead, of Braunston Gabe, Leicester, is shortly retiring from business after 30 years' service in this area.

No Exhibition in Ramsgate

Despite Big Crowds Last Year

Why is there to be no Ramsgate Radio and Trade Exhibition this autumn?

The exhibition, which in past years was arranged by Mr. J. Carman, radio dealer, 65, King Street, Ramsgate, in conjunction with the Ramsgate Chamber of Commerce, has generally been held at the County Rink in November.

Co-operation

During the week the exhibition was open last year it was attended by 20,000 people.

Started six years ago by Mr. Carman as a radio exhibition, the event grew in importance year by year.

Eventually other traders co-operated and the largest building in the town was rented to accommodate the show, which became the most important event of the autumn season in Thanet.

SHOW SPEAKERS

EDISWAN P.A. EQUIPMENT AT EDINBURGH

High-power amplifiers designed by the Edison Swan Electric Co., Ltd., will be used to provide music at the Edinburgh Radio Show, being held from October 11 to 22.

They will be similar to those installed recently by the company at the White City Stadium at London.

Special wiring arrangements are being made to prevent low-impedance speakers being used on the network in the hall. Four large speakers and about 120 instruments on individual stands will be connected.

OPTICAL AND PHYSICAL SOCIETIES AMALGAMATE

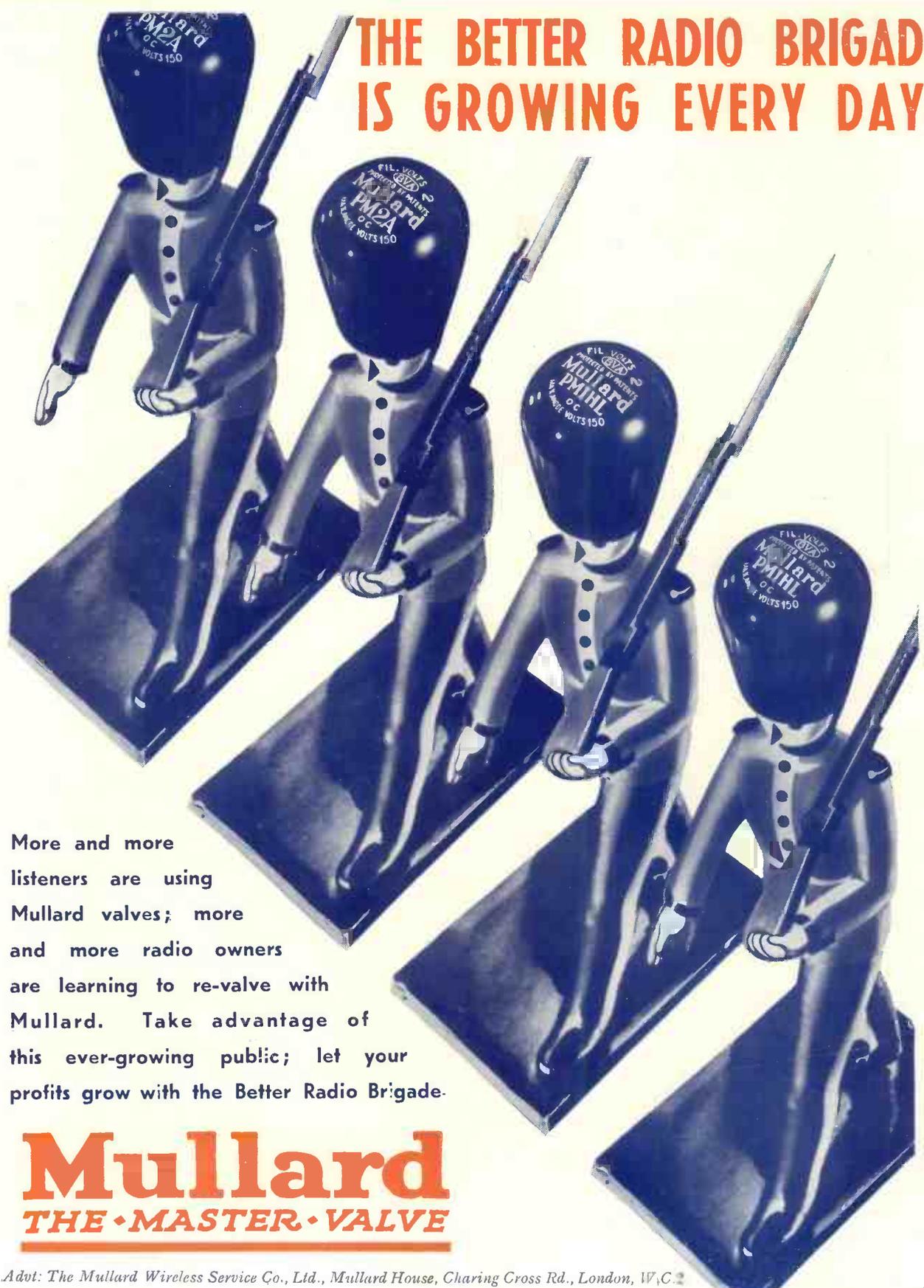
The Optical Society and Physical Society, which have long worked in conjunction, have now amalgamated.

The final step was taken at a special general meeting of the Optical Society, held at the Imperial College of Science and Technology, South Kensington, on September 22, when the Society was dissolved. The Physical Society has already made the necessary changes in its constitution.

RADIO NORTHERN NATIONAL

REPORT EXHIBITION

THE BETTER RADIO BRIGADE IS GROWING EVERY DAY!

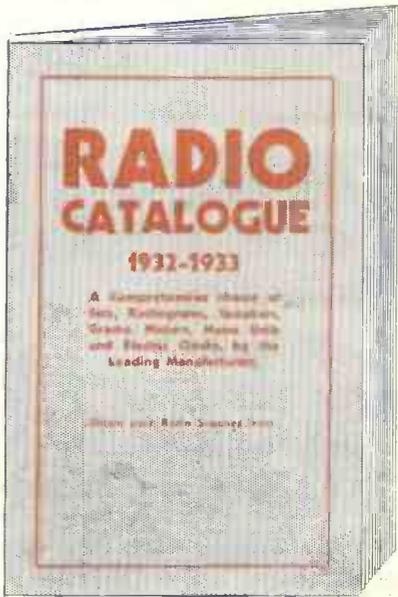


More and more listeners are using Mullard valves; more and more radio owners are learning to re-valve with Mullard. Take advantage of this ever-growing public; let your profits grow with the Better Radio Brigade.

Mullard
THE • MASTER • VALVE

Your own Catalogue for a few shillings!

For less than a penny a copy Radio Dealers can secure a Catalogue of their own, which will greatly help sales. Send your order to Houghtons immediately.



The new edition of Houghtons Dealers Own Catalogue consists of 32 pages—eight more than last year, an increase which is not reflected in the charges.

Every Radio Dealer should have a supply of this Catalogue. For less than a penny a copy it will give him a Catalogue of his own—an advantage which enables him to impress and interest prospective customers.

The cover design has been completely revised, and a new section has been added dealing with Electric Clocks. Amongst manufacturers whose products are included are the following:—

Alba, Atlas, Beethoven, British General, Brownie, Cossor, Ekco, Ferranti, G.E.C., Lotus, McMichael, M.P.A., Philips, R.G.D., Varley, Zetavox, Celestion, Epoch, R. & A., W.B. (This list is not complete).

	Without imprint.	With imprint.
100 copies	7/6	10/6
250 copies	15/6	20/-
500 copies	29/6	35/-
1,000 copies	55/-	63/-

Prices are given opposite. Make sure that your order is sent off immediately.

Be Sure to Visit These Stands.

Manchester Radio Exhibition,
City Hall, Deansgate, Manchester

Houghtons Stand **No. 7**

(New Hall)

“Glasgow Weekly Herald”
Exhibition

St. Andrew's Halls, Glasgow

Houghtons Stand **No. 19**

Both Exhibitions—
September 28th to October 8th.

Place your order now with

HOUGHTONS

The National Wholesalers

Telephone: HOLBORN 6900.

(ENSIGN LIMITED)

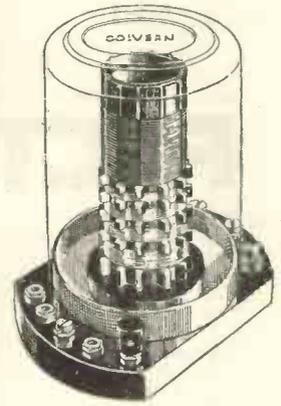
Telegrams: BROMIDE, Phone, LONDON.

HIGH HOLBORN, LONDON, W.C.1

70-78, York St., Glasgow; 170, Deansgate, Manchester; 61a, Long Row, Nottingham; 7, Park Place, Leeds; 20, Orange St., Swansea; 142, Fore St., Exeter; 1, The Strand, Southampton; 8, Museum St., Ipswich; 3, Freeman St., Birmingham; 10, Best Lane, Canterbury; 56, Wellington Place, Belfast.

COLVERN -T.D. COIL

**AN UP-TO-DATE COIL WITH
UP-TO-DATE FEATURES**



TYPE T.D., an entirely new COLVERN COIL, designed to give super selectivity on both long and broadcast wave-bands. The coil is completely screened, giving a very neat appearance, and incorporates tapped aerial coupling and reaction, while the four alternative aerial tapings are arranged as sockets with a wander plug. The first two tapings give aerial couplings similar to those normally employed, but with greatly increased selectivity. Nos. 4 and 5 give a high degree of selectivity with weak aerial coupling—suitable for use in a "swamp" area. A most important feature of this coil is that there is no break through on the long wave-band from B.B.C. stations. Specified for the "Apex," described in "Popular Wireless," 1st October, 1932.

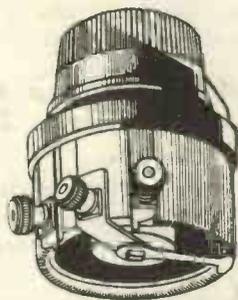
TYPE T.D.

**PRICE
8/6**

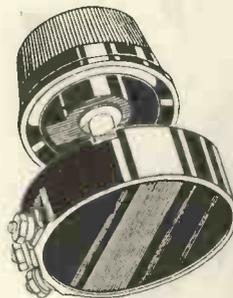
VARIABLE

COLVERSTATS

Wire-Wound.
For Voltage Regulation
and Volume Control



Type S.T.10. Rating, 10 watts. Standard values, 500 to 50,000 ohms - 5/6



Type S.T.5c. Protected Windings. Rating, 5 watts. Standard values, 250 to 25,000 ohms. 5/3



Type M.F. Rating 3 watts. Standard values 25 to 10,000 ohms - 4/6

STRIP RESISTANCES



Wire-wound. For Mains Units and Decoupling. Rating, 5 watts. Fitted with terminals and soldering tags. Price, values up to 25,000 ohms, 1/9 Price, values from 25,000 to 50,000 ohms - 2/3

Our 1933 Booklet Radio List No. 10 is free on request.

COLVERN LIMITED
MAWNEYS ROAD, ROMFORD, ESSEX

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

FACTS YOU SHOULD KNOW ... ABOUT THE MAZDA RANGE OF POWER OUTPUT VALVES

IS "EDDY"
IN YOUR
WINDOW
YET?



A good receiver, whether battery or mains operated, can be made or marred by the power valve. Each type of Mazda Power valve has been designed to give its most efficient performance under specific conditions. Here is a guide to the selection of the correct Mazda Mains Power Valve for your customers' purposes.

THE AC/P—a low consumption power valve for operating balanced armature speakers. It is sensitive to comparatively small inputs, and will give good results on anode voltages as low as 150.

THE AC/P1 will handle a bigger signal input and will satisfactorily operate a moving coil speaker. It requires 200 volts H.T.

THE PP5/400 is a heavy power output valve capable of fully loading a large moving coil speaker. The anode current at 400 volts is 60ma with 30 volts bias.

For Battery operated receivers there are the following:

P220 and P220A, both capable of giving ample volume with a reasonable input. The former valve is particularly recommended where economy of anode current is a consideration.

Stock and recommend these and other useful Mazda types. They are being widely advertised.

Requisition supplies of Mazda literature and display material from the Edlswan representative. Mazda valves are fitted by all the leading receiver manufacturers.

The amazing

MAZDA THE BRITISH VALVES

**100%
BRITISH
Designed by British Engineers**

The Edison Swan Electric Co. Ltd.



155 Charing Cross Rd. London. W.C.2

Mazda Radio Valves are manufactured in Great Britain for

The British Thomson-Houston Co. Ltd., London and Rugby.

V.169



TRANSFORMERS

You cannot expect IGRANIC results

SALES-MAKING

nothing is left to chance—they are built to the highest standards and only work

ADVERTISING

IGRANIC T. 24 B.

SUPPORTS

IGRANIC

COMPONENTS WILL

BE MAKING

YOUR SET.

STAND 36



STOCKISTS

Northern Radio Exhibition Manchester STAND 72

FOR SALES LITERATURE APPLY TO DEPT. J. 1200, IGRANIC ELECTRIC CO. LTD., 149, QUEEN VICTORIA STREET, E.C.4



BROWNIE & DOMINION
ALL STEEL CHASSIS SETS
THE TOPIC OF THREE RADIO EXHIBITIONS

You will miss a lot of business this winter unless you are well stocked with this Big 4. For the Brownie and Dominion have scored success at Radiolympia, Belfast and Manchester Exhibitions. They have proved themselves to be sets of exceptional efficiency. Each set incorporates an all-steel chassis . . . ensuring perfect rigidity in transit . . . consistency in performance . . . ABSOLUTE RELIABILITY in every way. Listen to any one of these instruments. Never before have you heard such vivid and natural reproduction. Each Dominion receiver incorporates a perfectly matched moving coil speaker. And even the Brownie "2" possesses a speaker capable of exceptional clear and faithful reproduction. Every single component is of the highest possible quality and has been subjected to stringent tests to ensure 100% working efficiency. No receiver leaves the factory before it has satisfactorily passed a dual aerial test. This Big 4 and business go together. Be prepared!

30% & 10%

Write for details of Agency Scheme and increased profits: The Brownie Wireless Co. (G.B.) Ltd., Nelson St. Works, London, N. W. 1

BROWNIE *and*

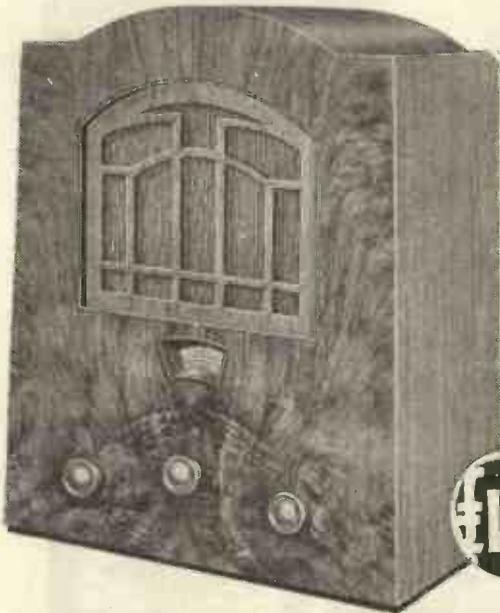


BROWNIE 2 VALVE BATTERY RECEIVER

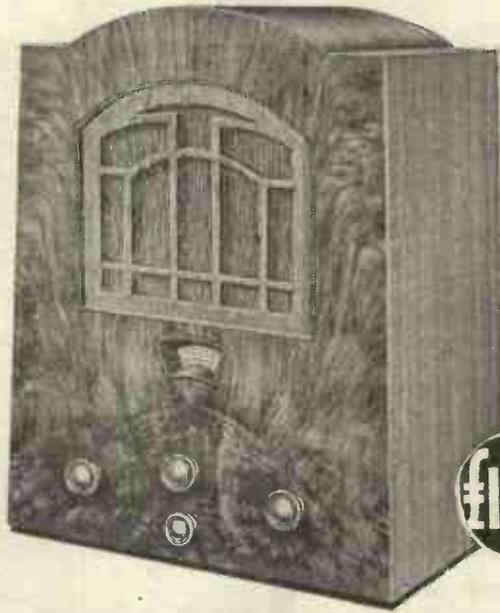
Fine solid oak cabinet . . . houses all batteries . . . ALL STEEL CHASSIS . . . B.R.V.M.A. detector and power valves . . . built-in speaker . . . two aerial sockets. 60/-, including valves and royalty.

DOMINION 3 VALVE A.C. MAINS (Including Rectifier)

Attractive solid figured oak cabinet . . . all steel chassis . . . built-in moving-coil speaker . . . B.R.V.M.A. Detector, Pentode and Rectifying mains valves . . . slow motion control . . . three aerial tappings . . . terminals for gramophone and external loud speaker. Complete 9 Gns., including valves and royalty.



ALL
MODELS
ON
DEFERRED
TERMS



DOMINION BATTERY S.G.4 RECEIVER

Beautiful figured walnut cabinet . . . all steel chassis . . . built-in moving coil speaker . . . B.R.V.M.A. Screened Grid, R.C., L.F., and P.230 valves . . . High Power 147v., H.T. grid bias batteries and L.T. accumulator . . . illuminated slow motion control. Complete, £12 10s. od., including valves and royalty.

DOMINION A.C. MAINS S.G.P. 4 (Including Rectifier)

Figured walnut cabinet similar in appearance and beauty to the Battery S.G.4 cabinet . . . all steel chassis . . . built-in moving-coil speaker . . . B.R.V.M.A. Screened Grid, Detector, Pentode and Rectifying mains valves . . . illuminated slow motion control . . . ganged condensers . . . matched screened coils . . . two aerial tappings . . . provision for gramophone pick-up and external loud-speaker. Complete, 15 Gns., including valves and royalty.

DOMINION ALL STEEL CHASSIS RECEIVERS

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

CARDED!

- 1 "BOWSPRING" WANDER PLUG 36 assorted at 1½d. **Card 4/6**
- 2 TWIN SOCKET STRIP, complete with 2 plugs. 12 assorted lettering at 9d. **Card 9/-**
- 3 BANANA PLUG AND SOCKET. 24 Plugs at 2d. and 12 insulated Sockets at 2d. **Card 6/-**
- 4 ACCUMULATOR CONNECTOR. 8 pairs of Connectors at 9d. and 4 pairs of Spare Eyes at 3d. **Card 7/-**
- 5 WANDERFUSE. Complete with 150 m/a fuse. 12 at 1/- **Card 12/-**
- 6 FUSEHOLDERS. Flex, Panel, Single Open, Single Safety, Twin Safety and Wanderfuse. One of each complete with fuses. **Card 8/3**
- 7 FUSES. 150 m/a, 500 m/a. and 1 amp. 12 assorted at 6d. **Card 6/-**
- 8 SCRUFUSE. 60, 150, 250, 500 and 750 m/a, each rating in distinctive colour. 12 assorted at 6d. **Card 6/-**
- 9 S.G. ANODE CONNECTOR. 12 at 4d. **Card 4/-**
- 10 "TWINTAP" PLUG, enabling two leads to be taken from same socket. 36 at 1d. **Card 3/-**

TEN attractive show-cards, colourful and sales-compelling. Convenient and effective for stocking and displaying these profitable lines.

Separate cards at retail value of contents less 30%. An extra 10% for you by ordering the complete set of ten—41/6 only, retail value 65/9.



10 DISPLAY CARDS READY



BIGGER SALES THAN EVER NOW!

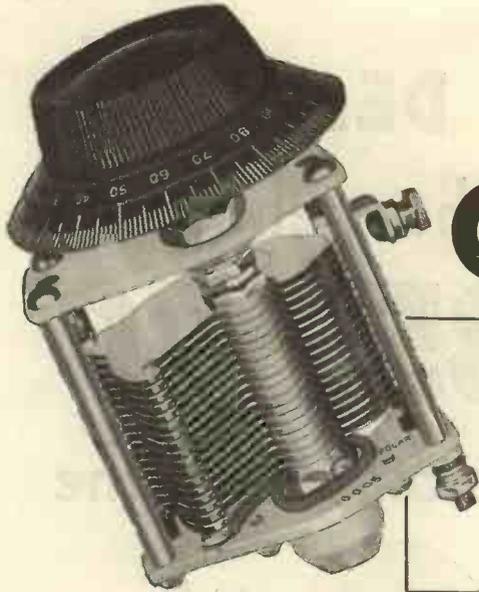


BELLING-LEE

Advt. of BELLING & LEE, LTD., CAMBRIDGE ARTERIAL ROAD, ENFIELD, MIDDLESEX.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

POLAR CONDENSERS

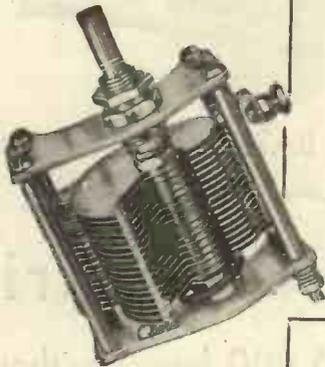


POLAR No 2

Owing to its precise workmanship and amazingly low price, it has proved itself the outstanding condenser of its type. Its popular features include fast and slow motion, ball-bearing spindle, positive pig-tail connection, one-hole fixing. It follows midline law, and is made in hard aluminium, with brass pillars for rigidity.

.0005, .00035, .0003,

6/6

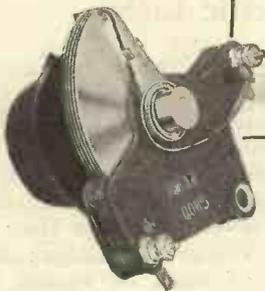


POLAR No 4

This well-known condenser is similar in construction to the "No.2" described above, but is not fitted with slow motion. Made in aluminium with brass pillars. Ball bearing spindle. Compact and light.

.0005, .00035, .0003,

4/-



POLAR COMPAX

A low-priced variable condenser suitable for tuning or reaction, where air dielectric is not essential. Made with the very best materials and of the highest efficiency of its type. Solid dielectric. One-hole fixing. Supplied with knob.

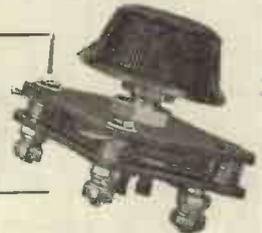
.00075, 3/-; .0005, 2/9; .0003, .00015, .0001, .00005,

2/6

POLAR DIFFERENTIAL

Direct Drive. Constructed of highest quality material. Smooth action gives very accurate control. Insulated spindle. Supplied with knob.

3/-

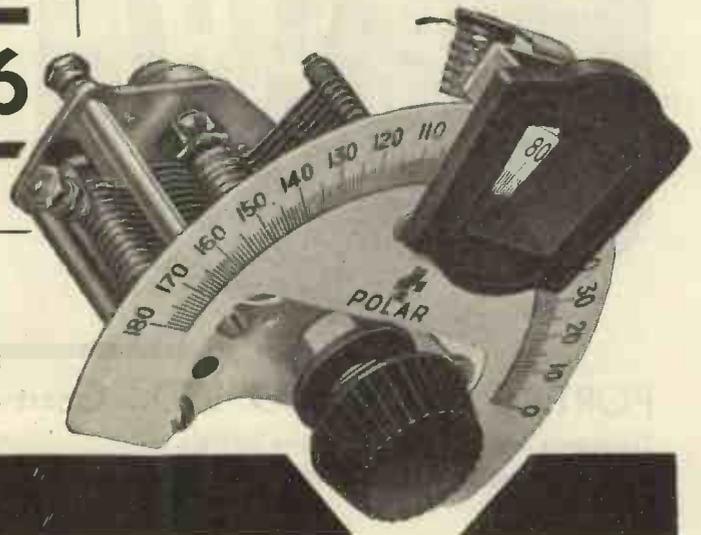


POLAR APERTURE

A slow motion condenser of unique design providing a most convenient method of control. Operation is by small knob at the base, the scale being actually part of the condenser itself. Simple fitting—one hole only being required for escutcheon. Built of aluminium. Of extremely efficient design and construction. Lamp holder for scale illumination.

.0005, .00035, .0003.

7/6



Complete Catalogue free from

WINGROVE & ROGERS LTD.

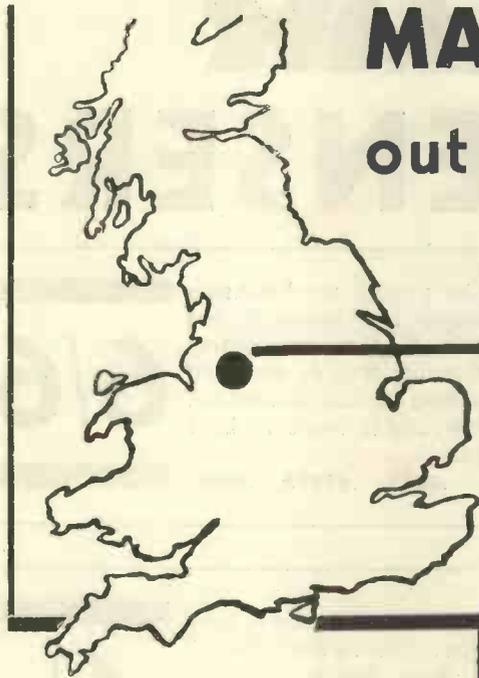
188-9, STRAND, LONDON, W.C.2

Polar Works, Old Swan, Liverpool.

London Telephone : Temple Bar 2244, 5-6.



WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



MANCHESTER DEALERS !
 out of 182,800 householders
 there are **135,800**
 possible customers for the



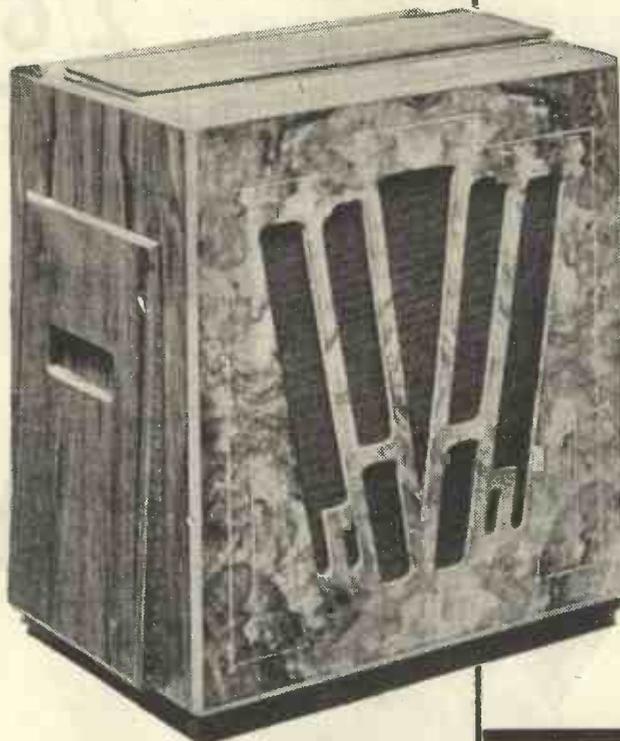
B.M.C. BATTERY MOVING COIL
PORTABLE
 in **YOUR** district

SPECIFICATION. — Battery-operated self-contained receiver, incorporating MOVING COIL loud speaker. 4-valve Screen Grid with Pentode Output. Circuit embodies L.F. bandpass filter. Instantaneous Tuning Device. Recessed and dust-proof controls. Concealed Turntable. 120-volt H.T. battery, 4½ volt G.B. and large capacity accumulator. H.T. consumption 9-10 m/a.

