

Eliminating Grid-Bias Batteries

Introduction of Resistance

IN order to maintain perfect reproduction, it is advisable to renew average set-owner, after installing this average set-owner, after installing the battery, usually forgets all about it, and later wonders why the quality of his reception is falling off. Constant purity of reception, however, can be obtained by dispensing with the grid-bias battery, and securing the necessary potential from the "B" battery supply.

Although the following method is quite applicable for use with dry battery or accumulators, it will be found most satisfactory for use with a mains eliminator, either A.C. or D.C. Roughly, the scheme works this way. A resistance is connected between the A battery supply and the negative terminal of the B battery supply. For a safeguard, and also for preventing motor-boating, it should be shunted with a large-capacity fixed condenser.

The presence of the resistance in the circuit results in a voltage drop, and this can be utilised to provide grid-bias. The bias wander plug is carried to some point on this resistance, de-

pending on the grid voltage required. The one disadvantage is that the "B" battery voltage is reduced by the amount of the grid voltage thus tapped off, but usually this is of no importance when using mains eliminators.

Two or three valves can be supplied with grid-bias current in this way, but each tapping must be shunted by an earthing condenser of 2 microfarads or so. The value of the resistance depends on the B battery current, and should be calculated accurately when the value of grid-bias voltage required is known. A resistance which can be varied from 500 to 2000 ohms is generally quite suitable.

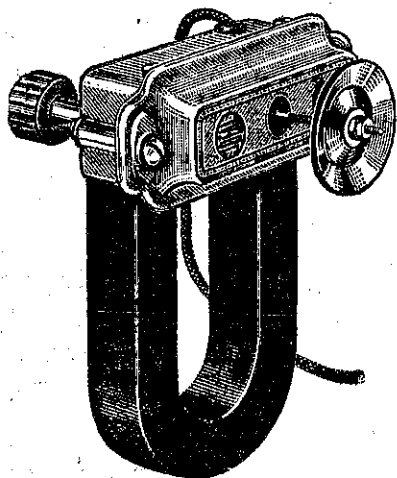
Do not attempt to use an H.T. supply unit unless this has been properly constructed on "safety first" principles.

FAULTY switches in the house wiring often give rise to loud clicks and roars on the loudspeaker, which disappear when the switch contact is attended to by an electrician.

Have you obtained your copy of the "N.Z. Radio Listener's Guide"?

Dealers and booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington.

Available everywhere.



The BLUE SPOT

Patent Four Pole,
Double Balanced
Armature,

Driving Unit

TYPE 66K

Generally accepted by the technical press and trade as the finest movement available for driving a cone, the Blue Spot Unit stands unrivalled as a means of providing faithful reproduction.

If you are pushing any particular type of receiver, however good it is, and whatever claims you make for it, you will find that your biggest selling help will be obtained by coupling to it a Blue Spot Unit.

66K is essentially a completely discharged 4-pole magnet unit which drives the cone spindle through a perfectly straight line movement. The special steel used for the magnet permits of an enormous flux, thus making the unit exceptionally sensitive. The armature—the only part liable to give a natural resonance—has been carefully damped and is to all intents and purposes dead silent in action. The unit reproduces all audio frequencies from 50 to 7,000 cycles without giving undue prominence to either end of the register. 66K has a special adjuster for regulating the gap between the butterfly piece and the four poles of the magnet.

Retail Price, **32/6**

TRADE PRICES UPON APPLICATION.

N.Z. Agents:

RODGER IMPORTING CO., LTD.

