

Dec. 8, 1942.

F. A. CUTTER
RECEPTACLE SUSPENSION
Filed Aug. 5, 1939

2,304,547

2 Sheets-Sheet 1

Fig. 1

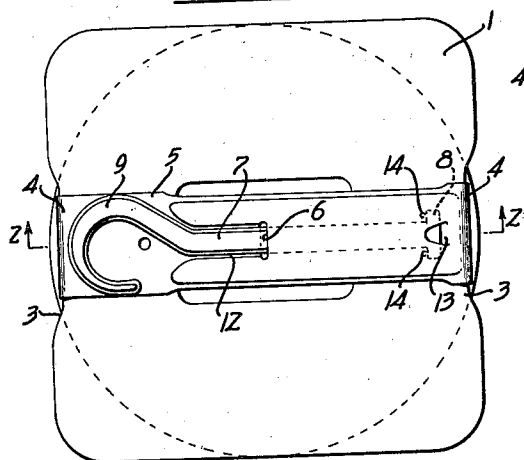


Fig. 2

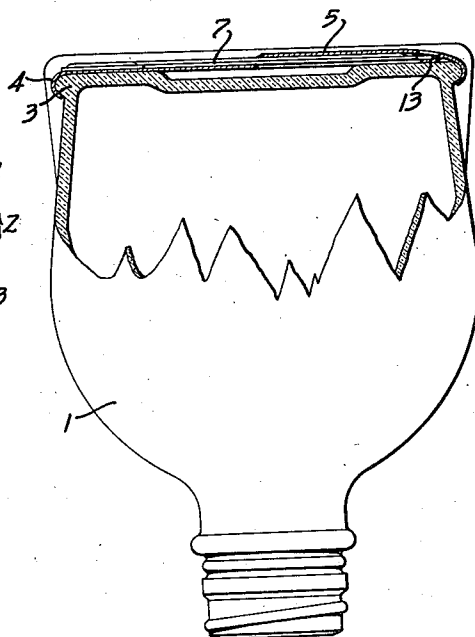


Fig. 3

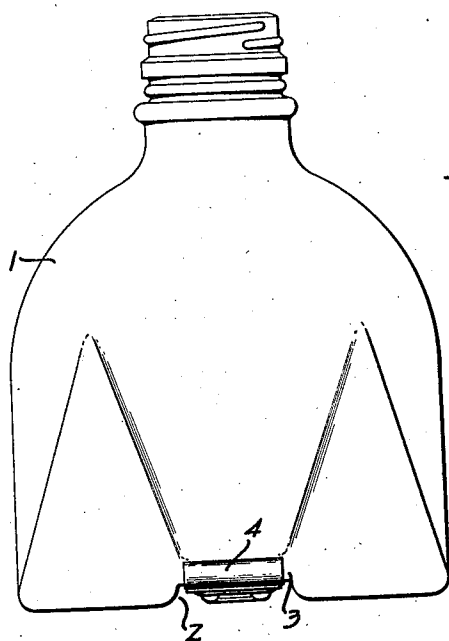
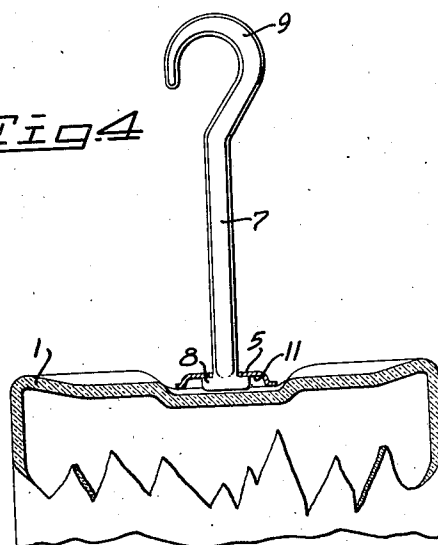


Fig. 4



INVENTOR
FRED A. CUTTER

BY

Fred A. Hanson
HIS ATTORNEY

Dec. 8, 1942.

