F. W. DEVOE.

Paint-Can.

No. 226,986. Patented April 27, 1880.

Fig 1.

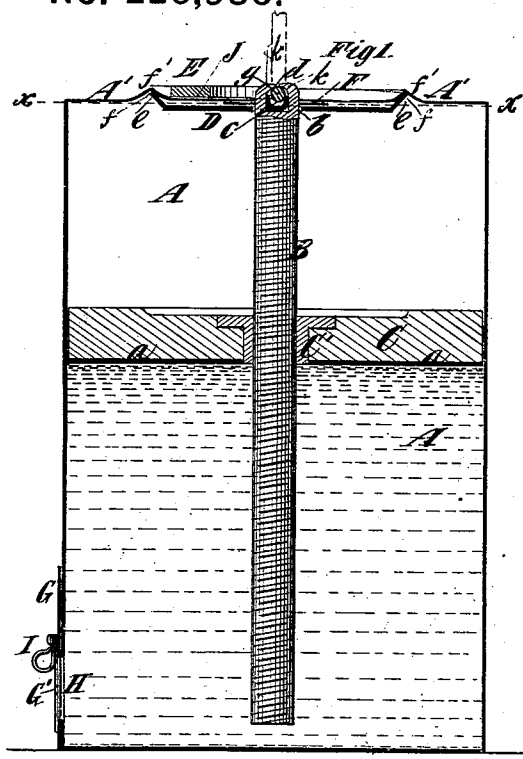


Fig 2.

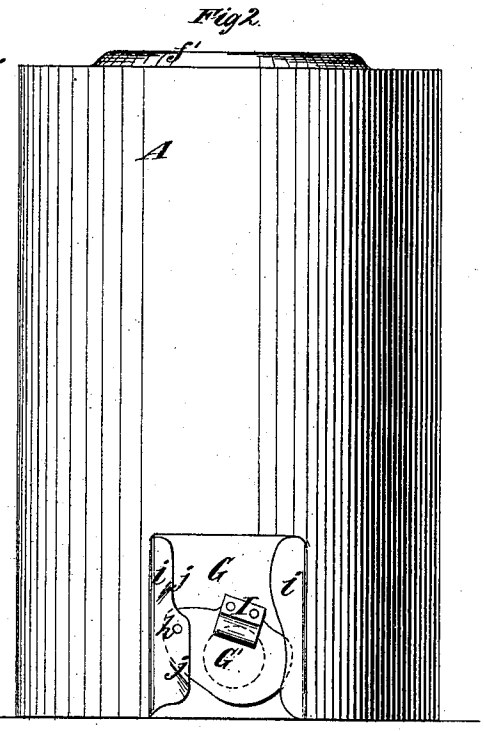


Fig 3

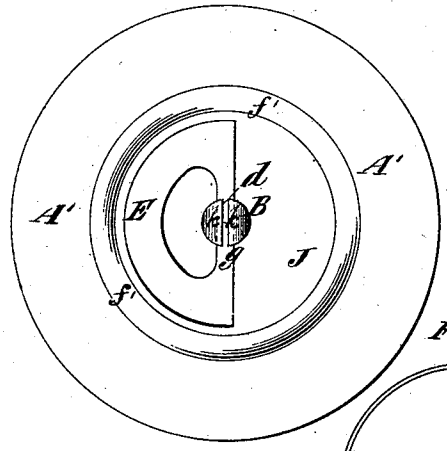


Fig 4.

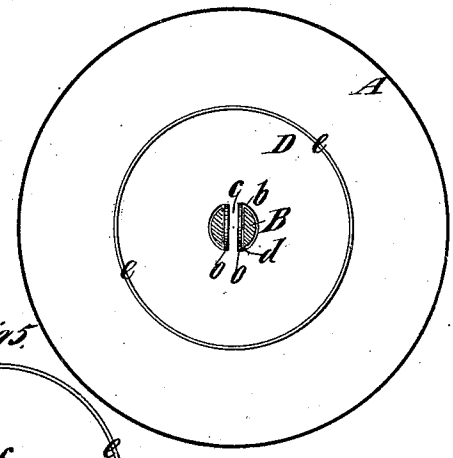


Fig 5.

