

(No Model.)

E. NORTON.
TIN CAN.

No. 539,366.

Patented May 14, 1895.

Fig. 1.

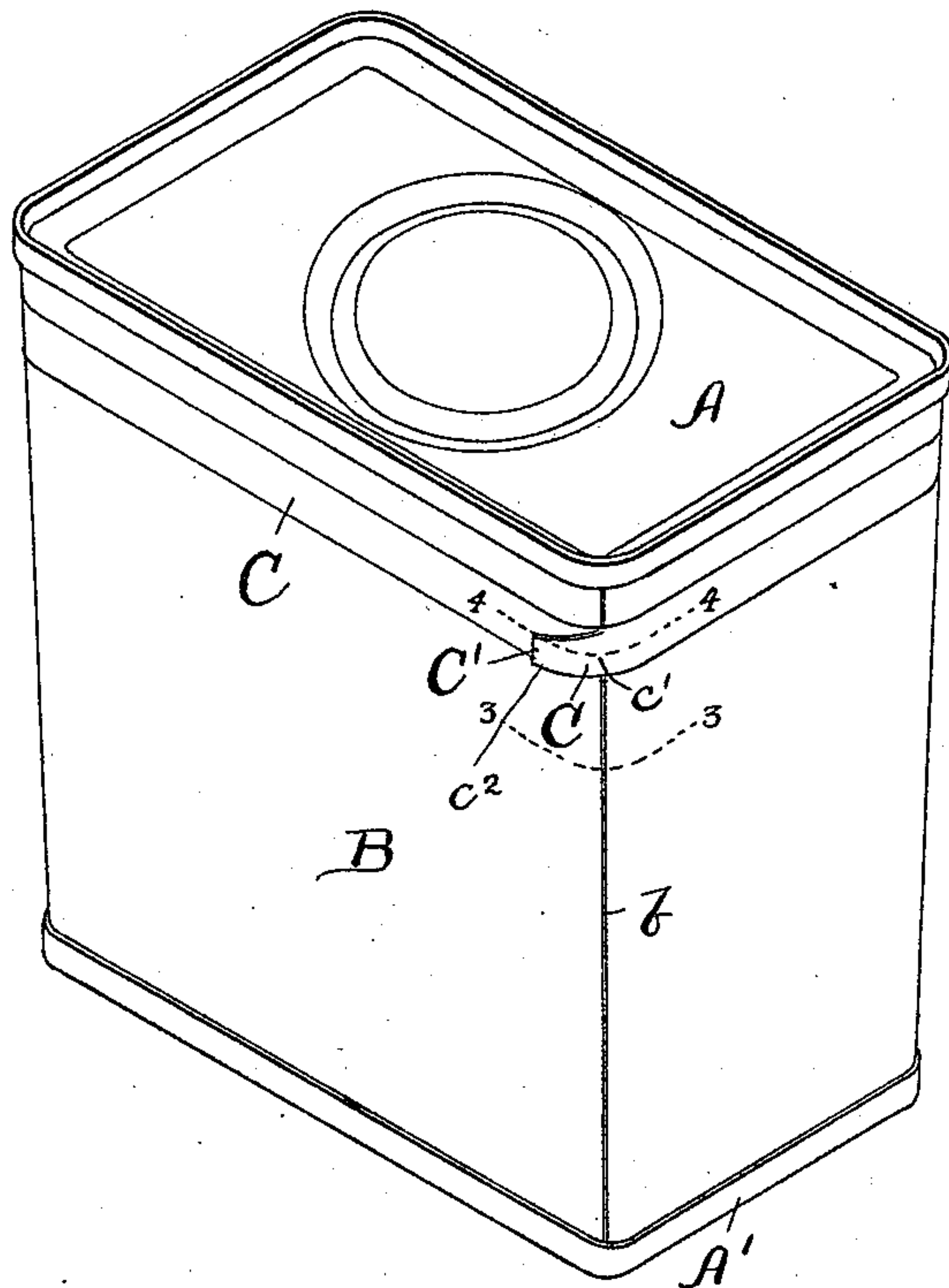


Fig. 5.