F. A. CUTTER
RECEPTACLE SUSPENSION
Filed Aug. 5, 1939

2,304,547

2 Sheets-Sheet 2

Fig. 5

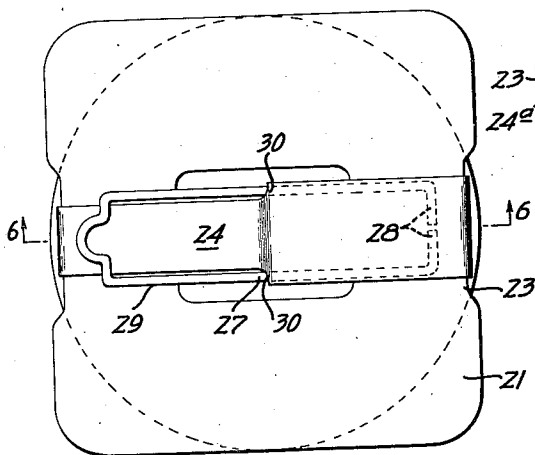


Fig. 6

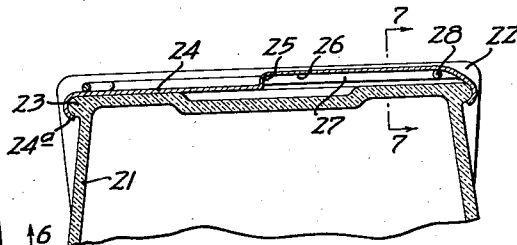
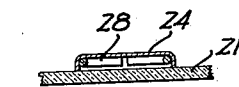


Fig. 7

Fig. 8

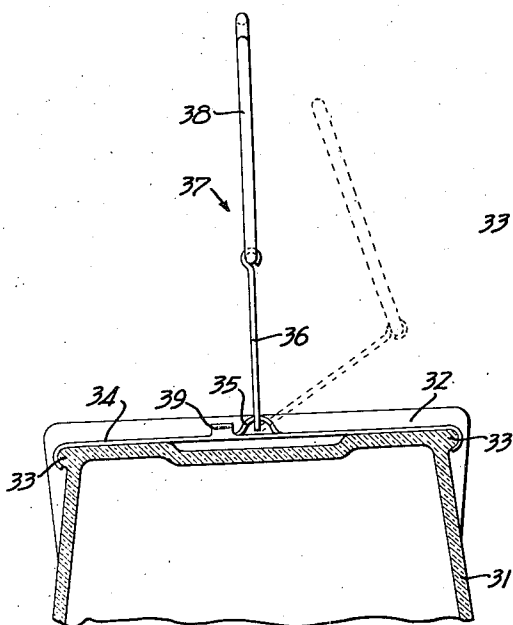
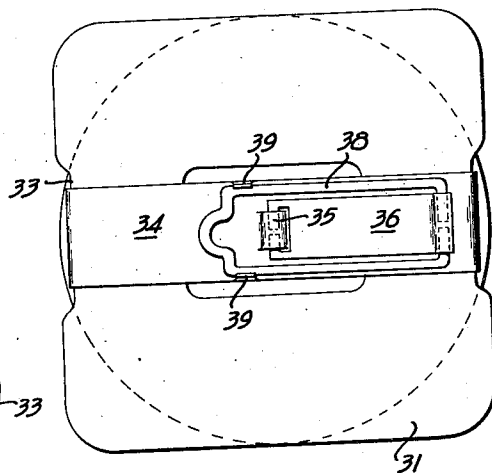


Fig. 9



INVENTOR
FRED A. CUTTER

BY

Fred A. Cutter
HIS ATTORNEY

UNITED STATES PATENT OFFICE

2,304,547

RECEPTACLE SUSPENSION

Fred A. Cutter, Oakland, Calif., assignor to Cutter Laboratories, Berkeley, Calif., a corporation of California

Application August 5, 1939, Serial No. 288,627

10 Claims. (Cl. 248—359)

This invention relates in general to flasks used for shipping and dispensing intravenous solutions such as saline and glucose solutions.

More particularly, the invention relates to compact means by which a flask or other receptacle may be suspended from any suitable support.

