A Demonstration of a Calling Device for Wireless Telegraphy

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*A DEMONSTRATION of a Calling Device for Wireless Telegraphy was given by
T. D. PARKIN, of Marconi's Wireless Telegraph Co., Ltd.*

THE device is intended for ships employing a single wireless operator, and is adapted to ring an alarm bell on receipt of waves having a characteristic group frequency in addition to a characteristic high frequency. The transmitter comprises a brass balance-wheel carrying a diametrically arranged bar of soft iron and moving between fixed field magnets, the circuit of which is closed periodically by contacts carried by the wheel. The connections are such that the oscillation of the wheel is maintained, and a second contact moving therewith effects the emission of wave-groups of the required group-frequency. The receiver comprises a field-magnet to the coils of which regular pulses of current are imparted on receipt of the above-mentioned wave-groups, acting upon a balance-wheel the rim of which consists of a ring of steel so magnetised as to have poles at opposite ends of a diameter. The natural frequency of this balance-wheel is adjusted to that of the expected wave-groups, so that after about 11 of these have been received the oscillations of the wheel attain sufficient amplitude to effect the ringing of an electric alarm bell provided with a hold-on circuit. The apparatus is mounted on springs and gimbals.

DISCUSSION.

Capt. C. W. HUME inquired whether provision had not been made for an "S.O.S." signal.

Mr. R. L. SMITH-ROSE inquired as to the range of the apparatus.

Dr. A. O. RANKINE inquired whether the receiver might not be affected by a letter comprising several dots, such as "H," sent at the proper group frequency.

Mr. PARKIN, in reply, stated that an adaptation to "S.O.S." signals was being considered, but had not yet been perfected. The apparatus had been worked at a range of 110 miles. It was less sensitive than a human operator, but would be effective at all distances at which distress signals could be of any value. The receiver should be adjusted so as not to respond to fewer than 11 impulses, in order to be immune from disturbance by dot letters or by the "erase" sign.