

New Points For Listeners and Dealers-- By "Meter"

The aim of this section is to give listeners information of new and interesting devices and sets on the local market. It is free of advertising intent or influence and to the best of our ability will convey only absolutely reliable statements. Names, prices and sources of supply are mentioned for the benefit of readers and to save individual inquiry.

A POWER tube should always be used in the last audio stage of a multi-tube receiver if more than one stage of audio-amplification is employed. If the receiver is required to deliver only moderate volume, the UX-112 type of tube is the proper one. For greater volume and best tone quality the UX-371 or the UX-310 tubes should be used. One disadvantage of the latter two power tubes lies in their comparatively high plate current consumption, but where B eliminators are used this is not a drawback. Power tubes required higher B and C voltages than the other tubes in a receiver, and for that reason separate B and C connections are provided. In older receivers this provision may not have been made. For such cases special adapters may be obtained which permit power tubes to be used in these old receivers without any alteration in the receiver itself. The separate connections mentioned are provided in the adapter.

WET B BATTERIES.

RADIO listeners who employ wet B batteries should take care to charge them fully if they charge them in their own homes. The tendency of listeners is to be afraid of over-charging their wet B batteries, and as soon as the batteries are gassing actively they take them off charge. If wet B batteries are not fully charged regularly the plates become "hard," with the result that they will not hold their charge anything like so long as they should. This does not irretrievably damage them, but they must be subjected to two or three prolonged charges before a cure is effected. Many hydrometers, too, are not accurate, and they may cause one to think that batteries are fully charged when they are not. Any reputable battery service station would test a hydrometer, and thus remove any doubt that may exist in the mind of the owner.

MARATHON DRY BATTERIES.

MESSRS. Tolley and Son, Ltd., Harris Street, Wellington, showed me recently a complete line of Marathon dry batteries ranging from the standard 4½-volt "C" batteries to the large heavy duty "B" batteries of 45 volts. The Marathon Company's headquarters are at Wausau, Wisconsin, U.S.A. A recent visitor from England informs me that the Marathon batteries are extensively used for radio in the London hotels. The line is made up in 22½-volt dry "B" bat-

teries (10s. 6d. retail), 45-volt (£1), heavy duty 45-volt (£1 7s. 6d.), 4½ volts (3s.), "A" radio dry cells (2s. 6d.). The 45-volt battery is marketed in either the upright type or the standard flat type. The former take up considerably less table area and are excellent for portable purpose. I have witnessed some voltage and amperage tests which the Marathon batteries have been subjected to, and they exhibited a general excellence. This is a line I have no hesitation in recommending to listeners who desire honest service.

PHILIPS ELIMINATORS.

PHILIPS Lamps (N.Z.), Ltd., Hope, Gibbons Buildings, Courtenay Place, have now received the new Philips "B" eliminator and "B" and "C" eliminators. On the "B" eliminator, no fewer than seven taps are provided for the receiving set, although, with the average set, no more than four taps (including the negative) are required. Usually a relatively low voltage is required for the detector valve, a higher voltage for the radio-frequency valve or valves, and first stage of audio, and an extra high voltage for the last audio valve, which may be a power valve. By the listener

testing the various taps, he can obtain the best results. The same remarks apply to the "B" and "C" eliminator, excepting that there are the necessary taps for three different voltages for "C" battery bias. A special valve (No. 3006) is fitted into this eliminator solely for the purpose of supplying a constant grid-bias, independent of the "B" load drawn from the rectifying valve (No. 506). Both these valves are designed to have a comparatively long, useful life, and should rarely need replacement, if the apparatus is carefully and intelligently used. As much as 210 volts is obtainable from this eliminator for "B" potential. In the first-mentioned "B" eliminator, a No. 506 Philips rectifying valve is used. The writer has had lengthy experience with the Philips eliminator valves, and the makers' claim of a lengthy life for these valves has been supported by my own observations. The new eliminators are constructed for the 230 volt standard New Zealand supply. The new "B" eliminator retails at £9 15s., and the "B" and "C" eliminator at £11 15s. At these prices, they are splendid value. These eliminators are free from the obnoxious A.C. hum, which characterises some cheaper eliminators.

THE UX-222 SCREENED VALVE.

