

HOW the engineers at the Belfast broadcasting station recently provided an impromptu Sunday afternoon concert after heavy rains had incapacitated the land-lines from London is told by a correspondent of the "Wireless World." The catastrophe occurred shortly before the programme was due to begin. "Nothing daunted," says the writer, "the engineers transported a gramophone to the transmitter, together with two large amplifiers and 500 volts of high tension, and in an amazingly short time an impromptu programme was being radiated. While this was going on a 'studio' was hastily rigged up in a small office in the adjoining power station, and at eight o'clock it was possible to transmit a religious service with gramophone records of hymns, and later a programme by the Whiteway String Quartet. I am told that it was one of the sights of the century to see this hurriedly assembled combination rehearsing in the power station, surrounded by huge turbo-generators, switchboards, and rotary converters!"

RECENTLY the U.S. Signal Corps radio engineers have developed an innovation in radio transmitting which is highly important and noteworthy. These experts claim to have perfected a system whereby three sets may transmit at the same time on the same aerial. Each transmitter uses a different wavelength without any interference from either of the other sets. The three transmitting sets are all lined up close together, yet there is no interference with the individual transmission of the respective messages.

RADIO, Toulouse, a well-known French broadcasting station, recently sent out an unusual SOS during an evening programme. The message requested any physician hearing it, who had in stock a certain serum necessary for treating infantile paralysis, to communicate as soon as possible with a certain doctor. This gentleman was treating a case of infantile paralysis and had asked the Pasteur Institute to supply him immediately with the important serum, but the Institute was out of it at the moment and the child's life was in grave danger. So the doctor telegraphed to Radio-Toulouse, and this station broadcast his message, with the result that two doctors near to the originator of the request, within an hour's time dispatched supplies of the desired serum and the child's life was saved.

THE recent International Exhibition held at Barcelona was visited by Marquis Marconi. Radio Barcelona announces that Marconi, in an interview with the station director, M. Cordoves, said that the future of broadcasting lay in the use of medium wavelengths—(the new definition of medium wavelengths is now those between 200 and 3000 metres.) As broadcasting meant covering as large an area as possible round the station, only these waves were of use, short waves on the other hand being useful for direct communication between two given points of smaller areas.

WITH the consent of the Polish Ministry of Posts and Telegraphs, the Polskie Radio Broadcasting Company intends to reorganise its entire system. According to the accepted plan, Warsaw is to be endowed with a 120-kilo-

watt transmitter so constructed that its power can be boosted up, on occasions, to 160 kilowatts, thus making it the most powerful European station. With such a power at its disposal, the company hopes to secure crystal reception within a distance of three hundred miles or more. In addition, the Polish capital will also possess a 2-3 kilowatt station to be used solely for weather forecasts, news bulletins, and lectures mainly of interest to city dwellers.

IN the neighbourhood of Prangins (Switzerland), between Geneva and Lausanne, Radio Schweiz has installed a 50-kilowatt wireless telegraphy station to ensure a regular overseas service to Switzerland. The wavelength to be used will be about 4400 metres. It is also proposed to install a shortwave transmitter on the same site. By special arrangement, although mainly destined to ordinary official and commercial services, should any critical political situation arise, the transmitter will be placed at the disposal of the League of Nations.

RECENTLY a workmen's institute in London was provided with a wireless receiving set on loan, and the members were told when the set was installed that it could only be lent for a short time. When an engineer called to remove it, three months later, he found about forty men listening to a programme of music, really listening as silently as if the artists were in the room. There was general dismay when the engineer told them what his unhappy business was. An optimist suggested that they should club together to buy a set, but the cost of a set like the one they had been using was—to them—prohibitive. Fortunately, the matter did not rest there. The Joint Committee in Cardiff heard of the tragedy and was able to allot one of the Carnegie sets to the institute. The engineer whose former errand was "not a happy one," had the pleasure of being the Fairy Godfather, and when he installed the new set all the men who had been watching billiards slipped into the room, and by the time the installation was complete there was a full house for the opening concert.