Intravenous solutions are ordinarily prepared by manufacturers of biological products and shipped ready for use to the hospitals. In actual use, flasks for intravenous injections must be suspended in an inverted position and as now obtainable on the market they are provided with a ring in which the flask may be seated, the ring being formed with a bail by which it may be suspended from any suitable support. This type of suspension, however, is objectionable for the reason that both the ring and the bail are not only awkward to pack but are frequently in the way when not in actual use by the hospital.

In general, the object of this invention is the provision of a flask having a recessed base for the accommodation of a plate or strap provided with means by which the flask may be suspended in an inverted position and which when not in actual use may be collapsed within the base of the flask.

The invention possesses other advantageous features, some of which with the foregoing will be set forth at length in the following description where that form of the invention which has been selected for illustration in the drawings accompanying and forming a part of the present specification is outlined in full. In said drawings, three forms of the invention are shown, but it is to be understood that it is not limited to such forms, since the invention as set forth in the claims may be embodied in a number of other forms.

Referring to the drawings:

Figure 1 is a plan view of the base of a flask embodying the objects of my invention.

Figure 2 is a section taken on the line 2—2 of Figure 1.

Figure 3 is an end elevation of the flask shown in Figure 1.

Figure 4 is an end elevation of a flask such as shown in Figures 1, 2, and 3, partly in section, and showing the device in its operative position.

Figure 5 is a plan view of the base of a flask embodying a modified form of my device.

Figure 6 is a vertical section taken on the line 6—6 of Figure 5.

Figure 7 is a section taken on the line 7—7 of Figure 6.

Figure 8 is a partial vertical section of an in-

verted flask embodying a further modification of my invention with its link or suspension member shown in its extended position.

Figure 9 is a bottom plan view of the modification shown in Figure 8, but with its link or suspension member shown in its collapsed position.

As shown in Figures 1 to 4 inclusive, the flask 1 is provided with a centrally countersunk channel or recess 2 extending across its base. The ends of this channel terminate in beads 3 to which are clamped the overturned ends 4 of a strap or plate 5 accommodated within the recess or channel 2. Formed intermediate the ends of the plate 5 is a transverse slot or opening 6. Extending through the opening 6 is a link 7 formed on its inner end with a projection 8 for preventing this end of the link from passing through the opening. The opposite end of the link 7 is provided with a loop 9 which in the present instance has been shown in the form of a hook but which if desired may take the form of a ring. Stamped on the under or lower face of the plate 5 is a forked recess or channel 11 for the reception of the inner end of the link 7 and the projection 8. The forked portions of this recess are parallel, extend beyond the opening 6, and define on the upper or outer face of the strap a channel or recess 12 for the accommodation of the outer end of the link 7.

From this description it will be noted that due to the formation of the stamped recess 11, the left hand end of the plate 5 as viewed in Figures 1 and 2 lies in a plane parallel to but below the plane in which the right hand end of the plate 5 lies. In other words, the strap is generally offset at the opening 6 and therefore the link 7 and its associated ends may be made to lie in a plane intermediate the two planes defined by the offset plate 5, the right hand end of the link 7 being accommodated in the channel 11 and the left hand end of the link being accommodated in the channel 12. As shown in Figure 1, the link 7 may be held in this collapsed position by a tongue 13 depending from the plate 5 into the channel 11 and by teats 14 stamped into the plate 5 just behind the projection 8 when the link is in its collapsed position as shown in Figures 1 and 2. The link 7 may be made to assume its operative position as shown in Figure 4 by pulling the loop 9 to the left and outwardly (as viewed in Figure 1). The recess 2 is countersunk as best shown in Figures 2 and 4, in order to permit the projection 8 to lie in a vertical plane in the event that the channel 11 is not sufficiently deep to accommodate the projection when in this position.

In the modification shown in Figures 5, 6, and 7, the flask 21 is provided along its base with a transversely extending recess 22 terminating at each end in a bead 23. Accommodated in the recess 22 is a strap 24 secured to the beads 23 by its turned over ends 24^a. The strap 24 is offset at a shoulder 25 intermediate its ends so as to form with the base of the flask a recess 26 for the reception of the sides 27 and inwardly turned ends 28 of a suspension link 29. Housing the right hand portions of the sides 27 are outwardly and downwardly turned skirts 30 formed integral with the upwardly offset portion of the strap 24. Due to this construction the suspension link 29 may be made to lie flat against the sides 27 of the strap 25 as shown in Figures 5 and 6, and by sliding the link outwardly to the left so that its turned in ends 28 engage the shoulder 25, it may be pivoted about this shoulder and suspended from a hook or other suitable projection.

