Oct. 31, 1939. W. P. GIBBONS 2,178,255

DISPLAY AND DEMONSTRATION DEVICE

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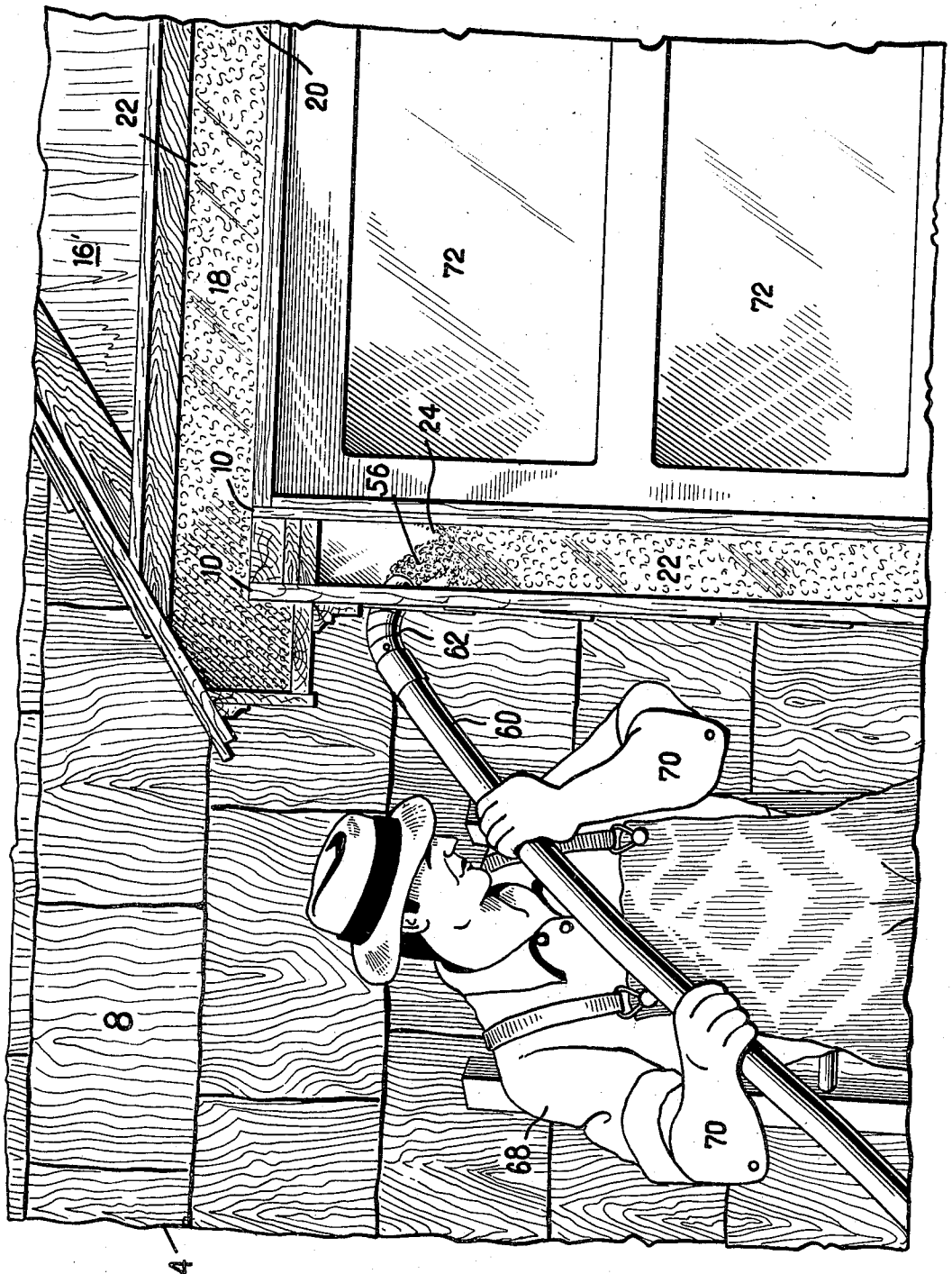


Fig. 1.

