2 Sheets—Sheet 1.

# J. SEARS.

## Can for Packing Meat.

No. 196,485. Patented Oct. 23, 1877.

*Fig 1.*

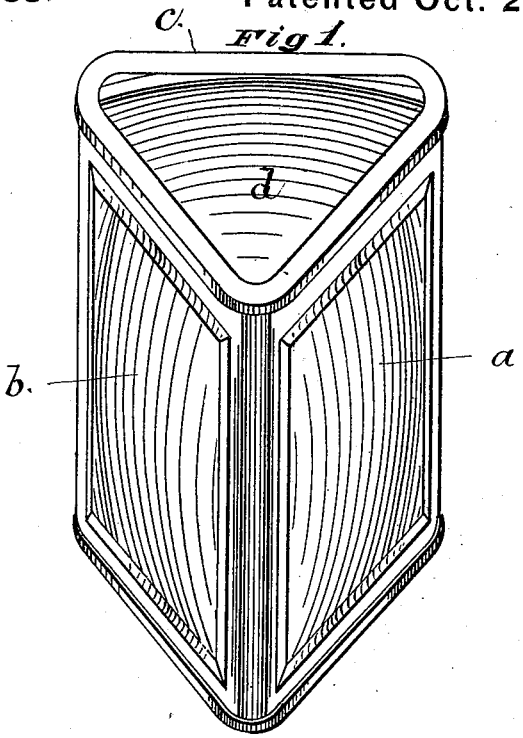



*Fig.2.*

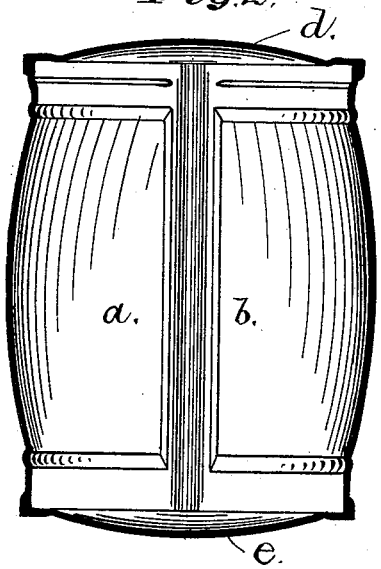
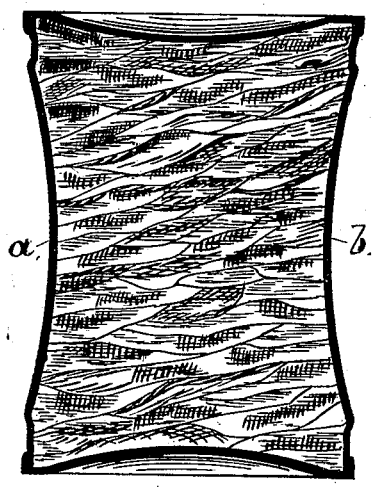



*Fig.3.*




Witnesses.
W. R. Edelen.
Penn'a Halsted

Inventor.
Joseph Sears.
by John J. Halsted
his Atty.

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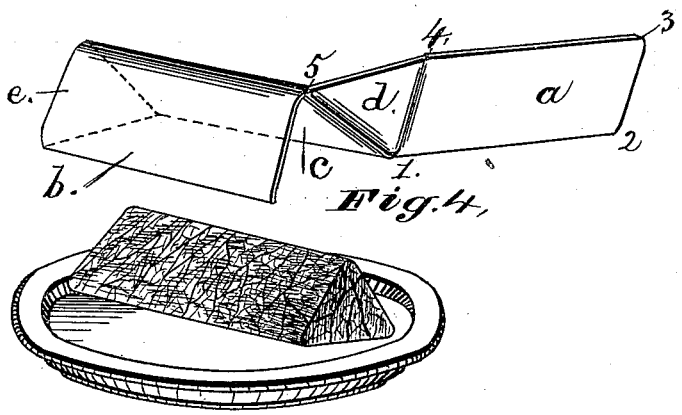



Fig. 4.



