

Experimental Transatlantic Sending Tests

The Next Long Distance Record for a 200-Meter Set Will be Transmitting Across the Atlantic. "Everyday Engineering" is Making Arrangements for the Tests

TO cross the Atlantic ocean, by one means or another, has called forth the greatest skill and daring in several lines of engineering work. Columbus in his sailing ship, Fickett in his steam propeller vessel, Marconi with his radio signals, Read piloting a flying boat, Alcock and Brown in a land machine, and, last of all, the crew of the British dirigible, have made their marks in the history of the pioneers, as well as in engineering accomplishments.

It is hoped that, during the coming winter, the next transatlantic conquest will be recorded, that is, the transmission, from a 200-meter, 1 k. w. experimental station, of radio messages to England.

At first thought, there might seem to be no real purpose for this work, and no useful result attained by it. The same judgment might be rendered of the Olympic contests. There is always the desire in the heart of every man to do something first. But of more importance than that is the fact of being first to attain the degree of efficiency or proficiency required for the task.

The first experimenter to transmit across the Atlantic will set a new standard for 200-meter sets. His name will never be forgotten as long as there are radio experimenters.

Of real benefit to everyone engaged in the work, however, will be the publicity thus obtained through the newspapers all over the country. The increased interest in the work of the experimenters, and the respect which they will command will greatly strengthen their position.

This is the reason that EVERYDAY ENGINEERING is making the first proposal for the attempt, and is working out plans which will insure the co-operation of English receiving stations.

Announcement is made now to give everyone sufficient time to prepare for the tests, which will start on February 1, 1921. The elements of the contest are as follows:

1. Any man, or group of men, can enter. In the latter case, credit will be given to the man who engineers the work. Those connected with radio companies may enter if they carry on as individuals apart from the organizations in which they are employed.

2. The only limits on the transmitter are that the input, measured at the source of power supply, shall not exceed 1 k. w., and the wavelength shall not exceed 200 meters.

3. Those wishing to enter the contest

must communicate with the Radio Editor, EVERYDAY, ENGINEERING MAGAZINE, in order to be allotted places in the schedule, the details of which will be announced later.

4. Names for entry in the schedule will be accepted up to November 15, 1920. Suggestions for the method of conducting the tests will be entertained until October 15, 1920. Complete details of the schedule will appear in the January, 1921, issue of EVERYDAY, in circulation on the first of December. This allows two months before the tests are made. News of the preparations will be published as fast as they are completed.

5. Prizes to be awarded by individuals and manufacturers, and the conditions under which they are to be given, will also be published.

CAN YOU ENTER THE COMPETITION?

Special efforts of this sort are necessarily expensive. There are experimenters who will not be dismayed by the cost of fitting up and carrying out tests to obtain the high degree of efficiency required. Others may feel that their present equipment is sufficient.

So many times, however, contests are won by those who work with limited facilities, who do their utmost with what they have. There will be some contestants who will apply to friends to help them. In some towns, civic pride will prompt contributions in an effort to bring the honor of achievement to that locality.

As is true in all engineering efforts, the man with the greatest energy and resourcefulness will win.

REGISTRY FOR THE CONTESTS

Individuals, groups of workers, and clubs should send in their names as soon as possible so that there will not be any confusion near the closing date. The following information must be given:

1. Name of contestant, individuals comprising group and man supervising the work.

2. Address and call of station, if already in operation.

3. Longest transmission ever accomplished on 200 meters with 1 k. w. by operator.

4. Type of transmitter to be used. (An answer to this question is requested but not required.)

As fast as they are received, names of entrants will be published in EVERYDAY. The January, 1921, issue will

contain a complete list of the contestants.

PRIZES

To promote the interest in this contest, individuals, clubs and manufacturers are urged to offer prizes to the winner, either unconditionally or under such circumstances as may be set forth by the donor. Many manufacturers will undoubtedly wish to create interest in their products by offering prizes if some of their products are used by the successful contestant.

POSSIBILITIES OF ACCOMPLISHMENT

When it is considered that commercial transatlantic stations use several hundred kilowatts to transmit across the ocean, it may seem that the proposal to use only 1 k. w. is rather far fetched.

In 1901, Marconi did it with 25 k. w. To be sure, it was on a long wavelength, and at the shortest separation between this continent and England. Nevertheless, the English experimenters who will co-operate with us have wonderfully sensitive receiving apparatus.

Mr. Philip R. Coursey, of the *Radio Review* and *Wireless World*, whose aid has been requested in handling the receiving arrangements, will have no difficulty in enlisting the most able English operators and the best equipped stations.

BOOK REVIEW

PRACTICAL AMATEUR WIRELESS STATIONS. Compiled by the Editor of *The Wireless Age*. 136 pages, profusely illustrated, paper cover, 9 by 6 ins. Published by The Wireless Press, Inc., New York City.

Mr. J. Andrew White, who selected the material for this volume, calls it an "experience book", containing the best ideas of thirty-three experimenters. Each of the forty-seven chapters takes up a separate problem, giving instructions and illustrations of the methods required. No special sequence is followed, as in a text book, for this is simply a collection of helpful and interesting ideas, most of which concern the actual construction of radio apparatus.

There are chapters on regenerative receivers, long wave sets, different types of panel receivers, amplifiers, detector construction, instrument details, and installation notes in the first half of the book. The second half deals with sending equipment such as panel transmitters, transformer design, vacuum tube transmitters, spark gaps, keys, and other instruments.