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Fig. 2.

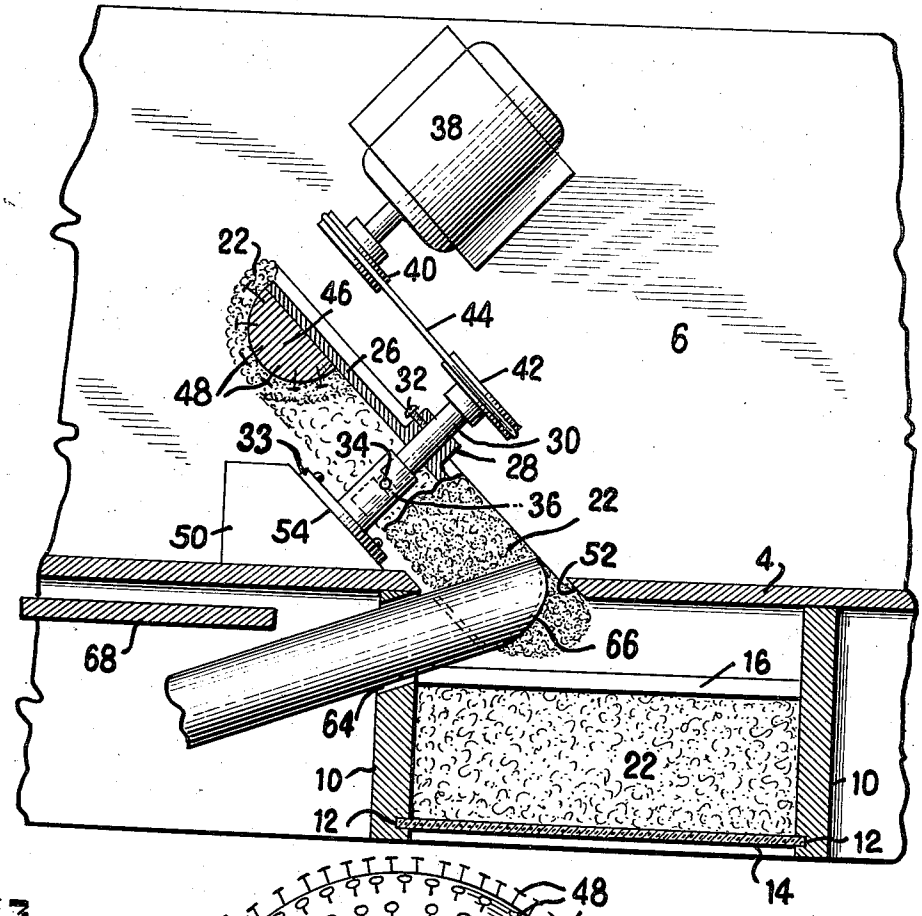
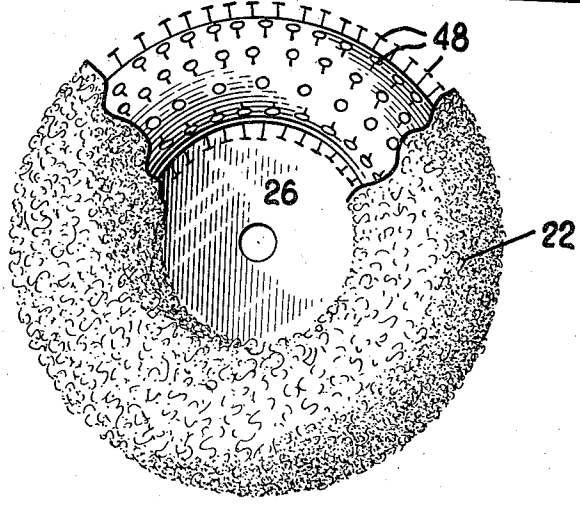


Fig. 3.