Fig. 5.

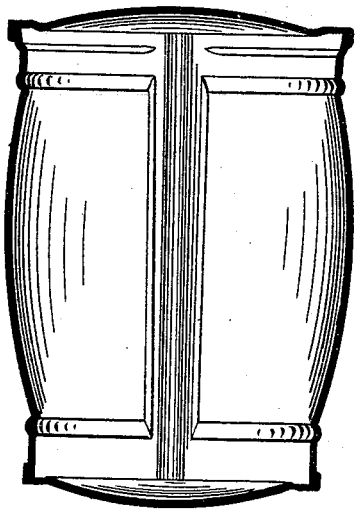


Fig. 6.

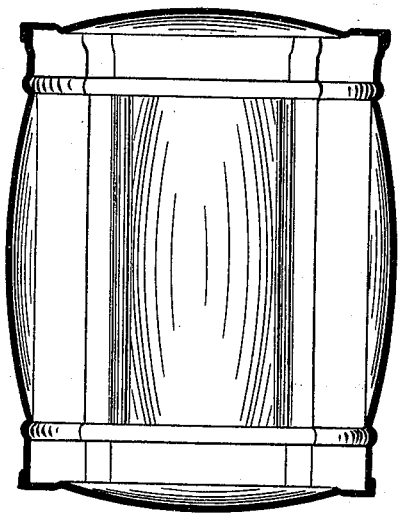
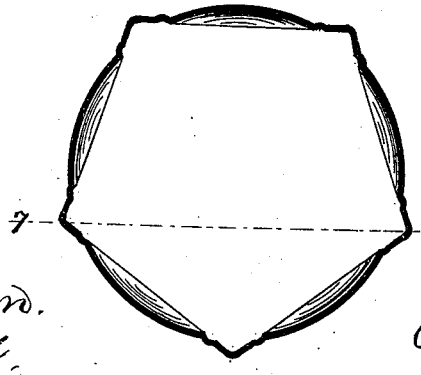


Fig. 7.




Witnesses.
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Joseph Sears
by John J. Halsted
his Atty.

# UNITED STATES PATENT OFFICE.

JOSEPH SEARS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN CANS FOR PACKING MEAT.

Specification forming part of Letters Patent No. **196,485**, dated October 23, 1877; application filed September 18, 1877.

*To all whom it may concern:*

Be it known that I, JOSEPH SEARS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cans for Packing Meat; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the art of packing meats in hermetically-sealed cans or vessels, especially compressed or cooked meats for preservation and transportation, it is of great importance that the collapsing-surface of the can or vessel should be as great as practicable in proportion to its containing capacity; and it is also important that the contents may be taken out as whole or unbroken as possible, when wanted for use. The greater the collapsing-surface as compared with the quantity of incased meat the more compact will be the mass of meat, and the less liability will there be of any air or gas or vacuum spaces within, which, as is well known, are detrimental to the character, quality, and merchantable value of the meat.

The proper condition should be, as far as practicable, an entire absence of any space whatever at all points between the meat and the inside of the sealed can.

To remedy the above-named defects and to secure in an eminent degree the above-named desired end are the objects of my present improvements, which consist in constructing the can with two or more bulging collapsible sides, whether these sides be straight or tapering; and in also making one or both heads, as well as the sides, bulging and collapsible; and in other details or modifications hereinafter stated.

In the drawings, Figure 1 is a perspective view of a three-sided or angular-bodied can illustrating my invention, the sides in this figure not being shown as tapering; Fig. 2, a vertical section of the same in line *x x* of Fig. 1, showing the inside of the can; Fig. 3, the same collapsed, showing substantially how it would appear after being filled, collapsed, and ready for shipment; Fig. 4, the same can on a reduced scale after being filled and afterward opened for use, showing the manner in which its contents come out whole; Fig. 5, a vertical section of a similar can, but with its sides somewhat tapering; Fig. 6, a five-sided or pentagonal collapsible can with collapsible heads in section, and Fig. 7 a cross-section of the same.

