

# QUESTIONS AND ANSWERS

**"X.Y.Z." (Hastings):** Without the size of the present wire and also the inside and outside diameters of the coil, together with its length, we cannot estimate closely the required quantities. If you supply these we can then calculate the sizes you ask for.

**"N.W.T." (Papanui):** The two values of capacity do not matter very much, as with the 0.00014 condenser the coverage of each coil would be slightly greater; but the difference is due to the fact that the 0.00014 mfd. condenser is more readily obtainable in two-gang assembly. As if a two-gang 0.00025 be cut down to the region of 0.0001, then the true value will be just under 0.0001, or else over and about 0.00014 per section. It depends on the actual capacity per pair of plates in the particular make that is obtained, just how near to 0.0001 a cut-down will come.

**"A.A.W." (Nelson):** The question of twin or single speaker is still a moot point, as there have been single speakers designed for the ordinary market that have shown up better than some twin units. A good ten-inch speaker is very good, while a twin unit that has been designed as a unit, not merely two speakers mounted in the set, is also very good. An eight-inch twin unit would be better than an eight-inch single, for instance, but might not be any better than a ten-inch single. Hence it is necessary to compare the frequency response curves of the various available combinations and choose that which gives the greater flat top range.

**A.:** In a well-designed set the inclusion of a shortwave band would not have

any effect on the broadcast band at all.

**A.:** The sum that you suggest would be just about right unless of course you wish a very elaborate cabinet, etc. These three questions are answered with regard to the three requirements you have in mind in each case.

**"S.C.B." (Darfield):** The type of converter that you wish is described fully in the "1936 Radio Constructor's Guide," and all the parts are obtainable in New Zealand, as will be seen from the advertisements in that issue. Copies can be obtained from any stationer, or direct from National Magazines, Ltd., Box 1680, Wellington, for 2/9 posted.

**"38N." (Nelson):** The values you give should require that the primary coil be 40 turns, the secondary coil 160 turns, and the reaction coil 48 turns. The reaction turns may have to be altered as they depend upon the valve used, etc. When the set is ready try the reaction at the low frequency end of the band and remove turns if necessary until the reaction control is smooth.

**"ELECTRIC" (Auckland):** No, the B supply cannot be taken from the mains direct even if the mains supply is direct current. The mains supplying alternating current necessitate the use of a rectifier and smoothing system, while the direct current mains will need at least a smoothing system. The running of the heaters from a battery is quite in order, but could be improved in economy if 6-volt heaters were used. The current drain of the set from B batteries as shown is small, so that dry batteries last a long time. If you give more detail we could probably advise you better.

**"TYRO" (Feilding):** The best thing to do would be to write to either the agents or direct to the manufacturers who will give you details how to overcome the trouble you are having. The coils are well designed in the first place, and it would be very difficult to do better yourself. Tell them all the details, and it may be that you have a defective set of coils which they would then replace.

**A.:** The cans are specially made that size for use with the concentrated windings, and would not be suitable for high gain cylindrical coils.

**A.:** The capacity of the condenser, per section, from the details given is approximately 0.0005 mfd.

## Reception Notes

(Continued from previous page.)

powerful. Three German stations were found to be transmitting at 11.30 p.m. They were DJB, 19.74 m., DJQ, 19.63 m., and DJL, 19.85 m. DJQ was the best, and went off the air at 11.45 p.m.

The French Government station TPA2 was very weak on 19.68 m., and being very near DJQ it was "blanketed."

## TUESDAY, JULY 21.

**2RO, 25.4 m., at 9.40 a.m.,** with a musical programme. At 9.45 a.m. news in English was given out by a lady announcer, signals not being as good as usual. A slight background noise somewhat spoilt the signals; R5, Q3.

**RNE, 25 m.:** This station has been heard better lately in the mornings. This morning's transmission consisted of a talk in a strange language. Signals fairly good, R5, Q5.

**TPA4, 25.6 m.,** was the best station on the 25 m. band round 10 a.m., with a musical programme. Transmission slightly distorted; R6, Q4.

At 10.30 a.m. the German S.W. stations were heard on the following wavelengths: DJN, 31.45 m.; DJA, 31.38 m.; DJD, 25.49 m.; DJB, 19.7 m. These four stations carried on transmitting the usual morning programmes of music and talks, while DZC, 29.16 m., and DZH, 20.75 m., were heard testing with excellent strength and very clear signals, to Buenos Aires. It is as well to mention that the last two stations are listed as experimental stations, and these German S.W. stations will therefore not verify.

**GSB, 31.5 m., and GSC, 31.3 m.:** Both of course transmitting the same programme to Western Canada, the programme being performed by a popular concert party. This transmission was exceedingly clear and fairly strong; at 1.50 p.m. R6, Q5. GSC was weaker, being R4, Q4.

**EAQ, 30.4 m.:** Was at very good strength round 2 p.m., signals R7, Q5. A talk in Spanish was heard.

**WIXK, 31.35 m.:** Transmitting a very good signal at 4 p.m.; one of the best signals the writer has heard for a long time. The musical programme was very clear and signals strong. Station closes at 5 p.m. Signals were R7, Q5, which was stronger than W2XAF.

A Spanish station has been heard operating on approximately 31 m. regularly during the past 10 days, from 3.30 to 5.30 p.m. Signals have always been at good strength and clear. I have heard the call many times in Spanish and English and have come to the conclusion that the call is COCQ, Havana, Cuba. They seem to have about five different interval signals, which are as follows: Bugle calls; striking of two gongs, high and low notes; a baby crying; a man laughing; donkey braying. Cheering and clapping is also heard. Two call-signs are given out, so evidently this station takes its programme from a medium-wave station. R6, Q5.

**GSB, 31.5 m., and GSD, 25.5 m.:** Both good signals at 4.30 p.m., as far as volume is concerned, but for clarity we have better stations coming in. The tone seems thin compared with some other stations. Also the programmes could be very much improved. The B.B.C. evidently thinks that we in New Zealand prefer second-rate music; R6, Q4.

The following German S.W. stations opened up at 5 p.m.: DJN, 31.45 m.; DZB, 29.88 m.; DZC, 29.16 m.; DJB, 19.74 m.; and DJQ, 19.63 m. The last-named station was putting over an excellent signal. One would think one was listening to a local, the transmission being very clear and crisp. DJQ was the best station; R8, Q5. These stations are coming in well at present on the 5 to 6.45 p.m. Asia programme.

At the time of writing these notes, which is 2.10 p.m., Thursday, PCJ on 31.28 m. is coming in very well, signals being very clear and strong. If one did not hear any music from this station, the announcer, Mr. Startz, would be well worth listening to. The station is on the air every Thursday from 11.30 a.m. till 2.30 p.m. The signals were R6, Q5. PCJ will not be on the air next Thursday, owing to a holiday at the factory.

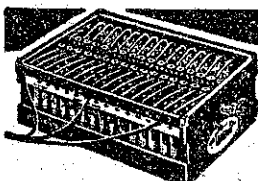
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