(Model.)

J. G. CARTER.

Paint Can.

No. 235,207. Patented Dec. 7, 1880.

Fig. 1

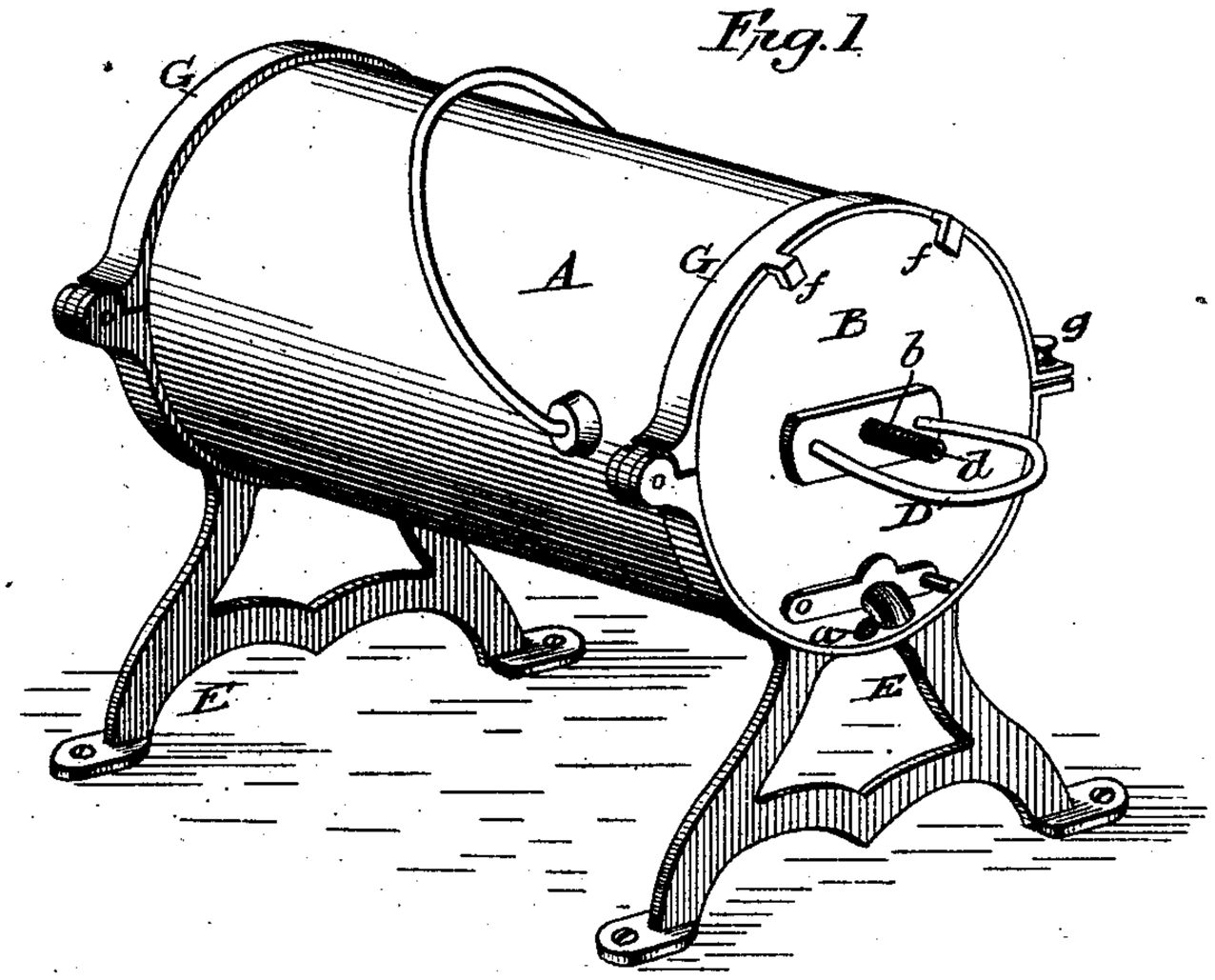


Fig. 2.

