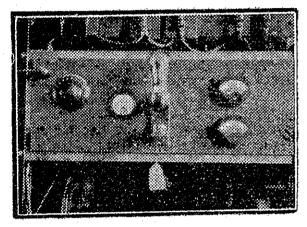
Crystal Control v. Master New Zealanders win Oscillator

HOR some considerable time station THE Radio Broadcasting Company of 2YA, Wellington, has been crystal controlled, as are many of the foreign stations, but results have not been what they might have, and the tests should reveal whether it is the crystal that is at fault or not.

A crystal-controlled transmitter consists of a valve oscillator controlled by a piezo-electric crystal, a radio frequency amplifier, and in some cases a frequency multiplier. Owing to the fact that the oscillations generated in a crystal-controlled circuit, while re-



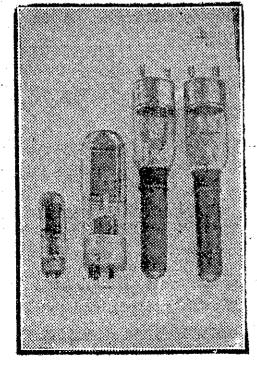
markably selective and constant, are nevertheless very feeble, it is necessary that the energy should be amplified many times before it can be used for practical purposes in the transmitting plant.

Crystals for this purpose must in the first place be clear and flawless, and then cut to a definite size. The size determines the wave-length, and unless the crystal is replaced the wavelength cannot be altered. Thus, "broad tuning," "off the wave-length," and similar complaints are impossible.

The crystal is mounted in the circuit by being placed between two conductors and so placed in the circuit. Diagram I shows the crystal mounted as it is at 2YA-the bone of contention.

With the master oscillator control, however, wave-length can vary by very minor alterations. There is little difference in the circuit except for the provision of another valve instead of the crystal, and a lesser amount of amplification.

This latter type is still that used in most of the big stations of the world, and certainly with careful adjustment and handling can give results well nigh perfect. Diagram 2 is the master oscillator



Y 2YA To Go On Test Radio Competitions

Success in Sydney

New South Wales, in conjunction with the Sydney "Evening News" and "Sunday News," with the view of obtaining new artists for radio broadcasting, have just completed a competition of some 36 sections. The cash prizes offered amounted to £250, and the studio engagements £550, making a total of £800. Section 23, radio sketch, first prize £4, and engagements £24, was won by Miss Zena Jupp, of Berhampore, Wellington. Miss Jupp won the ladies' elocutionary scholarship at the recent Wellington competitions, and is now continuing her studies in Sydney with marked success. Miss Jupp was also champion elocutionist at the Masterton competitions in 1927. Advice received by last mail states that Miss Jupp has been appointed adjudicator at the Boolaroo Eisteddfod, to be held in March, 1929. Miss Dorothea Vautier, another Wellingtonian well known at 2YA, also competed at the radio competition in Sydney, and was highly commended in section 26, impromptu announcer.

File for "Radio Record"

THE desire has been expressed in several quarters for the provision of cardboard holders for the "Radio Record," so that listeners may place them on file for ready reference. We have accordingly arranged for the provision of sturdy cardboard holders, with cloth backing and hinged front, at a cost of 1s. 6d. post free. front is inscribed with the name of the "Radio Record," and both front and back are pierced for cord. then becomes a simple matter to pierce each issue of the "Radio Record" with two holes, and place it on file available for ready reference on the part of listeners. The job is quite sturdy and presentable, and will, we believe, be a convenience to those enthusiasts who wish to keep copies available for perusal. Address applications, with postal notes for 1s. 6d., to Post Office Box 1032, Wellington.

Testing of 2YA

AS stated in the "Radio Record" last week, tests are being conducted this month of the two systems of control at 2YA.

. Next week the systems of control... will be:

Sunday, January 6: Crystal.

Monday, January 7: Master Oscillator tube.

Tuesday, January 8: Crystal.

Wednesday, January 9: Master Oscillator tube.

Thursday, January 10: Crystal.

Friday, January 11: Master Oscillator

Saturday, January 12: Orystal

League Wireless Station

INTERESTING possibilities in the development of the League wireless station at Geneva are suggested in the report of the committee of experts which has recently dealt with the subject.

The primary reason for such league station is the need for rapid communication with council members at a moment of crisis. The objection to the installation of a league station is, of course, expense. But it is pointed out that many nations maintain at great cost all sorts of pieces of emergency mechanism needed only for use in time of war, and it is therefore the more legitimate to incur a small collective expense in the interests of peace.

The experts do not think that such apparatus, if constructed, would be of value in emergencies only. point out in the next passage in their report that the station could make a general distribution by circular wireless telegrams of press news. Government information, and important League documents; it could organise a letter telegram service between Geneva and the more distant member States, which at present receive their information by mail, and consequently are apt to be out of touch with the latest League developments; further, a considerable proportion of the telegrams now exchanged between the

Secretary-General of the League and the different Governments, and between the Governments and their delegations, would be sent through the League wireless station. The proposal will come before the council shortly.

Tracking Power Leakages

The Palmerston North Borough Council has decided to purchase, as suggested by the Manawatu Radio Radio Club, a fault-finding set, at an estimated cost of £30, to locate radio interference. It was pointed out at a meeting of the council recently that not only would the set be useful from that point of view, but it would be valuable for detecting power leakages wherever they exist.

Sir Charles Statham Broadcasts.

3YA took the opportunity of the laying of the foundation stone of a new wing of the Cathedral Grammar School to carry out a relay on the afternoon of Sunday, December 16, after which a studio concert was given.

There were some interesting speakers at the stone-laying, one of them being Sir Charles Statham, Speaker of the House of Representatives.



Advt. of PHILIPS LAMPS (N.Z.) LTD., (Radio Dept.), Hope Gibbons Building, Courtenay Place, Wellington.