

AT the recent Montreal radio show, an exhibit which attracted more attention than any other was that of a combination piano, radio set, and gramophone. When closed it has the appearance of an ordinary small piano, but there are doors on each side of the music stand, which when opened disclose a radio set on the right-hand side and a gramophone on the other. Not only are these three instruments contained in the one case, but they function together, for the strings of the piano are used as a short aerial for the receiver and the sound-board is a necessary part of the reproduction of natural tone by both the set and the gramophone. Below the revolving disc of the gramophone there are two dials, one for volume control, and the other for switching from one reproducing instrument to the other. Their presence does not in the least spoil the tone of the piano, which is rich and mellow.

A CLEVER adoption of radio for use in a music-hall thought-reading turn which was produced by the inventor and his wife, was recently revealed. The lady on the stage had concealed about her person a wireless receiver, and was thus able to "taste" messages in morse code from her husband by means of an electric current between her dental plates. Thus she was able to give a correct description of the articles which her husband, who was equipped with a hidden transmitter, borrowed at random from members of the audience.

JOHN L. REINARTZ, the short-wave radio expert, is negotiating with the Hudson's Bay Company for the erection of three radio stations in the Far North. The equipment will be built at the Reinartz laboratories in South Manchester if the necessary arrangements can be effected. The Hudson's Bay Company intends to establish the stations for effecting contact during the winter months between its trading posts and the company's headquarters at Montreal. One station will be situated on Ellesmere Island, 700 miles from the North Pole, but the location of the others has not yet been decided upon.

PRACTICALLY every phase of modern radio was discussed on the technical side at an international conference which was held at The Hague recently. It was composed of members of the International Technical Consultative Committee of Radio Communications. The principal matter on which recommendations were made, was that relating to wavelength distribution. Discussions also took place on recent engineering advances, radio nomenclature, and the use of frequency control devices to limit interference.

EXPERIMENTS have for some time been going on between KDKA (Pittsburgh) and Nauen, Germany, in order to find out whether two-way conversations between these two stations are practicable under varying weather and electrical conditions. The tests usually take place between 7 and 8 o'clock in the evening, and it has been reported that splendid signals have been received by KDKA from Nauen. For the purposes of this test, a new short-wave transmitter has recently been installed at the latter station.

AN enterprising member of the staff of PCJ, Hiversum was opening



the studio window to admit fresh air at the end of a recent programme, when he heard the full-throated song of a nightingale singing not far away. Taking in the situation immediately, he ran to the microphone and announced in six different languages that PCJ was about to broadcast the bird's song. The microphone was silently wheeled to the window, and for some time five continents heard the nightingale singing. It is to be hoped, however (comments "Popular Wireless") that this incident will not induce other announcers to break official programmes in order to broadcast odd "noises off" which may seem attractive to them. We might get: "You will now hear the janitor snoring," or "Stand by for the charlady having a few words with the oboeist about her asthma." It is interesting to note, however, that Mr. Sellens, our shortwave correspondent, heard this broadcast.

AMERICAN scientists predict that radio reception will be poorer during December of this year than it has been since the institution of broadcasting. This dire prediction is based upon the expectation that there will be more dark spots on the sun than at any other time between 1923 and 1934. These spots are supposed to be the cause of magnetic disturbances which weaken radio signals. This should prove a good healthy excuse in explaining to visitors why the new set fails to bring in the distant stations.

MR. SHAW DESMOND, the celebrated English author, in a recent imaginative article published in "Television," visualises a time when the intensive spread and development of radiovision and other methods of instantaneous communication will make time, as we know it and measure it, look ridiculous. The city of the future, he says, will be roofed in with flexible glass; artificial suns will abolish night; men will work throughout the twenty-four hours in eight-hour shifts; and by means of atomic energy, heat from the tropics will be pumped to the Polar regions, while cool air will be pumped back into the tropics, thus enabling future generations to manufacture their own climate.

RUMANIANS are taking more and more interest in broadcasting. Something like 225 receiving set permits are now being issued weekly by the Post Office Commission in order to authorise their owners to listen to the programmes being broadcast twice daily by the station newly established at Bucharest and to programmes coming from other countries. The Rumania station, equipment for which has been loaned by the British Marconi Company, began regular operation last November 1. Up to October, about 10,000 receiver permits had been issued, and it was reported that many more persons are operating sets with-

out permits. The licenses range from about threepence for crystal sets to six shillings and sixpence for four valves or more.

EQUIPMENT which will transmit the music of the great operas of the world all over the North American continent has been installed in the forty-five story building—the highest in Chicago—which houses Chicago's grand opera. The installation, which is owned by the Chicago Civic Opera Company, is to be used throughout the autumn and winter seasons by the National Broadcasting Company over a nation-wide chain of stations. Elaborate tests have been made to pick up practically every note of music that will come from the orchestra pit and the monster stage. There are four microphones in the footlights, four in the orchestra, and four on the stage itself. The new equipment was installed at a cost of approximately £3500, and includes twelve of the latest type of condenser microphones, and complete amplifying and control equipment in duplicate. The announcer and the control operator will be provided with sound-proof booths, one at the top and the other at the rear of the auditorium. Plate-glass windows will give each a full view of the stage.

ONE of the more or less unconsidered possibilities of radiovision is the transmission of kinema film to be recorded, and subsequently shown in

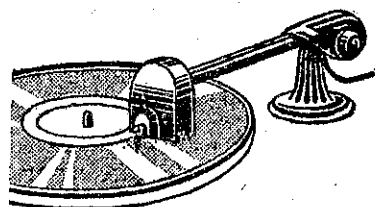
the ordinary way, the radio channel being used only for speed of transport (and incidentally to complicate the task of the Customs collectors). This applies principally to news films from other countries, and it is evident that secrecy of transmission is essential, in view of the keen competition in this line. With a fair choice in the number of scanning lines, and the enormous number of possible arrangements in the order of such lines, eavesdropping is almost impossible.

FOR some time there has obtained in Europe a system whereunder gramophone firms pay a musician to make a record, and then consider the artist's royalties as stopping short of radio reproduction of the record. The Third International Theatrical Congress has now launched a movement to end this practice. The musicians emphatically demand that all Governments recognise the broadcasting of records "as equivalent to a performance by the executants." "No broadcasting of records should be allowed without the executants' consent, and under proper remuneration, calculated by the range of the broadcasting station and the number of relay stations." The points raised are being referred to a committee associated with the League of Nations. Broadcasting is becoming daily more and more of an international concern, and most emphatically so when the question of securing royalties crops up.

WHEN an important branch of science has become popularised, the names of the pioneers are rather apt to be forgotten. The science of wireless would appear to be no exception. Count Arco, who celebrated his sixtieth birthday on August 30, is one of the pioneers of German wireless. Jointly with Professors Slaby and Braun, he worked out many problems and was greatly instrumental in developing the German wireless industry from its initial stages to its present high standard.

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