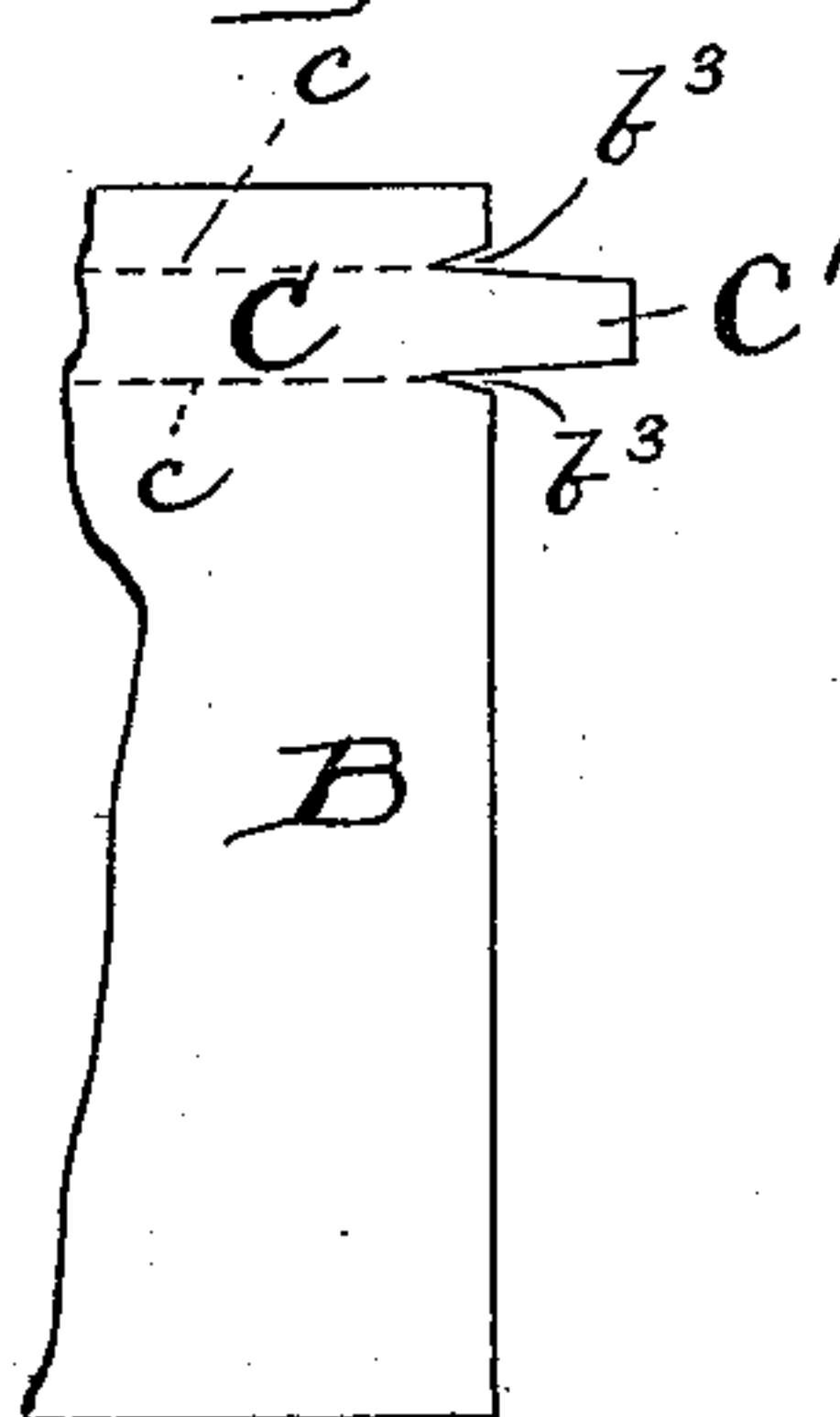
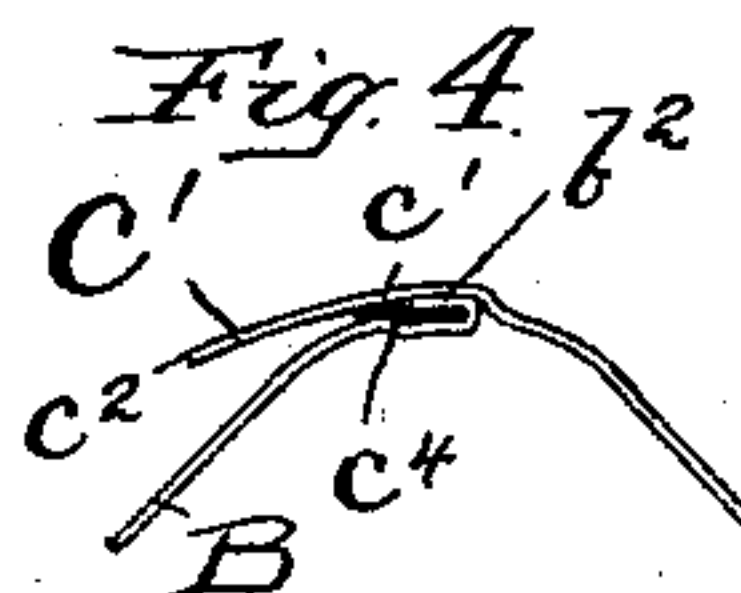
