

Questions and Answers

AERIAL (Wellington): I intend building a band-pass filter described in the 1932 "Guide." Is this a suitable filter for my seven-valve a.c. set?

A.: Yes, but it would be better to construct a filter along the lines described in the September "Radio Times" in connection with the "Link Three." It is of the capacity-inductance type and has a better frequency response than the purely capacity type which was described in the "Guide." The coil particulars were given in the October issue.

2. Will it make 2ZW any sharper?—Yes.

3. Is the .01 mfd. mica coupling condenser supposed to be touching the aluminium screen?—A.: Yes.

COUNTRY (Frankton J.): I have a five-valve commercial neutrodyne. Would it be more efficient and economical and not too expensive to construct another circuit using the same parts?

A.: Probably a more economical set would be the "Neutron Four" described in the "Radio Times," with an extra stage of radio frequency amplification.

2. What parts can be salvaged from my present receiver?

A.: Any that fit in the parts list or are fairly near to it.

ANNOYED (Taumarunui): When the volume control is full on there is a loud hiss in the speaker which does not appear to be valve hiss.

A.: Every set will, to a certain extent, hiss when turned on fully, and if you have had a serviceman on the job it is impossible for us to advise you any further. Your receiver is a standard one and should be quite satisfactory. The only satisfactory method of getting over this trouble will be to analyse the set thoroughly, proceeding stage by stage. You can locate the stage which is causing the trouble by pulling out the valves one by one, commencing with the one nearest the aerial.

A.H.F. (Wellington): An aerial doubling back on itself is not as efficient as an ordinary straight aerial. However, if space is limited you are probably doing the best you can under the circumstances.

ABERDONIAN (Wellington): I am using a screen-grid pentode on a short-wave set. Can I successfully use a B and C eliminator?

A.: There may be a little ripple on the short-wave due to this, but you could probably get over it by incorporating a fairly big choke in the detector lead and by-passing it with a

large condenser of, say, 2-4 mfd. You will need probably 75 volts on the screen instead of the 45 you have shown.

2. Will there be any added signal strength by using an outdoor aerial, say, 45 feet long? I now use an indoor antenna.

A.: Yes, it would be much better.

ZL314 (Southbridge): What are the particulars of the filament winding for a tungar bulb rectifier?

A.: Owing to the high filament current taken by tungar bulbs they have rapidly gone out of date, being replaced by economical rectifiers. A two amp. charger has a filament current which requires about 16 amps at 2 volts. The secondary would have to deliver 20 volts, as this would allow for 14 dropped through the bulb.

MOI WHIARE (Feilding): I wish to bring my "Outspan" up to date. I use a "B" and "C" eliminator, and want to do without the resistances as specified for the 1932 "Outspan" in the last "Radio Times." What are the voltages on the plate, and screen of the detector?

A.: If you wish to derive the full benefit from the screen-grid detector you must use resistance capacity coupling. In this the detector plate voltage is fed through the usual $\frac{1}{2}$ megohm resistance and an appreciable voltage drop takes place, hence use your B max. tapping. The voltage on the screen should be between 20 and 30 volts. If the last tapping on your eliminator is 50 your best plan would be to use a 50,000 ohms potentiometer between this tapping and earth, taking the moving arm direct to the screen, not forgetting to by-pass it with a .5 mfd. fixed condenser.

A.C. (Auckland): Your parts list is correct, though the use of .0002 instead of the .0001 in the position C3 may alter your tuning slightly.

P.C. (Livingstone): Yes, the shortwave adaptor shown is a perfectly good one, and will work well with the 1932 "Outspan Four." It does not use the whole of the set, but plugs in to the detector socket.

2. Should I change the four-volt valves, would it be best to remove the series connector and then connect the two cells in parallel?

A.: Yes, although being a little under the required voltage, you may not get the best results. You may have to use a rheostat in series with 3 volts.

3. If my set uses 3 amps "A" current, how long would a car generator rated at 6 volts 4 amps take to recharge a 120 ampere hour accumulator, the set being used 3 hours a day and run for a week without charging.

A.: You will need to charge your battery four or five hours a week.

4. What would two PM3 in pushpull double biased draw?

A.: On no load the current would be negligible. Under operating conditions they will draw between them from 1 to 2 milliamps.

L.S. (Christchurch): My set is very harsh when tuned to either of the local stations. When I disconnect the set all the harshness disappears.

A.: Through turning down the volume you are introducing distortion. It is usually far better to take off the aerial where local stations are concerned.

2. How many charging hours should a 90-volt Edison battery require when using a 60 watt lamp in a chemical rectifier?

A.: It will be required to be charged approximately twice as long as you use the set. That is, if you are using the set for 6 hours, you will require to charge your battery for 12.

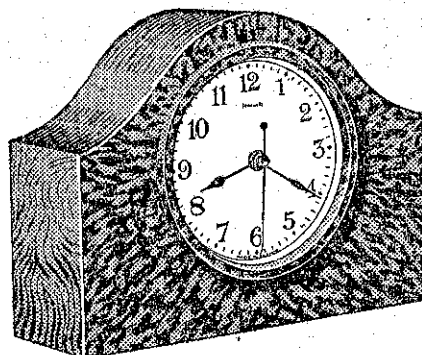
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