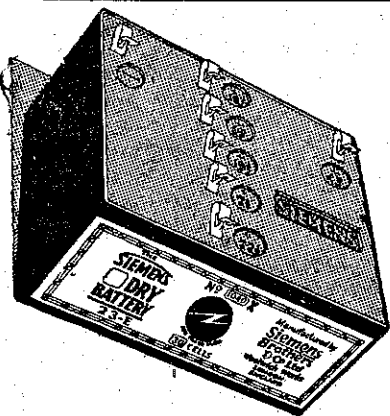


Radio News

A NEW YEAR'S greeting in thirteen languages was broadcast over a coast-to-coast network of stations in America recently. Station W2XE also transmitted the programme on short-wave for the benefit of other countries. Ten musical organisations, each playing musical selections representative of the countries reached by the broadcast were heard during the presentation.

AN amusing sidelight on the practical applications of television comes from Chicago. Mr. Austin Rahe, a New York television expert who was present at television demonstrations at the Annual Chicago Wireless Exhibition, said: "If actresses do not put on make-up and plenty, of the blackest kind, they are going to look like animated pumpkins on the television screen, and if they do put on plenty of make-up they will look like aged walruses in the studio! It is just about the most disconcerting problem which television has ever met." From this it would seem that the actress may pay her penny and take her choice as to whether she will look her best or her worst in the studio or on the screen; she cannot have it both ways.



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Radio for Aircraft Making Sound Visible

Lesson of R100

DURING the past week testimony has been borne to the value of radio as a means of guiding aircraft.

The utility of wireless in this connection is well recognised in England, Europe and the United States and the case of the British airship R100 remaining over the English Channel all night without land in sight, has called attention to the relation between various forms of wireless communication and air travel.

The cables report that at all times the commander of R100 knew exactly where he was, having constantly taken cross-bearings by wireless. Thus it was a simple matter to calculate his position. There is a strong body of opinion in Australian radio and nautical circles that the airways of Australia and the future airways in New Zealand should be made safe by means of radio. On at least three occasions during her historic voyages, the Southern Cross was in imminent peril which could not have persisted had the necessary wireless facilities been available to enable the airmen to learn their exact position.

Experts are of opinion that for trans-continental aircraft air-beacons should be established at such places as Broken Hill, Alice Springs and Longreach. With direction-finding gear on 'planes, these air-beacons would enable airmen to fly in safety between Sydney, Melbourne or Brisbane and the Northern Territory. Other radio beacons could be established in connection with the traffic between Melbourne, Sydney and Brisbane. There are three principal methods by which aircraft in flight can be assisted by radio, all of which might be used with advantage to develop Australia's airways. Following are the methods:—

1. The use of a transmitter and receiving set on a 'plane by means of which an airman can signal to ground stations. The latter, being fitted with direction-finding apparatus, can in a few minutes plot the precise position and acquaint the aviators.
2. A station can send out two signals at an angle of about 90 degrees. These are received by the pilot. Provided that they blend at equal strength he knows that he is travelling straight for the signal; otherwise he must veer either to the right or the left according as the signals come in strong or weak.
3. A 'plane can carry direction-finding apparatus by means of which it can fly straight to a given station—either a broadcasting or a wireless beacon.

The experience of other countries has shown the value of wireless in this connection, and by means of one or more of the methods indicated experts could readily work out a practical scheme for Australia.

"N.Z. Radio Listener's Guide"?

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A Recent Invention

BY means of a new device called the "projection osiso" it is now possible for vocal and instrumental artists to see as well as hear the sound waves produced while singing or playing. The sound waves are intercepted by a microphone and are conveyed electrically to an "osiso," which consists essentially of a delicately suspended mirror that oscillates in unison with the received sound waves.

A beam of light directed on this mirror is reflected by it to a system of revolving mirrors which in turn reflect the beam, and thus project it upon a screen which may be viewed by any number of people. When all is quiet around the microphone, a long white line is seen upon the screen, but as soon as any sound reaches the sensitive electrical ear the white line is agitated into waves. The form of these waves varies with the sounds producing them, and they range from gentle ripples, produced by low, pure tones, to the most intricate of patterns produced by loud complex chords and sounds.

Two practical investigations are being carried out with the aid of this instrument, the possibilities of which seem almost endless. Firstly, it is being used to study the construction of pianos and other musical instruments in order to improve them. For example, if successive notes on a piano are struck with the same force the osiso screen may indicate that some notes produce distinctly larger waves than others. This shows that these particular notes, owing to some peculiarity in the construction of the instrument, produce louder sounds than the rest.

Another application of this instrument is that of helping the musical student to improve his technique. The sound waves produced by the touch of a master pianist differ from those produced when the same keys are struck by an unskilled hand. Permanent records of the wave patterns produced by distinguished musicians have been made by means of the older photographic type of osiso, and, with these before him, the student can endeavour to reproduce them on the screen of the projection osiso. It seems certain that improvement can be attained in this way.

Trouble-Finding

IT will be good news for set owners who experience troubles that they cannot definitely locate to know that a trouble-finder of high technical qualifications is making himself available in Wellington. He is Mr. D. Neill Keith, of Dundas Street, Seatoun, Wellington. The credentials possessed by Mr. Keith are of the highest nature. His experience with wireless goes back to the earliest days. It was in 1906 that he first became interested in wireless as a hobby. In 1916 he was one of the first five officers posted to the Wireless Testing Park, controlled by the Royal Flying Corps. Here he gained invaluable experience in all phases of radio work, and after the war he remained in association with the British Government Wireless Experimental Station, Biggin Hill, Kent. After being "demobbed" he joined Metropolitan-Vickers as Technical Radio Engineer, and represented them on the committee of the National Association of Radio Manufacturers, which was responsible for the inception of broadcasting in Great Britain. Latterly Mr. Keith has been associated with Metropolitan-Vickers in New Zealand. Servicing of sets and trouble finding of every nature will be undertaken by Mr. Keith.

Reception from Australia

OF late the Australian stations have been coming in with something like their normal vim. "Switch" would assess the average volume of the Australian stations as follows, giving 2BL, Sydney, first place with 10 points; 2FC, Sydney, 8 points; 2GB, Sydney, 6 points; 3LO, Melbourne, 5 points; 4QG, Brisbane, 4 points; 2UE, Sydney, 4 points; 3AR, Melbourne, 3½ points; 3UZ, Melbourne, 3 points; 5CL, Adelaide, 2½ points. As previously stated, these are only the average, for on some evenings different points would be allotted. The Japanese station, on a slightly higher frequency than that of 4QG, Brisbane, has ranged as high as 5 points. Static, has, however, on several evenings been severe.

Obviously, the grosser errors in playing, singing, and speaking can be overcome with the aid of this instrument, since, with the eye to aid the ear, an error can be more readily appreciated and its correction effected.

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