



Questions and Answers



E.B.C. (Auckland): Will you design coils for the P.C.J. Four using .0001 condensers.

A.: Such specifications would take some time to work out. We will be publishing a very complete table in the near future.

N.Z.'S OWN RADIO BOOKSHOP

The **TE ARO BOOK DEPOT**, Wellington.

At Last We Have It.—"Wireless, the Modern Magic Carpet," by Ralph Stranger, 4/9 posted. Simple language anyone can follow.

"Handy's Handbook," 7th edition, 5/3 posted.

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

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

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

"Radio Data Charts," by Beatty, 7/9.

"Seeing by Wireless" (Television), by Ralph Stranger, 1/6.

"Collins' Wireless Diary, 1931," 4/- posted (Amateurs and Broadcasters—150 pages useful information).

"Radio Trouble Finder," 1/10.

(Published by "Radio News" Co.)

"Radio Amateur Call Book," Sept, 1930, 5/3.

"Projection Engineering"—a monthly, 21/- per annum.

"Radio Engineering," (a monthly), 21/- per annum.

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

"Thermionic Vacuum Tube," by Van der Bijl, 26/-.

"Radio Receiving Tubes," by Moyer and Westrel, 14/-.

"How Radio Receivers Work," by Roberts, 8/-.

Also all leading English, American and Australian wireless magazines.

Mr. F. W. Sellens' list of Shortwave Broadcasting Stations, 7d.

Last year's "N.Z. Listeners' Guide" still selling well, 2/9 posted.

"Modern Wireless," 1/7.

"All About the All-Electric," 1/7.

"N.Z. Radio Handbook Annual, 1930," 2/9 (contains list of the World's broadcasting stations).

Blue prints and complete instructions on following—1/9 each:—

7-Valve Super-Het.

5-Valve Neutrodyne,

5-Valve Neutrodyne,

Batteryless Neutrodyne,

Selective Crystal Set, 2-stage Audio

Simple Wave Trap and Clarifier,

14-foot Step-plane,

10-foot Outboard Speedster,

16-foot Sailing Canoe.

At 2/6 each,

Cockaday Receiver,

5-Valve Cockaday Receiver with

P.P. Amplification,

Tropadyne Superadio,

"Radiation Three."

At 5/- each,

"Building 16ft. Sailing Canoe."

Money refunded if unsuitable and returned in good condition. New stocks by every overseas mail. Write us.

TE ARO BOOK DEPOT

64 Courtenay Place, Wellington.

G.S. (Westport): I have an American set using 5 201A's and a 112 in the last stage. Could I use a 5 221's and a 171 in the last stage?

A.: The 221's would be a good proposition though their price has recently gone up considerably, and it may not be worth the extra outlay. The 171 would probably be a disadvantage in that it would drop volume without adequately compensating in tone. If you use a power valve of the B605 type you would get the best results.

CARLO (Palmerston North): I cannot get the results that I should do, although I have a good aerial and earth system. Would it be an improvement to use 7/029 instead of 7/22 wire?

A.: The two are the one and same wire. 029 being the diameter of the .22 gauge wire. If you cannot get the stations in well we should advise having the screen grid valves tested or borrowing a new screen grid valve and trying it in all the sockets and see if there is any difference. From your specifications there is nothing wrong with either the aerial or the earth system.

C.A.H. (Napier): Would a five-valve screen grid B.D. be sufficient to work a dynamic speaker?

A.: That depends upon the plate voltage used in the last stage. You would need 135 or preferably 150 for satisfactory results.

2. Would an inductor dynamic speaker be better?

A.: Yes, especially if you are in a locality where electric power is not available the inductor dynamic would be preferable.

LOFTY (Christchurch): I cannot buck the hum out of my L.W.

A.: This seems like trouble in the grid bias chain. See that the grid leak resistances are all the correct value and that in no case is there an open circuit. Carefully inspect your valve holders to see that they are making proper contact and watch the points where the resistances join the aluminium sub-panel.

