

C. & G. Fisher,

Soldering Clamp.

N^o 67,969.

Patented Aug. 20, 1867.

Fig. 1

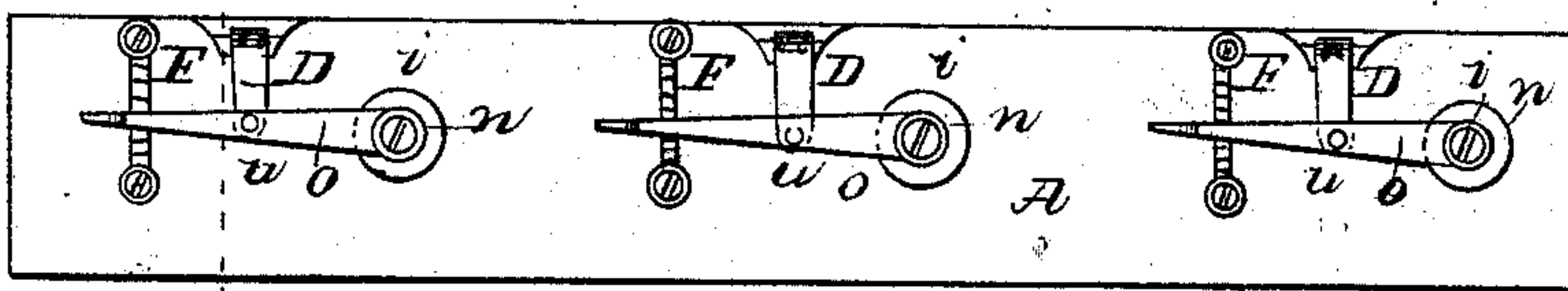


Fig. 2.

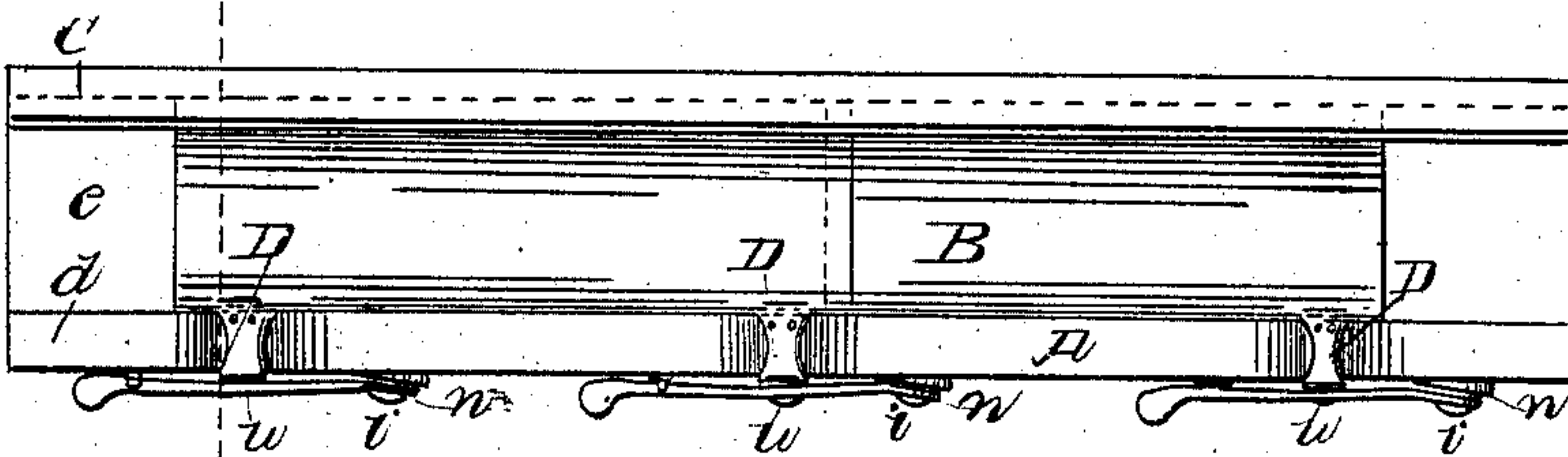


Fig. 3.

