

electrolyte, a saturated solution of sodium hydrogen carbonate. With this rectifier it is possible to dispense even with the accumulators, and I have made up a high-tension unit which works quite satisfactorily (see Fig. 6).

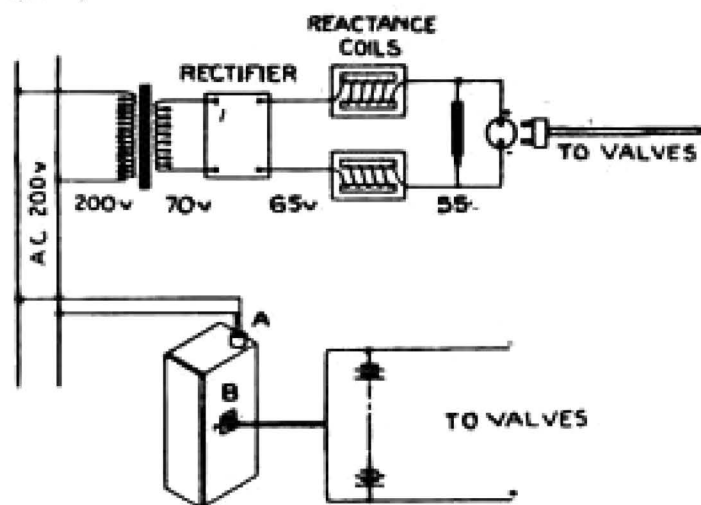


Fig. 6.

The box contains the transformer, the rectifier, and, in addition, a condenser and two reactance coils. Each reactance consists

of 1 lb. of 40-gauge enamelled copper wire, wound on a closed iron core, and one coil is connected in each of the D.C. leads from this rectifier to the output terminals. Across these terminals the condenser, of 4 mfd. capacity, is also connected.

At any rate, I do not intend to buy any more pocket lamp batteries, and at present I find that the arrangement shown in Fig. 6 gives absolutely everything I want. For normal listening in, the rectifier is kept working, so as to keep the battery on charge, and if I wish to reach a particularly faint station, I pull out the D.C. plug "B" and run on the battery alone. This is very rarely necessary, however, but is useful for faint telephony and spark, as the A.C. noises are more pronounced when working off the oscillation point of an autodyne circuit.

This seems to be the case with ordinary induced A.C. noises, and it would be interesting to hear of any theories formed as to the reasons for this.

TRANSATLANTIC AMATEUR WIRELESS

Award of Prize for Best Description of Receiving Apparatus.

AS we have already announced in our last issue, no competitor was successful in receiving the trans-Atlantic test signals transmitted by the American Amateur Wireless Stations on the 2nd, 4th and 6th of February.

In addition to the prizes offered for the actual reception of the signals it will be remembered that Messrs. Burnham & Co. offered their prize of a three-valve amplifier for the best description, to be published in *The Wireless World*, of apparatus used in the attempt, should no competitor be successful in the reception of the signals.

