

"ECONOMY" (Ashburton).—I have a three-valve set, but cannot get Dunedin or any other station below 2YA's frequency. If I raise the detector voltage to 50 volts they can be heard at R2. There are 55 turns on the primary, 60 on the secondary, and 40 on the tickler.

A.: There are too many turns on the primary. Try bringing it in to the 18th turn from the bottom of the secondary. Does the set oscillate? If not, try reversing the tickler. Whereabouts does Wellington come in on your dial? You may have too many turns on the coil. These and other things should have been stated if we are to diagnose accurately your case.

"RADIO" (Waipawa).—Is a stage of r.f. screen-grid, detector, followed by one audio stage (pentode) superior to the usual screen-grid, ordinary detector, and two audio?

A.: It is doubtful. We think the three valves employing the screen-grid with the pentode would be just about as powerful as the four-valve set.

2. In some meters it says "resistance 200 ohms per volt." What is meant by this?

A.: It means that the total resistance of the meter is the maximum voltage multiplied by the number of ohms per volt.

3. What is the resistance per volt of a voltmeter for reading "B"?

A.: To get accurate reading you should have 1000 ohms per volt. However, 250 will give you a fairly accurate result.

"RIO GRANDE" (Auckland). Yes; if you are getting a great deal of interference in your existing aerial, try reducing it. Another good plan is to shield the lead-in, using special armoured cable.

2. Sometimes I hear quite a number of stations between 3 and 5 a.m., but have not heard any calls. What would

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Questions and Answers

be a suitable book for me to get for these call numbers?

A.: These are probably Europeans, an excellent list of which appears in the 1932 "Radio Guide," which will be on sale shortly.

3. No, do not pour oil down the earth pipe. If you want to make the earth good, douse it occasionally with salt water. Frequently the earth on an a.c. set makes very little difference.

"94 W" (Oamaru): Yes, you can use the "Sparrow Hawk" one as an adaptor for an 8-valve a.c. set, by using the detector valve of the broadcast set and running it from the power-pack. See the 1931 "Radio Guide" for a full explanation of how the "Sparrow Hawk One" can be used as a shortwave adaptor.

2. Why do the "dead spots" on the dial of the "Differential One" shift and disappear on different days?

A.: It is probably due to dampness in the air affecting either the choke or the aerial.

"BEGINNER" (Auckland).—You would probably get better results by increasing your aerial as suggested. You can cut down the interference from IYA by using either a wavetrap or a band-pass filter. Wavetraps have been frequently described in the "R.R." and a band-pass filter will appear in the 1932 "Radio Guide."

H.K.S. (Auckland).—The "Knife Edge Reflector" could be used satisfactorily on your set, although the one in it at present is of the "Knife Edge" type. A still better plan would be to use a band-pass filter, such as is described in the 1932 "Radio Guide."

"ARIEL" (Dunedin).—Body effect quite frequently improves signal strength, and it appears to be doing so in your case. Yes; you could do away with the potentiometer grid return, but you would probably have less smooth reaction. We are glad to know you have secured good results on the "Sparrow Hawk One." It is a good set.

"POWERTONE" (Dunedin). Yes, in the "R.R." March 8, 1929, we described very fully the construction details of a moving coil loudspeaker. These numbers, unfortunately, are sold out completely. It is possible, though we are not making any promises, that constructional details of such a speaker will be given in the "Radio Times."

F.G. (Timaru).—What are the details of s.w. coils for the "Cossor Melody Three"?

A.: The s.w. coils are wound on formers identical with those used on the broadcast band. Winding of the r.f. coil is started from the plate pin. A tap is taken at the first turn to the right filament pin

(looking down on the former with plate pin nearest), and the 4th turn is taken to the left filament pin. Windings are spaced 3-8in. The grid coil is started at G, and P, which are shorted on the coil. Three turns spaced 3-8in. are placed on, a tap being taken to the right filament pin. Then four further turns, close wound, are put on, the end being taken to the other filament pin.

"JACKO" (Otago): Theoretically your 50 ampere hour accumulator can go up to 5 amps charge, but it is better to keep it under this. Really, for safe working 3 amps should be employed. It should not be run at a temperature of 100 degrees. Write Phillips Lamps, Ltd., Wellington, for literature on their 3003 "B. and C." eliminator. This will tell you how you can calculate the voltage for different loads.

DX127A (Rotorua Line): Yes, the efficiency of your aerial is to a certain extent offset by the proximity of your roof.

2. If your set is designed for 220 volts, and you are putting it on 230, you are not doing a considerable amount of harm.

All the voltages are about 5 per cent. high, but this is not particularly serious.

R.H.R. (Lower Hutt): Lucky man. Yes, the broadcast coils for the "Round the World Three" will be quite suitable for England, and the set will be quite satisfactory for British conditions. You will have to use a loading coil to get the long-wave station. Better wait until you get there before you make your loading coils, however, as the English technical publications will be able to tell you more about the reception of those long-wave stations than we can.

"URGENT" (Dunedin): Your short aerial is not very short. You should reduce it much below 50 feet if you desire really satisfactory selectivity.

DX14NW (Hokitika): The claim sounds rather extravagant, but we can have nothing to say about it until we have either seen or tested it.

"NEW CHUM" (Christchurch): According to the regulations, you must use at least 7/22 gauge wire for the lead-in. Enamelled would be quite satisfactory, as this size in rubber covered would be expensive and weighty. An insulated wire will bring in quite as much noise as an uninsulated one. Probably you are thinking of an armoured cable.

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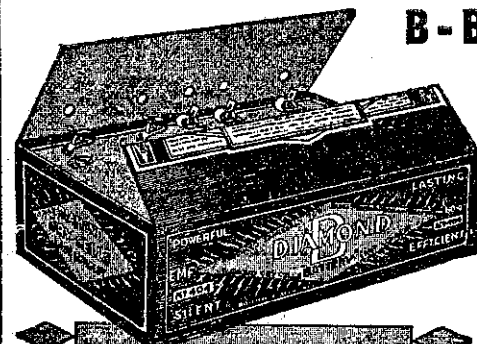
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