

No. 654,255.

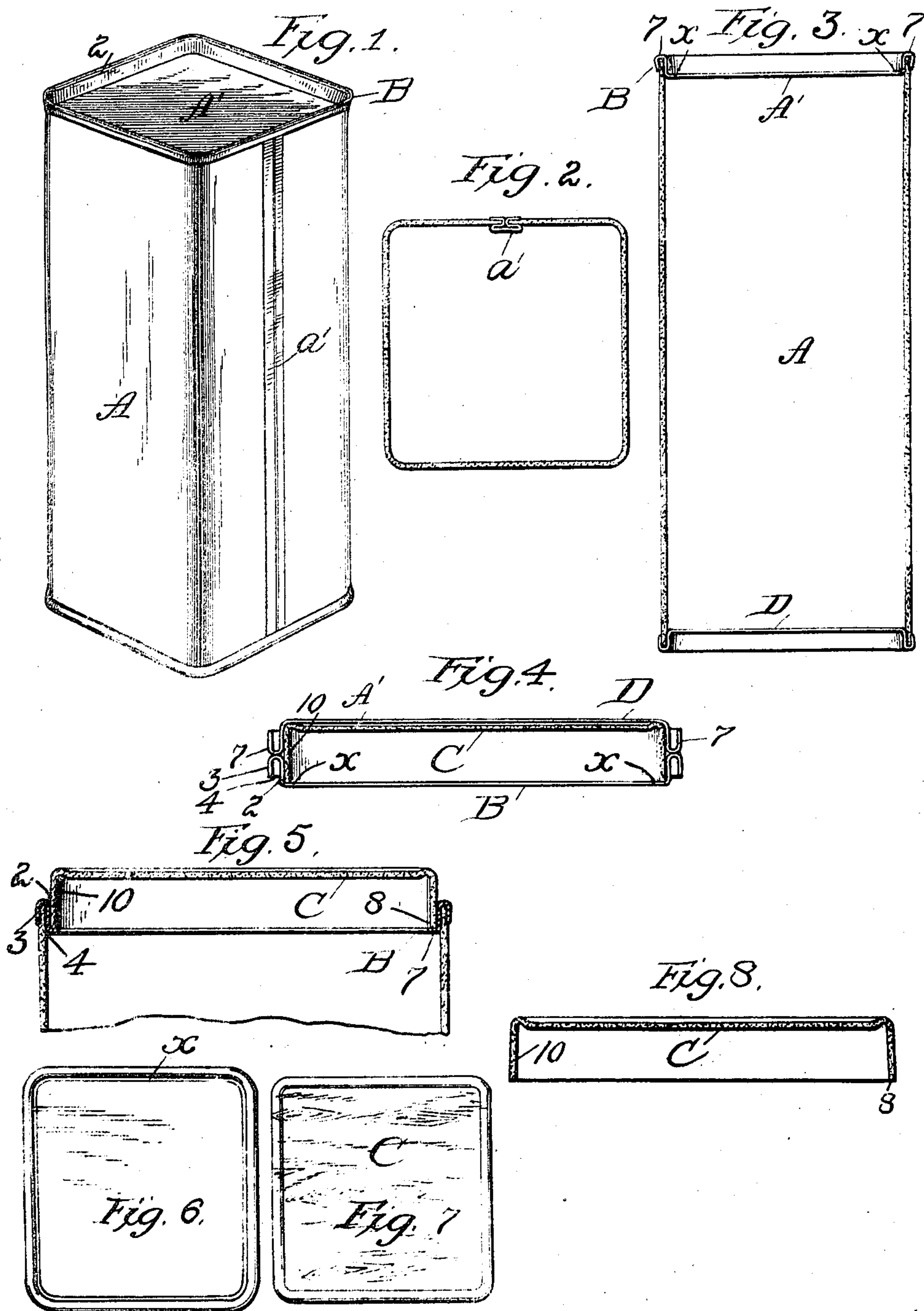
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H. C. HUNTER.

PACKING CAN AND ART OF MAKING SAME.

(Application filed July 23, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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PACKING-CAN AND ART OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 654,255, dated July 24, 1900.