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DISPLAY AND DEMONSTRATION DEVICE

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12 Claims. (Cl. 35—49)

The present invention relates to a display and demonstration device. More particularly, it relates to a device for displaying material and for demonstrating the manner in which the material may be applied to a space; for example, how insulating material may be applied to the interiors of walls of buildings.

It is an object of the present invention to provide a device which accurately and in an interesting manner illustrates how insulating material may be applied to the interiors of walls of residences and other buildings.

It is a further object of the present invention to provide a display and demonstration device for the aforementioned purposes which is of a simple nature, can be economically constructed, is light in weight, compact, easy to operate, and attractive.

Other objects and advantages, if not specifically pointed out, will be apparent to those skilled in the art from the following detailed description of what is now considered to be the preferred embodiment of the present invention.

In the drawings:

Fig. 1 is a fragmentary front elevational view of a display and demonstration device constructed in accordance with the present invention,

Fig. 2 is a fragmentary horizontal sectional detailed view, on an enlarged scale, of the device illustrated in Fig. 1, and,

Fig. 3 is an elevational view, partly in section and also drawn to an enlarged scale, of one of the elements of the device.

Referring to Figs. 1 and 2, there is shown a display and demonstration device comprising a panel 4 which is preferably light in weight and is decorated to represent a side of a building. The panel 4 is suitably attached to a base 6 which may be formed of any desired material. The panel 4 may be formed of wall board, heavy cardboard, or any other suitable material, and the front face of the board may be painted to represent shingles 8, or actual shingles may be attached to the board if such is desired. Instead of shingles, clapboards, imitation brick, plaster, or any other well known type of finish may be used.

A structure representing a transverse vertical section of a building wall is positioned in front of the panel 4 and suitably attached thereto and to the base 6. The structure may be formed of vertical members 10 supported by the base 6 and panel 4 and grooved as shown at 12 to receive a transparent closure member 14. A partition 16 extends between the members 10 and terminates below the tops of these members. An imitation roof structure 16' is partly supported by the members 10 and partly supported by the panel 4. The particular design of the imitation roof structure 16' is immaterial for the purposes of the present invention and any form of roof structure desired may be employed. It is desirable for the purpose of carrying out the scheme of the present invention that the roof structure be formed with a hollow space 18 which is closed by a transparent closure member 20.

Material 22 representing insulation is filled into the imitation wall structure between the members 10, 14 and 16 to a point approximately level with the top of member 16. This material may be extended up the sides of the members 10 as shown at 24 in Fig. 1 by gluing or otherwise attaching the material to the members 10. Similar material is filled into the hollow space 18 as shown at 22 in Fig. 1.

The material 22 may be actual insulating material or may be other bulk material used in its normal state or treated to represent insulating material. For example, if the display device is to be used in connection with mineral wool, the material 22 may be mineral wool or may be formed of cotton or some other material which closely resembles mineral wool. Also, the representation may be formed by a background painted to resemble mineral wool or other material.

A disc 26 having a hub 28 is fastened to a stub shaft 30, as by a set screw 32. The stub shaft 30 is journaled in a socket bearing 33 and is held in place therein by a set screw 34 which is received within a groove 36 formed in the stub shaft 30. The stub shaft 30 and disc 26 are driven from a motor 38 by any desired transmission agency such as pulleys 40 and 42 on the motor shaft and stub shaft 30, respectively, and a belt 44 extending therebetween.

The disc 26 is enlarged around its periphery as by suitably attaching an annular member 46 thereto which is semi-cylindrical in cross section. Material 22, or other material representing the same insulating material, is disposed over the surface of member 46 and the periphery of the disc 26. The material 22 may be retained in place by driving fastening members 48, such as nails or tacks, into the member 46, applying adhesive over the face of the disc 26 and the members 48 and pressing the material 22 onto the face of member 46 and around the fastening members.