12 payments of 28/2

14
 GNS

There are 135,800 homes without Electric Light



Think ! 135,800 prospects for the Portadyne B.M.C. in the Manchester district alone ! What an opportunity for go-ahead dealers to reap a rich harvest ! With the Portadyne B.M.C. you can offer these 135,800 prospects the tonal quality of most Mains Sets even although they have no electric light. Other advantages are the complete absence of hum or mains noises which mar reception with Mains Sets in some districts. Also, the Portadyne B.M.C. is a *Portable*—easily carried from room to room or out into the open. This story, coupled with the fact that the Portadyne B.M.C. Portable costs only 14 guineas absolutely complete, is piling up sales all over the country. Keep a Portadyne B.M.C. operating in your shop—display it boldly—its appearance, tone and price will be an irresistible draw. Stock up now with the Portadyne B.M.C. It is up to you to see how many of the 135,800 prospects come your way.

PORTADYNE RADIO LTD., Gorst Road, North Acton, London, N.W.10

Telephones and Telegrams: Willesden 7541/2/3.

And at Belfast, Brighton, Dublin, Glasgow, Leicester and Manchester.

Get ready for Telsen's great national advertising campaign

TELSEN SALES AIDS

HOW many people in your district know that *you* are the local Telsen Dealer and that *your shop* is the place where they can buy the Telsen products they see advertised in the national press? Unless they all know—and they won't know unless you tell them—sales are literally passing your door. . . To enable you to tell them—and not only them, but every casual passer by—the Telsen Sales Dept. offers you the sales aids shown on the pages which follow.



TELSEN *the largest radio manufacturing organisation in the world*

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Get ready for Telsen's great

with these

TELSEN

"GOOD RADIO IS A JOY FOREVER"

TELSEN

RADIO COMPONENTS

all British

Radio's Choice

For Better Radio Reception

BUILD BETTER ON TELSEN

10-colour display stand,
size 24" x 15" and back-
piece size 24" x 31".

IN RESPONSE TO GENERAL TRADE REQUESTS, WE ARE HOLDING UP OUR NATIONAL ADVERTISING

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

national advertising campaign

SALES AIDS



YOUR windows and your counter are the two final links in the chain of sales. Are they the weakest links? They needn't be—they *mustn't* be! These Telsen Window Bills, Display Stands, and Folders enable you to make the most effective use of the "selling space" at your disposal at no cost to yourself. Write to the Telsen Sales Department.

10-colour window streamer, size 40" x 12".

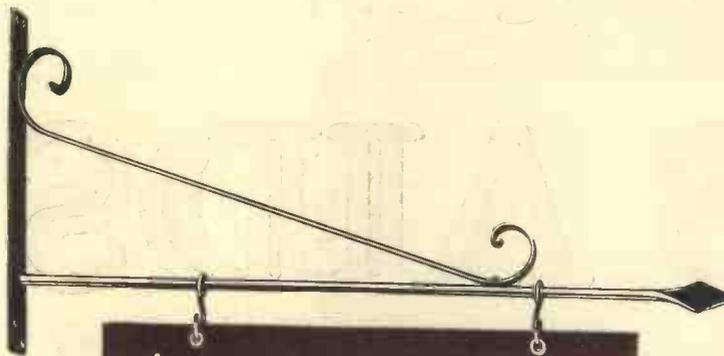


Descriptive folder.



CAMPAIGN FOR THE PRESENT UNTIL SATISFACTORY STOCKS ARE IN THE HANDS OF THE TRADE

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



THIS SIGN
outside your door
...brings customers
inside your shop!

AUTHORIZED DEALER & SERVICE AGENT FOR
TELSEN
RADIO COMPONENTS & RECEIVERS



THE Telsen national advertising campaign will make the public look for this Telsen Authorized Dealer Sign. It should be outside your door if you are able to qualify. Remember that *only a limited number* of approved applications can be granted—so ask the Telsen Sales Department to send you an application form now. Enquiries for Telsen products are automatically remitted for attention to the nearest Authorized Dealer, who is also kept posted with supplies of literature and display material, together with service manuals and hire purchase forms.

This Certificate of Radio Merit, framed and glazed, will be sent free of charge, together with the Telsen Authorized Dealer Sign.



THIS CERTIFICATE
sets the seal upon your status!

C.F.H.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



THE NEW PHILIPS ALL-ELECTRIC Four Valve Receiver

BRITISH MADE.

This is the set you are bound to sell this year . . . radio of wonderful value. If you sold it on quality only, you would beat all your previous sales. But, in addition, the price is absolutely within reach of everybody. This is the big hit in the Radio world this season.

Four valve all-electric—2 screened grid, detector and pentode output valves. Single knob control over medium long wavebands. Moving coil speaker. Provision for gramophone pick-up and additional speaker. This is the set that makes the world seem small—product of Philips' experience.

PRICE.

Type 830A for A.C. operation £16 . 16 . 0
Type 830C for D.C. operation £16 . 16 . 0
or by 12 monthly payments of £1 . 11 . 0 each.



PHILIPS

Type 830 for A.C and D.C.

PHILIPS LAMPS LTD., 145, CHARING CROSS ROAD, LONDON, W.C.2.

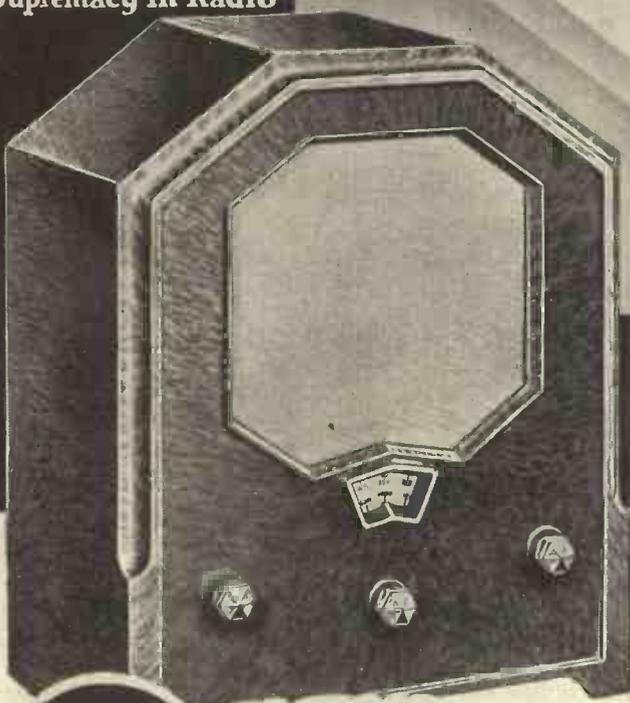
Arks

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

**G.E.C.
Radio**

Supremacy in Radio

**POINTS THAT HAVE
SOLD THOUSANDS—**



- 2 OSRAM
SCREEN-GRID VALVES**
- ENTIRELY SELF-CONTAINED
WITH ACCOMMODATION
FOR BATTERIES**
- HANDSOME ONE-PIECE
BAKELITE CABINET**
- SINGLE KNOB TUNING**

ALL FOR 9 GNS.
Complete with cabinet, built-in loud speaker
and OSRAM VALVES
HIRE PURCHASE · Deposit £1 and 12 monthly payments of 15/-

SPECIAL FEATURES

- 1** A complete table model receiver with built-in loud speaker.
- 2** Batteries housed inside cabinet—no external battery connections.
- 3** Two metallised OSRAM screen-grid valves and latest type OSRAM power output valve.
- 4** Screen-grid detector gives great sensitivity.
- 5** Tuning by one knob only.
- 6** New magnetic loud speaker chassis with floating cone ensures highest quality reproduction.
- 7** Unit assemblies make home construction the essence of simplicity.
- 8** Latest OSRAM valves (battery type) with the Wembley filament.
- 9** Handsome one-piece cabinet in moulded Bakelite—walnut graining.

MADE IN
ENGLAND

Osram
THIRTY-THREE

MUSIC MAGNET

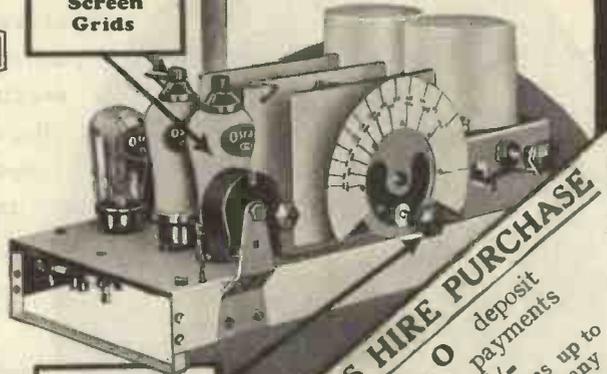
**3
OSRAM
VALVES
Two
Screen
Grids**

When you talk "better reception for modern broadcasting conditions," point out the NINE BIG FEATURES of the new OSRAM "THIRTY-THREE." This amazing kit set is a piece of sound engineering construction which gives the most reliable performance.

It has no competitor in its class. Cheaper sets—yes! But the OSRAM "THIRTY-THREE" is built up to a standard and not down to a price. The policy of sound engineering construction has always been placed first in designing all models of OSRAM Music Magnets. Already it has resulted in the selling of thousands of OSRAM "THIRTY-THREE" Kits.

**NORTHERN
NATIONAL RADIO
EXHIBITION**

See the complete range of G.E.C. Radio Products on the G.E.C. Stand.



**ONE KNOB
ONLY FOR
TUNING**

12 MONTHS HIRE PURCHASE
£1.0.0 deposit
12 monthly payments
of 15/-
Put the G.E.C. terms up to
your customers; many
a sale will be
made in this
way.

Adv. of The General Electric Co., Ltd., Magnet House, Kingsway; London, W.C.2.



Proved— in every condenser sphere

No matter for what purpose, there is a T.C.C.—that meets the most exacting demands. Whether the requirement is a small .0003 mfd. mica condenser—a high voltage radio condenser or even a 1,000 K.V.A. Static Power condenser you will find T.C.C. the invariable choice of the expert. Proved in every sphere of condenser practice they are one and all backed by the exclusive experience of a quarter of a century's pioneer work—they are "condensers by the specialist."

T.C.C.

ALL-BRITISH
CONDENSERS

THE TELEGRAPH CONDENSER CO. Ltd.,
WALES FARM ROAD, N. ACTON, W.3

1309

Exclusive — Selling Points

PERTRIX
TRADE MARK

DRY BATTERIES

- Non Salammoniac, which Means
- Infinitely Longer Shelf Life
- Positively Longer Active Life
- Complete Freedom from Battery Noise
- High Recuperative Powers

ACCUMULATORS

- Robustly Constructed for Long Service
- A Size for Every Set
- The Patent "Kaptive Karrier"

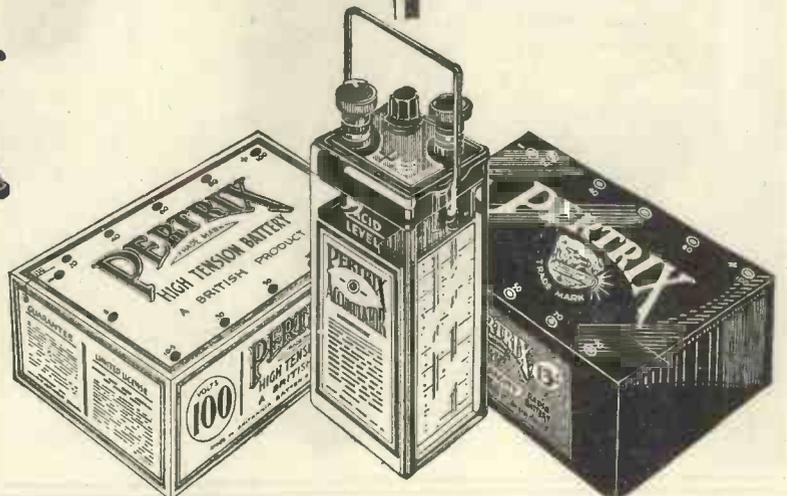
Both these products are the result of over 40 years' experience in battery manufacture.

Keep well stocked with Pertrix Products and be ready to reap the benefit of our sales help.

H.T. BATTERIES
FROM 5/6

L.T. ACCUMULATORS
FROM 4/6

PERTRIX
TRADE MARK
**DRY BATTERIES
& ACCUMULATORS**



Pertrix Batteries and Accumulators are British made at Britannia Works, Redditch, Worcs.

Advt. of Britannia Batteries Ltd., 233 Shaftesbury Avenue, London, W.C.2.
BRANCHES: MANCHESTER, BRISTOL, GLASGOW, DUBLIN, ETC.

Telephone: Temple Bar 7971 (5 lines)

**G.E.C. Radio
SUPREMACY IN RADIO**

**The VIKING-
4 TUNED
CIRCUITS**

— with band-pass input filter

Here you have the secret of this set's supremacy. Such advance designing, incorporating five OSRAM A.C. Mains Valves (including rectifier) and the latest developments in radio-technique, secures the highest standard of reproduction. The VIKING gives power and distance with purity and selectivity. An amazing number of British and Continental stations can be received at full strength by means of one-knob tuning only, while the new illuminated automatic station index makes the selection of stations and the operation of the set extremely easy. The built-in loud speaker is of the latest mains energised moving coil type.

GECOPHONE RADIO RECEIVER

for A.C. Mains

"VIKING" MODEL

MADE IN ENGLAND

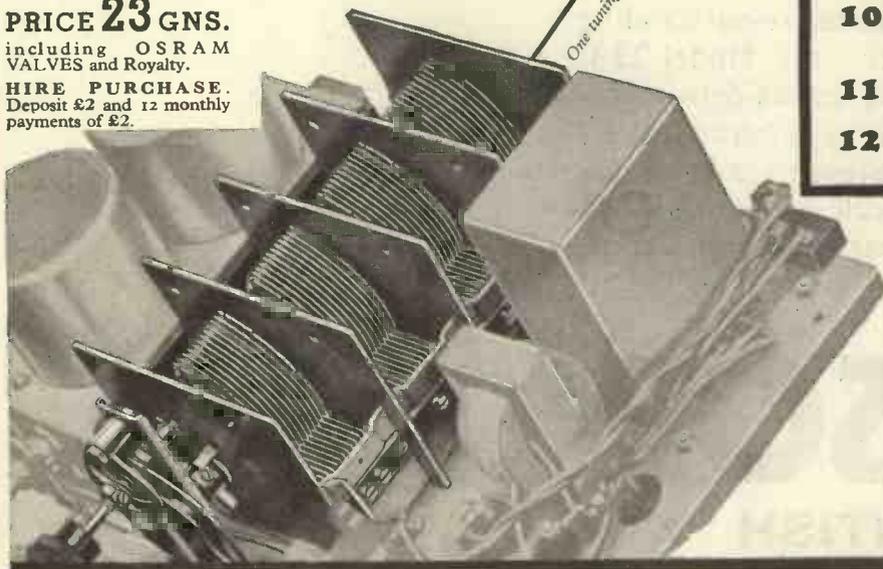
PRICE 23 GNS.

including OSRAM VALVES and Royalty.

HIRE PURCHASE.
Deposit £2 and 12 monthly payments of £2.



- SPECIFICATION.**
- 1** Four tuned circuits with band-pass input filter.
 - 2** Two H.F. screen-grid stages with variable-mu valve.
 - 3** Screen-grid detector.
 - 4** Power pentode giving undistorted output of 2½ watts A.C.
 - 5** Energised Moving Coil loud speaker; provision for external loud speaker.
 - 6** Single tuning control, 200-550 and 900-2,000 m.
 - 7** Automatic station index.
 - 8** Variable-mu volume control without reaction.
 - 9** Mains aerial device and facilities for gramophone pick-up.
 - 10** Universal mains transformer with 100-150 and 200-250 voltage range, 40-80 cycles.
 - 11** Ample smoothing and heterodyne filter.
 - 12** Distinguished Gothic cabinet of matt walnut.

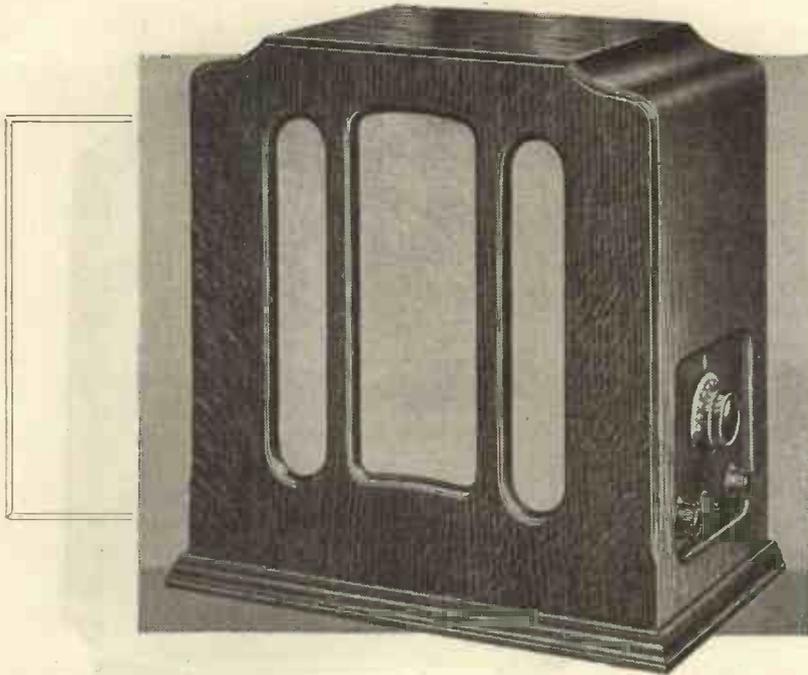


One tuning knob operates four energised condensers

**NORTHERN NATIONAL
RADIO EXHIBITION
MANCHESTER**

See the complete range of G.E.C. Radio products on the G.E.C. Stand.

Advt. of The General Electric Co. Ltd., Magnet House, Kingsway, London, W.C. 2.



SPECIFICATION OF THE MODEL 233 :

As illustrated, with Cossor 41 M.H.L. Metallised Detector, Cossor 41 M.P. Output and Cossor 442 B.U. Rectifier Valves, latest type of Cone Loud Speaker, the complete Receiver housed in handsome polished oak cabinet **£8:18:6**

Hire Purchase Terms : 20/- deposit and 9 monthly payments of 20/-

**This "ALL-IN," ALL-ELECTRIC
TWO-VALVE
RECEIVER
-£8.18.6**

HERE is a Receiver that gives really faithful reproduction of the alternative programmes, with the ability, under favourable conditions, to provide entertainment from a number of Continentals—A type for which there is an ever-increasing demand.

Ample volume and good tone are outstanding features of this Receiver—the Model 233. Essentially a trouble-free mains-driven receiver (with enclosed cone type loud speaker) at its modest price it presents a value for money proposition difficult to equal. Ask for full details at your nearest Cossor Depot.

COSSOR
ALL-BRITISH
RADIO



BRITISH MADE BY A. C. COSSOR, LTD.
Highbury Grove, London, N.5. Depots at Birmingham, Bristol, Glasgow, Leeds, Liverpool, Manchester, Newcastle, Sheffield and Dublin.

EDISWAN BATTERY STOCKISTS ARE MAKING RECORD PROFITS!

Ediswan National Advertising is bringing business to them

The sales-drive of the season is already a huge success. The Ediswan Bonus Scheme is building up the profits of dealers, in all parts of the country, who have linked up with Ediswan National Advertising, by calling on the wide range of display material, sales aids and over-printed literature at their disposal.

The consistently high quality of Ediswan batteries, coupled with the new Ediswan

GUARANTEE, is making new customers for the trader identifying himself with this business-getting scheme. Prompt attention to any complaints by a specially instituted Ediswan Service Dept. relieves the trader of this responsibility; and he is additionally protected by a guarantee of six months shelf-life.

Delay means loss of profit to you! Get in touch to-day with the nearest Ediswan branch.

STANDARD CAPACITY
60 VOLTS **6'9** **120 VOLTS** **13'**
AND SUPER-CAPACITY TYPES

Send for your supply of "How to get the most out of your H.T. Battery," a new booklet full of useful data, hints and tips, enquiries for which are being invited in our press advertisements.

EDISWAN

Guaranteed

RADIO H.T. BATTERIES

THE EDISON SWAN ELECTRIC CO. LTD.



PONDERS END, MIDDLESEX

B.182

EVERYTHING **The G.E.C. your guarantee** ELECTRICAL



LATEST DEVELOPMENTS

OSRAM 2-VOLT SCREEN-GRID BATTERY VALVES with the WEMBLEY FILAMENT

VS.2 (Metallized or Clear) PRICE 16/6

A new variable mu. valve with outstanding characteristics—long range, improved selectivity, adequate volume control, with only a 9-volt grid bias battery.
MUTUAL CONDUCTANCE 1.25 ma/volt at Ea 150, Esg 70, Eg. 0.
at Eg-9 0.05 ma/voll.

S.22 (Metallized or Clear) PRICE 16/6

The high slope screen grid valve to improve the reception of any three valve Kit set. Replace your old screen-grid valve with an OSRAM S.22.—A tonic to any set with single stage screen-grid.
MUTUAL CONDUCTANCE 1.75 ma/volt at Ea 150, Esg 75, Eg. 0.

S.21 (Metallized or Clear) PRICE 16/6

The screen-grid valve with new automatic OSRAM cushion springing and special non-microphonic construction. Designed for range with stability. A sensitive detector valve with entire absence of microphonics.
MUTUAL CONDUCTANCE 1.1 ma/volt at Ea 150, Esg 70, Eg. 0.

OSRAM 2-volt Valves with the WEMBLEY FILAMENT

PRICES

		PRICE
VS.2	Variable Mu. Screen Grid	16/6
S.22	High slope Screen Grid	16/6
S.21	Medium slope Screen Grid	16/6
H.2	High amplification Det. and RC.	7/6
HL.2	The non-microphonic Detector	7/6
LP.2	L.F. and Small Power	8/9
P.2	Super Power	12/6
PT.2	Economy Power Pentode	17/6

The OSRAM VS.2, S.22, S.21, H.2, HL.2 can be supplied either metallized or clear.

Osram Valves

MADE IN ENGLAND

NORTHERN NATIONAL RADIO EXHIBITION
See the complete range of G.E.C. Radio Products on the G.E.C. Stand.

Advt. of The General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

All 3 ranges on one receiver



**K.B.
321**
£14.17.6



**K.B.
320**
£17.17.0



**K.B.
'KOLSTAR'**
£24.17.6

LONG

MEDIUM

**ULTRA
SHORT**

Here are 3 K.B. Receivers that combine handsome appearance with inexpensive prices plus the definite advantage of ultra-short wave reception. Although only recently introduced the success of these receivers has been extraordinary.

If you want to share in the rising tide of K.B. popularity get to know these receivers at once.

K.B. 321 3-valve S.G. All-Electric A.C. Receiver. Figured Walnut Cabinet. Including moving-coil speaker, valves and royalties £14 17s. 6d.

K.B. 320 4-valve S.G. All-Electric A.C. receiver. Has two variable-mu valves. Walnut cabinet with moving-coil speaker, valves and royalties, £17 17s. 0d.

K.B. "KolStar" 6-valve Super-Het receiver (A.C.). Walnut Pedestal cabinet. Including moving-coil speaker, valves and royalties £24 17s. 6d.

Kolster-Brandes, Ltd., Sidcup, Kent.

K.B.

RADIO

We are exhibiting at Stand 31, Manchester Radio Exhibition.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Manchester's Greatest

EKCO AGAIN DARES



Elsie Carlisle and Flotsam and Jetsam, who, amongst others, are appearing in person in the EKCO Direct Comparison Demonstration at the Paramount Theatre, Manchester, September 26th to October 8th.

THE GREATEST AND MOST CONVINCING

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Attraction

DIRECT COMPARISON

**Radiolympia's Sweeping
Success now being repeated
at the Paramount Theatre
Manchester, Sept. 26 to Oct. 8**

At Olympia, then at the Forum Theatre, Fulham, and now at Manchester, the most convincing radio demonstration ever presented has attracted record audiences. By the end of next week over 200,000 people will have seen this show. The enthusiasm of every audience is a guarantee of big sales. Similar demonstrations are being booked in all parts of the country. EKCO Advertising is telling the whole nation of the success of EKCO "Direct Comparison Demonstrations."

Wherever your business, see to it that you carry ample stocks of all EKCO Models.

**Stand No. 17
MAIN HALL**



E. K. Cole Ltd., Dept. G., EKCO Works, Southend-on-Sea.

RADIO DEMONSTRATION EVER PRESENTED

The name **DUBILIER** stands for



A DUBILIER Electrolytic Condenser

Prices :
4 μf. 4s. 6d.
6 μf. 5s. 0d.
8 μf. 5s. 6d.



with a **PROFIT - MAKING** Sales Story

This new Dubilier High Voltage Dry Electrolytic Condenser has been proved, by independent authorities, to be far ahead of anything else at present on the market.

You are again assured of a real profit-making line with no service troubles. These condensers will be wanted in thousands by manufacturers, keen experimenters and constructors. Before placing your order for Electrolytic Condensers, be sure to investigate this new Dubilier product.

These six points are quality features which mean good profits to you:—

- ENTIRELY SEALED
- NO LIQUID
- NO LEAKAGE OF ELECTROLYTE.
- CONSTANT CAPACITY.
- RAPID REFORMING.
- LOW POWER FACTOR.

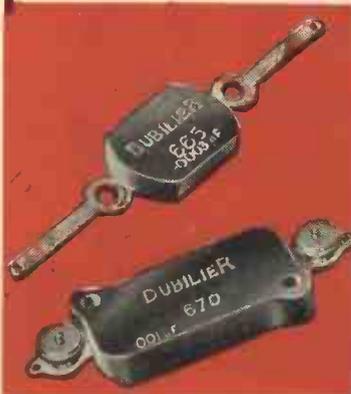
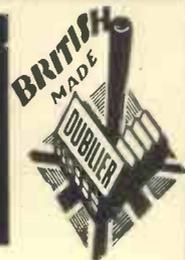
... stock up now with these

Dubilier Types 665 and 670 Condensers are available in all popular capacities at prices ranging from 6d. to 2/-.

SELL

DUBILIER

Moulded Mica Condensers



at prices from 6d. to 2/- each

Often a constructor will ask you for a condenser embodying all the salient points of a condenser of normal size, yet occupying only a fraction of the space used by the component of more bulky proportions. In these cases, recommend the Dubilier 665 and 670 Condensers. These neat, compact and light condensers are made expressly to suit this customer's demands. They have the same high grade material, the same excellent finish as big condensers . . . and, of course, the usual Dubilier dependability.

