

QUESTIONS AND ANSWERS

"DARG" (Dargaville): 1. 7.5 ma. is about correct for the De Luxe 5. R.F. 3.5 ma, Det. .5 to 1 ma. 1st A.F. 3 ma. according to bias used, which should be about 9 v. for 135 v. on the plate. 12 v. bias is required for the class B stage.

2. The apparent broadness of tuning on the higher frequencies may be due to the large number of stations there. The particular type of band-pass used also has the failing that it tunes less sharply at the lower wavelength end of the dial. A special type of band-pass coupling could be used, but would be too complicated for the home-builder to adjust.

H. V. BAKER (Waiuku): Details of the coils for the 1932 Outspan 4 will be found in the "Times" for November, 1932. We would suggest, however, that you build the 1933 version, and stick to 2-volt valves, as the set was designed for them. A clip on your 6-volt battery will take care of your 2-volt filaments. Further, using 6-volt valves will upset the bias arrangements.

E. W. DEVERY (H.B.): We regret that the published circuit and layout diagrams of the Outspan 2 are incorrect. The G.B. terminal of the transformer should be connected directly to the B negative end of the 600 ohm resistor, and nowhere else. 2. What type of speaker should be used, and what may be received on it?

A.: Any light cone type. Probably 1YA, 2YA, 3YA, and the local stations.

3. The tuning condenser is of .00035 mfd. capacity.

4. The reaction condenser is of .00025 or .00035 mfd. capacity.

5. Any good quality 3-1 or 5-1 audio transformer is suitable.

W. MULLINS (Lower Hutt): Your copy of the "Radio Record" forwarded. The aerial described will be satisfactory if you are in a noisy location.

"DX141MC": The dial simply requires to be moved on the condenser shaft in the proper direction to correct your readings.

"NEW CHUM" (Christchurch): No harm whatever will be done to an A.C. set by storing it indefinitely. However, dust it thoroughly before using again.

"F.M.P." (Nelson): Insufficient details to hand for pick-up connections. What type of set is it, how many valves, battery, A.C., etc.? Your log is excellent.

H. L. WARD (Auckland): 1A. The combination band-pass coil requires to be earthed in the same way, in the De Luxe Band-Pass 7.

2. Can I use electrolytics in place of the high-tension block type? Shall I use 2 or 3? I am using a Jensen D8 2500 ohm field as the second choke.

A.: Yes. Use 3.

3. The by-pass for the 56 cathode is shown as 2 mfd in one place and 4 mfd in another.

A.: Either will do. The 4 mfd will give slightly better reproduction.

"HYDRA" (Auckland): Motor-boating and howling in a 5-valve resistance-coupled Browning-Drake, using a B eliminator, may be cured by decoupling each of the B plus tappings with a 1 mfd. condenser or larger. The condenser should be connected from the tap to earth. The insertion of a 50,000 or 100,000 ohm resistor in one or each of the B plus leads may also help. Try replacing the detector plate resistor.

DX48A (—): The specifications for a 160-metre coil for the Night-Owl 3 are: Valve-base former, 8 turns aerial, 50 turns secondary, and 12 turns tickler; 24 S.W.G. D.C.C. or D.S.C. for pri. and sec.; and 30 for the tickler.

"BATTERY" (Westland): Q1. wishes to replace his valves with Mullard 2-volt series in an all-wave set.

A.: Replace A409 detector with PM-2DX or 230; replace A415 1st audio with PM1LF or 230; replace B406 2nd audio with PM2. 230's are mentioned because of their economical characteristics.

2A.: No bias changes will be necessary.

"L.W.H." (Auckland): Q. Can any of the types 280, 224, 227, 245 be replaced with modern valves without alterations?

A.: 224's can be replaced with 224A's and 227 with 56.

2A.: A.V.C. is not worth while in your set and the cost would be prohibitive.

3A.: See above.

S. W. KING (Obakune Junction): We strongly advise you to wait for the November "Times," when an up-to-date set will be described.

A. S. (Christchurch): Why is a green stain left by the positive one of two wires placed on a fresh slice of potato?

A.: The stain is due to the attack of an acid in the potato, on the copper. This acid is set free by electrolytic action, and

collects about the positive wire. The same effect may be observed in the appearance of a brown stain on a slice of onion.

"PENTODE" (Devil's Elbow): 1A. We are afraid you have burned out your 4-volt valves by using a 6-volt "A" battery. Have them tested.

2A.: A 5 mfd. by-pass condenser will do in place of 1 mfd.

3A.: By all means rebuild to a modern circuit. Valve-base coils, however, are quite O.K. for S.W. work.

A. D. LEIGHTON (Trentham): For information on power amplifiers, see the "Radio Times" for February, March, April and July, 1933.

1A.: Use a 56 rather than a 245 between the 55 and 2A3's. Your ideas are quite on the right track.

2A.: Using resistance coupled push-pull is hardly feasible with an audio stage between the 55 and 2A3's, as this would be virtually a two channel amplifier, with a 55, two 56's and two 2A3's. The 55 will not drive the 2A3's properly, so use transformer coupling and a 56. Communicate with any of our kit advertisers for prices, etc., of your requirements.

"PUZZLED" (Christchurch): My 5-valve a.c. T.R.F. set develops a tummy sound after operating for an hour or so.

A.: Try replacing your valves. If this has no effect, we are afraid it is a job for a serviceman.

THE recent "wireless week" in Italy proved a great success, partly because every purchaser of a new radio receiver during the "week" was furnished with a free licence for one year. It is estimated that 80,000 new listeners have been enrolled.

SIX deep-sea trawlers fitted with Marconi wireless apparatus assisted General Balbo and the Italian flying squadron on the flight from Italy to Chicago. The General, in his first report to Signor Mussolini, has emphasised the value of the help which wireless gave during the most difficult section of the flight over the Atlantic.

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

Nom de plume

To be kept in subsequent inquiries

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.

(4) Limit three questions unless 1/- is enclosed.

(5) Postal queries limit 3 questions. Enclose stamped and addressed envelope and 1/- fee.

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