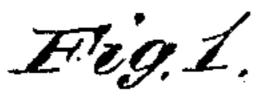
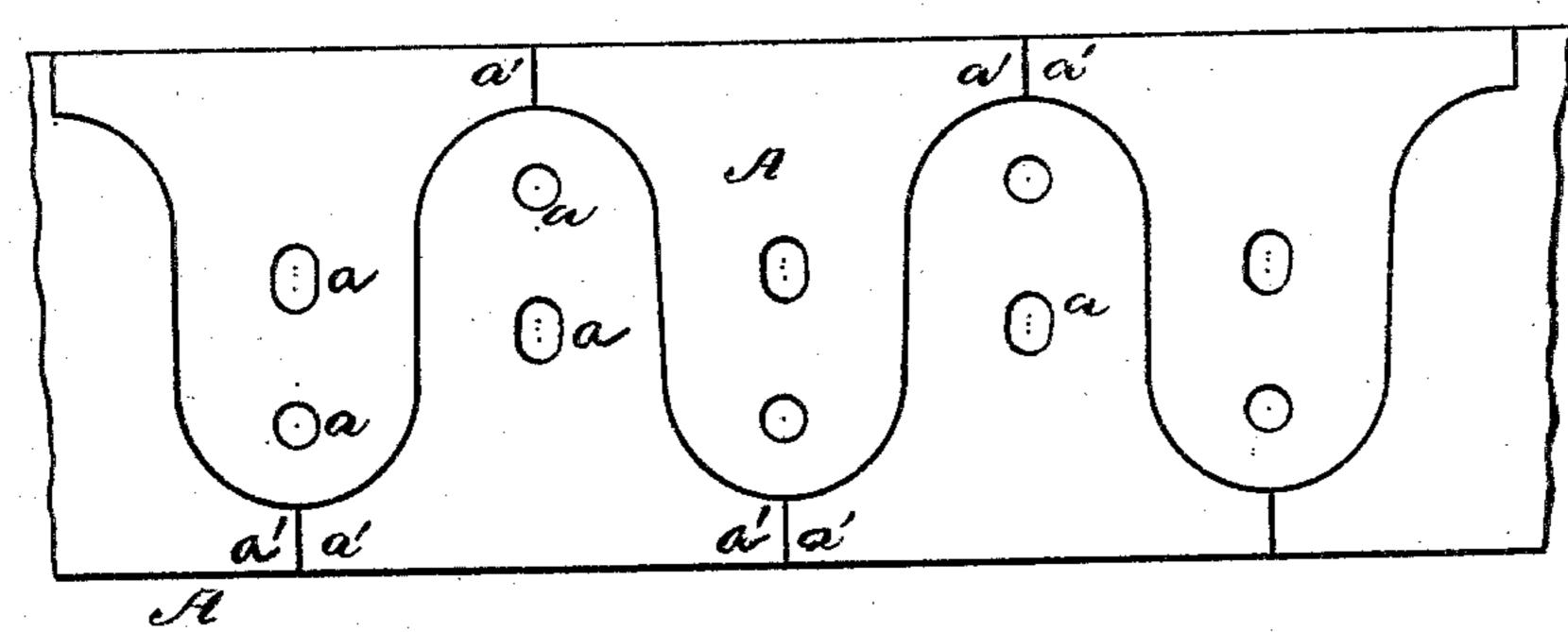
## R. C. LUDLOW.

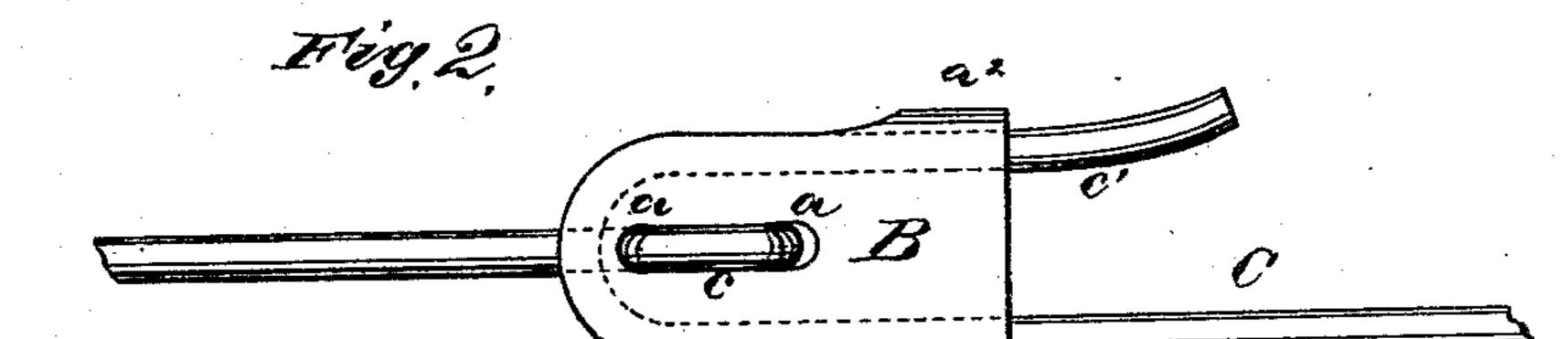
BALE TIE.