Application filed July 23, 1898. Serial No. 686,734. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. HUNTER, a citizen of the United States, residing at Hamilton, Ontario, Canada, have invented certain new and useful Improvements in Packing-Cans and in the Art of Making Same, of which the following is a specification.

My invention is designed for that class of cans in which a metallic head is combined with a body of fibrous board; but its use is not necessarily limited to cans of that particular class. In cans of that class, however, in which the contents, though better kept inclosed from the air, are not of the perishable sort and the entire contents of the can are not ordinarily used at once, but in parts and at intervals, it is desirable and convenient to keep the unused contents in the can in which they are purchased. For this reason such cans have been supplied with removable caps, combined with an opening in the head of the can, such openings being necessarily much smaller than the head of the can. Apart from the additional cost of these caps, which in cans sold with the contents is a considerable item, the reduced opening covered by the cap is inconvenient both for the filling and emptying of the can. This is especially true when the contents are starch or materials of like condition. For this reason it is of great importance to provide an opening of the full inner diameter of the can and, further, to provide for a cover which may be applied readily and removed at will. To meet these requirements and at the same time not depart from the general construction of the can above indicated—that is to say, cans having metallic heads fixed to the body of the can—is the object of my invention.

This invention includes a special construction of the head, whereby it is adapted to permit of the ready removal of the entire covering portion—in fact, of the whole head, with the exception of the marginal parts, which cover and adhere to the edge of the fibrous body-blank and form the protection and finish therefor—thus forming a clear opening for the removal of the contents, and whereby also a seat is formed for the supplemental cover, which seat is left after the removal of the head

by rupture on the weakened line and is adapted to retain the supplemental cover securely and yet removably.

My invention further includes a form of supplemental cover specially adapted to and combined with the heads or head and bottom of the can, whereby easy frictional contact is had therewith and whereby also the supplemental cover is maintained in proper condition and a convenient and improved article of trade formed, consisting of the supplemental cover and the head, all as hereinafter fully set forth.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of the can. Fig. 2 is a cross-sectional view of a can-body. Fig. 3 represents a vertical section of a can. Fig. 4 is a sectional view of the top and bottom head and the supplemental cover nested together. Fig. 5 shows the supplemental cover in use. Fig. 6 represents a plan view of the metallic head. Fig. 7 is a plan view of the supplemental fiber cover. Fig. 8 is a sectional view of the fiber cover.

In the drawings the body of the can is shown at A. It may be of any desired shape in cross-section and is preferably made of stout fibrous sheets. It is shown as having flat sides and rounded corners. The head of the can is formed of sheet metal or equivalent material. I use, by preference, tin. It is formed with a depressed body part A', with a marginal grasping-flange, by turning the edge of the blank upward and then over and downward, so as to leave an interior wall 2 around the margin of the head, which extends at right angles to the plane surface A' of the head. The outside and downwardly-projecting flange is marked 3, and the channel which receives and grips the edge of the body B is marked 4. This channel is the same substantially as heretofore shown by me in a head having a central opening and cap of considerably-less area than the head. In order to get rid of this narrow opening, through which some kinds of goods—such as starch, for example—are difficult to pour, and at the same time to provide for easy opening and recovering of the can, I provide a weakened line, as

