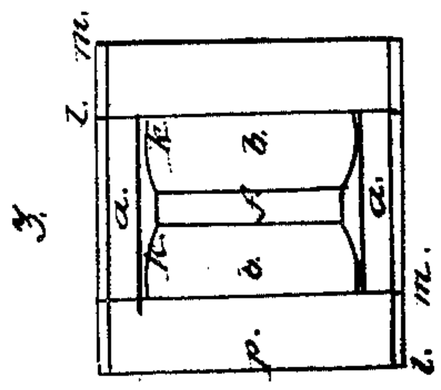
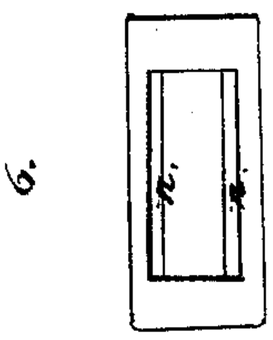
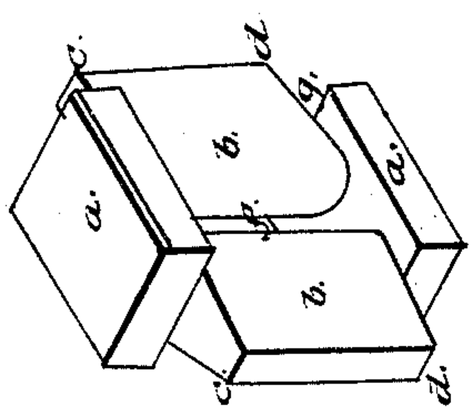
C. Warner,

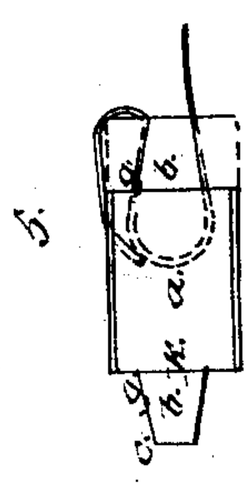
Cotton Bale Tie.

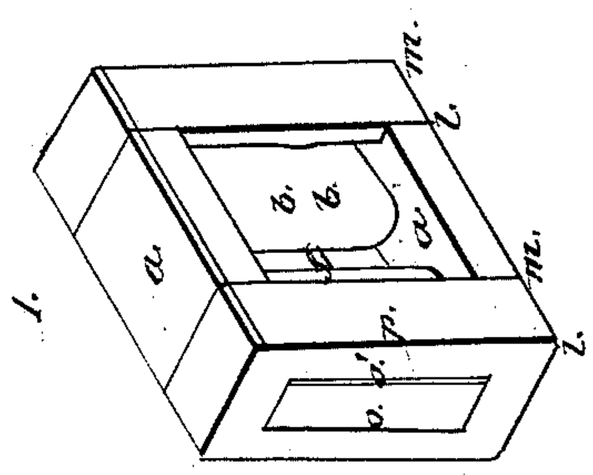
No. 23,281. Patented Mar. 15. 1859.

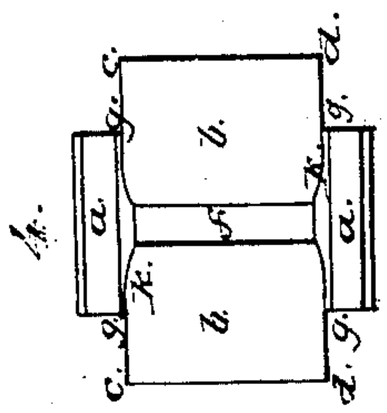












Witnesses:
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S. b. Duckhouse

Inventor:
Chapman Warner.

UNITED STATES PATENT OFFICE.

CHAPMAN WARNER, OF NEW YORK, N. Y.

IMPROVEMENT IN CLASPS FOR THE ENDS OF BANDS OF IRON.

Specification forming part of Letters Patent No. **23,281**, dated March 15, 1859.

