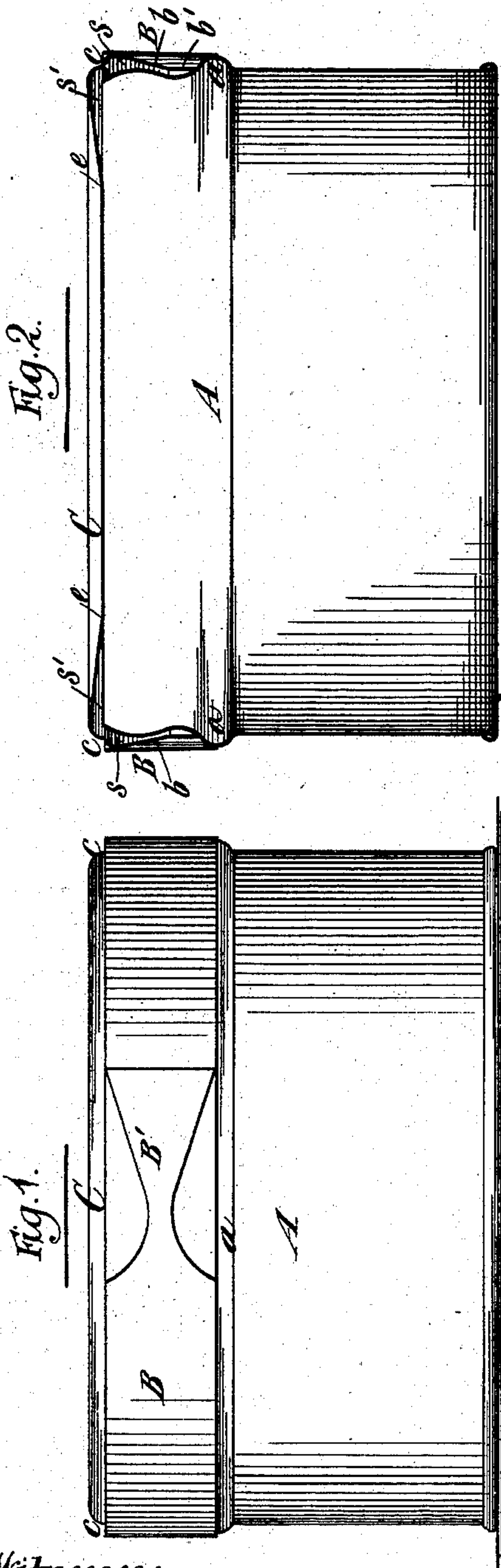


(No Model.)

J. BROUGHTON.
Closing Metal Cans.

No. 238,338.

Patented March 1, 1881.



UNITED STATES PATENT OFFICE.

JOHN BROUGHTON, OF BROOKLYN, NEW YORK.

CLOSING METAL CANS.

SPECIFICATION forming part of Letters Patent No. 238,338, dated March 1, 1881.

Application filed November 24, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN BROUGHTON, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Closing Metal Cans, of which the following is a specification.

My invention relates to cans having covers which slip over the body of the can and are secured by a stripping-band passed round the can and soldered at one edge to the can-body and at the other edge to the can-cover. In such cans the stripping-band is commonly first soldered to the cover, which is then, with its stripping-band, slipped over the can-body. In order to solder the lower edge of the stripping-band to the can-body, it is necessary to tilt or cant the latter to a considerable extent, and hence, where the substance for which the can is intended is at all fluid, it is necessary to close the mouth of the can while it is empty and to fill the can through a supplementary opening in the bottom, which supplementary opening is, after the can is filled, closed by a cap soldered over it.

The object of my invention is to enable the stripping-band to be first soldered at its lower edge to the body, after which the can is filled and the cover is placed in position and the can closed, without inverting, canting, or tipping it, by soldering the strip at its upper edge to the rim of the can-cover; and my invention consists in a novel manner of forming the parts of the can, so as to provide for conveniently closing the can in such a manner.

In the accompanying drawings, Figure 1 is a side view of a can embodying my invention. Fig. 2 is a vertical section thereof. Fig. 3 is a similar section of the can-body and stripping-band before the cover is applied. Fig. 4 is a similar section of the cover of the can. Fig. 5 is a diagram of one side of the can and cover upon a larger scale; and Fig. 6 is a central vertical section of a can of slightly-modified form also embodying my invention.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body of the can, of plain cylindric form, and having, at a little distance below its mouth, a bead or bulged portion, *a*, projecting somewhat beyond its side. From the said bead or projection *a* upward toward

its mouth the can-body is slightly tapered or molded inward.

