

TRANSATLANTIC AMATEUR WIRELESS

DISAPPOINTING RESULTS OF FIRST TESTS

AS most of our readers are aware, in the early hours of the 2nd, 4th and 6th of February, twenty-five amateur wireless stations in the United States were scheduled to transmit signals with a power of 1 kW on a wavelength of 200 metres, for the purpose of establishing communication with enthusiasts on this side of the Atlantic. Over 250 wireless amateurs in the United Kingdom enrolled their names with Mr. Philip R. Coursey, B.Sc., the organiser of the tests in England, and by the closing date, for the reception of reports (February 14th), some 30 logs of signals received were forwarded to *The Wireless World*.

In order that the tests might be conducted as fairly as possible, the detailed programme of transmission was kept secret, known, as far as Great Britain is concerned, only to this magazine. The work of checking the logs against the transmission programme has just been completed, and in our next issue we hope to publish a detailed consideration of the results obtained. Meanwhile we may state that although every log has been carefully perused and checked, not one entrant has received a single word or signal which can *unquestionably* be attributed to an American amateur station.

In making this definite statement, however, it must be explained that a number of amateurs seemingly overheard the American signals but they were too faint to be read.

The two main difficulties with which the entrants had to contend, apart from the weakness of the signals, were—(1) harmonics from high power stations on long wavelengths, prominent amongst which were those which have been identified as from Nantes, and (2) jamming from other entrants, who in spite of urgent requests, and contrary to the conditions of their licenses, persisted in using self-heterodyne receivers, which radiated and

completely spoilt the reception for any other amateurs in the vicinity. Practically all of the most promising logs contained emphatic protests on this point, to which we shall return at a later date.

Those amateurs who listened in on the evenings stated, will be interested to hear that the following programme was sent out. On the mornings of the 2nd and 6th—in America, of course, these were the evenings of the 1st and 5th)—each station sent a special call, selected for the occasion, followed by its official station call. Each station was allowed 1½ minutes, and a half minute interval elapsed between two successive transmissions.

Typical calls sent out on these nights were :—

3.30 a.m.	-	PXM	1 AW	(repeated)
3.52 "	-	NSV	2 DX	"
4.14 "	-	DFN	1 DA	"

These were, of course, sent out in Continental Morse, so that the American Morse, which several participants reported, must have arrived from other sources. On the morning of the 4th (evening of the 3rd in America) the stations took it in turn to transmit, each a portion of the following sentence :—

" For business as well as for social and political reasons it is extremely desirable that immigrants who are to make their permanent home here become Americans in mind and heart as soon as possible period The greatest evils of immigration are found in our large mining and industrial centres period Movements to secure a better distribution of the immigrants especially as farmers upon the land should be encouraged period The majority of these coming from Italy and Austria Hungary have been farmers period They should be encouraged to become farmers here period Again they need to know the English language to understand American political institutions to learn American customs of

living and working that they may become an integral part of our nation period Efforts."

Each station concluded its portion by its official call signal. Thus at 4.00 a.m. station 2 BK, sent out the following—"Movements to secure a better 2 BK"—this portion of the phrase being repeated several times.

With this programme before them the judges have carefully searched all the logs and reports sent in, but, as stated before, they have failed to find any signals which correspond with those sent out. In one or two cases there was a similarity in the signals at certain times, but these were traced, in the main to harmonics from Nantes. Certainly there is little basis for the definite

claims made by one or two provincial wireless societies, that they actually received the signals.

A remarkable feature of the competition is that comparatively few entrants have sent in their logs in anything resembling the form asked for, and this, of course, has hampered the judges in making their search. In view of the non-success in the reception of the signals no entrant has qualified for the prizes offered by firms for the most successful reception of signals, but the prize offered by Messrs. Burnham & Co., to be allotted in the event of non-reception of signals to the best description of the station and apparatus employed, will be awarded in due course, and an announcement in this regard will be made in our next issue.

DAILY MAIL EFFICIENCY EXHIBITION, OLYMPIA,

FEBRUARY 10th-26th, 1921.

STAND No. 62.

THE accompanying photograph gives a general impression of the stand arranged by the Marconi Companies at the Efficiency Exhibition, Olympia.

Two cabins were fitted with the latest types of marine sets, one comprising the 1½ k.w. quenched gap set and continuous wave panel together with receiving apparatus, including direction finder. This very complete installation is suitable for large passenger steamers, and represents the last word in marine radio outfits. The other cabin was fitted with a new type of ½ k.w. set suitable for cargo vessels, where it is desired to limit, as far as possible, the cost of the wireless installation.

A prominent feature of the stand was the 3 k.w. continuous wave transmitter, arranged for wireless telegraphy and telephony. This set was shown complete with aerial and closed circuit inductances, with coupling and reaction coil, and closed circuit condenser. The remote control unit, consisting of

manipulating key, microphone and control switch box, was also shown.

Two complete portable wireless telegraph and telephone sets were on view on the counters, one being of the type YB1 (100 watts), the other type YA1 (20 watts). A portable engine-generator set for battery charging was exhibited complete with switchboard.

Considerable interest was aroused in connection with the radiomegaphone demonstrations given daily at the stand. This apparatus is a combination of the Marconi wireless telephone and the Creed stentorphone, by means of which signals, speech, songs and music transmitted by wireless can be heard by large audiences. For the purpose of these demonstrations a temporary wireless telegraph and telephone station was set up at Surbiton, Surrey, and an aerial and receiving apparatus on premises outside the Olympia building. The two radiomegaphones on the stand were connected with the receiving apparatus by means of ordinary cable.