

# The Broadcaster & WIRELESS RETAILER

Incorporating The RADIO TRADE REVIEW

LARGEST  
AUDITED  
NET SALE

TELEVISION  
NERVES  
by G. J. Freshwater

No. 332. Vol. XXVI. SATURDAY, MARCH 2

Circulated weekly to the Radio, Music, & Gramophone Industries at 10/6 per annum

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& WIRELESS RETAILER

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The regular price of the price schedule booklet is One Shilling, but subscribers to "The Broadcaster" may obtain a copy at the nominal price of 6d. Complete and post to-day the Order Form below.

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price of  
**6d.**  
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for  
Quantities.



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- ★ The Make, Type and description of Set.
- ★ Original price and year of introduction.
- ★ Minimum Re-Sale Price—Maximum Re-Sale Price and average Re-Sale Price obtained to-day by retailers of sound business reputation and gathered from a full and representative list.
- ★ A page of valuable information on how the retailer can best make use of the information published in the book.

## ORDER FORM

Subscription Dept., Broadcaster & Wireless Retailer,  
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Please send me post free .....copies/copy of your Part Exchange Re-Sale Price Schedule.

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Broadcaster—2-3-35

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All enquiries in connection with advertisements in "The Radio Times" should be addressed to the Advertisement Manager, The British Broadcasting Corporation, Broadcasting House, Portland Place, W.1. Phone: Welbeck 4468.





# The Broadcaster

& WIRELESS RETAILER



No. 332. Vol. XXVI.

SATURDAY, MARCH 2

## SPREADING TRUTH ABOUT TELEVISION

### PAMPHLETS FOR DEALER DISTRIBUTION

#### EFFECT UPON TRADE IN SOUND SETS

Reports of the effect of television announcements on the sale of receivers which were made at the Midland Lunch Club, the Manchester W.R.A. dinner, and elsewhere last week, have provoked considerable comment. Extracts from a number of letters on the subject are given below.

Mr. G. J. Freshwater, Publicity and Sales Promotion Manager of Marconiphone, writes a thought-provoking article on the subject under the title of "Television Nerves" on page 24 of this issue.

To provide dealers with a means of refuting the over-optimistic impression that television programmes and receivers will be ready within a few weeks, Capt. H. A. Bain, general secretary of the W.R.A., is producing a Television Pamphlet for dealers to distribute.

Arrangements are being made to have this printed, so that dealers can obtain supplies from the association at First Avenue House, High Holborn, London, W.C.1.

The S.R.R.A. has produced a similar circular for dealers to distribute to their customers.

These circulars cost 12s. 6d. for 250, 17s. 6d. for 500, 22s. 6d. for 1,000, 27s. 6d. for 1,500, or 32s. 6d. for 2,000.

#### Bristol Publicity

To tell the real truth about the position of television, the Bristol and West of England Radio Traders' Association propose to insert full-page advertisements in the two local evening newspapers, setting out the real facts.

They are inviting the co-operation of manufacturers and wholesalers in the scheme, and suggest that the names of the leading firms in the trade would help to impress upon the public the fact that it is not just an effort on the part of retailers to foist upon buyers sets that will soon be rendered obsolete owing to the coming of television.

The association also invites the co-operation of other retailer organisations and unattached radio dealers.

H. Bailey and Co., Ltd., of Denton, Manchester, who, in addition to being radio and electrical dealers, are amateur television experimenters, with the call sign G2UF, write:—

"We read with amazement the statements made by various retailers on what has been termed 'the television ramp.'

"It would appear that a great deal of this trouble has been caused by the dealers having little or no knowledge of television prior to the publication of the report. With a few exceptions, no interest has been taken in the 30-line transmissions anywhere in the pro-



G. A. Litchfield (left), inventor of the "traffic signals" control for speakers, with Mr. A. H. Whiteley, chairman of the Notts Lunch Club, who operates the novel control. (See "Speaker's" note on page 15.)

vinces except by radio fans who were anxious to see what was being done.

"Surely it is the duty of every wireless dealer in the country, whether large or small, to take an interest in his business.

"We experienced a record return for sales during January compared with any previous year since 1926. Why did these people come to us to buy their radio? Because they realised we knew the truth about television and could give them the facts."

#### Poster Suggestion

Mr. A. G. Wright, of Birmingham, W.R.A. chairman, says:

"Could not the R.M.A. issue a definite statement on the position and print it boldly in poster form for window display purposes?"

"The R.M.A. would be spending a comparatively small sum of money, and spending it wisely. The dealers are feeling the effects of the sales landslide now—R.M.A. members will experience it shortly."

A 32-page booklet explaining the principles of television for both technical readers and the general public is being presented free with the March 8 *Wireless World*.

An introduction stresses that television is not "in anything like a highly developed state at present," and that "it is not, and perhaps never will be, a substitute for our present broadcasting."

The contents of the booklet fall into chap-

#### TELEVISION NERVES

(See page 24)

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ters dealing with the elements of electrical communication, the principles involved in television, mechanical systems, practical difficulties, the cathode-ray tube, and cathode-ray television.

Another step forward has been taken by the P.M.G.'s television advisory committee. This week it has considered specifications for equipment for the London transmitter.

So far nothing has been decided regarding the choice of the site for the new station, and this matter is still being investigated by the technical sub-committee. The full committee meets again on Tuesday next.

On Monday, Major Church, of the Baird Television Company, attended the House of Commons to address the members of the Conservative Private Members' Committee on the subject of television. As these meetings are private, no account of Major Church's address can be given. It is understood, however, that he referred at length to the difficulties under which the Baird Company had worked during past years, and suggested that, in his view, the best immediate arrangement would be for the Baird Company to continue television broadcasts from the Crystal Palace, leaving other interests to commence distribution in some other large area of population such as the Midlands.

#### Manufacturing Developments

An ambitious programme for the manufacture of television sets is to be embarked upon by European Television, Ltd., a new company formed to take over the Mains Radio Manufacturing Co., of 103a, Parchmore Road, Thornton Heath, Surrey.

The managing director of the new company is Mr. J. Heaton, who was the principal of the Mains Radio Manufacturing Co.

A variety of cathode-ray receivers will be produced, but concentration will be made at first on a 30-line unit for use with existing receivers. It is stated, however, that the design will be such that the change-over to 240 lines will be easily carried out.

Later, when 240-line transmissions are operating on a larger scale, combined sound-and-vision and vision receivers for ultra-short waves will be produced.

In order to encourage the use of television sets, a scheme will be put into operation whereby European Television, Ltd., will take a set-owner's existing long-and-medium wave receiver chassis in part-exchange for an ultra-short wave chassis of similar design. This, it is stated, will enable the change to be made for a comparatively low sum.

That his firm, in conjunction with an important concern, will be in a position to place on the market a complete television receiver as soon as the high-definition transmission is available, is announced by Mr. Thomas Harris, of 102, Woodland Way, Winchmore Hill, London, N.24.

The receiver will retail at a popular price, but details are not yet available, nor can the name of the firm in conjunction with which Mr. Harris will work be announced at the moment.



## Public Recoraing Exhibitions

### Many Artistes "On the Wax" at Liverpool

Over 60 performances by vocalists, pianists and dance bands have been recorded during the last four days by experts of the H.M.V. and Columbia companies, at the premises of Rushworth and Dreaper, Liverpool.

The Lord Mayor of Liverpool on Tuesday opened this public exhibition of gramophone record making. His speech at the inauguration was recorded, and afterwards reproduced. He was surprised by the faithful rendering of his own voice, and evidently enjoyed hearing himself speak.

Mr. William Rushworth and Mr. W. R. Fell (education department, R. and D.) welcomed the civic visitors.

Billy Mayerl on Wednesday personally recorded in public, and afterwards autographed musical publications and records.

On Thursday the Lord Mayor of Liverpool again visited the exhibition to make a record detailing the local jubilee celebrations.

### WATCH FOR THESE STOLEN RECEIVERS

#### THREE ROBBERIES

Dealers are asked to watch for three receivers that have been stolen. One was a Lissen 3093 A.C. mains model, taken from Easco Electrical Auto Services Co. shop at 18, Brixton Road, London, S.W.9; and next, a Philco 264 Baby Grand de Luxe, stolen from the premises of Rupert H. Levy, 23a, Roman Road, Linthorpe, Middlesbrough. The third, a Marconiphone Jubilee model 264, was stolen from a car in Limes Avenue, Carshalton, belonging to F. C. Cooper, of 256, London Road, West Croydon. The serial numbers for these are O18503, 91008 and 275663, respectively.

### B.B.C. SYMPHONY ORCHESTRA ON TOUR

Excellent opportunities for tie-ups by local dealers are contained in the touring of the B.B.C. Symphony Orchestra and its conductor, Dr. Adrian Boult.

The third of four visits planned for the orchestra took place at Birmingham on Wednesday, and on Wednesday, April 3, a concert will be given in the Caird Hall, Dundee.

The full orchestra consists of 119 players, and special transport arrangements have been made.

### MUSIC EXPORTS TO FRANCE

Violins, violoncellos, double basses, mandolins and guitars exported to France must be branded with the name of the country in which they were made. For the instruments branding must be done internally and must be visible, while for bows the mark must be on a side of the stick. This requirement comes into force on April 10.

The market for sets is slowly increasing in Poland. In November, 1928, there were only 177,875 licensed users in Poland. By November, 1933, this number had risen to 275,063, while in November, 1934, it was 325,020. There is ample scope for further improvement as there are only approximately ten radio users to each 1,000 inhabitants.



Well over two hundred people attended the dance at Reading on February 22 organised by Exide and Erco (Electrical Services), Ltd., of Reading, for the Berkshire Exide Motor and Wireless dealers. Mr. MacLennan represented Exide and the three directors of Erco, Ltd., Messrs. H. C. Bartlett, Blackmore and G. Bravey, were present.

## News from Everywhere

The tenth annual convention of the Institute of Radio Engineers will be held from July 1 to 3, at the Hotel Statler, Detroit, Michigan, U.S.A.

The Chapel Ash Radio and Cycle Service, Ltd., of Wolverhampton, is now under entirely new management. Miss Kathleen Quinn has sole control, and is trading as Quinn, at 17, Chapel Ash.

According to the American R.M.A., battery receivers showed increased sales in the U.S.A. during 1934. Approximately 300,000 were sold, and the R.M.A. regards this as evidence of increased rural purchasing power.

Alderman J. G. Graves, managing director of T. Graves and Co., Ltd., has equipped the Sheffield Royal Hospital with a radio installation, an amplifier, 30 speakers, and 500 pairs of headphones.

There was a good gathering of radio dealers at the Technical College at Derby on Friday, February 22, when Mr. W. A. Pickvance, of the Western Electrical Instruments Co., Ltd., gave a lecture on "Electrical Measuring Instruments."

### Do You Know?

#### Approval or Sale?

"Some weeks ago," writes a Manchester reader, "I sold a set on cash terms. I presented my bill, but was later informed that the receiver needed attention. This was given, but I know that the set was not working well. My client now asks me to collect the set 'as it was supplied on approval.'"

If there were no terms or conditions that the set was supplied "on approval," but was a complete sale, you are entitled to payment of the agreed price.

The difficulty, however, lies in the fact that you admit the set was faulty, and if there was a specific or implied guarantee, you must make the set fully efficient and inform your customer accordingly.

Send all your trade queries to THE BROADCASTER SERVICE BUREAU, 29, Bedford Street, Strand, London, W.C.2, or 'phone: Temple Bar, 2468, Extension 253.

## RETAIL MUSIC AND RADIO SHOWS

Murdochs, of Oxford Street, Harrow, recently held a piano exhibition at 378, Station Road.

Mr. M. Bridger, of Hohner's, on Thursday, February 21, at Wigan, gave a demonstration of the piano-accordion. The demonstration was arranged by Heywood's, of Library Street, Wigan. Mr. Bridger was assisted by the Bolton Accordion Band and several soloists. Admission was by tickets issued free by Heywood's.

Wigfall, Ltd., who have numerous branches in Sheffield, Rotherham and district, are great believers in exhibitions. They are providing a number of these at Welfare Halls and other places in the South Yorkshire colliery villages. Each exhibition extends over a week, and they are being attended with a considerable measure of success.

## NEW PREMISES

Branch premises have been opened by Thomas and Owen, at The Square, Brynmawr.

Gilberts, of Newcastle, have opened a shop in Wilson Street, Middlesbrough.

N. Sutton and Co. have moved to more extensive premises at 24, Ellison Place, Newcastle.

The Norwich branch of Flitton Bros. is to remove to larger and more convenient premises at 8, Redwell Street, St. Andrew's Hill, Norwich, and the 'phone number is 2807.

Philip Woolfson, Ltd., of Glasgow, has moved to more commodious premises at 24, Ellison Place, Newcastle—'phone: 24027. There are well-furnished offices in the same building, and a warehouse is attached. Mr. H. M. Smith manages the depot.

The Salisbury premises of J. Dyson and Co., Ltd., have been transferred to larger and more up-to-date premises at 47, Winchester Street, Salisbury. Mr. F. L. Woodbridge is in charge.

## MORE I.F.S. LISTENERS

During last year the Irish Free State issued 59,952 receiving licences. Six months before, on June 30, 1934, the total number of licences in force in the Free State was 52,901, while at the end of 1932 only 31,094 licences had been issued. The population is about 3,000,000.

Northern Ireland has a population of approximately 1,000,000, and on December 31, 1934, 65,621 licences were in force.



# SET MARKING ORDER EFFECTIVE FROM AUGUST

## Radio Products to Show Country of Origin

The set marking order comes into force on Wednesday, August 21. On and after that date all receivers and a large selection of components imported into this country must be clearly marked with an indication of the country in which they were made.

This applies to goods on sale or exposure for sale, both wholesale and retail. The order does not mean that the indicating mark must be on the goods before importation, however.

Similar orders exist covering valves and electrical accessories.

It will be recalled that the application to have radio goods so marked was made by the R.M.A. and the R.C.M.F. These two bodies and others concerned appeared before the Standing Committee of the Board of Trade last autumn. In September last the committee recommended that the order be made.

After being before both Houses of Parliament, the order was finally passed by the Privy Council on February 21. It does not come in force until six months after this, so that the Industry will have time to clear stocks and fully comply with the order.

Receivers, radiograms, electrical gramophones and L.F. amplifiers, whether imported complete or in parts, must be marked in a conspicuous manner on a prominent part of the chassis, and on the front of the case or by a securely fixed label.

### Label for Cabinets

When considering the mark for the cabinets of sets, the committee felt it unwise to require a permanent mark on the face of a cabinet, as this might be disfiguring. It was pointed out, however, that the mark could appear on the tuning dial.

Marking cabinets on the face with a label is in conformity with another order relating to furniture. To prevent confusion and to avoid duplication, marking the front of a cabinet is deemed also to be compliance with the furniture order.

Speakers and speaker units also come within the scope of the new order. These are to be marked in a similar manner to sets when in cabinet form, or on the base, chassis or frame when in chassis form.

Components, again, are to be marked in a conspicuous and permanent manner. Such components, which, owing to their size or shape, have not sufficient surface to bear a mark, can show their origin by means of a label.

### Components

The components affected are:—Battery eliminators, chokes, condensers, drives for variable condensers, pick-ups, volume controls, electric gramophone motors, gramophone turntable units comprising an electric motor and a turntable, phones, resistances, valve holders, and adaptors, transformers, tuning coils, resistance capacity coupling units, choke capacity coupling units, chassis or frame carrying or adapted to carry a collection of components.

When any components are sold on a card or in a container, these are also to be marked. Marks for components do not apply to components which form part of any complete instrument.



The Southern Railway hires "camping" coaches to holiday-makers, and this typical coach, which is on an advertising tour, contains an H.M.V. portable.

## RECORD NUMBERS AT PIANO MAKERS' DINNER

A record dinner in point of numbers, held by the Piano Manufacturers' Association at the Trocadero, London, W.1, on Thursday, was presided over by Capt. Evelyn Broadwood.

More than 300 members, dealers and other guests were present.

The toast of "The Music Industries Council" was proposed by the guest of honour, Mr. Charles Kennedy Scott, the father of the famous airman, and Sir Henry Richards also spoke on the work done by the Council. The response was made by Mr. Hubert Foss and Mr. W. Evans.

Mr. R. P. Brasted proposed the toast of "The Guests," to which Sir Landon Ronald replied.

An important event during the evening was a presentation to Mr. Ernest White, the organiser of the M.I.C., as a recognition of the work he had carried out at the Music Trades School. The presentation was made by Mr. W. H. Strohmenger.

## FRESH CAPITAL FOR JOHN ISMAY

### MERGER FORESHADOWED

Fresh capital is to be raised by John Ismay and Sons, Ltd., to finance the purchase of additional works in order to cope with a very considerable expansion of the business. The balance of the authorised preference capital is to be issued, namely, 50,000 £1 shares carrying 6½ per cent. cumulative interest. These shares are to be offered to existing preference and ordinary shareholders at 22s. 6d. each.

The company, jointly with an associated concern, has purchased the Sterling Works at Dagenham.

It is also announced that the manufacture of electric lamps is now the largest and most profitable department of the business, and the demand continues to increase. Good profits are also being shown by the neon business, which, having outgrown the space available at Ilford, is to be moved to Dagenham. The production of a new type of refrigerator is being undertaken at Dagenham, where it is manufactured by Ismay Zeros, Ltd., in which John Ismay has a substantial interest.

