W. Chambers,

Bale Tie.

No. 109,804. Patented Dec. 6. 1870.

Fig. 1.

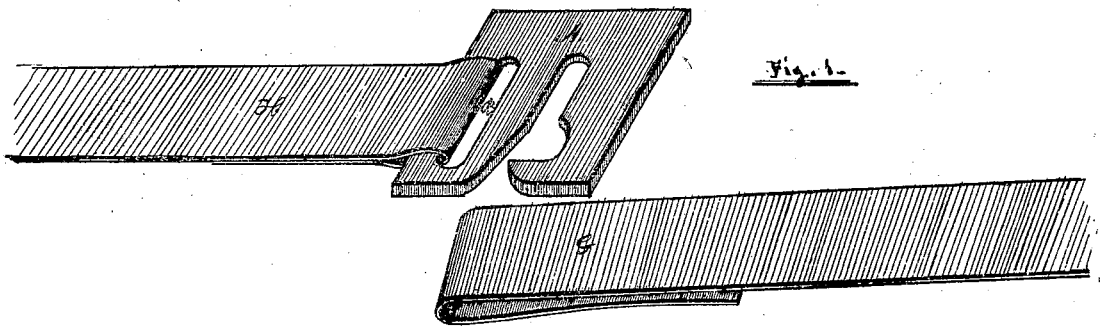
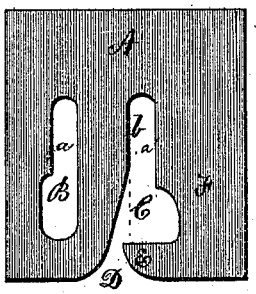


Fig. 2.



Witnesses

H. A. Jenkins

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UNITED STATES PATENT OFFICE.

WILLIAM CHAMBERS, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN COTTON-BALE TIES.

Specification forming part of Letters Patent No. **109,804,** dated December 6, 1870.

I, WILLIAM CHAMBERS, of New Orleans, Louisiana, have invented a certain Improvement in Cotton-Bale Ties, of which the following is a specification:

My improvement belongs to that class of ties or buckles wherein the butt-end of the band that is fastened to it is inserted through a side slit or cleft after the same has been folded into hook form.

It is characterized by two distinct features of novelty, the combined effects of which completely remedy the evils to which all existing side-slit ties are subject in actual practice. This I have demonstrated by repeated experiments.

The first of the novel points to which I have referred that distinguishes my improvement in its mechanical construction consists of a new mode of making the side slit for the introduction of the butt-end of the band into its slot and upon its bearing after it has been folded into hook form. The effect produced by this feature of my improvement is to make it simply impossible for said hook to be thrown out of the buckle—an accident to which all side-slit ties as heretofore constructed are exceedingly subject—under any circumstances whatever, or, in fact, to be withdrawn from the buckle without a twisting or torsion of the band to a certain extent by positive manipulation.

In respect to the side slit I wish in this connection distinctly to state that I am fully aware that, *per se*, it is neither new, nor patentable if it were. It has been in public use for a long period of time, and the making of it, so far from constituting an invention in the sense of the patent law, does not even require the exercise of the most moderate measure of mechanical skill, it simply forming a hook. It can, moreover, fulfill no function whatsoever irrespective or independently of some other thing or some other mechanical feature or part. Hence it will be understood that I lay no claim to such side slit beyond the mere or particular mode in which I make it, and then only in connection with the other novel feature of my improvement, which consists in so establishing the bearings for the two ends of the band within my tie that the tension is taken off the weakest side of the same and thrown on the strongest side, whereby I increase the power of the tie to resist said tension and avoid the evils resulting from its yielding thereto.

But my invention will be better understood by referring to the drawing, on which—

Figure 1 represents it as when fastened to one end of a band and in position to receive the other, and Fig. 2 is a plan or top view of it in detached form.

On the drawing, A marks the device as a whole, the same being cut out of plate-iron of suitable thickness to the proper size by a suitable machine, which at the same time cuts away the metal, so as to produce the slots B and C and the side slit or cleft D; or the device may be cast.

The slots B and C, it will be observed, are not of rectangular form, as hitherto they have generally been made, but each are so formed that the bearings for each end of the band extend only a little more than half the length of the slots, as shown at *a a'*. This throws the tension on the side of the tie which is opposite the slit D, which is the strongest side, because on it is an unbroken continuity of metal, and thus greatly increases the capacity or power of the tie to resist the strain which is induced by the elastic properties of the confined cotton within the bale.

The slit D enters the slot C at a point on the side of the buckle, which will cause the point E of the bar F to project a little beyond the side *b*, as is clearly shown at both figures. This makes it necessary, in introducing the end G of the band into slot C, to bend or twist the same slightly; but after this end is once in the slot and resumes its straight form the point E interposes an efficient bar against its being thrown out again by any shock, concussion, or other accident to which a bale of cotton can by possibility be subjected.

It will be seen, further, that the band can only be withdrawn from the slot C by twisting the same by hand. Hence it follows that the continual disconnections between the bands and buckles which now occur in respect to every side-slit buckle that is in use is completely remedied by my improvement.

The end H of the band is fastened in the usual manner to the buckle by passing it

through slot B B and folding it under, as shown in Fig. 1. This may be done at the factory or afterward, as convenience may dictate.

What I claim is—

The tie A, when provided with slots formed as shown at B and C, and a slit, D, entering the slot C in such manner as to produce the point E, as herein described, for the purpose set forth.

W. CHAMBERS.

Witnesses:

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