

Jan. 10, 1956

A. K. NEILSON

2,730,263

ADJUSTABLE CONTAINER FOR SERVICE PARTS

Filed March 13, 1953

2 Sheets-Sheet 1

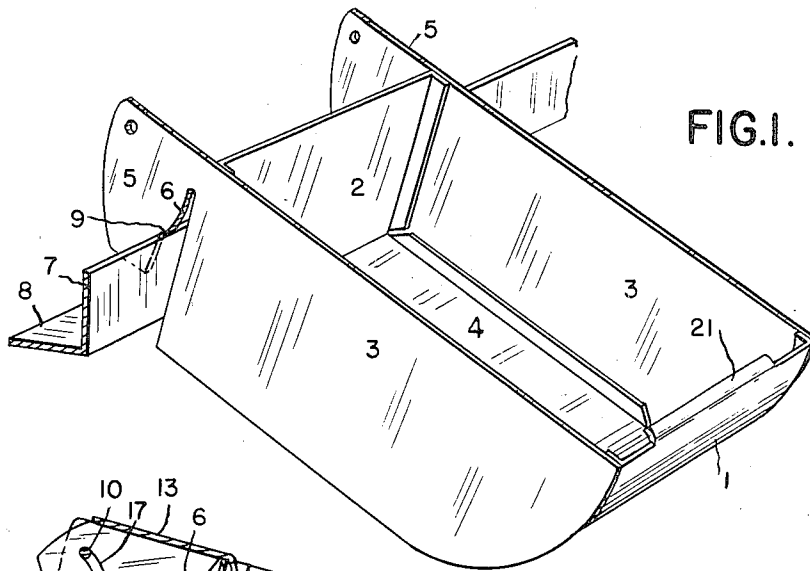


FIG. 1.

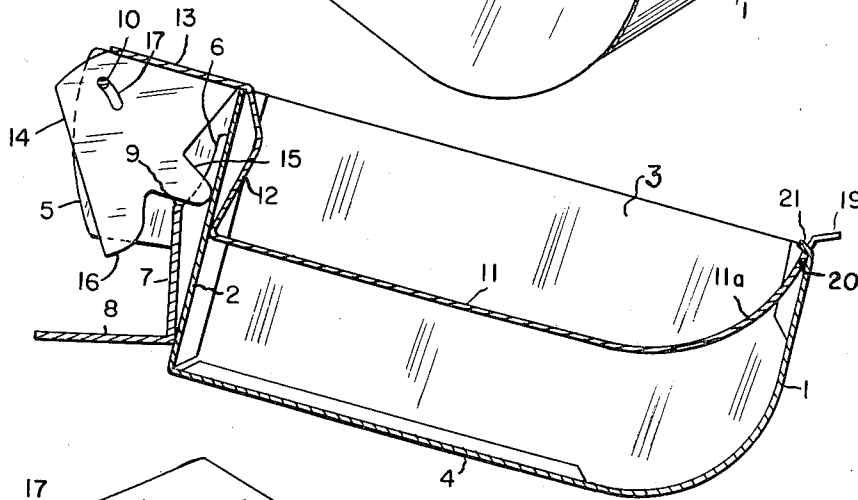


FIG. 2.

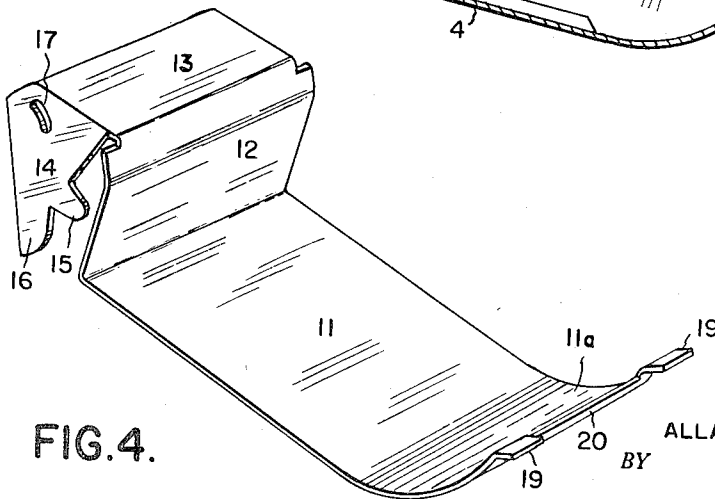


FIG. 4.