It is understood this move foreshadows an important merger of several electrical and radio interests.

## McMichael to Enter New Market

### Making Low-Price Sets

McMichael Radio, Ltd., is to enter the medium- and low-price set market, and three receivers, one a medium-priced production with a new type of tuning scale, and the others at a still lower figure, are being prepared.

This statement of policy was made by Mr. Leslie McMichael, the chairman and managing director of the company, at the annual meeting of shareholders on Thursday.

As a result of a loss of £47,452 during 1934, Mr. McMichael faced a critical audience. In reply to criticisms, he said that such a reverse would not have been experienced but for the extraordinary circumstances which arose, the most important of which was the price-cutting war indulged in by some competitors, irrespective of whether the price of the sets they were marketing was economical or not. The company had mapped out its programme, and was unable to reduce its own prices.

Mr. McMichael said a much healthier state of affairs is likely to develop in the current year.

The market for high-quality sets, such as those produced by McMichael, was no longer large enough to give the company sufficient scope for its business, and the decision to enter the popular-price market had, therefore, been made. This market probably represented three-quarters of sales throughout the country.

### Recovery Taking Place

That a recovery in the company's business was taking place was disclosed by the fact that during the first two trading months of the current year the turnover was 40 per cent. larger than the corresponding months of last year. With the new range of receivers now being made, Mr. McMichael was confident that the company would get back to a profit-earning basis.

A shareholder suggested that to wipe out the loss of the past year and also preliminary expenses and goodwill, the 5s. ordinary shares be written down to 1s., but this was negatived. After protracted discussion, the report and accounts were adopted unanimously, and a vote of confidence given to the board.

The company's loss of £47,452 on trading during 1934 compares with a profit for the previous period of 14 months amounting to £26,124. The net loss comes out at £46,306, which, deducted from the credit balance brought forward, leaves a debit of £43,851 to be carried forward.

The principal changes in the balance-sheet are a decline in the stock item from £74,394 to £40,584, in investments in Government securities from £50,120 to £24,131, and an increase in the cash from £9,074 to £13,075. Advertising expenses have been reduced from £10,000 to £4,000.

## RADIOLYMPIA SURPRISE

Radiolympia is to open on Wednesday, August 14, instead of Thursday, August 15. As the Exhibition will remain open until Saturday, August 24, there will be a ten-day show.

Glasgow Corporation has agreed the tenancy of the Kelvin Hall for the R.M.A. Exhibition from August 26 to September 8.

The Glasgow exhibiting dates will presumably be August 28 to September 7.



## GOTHIC TAKING INDUSTRY ON A CRUISE

### WHITSUN SAILING IN P. & O. LUXURY LINER

With the idea of narrowing the gap between dealer and manufacturer, Gothic Electrical Supplies, Ltd., of Severn Street, Birmingham, are holding a cruise this summer.

They have chartered exclusively the P. and O. luxury liner "Viceroy of India" for a seven-day cruise to Hamburg and Copenhagen during Whitsun week. The cruise is to be entirely for manufacturers—principally radio manufacturers—and the firm's customers and friends.

Although booking has only just commenced in earnest there is every indication that the scheme will prove a great attraction, and already more than half of 670 berths have been booked, and several well-known figures in the radio manufacturing world have promised to make the trip.

The senior staff of Gothic, including the managing director, Mr. H. N. Hughes; the sales manager, Mr. H. S. Poole, and the secretary, Mr. A. S. Wild, will also travel.

The boat is fully equipped for all cruise pleasures, and there will be opportunity for deck sports, swimming, dancing and competitions. There will be several tours at the ports where the liner will call, and arrangements have been made so that no passports will be necessary.

### EKCO MOVE GLASGOW SERVICE DEPOT

#### IN SAME BUILDING

As a result of expiration of lease, the Ekco Service Depot at 27, Cadogan Street, Glasgow, will be removed in its entirety from the east to west wing of the building this week-end.

The depot closed at 6 p.m. on Friday, and will reopen in its new abode at the usual time on Monday. The new accommodation offers more space for the various departments.

Production test gear which will simplify routine and enable the depot to work to the same test and service procedure as is followed at Ekco Works, Southend-on-Sea, is being installed.

The depot, which serves Ekco dealers in Northern Ireland, Newcastle, Carlisle, and all the area north of a line joining these two towns, has been operating to a forty-eight hour service.

As a result of the improvements, it is expected that the depot will be able to offer a still more expeditious service.

### MORE B.B.C. STATIONS

Consideration is being given by the B.B.C. to the problem of improving the Regional service in those areas which will not be adequately served when the North Ireland, North Scottish and N.E. England transmitters are in service.

Tests have already been carried out in N. Wales and S. Devon to ascertain what service is likely to be given by low-power transmitters situated there. It is understood that another similar area is East Anglia.

The North Ireland transmitter is now well under way, and it is anticipated it will be in service by the end of this year. Plans are being prepared for the N. Scottish station at Burghead, near Elgin. No site has been chosen for the N.E. England station. The B.B.C. has options on three sites for the new Plymouth station.



An exhibition of recording, using Columbia and H.M.V. apparatus, was held during this week by Rushworth & Dreaper, of Liverpool. Alfred Francis and the Bon Marche band are here seen round the microphone with the Lord Mayor of Liverpool.

## MARCONIPHONE MOBILE SHOWROOM DATES FOR MARCH

The Marconiphone mobile showroom is now visiting towns on behalf of local dealers.

Marconiphone retailers wishing to avail themselves of the publicity attending a visit should communicate with the firm.

Bookings for March are already complete, and are: March 1, H. E. Hamilton, Bristol; 2, Adye Bros., Malmesbury; 4, O. S. Garbutt, Newport; 5, City Radio, Cardiff; 6, N. Hedge and Sons, Ltd., Neath; 7, Robins (Radio), Ltd., Swansea; 8, J. D. Williams, Aberdare; 9, W. H. Watts, Bridgend; 12, George Whitford, Kidderminster; 13, Abell and Smith's Electrical Co., Ltd., Worcester; 14, L. H. Durrant, Harborne; 15, H. A. Sherratt, Dudley; 16, Radio Supply Stores, Wolverhampton; 25, Foulkes Gornall and Co., Ltd., Shrewsbury; 26, Power's Radio, Oswestry; 27, W. A. Guy, Chester; 28, House of Temperley, Runcorn; 29, Bowen's, Altrincham; 30, Smith, Son and Co., Ltd., Stockport.

From March 18-23 the coach will be at the Daimler works for overhaul.

## AVOMINOR CONTEST

### DEALER WINNERS IN THE PRIZE LIST

Work has been completed on the judging of the many entries received in the Avominor competition run throughout last summer by the Automatic Coil Winder and Electrical Equipment Co., Ltd., of Winder House, Douglas Street, London, S.W.1.

It will be recalled that the public had to submit either lists of tests that could be made with an Avominor or an interesting experience met while using one of these instruments. The competition formed the basis of a big advertising campaign, but competitors had to buy an Avominor and obtain details of the contest from a dealer before being eligible to enter.

Dealers who sold Avominors to the first three prizewinners were also offered prizes. These are:—1, Currys, Ltd., 22, Buttermarket, Bury St. Edmunds, who wins £10; 2, Peto Scott, Ltd., 62, High Holborn, London, W.C.2, who wins £5; and 3, Mr. N. Mickle, Harper Street, Bedford, who wins £2 10s.

The public prizes were very attractive, the first being £1 a week for a year, the second 10s. a week for a year, and the third £10. Twenty-five consolation prizes of 25s. each have also been awarded.

The General Electric Co., Ltd., announces that although 13-volt valves have been used in the first batch of the Shadowband A.C. mains radiogram, 4-volt mains valves are being used in future models.

## Static War Moves at Notts

### Special Broadcasts and Tests

The first fruits of the long agitation carried on by Nottingham W.R.A. (recently given additional impetus by an address by Mr. Holford Knight, K.C., M.P., to the Notts Lunch Club) to get the Nottingham Corporation Passenger Transport Department to equip its trolley buses with stopper coils were seen during the week-end, when the B.B.C. and Post Office co-operated in a test.

Special programmes were transmitted on the medium and long waves from the Midland and National transmitters at Droitwich from the normal close-down on Saturday night until 3 a.m. on Sunday, and a special listening post was established on Carlton Hill.

### Question in Parliament

Mr. Holford Knight is to ask the Postmaster-General in Parliament on Monday whether he is yet able to make any announcement of the result of the test.

Six trolley buses were used, one being a vehicle loaned by the Notts and Derbyshire Traction Co., which runs into Nottingham over the Corporation system, and whose vehicles all carry suppression equipment.

Those taking part officially in the tests included Alderman J. Farr (chairman of the Passenger Transport Committee), Mr. J. L. Gunn (manager of the department), three representatives from the office of the engineer-in-chief, Post Office Telegraphs, London, and Messrs. J. R. Milne and W. E. Gill (of the North Midlands District, P.O. Engineering Department). In addition local Press correspondents set up portable stations.

The buses were run over a section of the route on a bitterly cold night, singly and in pairs, slowly and quickly, with a series of make-and-break contacts with driver's control apparatus, and the creation of arcs between the trolley wheel and overhead wires.

Afterwards Alderman Farr said to a Pressman, "I have not altered my mind, for I have yet to go through the observations I have made." He also stated: "There is as yet no new development with regard to trolley buses and radio, as suggested by certain evening newspapers." The tests undertaken in the early hours of Sunday morning—including the most adverse conditions possible—were merely a part of the arrangements arrived at some months ago at a personal interview that took place between Sir Kingsley Wood and the representative of the Nottingham Passenger Transport Committee.



# DEPOSITS MUST BE HIGHER

Dear Sir—

The fundamental snag in radio H.-P. is the low deposit; add to this poor secondhand value, comparative lack of reliability and rapid obsolescence and we have all the elements necessary for definitely risky as opposed to sound business.

If anyone doubts this he has only to observe how the risk has been artistically shifted from the manufacturer to the dealer. If the risk is too hot for the manufacturer, it is ludicrous to expect the dealer to carry it successfully.

In the motor trade it is quite simple for the dealer to place H.-P. (and no accommodation fee is charged, please note!), and he carries no risk whatever, the customer being charged about 8 per cent. on the outstanding balance.

Just compare this with radio. What a difference—and why? The answer is, that in the motor trade it is axiomatic that at no time during hiring shall the value of the vehicle be less than the outstanding balance. No other condition can be economically sound.

Hire-purchase in motors is thoroughly profitable and satisfactory, and one does not encounter the absurd experience of customers who can readily find the cash, buying motors on H.-P. merely to be in a position to enforce "service," as happens daily in the case of radio. When a man pays a substantial deposit he is in earnest and does not intend to lose the article he is hiring, but if, on the other hand, the deposit is trifling as in radio, it can and often does pay the hirer to let the goods be repossessed.

It is my considered opinion that instead of radio being procurable at from 5 per cent. to 10 per cent. down, the deposit should be of the order of 25 per cent. to 33½ per cent. Then hire-purchase would be of real benefit to the Trade.

W. S. L.

Southport.

## H.P. History

H.-P. worked very well until deposits were reduced. Repossessions then became common. When this happened the manufacturer did not admit his mistake and increase the deposit. Instead, he looked round for someone to whom he could pass the responsibility.

The dealer was chosen for this enviable position. Reassured by such statements as "Repossessions are only a fraction of 1 per cent.," and "In order to further assist you to maintain contact with your customers—" he meekly accepted this, and, in fact, agreed to pay an accommodation fee for the privilege.

The manufacturer, now fully protected, proceeded to reduce the deposits still further. Dealers still carried on without any great complaint and the manufacturer must have felt that there was no limit to what the dealer would stand, so "in order to still further assist him" he introduced two years' H.-P. with still lower deposits.

It was then found that there was no need to test the sets to the same extent as formerly, since the only result of a customer failing to pay (on the ridiculous excuse that the set was continually out of order) was that the manufacturer, or finance house, received payment in a lump from the dealer instead of in dribbles from the customer.

The only sane course is to insist on a deposit of not less than 25 per cent. and payments spread over not more than twelve months. The customer will then have some



Cabinets on their way, by the overhead conveyance system, to the receiver assembly department at Ferranti's Hollinwood factory.

thing at stake and will not be tempted to abandon payment when the set breaks down or a new and cheaper model is introduced.

J. D. GIBSON.

Birkdale.

## Pro-Reliability

MY experience of H.P. "enquiries" is that they are farcical, and, in some cases, I have to pay 2s. for them. I have had perfectly good clients declined for no reason that I can ascertain.

I am sure that "local enquiry agents" are in some cases prejudiced. Some of my clients take the refusal as a reflection against their good name, and get huffy about it. I can't blame them.

As for dry batteries, I can sell a 120-volt at 11s. every time. I take the trouble to explain why I sell a good battery that I can guarantee for so long, according to the set it is used with. I always offer to fit the battery free of charge—then I know the G.B. is O.K., and, when combined, that the G.B. plugs are in the right sockets. It is better to sell a good battery and take 6s. this week and 5s. next than sell one you cannot trust and does not pay for handling.

I have found but one make of receiver that can justly claim to be reliable. I can always sell the set I want to sell, and not the one the prospect thinks he wants.

It is astounding the good that results from selling receivers that do as claimed, and are reliable. I find that if I have confidence in the goods I sell, the public will accept my advice. A satisfied customer is the best advertisement. He talks a lot; but a dissatisfied one talks a sight more and louder!

W. A. F. EDWARDS.

Glastonbury.

## Sheffield W.R.A.

YOUR heading "Sheffield: Where is the Local Branch?" prompts me to write this letter.

When we do have meetings, the support we receive is nothing like it might be. I am not going to go on my knees to beg and pray for other retailers to attend meetings which really are more for their own good than mine.

Only recently it was brought to my notice that price-cutting was going on at two multiple shops that have opened in the main streets here. I proved this was so by purchasing sets at both these shops at discounts of 10 and 12½ per cent. respectively. I sent this information to quarters that I thought would deal with it, but nothing has been done.

In other channels it is possible to buy any type of ring valve at 40 per cent. off list. It seems nothing can be done about this.

At no time in my business experience have I been as disgusted as I am to-day about the state of the industry. I think the whole solution rests with the manufacturers.

If they want their products sold on a clean basis they can see that they are. On the other hand, if turnover is more important, then, of course, they go down the other street.

C. O. BIRTLES, LTD.  
C. O. BIRTLES.

Sheffield.

## Television Association

MR. Knewstub desires the formation of an institute of television, so he is apparently unaware that such a body already exists. I refer to the Television Society, which can justly claim to be the representative body as it numbers among its members many of the most eminent engineers and scientists in the country.

Surely we are not to have another sect known as "television engineers" among us? Radio engineering does or should cover the entire field, and we may expect radio engineers to know radio and radio picture technique equally well.

The syllabus of the Institute of Wireless Technology covers television engineering, so it is doubly hard to comprehend why Mr. Knewstub desires the formation of another institution.

F. THOMPSON, Assoc.I.W.T., G.5LH.

## Correction

REFERRING to your February 23 issue, we observe under the heading "Extras that mean Easy Money," you state "Pertrix H.T. batteries also include Bulldog and Meteor ranges."

This statement is incorrect, since neither the Bulldog nor the Meteor is a Pertrix battery. These batteries are both of the sal-ammoniac type, and the cartons they are put in are marked "Made by the makers of Pertrix Batteries."

They are definitely not Pertrix batteries, and should not, under any circumstances, be referred to as Pertrix, but always as "made by the makers of Pertrix batteries."

BRITANNIA BATTERIES, LTD.,

H. J. HICKS,

Advertising Manager.

## New Sets Not Justified?

THOUSANDS of pounds have been expended recently by manufacturers issuing and advertising new models.

Factors and retailers have had to take stocks of these sets, but as far as we are concerned, the effort to create new business has been a wash-out. We have had to put new sets upon our shelves when we already have ample stocks of late 1934 models, which have been rendered practically obsolete.

The "stunt" has apparently been good for manufacturers, as they have probably turned over large quantities of sets to the factors, and the factors, no doubt, have turned over a fair percentage to the retailers. But have retailers sold them? If others have had the same experience as us, the answer is in the negative.

In our opinion, the issue of new models at this period has been absolutely without justification, and far from helpful to the retailer.

T. PAYNE,

Payne and Hornsby, Ltd.

Newcastle.



## The Broadcaster & WIRELESS RETAILER

GENERAL OFFICES: 29, BEDFORD STREET, STRAND, LONDON, W.C.2.

Telephone: Temple Bar 2468 (39 lines)

Telegrams: Broadcaster,  
Southernwood, Rand, London

Editor: F. H. Robinson. Asst. Editor: John May.

### Television

"We are of the opinion that there are two factors which for a number of years will tend to prevent a television service being made use of to the same extent as present-day sound broadcasting:—

"(1) The difficulties of wireless communication on ultra-short wavelengths, particularly in hilly districts, may seriously limit the extent to which the country can be effectively covered.

"(2) Some time is likely to elapse before the price of an efficient television receiver will be comparable with that of the average type of receiver now in use for sound broadcasting."—Extract from the report of Postmaster General's Television Committee.