B designates a stripping-band of thin metal, having its lower edge soldered to the bead or projection *a* and its upper edge coincident, or very nearly coincident, with the upper edge of the can-body, thus forming between the can-body and the strip B an annular space considerably greater in width than the thickness of metal of which the can is composed. As is clearly shown in Fig. 1, the band B has its overlapping end B' narrowed, so that the soldering upon each edge thereof will meet at the center and form a cross-joint between the overlapping portions of the band without offering too great an obstacle to the ripping off of the band; but this is described in my Letters Patent No. 218,481, dated August 12, 1879, and forms no part of my present invention. In applying the stripping-band to a can-body I bend the band into a ring of proper size and tack the ends. The band is then laid on a table or other flat surface and the can-body is inverted and thrust downward into the ring until its upper edge also strikes upon the table or surface, when its edge or mouth will be coincident with the upper edge of the band B. The band B, if of proper width, will then form a pinch fit on the bead or projection *a*, and may be readily soldered, thus forming an annular channel much greater in width than the thickness of the can-body between said body and the band B.

C designates the cover of the can, which is provided with a downwardly-turned rim, *b*, of considerable depth. When first drawn up the rim of the cover is straight and of the same diameter as the portion *b'* at the lower edge of the rim, and afterward the rim, from a point about one-eighth of an inch from the bottom to one-sixteenth of an inch from the top, is rolled, expanded, or molded into a taper form, the diameter increasing toward the top. This rolling, expanding, or molding forms at the top an annular rabbet, *c*, the advantage of which will be hereinafter explained. The can having its band B soldered to it, as described, may be now filled with the substance which it is intended to contain and the cover slipped over the mouth thereof, which may be readily done, because of the upper edge of the can-

body being slightly contracted or rolled inward, as shown and previously described.

In order that the stripping-band may be readily stripped off it is necessary that only
5 a very thin film of solder should be between it and the parts to which it is soldered.

In my improved can the lower edge of the band B forms a pinch fit upon the bead or projection *a*, and when the cover is placed upon
10 the can-body and pressed down the upper portion of its molded or expanded rim fits tightly within and forms a pinch fit with the upper edge portion of the stripping-band, and if the depth of the rim of the can-cover and
15 the width of the band are properly proportioned the upper edge of the stripping-band will be about on a level with the rabbet *c*. After being thus pushed down the can may be readily closed while in an upright position
20 and without canting or tilting it, and in soldering the upper edge of the band B to the cover the rabbet *c* forms a guide for the soldering-iron, and enables the can to be closed by a solderer who is not an expert workman.
25 The can shown in Fig. 6 differs from those shown in Figs. 1 to 5 in that its body is shorter above the bead or projection *a*, and is simply contracted upward, while the can-bodies shown in Figs. 1 to 5 have formed in
30 them above the bead or projection *a* a reverse curve, so that the rim *b* of the cover will only touch the can-body at its extreme lower edge.

Although cans of this kind are useful for containing paint and other fluid or semi-fluid substances, they are particularly useful for packing
35 butter, and when used for this purpose the central part of the cover C may be depressed, as clearly shown, so that its depressed portion will rest upon the butter, while its edge portion
40 tion will be raised slightly above the edge of the can. Thus an air-chamber, *s*, is formed

between the rim *b* of the cover and the body of the can, and another air-chamber, *s'*, is formed between the cover and the contents of the can.

It will be understood that the heat imparted to the can in soldering the upper edge of the band B to the cover to reach the butter must be transmitted through the air-spaces *s s'*, or down the band B or the rim *b* and through
50 the body of the can, or inward along the cover until it reaches the point *e*, at which the cover rests upon the butter; and it is obvious that the heat produced by the rapid passage of the soldering-iron around the cover in closing the
55 can will not be sufficient to at all affect the butter.

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

1. The combination, with a can-body having
60 a bead or projection at a little distance below its mouth and a stripping-band soldered to said bead or projection, of a cover having a downwardly-projecting rim expanded or rolled outward and flaring from near the bottom
65 upward, the lower portion of said rim fitting against the body of the can, and the upper expanded portion fitting within the stripping-band and soldered thereto, substantially as specified.

2. The combination, with the can-body A, having the bead or projection *a*, of the cover C, having the rim *b*, rolled or expanded outward and flaring from near the bottom upward, and having the annular rabbet *c* and
75 the stripping-band B soldered to the bead or projection *a* and the rim *b*, substantially as specified.

JOHN BROUGHTON.

Witnesses:

FREDK. HAYNES,
A. C. WEBB.