

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.

ANYONE interested in loudspeakers will find something distinctly new in the Baldwin Exponential horn-type loudspeaker just landed by Messrs. Thomas Ballinger and Company, Ltd., of Wellington. The scientists have been delving into the law of acoustics, and have found that a loudspeaker horn built according to formula will give a marked increase in volume and improvement in tone over the old type loudspeaker horn. The Baldwin Exponential is shaped according to acoustical science, and resembles a huge folded bangle with an enormous bell. I ran the tape over it and found that if the horn were straightened out it would measure 8 feet 4 inches. The material of which it is made is a composition which suggests wood-pulp as one of its constituents. One of Baldwin's latest loudspeaker units is fitted to the horn. The tone and volume was surprising when tested in my presence. This loudspeaker should be in the boom at its retail price, £12 10s. Other new Baldwin loudspeakers on view were the "Concert" horn at £7 retail, and the "Junior" horn at £4 10s. A cabinet Baldwin of unique design has just arrived, and has not been costed yet.

NEW B ELIMINATOR.

THERE is no gainsaying that the B battery eliminator is going to sweep through New Zealand, although B batteries, owing to certain circumstances in their favour, will be used for a considerable time by many. But those who have not got first-class wet B batteries, and have electricity laid on to their homes, will not be long in adopting the B battery eliminator. This device does away with the B battery, for by plugging it into the household mains, it delivers a steady and sufficient electric potential to operate any valve receiving set without any change of valves or alteration in the wiring of the set. The other day Messrs. Thomas Ballinger and Co., Ltd., of Wellington, gave me a demonstration of the new Willard super B power unit, which is one of the finest B eliminators I have yet examined. This unit has six terminals, including the indispensable negative terminal. The terminals are as follows:—(a) For detector valve, variable by means of a rheostat, from 22½ to 45 volts, a very fine voltage control being obtainable. (b) For radio frequency valves two separate terminals each give a voltage of from 67½ to 90, controlled by rheostats. (c) A terminal for the first radio valve, ranging from 67½ to 135 volts, also controlled by a rheostat. (d) A terminal with a fixed voltage of 180 for the last power valve, particularly suitable for the 171 type of valve, which is made for a maximum of 180 volts, with which

it requires a C battery of 40½ volts. The Willard super B power unit weighs 21 lb. and measures 6½ inches wide, 11½ inches high, and 9½ inches long. It is retailed at £13 16s.

LOUDSPEAKER DESIGN.

The cone loudspeaker has generally been adopted as the best surface to use because of its lightness and stiffness, according to Dr. Irving Wolff, an American radio engineer. However, it is necessary to have a large vibrating surface in order to get good response from the cone-type speaker?

"It is now generally known that a large vibrating surface is the most efficient radiator of low tones," Dr. Wolff explained recently. "Next best we can place a small surface in a fairly large baffle (a surface of non-vibrating material which prevents sound from the back circulating around the front). These facts have created the impression that it is necessary to have a large vibrating surface or baffle, in order to produce low tones. We must not forget, however, that the sound given off by the loudspeaker depends both upon the efficiency of the radiating surface and its amplitude of motion, and that low tones can be obtained even from a small surface by making the motion large. The hope for designing a small loudspeaker with a good response in the low musical range then depends on designing driving motors capable of giving this big amplitude. This is one of the biggest problems which the designer of loudspeakers is now up against."

"That a large surface is not absolutely necessary for the reproduction of low notes is apparent from a consideration of musical instruments. The piano is really the only instrument which does have a radiating surface of large dimensions. The organ and bass drum, which produce the lowest notes, have comparatively small surfaces. The human voice may not always be a musical instrument, but even in the worst cases the sound does not come from an aperture of remarkably large extent. These facts should give us hope to try and see what we can do."

NEW "WONDER" VALVE.

This is how the "Scientific American" described the latest Radiotron "wonder" valve:—

"A new and improved radio-frequency amplifier valve, the UX-222, known as a four-element tube, because it has a filament, plate, and two grids, has been introduced to manufacturers, who are planning their sets for next year, and to experimenters in the realm of broadcasting. It is a battery-operated tube, and according to engineers it has great promise in the experimental and development fields."