The mass market for television is at least two years away, probably it is much further off.

No man with a "dud" set can afford to wait that length of time. Sell him a superhet.

## BATTERY DISCOUNTS

THE question of what constitutes an adequate dry battery discount is still agitating the Industry.

In the main the W.R.A. and its branches is demanding 33½ per cent.

Now to arrive at a fair answer one must look at both sides of the question.

Battery makers have been—and still are—faced with tremendous competition from the "no name" battery, in the encouragement of which they have themselves played no small part.

Assume that battery makers really desire to obliterate that "no name" battery—and in the circumstances it is a reasonable assumption. What are their chances? Their chances are good providing all important makers agree on:—

1. A standard price per volt and a standard discount.

2. Not to manufacture any battery which does not carry the maker's name.

3. Not to supply multiple stores with a "cut rate" battery.

The second and third provisions outlined above govern the first.

### Standard Price

And the answer to the first is ¾d. per volt, i.e., 7s. 6d. for 120 volts, 6s. 3d. for 100 volts, and 3s. 9d. for 60 volts, with a retail discount of 27½ per cent.—which would be reasonable for a consumable product.

There is, in fact, every reason to assume that—despite the present squabbles and despite whatever may be said to the contrary by interested parties for the next few months—some such arrangement will be the ultimate solution.

# Exide Convention

## Round of

I NOW have further details of the Exide convention which as I have already disclosed, is to be held at Eastbourne on May 28, 29 and 30.

The convention headquarters will be at the Grand Hotel, where the morning sessions devoted to business discussions will be held, and the convention will be opened with an address by the chairman, Mr. D. P. Dunne, the managing director of the company.

An informal reception and dance will take place at convention headquarters on Monday, May 27. On Tuesday, Wednesday and Thursday, delegates will be entertained to luncheon by the company. Visitors will also be the guests of the company at dinner on Tuesday and at a banquet on Wednesday in the Winter Gardens.

A number of functions of a social and recreative nature are being organised, including the annual Exide golf challenge cup competition, which will be played on the Willingdon course.

\* \* \*

Plymouth's first radio ball is being held on Thursday, March 21, at the Royal Hotel, Plymouth, in aid of the St. John Ambulance corps.

The committee, of which Mr. S. Hack, of G.E.C., is chairman, and Mr. J. Reese, of T. Brand, is hon. secretary, anticipates a great success, and has arranged a novel programme, which will include the distribution of a number of sets as prizes.

Tickets are being limited to 300.

\* \* \*

Mr. Lloyd George solicited a remarkable testimonial for Holiday and Hemmerdinger, the Manchester P.A. experts, the other day.

Mr. Lloyd George held a meeting at the Free Trade Hall on Friday, February 22, and Holiday and Hemmerdinger relayed his speech to the Albert Hall.

Afterwards, the exponent of the New Deal spoke for ten minutes at the Albert Hall, and started by asking the audience if they had heard him clearly.

With one voice the crowd answered, "Perfectly!"

## Burgoyne's New Chief Engineer

Burgoyne Wireless have enlisted the services of Mr. A. L. Disney as chief engineer.

Mr. Disney, of course, was chief engineer with Telsen, and more recently has been with B.T.-H.

It is interesting to note that Mr. Disney's appointment coincides with Burgoyne's entry into the mains-set market.

\* \* \*

Mr. J. M. Vevers, of the test engineering department of Ekco, has been appointed to take charge of the test engineering department at the Atlas Works of H. Clarke and Co. (Manchester), Ltd.

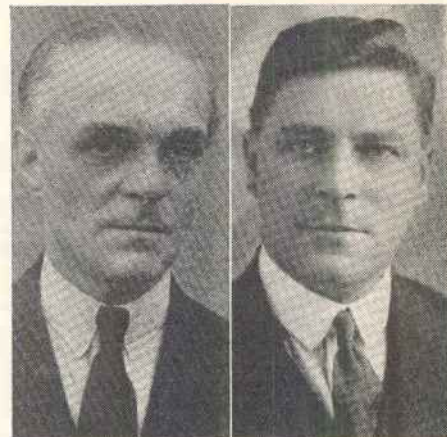
Mr. H. G. Foster, chief engineer, has left the service of Clarke's, and this position, as well as others in the laboratory, await to be filled.

\* \* \*

I am glad to hear that, due to new arrangements, the Trade is to see more of Mr. A. E. Trehearn, the popular assistant sales manager of Dubilier.

Mr. Trehearn has been associated with Dubilier since before the inception of broadcasting. He has made a host of friends in the Trade, and will soon considerably add to the number, as he is to devote more time to liaison work and the development of the firm's sales organisation.

To release Mr. Trehearn from many internal



Right, Mr. A. E. Trehearn, assistant sales manager of Dubilier, and left, Mr. C. B. Gresham, who has joined the condenser firm as sales supervisor.

ties, Mr. C. B. Gresham, A.M.I.E.E., has joined the Dubilier staff as sales supervisor in co-operation with Mr. Trehearn.

Mr. Gresham comes from Varley, with whom he was commercial manager. With Varley and previously R.I., he has been connected with radio engineering twelve years. Previously he was with A.E.G., Siemens and H. W. Sullivan.

\* \* \*

I quote the following from the February Board of Trade Journal, and make no comment.

National Radio Show, London, Olympia, W.14. Apply to the organisers, the National Association of Radio Manufacturers and Traders, Astor House, Aldwych, W.C.2.

\* \* \*

Philips have obtained an order to equip 300 Paris taxis with car radios. The contract has been placed by Peugeot's, after tests made with three trial installations.

I understand that the set itself will be fitted in the luggage compartment and the speaker will face the passengers, who will be able to select their own programmes by means of a remote control placed by the arm-rest.

I congratulate Paris on becoming the first European city to have taxi radio.

## Moving Scenes at Shepherd's Bush

Bush Radio are at present moving into a new factory next door to their "old" address in Woodger Road, Shepherd's Bush, London, W.12.

Apart from cold business considerations, such as increased efficiency through being a single unit—hitherto the various departments have been mixed with Gaumont-British film studios and workshops—the move has had many attractive outcomings.

For example, the publicity department is immediately identifiable by red lettering on a door. Inside the door, everything is of the very latest.



# Plans for Revelry

The great delight of the staff, however, is the carpet. It looks like a carpet, is actually made of rubber, and is decorated with trademark bushes.

\* \* \*

Newcastle and District Radio Trades Social Club is to hold its last whist drive and dance of the season at the Dobson Suite, Oxford Galleries, Newcastle, on Wednesday next.

Everyone is anticipating a very enjoyable evening, and I hear that, as the number of tickets has been restricted to 250 to avoid overcrowding the hall, it is now almost impossible to obtain one.

A particularly fine assortment of prizes has been obtained for spot dances, lucky programmes and the whist drive.

\* \* \*

I am asked to mention that the annual subscription is now due from members of the Newcastle Social Club.

Subscriptions should be handed to members of the committee at the first opportunity, so that a complete balance-sheet can be presented at the annual general meeting, which is to be held early in April.

## "Mammoth" Cossor Dance

This year the Cossor staff are blossoming forth and becoming social lions under the guidance of Mr. J. S. Mitchell, the sales supervisor.

Staff dances in the canteen were not unknown previously, but in future a monthly dance is to be held in a hall more suited to merry-making.

The first of these, with an expected attendance of 1,500, is to be held in the Alexandra Palace.

Mr. Mitchell has other "relaxations" for the staff in view, and is also organising a sports section.

\* \* \*

Mr. W. Marshall, the new treasurer of the Sheffield Lunch Club, is principal of Sheffield Radio and Electric Co., of 39, Eyre Street.



Mr. W. Marshall.

A founder member of the club, he has been actively associated with its activities from the start, particularly on the social side.

As a member of the social committee, he has been largely responsible for the success of the several functions it has organised.

\* \* \*

In the February issue of *Fortune*, a massive American monthly devoted to very factual descriptions of con-

temporary "phenomena"—from burlesque to Manchukuo—I have read a fascinating history of Philco, the parent company, of course, of our own Philco.

The account presents an "inside" story of the American radio industry from the



THE MAD MARCH HARE. Retailers are complaining, through the "Broadcaster" correspondence columns, that they have to carry all the responsibility when set hirers default.

early days, and a vivid picture of the Philco organisation.

Philco are now the No. 1 firm in American radio. In 1934, it is said, the company sold 1,250,000 receivers and turned over 33,000,000 dollars—roughly £6,000,000. This represents 30 per cent. of the trade's total.

\* \* \*

The story begins in 1927, when, by producing A.C. mains valves, the Radio Corporation practically put the Philadelphia Storage Battery Company out of business. Philco clung to existence by entering the set field.

In 1928 they sold 100,000 sets, but this, says *Fortune*, "was no large drop in radio's then large bucket." In 1929 Philco "went after mass production in a serious way."

They borrowed heavily to instal plant; then for three months the sets refused to be mass-produced. As soon as these problems were settled the national financial collapse occurred.

Philco, however, allowed no business or market problems and vagaries to daunt them, and they steadily progressed to the position they now hold.

## Origin of Speaker Signals

Lately I have noticed several references to an electric traffic-signal device for "controlling" after-dinner speakers. Not once, however, have I seen any mention of its inventor or the circumstances under which it was produced.

Mr. G. A. Litchfield, principal of Nottingham Radio Supplies, Ltd., and hon. secretary of the Notts Lunch Club, is the genius and the lunch club was the necessity which mothered his invention.

At the early meetings of the club, nearly two years ago, several discussions extended beyond the time scheduled, and it became imperative to curtail the loquacity of the speakers.

Accordingly, Mr. Litchfield obtained two Morris car indicators, consisting of red, amber and green lights, and fitted them obliquely on either side of an upright steel support. Mounted on a wood case, which served to carry the batteries and switch, they are ornamental as well as useful.

The method of use is this: After the guest of the day has given his address, questions and views are invited. Each speaker is allowed two minutes. When he starts the

green light is switched on. When there is thirty seconds left, the amber light shines to indicate to the speaker that he is nearing the end of his time, and when two minutes are up the red light appears. If the members do not wish to hear the speaker further they are entitled to shout him down when the red light comes on. A small brass bell is suspended from an arm on the upright, and the chairman has a tiny metal hammer to emphasise "time's up."

Mr. Litchfield's next problem, I believe, is to invent a device to get more people on their feet!

## Hairdresser Claims Kinship

Rather neat was the response to the toast to the visitors at the first annual ladies' evening of the Bury Radio Dealers' Association on Tuesday.

The response was entrusted to a gentleman who is a hairdresser.

"I am engaged in the whiskers business," he said. "Remote as that may appear to be from radio, that is an affinity, for did not you in the early days of wireless interest yourselves in cats' whiskers?"

\* \* \*

Mr. A. J. S. Russell, of Brighton, wins this week's half-guinea with the following:—

Some years ago I was promised an order for a four-valve D.C. set, but soon afterwards the prospective customer told one of my men that he had bought the set at trade price and his son had fixed it up.

After some weeks we were called in. Reception was weak; the speaker was connected the wrong way round and jammed and valve emission was poor. After putting things right our men switched off and left.

The same evening we received another call. Mechanic found set quite "O.K.," and left, leaving it working.

After a few months came another call. Valve emission almost nil. Fitted new set of valves. A few more months, and again new valves were required.

Feeling that somehow the customer must be misusing the set, our man asked him to operate the set. The customer pushed in the speaker plug, pulled it out again, and said, "That's all you want, I suppose?"

It was evident the set had never been switched off!

*The Speaker.*



## COMMERCIAL NEWS

A meeting of creditors of **Fort Radio, Ltd.**, will be held at Winchester House, Old Broad Street, London, E.1, on Monday, March 4, at 2 p.m., for the purpose of nominating a liquidator and committee of inspection.

Notice is given that a petition for the winding-up of **Halford Radio, Ltd.**, was presented to the High Court of Justice on February 22 by Marconi's Wireless Telegraph Co., Ltd.; British Thomson-Houston Co., Ltd.; Electric and Musical Industries, Ltd.; Hazelpat, Ltd.; Standard Telephones and Cables, Ltd.; and the Western Electric Co., Ltd. The petition is to be heard at the Royal Courts of Justice, Strand, London, W.C.2, on March 11, and any creditor or contributory desiring to support or oppose the making of an order and who intends to appear at the hearing should communicate with G. Rendel Bishop, Marconi offices, Electra House, Victoria Embankment, London, W.C.2, before 1 p.m. on March 9.

A meeting of members and creditors of the **Radio Electric Lamp Co., Ltd.** (in voluntary liquidation) will be held on Friday, March 29, at 4 p.m. and 4.15 p.m. respectively at the registered office of the company, Clayton Road, Hayes, Middlesex, to receive the liquidator's report showing how the winding-up of the company has been conducted and its property disposed of.

A general meeting of members and creditors of **S. G. Brown, Ltd.** (in voluntary liquidation) will be held at 11, Ironmonger Lane, London, E.C.2, on Wednesday, March 27, at 3.30 p.m. and 3.45 p.m. respectively, to hear the liquidator's report showing how the winding-up of the company has been conducted and its property disposed of. This notice is in connection with S. G. Brown, Ltd., old company, and does not concern the new company trading at Victoria Road, North Acton, London, W.3.

### Receiving Order and Adjudication

**William Pennycook Blair**, 3, Tretown Terrace, St. Kew, Highway, and lately carrying on business at Foundry Street, both Wadebridge, Cornwall. Petition filed and orders dated February 20; on debtor's petition.

### Adjudication

**Thomas James Spinks**, 248, Stoney Lane, Yardley, formerly carrying on business at 297a, Wilton Road, Aston, 76, Jardine Road, Aston, and 133, Winsor Green Road, all in the city of Birmingham, as **Spinks and Co.** Petition filed January 29 and order dated February 22.

### First Meetings and Public Examinations

**William Pennycook Blair**, 3, Tretown Terrace, St. Kew Highway, and carrying on business at Foundry Street, both Wadebridge, Cornwall. First meeting March 7, 12 noon, at the Official Receiver's office, 12, Princes Street; public examination March 12, 11.45 a.m. at the Town Hall, both Truro. Order for summary administration dated February 22.

**Cecil Worden**, 5, St. Albans Road, and carrying on business at 89, Duckworth Street, both Darwen, Lancs. First meeting March 1, 3 p.m., at the Official Receiver's office, District Bank Chambers; public examination April 3, 10.30 a.m., The County Court House, Victoria Street, both Blackburn.

### Application for Discharge

**Elsie Mayer**, formerly Elsie Headley, and trading as the **Rayleigh Radio and Gramophone Stores** at Francis House, High Street, Rayleigh, Essex. Hearing March 21, 2 p.m., at the Petty Sessions House, Southend.

### Dissolution of Partnership

The partnership between **William Thomas and Tom Chadwick**, trading as **Thomas and Chadwick** at 52, Manchester Street, Heywood, Lancs, has been dissolved as from January 17. All debts by William Thomas, who will continue the business.

### Release of Trustees

**Alan George Franklin**, "Pineridge," Tinshill Road, Cookridge, and formerly carrying on business at 3, Boar Lane, both in the city of Leeds. Trustee, Harold C. Bowling, 24, Bond Street, Leeds; released February 15.

**Leslie Donald McDowall**, trading as **Leslie's** at 17, Upper Stone Street, Maidstone, Kent. Trustee, Frederick H. Langmaid, 280a, High Street, Rochester; released February 15.

**Albert Waite**, residing and carrying on business at High Street, Upton, near Pontefract, Yorkshire. Trustee: Basil Shaw Briggs, 43, Burton Street, Wakefield; released February 13.

### Release of Receivers

**British Ipso Battery Co., Ltd.**, Millard House, Cutler Street, London, E.C.—G. Gain, of 53, New

## 'WARE THESE RAMPS!

### Making You Suspect Him

**HAVE** you ever had to pay out hush-money to customers?

This is one of the most tricky "plants" on record.

A well-dressed man entered a shop on Saturday morning. He wanted certain expensive goods in a hurry, and could he pay by cheque? If they wanted some surety, they could ring up the hotel where he was staying, and inquire.

This was done. Oh, yes, the hotel people knew the gentleman very well (a careful description was given privately, and it tallied). The shop chanced the cheque.

\* \* \*

Very soon after the customer had left, a firm of pawnbrokers telephoned the shop. They had at their counter, they said, a man who was trying to pawn so and so—the goods just bought—and as the articles were obviously quite new, they had their suspicions. They had got the sellers' name from the box in which the goods were packed.

It seemed a clear case. Pawning within an hour of the purchase! The

police were called, and the man spent the week-end in custody.

\* \* \*

All the time he protested that they had got him wrong. He had found himself short of urgently-needed loose cash, and as this was Saturday, and the banks shut, he had thought of this simple way out.

On the Monday morning, the shop's manager took the cheque to the bank. "I know it's a dud," he said, "but I just want your R.D. on it, for the police."

The cashier's eyes opened wide. "But," he said, "this is a perfectly good account. We know Mr. So-and-So quite well and there is nothing amiss here. We pay. How will you take the money?"

The bank paid—and so did the firm—heavily, in hush-money, to recompense the gentleman for his having been made a compulsory guest of His Majesty.

You would not be thinking of it that way, but only of the risk of losing the goods.

