

(No Model.)

W. C. WINFIELD.  
BOTTOM FOR CANS.

No. 504,547.

Patented Sept. 5, 1893.

Fig 1

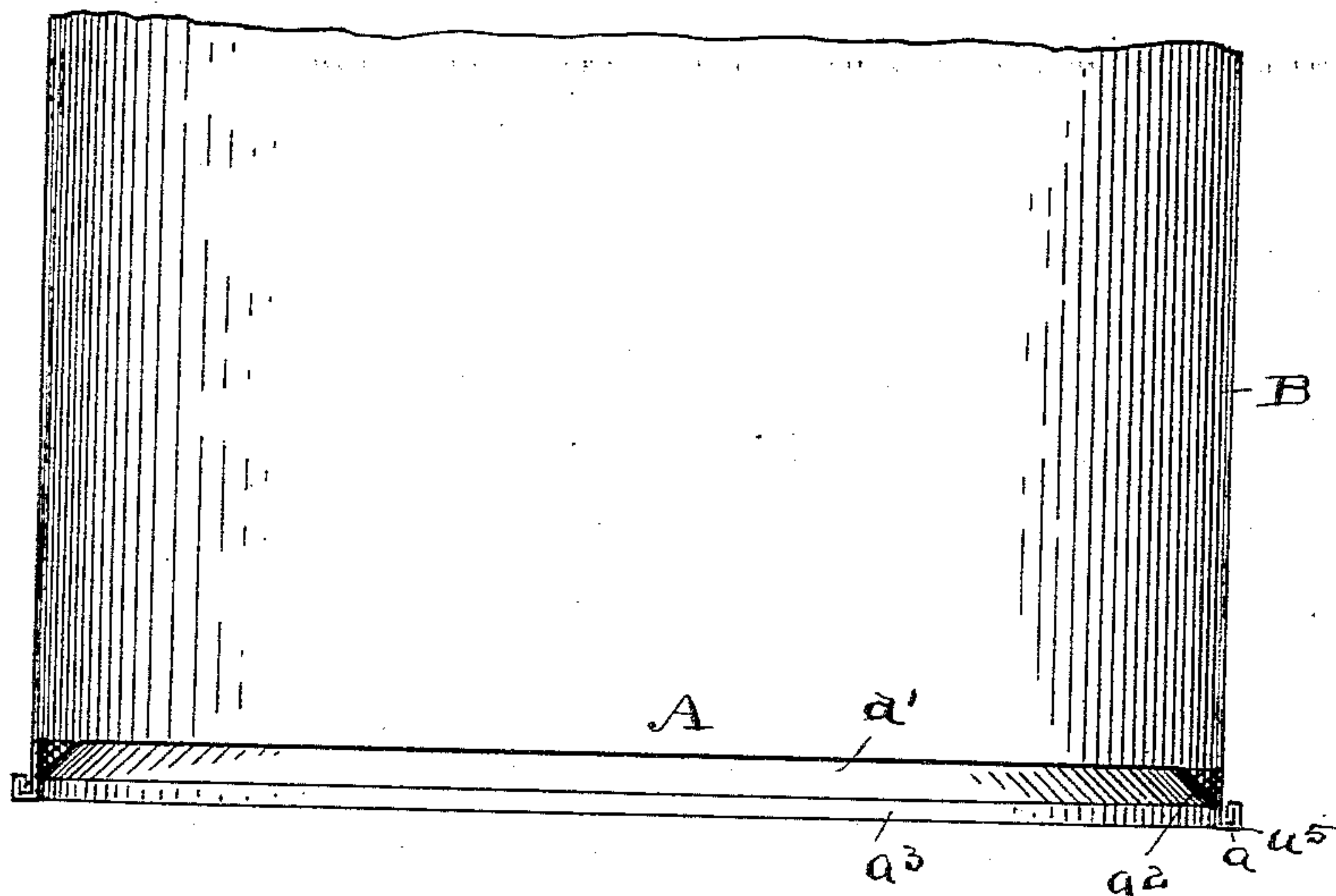


Fig 2

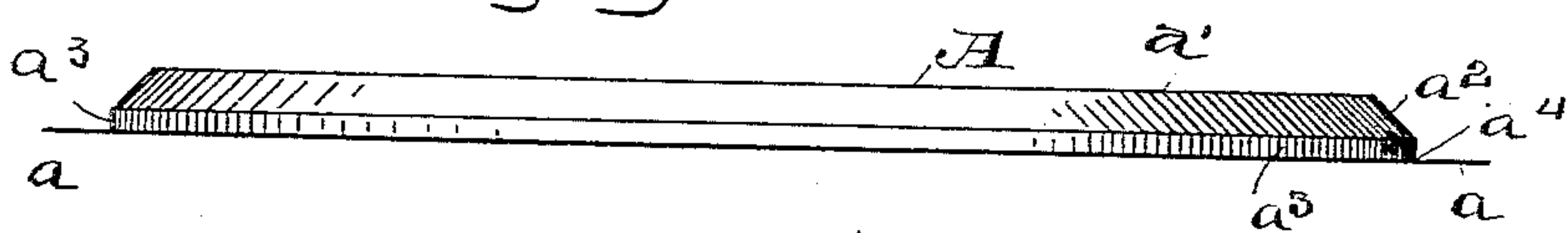