INVENTOR.
ALLAN K. NEILSON

BY

J. S. Murray
ATTORNEY

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FIG. 3.

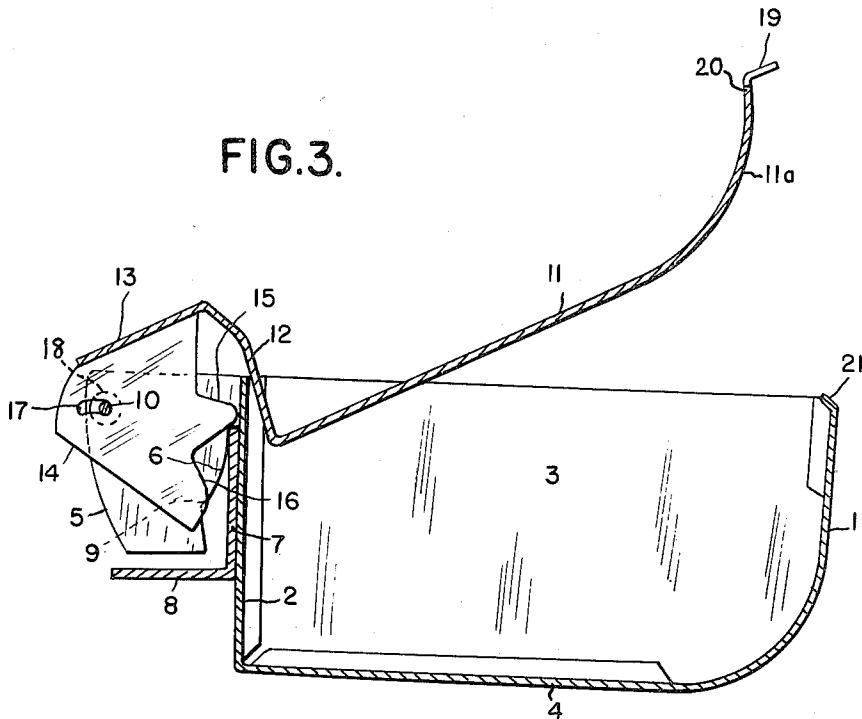
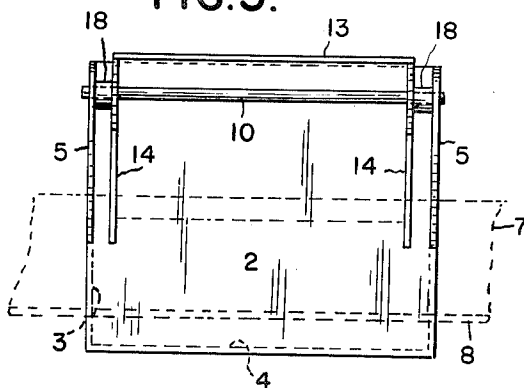


FIG. 5.



INVENTOR.

ALLAN K. NEILSON

BY

J. S. Murray
ATTORNEY

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2,730,263

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Allan K. Neilson, Detroit, Mich.

Application March 13, 1953, Serial No. 342,046

5 Claims. (Cl. 220—18)

This invention relates to containers for service parts and particularly to provisions for indicating a need for refilling such containers, being an improvement on the subject matter of my copending application, Ser. No. 236,621, filed July 13, 1951.

An object of the invention is to provide an open-topped container for service parts and to pivot a plate on such container to alternatively assume raised or lowered positions and serving when lowered as a false bottom covering and preventing access to a lower portion of the container contents, the raised position exposing said plate above the container as a signal that refilling is required, and also giving access to said lower portion of the contents.

Another object is to provide latch means maintaining the raised position of the plate upon establishment of such position.

Another object is to equip the container with a pair of spaced rearwardly extending brackets notched to engage a supporting bar and seating on such bar alternatively at the upper ends of the notches or at offsets formed marginally of the notches and downwardly from said ends, whereby the container may be alternatively lowered or raised at its rear end.

Another object is to adapt the container to tilt materially downward from back to front when raised at its rear end, and to occupy a substantially horizontal position when such end is lowered.

Another object is to automatically shift the rear end of the container from its raised to its lowered position responsive to raising of said plate to its signaling position.

Another object is to equip said plate with a rearward extension engaging a pivot element, and to provide on such extension a cam element exerting a thrust forwardly on the support upon raising the plate, and thus shifting the container slightly rearward to unseat the aforementioned offsets from the support, whereby the container may drop sufficiently to seat the upper ends of the notches on the support.