Broad Street, London, E.C., ceased to act as Receiver and Manager on February 18.

**Rosedale Salons, Ltd.**, 25, Finsbury Square, London, E.C.2.—M. Banus, of 25, Finsbury Square, London, E.C., ceased to act as Receiver and Manager on February 19.

**K. G. Clark, Ltd.**, 17, Electric Parade, South Woodford, London, E.18.—H. O. Barnsley, of 44, Bedford Row, London, W.C.1, ceased to act as Receiver and Manager on February 11.

**Lethbridge and Mercier (Paignton), Ltd.**, 7, Torquay Road, Paignton.—W. N. Davies, of 28, Victoria Street, Paignton, ceased to act as Receiver on February 21.

### Appointment of Receiver

**Solidite and Synthetic Mouldings, Ltd.**, 4, Broad Street Place, London, E.C.—Sydney E. Smith, O.B.E., of 4, Broad Street Place, E.C.2, was appointed Receiver on February 11 under powers contained in debentures dated August 16, 1927, and March 13, 1928.

### Appointment of Liquidator

**Radio Components, Ltd.**, 527-533, Harrow Road, London, W.10. Liquidator, M. G. Hacker (with a committee of inspection), Bank Chambers, 329, High Holborn, London, W.C.1; appointed February 13.

### Satisfactions

**Siemens Brothers and Co., Ltd.**, Caxton House, Westminster, London, S.W.—Satisfaction to the extent of £43,400 on January 1 of debenture stock authorised January 15, 1918, secured by trust deed of same date, and registered January 21, 1918.

**Utilities Speciality, Ltd.**, 38, Eastcheap, London, E.C.—Satisfaction to the extent of £500 on November 23, 1934, of debentures authorised by resolutions of October 14 and 15, 1932, and registered November 4, 1932, securing £5,500.

### Increases of Capital

**Durham County Relay Service, Ltd.**, 72, Front Street, Consett, Co. Durham.—The nominal capital has been increased by the addition of £2,000 in £1 ordinary shares beyond the registered capital of £2,000. Each of the existing and issued 1,200 ordinary shares of £1 each have been sub-divided into four shares of 5s. each.

**Radiolight, Ltd.**, 8, Craubrook Road, Ilford.—The nominal capital has been increased by the addition of £4,900 in £1 ordinary shares beyond the registered capital of £100.

### Dividends Declared

**Gustav Wilhelm Carl Laws** (known as Charles Laws), residing and trading as **C. and E. Laws** at 9, Queens Road, East Grinstead, Sussex. First and final of 5d. per £, payable February 27 at the Official Receiver's office, 8, Old Steine, Brighton.

**John Henry Withycombe**, 61, High Street, Barnstaple, Devonshire. First and final of 2s. 11d. per £, payable March 12 at The Strand, Barnstaple.

### Intended Dividends

**Joseph Webster**, 27, Snowdrop Street, Kirkdale, and carrying on business at 65, Moss Lane, Orrell Park, and 231, Warbreck Moor, Aintree, all in Liverpool. Proofs by March 8 to Cyril E. Balmforth, 7-9, James Street, Liverpool.

**Recordaphones, Ltd.**, Radio Works, Letchworth, Herts. Proofs by March 9 to Ernest T. A. Phillips, 33, Carey Street, Lincoln's Inn, London, W.C.2.

### Mortgages and Charges

**Ferguson Radio Corporation, Ltd.**, 25-27, Oxford Street, London, W.—Particulars filed of £3,000 debentures authorised February 14, charged on the company's undertaking and property, present and future, including uncalled capital, the whole amount being now issued.

**F. C. Hill and Co., Ltd.**, Bilston Street, Wolverhampton.—Debenture dated February 9, to secure £1,000, charged on the company's undertaking and property, present and future, including uncalled capital.

**Radio Hire Service, Ltd.**, 91, Gildredge Road, Eastbourne.—Debenture, dated February 9, to secure £1,000, charged on (1) all agreements already or at any time hereafter entered into by the company for the letting or hiring out of Philco radio apparatus and all moneys due or to become due thereunder, and (2) all Philco apparatus now or at any time hereafter belonging to the company and which has been supplied by the debenture holders for hiring out under an agreement dated June 4, 1934. Holders: Philco Southern Distributors, Ltd., 40, Station Road, Redhill.

**Streamline Radio, Ltd.**, 115-117, Cannon Street, London, E.C.—Particulars filed of debentures not exceeding £5,000, inclusive of £2,500 already registered, authorised February 12, charged on the company's property, present and future, including uncalled capital, the amount of the present issue being £2,500.

### Voluntary Liquidation

**W. H. Priestley and Sons, Ltd.**, 71, Colmore Row, Birmingham.—The statutory meeting of creditors was held on February 26, at the Institute of Chartered Accountants, Moorgate, London, E.C., when Mr. Priestley, one of the directors of the company, presided, and stated that the shareholders had passed a resolution for voluntary liquidation, and had nominated Mr. Albert Crippwell, I.A., of 12, Cherry Street, Birmingham, as liquidator.

A statement of affairs was submitted which disclosed liabilities of £14,923, all due to unsecured creditors. Net assets were £5,301, or a deficiency of £9,622.

The matter was discussed, and a resolution was passed confirming the appointment of Mr. Albert Crippwell and Mr. P. Weber, of London, as joint liquidators, with a committee of inspection.

Principal creditors include: Aechlon Co., £6,424; Vincent Manufacturing Co., £953; Challen and Son, £566; Gramophone Co., Ltd., £564; Eavestaff and Sons, Ltd., £404; Marconiphone Co., Ltd., £361; Howard Smith Thompson and Co., £304; Monington and Weston, £294; Robinson and Hands, Ltd.,

(Continued on opposite page.)



Radio Executives



**CHARLES PINKHAM**

Publicity Manager of The General Electric Co., Ltd.

COUNTY COURT JUDGMENTS

The following list of judgments given in the County Courts of England and Wales relating to the Radio Industry has been furnished by the Registry of County Court Judgments.

Only judgments of, or exceeding, £10 are recorded on the register, and no differentiation is made between actions for debts and disputed cases.

In certain instances the judgment is entered against a defendant acting in a representative capacity.

The appearance of a judgment in this list does not necessarily indicate that the amount still remains unpaid, and it should be understood that some of the judgments may have since been settled or paid. The name of the court is in brackets.

Barlow, trading as Fyde Accessories, Central Drive, Blackpool, Lancs. (Blackpool.) £10 16s. 7d. January 25.

Britain's Best Crystal, Ltd., 83, Kingston Road, Merton Park, Surrey. (Kingston.) £17 5s. 6d. December 14.

Carlisle, A. S., 103, Lidgett Street, Lindley, Huddersfield. Yorks. (Leeds.) £19 16s. 2d. January 25.

Gordon, W. C., 113, High Street, Thornton Heath, Surrey. (Bolton.) £12 3s. 6d. January 16.

Hales, H. N., 30, Abbey Road, Warley, Birmingham. (Birmingham.) £12 17s. 4d. January 14.

Henderson, H. R., 24, Market Place, Reading, Berks. (Bradford.) £16 18s. 4d. January 28.

Kendall, J. H., Moorlands, 24, Belmont Road, Wallington, Surrey. (Dorking.) £40 12s. 2d. January 5.

Lamplugh Radio, Ltd., Northfield Road, Coventry, Warwick. (Mayor's and City of London.) £20 4s. 4d. January 11.

Liddiard, H. H., 1391, Pershore Road, Birmingham (Leeds.) £50 13s. 8d. January 9.

Nixon, C. W. H., Winban, Sandringham Gardens, Finchley, London, N.12. (Westminster.) £10 12s. 10d. January 17.

Radio Centre, Ltd., 53-4, Haymarket, London, S.W.1. (Wandsworth.) £17 8s. 3d. January 24.

Richards, R. E., 9a, Bodfor Street, Rhyl, Flintshire. (Liverpool.) £14 4s. January 25.

Sheechman, B., 119, Evering Road, Stoke Newington, London, N.16. (Westminster.) £54 9s. 2d. January 21.

Titchmarsh, F. J., 58b, High Street, Pinner, Middlesex. (Wandsworth.) £20 17s. 5d. January 28.

Ward's Radio and Electrical Stores (a firm), 2, Railway Terrace, Rugby, Warwick. (Westminster.) £22 19s. 4d. January 18.

Williams, E. G., 37, High Street, Brownhills, Staffs. (Birmingham.) £31 12s. 10d. January 21.

Wilson, J. W., 20, High Street, Bromsgrove, Worcs. (Southend.) £18 13s. 1d. January 25.

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 is that of registration.

Allwave Radio Distribution, 32, Queen Street, Manchester, 2 (James Fairhurst, 22, Goddard Street, Oldham). January 24.

B. and B. Radio and Cycles, 66, Sheen Road, Richmond, Surrey (A. G. Boulting, 198, Kew Road, Richmond, Surrey). February 6.

Beverstock Electrical and Radio Supplies, 16, Filton Grove, Horfield, Bristol (H. W. Blanchard, at the above address). February 4.

Broadstone Radio and Television Co., 39, Broadstone Road, Reddish, near Stockport (Agnes Houghton, of the above address). February 7.

College Radio, 3a, High Street, Burnham-on-Sea, Somerset (George Giblett, 20, College Street, Burnham-on-Sea). February 4.

J. Cooper and Co., 193, High Street East, Sunderland (J. W. Cooper, 179, High Street East, Sunderland). February 6.

County Radio Co., 26, St. Leonards Road, Northampton (L. W. Munday, at the above address). February 11.

J. Hardwick and Co., 5, Cotton Street, Bolsover, near Chesterfield (Joseph and Walter Hardwick, both of 139, Shuttlewood Road, Bolsover). January 29.

Harry Hutchings, 36, Oxford Road, Manchester (H. G. Hutchings, 30, Derbyshire Lane, Stretford, Manchester). January 29.

Kelvin Accumulator Hire Service, 41, Hall Lane, Kensington, Liverpool (Frank Bye, of the above address). February 5.

John W. Mackey and Co., 74, Woodgate, Leicester (J. W. Mackey, of the above address). February 5.

National Television Service Co., 15-16, Alfred Place, London, W.C.1 (Captain H. S. Prince, 32, Furnival Mansions, Wells Street, London, W.1, and W. A. Hunt, 11, Alexander Place, London, S.W.7). February 5.

P. and L. Radio, 11, Manor Green Road, Epsom (Geo. Pearce, 204, Benhill Road, Sutton, and Henry Little, 83, Holmesdale Road, Reigate, both Surrey). February 7.

Rentorby Radio Co., 4, Bayer Street, London, E.C.1 (Leonard Haynes, 102, Ashburton Avenue, Ilford, Essex). February 7.

Rink Radio Stores, 89, Summer Hill Road, Birmingham (W. C. Betteridge, 214, Waterloo Road, Smethwick). February 9.

James Salsbury, 157, Chester Street, Birkenhead (James Whitfield, at the above address). January 31.

Sutton Wholesale Electric Co., 364, High Street, Sutton, Surrey (A. E. Wortley, 45, Roschill Park West, Sutton). February 5.

Tottenham Radio Repair Service, 1b, Broad Lane, Tottenham (C. W. Henkes, 3, Park Lane, London, N.). February 4.

Tunnel Radio Co., 157, Chester Street, Birkenhead (J. Whitfield, at the above address). February 5.

Watts and Baker, 29a, Walm Lane, Willesden (E. G. Hill, Lovat House, Tanfield Avenue, Neasden). February 4.

The Wireless Hospital, 72, Seeley Road, Tooting, London, S.W.17 (F. J. Clemons, 217, Seeley Road, London, S.W.17). February 8.

GAZETTE NEWS (Continued from opposite page.)

£274; Priestley and Ford, £266; Amalgamated Publicity Services, £254; Dulcetto-Polyphon, £208; Bechstein Piano Co., £166; Gothic Electrical Supplies, Ltd., £150; Roberts, R. H., £118; Brinsmead, Ltd., £118; Kemble and Co., £115; and Daneman, Ltd., £99.

Bankruptcies

Richard Sidney Barlow, Chapel Lane, Spalding, Lincolnshire.—The public examination was adjourned for closing recently at the Law Courts, Peterborough. The trustees said the previous hearing was adjourned for debtor's transactions with a finance company to be investigated.

Debtor was questioned regarding those dealings. He added that in most of the villages in the Spalding district he had battery collecting agencies, which also held small stocks of flash-lamps and small goods. Those supplies were taken to them as required, and debtor said he received cash.

His gross liabilities amounted to £2,277 12s. 2d., of which £1,789 14s. 6d. was expected to rank for dividend, and there were net assets of £969 8s. 6d.

Alec Hill, formerly trading as J. and A. Hill, 135, Otley Road, lately carrying on business at Skipton Road, New Park, both Harrogate.—This debtor attended at the Court House, Raglan Street, Harrogate, on February 22, for his public examination. He said that his gross liabilities amounted to £669, of which £632 was expected to rank for dividend, and there was a deficiency of £558.

The examination was concluded. Edgar Howitt, trading as Howard and Co., 368, South Road, Walkley, Sheffield.—The public examination was held at the County Court Hall, Bank Street, Sheffield, on February 21. Debtor said his liabilities amounted to £275, and he estimated his assets at approximately £72. He attributed his failure to small gross profits and restricted trade owing to lack of capital.

The examination was concluded. William James Richardson, 14, Highburn Avenue, Bradford Moor, Bradford.—The public examination was held on February 26, at the County Court, Manor Row, Bradford. According to the statement of affairs returned there were liabilities of £131, and a deficiency of £112. Debtor said his failure was due to lack of capital and business inexperience. The examination was concluded.

NEW COMPANIES

Radio Programmes and Press, Ltd.—Private co. Capital £400. Programme and Press specialists and any other business connected with broadcast advertising, advertising in general, manufacturers of and dealers in gramophone and other records, films, etc. Subscribers: John L. Lloyd and Gladys N. Baines. The first directors are to be appointed by the subscribers. Registered office: 55, Holland Park, London, W.11.

West Wales Rent-a-Radio Service, Ltd.—Private co. Capital £500. Manufacturers of, agents for and dealers in radio apparatus, electrical fittings and musical instruments, etc. First directors: John Samuel, David H. Davies and Albyn G. John. Solicitor: J. C. Phillips, Llanelly.

Avebury Garage, Ltd.—Private co. Capital £100. Manufacturers of and dealers in receivers and components, gramophones, etc. Directors: Alfred G. Goodman and Mrs. C. V. Goodman. Registered office: 84, Chancery Lane, London, W.C.2.

Gordon Eades, Ltd.—Private co. Capital £4,000. Manufacturers of and dealers in pianoforte, organ and other musical instruments, gramophones, radio apparatus, etc. Directors: J. G. Eades and Mrs. F. M. Eades. Registered office: 27, Fawcett Street, Sunderland.

Isle of Wight Auto and Electrical Services, Ltd.—Private co. Capital £2,500. To adopt an agreement for the acquisition of the business of an electrical engineer, accumulator sales and service, radio repairs and accessories depot, etc., carried on by Harry A. Wills as Auto and Electrical Services at 80, Pyle Street, Newport, I.W. First directors: Harry A. Wills, Ronald D. Carey and Cecil Brown. Solicitors: Gunner, Wilson and Jerome, Newport, I.W.

Piezo Electric Sound, Ltd.—Private co. Capital £100. Inventors, manufacturers and hirers of and dealers in apparatus for the recording and reproduction, transmission and amplification of sound, engineers, electricians, dealers in and producers of cinematograph films, wireless, electrical and acoustical apparatus, etc. Subscribers: George R. Mehew and Maurice A. Tarlo. Solicitors: Tarlo and Co., 119-120, London Wall, London, E.C.2.

Roberts (South Shields), Ltd.—Private co. Capital £4,300. To acquire the business of Roberts' Wireless and Television carried on by G. N. Roberts and J. E. Thompson at 130, Fowler Street, South Shields. First directors: J. E. Thompson, G. N. Roberts, H. Thompson and T. Thompson. Registered office: Keppel Chambers, Keppel Street, South Shields.

Omic, Ltd.—Private co. Capital £500. Electricians, manufacturers of generators, accumulators, suppliers and distributors of electricity for lighting, heating, telegraphic, telephonic and wireless communications, etc. Subscribers: Richd. K. Wagstaff and Eric Linscott. Registered office: Eldon Street House, 2, Eldon Street, London, E.C.2.

Beacham Hastelov and Co., Ltd.—Private co. Capital, £500. Manufacturers of and dealers in electrical appliances, gramophones, radio and television apparatus, etc. Subscribers: G. M. B. Grice, 89, Pershore Road, Edgbaston, and Marjorie F. Hastelov, 41, Etitington Road, Aston, both Birmingham.

F. and D. Robinson (Worlingham), Ltd.—Private co. Capital £3,000. Manufacturers of and dealers in electrical, radio and television apparatus, gramophones, records, etc. Permanent directors: Alec C. Robinson, Donald J. Robinson and Mrs. Florence M. Robinson, all of the Brambles, Tydecombe Lane, Worlingham, Surrey.