Fig 4

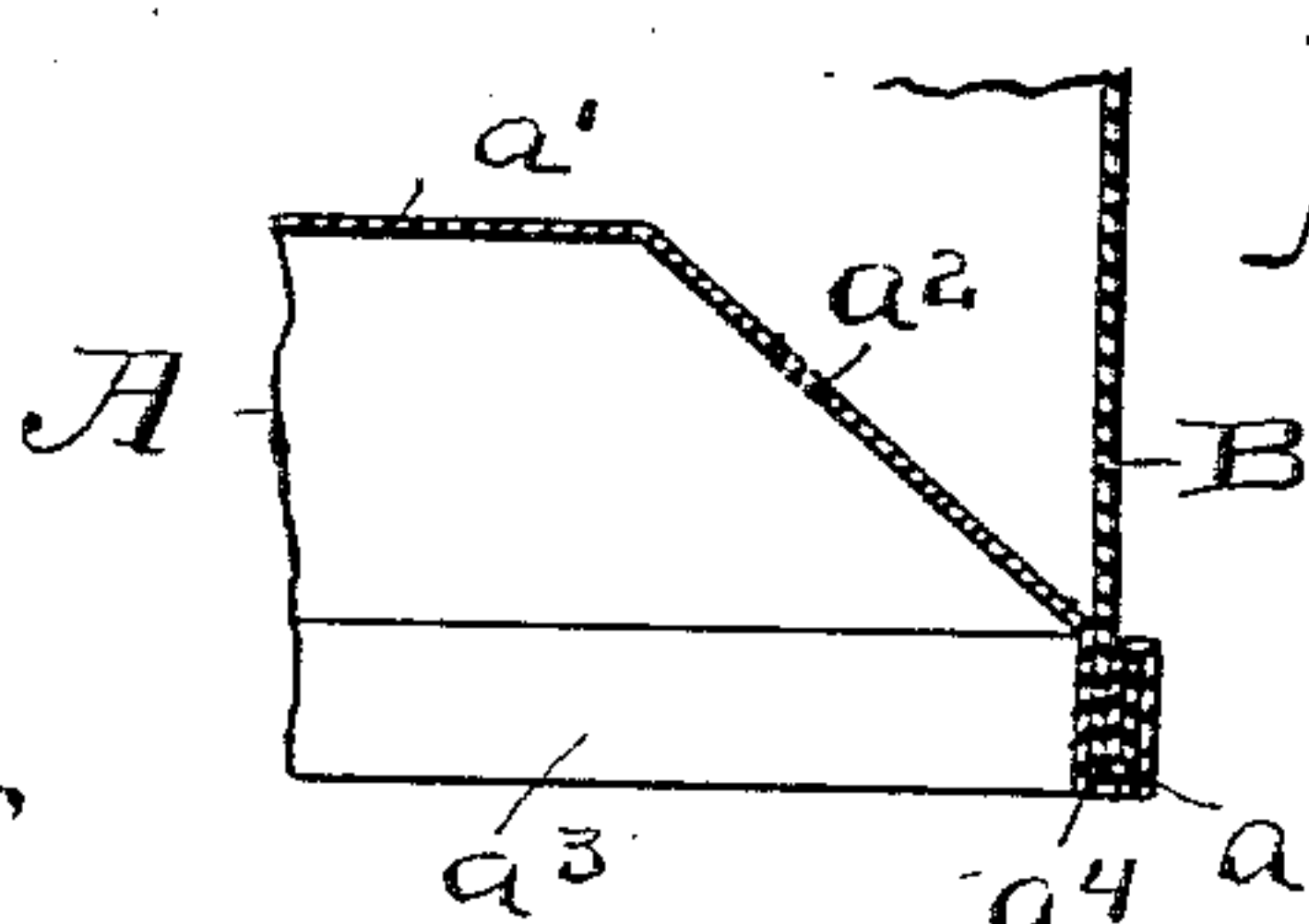
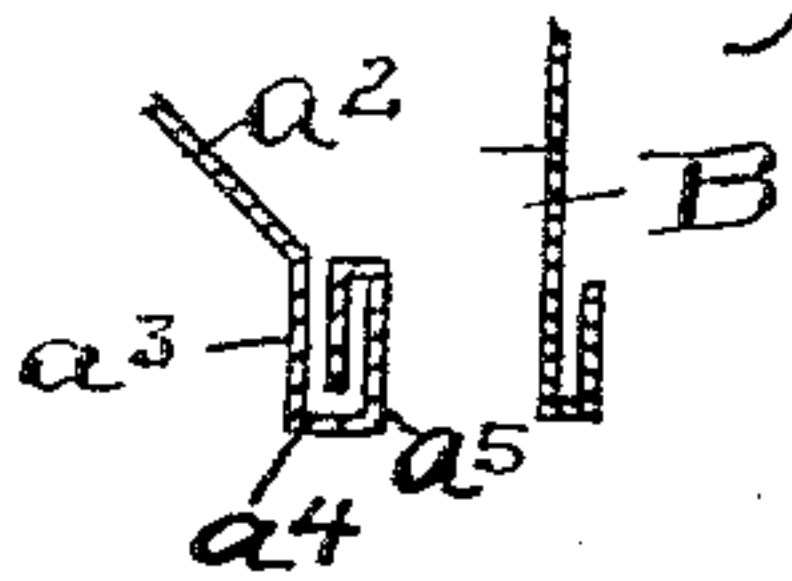


