

QUESTIONS: ANSWERS

FRANK KEE



The Technical Editor will, through these columns, be pleased to help readers experiencing trouble with their sets. Queries are limited to three—for more than this a shilling fee is charged, and a similar fee is payable for queries answered by post. Supplying layouts, circuits and solutions of intricate theoretical problems is beyond the scope of this service.

A coupon must accompany all requests for information. Non-appearance of the coupon in any issue cannot be regarded as a reason for its not being used.

Address all queries, The Technical Editor, Box 1032, Wellington.

DIDO (Wellington): My commercial set is not as selective as it should be. I live about 500 yards in a direct line from 2YA, my aerial being 100 feet long and 35 feet high, and at right angles to 2YA. Would the use of a wavetrap or the shortening of my aerial better conditions?

A.: The use of a wavetrap would probably be quite effective. Shortening your aerial would also reduce the pick-up from 2YA.

2. Is Oriental Bay a bad locality as far as distance-getting is concerned?

A.: We have not heard of any good

logs being put up in that district. Probably 2YA is overpowering them.

3. Is there any remedy for static noises, which trouble me a great deal even on the New Zealand stations?

A.: Static cannot be reduced. It is not unlikely, however, that your trouble is due to power interference. This can be overcome satisfactorily only with the close co-operation of the P. and T. Department and the Power Board.

AUDIO (Wellington): I can separate the two local stations by using a selective crystal set, but although there is a space between them one can be heard in the background of the other.

A.: This is due to a form of cross-modulation which is very difficult to eliminate.

2. I am thinking of making up a two or three-valve set to be a top-notch on the local stations. What do you consider would suit me?

A.: The "Multi-mu Three," which we shall describe in the "R.R." shortly.

DX74W (Wellington): When replacing valve, does one have to use the same make?

A.: No, so long as you use the same type, the change will be satisfactory.

2. Which is the best earth wire—bare or heavily insulated?

A.: It is immaterial. There is no need to have the wire insulated.

3. Your valves are in the right place. You could not transpose a 610 and the 227 because of the difference in the bases.

WONDERING (Christchurch): How can I improve my aerial? Since getting a new set I have been picking up more noise than formerly, and I think the aerial must be at fault.

A.: The aerial is not at fault. The fact is that you are using a sensitive set in close proximity to leaking power lines, and you will always get trouble like that. Your aerial should be at right-angles to the light lines for best results, and lead-in should be of armoured flex, with the armoured earthed to a ground connection distinct from your set earth. Often shortening the aerial or using a condenser of .0002 (approximately), in series with the aerial, will have a marked effect in clearing up noise.

AERIAL (Auckland): My aerial is about 30 feet high at the far end, and 20 feet at the near end. It passes over a hedge eight feet high. Would this affect it in any way?

A.: Yes, passing over a hedge diminishes the effective height. It would be advisable to erect your poles 20 feet higher if possible. We do not know anything about your set, but it should be capable of reasonably good performance. We do not know how you could improve your results other than by improving your aerial as we have suggested, looking to the earth, having the valves tested, and the condensers lined up.

DX86 (Christchurch): Three valves of my six-valve battery set are controlled by a rheostat. The others are connect-

ed directly with the "A" supply through a resistance. Will this harm the valves as I am using 5 201A's and A609 as detector.

A.: The valves will not be harmed. A better valve combination would be 221's in place of the 201A's except in the last stage, that is, the one nearest the loud-speaker. In this socket you could use a medium power valve of the B605 class. A609 can still be used as detector.

2. What type of "B" eliminator would be satisfactory for my set?

A.: You will require one delivering 180 volts, 25 to 30 mamps.

TONY (Auckland): I have constructed the Radiogram Five, with two stages of r.f., but sensitivity is poor. I have tested the wiring and the valves. Could I effect any improvement by altering the number of turns on the primary?

A.: In all probability, yes. Increase the number of turns until r.f. instability makes the addition of further turns impossible. Try reversing the connections to the primaries. Bring your aerial to the grid of the second r.f. valve and test from there onward. By this means you will probably locate the trouble.