European Television, Ltd.—Private co. Capital £100. To enter into an agreement with James Heaton for the purchase of the goodwill and assets of the business carried on by him as the Mains Radio Mfg. Co. Manufacturers of and dealers in radio and television transmitters, receivers and apparatus, etc. First directors: James Heaton, C. Allingham, L. Krumm and R. Brownlow. Registered office: 199, Piccadilly, London, W.1.

IRISH TRADE IMPROVEMENT

Imports of sets and apparatus into the Irish Free State during December last showed a marked improvement, attaining a value of £29,451, as contrasted with only £27,483 in the similar month of 1933. Taking 1934 as a whole, trade was not quite equal to that of 1933, the twelve-months' imports being officially returned at £225,555, as compared with £226,000 in the preceding year.





## BRANCH REPORTS

### CAMBRIDGE Show Developments

PROSPECTS of the revival of a Trade show at Cambridge next autumn became distinctly brighter at a meeting of the W.R.A. branch on Tuesday. Mr. S. W. Allin (P. H. Allin and Sons) presided at his firm's Bridge Street garage.

As a result of an earlier decision to look into the pros and cons of holding another W.R.A. exhibition at Cambridge, those present further discussed the proposal and decided to circularise members with a request to support the next meeting, when a final decision may be taken.

Another local discussion on the cheap battery topic followed a report by Mr. J. T. Harvey (J. Harvey and Son) on the negotiations of the National Executive Committee's representatives with the Ever Ready Co.

The members felt, however, that there was still room for improvement in the price and discount of the higher grade batteries, which have also been the subject of cuts.

### N.W. AREA on the E.C.A. Suggestion

BIRMINGHAM'S proposal that the W.R.A. Council should approach the National Electrical Contractors' Trade Association with the suggestion that they should organise a section to cater for radio retailers was discussed and criticised by the North-Western Area Council, at Manchester on Tuesday.

The subject was introduced by Mr. D. Howarth, of Rochdale, who presided (in the absence of Mr. J. H. Bainbridge). He pointed out the painstaking efforts that had been made to put the W.R.A. on its feet, and said they could now look forward with confidence to the future. Before Birmingham started talking, they should pay the subscriptions that were due to the W.R.A.

There were members of the E.C.A. on the W.R.A. Council and they could supply information on the relevant position.

Mr. Foster (Oldham) remarked that the Birmingham proposal would throw the whole question of Trade organisation into chaos again. There should be one organisation for radio dealers only.

Finally, Mr. Foster moved, Mr. A. Peake seconded, and it was unanimously agreed, "That the North-Western Area is of opinion that no useful purpose would be served by amalgamation of the W.R.A. with any other Trade organisation."

### Battery Position

On the Ever Ready battery situation, satisfaction was expressed at the revised offer made by the company, which the meeting thought should be accepted as a basis of negotiation.

Mr. D. Howarth: I think steps should be taken at the earliest opportunity to arrange a round table conference between representatives of the battery makers and W.R.A.

Mr. Foster added that he thought that dealers should be willing to handle Ever Ready batteries pending further negotiations by the W.R.A. with the object of securing the discount of 33 1/3 per cent.

Attention was directed to the speeches at the annual dinner of the Manchester branch, particularly with reference to the suggested liaison between the dealers and the B.B.C. Members felt it would be advantageous to all parties if such a committee were brought into being to communicate listeners' views to the B.B.C.

Mr. W. Bannister thought this might be a regional move. For some time, he had in mind the idea that the B.B.C. might arrange

a competition "to discover which was the most popular 'turn' or artiste in the previous month's broadcasts, listeners to cast their votes in some approved manner. The prizes might be autographed photographs of the artistes who topped the bill.

The question of the liaison could well be put on the agenda for the next meeting.

Arising from the report of Mr. D. Howarth (delegate), it was reported that headquarters had now discharged its dues to the Area Council to the end of January, 1935. Pleasure and satisfaction was expressed at the evident improvement in head office finances. Mr. Howarth informed Mr. Peake that he would be willing to attend a meeting of the Manchester branch and to explain the W.R.A. budgetary position.

Concerning the W.R.A. Fighting Fund, it was reported that with £3 3s. just received from Wrexham, the North-Western contribution was £47 2s.

### Subscriptions

A letter has been sent by the Area Council to headquarters asking if their interpretation of the rules governing the division of subscriptions between head office, the areas and the branches was correct. North-Western Council understands that in respect of direct members—those who are not attached to any branch—they are entitled to receive, in addition to the area quota of 1s., a further 5s., which ordinarily would be paid to the local branch. Mr. Howarth undertook to get the point cleared up by headquarters.

Oldham branch asked for the support of

## Coming Events Next Fortnight

(March 2—March 16.)

- Brighton W.R.A.**, Tuesday, March 12, 8 p.m., Wattle Lounge, Preston Street, Brighton.
- British Radio Cabinet Manufacturers' Association**, dinner, 7.15 for 7.45 p.m., Monday, March 11, Criterion Restaurant, Piccadilly Circus, London.
- Cambridge W.R.A.**, Tuesday, March 12, 8 p.m., Allin's Garage, Bridge Street.
- Cardiff W.R.A.**, annual meeting, Tuesday, March 5, Alexandra Hotel, Cardiff.
- Darlington W.R.A.**, Thursday, March 7, 10 a.m., Spark's Café.
- Lincoln W.R.A.**, annual general meeting, Tuesday, March 12, 7.45 p.m., Albion Hotel.
- Manchester and District Radio Trades' Lunch Club**, A.G.M., Monday, March 4, 12.45 p.m., Grand Hotel.
- Manchester W.R.A.**, Thursday, March 7, 10.30 a.m., Office of E. Kemp, Brazennose Street.
- Newcastle and District W.R.A.**, March 5, 8.30 p.m., Theatre Club Room, Haymarket, Newcastle.
- Northern Polytechnic**, Thursday, March 14, 8 p.m., Holloway Road, London, N. First meeting of the Old Boys' Association, of the Music Trades' School.
- North London R.T.A.**, Monday, March 4, 8.30 p.m., Delhi Hall, 469, Holloway Road, London, N.7.
- Retford and Worksop W.R.A.**, Tuesday, March 12, 8 p.m., at Retford.
- Sheffield Lunch Club**, Wednesday, March 13, 1 p.m., Grand Hotel.
- South London W.R.A.**, Thursday, March 7, 57, Bedford Hill, Balham, London, S.W.12.
- Sunderland and District W.R.A.**, Tuesday, March 4, 8.30 p.m., North of England Café, Fawcett Street, Sunderland.
- West Herts R.R.A.**, Tuesday, March 12, 8.15 p.m., Carlton Tearooms, Queen's Road, Watford.

### Future Dates

- A.G.M.I.M. Annual Dinner**, Tuesday, March 19, Park Lane Hotel, London, W.1.
- Manchester W.R.A.**, Wednesday, March 20, from 4.30 p.m., fourth ladies' evening, Victoria Hotel, Manchester.
- Music Trades' Benevolent Society**, Wednesday, March 20, 7.30 p.m., Stanley Hall, Tufnell Park, London, N.19. Dance and whist drive.
- N.E. Area W.R.A. Annual General Meeting**, Tuesday, March 19, 2.30 p.m., Fleece Hotel, Darlington.
- N.W. Area Council W.R.A.**, Tuesday, April 2, 2.30 p.m., Nag's Head Hotel, Manchester.
- Southend and District Chamber of Trade**, Tuesday, March 26, 8.30 p.m., Victoria Avenue.
- W.R.A. Annual General Meeting**, Wednesday, March 27, 2.15 p.m., First Avenue Hotel, High Holborn, London, W.C.1.
- W.R.A. Council Meeting**, Wednesday, March 27, 11 a.m., First Avenue House, High Holborn, London, W.C.1.

the Area Council in having a garage firm put on the R.W.T.A. stop list until it conformed to the R.W.T.A. definition of a radio dealer. Incidental to this, it was reported that a manufacturer and three factors had given assurances that no further supplies would be given to this party.

An Oldham delegate undertook to make certain inquiries to enable the Council to pursue the matter.

The Secretary said he had written to the secretaries of all the branches in the area suggesting that they take more interest in the functioning of the Area Council. From Mr. J. Taylor, of Wallasey, a letter was received stating that it had become increasingly hard to keep the Wallasey branch alive, but he was trying to hold the interest of dealers with a view to a reconstruction. Mr. Baker, of Preston, wrote that the work of the Preston branch had been suspended.

### STOKE'S First Dinner and Dance

AN appeal for members to take an active part in the work of the association was made by Capt. H. A. Bain (general secretary of the W.R.A.) at the annual dinner-dance of Stoke-on-Trent W.R.A., at the Leopard Hotel, Burslem, on Thursday, February 21.

The Deputy Chairman of the branch (Mr. F. Bew) presided over a gathering of nearly a hundred, the guests including many manufacturers' and factors' representatives.

Among the visitors, in addition to Capt. Bain, were Mr. and Mrs. J. Alcock, Mrs. Bew, Miss F. Ridgway, Mr. J. Templeman (branch secretary) and Mrs. Templeman, Mr. A. E. Newland and Mr. Hardy (representing His Master's Voice), Mr. W. H. Wills (Marconiphone), Mr. C. Bridge (Atlas), Mr. W. E. Newman (Mullard), Mr. A. S. Wood (Ekco), Mr. R. Bold (Gilbert), Mr. A. H. Entwistle (Entley's, Hanley), Mr. J. Baker (Gothic), and Mr. H. Broadhead (Ensign and Houghton's). Other firms represented included Ferranti, Philco, Cossor, and G.E.C.

The branch chairman (Mr. J. Ridgway) and the assistant secretary (Miss G. Blades) were unable to attend owing to illness.

The Chairman said it was the first radio dinner to be held in North Staffordshire, and expressed pleasure at seeing so many ladies.

### Tribute

Capt. Bain paid tribute to the assistance he had received from the chairman (Mr. Ridgway), Mr. Bew and Miss Blades (last year's secretary). The W.R.A. was fighting hard for the retailer and the only way they could carry out the extensive programme was for them to have unity and forceful support from every member of the radio retail Trade.

"The Manufacturers" was proposed by Mr. J. Alcock, and, responding, Mr. A. E. Newland said as manufacturers they welcomed Trade associations because they made for what they all wanted—clean trading stability and soundness.

Mr. W. Potts submitted the toast of "The Factors."

Mr. H. Broadhead responded and spoke of his pleasure in hearing of the progress of the W.R.A. He stressed the important part played by the social side of the W.R.A. work.

Mr. J. Templeman proposed "The Chairman."

Music for dancing, which followed the dinner, was appropriately provided by radio-gramophone, which had been arranged by Mr. Bew, who acted as M.C. Mrs. Templeman had charge of the whist.

### NEXT W.R.A. COUNCIL DATE

A meeting of the W.R.A. national council is to be held at 11 a.m. on Wednesday, March 27, the day of the association's annual general meeting, which is called for 2.15 p.m. Both meetings are being held in the First Avenue buildings, High Holborn, London, W.C.1.





Some of the 400 guests at the Sheffield Lunch Club dinner and dance at the Grand Hotel, Sheffield, on Wednesday. It was the first of a series being organised to raise money for radio equipment for the local Royal Infirmary.

## SHEFFIELD HOSPITAL RADIO

### Lunch Club's Money-Raising Social a Success

The first of the series of social functions promoted by the Sheffield Lunch Club to raise money towards the £300 required to enable them to equip the Sheffield Royal Infirmary with a new radio installation was a big success.

It was a dinner, dance and cabaret at the Grand Hotel, Sheffield, on Wednesday.

Mr. A. B. Gott (Cossor's), supported by Mr. W. Marshall, treasurer, (Sheffield Radio and Electric, Ltd.), and Mr. S. M. Smith, hon. secretary (Messrs. Smith and Whittle), presided over a company numbering approximately 400.

The largest and most representative radio gathering ever held at Sheffield, the company included Messrs. G. O. King, sales manager, Mr. George Mander, Northern, and Mr. M. R. Carlisle, Midland representative of Ultra Radio; Mr. M. Woods, Stratton and Co., Birmingham; Mr. C. P. Beardsall, radio sales manager, Ferranti; Mr. A. B. Goldup and Mr. M. H. Prew, Mullard's; Mr. E. A. Lever, Pye Radio; Councillor Robert Neill and Mrs. Neill; Mr. Harry Johnson, Express Radio; Mr. and Mrs. A. H. Whiteley, Whiteley Radio; Mr. A. Neumann, managing director, and Mr. J. Brockes, Tunsgram; Mr. Phillip Cann; Mr. W. Johnson, Gilbert and Co.; Mr. A. Cheyne and Mr. H. Morgans, G.E.C.; Mr. J. White, Dallas and Co.; Mr. J. Lester, Ever Ready; Mr. R. O. Allston, Hellesen's; Mr. G. W. Bagshaw, J. G. Graves, Ltd.; Mr. H. Cooper, R.G.D.; Mr. and Mrs. G. D. Rouse, City Radio Service; Mr. G. Freeman, and Mr. J. Gregg, Pertrix; Mr. E. A. Barker, sales manager, and Mr. G. E. Ling, Aerodyne Radio; Mr. C. O. Birtles, president, and Mr. Stanley Ayres, hon. secre-

tary, of the Sheffield branch of the W.R.A.; Mr. F. H. McCrea, Dubilier; Mr. G. R. Osborne, sales manager, Marconiphone; Mr. Sam Goldstone, director of Ward and Goldstone, Manchester; Mr. N. A. Twemlow, Climax Radio.

Torch, balloon and a number of other amusing competitions added much to the merriment, and a competition added substantially to the amount raised. The prizes were distributed by Stainless Stephen, the popular radio comedian, in his usual amusing manner.

Dancing was continued until the morning hours.

The Royal toast was submitted by the chairman.

The Chairman also dealt with the objects of the gathering which he said would commend itself to everyone present.

Mr. M. H. Prew proposed "The Radio Trade," and Mr. C. P. Beardsall responded. "The Visitors" was submitted by Councillor Robert Neill, and Mr. McCrea replied.

### Amplifier on Show

A special gathering of the members of the Sheffield Lunch Club was held at the Grand Hotel on Monday.

The installation of an up-to-date radio equipment, with speakers and headphones, at the Sheffield Royal Infirmary, and the efforts to raise funds for this was the subject for discussion.

It was stated that G.E.C. had built the amplifier, and it had been on view in the window of Wilson Peck, Ltd.

As the new president and some of the members of the Sheffield Club are also members of the Nottingham Radio Lunch Club and the Sheffield Publicity Club, it was decided, in arranging dates of future luncheons, to avoid clashing with those clubs.

Arrangements are going forward to arrange a new series of speakers, and several well-known persons are being invited.

## M.I.G.S. SUMMER SEASON PLANS

Nine cups will be competed for during the 1935 season of the Music Industries Golfing Society, in addition to the President's prize.

On March 6 the Society will meet at South Herts, when in the morning the seniors will compete for the Clifford Martin Cup and the Juniors will play for the Frank Goddard Cup. In the afternoon there will be a four-ball foursome for the Liedtke cups.

The second meeting will be held at the Royal Mid-Surrey on April 17. In the morning the seniors and juniors will play for the Whitfield and Arthur Bearé cups respec-

tively, and the afternoon will be given over to play in the Brasted Cup competition for four-ball foursomes, in which the seniors and juniors will draw together.

On June 12 the meeting will be held at Hendon. In the morning the seniors will play for the Bamberger Cup, the juniors competing in an 18-hole bogey for the A. J. Mason trophy. The afternoon will be devoted to a four-ball foursome to compete for tankards. In the evening the twelfth annual dinner will be held, together with the thirteenth annual general meeting of the club.

## Bury Dinner, Dance and Whist

### Triple Event for Ladies' Night

Bury and District Radio Dealers' Association held its first Ladies' Evening at the Old Boar's Head Hotel, Bury, on Tuesday.

There was a gathering of about 90 persons, including dealers from Manchester, Blackburn, Rochdale and Bolton, who from 8 p.m. dined, and, if they did not dance, played whist for prizes that were donated by H.M.V. (per Mr. P. H. Evans), Kolster-Brandes, Ltd., W. E. Beardsall, Ltd., General Electric Co., Ltd., Colmore Depot, Aerodyne, Brown Bros., and the Chloride Electrical Storage Co., Ltd.

Less time was taken up by six speeches than by the reception. Such brevity at a dealers' function is unparelled, but commendable. Mr. B. Wallwork proposed "The Ladies" and Mrs. J. M. Monks replied; Mr. E. Butterworth proposed "The Visitors," for whom Mr. J. E. Blackmore responded; and Mr. P. H. Evans (H.M.V.) submitted "The Association," the reply being by Mr. J. H. S. Smith (who presided).

Opportunity was taken to make a presentation to Mr. J. Bennett, the first radio dealer in the town, who, after 16 years trading, has retired and will take up residence in the South of England. He was the hon. treasurer of the Association.

The officers of the Association responsible for the organising arrangements of the Ladies' Evening were: Mr. J. H. S. Smith (chairman), Mr. J. M. Monks (hon. secretary), Mr. J. Ward, (hon. treasurer), and Messrs. G. Bradley, J. Patchett, B. Wallwork, F. Fishwick, and T. Beaver.

## COVENTRY WANTS BATTERY STANDARDS

### WORKS CLUBS

Discounts on H.T. batteries and a number of other important matters were discussed by Coventry Musical and Radio Retailers' Association on Monday, with Mr. A. Melville Sidley presiding.

