May 8, 1951 P. M. LYONS 2,552,102

THREADED FASTENING MEANS

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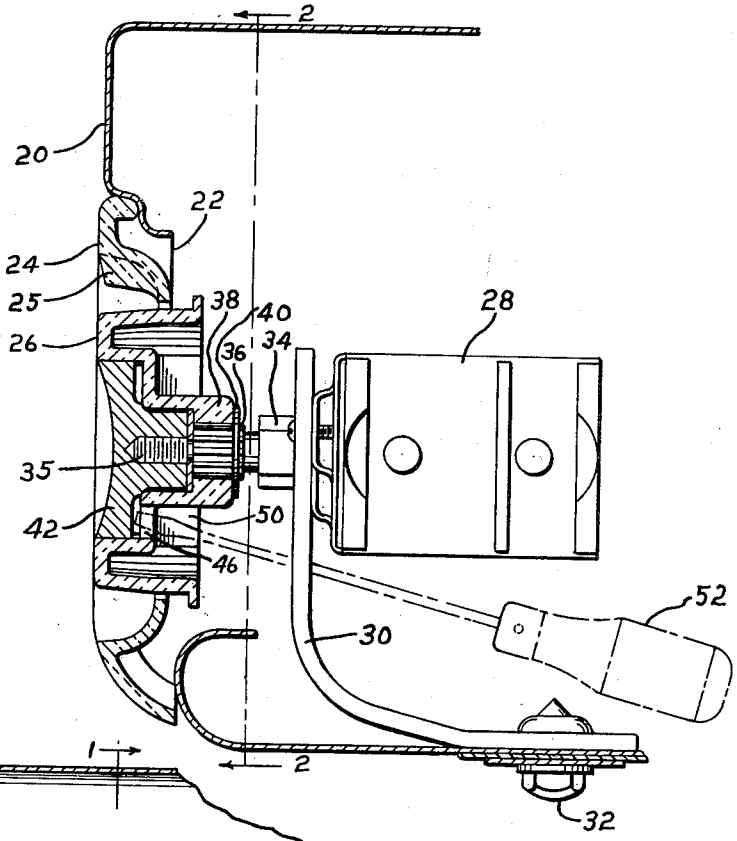


FIG. 1

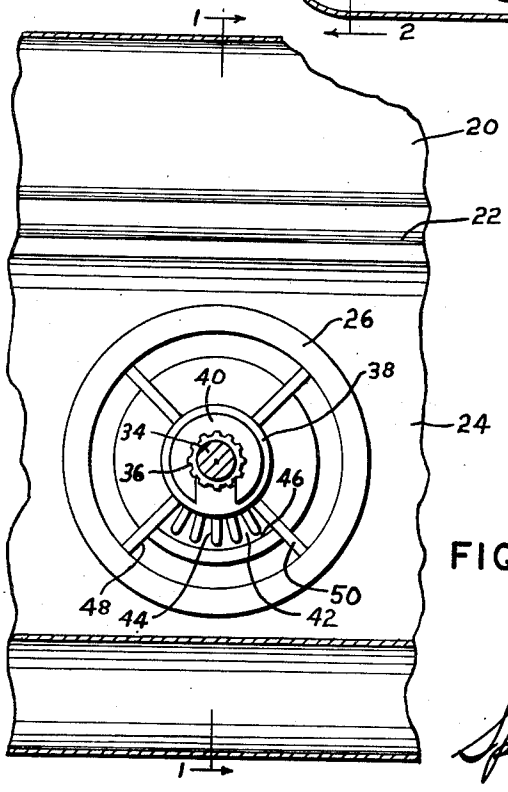


FIG. 2

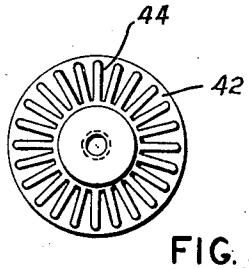


FIG. 3

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THREADED FASTENING MEANS

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8 Claims. (Cl. 287—53)

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This invention relates to ornamental threaded fastening means such as may be used, for example for household refrigerating apparatus.