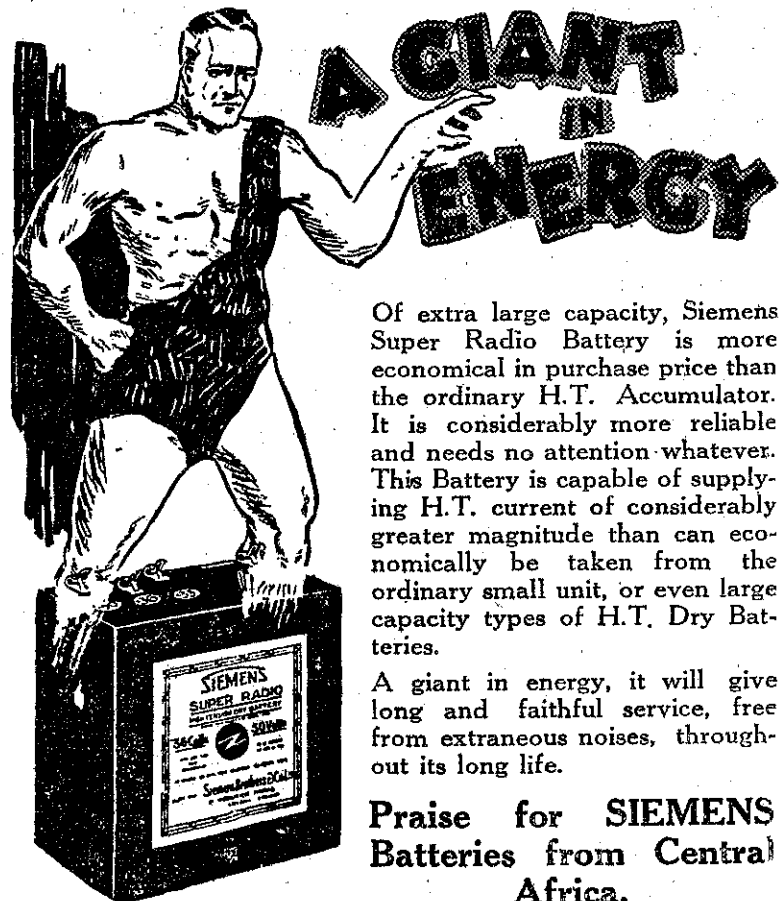
159 MANCHESTER STREET, CHRISTCHURCH

Countersinking in Ebonite

WHEN constructing a wireless set it is often found necessary to countersink those holes in the panel which take screws for the panel brackets, of those screws along the bottom edge which help to keep the panel and baseboard safe and secure. If the constructor does not possess a countersinking bit, a good plan is to use a large twist drill. The drill used for making holes for one-hole fixing components will be found suitable, and two or three turns of this will quickly bring about the desired effect. Do not press too hard on the drill, as it will bite into the ebonite and either leave a jagged hole or else make much

Label Your Valves

A PIECE of plain paper stuck on the bulb of the valve and marked with the date of purchase and the general characteristics will often save a lot of hunting through data sheets, and also show whether the valve has given reasonable life. Do not use ordinary stamp paper, or even ordinary pastes or gums, but one of the stronger adhesives, such as seccotine. Otherwise the paper may scale off when dried by the slight heat of the valve. The most generally useful facts to put on this label are date of purchase, maximum plate voltage, filament voltage, impedance, amplification factor, and, in the case of super power valves, anode current and grid bias.



Of extra large capacity, Siemens Super Radio Battery is more economical in purchase price than the ordinary H.T. Accumulator. It is considerably more reliable and needs no attention whatever. This Battery is capable of supplying H.T. current of considerably greater magnitude than can economically be taken from the ordinary small unit, or even large capacity types of H.T. Dry Batteries.

A giant in energy, it will give long and faithful service, free from extraneous noises, throughout its long life.

Praise for SIEMENS Batteries from Central Africa.

No. 1035X—50 Volts.

31/6

Write for Complete Catalogue to—

Sole N.Z. Distributors:

Cory-Wright and Salmon

ENGINEERS,

WELLINGTON—
P.O. Box 1230.

AUCKLAND—
P.O. Box 1650.

Sirs,—I thought it might interest you to know that I have had three of your 50-volt Super Radio Extra Capacity Batteries in use here since October, 1927. Normally they run a 3-valve short-wave receiver, but I have also used them for working a short-wave transmitter, C.W. and phone for about a month, taking at times a feed of 60 M/a. I was heard in Australia while using them. They are still going strong, and are the first batteries I have found to stand up so well for the time (8 months) in this trying climate

SIEMENS
Super Radio Battery