The socket 32 is suitably fastened to a block 50 carried by the panel 4, and the disk 26 and in-

sulating material carried thereby project into the casing or chamber formed by the panel 4, and the members 10 and 14 through an opening 52 formed in the panel 4. The block 50 has an inclined face 54 to which the socket bearing 32 is attached. The angle included between the face 54 and the panel 4 may be varied as desired to cause the disc 26 to extend at any desired angle to the transparent member 14 which is substantially parallel to the panel 4. In this manner, the amount of insulating material 22 on disc 26 exposed to view through the member 14 can be varied in accordance with the size of the casing so as to conceal all of disc 26 except the portion 56 (see Fig. 1) which is required to be visible through the transparent member 14 for the purpose of the invention. The transparent member 14 and the opening in the casing or chamber covered by this member provide an observation space or area for the casing or chamber.

A hose line comprising a hose 60 and a nozzle 62 extends through an opening 64 in one of the members 10 into the casing and terminates adjacent the material 22 on the periphery of the disc 26. The end 66 of the hose line may be suitably formed to fit closely over and conform to the shape of the material 22 on the periphery of disc 26 and thereby conceal the upper portion of the disc from view through the transparent member 14. The end 66 of the hose line is preferably spaced slightly from the material 22 so as to avoid damage to the latter when the disc 26 rotates. The hose line represents a device for supplying insulating material to the space within a building wall.

The hose 60 is supported by a figure of a man 68 which is suitably attached to the base 6 or to the panel 4. The figure 68 may include arms 70 attached to the figure 68 and positioned so as to wedge the hose 60 between themselves and the figure. The figure 68 may be formed of any desired material, such as wall board, and painted to represent an operator engaged in the application of insulating material to the interior of a wall structure. The term "wall" is used throughout this application to mean vertical interior and exterior walls, as well as horizontal interior and exterior walls, or interior or exterior walls or partitions extending at any angle to the horizontal or vertical.

When the disc 26 is rotated by the motor 38, the portion 56 thereof which is visible through the observation space appears to continuously move downwardly and creates the appearance of insulating material flowing out of the end of the nozzle 62 and into the interior of the wall represented by the casing or chamber. As previously mentioned, the angularity of the surface 54 may be suitably varied to properly position the disc so as to substantially obscure all parts of the disc except the part 56 which is formed by successive portions around the periphery coming into view as the disc is rotated.

The movable disc 26 may be replaced by movable members having other shapes if such is desired without departing from the scope of the present invention. Also, the periphery of the movable member may be suitably treated to represent insulating material by applying other material than the insulating material itself to the periphery thereof or by painting the periphery to represent insulating material.

Various portions of the device not occupied by the demonstration apparatus, such as that beneath the roof structure, may be utilized for displaying samples of the insulating or other material, or may support suitable placards 72 bearing advertising matter.

The display and demonstration device may be employed to illustrate how any material can be applied to any space, and is not limited to demonstrations involving insulating material.

The foregoing details have been given for the purpose of description, and not limitation, since the present invention may be embodied in other specific forms than that disclosed and is to be limited only by the claims appended hereto.

What is claimed is:

1. A display and demonstration device comprising a chamber having an opening in the front thereof and representing a section of a building wall, means disposed within said chamber representing insulating material, a rotatable disc positioned so that a sector thereof is visible above said means, means for rotating said disc, a hose line extending into said chamber and terminating adjacent said disc, and the periphery of said disc resembling insulating material, whereby rotation of said disc creates the appearance of insulating material flowing from said hose line into the interior of a building wall.

2. A display and demonstration device comprising a chamber having an observation window in the front thereof and representing a transverse section of a building wall, means disposed within said chamber representing insulating material, movable means positioned so that a portion thereof is visible above said insulating material-representing means, means representing a device for conveying insulating material into said chamber, and means on said movable means representing insulating material, whereby movement of said movable means will create the appearance of insulating material flowing from a supply device into the interior of a building wall.