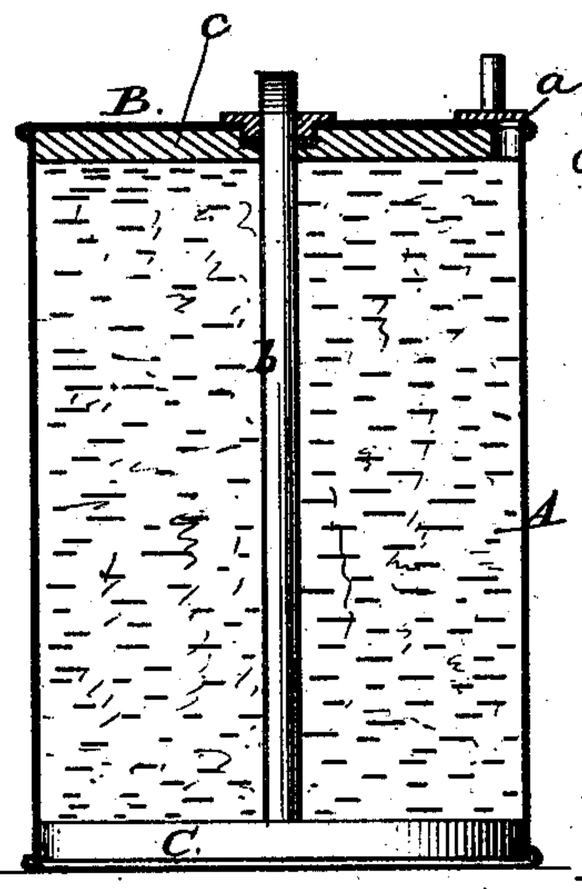


Fig. 3.

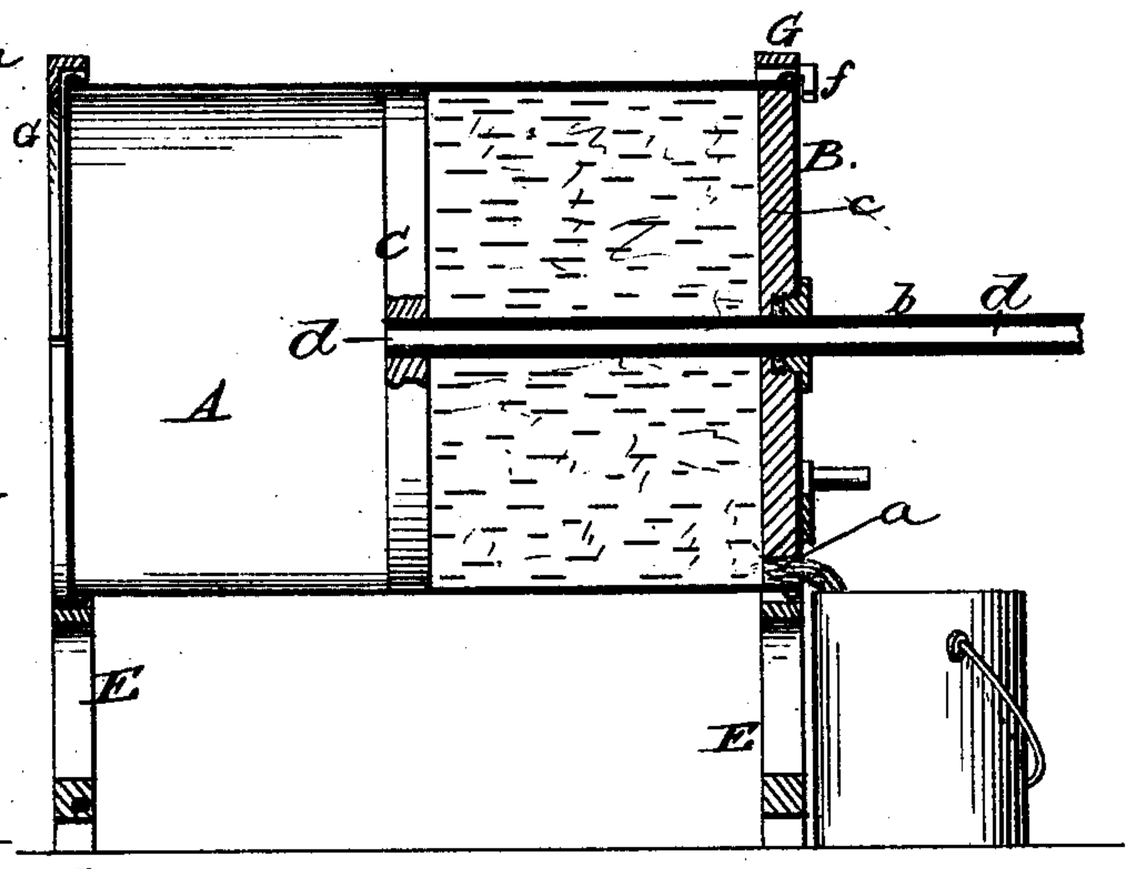
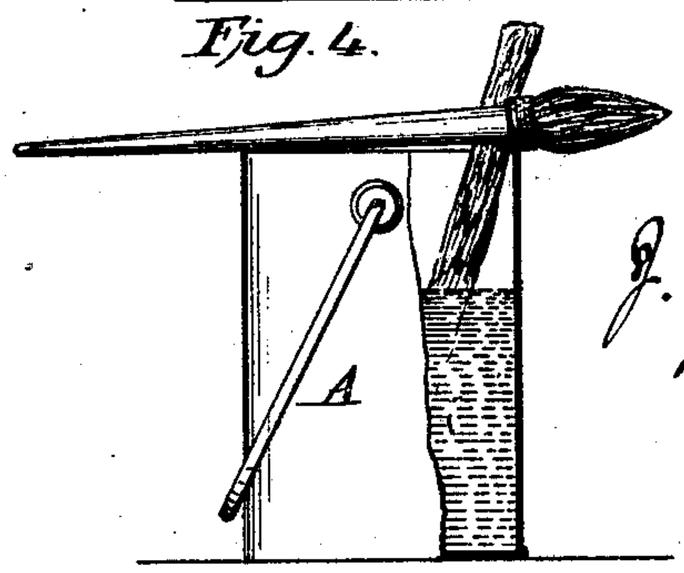