Another object is to provide latch elements on the front end of the plate and front wall of the container coacting to resist any accidental upward shifting of the plate from its lowered position.

These and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of the container with its rear portion in its raised position, the pivotal indicating plate being omitted.

Fig. 2 is a longitudinal vertical sectional view of the container positioned relative to its support as in Fig. 1 and showing the lowered or false bottom position of the indicating plate.

Fig. 3 is a longitudinal vertical section showing the rear end of the container in its lowered position of engagement with the support and showing the raised position of the indicating plate.

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Fig. 4 is a perspective view of the indicating plate. Fig. 5 is a rear view of the container and its support.

In these views, the reference characters 1 and 2 designate the front and back walls of an open-topped container of primarily rectangular form, such container further comprising parallel side walls 3 and a bottom 4. The top portions of the side walls similarly form a pair of rearwardly projecting brackets 5, and these are similarly upwardly notched at 6 to receive an upstanding flange 7 of a support such as the horizontally disposed angle bar 8 extending in exterior proximity to the container. Each notch has front and rear margins and an offset 9 in its rear margin, being increased in width downwardly from such offset. The described notches afford the container alternative positions of engagement with the support. In one such position (Fig. 2) the offset 9 seats on the flange 7, the relatively wide lower portions of the notches allowing the receiver to tilt downwardly from back to front at an angle of approximately twenty degrees. Such inclination facilitates observation of and access to material in the container. In the other container position (Fig. 3), the closed upper ends of the notches seat on the flange 7, the latter thus engaging in the narrow upper portions of the notches and maintaining the container substantially horizontal. When its contents are adequate the container is maintained in its first described position, being shifted to its last described position when refilling is necessary. Thus when a row of the described containers is properly mounted on the bar 8, an attendant may distinguish those requiring refilling.

There will now be described a provision for definitely indicating to an attendant such a reduced level of material in the described container as renders refilling advisable, such provision furthermore compelling the attendant to establish the depletion indicating position of the container. The brackets 5 on the container jointly carry a horizontal pivot rod 10 extending transversely of the container, and pivoted on such rod is a plate 11 adapted to swing between upper and lower positions illustrated respectively in Figs. 3 and 2. Said plate at its rear end has an upward extension 12 and a rearward extension 13 from the top of the extension 12. The extension 13 has a pair of downturned lugs 14 between and adjacent to the brackets 5 and pivotally engaging the rod 10. In the lowered position of the plate 11, the extension 12 has a close proximity to the rear wall of the container and establishes a desired level for the rear end of said plate. Each lug 14 has upper and lower forward peripheral projections 15 and 16, the projection 15 engaging above the flange 7 in the raised position of the plate 11 and thus serving as a latch element to maintain such position. The projection 16 functions as a cam, having a curved front edge which rides against the flange 7 as the plate 11 is raised, thrusting the plate and its extensions rearwardly. The container is also rearwardly actuated due to its pivotal connection at 10 with the extension 13, and such actuation shifts the offsets 9 clear of said flange, allowing the container to drop slightly and seat the upper ends of the notches on the flange. It is preferred to delay unseating of the offsets 9 until the plate 11 has been partially raised, thus assuring a full upward actuation of the plate prior to such unseating. The desired delay is afforded by forming the lugs 14 with short slots 17 accommodating the pivot rod 10, such slots permitting a slight initial rearward travel of the plate 11 and its extensions without affecting the container. Collars 18 on the end portions of the rod 10 space the lugs 14 slightly inward from the brackets 5 to minimize friction.

The front end portion 11a of the plate 11 is bent upwardly at a forward inclination so as to locate the front margin of the plate adjacent to the top margin of the wall

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1, when the plate occupies its lower position. A pair of tongues 19 are bent to extend forwardly from the front margin of the plate adjoining the ends of such margin, and serve for forming handles by which the plate may be manipulated. Between said tongues, a latch member 20 is formed on the plate for coaction with a lip 21 bent rearwardly from the top edge of the wall 1. The plate has sufficient resiliency to flex in assuming its lowered position, thus permitting the member 20 to pass the lip 21, said member then snapping to a latched position beneath the lip.