DUBILIER Types 665 & 670 CONDENSERS

DUBILIER CONDENSER CO. (1925) LTD.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

unfailing Dependability

The Dubilier Type BB Condenser is a high-efficiency condenser in moulded bakelite case. Working voltage 200 D.C. (peak). Test voltage 500 D.C. Capacities from .09 mfd. to 4.0 mfd. Prices from 1s. 9d.

Other grades in working voltages of from 200 to 1200. See list.

NOW YOU CAN MEET EVERY DEMAND FOR PAPER CONDENSERS



from the DUBILIER Range

Dubilier Condensers have long been recognised by all designers, constructors, and the Radio Trade as the most reliable that can be obtained, and this has been amplified by the leading set manufacturers incorporating them in their Receivers.

In the new series Dubilier Paper Condenser you can offer condensers of greater safety at no extra cost! In fact, certain types of condensers actually cost less now than ever before.

You are going to be asked for these new Dubilier Condensers. Stock up now.



DUBILIER PAPER CONDENSERS

fast - moving new lines



"PROVED performance"

Dubilier Metallized Resistances are available at the following prices:—

- 1 watt — 1s.
- 2 watts — 2s.
- 3 watts — 3s.

The Grid Leak is excellent value at the price of 1s.

that's the sales story that makes money for the Stockists of

There's nothing that makes a more convincing sales story than proved performance of the product you are selling. That's the secret of the easy money that's being made by dealers stocking Dubilier Resistances and Grid Leaks.

With manufacturer, technician and amateur, they are the first to spring to mind when reliability is requested.

Stock up now with this all-year round Dubilier seller.

DUBILIER METALLIZED RESISTANCES AND GRID LEAKS



DUCON WORKS, VICTORIA RD., N. ACTON, LONDON, W.3



TRIOTRON RADIO COMPANY, LIMITED, 91, GREAT RUSSELL ST., LONDON, W.C.1.

SALES, Southern :—

The Electric Lamp Service Co., Ltd., Stal House,
Judd Street, King's Cross, W.C.1.

'Phone : Museum 2267, 2268, 2269.

'Grams : "Eleclampo Kincross, London."

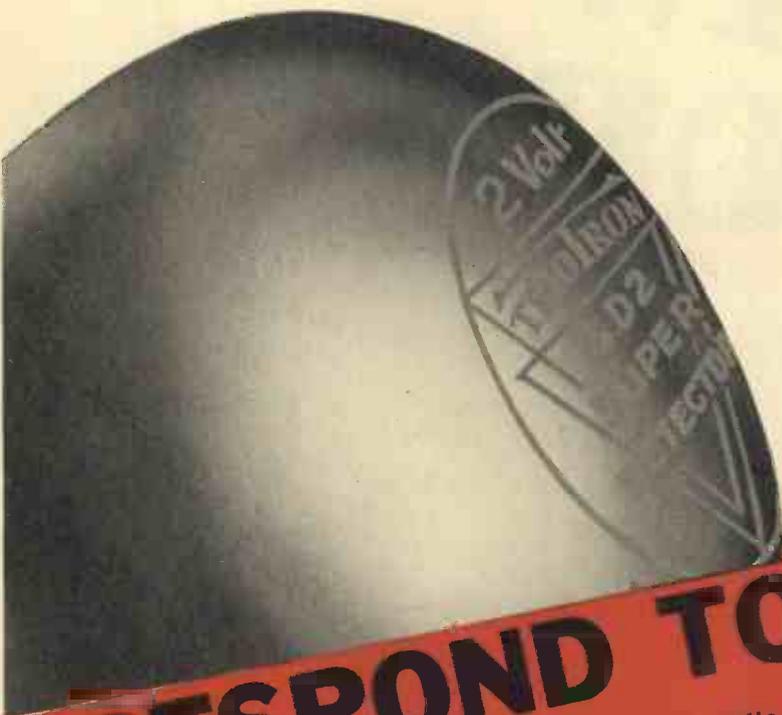
SALES, NORTHERN :—

Chorlton Metal Co., Ltd., Millgate House, 55,
Blossom Street, Manchester.

'Phone : Central 6642, 6643 (Pte. br. ex).

'Grams : "Chorlmet, Manchester."

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



RESPOND TO IT!

Without spending a penny on public advertising we have put TRIOTRON VALVES into a MILLION homes! NOW WE SHALL GET A MILLION MORE! Commencing next month TRIOTRON'S first BIG NATIONAL PUBLICITY CAMPAIGN will arrest the attention of Radio users all over the country. The National Press, The Radio Press, Posters, Broadcasts,—all will unite in compelling the attention of the masses. THEY WILL COME TO YOU FOR SUPPLIES —GET READY FOR THE RUSH! ORDER FOR STOCK NOW!

TRIO TRON VALVES

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

Get your NEW H.P. FORMS!

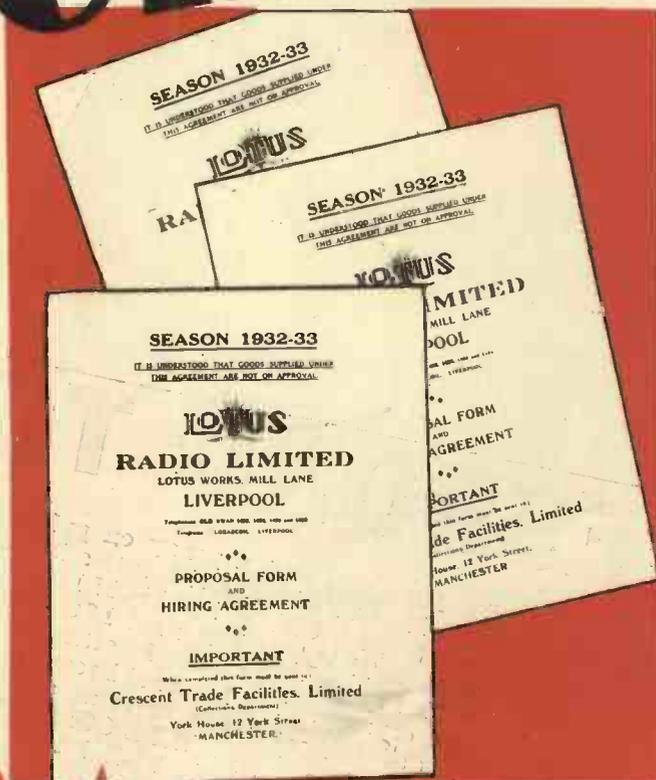
The new LOTUS H.P. Scheme has been considerably modified and simplified, and the old Forms are no longer acceptable. If you have not had new supplies, please apply without delay.

LOTUS H.P. TERMS ARE THE MOST GENEROUS IN THE TRADE

When you sell a LOTUS Set on H.P. Terms, you get a CHEQUE, not a CREDIT NOTE.

THE LOTUS H.P. ARRANGEMENTS ARE SO MADE THAT IN THE EVENT OF A REPOSSESSION YOU FORFEIT NONE OF YOUR PROFIT. THE ENTIRE LOSS UNDER SUCH CIRCUMSTANCES IS BORNE BY LOTUS.

By the way, our Stand Number at Manchester is 30. Shall we see you there!



LOTUS

H.P. TERMS

Sole London & South Eastern Counties Selling Agents: Delta Radio Distributors Ltd., Number One, Soho Sq., London, W.

LOTUS RADIO LIMITED, MILL LANE, LIVERPOOL

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

SO MANY SETS BUT — ONLY ONE “MADRIGAL”



THE TROUBLE FREE ELECTRIC RECEIVER —that Thrives on Comparison

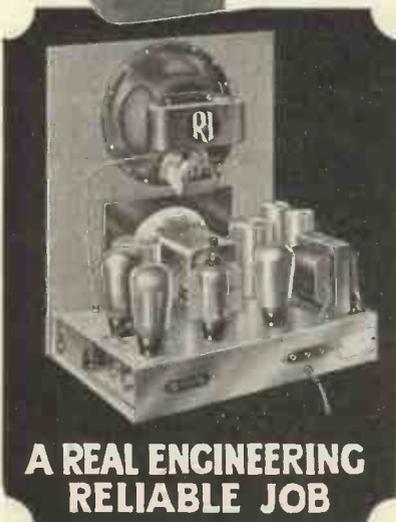
The more receivers there are the better for the “Madrigal.” The difference in quality of reproduction and superiority throughout is enormous. When you’ve a critical customer, always demonstrate with a “Madrigal”—it’s the one set that gives a 50 guinea performance at a 17 guinea price—it’s irresistible.

—and speaking of demonstration—many traders are reporting that they get perfect results with the “Madrigal” in difficult radio reception areas that have proved “impossible” without her sets—which, after all, is only to be expected with a production made by the firm whose receivers have been famed for their advanced design and quality over the past ten years.

—and in addition to the “Madrigal,” R.I. have produced the equally amazing new Super-Het. Receiver. It gives faultless reproduction, razor-edged selectivity and, like the “Madrigal,” ensures freedom from all “serviceing” troubles.

6 valve Receiver for A.C. Moving Coil Speaker : Operates with or without external aerial : provision for Pick-up : Single Multiple Switch operates M.W., L.W., Gramophone and off positions : and controls shutter which exposes wavelengths required and covers them when Pick-up is in use : Tone Controls : Modern Walnut Cabinet. 25 gns.

The R.I. works are now working to full capacity on orders received on comparatively few demonstrations, and in preparation for the National Advertising which will shortly commence.



Here is a brief description of the “Madrigal”:
All indirectly heated valves. Pentode Output. Magnificent tone, quality, and volume. Operates with or without external aerial. Illuminated scale calibrated in wavelengths. Four position switch for “off,” “medium wave,” “long wave” and “gramophone.” Single knob control. Gramophone Pick-up Sockets provided. Permanent Magnet Moving Coil Speaker. All Steel Chassis.

HANDSOME
WALNUT CABINET

17 GNS.

List No. AY30. Three-valve Receiver for A.C. only. 100/150 volts or 200/250 volts, 40/100 cycles (25 cycles 21/- extra).

**A REAL ENGINEERING
RELIABLE JOB**

Note the extremely simple layout of the circuit and the robustly constructed steel chassis.

Details of H.P. Terms on application.

R.I. have issued a beautiful brochure, describing the “Madrigal” in detail and illustrating it in natural colours. Get a supply—your customers will ask for them.



R.I. are now appointing authorised “Madrigal” dealers—write direct to us immediately for full details.

When the higher notes are missing RECTATONE restores them

MILLIONS KNOW THEY NEED IT

Rectatone—the Varley component that restores to their true value the all-important higher notes. It is by deliberately cutting off these higher notes that to-day's Superhets and ultra-sharp tuned circuits achieve their selectivity. Now comes Rectatone to put them back again . . . and millions know they need it.

Our advertising is being concentrated on this one product. The market is enormous. Be ready with supplies.

RECTATONE

- 1 Has a rising response curve from 1,000 to 4,500 cycles.
- 2 Balances any form of sound reproduction.
- 3 Restores a weakened treble to its correct value.
- 4 Gives a variable compensation and, therefore, complete control of tone correction.
- 5 Gives the required tone correction without an extra L.F. stage.
- 6 Becomes at will and instantly a normal straight-line transformer.
- 7 The Ideal L.F. coupling for selective sets.
- 8 Particularly useful where the same L.F. amplifier is used for radio and gramophone reproduction.



Ratio 7-1 List No. D.P. 33

Compensation is controlled by a variable resistance of about 5,000 ohms connected externally between the terminals H.T. + and RES. With a pentode output valve a 2,000 ohm fixed resistance may be connected in series with the variable resistance in order to prevent excessive amplification of high frequencies with consequent liability to self-oscillation.

Suitable Resistances for use with Rectatone are :

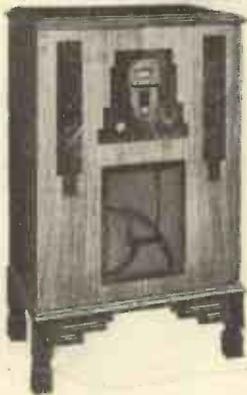
Varley C.P.157 5,000 ohm Wire-Wound 5/6
 Varley C.P.123 2,000 ohm Spaghetti 9d.

Varley

PROPRIETORS:- OLIVER PELL CONTROL LTD.

Adv. of Oliver Pell Control Ltd., Kingsway House, 103, Kingsway, W.C.2. Telephone: Holborn 5303

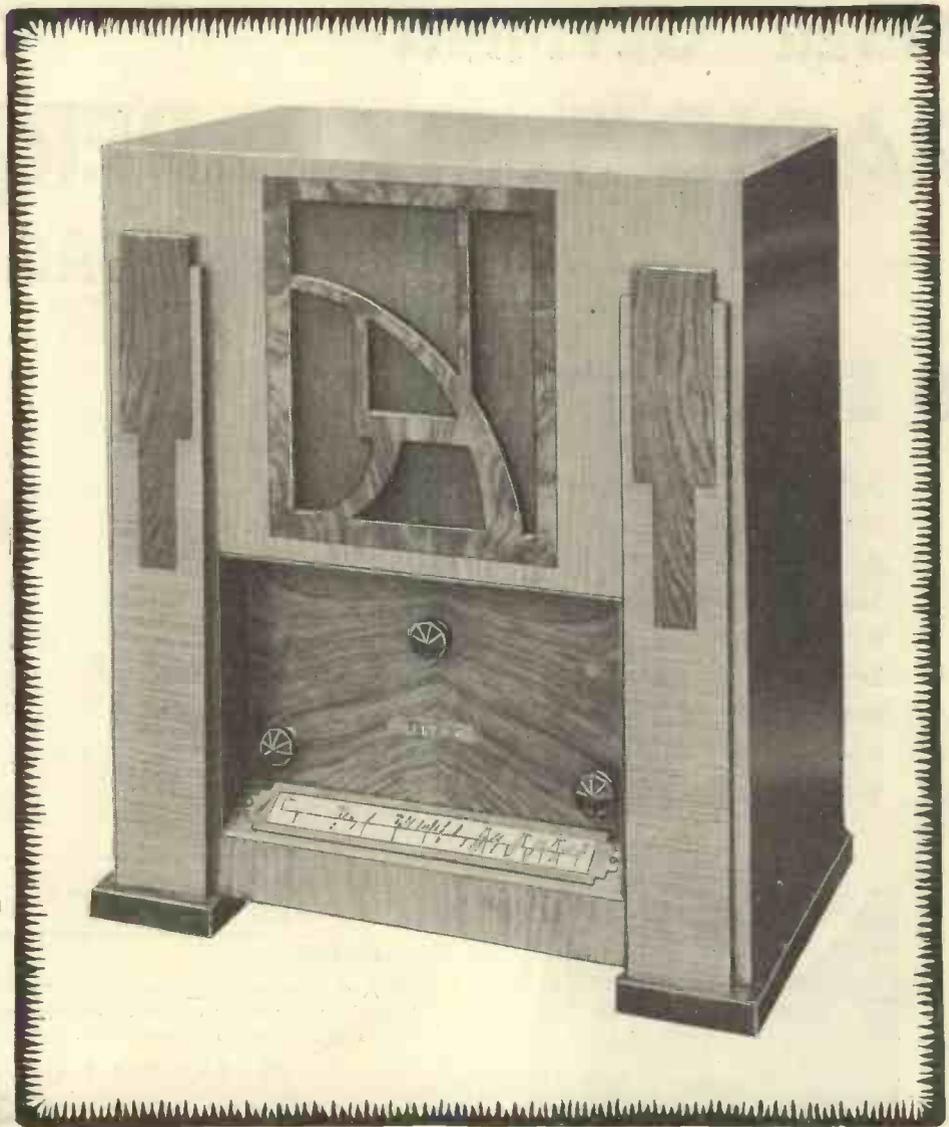
WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



PANTHER CONSOLE



PANTHER RADIOGRAM



PANTHER 5 VALVES A.C.
(INCLUDING RECTIFIER)

5 Valves (including rectifier) for A.C. mains. New Moving-Coil Speaker, New Variable-Mu Screened-Grid Valves, New Circuit, Screened-Grid Detector, New Station Visual Indicator tunes stations by name (Red Star shows long waves and Green Star medium waves), New Cabinet Design and amazing New Power, Range, Selectivity and Tone.

18 Gns.

or 12 monthly payments of

34/6

PANTHER CONSOLE 22 Gns. or 12 MONTHLY PAYMENTS OF 42/-

PANTHER RADIO-GRAMOPHONE 32 Gns. or 12 MONTHLY PAYMENTS OF 61/2

MANCHESTER: Stand Nos. 56, 57, 58 and 59

ULTRA

RADIO'S RICHEST VOICE

BRITISH MADE BY
ULTRA ELECTRIC LTD. ERSKINE ROAD, LONDON, N.W.3.

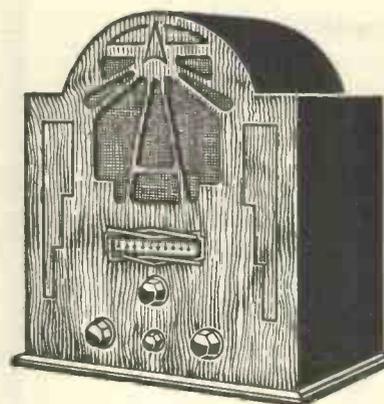
ULTRA
ON THE TIP
OF EVERY
TONGUE

AFTER OLYMPIA

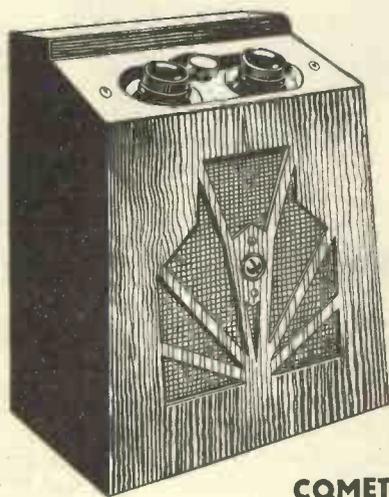
RADIO'S STAR PERFORMERS

CAPTURE THE NORTH

● **S**OVEREIGN Star Receivers were **RIGHT** from the very beginning. Priced right, with the right designs and the right range at the **RIGHT PRICES**, it is no wonder that business from these sets has been increasing steadily all along the line. At Olympia the Trade was impressed by Sovereign Star Receivers as much as the public eager for Radio they felt they could rely on—and now Sovereign is out to capture the North. You, too, should sell Sovereign Star Receivers, undoubtedly one of the brightest propositions on the market. We shall be pleased to send fuller details on request.



DORIC



COMET

Sovereign Star Receivers are backed by national advertising, showcards, counter literature and an Easy Payment Scheme that leaves the Dealer clear.

The Voice of the Ether

COMET

A 2-valve self-contained complete receiver in walnut cabinet. Volume and tone surpass all expectations.

£4 - 7 - 6 or 2/6 weekly

DORIC

A revelation of power combined with economy. Screened-grid detector and pentode valves, Permanent Magnet Moving Coil Speaker, 2-gang condenser. 7½ m/a H.T. Consumption. In beautiful cabinet of walnut.

10 Gns. or 5/- weekly

JUPITER

3 valves in an unusual Detector—2 L.F. arrangement, incorporating a **SPECIAL SELECTIVITY CONTROL NEVER BEFORE INCORPORATED IN ANY COMMERCIAL SET.**

£7 - 5 - 0 or 3/9 weekly

SIRIUS

3-valve transportable self-contained in walnut cabinet. Incorporates specially wound frame aerial. Chassis-mounted special speaker gives beautiful tone with full volume.

£7 - 7 - 0 or 3/9 weekly

All Sovereign Star Receivers equipped with B.V.M.A. valves and adequate sized batteries.

Sovereign components continue more popular than ever. Advertising for these is increasing. Send for 1933 Catalogue and terms.

At **MANCHESTER. STAND No. 60**

**SOVEREIGN
★ STAR
★ RECEIVERS**



SOVEREIGN PRODUCTS, LTD.
SOVEREIGN HOUSE,
ROSEBERY AVENUE, LONDON, E.C.1

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

REAL *selling* *begins this week*

When daylight saving goes, wireless sales begin.

We're ready—are you?

We've got our delivery arrangements working smoothly. There will be no disappointments for Blue Spot Traders or their customers.

Are your stocks up-to-date, complete, ready for the big sales?

You can count on those sales; the demand for Blue Spot Products—all of them—from the Table Grand Receiver at 20 gns. to the 66K. unit at 15/-—is already phenomenal—so much so that all tools have had to be duplicated at the factory and extra shifts put on to cope with orders. Blue Spot will leave everything else standing still this season. Don't miss your opportunity. Don't lose sales because your orders weren't placed in time. Be prepared and you will be satisfied.

Our advertising effort is not being relaxed. Thousands of good enquiries will be distributed to the trade during the next few months.



Price complete **32/6**

MANCHESTER :
Main Hall—Stand 62.

EDINBURGH :
Block A—Stands 1, 2, 7 & 8.

BRITISH MADE

THE BRITISH BLUE SPOT COMPANY LTD

BLUE SPOT HOUSE · 94/96 ROSOMAN STREET · ROSEBERY AVENUE · LONDON · E C 1

Distributors for Northern England, Scotland and Wales: H. C. RAWSON (Sheffield and London), Ltd., 100, London Road, Sheffield; 22, St. Mary's Parsonage, Manchester; 44-46, High Bridge, Newcastle; 37, 38, 39, Clyde Place, Glasgow.



Stereoscopic Vividness!



Nature—that cleverest of artists—gets her contrasts without undue effort. Her cardinal colours cooperate without conflicting. Her backgrounds support without detracting. . . .

Reproduced music sometimes loses something of its beauty because of a "flatness" which tends to

merge each individual instrumentalist into a confused medley of sound. In the new McMichael All-Electric Twin-Speaker Radio Gramophone the most notable feature is its stereoscopic vividness of reproduction. . . . You can distinguish each individual colour-tone as well as absorb the composite beauty of the combined orchestra.

THE NEW McMICHAEL ALL-ELECTRIC TWIN SPEAKER RADIO-GRAMMOPHONE

The new McMichael All-Electric Twin Speaker Radio Gramophone is driven by a synchronous motor which maintains the speed of rotation at the correct value, thus affording strictly accurate reproduction. The bi-aural system employed permits an almost infinite range of frequencies in both bass and treble, making it possible to recapture, with stereoscopic vividness, both vocal and musical items—recorded or broadcast. Control of selectivity and volume is a simple matter—selectivity being of a very high standard and more than adequate for normal requirements. The distinctive cabinet is in figured Walnut, making this model as striking in appearance as it is in performance. For A.C. use only. 200/250 volts and 100/115 volts, 50 cycles.

RETAIL PRICE **40 GNS.** (Including all Royalties.)

Here, at McMichael's, we do all in our power to assist the dealer to encourage sales by means of attractive showcards, leaflets, etc. Our Hire-Purchase Scheme has also proved invaluable in helping to clinch sales. If you do not already stock McMichael Receivers, you are well advised to write immediately, either to us or to your factors, for terms and sales aids.

L. M. MICHAEL LTD

Manufacturers of Wireless and Scientific Apparatus
WEXHAM ROAD, SLOUGH, BUCKS.

Telephone: Slough 441-442. Telegrams Radiether Slough
London Showrooms: 179, STRAND, W.C.2. Tel.: Temple Bar 6988.



We are Exhibiting at the
MANCHESTER RADIO EXHIBITION
(Sept. 28th to Oct. 8th)
STAND NO. 71.

ALL BRITISH—built at our works at Slough and embodying the experience of twelve years. successful Radio manufacture.

THIS GRADUAL PAYMENT BUSINESS

Lissen put a bigger percentage into your pocket AT ONCE!

NO

debits back in respect of defaulters.

NO

sets to take back into stock.

NO

arrears collections to make.

NO

accommodation amount charged to dealer.

Lissen take the risks— you take the profits!

IN FACT

The Lissen method is this— there are NO restrictions, NO impediments, NO disadvantages.

LISSEN LIMITED,
WORPLE ROAD,
ISLEWORTH, MIDDLESEX.

THE LISSEN SYSTEM IS MOST PROFITABLE TO THE DEALER

Sell

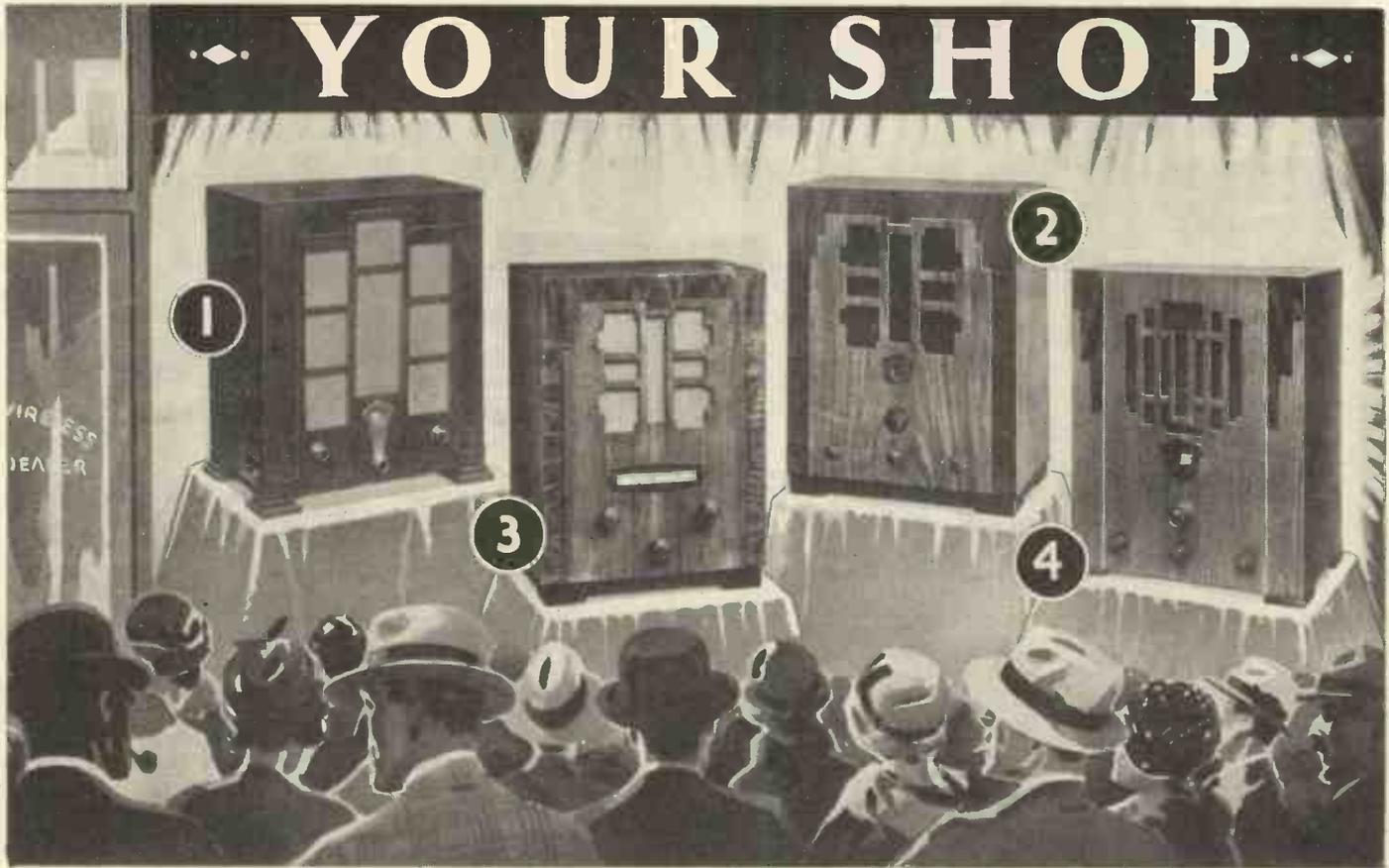
**LISSEN RECEIVERS
KIT SETS AND
ELIMINATORS
ON**

LISSEN

**GRADUAL
PAYMENTS**

Write for a supply of the Lissen Gradual Payment Order Forms.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



Aerodyne

THE OPEN SESAME TO SALES

At Olympia and Manchester the public made a beaten track to our Stand.

