(No Model.)

N. THOMPSON, Dec'd.

J. C. THOMPSON, Administrator.

FILLING AND POURING NOZZLE.

No. 381,971. Patented May 1, 1888.

Fig 1.

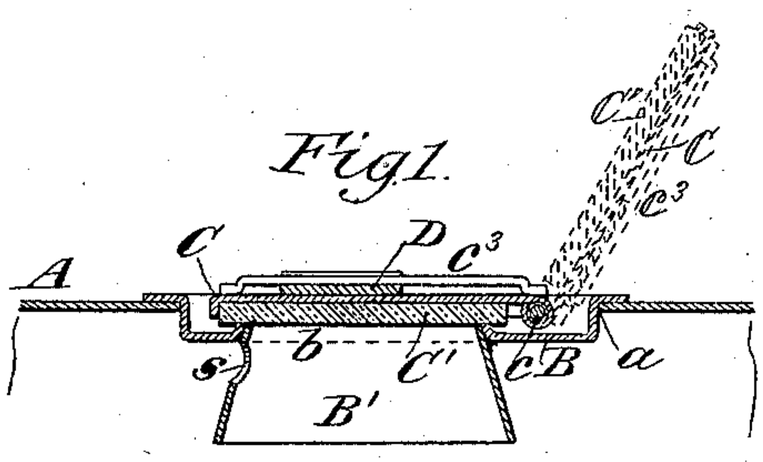


Fig 2.

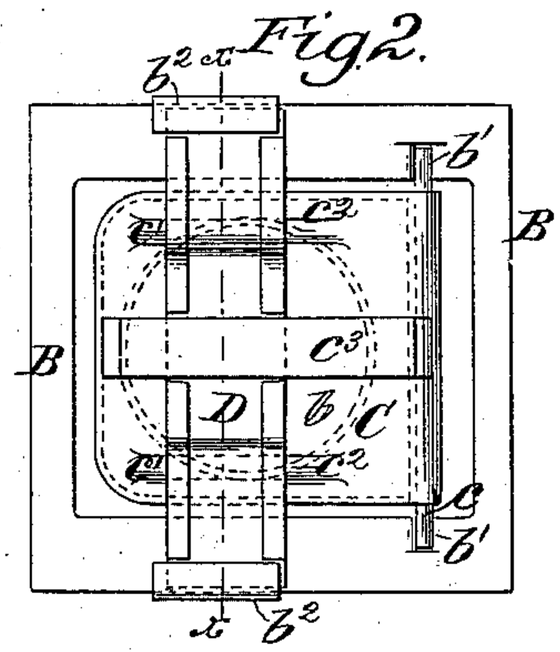


Fig 3.

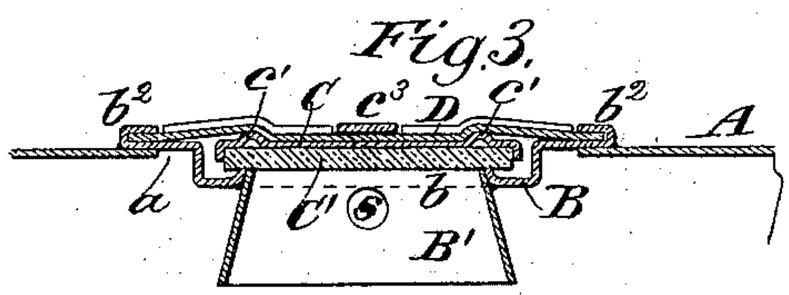


Fig 4.

