

H. C. MILLIGAN.
Sheet-Metal Can.

No. 219,752.

Patented Sept. 16, 1879.

Fig. 1.

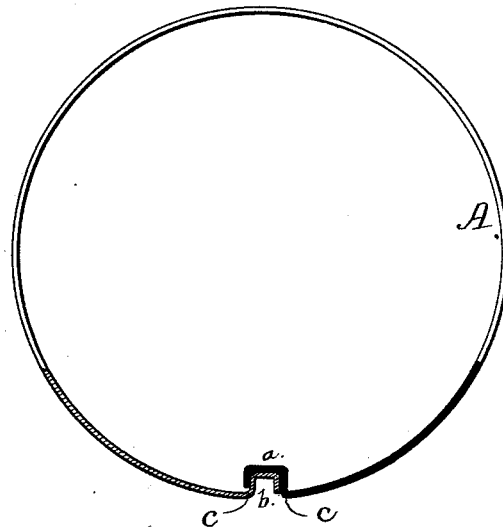
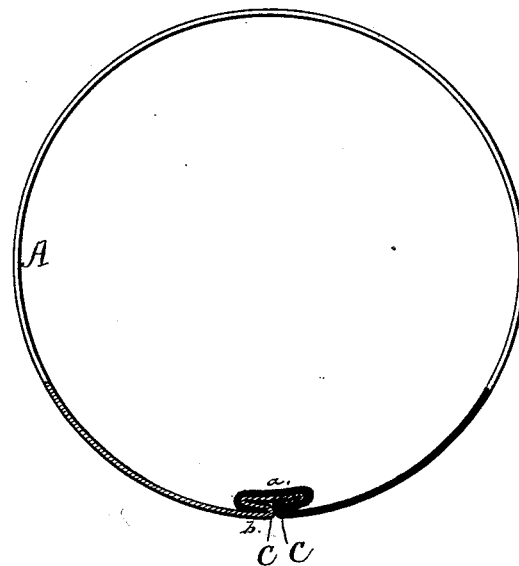


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY C. MILLIGAN, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN SHEET-METAL CANS.

Specification forming part of Letters Patent No. **219,752**, dated September 16, 1879; application filed June 3, 1879.

To all whom it may concern:

Be it known that I, HENRY C. MILLIGAN, of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Seams for Metal Cans, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to seams for sheet-metal cans, cylinders, boxes, and other analogous articles. It has for its objects to produce a seam or joint without the use of solder, and which shall be, practically, water and air tight, and relates to that class of seams which forms the subject-matter of Letters Patent granted to me on the 18th day of June, 1878.

My present invention consists of a sheet-metal can or vessel in which the edges of the sheet forming the same are concealed within folds of the metal made each side of the line where the juncture occurs, said folds presenting an equal number of thicknesses of metal, and having a practically even surface opposite the seam, as will be hereinafter more fully set forth.

In order that those skilled in the art to which my invention refers may understand how to make the same, I will proceed to describe the details of construction, referring by letters to the accompanying drawings, in which—

Figure 1 is a cross-section of a cylinder after it has been subjected to the first step in the formation of my improved seam or joint, and Fig. 2 a similar view after it has been subjected to the subsequent and final step in the formation of the same.

In the drawings the seam is shown as enlarged, in order that its peculiarities may be more readily observed; but in practice the rib formed by folding and lapping the metal is subjected to a high degree of pressure and is caused to lie quite close to the body of the can or cylinder.

My present invention differs from that covered by the Letters Patent hereinbefore referred to in that the latter presents four thicknesses of metal on one side and five on the opposite side of the longitudinal joint, while in the present case the metal is so arranged

in the first step of the process of forming the seam that when completed there will be an equal number of thicknesses on both sides of the joint.

The process of forming the seam made the subject of this application may be substantially the same as that described in my Letters Patent of June 18, 1878, except that at both edges of the sheet A of metal there are formed hat-shaped grooves, as shown at *a b*, Fig. 1, the former being of such dimensions as to just receive the latter.

After these grooves have been formed either at one or two operations and laid together, as shown, the points C C of sheet metal are brought together and the "nested" grooves flattened down, as shown at Fig. 2, so that the edges of the metal will be securely held and concealed within the respective folds each side of the joint, there being an equal number of thicknesses of metal each side of said joint to give strength to the seam and rigidity to the can, vessel, or pipe; and it will be observed that in a can embodying my invention any liquid or other body contained therein cannot leak out without traveling in a sort of zigzag or serpentine way, and when the seam is subjected to the pressure actually employed in manufacturing cans the seam becomes absolutely water and air tight.

It will be readily understood that the same may be formed either on the interior or exterior of the can and preserve the same general characteristics.

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

A sheet-metal vessel or cylinder having a seam consisting of folds of an equal number of thicknesses on each side of the line formed by the junction of the angles C C, the edges of the metal being confined and concealed within said folds, and a practically even surface obtained opposite said seam, as hereinbefore set forth.

Witness my hand this 6th day of May, A. D. 1879.

HENRY C. MILLIGAN.

In presence of—

JOHN A. MILLER, Jr.,
M. P. SAYCE,
C. C. HODGMAN.