Aug. 1, 1961 J. CATTERALL ET AL 2,994,440

DISPLAY CABINET

Filed Sept. 19, 1958

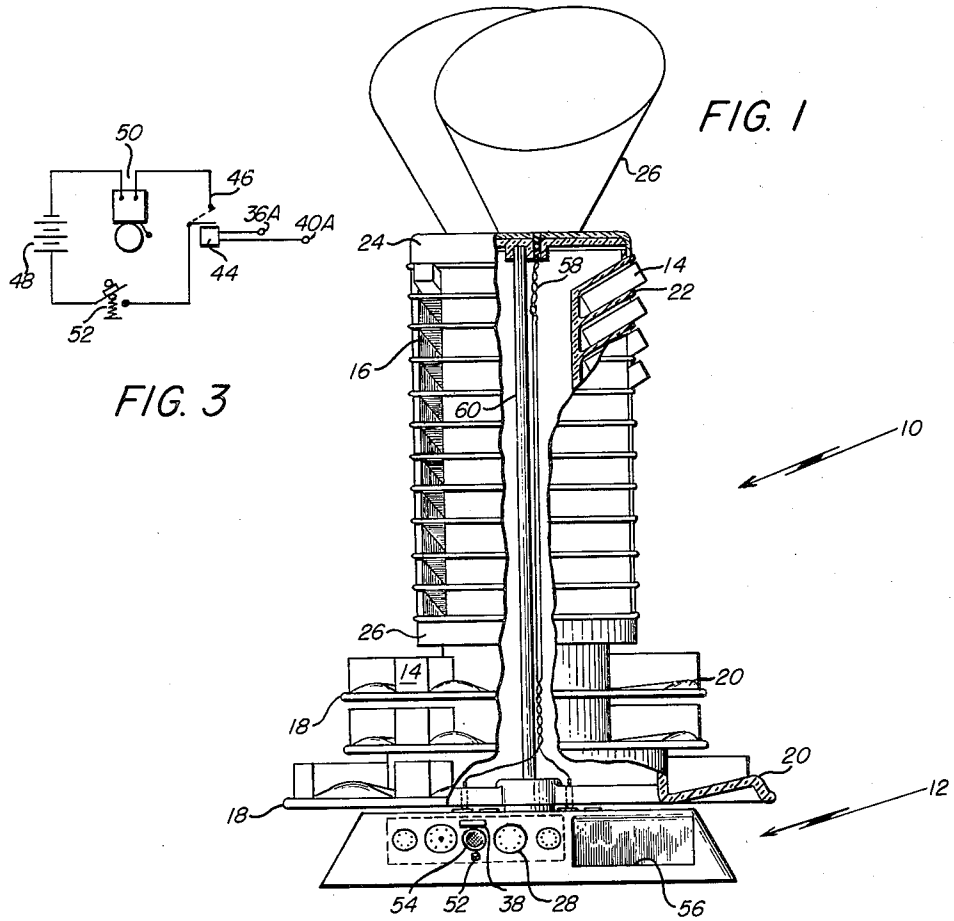


FIG. 1

FIG. 3

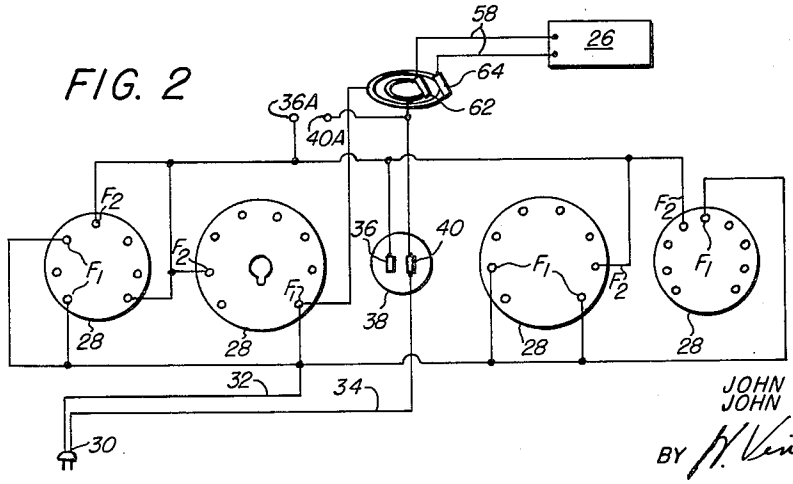


FIG. 2

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United States Patent Office 2,994,440 Patented Aug. 1, 1961

2,994,440

DISPLAY CABINET

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Filed Sept. 19, 1958, Ser. No. 762,098
1 Claim. (Cl. 211—163)

The present invention relates to a display cabinet useful for merchandising articles such as electron tubes, incandescent lamps and the like.

In general this invention comprises a tiered display cabinet for replacement electrical articles to be sold, wherein the cabinet base includes a simple electrical continuity test circuit including audible and visible signals to indicate to the purchaser whether purchase of a replacement article is required.

It is an object of the present invention to provide an attractive merchandising display cabinet which may bear illuminated and non-illuminated advertising messages, and which cabinet will provide open bin storage for the display of articles for sale.

A further object of this invention is to provide a tiered display cabinet of particular utility in the mechandising of replacement electrical articles, such as electron tubes, incandescent lamp bulbs or similar articles. With articles of this type the internal electric circuit continuity of the article is the chief factor which determines whether purchase of a replacement article is proper.

Accordingly, a more specific object of the present invention is to provide a mechandising display cabinet which includes an electrical continuity tester to aid in determining whether an electrical article is "good" or "bad."