There was a strong protest against the new rate of discount allowed and also the limitation placed upon the period for rebates set forth in lists already circulated.

Another important matter to be considered dealt with the trouble experienced by factors and large retailers owing to the lack of standardisation in the sizes of high-tension batteries provided for by the manufacturers of various receivers.

The secretary was instructed to write to the R.M.A. suggesting that more attention might, with advantage to all concerned, be given to standardisation.

The Chairman reported upon the excellent work accomplished by the Retail Section of the Coventry Chamber of Commerce in bringing to the notice of the Coventry Engineering Employers' Association the evils arising from the general practice of works foremen and others being allowed to retail all manner of goods to works employees at cut prices.

This, he said, had the effect of bringing about total prohibition of the practice in many of the works in Coventry.

Mr. H. H. Spicer contributed a useful suggestion by stating that from time to time, after new models had been introduced, there should be a kind of round table discussion at meetings of the Association relative to characteristics revealed by experience in handling and servicing these new productions. The suggestion was accepted.

After a lengthy discussion, the Glasgow S.R.R.A. branch on Wednesday decided it was still unsatisfied with battery discounts. The question of certain large firms getting extra discounts from manufacturers was also discussed, and it was decided to write to five manufacturers for assurance as to whether this was the case or not.



# Brand New

## Truphonic Superhet Range

*Supplies: Available.*

Three receivers and two radiograms, designed round a 5-valve superhet chassis, have been placed on the market by Truphonic Radio (Putney), Ltd., of 27a, Bangalore Street, Putney, London, S.W.15.

The receivers comprise A.C., universal and battery models, housed in similar cabinets of walnut. Each sells at 10 gns., or on H.P., the terms being £1 deposit and 12 monthly payments of 17s. 6d.

Universal and A.C. models of the radiogram utilise a Garrard motor, a Magnavox speaker and a special pick-up. Cabinet work is in walnut, the size being 2 ft. 7 in. in height, 1 ft. 11 in. in width, and 16 in. deep. Prices are: For the A.C. model, 17 gns., or £2 5s. deposit and 12 monthly payments of 29s. 9d.; for the Universal model, 18 gns., or £2 7s. 6d. down and 12 monthly payments of 31s. 6d.

Details and features common to both receivers and radiograms are as follows:—

**CIRCUIT.**—Octode frequency changer, H.F. pentode as I.F. amplifier, diode detector, 3-watt output pentode. Valve rectification is employed in the mains models, while the battery set has a double diode triode for second detection and A.V.C., and uses Class B output.

Band-pass input is employed, and the intermediate frequency is 117 kcs. A.V.C. is obtained by means of the diode.

**CONTROLS.**—Tuning, operating pointer on a rectangular station-named calibrated scale; wavechange switch; combined radio and gramophone volume control and on/off switch. Sockets provided for extension speaker and pick-up on the receivers.

**CURRENT SUPPLIES.**—A.C. models, 100-250 volts, 40-80 cycles. Universal models, 200-250 volts, 40-80 cycles. Battery model supplied with H.T. battery and unspillable accumulator.

## Wearite Wavetrap

*Supplies: Available.*

A rejector-type wave-trap using iron-core coils and operative on both wavebands has been produced by Wright and Weaire, Ltd., of 740, High Road, Tottenham, London, N.17.

Two miniature coils are mounted at right-angles to one another on a circular base, which is provided with terminals and screw-holes for fixing.

The unit is for use in conjunction with a .0005 variable condenser and a two-point wavechange switch. It retails at 7s. 6d.

## T.M.C. Hydra Condenser Range Increased

*Supplies: Available.*

Further additions have been made to the range of T.M.C. Hydra tubular condensers marketed by T.M.C.-Harwell (Sales), Ltd., of 235, Shaftesbury Avenue, London, W.C.2. These are of the non-inductive type mounted in wax paper type tubes. Standard models are provided with end wire connections, but there is an alternative manufacturers' type with side wires.

There are two new ranges. The first has test and working voltages of 700 and 300

respectively D.C., and the types available are: T90P, 1 mfd., 2s.; T91P, .5 mfd., 1s. 9d.; and T92P, .25 mfd., 1s. 6d.

The other range has test and max. working voltages of 1,000 and 400 D.C. The condensers available are: T48P, .2 mfd., 1s. 8d.; T49P, .25 mfd., 1s. 9d.; and T50P, .5 mfd., 2s.

### Price Reductions

A rearrangement is being made in the metal-cased type condensers. As from March 1 the Type 25 range is being withdrawn in favour of the Type 30, which has higher test and working voltages. The difference in test voltage is 200.

At the same time the Type 30 range is to be available at the Type 25 prices, a reduction throughout. The new prices are: .1 mfd., 1s. 6d.; .25 mfd., 1s. 9d.; .5 mfd., 2s.; 1 mfd., 2s. 3d.; 2 mfd., 3s.; 4 mfd., 2s.; 6 mfd., 7s. 6d.; 8 mfd., 10s.; 10 mfd., 12s. 6d.

## Vidor Super Power Batteries

*Supplies: Available.*

Two super-power H.T. batteries, designed for receivers taking up to 30 ma., have been added to the range marketed by Vidor, Ltd., of West Street, Erith, Kent.

Special  $1\frac{1}{2}$  in. by  $2\frac{3}{8}$  in. cells are used, with an internal construction enabling a large amount of depolarising material to be used.

The two sizes are: 120 volts, selling at 12s. 11d., and 60 volts, selling at 6s. 11d. Sizes are:  $10\frac{1}{2}$  in. by  $6\frac{1}{2}$  in. by  $6\frac{1}{2}$  in. for the 120-volt, which weighs  $17\frac{1}{2}$  lb.; and  $10\frac{1}{2}$  in. by  $6\frac{1}{2}$  in. by  $3\frac{1}{2}$  in. for the 60-volt, which weighs  $8\frac{3}{4}$  lb.

The discount to retailers is the same as for other Vidor H.T. batteries; 25 per cent. and 5 per cent. for cash.

## Mervyn Short Wave Coil

*Supplies: Available.*

A short-wave coil unit complete with switch, which it is stated will tune between 6 and 59 metres, has been produced by the Mervyn Sound and Vision Co., Ltd., of 4, Holborn Place, London, W.C.1. It retails at 15s. 6d., together with a blue print of a two-valve autodyne converter. The coil is wound with Litz wire, and the variable condenser to be used with it should have a maximum capacity of 100 m.mfd. and a minimum capacity of 20 m.mfd.

## Bulgin Interference Suppressor

*Supplies: Available.*

A small competitive type interference suppressor has been added to the range marketed by A. F. Bulgin and Co., Ltd., of Abbey Road, Barking, Essex.

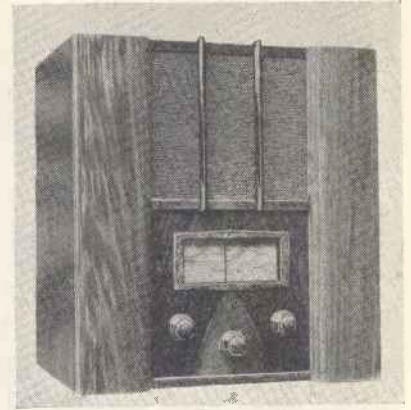
The suppressor consists of two .1 mfd. condensers, of 1,000 volts test, housed in a small circular bakelite case. Three insulated terminals are carried on the top of the case, which is also provided with recessed screw holes for fixing.

Type A49, as the suppressor is called, retails at 2s. 6d., and it is stated that with this model and the plug-in adaptor model, type P50, which sells at 5s. 6d., most cases of mains-borne and radiated interference from small motors can be cured.

### Set Components

Three components for home-constructors have recently been released by Bulgin.

First is an I.F. coil for superhet short wave adaptors, type S.W.50. This is unscreened, and is wound on a horizontal former, being



Battery, A.C. and universal models of this Truphonic superhet sell at 10 gns., and there are also radiogram versions.

fitted with terminal screws and perforated feet for fixing.

The coil has an inductance of 2,200 microhenries, and is intended to be tuned with a .0005 mfd. pre-set condenser. The retail price is 2s. 6d.

A tapped Q.P.P. output choke, type L.F.31, is listed at 15s. It has been produced for use with double-pentode output valves, and is housed in a frosted aluminum case with terminals.

For Osram barretters and other components having an Edison screw cap, Bulgin have produced a baseboard mounting holder of this type. It has a bakelite shell and  $\frac{3}{4}$  in. connecting stems. Listed as type E.S.1, the component sells at 2s. 6d.

## Coronado Accordions by Alex Burns

New models of the "Coronado" accordion which have been received by Alex Burns, of Shaftesbury Avenue, London, W.C., show improvements in both construction and design.

The chassis is entirely constructed of metal. This allows of a more compact body and one which is "streamlined," which gives greater ease of playing and helps to avoid wrist cramp. Cut-away corners on the bass side enable easier fingering, and the keyboard is at a new angle.

The keys are made of walnut wood, which does not absorb moisture, and they are fortified with metal at all joints. "Clanking" against the grille is avoided by the  $\frac{3}{16}$ -in. wood construction. The bass mechanism is also all-metal, and the hammers are mounted on a patented axle with independent bearings.

These instruments retail from £13 5s. to £26.

## Philco Set Tester Improved

*Supplies: Available.*

Considerable improvements have been made to the Model 048 signal generator set and valve tester marketed by the Philco Radio and Television Corporation, of Aintree Road, Perivale, Middlesex. The improved model now listed as type 048A retails at the old price of 12 guineas.

The principal improvements include the addition of an ammeter range to make the equipment suitable for testing car radio consumption. The meter and voltmeter range have been reallocated, and in addition the signal generator portion has been redesigned to give better attenuation and greater battery economy.

The new equipment is housed in an egg-shell finish mahogany carrying case and is a little lighter than the older model.





**I**N the battle of commerce the title of leadership is not won by accident. Those who win success do so because the merchandise they offer is right, because it is honestly built and because it is designed to overshadow all competition.

The Dubilier Condenser Company owe their pre-eminence to-day to the fact that over twenty-five years they have adhered strictly to the above exacting standards.

*Illustration shows Battery of Moulding Presses for moulding mica condensers in bakelite.*

# DUBILIER CONDENSERS *and* RESISTANCES

DUBILIER CONDENSER CO. (1925) LTD., DUCON WORKS, VICTORIA ROAD, N. ACTON, W.3.  
Mould. Press.

WHEN REPLYING TO ADVERTISEMENTS PLEASE MENTION "THE BROADCASTER."



A mesh wood grille, claimed to have unique sound properties, is fitted to the speaker fret of the Climax SB4 battery superhet.

## Climax "Sports Model" Battery Superhet

Supplies: Available.

A four-valve battery superhet has been added to the range of "Sports Model" receivers marketed by Climax Radio Electric, Ltd., of Haverstock Works, Parkhill Road, London, N.W.3.

The new model has been given the type number S.B.4.

**CIRCUIT.**—Octode frequency changer, I.F. stage, double diode triode second detector and L.F., pentode output. The input circuit is of the bandpass type, and there are alternative aerial sockets for local and distant reception.

**CONTROLS.**—Rectangular, full-vision scale calibrated in wavelengths and station names; combined wavechange, gramophone and on/off switch; volume and tone controls.

**SPEAKER.**—P.M. moving-coil, with special alloy magnets for maximum sensitivity and quality reproduction. Sockets are provided for a pick-up.

**BATTERIES.**—Included in the purchase price, but dispatched separately packed. H.T., 120 volts; G.B., -9 volts; L.T., 30-a.h. accumulator.

**CABINET.**—Semi-horizontal table type in dual-grained walnut, measuring 17½ in. long, 14 in. high, and 10 in. deep. Controls are on the right, while the speaker fret, which is backed with a mesh wood grille, has three vertical ebonised bars which continue to the top and bottom of the face and are also carried across the top.

**PRICE.**—11 guineas, or on H.P., £1 4s. deposit and 12 monthly payments of £1.

## Tungram Transmitting Valve

Remarkably low inter-electrode capacity is said to be a feature of a transmitting valve, specially designed for 5-10 metre television work, which is to be marketed shortly by Tungram Electric Lamp Works (Great Britain), Ltd., of 72, Oxford Street, London, W.1.

The valve will be known as the OQ 70/1,000, and further details will be available in a week or two.

## G.E.C. Tuning Registers

Supplies: Available.

Revised station registers incorporating changes in the wavelengths of the B.B.C. stations, which came into force on February 17, are available from the General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2. They consist of station name and wavelength panels for fixing to receivers, and retail at 2s. 6d. each.

Different registers have been produced to

# Brand New

suit the various sets in the G.E.C. range, and to facilitate ordering, each register has been given a group letter. The register and the receiver for which they have been produced are:—"A" for receivers BC3335 and BC3338; "B" for BC3336 and BC3339; "C" for BC3340; "D" for BC3358; "E" for BC3440/L, BC3441, BC3442, BC3443, BC3444/L, BC3445, BC3448/L, and BC3449; "F" for BC3446; "G" for BC3480/L, BC3484/L, and BC3488; "H" for BC3540/L, BC3541, BC3542, BC3544/L, BC3548/L, and BC3558/L; "J" for BC3545; "K" for BC3566; and "L" for BC3550/L and BC3551.

## C.A.V. "Cavac" H.T. Batteries

Supplies: Available.

Considerable revisions have been made to the ranges of H.T. batteries marketed by C. A. Vandervell and Co., Ltd., of Well Street, Birmingham, 19, and as from Friday there are two series available, the Standard range and the Cavac range.

The Standard range, on which the discount to retailers is 25 per cent., comprise six types as follows: 120-volt square plus grid bias, 8s.; 120-volt square or long, 7s. 6d.; 108-volt, 6s. 9d.; 99-volt, 6s. 3d.; and 60-volt, 3s. 9d.

There are three types in the Cavac range: a 120-volt at 6s.; a 100-volt at 5s.; and a 60-volt at 3s. Prices to retailers are 4s. 8d., 3s. 11d. and 2s. 4d. respectively.

## Truvoice Portable Battery P.A.

Supplies: Available.

Eighteen watts undistorted output is claimed for a car battery operated P.A. and band repeater equipment being marketed by Truvoice, Ltd., of Davis Building, Moor Street, Cambridge Circus, London, W.1. It is an addition to the range of Truvoice equipments marketed by this firm.

In general design this new model is similar to the Truvoice Major. It consists of amplifier, speaker, microphone and stand, the amplifier and speaker being mounted in a black crystalline finish case which closes into one unit for carrying. It retails at approximately £39 complete.

All power supply is drawn from a 6-volt car battery, H.T. and speaker energising supplies being drawn from a rotary converter.

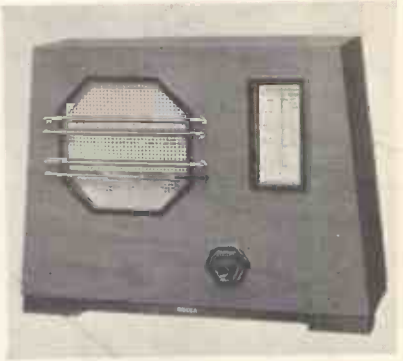
The circuit employed is a three-stage arrangement, with inputs for both microphone and pick-up outputs. There are separate volume controls to both inputs, with a master volume control to the output. Separate switches are provided for the converter and heater circuits, while there is a third switch at the microphone itself to cut this out of circuit. There is also a tone control.

Outputs are provided to operate two energised speakers and two button-type carbon microphones if desired.

## Two Decca Table Superhets

Supplies: Available.

Robot single-knob control has been applied to two table superhet receivers produced by the Decca Gramophone Co., Ltd., of 1-3, Brixton Road, London, S.W.9. These two models are A.C. and A.C./D.C. instruments



Robot tuning is a feature of the Decca table superhet, available in a choice of walnut and burr-walnut cabinets.

modelled on the lines of the robot control radiogram recently produced by the firm.

It will be remembered that the robot control consists of the grouping of tuning, switching and volume movements in one knob head.

**CIRCUIT.**—Four-valve superhet, the valve combination being triode pentode frequency changer, V.M., I.F., pentode, double diode output pentode and rectifier. A.V.C. is a feature of the circuit, and the output is rated at 3½ watts.

**SPEAKER.**—Large energised M.C. type to both models.

**PICK-UP.**—Sockets provided

**MAINS SUPPLIES.**—Both models for standard 200-250 volt mains.

**CABINET.**—The choice of walnut and burr walnut finishes is available, the cabinets being of the horizontal type, with speaker and chassis mounted side by side. Base measurements are 18 in. wide, 8½ in. deep and 13 in. high.

**PRICES.**—A.C. model, £9 19s. 6d., with H.P. terms of 19s. 6d. deposit followed by 12 monthly payments of 16s. 8d. A.C./D.C. model, 10 gns., with H.P. terms of a guinea deposit followed by 12 monthly payments of 17s. 6d.

## G.W.Z. Battery Prices Reduced

Reductions in the prices of two ranges of H.T. batteries have been made by the British G.W.Z. Battery Co., Ltd., of Falmouth Road, Trading Estate, Slough, Bucks.

The Blue standard capacity range now sell at 6s. for 120 volts, 5s. 6d. for 108 volts, 5s. for 99 volts, and 3s. 3d. for 66 volts. Previous prices were 10s., 9s., 8s. 3d., and 5s., respectively.

