

A COMMON mistake is to test the voltage of batteries when they are idle. The correct method is to test batteries for voltage while they are in actual operation. Some dry "B" batteries show a healthy voltage when they are not connected up to the set, but when the strain of operation is applied the voltage drops considerably.

THE English loudspeaker manufacturers are now taking up the exponential horn, and one of the best-known loudspeaker-making firms in Great Britain is turning out a speaker which incorporates the better points of the exponential horn, and also includes an exclusive sound reflector principle.

A RADIO company with business premises in Adelaide and Melbourne employs its own aeroplane for delivering sets and parts to outlying towns. It is proving a big advertising stunt, although a costly one.

IF, by any freak, a New Zealander hears a little station on 230.6 metres on a Sunday evening he will be listening to 3RI, Melbourne, a ten-watt transmitter which sends out gramophone records on alternate Sunday evenings. 3RI is owned and operated by the Victoria Railways Institute Radio Club, a progressive body with some keen radio enthusiasts. Its limited power is not likely to permit of trans-Tasman reception on a wavelength of 230.6 metres, but freak happenings do occur at times when the ether is inclined that way.

NOTWITHSTANDING the advent of the cone-type loudspeaker, Wellington listeners continue to buy the good old horn-type. A local trader states that he has a regular demand for the English horn-type speaker even after comparative tests with cone-types.

THERE is a rumour that a 20,000 watt water-cooled valve is to be embodied in the transmitter of 7ZL. Word is also going around that 3AR,

Melbourne, is to have a new transmitter with an increase of power. Whether the arrangement by which the Commonwealth Government is to take over all the A class stations will effect the above plans is not indicated.

MR. CHARLES MACLURCAN, the well-known Sydney amateur transmitter, has returned to his home after a lengthy visit to England. He made many friends in Wellington a few years ago when he journeyed to San Francisco by one of the Union Company's mail boats to test the practicability of short-wave communication across the Pacific. Mr. MacLurcan has brought back from England several picked specimens of quartz crystal to control the wavelength of his private transmitter.

NEW Zealanders are beginning to sit up and take notice of television, but in its present crude form the thing is best left alone. Careful and competent observers state that television will not be probable in this part of the world for another six years. The only receiving equipment that has proved anything like efficient costs too much for the private individual, and the whole outfit may have to be scrapped at any time in the light of radical improvements probable from time to time.

RADIO engineers in Australia have been endeavouring to work out a scheme by which Kingsford Smith and his comrades would be able to transmit a spoken account of their flight to New Zealand while they are crossing the Tasman. The weight of a transmitter suitable for speech is the main obstacle. If the thing could be managed it would add tremendously to the interest in the flight, as 2YA, Wellington, could pick up and rebroadcast the words spoken from the airplane.

"J.N.T." (Wellington) asks: "Which do you advise as the most suitable for adding to my crystal set for reception of 3YA, Christchurch, one stage of audio or one stage of radio

frequency amplification" Radio frequency is necessary for long-distance reception with a crystal set. One stage of radio frequency amplification should give crystal reception of 3YA, Christchurch, providing the aerial and earth system is good, and the correct type of valve and circuit are used. The location of the listener's aerial is frequently an important factor also.

The many up-country listeners who get the long-distance stations is a revelation to city dwellers. For example, Mr. Claude P. Grey, of Shannon, brought in 2FC, Sydney, on a recent morning at 8.30 o'clock, New Zealand time, with full loudspeaker volume. At 11 a.m. he had the small Wanganui station coming in with tremendous vim. Mr. Grey is still operating his five-valve (dull emitters) American-built set, with which he has long since established a reputation for DX work.

THOSE listeners who tuned in 2FC and 2BL, Sydney, on Tuesday evening of last week had the pleasure of hearing Dame Nellie Melba in "La Boheme" at Her Majesty's Theatre, Sydney. Certain areas in Wellington happened to be affected by a power-line leakage which completely overwhelmed 2BL, Sydney, but it acted only as a "background" to 2FC, and consequently the diva's glorious voice was heard without any serious interference from the latter station.

NEWS of new "wonder" valves is always read with alacrity by broadcast listeners. A Continental valve manufacturing company's latest product, a power valve with an amplification factor of 100 without distortion, has made its appearance in Wellington. It has three grids, and is designed expressly for the last stage of audio. No change in the wiring of a standard receiving set is necessary for the new valve. All that is required is to run an extra wire from the plus terminal of B battery to a screw connection provided on the side of the base of the valve. The B battery potential required ranges from 50 to 150 volts. The filament current is .15 amps at 4 volts. The valve will be available shortly for 6 volts.

THE little "C" battery which is essential for good production of tone in all sets employing audio amplification has a wonderfully long life as there is no current drain from it. A Wellington listener has had a "C" battery in operation for 13 months which is still functioning adequately. It shows only a fractional drop in voltage as compared with its condition when purchased. All dry batteries, whether "A," "B" or "C" will "die" even without being used, while lying idle. Some have much longer lives than others, and it is difficult to assess the "shelf life" of a battery.

A mystery of the ether is its strange lack of conductivity on some occasions, and this gives rise to considerable anxiety as to the efficiency of their sets

on the part of beginners. On a recent Sunday night the Australian stations were not audible at all in some areas in New Zealand, while in more favoured localities they were a mere whisper from loudspeakers. As is usually the case, beginners blamed their valves, batteries, aerials, and what-not for the falling-off of the Australian stations. Some even pulled their equipment apart to test the parts. The nearest telephone should be sought to communicate with a fellow-listener in order to ascertain whether he is experiencing similar results.

THE present winter has been abnormally poor for long-distance reception, although there has been comparatively little interference from static. Some of the old-timers will remember winters which afforded as much as three times the volume which has been obtainable lately from the Australian stations. A peculiar feature of the recent weakness of the Australian stations is that each is affected differently on succeeding nights. 4QG, Brisbane, may be easily the loudest on some nights, while on other nights 2BL or 2FC, Sydney, will be in the ascendant. Then, again, 3LO, Melbourne, will sometimes show a marked improvement, while the Sydney and Brisbane stations are weaker than usual.

THOSE who operate crystal sets will find that the volume of reception can be increased or decreased by the amount of pressure applied by the cat-whisker to some crystals. A little experimentation will prove interesting and may improve reception.



Of course I'm still smiling. Got one of those Emmco Battery Eliminators for my radio set months ago. Never had the slightest trouble. No battery worry. Get constant silent power all the time. Fit one in yourself.

**EMMCO
ELIMINATORS
FROM
£10/10/-**



N.Z. Distributors:
Abel Smeeton, Auckland; Thomas Ballinger, Wellington; L. B. Scott, Christchurch.

FREE

Cut out this coupon and post to us; we will send you our Book of Circuits, detailing One, Two, Three and Four-valve Sets, Short-wave, Screened Grid, Gramophone Pick-up, Television, Lists of Stations, etc.

Name

Address

HARTLE & GRAY
British Radio Supplies,
CUSTOMS STREET, AUCKLAND.

The Radio Depot

165 Manchester St., Christchurch.

E. G. SHIPLEY.
RADIO SPECIALIST.
Phone 4770.

S-O-S

TRAVEL IN COMFORT BY
CAR

WELLINGTON — PALMERSTON
NEW PLYMOUTH.

Use Our Booking Offices in Advance.