June 8, 1954

J. A. MAXWELL

2,680,560

SODA FOUNTAIN REFUSE DISPOSAL UNIT

Filed Oct. 4, 1947

3 Sheets-Sheet 1

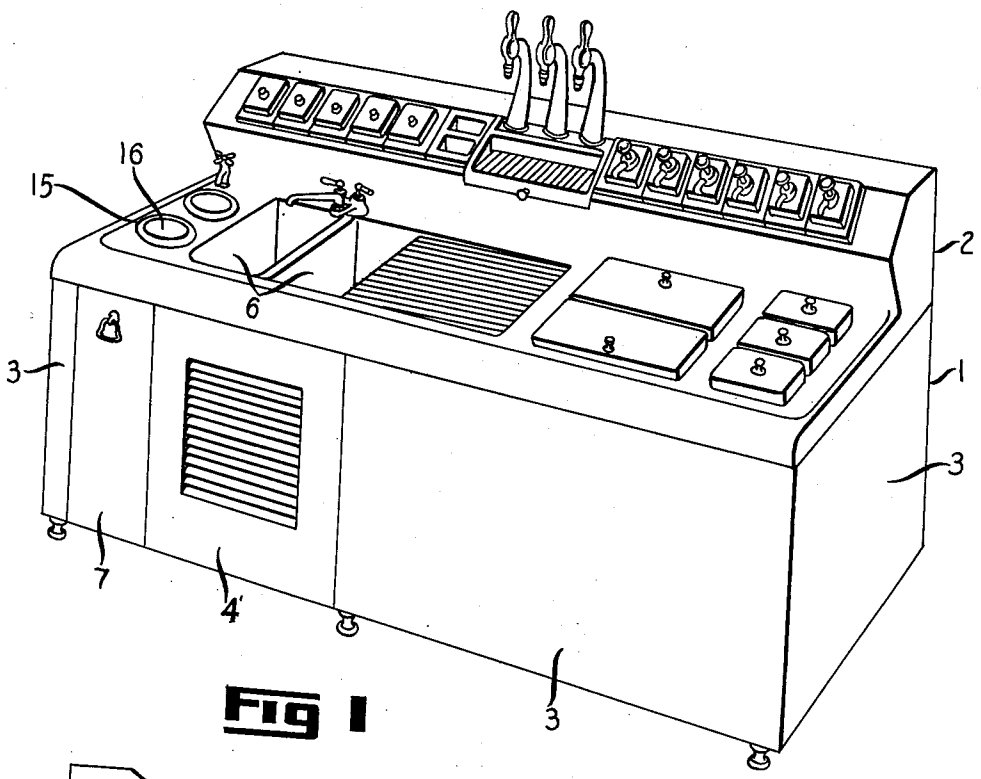



FIG 1

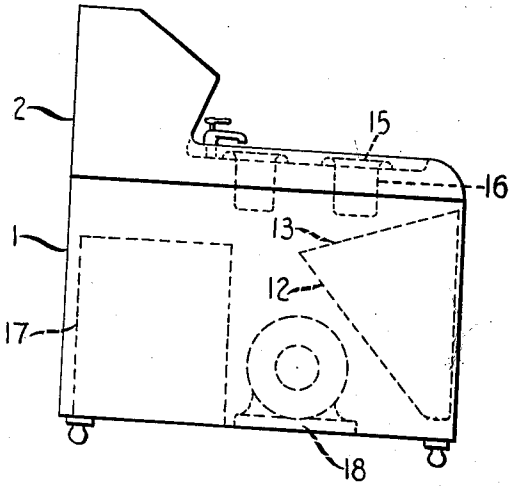



FIG 3

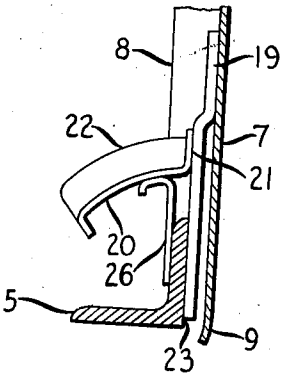



FIG 4

INVENTOR.