Fig. 4.



Witnesses.

Sidney P. Hollingsworth

William W. Dodge.

Inventor:

J. G. Carter

By Dodge & Son

Attys.

UNITED STATES PATENT OFFICE.

JOHN G. CARTER, OF BOSTON, MASSACHUSETTS.

PAINT-CAN.

SPECIFICATION forming part of Letters Patent No. 235,207, dated December 7, 1880.

Application filed March 10, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOHN G. CARTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Paint-Cans, of which the following is a specification.

My invention relates to that class of cans for paint and like substances in which a movable diaphragm or piston is employed to enforce the delivery of the material; and the invention consists in constructing the can with a lower end permanently closed against escape of contents, and with a removable head having a delivery-orifice at its circumference, and furnishing said can with a piston adapted and arranged to be drawn toward the delivery-orifice, the head and piston both having plane faces, and in providing the piston with a tubular stem, through which air is admitted behind the piston.

In the accompanying drawings, Figure 1 is a perspective view of my improved can in its frame or holder; Fig. 2, a vertical central section, showing the can in position for storage or shipping; Fig. 3, a longitudinal central section of the same in use; and Fig. 4 a view, partially in section, of the can in use as a paint-pot after the removal of its original contents.

Cans and vessels constructed and operating upon the same general principle as that which I am about to describe have been in use for a number of years and are fully described in various patents, an early instance of such construction being found in the vessel for containing beer, patented to Haege, January 24, 1865, and numbered 45,994, and the same principle being involved in many cans patented at subsequent times.

As more commonly constructed vessels of this character have been provided with a delivery-orifice through the side. This arrangement is objectionable for the reason that all material below the orifice must remain in the can.

No can, so far as I know, which has been provided with a discharge-opening in the end has served to remedy the loss of paint through inability to remove it from the can in the same, because the face of the piston or diaphragm is concave and the head or end of the can of irregular form, and a close contact of the two faces consequently prevented; and in the others because that a thimble in the center of the diaphragm or piston projecting into the delivery-orifice before the piston has reached the end of the vessel practically closes the same against the escape of a thick substance such as paint. Moreover, in most cases the piston-rod or operating-stem enters or passes through the end of the can farthest from the delivery-orifice, thus necessitating a hole at both ends of the can and preventing its subsequent use for other purposes. Again, in certain of the cans above mentioned a projecting cap at each end renders the can incapable of standing alone on end, a serious objection in a commercial point of view, and still further precludes the subsequent use of the can as a paint-pot or for analogous purposes.

In storing and shipping paint it is customary to stand the cans on end, in order that they may not roll out of place, and when so placed the heavier matters gradually settle at the bottom, forming a comparatively solid and compact mass, which, with existing cans, delivering at the lower end, prevents the piston or diaphragm from being forced to the bottom of the can, and often materially interferes with the delivery of the paint through the delivery-orifice.