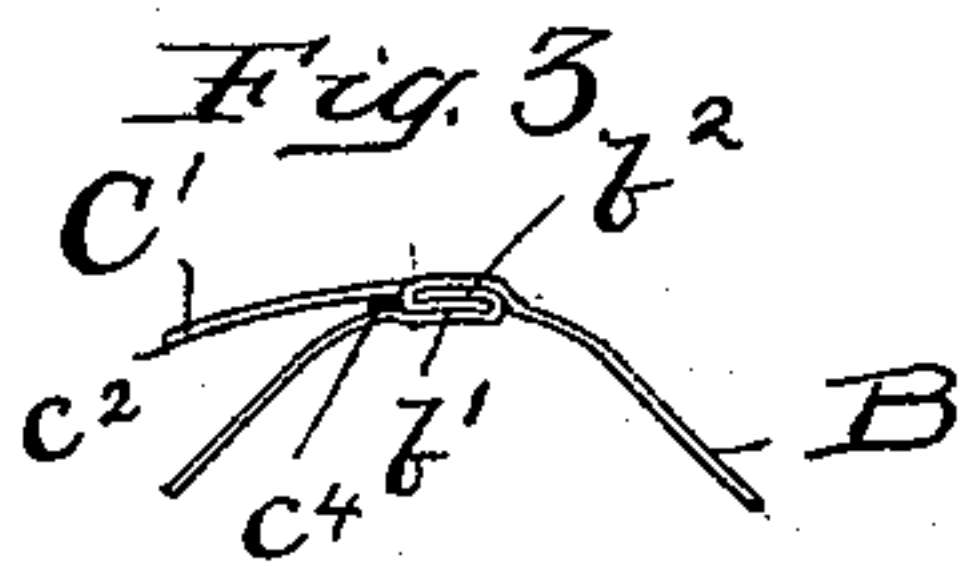
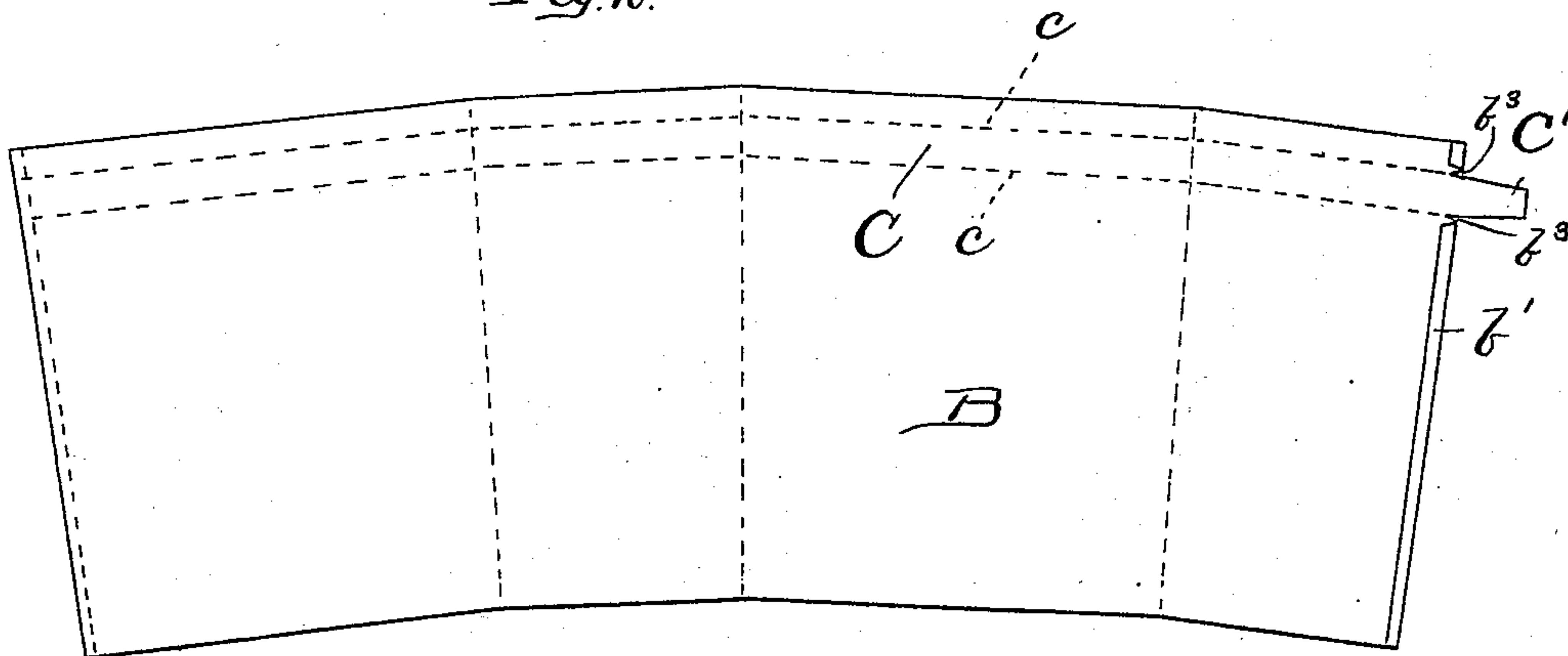