3. A display and demonstration device comprising an open front casing representing a transverse vertical section of a building wall, a transparent closure for said casing, mineral wool disposed within said casing, a disc rotatably mounted in position to expose a portion thereof above said mineral wool, a hose line extending into said casing and terminating adjacent the exposed portion of said disc, and mineral wool disposed over the surface of said disc, the arrangement of said disc and mineral wool disposed thereover being such that rotation of said disc creates the appearance of mineral wool flowing from said hose line into the interior of a building wall.

4. A display and demonstration device comprising an open front casing representing a transverse vertical section of a building wall, a transparent closure for said casing, insulating material disposed within said casing, a disc rotatably mounted in position to expose a portion thereof above said insulating material, a hose line extending into said casing and terminating adjacent the exposed portion of said disc, and insulating material disposed over the surface of said disc, the arrangement of said disc and insulating material disposed thereover being such that rotation of said disc creates the appearance of insulating material flowing from said hose line into the interior of a building wall.

5. A display and demonstration device comprising an open front casing representing a transverse vertical section of a building wall, a transparent closure therefor, insulating material disposed within said casing, said casing having

an opening in the back thereof, a rotatably mounted disc projecting into said casing through said opening and having a portion thereof visible above said insulating material, a hose line extending into said casing and terminating adjacent the said visible portion of said disc, and insulating material disposed around said disc, the arrangement of said disc and insulating material disposed thereover being such that rotation of said disc will create the appearance of insulating material flowing out of said hose into the interior of a building wall.

6. A display and demonstration device comprising an open front casing, a transparent closure therefor, a partition extending from side to side in said casing, inset from the casing back and terminating below the casing top, insulating material disposed between said partition and said transparent closure, a disc rotatably mounted at such an angle and sufficiently behind said partition to substantially conceal all but a portion of the periphery thereof, a hose line extending into said casing and terminating adjacent the said portion of the periphery of the disc and above the level of the top of said partition, and insulating material disposed over the periphery of said disc.

7. In a display and demonstration device, a casing having an observation window in the wall thereof, insulating material disposed within said casing to a point below the top thereof, a movable member, a portion of said movable member resembling insulating material, and means for mounting said movable member at an angle relative to the wall having the observation window and at a height relative to the top of the insulating material to substantially conceal all but a part of said movable member.

8. In a display and demonstration device, a casing having an observation window in the wall thereof, material representing insulation disposed within said casing to a point below the top thereof, a rotatable disc, means disposed over the periphery of said disc representing insulation, and means for mounting said disc so that a portion of the periphery thereof is visible above said material through said observation window.

9. In a display and demonstration device, a casing having an observation window in the wall thereof, material representing insulation disposed in said casing to a point below the top thereof, a hose line extending into said casing and terminating above the level of the top of said material, a rotatable disc, means for rotating said disc, material representing insulation extending around a continuous area of said disc, and means for mounting said disc at an angle relative to said observation window and at a height relative to the top of said first-mentioned material so that the said material on said disc passes continuously between the termination of said hose line and the top of said first-mentioned material as viewed through said observation window.

10. A display and demonstration device of the type recited in the preceding claim, in which the material on said disc comprises mineral wool, and means for adhering the mineral wool to the said area of said disc.

11. A display and demonstration device comprising a casing provided with an observation window and representing a section of a building wall, means representing insulating material within said casing, movable means representing insulating material at least partially visible when observed through said window, and means representing an insulating material supply device positioned so that movement of said movable means creates the appearance of insulating material flowing from said supply device representing means into the interior of a building wall when observed through said window.

12. A display and demonstration device comprising a casing provided with an observation window and representing an object having a space to be filled with a desired material, bulk means representing said material within said casing, a rotatable disk positioned so that a portion of the periphery thereof is visible through said observation window above said bulk means, the periphery of the disc carrying means simulating the desired material, and means representing a supply device for said material positioned so that movement of said movable means creates the appearance of said material flowing from said supply device into the space in the object when observed through said observation window.

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