John A. Maxwell

June 8, 1954

J. A. MAXWELL

2,680,560

SODA FOUNTAIN REFUSE DISPOSAL UNIT

Filed Oct. 4, 1947

3 Sheets-Sheet 2

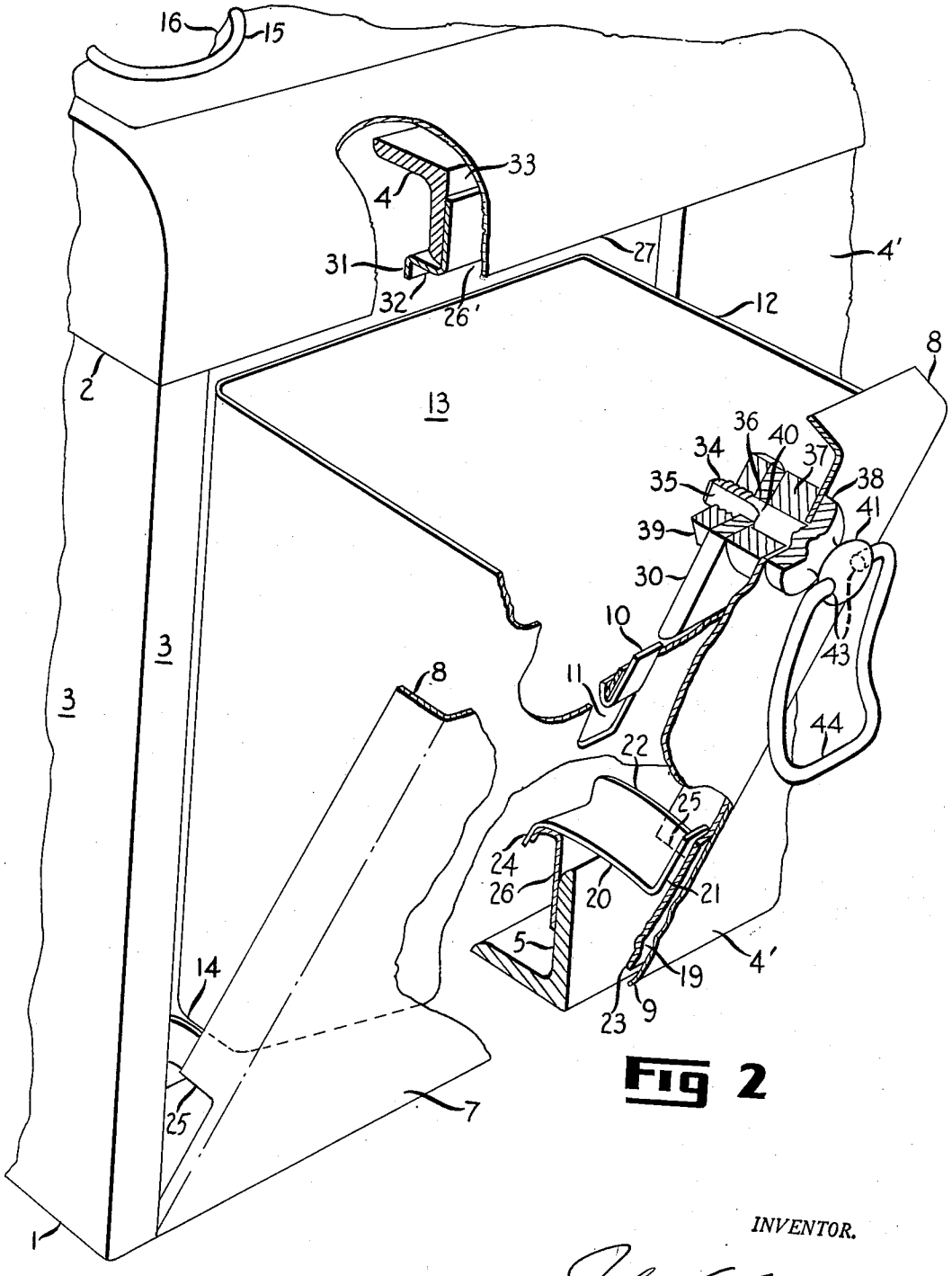



Fig 2

INVENTOR.