DX14W: Sorry we cannot answer your first question, but we are getting pretty tired of questions involving coil design. Literally dozens of combinations at one time or another have been published in either the "Radio Record" or "Guide," and among these you should find what you want. The specifications for the differential series are fairly near the mark. See "Questions and Answers in Radio."

2. I propose to charge "B" batteries from a tanga charger delivery 2 amps. I can connect the batteries in blocks of 8 volts. How should I set about making the charging rate suitable?

A.: You do not state the total number of "B" cells to be charged. The proper method would be to charge in blocks of 20.

AIR SPRITE (N.P.): I intend building a super. het. short-wave adapter for my super het. set. Is the valve I indicate the one to connect it to?

A.: As far as we know, yes. You must connect the adaptor to the pin which stands by itself. You cannot do any harm by not connecting to the wrong pin.

NOVICE (Eltham): See the table of short-wave calls published in the "Radio Record" on April 15. Number 3 will be about right for your purpose.

NOVICE (Otago): You may have difficulty in getting the de Forest 442. You could, however, use any other reputable make of the same type. Instead of the 201A and 609 use 221's, or their equivalents. B605 would be a very suitable valve for the last stage.

A.B.C. (Green Island): We do not know where you can obtain a circuit of your set unless it is from the agent who sold it to you. Instead of the

*Mr. Radio Fan
Puzzled. Want the latest?
"Tune in" on these publications at*

N.Z.'S OWN RADIO BOOKSHOP

THE TE ARO BOOK DEPOT, WELLINGTON.

New stocks every overseas mail.

LATEST ARRIVALS

"Collins" Wireless Diary, 1932, 4/6.

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

"Drake's Radio Encyclopedia," 1931, 45/-.

"Radio Log and Lore" (World's Best Log of the World), 1/10.

"Radio Log," Oct. ("Radio Record"), 7d.

"Radio Retailing" (Oct.), 1/10.

"Rider's Perpetual Trouble Shooter's Manual, 1931," 32/6. No dealer should miss it.

"World Radio Station Identification Panels," 1/7.

"Radio Amateur Call Book," Sept., 1931, 5/3.

"Radio Record" Questions and Answers, 1/8.

"Radio Review of Aust.," 1/1.

Ralph Stranger's Wireless Library. Latest additions:—"Amplification of Wireless Signals," "By-products of Wireless," "Re-production of Wireless Signals," "Wireless Measuring Instruments," etc., 1/7 each.

Special Short-Wave issue ("Popular Hobbies") (Complete list S.W. stations New time conversion chart. Three special S.W. sets). 7d.—Rush it!

"Elementary Principles of Wireless Telegraphy and Telephony," by Bangay Revised edition by O. F. Brown, M.A. B.Sc., 13/2.

"Morse Made Easy," 7d.

"Radio Engineering Principles," by Laufer and Brown, 19/6.

"Perry Auto-Time Morse System," 10d.

"Practical Radio Telegraphy," by Nilson and Hornung, 18/6.

Blue Prints—"Batteryless Neutrodyne," "Selective Crystal Set, Two Stages Audio," "6-Valve Neutrodyne, One Transformer and Two Resistance-coupled Audio Stages," "3-Valve Browning-Drake," "7-Valve Super Het," 1/6 each.

"Radio Amateur Handbook" (Handy's). 8th edition, 5/3.

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

"Principles of Radio Communication," by Morecroft, 41/6.

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

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

OUR LOCAL AGENTS:

Auckland: F. R. Jeffreys, 486 Queen St.
Palmerston North: Radio Supplies & Service Co. (E. B. Borham), 245 Main St.
Blenheim: Tomlinson & Gifford.
Nelson: Keith Walker, Baird's Buildings.
Timaru: J. H. Healey, Bookseller.

ALL RADIO MAGAZINES STOCKED
PRICES QUOTED INCLUDE POSTAGE
WRITE US NOW

TE ARO BOOK DEPOT

64 COURTENAY PLACE, WELLINGTON