

(No Model.)

2 Sheets—Sheet 1.

H. C. HUNTER.
METHOD OF PACKING.

No. 492,804.

Patented Mar. 7, 1893.

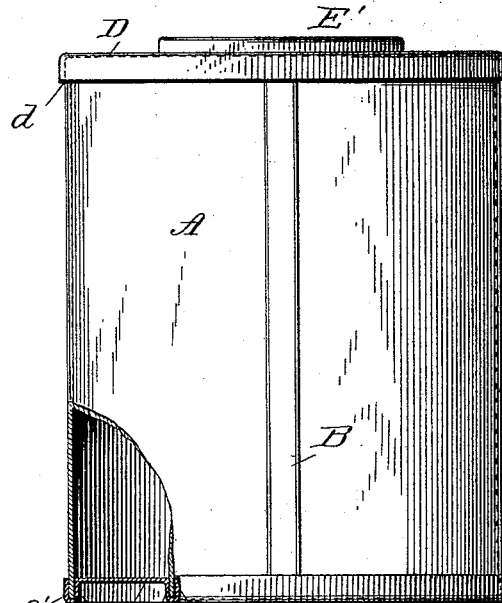


Fig. 1.

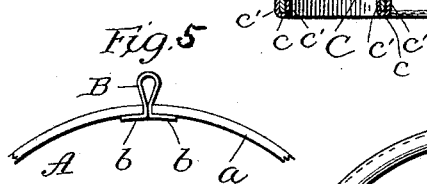


Fig. 5.

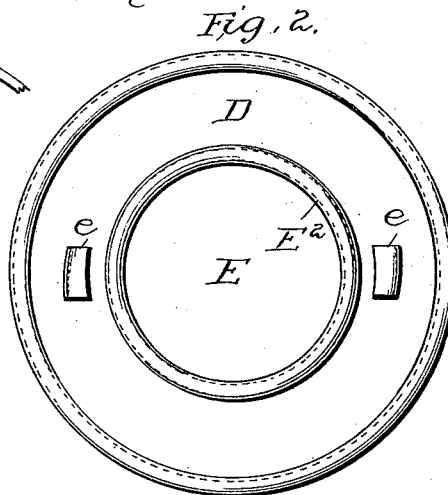


Fig. 2.

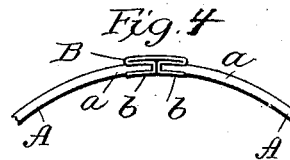


Fig. 4.

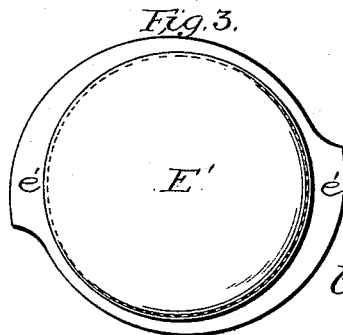


Fig. 3.

Attest
Malvern Malloy
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Henry C. Hunter
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Att'y.

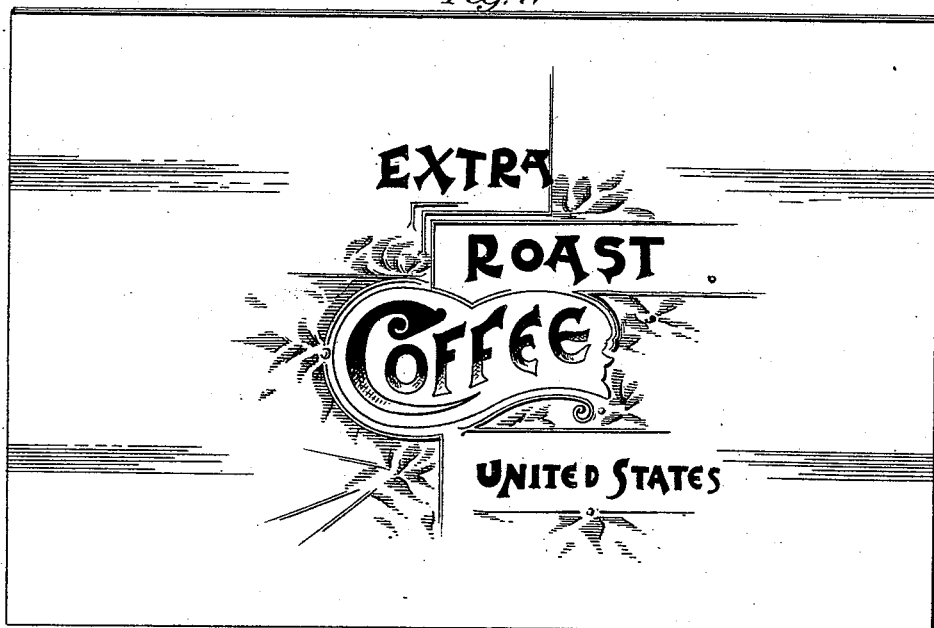
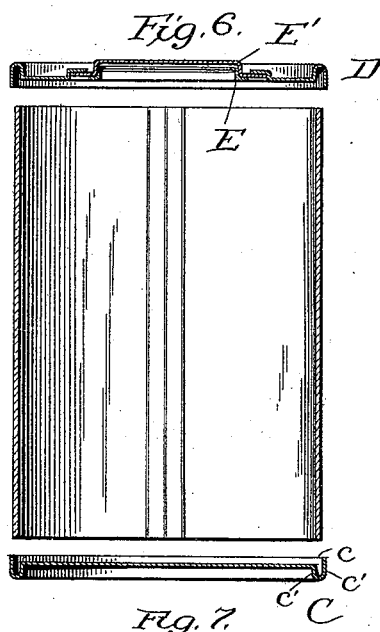
(No Model.)