MR. G. ROBERTSON, general manager of Amalgamated Wireless, Ltd., Bank of Australasia Chambers, Customhouse Quay, Wellington, informs me that the Radio Corporation's new screened-grid valve, UX-222, is proving extremely popular. Wholesale stocks of this valve are now low, but a further shipment will be landed here in a few weeks. Mr. Robertson says the new "wonder" valve is being used as the radio-frequency valve in Browning-Drake sets, in neutrodyne, and in short-wave sets. Although a large number of these new American screened-grid valves have been sold here, Mr. Robertson reports that not one has come back as defective. These valves are retailing at £2 2s.

NEW PHILIPS POWER VALVE.

A NEW 6-volt power valve, the C608, has just been landed by the Philips Lamps (N.Z.), Ltd. The characteristics of the new valve are:—Filament voltage, 6; filament current, .3 amp.; plate voltage, 50 to 150; total emission, 120 milliamperes; amplification factor, 3.3; mutual conductance (slope), 2; internal resistance, 1650 ohms; normal plate current, 18 milliamperes.

S-O-S

TRAVEL IN COMFORT BY CAR

WELLINGTON — PALMERSTON
NEW PLYMOUTH.

Use Our Booking Offices in Advance.
51 Willis Street, WELLINGTON.



HEARD

The Story about
the White Horses?

Everybody knows it, so there's no need to repeat it here. We can tell you, however, the story about your radio dry batteries. They're simply wasting money for you. Put in an Emmco Battery Eliminator, and start to save now. Gets you better reception, too.

Emmco Eliminators.
From £10/10/- up



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

NEW ELECTRIC PICKUP

GREAT CLAIMS FOR INVENTION

The latest American files report the newest musical mystery, the Revelophone Ensemble Orchestra—a "ghost" band of musical instruments, playing without players. Not a musician in sight; just the instruments of a modern jazz orchestra, emitting the stirring strains of a Beethoven symphony as played by the Philharmonic Orchestra under the direction of Toscanini! No wonder former fugitives from German bands are sweeping out their cyclone cellars.

Use Actual Instruments.

They needn't. For the use of actual musical instruments to reproduce the tones originated by another musical group is the last word in reproduction. This according to W. D. Smith, inventor of the Revelophone electric pickup for phonograph records which effected such sweeping improvements in tone quality, and Mr. Smith ought to know. He has been secretly perfecting the new device, the ensemble orchestra, for the last seven years, according to the "New York Herald-Tribune."

The most delicate nuances of tone and shadings of musical expression may now be preserved in the reproduction by the "ghost" orchestra, the inventor claims. The presence of the actual substances which distinguish each instrument of the performing group provides the exact timber of the original, he asserts.

Instead of professional, high-priced lips at the reed of the saxophone, or the piano ivories flying beneath nicotine-stained fingers—at union rates—these are actuated by special reproducer units designed for that particular instrument. The units are actuated in turn by an electric pickup for

phonograph records, or the detector and amplifying circuits of any radio set.

Not Limited in Reproduction.

The phantom orchestra is not limited just to instrumental reproductions, but perform equally well on everything from "Cohen on the Telephone" to hundreds of voices with organ accompaniment. It has repeatedly run the entire register of audible sounds without noticeable distortion at any volume, Mr. Smith declares.

The invention is particularly adaptable, he states, for use in auditoriums, hotels, motion-picture theatres, and for dancing or concert purposes. Installations will cost in the neighbourhood of from 1000 dollars to 2500 dollars, depending on the size of "orchestra" desired.

THE A.C. SET

COST OF PROGRESS.

The advent of the modern alternating-current vacuum tube has left a great wreckage behind it; this tube has made obsolete the great majority of the old battery-operated sets, which will now be used only where there is no house current available. As far as the United States is concerned, that is true for only about 40 per cent. of the population; the other 60 per cent. of the houses are wired for electric current, and ready for socket-operated sets.

It is a curious fact that some of our largest set manufacturers are the greatest sufferers from the march of progress. When, late in 1927, it became necessary to make the switch from the battery set to the alternating-current-tube set, a number of manufacturers were left with huge stocks of battery-operated sets on their hands. They could not dispose of both types of these sets, any more than you could sell

straw hats and fur overcoats in the same month; so a number of them had to take huge losses on great quantities of their battery sets. That is the cost of progress. In New Zealand, however, the battery set will continue to have a steady market for many a day, although the a.c. sets will be in good demand soon.