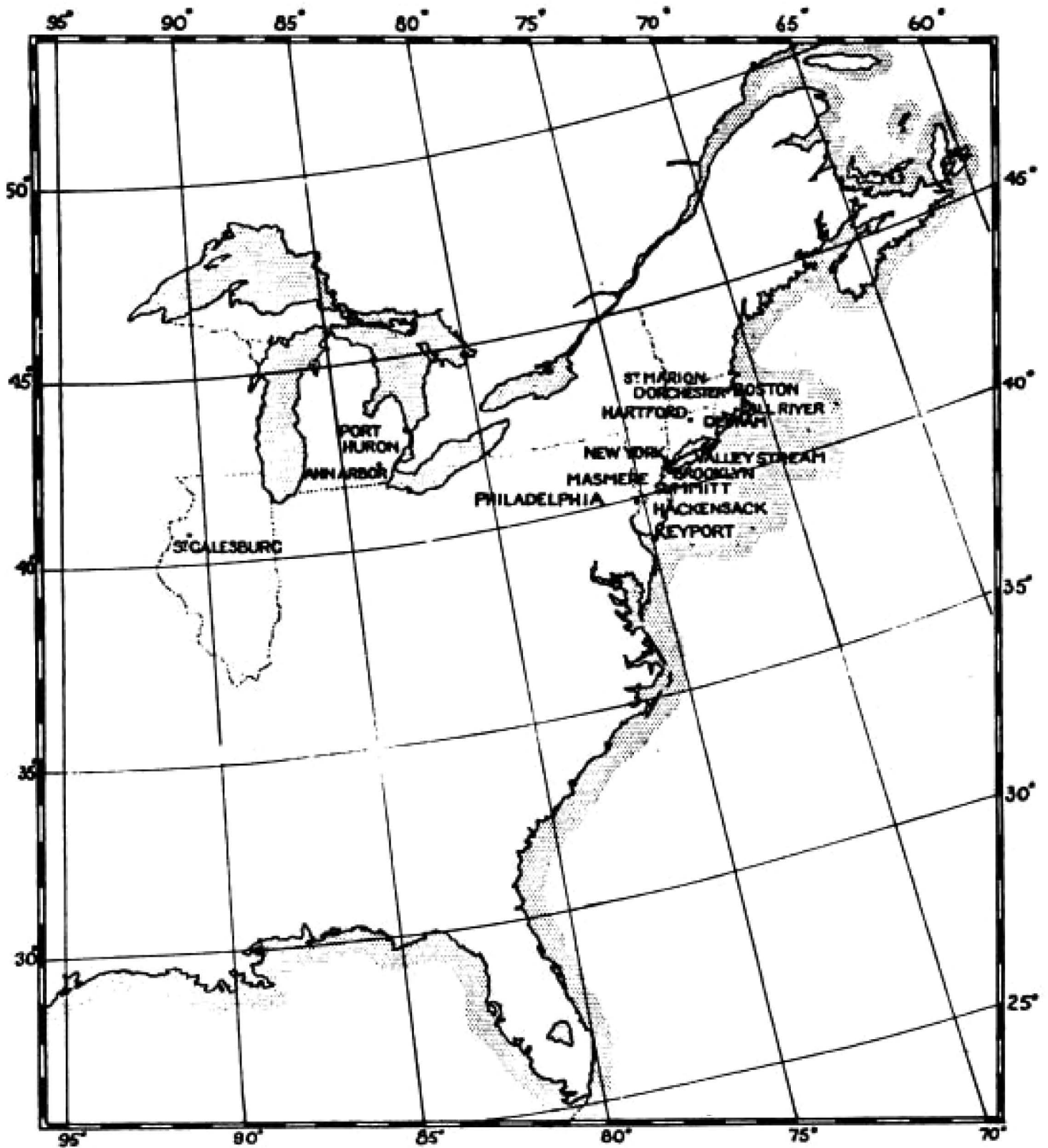
In the opinion of the judges this prize has been easily won by Mr. W. R. Wade, M.I.Mech.E., A.M.Inst.C.E., of 6, West

Mall, Clifton, Bristol, a description of whose station, with a photograph and diagram of connections, will be published in an early issue.

Not only is Mr. Wade's description of the station well drawn up, but also his report covering the period of the tests is equally well compiled. The fullest possible particulars are given, and jamming and atmospherical disturbances are also recorded.

Mr. Wade, in common with many other entrants, protests against the practice of using receiving circuits which are capable of radiating. This is a selfish practice, and caused very great inconvenience to others. Needless to say, the set used by Mr. Wade was of a non-radiating character. Though this was a factor in his favour, it was not

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considered in judging the competition, since no stipulations had been made as to the nature of the receiving circuits which were to be used in the tests.

We reproduce a map of the seaboard of the United States, giving the locations of

the transmitting stations. In some cases there were several stations taking part, all situated in approximately the same location, in which cases it has not been possible to show each station separately.