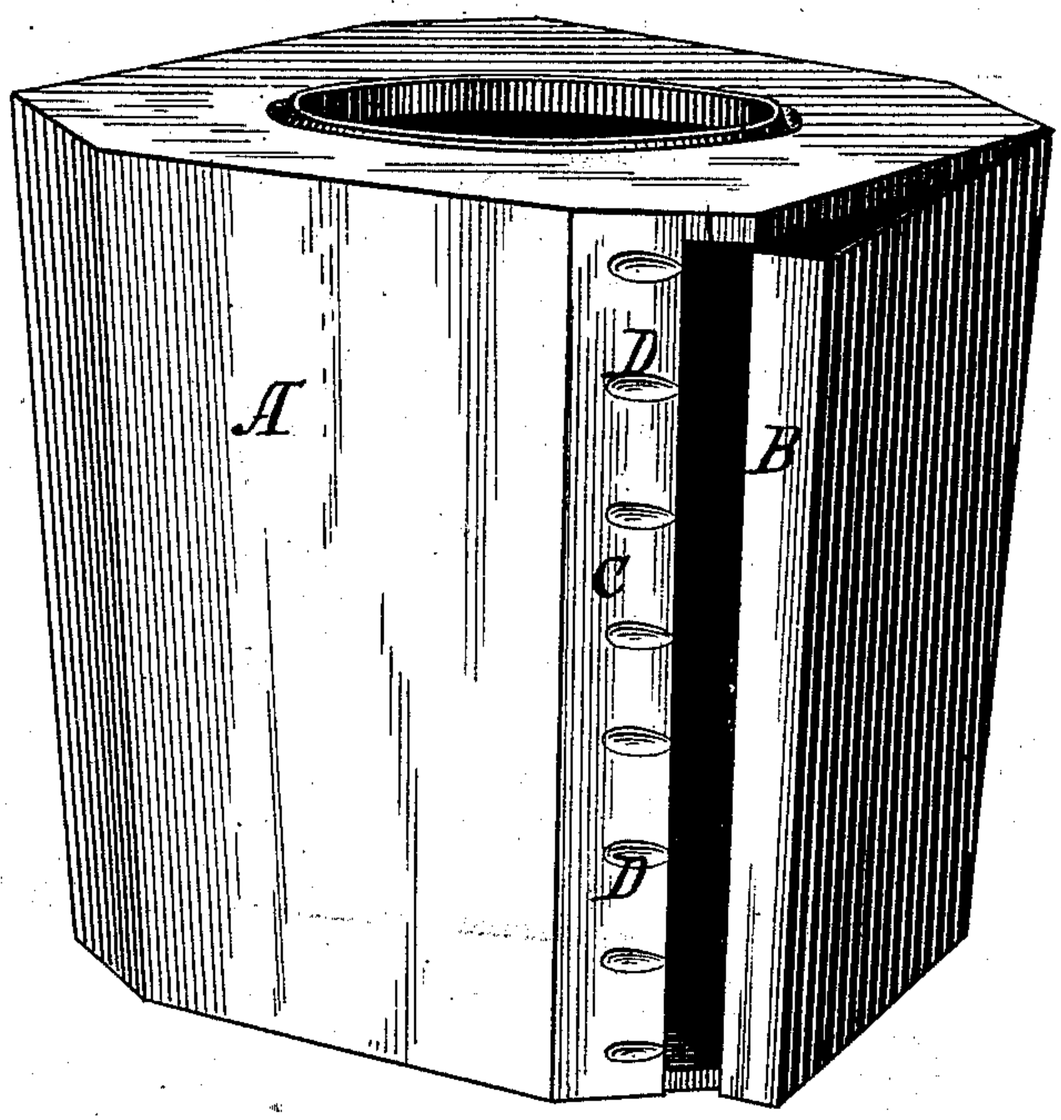
G. H. PERKINS & G. BROWN.

Metallic Cans.

No. 211,042. Patented Dec. 17, 1878.

