

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.

DX26MC: Could the usual outdoor aerial be fitted in addition to the loop in the circuit of the Super Six?

A.: Yes, but in doing so the set would contravene the fire underwriters' regulations.

BEGINNER (Wellington): Can a loudspeaker be used with a one-valve circuit?

A.: Yes, but do you know your circuit is a violent oscillator? Use a fixed condenser in conjunction with your .0001 to .0003 in series with the aerial.

2. What type of valve should I use?
A.: Use a high amplification valve of the A415 class with a four-volt accumulator or dry cells.
3. How many turns should I have on the coils?
A.: For a two-inch former and a 26 d.s.c. wire use 65 turns. Reaction 25 turns of 30 gauge, d.s.c.

R.R. (Gisborne): Could six-volt valves be used in lieu of two-volt valves for the Super Six without detrimentally affecting its performance?

A.: Yes, they would be perfectly satisfactory, if not slightly better.

VOLTAGE (Otago): Could the frame antenna described in the "Radio Record" of the 11th instant be suitable for a five-valve commercial set?
A.: No; the aerial circuit has to be specially designed to take a frame aerial.

M.G. (Nelson): Where could I obtain full particulars regarding the construction cell charger, and how could these be combined to make one giving four volts?
A.: For a 4-volts charger you would need to make up six Daniells cells as described in the "Radio Record" dated Nov. 7.

P.A.B. (Auck.): My set is of the P. swinging coil type. Would I get better results if I pulled it to pieces and built a more modern two-valve set? I can get the Australians faintly.
A.: It is questionable. Better results can be obtained usually by using newer type valves.
2. Results are as good with the rheostat turned almost off as on. Is this detrimental to the "B" batteries?
A.: No, it is to their advantage to work the rheostat back as far as possible, for by so doing you are using less current than if it were turned up fully.

3. Please describe the following valves: P.610.—A six-volt Osram power valve to be used in the last stage.

Medium 112, power.—A power valve of the 610 class, but which takes a $\frac{1}{2}$ of an amp. filament current.

Ceco A.—A 201A type of valve, five-volt filament, $\frac{1}{2}$ amp. current consumption. A general purpose valve.

301A and C509A.—Equivalents of a Ceco A (UX201A is the same valve).

LP.6.—A six-volt power valve.

Note: All the valves are fairly light on "B" battery consumption, the heaviest being P.610, 112, and LP.6.

KIWI (Auckland): Why can I pick up two stations on the same wavelength—one on 15 and the other on 18? In the daylight I receive the one that is usually on 13 on 18.

A.: It appears one station does not keep on its proper wavelength at night. Check up with your neighbours and see if this is so.

2. Would a .0005 condenser be suitable for a wavetrap and what gauge of wire should I use with it?

A.: It would be quite suitable if employed with a 2in. former, 26 d.s.c. wire, 65 turns.

A.H. (Devonport): Full details of the broadcast coils for the Night Owl Three were published in last week's "R.R."

LIGHTNING (Auckland): We cannot tell you very much unless you send us the circuit of your set. Apparently a wrong connection has been made.

MUG (Khandallah): The fact that when you move your detector you cause the frying noise to stop, points to one of two things being wrong with your set. First a defect in a socket or a loose connection to it, or a defective valve. If you cannot track both these faults down your wisest plan would be to get a radio serviceman to inspect your set.

M.H.O. (Temuka): Can I use a .00035 and a .0005 condenser for the Eagle Five?

A.: If you use a .0005 condenser you will need to wind about 10 less turns on the coil, otherwise it will be quite suitable if you use it in conjunction with a .00035. It is immaterial which stage you use it in.

2. Would two S625 valves be suitable for the s.g. detector of the "Kestrel Three"?

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"Radio Design," Vol. 4, No. 1, 1/3.
New Pilot All-Wave 11 valve Double Super-het., for s.w. and broadcast.
"Scott's Radio Handbook, 1931," 1/8.

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