In use of the described construction, the plate 11 occupies its raised position (Fig. 3) while being filled with material substantially to the level determined by the lower position of such plate. During such filling the upturned front portion 11a of the plate assists materially in giving access to the container. The attendant now swings the plate to its lowered position, in which position it is supported by the pivot rod 10 and additionally by the underlying material. Any desired amount of additional material is now introduced into the container, its relation to the supporting bar 8 being that shown in Fig. 2. The material is removed as needed and eventually the plate 11 is uncovered. The attendant must now establish the raised position of said plate to provide access to material underlying the lowered plate. The cam projection 16 bears on the flange 7 to thrust the plate slightly rearward while being raised, the slots 17 permitting the container to remain stationary during an initial portion of such actuation of the plate. During a final portion of its upward and rearward actuation, the plate takes effect through the rod 10 on the container to clear the offsets 9 from the flange 7, permitting the container to gravitationally assume its depletion-indicating position of Fig. 3. Such position is maintained until refilling occurs due to engagement of the latch projection 15 above the flange 7 as per Fig. 3. Thus it is seen that undue depletion of the container is signaled both by the raised position of the plate 11 and by shifting of the container to its substantially horizontal position, clearly evidencing to any attendant that refilling is necessary. The quantity of material made available by raising the plate 11 suffices ordinarily for several days, assuring ample time for refilling.

As compared to the construction shown in my copending application, the present improvement simplifies manipulation of the plate and affords a more evident indication of a need for refilling the container.

What I claim is:

1. In combination, an open-topped container having a front and a back wall and a bottom, a support for the container in exterior proximity to the back wall, a pair of brackets rearwardly extending from the container, spaced apart transversely of the container and similarly upwardly notched to straddle the support, a plate disposable within the container in an upwardly spaced and approximately parallel relation to said bottom and proportioned to cover and prevent access to a lower portion of the container contents, an upward extension from the rear end of said plate, a rearward extension from the top portion of said upward extension, a pair of lugs on said rearward extension engaging between and coacting with the brackets to substantially center said plate laterally relative to the container, and means pivoting said lugs upon said brackets about an axis transverse to the container, whereby the plate may be upwardly swung to give access to said lower portion of the container contents.

2. In combination, an open-topped container having a front and a back wall and a bottom, a support for the

container in exterior proximity to the back wall and fixed relative to the container, a bracket rearwardly extending from the container and having an upwardly extending notch to receive the support, such notch having a front and rear margins and an offset in its rear margin spaced downwardly from the upper end of the notch, said offset and end forming lower and upper seats to alternatively engage the support, a plate disposable in the container in an upwardly spaced and approximately parallel relation to the bottom and proportioned to cover a predetermined lower portion of the container contents, said plate when exposed by removal of the overlying portion of the contents indicating necessity for refilling the container, a pivot element carried by the bracket establishing a substantially horizontal axis transverse to the container, a member mounting the rear end of the plate on said pivot element, whereby the plate may be upwardly swung to afford access to said lower portion of the contents, and a cam projection carried by and forwardly extending from said mounting member and taking effect on said support responsive to upward swinging of the plate to rearwardly actuate the container, thus disengaging said offset from the support, and affording a gravitational seating of the notch end on the support.

3. In the combination set forth in claim 2, a latch element carried by said mounting member engageable above the support in the upswung position of the plate to maintain such position.

4. In combination, an open-topped container, a support for such container disposed in an exterior proximity to the container, a bracket fixed on and exteriorly projecting from the container above said support and formed with upper and lower support-engaging seats and adapted to guide the container and bracket in a gravitational travel giving effect to the upper seat upon disengagement of the lower seat from the support, a plate actuable between a lowered position within said container and an upper position in which such plate projects above the container, a lug on said plate projecting exteriorly of the container, means pivoting said lug on the bracket affording travel of the plate between its upper and lower positions, and means on said lug coacting with said support to disengage the lower of said seats from the support responsive to upward actuation of the plate.

5. In combination, an open-topped container having a front and a back wall, a rigid support for the container in exterior proximity to said back wall, a bracket rearwardly projecting from the container and having an upwardly elongated notch, the upper portion of the support being proportioned to enter said notch, the notch having front and rear margins for straddling the support and having its rear margin formed with an offset downwardly spaced from the upper end of the notch, such notch having a greater width below than above said offset, said upper end and offset alternatively seating the container on the support and establishing alternative positions of the container, said support having a lower portion abutted by the container to maintain at least one of said alternative positions.

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