Fig. 2.



WITNESSES:

Lew. E. Curtis
H. M. Munday.

INVENTOR:

EDWIN NORTON
By Munday, Curtis & Adcock,
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF MAYWOOD, ASSIGNOR TO HIMSELF, AND OLIVER W. NORTON, OF CHICAGO, ILLINOIS.

TIN CAN.

SPECIFICATION forming part of Letters Patent No. 539,366, dated May 14, 1895.

Application filed December 5, 1892. Serial No. 454,048. (No model.)

To all whom it may concern:

Be it known that I, EDWIN NORTON, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tin Cans, of which the following is a specification.

My invention relates to sheet metal cans of that class which have an interlocked side seam.

In cans of this class the meeting edges of the can body blank are provided with oppositely turned hooks, which are interlocked together and then squeezed or compressed together so as to form a strong, firm and rigid joint or seam, even before the seam is soldered, which is usually done automatically by carrying the can bodies over a bath of molten solder, thus immersing the seams in or bringing them in contact with the molten solder. These interlocked side-seam cans are much stronger and more perfect, and are found in practice to develop a much less percentage of leaks than cans wherein the bodies are made with an ordinary lap seam, that is to say where the two flat edges of the can body blank are simply overlapped and soldered together; and the interlocked side-seam cans can be much more cheaply and rapidly manufactured, their form adapting them to be made by automatic machinery, whereas the ordinary lapped-seam cans are generally manufactured by hand or by hand tools. Heretofore however it has not been deemed practicable to provide these interlocked side-seam cans with a tearing strip having a projecting tongue or lip for opening the can, as the projecting tongue would interfere with the proper interlocking of the hooks, and also come on the inside of the can after the hooks are formed and interlocked; and, consequently, these tongue-tearing strips have heretofore been confined to, or only combined with, can-bodies having simple lap side seams. I have conceived or discovered however that by cutting or notching the edge of the can body blank on each side of the projecting tongue or lip of the tearing strip to the depth of the hook or edge fold on the can body, which forms with its fellow on the opposite edge of the can body blank the interlocked side seam,

the tongue tearing strip for opening the can may be practically combined with the interlocked side-seam can body.