To overcome these difficulties and produce a can which may be completely emptied, in which the settling of the paint cannot interfere with its delivery, which may be used for other purposes when emptied, and from which the diaphragm may be removed without interfering with the after usefulness of the can, is the object of my invention; and to this end the invention consists in the construction, which I will now describe in connection with the drawings.

A represents a can having a tightly-closed bottom and a head, B, provided with a delivery-orifice, *a*, at or near its circumference.

C represents an internal diaphragm or piston, closely fitting the interior of the can, and furnished with a central rod or stem, *b*, which passes through the head or end B, and is threaded to receive a handle or bail, D, by which it may be drawn outward.

The head B is preferably furnished with an inner head or supporting-disk, *c*, in order that a straight and even inner face may be preserved and the head prevented from bulging outward when drawing out the paint.

The orifice *a* is furnished with a suitable faucet or cut-off, and the opening through which the rod or stem *b* passes is suitably packed to prevent the escape of material at that point.

d is an opening formed longitudinally through the center of the piston-rod or stem, by which air is admitted behind the piston or diaphragm C, to permit the same to move freely forward.

The can being thus constructed, the diaphragm or piston is placed therein and pressed down to the bottom, as in Fig. 2. The paint is then put into the can and the disk *c* and head B placed in position and the latter soldered on. In this condition the cans are put in the market.

Owing to the projection of the rod or stem *b* at the top the can will be naturally placed or caused to stand upon its opposite end or bottom, as in Fig. 2; hence whatever may settle to the bottom will fall and rest upon the face of the diaphragm or piston C away from the delivery-orifice *a*.

When the contents of the can are to be drawn off the can is placed in a substantially horizontal position with the orifice *a* at the lower side, as in Figs. 1 and 3. The cut-off or faucet is then opened, and the rod or stem with its piston drawn forward until the desired amount is drawn off, when the cut-off is again closed.

By this construction it will be seen the last particle of paint may be forced out, the natural tendency of the paint being to gravitate to the orifice *a*, which extends to the circumference, and the piston or diaphragm being brought throughout its entire area into close and immediate contact with the disk or head. Suitable packing will be placed in or upon the periphery of the piston to insure its fitting closely to the inside of the can at all points.

It being essential to the attainment of the best results in using the can that it shall stand and remain in a substantially-horizontal position, with the orifice *a* at the lower side, I provide a stand or frame, E, specially designed to secure this result. The stand or frame E consists, as shown in Figs. 1 and 3, of two standards having semicircular supports or arms to receive the ends of the can, to each of which supports is hinged a semicircular arm provided with a flange or with lips *f*, to engage over the ends of the can, as shown.

The arms G are swung over the can, holding the same firmly upon the supports, while the lips or flanges prevent any movement endwise, and the free ends of said arms are fastened down by bolts or equivalent devices *g*, as shown in Fig. 1.

When the can is empty the head B is loosened by running a hot iron around the seam or joint, when the head and piston may be readily lifted out, carrying out any paint which through any cause whatever may have remained in the can, and permitting the removal of any deposit from the face of the piston or diaphragm.

The can may be then used as a paint-pot upon the attachment of a bail, if not already so provided, thus effecting a material saving over other cans having the moving piston, which, having the holes in both ends, cannot be so used without first closing such aperture in the bottom, which may only be done thoroughly and properly by soldering a plate or cap over the same.

In large factories, car and carriage shops, and like places where large quantities of costly paints are used, the saving in loss of paint and cans is very great, while for retailers the device is exceedingly convenient and economical.

Having thus described my invention, what I claim is—

1. In combination with a can having its bottom and sides permanently and completely closed against escape of contents, an internal moving piston provided with a tubular stem and a closing head, both adapted and arranged to be removed at the top of the can, whereby the usefulness of the can when emptied is preserved.

2. In combination with a can having its lower end permanently closed against escape of contents, and having an internal movable piston, a cover provided with a delivery-orifice and an opening for the passage of the piston-rod.

3. In combination with a can, an internal movable piston provided with a tubular stem, as shown, whereby air is admitted behind the piston.

JOHN G. CARTER.

Witnesses:
WALTER R. YATES,
P. F. WETHINGTON.