Show the same four Aerodyne Sets in your window—link up with us in our National Advertising Campaign, and the public will make a beaten track to your door.

Your time is too valuable to waste on selling Sets that do not sell themselves.

Our advertising—our 100 per cent. service—and the 100 per cent. efficiency of the Aerodyne Sets have virtually made the sales before you stock, and our easiest of easy terms remove the last obstacle to sales.

Get into touch with us to-day.

AERODYNE

① BATTERY TWO

Specification includes Single Dial Tuning. B.V.A. Valves. Pick-up sockets. Metal Chassis. Four-pole Balanced Armature Speaker. Three Alternative Aerial Sockets. 108 volt H.T. Battery. 9 volt G.B. Battery. 20 amp. hrs. Accumulator. Beautifully finished Oak Cabinet.

£4 : 19 : 6 (Cash or H.P. Terms).

AERODYNE

③ MAINS TWO

Specification includes Pentode Output. Moving Coil Speaker. Metal Chassis. Alternate Aerial Sockets. Gramophone Pick-up Sockets. Mains Aerial. A.C. Models, Metal Rectification. B.V.A. Valves. Figured Walnut Cabinet.

£10 : 10 : 0 (Cash or H.P. Terms).

AERODYNE

② VARIABLE MU. S.G.3

Specification includes Single-knob Tuning. B.V.A. Valves. Moving Coil Speaker. Alternate Aerial Sockets. Gramophone Pick-up Sockets. Robust All Metal Chassis. Figured Walnut Cabinet. 120 volt H.T. Battery. 9 volt G.B. Battery. 2. volt 40 amp. hrs. Accumulator.

£9 : 9 : 0 (Cash or H.P. Terms).

AERODYNE

④ ALL MAINS VARIABLE MU. S.G.3 (A.C.)

Variable Mu S.G. Valves (B.V.A.), Power Grid Detector (B.V.A.), Pentode Output (3 watt), (B.V.A.) Moving Coil Speaker (energised.) Metal Rectification (full wave voltage double.) Mains Aerial. Provision for pick-up. Single knob tuning. Combined Volume Control and Mains Switch. Accessible fuses and voltage regulation. All Metal Chassis. Figured Walnut Cabinet.

£15 : 15 : 0 (Cash or H.P. Terms).

MANCHESTER ENDORSES OLYMPIA'S VERDICT

HUSTLER, SIMPSON & WEBB LTD.,
AERODYNE WORKS, HOE ST., WALTHAMSTOW. E.17. Tel. Walt. 2535

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."

CALL AT
STAND
84

The *Broadcaster* & WIRELESS RETAILER

CALL AT
STAND
84

REPORT SECTION

SATURDAY, OCTOBER 1, 1932

NINTH NORTHERN SHOW SUCCESS

B.B.C. Governor Officiates

The 1932 Northern National Radio Exhibition was officially opened on Wednesday at a luncheon at the Midland Hotel, Manchester, given by the Radio Manufacturers' Association and Provincial Exhibitions Ltd., to representatives of the B.B.C., the Press and well-known exhibitors.

The guest of honour was the Rt. Hon. J. H. Whitley, P.C., Chairman of the Board of Governors of the British Broadcasting Corporation.

Mr. Leslie McMichael, chairman of the R.M.A. presided, and the speeches of the chairman and of Mr. Whitley were broadcast through the North Regional station of the B.B.C.

Referring to the fact that familiarity was making us overlook the marvels of radio, Mr. McMichael said that progress had been so great on the technical and commercial sides that radio to-day was one of the greatest industries in the country.

"Ten years ago," said the speaker, "licenses numbered a few thousands: to-day, they are nearly five millions."

With regard to the exhibition itself, Mr. McMichael stressed the fact that it was a really British show.

Mr. J. H. Whitley said he brought with him the good wishes of the B.B.C. and congratulations to the North on its enterprise.

"Great credit," he said, "is due to the pioneers of early days of the exhibition."

Mr. Whitley referred to the British Broadcasting Corporation's new venture, the Empire short-wave service, and said that on Christmas Day an attempt would be made to transmit part of the national programme round the world, although a full Empire service could not be expected until next year.

Mr. W. W. Burnham, vice-chairman of the R.M.A., proposed a vote of thanks to the Rt. Hon. J. H. Whitley referring to his many years of parliamentary activity.

"The name of Whitley will probably go down to posterity as controller of the two greatest forms of entertainment possessed by the British public," said Mr. Burnham amid considerable laughter.

Capt. J. W. Barber, C.B.E., a vice-president of the R.M.A., who supported Mr. Burnham's vote of thanks to Mr. Whitley, referred to the feelings of great gratification felt by everyone present that the official opening of the Northern Exhibition should coincide with the settlement of the cotton dispute.

Capt. Barber coupled to his toast the names of Major Gladstone Murray and of Mr. E. W. D. Liveing, Northern Station director.

Mr. R. M. Ellis, vice-president of the



The Civic Welcome at the Mayor's Parlour. Left to right: A. E. Moody, L. McMichael, the Lord Mayor, W. W. Burnham and Garry Allighan

R.M.A., proposed the toast of the Press, which was replied to by Mr. Christiansen of the *Daily Express*.

MAYOR RECEIVES R.M.A.

CONVOY BRINGS A LETTER FROM DERBY

At 10-30 a.m. on Wednesday the Lord Mayor of Manchester, Councillor Ellis Green, welcomed representatives of the Radio Manufacturers' Association at the Mayor's Parlour.

The R.M.A. was represented by Mr. Leslie McMichael, chairman, Mr. W. W. Burnham, vice-chairman, Mr. A. E. Moody, exhibitions' organiser, and Mr. Garry Allighan, press manager.

A letter of greeting from the Mayor of Derby which had been brought to Manchester by the Radio convoy was presented to the Lord Mayor.

Outside Shows.

Outside the City Hall a number of manufacturers are staging special displays of their new season's lines.

The Altham Radio Co., the northern distributors for British Clarion Ltd., gave an exhibition on Wednesday, Thursday and Friday, September 28 to 30, in the Lancaster Room of the Midland Hotel.

The Paramount Theatre is the Ekco demonstration room during the Exhibition. Their "direct comparison" vaudeville show is being presented as part of the programme.

At 300 Deansgate, Kenwell Radio Ltd. are exhibiting their range of mains receivers, consisting of four models costing from £7 10s. to 15 guineas. The two models of their well-known "Power Pack" costing £6 19s. 6d. and £7 15s. respectively are also part of the display.

Close by at 268 Deansgate, Majestic Distributors (Manchester) Ltd., have three floors of the building devoted to public showrooms, demonstration rooms and private audition rooms.

The Marconiphone play, "The Love Nest," featuring Claude Hulbert and Enid Trevor is being given in the Albert Hall, Manchester, in conjunction with the *Evening Chronicle*.

Philco have taken premises at 283 Deansgate, where they have a showroom on the ground floor and demonstration room on the floor above. The whole display is being run by Philco Distributors Ltd.

Standard Telephones & Cables Ltd. have an imposing display of their new receivers, speakers and "micromesh" valves at the corner of Peter Street and Deansgate.

Considerable prominence is being given to the coloured tuning indicator now fitted to the three-valve band-pass A.C. model. This has a yellow strip between two red strips, and when the station desired is correctly tuned its name appears fully occupying the yellow band.



The Regentone "Super Three" employs a multi-mu screen grid valve and pentode output. It is on view on Stand No. 63.

ALLIED NEWSPAPERS LTD.
Stands 21 & 22 Have Useful Literature for the Listener.

In the first avenue, near the main entrance, are the stands of the *Manchester Evening Chronicle* and allied publications whose collective influence over a period of years has done much to create an alert and intelligent interest in all that is best in radio.

The *Chronicle Wireless Annual*, a useful work of reference is to be found in most Manchester and district homes and the latest edition, more complete than ever, has been conceived on lines to render it equally helpful to the amateur constructor as to the person who likes to buy a straight set.

Ballot forms for the competition which has been organised by the *Chronicle* may be obtained here. Fifty thousand of them are available for distribution in an endeavour to find the best value for money set in the Show. The manufacturer of it will receive a silver challenge trophy.

BAKER'S SELHURST RADIO
Stand 5 Emphasises Range of P.M. Moving Coil Speakers.

Permanent magnet moving coil speakers are being pushed on this stand this year and Baker's have a wide range of this type on view.

Dealers should inspect the "Permag" speakers which are popularly priced.

Complete with cabinet, tapped input transformer and tone control, this speaker sells at 49s. 6d., but without tone control it is 47s. It is also available in chassis form only at 38s. 6d.

In the energised speaker field there is the "Elomag," which is available in similar types at 41s., 38s. 6d., and 30s. each respectively.

Good use is made of this stand to display the many domestic and P.A. speakers produced by the firm.

A. J. BALCOMBE, LTD.
Stand 44 Has a "Stenode" Radio-Gramophone.

The "Stenode" radio-gramophone exhibited here is a luxury instrument selling at 60 guineas. The chassis is an eight-valver (with one rectifier) housed in a large console cabinet. A large B.T.H. moving-coil speaker is incorporated.

With a Garrard automatic record changer this radio-gramophone costs 70 guineas.

There are several other radio-gramophones, including an all-mains three-valve S.G. model in an oak table cabinet at 22 guineas, with moving-coil speaker. Another model is the standard type selling at 16 guineas (oak), and £17 5s. (walnut) with balanced armature speaker, and £18 6s. (oak) and £18 15s.

NINTH NORTHERN

Complete Stand-by-Stand Review of the Exhibits

(walnut) with a permanent magnet speaker.

A three-valve band-pass S.G. mains model sells at 26 guineas (with moving-coil speaker), and in de luxe form at 31 guineas (oak), and 32 guineas (walnut or mahogany).

The set range is just as comprehensive. There is a three-valve S.G. model in an oak table cabinet for 14 guineas, a battery chassis in an oak table cabinet with balanced armature speaker for £9 19s. 6d., or with a permanent magnet speaker for £11 14s. 6d.

As a pedestal model this type costs £11 19s. 6d. with balanced armature speaker or £13 19s. 6d. with a permanent magnet speaker.

The three-valve band-pass S.G. mains-driven model retails at 17 guineas as a table model, or as a pedestal for 20 guineas. These models incorporate moving-coil speakers and can be obtained for A.C. or D.C. supplies.

BELLING & LEE LTD.

Stand 27 Shows new replaceable "Scrufuse" Innovation.

The Belling Lee "Scrufuse" is a real item of interest here. It consists of a moulded cylinder containing a spring. The head is threaded and takes a moulded "plug" carrying the fuse itself. It sells at 1s. 6d.

The new panel fuse holder which also sells at 1s. 6d. resembles a valve holder but has an ingenious single thread which holds the fuse firmly.

The "Twin" safety fuse holder is not new, as stated last week, but a single fuse holder of the same type made in brown moulded composition at 1s. 6d. has now been produced.

BERNARD JONES PUBLICATIONS LTD.

Stand 34 Gives Helpful Hints for Set Builders.

Mounted on the front of this stand are the "Prosperity Three," "Wizard" and "Calibrator" receivers built to the specifications and designs of *Amateur Wireless*.

Copies of this publication and of the *Wireless Magazine* can be obtained here, also blue prints and diagrams of value to the merest novice as well as to the practised set builder.

Technical experts are in attendance to give help and guidance to members of the public who have encountered theoretical and practical difficulties for which they have been unable to find a solution.

BRITANNIA BATTERIES LTD.

Stand 2 Where "Pertrix" Batteries Can be Examined.

Several new "Pertrix" products which were introduced at Olympia are being featured on this stand which is brightly decorated.

One of these is a new "Yellow Carton" portable shape high tension battery selling at 9s. for the 99-volt size and 10s. for the 108-volt size. Both have normal tapping values.

New grid bias batteries shown are the 9-volt at 1s. and the 15-volt at 1s. 9d.

A special battery for McMichael table battery sets can also be examined here. This is of the 120-volt type and is listed at 17s. 6d. It is fitted with Farnstock quick-grip spring terminals.

Other batteries in the standard "Pertrix" ranges are also on show.

Among the many accumulators to see is the P.Z.3 selling at 12s. 6d. This is of the squat type similar to the P.Z.2 introduced a year ago. It has a 50-ampere hours capacity at the 100-hour rate.

BRITISH BLUE SPOT CO., LTD.
Stand 62 For Receivers, Speakers and Units.

Here may be seen a full show of Blue Spot products including the new receivers in both all-mains and battery types.

Chief among these is the Table Grand A.C. with four valves and rectifier, in a mahogany cabinet which encloses an energised moving-coil speaker, to retail at 20 guineas. The W.S. 400 with 100 U. speaker—also with four valves and rectifier—is turned out to sell at 17 guineas. The same chassis is supplied in an oak or walnut cabinet, but without the speaker for 15 guineas. Battery models are the K. 252 with 100 U. speaker (£12 12s.) and R. 336 with moving-coil speaker (£16 16s.), both of which work with four valves. Stations are indicated by name on the tuning dial.

Speakers comprise: cabinet models, 100 D. 100 U. in walnut, 52s. 6d.; 32 P.M. with 99 P.M. coil with walnut finish, 87s. 6d.; 44/45 R., 52s. 6d.; 31 K. with 66 K. Unit, 31s. 6d.; and 66 K.C., 19s. 9d.

Units: 99 P.M., 59s. 6d.; 75 P.M., 75s.; 100 U., 32s. 6d.; R. 35s.; 66 K., which is made with removable stylus, 15s.

BRITISH BROADCASTING CORPORATION.

Stands 94 to 97 Exhibit Model of B.B.C. Headquarters.

Northern listeners are examining with interest the scale model of Broadcasting House, showing the big organisation necessary to produce the daily radio programmes.

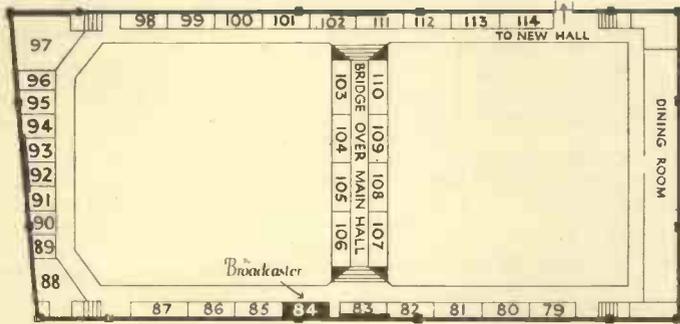
In addition, there is a clever series of diagrams showing how sound is picked up by the studio microphone and eventually broadcast through the listener's loud-speaker.

[Continued on page 98]



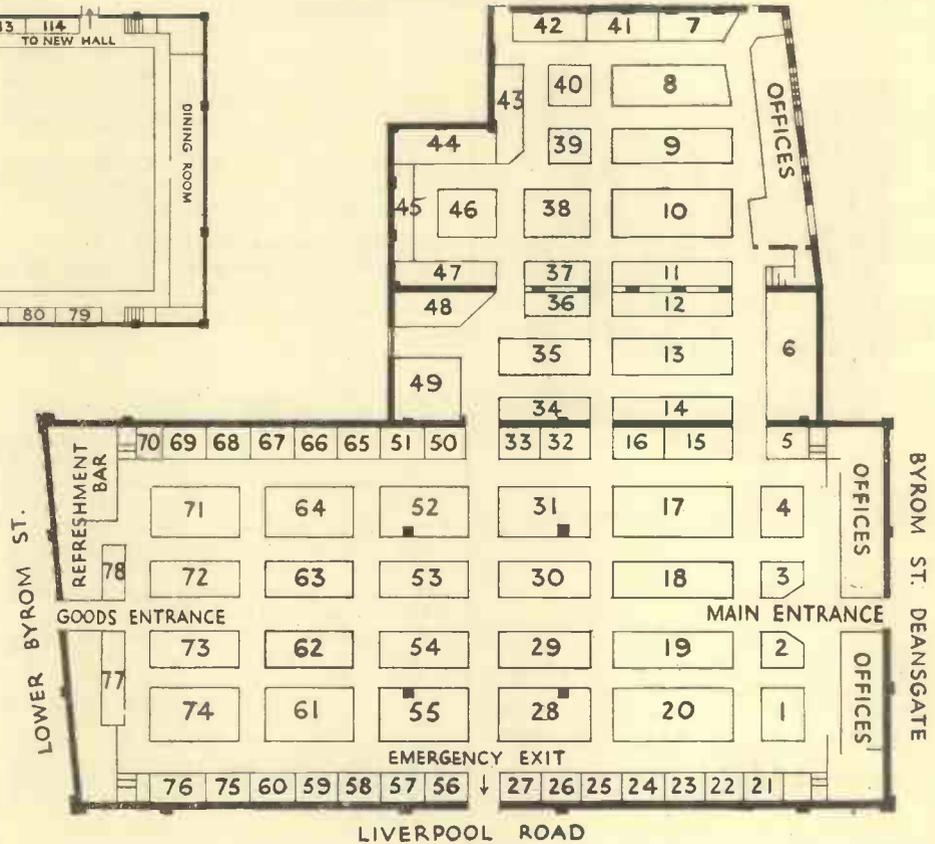
This new Blue Spot receiver for battery operation is one of a wide range of sets on show on Stand No. 62.

NATIONAL RADIO EXHIBITION



Above: Plan of the Main Hall Gallery Stands, and the Stands on the Bridge over the Main Hall. The Bridge is specially erected for the Show. Right: Stands on the Ground Floor. Starting from the top, this plan includes the New Hall, the Tonman Hall and the Main Hall.

To reach "The Broadcaster" Stand, turn left through the main entrance, mount the stairs in the corner, and Stand 84 is half-way along on the left of the gallery.



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Balcombe, A. J., Ltd. 44	Garrard Eng. & Mfg. Co. Ltd. 105, 106	Osborn, Chas. A. 45
Belling & Lee Ltd. 27	General Electric Co. Ltd. 23, 24, 25, 26	Partridge Wilson & Co. 75
Bernard Jones Publications Ltd. 34	Gramo-Radio Ltd. 79	Pegasus Ltd. 91
Britannia Batteries Ltd. 2	Gresley Radio Ltd. 12	Philips Lamps Ltd. 64
British Blue Spot Co., Ltd. 62	Halliwell, J. R., Ltd. 92, 93	Portadyne Radio Ltd. 36
British Broadcasting Corporation. 94, 5, 6, 7	Hardman & Co. Ltd. 10	Pye Radio Ltd. 18
British General Manufacturing Co., Ltd. 12A	Harlie Bros. (Edmonton) Ltd. 83	Radio For The Million. 48A
British Pix Co., Ltd. 85, 86	Hathaway, S., & Co., Ltd. 100	Radio Instruments Ltd. 110
British Radiophone Ltd. 69	Hayberd, F. C., & Co. 40	Ready Radio Ltd. 35
British Thomson-Houston Co. Ltd. 48	Hellesens Ltd. 70	Regentone Ltd. 63
"Broadcaster," The. 84	Hobday Bros. Ltd. 6	Richardsons (R.M.L.) Ltd. 49
Brown Bros. Ltd. 42	Hollingdrake, H., & Son Ltd. 114	Ridings Reliance Ltd. 11
Brownie Wireless Co. (Gt. Britain) Ltd. 16	Houghtons The Wholesalers. 7	Roberts, John. 101
Celestion Ltd. 1	Hustler, Simpson & Webb Ltd. 107	Siemens Electric Lamps & Supplies Ltd. 15
Chloride Electrical Storage Co., Ltd. 61	Igranic Electric Co., Ltd. 72	Small Power Dynamo & Motor Co. Ltd. 99
Cifel Products Ltd. 103	Iliffe & Sons Ltd. 14	Sovereign Products Ltd. 60
City Accumulator Co. 98	Itonia Gramophones Ltd. 41	Stenibac Ltd. 90
Clarke, H., & Co. (Manchester) Ltd. 54	Junit Mfg. Co. Ltd. 78	Telsen Electric Co., Ltd. 13
Climax Radio Electric Ltd. 29	Kolster-Brandes Ltd. 31	Thompson, Diamond & Butcher 47
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Colvern Ltd. 76	Loewe Radio Co. Ltd. 80	Trojan (Manchester) Ltd. 8
Consolidated Radio Ltd. 46	Lotus Radio Ltd. 30	Ultra Electric Ltd. 56, 57, 58, 59
Cossor, A. C., Ltd. 19	McMichael, L., Ltd. 71	Universal Electric Supply Co., Ltd. 108, 109
Diggie, Alfred, & Co. 82	Marconiphone Co. Ltd. 55	Varley (Oliver Pell Control Ltd.) 67, 68
Dubilier Condenser Co. (1925) Ltd. 53	Mullard Wireless Service Co., Ltd. 20	Wellworth Wireless Co. 82A
Econasign Co., Ltd. 81	Murphy Radio Ltd. 9	Westinghouse Brake & Saxby Signal Co. Ltd. 73
Edison Swan Electric Co., Ltd. 28	National Accumulator Co., Ltd. 88	Whiteley Electrical Radio Co. Ltd. 32, 33
Electrical & Radio Products (1931) Ltd. 43	New London Electron Works Ltd. 4	Wingrove & Rogers Ltd. 39
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English Steel Corporation Ltd. 112		"Wireless Trader," The. 37
Epoch Radio Mfg. Co., Ltd. 111, 102		

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One of the many attractive Portadyne lines on show on Stand No. 36 is this B.M.C. Portable which sells at 14 guineas.

Continued from page 96]

A comprehensive display of B.B.C. publications completes an interesting exhibit.

The B.B.C. amplifying gear supplying a common input for speakers displayed on the various stands forms part of this exhibit.

BRITISH GENERAL MANUFACTURING CO., LTD.

Stand 12A Introduces New All-Mains Receiver.

In time for the Manchester Show, British General have produced a new three-valve all-mains receiver of the screen-grid, detector and pentode type, which sells at the competitive figure of £14 10s.

This receiver is for A.C. mains operation only, but a D.C. version is to be produced shortly.

The set is chassis-built and together with an energised moving-coil speaker, is housed in a fumed walnut table cabinet. It is fitted with side wings recessed with carrying slots.

Controls neatly grouped under a square-shaped speaker fret consist of a single tuning knob with scale calibrated in wavelengths, reaction, wavechange, and combined switch and volume.

Other lines to see here are the S.G. three-band-pass model at 18 guineas together with a radio-gramophone model of the set.

There is also on show their two-valve mains receiver selling at 11 guineas.

Two battery sets, a two selling at £5 10s. and an S.G. 3 at 11 guineas, can be inspected together with the British General band-pass tuner and other components.

BRITISH PIX CO. LTD.

Stands 85 and 86 Concentrate on New Invisible Aerial and Valves.

The Pix invisible aerial, which is here shown and demonstrated, is something new. Being in the form of a self-adhesive strip one inch wide, thirty feet long, it can be fixed anywhere in a few minutes without tools and with the utmost ease. Furthermore, it can be detached and refixed anywhere—around any room, under linoleum and carpet, up the staircase or under the banister to the top of the house. It is sold in small coils, the aluminium strip being covered with coloured tape.

Two and four volt rectifying and indirectly heated valves constitute a separate display. The Pix valve has a triple coated filament, which carries an adhering coating of neodymium. This, it is claimed, produces a strong controllable emission.

Another little gadget is the selectivity device which, when fixed to the aerial, enables listeners to cut out loud and powerful stations and to bring in programmes which ordinarily are somewhat elusive. It can be fitted to any type of set, whether crystal, battery or mains operated.

Finally, there are the Pix superhets—the Crossley and Ascot models, retailing at 20 guineas and 16 guineas respectively.

BRITISH RADIOPHONE LTD.

Stand 69 Has "Half a Set" to Sell at £3.

The new "Radiopak" consisting of a band-pass three gang coil and condenser set and on-and-off switch and a volume control built on chassis lines is the prominent exhibit on this Stand.

This unit, made to simplify home set construction, sells at £3.

Among its features are the incorporation of chokes to prevent long wave break through on the medium wave band, and the special designing of the coil screens to save space. A wavelength calibrated scale is fitted.

The coil assembly employs a single aerial tuner and band-pass intervalve coupling, designed to prevent aerial capacities from upsetting the band-pass tuning.

A specimen of the *Wireless Magazine* "Calibrator" receiver which uses this unit is displayed.

Ganged condensers in many types are displayed at prices ranging from 17s. 6d. to 35s. 6d. There are also on show midge condensors, dials and escutcheons, while volume controls, switches and potentiometers are included.

The Radiophone pick-up, selling at 22s. 6d., should be examined.

BRITISH THOMSON-HOUSTON CO. LTD.

Stand 48 Displays Gramophone Motors and P.A. Equipment.

Four models of gramophone motors are the main points of appeal. One is a synchronous motor (not self-starting), selling at 32s. 6d.; another a synchronous motor with self-starter and automatic stop at 49s. 6d.; the third a slow speed machine with the motor running at turntable speed and with automatic stop at 67s. 6d.; and the fourth a universal slow-speed motor running at turntable speed, with automatic start and stop, at 110s.

Most popular of these is the second, the "Trusped," for operation from 50 cycle A.C. current. It has no mechanical governor gear, yet the speed is controlled electrically and cannot vary from the correct playing speed. Finished in Florentine bronze with 12-inch turntable in golden brown plush, it is securable by four screws only.

The most expensive model is specially built for long and arduous service, the turntable being driven direct from the motor spindle. A simple alteration to the position of the resistance converts the machine from D.C. to A.C. operation.

The exhibit is completed by a selection of P.A. equipment, including amplifiers, dual gramophone turntables and microphones. Outstanding, however, is the 40 watt amplifier similar to that just installed at Blackpool Tower.

"THE BROADCASTER."

Stand 84 An Enquiry Bureau for Northern Dealers.