It is an object of my invention to provide a threaded fastening arrangement which appears purely ornamental and shows none of the customary tool applying or gripping conformations usually associated with threaded fastening means when viewed in an ordinary manner; but which has concealed means by which the fastening means may be rotated.

It is another object of my invention to provide a threaded fastening means which has a tool applying means on its rear face.

Further objects and advantages of the present invention will be apparent from the following description reference being had to the accompanying drawings wherein a preferred form of the present invention is clearly shown.

In the drawings:

Fig. 1 is a sectional view taken along the lines 1—1 of Fig. 2 of a portion of a household refrigerator embodying my invention;

Fig. 2 is a sectional view taken along the lines 2—2 of Fig. 1; and

Fig. 3 is a rear view of the threaded fastening means proper.

Referring now to the drawing, there is shown a fragmentary rear portion of a refrigerator cabinet including a sheet metal wall 20 provided with an exposed flanged aperture 22. Within the flanged aperture 22 there is provided a suitable dial plate 24 of an ornamental plastic material. For operating with this dial plate 24 is an ornamental knob 26 also of an ornamental plastic material having legends which cooperate with a pointer 25 on the dial plate 24.

The knob 26 is used for adjusting the control device 28 which is fastened to the arm 30. This arm 30 is mounted upon the sheet metal wall by a threaded fastening means 32. The control device 28 has an adjusting shaft 34 projecting forwardly. This adjusting shaft 34 is provided with a splined portion 36 which receives the complementary splined hub 38 of the knob 26. A C-shaped washer 40 fits into a groove upon the rear end of the splined portion 36 of the adjusting shaft 34. This C-shaped washer 40 serves as a stop to prevent the splined hub 38 from being moved beyond the rear end of the splined portion 36.

To hold the knob 26 on the splined portion 36 I provide an ornamental threaded fastening means. The front portion of the knob is provided with a recess which receives the hub and the

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head of the ornamental threaded fastening means 42 which is preferably die cast and plated. The front end of the adjusting shaft 34 is provided with a screw-threaded end 35 and the threaded fastening member 42 is threaded onto this screw-threaded portion 35. It has been customary to provide tool applying or gripping irregularities on the front face of such a fastening member or upon the periphery thereof. When a fastening tool, such as a screw-driver or a wrench is applied to either the front face or to the periphery, the appearance and the plating of the threaded fastening member are usually marred.

According to my invention I provide tool applying irregularities 44 upon the rear face of the head portion of the threaded fastening member arranged in a circle around its hub. These irregularities 44 may be in any convenient form to receive any desired form of tool which might be used for rotating the threaded fastening member. As one example I have shown the tool applying irregularities 44 in the form of radial ribs which are similar to gear teeth. An arcuate slot 46 is provided in the knob 26 extending between the ribs 48 and 50 and between the hub portion 38 and the edge of the recess which receives the threaded fastening member 42. This slot makes it possible to gain access to the irregular surface 44 from the rear of the knob.

By this arrangement, a small screw driver 52 or some other pointed instrument may be inserted in the slot 46 and with the pointed end engage one of the irregularities 44 to turn the threaded fastening member 42 relative to the knob without any possibility of damaging the ornamental exposed plated front face of the fastening member 42. The screw-driver or other instrument may be used to push the threaded fastening member around in either direction with as many pushes as is necessary to achieve the desired rotation.

While I have shown the invention applied to a threaded fastening member for holding a knob, it should be understood that the threaded fastening member may be used for holding any sort of member or device wherein it is desired that the exposed surfaces of the threaded fastening member and the other members be not marred by the tool which is used for applying the threaded fastening member.

While the form of embodiment of the invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, as may come within the scope of the claims which follow.

