June 19, 1962 D. C. PERKINS 3,039,642

RECEPTACLE

Filed Sept. 14, 1959 2 Sheets-Sheet 1

Fig. 1.

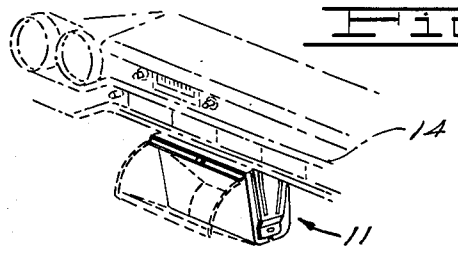


Fig. 2.

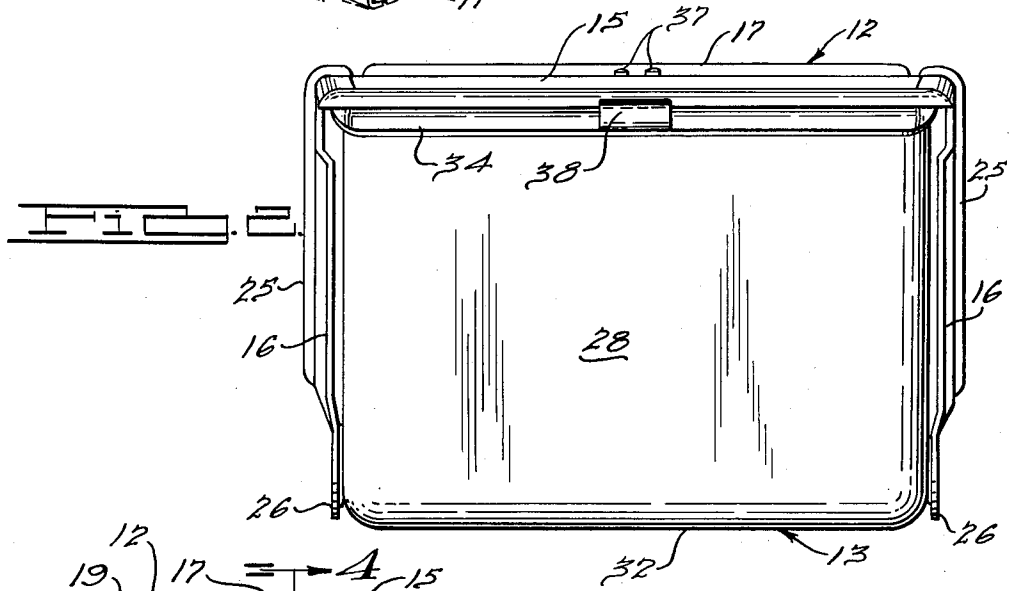
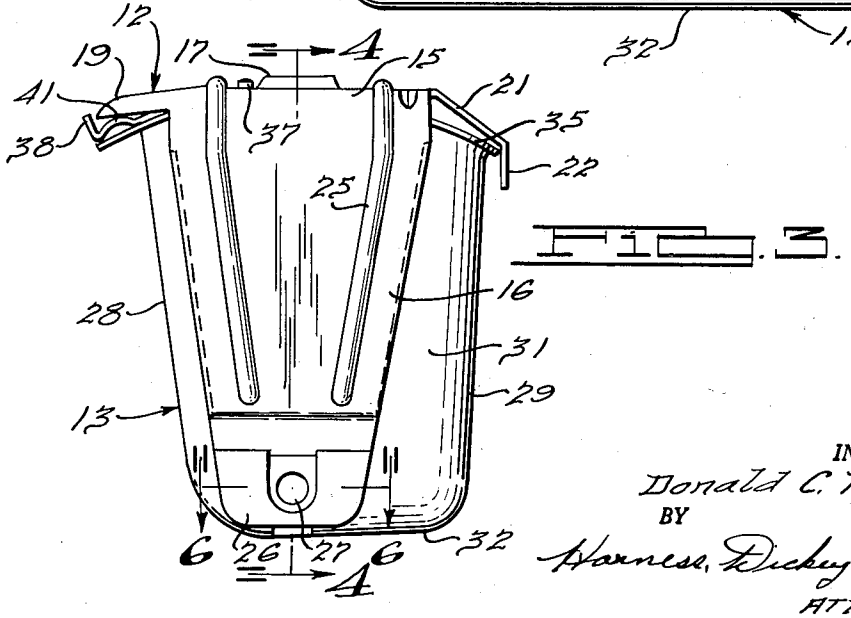


Fig. 3.



INVENTOR.
Donald C. Perkins.
BY
Harness, Dickey & Pierce
ATTORNEYS.