John A. Maxwell

June 8, 1954

J. A. MAXWELL

2,680,560

SODA FOUNTAIN REFUSE DISPOSAL UNIT

Filed Oct. 4, 1947

3 Sheets-Sheet 3

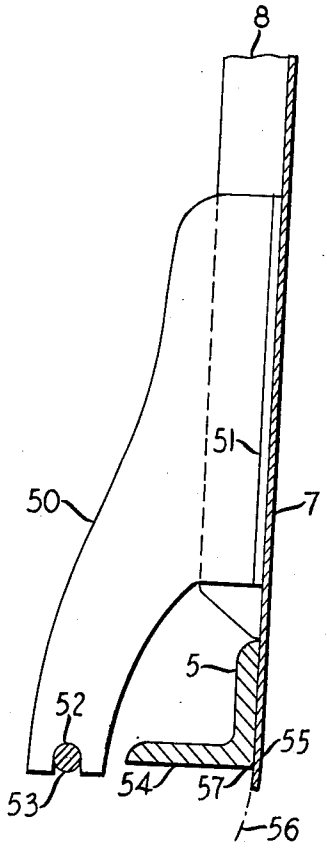



Fig 5

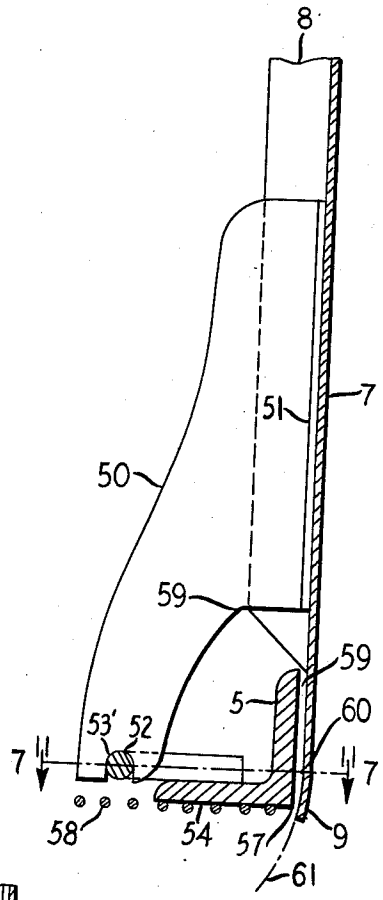



Fig 6

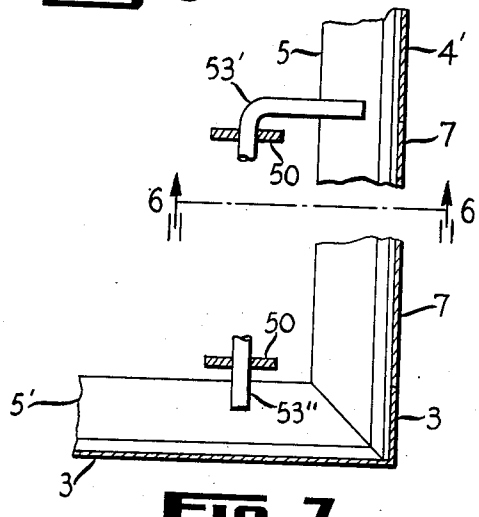



Fig 7

INVENTOR.

John A. Maxwell

Patented June 8, 1954

2,680,560

# UNITED STATES PATENT OFFICE

2,680,560

## SODA FOUNTAIN REFUSE DISPOSAL UNIT

John A. Maxwell, Grosse Pointe, Mich.

Application October 4, 1947, Serial No. 777,908

1 Claim. (Cl. 232—43.2)

1

This invention relates to means for the disposal of refuse for service units, particularly for soda fountains.

Heretofore it has been common practice to provide a hole in the top of the soda fountain cabinet into which to throw the refuse and an opening in the front so that a container for the refuse can be placed under the hole. This method is not only very uneconomical in the utilization of the limited space available but is open to the serious objection that the soda fountain operator may not properly locate the container to receive the refuse thrown into the hole.

One object of my invention is to provide a refuse container that is fixed in location and is economical in its use of space.

A second object of my invention is to provide an opening means that is hinged at the bottom and will provide a support for said refuse container.

A third object of my invention is to provide a container so shaped as to provide room for the installation of desired machine units substantially below the hole provided for the refuse.

In the drawings:

Fig. 1 is an isometric view of my soda fountain showing at 7 the location of my refuse disposal unit.

Fig. 2 is an isometric view of my refuse disposal unit showing the details of the hinge and locking means.

Fig. 3 is a side view of my soda fountain cabinet showing the location of my refuse container therein.

Fig. 4 is a side elevation of my detachable hinge means showing the panel in the closed position.

Figs. 5 to 7 show alternative forms of my detachable hinge means.

