The action of the grid signalling key itself was satisfactory throughout, but it would have been better if the negative potential for the grid could have been increased to a higher value for shutting down at the maximum aerial currents.

In this connection, it may be advisable to supply the H.T. transformer for the standard signalling unit directly from the main alternator. The signalling potential would then increase automatically in the same ratio as the supply voltage to the set, so that satisfactory shutting down could be obtained with a minimum amount of sparking at the key contacts, at all values of aerial currents.

Reception Results.

If the transmissions which were spoilt due to trouble with the Gell Transmitter are neglected, the reports from Horsea and Signal School state that the note was clear and the morse signals transmitted were satisfactory, the messages being read accurately in both cases. The reports on the automatic reception of the High Speed Transmissions at Nutbourne were also satisfactory.

Conclusions.

A grid signalling attachment of this kind can readily be designed and fitted with types 35, 36 or Shore Station transmitters, to operate up to speeds of the order of 80 to 100 words per minute. Experimental work in hand indicates that this speed may be increased considerably.

For best results, however, it may prove desirable to use a coupled form of aerial circuit if the high speed receiving apparatus is highly selective.

A signalling unit similar in principle to the one described above, but with the whole of the apparatus designed to withstand a high potential to earth, is being constructed for attachment to the Multiphase Valve Transmitting Set at Horsea.