June 19, 1962 D. C. PERKINS 3,039,642

RECEPTACLE

Filed Sept. 14, 1959 2 Sheets-Sheet 2

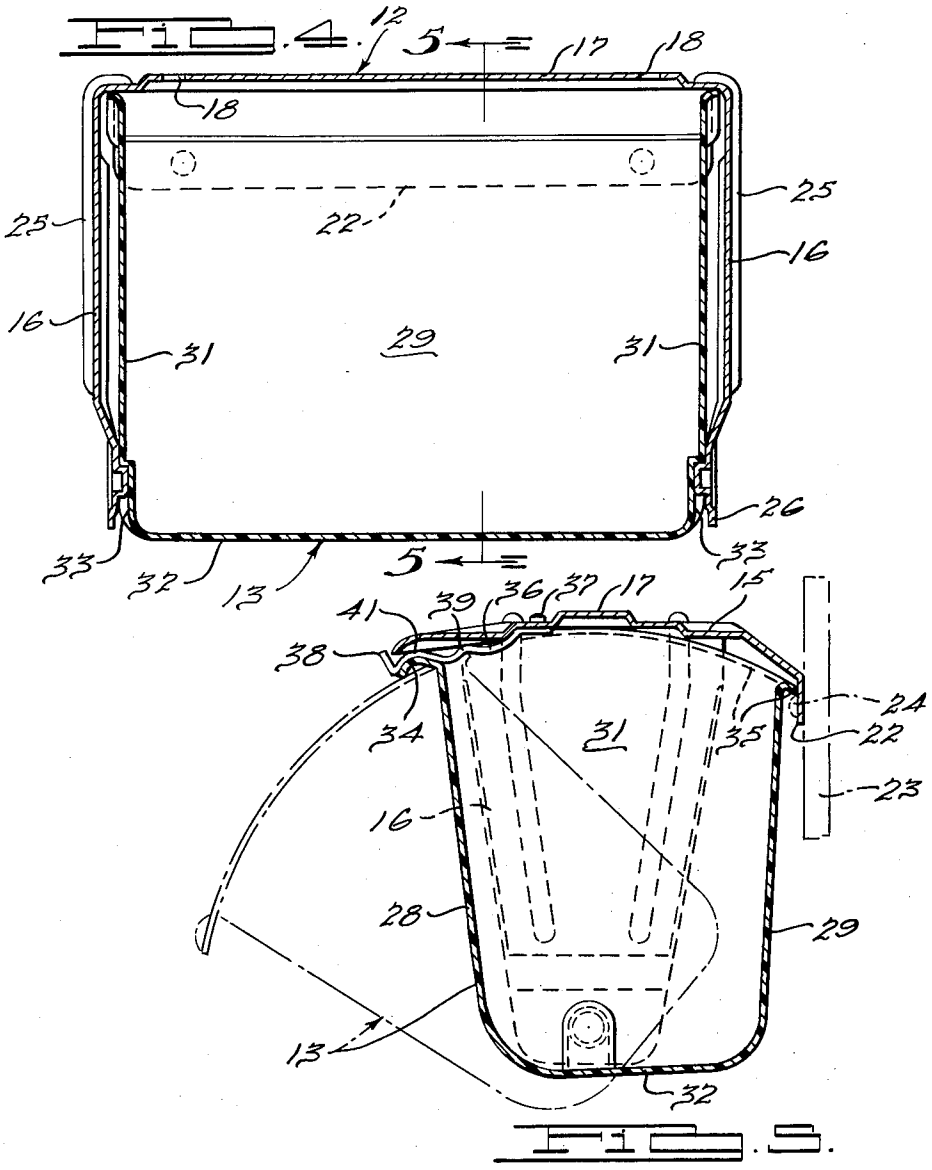


Fig. 4.

Fig. 5.

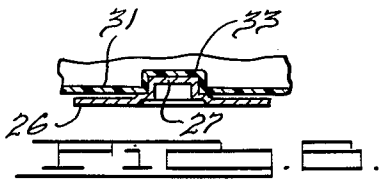


Fig. 6.

INVENTOR.
Donald C. Perkins.
BY
Harness, Dickey & Pierce
ATTORNEYS.

United States Patent Office 3,039,642 Patented June 19, 1962

3,039,642

RECEPTACLE

Donald C. Perkins, Lansing, Mich., assignor to Michigan Modern Engineering Company, Lansing, Mich., a corporation of Michigan

Filed Sept. 14, 1959, Ser. No. 839,689
2 Claims. (Cl. 220—18)

This invention relates to receptacles, and more particularly to containers adapted to be mounted in locations such as the undersides of automobile dashboards as convenient receptacles for litter.

It is an object of the invention to provide a novel and improved receptacle of a retractable nature, which is capable of installation in a variety of positions and in which the mounting means for the receptacle also serves as a closure member.

It is another object to provide an improved receptacle of this character which has a relatively large capacity while occupying a minimum of space when in its closed or retracted condition.

