

C. P. MAXFIELD.  
Metallic Can or Vessel.

No. 196,758.

Patented Nov. 6, 1877.

Fig. 1.

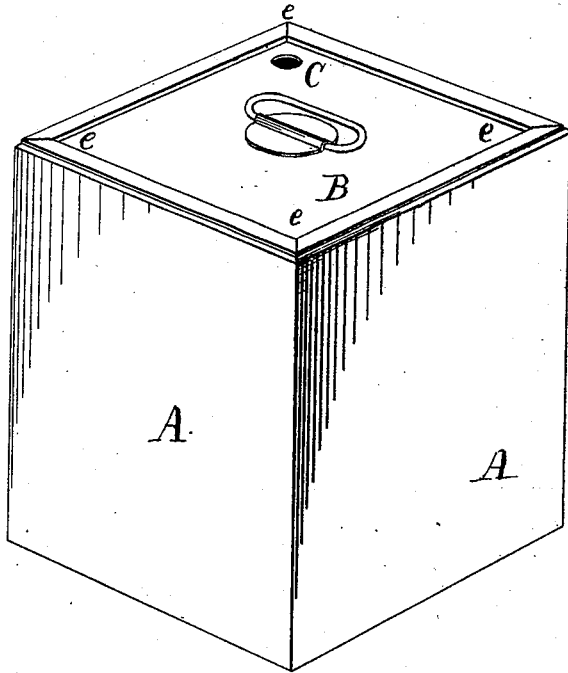


Fig. 2.

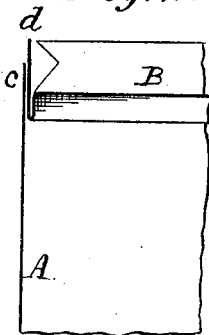


Fig. 3.

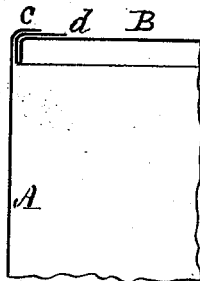
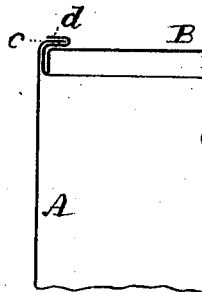


Fig. 4.



Witnesses:

Aug. A. Nicholson  
E. Adick

Inventor:

Charles P. Maxfield  
by A. Pollock his  
Attorney.

# UNITED STATES PATENT OFFICE.

CHARLES P. MAXFIELD, OF FAIRHAVEN, ASSIGNOR TO EDWARD T. COVELL,  
OF NEW BEDFORD, MASSACHUSETTS.

## IMPROVEMENT IN METALLIC CANS OR VESSELS.

Specification forming part of Letters Patent No. **196,758**, dated November 6, 1877; application filed  
October 11, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES P. MAXFIELD, of Fairhaven, Massachusetts, have invented certain new and useful Improvements in Metallic Cans or Vessels, of which the following is a specification:

This invention relates to the construction of metallic cans or vessels, and more particularly to the manner of uniting the heads or ends with the body of such cans or vessels.

As heretofore constructed, metallic cans or vessels have been found deficient in that the ends or heads, whether or not molten solder were liable to spring off or part asunder, so as to permit leakage of their contents, and thus occasion great loss in or danger to the cargoes contained therein.

The object of my present invention is to overcome this objection, and at the same time to furnish a rigid, cheap, durable, and airtight vessel, without any excessively protruding flanges, which are liable to be bent in, and thus open the seams—in other words, cans or vessels well adapted to contain liquids of any description, however dangerous they may be, such as petroleum or other hydrocarbon fluids.

My said invention consists in a peculiar mode, hereinafter described, of forming and uniting the ends or heads of metallic cans or vessels with the sides or bodies thereof, and in the production of cans in which the sides, tops, and bottoms are united or joined together by the means and in the manner hereinafter described.

To illustrate my said invention, I have shown in the accompanying drawings, in Figure 1, a perspective view of a can constructed in accordance with my said invention. Figs. 2, 3, and 4 are diagrams or sectional lines of that part of the head and side which forms the joint, and which shows the progress or stages in the formation of the same.

In said drawings; A is the body of the can; B, the head; and C the orifice for filling the can.

To put the parts of the can together I proceed as follows: The can-body is made, as is usual, of one sheet of metal, bent along three

vertical lines, at right angles, the fourth angle being made by the union, by lap or hook joint, of the outer ends of the sheet. The upper and lower ends are allowed to remain flush with the sides or unbent until after the heads are put in their respective places on the body. The heads B are made of flat pieces of metal, somewhat larger than the horizontal area or the opening of the can-body. The edges of the heads are then bent downward at right angles to the surface, to facilitate which the sheet is previously cut out at the angles. The thus downwardly-bent flange is, a short distance from the bent edge, bent upward again, the upward-bent portion exceeding in height that portion which is bent downward, so that the head, at this stage of the operation, shall have a double flange on one side and a single flange on the other, as shown in Fig. 2. The head is thus formed to fit snugly the interior of the body of the can, and it is inserted therein so that the single flange shall project from and above the side or body of the can, while the latter, in its turn, projects above the top or outer surface of the head.

The next operation consists in the folding down or bending inwardly at right angles of the two projecting flanges, so as to lie flat upon the head, as shown in Fig. 3.

It will be noticed that the flange *d*, which is part of the head, is larger than the flange *c* of the body, and therefore it projects from under the said flange *c* toward the center of the can.

The last and final operation now consists in bending the projecting part of the flange *d* over the flange *c*, and thus confining the latter within its fold.

It is obvious that the corners at the ends of the can-body are, previously to being bent, suitably cut down to a point corresponding to the surface of the heads, so as to insure their forming, when bent, miters in a workmanlike manner, as shown in the drawing at *e*.

After the heads or ends are thus made and united, molten solder is applied, for the purpose of sealing the joints or seams.

I have described the manner in which this invention may be carried out in the most practical form. It will be understood, however,

that variations may be applied without departure from my invention. Thus the flange *d* may be bent over the flange *c* before the two flanges are bent down against the head of the can. In this instance the order of the operation is only inverted; but I prefer to proceed as first described.

The inwardly double flange serves to stiffen the heads or ends of the can, and also forms a firm support for clamps to hold the heads or ends together while the projecting edges are being bent or pressed upon the heads or ends of the can-body.

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

1. The formation of a can-seam by first forming on the head or end an inwardly-folded or interior double flange, with an extension projecting above the outer surface of said head or end, by then forming with the body of the can and the extension aforesaid a lap-joint, which is bent down inwardly at right angles to the sides, to be flat upon the head, consti-

tuting a stiffening and protecting frame to the can, as herein shown and described.

2. The union of the body of a can with the heads or ends thereof by means of a seam, consisting of the combination, with an internal flange formed at right angles to the body of the can, of a twofold double lap-joint on the head, the one lying internally against the side or body, the other externally against the respective heads of the can, the latter holding confined the flange on the body, substantially as shown and set forth.

3. The angular interior and exterior double flange formed on the heads or ends of a metallic can or vessel, forming a union with the can-body, in the manner and for the purposes herein specified.

In testimony whereof I have hereunto signed my name this 27th day of August, A. D. 1877.

CHAS. P. MAXFIELD.

Witnesses:

CHARLES C. SAYER,  
EDWARD A. SAYER.