What is claimed is as follows:

1. In combination, a device, a manipulating member having a bearing surface, a threaded fastening member having a rear surface resting upon said bearing surface of said manipulating member and having a threaded connection with said device for fastening the manipulating member to the device, a rear portion of the fastening member having an irregular surface concealed from normal view extending in a complete circle, the portion of said manipulating member behind the irregular surface being provided with an opening by which access to said irregular surface is obtained to rotate the fastening member.

2. In combination, a device, a manipulating means having an aperture therein and a bearing surface adjacent the aperture, a threaded fastening means having an ornamental head provided with a rear portion resting upon said bearing surface and having a threaded connection with said device for fastening the manipulating means to said device, the rear portion of the head having an irregular surface extending in a complete circle, the portion of the manipulating member behind the irregular surface being provided with an opening by which access is had to said irregular surface to rotate the threaded fastening means.

3. In combination, a device having an operating shaft, a knob having an aperture therein and a bearing surface adjacent the aperture, said shaft having a portion fitting within the aperture of said knob, a threaded fastening means having a front ornamental portion and a rear portion having a threaded connection with said operating shaft, said knob having a recess completely receiving the front ornamental portion of said threaded fastening means, said rear portion having an irregular rearwardly facing surface, a portion of said knob adjacent the irregular surface being provided with an opening by which access is had to said irregular surface to rotate the threaded fastening means.

4. In combination, a device having an operating shaft provided with a splined portion, a knob having a complementary splined aperture fitting upon said splined portion, a threaded fastening means threaded onto the end of said shaft for holding the knob in place on the shaft, said fastening means having an irregular surface concealed from normal view, said knob having an opening directly adjacent said irregular surface by which access is had to said irregular surface to rotate the threaded fastening means.

5. In combination, a device, a manipulating member for said device, a threaded fastening means for connecting said manipulating member to said device, said fastening means having an ornamental exposed surface and a concealed irregular surface extending completely around the fastening means, said fastening means extending over and concealing a portion of said manipulating member, said manipulating member in the portion concealed by the fastening means being provided with an opening by which access to said irregular surface is obtained for rotating the fastening means.

6. In combination, a device, a manipulating member having a bearing surface, a threaded fastening member having a rear surface resting upon said bearing surface of said manipulating member and having a threaded connection with said device for fastening the manipulating member to the device, a rear portion of the fastening member having an irregular surface concealed from normal view extending in a substantially complete circle in which the irregularities are substantially uniformly spaced, the portion of said manipulating member behind the irregular surface being provided with an opening having a span greater than the span of several of the uniformly spaced irregularities by which access to said irregular surface is obtained so that the irregular surface may be engaged to rotate the fastening member.

7. In combination, a device, a manipulating member for said device, a threaded fastening means for connecting said manipulating member to said device, said fastening means having an ornamental exposed surface and a concealed irregular surface extending completely around the fastening means, said irregular surface being formed of substantially uniformly spaced irregularities, said fastening means extending over and concealing a portion of the manipulating member, said manipulating member in the portion concealed by the fastening means being provided with an opening having a span greater than the span of several of the uniformly spaced irregularities by which access is obtained for engaging said irregular surface to rotate the fastening means.

8. In combination, a device having a threaded portion, a manipulating member mounted upon said device, said device being provided with a mounting portion upon which said manipulating member is mounted, said mounting portion and said manipulating member being provided with an interlocking arrangement for preventing relative rotation, a threaded fastening member threaded upon said threaded portion for holding said manipulating member upon said mounting portion, said fastening member extending over and concealing a portion of said manipulating member, the portion of the surface of the fastening member which faces the concealed portion of the manipulating member being provided with an irregular surface formed of a plurality of substantially uniformly spaced irregularities, said manipulating member in the portion concealed by the fastening member being provided with an opening having a span greater than the span of a plurality of said spaced irregularities by which access is obtained for engaging said irregular surface to rotate the fastening member.

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