(No Model.)

# H. ALLEN.

## PISTON CAN.

No. 305,126. Patented Sept. 16, 1884.

Fig. 1.

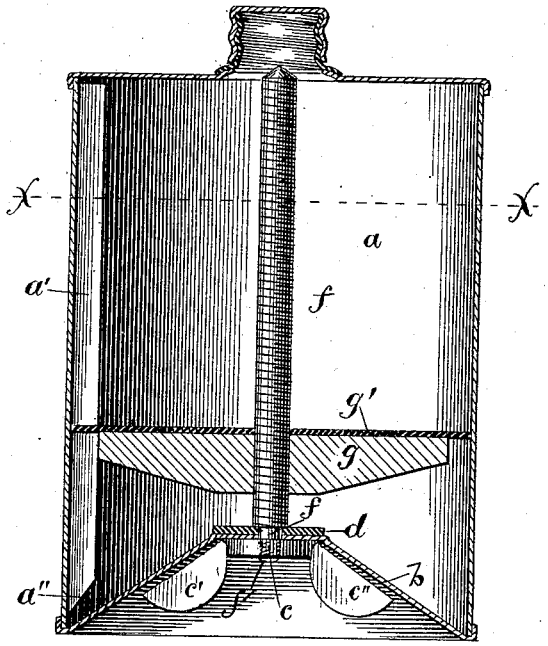



Fig. 2.

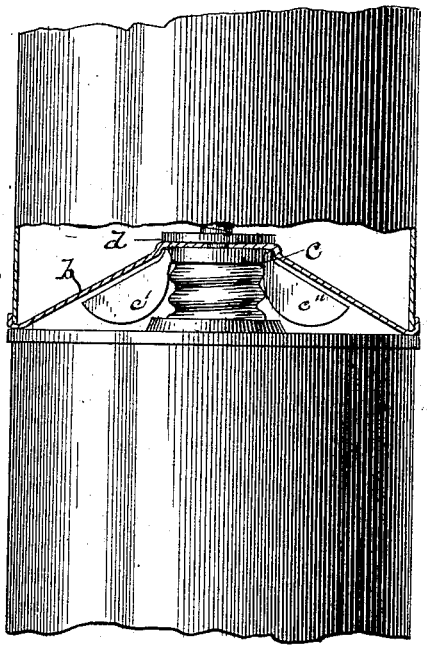



Fig. 3.

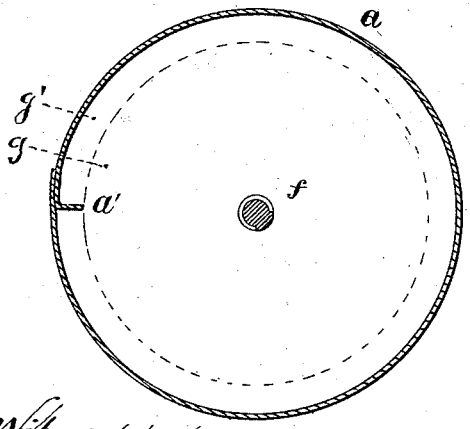
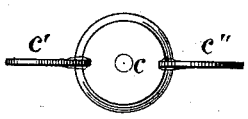



Fig. 4.

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# UNITED STATES PATENT OFFICE.

HARRY ALLEN, OF CHICAGO, ILLINOIS.

## PISTON CAN.

SPECIFICATION forming part of Letters Patent No. 305,126, dated September 16, 1884.

Application filed January 14, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY ALLEN, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Cans for Paint, Printers' Inks, and Similar Substances, of which the following is a specification.

My invention relates to improvements in metallic cans for paints, printers' inks, and similar substances, in which the paint or other substance is forced through a suitable opening in the can by means of a piston or plunger, movable within the can and operated by a screw, which, on being turned, forces the piston or plunger against the paint, and thus forces it through the opening provided for that purpose.

The object of my invention is to provide a can which is simple and easily constructed, and one which will at the same time form what is known to the trade as good "shelf-goods," and can be easily packed and stored.

In the accompanying drawings, Figure 1 represents a can in vertical section with my invention attached. Fig. 2 shows one can, with a portion of the side removed to show my attachments resting upon the top of another can, showing how the cans can be packed or shelved. Fig. 3 shows a cross-section of the can made along the line *x x* in Fig. 1; and Fig. 4 shows the thumb-piece, shown at *c* in Figs. 1 and 2, detached from the screw and seen from below.

Similar letters refer to similar parts.

