



# Questions and Answers



**CRYSTA (Nelson):** What is the correct strength of caustic soda for an Edison battery?

**A.:** On these questions we advise you to write A. R. Harris and Co., Christchurch, who are the agents.

**2.** Will strong solution damage the elements?

**A.:** No, but it will not hold the charge.

**3.** What should it cost to charge a 6-volt 100-amp. battery through a Tanager charger, a unit of electricity costing 4d?

**A.:** If the battery is well down approximately 1/6 to 2/.

**5.** There is an a.c. hum on my battery set on short-wave, and there is no reaction however leads are changed and turns added.

**A.:** It is apparent that somewhere there is an open circuit. It will be a case of setting to and finding it. Try a 4½ volts "C" battery on the first audio valve and put 90 volts on the plate of that same valve.

**TEKAWA (Te Awamutu):** What is the best type of valve to use in my set?

**A.:** Use the same as you have had in before with the exception of the last

stage, in which we recommend 171. You could use Radiotron valves throughout.

**ODSOX (Pio Pio):** I have built the Sparrow Hawk One, but the set will not oscillate, but my "B" battery is old.

**A.:** It seems that herein is your trouble. Try reversing the turns to the tickler and increasing the "B" voltage.

**2.** Should I take down the tickler coil and wind it with finer wire to get on more turns?—Yes.

**3.** My aerial is 80ft. long and 30ft. high at one end and 20ft. high at the other and clear of all earthed object. Is it efficient?

**A.:** It is efficient, but would be more so if you could get it higher.

**KHAND. (Wellington):** When will you publish the constructional details of the a.c. Outspan Five?

**A.:** In the 1931 Guide, we published the constructional details of the Radiogram Five, which is really the a.c. version of the Outspan, using a stage push-pull amplification.

**ROMA (Wellington):** Would the enclosed circuit be suitable for an a.c. shortwave adapter?

**A.:** Yes; it will be as successful as any a.c. shortwave adapter, though when amateur constructed these are not always successful. It is safer if all hum is to be eliminated to make a battery adapter.

**2.** What kind of a base is the Philips 035?—a.c. English.

**W.E.T. (Christchurch):** Your circuit is correct. Your style of neutralisation while not usual should be quite satisfactory. A tried circuit of the two valve B.D. was published in "All About the All Electric."

**COASTER (Greymouth):** My aerial poles are 30 feet high and lead-in 80 feet. If I made one pole say 55 feet high and lengthened my aerial to 100 feet would I get better reception?

**A.:** Yes, you would get better reception but whether you would get the stations you desire cannot be said.

**2.** Does direction of an aerial affect the set?

**A.:** Not in the ordinary way. An aerial to be directional must have a very long horizontal portion in comparison with the lead-in. For this reason the Beverage aerial is highly directional.

**3.** My machine is a nine-valve commercial. Is it a good make for DX-ing?

**A.:** Yes, but good results in DX cannot be relied upon unless one is in a favourable locality.

**BEGINNER (Auckland):** I have an 8-valve S.G. set. When I bought the set 12 months ago each station was restricted to one number. Now they are spread over four or five. What is the trouble?

**A.:** The lack of selectivity you are now being troubled with is due probably to the aging of the valves or your condensers being out of alignment, although any fault in the radio amplifier may contribute to decreased selectivity.

**UX. (Te Kuiti):** You are referred to Cathode's article in the last two "R.R.'s" as you will find your queries are fully answered there.

**J.C.N. (Auckland):**—I have been troubled with oscillation in the r.f. stages of my 5-valve set, although each stage is screened separately. I have tried all the usual cures.

**A.:** Assuming that everything is O.K. as you mention, and that all wiring has been checked, it would appear that your fault lies in a defective valve, an open secondary, or a failure to obtain a ground

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