

QUESTIONS AND ANSWERS

"X.Y.Z." (Dunedin): I can receive 1YA and the main Australian stations quite well on my 5-valve set, but I cannot hear 4ZL, Dunedin.

A.: Evidently your set needs re-aligning. 4ZL has a low wave-length, and is evidently just outside the band now covered by your set.

P.F.P. (Wellington): Would a trickle charger work as efficiently with the 230-volt mains plug connected either way?

A.: Yes.

W.S. (Waikato): My present aerial is 220ft. long and selectivity is very poor. However, I cannot shorten it as it passes over a lawn and tennis court. Would a new aerial erected in the position shown in my sketch be an improvement?

A.: Yes. Selectivity would be greatly improved as the new aerial is much shorter. However, why go to the trouble of shifting one of the masts from its present position? To shorten your aerial by 100 feet, use this length of additional supporting rope, thus bringing the insulators at the most distant end of your aerial about mid-way between the two masts.

A.M. (Wellington): I am considering building the one-valve set described in the 1933 "Radio Guide," and I wish to use it for short-wave only. Could you give me the coil details using a .00015mfd condenser?

A.: Specifications as given in the article will be quite suitable. Any additional details that you may require can be quite easily obtained from the chart given on page 120.

"AMATEUR" (Christchurch): We strongly advise you against building a superheterodyne short-wave converter, especially as you intend to use it with a broadcast superhet.

"INQUIRER" (Wellington): I have a 7 valve set employing 3 51's, 1 24, 1 27, 1 47 and an 80 rectifier. What replacements do you advise?

A.: Replace the 51's with 35's, and the 24 with a 224A.

2. Can you state briefly the purpose of each valve?

A.: The 235's are used for the r.f. and i.f. stages; 227 as oscillator; 224A as

second detector and the 47 as output valve.

3. What causes fading in my set?

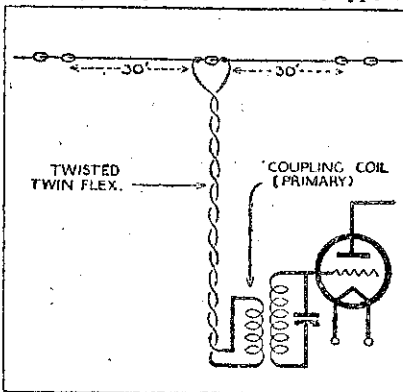
A.: This is very likely due to a worn-out valve.

DX225A (Auckland): Could you recommend a simple two-valve short-wave set, and where can I obtain details?

A.: The "Short-wave Club Two" described in the November, 1932, "Radio Times."

2. What type of aerial is best for short-wave reception?

A.: A well-insulated aerial about 30 feet high and 60 feet long will be quite suitable, though a more efficient type of



aerial is shown in the accompanying sketch, which is self-explanatory. Twisted rubber flex can be used for both the horizontal portion and the lead-in, though ordinary aerial wire can be used with the horizontal portion if desired. The primary winding on the aerial coil should, of course, not be earthed in this case.

"FILTERETTE" Te Aroha): As far as we know line filters are not commercially available as separate units, though you could quite easily have one built up.

J.S. (Wellington): Full constructional details of an aerial tuner are given in the 1933 "Radio Guide."

2. How can I reduce the heavy crashes of static without decreasing volume?

A. You cannot.

W.G.R. (Wellington): Your set has only two amplifying valves, and so you can scarcely expect it to pick up 2ZW or 2YC at anything like good volume with a small indoor aerial. We cannot advise readers to make alterations to commercial sets.

H.B. (Waikato): The circuit of your receiver is contained in the 1931 volume of the "Official Radio Serviceman's Manual."

W.F.C. (Wellington): I have just been given a variety of components, a list of which I enclose. What set could I build which would incorporate most of them?

A.: Either the "Skyline Five," a t.r.f. set described in the June "Radio Times," or the "Eight Star Five," a superhet, described in the August "Radio Times."

"LANK" (Eketahuna): Can a pick-up be employed with a two or three-valve amplifier, and, if so, where can I obtain constructional details?

A.: Yes. A 2-valve amplifier was described in the 1931 "Radio Guide." Alternatively, you could use the audio section of the "Overseas Four," which appeared in the June "Radio Times."

2. Could I construct the amplifier from parts taken from my five-valve commercial battery set?

A.: Yes. Both transformers you mention would be suitable.

Note.—Of the valves you have on hand, use the B605 in the last stage and any one of the others in the preceding stage. The pick-up mentioned would be quite suitable.

H.H. (Wellington): Would reception be better with a cage aerial than with the ordinary "L" type, both aeriels being of practically the same length and height?

A.: Signal strength from distant stations would, possibly be a little stronger, though selectivity would suffer.

2. Would the improvement, if any, be equal to adding another valve?

A.: No.

D.E.B. (Christchurch): You can connect the microphone through a transformer to the pick-up terminals of your set. Of course, you will need to place a battery in series with the primary winding and the microphone.

"OPAWA" (Christchurch): I can pick up harmonics from 3ZM on my all-wave set on approx. 1400 k.c., 1360 k.c., and 1110 k.c., and also two harmonics from 3YA.

A.: These are repeat points, not harmonics, and if your set is correctly aligned they cannot be eliminated.

"DENTAFORM" (Dunedin): The "Diode" Six is as sensitive as the average set with three stages of r.f.

"GENERATOR" (Canterbury): I intend to build a short-wave receiver and transmitter. Would a 6-volt car generator driven from a windmill be satisfactory to charge the batteries?

A.: Yes. You will need to arrange your wet "B" batteries in 6 volt blocks, paralleling them for charging purposes.

2. Is any other apparatus necessary to control the current?

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

.....

Nom de plume

To be kept in subsequent inquiries

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.

(4) Limit three questions unless 1/- is enclosed

(5) Postal queries limit 3 questions. Enclose stamped and addressed envelope and 1/- fee.

GSD, Daventry, 25.53 metres. Reception when transmitting for the African zone varies each morning. Sunday at 9.30 a.m. they were very good, being R9, and very clear. Dance music by the B.B.C. Orchestra conducted by Henry Hall, followed by the news service till 10 a.m., was something to be remembered. Other mornings have been considerably below this level. When broadcasting for this zone during the late afternoon they have only been just audible at their best in Wellington.

DJD, Zeesem, 25.51 metres, and 2RO, Rome, 25.4 metres. Both of these stations are on at the same time each morning, but neither has been worth listening to the past few days.

WSXK, Pittsburgh, 25.27 metres. Has been below normal except on Saturday, when they were up to R7-8 by 2.30 p.m.