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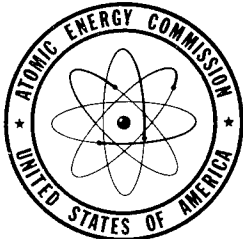
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TEST AND EVALUATION OF VIBRATOR
POWER SUPPLY

By
Robert T. Graveson

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Health and Safety Division
New York Operations Office



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INSTRUMENTATION

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ABSTRACT

Results of Tests on the Victoreen Vibrator Power Supply
and performance curves given.

Description of Unit:

A sealed, compact unit for producing B plus and high voltage for a survey meter. This unit, in conjunction with three 1.5 volt batteries, could replace three 300 volt and one $67\frac{1}{2}$ (or 45 volt) batteries.

Physical Specifications:

Dimensions: $2\frac{1}{4}$ "x $2-1/8$ "x $2-7/8$ " ($3-5/8$ " including studs)

Weight: 1 pound

Mounting: Four studs on top and four on bottom

Connection: Four fusite terminals on bottom

Remarks: The can is soldered closed forming an air tight seal.

Electrical Specifications:

Nominal ratings: Input \pm 4.5 to 3.3 volts input d.c.
Output \dagger 900 volts d.c.
 \dagger 55 volts d.c.

Figures one and two show the operation of the unit under varying conditions of load and input voltage.

The unit operates off three $1\frac{1}{2}$ volt batteries and has a drain of 63 milliamps throughout the load range.

Discussion of Results:

This unit is convenient and should be applicable to any application requiring high voltage at low current and a B plus voltage for a trigger pair or amplifier. While this unit was probably designed for GM tube circuits, it could be applied to a photomultiplier. The input requires three $1\frac{1}{2}$ volt batteries, and unless Mallory mercury cells are used these require a considerable amount of space.

The unit is sealed so that service would be difficult. It could be used as a disposable unit if its price is reasonable.

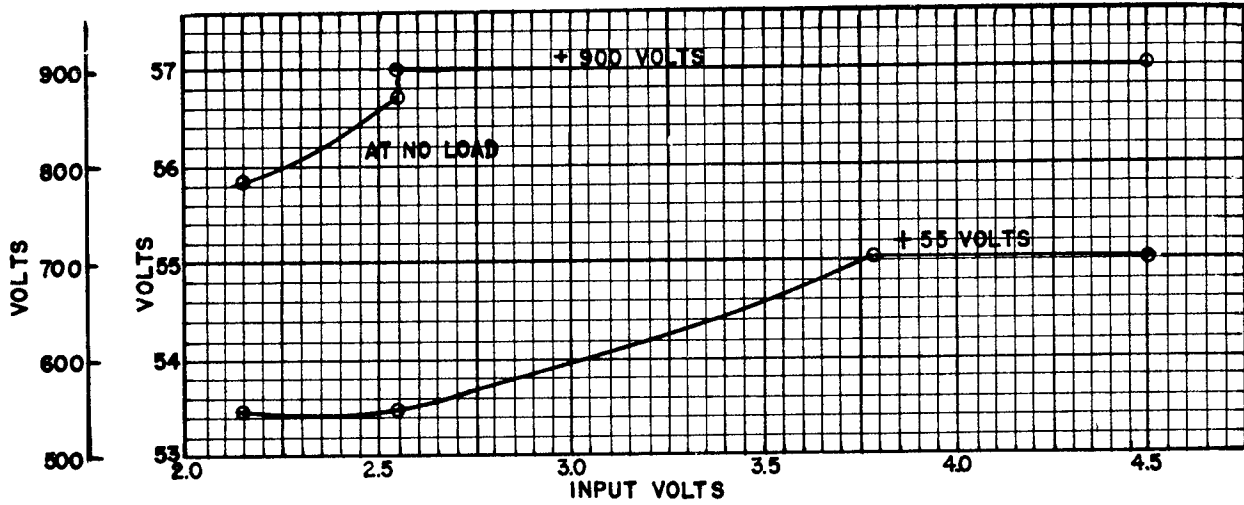


Fig. 1.

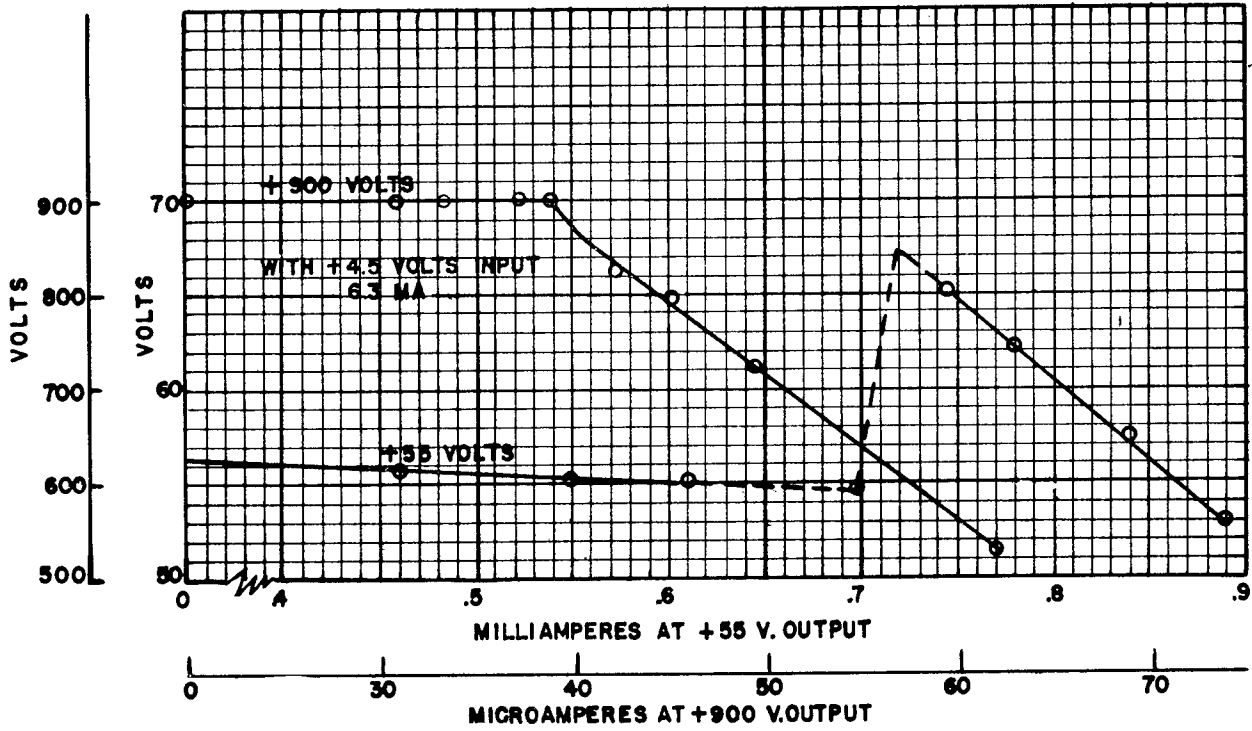


Fig. 2.