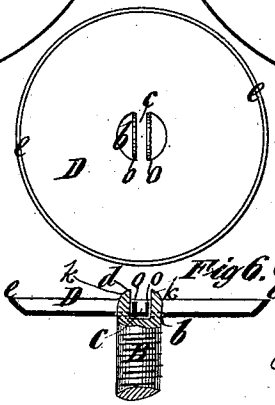


Fig 6.

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PAINT-CAN.

SPECIFICATION forming part of Letters Patent No. 226,986, dated April 27, 1880.

Application filed March 4, 1880. (Model.)

To all whom it may concern:

Be it known that I, FREDERICK W. DEVOE, of the city, county, and State of New York, have invented certain new and useful Improvements in Cans for Paints, of which the following is a specification.

My invention relates to cans for containing paints ground in oil or otherwise in a moist or pasty state, or for containing other substances, which are provided with a piston and a screw for actuating said piston to force it from one end to the other of the can, and thereby to eject the desired quantity of paint or other substance from the can, the remainder of the contents of said can being preserved against the deleterious effect of the atmosphere.

My invention consists in the combination of a can having in its upper head an annular groove, a piston fitted to said can, a screw for operating the piston, and a flange secured to said screw under the head of the can and having an upturned edge or rim fitting in the groove in said can-head, whereby a broad bearing for the screw is afforded.

It also consists in a novel means of securing the flange to the screw, so that it may turn therewith.

It also consists in the combination, with the said can, piston, and actuating-screw provided with a flange the upturned edge of which fits in a groove indented in the under side of the can-head, of a handle or key permanently secured to the upper end of the screw for turning it, and adapted to be turned into the recess formed by the indentation of said groove, so as to be covered by the projecting bead formed by said indentation.

It also further consists in a gate or valve of novel construction for regulating the discharge of paint or other substance from the can.

In the accompanying drawings, Figure 1 represents a central vertical section of a paint-can embodying my improvements. Fig. 2 represents a side elevation thereof. Fig. 3 represents a plan thereof. Fig. 4 represents a horizontal section on the dotted line *x x*, Fig. 1. Fig. 5 represents a plan view of the flange which is fitted to the screw below the head of the can; and Fig. 6 represents a vertical section of the upper portion of the screw and said flange, showing the manner of locking the two together.

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

A designates a sheet-metal can, such as is commonly used for containing paint ground in oil or otherwise rendered semi-fluid, or for containing other semi-fluid substances.

B designates a metal screw suspended from the head A′ of the can and extending nearly to the bottom of the can. This screw is screw-threaded along its entire length within the can, and may be hollow or solid, as here shown.

C designates a piston composed of wood, fitting snugly within the can and adapted to be moved up and down therein. At the center of said piston is a metal hub or sleeve, C′, screw-threaded to correspond with and fit upon the screw B.

In order to enable said piston to fit more tightly in the can, I fasten to the under side of the piston a packing, *a*, of straw-board, paper, or other material, which fits tightly in the can and prevents the paint or other contents of the can from escaping past the piston as it is forced downward.

In order to advance the piston by turning the screw B, the latter must be held immovable both against upward and downward movement. In the present instance, this is effected by the flange D, attached to and turning with the screw B and bearing against the under side of the head A′ of the can, thereby preventing upward movement of the screw, and the handle or key E, attached to the upper end of the screw B, bears upon the upper side of said head and holds the screw against downward movement.

The flange D may be made of thick sheet metal or of cast metal, and may be secured to the screw B in various ways.

The flange as here represented is provided at its center with a hole, *b*, of a size to receive the end of the screw B, and having a cross-bar, *c*, extending across said hole. In the top of the screw B is a slot, *d*, made of a size to

fit the cross-bar *c*, and thereby locking the flange securely to the screw.

To give the cross-bar a more extended bearing in the slot, I may construct it with lips *o* at each side, extending upward from the face of the flange, and if the flange is formed of sheet metal the two lips may be formed by cutting out the pieces at each side of the cross-bar and bending them up at right angles to the face of the flange, as here represented.