Dealers visiting the Northern National Radio Exhibition should go straight to Stand 84 on arriving at the City Hall. This will ensure them a trouble-free visit.

It is very easy to find this stand. When through the main entrance turn to the left and mount the stairs in the corner to the

Gallery. *The Broadcaster* stand will then be found on that side of the Gallery and right opposite the bridge.

If you have any query about the Trade or otherwise go along to Stand 84 and ask for Mr. E. W. Coleman, the stand manager, who is there to help you.

Make what use of this stand you like. Make appointments to meet your friends there and use it as a cloakroom if you wish.

Comfortable seating accommodation has been provided on the stand and dealers are at liberty to make use of this when they desire.

A desk and writing materials have been provided for any member of the Trade who wishes to write letters, while correspondence may be addressed to the stand to be called for.

BROWN BROS. LTD.

Stand 42 Shows Charging Plant and Leading Makers' Lines.

As wholesale distributors this firm are displaying a comprehensive range of receivers, radiograms and components by various well-known manufacturers.

They are also making a special feature of charging plant in the display.

Plant on view includes Westinghouse, Crypto C.P. apparatus and rectifiers, Newton C.P. apparatus and rectifiers, Davenset equipment and Stuart lighting plant.

BROWNIE WIRELESS CO. (G.B.), LTD.

Stand 16. Includes a low-priced Battery Receiver.

Prominent on Brownie's stand is the two-valve battery-driven set selling at £3, including valves and royalty. The chassis is an all-steel one built in an oak cabinet.

Hire-purchase terms are now available on this set. They are: a deposit of 13s. 3d. and six monthly payments of 13s. 3d.

The two-valve A.C. set shown complete with moving-coil speaker, costs 9 guineas.

A three-valve S.G. detector and pentode combination for A.C. mains sells at 15 guineas, with moving-coil speaker. The cabinet is of walnut.

Lastly, dealers should see the "Dominion" S.G. four-valve receiver for battery operation. The circuit is:—S.G. detector, low-frequency and pentode, with moving-coil speaker. The price in walnut cabinet is £12 10s.

Hire-purchase terms are also available on these sets.

CELESTION LTD.

Stand 1 Has P.P.M. Standard Speaker in Improved Form.

Important alterations to the Celestion P.P.M. standard permanent magnet moving



Double band pass tuning is employed in this three-valve British General set which can be examined on Stand No. 12a.

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The Rt. Hon. J. H. Whitley P.C. was the guest of honour at the exhibition luncheon on Wednesday. From left to right are shown, Mr. W.W. Burnham, vice-chairman R.M.A., the Rt. Hon. J. H. Whitley, Mr. Leslie McMichael, chairman R.M.A., and Major Gladstone Murray, assistant-controller B.B.C.

coil speaker are now announced and specimens of the improved model are given prominent display on the stand.

Firstly, the speaker is being re-named and will now be known as the P.P.M.19.

Improvements include the fitting of a new input transformer of the universal type, which will allow the speaker to be matched to both power and pentode valves.

An improved "Hyflex" moulded diaphragm is now being fitted, while outside suspension will replace the internal metal suspension previously used. The speech coil is of a new type and is wound on a moulded former to give the utmost reliability.

The price of the speaker remains at 47s. 6d., while the alterations take effect as from October 1st.

Other speakers in the range displayed on this stand include the new M.8, which complete in its walnut cabinet sells at 37s. 6d.

CHLORIDE ELECTRICAL STORAGE CO., LTD.

Stand 61 is a Battery and Accumulator Exhibit.

A Union Jack on Exide's stand drives home to the visitor that the firm's products are entirely British-made.

Both "Exide" accumulators and "Drydex" batteries are featured on this very decorative stand.

No new types have been introduced since the Olympia Show and consequently the firm are "pushing" their already well-known types.

Among L.T. accumulators is the "C" series in glass and celluloid containers, with capacities ranging from 6-120 ampere hours. In the "D" range we find the mass type cells. Thirdly, there is a display of the deluxe "H. 2" models, and lastly unspillable cells.

In the "D" range charging indicator beads have been introduced.

Yet another group comprises the numerous H.T. accumulators available, and their "Drydex" H.T. batteries hold the field.

There are five grades—the Red Triangle series for use with low power sets, the Green Triangle series which are superior in quality to the Red Triangle range, although serving the same purpose; Orange Triangle series, triple capacity for high-power sets, and the Blue and Yellow Triangle series for portable

receivers.

"Drydex" grid-bias and torch batteries, and torches in numerous capacities and sizes comprise the rest of the display.

CIFEL PRODUCTS LTD.

Stand 103 is a Gallery Exhibit of Receivers and Radiograms.

All-electric instruments are the principal item of interest at this stand. The two-valve A.C. or D.C. receiver is priced at £9 17s. 6d., complete with moving-coil speaker and an attractively-designed cabinet.

The price of the three-valve A.C. mains receiver is now reduced to £15 12s. 6d. Band-pass tuning is employed, and the cabinet—of modernist design—incorporates a moving-coil speaker. Hire-purchase terms are, of course, available.

Radio-gramophones are shown. The circuit used comprises an all-mains driven three-valve band-pass combination feeding Magnavox dual speakers. The gramophone side incorporates a self-starter motor with automatic stop and an automatic needle box. Prices range from 28 guineas, according to cabinet design.

The components on show include a dual range coil at 5s. 6d., and three condensers of 1, 2, and 5 mfs. Prices are 2s., 3s. 4d., and 5s. 6d. respectively.

CITY ACCUMULATOR CO.

Stand 98 Distributes Booklet Describing New Kit.

A very attractive booklet describing the construction of the C.A.C. kit radio-gramophone is being distributed at this stand.

This instrument costs £12 for the receiver portion and £5 17s. 4d. for the A.C. eliminator components. It is built in four sections, the receiver, the mains unit, the speaker and baffle and the motor board assembly, and the whole was designed by the C.A.C. technical staff under the direction of Mr. P. K. Turner.

"Konduktite," the metallic paper produced by the firm for shielding purposes is being prominently displayed, while an arrangement of a battery, a lamp, a buzzer and a loose lead is used to show its conductivity.

C.A.C. low-frequency couplers are also prominently displayed.

In the Convoy C.A.C. had J. H. Mollison's Atlantic plane, "Heart's Content." This display was staged in conjunction with the Edison Swan Electric Co., Ltd.

H. CLARKE & CO. (MANCHESTER) LTD. Stand 54 Makes Two-Valve Set the Centrepiece.

Having entered the set manufacturing field, Clarke's are concentrating on what is known as the "Atlas Two," which is made for operation from mains and from batteries. Detector and power valves are fitted.

Built from carefully matched components and with moving coil speaker, this receiver, which employs Westinghouse metal rectification, all housed in a polished two-tone walnut cabinet, retails at £10 10s.

The battery model at £6 10s. has detector and pentode valves, permanent magnet moving coil speaker, one-knob tuning, dual wave switch, reaction volume control and battery and accumulator space in the cabinet.

Another relatively new line is the moving coil speaker, the magnet of which, of 35 per cent. Cobalt steel, gives a very high flux density. The diaphragm is specially impregnated to prevent resonance and the ingenious method of suspension gives great power handling capacity. The input transformer gives a choice of ratios for matching every type of output valve, power or pentode. The chassis type is 42s. and the cabinet type 70s.

Of the Atlas eliminators which are already well known in the Trade, not much need be said. On the stand a full range of them may be seen; and also lowfrequency transformers, short wave coils and pentode chokes.

CLIMAX RADIO ELECTRIC LTD.

Stand 29 Gives Prominence to New Sets and Speakers.

There are two sets well worth seeing here. The first is the sixteen-guinea receiver, employing the latest types of screened-grid, detector and pentode valves, and rectifier, and incorporating direct station and wavelength scale, moving-coil speaker, all-metal chassis, pick-up sockets, mains safety device, and a useful innovation—provision for an additional speaker. This set is made for A.C. mains only.

The radio-gramophone at 24 guineas covers the market for the transportable radiogram at a price just a little more than that of a good receiver. The electric motor with which this is fitted is of the induction type with automatic start and stop, whilst the pick-up has been selected to match the balanced band-pass circuit. The speaker is of the moving-coil type.

On the components side, the leading exhibit is the Autobat D.C. mains unit (34s.) which has one fixed and three variable tapings, the S.G. tapping being fitted with internal resistance and condensers for decoupling. For switching over from positive to negative mains there is a patent switch. This unit is suitable for large super-power valves or pentodes.

Small goods on view embrace chokes, potential dividers, H.F. chokes, bijou H.F. chokes and earth tubes.

E. K. COLE, LTD.

Stand 17 Running "Paramount" Booking Office Scheme.

A complete theatre booking office with a "Paramount" page boy is booking seats for any day ahead for the Ekco "Comparison" show at the Paramount Theatre.

Six hundred 16-sheet posters and 2,000 contents bills are prominently displayed on Manchester sites and in dealers' windows.

The Ekco show opened on Monday and at every performance so far there has been standing room only.

In the entrance of the Paramount Theatre are two big Ekco displays with page boys in attendance.

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Special folders have been printed and are being distributed at the entrance to the theatre.

The Ekco public address van is touring Manchester and district for the next fourteen days and announcing the Ekco Paramount Show.

Window displays consisting of 100% Ekco products have been arranged throughout the North of England.

Traders who desire to see the "Direct Comparison" show can obtain admission tickets from the Ekco stand at the City Hall.

The full Ekco range is shown, and the stand again stresses the Ekco station dial.

COLVERN LTD.

Stand 76 is a High-class Component Exhibit.

A well-arranged display of coils and other components—many of them partially built to enable the visitor to see the construction—can be inspected here.

In addition, several well-known chassis embodying Colvern components are displayed on the stand.

Many interesting components are shown, prominence being given to Colverdynes type 110 and D.O. 110, which are band-pass intermediate transformers for superhets. Matching condensers are fitted inside the base of the Colverdynes and are operated by small levers. The price of both types is 12s. 6d.

The variable Colverstats for use as volume controls are exhibited in various forms. The price is 5s. 6d. for various values.

Coils, range wave switches, pre-set condensers, coil and valve screens, and various band-pass units complete the exhibit.

CONSOLIDATED RADIO CO., LTD.

Stand 46 Favours Inexpensive Three-Valve Radio Receivers.

Ease of operation is a feature of the receivers shown here. The mains-driven models incorporate "Magnavox" energised speakers. A distinctive feature of all the models is the simplicity of the tuning arrangements.

Rolls Caydon are exhibiting the following products: a three-valve A.C. or D.C. mains set lists at 15 guineas; a band-pass "three," also for A.C. or D.C., costs 18 guineas.

A battery-operated S.G. 4 is shown in transportable form at 12 guineas, and as a suitcase portable at 11 guineas.

The well-known Rees-Mace "Gnome" four-valve S.G. portable again makes its appearance. The price is 12 guineas. This section of the firm is producing an all-mains radio-gramophone at 24 guineas for A.C. and 25 guineas for D.C. The circuit used is a three-valver, and a G.E.C. pick-up and Garrard motor comprise the gramophone side.

The "Cam" radio-gramophone, incorporating a band-pass A.C. mains circuit retails at 36 guineas. For D.C. the cost is £1 extra.

A five-valve superhet set costs 15 guineas.

Hire-purchase terms are strongly featured as an inducement to the public.

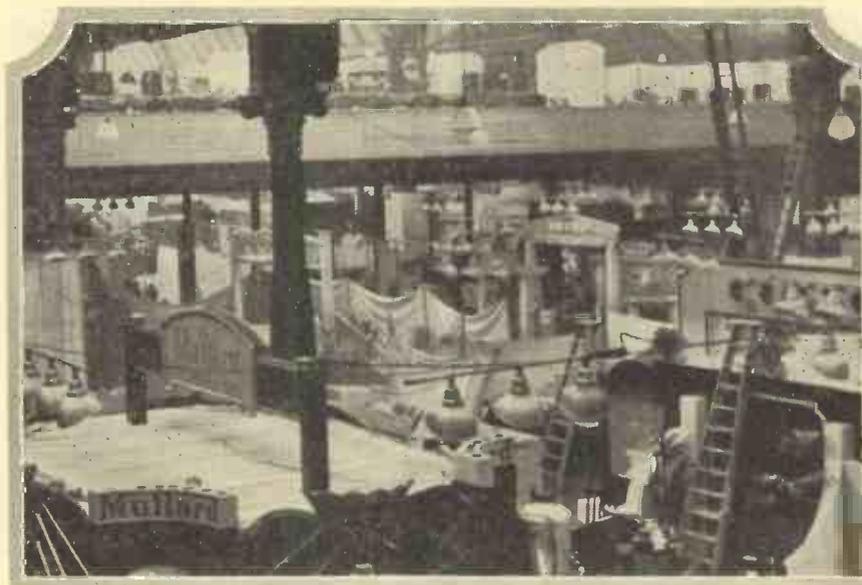
A. C. COSSOR, LTD.

Stand 19 For Wide Receiver and Valve Range.

This bright stand displays the many Cossor receivers and the wide range of valves produced by the firm.

Among the sets are the two Melody Maker kits, the chief feature of which is, of course, ease of construction. Model 335 is a screen-grid three with speaker selling at £7 17s. 6d. and Model 334 without speaker at £6 7s. 6d.

Other receivers shown include Model 732A, a four-valve battery set with moving-coil speaker at £14; Model 335A, a four-valve



A view of the City Hall showing preparations in progress on Tuesday afternoon for the opening of the exhibition on the following day.

with rectifier and moving-coil speaker at 17 guineas; and Model 222A, a two-valve all-mains set, also with moving-coil speaker at £11 15s.

Two A.C. mains kits dealers should inspect here are Model 336 at £9 15s. and Model 337, substantially the same but with a moving-coil speaker selling at £11 15s.

Cossor valves are displayed in their many types, while three newly introduced pentodes should be seen. These are the 220 H.P.T., 220 P.T. and 410 P.T., each selling at 17s. 6d.

ALFRED DIGGLE & CO.

Stand 82 Displays Series of Accumulator Chargers.

The star feature of this exhibit is an improved model of the firm's "Reliance" type No. 1A. battery-charging plant.

This plant is rated to give an output of 30 volts at 10 amperes. The switch board employs four independent circuits for charging low and high-tension radio accumulators and car batteries simultaneously.

The machine is fully automatic in action and is claimed to be very simple to operate. It is stated to be shock-proof and needs the minimum of attention.

It costs £27 10s. or can be obtained on hire-purchase terms if desired.

Larger plant is also exhibited on this stand. Members of the staff will be pleased to explain to dealers particulars of their part-exchange schemes.

DUBILIER CONDENSER CO. (1925) LTD.

Stand 53 Gives Pride of Place to Condensers.

Four groups of condensers and an assortment of high-frequency chokes, R.C.C. units, aerial attachments and anti-interference devices serve to make this stand a particularly attractive one.

Reductions have been made in the price of paper condensers.

The low voltage electrolytic condenser is designed for use as a by-pass across the auto-grid bias resistance to high power amplifying valves. Various advantages are claimed for the high voltage dry electrolytic condenser over the wet type, and being designed for use as a smoothing condenser for rectifier, filter and decoupling circuits, is serviceable where there is a polarising D.C. voltage below the

specified maximum safe peak voltage.

Metallised resistances are now commonly used by set manufacturers. Those made by Dubilier are available in one, two and three-watt ratings and in a wide variety of values, the standard tolerance in each case being plus or minus ten per cent. Finally, a word or two is warranted by the metallised grid leaks which are of the same construction as the resistances and are made to sell at 1s. each.

Amongst the miscellaneous components are: mica condensers, condenser blocks, chokes, coupling units, and socket aerials.

ECONASIGN CO., LTD.

Stand 81 Shows Dealers How to Make Their Own Showcards.

On this Gallery stand are stencil outfits which enable retailers to produce their own showcards, posters and window pelmets in a variety of styles and colours.

Representatives on the stand are ready to show how "running expenses can be made to walk" by saving printers' bills.

Outfits are priced at from one guinea to four guineas.

EDISON SWAN ELECTRIC CO., LTD.

Stand 28 For Valves, Pick-ups, Accumulators and Batteries.

"Mazda" valves for all radio purposes, a range of about 50, are shown by Ediswan. In the case of metal-coated valves, the coating is connected to the filament pin.

A section of the stand is devoted to R.K. reproducers the most costly of which is the "Windsor" model in oak (£8 10s.) and walnut (£8 17s. 6d.). As no excitation is required for the field magnet of the reproducer, the instrument can be satisfactorily operated from a wireless receiver without extra mains connection. Altogether there is a range of seven reproducers.

As the senior models do not embody an output transformer, these are shown separately. They are of the double or multi-ratio types calculated to get the best results from any moving-coil speaker, no matter what type of power valve is used.

As to the B.T.H. senior *de luxe* pick-up and tone arm, the output when used with the 20,000 ohm volume-control and played with a full tone needle on a 933 cycle record, is one

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volt. Swivel connection between the pick-up and tone arm facilitates the change of needles. The volume control is matched to the pick-up and is separate from it, to permit it being mounted on the motor board, control panel or other position. Price 42s.

Batteries for radio (H.T.) torches, flash lamps, electric clocks, are also shown.

ELECTRICAL AND RADIO PRODUCTS (1931) LTD.

Stand 43 Is devoted to Receivers, Radio-gramophones and Portables.

The range of E.R.P. models available for the firm's authorised dealers includes two well-finished radio-gramophones.

The six-valve "Mayfair" superhet is a pedestal model selling at 36 guineas. The "Gainsborough" is priced at 30 guineas, and the "Marlborough" at 24 guineas. The "Marlborough" is a three-valve model for use on A.C. or D.C.

A table model set for A.C. or D.C. on show costs 14 guineas, and the "Clarendon" is priced at 10 guineas.

One of the few suitcase-type portables at the Show is the four-valve S.G. Model, known as the "Belgrave." In a hide-finished case, this receiver costs 10 guineas.

We understood from a representative of the firm that a five-valve superhet receiver may make its appearance during the run of the Manchester Exhibition.

ELECTRO DYNAMIC CONSTRUCTION CO., LTD.

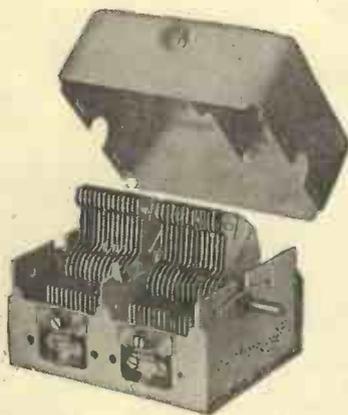
Stand 104 Exhibits a Range of Mains Converters.

Special attention has been paid by this firm to converters for operating standard A.C. radio-gramophones for private house and ship low-voltage supplies, and a comprehensive range of models is exhibited.

The range of this type of converter has been increased, there now being ten different sizes between 50 and 600 watts. A new machine gives a steady A.C. output voltage irrespective of fluctuations in the input up to as much as 40 per cent.

Other new products exhibited are an alternator that can be driven by a motor-car engine and a rotary transformer which is stated to be capable of working from a 2-volt battery and giving an output of 15 milliamperes at 150 volts.

Remainder of the display comprises a comprehensive series of D.C. to A.C. converters suitable for operating receivers and radio-gramophones.



One of a range of screened and ganged tuning condensers being displayed by British Radiophone Ltd. on Stand No. 69.

ENGLISH STEEL CORPORATION LTD. Stand 112 is Principally of Interest to Set Manufacturers.

Magnets and magnet steel are shown by this firm, which represents the steel interests of Vickers Armstrong and Cammell Laird.

The magnet steels available are: 6 per cent. tungsten steel, 9 per cent. cobalt-chromium steel, 15 per cent. cobalt-chromium steel, and 35 per cent. cobalt-chromium-tungsten steel. Straight chromium and straight molybdenum steels are produced when required.

Examples of pick-ups, moving-coil speakers and various electrical instruments incorporating the firm's magnets are shown.

To demonstrate the strength of their magnets there is an exhibit of a heavy weight supported from the effective gap of a moving-coil speaker magnet.

EPOCH RADIO MANUFACTURING CO. LTD. Stands 111 and 102 Exhibit Speaker Firm's Entry into Set Market.

Outstanding in this firm's exhibit this year is the new Epoch set, which introduces this prominent speaker manufacturer into the receiver market.

This receiver is of the luxury type, and is a three-valve mains model, selling at 20 guineas. Models for operation from both A.C. and D.C. mains are available to sell at the same price.

The set is housed in a walnut table-type cabinet and contains of course an Epoch moving coil speaker.

Domestic and P.A. speakers form the remainder of the display here and among the former the new P.M. moving coil speaker, selling at 27s. 6d., is worthy of special attention. This speaker is sold complete with input transformer.

Another line on show is a new form of the Epoch "20th Century" P.M. Speaker, selling at 35s. This, together with the standard range, completes the display.

FERRANTI LTD. Stand 74 Displays Sets, Kits, Charts, and Components.

One of the first things that draws attention to this modernistic stand is a large "market place" type of clock that has been built on one of the corners. This has the letters of Ferranti Ltd., in place of numbers and also serves the purpose of emphasising that Ferranti make synchronous clocks. Standard movements are used.

The new S.G. 3 kit shown at Olympia as the "Minimax 3" is shown on the stand, but its new name the "Maximin Three" is being stressed. Components for this set cost 40s. W. & T. Lock Ltd. have now produced table console cabinets to take the set. These sell at 27s. in walnut finish and 29s. in oak.

Revised charts for a number of Ferranti constructors receivers are being displayed, together with a number of new catalogues and leaflets.

The Ferranti superhet range of receivers are given due prominence. These include the standard model at 22 guineas and an electric clock model at 25 guineas.

Ferranti are also showing their valves which include many popular types, while the firm's moving-coil speakers should not be missed. One of these is shown in section.

A host of components including transformers, condensers and resistances are attractively displayed on the counters of the stand.

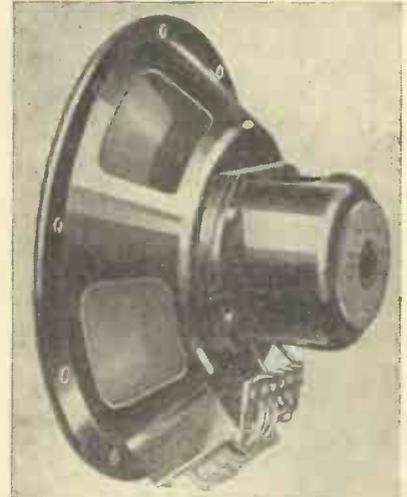
FULLER ACCUMULATOR CO. (1926) LTD. Stand 3 Carries Display of Batteries and Accumulators.

"Sparta" high-tension batteries in their fully protecting containers and cellophane

wrappings are the conspicuous point about this display.

Types varying from 66 to 120 volts are shown, while there is a newly introduced 108-volt battery at 9s. 9d. and a square 120-volt unit at 10s. 9d.

The portable type batteries in green cases are shown with several additions. These are: 99-volt, 10s.; 100-volt, 11s.; and 120-volt, 15s.



This speaker, typical of the Celestion range, is a D.C. operated production. It is one of a new range to be seen on Stand No. 1.

"Mammoth" accumulators are a range to be noted. These have very thick plates separated by ebonite, while tell-tale indicators are fitted.

The R.P.G.H. and M.S.G.H. types are shown in their improved forms, and there are also 12 jelly acid accumulators for portables. Of these, the J.M.E. 9 has now been altered in size to fit Pye and Marconiphone receivers.

Finally, there is the firm's range of glass-cased H.T. accumulators of both 3,000 and 10,000 m.a. hour type. Both are available in 10-volt units.

GARRARD ENG. & MFG. CO. LTD. Stands 105 and 106 Are a Display of Gramophone Motors.

Examples of Garrard gramophone motors are shown, in many cases in a series of parts. Prominence is given to the automatic record changer, which includes a pick-up and arm. The price is £10. The changer will play eight 10 or 12-inch records of any make. As soon as the last one is played the current is automatically switched off.

It is supplied for A.C. mains of 100/130 volts and 200/250 volts.

The new induction motor, A.C.4, is available for inspection. It is designed to run on 50/60 cycle mains, and is priced at £2 2s. 6d. Without a motor plate and with simple type switch the price is £1 17s. 6d.

Universal electric motors, induction motors, single and double spring motors, automatic stops, and other gramophone motors are also exhibited.

GENERAL ELECTRIC CO. LTD. Stands 23 to 26, Ablaze with Colour to Set Off G.E.C. Range.

Bright gold, red and green with red and green lighting make the exterior of the G.E.C. stand particularly attractive, while a smooth, grey background and flood-lighting is used to set off the firm's range of receivers.

This year's G.E.C. receivers are well known

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MANCHESTER AND LONDON



E. A. Abbott (New London Electron) finds something of interest in company with H. Green (Telsen). (2) The "Ediswan Look" from H. R. Harris. (3) Our cameraman makes Harold Hart (R.M.A.) look "knowing," B. Maxwell (Manager, City Hall) coy and Edgar Hart (Provincial Exhibitions) amused. (4) A. Snell (G.E.C.). (5) "Bill" Miller (Lotus) and H. Morgan (Harlie) in conclave. (6) L. C. Morrison and H. Mitchell (K.B.). (7) As H. Boyd (Philips) said to F. H. Robinson (Editor, Broadcaster), "You caught me that time." (8) Cyril French (Celestion) was telling us what fine photos he had of the convoy. (9) E. A. Lever, T. A. W. Robinson and R. M. Ellis in a Pye picture with J. W. Gilbert (Woburn). (10) S. Miller (N.R.S.) having a peaceful smoke.

MEET AT THE CITY HALL



(1) A W.R.A. group. Left to right : J. Booth, W.B. Vernon, J. R. Carter, J. McKnight and A. J. Barratt. (2) H. G. Jenkinson (Manchester) and R. Arbib (London H.M.V.) in close conversation with F. Gronback of the Broadcaster. (3) F. J. E. Brake (Standard Telephones) expounds a point to G. Evans (K.B.). (4) "It's cold," says A. H. D. Freeman (Clarke's). (5) A technical talk by J. Baggs and A. Nicholson (Ferranti). (6) A. H. Whiteley (Whiteley Electrical). (7) Y. W. P. Evans (Mullard) smokes the pipe of comparative peace. (8) S. G. Wrigglesworth (Oldham) and G. L. Thornton (S. Wilding Cole, Sheffield). (9) Doubtful looks from F. Jeffery and G. Ashton (Ekco). (10) J. R. Whiley and G. Grayley (Wingrove & Rogers) ponder a "Polar" showcard. (11) A Marconiphone group : G. E. Kemp, H. F. Ratcliffe and F. H. Barlow.

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to the Trade by now. They include the "Gala" three-valve at 18 guineas, the "Viking" four-valve at 23 guineas, the "Carnival" three-valve radio-gramophone at 30 guineas and the five-valve superhet at 26 guineas.

Then there is the "Nomad," a four-valve set produced for the D.C. mains market and the Osram "Thirty-Three" kit. Several new speakers are also on show.