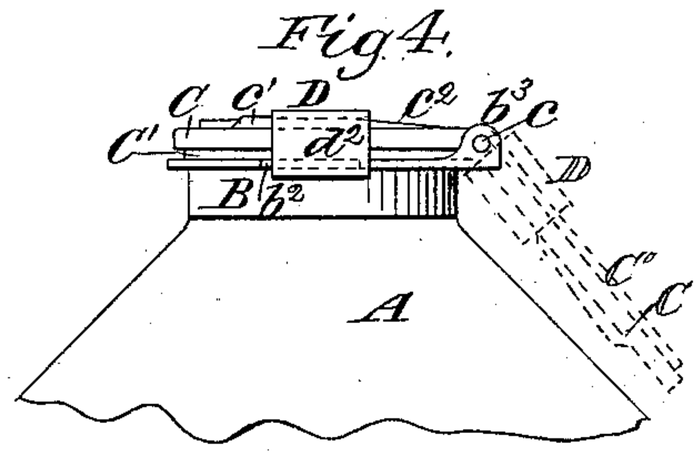


Fig 6.

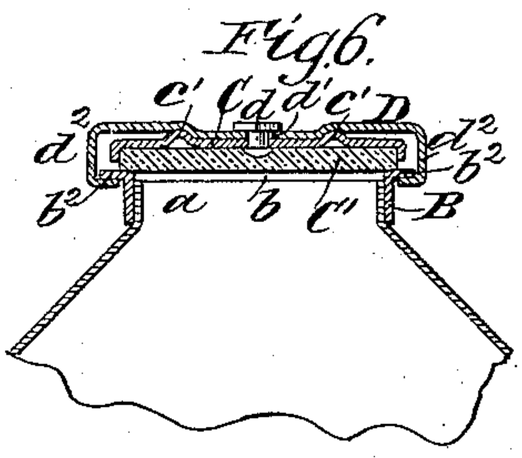
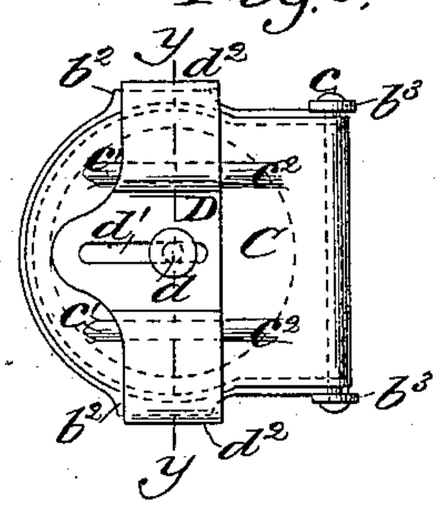


Fig 5.



Witnesses:
C. L. Sundgren.
J. W. Roe.

Inventor:
Nathan Thompson.
by his attys
Brown & Hall.

UNITED STATES PATENT OFFICE.

NATHAN THOMPSON, OF BROOKLYN, NEW YORK; JOHN C. THOMPSON ADMINISTRATOR OF SAID NATHAN THOMPSON, DECEASED.

FILLING AND POURING NOZZLE.

SPECIFICATION forming part of Letters Patent No. 381,971, dated May 1, 1888.

Application filed September 21, 1887. Serial No. 250,283. (No model.)

To all whom it may concern:

Be it known that I, NATHAN THOMPSON, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Filling and Pouring Attachments for Cans, of which the following is a specification.

My invention relates more particularly to attachments for cans such as are used for packing and transporting kerosene-oil; but it may be with equal advantage embodied in cans for other liquids, and also for powdered or granulated substances.

An important object of my invention is to provide an attachment for cans whereby a pouring-hole of such size is afforded that it may be successfully used for filling the can, and whereby the parts which serve to close this hole may all be made by the cheap processes commonly used in working tin-plate or other sheet metal by dies.

The invention may be applied both to tops of rectangular cans and to cans having conical tops terminating in pouring-holes, and in the accompanying drawings I have shown both examples of the invention.

My improved attachment, which is to be applied to a can or other analogous vessel having a pouring-hole, preferably of considerable size, consists, essentially, of a hinged cover which may be faced with cork or other elastic or yielding material for closing the pouring-hole, a cross-piece or clamp having a sliding connection with the cover, and lugs or ears on opposite sides of the pouring-hole, with which the cross-piece or clamp is engaged by its sliding movement to hold the cover closed.

