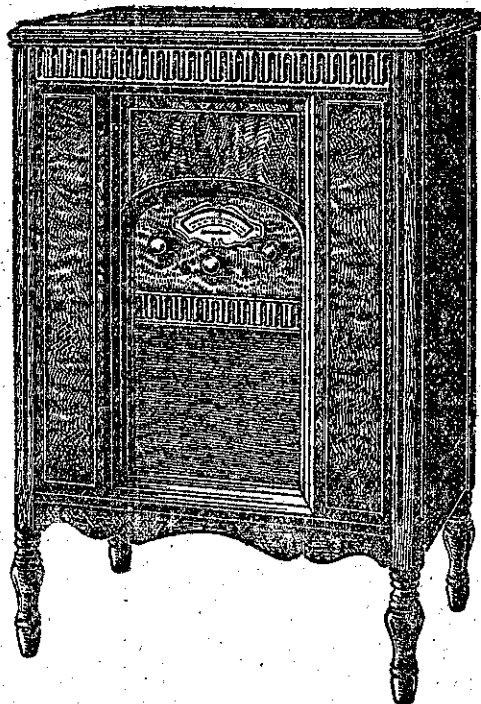


6 to 10 p.m. Wednesday close down at 8 p.m., and Saturday at 11.45 p.m. Sunday, 9 a.m. to 10.30 a.m., 2.30 p.m. to 4 p.m., and 6.30 p.m. to 9.30 p.m. Monday, silent day.—"Red Bird" (Wellington).

IN last week's issue Mr. Morrison refers to my letter of the previous week in regard to the Nairobi short-wave station. The call is VQ7LO not VQYLO, as published. "Amazon" (P.N.) mentions the earth system recently illustrated in the "Radio Record" to Mr. Ellis. If the ear radiator is removed, it will be found that the pipes would not be nearly as good. Also if the radiator was used alone and then the pipes connected up afterwards, no difference would be noticed. I think that ZL2BE (Mr. J. Mills), and ZL2TF (Mr. C. Hands) should be complimented on the fine work in keeping the earthquake area in contact with the remainder of New Zealand. I should like to get

into touch with a short-wave listener in Auckland or North Auckland, and also with one in Otago. My address can be obtained from the "Radio Record" office.—Z.L.D.X. (P.N.).

ON January 28 I picked up the new station 3ZR, Greymouth, N.Z., operating on 800 kc. (375 metres). I also picked up the station on 3AR's frequency, but owing to static I was unable to get the call. However, I heard the announcement, "Radio Manila," so I take it the station was KZRM. Incidentally 3AR seems to have moved down to 610 kc. (492 metres). He is now much easier to pick up. J.P.C. (P.N.): I would like you if possible to get the call from a stranger on 610 kc. (492 metres). He announces fairly frequently, usually after a talk. One has to watch him fairly closely, as there is practically no pause between the end of his talk and the call sign.—B.W. (Stratford).



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Questions and Answers

G.P.K. (Te Aroha).—I have a seven-valve a.c. commercial set, and am troubled with annoying gurgles when using the pick-up, which operates from the first audio. Apparently no grid-bias is used in this set, circuit of which is attached.

A.: It is probable that one of the bypass condensers has broken down. Try first earthing the pick-up. Grid-bias is certainly used, and is automatic.

2. Where should the pick-up be connected?

A.: To the grid and cathode of the detector valve. Special adaptors which fit under the base of this valve are obtainable.

"TURBINE" (Oamaru).—Is the choke coil described in the January 30 issue suitable for the "Differential" series for both shortwave and broadcast work?

A.: Yes, it would be suitable, though a choke for use on both high and medium frequencies is only a compromise. For best efficiency incorporate a shortwave choke and switch.

2. Would a transformer ratio 4:1 be available?

A.: If you are building the "differential four" this would be slightly high for best quality, though it could be incorporated in the last audio stage. Two volt valves are quite suitable, and types have been mentioned in the articles on this receiver.

3. Will the set when completed be suitable for receiving all New Zealand stations and the principal Australian on the broadcast band on the loudspeaker?

A.: Yes; see the reply to another correspondent concerning the results obtained from the "Differential Two."

4. Will the set be suitable for operating a moving coil speaker, and for reproducing gramophone records?

A.: We would not advise the use of the former. A pick-up connected in the detector stage would, however, give quite good volume for the latter.

5. Will you be publishing in the near future particulars of a three or four-valve all-electric set suitable for amateur construction?

A.: In all probability, yes.

Was the coil diagram omitted from the differential article in issue of January 30?

A.: Unfortunately, yes. Space was at a premium and it was too late to amend the text. It appeared, however, in the issue dated December 26, 1930.

J.S. (Christchurch) asks for an opinion on a circuit.

A.: In our opinion the "Differential Four" is far in advance of the circuit enclosed, and is a more powerful receiver.

"QUERY" (Te Awamutu) wishes to construct an s.w. adaptor for a six-valve a.c. set, and desires to know if one will be described in the 1931 "Guide," and if so, would it be more efficient than that published in the 1930 "Guide."

A.: Yes, an s.w. adaptor will be described in the 1931 "Guide," and is of better design.

"NIGHT HAWK" (Temuka).—Would the Cossor valves 210 R.C. and 220P. be suitable for the "Night Hawk"?—Yes.

2. Which is the most suitable ratio transformer for shortwave work—5:1 or 3:1?

A.: If you are intending to add another audio stage later, the latter would be better, otherwise use the 5:1.

C.G.K. (Carterton).—Is the following combination of valves a good one for a six-valve battery set?

A.: Yes, except that a power valve, i.e., the one nearest the speaker, could with advantage be incorporated. This should be of the 171 or 112A type.

R.A.H. (Wellington): Owing to lack of room I am compelled to use a short aerial. I can get four or five Australian stations only at fair speaker strength on good nights, and wish to add another stage of amplification and wavetrap. Is the circuit of the former, which I inclose, suitable?

A.: No. Your set is not designed to use a booster, and it would give more trouble than it would be worth. An excellent wavetrap will be described in the 1931 "Guide."

R.H.B. (Auckland): I have an eliminator supplying 150 volts at 30 mills., and I wish to change my three-valve screen grid to a.c. Which would be the best combination of Philips valves?

A.: E442, E415, B405.

2. As my eliminator is a "B" unit only, is there any way of obtaining grid-bias from it?

A.: Yes, though there will be a resulting drop in the plate potential on the valves. Between your "B" terminal and "A" connect a 3000 ohms variable resistance. Separate within the set all "A—" and "B—" leads. The bias resistor can be adjusted to suit the valve used.

2. Could a pentode valve be used in the last stage if converted to a.c., and if so what valve would be suitable?

A.: Yes, type B443.

"BILL" (Lower Hutt): I have a commercial three valve, and am at present using an inside aerial which gives me excellent volume from 2YA, 1YA and 3YA also come in faintly, but there is always a whistling noise in the speaker when tuning in.

A.: Your set is obviously not powerful enough to pick up the distant stations on the aerial you are using. Consequently you are forcing your set, and by undue use of reaction the set is oscillating.

2. Will this whistling be eliminated when I erect an outside aerial?

A.: If you erect an efficient one it will to a large extent be eliminated, because your signal pick-up will be much stronger.

3. Is the enclosed sample of wire I am using for both the aerial and earth suitable? Yes, but not for a permanent aerial. Use 7/22.

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