Osram valves are also fully displayed here and many new types can be examined. These include the P.X. 25, a power amplifier with a maximum anode rating of 400 volts. The valve has an amplification factor of 9.5 and an anode dissipation of 25 watts. It sells at £1 5s.

Another new valve is the P.T. 25, a pentode with a similar anode dissipation. It has a maximum anode voltage of 400, screen volts, 200 and an amplification factor of 100. It is priced at £2 5s.

Improved versions of the V.S. 2, the P.T. 4 and the P.T. 2 are also displayed.

GRAMO-RADIO LTD.

Stand 79 Demonstrates a Selenium Light Bridge.

Every person who passes this stand and crosses a light-ray will be automatically registered on a numbering machine erected on the corner of the counter.

Several novelties in the manipulation of a selenium light bridge are shown, but the simplest and most striking is a small box cabinet in the lid of which there is an illuminated disc. By placing the hand across it an electric lamp is immediately switched on and by repeating the action the current is transferred to another lamp.

The system is adaptable to automatic traffic controls, as the time lag can be carried from half a second to three minutes.

Public address equipment, in which Gramo-Radio Ltd. specialise, is shown on the stand, including apparatus similar to that installed by the concern in several Lancashire public buildings.

GRESLEY RADIO LTD.

Stand 12 Has New De Luxe Model Receiver for Inspection.

One of the new releases for the Manchester Show is a *de luxe* version of the Standard 14-guinea all mains set. This *de luxe* model is housed in a more expensive cabinet than the original model.

Both of these sets are A.C. types and have three valve screen grid circuits. Moving coil speakers are incorporated, while the cabinet of the standard model is of the walnut table type.

A battery version is available for 9 guineas.

An interesting product that can be used in conjunction with a number of table type receivers is the Gresley walnut radio table, which sells at £1 1s. 0d.

A Gresley moving coil speaker is featured on the stand. This, built into a walnut cabinet, is available for sale at 45s.

Mains units are, of course, a feature in the firm's programme and the various models in the range are well displayed. One is an H.T. eliminator with trickle charger to sell at £3 17s. 6d., while another is a plain H.T. unit at £2 17s. 6d.

A triple gang tuning condenser complete with dial should be seen. This component sells at 22s. 6d.

J. R. HALLIWELL, LTD.

Stands 92 & 93 Display "Dynatron" Range of Receivers.

The full range of "Dynatron" products is being shown on this stand by J. R. Halliwell, Ltd., who are the northern distributors for H. Hacker & Sons of Maidenhead.



H. Clarke & Co. (Manchester) Ltd. are showing this neat two-valve receiver on Stand No. 54.

Three new radio-gramophones are the feature of the range this year. The first, known as the "Ether Lord," sells at the popular price of £35, convertible for either A.C. or D.C. mains operation. It employs band pass tuning with single knob control, a scale calibrated in wavelengths and a moving coil speaker. The cabinet is walnut and of the console type.

The second of these instruments is the "Ether Prince," priced at 48 guineas, for A.C. mains operation.

One of the features of this instrument is a station selector which indicates the names of transmitters in such a manner as to render tuning a very simple matter.

This receiver employs two variable mu H.F. stages, band pass tuning and is housed in a burr walnut cabinet. All controls with the exception of that for volume are mounted on the motor board.

Finally in this series there is on show the "Ether King," a *de luxe* instrument listed at 69 guineas or at 79 guineas if fitted with automatic record changing mechanism. These are both for A.C. mains operation.

One of its refinements are dual compensated speakers, while the station selector device is incorporated. Band pass tuning with two screen grid H.F. stages is used.

Another feature of the exhibit is the "Dynatron" universal radio-gramophone model U.53, which is for either A.C. or D.C. mains operation. This sells at 78 guineas.

The "Ambassador" table console selling at 19 guineas for either A.C. or D.C. is also being prominently displayed. Briefly, this set which is housed in a distinctive figured walnut cabinet, has three valves, band pass tuning, a large moving coil speaker, facilities for conversion to either mains supply and single dial tuning.

It has provision for the use of a pick-up, and has also a combined wave change and gramophone switch. The set is guaranteed for two years.

HARDMAN & CO. LTD.

Stand 10 Displays a Selection of some of the Best Sellers.

As factors whose ramifications extend throughout South-West Lancashire, Hardman's stand is neatly dressed with an assortment of the leading lines of several manufacturers' houses.

In eliminators there are the Atlas and Ekco makes; Tekade motor speakers; Pertrix, Drydex and Ever Ready batteries,

and Ready Radio kits. In addition there is a full range of Ormond products.

Bryce mains power equipment is also shown, including transformers for valve rectification, amplifiers, conversion transformers, smoothing and output chokes, and peak buffer condensers.

HARLIE BROS. (EDMONTON) LTD.

Stand 83 is Devoted to Pick-ups and Gramophone Motors.

Three A.C. mains induction motors are shown here. The "Midget," with a 10-inch turntable, costs £1 19s., and the better unit, with a 12-inch turntable, retails at £2 5s. Lastly, there is a *de luxe* model, mounted on a bakelite plate. The price is fixed at £2 15s. A slow speed motor is fitted.

An assembly arousing considerable interest is a 12-inch table motor, a moulded bakelite plate, an automatic stop and pick-up, ready to be fitted into a cabinet. Its cost is £4 5s.

The Harlie pick-up No. 36 has recently been improved, and the price reduced to £1 7s. 6d. Model 65 costs £1 2s. 6d., and the feature of this product is a spring adjustment to alter the weight of the pick-up head on the record.

A combined tone selector and scratch filter costs 4s. 6d.

The firm's microphone retails at £2 15s. complete. The Harlie adaptor, radio-gramophone switch and gramo lamp-holder, and an automatic electric stop are also exhibited.

A big feature is being made of the fact that hire-purchase terms are available on all Harlie products.

Dealers will be interested in the show-cards and well-produced booklets available free of charge. The latter are for distribution to the public.

S. HATHAWAY & CO., LTD.

Stand 100 is a Reception Room for Retailer Visitors.

This is a pleasant rendezvous in the Gallery—well away from the hurly-burly—provided by Messrs. Hathaway for the comfort and convenience of their customers who may meet here and discuss radio behind closed doors.

There are no goods on view to detract attention, the stand having been fitted simply as a reception room.

This firm, which has its headquarters at Liverpool, does an extensive factoring business in South-west Lancashire.

F. C. HEAYBERD & CO.

Stand 40 Concentrates on a Complete Range of Mains Units.

On Heayberd's stand two improvements to existing products are shown for the first time. The H.D.C. 150 Model H.T. unit for D.C. mains is now supplied with a variable output of 15, 25 or 50 m.a. The price remains at £2 15s. complete.

The other improvement is in connection with the Model D. 250 complete A.C. mains unit, selling at £9, with L.T. output of 4 volts A.C. valves. Previously only one tapping at 4 volts 6 amps. was available. It is now made to give 4 volts 1 amp., 5 amps. and 6 amps.

New lines introduced at Olympia are also on view. The new A.C. unit for portables is known as the D. 120, and is priced at £4 5s. It supplies 20 m.a. at 120 volts and charging current at 2 volts 3 amp. The case is finished in a bronze colour.

The G. 200 is a new mains unit kit, similar to the older C. 200 Model, but it has an additional 4 volts, 5 amps., A.C. output. The price is £5 7s. 6d. Other A.C. units of

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varying outputs are also shown.

Apart from mains units, there is a big display of mains transformers and large block condensers.

A comprehensive catalogue is available for the public, and great prominence is given to the mains unit kits for the home constructor.

HELLESENS LTD.

Stand 70 Comprises a Display of Batteries and Electrolytic Condensers.

Dominated by an illuminated photograph of the new Hellesen factory, this stand is designed to stress the fact that all Hellesen products are now British-made.

H.T. batteries are shown. All have a capacity of 12 m.a. hours and prices of typical batteries are:—60-volts, 7s. 6d.; 108-volts, 13s. 6d., and 120-volts, 16s. 0d. A 9-volt grid-bias battery retails at 1s. 3d. We were told that the 108-volt battery is popular just now.

The new range of wet and dry electrolytic condensers are shown. Virtually, every usual radio capacity is obtainable.

The new "postage stamp" series of condensers can also be inspected.

Finally, Hellesen senior hand lamps and torch batteries are exhibited.

HOBDAY BROS. LTD.

Stand 6 Stresses Excellent Factor Service for Dealers.

The spacious exhibit taken by the firm enables them to show a comprehensive display of all proprietary lines.

Details of the express delivery service available for Northern dealers are prominently shown, and copies of the new season's catalogue are offered to the Trade.

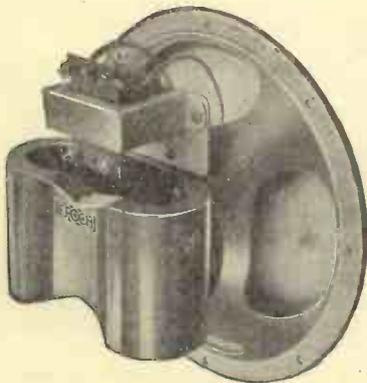
H. HOLLINGDRAKE & SON LTD.

Stand 114. Is a Lounge and Reception Room for Retailers.

Situated on the right hand side of the gallery is a lounge and reception room where retailers may talk shop and examine the Zetavox sixty three guineas radiogram. The standard eight valve superhet chassis is fitted, together with electric gramophone motor. This model is fitted with dual loud speakers and automatic station tuner.

The Stand is in charge of Mr. Sidney Wright, Manager of the Radio Sales Dept., and Mr. R. Hollingdrake.

Representatives of the firm in the various territories will be in attendance during the period of the Show.



Epoch are featuring this "20th Century" permanent magnet moving-coil speaker on their Stand-Nos. 111 and 102.

HOUGHTONS THE WHOLESALEERS Stand 7 Features numerous Proprietary Sets and Components.

This firm of wholesalers, who have taken a large stand in the New Hall, are making a big feature of their service facilities for retailers.

There is a comprehensive display of the numerous lines factored by the firm, and representatives are in attendance to assist dealers in any problem connected with radio.

HUSTLER, SIMPSON & WEBB LTD. Stand 107 Shows Range of Receivers.

The star line of this exhibit is a new "Aerodyne" all-mains variable mu SG 3 receiver in a neat table type cabinet.

It retails at 15 guineas and employs a mains energised moving coil speaker. Single dial tuning is standardised, while another control is a combined volume control and mains switch. Provision is made for the use of a gramophone pick-up, while a mains aerial is also fitted.

The receiver is built on a robust all-metal chassis, and housed in a figured walnut cabinet.

The "Aerodyne" mains two receiver, costing 10 guineas, is another interesting line on show. It employs pentode output and a moving coil speaker.

Another two valver, but for battery operation, is on view. This employs a balanced armature speaker and sells at £4 19s. 6d.

IGRANIC ELECTRIC CO. LTD.

Stand 72 Shows New P.M. Speaker and Components.

One of the principal lines to be seen on this stand is a new permanent magnet moving coil speaker. This is stated to employ a specially patented magnet system.

It is claimed to be particularly sensitive and will operate satisfactorily from a two-valve receiver.

Frequency range is rated between 50 and 8,000 cycles. A dual input transformer is fitted and the speaker complete costs 32s. 6d.

Another interesting new line is a screened dual wave coil with change-over switch. Tuning range is 200/550 metres and 1000/2000 metres when tuned with a .0005 mfd. variable condenser. It costs 12s. 6d.

Two new types of gang variable condensers are shown. The two-gang costs 20s. and the three-gang 22s. 6d. Capacity is .0005 mfd. in each type and the gangs are fitted with trimmers for adjustments for stray capacities.

The new model of the Igranovox pick-up is displayed. With tone arm it costs 35s., or without arm, £1.

A comprehensive range of fixed condensers is also displayed.

ILIFFE & SONS LTD.

Stand 14 Displays Current Issues and Constructor Sets.

Current copies of the *Wireless World* and the *Wireless Engineer* are being displayed and sold on this Stand.

Specimen receivers built to specifications published in the former journal are given prominence in the display.

Included in these receivers is the "Baby Superhet," a *de luxe* instrument having a special single valve frequency changer.

This set with speaker is built in a small table cabinet.

ITONIA GRAMOPHONES LTD.

Stand 41 Displays Well-known Manufacturers' Products.

This factoring firm, who have a Northern branch at Leeds, offer an efficient service to radio retailers in the North.

Representatives are in attendance at the Stand to inform the Trade about the delivery

arrangements made for the Manchester area.

There is, of course, a very complete display of the lines factored by Itonia, as well as the firm's special product—a valve testing panel, designed for use by Marconiphone dealers.

JUNIT MANUFACTURING CO. LTD. Stand 78 Has Electric Clocks and Components on Show.

Synchronous A.C. mains clocks for fitting to radio receivers and selling at 30s. are one of the outstanding points in the display on this stand. Junit also has for sale a range of synchronous clocks in normal type cases.

Mains transformers, mains units, valve



The Ekco S.H.25 receiver is a five-valve super heterodyne instrument, and is one of the features of this year's receiver range.

holders, terminal mounts and switches in the firm's 1933 range are specially displayed.

The mains unit range includes five models giving outputs of from 18 ma. to 25 ma., while each has a variable tapping, a fixed anode tapping, and a screen grid valve tapping. Two of the units incorporate a trickle charger.

KOLSTER-BRANDES LTD.

Stand 31 Features the Kolstar Six-Valve Superhet.

The K-B. prize-winning stand at Olympia has been erected in the City Hall, where a splendid display of this year's K-B. receivers is being made.

Outstanding is the Kolstar six-valve superhet receiver which sells for the low figure of £24 17s. 6d.

This instrument has short, medium and long wavelength ranges and is housed in a very fine pedestal type cabinet.

Three wavelength ranges are also the strong point of the A.C. Type 321 three-valve receiver which sells at £14 17s. 6d. This is of the screen-grid, detector and pentode type, and incorporates a K-B. moving-coil speaker.

The A.C. 320 receiver at 17 guineas has two variable m.u. screen-grid valves and pentode output, provision for pick-up, moving-coil speaker and tone control. It is housed in a figured walnut cabinet.

The standard K-B. pick-up at the reduced price of £1 12s. 6d. is on show, together with a new model of the moulded type at 35s.

LISSEN LTD.

Stands 50, 51, 65 and 66. An Exhibit of Sets, Components, and Batteries.

Giant models of the popular Lissen batteries are an attractive feature of Lissen's Stand, while a full range of these batteries are exhibited. Prominence is given to the new receivers.

The two-valve all-mains receiver at seven guineas (for A.C. or D.C.) is attracting considerable attention on account of its low price.

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The four-guinea two-valve battery model, complete with valves and batteries, is another set which Lissen are featuring at the Show.

At the slightly higher figure of £8 17s. 6d. the firm is showing a battery-driven three-valve model with balanced armature speaker. The price includes, of course, all accessories.

A really high-class receiver is the all-mains band-pass three, at 14 guineas, and 17 guineas with moving-coil speaker.

The "Skyscraper" kit, which was the centre of interest on Lissen's Olympia Stand, repeats its success here. The simplicity of assembly and low price make a big appeal.

New season's components include a ganged tuning unit at 14s. 6d., three L.F. chokes—an intervalve or smoothing model (7s. 6d.), a centre-tapped output or feed model (7s. 6d.), and a general purpose type (12s. 6d.), shielded coils for ganging, and a wave-change switch at 3s. 6d., designed to fit into the base of any of the coils, and a tone compensator at 10s.

There is a loud speaker selling at 17s. 6d., complete with cabinet.

LOEWE RADIO CO. LTD.

Stand 80 A Gallery Exhibit of Speakers and Resistances.

Here the dealer can examine the range of loud speakers marketed by the firm. There is a moving-coil model selling at £2 7s. 6d. in chassis form, or three guineas in a well-made walnut cabinet. The feature about this speaker, according to the makers, is its sensitivity. A three-ratio input transformer is utilised.

The "Vari-tone" Speaker, selling at £1 19s. 6d. complete in a walnut finish cabinet, has a switch adjustment to suit the valve used.

Vacuum resistances are shown in ratings ranging from .1 to 1 watt and in values from 10,000 ohms to 10 megohms. Metal end caps or wires (or both) are fitted as standard with these lines.

LOTUS RADIO LTD.

Stand 33 Shows Full Range of the Lotus Receivers.

All the Lotus manufactures, prominent amongst which are the three and four valve receivers, fresh from Olympia successes, are shown in a very attractive setting.

The four valve set, selling at 20 guineas, which is now in full production, employs two variable-mu. screen grid stages and M.S. Pentode A valve for detector. A noteworthy feature is the tone control moving coil output. Housed in a cabinet of artistic design, it has every attribute to commend it.

The three valve receivers, which have been re-designed and improved in various particulars, include band-pass input to a variable-mu. valve. Moving coil speakers are incorporated. The three valve receivers retail at £16 16s. 0d.

In the battery models, there is a three valve receiver (£14 14s. 0d.) of new design. Commendable features of it are band-pass tuning, permanent magnet moving coil speaker, tone correction, pre-detector volume control and automatic bias.

To cater for the market in two-valve sets, Lotus are now producing the "Bud" models, which with energised moving coil speakers are listed at 10 guineas and 11 guineas for A.C. and D.C. respectively.

Finally, there is the suitcase portable which is calibrated in wavelengths and has thumb-operated tuning. Price is 12 guineas.

L. McMICHAEL LTD.

Stand 71 Has Range of Radio-gramophones and Receivers.

On this Stand, carried out in light grey and dark blue, a feature is being made of the twin

speaker radio-gramophone retailing at 40 guineas. The well-known McMichael full-vision tuning scale is embodied in the instrument, as well as a synchronous motor.

For A.C. mains of 25 or 100 cycles, special models fitted with a universal motor are available at 42 guineas.

The rest of the exhibit consists of the Duplex Four, at 21 guineas; the suitcase portable at 17 guineas; the cabinet-type portable at 17 guineas; and the popular battery driven Three, at 14 guineas.

There is also the mains Three at 20 guineas, and the moving-coil Three (D.C.) at 24 guineas.

The Colonial Supersonic short-wave set completes the display, which is enhanced by numerous examples of McMichael showcards.

MARCONIPHONE CO. LTD.

Stand 55 Displays New Sales and Service Depot Signs.

One of the features of this Stand is the new "Sales and Service Depot" signs conspicuously displayed on the corners.

These signs are large in size and of the illuminated type. In addition to the firm's trade mark they carry the wording quoted



A synchronous electric clock is incorporated in the speaker fret of this new model of the Ferranti superhet to be seen on Stand No. 74.

above. They are finished in green, red and black.

The Marconiphone range on show this year is very wide and starts with the battery two, Model 248. There is a companion three-valve model, the four-valve portable Model 66, and the six-valve battery superhet.

This latter receiver is one of the special features of the range. It sells at 17 guineas. The full range has been fully described in *The Broadcaster*.

Among the A.C. mains sets on show there is the four-valve Model 253 at 16 guineas, the three-valve Model 42 at 15 guineas, and the seven-valve A.C. mains superhet at 24 guineas. This is Model 256.

In the radio-gramophone section there is the three-valve instrument, Model 330, at 32 guineas. There is also an automatic Model 258 at 55 guineas.

Then there is Model 535, which contains a superheterodyne chassis. This sells at 45 guineas, or with automatic record changing mechanism at 52 guineas.

The full range of Marconiphone valves are on show, including some interesting new and improved types.

MULLARD WIRELESS SERVICE CO. LTD.
Stand 20 Stages Giant Valves to Show Construction.

Giant Mullard valves without covering bulbs, and with the electrodes constructed

strictly to scale are one of the outstanding features of this display.

These models clearly show what steps have been taken in the A.C. and battery ranges to avoid "microphony." Details of the new designs have been given in full in recent issues of the *Broadcaster*.

Several new valves are on show, one of which is the P.M. 12A with an amplification factor of 500 and the economy pentode P.M. 22A which takes only 4½ m.a. of anode current.

The A.C. range has been generally improved, whilst the new P.M. 21M pentode is a powerful valve for receivers and radio-gramophones.

The famous "Astrapa" wheel which Mullard introduced last year is again at work in a Deansgate window adjacent to the Show.

Last year it showed a valve breaking apart. This year, however, a valve carton appears, the side tears open, the valve rolls away and the box then "mends itself" before repeating the performance.

MURPHY RADIO LTD.

Stand 9 Brings Eight-Valve Superhet to the North.

One of the chief exhibits on this stand is the new Murphy 8-valve superhet, a receiver catalogued as Model A.8 and listed at 30 guineas.

Its features include automatic volume control, diode detection and valve rectification. It is housed in a walnut console cabinet on those modern lines that have become a feature of Murphy productions.

A new circuit is employed in which the diode detector and variable new amplifying valves occupy the principle positions and give the automatic control of volume. There is in addition a manually operated volume control.

An energised moving coil speaker is fitted, while the set is provided with a pick-up jack. All switching is done by one knob, and tuning by another.

Other Murphy sets shown include the B.4, a battery S.G.4 receiver self-contained in an upright walnut cabinet. This is listed at 15 guineas.

The A.3, an all-mains three, with moving coil speaker selling at 17 guineas, and a similar model as a pedestal at 19 guineas are also being displayed.

NATIONAL ACCUMULATOR CO. LTD.

Stand 38 Exhibits a Comprehensive Range of Accumulators.

Practically every type of accumulator suitable for all classes of radio receivers are exhibited at this Stand.

Of particular interest are the Dagenite H.T. and L.T. accumulators. These are shown in two types, one being equipped with the "Tell Tale" charge indicating device, and the other which does not employ the charge indicator but is similar in all other respects.

Accumulators specially designed for use in portable receivers are shown in a comprehensive series, including free and jelly acid types.

Other types of accumulators to be seen here include models in glass and celluloid containers.

An important feature of the main type batteries is the lid, in which the pillar is now moulded.

One of the advertising features of this exhibit is a robot which demonstrates the working of the "Tell Tale" device. It is attracting considerable attention.

NEW LONDON ELECTRON WORKS LTD.
Stand 4 is Solely an Aerial Wire Exhibit.

The firm's Olympia stand design has been repeated in the City Hall. Its chief feature is

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L. McMichael Ltd. are featuring their Duplex Four A.C. mains transportable on Stand No. 71.

an electrical sign showing the danger of damage by lightning when an outside aerial of the ordinary type is used.

The heavily-vulcanised rubber insulation of "Superial" wire makes it possible for the manufacturers to give a £100 guarantee that no damage by lightning will result within two years where "Superial" wire is used.

Among other types of wire on display is the Electron 100 per cent. copper aerial and the new covered copper aerial.

Indoor aerial support pins are a further small line attracting interest among visitors.

NORTHERN STEEL & HARDWARE CO. LTD.

Stands 87 and 88 Stage a big Assortment of Popular Sets.

Worth seeing here are the representative products of Zetavox, Marconi and R.G.D., besides numerous factoring lines. Adjoining the display stand is a spacious demonstration room where any one of the fifty sets on show may be tested in most satisfactory conditions.

The R.G.D. 901 supersonic is a nine-valve chassis having nine tuned circuits, incorporating band-pass and oscillator ganged to tuning control and six circuits on the band-pass intermediate frequency transformers. The walnut model, with automatic record changer retails at 103 guineas.

Six-sixty sets, components and valve service stations are given an attractive setting, especially the receivers, of which there is a full range.

OLDHAM & SON LTD.

Stand 52 is where "Lively O" Batteries Can't be Missed.

Production of "Lively O" products having been speeded up, this stand, almost a replica of that at Olympia, is piled high with Lancashire-made batteries and accumulators.

In power, liveliness and long life, the "Lively O" battery, either with the green or with the red bands has proved qualities.

As regards the "O" type accumulators, a point is worth making of the automatic discharge indicator—a red ball which sinks when it is time to re-charge.

The tops are polished and easy to keep clean, new sulphation-proof terminals are fitted, and for the purpose of identification, a small panel on which the owner's name and address may be inscribed. The "Lively O" H.T. accumulator (10 V. unit), is of the air-spaced cell construction.

C.L.G. two-volt types are built in containers of clear glass, with moulded supports fitted to the bottom of the container providing

ample mud space, yet allowing a liberal allowance all round for the circulation of the acid.

Dry batteries made at the Denton works are given considerable prominence and in the cellophane wrappings look an attractive display line.

ORMOND ENGINEERING CO., LTD. Stand 77 is a Repository of Many New Components.

Of modest price, the new P.M. moving-coil speaker—it sells at 38s. 6d. complete with input transformer—is one of the chief exhibits on this stand. In all details it is a sturdy engineering job.

Cheaper, but no less efficient is the electro magnet moving coil speaker which is designed for use on D.C. The 2,500 ohms field coil, makes a high inductance smoothing choke. The cone, speech coil and suspension are arranged to handle heavy inputs with complete success.

A low price line in cabinet loud speakers is that with the No. 1 unit and special cone. It may be used on various outputs, from small to large power and with the certainty of reliable service. The cabinet is in oak. Price, 29s. 6d.

Something new is the No. 4 speaker unit (5s.). Fitted with a cobalt magnet, it is provided with an adjusting screw at the rear, immediately opposite the stylus rod. All working parts are enclosed in a walnut bakelite cover.

Other features are: a dial, the surface of which can be illuminated, with provision for logging stations on either side of the 0-180 degree scale, and finished with a bakelite escutcheon plate and control knob to match; transformer with nickel iron core, primary inductance of 50 henries and ratio of 3½ to 1; two and three gang condensers; and log law and square end plate condensers.

CHARLES A. OSBORN Stand 45 is Devoted Exclusively to Cabinets.

The exhibitors have not attempted to show all the models available for the public and the Trade. They have satisfied themselves with a display of typical examples of the wireless and radio-gramophone cabinets and baffle boards available.

Styles vary from period designs to the modernist design popular with several makers this season.

The cabinets can be supplied in sections ready for assembly, assembled ready to polish, or ready for the chassis to be bolted in.

While catering for individual requirements, Chas. A. Osborn also produce standard pieces in sizes to suit every requirement of the radio manufacturer.

PARTRIDGE, WILSON & CO. Stand 75 Exhibits New H.T. Accumulator Charger.

On view for the first time at this Stand is a Davenset H.T. accumulator charger, designated type MHT.1, which costs 7 guineas net Trade.

It is a self-contained apparatus expressly designed for re-charging high tension cells of both small and large capacity.

Maximum D.C. output is rated at 250 volts, 300 milliampères, while cell capacity is stated to be 1/100 2-volt cells at rates up to 300 m.a.

Total consumption in mains energy is 125 watts. Dimensions are 19½ inches by 7½ inches by 7 inches, the weight being 26 lbs.

The equipment for any A.C. supply up to 250 volts 40/100 cycles includes rectifying valve and resistance lamp, 6 feet of circular rubber-covered triple flex for input, and 6

feet of twin rubber-covered flex with polarity indicating clips for output.

Apparatus to work off 25 cycle mains costs 12s. 6d. extra. A steel case amply ventilated, and finished in black crystalline enamel with chromium plated fittings houses the gear.