In the drawings, Figs. 1 and 2, the soda fountain cabinet is composed of base 1 and a top capping unit 2. The base is formed by upright stainless steel panels 3 extending around the base 1 and reinforced at the top by angle iron 4 and at the bottom by angle iron 5, which angle irons extend entirely around the top and bottom edges of the base 1. Although not shown the upper and lower angle irons are connected by angle irons located at each of the four corners to form a frame, and the ends of panels 3 are connected thereto. In addition supplemental upright angle irons may be used to reinforce the base as desired. Panel 4' is a removable panel for access to the compressor and other mechanical equipment located under the sinks 6. Panel 7 forms the opening into the refuse compartment and is arranged to swing forward about a hinge means at the

2

bottom as shown in Fig. 2, which will be described later. Panel 7 is flanged inward as shown at 8 around all edges except the bottom which is turned in slightly as shown at 9, Fig. 4.

On the rear side of panel 7 are secured two J hooks 10 which fit in slots 11 of container 12 and support it when so hooked. As can be seen from Figs. 2 and 3, container 12 is generally V-shaped having a large top opening 13 and a narrow bottom 14. In the position shown in Fig. 2 the refuse container 12 can be removed directly upward for emptying, replaced, and panel 7 returned to the closed position. When in the closed position container 12 occupies the location in the base 1 as shown in Fig. 3. In the top of the top capping 2 is a hole 15 to receive the refuse. From this hole an open bottom tube 16 extends down into the base 1 and terminates just above the opening 13 in container 12. Thus anything thrown into hole 15 is directed into container 12.

This V-shape for container 12 performs a second function as shown in Fig. 3. Located in the rear of base 1 behind container 12 is the carbonator 17. Forward of carbonator 17 is located motor 18 for the water pump which extends partially under container 12. Thus by using a V-shaped refuse container I not only facilitate its removal for emptying, but obtain valuable floor space in base 1.

For the servicing of the compressor and other equipment located in base 1 behind panels 4' and 7 it is desirable that both panels 4' and 7 be removable. To permit this removal I use the hinge arrangement shown in Figs. 2 and 4. At each side of panel 7 a reinforcing piece 19 is fastened to the panel. To this is fixed the arcuate piece 20 having the upturned flanges 21 and 22. Flange 21 is spot-welded to reinforcing piece 19 and flange 22 is spot-welded to flange 8 of panel 7 to provide a rigid corner arrangement. Arcuate piece 20 rests on curled piece 26 which is fastened to angle iron 5. The center of curvature for the arcuate piece 20 is the axis 23 where reinforcing piece 19 bears against the lower side of angle iron 5 as shown in Figs. 2 and 4. Thus in the open position panel 7 and container 12 are limited in outward movement by the bearing of reinforcing piece 19 against angle iron 5 along the axis 23 and by the downturned flange 24 on the end of arcuate piece 20 bearing against curled piece 26. The hinge on the other side, not shown, is formed in the same way. So that flanges 8 will not interfere with angle iron 5, they are trimmed off at the bottom at 25.

In the closed position shown in Fig. 4 panel 7 and container 12 are supported by arcuate piece

20 which rests on curl 26 at an angle which keeps the bottom of the panel in the position shown, so that reinforcing piece 19 bears against angle 5. Thus in opening and closing the axis of turning is about axis 23 and the lower edge of the panel 7 shown at 9 is always protected from any action tending to distort it. Also the unbalanced weight of the container 12 hanging on J hooks 16 causes the bottom to always swing in so that the outer side of container 12 rests against panel 7 even in the position shown in Fig. 3 when panel 7 is in the closed position.

Thus it can be seen that if it is necessary to service any of the mechanical equipment, panel 7 and container 12 can be removed by simply lifting the panel and arcuate piece 20 from curled piece 26. At the top panel 4' fits in the space 26' between the downwardly-curved front portion 27 of the top capping and angle iron 4 and is supported at the bottom by removably fastening an inturned bottom flange, not shown, to angle iron 5. Thus by removing panels 4' and 7 the entire front of the compartment devoted to the mechanical equipment can be opened up for easy access for maintenance.

To retain panel 7 in the closed position a rotatable tongue 30 is provided which when turned in the upright position engages face 31 of the flexible stainless steel Z-shaped metal strip 32 which is fastened to the outside face 33 of angle iron 4, as by spot welding. Tongue or latch 30 is mounted on bolt 34 which is provided with a flattened side 35 which registers with a corresponding flat side in hole 36 through which the bolt 34 passes.

