

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.

B. C. (Waitara).—Would the tuner described in the recent issue of the "R.R." be an advantage, as my set now employs a midget condenser in the aerial? I have a .00015 variable condenser on hand. Would this be all right to use with a coil of 130 turns?

A.: The apparatus described in the "R.R." would be quite satisfactory for

your set. You could use it with a .00015 condenser, and the number of turns you mention.

D. L. (Gisborne).—A short time ago a series of articles appeared in the "R.R." explaining how one became an amateur transmitter. A few copies of

these are still available. The cost, of course, would depend upon the outfit you intend to build, but you could start off with a very moderate outlay indeed.

J. E. S. (Christchurch).—Providing you use a grid suppressor of about 500 ohms in series with the grid of the first valve, your circuit will be quite in order. You should not connect the plate of the r.f. valve direct with the aerial unless it goes through a suitable condenser, say a .001.

H. H. M. (Dunedin).—Could a carbonyl-dum stabiliser be used with any effect on a small valve set?

A.: Only in connection with a crystal, so as to turn the combination into a crystal and one-valve amplifier, which on local stations, would possibly give better results than a one-valve a.c. set.

2. I wish to use a two-inch former for the broadcast coil for the "Sparrow Hawk." What would be the turns with a .00035 condenser using 26 to 30 d.c.s. wire?

A.: Secondary 75 turns, tickler (for a .0002 differential condenser) 30 to 35 turns.

F. M. P. (Nelson).—I am using a five-valve American neutrodyne set which distorts when volume is turned up. Would this be due to my valves. Two of which are 14 months old?

A.: It is due probably to your not having a sufficiently large power valve. You have not stated what valves you are using, but we presume you have 201A type in all stages. The one in the last stage should be replaced by a 605 type, which should be biased by about 12 volts "C" (with 90 volts "B"). Renew the valves which are 14 months old, as when a valve ages it loses its amplification factor and in consequence cannot handle the signals as it could before. We would recommend 221 type valves in all stages except the last, where you should use a high-gain power valve of the B605 class.

C. D. (Christchurch).—We regret your query has not received attention. It has been referred to the technician

who designed the battery, and we are awaiting his reply. We shall publish it as soon as it comes to hand.

WIRELESS (Dunedin).—If you wish to turn your set into an all-wave one you should construct one of the Differential series which was described in the "Radio Record" during the year. You would find the "Night Owl Three" would make an excellent all-wave set, and all coils for long and short-wave were given.

M. S. (Alexandra).—Your case is serious, and we are placing it before the proper authorities. You will hear more later.

I. H. (Mania).—We cannot tell you much about your circuit from the lay-out diagram. We need the theoretical, for it would take us hours to unravel it as it is at present. Your valve combination appears to be quite a good one. We do not like the layout, and think it could possibly be improved. Some of the wires seem unduly long.

P. T. R. (Dunedin).—In building a set employing one or two r.f. stages and using reaction, would it be possible to gang two or three stages, as the case may be, and put midget condensers in parallel with the main condensers to tune each stage properly?

A.: Yes, but what would be the gain of putting them all on the one dial if you have to have midget condensers to trim them up. Reaction quite spoils ganging. We have found that most of the gain due

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"Radio Design," Vol. 4, No. 1, 1/3.

"Q.S.T.," Nov., 1/11.

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"Radio Retailing," Nov. issue. U.S.A.'s best commercial magazine, 1/11.

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

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"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/-.

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