"The standard tube has one grid, while the new amplifier's two grids are placed concentrically with each other and with the filament. This arrangement constitutes a distinct departure from the conventional vacuum-tube construction. The control grid element, which corresponds to the regular grid in receiving tubes now in general use, is connected to a terminal cemented to the top of the glass bulb. The other grid element, known as the "screen grid," is attached to a terminal in the base in the standard way."

ENORMOUS VOLUME INCREASE.

"This UX-222, when properly connected, is said to increase the signal voltage about thirty or forty times, as compared with a five to seven voltage increase obtained with the average general purpose tube. When employed as a space-charge-grid tube, the received signal voltage may be intensified by more than 150 times per stage of amplification. The tube requires but 0.132 amperes of filament current at a voltage of 3.3. Thus it can be operated easily with three dry cells connected in series."

"The general application of this tube is said by engineers to be still a matter of reflection; nevertheless, those close to the industry look upon it as the index to a new set, probably one with fewer tubes, because the UX-222 in the radio-frequency amplifier circuit can do the work of several of the present tubes, and do it more efficiently. Nine times out of ten the introduction of a new tube is the vanguard of a new receiving set."

"It is pointed out by engineers that the shortcomings of the conventional three-element tube is, perhaps, most greatly manifest in what is called inter-electrode capacity, or the capacity between the electrodes themselves plus the capacity between the more or less parallel connection wires that make contact with the circuit through the base of the tube. This capacity allows some of the plate-circuit energy to be fed into the grid circuit, with a tendency to unbalance the circuit and create a state of oscillation. Such conditions are detrimental to the relay action of the tube and are likely to distort the signal."

"The extra grid in the UX-222 is said to eliminate self-capacity. Therefore, no neutralising devices are needed in the circuit to prevent feed-back; the circuit is simplified; howls are minimised and much greater signal strength is obtained."

THE PROBLEM OF SERVICE.

"It must be admitted that the problem of service has caused many a dealer long hours of thought, and more than a little worry," writes an American radio trader. "After having worked on the puzzle myself for several years and finally solved it with a degree of success, I am inclined to think that most of us have so much trouble with it because we start with the wrong attitude toward the whole thing."

"What I mean is simply this—that nine out of ten radio dealers consider the service department as a necessary 'It is a little too much, perhaps, to expect that the service department of

most radio stores can operate at any great profit. But as I see the situation now, there is certainly no reason why this end of the business should run at a loss."

expense, rather than as an accessory to sales. It is a department which must be run, but one which they would like to throw out of the store if they dared to. There is no getting around the fact that any radio store which sells any quantity of sets must maintain some kind of an installation and maintenance service. The dealer is right in regarding his service men as an absolute necessity. But he is wrong, I believe, in looking upon the service end of his business primarily as an expense and a drain upon his gross profits. Experience has proved it otherwise."

STRIKING RADIO ENTERPRISE.

TO Mr. Gruar, of Gruar's Battery House, No. 9 Majoribanks Street, Wellington, belongs the credit for being the first "radio doctor" in Wellington. The Wellington radio traders have not laid themselves out to cater for the "emergency call" at all times of the day and night, and Mr. Gruar decided to fill the want. Although battery selling, repairing, and recharging is his main business, Mr. Gruar is an efficient radiotician, dating back in experience to when broadcasting as we now know it was a vague dream of the future. As a "radio doctor" he can be called at any hour either at his battery station, phone 20-937, or at his home, phone 20-003. When he receives a "hurry" call he proceeds to the listener's residence in his motor-car, with a kit of repair tools, spare parts, and testing meters. This is a service which Mr. Gruar has already found is in much demand.