2. I put the power pack and the condensers underneath the sub-panel. Would this cause a hum?—No.

3. I found volume was better when the pick-up is inserted in the cathode.

A.: Our experience was the opposite; it was better when the grid return was broken.

4. I had to put a condenser and grid leak in the earth lead to get any volume.

A.: Probably one of your resistances is shorting out and you cannot operate the earth potential as you should do.

RAPATA (Auckland): Can you elaborate upon the sketch of the valve tester given in the Radio Guide?

A.: Yes. Further particulars have been prepared and if there is not space in this issue they will appear in the next.

QDSOX (Pio Pio): Would a screen grid circuit with the new Osram P425 in the last stage be a good one for all-wave work?

A.: It should do for the valve combination is good.

2. Would it be superior to the H.R. for broadcast?

A.: To the H.R., using a triode valve as R.F., yes.

3. Do you know of a better set?

A.: We cannot compare it with any other set of its type until we have seen a circuit. You should be interested in the new B.D. which will be in either the "R.R." or the 1931 "Guide."

D.S. (Market Cross): Which is the better of two amplifiers, one using a 112 followed by one 171A and two 245's, or (b) three stages transformer coupled using two LS5's and four LS5A's.

A.: "A" would be the better, but neither are particularly good. Quite a good amplifier for a dance hall would be one 221 coupled to two 221's in pushpull in turn transformer coupled to two LS5A's, providing good transformers were used and high voltage this outfit would give splendid quality. The 50-watt type of L.w. amplifier would also suit your purpose if you have a.c. available. It was described in the May issue of "Radio News."

WIRELESS (Invercargill): — Where would I put the tapping in the aerial coil of a one-valve receiver?

A.: The particular points are not very important so long as there are, say, five of them evenly distributed through the coil. You could then tap on to the one that suits your purpose best.

THELBARN (Auckland):—I have had a great deal of trouble with my factory-built B.D. set, and now the s.g. valve will not work properly.

A.: As your set has been in the hands of a dealer several times, we really cannot do anything to help you. Probably it would be better to take it or send it to a B.D. specialist.

2. Will the Loftin Four give plenty of volume and quality, and will it excel a good push-pull amplifier employing 245 valves?

A.: The Loftin White should be the better. It will give a greater pickup, and has certainly a better tone.

3. Will my set work a pickup satisfactorily?

A. J. PARK & SON

Patent Attorneys

Routh's Buildings,

Featherston Street,

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Use Our Booking Offices in Advance

S-O-S

TRAVEL IN COMFORT BY
CAR

WELLINGTON — PALMERSTON
NEW PLYMOUTH

A.: You really need push-pull to get satisfaction from gramophone reproductions.

Useful Tips

THREADED brass rods should not be held directly in the metal jaws of a vice, but should be placed between two pieces of soft wood which can with safety be gripped by the vice.

WHEN the axes of two coils are in line the coupling between them is at a maximum, but when the axes are at right angles it is at a minimum.

DO not allow your set to reproduce voices at the same volume as band music, etc., for the volume of sounds are so disproportionate in the two cases that speech is bound to sound unnatural even if the set is not distorting.

The good New Year will reduce prices of Radio and most electric products. You will like advice and ready service. Both are given whether you select at my shop or send your orders by mail. Every thing electrical stocked at the lowest ruling prices.

BOB HORROBIN

Flashlight Corner, 2 Courtenay Pl.
WELLINGTON.

Quick Repairs. Phone 22-357.

CORRESPONDENTS must attach this coupon to all queries sent to the Technical Editor (Box 1032, Wellington). Questions arriving without it are likely to go astray or be delayed.

Name of set

Number of Valves

Name

Address

Nom de plume

To be kept in subsequent inquiries.

Date

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, but accept suggestions for feature articles.

Solving trouble, as different from advice, is difficult by correspondence and while letters are given every consideration, answers are not necessarily correct—they are only our opinion based on the matter supplied, which may be quite inadequate. Intricate and involved specifications cannot be supplied without a specialist's fee.