J. C. HOWARD.

TIN-CANS.

No. 186,840. Patented Jan. 30, 1877.

Fig. 1.

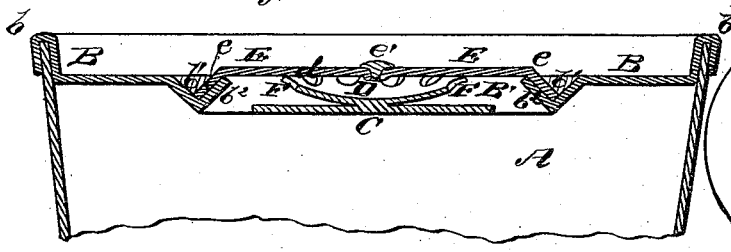


Fig. 2.

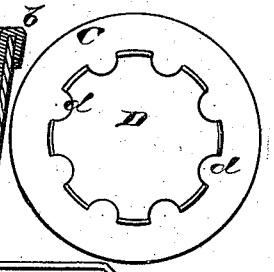


Fig. 3.

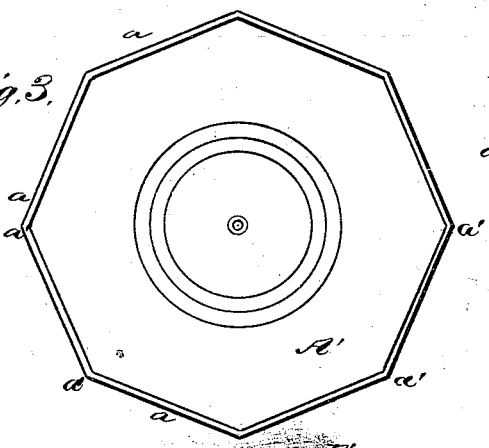


Fig. 4.

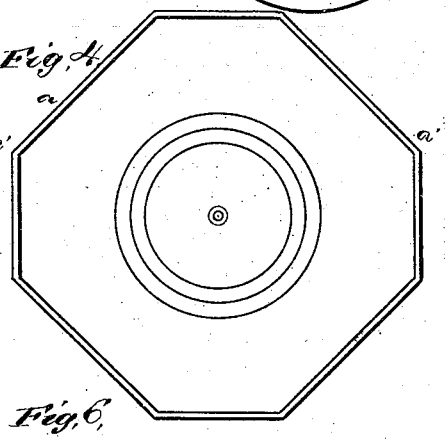


Fig. 5.

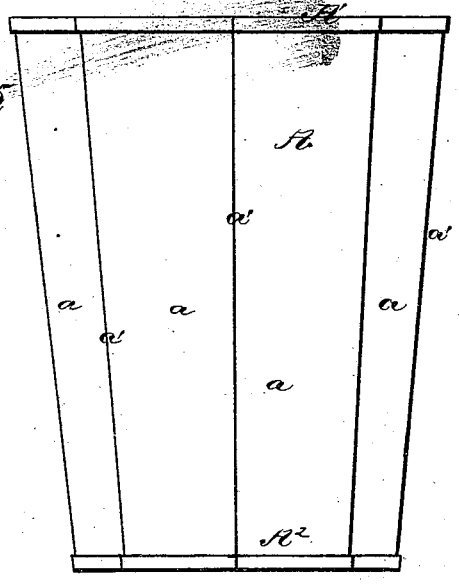
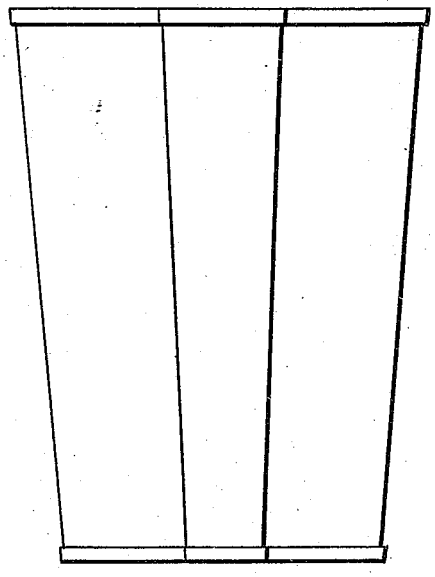


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE

JOHN C. HOWARD, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN TIN CANS.

Specification forming part of Letters Patent No. **186,840**, dated January 30, 1877; application filed December 30, 1876.

To all whom it may concern:

Be it known that I, JOHN C. HOWARD, of Chicago, in the county of Cook and State of Illinois, have invented a new and valuable Improvement in Cans; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a central vertical section of my can, and Fig. 2 is a detail view thereof. Figs. 3 and 4 are plan views of my can, and Figs. 5 and 6 are elevations thereof.