I attain the object of my invention by means of a conical bottom for the can, together with a thumb-piece of peculiar shape attached to the fixed screw *f*, and hereinafter more fully described, used for the purpose of turning the screw, and also a washer placed within the can and resting against the conical bottom.

In Fig. 1, *a* is the body or side of the can, to which the conical bottom *b* is attached in the ordinary manner. This bottom *b* is made of tin-plate or other suitable metal, pressed or bent, and soldered or otherwise formed and fastened into the shape of a frustated cone, with the flattened portion of such size that the washer *d* may rest upon it within the can, and is provided with a suitable opening in the center, through which the lower end of the fixed screw *f* may pass. The fixed screw *f*, which I prefer to cut left-handed, has its lower end, *f'*, of a lesser diameter than the rest of the screw, in order to form a shoulder, which may rest against the washer *d* when in position within the can, the hole in the washer being of such size that the smaller portion of the screw may just pass through it. The fixed screw passes up through the can to the top, passing through the piston or plunger *g*, which is provided with a suitable nut, through which the screw *f* passes. The piston or plunger is prevented from turning with the screw when in use by means of a projecting edge of metal, *a'*, which is constructed as follows: The metal of which the body or sides of the can is made is bent up along one edge at right angles in such a way that when the metal is bent to form the can this edge may project for a short and suitable distance within the can and toward the center thereof, forming a shoulder or projection running the length of the can from top to bottom. This is beveled at the bottom, as is shown at *a''* in Fig. 1, in order to facilitate the introduction of the piston into the can.

The piston may be made of wood fitting closely within the can, and notched to receive the projecting edge *a'*, or may be constructed in two parts—first, a rigid disk, of wood or any suitable substance, provided with a nut in the center, through which the fixed screw may pass, and of such size that when in position within the can a space may be left between its periphery and the inside of the can equal to the width of the projecting edge *a'*; second, of a disk, of pasteboard or other flexible material, fitting closely within the can and cemented to the upper surface of the rigid disk, and notched to receive the projecting edge *a'*. By making the rigid disk of wood with a threaded aperture the necessity for a separate nut may be obviated by using a "wood-screw" for the fixed screw *f*. The piston is shown in this form in the drawings, *g* being the rigid disk, and *g'* the flexible disk. In Fig. 3 the dotted line represents the periphery of the rigid disk.

My object in giving the bottom of the can the conical shape above described is in order that it may of itself by means of this shape resist the downward thrust or pressure of the screw *f* when turned in the process of forcing

the paint from the can through the opening in the top, thus rendering unnecessary the cumbrous and troublesome contrivance of a false bottom hitherto generally used in inventions and contrivances of this description. Together with the thumb-piece, this conical-shaped bottom also assists in forming a can that can be readily packed and shelved.

In Figs. 1, 2, and 4, *c* represents the thumb-piece, which consists of a body or central portion, *c*, provided with two ears, *c'* and *c''*, which project outward and downward from the body, and are of such shape that their upper edge may fit within the conical bottom *b*, while their lower edge, when in position, forms a recess or space, within which the cap of a lower can may rest when the cans are packed or shelved, as is shown in Fig. 2. The central portion or body of this thumb-piece is of such size and shape as to fit the flattened portion of the conical bottom upon the outside of the can and opposite to the washer within. The thumb-piece is rigidly attached to the outer and projecting end of the fixed screw *f*, and is used for turning the screw in the process of forcing the paint or other substance from the can.

Within the can, and upon the flattened portion of the conical bottom, rests the washer *d*, through an opening in the center of which the lower and smaller end of the fixed screw passes, with the shoulder, as above described, resting upon the washer, thus keeping the screw within the can when in use. I prefer to construct the can with this washer, though it may be done away with by making the bottom *b* of heavier metal with a hole in the center, through which the lower and smaller end of the fixed screw may pass, the shoulder resting directly against the bottom within.

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

1. In cans for paint and other similar substances, the combination, with the fixed screw *f* and the piston *g*, of the conical bottom *b*, the thumb-piece *c*, and the washer *d*, substantially as and for the purposes set forth.

2. In cans for paint and other similar substances, the combination, with the fixed screw *f* and the piston *g*, of the conical bottom *b* and the thumb-piece *c*, substantially as and for the purposes set forth.

3. In cans for paint and other similar substances, the combination, with the fixed screw *f* and the piston *g*, of the thumb-piece *c*, consisting of a central portion or body with two projecting ears, *c'* and *c''*, so shaped as to form a recess or space within which the cap of a lower can may rest when the cans are piled one upon another in packing or storing, substantially as described, and for the uses and purposes set forth.

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