AN Australian listener of a statistical turn of mind has written to the "New York Times" on the output of 3LO, the Melbourne station, during 1928. No less than 18,416 songs were broadcast from that station last year, occupying a total of 55,248 minutes, or about 38 days. Classic, orchestral and instrumental numbers occupied 36,000 minutes, and during 31,515 minutes 15,000 modern jazz and old-time dance tunes were played. Over 16,000 minutes of broadcast time were devoted to church service relays, and about 9750 miles of telephone trunk lines were used for outside transmissions. Speakers talked to listeners for over 20,000 minutes on subjects ranging from suet

puddings to the ancient tombs of Egypt. News bulletins from 3LO took 17,000 minutes of the year, while it took 7320 minutes to inform farmers of the price of pigs, onions, and other produce, to acquaint investors of the latest stock reports, and to inform those on ships of approaching storms.

THROUGH the installation of a novel group address system, New York baseball enthusiasts can follow every play, without bothering to look at the score board. Every decision of the umpire can be heard clearly and distinctly throughout the stands. In order to accomplish this, a microphone is installed in the umpire's mask. The wires run down his trouser legs to two contact plates in which he stands. The output from the amplifiers is fed to ten six-foot horn loudspeakers located at the proper acoustic points, under the roof of the grandstand. The response of the baseball enthusiasts to this innovation has been so favourable that it is now only a matter of time before similar group address systems will be installed in the big league stadiums throughout the country.

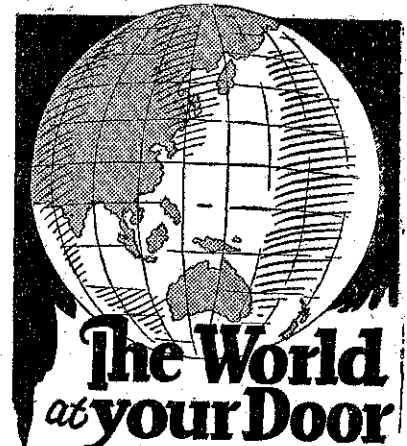
THE well-known American radio station, KDKA, Pittsburg, has recently been making some experiments with building up what they describe as "synthetic sounds." Dr. Frank Conrad, assistant chief engineer, conceived the idea of making up artificially the sound of the chimes of Big Ben, London. This was done by analysing the sound very carefully into its component frequencies and then making up a number of oscillators, each giving one of the required frequencies. By combining the frequencies the same signal is carried to the transmitter and sent out on the air as would be produced by sounding the bell itself before a microphone. To ensure absolute accuracy this artificial bell is set off by means of a second pendulum operating in a vacuum. Although this is very ingenious and scientifically interesting, it seems apparent that for the simple purpose of reproducing the sound of Big Ben, the easiest thing would have been to have made a number of gramophone records of the actual sound, and to have reproduced these through the transmitter.

A "DICTION Medal" was recently awarded in America to Mr. Milton J. Cross, the NBC announcer, who has since written in a New York paper advice to ambitious would-be broadcasting announcers. "Keeping a voice well dressed," he says, "is very important. Accents dress a voice, and, just as a person may overdress, so may a voice with accent and inflection. Too many broad a's and too frequent use of unfamiliar words will make a voice seem affected and unnatural, instead of cultured. Language, like clothing, changes in style, while the use of

slang is not considered the best form of speech, occasional use of idiomatic phrases helps. There is nothing that falls so flat on the listener's ear as slang or idiom that is out of date. The announcer must use the speech of 1929 if he is speaking in that year, and not the speech of 1919, which, strange to say, is actually different."

DURING the blaze, following a recent explosion in New Orleans, a terrific blast of ignited gas blew the home radio set through a room wall of solid brick and plaster, burying it in the debris. Two weeks later it was uncovered from the ruins and was discovered to be giving unimpaired reception. The six valves in the thoroughly battered set were subsequently removed and tested, and showed such perfect performance that they were installed in another receiver.

ALTHOUGH established one year later, and in spite of the fact that the license costs more than double, the German broadcasting system has caught up to Great Britain, and now possesses nearly 400,000 more listeners than registered by the Postmaster-General in the British Isles.



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