Owing to the cuts or notches in the edge of the can body blank at each side of the projecting tongue, the edge of the can body blank may be folded or turned at an angle to form one of the interlocking hooks without turning the tongue, or causing the tongue to interfere with the interlocking of the hooks together, and without causing the tongue to come on the inside of the can body.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a perspective view of a can embodying my invention. Fig. 2 is a detail plan view of the blank out of which the can-body is formed, showing the same with the edge folds or hooks that form the interlock side seam when the same are interlocked and compressed together, but before the can-body is formed into shape. Figs. 3 and 4 are detail horizontal cross-sectional views on lines 3-3 and 4-4 of Fig. 1, respectively. Fig. 5 is a detail view of a portion of the can-body blank, showing the same before the edge fold or hook is formed.

In the drawings A A' represent the top and bottom heads of the can and B its body. The can body B has an interlocked side seam b comprising two edge folds or hooks b' b^2 , turned at an angle to the can body blank, one at each end or edge thereof, and interlocked and compressed together.

C is the tearing strip with which the can body is provided, the same having a projecting tongue C', and being marked off, bounded or separated from the can body by one or more weakened lines, incisions or beads c extending around the can body. The tearing strip is, preferably, located not directly at the end of the can body but intermediate between the ends of the can body and a short distance below its top, and thus requires two weakened lines c c to mark it off on the can body. Adjoining the tongue C', on one or both sides thereof according as the tongue is located at or intermediate between the ends of the can body, the can body blank is provided with one or more notches or cuts b^3 , to about the depth

or width of the edge fold or hook b' which constitutes one member of the interlocked side seam. As shown in the drawings there are two of these cuts or notches b^3 , one on each side of the tongue C' , said tongue being located at an intermediate position between the ends of the can body. These cuts or notches b^3 are clearly shown in Fig. 5 and also in Fig. 2. When the oppositely turned hooks or edge folds $b' b^2$ are now turned or formed on the thus notched can body blank, the tongue C' will be left projecting flat in the plane of the can body blank, as is clearly indicated in Fig. 2; and, when the can body is now formed and its edge folds or hooks $b' b^2$ interlocked and squeezed or compressed together, as indicated in Figs. 1, 3 and 4, the tongue C' will be left projecting on the outside of the can body and not in any way interfere with the interlocking of the hooks or the forming of the interlocked side-seam b . After the interlocked or folded side-seam is thus formed, the side-seam of the can body may be soldered in the usual method automatically by carrying it over the bath of molten solder. The projecting tongue C' at the time the can body is formed is shaped, curved or stamped so that its base portion c' will fit close to the can body and thus be soldered at this part, while its tip portion c^2 projects slightly away from the can body and will thus be left free.

The can body it will thus be seen from Figs. 2, 3 and 4, has an interlocked side-seam throughout its length excepting for the width of the tearing strip C , where the seam is sin-

gle instead of double. The interlocked side-seam thus does not interfere with the winding of the tearing strip upon a key or other similar tool, and the tearing or separation of the same from the can body, and thereby opening the can.

The solder at the base portion c' of the tearing strip is indicated in Figs. 3 and 4 at c^4 .

The interlocked side-seam of the can body may be of any ordinary form or style known to those skilled in the art having interlocked hooks or edge folds which are turned at an angle to the surface of the can body.

It will of course be understood by those skilled in the art that the weakened lines c which mark off the tearing strip from the can body, may be formed in any suitable manner known to those skilled in the art, as by making an incision partially through the tin plate along the line to be weakened by forming beads or compressions along the line to be weakened or otherwise.

I claim—

In a sheet metal can the can body B having interlocked edge folds or hooks $b' b^2$, said edge fold or hook b' having cuts or notches $b^3 b^3$ and an integral tongue-tearing strip C extending around the can body, the tongue of said tearing strip projecting between the notches or cuts $b^3 b^3$ in said edge fold or hook b' , substantially as specified.

EDWIN NORTON.

Witnesses:

H. M. MUNDAY,
LEW. E. CURTIS.