

E. NORTON.
Seam for Sheet-Metal Cans.

No. 215,766.

Patented May 27, 1879.

Fig. 5.

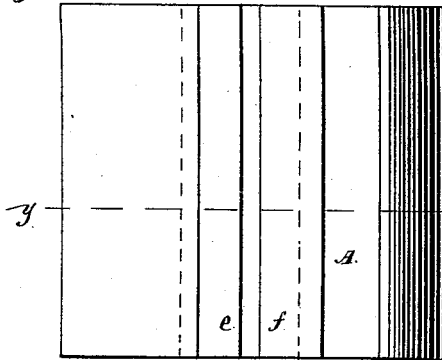


Fig. 1.

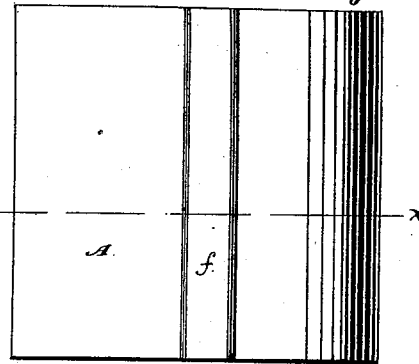


Fig. 6.

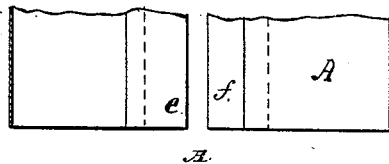


Fig. 2.

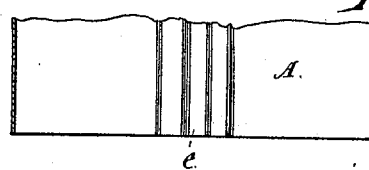


Fig. 8.

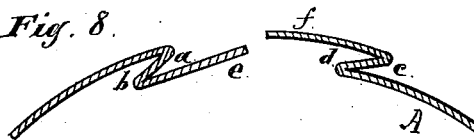


Fig. 4.



Fig. 7.

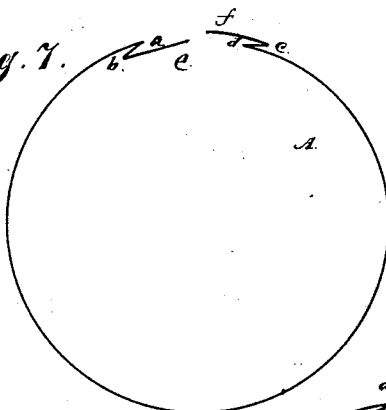
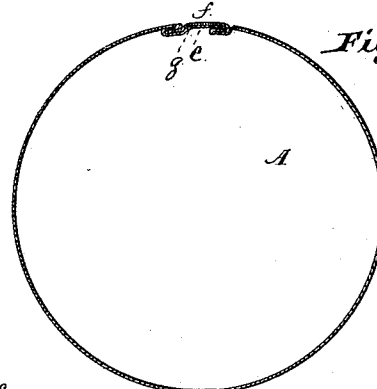


Fig. 3.



Witnesses:
O. Bond.
C. A. West.

Fig. 9.



Inventor:
Edwin Norton

UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SEAMS FOR SHEET-METAL CANS.

Specification forming part of Letters Patent No. **215,766**, dated May 27, 1879; application filed January 13, 1879.

To all whom it may concern:-

Be it known that I, EDWIN NORTON, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Seams for Sheet-Metal Cans, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation outside. Fig. 2 is an inside view. Fig. 3 is a cross-section at x of Fig. 1; Fig. 4, an enlarged detail view; Fig. 5, an elevation, showing the outside of the sheet bent but not brought together; Fig. 6, an inside view of same; Fig. 7, a section at $y y$ of Fig. 5; Fig. 8, an enlarged detail view; Fig. 9, a detail of parts in Fig. 7 brought together.

In manufacturing sheet-metal cans for some purposes, it is essential that the joint or seam by which the two ends of the sheet from which the body of the can is made are united should be perfectly tight without the use of solder. This is especially true of cans used for concentrated lye, which is poured into the cans when intensely hot, and it has been found difficult to make a seam sufficiently tight to prevent leakage.

I accomplish the desired result by means of a seam or joint of peculiar construction, as hereinafter fully set forth.

I have shown in the drawings a can-body made from a single sheet; but the invention could be used in manufacturing can-bodies from two or more sheets.

In the drawings, A represents the body of a can, or the sheet from which the body is formed. In manufacturing, the two ends of the sheet are first bent as shown in Fig. 8, and so that near each end there are two acute angles— $a b$ at one end, and $c d$ at the other end—while the two ends $e f$ of the sheet pro-

ject beyond the points of the angles $b c$. This I find can be easily done by means of suitable machinery. Then the two ends are brought together, as shown in Fig. 9, the end e being inserted in the angle d , and the end f being inserted in the angle a . Then the seam is completed by means of a suitable swaging-machine, all the parts being pressed firmly and closely together, as shown in Fig. 4.

The swaging-machine is to be so formed that in completing the seam there will be an offset or bend, g , Fig. 4, which will render it impossible to separate the parts by any ordinary strain.

I thus form, in effect, two seams a little distance apart, each of which is as secure as the ordinary seam, and which are so constructed and arranged that they strengthen each other, and each adds to the security of the other. The contents of such a can cannot escape through my joint without traveling a long distance and over a circuitous path; and the double seam is, in fact, so formed that when well made it will securely hold anything which it is usual to put into such cans without any leakage, as has been demonstrated by severe tests.

The bottom and top of the can are to be applied in the usual manner.

What I claim as new, and desire to secure by Letters Patent, is as follows:

In a sheet-metal can, the angles $a b$ and $c d$, the ends $e f$ being compressed in the angles $a d$, substantially as and for the purpose specified.

EDWIN NORTON.

Witnesses:

E. A. WEST,
O. W. BOND.