To all whom it may concern:

Be it known that I, CHAPMAN WARNER, of the city, county, and State of New York, have invented a new and Improved Clasp for Connecting Bands of Iron or other Material; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view of the whole clasp. Fig. 2 is a perspective view of the buckle. Fig. 3 is a plan of the whole clasp. Fig. 4 is a plan of the buckle. Fig. 5 is a side view of the buckle. Fig. 6 is a plan of the sleeve.

My invention consists in the following mode of constructing the clasp, viz: It is composed of three parts, an inflexible buckle and two sleeves, the buckle having an opening in the middle and a wedge-shaped projection or tongue at each end, upon which the sleeve fits loosely, space enough being left between them to admit the insertion of hoop-iron or other material of any required thickness, which, passing around the tongue through the opening in the center, is clasped firmly to it by the sleeve, over the upper edge of which the end of it is bent, being thus more tightly held as the strain upon the band increases.

To enable others skilled in the art to make and use my invention, I proceed to describe its construction and operation.

The buckle, Figs. 2, 4, 5, is a solid casting; but in describing it may be considered as composed of four separate parts—that is to say, of two side pieces, *a a*, and two projecting tongues, *b b*, Figs. 1, 2, 3, 4, 5. Each side *a a* is three-quarters of an inch long, a little more than half an inch high, and from two and a half to four-sixteenths of an inch thick, the former at the top and bottom and swelling to the latter in the middle.

The tongues *b b* are in the form of a truncated wedge, being five-sixteenths of an inch thick at the back, which is rounded, and three-sixteenths thick at the line *c d*, where they are cut off. They are each about three-quarters of an inch wide by nine-sixteenths long. They are placed in a horizontal position and back to back, leaving a space between them a little more than equal to twice the thickness of the material to be clasped, as at F. One-half their length projects beyond the ends of the sides, and the other half forms with the sides a solid casting.

From the dimensions above given it will be seen that where the union of the sides with the tongues is formed the former project above and below the latter about the eighth of an inch, as at *k*, the design of which is hereinafter explained. The plan of this piece, Fig. 4, shows a figure composed of two wide, *b b*, and two narrow, *a a*, parallelograms, the longer sides of the wider lying adjacent to, but slightly separated from, each other, as at *f*, while the narrower inclose at each end the space left between the others and lap over upon each of them about one-half their width, as at *g*. The length of the sleeves *l m*, Figs. 1, 3, is nearly equal to the projection of the tongue. The internal surface, *n n*, Fig. 6, conforms to its wedge shape, the sides of the one being parallel to those of the other, but leaving a space, *o o'*, Fig. 1, between their upper and lower sides equal to the thickness of the material employed as a band, being in the specimen herein described about the thirty-second of an inch. Externally the opposite sides of the sleeve are parallel to each other, conforming to the size of the sides of the buckle, Figs. 1, 3, and forming a continuation of their external surfaces. Thus, when the hoop-iron (if that be the material used) is bent, as before described, over the upper outer edge of the sleeve and depressed into the central opening, the sleeve presents no projection beyond the adjacent surface, but is in all directions protected by the sides of the buckle and by the band itself from the effect of any force which might have a tendency to detach it from the tongue.

In using the clasp the end of the band is first passed through the sleeve, entering it on the side of the smaller opening, thence under and around the tongue through the central opening, *f*, and again through the sleeve at *o'*, which is then pressed upon the tongue and the end of the band bent over it, as above mentioned, and depressed into the central opening in order to prevent its being caught by any substance with which it might come in contact, as well as to add to the security with which it is held.

The wedge shape of the tongue not only increases the facility with which the clasp may be used, but strengthens its grasp upon the band by increasing the friction and enabling

the operator to compress it at will; and bending the end over the top, while it affords the security above alluded to, also converts the force applied to draw the band from the clasp into the means of holding it still more firmly.

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

The construction of a clasp of any material or dimensions substantially of the form described, and illustrated by the accompanying drawings, with two wedge-shaped projecting tongues placed in the position, fitted with sleeves, and protected by sides, as above mentioned.

CHAPMAN WARNER.

Witnesses:

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