Also to be seen at this stand is a complete range of Davenset mains transformers and chokes together with core type transformers for heavy duty work.

There is also a comprehensive range of "Davenset" chargers to be seen. Many of these have now been improved in detail, and are well worthy of close inspection.

PEGASUS, LTD.

Stand 91. Exhibiting Range of Mains and Battery Sets.

The star feature of this firm's exhibit is a four-valve receiver employing two multi-mu stages followed by a detector and transformer coupled pentode output.

Four tuned circuits are employed, while wavelength ranges are 15/50; 200/600 and 750/2,000 metres. Coil changing is unnecessary, a switch being provided for change from one waveband to another.

An important feature is that all switch points are easily accessible, as this particular receiver is suitable for overseas markets.

Another refinement is an aerial trimmer for use when the set is in use near a powerful transmitter, while Westinghouse metal rectification is used.

Two models of this set are on view, one a table instrument, No. 254, retailing at 24 guineas, while the other is a console costing 26 guineas. Both cabinets are of walnut.

A similar type of receiver, but not designed for use on ultra short waves is also shown. This is model 1616 for A.C. mains and it sells at 16 guineas.

For battery users there is a two-valve model 5176 retailing at £5 17s. 6d. complete with valves and batteries. Detector and power output is standardised but a pentode



This Marconiphone six-valve superhet portable for battery operation sells at 17 guineas. Hire purchase terms are available.

can be fitted if desired. The speaker incorporated is a moving coil type.

Another battery set is a band pass three model 1212, costing 12 guineas complete. Three tuned circuits are employed.

PHILIPS LAMPS LTD.

Stand 64 Attracts Attention with Novel Set and Map of Europe.

Attention is attracted to this stand by a very large map of Europe which has the principal broadcasting stations marked.

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From each aerial a small lamp is suspended and these are illuminated in turn according to the setting of the tuner on a Philips set standing nearby.

Five new battery and mains "super inductance" sets are on show, the former including the 830 B four-valve at 11 guineas. It incorporates a regulator valve to control H.T. output, and a moving coil speaker.

D.C. mains users are catered for by 830 C, a four-valve receiver at 16 guineas, while A.C. 830A. is an A.C. mains version. Both sell at 16 guineas.

Five valves are employed in model 630A., another A.C. mains set which sells at 23 guineas. It is housed in a table type cabinet.

Another instrument to examine is the radio gramophone, model 870A., for A.C. mains.

PORTADYNE RADIO LTD.

Stand 36 Displays a Range of Battery and Mains Sets.

The Portadyne B.M.C. battery-driven transportable, retailing at 14 guineas, is well to the fore at this stand. The chassis incorporates a permanent magnet moving-coil speaker. The neatness of the cabinet design employed in the B.M.C. is enhanced by the concealment of the controls under a lid at the top of the set.

Two portables, the suitcase "Atlantic" S.G. 4 at 12 guineas, and the walnut cabinet "Challenger," at £12 17s. 6d., are on view.

The A.C. 3 mains-driven set, selling at 17 guineas incorporates an energised moving-coil speaker. Its cabinet has been improved as compared with the model shown at Olympia.

All Portadyne receivers embody a special tuning device.

PYE RADIO LTD.

Stand 18 Features New Super-heterodyne Model "S."

One of the chief attractions on this stand is the model "S," a super-heterodyne receiver employing a six-valve variable mu screen-grid circuit. It has a single tuning control and a Westinghouse metal rectifier.

The receiver utilises a two-stage pre-selecting band pass tuner coupled to a variable mu H.F. valve. The final valve is a power pentode giving an undistorted output of two watts. Pick-up terminals are fitted and a moving coil speaker is incorporated.

This receiver is suitable for operation from A.C. mains of standard voltages and sells at 27 guineas. Its total mains consumption is about 13 watts.

Other models in the Pye range, including popular "K," "G," "M.M.," the "Twin Triples" and the "Q" are well displayed on this stand which has plate glass set edgewise, in the form of letters to act as the firm's trade mark and the names of the various sets.

RADIO FOR THE MILLION

Stand 48A Displays Five Models of "Stationmaster" Three.

Five models of the Radio For The Million "Stationmaster" three kit receivers are the main feature of this exhibit. This is a screen-grid three type of set, built on chassis lines.

Model A is a simple battery model in an oak table cabinet selling at £5 10s. complete.

As a battery midget with a "Celestion" speaker and large table cabinet, it sells as Model B at £7 10s. There is also a similar type fitted with a W.B. moving-coil speaker. This is listed as Model B.-M.C., at £8 18s. 6d.

Model D is an A.C. mains version in chassis form, while Model C is a complete A.C. midget with "Magnavox" moving-coil speaker. It sells at £14.



The Pye "K" receiver shown on Stand No. 18 is a two-valve receiver and retails at 12 guineas.

RADIO INSTRUMENTS LTD.

Stand 110 Features a Five-Valve Super-het Receiver.

One of the chief features of the R.I. display which is situated on the Bridge this year, is a five-valve superheterodyne receiver to sell at 25 guineas.

Among its many novel features is an illuminated scale calibrated in wavelengths which has either the high or medium calibrations marked according to the position of the wavechange switch. Tone control is also fitted.

The three-valve "Madrigal" A.C. receiver, a new production for this year is also on show. It sells at 17 guineas and is housed in a figured walnut cabinet. Other points include a P.M. type speaker, provision for pick-up, and a volume control operating on both radio and gramophone.

Many R.I. components on the stand make a brave display. Among these is the "Antinodal" amplifier adaptor consisting of a detector circuit with a single valve, the R.I. "Antinodal" short wave coil unit and a "Parafeed" transformer. This short-wave adaptor which sells at £4 10s. is claimed to be the only one which uses the detector in an existing set for amplification purposes.

READY RADIO LTD.

Stand 35 is a Meeting Place for Home-Constructors.

Ready Radio's exhibit in the Tonman Hall has been carefully planned so that visitors can inspect the various components and actuate them with ease. A row of small panels has been fixed to the edge of the stand and two models of every component are fitted into the panels—one showing the front, and the other the reverse side.

The range of components comprises almost every small part that the wireless constructor can require. There are, for instance, variable condensers of the bakelite dielectric type, dual range and short-wave coils, and dual range coils incorporating a switch.

The two Ready Radio's kit sets complete the exhibit. There is the "303" three-valve battery-driven model selling complete with cabinet, valves and permanent magnet speaker at £6 17s. 6d., or with valves only, £5 7s. 6d.

REGENTONE LTD.

Stand 63 is a Display of Sets and Mains Units.

The two-valve Regentone A.C. receiver, priced at £6 15s. complete in a bakelite cabinet, is now fitted with a pentode in place of the power valve. It is claimed that the alteration—which entails no increase in price—has resulted in a much better performance.

The "Straight Three" receiver for A.C.

mains—one of the most popular of Regentone products—is also exhibited. Its price is £12 in a dark walnut cabinet.

At a higher price—sixteen guineas—there is the "Super Three," comprising a multi-mu S.G. detector-pentode arrangement. It is supplied with a moving-coil speaker complete in walnut cabinet of compact design.

The attractively-packed and well-finished mains unit range completes the exhibit. All models have S.G. detector and power outputs, with three S.G. and three detector tappings.

RICHARDSONS (R.M.L) LTD.

Stand 49. A General Display of Leading Makers' Products.

These well-known wholesalers have an attractive corner stand on which they are displaying the outstanding products of leading manufacturers.

Prominence is also given to Richardsons, own productions including aerial wire and a range of high-tension batteries.

RIDINGS RELIANCE LTD.

Stand 11 Makes Display of the Best of Leading Lines.

The central feature of this stand, which is devoted to a display of a selection of the stock of leading makers, is a 90 guineas ten-valve Columbia radio-gramophone, enclosed in a superbly figured walnut cabinet. Altogether there are twelve Columbia models on view.

An interesting exhibit is the Columbia seven-valve superhet in a glass showcase elevated over a mirror to give the onlooker a close and intimate view of constructional details.

As retailers, Ridings carry stocks of all the best known manufacturers.

JOHN ROBERTS

Stand 101 is an Exhibit of Robot Unit Switchboards.

Battery-charging equipment, especially the robot unit switchboard, whereby one can build up switchgear as it is required, in a comprehensive range, is shown at this stand.

Each circuit has its own separate switchboard and is self-contained for each bank of batteries. The robot unit can be used for either rectifier or motor generators of any manufacturer.

One can add as many circuits as is desired to an existing switchboard, simply by coupling up to the red and black mains projecting through the bush under the switchboard. In the case of the bench mounting type, the mains leads are pushed down the steel tube support and through a hole in the bench. Thus, all board to board wiring is hidden under the bench.

There are four drilled feet for wall mounting on all boards, ammeter with two separate scales for D.C. and rectified current, range switch which gives vernier control, and ten-point rheostats.

The 300/350 motor generator plant is a clean workmanlike job, having a control board with 10-point freed regulator, a fuse for total output and a patent polarity indicating volt-meter.

SIEMENS ELECTRIC LAMPS AND SUPPLIES LTD.

Stand 15 Specialises in "Full-o'-Power" High Tension Batteries.

Among several new "Full-o'-Power" batteries on show here is Type No. 1,131 which has been designed for use in the battery K.B. "Pup." This battery is rated at 100 volts, while there are tappings for 7½ volts of grid bias. It sells at 11s.

Another, Type 1,125, has been produced for use in Pye "Q" and "Twin-triple" receivers. This has 125 volts high tension and three-volts grid bias and is listed at 15s.

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It will be seen on this stand that the "Super Radio" range has been extended to include types similar to batteries of American manufacture. This new product is known as "Size V.9" and gives 45 volts in tappings of 15 volts each. It sells at 20s.

SMALL POWER DYNAMO AND MOTOR CO., LTD.

Stand 99 Introduces new Battery-charging Plant.

Showing for the first time in any exhibition, is the "Small Power" battery charging plant, with Sindango panel, automatic cut-out, sliding type regulators and without couplings. The motor can be wound to suit direct current supply of 100 to 250-volts or alternatively supply of 100 to 250-volts; 50 cycles, single or three phase.

The switchboard is unique and to all intents and purposes is heat resisting and indestructible. It has two charging circuits complete with two ammeters and two sliding type regulators, also one voltmeter and sliding regulator for voltage regulation.

These sliding regulators are claimed to be a great advance on the now old-fashioned stud, as it is thus rendered possible to deliver the exact amount of charging current specified by the battery makers. An isolating switch is provided in each circuit and the automatic cut-out is supplied without extra charge. The price of the two circuit board is £18 10s.

Battery charging sets, varying in range from 300 watts to 1,300 watts, built to British Standard Specifications are also shown, the switchboards having strong insulated panels mounted on angle iron frame for wall mounting and having separate charging circuits. All boards are fitted with automatic cut-out.



Two screen grid valves are used in this Philip's Model 830b battery "Super Inductance" receiver which is one of the range on Stand No. 64.

SOVEREIGN PRODUCTS LTD.

Stand 60 Introduces Range of "Star" Battery Receivers.

Prominently displayed on this stand are the members of the firm's range of six battery receivers called the Sovereign "Star" sets.

One of these is the "Doric," a screen-grid and pentode three, which sells at 10 guineas. It is housed in a walnut table cabinet. As a pedestal model it sells at £12 10s.

The "Sirius" is another of the range. This is of the detector and two L.F. type and sells at 7 guineas in walnut table cabinet embodying a frame aerial.

Although similar to the "Sirius" in other respects, the "Jupiter," which sells at £7 5s., does not incorporate a frame aerial. This set is available in a pedestal cabinet at £9 15s.

Finally, there is the "Comet" an attractive

two-valve set selling at £4 7s. 6d.

Sovereign components are fully displayed and among these will be noticed the new dual wave coil to sell at 3s. 6d. complete with blue prints.

STENIBAC LTD.

Stand 90 is Devoted to a Range of Cabinets.

The cabinets made by this firm are all hand-finished. While special bulk orders are invited, the firm concentrates on the production of standard cabinets selling at a fixed retail price.

On view in their gallery stand are most of the cabinets shown in the firm's catalogue.

Typical examples in the radio-gramophone series range in price—for console models—from £2 10s. in oak, to £6 10s. in walnut. The latter includes recesses on each side large enough to accommodate 60 records.

Table model radio cabinets are priced from £1 in oak up to £1 10s. in walnut.

Speaker cabinets and baffle boards complete the display on this stand.

TELSEN ELECTRIC CO., LTD.

Stand 13 At Which Huge Glass Cases House Range.

Large glass cases in which Telsen products are displayed are a feature of this stand.

"Macnamara — The Golden Voice" receivers are given considerable prominence. This set is of the mains type and has a screen-grid, detector and pentode circuit. Complete in a walnut cabinet with moving coil speaker, it sells at 15 guineas. There is also another model at 12 guineas, which is housed in an unstained cabinet of birch ply and oak framing.

Telsen sets shown include the battery models in different moulded cabinets. Chassis alone are available.

There is a very extensive display of components outstanding among which is the "Telornor." This is a condenser drive and escutcheon carrying all controls for a receiver. It sells at 7s. 6d.

A new drum drive with stator adjuster and wavelength calibrated scale is worthy of attention. This sells at 9s. 6d., or complete with two Telsen variable condensers and compensators at 17s. 6d.

Other components worthy of special note are three new L.F. couplers and a range of screened coils.

THOMPSON, DIAMOND & BUTCHER

Stand 47 Combines a Factor's Display with Playing Desk Exhibit.

As factors, this concern is exhibiting examples of the best-selling manufactured lines of the moment.

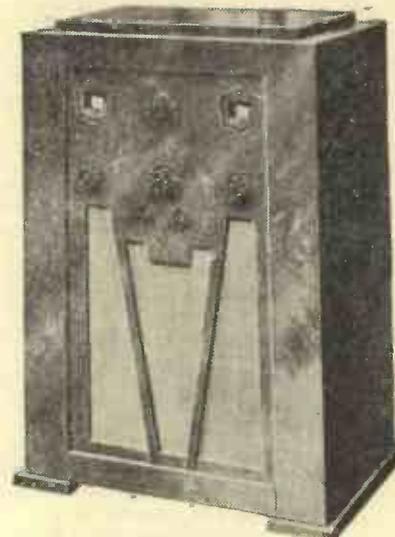
In addition there is the firm's own range of speakers. Included among these is the "National Band" Model 602, consisting of a reed movement with cone in a solid oak cabinet. The price of this model is 12s. 6d.

Model 610 is a permanent magnet moving coil model with a four-ratio input matching transformer. It is housed in a walnut cabinet and sells at £2 12s. 6d. complete.

Lastly, there is Model 627 with a four-pole balanced armature movement. The price in a walnut cabinet is £1 5s.

The playing desks, which aroused great interest when first shown at Olympia, can be seen on the stand. Prices are: £2 15s. for a desk with Garrard spring motor; £6 12s. 6d. with inductor motor; and £8 2s. 6d. with universal motor. The desks are designed so that the radio receiver can be placed on the top.

Other models have space for storage of gramophone records in the base.



The "Meteor" cabinet model of the Ready Radio "Meteor S93" is one of the complete kits on show on Stand No. 35.

TRADE CHRONICLES LTD.

Stand 113 Tells Traders About The "Radio Trade Review"

Members of this firm's staff will be here to show copies of the *Radio Trade Review* to dealers.

TROJAN (MANCHESTER) LTD.

Stand 8 Shows H.M.V. and Columbia Apparatus.

This exhibit is divided into two sections, one being devoted to "His Master's Voice" productions, while the other displays Columbia lines.

One of the features of the H.M.V. exhibit is the "Superhet Ten Autoradiogram" in a glass cabinet. This was transported from London in a special car.

Trojan Electric are offering a prize of £10 to the person who can guess the number of parts used in the construction of the radiogram.

Among the H.M.V. models shown are six new season's super-heterodyne receivers or radio-gramophones. The "Superhet Portable Six" battery driven portable is on view. This set, which costs 17 guineas, is now fitted with a long distance switch.

Three of the models have been reduced in price since exhibition at Olympia: model 521 radiogram, now 39 guineas, the sister model 522, with automatic record changer at 46 guineas, and the new "Superhet Radiogram Seven" at 48 guineas. Two ten-valve automatic record changing radiograms are to be seen together with a table type costing 28 guineas, and also a new moving coil speaker.

Columbia productions include the model 380 portable super heterodyne at 24 guineas, and the model 335 all electric four at 16 guineas.

Then there is the "Radiograph Four" at 32 guineas, the superhet 7 at 52 guineas, the battery 2 at £4 19s. 6d.

The cabinet work in the new season's range of Columbia receivers and radiograms is of a very high order and forms an excellent selling point.

Also of interest in the display is the new Columbia moving coil speaker. This is listed at £2 3s. 6d.

The speaker employs a cone of specially prepared material and is housed in an attractive walnut cabinet.

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ULTRA ELECTRIC LTD.

Stands 56, 57, 58 & 59 Displays Tiger and Panther Receivers.

Epitomised, the goods displayed here are: Blue Fox, Tiger Table, Tiger Console, Panther Table and Panther Console receivers, radio-gramophone, Imp chassis, Imp cabinet speaker, 95 chassis and D.C. minor chassis.

First and foremost is the Panther, a five-valve self-contained electric receiver, built on a cadmium-plated steel chassis. It has two variable- μ screened-grid high frequency valves, screened-grid detector and pentode output valves. A built-in Ultra m.c. speaker is incorporated.

The Tiger is a four-valve receiver including rectifier for A.C. or D.C. mains with an illuminated wavelength calibrated scale, single dial tuning and combined volume control and on-off switch.

UNIVERSAL ELECTRIC SUPPLY CO. LTD.

Stands 108 and 109 Displays inexpensive Batteries and Components.

This firm, which owns some fifteen show-rooms in Manchester and District, is open to receive orders from the trade for its "Universal" components and accessories.

A very wide range is on view, including inexpensive valve holders, H.F. chokes, condensers, switches and plugs.

A low-priced line of batteries includes a 60-volt H.T. line at 3s. 6d. and a 9-volt grid bias battery at 9d.

A 3-valve radio gramophone manufactured by the firm sells complete at 20 guineas.

VARLEY (OLIVER PELL CONTROL LTD.)

Stands 67 and 68 make Big Features of "Reactone" Unit.

This year Varley are using their attractive wall stand to emphasise the "Reactone," a L.F. unit specially designed to compensate for distortion introduced when sidebands are cut to gain greater selectivity.

The unit is designed to give straight line amplification from 50 to 1,000 cycles when the curve then rises steeply to 4,500 cycles. The amplification ratio for the straight portion of the curve to the peak is 7 to 1.

Varley are also making a good show of the new "Square Peak" three-valve mains receivers Type AP.34 and the super-heterodyne console AP.44., which sell at 17 guineas and 35 guineas each respectively

WELLWORTH WIRELESS CO.

Stand 82A is Devoted to Well-Known Factoring Lines.

Cabinets and receivers by the leading makers are shown by this well-known firm of wholesalers.

Sets on view include those of Kolster Brandes, G.E.C. and Pye and in addition, there are many lines of moving coil speakers.

Much prominence is given to cabinets, the principal piece being the Wellworth radio-gram cabinet, which is made to customers' own designs in woods which they may select themselves.

Speaker cabinets are in a category of their own. The pick of these is a housing priced at 11s. 6d., built to take the latest types of moving coil speakers.

WESTINGHOUSE BRAKE AND SAXBY SIGNAL CO. LTD.

Stand 73 Emphasises Popularity of Metal Rectifiers.

A large panel on the side of the centre structure of this stand gives the names of about fifty leading set and eliminator manu-



One of the Varley components worthy of close inspection on Stand Nos. 67 and 68 is this "Reactone" L.F. transformer.

facturers who are now using Westinghouse Metal Rectifiers in their products.

Prominent in the display on this stand are the new H.T. 9, 10 and 11 rectifiers which have a strong appeal to both manufacturers and dealers. The L.T. 1, 2, 4 and 5 range is also on show.

Among charging plants exhibited there is the RGC5, which has three circuits and will charge up to 60 cells at half amp., one amp. and three amps.

A sister plant also on show is the RGC6 with slightly different outputs. This will charge 60 cells at half amp. and one amp., 50 at three amps., and 36 car batteries at five amps.

There is also on show the RGC1B, a new form of the RGC1 which will charge 30 cells at half amp., one amp. and two amps., and three twelve-volt car batteries at five amps.

WHITELEY ELECTRICAL RADIO CO. LTD.

Stand 32 and 33 gives prominence to Kit Sets.

On view here is the "Mansfield" kit set, first shown at Olympia. This kit is a three-valver selling at 7 guineas, complete with permanent magnet speaker and attractive cabinet. The set is repeating its success at the London show, and is the centre of interest on the stand.

Numerous moving-coil speakers, including the improved "Mansfield" Senior model at 2 guineas, the Junior type at £1 7s. 6d., and the chassis type permanent magnet moving-coil at £1 15s. This price does not include a transformer.

A range of "W.B." components is also on view.

The new two valve battery-operated receiver mentioned in our forecast issue last week was not on view on Wednesday, when the show opened.

WINGROVE & ROGERS LTD.

Stand No. 39. Range of New Condensers.

Polar condensers in several new models, notably the "Uni Knob" and the Star three and four gang may be seen here.

The Uni Knob two gang condenser has been improved by the introduction of a new method of fixing the rotor and stator vanes and also by the provision of a cover.

Built in a rigid die cast frame, the improved disc drive is incorporated in a way to accentuate the reading and at the same time to add tone to the panel.

The Star range of condensers are entirely new precision instruments, and the design and construction embody new features. The vanes are made of aluminium and both the rotors and the stators are machine assembled.

Other features are the new cord drum drive, bevel scale disc drive, Ideal slow-motion condensers, variable condensers and short wave condensers.

WIRELESS RETAILERS' ASSOCIATION.

Stand 89. A Meeting Place for All Northern Dealers.

Under the captainship of Mr. J. R. Carter of the Manchester branch, officials of the W.R.A., will welcome dealers here whether they are members or not.

They have on view the receiver Manchester is giving to the Manchester & Salford Children's Hospital at Pendlebury.

Five thousand leaflets each containing an entry coupon for the W.R.A. competition to find the best value for money set in the show. Cash prizes totalling £16 are being given, while the trophy presented by the *Manchester Evening Chronicle* to the "winning" manufacturer is being displayed.

"THE WIRELESS TRADER."

Stand No. 37 Features Current Numbers and Year Book.

Copies of the *Wireless and Gramophone Trader* and the *Wireless Export Trader* are displayed, and orders are being taken for the annual, the *Wireless Trader Year Book*.

A BLACKPOOL CONVOY NOW

TO-MORROW'S COACH TRIP

Another convoy, this time of motor-coaches has been arranged to visit Blackpool to-morrow (Sunday) for the day. It will leave City Hall, Manchester, at 10 a.m. with representatives of the manufacturers, factors, retailers and all who have an interest in the Northern National Radio Exhibition.

The outing is being organised by the *Manchester Evening Chronicle* in conjunction with the North Western Area Executive of the W.R.A.

Mr. M. Sharpe, A.M.I.R.E., representative of Hellesens Ltd. in the North Western counties is distributing the tickets at 10s. each inclusive of luncheon and admission to various entertainments at Blackpool.

After nightfall, the visitors who may receive a civic reception, will view the illuminations from the steamer that will take them for a short sea trip.

At the present time the organisers are in communication with the publicity officer of the Blackpool Corporation in order that everything might be done to make the visit a memorable one.

It is hoped to get together a party of about 100 persons.

W.R.A. CO-OP. ADVERTISING

Forty-six dealers in Manchester and the surrounding towns have each subscribed £3 to a co-operative advertising fund which is being expended on press advertising and on reprints distributed to visitors to the Exhibition. These reprints contain a ballot form for the W.R.A. and *Evening Chronicle*.

The first co-operative advertisement, a seven-inch treble column announcement, appeared in the *Chronicle* on Wednesday night, September 28. It made a point of the fact that the day of the dabbler was over and that to-day's purchaser needed to buy from a trusted dealer, a W.R.A. dealer, who gave good service. A list of the names and addresses of the subscribing dealers was given under the heading of the towns in which they do business.

FINANCIAL NEWS OF THE WEEK

Wireless Gazette News

A meeting of the creditors of **Betta Electric Motors, Ltd.**, will be held at 44, Bedford Row, London, W.C.1, on Monday, September 3, at 11.45 a.m.

A meeting of the creditors of **Radio Retailers, Ltd.**, was held at 150, Southampton Row, London, W.C.1, on Thursday, September 20.

A meeting of the creditors of **S. G. Brown, Ltd.**, was held at the company's offices, Western Avenue, N. Acton, London, W.3, on Friday, September 30.

A meeting of the creditors of **Ribbons Records and Gramophone Co., Ltd.**, was held at the offices of W. F. Smart, Son and Bloor, 254-258, Finsbury Pavement House, Moorgate, London, E.C.2, on Wednesday, September 28.

Dissolution of Partnership

The partnership heretofore subsisting between **M. L. Hulme, A. C. Thompson, and A. E. Molt**, carrying on business at 93a, Station Street, Birmingham, under the style of Hulme and Co., has been dissolved by mutual consent. All debts by **M. L. Hulme**, who will continue.

Notice of Intended Dividends

E. A. Blest, residing at 35, Harcourt Road, Old Hill, Co. Stafford, and carrying on business at 71a, Halesowen Road, Old Hill: Proofs by October 8. Trustee, **A. M. Fairbairn**, 1, Priory Street, Dudley.

A. Whitelock, Tholthorpe, Co. York. Proofs by October 8. Trustee, **D. S. Mackay**, The Red House, Duncombe Place, York.

Mortgages and Charges

Simpsons Electricals, Ltd.—Particulars filed of £3,000 debentures authorised September 8, 1932, charged on business at the company's property, including un-called capital, the amount of the present issue being £1,000.

Halford Radio, Ltd.—Deed dated September 13, 1932, to secure £844 and further advances, charged on company's undertaking and property, present and future, including un-called capital.

Filders (Wholesale), Ltd.—Issue on September 15, 1932, of £7,500 debentures, part of a series already registered.

Bankruptcy

John Isalah Dangerfield, trading as **Dangerfields**, 25, New Street, West Bromwich, Staffs.

The public examination was held at the Law Courts, Lombard Street West, West Bromwich. According to figures prepared the unsecured creditors' claims amounted to £1,274 5s.

The examination was adjourned in order that debtor might produce certain books of account.

Private Arrangement

Frank Drielsma Phillipps, 8, Mount Street, Liverpool.

The creditors met at the offices of Mr. Parkin S. Booth, accountant and auditor, Exchange Chambers, Bixteth Street, Liverpool. The statement of affairs showed ranking liabilities of £1,569 14s. 5d. and assets of £315 8s. 8d. After allowing £54 for preferential claims, the net assets were £261 8s. 8d. or a deficiency of £1,308 5s. 9d.

