

THE prairie town of Lethbridge, Canada, possesses an interesting novelty in the form of a "one-man" broadcasting station. This is situated in a hotel, and its operator successfully performs the varied duties of announcer, programme board, station director, chief engineer, and everything else. While spasmodically broadcasting news items, he is controlling transmission with one hand and utilising the other for answering the telephone. The main programme features are gramophone records, church services, news items, and advertisements, the latter being a source of enough revenue to run the station at a profit. While his manifold activities must, of necessity, be strenuous, he at least has the satisfaction of being the sole shareholder when the company (also himself) declares its dividend.

IN the past few years, the British Broadcasting Company's employee in charge of the production of "sound effects" has had a heavy task. He has had to concoct all sorts of sounds, and among those imitated were those of seagulls, earthquakes, floods, windmills, aeroplane crashes, trams, motorcars, etc., etc. He refuses to disclose his varied methods of imitation, as he believes it would destroy realism if listeners knew how the trick was done.

RADIO developments are taking place very actively in Russia, and as evidence of this, a party of Soviet engineers have recently arrived in New York to engage in a technical conference there. Also, a giant high-voltage rectifier has just been completed by an American company, and is now on its way to Russia. It gives a power output of 750 k.w., at a voltage of 15,000, and works on the mercury-vapour principle. Eighteen rectifying valves are used to supply current to the anode of the radio transmitter! In view of the recent Russo-Chinese upheavals, it is to be hoped that this super-power plant will not be adapted for the purpose of transmitting unfortunate Manchurians into the Great Beyond.

GERMANY'S monster liner, the Bremen, has an unusually fine equipment, and no less than nine operators to work it. The main transmitter has a 3 k.w. aerial energy and a band of 300-5000 metres (1000-60 kcs.). There is a high frequency transmitter of 700 watts, band 13-105 metres (23,000-2850 kcs.), and an I.C.W. set of 250 watts, band 175 metres (2350 kcs.) and 600-800 metres (500 to 375 kcs.). All these sets can be worked automatically at 150 words per minute. In addition, there is an emergency set operated from accumulators, and four of the lifeboats are fitted with small transmitting and receiving sets. The ship has eight receivers and a direction-finder, one receiver being permanently adjusted for the reception on a loudspeaker of SOS on 500 kcs. What a contrast to the first ship set with its Rhunkorf coil spark transmitter and coherer detector, all of which could be accommodated on a couple of card-tables!

FIVE million volts of man-made and man-controlled lightning were heard as part of a programme recently broadcast from WGY, Schenectady (U.S.A.). A lecture on artificial lightning and its use to mankind was punctuated by the discharge, which was



the nearest approach man has yet made in reproducing Nature's lightning. Prior to the discharge, a hissing sound could be heard from the corona as the voltage was being built up. The electrical energy is taken from the lightning circuit, stepped up to a very high voltage by a transformer, gradually stored in an artificial cloud condenser, and then discharged or spilled out in a few millionths of a second. By creating and studying these discharges, engineers are gathering valuable data for the protection of land-lines and station equipment.

A GIANT loudspeaker, which can be clearly heard within the amazing radius of four miles, has been specially designed and constructed by a Los Angeles firm for advertising purposes. The most interesting feature of the installation is the horn itself, which, unlike that of any other type of speaker, almost exactly duplicates the action of the human vocal mechanism. Throat, larynx, vocal cords, voice-box—all these are embodied, and each performs the same duties as those discharged by the human counterpart. The quality of reproduction is superlative, particularly when one considers the tremendous volume handled without distortion. If loudspeakers such as this one were in world-wide use, one could quite easily understand the recent high-handed action of the Vienna authorities in forbidding the use of loudspeakers after 10 p.m.