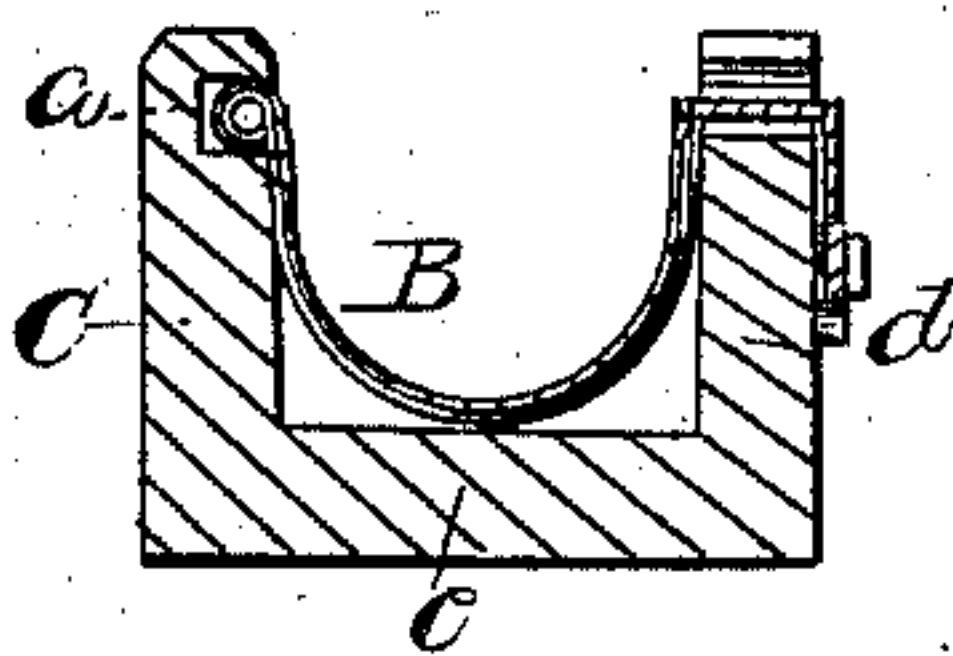
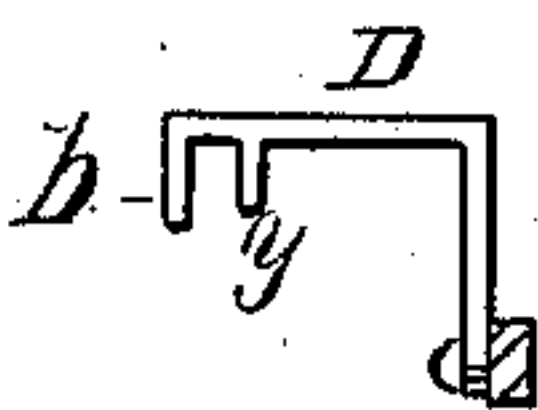


Fig. 4



Witnesses:
J. A. Jackson.
Wm. Frewin.

Inventors.
Chas. Fisher.
Geo. Fisher.
Per. Mann & Co.
Attorneys.

United States Patent Office.

CHARLES FISHER AND GEORGE FISHER, OF TECUMSEH, MICHIGAN.

Letters Patent No. 67,969, dated August 20, 1867.

IMPROVEMENT IN APPARATUS FOR SOLDERING EAVES-TROUGHS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHARLES FISHER and GEORGE FISHER, of Tecumseh, in the county of Lenawee, and State of Michigan, have invented a new and improved Apparatus for Soldering Troughs; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The nature of our invention consists in constructing an apparatus in such a manner that in manufacturing tin, zinc, or sheet-metal troughs or gutters, they may be held firmly in their place while the different sections are being soldered together. It more particularly consists in providing a trough, and also providing any suitable or convenient number of levers, upon which are pivoted clasps provided with flanges or lips, which fit over the edge of the trough or gutter and hold it in a firm position while it is soldered.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

Figure 1 is a side elevation of our improved apparatus for soldering troughs or gutters.

Figure 2 is a plan view of the same.

Figure 3 is a transverse vertical sectional elevation from the line *x x*.

Figure 4 is a detailed-view of the clasp.

Letters of like name and kind refer to like parts in each of the figures.

A represents a wooden box or trough, composed of three pieces, *d*, *e*, and *e*, of suitable dimensions. In the side piece *e*, near the top, and upon the inside, is a groove, *a*, for the purpose of holding one edge or side of the sections of the gutter when it is designed to be soldered. Upon the outside of the side piece *d* are levers, *o o o*, pivoted by bolts at *i i i*. At a proper point upon these levers *o o o* are pivoted, at *w w w*, clasps *D D D*, which extend upward over the top of the box, so as to engage the gutter and hold it in position while being soldered. The ends of these said clasps are provided with a lip or flange, *b*, also pintles *y*, fig. 4, which fit down by the side of the edge of the gutter to prevent it from binding while being soldered. *F F F* are ratchet-bars, secured to the outside of the side piece *d*, in which the pivoted levers *o o o* engage, for the purpose of holding down the gutter and keeping it in position while being soldered. At the pivot or bearing *i* of the levers *o* are cam-washers *n*, through which the pivot-bolts pass to keep them in place. These cam-washers are for the purpose of throwing the clasps *D* from over the edge of the trough and gutter, when the lever *o* is raised so it can be removed from the apparatus and more sections placed therein to be soldered.

This apparatus is simple and cheap in its construction, and very convenient and useful for the work designed.

The old method of holding gutters to be soldered is a slow, laborious, and imperfect process, it consisting in placing the gutters in a trough or box and bringing the sections as near their positions as possible, and nailing the edges to the side of the trough or box until soldered, by which means a large amount of solder is wasted in filling up the imperfections of the joints of the sections, as they cannot be brought to a perfect bearing by the old method.

By our invention all this difficulty is obviated, as we are able, by means of the levers, to bring the joints of the different sections to a perfect bearing, by which a larger amount of solder is saved, and much neater work is made in much less time.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The construction and arrangement of the right-angular clasps *D*, provided upon the inner end with a flange, *b*, and pintle pivoted to the lever *o*, and adjusted by means of the ratchet-bars *F*, substantially as described for the purpose specified.

2. We claim the cam-washers *n n n*, so as to throw or carry the levers *o o o* and clasps *D D D* out from over the edge of the trough or box *A*, when the said levers are raised up, so that the gutter can be removed, substantially as shown and described and for the purposes set forth.

CHAS. FISHER,
GEORGE FISHER.

Witnesses:

A. B. VAN DE MARK,
J. M. BLANCHARD.