To assemble, a spacer washer 37 is first fastened to panel 7, as by brazing, to act as a bearing for bolt 34. Bolt 34 is then inserted until bolt head 38 rests against panel 7. Tongue 30 is then fitted over the bolt 34 and nut 39 is screwed down until tongue 30 is firmly locked against shoulder 40. Spacer washer 37 and shoulder 40 are so proportioned that when tongue 30 is locked in place by nut 39 that bolt 34 is free to rotate.

On the front of a soda fountain cabinet it is undesirable to have a handle to turn the bolt 34 which would catch in the clothes of the operator. To turn the bolt 34 a rounded member 41 is attached to the bolt head 38 by a reduced neck as shown. Rounded member 41 is drilled with two holes 43 on each side and looped handle 44, made of stainless steel rod, is sprung into the holes. In operation the handle can be rotated outward and turned to operate tongue 30 into the locked or unlocked position, and when not in use can be rotated downward against the side of panel 7 where it will not interfere with the operator and will afford a hanger for a towel if desired.

In Figs. 5–7 I have shown alternative forms of the hinge arrangement for the panel 7. Fig. 5 shows the panel 7 mounted on hinge bracket 50 spot-welded to flange 8. Bracket 50 also has a reinforcing flange 51 bent over to be parallel with panel 7. If desired, this flange may also be fastened to panel 7. At the lower end of hinge bracket 50 is a circular notch 52 which rotates on pin 53. The center of pin 53 is located in the plane of the bottom face 54 of angle iron 5 so that as panel 7 is rotated outward the line 55 on panel 7 will move in arc 56 and the lower end of the panel will move downward and away from the lower corner 57 of angle iron 5.

In practice I have found it desirable to put a wire mesh screen over the bottom of the refuse and mechanical equipment compartment located to the rear of panels 4' and 7 to prevent rats and other animals from gaining access to this compartment. This is shown at 58 in Fig. 6 as fastened to the bottom 54 of angle iron 5. To provide for this, pin 53' is moved slightly upward and a clearance 59 is provided between panel 7 and angle iron 5 so that line 60 on panel 7 will move on arc 61 and will clear corner 57 of angle iron 5. This construction permits pin 53'', for one hinge, shown in Fig. 7, to be welded to the top of angle iron 5', which extends rearward from angle iron 5, and pin 53' for the opposite hinge can be formed in the shape of an L and welded to the top of angle iron 5. The installation shown in Figs. 6 and 7 has proved very simple and very serviceable in operation. As in Fig. 2 it can be seen that if it is necessary to service any of the mechanical equipment, panel 7 can be removed by simply lifting the panel and hinge brackets 50 from pins 53' and 53''. Also on rotating the panel outward the hinge brackets 50 engage the angle iron 5 at the point 59 and limit the outward movement of panel 7 to the desired angle to permit the refuse container 12 to be readily removed.

I claim:

A refuse disposal unit for a soda fountain cabinet having a refuse opening in the top thereof located to the rear of the forward edge of said top, a compartment thereunder and a frame for said cabinet including an angle iron across the bottom of the front of said compartment, said unit comprising an opening panel for said compartment and hinge means therefor located on each side of said panel and arranged to support said panel and constrain it to rotate around an axis near its bottom edge, stop means to limit said rotation to a predetermined outwardly inclined angle, a container for the refuse and means to detachably support said container on said panel for ready removal when said panel is opened to said predetermined angle, said container extending under said refuse opening when the panel is in the closed position and fastening means for securing the panel in the closed position each hinge means comprising a reinforcing member fastened to said panel and having its lower end spaced from said panel and bearing against the angle iron near its lower edge, an arcuate member fastened to said reinforcing member, the center of said arc being the lower end of said reinforcing member, said arcuate member resting on a seat associated with said angle iron to support said panel and permit it to be rotated around the lower end of said reinforcing member as said axis with said arcuate member sliding on said seat and a downturned flange on the inside end of said arcuate member to form said stop means when said panel is in the open position and spring means in said fastening means to retain said panel in the closed position.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 133,691 | Williams | Dec. 3, 1872 |
| 707,858 | Mendenhall | Aug. 26, 1902 |
| 1,005,373 | Valentine | Oct. 10, 1911 |
| 1,112,296 | Kyle | Sept. 29, 1914 |
| 1,840,024 | Dalton | Jan. 5, 1932 |
| 2,386,929 | Brown | Oct. 16, 1945 |
| 2,432,402 | Fay | Dec. 9, 1947 |
| 2,444,125 | Wheeler | June 29, 1948 |
| 2,474,101 | Frothingham | June 21, 1949 |