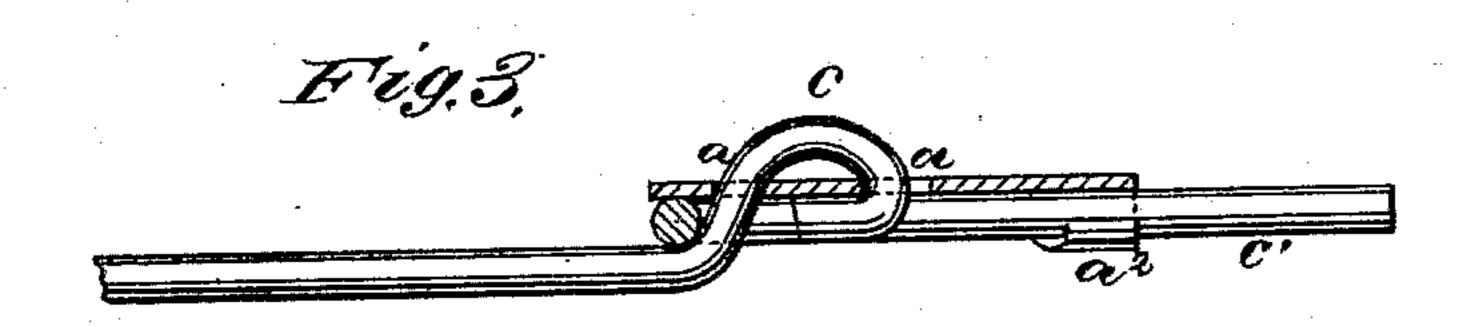
No. 179,578.

Patented July 4, 1876.









WITNESSES

Mo. F. Authy. 696 Bath

By

Richard 6. Ludlow. Silvere Smitht Co. Attorney

## UNITED STATES PATENT OFFICE.

RICHARD C. LUDLOW, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. 179,578, dated July 4, 1876; application filed May 20, 1876.

To all whom it may concern:

Be it known that I, RICHARD C. LUDLOW, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and valuable Improvement in Bale-Ties; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of the plates as cut by the die, and Fig. 2 is a plan view of my bale-tie. Fig. 3 is a longitudinal vertical sectional view thereof.

This invention relates to means for fastening bale-ties; and it consists, mainly, in the blank, which is adapted to be folded into a fastening-plate, and which is constructed by stamping with a die from a strip of sheet metal without waste of material. It also consists in the combination of a fastening-plate, which is doubly perforated and provided with two bent arms or catches for engaging with the tie-wire, as hereinafter set forth and claimed.

In Fig. 1 of the accompanying drawings, A designates the blank, which is perforated at a a, and provided with ears or extensions  $a^1$   $a^1$  projecting outwardly, which are adapted when folded over to form catches  $a^2$   $a^2$ , shown in Figs. 2 and 3.

It will be observed that the shape of the blank A is such that in stamping from a strip of metal a double series of such blanks will be formed; those on one side of the strip facing those on the other side and exactly filling the space between them. Consequently there is no waste of material in the process of manufacturing the blanks.

In Figs. 2 and 3, B represents the fastening-plate, formed from the blank A, shown in Fig. 1. The catches  $a^2$   $a^2$  are employed for holding one end, c', of the wire-tie C; the other end, c, of said tie is fastened to said plate B through the holes a  $a^1$ . One or both of these holes may be made oblong in shape. I prefer to give such oblong shape to the inner hole, as that is the one on the edges of which the strain chiefly comes.

In practice, the end c of tie-wire C is first secured through the holes a a in plate B, as shown. Then the other end, c', of the tie-wire C is passed around the bale and under one of the catches  $a^2$   $a^2$ ; thence around the other end, c, of tie-wire C, and back under the other catch  $a^2$  of plate B, effectually fastening the device. My bale-tie fastening may be detached and used over again.

This invention is intended as an improvement on the bale-tie shown in my Letters Patent dated April 4, 1876, No. 175,720.

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

The manufacture of a double series of baleties from a single strip of sheet metal of a given width, without waste of material, as shown, said bale-ties having outwardly-projecting extensions  $a^1$   $a^1$ , for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

RICHARD C. LUDLOW.

Witnesses:
EDWARD WELSH,
ALFRED CLIFFORD.