In order to present as large bearing-surface as possible upon the upper side of the head A′, the flange D is made very broad, and in order to hold the screw centrally in the head A′ and prevent it from canting, I turn up the edge *e* of the flange D and provide the head A′ with a corresponding annular groove, *f*, upon its under side, against the side of which the edge of the upturned rim *e* bears, and thereby holds the screw centrally, and dispenses with a step at the lower end thereof. The groove *f*, being indented in the under side of the head, forms a corresponding bead, *f*′, upon the upper side thereof. Between the flange D and the head A′ of the can is placed a gasket or washer, F, of any suitable material, which is clamped between said flange and head, as the screw and piston are pressed up by the resistance of the paint or other contents of the can, and constitutes a packing to prevent the contents of the can from escaping through the hole in the head A′ around the screw, and also to prevent the inflow of air.

The handle or key E, which is permanently secured to the top of the screw, is preferably attached to the screw, so that when not in use to turn the screw it may be turned down upon the head of the can, as shown in full outline in Fig. 3, and hence effect a saving of room in packing.

When the head A′ is grooved and beaded at *f f*′ a recess, J, is formed, in which the handle or key E is concealed, as shown in Fig. 1, and thereby protected from injury. The handle or key is here represented as secured to the screw B by means of a round cross-bar or shank, *g*, upon the former fitting in the slot *d* in the upper end of the latter, the horns *k* at each side of the slotted portion being tapered upon their outer sides and closed down over the said shank or cross-bar.

The gate or valve for controlling the discharge of the contents of the can is represented as consisting of a valve face or seat, G, soldered upon the side of the can, and a gate or valve, G′, pivoted at *h* to said face or seat, and adapted to be swung down to cover the hole H, extending through the side of the can and the valve face or seat.

The two edges of the valve face or seat are folded over, forming lips *i*, under which the gate or valve G′ slides, and to one of which it is pivoted.

The lip to which the valve or gate is pivoted is indented or closed down upon the seat or face G at *j*, which forms stops for precluding the undue movement of the gate or valve in either direction.

A socket, I, is represented as fixed to the valve or gate, and by inserting a bar or rod therein the lifting of the gate or valve may be facilitated.

Before filling the can a piece of paper or other material is pasted over the hole H, either inside or outside the can, and when it is desired to take paint from the can the paper or other material is to be cut out.

The can may be filled through a hole in the bottom, which is afterward closed, and as the screw B has no step or bearing at its lower end the filling hole or opening may be placed centrally in the can.

When cans of small diameter are made according to my invention they may have a nozzle or mouth in the end, serving both as a filling-mouth and a delivery-nozzle, and closed by a screw-cap.

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

1. The combination of the can A, having in its upper head a groove, *f*, the piston C, screw B, and the flange D, having an upturned rim, *e*, fitting in the groove *f*, whereby a broad bearing is afforded for the screw upon the can-head and its canting prevented, substantially as specified.

2. The combination, with the can, of the screw B, having a slot, *d*, and a flange, D, having the hole *b*, and cross-bar *c*, fitting said screw and slot within or inside the head of the can, for the purpose of attaching the flange to the screw inside the head of the can, substantially as specified.

3. The combination, with the can, of the screw B, having a slot, *d*, and the flange D, having the hole *b*, cross-bar *c*, and upturned lips *o o*, fitting said screw and slot within or inside the head of the can, whereby a secure attachment for the flange to the screw is afforded without making the flange of heavy metal, substantially as specified.

4. The combination, with the can-body, the piston fitted thereto, and the screw for operating the piston, furnished with a folding handle outside the cam and with a bearing-flange inside the can, of the can-head constructed with an internal groove which receives the upturned rim of the said flange, and a corresponding external bead which produces an external recess, J, for the reception of the folding handle, all substantially as specified.

5. The combination, with the screw B, having a slot, *d*, of the handle or key E, having a round shank, *g*, inserted into said slot, and confined therein by the overlapping of the horns *k* at the sides of said slot, for the purpose of securing the handle to the screw, substantially as specified.

6. The combination of the can A, the screw

B, piston C, flange D, and the packing-washer F, interposed between the said flange and the head of the can, for the purpose of making a tight joint between the screw and the head, substantially as specified.

7. The combination of the can A, the valve face or seat G, provided with lips *i* in the same piece, and the gate or valve G′, fitting under and overlapped by both of said lips and pivoted to one of them, whereby a very cheap provision for closing the outlet of the can is obtained, substantially as specified.

FREDERICK W. DEVOE.

Witnesses:
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R. S. JONES.