Oct. 30, 1928. 1,689,853

W. E. BEEDE

TUBE SOCKET METER

Filed Feb. 10, 1928

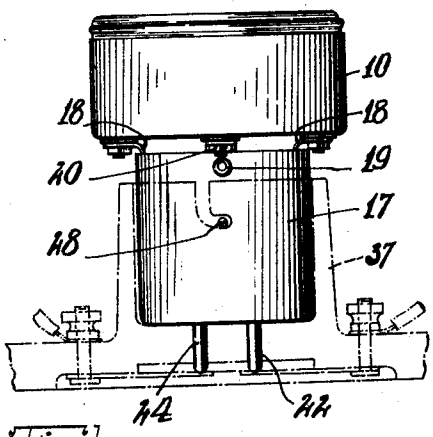


Fig. 1.

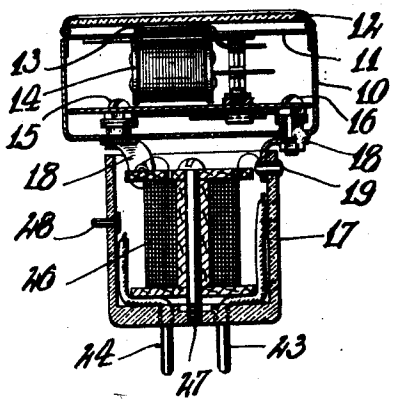


Fig. 2.

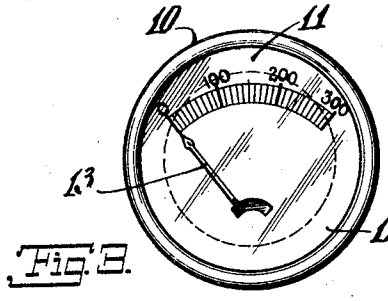


Fig. 3.

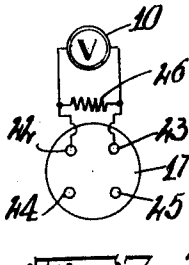


Fig. 7.

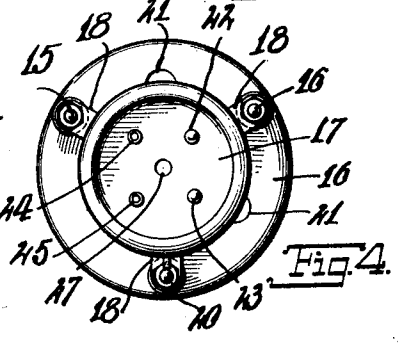


Fig. 4.

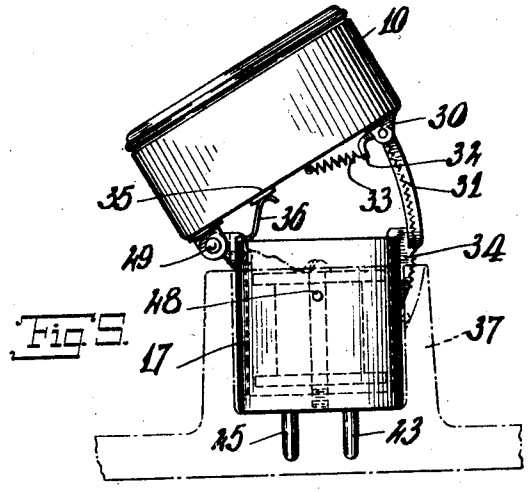


Fig. 5.

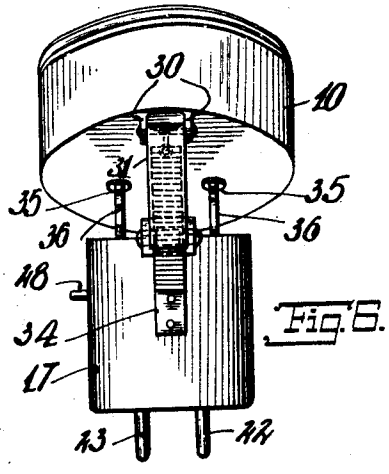


Fig. 6.

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UNITED STATES PATENT OFFICE.

WALTER E. BEEDE, OF PENACOOK, NEW HAMPSHIRE.

TUBE-SOCKET METER.

Application filed February 10, 1928. Serial No. 253,317.

This invention relates generally to meters, and has more particular reference to a radio tube socket meter.

The invention has for an object the provision of a device of the class mentioned of simple durable construction, desirable and efficient in action, which can be manufactured and sold at a reasonable cost.

