T. BAILEY.

BALE-TIE.

No. 172,947. Patented Feb. 1, 1876.

Fig. 1.

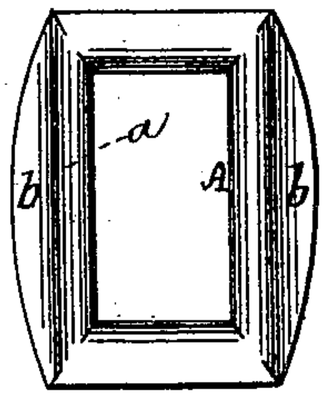


Fig. 2.

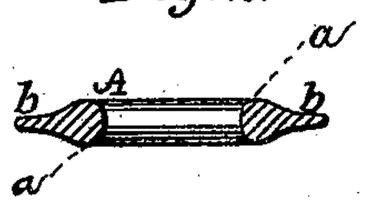


Fig. 3.

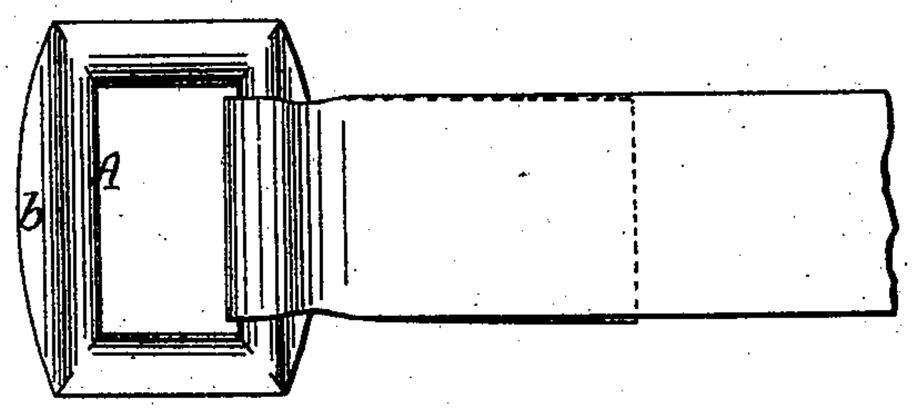
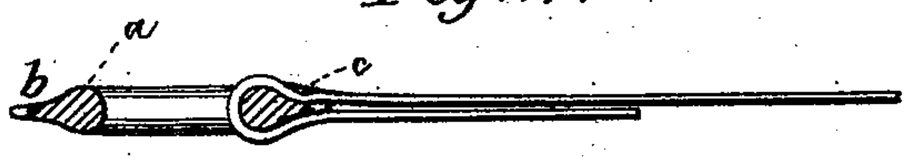


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS BAILEY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **172,947**, dated February 1, 1876; application filed September 16, 1875.

To all whom it may concern:

Be it known that I, THOMAS BAILEY, of the city and county of San Francisco, in the State of California, have invented certain new and useful Improvements in Bale-Tie Links; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description thereof.

The object of my invention is to provide a bale-tie link which can be economically furnished, which possesses great strength, and which is so formed that the metallic tie with which it is to be used can be readily bent around it and made to hold the link in a position convenient to receive the opposite end of the tie when it encircles the bale. Various forms of links have heretofore been made; but, owing to the great strain thereon incident to their use, they have heretofore been specially liable to breakage, except when composed of wrought-iron or steel, and these latter are too expensive to warrant their general use.

In the use of tie-links in baling, it is desirable, when one end of the tie is secured by being passed through the link and bent thereon, that the link will maintain a position in a line with the tie, so that the operative may readily pass the opposite end of the tie through the link, and then have both hands available for completing the final bend of the tie.

I attain, by reason of my invention, an inexpensive tie, having great tensile strength, and one which can, after one end of the tie is bent thereon, be maintained in the same line as the bent portion of the tie; and my invention consists in a closed bale-tie link, composed of malleable cast-iron, having a rectangular opening, and sides which are provided with a convex web.

Referring to the drawings, Figure 1 represents in side view one of my improved tie-links. Fig. 2 represents the same in lateral section. Fig. 3 represents the same in side view, with a tie bent thereon. Fig. 4 represents the link and tie as viewed from the edge, with the end of the link removed.

A denotes the sides of the link with which the bale-tie engages. Their inner surfaces at the rectangular opening are carefully rounded, so as to afford a good bearing for the tie and prevent the latter from being cut or cracked while strained. The upper and lower surfaces have the rounded rib, as at *a*, and the edges of the two sides are convex and formed into a web, as at *b*, which extends from end to end of the link, at the center much wider than at either end. By means of the thin web the sides are rendered of the requisite strength without incurring excessive weight of metal. These links are cast by the usual processes, and then rendered malleable by annealing, in the well-known and long-practiced methods. When connected with the tie, as shown in Figs. 3 and 4, a sharp blow with a blunt chisel or other similar tool on each edge of the tie, closely adjacent to the ends of the link, results in a depression in the tie, as shown at *c*, thus binding the link closely at the narrowest portions of its side, and the projecting web at the center, by being in contact with the inner surface of the tie at the bend, causes the link to be rigidly held in a line with the tie, and in a convenient position to receive the opposite end of the tie when ready for insertion.

Bale-ties constructed in accordance with my invention have been thoroughly tested, and the novel features thereof have proved to possess great practical value.

I am aware that an open bale-tie link has heretofore been made of rolled wrought-iron, and provided with a straight web on its sides. Such links are expensive, and, being open, and thereby weakened, are necessarily of considerable bulk and weight.

My improvement in links involves not only great economy in their manufacture, so far as labor is concerned, (when compared with wrought-metal links,) but also in the lessened weight of metal required, on account of their being closed links, and for this latter reason they are very strong, and I find, in practice, that they are readily manipulated in baling.

Having thus described my invention, I claim as new—

A closed bale-tie link, composed of malleable cast-iron, and provided with a rectangular opening, and with rounded ribs and convex webs at its sides, substantially as described.

THOMAS BAILEY.

Witnesses:

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