Revised retail prices on the Brown portable range are 7s. 6d. for 120 volts, 6s. 9d. for 108 volts, 6s. for 99 volts, and 4s. for 60 volts. Previous prices were 11s., 10s., 9s., and 5s. 6d., respectively.

It is understood that the prices of other ranges manufactured by the company are under consideration, and that a statement may be issued in the near future.

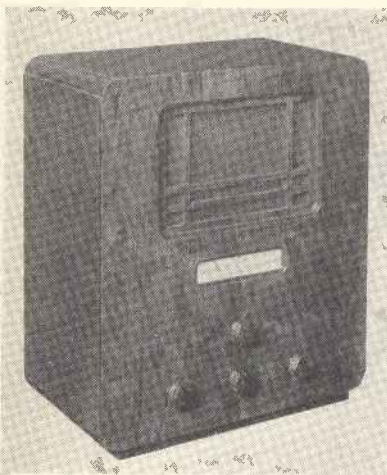
## Belling-Lee Static Suppressor

Supplies: Available.

Additions to the range of H.F. mains chokes for static suppression have been made by Belling and Lee, Ltd., of Cambridge Arterial Road, Enfield, Middlesex.

A 5-amp. 10,000-microhenries, and a 1-amp. 5,000-microhenries choke are wound on ebonite bobbins and retail at 9s. each. There is also a hank-wound type with an inductance of 2,000 microhenries to take 2 amps. This model retails at 4s.





The Burndept Jubilee receiver, Model 226, which was described in last week's issue, is an A.C. 4-valve superhet selling at 12½ gns.

## Burndept A.C. Superhet Radiogram

Supplies: Available.

A version for A.C. mains of the 203 duo-speaker radiogram is announced by Burndept, Ltd., of Light Gun Factory, Erith, Kent.

The new version is known as Model 225, and with its introduction the cabinet design of both models has been slightly altered, the small feet being removed so that the cabinet stands flush with the floor.

**CIRCUIT.**—Five-valve superhet with A.V.C. Octode frequency changer; V.M. H.F. pentodes in the I.F. stages; 3 watts output. 9 kilocycle separation is claimed.

**SPECIAL FEATURES.**—Variable tone control. For 200-250 volt mains, 50-100 cycles.

**CABINET.**—Multi-sided floor console in hand-finished walnut. The Burndept principle of "matched and balanced reciprocal propagation of sound" is used, the speakers being mounted on opposite sides of the central control panel and at angles to it.

**PRICE.**—32 gns., or on H.-P. 11-monthly terms: 3 gns. deposit and payments of 3 gns. 17-monthly terms: £2 4s. deposit and payments of £2 4s.

## High-Voltage T.C.C. Condensers

Supplies: Available.

Petroleum jelly filled condensers with a working voltage of 2,000 D.C. are being added to the ranges of these types manufactured by the Telegraph Condenser Co., Ltd., of Wales Farm Road, Acton, London, W.3. These will be similar in construction to others of this type described recently.

Standard capacities are available, and these with their prices are: .1 mfd., 5s.; .25 mfd., 7s. 6d.; .5 mfd., 8s.; 1 mfd., 10s.; 2 mfd., 15s.; 4 mfd., 21s.; 5 mfd., 27s. 6d.; 6 mfd., 33s.; 8 mfd., 43s.; and 10 mfd., 54s.

## Mullard Battery Valve Additions

Supplies: March 12.

Full details are available concerning two additions to the range of battery valves, marketed by the Mullard Wireless Service Co., Ltd., of 111, Charing, Cross Road, London, W.C.2. These are a battery octode, type FC2, and the PM2DL Class B driver. The fact that the second of these valves was being planned was recorded in THE BROADCASTER recently.

It is also announced that the Pen 4V.B. A.C.

high slope output pentode is being generally released.

The FC2 is, of course, for use as an electron-coupled frequency changer in battery superhets.

One of the advantages of the octode, it is stated, is that owing to the dual functions of the oscillator and mixer being separated, A.V.C. can be applied to the pentode mixer. In this connection it is stated that an attenuation of 40 db. can be obtained with a bias of approximately 10.0V. applied to the control grid.

**CHARACTERISTICS.**—Filament 2 volts, .125 amp.; max. mixer and oscillator, anode volts, 150; max. auxiliary grid and screen volts, 70. Under optimum working conditions the total H.T. current of the F.C.2 is approximately 3.0 ma. This low consumption not only facilitates the design of economical battery superhets, but it is added has the additional advantage that valve noise is reduced to a minimum.

The F.C.2 is fitted with the standard seven-pin base, and the control grid is connected to a top cap. It is supplied with metallised bulb only.

PRICE.—18s. 6d.

### Class B. Driver

The new B. Driver, P.M. 2D.L. has been designed to provide full drive with minimum harmonic distortion in receivers utilising a medium impedance triode in the driver stage. Although its characteristics are similar to the well-known P.M.2D.X. general purpose triode, the constructional modifications which it embodies render it even more suitable as a Class B Driver.

Where, however, a valve of similar characteristics is required for use as detector or as normal low-frequency amplifier, the P.M.2D.X. valve should still be employed.

**CHARACTERISTICS.**—Filament, 2 volts .1 amp.; max. anode voltage, 150. With 100 volts on the anode and at zero grid volts, the impedance is 12,000, the amplification factor 18, of the slope 1.5 ma/volt. The recommended operating conditions are anode, 135 volts, bias 4.5 volts. The valve is fitted with a standard 4-pin base and with a metallised bulb only.

PRICE.—5s. 6d.

### Pentode Release

The Pen.4V.B. which is being released shortly is, it will be remembered, an 8 watt indirectly heated type, having an anode current of 32 ma. when operated at anode and auxiliary grid, voltages of 250. The bias resistor is then 145 ohms.

Such is its sensitivity that it is stated it is fully loaded by a grid input of 3.6 volts R.M.S., the output then being of the order of 3½ watts with a total harmonic distortion of 10 per cent. By restricting the grid input to 2.5 volts R.M.S., an output of about 2½ watts is obtained, but with higher quality, the total harmonic distortion being only 5 per cent. The optimum load impedance is 8,000 ohms.

## Three Additions to Aerodyne Range

Supplies: One week.

Three receivers, two for battery operation and one for use on A.C. mains, are being released by Aerodyne Radio, Ltd., of Aerodyne Works, Tottenham, London, N.17. Following the firm's previous practice, each of the new models is given a bird name.

Full details and prices are to be released in a week's time, when supplies are to be available.

The first of the new series is a three-valve S.G. battery set, to be known as the "Mavis." It is housed in a walnut cabinet of attractive design.

Another battery model is the "Nightingale." This is a bandpass S.G. receiver with

# Brand New

iron-cored coils, and it is claimed that the sensitivity is on a par with a super set. It is housed in a walnut cabinet with chromium embellishments.

The third of the series, the "Silver Wing," is an A.C. six-stage superhet, housed in a cabinet of burr walnut veneers and chromium fittings.

All three models have large station and metre-marked scales of pleasing design.

## Primus Mfg. Co. Battery Alterations

A new range of H.T. batteries, to be known as the Primus series, have been released by the Primus Manufacturing Co., of Primus House, Willow Street, London, E.C.2, who at the same time announce reductions in the prices of the Auto-Cell batteries.

The Primus range consist of a 60-volt unit at 3s. 3d., a 100-volt unit at 5s., and a 120-volt unit at 6s. On this range the dealer discount is 25 per cent.

New prices on the Auto-Cell range, which are now subject to a dealer discount of 30 per cent., are 3s. 9d. for 60 volts, 6s. 3d. for 100 volts, and 7s. 6d. for 120 volts.

The new range is available and the new prices come into force as from to-day, Saturday.

## Marconiphone Receiving Installation

A new central receiving installation suitable, for example, for hospitals, has been introduced by the Special Products Department of the Marconiphone Co., Ltd., of 210-212, Tottenham Court Road, London, W.1.

Known as the type P4/10, and designed for flexibility of output in order to meet varied requirements, the amplifier and receiver are contained in rack-type units assembled into a single neat installation.

The output can be used to feed 50 moving-iron speakers and up to 100 headphones. Fifteen moving-coil speakers and 100 phones can be energised, or, if speakers are not required, 1,000 phones can be connected.

In other types of installation, the equipment can be used to feed up to 6 large-type moving-coil speakers.

## Novo Radio Reformed

A new company, Novo Radio (1935), Ltd., has been formed to take over the business of Novo Radio Electric, Ltd., of Newcastle.

Mr. William Black, junr., the late managing director of the old concern, is the chairman and managing director of the new firm, the other members of which are mainly the same as those of the old company.

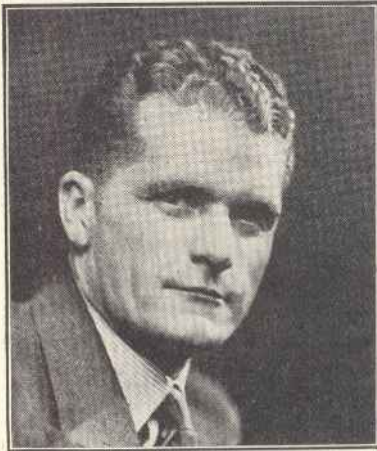
Premises have been taken at Union Works, St. John Street, Newcastle-on-Tyne, and work is in progress on a range of Northumbria receivers, which are to be released in the near future.

Sunbeam Electric, Ltd., of Park Royal Road, London, N.W.10, announce an increase in the price of the model 57 A.C.-D.C. superhet from 10 gns. to 12 gns. as from March 1.

At the same time the models 22 midget and 32 A.C.-D.C. superhet are being withdrawn.



## Call in Dr. Advertising and Cure These—



# TELEVISION NERVES

says

## G. J. Freshwater

**T**HERE is no doubt that a large section of the radio trade is suffering from a bad attack of "television nerves." During the past week or two I have heard several responsible members of the Industry deplore the "disastrous" effects of the television publicity, and almost in the same breath protest that their allocation of our Spring models is quite inadequate, although larger than last year.

Also I have received a number of letters from dealers complaining that their business has become "paralysed" since the appearance of the television report, and other letters from dealers in the same area rejoicing in the brisk business they are securing from our Spring programme.

This, I assure you, is no exaggeration, and it is painfully obvious that there is the usual nervous element in our business which tends to exclaim before it is really hurt. It would be foolish to pretend that no harm has been done. It is more foolish, however, to exaggerate the effects. And even more foolish to do nothing to combat them.

### A Psychological Problem

The problem is not one of practical difficulties, but essentially a psychological one. Furthermore, it is going to remain mainly a psychological problem for the next two or three years. By that I mean that we are not going to find it difficult to sell sound radio because of the existence of television sets and a television service. But, if we do not pursue a proper course, we may find it increasingly difficult to sell sound radio because of the effects of television publicity on the public mind.

There is no real indication of this at the moment beyond the Trade nervousness which has exaggerated a limited public reaction, but it is conceivable that the public mentality may become more difficult unless subjected to proper treatment.

In matters of legal difficulty it is customary to listen to one's legal advisers. In matters of illness one, of course, calls in the doctor. In most emergencies we have at our service specialists whom we have learned to consult. The television report has brought about a position in which the "commercial psychologists," the advertising specialists of the Industry, can do more than anyone else.

There is no immediate question of making or not making television sets for very obvious reasons. The problem resolves itself entirely into taking the public mind off television and keeping it centred upon sound radio until such time as the industry has a television service of appreciable coverage behind it and

is justified in embarking upon extensive manufacture of television sets.

The only counter move to the television publicity which appears to have been suggested so far is to publish and announce "the real facts" about television. In view of the ill-considered statements which appeared in the Press this is psychologically the worst possible thing to do.

If you try to convince the public now by argument that television is two or three years off you will only succeed in making them more suspicious. I have already seen this happen on several occasions. The public are quite ready to believe that the trade have stocks of radio sets to be cleared, and that we will use any plausible arguments against television to clear them.

The best way to ensure satisfactory business in Sound Radio during the next two years is to ignore television as far as is practically possible and find a counter-attraction to engage the public mind.

What is necessary is a really good "red-herring."

I suggest that the superhet offers great possibilities in this direction. The replacement market has now become the main source of sales. There is no doubt that a very large section of listeners are still using radio of the pre-superhet type. We know we are not exaggerating when we say that the superhet is essential to obtain the best out of the ether to-day.

### Spotlight the Superhet

If the large advertisers of the Industry were to concentrate on this theme and secure the whole-hearted editorial support of the Press, the psychological effect on the public mind would be enormous. Concentration of attention on the superhet would discount television publicity in a subtle way and leave the public with the impression that a modern superhet was a much more immediate need than a television set.

Little can be achieved by telling a customer it will be two or three years before he can have television. If a man is thinking of buying a 20-guinea radio-gramophone or even a 12-guinea radio set, he likes to think he is making an investment for some years. We know that in three years he will probably wish (and need) to make a change, but it is not wise to mention that fact in making the sale. We can, on the other hand, throw our energies into selling the superhet idea with the assertion that the superhet of to-day will

remain the main instrument of entertainment in the home for many years to come.

This would indeed be a very opportune occasion to embark upon an Industry's advertising campaign selling this general idea of "superhet reception."

The whole atmosphere of the campaign would be the introduction of something new, up to date and necessary, and not an attempt to clear stocks of sets in view of approaching television.

No matter how hard manufacturers may try to sell sound radio during the next year or two by extensive advertising, it is probable that the television position will have some adverse effect on the market. Heavy advertising of the straight selling type without any particular note may well encourage the impression that manufacturers are attempting to clear stocks. This impression is immediately avoided once a general advertising theme is adopted such as suggested above.

### Proof of the Pudding

The Marconiphone advertising campaign which commenced on February 1 had to face the full force of the television publicity which appeared simultaneously. In our advertisements we attempted to take the public mind off television by talking the obsolescence of pre-superhet radio and the necessity of an up-to-date superhet to meet the other conditions of to-day and the future.

*This campaign has been more successful than any carried out by us in the past. In spite of any effects the television publicity may have had on public demand and on trade morale, we have already received five times as many inquiries from the public for details of our new superhets as ever received from previous advertising campaigns.*

It cannot be said that the public are under any misapprehension as to the nature of the sets we are offering; they are very fully described in our advertisements as Superhet Sound Radio.

Everything points to the fact that a campaign on these lines carried out over the next twelve months by the Industry, or by the largest manufacturers individually condemning pre-superhet radio as obsolete and inadequate for modern needs, and boosting the modern superhet as the main instrument of home entertainment for years to come, would do much to ensure an active market in sound radio until such time as the sight-and-sound instrument can take its place.





The Philco model 267 three-valve plus rectifier "straight" receiver which retails at £8 15s has a well-made and attractive cabinet.

## Tungram MH.206 Battery Heptode

Dimensions ..... 4½ in. × 1½ in.  
Filament Amp. .... Nom., .06; Act., .08.  
Conductance, M.mhos. ... Nom., 250; Act., 200.  
Price ..... 15s.

UNDER the type number MH.206, Tungram are producing a battery heptode. Tests have been conducted on this both in receivers and on the laboratory bench, and as a result we can say that the valve is highly satisfactory.

The electrodes are mounted in a modern shape glass envelope with a mica bridge at the top. A metallised finish is employed, and a thimble connector for the control grid provided at the top. The other electrodes are connected to a standard British seven-pin base.

### Assembly Rigid

The valve is very compact, and, from what can be seen of the electrode assembly, it is very rigid and the grids are accurately aligned.

It will be seen from the table that the measured filament current is a little higher than the original rating, but this is not of very great importance.

The conductance is quite close to the nominal value, and this shows that the electrodes are accurately assembled.

In practice the valve performs excellently. An important point with a mixing valve, particularly of the battery type, is its ability to operate through reasonable changes in voltage. Experiments show that in this direction the valve behaves excellently. It will oscillate and give a good conductance with an anode current of the order of 5 milliamperes.

We regard the valve as a very satisfactory production. It is marketed by Tungram Electric Lamp Works (Great Britain), Ltd., 72, Oxford Street, London, W.C.2.

## Philco Model 267 Receiver

Dimensions ..... 16 in. × 12½ in. × 8½ in.  
Wavelength Range ..... 190-550, 800-2,050 metres  
Loading ..... 40 watts  
Ripple ..... .45 volt  
Price ..... £8 15s.

IN addition to their range of superheterodyne receivers, Philco are producing a competitive 3-valve set known as model 267. This is referred to as a 4-valve receiver, the fourth valve, of course, being a rectifier.

Simplicity characterises the receiver. A slightly decorative vertical cabinet has the speaker grille above the tuning scale and con-

## Tested by Broadcaster

trol knobs. The scale is calibrated in wavelengths, and the names of a few stations; red and black, distinguish the wavebands.

The whole scale is translucent and partially lighted by a pilot light, but greatest illumination is obtained in the region of the tune point as the lamp moves with the condenser shaft.

The condenser is driven direct by a small knob which projects from the scale, no slow-motion device being incorporated. Three other knobs provide for waveband switching, volume and reaction respectively.

The chassis is built on typical Philco lines, with separate iron screening cans for two of the valves. Most of the inter-valve components are mounted inside the chassis, but the condenser, smoothing condensers and mains transformer are on the top. Aerial and earth connections are made by spring clips.