2 Sheets—Sheet 2.

H. C. HUNTER.
METHOD OF PACKING.

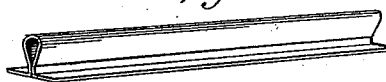
No. 492,804.

Patented Mar. 7, 1893.



Attest
F. L. Middleton

Fig. 8.



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Henry C. Hunter
by Spear & Lytle
ATTY.

UNITED STATES PATENT OFFICE.

HENRY C. HUNTER, OF ALAMEDA, CALIFORNIA.

METHOD OF PACKING.

SPECIFICATION forming part of Letters Patent No. 492,804, dated March 7, 1893.

Application filed September 8, 1891. Serial No. 405,080. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. HUNTER, a citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Methods of Packing; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention relates to packing cans and is designed mainly for that class of cans used to contain dry materials, such as coffee, tea, and other articles, chiefly of food products.

The objects which I have had in view, in this invention, are first, to simplify the operation of packing such articles, and secondly, to provide a can or case, which shall meet the requirements of the trade in respect to cheapness, in the construction and material, in strength and durability, in appearance, and in a practical hermetical inclosure of the contents of the can or case.

In practical reduction of my invention, I have adapted the well known can body of fibrous or non-metallic material, with metallic ends. This material for the can bodies, is cheap, light and easily manipulated in forming the cans without expensive or complicated machinery. It is also adapted to be used in the factory, where the packing is to be done, and in accordance with another part of my invention, the can body-blanks may be stored in flat form, as labels are now kept, and in the place of such labels. I also use, to join the edges of these blanks, a metallic side seaming strip, such as has heretofore been known, and, by combining said side seaming strip with permanently attached metallic ends, I am enabled to form a strong symmetrical can capable of sustaining weight and handling, without crushing and without the opening of seams.

I have had also in view, in connection with the special construction and combination, hereinafter shown, and in part as a result thereof, a radical improvement in the method of putting up packages of goods of the classes above indicated. Heretofore, dealers in such goods, requiring cans or cases more substan-

tial than the ordinary knock down boxes, or bags, have kept on hand the finished tin cans, and have been subjected to the expense of storage therefor.

It has also been the necessary custom to keep, separately assorted, the line of labels for such goods, which labels are necessarily affixed to the cans as these are brought into use involving repeated handling, and complication of business besides the cost of storage. The labels must be applied wet, and, in use upon cans or packages of paper, paperboard, or equivalent material, tend to cause warping, and this warping, and the infirmity and insecurity of the cans, have been serious defects in the use of paper or equivalent materials for the can bodies. In the use of my invention therefore, I first form the can body blanks out of flat sheets of paper, paperboard, or like material, of vegetable or fibrous nature, and with a finished or labeled surface. This surface may be formed upon the paperboard or other board, or sheet, or may be adhesively mounted upon the sheet, either before it is cut into blanks or thereafter, and as hereinafter more particularly described. In either the finishing paper surface covers the whole of the blank, and when the metallic ends are applied, as hereinafter explained, their flanges cover the edges of the labeled surface, and give a finished appearance to the whole can, which cannot practically be given if the label is pasted on after the can is finished. The edges of the labeled covering, are in my can, held by the over lapping metal flanges on all sides. These can blanks are, with their labels or other distinguishing marks, placed in store, properly assorted, as to size and kind, and take the place of labels alone, as they are ordinarily kept, and with no more complication or inconvenience than attends the assortment, storage and selection of labels alone. When any given number of cans is required to fill an order, for any given article, such as coffee or tea of a certain brand or quality, the labeled blanks are selected, formed into can bodies, and then the ends are permanently attached, (one having a filling orifice,) and the labeled can is finished ready to receive the goods.