A particular object of the present invention is to provide an electrical testing arrangement including audible and visible signal means which has particular utility in conjunction with a merchandising display cabinet.

Another important object of this invention is to provide a merchandising display cabinet which includes in combination an electrical test circuit, and an illuminating circuit, the former circuit being operable independenly of the latter circuit but being interconnected therewith to a common power source.

The above and further objects and advantages of the present invention will become apparent in the following detailed description of a preferred embodiment thereof, taken together with the accompanying drawings, wherein:

FIG. 1 is an elevational view, partially in section, of a merchandising display cabinet;

FIG. 2 is a schematic diagram of an electrical testing circuit suitable for use in the cabinet of FIG. 1; and

FIG. 3 is a schematic wiring diagram of a supplemental electrical test circuit which may be combined with the circuit of FIG. 2.

As shown in FIG. 1, the display cabinet is a unitary structure comprising an upper tiered article storage section 10 and a base supporting section 12. Upper section 10 may be rotatably supported on the base 12, as will be described hereinafter.

A plurality of articles 14 to be sold may be displayed in the bins or storage compartments 16 which occupy the uppermost stepped tier of section 10. A series of lower stepped open trays 18 make up the remainder of the storage section. Additional articles 14 may be stored in the trays 18, as indicated, and separating partitions, such as raised portions 20, may be optionally provided in order to present an orderly and attactive display of such articles.

In the preferred embodiment of the invention, the storage section 10 may be fabricated of a suitable plastic, as indicated in section, to provide, by means of the compartment walls 22 and partitions 20, a readily accessible spaced display of the articles 14.

The display cabinet may carry suitable advertising messages on outer surface areas 24 and 26 of section 10, and also on that portion of base 12 which is not occupied by the testing circuit elements to be described hereinafter. An additional advertising message may be carried on a sign 26 which is mounted on the top of section 10. Means are provided for the illumination of sign 26, and this sign preferably is formed of a translucent material which is shaped in a three-dimensional representation of the article to be merchandised, with an opaque advertising message on its outer surface.

Located on an outer surface area of the base 12 are the external connections and controls for an electrical continuity tester. Where the articles 14 to be merchandised are electronic tubes, the tester may be as shown in FIG. 2, wherein a plurality of tube sockets 28 have been provided. The test circuit is energized from a suitable power source by means of plug 30 and leads 32, 34. Lead 32 is connected to a common filament socket connection, F_1, on each of the several sockets 28. Appropriate socket connections, F_2, for each individual socket 28 are connected to one electrode 36 of a neon signal lamp 38. Lead 34 from the power source is directly connected to the second neon lamp electrode 40.

Thus it will be apparent that a continuity test circuit has been provided. For example, an electron tube under test may be plugged into the octal socket 28 which is shown second from the left in FIGS. 1 and 2. If there is filament continuity, as indicated by the dotted line path 42, lamp 38 will be illuminated as a visible signal.

In order to provide an audible signal, the circuit of FIG. 3 may be used. Terminals 36A and 40A of FIGS. 2 and 3 are interconnected, which places the relay coil 44 in parallel with the neon lamp 38. Thus when a test circuit is completed from the power source to energize lamp 38, the relay 44 will also be energized to open its normally-closed contact 46. This condition is shown in FIG. 3 and represents that there is a filament continuity in the electron tube under test, and that therefore such tube is "good."

When there is no filament continuity, as when an open-filament or "bad" tube is under test, then contact 46 of FIG. 3 will remain closed. In this state an audible signal circuit, including energy source 48 and alarm device 50, will be completed to sound an alarm signal whenever the open circuit test button 52 is depressed.

A grille 54 is provided on the base 12 to enable the operator to hear the alarm device 50 which, together with the remaining components of FIG. 3 and the filament connections for sockets 28 of FIG. 2, is preferably located within said base 12. The visible neon signal lamp 38 is conveniently located on base 12 above grille 54, and the test button 52 is located under said grille. An open bin 56 in which the operator may arrange tubes to be tested is provided in base 12.

In order to illuminate sign 26, connecting leads 58 are provided to carry energizing current up through the interior of the cabinet section 10 to the internal sign illuminating means, not shown, from the connecting leads 32, 34 which supply power to the base 12. At this point it should be noted that the cabinet section 10 may be rotatably mounted on base 12 by a central axle 60 journalled in any conventional bearing means in the base 12. In order for the sign 26 and the article support means of cabinet section 10 to rotate about the base, current collecting means which include slip-ring and brush connections 62, 64 are provided between the base and cabinet sections. The slip ring arrangement permits the transfer of current from leads 32, 34 to the light energizing leads 58.

Although in the preferred embodiment of the invention shown in the drawings the electrical articles to be tested and merchandised have been described as electron tubes, it will be obvious to those skilled in the art that analogous devices may be accommodated. For example, in a possible modification for use in connection with the sale of incandescent lamps, should they be the articles **14** displayed in the cabinet section **10**, then sockets **28** on base **12** would be of the type used with such lamps. For example, the sockets **28** would be of varying types designated in the trade as standard, Mogul, bayonet, three-way, and the like.

What is claimed is:

An advertising display cabinet for supporting a plurality of electrical articles which comprises a supporting base, a vertically disposed upstanding shaft rotatably journalled in said base, article support means secured to the shaft to be rotatable therewith, an illuminated sign supported on and above said article support means,

means to connect the base to a source of electric power, means including current collectors to transfer current from said base connecting means to said sign through said rotatable article support, and test circuit means interconnected with said base power connecting means whereby articles supported by said rotatable support may be quickly tested for operativeness at the time of purchase.

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