Mr. Gruar stocks a full range of the famous British C.A.V. "A" and "B" batteries. In the "A" batteries Mr. Gruar has a useful little 2-volt accumulator with a glass container, of 20 ampere-hours capacity. This line is most serviceable for dull-emitter valves. The other "A" battery lines embrace various capacities and include celluloid, hard rubber, glass, and Milan rubber compo cases. An outstanding feature of the C.A.V. celluloid batteries is that they do not froth like some other makes. I saw, recently, a C.A.V. celluloid battery which had been in service for over two years, and although it was nearing the completion of its recharging it showed not the slightest symptoms of frothing. The C.A.V. "B" batteries are an extensive line listed at £6 15s. for 90 volts, and upwards. All the C.A.V. batteries carry a definite and unrestricted twelve months' guarantee.

Mr. Gruar has also been conducting for a considerable time a battery delivery service with a specially constructed motor-van. A charge of 2s. 6d. is made for recharging a 60-amp-hour "A" battery (the cost being ac-

cording to the size of the battery). This figure includes the carriage of the battery from the listener's residence to the battery station and back again. The listener is able to hire a battery from Mr. Gruar at 2s. for two days while the former's own battery is being recharged. The delivery van collects and delivers batteries daily in the city, three days a week in the Hutt district and Petone, and two days a week in Ngāio, Khandallah, and Johnsonville. This is a service which is much patronised judging by the long rows of batteries the writer saw being charged at Mr. Gruar's battery station.

WOMEN INFLUENCE PURCHASES.

An American radio salesman in a big way states: "I have found that the women-folks influence about 75 per cent. of radio sales. I have succeeded in selling the women-folks after the man-of-the-house has turned me down flat. Only last week I closed a sale with a woman whose husband had absolutely refused to allow me to place a radio in his home for a demonstration. Most women know how to handle the husband. If she is determined on having a radio, she'll manage to get it. I would have passed up a number of good sales if I had given up simply because the husband refused to consider the purchase of a radio."

"I usually try to interest the men-folks first, for as a rule they are easier to sell, but if I don't get to first base with them I turn to the wife and turn failure into success."

"Another very important thing I have learned in selling has been that dealers very frequently limit their possibilities for selling by mentally labelling prospects. Upon several occasions I have had customers tip me off to prospective purchasers whom I had considered poor prospects. Again, I have checked prospects off of my list as 'No Good' because I felt their prejudices against radio were too firmly established to overcome, even though they could afford to purchase. I did not care to waste my time on them. In nearly every instance I found that they did buy later. I have quit labeling prospects!"

"Radio's strongest appeal is its ability to bring the world's famous artists, orchestras, statesmen, musicians, bands and direct-from-the-field play-by-play results of great athletic events right to your home and fireside. People buy sets for what they can hear over them—the broadcast programmes. Better results can be had by merchandising radio upon this basis than any other. Instead of talking about the technical side of radio, talk about the things radio is going to help them enjoy. Dwell upon the outstanding radio events. Call their attention to particularly interesting programmes and plant the seed of desire first and let the technical side take care of itself. Make your prospect realise that without a radio in his home he is missing some of the good things of life. When you have done this, selling him is a simple matter."

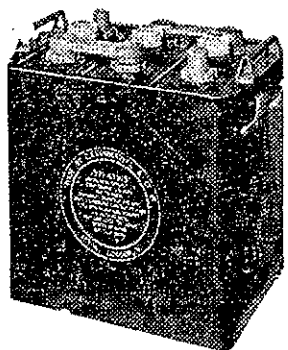


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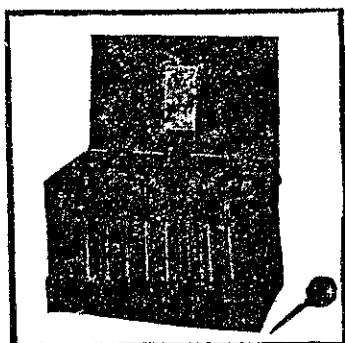
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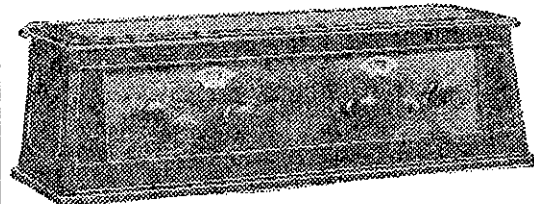
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