Fig 3

ATTEST,  
R. B. Moser

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# UNITED STATES PATENT OFFICE.

WILLIAM C. WINFIELD, OF WARREN, OHIO, ASSIGNOR TO THE WINFIELD MANUFACTURING COMPANY, OF SAME PLACE.

## BOTTOM FOR CANS.

SPECIFICATION forming part of Letters Patent No. 504,547, dated September 5, 1893.

Application filed March 16, 1893. Serial No. 466,280. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. WINFIELD, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Bottoms for Cans; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to  
10 which it appertains to make and use the same.

My invention relates to improvements in bottoms for cans and the invention consists in a can bottom constructed substantially as shown and described and particularly pointed  
15 out in the claims.

In the accompanying drawings, Figure 1 is a vertical central section of the lower portion of a can with a bottom made according to my invention. Fig. 2 is an edge view of the bot-  
20 tom after it is struck up and preparatory to uniting it with the can. Fig. 3 is a sectional view, enlarged, of parts of bottom and body united, and Fig. 4 is a detail view of the parts showing how they appear as united.

The bottom A of the can, is struck up from a sheet of tin or other suitable metal into the form seen in Fig. 2. In this form it has a flange  $a$  extending entirely around its edge, and within the flange is the struck up inside  
30 portion  $a'$ , which, in a full sized can of about a foot in diameter, stands half an inch above the flange  $a$ . Around the edge of this inner bottom portion  $a'$  the said bottom is formed with an edge having an inclined portion  $a^2$ , and a vertical edge  $a^3$ , which latter extends  
35 down to the base flange  $a$  from the incline  $a^2$ . The body B of the can is constructed to fit snugly about the vertical wall  $a^3$ , and the respective edges of the body and bottom are  
40 made to overlap and strengthen one another as seen in Figs. 1, 3 and 4, or substantially as shown. Now, it will be noticed that the point of engagement or touch all around the bottom A with the body B is simply upon the verti-  
45 cal part or face  $a^3$  of the bottom edge, and that the inclined portion  $a^2$  of the said edge runs inwardly at an angle of about forty-five degrees away from  $a^3$  and the body B.

Heretofore in the construction of oil cans, milk cans and the like when a bottom was set  
50 into the can, the entire depth of the edge from

the surface  $a'$  to the flange  $a$  had a continuous straight side or wall the full depth of the struck up portion, just as if the inclined por-  
tion  $a^2$  here were omitted and the straight  
55 portion  $a^3$  were extended up to the top of the bottom  $a'$ . Now, in order that bottoms set into cans may be made proof against leakage, it is necessary that they should be soldered at the  
60 point of union, and, under the old construction as in this case, the solder was applied about the point of union between the bottom and body on the inside of the can. But, of  
course, the two parts were made to fit snugly  
65 together, and the solder could not penetrate more than a short distance between said parts before it would harden, and it never reached  
down to the lower edge of the body except  
possibly in spots here and there where the  
joint was not especially close. It followed  
70 that under the rough usage to which cans are subjected the parts would become separated by breaking or cracking of the solder and a leak would be sprung through which  
oil or other liquid would escape. Indeed, it  
75 was difficult to make a can in the old way which would not spring a leak very easily. My invention, therefore, is designed to overcome this objection and does overcome it by  
the construction here shown. 80

It will be noticed that the depth from the upper edge of the vertical face  $a^3$  to the flange  $a$  is comparatively slight and the beveled or  
inclined portion  $a^2$  forms a sort of trough or  
85 channel between the bottom and the side of the can which runs down into the point of union. Hence, when the solder is applied to this joint with its low shoulder  $a^3$  it penetrates the full depth of the joint and runs  
90 down to the bottom  $a^4$  and into the seam  $a^5$  around the outside of the can, and makes a perfect union between the parts which with-  
stand handling and usage. This may be re-  
inforced by the deposit of solder sufficient to  
partially fill the channel above the point of  
95 union in the neck of the channel where the inclined portion  $a^2$  meets the side of the can.

I have shown here one way of uniting the edges of the body and bottom, but they may  
be otherwise united and not affect the nature  
100 or character of my invention, the invention being more especially in the peculiar con-



struction of the bottom about the inside of the can, and substantially as shown and described.

Having thus described my invention, what I claim is—

1. The can body having straight sides and the bottom struck up to fit within the body and having a part of its edge inclined away from the body and a part below said inclined part bent downward parallel with and bearing against the inside of the body, substantially as set forth.

2. In cans, a body part, and a bottom having an outer flange overlapping the edge of the body on the outside of the can and a struck up interior having the lower portion of its edge bent vertically downward and bearing against the inside of said body and its upper portion inclining away from the body, substantially as set forth.

3. In cans, the body B, the struck up bottom  $a'$ — having about its edge the in-

clined portion  $a^2$ — and the downward vertical portion  $a^3$ — below the incline  $a^2$ —, and the edges of the body and the bottom interlocked on the outside of the can, substantially as set forth.

4. The can body B and the bottom A struck up with the surface  $a^2$ — inclined away from the body, the downwardly extending rim portion  $a^3$ — parallel with the side B of the body and lying flatly against the same, and the flange on the bottom outside of the rim  $a^3$ — formed with two bends parallel with rim  $a^3$ — and outside thereof and the lower edge of the body bent outwardly and upwardly into hook shape and engaging the inner of said bends, substantially as set forth.

Witness my hand to the foregoing specification this 27th day of February, 1893.

WILLIAM C. WINFIELD.

Witnesses:

M. J. SLOAN,

JACOB H. EWALT.