at x , all around the plane surface A' of the head and at the bottom of the inclined wall 2. This weakened line is formed by thinning the metal on this line to such an extent that it
 5 may be ruptured by a light blow from any blunt instrument, such as a knife-handle, at one side or corner, and the ruptured part may be lifted, and by grasping this the whole may be torn out and removed. The rupture on
 10 the thinned line cannot take place exactly at the edge, and therefore unavoidably leaves a ledge 7 for the edge 8 of the supplemental cover C, Fig. 4, to rest upon. By means of this construction the user may easily open the
 15 can, it having been previously sealed tight or air-tight, and remove the entire covering portion of the head, leaving an opening of substantially the full diameter of the can, and after removal of part of the contents may
 20 cover the can by using the supplemental cover. This cover, however, must be specially fitted to the can. For proper adhesion to the walls and seat it must have frictional contact, and yet must be easily removable and
 25 possess the quality of easily adapting itself to its seat. For this purpose I have provided a cover made of fibrous material, such as wood-pulp board. The supplemental cover shown is formed of this material. It is struck up
 30 out of sheet material on a heated die, and necessarily the flanges 10 are slightly flaring. In order to retain these in shape, it is necessary to let them cool upon the die or to confine them until the fiber sets, otherwise they
 35 lose shape in cooling and become useless. To retain them upon the die until cool is impracticable. I contemplate furnishing these covers to the dealers, together with the two heads (top and bottom) of the can and the
 40 body-blank, with the connecting-strip a' (shown in Figs. 1 and 2) for the side seam. The bottom is exactly like the top, with the exception of the weakened line. I have therefore hit upon the idea of inclosing the
 45 covers while hot in the cavity of the top and bottom, placed reversely to each other, as shown in Fig. 4. To accomplish this, I make the cover-flange of substantially twice the depth of the inner wall of the head. The
 50 cover is taken while hot from the press and is placed in the head B in the position it will occupy in use. It adheres by frictional contact, and the bottom D is inverted over it, and the completed article comprises, with the
 55 body-blank and side strip attached, all that is necessary for a can, and these are sold to the dealer, who may keep them in stock as finished cans were kept prior to my invention, but more conveniently and in less space.
 60 The rim of the cover is slightly flared, while that of the head is at right angles to the main part. The time elapsing between this nesting of heads and cover and the use of them allows the cover to set and exactly fit its seat
 65 with proper adhesion. Its depth of flange—double that of the wall of its seat in the head—leaves a sufficient part above the can

to permit the grasp of the fingers upon the cover for removal. The flange remaining gripped upon the edge of the can-body forms
 70 a reinforcement and finish to said edge, as well as a seat for the supplemental cover, and the packing-can in which the goods are put up becomes when opened by rupture of the head A and application of the cover a
 75 neat and useful canister for the goods, keeping them under practically-hermetical seal and permitting free removal.

I claim—

1. A head for cans having an unbroken
 80 raised flange around the plane surface of the head which is depressed in respect to the body of the can, said raised flange having a turned-over edge adapted to grip the edge of the can-body between itself and the outer face of the
 85 flange and having also a weakened line on the margin of said plane surface extending entirely around the margin and at a slight distance inwardly from the flange to leave a continuous ledge and a cover adapted to rest
 90 on the seat left next to the inner wall of the flange, substantially as described.

2. A head for cans having a raised flange around the plane surface of the head, said raised flange having a turned-over edge adapted
 95 to grip the edge of the can-body between itself and the flange and having also a weakened line extending continuously around the margin of said plane surface next to the inner wall of the flange, in combination with a
 100 fiber cover having a flange of depth greater than the depth of said raised flange, substantially as described.

3. As an article of manufacture, a can-head having a raised flange around the depressed
 105 plane surface of the head, said raised flange having a turned-over edge adapted to be gripped upon the edge of the can-body and having also a weakened line on the margin of said plane surface, combined with a
 110 reversed bottom of the same shape and an inclosed fibrous cover having a flange of substantially twice the depth of the head-flange, said cover fitting in the space formed between the outer depressed surfaces of the head and
 115 bottom, substantially as described.

4. As an article of manufacture, a can-head having a flange extending around its plane surface forming a receiving-space, a bottom
 120 having a flange extending around its plane surface forming a receiving-space, and a cover for the can inclosed between the head and bottom of the can and fitting in the receiving-spaces of both, substantially as described.

5. As an article of manufacture, a can-head
 125 having a flange extending around its plane surface forming a receiving-space, said head having also a weakened line extending continuously around the plane surface at a slight distance inwardly from the flange to leave a
 130 continuous ledge or seat for a cover, a bottom having a flange extending around its plane surface forming a receiving-space and a cover for the can inclosed between the head and

bottom of the can and fitting in the receiving-spaces of both, substantially as described.

6. A head for cans having a continuous raised flange and a weakened line extending
5 continuously about the head at a slight distance inwardly from the continuous raised flange to leave a ledge when the weakened portion is broken in, said continuous flange

and ledge serving to retain a cover in place, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

HENRY C. HUNTER.

Witnesses:

J. W. TERRY,

H. C. GWYN.