

RADIO is now regarded as indispensable for aviation in countries where air-services are regularly established. It would appear necessary for a trans-Tasman air-service to have a radio beacon at each end. In the United States airmen fly along a well-indicated beam of radio unerringly through rain, mist and fog, by night or day. In the case of one beam system, a small receiving set in the aeroplane immediately indicates whether the plane is off its course, and whether it is too far to the right or to the left of the radio beam. A 500-watt short-wave transmitter is employed at each beam station.

ONE of the latest radio patent devices is a tiny unit with long, insulated cords to the aerial and earth connections of the set, and by turning the knob on the unit a variable resistance is operated which increases or decreases the volume as desired. This is a handy device which could be placed on one's arm-chair by the fireside to control the volume of the set when conversation renders it desirable.

ANOTHER intriguing invention brought out recently in America is a clock which will not only switch on a radio set at any desired hour of the day or night, but will also tune a set at any desired time to any particular station on one of twelve wavelengths. The idea came to the inventor one night when he forgot to tune in a certain station broadcasting a programme he particularly desired to hear.

MR. E. H. SCOTT, formerly of Dunedin, who, when he paid a visit to New Zealand about five years ago, established several long-distance reception records in the Nelson district, is still looming large in the radio "trade" in Chicago. His latest product is a remote control unit which tunes a set to any one of eight stations merely by pressing a button. The unit may, for instance, be placed by the bedside and, by means of cords connected to the set, may be tuned as desired. The condensers in the set do not move, the tuning equipment being inside the remote control unit. This latter feature is a distinct departure from the system of other control units.

INVENTORS have still ample scope for their ingenuity when applied to radio, and no doubt many new gadgets will appear before this year expires. The receiving sets themselves are not likely to undergo any radical changes for some few years, but among accessories there are certain to be new developments. For example, fluctuations in line voltage is sometimes pronounced in certain areas in every country, and overloading of A.C. valves shortens their lives. The first line voltage regulators imported to New Zealand were unsatisfactory, but lately a vast improvement in these devices has been accomplished, and should now find a sale in the Dominion.

THE motor-car industry in the United States has now come to regard a radio receiving set as a desirable accessory to a motor-car, and the latest development in this direction is a specially devised receiving set for permanent installation in automobiles. The set is completely cased in a metal box, which is attached to the dashboard of the motor-car. The tuning dial is in a "remote control" unit placed also on

the dashboard near to the driver, and is connected to the set with a shielded cable. The set has three stages of radio frequency amplification, and power detection is employed, embodied in a case only 18 inches in length, 6 inches in height, and 4 inches in depth. The aerial is usually placed on the inside of the car.

BATTERY operation for broadcast receiving sets installed in trains and motor buses are now being replaced by A.C. sets in Canada and the United States. The power for the A.C. sets is stepped up from the illumination plant, and the results are described as completely satisfactory.

Reception Table for Australian Stations

FOR the guidance of those who wish to check their reception of the Australian stations, "Switch" prepares weekly a table showing the average relative strengths with which he has obtained reception at 11.30 p.m. during the past week:—

2FC, Sydney	10
2BL, Sydney	9
4QG, Brisbane	7
3AR, Melbourne	7
3LO, Melbourne	8
2GB, Sydney	6½
2UE, Sydney	5
3DB, Melbourne	4
7ZL, Hobart	3½
3UZ, Melbourne	3
5CL, Adelaide	2
2KY, Sydney	1½

The above figures are the points assessed, with 10 as the maximum.

POWERFUL broadcasting stations of the "super" type are being erected from time to time in Europe. The latest super-power station is at Oslo, which has an aerial power of 60,000 watts. This giant can be heard loudly throughout and beyond Europe.

LONG-DISTANCE reception has lately assumed normal winter efficiency, and the Australian and Japanese stations are coming in excellently. On some evenings static has livened up somewhat, but on the whole conditions have been good. The other evening, station JOHK, Sendai, Japan, put on a Western musical programme, comprising orchestral and pianoforte items. This station is easily loudest of the Japanese stations heard by "Switch." At times it rivals 4QG, Brisbane, the

wavelength of which is in proximity to that of the Jap.

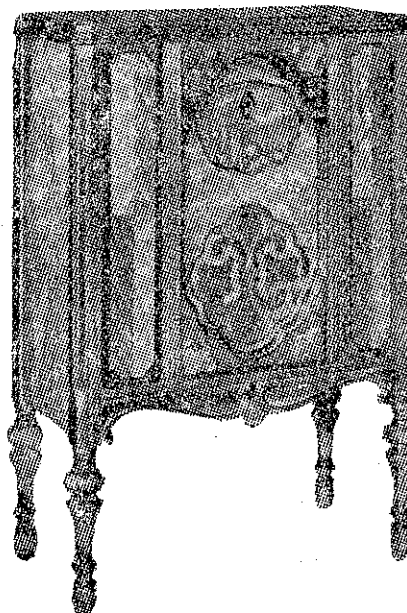
LATELY the writer has been endeavouring to listen to 2HD, Newcastle, New South Wales. This station may be classed as "sick," for all that one can hear from it is a gurgling hum. In justice to the Australian stations, it may be safely stated that the transmitter at Newcastle is the only one which has been incoherent for a long while. This is in contrast to the conditions which obtained a few years ago, when even some of the Australian "A" stations sounded very "sick" as

heard in New Zealand. However, the Newcastle station is being replaced shortly.

GIVING English-Australian cricket Test match scores (picked up by wireless) to the New Zealand Press, sometimes reacts inconveniently on the obliging listener. A Wellington listener who sat up till after midnight to pick up the cricket scores, and whose services were acknowledged by the Press, was awakened by early-morning telephone calls from places as far as Elketahuna for information regarding the cricket Test later than that published. To obtain this news, the listener would have had to sit up till 5 o'clock in the morning, besides picking up the progress reports all night. Enthusiasm has its limitations.

"**SWITCH**" wishes all success to the Rev. Mr. E. McLevie, of Masterton, who is organising a fund to equip the Masterton Hospital with a broadcast receiving installation to serve each patient's bed. If the good people of the Wairarapa could only see the pleasure broadcast listening gives the patients in the Wellington Hospital, and hear the medical superintendent's unstinted praise of its beneficial effects on the patients, the money for the Wairarapa Hospital installation would be raised with little delay.

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