Fig. 1



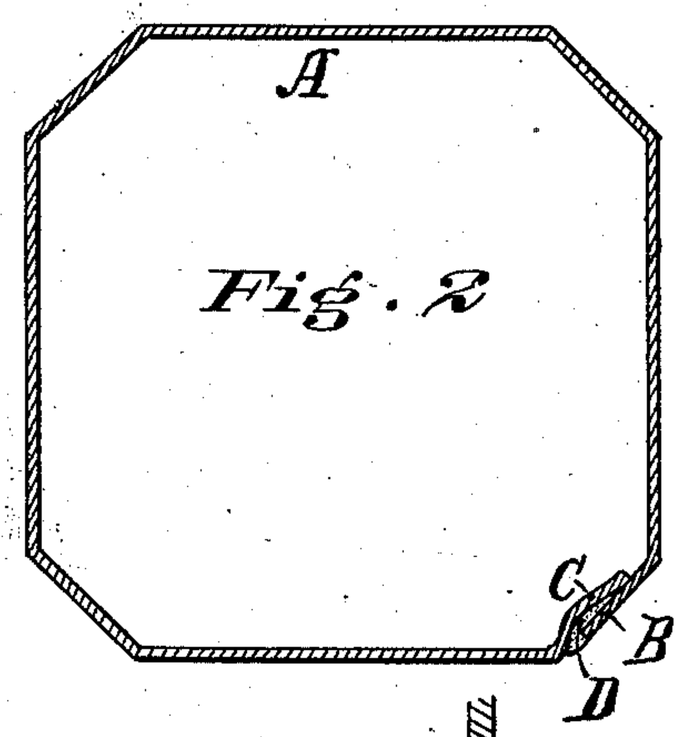


Fig. 2

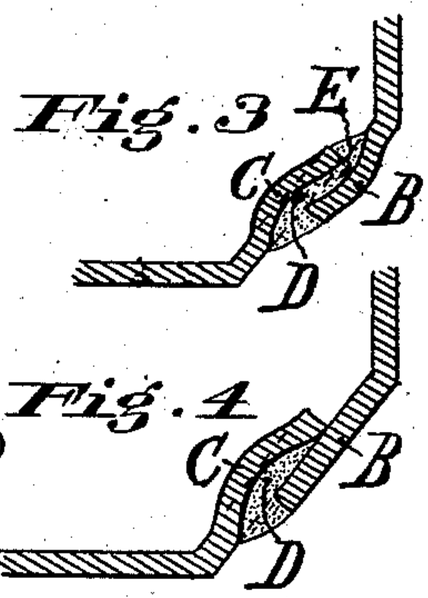


Fig. 3

Fig. 4

Attests

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UNITED STATES PATENT OFFICE.

GEORGE H. PERKINS AND GEORGE BROWN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE HANNIBAL MEAT CO., (LIMITED,) OF SAME PLACE, AND OF HANNIBAL, MISSOURI.

IMPROVEMENT IN METALLIC CANS.

Specification forming part of Letters Patent No. **211,042**, dated December 17, 1878; application filed July 10, 1878.

To all whom it may concern:

Be it known that we, GEORGE H. PERKINS and GEORGE BROWN, both of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Metallic Cans, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part hereof, and in which—

Figure 1 is a view, in perspective, of a truncated pyramidal can embodying our improvement in its simplest form, the side body of the can not being soldered up, but being spread for clearer illustration of the structure of the seam; Fig. 2, a transverse section of a sealed can similar to that of Fig. 1, the cutting being through one of the soldered-up indentations, so as to illustrate the strengthening-arch formed; Fig. 3, a magnified sectional detail transversely through the seam and through two opposing indentations respectively formed in the underlap and the overlap, the parts being filled with solder; and Fig. 4, a similar enlarged sectional detail of a seam with an indentation in the underlap alone.

Similar letters of reference indicate corresponding parts.

Our invention relates in general to that class of metallic cans which are used to contain fruits, preserves, paints, and other hermetically-sealed contents; and relates more specifically to the construction of the side seam of the body, but is by adaptation applicable to other seams.

It consists, substantially, in a seam for metallic cans formed by the flat overlap of two portions of metal, one or both of the lapping portions of which is or are provided with a series of indentations, grooves, channels, or the like, struck or formed therein, but not perforating the metal, and approximately transverse to the longitudinal line of the seam, and partly beneath one or both of the lapping portions, so as to form stiffening-ribs across the seam, and adapted to effectuate a tight joint by insuring the soaking in of the solder into the channels and beneath the laps, so as to secure the portions together.

Referring to the drawings, A represents the body of a truncated pyramidal can; B, the overlap of the seam; C, the underlap, and D the channels in the same.

It is preferred that the overlap shall not extend to the outer point of the depressions in the underlap, and that the channels shall be of almost the width of the lap it is desired to make, so that a portion of the channels shall be exposed. When, therefore, the soldering-iron is applied to the seam, solder will not only flow along the edge of the lap, but will also flow down into the channels, thus effectuating a well-soaked and united seam, not only tight but strong, for the solder in the channels forms a re-enforcement, so to speak, of the seam, being in effect a series of solder-ribs across the seam.

E in Fig. 3 represents an indentation in the overlap similar to those represented in the underlap.

The indentations are formed, as stated, either in one lap or in both laps, and either so as to come in line one above the other, or so as to alternate or come irregularly. They may, however, be formed wholly in the overlap or wholly in the underlap. We consider it preferable to form them wholly in the underlap, as shown in Fig. 1.

We are aware that in the art of uniting metal plates and forming metal seams holes or perforations cut entirely through one of the portions to be united are old as a means for securing the flow of solder from one portion to the other; and to a hole or perforation as a means of facilitating the soldering of metal we lay no claim.

The essence of our invention lies in providing one or both of the flat laps of metal, which are united by solder to form a seam, with a series of depressions or channels approximately transverse to the longitudinal axis of the seam, which, by reason of their construction, when filled with solder, form a series of solid ribs or stiffening-arches across the soldered seam, and by their form stiffen and strengthen said seam, enabling it to resist strains which otherwise it would be incapable of.

Having thus described our invention, we

claim and desire to secure by Letters Patent of the United States—

1. A seam for metallic cans, formed by the flat overlap of two portions of metal, one or both of the lapping portions of which is or are provided with a series of indentations struck or formed therein, but not perforating the metal, and approximately transverse to the longitudinal line of the seam, so as to form stiffening-ribs across the seam, substantially as described.

2. A lap-seam for metallic cans, one or both of the overlapping portions of which are provided with indentations approximately transverse to the line of the seam, the edge of each lap being so arranged as to but partially cover up the indentations in the other lap, in order to allow the free access of solder into said indentations in the soldering of the seam, substantially as described.

In testimony whereof we have hereunto signed our names this 24th day of June, A. D. 1878.

GEORGE H. PERKINS.
GEORGE BROWN.

In presence of—
W. C. STRAWBRIDGE,
J. BONSALL TAYLOR.