

DURING the past few months the police authorities of Paris have been conducting experiments on short wavelengths in the transmission of finger-print photographs. By a new method it has been found that full details of any individual print can be transmitted in as short a period as fifteen minutes, and it is proposed to install a regular international service for the use of criminal investigators in other European capitals.

THE B.B.C. official in charge of the production of sound effects will shortly have his task considerably lightened, for it is intended to have special "effect" records made for use in the studio. The method in use at the moment for imitating the sound of gun-fire, for instance, necessitates the manipulation of a sheet of iron. Other props include special chains for rattling and coconut shells for giving the sound of horses' hoofs. The records it is proposed to manufacture will be costly, but it is estimated that the reproduction and imitation of such things as crowd noises, wind, seaside sounds and so on, can be much better done by means of a record than with the present "fake" methods. Indeed, considering the ease with which gramophone music and effects can be "faked" over the microphone, it is surprising that greater use has not previously been made of records.

ACCORDING to a Chicago report a means has been devised whereby an aviator can flood an aerodrome with light merely by pressing a button. He carries on his plane a radio transmitter tuned to a certain frequency, or possibly tunable to several; when he presses the button the transmitter emits waves which are intercepted by a receiver in the aerodrome, this receiver being kept tuned to the particular frequency used by the plane. The receiver is connected to the flood-lighting, which is brought into action by a relay when signals of a certain frequency are received.

VERY successful tests with the transmission of two simultaneous broadcasts from the same transmitter were carried out recently in Holland. For several evenings both music and speech were broadcast without interference to either transmission. Similar experiments were afterwards conducted between two stations with a combination of simultaneous telephony and telegraphy. These met with equal success.

THE northern part of Sweden has always presented a problem to the broadcasting authorities owing to the great distances and the sparse, scattered population. The most northerly main station is that situated in the garrison town of Boden, near the Finnish frontier, but the station, with an aerial power of 0.6 kw., cannot—even though reinforced by two relay stations in the mining districts to the north of the Arctic Circle—cover the whole province. Since the population does not reach half a million in those vast areas, financial considerations, apart from others, preclude the erection of a high-power station. An attempt to overcome—partially, at least—this handicap has been made by the distribution of the broadcast programmes via telephone lines to in-

dividual telephone subscribers who have only to connect their telephones to their receiving sets.

QUITE apart from the equipment of trains for broadcasting reception the Germans are now applying radio to the actual working of the railway system. Wireless telephony is being widely used. For example, on the train itself, the brakeman (guard) can talk to the driver by radio. The railroad's central office handles some 1800 wireless messages daily on five wavelengths, and in the goods yards at Hamm, Westphalia, where 350 cars per hour are shunted about, the engines have loop antennae and get their orders by wireless telephony.

OWING to the continued disturbances caused by train wires, illuminated advertisements, etc., to wireless reception in the towns and suburban districts of Holland, the Netherlands Union for Radio Telegraphy is making new efforts to bring about the formation of a Permanent Bureau for combating such disturbances, and to this end has approached all broadcasting societies in the Netherlands with a view to obtaining their co-operation.

WITH the advent of still-picture transmission, some considerable development in the utilisation by police authorities of the service thus offered may be expected in the near future. No doubt, at no very distant date, the broadcast listener in possession of a picture receiving instrument attached to his wireless set will be able to record an illustration of the person forming the subject of a "Police Bulletin broadcast." Such picture transmissions, combined with the radio-diffusion of finger-prints, will probably play an important part in the detection of crime, and will considerably facilitate the apprehension of criminals.

MUSIC played in the WGY studio at Schenectady, New York, is now scheduled as part of the regular Thursday night programme of a broadcasting station situated at Turin, Italy. The programmes are transmitted across the Atlantic on short-wave, and at Turin the signals are intercepted and rebroadcast for an hour, commencing at midnight. This is reported to be the first occasion that any Italian station has relayed a programme from the other side of the Atlantic.

AN innovation in American radio is the "small ad." invented by Mr. Stephen Kelen, who buys up "hours" of broadcasting time from the big broadcasting corporations and sells them in three-minute slices to the small advertiser who cannot afford the many dollars necessary to buy an "hour" of his own. Mr. Kelen allows so many words announcement, the rest of the

three minutes being devoted to music. The artistic effect to this must be, to say the least of it, patchy.

SEVERAL police cars in both Sydney and Melbourne are now equipped with receiving sets. The transmitters are of the 2 k.w. type, and are suitable for both speech and morse. Private telephones connect police headquarters with the transmitting stations, and in both Melbourne and Sydney the police have often received the radio report of a crime so expeditiously that arrests have been made before the culprit could leave the scene of his misdeeds. Only the police and the transmitting officers know the wavelengths employed, unless some amateur happens to pick them up by accident, but although the system admits of the use of telephony—and if required police headquarters can speak direct to the patrol cars—morse is invariably used on account of its greater privacy.

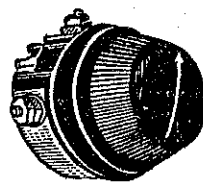
THE success and popularity of recent items which have been relayed from theatres, halls, tattoos, and other sources of entertainment have convinced the B.B.C. that the outside broadcasts may eventually have preference over items from the studios. Technical developments and the lifting of bans in various entertainment centres have opened up new fields for the B.B.C. programme department to exploit.

IN view of continued representations in Europe for the repression of

the well-known Eiffel Tower wireless station, the staff have produced a spirited reply in the form of a record of the station's daily output. Transmissions go out for nineteen hours each day between 1 a.m. and midnight, and comprise 51 separate features, including concerts, weather forecasts, meteorological information for farmers, "chats" with ships at sea and aeroplanes in flight, traffic messages to North Africa, and stock exchange quotations. Five separate wave-lengths are employed. In the circumstances, it appears as though the representations made to suppress this station are ridiculous and unfounded.

A PORTABLE outfit for taking radio-vision pictures has been invented by Denes von Mihaly, a radio engineer of Germany. The apparatus may be used to take motion pictures and transmit them via radio to various distances. Through the medium of this apparatus it is not necessary to have a huge permanent transmitting station; pictures can be transmitted from any spot desired. Such a development of radio-vision brings it into the realm of the news photographer. What seemed like a wild dream a short time ago is now a scientific possibility. We are now on the threshold of witnessing the latest news events at the same time that they happen.

RECENTLY Dr. A. S. Eve, of McGill University, in America, proved by an interesting experiment that wireless waves such as those used for broadcasting can pass through at least 200ft. of rock. He accomplished this by installing a super-heterodyne receiver in the Mammoth Cave of Kentucky. He found that the longer the waves the more rock they were able to penetrate, but short waves (40 metres) could not be detected more than a few hundred feet from the entrance of the tunnel. Waves of 6000 metres bored through over 900ft. of solid rock.



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