This invention relates to cans for containing and preserving meat and similar substances. The nature of said invention consists, mainly, in giving to said cans the form of regular pyramidal frustums, for the purposes hereinafter set forth. It also consists in the construction of vent-covering devices composed of an under and an upper plate, which are separated by a bowl-shaped piece, recessed at the edges, as and for the purpose described.

In the accompanying drawings, Fig. 1 shows the upper part of one of my meat-cans, A, provided with a cover, B, which is depressed below the upper edge of said can, and secured thereto by a raised peripheral flange, *b*, which is bent over upon the said edge, so as to clasp the same. The said cover is provided with a large central opening, B′, for the insertion of the contents of the can, and with an annular groove, b^1, which is concentric with said opening B′, and V-shaped in cross-section, so as to leave an inclined rim, b^2, around the said opening.

C designates a flat spring-metal disk, to the center of which is rigidly secured a bowl-shaped separating-piece, D, which is constructed with recesses or scallops *d d* around its edge. Said parts C and D together constitute a vent-guard. (Shown in detail in Fig. 2.) When the can is packed full, the said vent-guard is forced in at vent or opening B′, with plate or disk C against the surface of the meat. The scalloped edge of bowl-shaped piece D will then stand slightly above cover B, so that it will require to be forced down in putting on the cap-piece E. During this operation disk or plate C keeps said bowl-shaped piece D in its proper position, and also prevents, to some extent, the meat from being crowded up about the opening or vent B′. Said cap E is provided with a downwardly and outwardly inclined circumferential flange or rim *e*, which sets into groove b^1, and upon rim, b^2 of opening B′. Said cap may also be provided with a central aperture, *e′*, closed by a small detachable plug or stopper. Bowl-shaped separating-piece D (after cap E has been soldered in place) operates to maintain an open space, F, at the top of the can, to receive the vapors and gases generated by the heat generated in preparing the meat. Scallops *d d* allow the free access of said vapors to said space; from which they, and the interior hot air with them, may be released by opening or making the aperture *e′* in cap E. When the hot air, vapor, and some portion of the fat is expelled through said opening *e′*, the same is sealed again, a wet sponge, if necessary, being used to prevent the ingress of air during this operation. When the can cools, the sides thereof will slightly collapse, forcing the meat within up against the under face of disks or flat-plate D, so as to hold the guard C D firmly in its place.

But the most important part of my invention consists in the peculiar shape given to the can itself. In Fig. 3 the top of one of said cans is shown, and Fig. 5 gives an elevation of the same. The general shape of said can is an inverted frustum of a regular pyramid which is octagonal in cross-section. The opening or vent for the introduction of the meat is in the larger end A^1, whence the can A tapers to its small end A^2. Each of the eight equal sides *a* of the said can is a long trapezoid, having its two short sides parallel, and its two long sides inclined toward each other from the top to the bottom of the figure. The ridges or corners *a′ a′*, at the junction-lines of said trapezoids, add to the strength of the can, which is braced the more firmly as it more closely approaches a shape that is circular in cross-section. It is not, however, essential that the can should be octagonal in cross-section, as shown, as any other

regular pyramidal shape falls within the scope of my invention.

I am aware that four-sided tapering cans have been made and used; but these are rounded at the corners, and hence will not pack closely together, as will those of a pyramidal shape. I am also aware that cans have been used which are octagonal in cross-section, but do not taper. My cans have a great advantage in packing over these latter, since in the former case the meat is forced from the large end down to the small end, so that the shape of the can aids in compressing it. There are other advantages, also.

In packing the cans together for shipment, some are placed with their large ends upward, as shown in the drawings, and some are inverted. These positions alternate regularly, so that the whole body of cans fit tightly together, economizing space.

Figs. 4 and 6 show a modification in which the can is shaped like the frustum of an eight-sided pyramid, but the sides *a* are unequal. This form of can is not as convenient for packing as that previously described and hereinafter claimed. Nevertheless, an eight-sided pyramidal frustum like that shown in said Figs. 4 and 6 is stronger, by reason of its numerous corners, than a four-sided can (such as has been hereinbefore referred to) having its edges rounded off.

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

1. A meat-can in the shape of the frustum of a regular pyramid.

2. A vent-guard for a meat-can, consisting of flat disk or plate C and bowl-shaped piece, scalloped in its edge at *d d*, substantially as set forth.

3. The combination of vent-guard C D, flanged cap E, and can-cover B, provided with a central opening and concentric groove and rim, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. HOWARD.

Witnesses:

D. FOWLER,

CHAS. E. FROST.