LOOKING AHEAD

Looking into the distant future, Mr. Hugo Gernsback, editor of the New York "Radio News," says:

"It is quite within the range of possibility that sets will be entirely automatic and will start operating daily at a predetermined time, switching themselves off automatically when the station goes off the air; only to be switched on again when a station goes on the air, if such should be desired. To be sure, you could still switch the set on and off by hand if you should wish to do so.

Then, too, there is always the chance that a totally new discovery will come along that, in itself, will obliterate the vacuum tube in one way or another; and it is even within the bounds of possibility that there will be invented some new device that will require so little power that a small dry-cell battery will operate it for a considerable length of time. This, in turn, would again make the radio set independent of the lighting current and would make it more transportable. But all these things are yet in the future."

U.S.A. PATENTS' POSITION

PUBLIC HOSTILITY.

In the United States a combination of powerful radio manufacturing companies has secured all the leading patents. This is responsible for a rise in price of receiving sets.

The New York "Radio Broadcast" comments on what it considers the unfairness of this combine, and thinks it will cause a public reaction against the companies involved. That journal says:—

An early adjustment of the present situation must be effected, lest it cause the passage of legislation detrimental to all patent holders. Any law which makes a patent less valuable and offers less protection to the owner of a patent will discourage scientific research and rob the independent inventor of his incentive to devote himself to progress. Unless considerable forbearance and cool judgment is displayed by all the parties involved in the present controversy, the only possible outcome is legislation which will permanently weaken our patent structure. Aroused public opinion may exact too great a penalty, unless the patent-holding group be guided by more of the spirit of live and let live.

THE paste inside the ordinary flash-lamp battery is highly destructive, so it should not be allowed to come into contact with carpets, etc.

JUST ARRIVED — A NEW SHIPMENT OF
THE FAMOUS NO. 51

2-VALVE CROSLY

Australian Stations Guaranteed on Phone Strength, complete with Valves, Batteries, Loudspeaker and Phones.

£9 10 0

CALL FOR A DEMONSTRATION.

G. G. MACQUARRIE Ltd.

CROSLY SALES AND SERVICE.

Phone 45-865 95 WILLIS STREET WELLINGTON.

OUR NEW PRICE LIST IS AVAILABLE FOR THE ASKING.

SHORT WAVE SETS — Complete.

ORDER YOURS NOW.

On the complete shortwave sets we are now building, we GUARANTEE RESULTS.

LONDON — HOLLAND — AMERICA.

The Best Workmanship and the Highest Class Parts goes in before our Name goes on.

ALL GOODS MONEY BACK GUARANTEED.

If your own set needs repairing, don't hesitate to bring it along, or ring us.

THE HOUSE OF SERVICE.

Mack's RADIO CO. LTD.
76-77 KENT TERRACE

BRITAIN'S BEST BATTERY

THE

ADICO

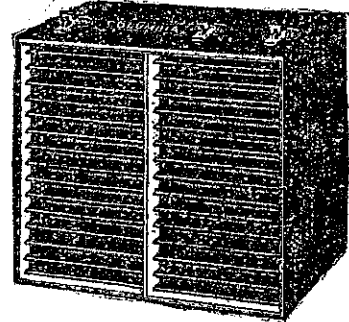
Will Outlast
any other Battery
of Similar Make

Sub - Agents Required throughout
New Zealand.

Sole N.Z. Agents:

**LEVIN & CO.
LTD.**

(Machinery Dept.),
WELLINGTON.



Here is the Most Popular Radio
Battery in the World

—The Columbia Layerbilt

NEVER before has it been possible to utilize every cubic inch of battery to produce power. The new Columbia Layerbilt "B" Battery has accomplished this.

Made of flat layers of current-producing material instead of the usual round cells, not a cubic inch of space is wasted. You get more battery for your money, far more energy, greater clarity, volume and distance from your receiving set. There is not another battery like the Columbia Layerbilt—Insist upon it.

**Columbia
RADIO BATTERIES**

GREATEST CLARITY
VOLUME - DISTANCE

Factory Representatives
ELLIS & COMPANY, LTD.
Chancery Chambers, O'Connell St.
Auckland