JAPANESE scientists were always greatly interested in wireless telephony and telegraphy, but it is little known that some of the earliest discoveries in this science originated in Japan. Their system was called "Teishinsho," and its chief feature was a special form of arc generation between two substances, one of which was a galena crystal. Furthermore, Japanese liners were among the first to carry wireless installations. On consideration of these facts, it is not surprising that radio broadcasting has taken the firm hold it undoubtedly has, upon the people of this distant land.

DENES VON MIHALY, a Hungarian, has recently exhibited his television receiver in England. The set is as big as a portable gramophone, and can be used with practically any radio receiver at all and will cost about £2 10s. The exhibition disclosed certain flaws in the apparatus, but for the material employed the reception was far better than was anticipated.

SHORTWAVE station CT3AG (Madeira) is closing down until the end of September, when it will reopen

with increased power. The Government has granted a large sum for the upkeep of the station, and better quality broadcasting can be anticipated.

A LARGE Telefunken station is now near completion on the Eknesburg Hill, about four miles east of Oslo. The maximum power in the aerial will be 60kw., and for a time Oslo will be the most powerful station in Europe. The aerial is suspended between two 160 feet masts, resting on special insulators fixed on large concrete blocks and suitably stayed.

THREE American mechanics have invented a new device for the broadcasting of programmes in hotels. Hitherto the broadcast has been received by a centralised system and then sent out to the various rooms by means of loudspeakers and a complicated network of wires. Now, however, the waves are picked up on a single aerial and then distributed by means of oscillators in the steel roof of the building. The receivers then operate by means of induction.

RADIO in Jamaica is in its infancy, and there are very few experts on the island. The cable office with its old spark transmitter is constantly interfering, and radio listeners have no protection against this even though they have to pay 10s. a year to the Government for license fees.

THE American Telegraph and Telephone Company has given a demonstration of television in colours. It is stated that the new process involves no sacrifice of detail, but that the picture is still limited to the size of a postage stamp.

GERMAN police recently arrested the ringleader of a band of racing swindlers. These men by means of a wireless receiver learned the results of the races before the bookmakers did, and then used to back the winning horses. In this way they amassed a huge sum of money.

THE first automatic wireless beacon in Canada was inaugurated on Seal Island, Nova Scotia, last week. This is the first of a chain of seventeen beacons to be constructed which are to stretch from the Gulf of St. Lawrence to the Green Lakes.

RECENT figures as to the number of licenses in England show the total of 2,760,878, an increase of 20,000 on the previous month's total. Besides these 14,830 licenses were distributed among blind listeners, and any blind person applying to the authorities can take out a free license.

CANADA has decided to embark on a national system of broadcasting following upon the report of a special commission which was dispatched to Britain and Europe to study wireless. To meet the demands of the big Dominion, the erection of several 50 kilowatt stations is recommended, and an increase of the existing license fee. The Canadian Radio Commission is now considering how the Dominion may prevent the radio service from drifting as the motion picture has done, into dependence upon the United States for its source of supply. Broadcasting from New York and Chicago is at present entertaining hundreds of thousands of Canadians, but the programmes thus picked up lack that national characteristic that should be outstanding.

MUCH indignation has been aroused in Vienna by the authorities there forbidding the use of loudspeakers after 10 p.m., on the grounds of disturbing the public peace. In hot weather, even superb music from the best of loudspeakers does not compensate people for gradual suffocation, so the order practically means that after ten one must depend on ones head phones. Broadcast listeners have retorted that the excessive hooting of motorists all the night through is a greater cause of distress and wakefulness, and they fully intend to circulate a petition protesting against this unfair proclamation.

THE world's biggest radio exhibition takes place this month in New York. At the big show in Madison Gardens will be displayed all of the "last minute" productions in broadcasting and commercial wireless.

## Of Interest to Farmers

The Public Trust Office has just issued an interesting folder in connection with Advisory Trustees. It explains how farmers may take advantage of the opportunity to appoint one or more Advisory Trustees to co-operate with the Public Trustee in the administration of their estates. The various points are set out lucidly and briefly. Every farmer should make a point of obtaining one of these folders.

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