

"RADIO"

July 25, 1923.

turns each, owing to the .0005 M.F. condenser being used for tuning the former, use a 50-turn coil for the primary. The "Phillips E" Valve should function the same as a French "R." Use three to four volts on the filament and 30 to 40 volts on the plate.

E. S. (Mincha West) asks: (1) Number of turns of wire for the following wave lengths, using .001 M.F. variable condenser:—(a) 170-375; (b) 200-515; (c) 240-730; (d) 330-1030; (e) 450-1460. (2) Is cotton-covered wire better than enamelled for above coils?

Answer: (1) Assuming a mean diameter of two inches wind as follows: (a) 25; (b) 35; (c) 45; (d) 60 and (e) 75. These values are for use in the secondary only and the ranges will be approximately that which you require, but will vary with different values of circuit capacity. (2) Use D.C.C., as it keeps the internal capacity down.

J. C. M. (Gretna), who at times has trouble to receive the concerts from Melbourne, asks: (1) Would placing of ATI close to a stone wall in the room affect the signals? (2) Would better results be obtained using a 7/20 lead to earth instead of No. 16 copper wire. (3) What is wrong with circuit (sketch submitted).

Answer: (1) Probably your coils are affected by the atmospheric humidity. Treat them according to

the process described in "The Experimenters' Corner" of Radio No. 8, pp. 182, under heading of "Improving Honeycomb Coils." (2) Yes, a slight improvement would result. (3) Probably you are not using sufficient reaction coupling.

E. M. (North Melbourne): Your query No. 1 has been referred to Mr. J. H. A. Pike, at Epping, N.S.W. Regarding queries Nos. 2 and 3, we refer you to *The Wireless Experimenters' Manual*, an excellent book by Elmer E. Bucher.

V. R. (Windsor, Melb.) asks: (1) Advantage of honeycomb coil over tuning coil and condenser? (2) How to prevent howling using amplifier in conjunction with crystal set? (3) Can music be received 65 miles on crystal set and one valve? (4) The most suitable aerial?

Answer: (1) A honeycomb coil is merely a concentrated form of inductance and has no special tuning properties which will enable you to dispense with a tuning condenser. (2) If used as an audio frequency amplifier, you need not fear the generation of radio frequency oscillations, but if used in the reflex circuit as described by Mr. Reed in No. 5 issue of "Radio," you can determine if it is oscillating by tapping the grid terminal, when a dull click will be heard. (3) Yes, if local conditions are favourable. (4) The aerial bears no relationship to the valve used.

one, "that the quality the price is forgotten." well-balanced, correctly touch of individuality business.

MAN LTD.

PHONE
CITY
1870



**SHEPHERD
& NEWMAN**

COMPLETE PRINTING SERVICE

**TYPOGRAPHIC ARTISTS
COMMERCIAL COLOR AND**