exchange states that Germany oposes to build in the near furtire seven super-broadcasting stations—each costing about £800,000—to replace the present main stations. A parallel system of low-power stations will also be created for single-wave transmissions. The power of the new stations will probably be 60 kilowatts, with the possibility of being lifted to 100 kilowatts, which is the maximum power agreed to at the recent Hague Session of the International Consultative Technical Committee.

THE London and North-Eastern Railway has recently conducted experiments in the use of wireless for handling goods trains in shunting yards. the object being to provide a means of communication between the engineand the operator in charge of the coatrol tower from which shunting operations are directed. A similar system, though a more elaborate one, has been in use for some months at the Berlin shunting yards, and is reported to be entirely satisfactory. Some slight trouble was experienced in the initial stages, however, owing to the fact that when the engines were blowing off steam, slight charges of static electricity which interfered with reception were generated.

ACCORDING to Mr. C. F. Jenkins, the American television expert, the first radio message was sent by Dr.



early as 1865. oscillating circuit, sent up an aerial by means of a kite and by interrupting a "buzzer-spark circuit" sent dot and dash messages to a station 15 miles It is stated that reception was accomplished with a galvanometer. The inventor's patent of 1872 claimed to utilise atmospheric electricity for telegraphic purposes, and though the Loomis Aerial Telegraph Company was formed in 1869 to develop Dr. Loomis's ideas it was found impossible to secure adequate financial backing.

AN enterprising radio firm in England now have their own travelling wireless demonstration van. It has a staff of four and is divided into driver's cabin, engine room, soundproof studio and control room, making altogether a complete broadcasting sta-M. Loomis, an American dentist, as tion from which can be sent out either

This pioneer built an the car's own programme or relays from British or foreign stations. the power required is provided by an alternator driven by a petrol engine. The amplifier is extraordinary. rated at 600 watts and the rectifier carries a potential of 8000 volts. The transmitting valve has a filament as thick as a lead pencil; 4000 volts is applied to its anode. Communication with the announcer is done entirely by means of a highly ingenious indicator board operated electrically.

> OIL prospecting by wireless and acoustic devices has engaged the attention of seven petroleum companies in the United States. The Federal Radio Commission has just allocated five frequencies for "geophysical exploration," these ranging from 1600 to 1704 kilocycles. In the combined radio and acoustic devices calculations are based on the time between radio and sound waves transmitted simultaneously from a given spot. Geological and other considerations affect the speed of the sound waves, which often reveal the presence of oil. The apparatus is an adaptation of the equipment described in our article. "Treasure Hunting by Radio," publish-ed some time ago. This invention, by recording the disturbances created in a powerful magnetic field by hidden metal, could thus indicate to the treasure-hunters the spot to commence excavations.

> "SONOROUS perspective effects" is a phrase employed by a French wireless amateur in describing the results obtained in experiments he has conducted with two pick-ups and two identical gramophone records played simultaneously. By slightly retarding one record and carefully adjusting its volume, the inventor claims that a genuine stereoscopic effect is obtained. especially when two loudspeakers are employed.

IN order to cope with international gangs of white slavers, drug smugglers, and groups of crooks, acting internationally, an alliance has been formed between Scotland Yard and the Paris and Berlin authorities, whereby a leading detective from each country will be stationed in each capital. The three centres will be linked up by direct telephone and by radio stations specially erected for international nolice work. The keynote of the scheme is swift concerted action of detectives in each country in connection with crimes concerning the nationals of either. Plans are also maturing to establish an apparatus in each capital to enable the wireless transmission of photographs and finger-prints.

TELEVISION which can be viewed by a room full of spectators rather than by one or two was announced recently by Dr. Vladimir Zworykin, an American research engineer. The in-

ventor is already in a position to discuss the practical possibility of flashing the images on a motion-picture screen so that large audiences can receive television broadcasts of important events immediately after a film of these is printed. These visual broad-casts would be synchronized with sound. A number of these receivers are now being constructed in order to give the set a thorough field test through station KDKA, Pittsburgh, which already is operating a daily television broadcast schedule. 53

INVESTIGATIONS recently carried out by the Federal Radio Commission of America have revealed that less than half of the broadcasting stations in the United States are making profit or even expenses. Nevertheless, the figures indicate that steady gain's have been made by the broadcasting industry financially since the birth of radio entertainment, and indications are that in time all stations will be self-sustaining, if not profit producing. An analysis of the 340 average broadcasting stations included in the tabulation shows that 172 lost money in amounts up to 10,000 dollars (£2000) or more over a period of a year, while the remaining 168 stations realised monetary gains up to about the same figure. The greatest losses were reported by the high-powered stations.



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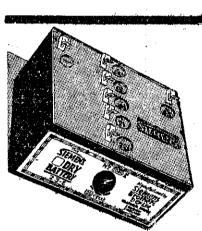


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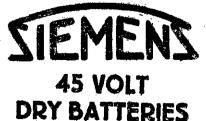


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