Only two tuned circuits are used, one preceding the amplifier valve, which is followed by a reactive detector working into an output pentode. The circuit appears to be fairly orthodox and little comment is necessary.

### Robust Cabinet

Construction of the cabinet is exceedingly robust, and the finish is satisfactory. The controls work nicely, although we found the absence of a slow-motion device a little troublesome when making use of critical reaction.

Selectivity is not very great, and accordingly we found that best results were obtained with a short aerial, because the overall gain is good.

In the swamp area a number of Continental stations could be received at good room strength. When the set is used at a greater distance from the local transmitter, the number of stations receivable should be considerably increased.

On the long waves the gain is well maintained and excellent strength is obtained from stations such as Huizen and Luxembourg. Droitwich tends to spread, but this is only to be expected with the circuit used.

Quality is very well balanced, and is reasonably free from colouration. The top notes are good, and there is excellent crispness and attack. At the same time, the middle and lower registers radiate excellently, and the general reproduction is pleasing.

Where a simple receiver is required, the new Philco model should prove a useful line.

## Mervyn Television Kit

Dimensions of Motor ..... 6 in. × 4½ in. × 3 in.  
Diameter of Scanning ..... 15½ in.  
Disc ..... 15½ in.  
Loading ..... 51 watts  
Price ..... £3.

WE have tested a disc television kit produced by the Mervyn Sound and Vision Co., Ltd., of 4, Holborn Place, London, W.C.1.

The apparatus employs a 15-in. aluminium disc bolted to a brass boss which is fitted to the motor shaft.

The motor is a conventional universal series-wound arrangement mounted on a die-cast frame and carried on two pressed-steel brackets. For speed regulation there is a skeleton resistance fitted with clips and a series variable resistance. The mains connection is made by well-insulated terminals.

A similar pair of terminals provides for the signal input, which is taken direct to a special lamp. The whole assembly is mounted on a ply framework.



The Kolster-Brandes 935 is a superhet with a H.F. amplifier preceding the "mixer". It is for operation from A.C. mains.

The lamp is known as the Mervyn Duplex Nu-glo, and utilises neon in conjunction with specially shaped electrodes, one taking the form of a gauze screen. The tube is fitted with an ordinary four-pin valve base.

Mention must also be made of a number of white lines painted radially on the disc so that in lighting from 50-cycle mains a stroboscopic effect can be obtained to aid synchronism.

The kit appears to be sound in its essential requirements. On long runs the motor did not heat up appreciably, and ran satisfactorily. It did not spark badly and the bearings seem to be well aligned and satisfactorily designed.

### Bright Image

The lamp gives a bright image with about 300 volts H.T. even when connected in series with a valve.

The holes in the disc are fairly accurately punched and give quite a clean picture. The general texture and nature of the picture seem to be improved by the special lamp.

As the standard equipment is not fitted with any synchronising gear, we found it a little difficult to maintain correct synchronism, but this, of course, is the case with any simple gear.

The size of the picture can be materially improved by the use of a magnifying lens, and under these conditions the punching of the holes in the disc is still sufficiently accurate to give a good picture.

## Kolster-Brandes 935 Superhet

Dimensions ..... 18½ in. × 16 in. × 10½ in.  
Wavelength Range ..... 200-650, 850-2,000 metres  
Loading ..... 66 watts  
Ripple ..... .7 volt  
Price ..... 15 gns.

THE latest mains set introduced by Kolster-Brandes is a 6-valve A.C. superhet, including, among many other features, automatic tone compensation.

The receiver is built on fairly orthodox lines and is housed in a handsome walnut cabinet. The speaker opening is provided with a chromium bezel which is mounted directly above the tuning scale and the control knobs which are also finished in chromium.

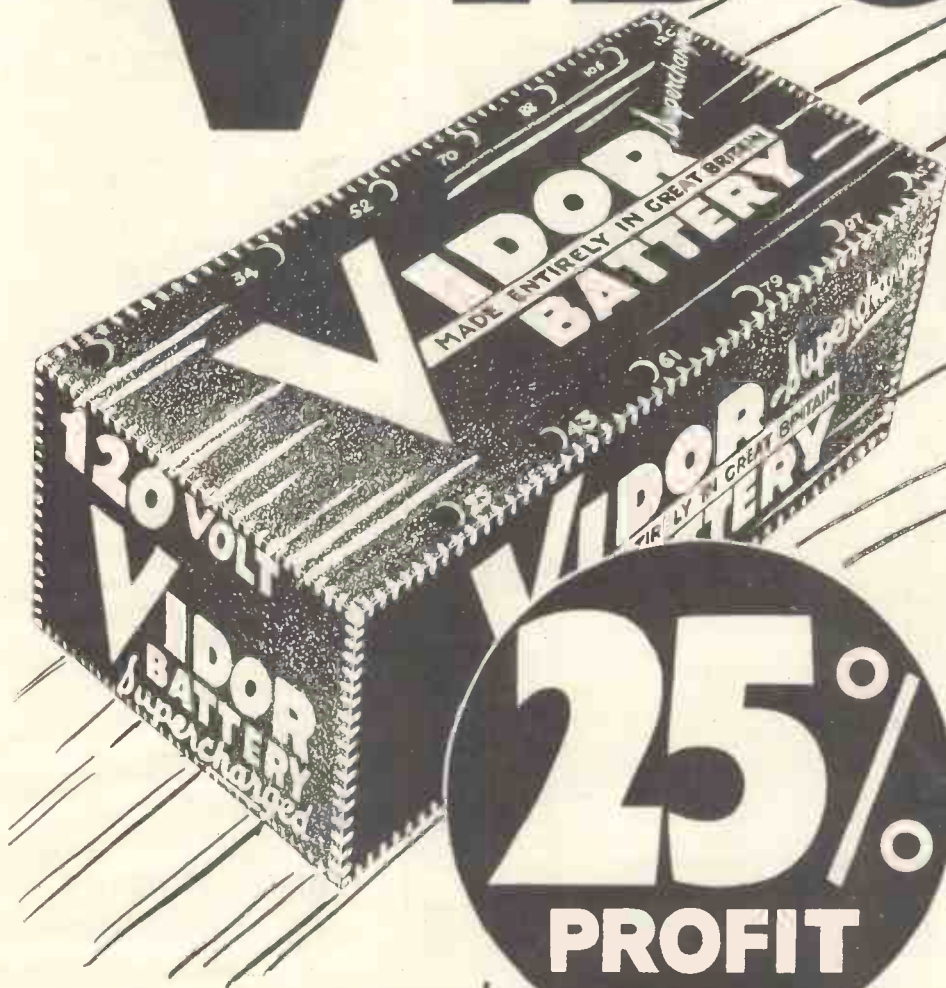
Tuning, volume and master-switching, wave band control and tone adjustment knobs are arranged below the tuning scale, which is in the form of a drum and is marked in wavelengths and the names of the most important stations.

A neon tube tune point indicator lies between the speaker and the tuning scale.

The speaker is bolted to a substantial platform, which in turn is bolted to supports. The chassis is very compact and the valves and coils are mounted in their logical positions behind the ganged condenser and the mains input transformer.

(Continued on page 28.)

# VIDOR



**120**  
VOLTS  
for  
**6'6**

**25%**  
PROFIT

**100 VOLTS 5'9**

**60 VOLTS 3'6**

**9 VOLT GRID BIAS 9<sup>D</sup>**

**SUPER POWER BATTERIES**

120 volts Super Power - **12'11**

60 volts Super Power - **6'11**

Vidor has struck a great blow for the legitimate radio dealer by not only putting out a competitive-priced range of batteries, but by putting behind those batteries the most powerful and continuous advertising campaign ever produced for a high tension battery. This Vidor advertising is creating **new** demand as well as re-directing the sales of H.T. batteries to genuine trade channels. Those dealers who support Vidor are doing their best for the trade as a whole—and doing it **PROFITABLY!**

**FIXED PRICES & PROFITS**



# The Batteries with the Stable Policy behind them!



**HAVE YOU  
GOT THE NEW  
VIDOR  
LIGHTING RANGE  
IN STOCK?**

**33 1/3%  
PROFIT**

**3 VOLT CYCLE  
LAMP BATTERY 6<sup>d</sup>**

**4 1/2 VOLT FLASH  
LAMP BATTERY 4<sup>d</sup>**

- 3 volt Midget Torch Battery 3d.
- 3 volt Baby Torch Battery - 4d.
- 4 1/2 volt Baby Torch Battery 4d.
- 3 volt Super Torch Battery 6d.
- 4 1/2 volt Super Torch Battery 9d.
- Unit Super Torch Cell - - 3d.



**THAT REMAIN FIXED!**

## Tested by Broadcaster

(Continued from page 25.)

Sockets at the back provide for aerial, earth and pick-up and two further sockets enable a short-wave converter to be connected if required.

Three tuned circuits are used and the first valve is an H.F. pentode amplifying at signal frequency. An ordinary H.F. pentode is used for frequency changing. I.F. amplification is carried out by a variable-mu pentode similar to the first valve.

The intermediate frequency is rectified by a double diode triode which feeds an output pentode. High tension is obtained from a full-wave rectifier.

The cabinet work is very highly finished and the appearance is pleasing. All controls work very nicely.

The set has high overall gain and reasonably quiet background in spite of the fact that five valves are used.

Best results were obtained with a medium-size aerial and selectivity is then adequate for all ordinary purposes.

### Daylight Performance

With a small indoor aerial excellent programme strength can be obtained from many of the Continental stations in daylight without bad background.

On the long waves selectivity is of the same order and Deutschlandsender could be obtained with very little side-splash from Droitwich. Taken as a whole, sensitivity and selectivity are evenly maintained over both wavebands.

Quality is very good. The response at the higher frequencies is excellent and there is considerable crispness and attack. The reproduction, however, is well balanced, as in the lower registers the radiation is definitely satisfactory. Speech is natural and orchestral reproduction is very pleasing.

The tone compensation circuit associated with the volume control seems well designed.

The value of the extra amplifying valve seems to be definitely apparent and we regard the 935 as a production with a very useful performance. It is made, of course, by Kolster-Brandes, Ltd., of Cray Works, Sidcup, Kent.

## Brown M.I. Modulated Oscillator

Dimensions ..... 13 in. x 8½ in. x 8½ in.  
Range ..... Medium, 180-500; long, 750-2,000 metres  
Intermediate Frequency 2,100-3,100 metres  
Price ..... £12 10s.

THE increased necessity for accurate servicing has resulted in the introduction of a number of modulated oscillators, among them a type M.I. introduced by Wm. F. Brown Radio, Ltd., of Ossillo Radio Works, Brierley Hill, Staffs.

This production uses a single, screened valve which is self modulating. The power supply is obtained entirely from the mains.

The unit is built into a stout metal case finished in black crystalline enamel. The controls are mounted on a metal plate which has a white enamelled finish on which the various indications are printed.

There are two output controls, one regulating the audio-frequency modulation and the other the radio-frequency output.

Medium, long and intermediate frequency ranges are provided, and arrangements are also made for applying external modulation from a pick-up or other source. It is also

### Relay Topics

## Simplest Fault Isolator

This monthly feature is published for the benefit of dealers interested in relays. The author has considerable practical experience in the work.

HOWEVER well designed and erected an overhead network may be, sooner or later a time will come when it will be necessary to locate faults.

These faults may not actually occur upon the overhead line—in fact, most occur in the associated equipment—but the only way in which any trouble may be isolated and traced is by cutting the line at various points.

When I was first associated with relay work I made up my mind that I would tolerate nothing but the most solid of solidly soldered joints upon overhead lines, junction or section boxes would be absolutely taboo. I still think that nothing can be better than a line erected in this manner, but practice has demanded a certain ease in isolating sections.

### Trouble Makers

The trouble connected with cutting a soldered joint and remaking with a continuously diminishing length of wire brought me into the market for so-called "fault-isolators," which can, however, believe me, be prolific fault providers.

Some of the earlier types of fault-isolating box were provided with an appropriate number of terminals, connected by means of a U-shaped piece of brass wire, which plugged into sockets on the terminals. A piece of brown paper between the cover and the body of the box rendered it watertight—in theory—but one had to be careful when opening these boxes, as sometimes a gallon of water ran out.

The great drawback to this type of box was soon made evident as, upon investigating complaints of low volume or crackling, it was almost invariably cured by cleaning and replugging in the U-shaped plugs. Some improved form, therefore, had to be devised, and one firm placed upon the market a box with better terminals, and with deep clips—something like the clips provided on the old-fashioned house fuseboard—for the reception of brass short-circuiting strips or fuses.

I only used a few fuses, as turning out on a wet night to replace them was too good to last, and I well remember one night when, during a thunderstorm, we lost forty-two fuses. Strips were obviously the only form of connection for fault-isolating boxes.

Some of these later boxes lived up to their name, in that they did isolate a fault—as it

could almost invariably be found in the box itself. High leakage figures, and the linesman's failing—removing a strip and then forgetting to replace it—led me to despair of ever finding a real solution to the problem of providing some easy and simple means of isolating sections of the line.

Further troubles were in view for us when a police inspector informed me that pieces of brass, hammered flat, but with our mark still visible, had been found in a certain cigarette machine not many miles from our stores. Had this news got round the neighbourhood we should have lost every strip we had.

For the past year I have been using a very simple means of isolating line sections, and have now thrown away every fault-isolating box I possessed. The overhead line, which is insulated twisted twin line, is made off with a flying bight at every insulator, and at each branch off from the main feeder a connection is made between these bights by means of a simple piece of threaded brass rod provided with two wing nuts. These simple bolts are about one inch long, threaded 2 B.A. or ¼ in. Whitworth, according to requirements, but as they fly free in the air we get no leakage troubles from them.

After disconnection, the links cannot easily be forgotten—if they are, they can be seen from the pavement, generally—and altogether the scheme seems perfectly successful. I am seriously considering the extension of this means of connection to each individual subscriber, in place of the soldered joint.

### Excellent Results

The 1/.064 phosphor-bronze wire is not bent at each connection and removal, a solid ring being made through which the connecting bolt is passed. The connections should, therefore, last indefinitely, and certainly they have given no trouble during the twelve months they have been in use.

Nothing teaches like experience, and my advice to a new concern would be to use some such simple form of connection and not consider for a moment the very attractive looking fault-isolating boxes with fuses and bright brass bars, as I can assure everyone they do not look nearly as attractive at the top of a ladder on a wet night, after they have emptied a quantity of cold water up your sleeve.

possible to take the L.F. output from the oscillator alone.

Tuning is by a slow-motion dial fitted with a vernier control which can be disconnected. Calibration charts are mounted underneath a celluloid cover occupying the whole top surface of the case.

There are sockets at the back for the mains connection and the pick-up. A jack and screened lead constitute the output arrangements.

The instrument is very well made and has a high-grade appearance.

Tests showed that the stray field is low, and it is interesting to note that the tuning circuits are mounted inside a separate copper compartment inside the metal case. As a result the screening is particularly effective.

The radio-frequency output is nicely graded on the attenuator and we found that the oscillator is suitable for use with either a

very sensitive superhet or a simple two-valve receiver. Just over a tenth of a volt can be obtained in the maximum position, and at minimum a few microvolts are obtained.

The output is reasonably constant on the various wavebands and does not vary very much at any point on any given waveband. The wavelength range is adequate.

Wave form is a matter of some importance, and examination showed that the unmodulated wave form is excellent. When modulated, the wave form is exceedingly good for a self-modulated generator and is sufficiently accurate for rough measurement work, and, of course, is perfectly satisfactory for all alignment problems.

The oscillator is undoubtedly well thought out and it handles excellently. It is so designed that it can be used for a variety of purposes, which is a distinctly good point. Altogether we regard it as a very satisfactory production.



# RADIO RENTAL THROUGH THE DEALER



CASH PRICE  
**10 GNS.**

Or 12/6 down and 18 monthly payments of 12/6.  
ALSO AVAILABLE UNDER OUR  
RENTAL SCHEME.

*What you have been waiting for.*

A MARVELLOUS OPPORTUNITY OF  
ADDING TO YOUR PROFITS

We offer the FAMOUS  
'SPOTLIGHT' TUNING RECEIVERS  
from 10/- per month.

*Generous terms given to the dealer.*

Write to-day for particulars of our authorised agents' scheme.

**REGENT INVESTMENT & SALES, LTD.,**  
Brent Crescent, North Circular Road, N.W.10

## Pack Radio Sets the Eburite Way



Eburite Corrugated Fibreboard Containers are built to suit exactly the particular article, fitting it like a glove and affording protection against damage during transit. An increasing number of makers of wireless sets and accessories are using these containers. They afford an excellent medium also on which to bear your advertisement in one or two colours.

All Eburite Corrugated Containers are accepted by the Railway Companies and carried at their risk.

● The illustration shows an Eburite container supplied for G.E.C. Radio Receivers and printed with their advertisement.

*May we advise on methods of packing to suit your requirements? A specimen container will be submitted without obligation. Write or 'phone for sample board and loose-leaf booklet.*

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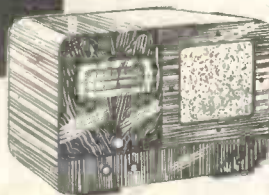
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