In the form shown in Figs. 1, 2, and 3, the can has three sides, *a b c*, and two triangular heads, *d e;* and I make two (or, if desired, all) of these sides *a b c* bulging and collapsible; and, in addition to these bulging sides, the heads may (one or both) be bulging and collapsible. It will be seen, therefore, that if every one of the faces of this five-faced can—that is, its three sides and its two heads or ends—be made to collapse, the very maximum of collapsible surface is attained; but as cans are made of various capacities or dimensions, and of different material or qualities of material, all would not need to be collapsed on every one of the five faces. Therefore, in some it will be quite sufficient to have two of the quadrangular sides collapse, and one or both heads—in others to have both the ends or heads *d e* to collapse, and one or more of the sides *a b c*. These sides *a b c* of the can may, as above stated, be tapering, the latter form being shown in Fig. 4; but this taper, while sufficient for the somewhat easier filling or emptying of the can, should not be enough to make the smaller head so small as to prevent its collapsibility; otherwise one of the chief objects of my invention would be defeated—viz., the insuring of a large amount of collapsing-surface—for it will readily be seen that a small head not only would not afford any appreciable collapse, but that, if made bulging, it would not collapse at all; and, moreover, it would also materially prevent the efficient collapsing of that portion of the sides next adjacent to such rigid head.

Cans for packing meat are generally made with their height greater than their breadth or ends. The ends, if made bulging, cannot afford sufficient collapsing-surface for successful packing. If the body of the can be cylindrical, it is not in proper shape for collapsing. If the sides be simply flat—that is, not outwardly bulging—their capacity for collapsing is too slight. The area of the sides of flat-sided cans being ordinarily much greater than

the area of the ends, a more practically successful collapsing-surface can be obtained by bulging a side than by bulging an end, and consequently the meat will be better and longer preserved; and by making the can of the shape described, whereby every one of its surfaces can be bulged and collapsible, there is but a small portion of the entire can—to wit, that at and near its angles—which is not available for compressing the meat.

My improved construction also, by reason of the increased collapsible surface afforded, saves much of the expense and labor incident to filling and packing, inasmuch as there is but little need of ramming or closely packing the meat in the can before closing it, because each can, when collapsed, performs this duty of and by itself.

There is also increased economy in making the can, as the heads may be made of small pieces of scrap-tin.

Another advantage of the three-sided can whose sides bulge and collapse is that by cutting away one side the contents will fall out in one solid body, although compressed and indented by the collapsed sides, and do not need to be dug or torn out, and thus disintegrated, leaving a portion within the can, while also rendering the body of the meat unsightly.

Besides the advantages already named as due to my improved construction, the following may be stated, viz:

Upon cutting one of the sides—say *a*—as shown in Fig. 4, in the lines 1 to 2, 2 to 3, 3 to 4, and then continuing this cut in the line 4 to 5 of the next adjacent side, *b*, the side *a* will be left connected only to the head *d*, and, upon bending back this head at the line 5 1 of the side *c* as a hinge, the contained meat will readily fall out entire, and all ready for the table, and in a most convenient shape for slicing.

The same general plan of opening is applicable to a four-sided or five or more sided can, varying, of course, with the difference of form.

In my construction the meat may be packed or placed in the cans quite loosely, because the collapsibility is so great relatively to the bulk of the meat that when the can has been collapsed the meat will be solid and compact, the reduction of the capacity of the can when collapsed being about one-third of the whole, for the reason that each of the bulging sides or ends, when collapsed—that is to say, caused to project within the can—reduces the space therein to an extent equal to about double of its original outward bulge.

I claim—

1. A hermetical food-packing can having two or more outwardly-bulging and collapsible sides, substantially as and for the purpose set forth.

2. In a food-packing can, substantially as described, the combination of outwardly-bulging collapsible heads and the outwardly-bulging collapsible sides, as set forth.

3. A collapsible can for packing food, made with three outwardly-bulging sides, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JOSEPH SEARS.

Witnesses:
J. C. LEWIS,
J. W. STEWART.