The pouring-hole may advantageously be formed in a base-piece applied to an opening in the can, and the cover may be hinged to this base-piece, and the lugs or ears for the engagement of the sliding cross-piece or clamp may be formed by projections upon the base-piece on opposite sides of the pouring-hole.

The sheet-metal body of the cover may have struck up on its exterior bearers or ribs, which terminate in inclines, so that the sliding cross-piece or clamp may readily rise upon them, and the sliding cross-piece or clamp may be depressed between the ribs or bearers close down to the body of the cover so as to prevent its turning.

Where the invention is applied to a flat-top can the pouring-hole would simply appear as an opening having a slight outwardly-turned lip, and to enable a clear and perfect stream to be poured therefrom I solder to the base-piece an inwardly-projecting throat, which may have in its side an opening for the passage of liquid when the can is nearly empty.

The invention above briefly referred to consists in novel combinations of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view of the principal portion of a flat-top can having my improved attachments applied thereto. Fig. 2 is a plan of the attachments. Fig. 3 is a transverse section on the plane of the dotted line *x x*, Fig. 2. Fig. 4 is a side elevation showing my attachments applied to a can having a conical top. Fig. 5 is a plan of the parts shown in Fig. 4; and Fig. 6 is a sectional view upon the plane of the dotted line *y y*, Fig. 5.

Similar letters of reference designate corresponding parts in all the figures.

Referring first to the example of my invention shown in Figs. 1, 2, and 3, which illustrates my attachments as applied to the flat top of a can, A designates the top of the can, in which there is a large opening, *a*, and B designates a base-piece, which is applied to the can over this opening and closes it. As represented best in Fig. 1, the base-piece B is sunken below the top of the can and receives within the sunken or depressed portion a cover, C, which closes the pouring-hole *b*, formed in the base-piece, and is hinged at *c* to the base-piece. The hinge *c* may rest in recesses *b'* formed in the base-piece B, wherein it may be soldered, and the body of the cover C, which is of tin-plate or other sheet metal, may be closed around and turn on the pintle or pin *c*. This cover C may be faced with cork or other flexible or elastic material to enable it to tightly close the pouring-hole *b*. At opposite sides of the pouring-hole *b* the edges of the base-piece B are turned upward and inward, so as to form lugs or ears b^2, with which engage the opposite ends of a cross-piece or

clamp, D, which has a sliding connection with the cover. As here represented, the sheet-metal body of the cover C is struck up so as to form raised ribs or bearers c' on its exterior. The cross-piece or clamp D slides upon these bearers, which terminate in inclines c^2, as will be hereinafter more fully shown and described with reference to the remaining figures, and the portion of the cross-piece or clamp D which is between the ribs or bearers c' is depressed upon the exterior surface of the cover, (as best shown in Fig. 3,) so as to prevent the cross-piece or clamp from turning relatively to the cover. This cross-piece or clamp D may be readily slid transversely to its length and to the length of the pin c, so as to bring its ends into and out of engagement with the lugs or ears b^2, and its sliding movement is limited by a loop, c^3, applied to the top of the cover C, and through which the cross-piece or clamp D passes.

When the cross-piece or clamp D is slid from the position shown in Figs. 1 and 2 toward the right hand of these figures sufficiently to disengage its ends from the lugs or ears b^2, the cover may be thrown back, as shown by dotted lines in Fig. 1, and the hole b is exposed, either for filling the can through it or for pouring the contents of the can from it. To close the can, the cover is thrown down over the pouring-hole and the cross-piece or clamp D is slid toward the left hand of Figs. 1 and 2 and into the position shown in these figures, so that its ends come under the lugs or ears b^2 and clamp the cover tightly down upon the pouring-hole. The end portions of the cross-piece or clamp D, which project beyond the ribs or bearers c', have a certain amount of resilience, inasmuch as they are above the top of the cover C, and this elasticity or resilience tends to hold the cover closed with a sufficiently elastic pressure to render it perfectly tight and to compensate for slight inequalities in the thickness of the packing C' and in other parts.