It is a further object to provide an improved automobile litter basket or receptacle of this character in which the container portion may be opened with one hand and may be easily removed for emptying and replaced with a minimum of inconvenience.

It is another object to provide an improved receptacle of the above nature which is of extremely simple and foolproof construction and may be inexpensively fabricated using standard materials and manufacturing methods.

Other objects, features, and advantages of the present invention will become apparent from the subsequent description, taken in conjunction with the accompanying drawings.

In the drawings:

FIGURE 1 is a perspective view of the novel receptacle of this invention shown installed under an automobile dashboard, the drawing indicating both the closed and open positions of the receptacle;

FIGURE 2 is a front elevational view of the receptacle showing the configuration of the mounting bracket;

FIGURE 3 is a side elevational view of the receptacle in its closed position, illustrating the configuration of the container portion;

FIGURE 4 is a cross-sectional view in elevation taken along the line 4—4 of FIGURE 3 and showing the manner in which the bracket and container interfit;

FIGURE 5 is a cross-sectional view in elevation taken along the line 5—5 of FIGURE 4 and illustrating the manner in which the retainer clip engages the container lip in its closed and open position, this view also illustrating an alternative method of mounting the receptacle, and

FIGURE 6 is a fragmentary plan cross-sectional view taken along the line 6—6 of FIGURE 3 and showing the manner in which the bracket pivot lugs and retainer recesses interfit.

In general terms, the invention comprises a receptacle having two main parts, the first part being a container portion adapted to receive trash or other litter such as may be disposed of in an automobile, and the other member being a mounting bracket portion of inverted U-shape, which also serves as a cover when the receptacle is closed. The container is of generally rectangular cross-sectional shape and is open at its top, the lower portion of the container having means for cooperation with the lower ends of the inverted U-shaped bracket. In this manner, the container can swing between an opened position in which its open upper end is exposed, and a closed position in which its upper end is covered by the central portion of the bracket. This central portion may also serve to secure the receptacle to the underside of an automobile dashboard or another stationary member, and the central bracket portion is further provided with a rear flange which may be alternatively used as a mounting means. A spring retaining clip is secured to the underside of the central bracket portion and cooperates with a lip on the upper edge of the container to hold the container in a closed or open position. The container may be removed simply by swinging up the spring clip manually and slipping the container off its pivot supports after swinging it clear of the central bracket portion. If desired, the container portion may be fabricated of a molded plastic for lightness and attractive appearance.

Referring more particularly to the drawings, the receptacle generally indicated at **11** comprises a mounting bracket generally indicated at **12** and a container generally indicated at **13**. The receptacle assembly is shown in FIGURE 1 as being mounted beneath the dashboard **14** of an automobile, although it will be understood that the receptacle is capable of being mounted in other locations within the principles of the invention.

Bracket **12** is of inverted U-shape and comprises a central portion **15** and a pair of depending legs **16**. As is best seen in FIGURES 3 and 5, central portion **15** is substantially wider than legs **16**, the latter tapering downwardly. An elongated upwardly projecting boss **17** is formed in the central portion **15** of bracket **12**, this boss being provided with a plurality of apertures **18**, as seen in FIGURE 4 which may be used to secure bracket **12** to the underside of dashboard **14**. An overhang **19** extends forwardly from central portion **15** as seen in FIGURE 3, this overhang having inturned edges on opposite sides thereof to enable it to act, together with the remainder of central portion **15**, as a cover for the container as will be hereinafter described. A downwardly inclined flange **21** extends rearwardly from central portion **15**, and a downwardly vertically extending rear flange **22** extends from flange portion **21**. As is seen in FIGURE 5, inclined portion **21** also cooperates with the remainder of central bracket portion **15** for container covering purposes, and flange **22** acts as a stop when the container is in its closed position and may also serve to mount the bracket on a vertical stationary member indicated in dot-dash lines at **23** by bolts **24**.

Legs **16** of bracket **12** are of substantially flat shape and are provided with stiffening ribs **25** which extend downwardly from the juncture of legs **16** with central portion **15**, as seen in FIGURES 2 and 3. The lower ends **26** of legs **16** are offset inwardly as seen in FIGURE 2, and are provided with inwardly extending circular bosses **27** seen best in FIGURE 6. It will be noted that bracket **12** is so shaped as to be capable of fabrication by simple metal stamping and drawing methods.

Container **13**, which may be fabricated of a molded plastic material, comprises a front wall **28**, a rear wall **29** and side walls **31**. Walls **28** and **29** may be slightly flared in an upward direction and the walls are shown as being connected by rounded edges, the bottom **32** of the container also being smoothly contoured with respect to the walls. The size of container **13** is preferably such as to conveniently receive paper and other litter discarded in an automobile, or for any other purpose when required. The width of container **13** is such that it may fit snugly between legs **16** of bracket **12**, the latter having a slight spring action. A pair of downwardly open recesses **33** are provided in walls **31** as seen in FIGURE 4 for the reception of pivot bosses **27**, the upper portions of these recesses being rounded so that the container may swing on bosses **27**.