It was understood that the cash claims would be withdrawn provided the matter was dealt with under a deed of assignment. Resolutions were passed confirming the deed of assignment already executed to Mr. Booth, and a committee of three of the creditors was also appointed.

The following are creditors:—**Baxendale and Co., Ltd.**, £306; **Downes and Davies**, £165; **General Electric Co., Ltd.**, £160; **Edison Swan Electric Co.**, £55.

NEW COMPANIES

Gwalia Radio Relay Service, Ltd.—Private co. Capital, £100. To construct, erect, establish and maintain wireless signal stations and all other stations for the reception or distribution of wireless or radio signals, etc. Directors:—**G. C. Williams** and **J. F. Powell**. Registered office: 115, Queen Street, Cardiff.

C. S. Gould and Co., Ltd.—Private co. Capital, £1,000. To carry on the business of manufacturers, shippers, importers and exporters of, agents for and dealers in all kinds of wireless, television and sound recording instruments, etc. Directors:—

M. J. Webb (chairman), 77, Ellerton Road, Wandsworth Common, S.W.18, Mrs. Hyacinth A. F. Webb, 77, Ellerton Road, Wandsworth Common, S.W.18.

Marlborough Radio Co., Ltd.—Private co. Capital, £2,500. To carry on the business of manufacturers of and dealers in wireless receiving, transmitting and television apparatus, etc. Subscribers: **E. Pickup**, 4, Vicarage Avenue, Padiham, and **J. C. Radcliffe**, 82, Burlington Avenue, Oldham.

Philco Southern Distributors.—Private co. Capital, £2,000. To carry on the business of wholesale dealers in wireless goods, apparatus, sets and accessories. Directors:—**J. J. Baker** and **E. S. Baker**. Solicitors: **Smith, Bundell, Dods and Bockett**, 9, John Street, Adelphi, W.C.2. Registered office: **Eldon Street House**, Eldon Street, E.C.2.

Spence (Contracting), Ltd.—Private co. Capital, £500. To acquire from **R. H. Spence and Co., Ltd.**, the business of electrical contractors carried on at 9, Station Road, Egham, and to adopt four agreements, two with **R. H. Spence and Co., Ltd.**, and two with **D. E. Green**. Subscribers: **D. E. Green**, Haslemere, Carshalton Road, Sutton, Surrey, and **R. H. Spence**, 9, Station Road, Egham.

Bon Soldering Products, Ltd.—Private co. Capital, £5,000. To carry on the business of manufacturers of a new flux for soldering all metals, manufacturers of and dealers in soldering fluids and pastes, etc. Directors:—**G. C. Craggs** and **J. T. Geoghegan**.

NEWS IN BRIEF

W. E. Benskin has moved from Conduit Street, to 68, Dover Street, Leicester.

Dale, Forty and Co., Ltd., have opened a branch at Emlyn House, Llammas Street, Carmarthen.

H. Shaw, dealer, of Cicely Street, Blackburn, was married on September 15 to Miss **B. Marsden**.

Barrister and Fitton, of Rochdale, have had a private demonstration room fitted to their premises.

A. W. Johnson, of 17, St. John Street, Wirksworth, Derbyshire, wishes to obtain publicity matter.

G. H. Hadley, formerly of Cosways, Ltd., Nuneaton, has opened up a business at 11, Coventry Street, Nuneaton.

Philco in Belfast

The **Philco Radio and Television Corporation of Gt. Britain, Ltd.**, have opened a branch in Bedford Street, Belfast.

W. Champions, of Leicester, had an interesting stand at the local Home Life Exhibition, which closed on Saturday, September 17.

L. W. Hermes, son of the managing director of "Ideal Radio" Surbiton, is to be married on October 12 to a niece of Councillor **Kays**.

W. T. Salter, youngest son of the Queen Street, Neath, trader, was married on September 15 to Miss **Margery George**, of Bryncoch, Neath.

The **Barry Radio and Electrical Co.**, Holton Road, Barry, wired the local Methodist church to receive the broadcast of the Methodist Union Congress.

F. W. Straw, of Colchester, has qualified as an associate member of the Institute of Radio Engineers and as an associate member of the Institute of British Engineers.

Imports into the Irish Free State attained a value of £6,506. This brings the total for the first seven months of the year up to £99,637 as compared with £51,863 in 1931.

Babington's Battery Service, of 9, Redmead Road, Hayes, Middlesex, require catalogues from accumulator and battery accessory manufacturers and suppliers.

Details of the foreign exchange control in Czechoslovakia are available from the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1, under the reference **C. 3995**.

BUSINESS NAMES

The following businesses have been registered under the Business Names Act of 1916. The trading name is given in heavy type. In brackets is the name of the proprietor or proprietors. The date given is that of registration.

Radio and Electric Store, 254, Shields Road, Byker, Newcastle (A. Wendorf, 98, Holly Avenue, Jesmond, Newcastle). September 5.

Villa Wireless Service, 68, Villa Road, Handsworth, Birmingham (S. A. Morris, of the above address). September 7.

Empress Radio Store, 226, Oldham Road, Manchester (M. M. Berry, of the above address). September 4.

Fry's Music Stores, 422, Wimborne Road, Winton, Bournemouth (F. J. Fry, 38, Nursery Road, Moor-down, Bournemouth). August 30.

The Wholesale Wireless Supplies Co., 126, High Road, Leyton, E.10 (J. Barnett, of the above address, and M. Feigenbaum, 62, Riley Avenue, London, N.16). August 20.

The P.D.Q. Accumulator Service Co., 194, Balham High Road, London, S.W.12 (W. R. Tanner, 171, Philip Lane, Tottenham, London, N.15, and G. F. Groombridge, 1, Queen Margaret's Grove, London, N.1). August 27.

Radio Service Laboratories, 41, Southampton Road, Hampshead, London, N.W.5 (A. D. A. Munro, 3, Parliament Hill, Hampstead, London, N.W.3, and E. W. Harris, 16, Chevening Road, London, N.W.6). September 1.

The Radiovox Co., 34, Basinghall Street, Leeds (E. W. Lowden, 8, Woodley Terrace, Clarendon Road, Leeds). September 3.

Egham Cycle and Radio Co., 157, High Street, Egham, Surrey (V. H. Smith, of the above address). August 30.

St. Clement's Garage, 27, St. Clement's Road, Bournemouth (W. H. Butt, of the above address). August 15.

Eagle Magneto Co., Eagle Street, Coventry (E. Morgan, The Hollies, Hinckley Road, Walsgrave, Coventry). August 30.

The Bury Magneto Co., Millett Street, Bury (J. K. Roscow and E. Roscow, both of 173, Brandish-holme Road, Bury). August 17.

W. Riley and Son, 51, Farringdon Road, London, E.C.1 (W. Riley, "Kenharley," Lowndes Avenue, Chesham, Bucks). August 25.

Glazebrook and Co., 204, Hammersmith Road, London, W.6 (G. E. Glazebrook, 6, The Broadway, London, W.6). August 26.

F. H. Hunsworth, The Peel Battery Station, 58, Peel Street, Pendleton, Salford (F. Hindle, 3, Temperance Place, Peel Street, Pendleton). September 1.

Poldyne Electric, 25, Clivedon Road, Highams Park, London, E.4 (E. Johnson, of the above address; L. C. Payne, 5, Hurst Road, East Moseley, Surrey; and K. C. Lepingwell, 195, Hale End Road, London, E.17). August 23.

The Wickford Battery Service, Stilemans Works, Wickford, Essex (F. A. Mayer, "Stilemans," Wickford, and F. G. Darby, "Daisybank," Jorsey Gardens, Wickford). September 12.

Philomel Radio Equipment, Pickering Street, Loose, Maidstone, Kent (P. T. Hobson, Briggate, Bower Mount Road, Maidstone). September 7.

Delavox Radio Products Co., 41, Temple Row, Birmingham, 2 (R. Rhodes, 29, Epwell Road, Erdington, Birmingham). September 12.

Radio Supplies Service Co., 52, Park Street, Bristol (F. C. A. Thompson, 4, Culvers Road, Keynsham, Somerset). September 12.

West Electrical Wireless Co., 24, Junction Road, Upper Holloway, London, N.19 (R. S. West, 20, Bramhill Gardens, Higgiate, London, N.W.5). September 14.

North Western Wireless Relay Co., 4, Mill Street, Coppull, near Chorley, Lancashire (J. A. Bulcock, 40, Church Street; J. W. Howarth, 43, Garden Street; and R. Ingham, 154, Burnley Road, all Padiham). August 12.

Gravelly Bros., Wisborough Green, Billingshurst, Sussex (F. V. Gravelly and H. G. Gravelly, both of Thornton House, Wisborough Green, Billingshurst). September 1.

G. E. Jackson and Co., 14, Crown Hall Chambers, Crown Street, Ipswich (G. E. Jackson, 35, Borough Road, Ipswich). August 10.

Moss Side Radio Co., 141, Upper Moss Lane, Manchester (H. G. Jenkinson, 23, Erlington Avenue, Old Trafford, Manchester, and S. Jones, 73, Norton Street, Old Trafford). September 12.

SOVEREIGN LANTERN SLIDES

Sovereign Products, Ltd., of Sovereign House, Rosebery Avenue, London, E.C.1, are now in a position to supply their dealers with lantern slides for exhibition in local cinemas.

This is part of the firm's extensive sales-aid scheme, featuring the new "Star" range of sets and Sovereign components.

The firm have already released a number of posters and showcards for trade distribution.

'THE TRUE ROAD TO RADIO'

FERRANTI BOOK DEALERS SHOULD READ

"Notes on the design of a high-quality receiver"—that might be the sub-title of *The True Road to Radio*, a third and revised edition of which has been issued by Ferranti, Ltd., of Hollinwood, Lancs.

A large de luxe type production, priced at 5s., but available at 3s. 6d. to the Trade, it is a book for the retailer to sell as well as read.

Mr. Albert Hall, A.R.C.Sc., M.I.R.E., Wh. Ex., of Ferranti, the author, has put into it much of the knowledge obtained as a result of years of research in the Ferranti laboratory. Consequently, many of the pages are highly technical.

Band Pass Tuning

Nevertheless, he has taken care to provide parallel descriptions in language that can be understood by the novice. The result is a book that is an elementary and an advanced text-book.

The first chapter explains radio transmission. Then the book goes on to describe how distortion can be introduced in H.F. receiving stages and the methods of avoiding it—e.g., band-pass tuning.

Component by component, right to the speaker, is dealt with, always explaining the method of function and giving the requisites for distortionless operation.

This edition has been revised in many places. The section on H.T. supply units has, in particular, been enlarged to deal with the latest types of valve rectifiers.

Several pages dealing with automatic bias have been added.

PEST TO TRADERS

SWANSEA MAN'S KINK FOR WIRELESS SETS

Robert Murray, of Wychtree Street, Swansea, who was, on the police description of his being a pest to wireless traders of the district, remanded for medical examination by the Swansea magistrates, has now been brought up and sent to prison for a further twenty-one days.

The charge was theft of a wireless valve, value 17s. 9d., the property of the Waldron Electrical Manufacturing Co., Ltd.

The medical officer of Swansea Prison reported that prisoner was not deranged, but seemed to have a kink for wireless sets.

At the first hearing of the case the police said accused made a habit of getting from traders expensive wireless sets on hire, without intention or possibility of paying for them.

TRADE WEDDING BELLS AT COLCHESTER

Two well-known members of the business of Messrs. Saunders and Co., radio engineers, of Colchester, were married on September 15 at St. Mary-at-the-Walls, Colchester.

They were Mr. Richard Kingsley Mawhood, only son of Mr. and Mrs. R. H. Mawhood, of Forest Lodge, Southwold, Suffolk, and Miss Evelyn Alice Olle, only daughter of Mr. and Mrs. P. W. Olle, of Hamilton Road, Colchester.

The father of the bride is the chairman of the Colchester W.R.A., and at the church there were many friends and colleagues of the firm.



This is how a radio dealer in Melbourne, Australia, tied up with the film "Sunshine Susie."

OPPORTUNITIES IN ALGERIA

French Associations Act Against Price Cutting

Strong attempts to secure strict maintenance of list prices is being made in both Paris and Lyons by their respective traders' and manufacturers' associations, the S.P.I.R. and the S.N.I.R.

THE BROADCASTER Paris correspondent states that this move has been long delayed.

The S.P.I.R. of Paris, he adds, has just sent its members a list of recommendations concerning the sale of radio goods. These emphasise the obligation not to give discounts to any person not a recognised trader.

Such dealers pay a special tax to the State.

Although somewhat different in its methods, the S.N.I.R. or Lyons is taking the same stand. This association goes a step further, however, and insists that its members shall give purchasers a year's guarantee with full service during that period.

Maximum service rates have been fixed by this association. The night rate is just under 10s. for the first hour at the present rate of exchange, and about 3s. 6d. an hour afterwards. Day rates are about 7s. for the first hour and 2s. 6d. an hour afterwards.

NOTTS STATIC TESTS

Following complaints, notably by the Nottingham branch of the W.R.A., and the visit of a deputation which included Mr. J. Thornton (Thornton and Vowles, Ltd.), chairman of the branch, to the manager of the Nottingham Passenger Transport Department, tests were carried out between 11.30 p.m. and midnight on Tuesday of a "stopper" coil designed to eliminate the interference.

Two special vehicles, one carrying the coil and the other not so equipped, were driven along the affected route, and twelve observers took note of the effects at different points, using receivers in residents' houses. Reports apparently were somewhat contradictory. It is expected, however, that the results will be communicated officially to the local W.R.A. members in due course.

NO BRITISH SETS IN JUGOSLAVIA

Although imports of radio apparatus into Algeria have been restricted of late under the quota system instituted by the French Government, the market is considered to be of growing importance.

Sets to suit the market should be able to receive most of the European transmitters, and the price should be about £36 at the current rate of exchange. Battery sets are now being sold for about £10.

They should be of the super-heterodyne or band-pass type, and should cover wavelengths from 200 to 2,000 metres. Mains supply voltages, 120 volts A.C. 50 cycles in Algiers, and between 110 and 115 volts A.C. 50 cycles elsewhere.

No radio manufacturers are in business in the country, but a number of dealers make sets from components.

A list of dealers in Algeria, together with other useful information on this market, is available from the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

The chief sources of supply of radio goods for Yugoslavia are Germany, Holland and America. There are no British sets on this market.

American Sets

About 18 months ago American sets were not known, but they are now competing strongly with other makes of receiver. Much of their popularity is said to be due to the superior selectivity and quality of the U.S.A. products.

American prices are lower than corresponding European prices, but on the other hand supplies are only available for cash and on minimum orders of 50 or 100 sets.

About 90 per cent. of sets in use are for mains operation, but there is a wide difference in the supply voltages available.

The main supplies are 200 and 110 volts 50 cycles, 110 volts 42 cycles, and 220 and 110 volts D.C. In villages and outlying districts an assortment of supply voltages is to be found.

"The market exists here for really selective sets which can completely cut out the local stations," states the Department of Overseas Trade in a report on the matter.

Classified advertisements, which must be prepaid, should reach The Advertisement Manager, "The Broadcaster and Wireless Retailer," 93 Long Acre, London, W.C.2. not later than 6 p.m. Monday for the following Saturday's issue.

CLASSIFIED ADVERTISEMENTS

SITUATIONS VACANT AND WANTED.
TRAVELLERS.
2d. PER WORD
minimum 2/-
All other headings 3d. per word, minimum 3/-

AMAZING RESULTS

With our New Super Coils.
CIRCUITS AND DIAGRAMS ENCLOSED.

OUR NEW LISTS — SAVE POUNDS

WANDER PLUGS, Red and Black	gr.	5/6
SPADES or PINS	...	6/6
BANANA PLUGS and Sockets	gr. 11/6 &	8/9
W.O. & PILLAR Terms, N.P.	gr.	7/6
PUSH-PULL SWITCHES, Deluxe	doz.	4/8
Radio Gram. 7/6, Wave change	...	5/6
Panel Bkts. and G.B. Clips	...	2/6
S.T. 300 COILS as specified	...	4/6
SCREENS, 7/-; Cop. Foil	...	3/6
DUAL COILS, 24/-; B.B.C.	...	11/6
CONDENSERS, Var., 16/8; DIFFS.	...	11/6
BINOC CHOKES, 14/-; Single	...	10/6

A. E. ANDREWS & Co. "OBO"
31, TOLLINGTON PARK, N.4

Scale of Charges

The price for prepaid small advertisements inserted under their appropriate headings is 3d. a word (minimum 3/-) with the exception of the following:—

SITUATIONS VACANT and WANTED and TRAVELLERS WANTED

are charged at 2d. per word (minimum 2/-).

AUCTION ANNOUNCEMENTS
15/- per inch.

Black face type or small caps is available at an extra charge of 6d. a word. Box office addresses may be used, and are charged as five words.

SERIES DISCOUNTS.

15% on 52 insertions, 10% on 26, 5% on 13, and 2½% extra if copy is unchanged

ALL CLASSIFIED ADVERTISEMENTS MUST BE PREPAID.

SITUATIONS VACANT

MANUFACTURER OF RADIO RECEIVERS requires first-class Representatives with own cars to cover London postal district, Lancashire and North-West, Yorkshire and North-East, Surrey, Kent, Sussex, and Hampshire. Salary and commission. Must be men of proved selling ability and well known to Retailers. Give full details in confidence.—Box K274, "Broadcaster" Office. Oct. 1.

REQUIRED.—Radio Traveller. Pocket-book sideline. Good commission.—Hunter Radio, 150, Southampton Row, W.C.1. Oct. 1.

FIRST-CLASS RADIO SALESMAN for London and Home Counties. Only those with live connections and proved ability need apply. Own car an advantage.—Write, stating full particulars, to P. O., Box M.276, "Broadcaster" Office. Oct. 1.

SITUATIONS WANTED

DISPATCH MOTOR-CYCLIST. Owner requires contract from Manufacturer or Wholesaler. Very favourable terms.—Box L275, "Broadcaster" Office. Oct. 1.

CABINETS

CABINETS.—The best in the trade.—Send for new 1932 leaflet and trade terms to Imperial Cabinets, 18, Summerhill Street, Birmingham. Aug. 26, 1933.

TRADERS

—why stock two types of valves when one will do?
THE UNIVERSAL

OSTAR-GANZ

HIGH VOLTAGE MAINS VALVE works direct from either A.C. or D.C. Mains without the need of transformer or breakdown resistances. Most economical in current consumption. Made for any mains voltage up to 250 volts. State voltages when ordering. G.P., Det. and Power, 17/6. Super Power, 18/-, Rectifying — 50 M.A., 14/6. 125 M.A. 15/6. All-Mains KITS supplied for Receivers and Amplifiers. Write for full particulars. EUGEN FORBAT, Sole Representative for Gt. Britain, c/o Nivalight, Limited, 1, Rosebery Avenue, E.C.1. (Telephone: Clerkenwell 1825.)

Yagerphone RADIO LTD.

28, Charlotte St., and Charlotte Cabinet Works, London, E.C.2. and Ponders End, Middlesex. Phone: Bishopsgate 1966. Phone: Enfield 1321.

GRESLEY

3-GANG CONDENSERS and ILLUMINATED DIALS TO MANUFACTURERS ONLY
GRESLEY RADIO LTD., Ordsall Lane, Salford

FOR SUPER-HET Receivers & Radiograms

—write for details of our range. 28 to 110 Gns.

HALFORD RADIO, LTD., 39, Sackville St., W.1 Telephone: Regent 7136.

X Best sellers! READY RADIO KITS

Ready Radio Ltd., Eastnor House, BJackheath, S.E.3. Lee Green 5678. X

A point that sells

'CLIX' "MASTER PLUG"

Is the plug with the positive METAL TO METAL WIRING DEVICE

1½d Literature and particulars from Lectro Linx Ltd., 254 Vauxhall Bridge Rd., S.W.1



FORMO

has gone TWO BETTER

You must see the unique new Formo MULTICOUPLER Get Particulars

from 23, Golden Square, Piccadilly, W.1 Telephone: Gerrard 2088.

BECOME A REGISTERED

Harlie

HIRE PURCHASE DEALER

Send for full details

HARLIE LTD., Cambridge Arterial Road, Enfield, Middlesex. Tel.: ENFIELD 3431-3432

CAV H.T. & L.T. ACCUMULATORS

Applications are invited from reputable traders for Radio Battery Agency appointments.

C. A. VANDERVELL LTD., Well Street, Birmingham.

Repairs in 48 working hours

National Radio Service

The National Radio Service Co. (Prop. N.R.S. Ltd.) 15, Alfred Pl., W.C.1 Phone: Mus.7651

3 GOOD LINES

- | | | | |
|--|-------------------------|-----|-----|
| NATIONALLY ADVERTISED. GOOD DISCOUNTS. Write for details. BRITISH PIX Co., Ltd. (Dept. 217), 118 Southwark St. S.E.1 | 1. PIX | --- | 2/- |
| | 2. PIX INVISIBLE AERIAL | --- | 2/- |
| | 3. PIX VALVES FROM | --- | 4/6 |

ZETAVOX LONG DISTANCE RADIO

Obtainable through leading wholesalers

Classified advertisements, which must be prepaid, should reach The Advertisement Manager, "The Broadcaster and Wireless Retailer," 93 Long Acre, London, W.C.2. not later than 6 p.m. Monday for the following Saturday's issue.

CLASSIFIED ADVERTISEMENTS

MANUFACTURERS
Fill your Staff Requirements by means of a "small ad." under **SITUATIONS VACANT or TRAVELLERS REQUIRED.**

2d. PER WORD
minimum 2/-

Important to Radio Manufacturers, Factors and Dealers.

TUESDAY, WEDNESDAY and THURSDAY, 4th, 5th, & 6th Oct., 1932

At 22, SOAPERY STREET, WEST GORTON, MANCHESTER.

The Works of the late L. KREMNER, Ltd., in Voluntary Liquidation.

THOMAS DUNHAM, F.A.I.,

will

SELL BY AUCTION

as per Catalogue.

Large Quantities of

WIRELESS COMPONENTS, RECEIVERS, GRAMOPHONE RECORDS, comprising:

- 100,000 Brunswick 10in. Gramophone Records: 7,000 12in. "
- 50,000 Geared "Bartos" Slow Motion Dials.
- 30,000 Coils of Insulated Aerial Wire.
- 20,000 Baseboard Single Coil Mounts.
- 15,000 Mullard Grid Leaks.
- 15,000 Mullard Spaghetti Resistances.
- 10,000 Selecta Fixed Condensers.
- 5,000 Electric Lamps.
- 100 Gross, Hydrometers.
- 500 L.F. Transformers.
- 300 A.C. Gramophone Motors.
- 100 Kolster Brandes Moving Coil Loud Speakers in Walnut Cabinets.
- 100 Kolster Brandes 196 Moving Coil Loud Speakers.
- 50 Amplion Loud Speakers.
- 25 Moving Coil Loud Speakers.
- 12 Superhet Radio-Gramophones.

A.C. and BATTERY RECEIVERS, WIRELESS AND LOUD SPEAKER CABINETS, LOUD SPEAKER UNITS, and other Wireless COMPONENTS AND ACCESSORIES.

SALE: 11 a.m. each day.

VIEW: Wednesday, September 28th, to Monday, October 3rd. Daily, 10 a.m. to 5 p.m. Sunday excepted.

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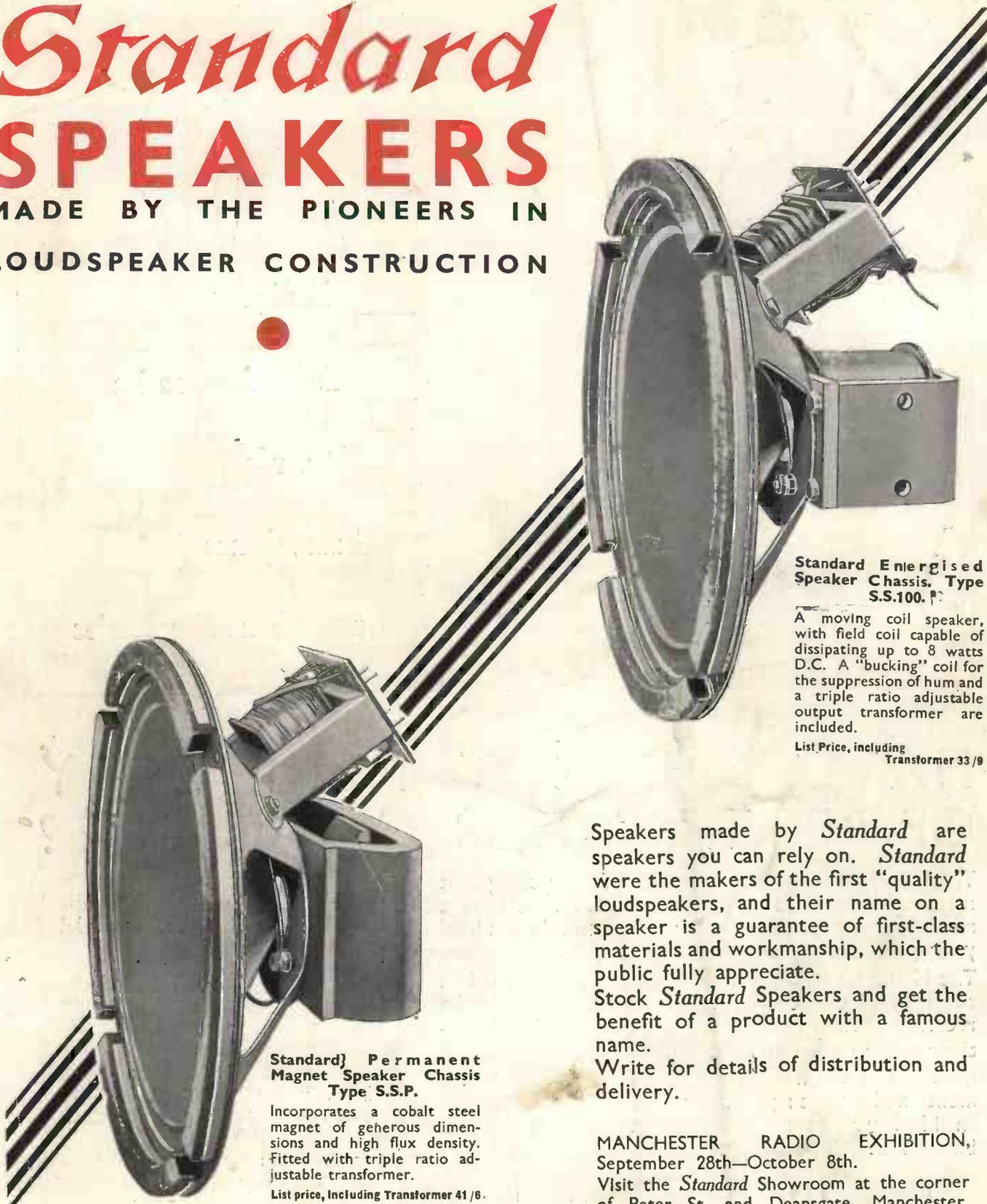
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