In order to provide for pouring a clean and perfect stream from the can, I have represented the base-piece B as having an inwardly-projecting tubular throat, B', which, as here represented, has a slight flare in a downward direction, and has in its side a small opening, s, close up to the base-piece B, so that all the liquid may be poured from the can.

In Figs. 4, 5, and 6, A designates the upper portion of a can having a conical top terminating in an opening, a, formed in a projecting neck, and about this neck is secured a base-piece, B, which has on opposite sides projecting lugs or ears b^2, and in which is formed a pouring-hole, b. This base-piece also has a rearward projection, from which are turned up the lugs or ears b^3, which receive the pin or pintle c, whereby a hinged cover, C, is attached to the base-piece B. This hinged cover is faced with cork or analogous material, C', and has ribs or bearers c' struck up from its top or body, and these ribs or bearers terminate in inclines c^2, which are clearly shown in Fig. 4. The inclines which are described with reference to the preceding figures are similar to these inclines c^2.

Across the cover C extends a cross piece or clamp, D, which has its central portion between the ribs or bearers depressed, as shown in Fig. 6, to prevent its turning relatively to the cover, and which also has a pin-and-slot connection, $d\ d'$, with the cover, so as to permit it to slide in a direction parallel with the ribs or bearers c' and transverse to the length of the pin or pintle c. The end portions of the cross-piece or clamp D are turned downward and connected, as shown at d^2 in Fig. 6, so as to engage the lugs or ears b^2, and this sliding connection with the cover enables the cross piece or clamp to be slid into and out of engagement with the lugs or ears b^2. As shown in the drawings, the cover C is locked in closed position, and to open the can the cross-piece or clamp D is slid toward the right hand of Figs. 4 and 5 until it is out of engagement with the lugs or ears d^2. The cover may then be thrown back to the open position indicated by dotted lines in Fig. 4, and the contents poured from the can. When desired to close the can, the cover C is thrown over the pouring-hole and the cross piece or clamp D is slid toward the left hand of Figs. 4 and 5, until its ends are in secure engagement with the lugs or ears b^2, as shown in the drawings.

It will be seen that my improved devices are very simple in their construction and combination, and that all the parts may be formed by the simple and inexpensive processes with dies commonly used in working sheet metal.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a can or analogous vessel having a pouring-hole, of a hinged cover for the pouring-hole, a cross-piece or clamp sliding upon the cover, and lugs or ears on opposite sides of the pouring-hole, with which the cross-piece is engaged by its sliding movement to hold the cover closed, substantially as herein described.

2. The combination, with a can or vessel having the pouring-hole b, of the hinged cover provided with the ribs or bearers c', terminating in inclines, the cross-piece or clamp D, sliding upon the cover and depressed between said bearers to prevent its turning, and lugs or ears on opposite sides of the pouring-hole, with which the cross-piece or clamp is engaged by sliding, substantially as herein described.

3. The combination, with a can having an opening in its top, of the base-plate B, fitted and secured to the can about said opening and having the pouring-hole b, and at opposite sides of the pouring-hole the lugs or ears b^2 of the cover C, hinged to the base-piece, and the cross-piece or clamp having a sliding connection with the cover and fitted to said guides,

and serving to hold the cover closed, substantially as herein described.

4. The combination, with a can having a pouring-hole in the top and a tubular throat-piece extending inward from the pouring-hole, of a hinged cover closing the pouring-hole, a cross-piece or clamp having a sliding connection with the cover, and lugs or ears on opposite sides of the pouring-hole, with which the cross-piece or clamp engages by sliding to hold the cover closed, substantially as herein described.

NATHAN THOMPSON.

Witnesses:
MINERT LINDEMAN,
CHANDLER HALL.