The details of the construction and manufacture are given hereinafter, in connection

with the construction of the can and with reference also to the accompanying drawings, in which:—

Figure 1—shows in broken perspective, the complete can. Fig. 2—shows a top plan. Fig. 3—is a detail view of the cap for the filling opening. Fig. 4—shows a cross section and part of the can, the seam strip having been flattened on the side seam. Fig. 5—shows a similar view before the seam strip has been flattened upon the edges. Fig. 6—shows a central vertical transverse section of the can, and Fig. 7—a plan view of the outer face of the blank. Fig. 8—shows the side seam strip in elevation.

In these drawings A of Fig. 6—shows the body blank, which consists of a sheet of paper-board or of some fibrous or vegetable substance, the qualities of lightness, flexibility and strength of which are well known, for such purposes. These blanks are rectangular with straight edges, and are formed with the label printed thereon, either directly, or upon a sheet of paper, which is cemented upon the blank, and dried. The finishing or label sheet covers the entire surface of the blank. Large sheets may be made and then cut into blanks of the proper size and shape, for the required size of can. In practice the blanks, so formed, are assorted and filed in order, as the can labels have been heretofore filed.

When required for use, the labeled blank is bent into tubular form, the edges are brought around, as shown in Fig. 5, and bear against the side seaming strip B. This consists of a sheet-metal strip, bent into shape shown in cross section in Fig. 5, which is approximately that of a "T" rail, while the edges of the blanks are held against the strip, the latter is flattened thereon, by any suitable means, and takes the shape shown in Fig. 4. The metal is forced to firmly clamp the board, which from its yielding nature makes a firm joint therewith. The strip being made of some bright metal has an ornamental surface, and adds to the finish of the can. Its length is practically the same as that of the can-body. It forms a double lap tight seam, extending the length of the body, clamping the edges firmly, and by its longitudinal stiffness adding strength to the body. The ends are formed as shown at the bottom of Fig. 6. In the form shown they are round, and are struck up with a groove.

Referring to the bottom end, C, it will be seen that the groove *c* formed of the inner and outer walls *c'*, runs around the edge, and is fitted to receive the edge of the body. The walls are pinched together, and take firm hold upon the paperboard of the body, forming a tight, secure and permanent joint. The outer flanges of the ends cover the edges of the body and overlap the finishing or labeled surface. The top or upper end D, is formed and attached in the same manner, and like the bottom, is permanently fixed to the body.

In order that the contents may be removed

from the can, the top is provided with flanged opening E on which is placed a cap E' provided with wings *e'* and fitted to pass under and be held by lugs *e*, on the end. The special construction of the lugs *e*, and flanges is not here claimed, being made the subject of an application of even date herewith and serially numbered No. 405,079. The outer walls of the groove of the end, overlap the end of the side seam strip, and thus hold the strip ends firmly and the can body is thereby stiffened throughout its entire length and the tendency to bulge or be crushed out, by weight placed upon it when packed in boxes, is corrected. It is important that both ends should be permanently connected by the walls of the groove of the ends firmly pinched upon the can body, since, if the head is made with an ordinary flange to shut over and hold by frictional contact, like an ordinary cover, the yielding material of the body will permit the wall at the edge, underneath the cover flange, to be bent in handling, or under pressure, and thus cause a leak.

The special method of putting up goods in my packages above described, requires the previous preparation of the body-blanks, with their finish of label or distinguishing marks, as above mentioned. Supposing an order requires to be filled, the proper blanks are selected from the assorted store of such blanks. They are formed into bodies, by the side seam strip, as above described, and require no paste or labeling, and no delay for drying. The bottom is then applied, and permanently fixed in place, and the can is then filled with the goods, which is easily and quickly done, there being no head, but instead an opening the full size of the receptacle. Then the head is put on in the same permanent manner and this completes the filling of the order, in which there is no delay, and in which also the expense is lessened, and danger of the warping of the bodies avoided.

I prefer to print the labels separately on suitable paper, and with this cover the blanks, either before or after separation from the sheet or web. In affixing the paper label to the paperboard by means of a glue or cement, I accomplish another result, of great benefit, that of rendering the can body proof against the passage of air, or moisture.

The labeled paper is made to cover substantially all the can body. In fact, I cover the whole blank, with the impervious glue or cement, and apply the label paper, and as the metal ends overlap the ends of the can body, the whole can is thus rendered substantially proof against the access of air or moisture.

I am aware that a can body of paper material having metallic ends permanently attached, is not new, and upon this point I limit myself to a packing can having a labeled surface extending over the whole blank and having its edges covered by the overlapping edges of the end flanges.

I do not herein claim the construction of

the can, or of any of the parts of it herein described, these matters forming the subject of other applications filed by me in the United States Patent Office serially numbered respectively 447,002 and 447,003 and 458,705.

I claim—

The hereinbefore described method of putting up goods in packages, the same consisting in first making the labeled flat body
10 blank, second in forming it into a body and

connecting the edges, third in attaching the bottom, fourth, in filling the package, and finally attaching a head.

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

HENRY C. HUNTER.

Witnesses:

LEE D. CRAIG,

N. A. ACKER.