



# Questions and Answers



**"AUDIO"** (Eketahuna): Where can I obtain a circuit and lay-out diagram of a super het, shortwave set?

A.: "Radio News," October, 1930, and in addition will probably be published in the 1931 "Guide."

2. Could the r.f. detector, and audio stages of a receiver, be built and the super het, shortwave adapter after ward added to it, having all the components on one baseboard and panel?

A.: Yes, if room were allowed for it.

3. Would all the tuning condensers of the broadcast action be needed if a C.A. set was used to build a super het. set?

A.: Probably, yes.

4. Can a differential condenser be used to control reaction in the short-wave set described in the "Guide"?—Yes.

**A.H.M. (Timaru):** I have two variable condensers and wish to know the capacity of each.

A.: That composed of 14 plates would be of capacity .00025 to .0003 mfd. The other would be of .00015 to .0002 mfd.

2. The condenser I need is either a .00035 or a .0005 mfd. Could I alter the ones I have to the required capacity?

A.: No, but the 14 plate one would be O.K.

**"HAMMARLUND"** (Taihape): How many volts "C" battery does an Osram P625A require at 135 volts "B"?—10-12.

2. Is the 66R Blue Spot loudspeaker unit an efficient one?

A.: Yes, we have tested it and found it excellent.

3. Are my 15/6 transformers good ones?—Yes.

4. Is an output filter necessary when using the speaker 25 feet from the set?

A.: It is safer; but not essential.

5. I would like to make my set a little stronger on the weaker stations.

A.: Use a stage of screen-grid radio frequency. An article concerning this will be published shortly.

**"ALUTA"** (Dunedin) I have an American five-valve battery set using five D.V. 5-valves. What valves do you recommend to replace the above?

A.: 201A's or 221's with a B605 in the last stage. This should be suitably biased. As no provision is made for this in the set you are using, you will have to make the necessary alterations.

**L.B. (Christchurch).** When wiring a house for loudspeakers, using bell wire, should the wires be twisted or should they run parallel?

A.: It is immaterial—parallel for economy.

**"CHOKE"** (Gisborne). What type of reaction control do you recommend with a four-valve broadcast set using one stage screen-grid radio frequency?

A.: The rotating tickler method is quite suitable, but if an efficient variable resistance is obtained, control is slightly better. It is necessary that the resistance be a good one, though.

2. What does the value of the variable resistance depend on?

A.: The operating plate volley of the detector, the plate current, and the "B" voltage.

3. Where could I obtain a circuit for a two-valve r.f. amplifier employing ordinary valves?



**ROBERT MCKNIGHT,**  
whose concertina items will be heard  
from 1YA this week.

A.: We would advise you to wait for the articles on the 1931 B.D. to be published shortly. Although the r.f. stages are screen-grid you could use the lay-out, and employ ordinary valves.

4. What is the best method of handling the volume? A power-valve in the last audio stage or two matched valves in parallel?

A.: The power-valve.

**A.F. (Dunedin):** I have a five-valve commercial set, and I notice that the valves after twelve months' use are becoming dull. Could my valve combination be improved upon?

A.: You mention an A605 in the second audio stage. Should this not be B605? If this is the valve you mean it should be suitably biased. Otherwise the valves are quite suitable.

**"VOLUME"** (Gisborne): Lately I have noticed a decrease in volume from the YA stations, but I find that distant stations are easily tuned in. In fact, the other evening I received WGY far louder than Wellington.

A.: We are afraid we cannot help you. You seem to have tested everything likely to be at fault. It seems curious that you should receive distant stations so well, and the YA's with reduced volume.

**D.T. (Oamaru):** Will a Leclanche sal-ammoniac battery charge an accumulator?

A.: No, use Daniell cells.

2. Will I get better results with my B.D. set using 135 volts than with 90?

A.: Yes, but do not add a new 45-volt "B" battery to two that have already been in use for some time.