In the modification shown in Figures 8 and 9, a flask 31 is provided on its base with a central recess 32 terminating at either end in a bead 33. Secured over these beads is a strap 34 formed with a central eye 35 and pivoted to the eye 35 is the lower section 36 of a two section link 37. The upper or outer section 38 of the link is in the form of a loop and is hinged to the outer end of the lower section 36. The link can therefore be made to assume an extended position as shown in Figure 8, or can be folded upon itself within the recess 32 as shown in Figure 9. For the purpose of holding the link in its collapsed or folded position the strap 34 is provided with a pair of upwardly extending spring clips 39 arranged to engage the sides of the outer section 38.

Although in each modification shown the base of the flask has been provided with a channel shaped recess, the same result can be obtained by simply forming the base with a number of short feet so that a space or recess will be provided between the base and the table or other support upon which the flask is resting for the accommodation of the strap and its associated link.

Preferably the link used should be at least equal in length to the width or diameter of the base of its flask so that the flask may be suspended in an inverted vertical position against a wall or door from a short vertical projection such as the pintle of a door hinge.

I claim:

1. In a flask formed with a recess in its base and an opening in its upper end: a plate secured to said flask within said recess; a link pivotally associated with said plate and arranged in one position to lie substantially in the plane of said plate; and means carried by the free end of said link for securing said link to a hook or other projection.
2. In a flask formed with a recess in its base and an opening in its upper end: a plate secured to said flask within said recess; a link pivotally and slidably associated with said plate and arranged in one position to lie substantially in the plane of said plate; and means carried by the free end of said link for securing said link to a hook or other projection.
3. In a flask formed with a recess in its base and an opening in its upper end: a plate secured

to said flask within said recess; a channel formed on the inner surface of said plate; a link slidable along said channel and pivotally associated with said plate; and means carried by the free end of said link for securing said link to a hook or other projection.

4. A device of the character described, comprising: a plate having an opening therein intermediate its ends and offset at said opening so that portions of said plate on opposite sides of said opening lie in parallel but slightly spaced planes; a link extending through said opening and adapted in one position to lie in a plane intermediate and parallel to said slightly spaced planes; a projection provided on one end of said link for preventing said end from passing through said opening; and means provided on the opposite end of said link for securing said link to a hook or other projection.

5. A device of the character described, comprising: a metal plate having an entrance therein intermediate its ends and offset at said entrance so that portions on either side of said entrance lie in parallel but slightly spaced planes; a link extending through said entrance and adapted in one position to lie in a plane intermediate and parallel to said slightly spaced planes; a projection provided on one end of said link for preventing said end from passing through said entrance; a loop provided on the opposite end of said shank; and means associated with both ends of said plate for securing it to a receptacle.

6. A device of the character described, comprising: a plate formed with an opening intermediate its ends; a link extending through said opening and provided at its lower end with a projection for preventing said end from passing through said opening; a loop provided at the other end of said link; a channel stamped in the lower face of said plate having spaced parallel portions extending beyond said opening and defining a relatively narrow channel on the upper face of said plate for the accommodation of said link.

7. In a flask formed with a recess in its base: a strap secured to said flask within said recess; a pair of spaced parallel channels formed along the under lateral edges of said strap; a link having spaced lateral side members slidable within said channels and pivotally associated with said strap; and means carried by the free end of said link for securing said link to a hook or other projection.

8. In a flask formed with a recess in its base: a strap secured within said recess to said flask; and an articulated link pivotally associated with said strap, and arranged in one position to be collapsed upon itself and within said recess.

9. In a flask formed with a recess in its base and an opening in its upper end: a plate secured to said flask within said recess; and suspension means connected with said plate for holding said flask in an inverted position.

10. In a flask formed on its base with opposed outwardly extending portions: a clamp disposed over the base of said flask with its ends in engagement with said outwardly extending portions; and means associated with said clamp for suspending said flask in an inverted position.

FRED A. CUTTER.