

QUESTIONS AND ANSWERS

J. A. (Christchurch): I have constructed the "Skyline Five" described in June "Radio Times." When I turn the volume control up there is a rattling noise in the speaker, and reception ceases. It is necessary to tap the chassis before the set will start operating again. By accident I noticed that when the shield cans touch the r.f. valves they spark across to the metal coating on the valves.

A.: This is evidently the trouble. When this occurs, the resistor in the cathode lead is shorted and the valve left without bias. Slip a length of bicycle tube over each valve.

H. R. A. (Auckland): I am contemplating building an "Outspan Four." Is the tone of this set good?

A.: Yes, quite good, if the speaker is correctly matched to the pentode.

2. Would my present speaker match up correctly with the output valve?

A.: Yes, if you use a tapped output choke or a multi-ratio output transformer.

3. I expect I shall not require the present output filter used with my set, as an output choke is already provided for in the "Outspan Four."

A.: There is nothing to prevent you from coupling your speaker to the pentode through your present output filter.

H. L. V. (Lower Hutt): Could you give me constructional details of the line filter mentioned in the article "Curing Power Interference," published in the "Radio Record" dated July 21?

A.: Each choke could consist of 200 turns of 20 d.c.c. wound on a former 2 in. in diameter. The condensers should be of .01 mfd. capacity each and should be of high test. Enclose the whole device in a metal box, which should be earthed.

A. D. 20 (Banks Peninsula): Would a set with 150 volts available for plate supply and using a 78, a 6B7, and a 41 be as sensitive as a set using a 58, and a 57, resistance coupled to a 47, with 200 volts on the plates?

A.: Theoretically there would be no difference, as the valves first mentioned are, roughly, the 6.3 volt equivalents of the last-named.

2. What are the characteristics of the new 6D6 and the 6C6?

A.: They are not yet available.

3. Which is the more sensitive, full-wave or half-wave detection?

A.: There is very little difference. Full-wave detection has the advantage that a larger signal can be handled with better quality.

"MAGPIE" (Wellington): In a recent "Radio Record" the shielded lead-in was mentioned as a solution to the interference problem. In a later issue, a paragraph on the same problem states "this lead must not have a large aerial to ground capacity." Could you explain this more fully?

A.: When shielded wire is used as a lead-in, there is a certain capacity between the shield and the wire. It surrounds. Hence if the shield is connected to earth a portion of r.f. signals picked up by the aerial leaks away to earth. To minimise this loss as far as possible it is necessary to use shielding of wide dia-

meter, thus making the aerial to earth capacity as small as possible.

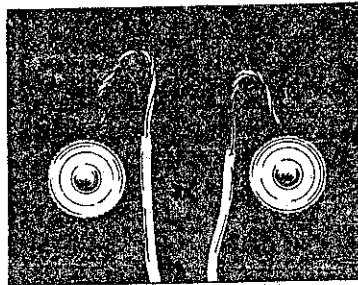
2. If the ordinary type of shielded wire is unsatisfactory, what should be used?

A.: A special shielded lead-in is manufactured for this purpose.

3. At present I am using a Beverage aerial 300 yards long, and interference is terrific. I do not think the special aerial for reducing interference described recently in the "Radio Record" would be a success, as the power lines are too close.

A.: Cutting down power interference in such a bad locality as yours is largely

A COMMON ERROR



The wire shown near the right-hand terminal is correctly bent, because when the terminal is tightened the loop will be kept in position. When the terminal on the left is screwed up, however, the wire will slip away from the shank.

a matter of experiment, but we still think that your results would be improved if you installed the special 10-foot aerial.

J. G. H. (Dunedin): An aerial filter was described in the January "Radio Times," and full constructional details of a line filter will be given shortly.

J. I. (Napier): I have a "Modern Five" chassis and parts. Could I employ the "Skyline" circuit?

A.: Yes, quite easily. The main difference between the two circuits is that the split field method of bias is used in the "Modern Five," whereas the "Skyline Five" employs back biasing.

F. A. T. (Temuka): I live about a quarter of a mile from a factory, where an electric motor provides the driving power. When the motor is running I get a noise like raindrops on the roof. Reception from 3YA and 4YA is scarcely affected, but 2YA's transmissions are completely spoilt.

A.: You will probably find that a mains filter would be a solution to your problem, but, failing this, a filter should be fitted at the motor.

"PUZZLED" (Waihi): My set gives better results when operating without an earth. Is this harmful?

A.: No.

"ANXIOUS" (Rotorua): I have a commercial 6-valve battery set which has four neutralising condensers. Will you please tell me how to balance the set?

A.: This is rather a delicate operation and an oscillator should be employed to obtain the best results. Your best plan would be to call in a serviceman.

2. Where could I obtain a book of instructions for my set?

A.: Write the International Radio Co., Box 1048, Auckland.

S. D. (Cambridge): Would my reception be improved if I installed another earth as shown by the dotted line in my sketch?

A.: This depends upon a number of things—the relative length of the two leads, whether the water pipe which you are at present using as an earth runs for any distance before entering the ground, etc. Your best plan would be to try it.

"CYMRO" (Southland): What would be suitable values for the rheostat and potentiometer shown in my sketch?

A.: 6 ohms and 400 ohms.

S. G. (Auckland): I have been informed that it is preferable to bring my lead-in through the window flange and tuck it around the wall until it reaches the set. At present it comes in by the shortest route through a lead-in tube, and the set is placed quite close to the point where it enters the room. Which is the better method?

A.: That you are at present employing. It is never advisable to run a lead-in round the walls unless it cannot be avoided.

D. E. B. (Petone): Could you tell me the equivalent of the R21 HV?

A.: This is a rectifier and the only equivalent of which we know is the Philips 1201, which we believe is now off the market.

STABILITY has been given to American amateur radio status by the welcome decision of the Federal Radio Commission to extend all existing licences for a period of two years and to issue new licences for three-year periods. Besides saving officials' time the new measure is encouraging amateur transmitters to experiment more ambitiously. The Radio League is hopeful of an increase in new inventions.

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

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