**IN** last week's issue a correspondent sent us an inquiry concerning all-electric d.c. sets. At the time we knew of no agents for these, but since then two correspondents have written in. One has an Attwater-Kent D.C. 7-valve combination, which is quite satisfactory, and the other a "Silverstone" receiver, the agent for which is S. E. Moe, Civic Buildings, Auckland.

**"SCREEN-GRID"** (Ngaio): Is the enclosed circuit correct for two stages of radio-frequency using the original Loftin-White amplifier?—Yes.

2. Is it necessary to have separate condensers with couplers or will a triple variable condenser do?

A.: The latter will do if the spindle is parallel to the front panel.

**"PUZZLED"** (Auckland): I have an all-electric receiver. Distance reception has been splendid and the

## N.Z.'S OWN RADIO BOOKSHOP

The TE ARO BOOK DEPOT, Wellington.

### NEW ARRIVALS

At Last We Have It.—"Wireless, the Modern Magic Carpet," by Ralph Stranger. 4/9 posted. Simple language anyone can follow.

"Trouble Shooter's Manual," by John F. Rider. No dealer should miss this. 15/9.

"Mathematics of Radio," by John F. Rider. No dealer should miss this. 10/6.

"Radio Operating Questions and Answers," by Nilson and Hornung. 14/-.

"Radio Citizens' Call Book." December, 1930. 2/9.

"Radio Amateur Handbook" (Handy's). 7th edition. In enormous demand. 5/3.

"The All-Electric Receiver," A "Listener In" Handbook, by VK-3GT. 3/6.

"Modern Sets, 1931." Includes Loftin-White Amplifier, Special S.W. Sets and many others. 1/9.

"Handy's Handbook," 7th edition. 1/3 posted.

"Theory of Radio Communication," by Filgate. 12/-.

"Principles of Radio Communication," by Morecroft. 4/6.

"Direction Finding," by Keen. 27/-.

"Radio Data Charts," by Beatty. 7/9.

"Seeing by Wireless" (Television), by Ralph Stranger. 1/6.

"Collins' Wireless Diary, 1931," 4/- posted (Amateurs and Broadcasters—150 pages useful information).

"Elements of Radio Communication," by Morecroft. 19/-.

"Thermionic Vacuum Tube," by Van der Bijl. 26/-.

"Radio Receiving Tubes," by Moyer and Westrel. 14/-.

"How Radio Receivers Work," by Roberts. 8/-.

Write us re any radio literature required. New stocks in every mail.

**TE ARO BOOK DEPOT**  
64 Courtenay Place, Wellington.

**CORRESPONDENTS** must attach this coupon to all queries sent to the Technical Editor (Box 1032 Wellington). Questions arriving without it are likely to go astray or be delayed.

Name of set .....

Number of Valves .....

Name .....

Address .....

.....

.....

Nom de plume .....

To be kept in subsequent inquiries

Date .....

Please Note:—

- (1) Be specific and brief, tabulating, if possible.
- (2) Write legibly, and on one side of the paper.
- (3) We do not design circuits but accept suggestions for feature articles.

Solving trouble, as different from advice, is difficult by correspondence and while letters are given every consideration, answers are not necessarily correct—they are only our opinion based on the matter supplied, which may be quite inadequate. Intricate and involved specifications cannot be supplied without a specialist's fee.

The secret of successful radio is getting what your set wants. In the country that is not always possible, and you use SUBSTITUTES or OLD ACCESSORIES. If you do this YOU ARE UNFAIR to your set. We can supply EXACTLY what you want, and you PAY NO MORE than if you walk into a city dealer and buy over the counter.

We are in the centre of New Zealand, get NEW STOCK immediately it comes to hand, and can execute your order with a MINIMUM OF DELAY.

Drop us a line—WE WILL GUARANTEE SATISFACTION.

REMEMBER—We Pay Postage.

— THE —

**C.A.S.**

(Country Accessories Supply)

39 VENTNOR STREET, SEATOUN, WELLINGTON.