The upper edge of container **13** is arcuately concentric

with its pivot axis and is provided with a front lip 34 and rear and side lips 35 which are somewhat narrower than lip 34. The height of container 13 is such that when it rests on bosses 27 with the container in its closed position as shown in FIGURE 3, lips 34 and 35 will be immediately below central portion 15 of bracket 12, as well as extensions 19 and 21 thereof. The upper surface of lip 34 is convex upwardly, as seen in FIGURE 5, and the retaining clip 36 is secured to the underside of central bracket portion 15 for cooperation with this lip. More specifically, clip 36 comprises a spring steel strip secured at one end to bracket 12 by rivets 37 and extending forwardly beyond the forward edge of flange 19. The forward end of clip 36 has an upwardly extending handle portion 38 by means of which it may be flexed upwardly.

The clip is provided with a first undulation or recess 39 at an intermediate portion and a second recess 41 forwardly of recess 39. Recess 41 is of a shape complementary to the convex upper surface of lip 34 and is so located that when container 13 is in its closed position, with rear lip 35 engaging flange 22, lip 34 will be held within recess 41 to retain the container in this closed position. It will be noted that when in this position, central bracket portion 15 together with flange 19 and extension 21 will serve to cover the container opening. Recess 39 is so located as to be engageable with rear lip 35 when the container is swung outwardly as shown in dot-dash lines in FIGURE 5. The container will thus be held in a position such that its open top will be almost fully exposed to someone located in front of the receptacle so that litter may be placed in the container or items removed therefrom.

In operation, the container may be closed or opened simply by swinging the container to its closed or open position. It will be noted that the container may be easily gripped by the fingers of one hand which may be placed on the concave underside of front lip 34, clip 36 yielding as the lip leaves recess 41. Rear lip 35 will snap into recess 39 of the spring clip to define the open position of the receptacle. The closed position may be achieved simply by pushing the container back until lip 34 snaps into place in recess 41. The container may thus be safely opened and closed while driving.

To remove the container for emptying, it is merely necessary to swing it out past its open position as defined by lip 35 and recess 39 until it is clear of clip 36. The container may then be lifted out of bracket 12, bosses 27 slipping out of recesses 33.

While it will be apparent that the preferred embodiment of the invention disclosed is well calculated to fulfill the objects above stated, it will be appreciated that the invention is susceptible to modification, variation and change without departing from the proper scope or fair meaning of the subjoined claims.

What is claimed is:

1. In a receptacle, a container having front, rear and side walls, a bottom and an open top, a mounting bracket of inverted U-shape having downwardly extending unconnected legs flexible toward and away from each other, a pair of downwardly open recesses formed in the side walls of said container, a pair of inwardly extending round bosses formed in the lower ends of the mounting bracket legs, said bosses and recesses interfitting to form a separable pivot support for said container whereby the container may be swung between open and closed positions, mounting means formed on the central portion of said mounting bracket whereby the mounting bracket may be secured to a stationary support, forward and rearward extensions on said central mounting bracket portion for covering the open top of said container when in its closed position, and means carried by said central mounting bracket portion for retaining the container in its open or closed positions, said retaining means comprising a spring clip secured to the underside of said central mounting bracket portion, a first upwardly convex lip formed at the forward edge of the container top, a second lip formed at the rear edge of the container top, and at least one recess in said spring clip for cooperation with said lips, the spring clip being yieldable to a position clear of said lips whereby the container may be removed from said mounting bracket.

2. In a receptacle, a container having front, rear and side walls, a bottom and an open top, a mounting bracket of inverted U-shape having downwardly extending unconnected legs flexible toward and away from each other, means defining a separable pivot including a projection and recess between each of said legs and said container, whereby the latter may be pivoted between open and closed positions, each of said pivots lying on a common pivotal axis positioned forwardly of the center of gravity of said container in the closed position, mounting means formed on the central portion of said mounting bracket whereby the mounting bracket may be secured to a stationary support, and a single spring clip carried by said central mounting bracket portion for retaining the container in its open or closed positions.

References Cited in the file of this patent

UNITED STATES PATENTS

1,546,992	Oppman	July 21, 1925
2,048,363	Vogel	July 21, 1936
2,215,626	Visser	Sept. 24, 1940
2,311,968	Schallis	Feb. 23, 1943
2,770,388	Legge	Nov. 13, 1956
2,798,632	Holly et al.	July 9, 1957
2,812,097	Legge	Nov. 5, 1957

FOREIGN PATENTS

768,248	France	May 14, 1934
491,775	Great Britain	Sept. 8, 1938