The device consists of an electrical measuring meter, preferably a voltmeter, attached to a socket base provided with a pair of filament pegs, a grid peg, a plate peg and a side bayonet slot peg. The filament pegs are electrically connected to operate the voltmeter, while the grid peg and plate peg together with the filament pegs are engageable against the grid, plate and filament pegs respectively, of a radio tube socket to properly support the device. Means for tiltably connecting the voltmeter to the socket case may be provided for convenience in reading the device.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Referring to the accompanying drawing, forming a material part of this disclosure:—

Fig. 1 is a side view of a device constructed according to this invention.

Fig. 2 is a central vertical sectional view thereof.

Fig. 3 is a plan view thereof.

Fig. 4 is a plan view of the bottom of the device.

Fig. 5 is a side view of a device of modified form.

Fig. 6 is a rear end view thereof.

Fig. 7 is a schematic wiring diagram of the device.

The reference numeral 10 indicates generally the casing of a voltmeter having a dial face 11, a glass dial cover 12, an indicating hand 13, hand actuating means 14 connected to hand 13, and binding posts 15 and 16 electrically connected to operate means 14. Thus briefly stated, an ordinary voltmeter has been described.

A socket base 17 of cup construction, and of insulation material, has three lugs 18 attached to its top end by eyelets 19. The socket base is attached to the casing 10 by binding posts 15 and 16 engaging the free ends of two of the lugs 18, and a bolt and nut 20 securing the third lug 18 to the casing 10. The bottom of the casing 10 is formed with air apertures 21.

A pair of filament plugs 22 and 23, a grid plug 24, and a plate plug 25 are attached to the bottom of the socket base 17. The filament plugs 22 and 23 are electrically connected with the binding posts 15 and 16. A resistance coil 26 is housed within the socket base 17 and thus held by screw 27. A bayonet slot plug 28 projects from the side of the said socket base member.

In Figs. 5 and 6 the voltmeter is shown as being pivotally connected at one side to the socket member 17, as at 29. Diametrically opposite connection 29, a pair of lugs 30 project from the casing 10. An arcuate member 31 is pivoted at its top end between the lugs 30 and has a projecting finger 32 connected to one end of a tension spring 33 having its other end connected to the casing 10. The spring 33 normally acts to urge the arcuate member 31 towards the socket base 17, and a second arcuate member 34 is attached to the socket base to form an abutment for the first arcuate member 31. The adjacent sides of the arcuate members are serrated and thus frictionally hold relative positions, so as to adjustably hold the voltmeter in tilted positions. The voltmeter has a pair of contacts 35 connected to operate the means 14, and a pair of springs 36 act against the contacts 35 and connect with the filament plugs 22 and 23.

In operation the device is inserted into a radio tube socket, indicated by dot dash lines 37. The bayonet plug 28 engages in the bayonet slot of the socket, and the filament plugs, the plate plug, and the grid plug engage the respective springs within the said socket. The voltmeter then indicates whether the radio tubes of the radio set may safely be placed into the set, and also the condition of the "A" battery of the set.

While I have shown and described a preferred embodiment of my invention, it is to be understod that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention what I claim as new and desire to secure by United States Letters Patent is:—

1. A radio tube socket meter, comprising a socket base arranged for engaging in a radio tube socket, an electrical meter pivotally at-

tached on the top thereof at one side, and arranged for tilting into positions at angles to the socket base, and a means for holding the various tilted positions.

2. A radio tube socket meter, comprising a socket base arranged for engaging in a radio tube socket, an electrical meter pivotally attached on the top thereof at one side, and arranged for tilting into positions at angles to the socket base, an arcuate serrated member pivotally attached on the meter, a second arcuate serrated member attached on the socket base, and means for urging the pivoted serrated member against the other one for frictionally holding set positions.

3. A radio tube socket meter, comprising a socket base arranged for engaging in a radio tube socket, an electrical meter pivotally attached on the top thereof at one side, and arranged for tilting into positions at angles to the socket base, an arcuate serrated member pivotally attached on the meter, a second arcuate serrated member attached on the socket base, and a spring for urging the pivoted serrated member against the other one for frictionally holding set positions.

4. A radio tube socket meter, comprising a socket base arranged for engaging in a radio tube socket, an electrical meter pivotally attached on the top thereof at one side, and arranged for tilting into positions at angles to the socket base, a serrated member pivotally attached on the meter, a second serrated member attached on the socket base, and means for urging the pivoted serrated member against the other one for frictionally holding set positions.

In testimony whereof I have affixed my signature.

WALTER E. BEEDE.