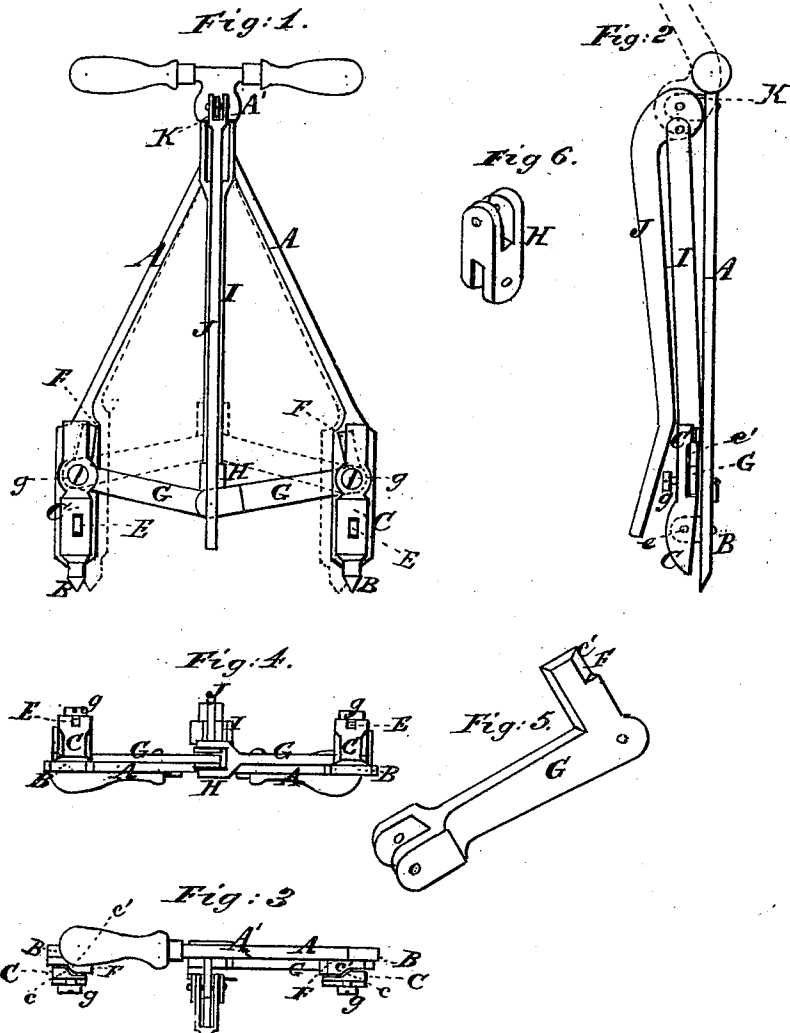


S. H. GILMAN.

MACHINE FOR UNTYING BANDS ON COTTON-BALES.

No. 171,659.

Patented Jan. 4, 1876.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL H. GILMAN, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO
LOUISIANA COTTON-TIE COMPANY.

IMPROVEMENT IN MACHINES FOR UNTYING BANDS ON COTTON-BALES.

Specification forming part of Letters Patent No. **171,659**, dated January 4, 1876; application filed
November 11, 1875.

To all whom it may concern:

Be it known that I, SAMUEL H. GILMAN, of New Orleans, parish of Orleans and State of Louisiana, have invented a new and Improved Machine for Untying Cotton-Bale Ties and taking off the bands without cutting them; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a top view of the machine out of action, the dotted lines showing the position of the various parts when in action. Fig. 2 is a side view of my invention when not in use. Fig. 3 is a front view of the machine inverted, one of the handles being broken away. Fig. 4 is a front view of the same in its proper position. Fig. 5 is a view of one of the elbow-links of the toggle-lever, showing inclined plane thereon, corresponding inversely to another incline plane upon the rear end of the upper jaw of the machine. Fig. 6 is a view of a connecting-joint, by means of which the links and connecting-rod are united.

The object of my invention is to unhook the iron bands from cotton-bales when they go to the compresses in the sea-ports to be compressed for shipment, and thus permit the bands to be taken from the bales without cutting them, as is now universally done, and obviating the necessity of riveting the cut ends together again for future use. I accomplish the object desired by an arrangement of levers, links, and jaws, by which the two ends of a tied band are seized and drawn together sufficiently to unhook the tie and allow it to be taken out. This arrangement is more particularly described as follows:

In the drawings, A A represent two rods or bars, united to each other at one end by a cross-piece, A', which forms handles, or to which wooden handles may be attached, and extended so as to form the sides of a triangle, as shown in Fig. 1. Beyond the base of the triangle thus formed the rods or bars A A are yet further extended on parallel lines, so as to form lower jaws B of a pair of jaws, B C. C C are the upper jaws, attached to studs E E of the lower jaws by pins e e, so as to vibrate

vertically upon the pivots thus formed, and having a portion of their under surface in rear of the studs E cut away, as shown in Fig. 2. These upper jaws are also provided with inclined planes c c on the under surface of their rear ends, which inclined planes slope upward and inward toward each other and the central connecting-rod of the machine. G G are links or arms of a toggle-lever, and are provided with elbows F F and the inclined planes c' c', corresponding inversely to the inclined planes c c on the under surface of the rear end of the jaws C C. These links or arms are united at their elbows to the jaws B C by screws or pins g g, as shown in Figs. 1 and 2, and to each other and the connecting-rod I by means of the connecting-joint H. These screws or pins g g pass loosely through the upper jaws C C, so as to permit the latter to have a free movement up and down as they vibrate upon the studs E E. J is a lever, connected to the stud K at the point where the rods or bars A A are united together, and is the means whereby the machine is operated. To this lever, at its lower end, and near the point where it is connected to the stud K, one end of the connecting-rod I is attached, the other end being joined to the toggle-lever, as above set forth.

The operation of my machine is as follows: When not in use the free end of the lever J rests down upon the toggle-lever. When in this position the jaws B of the machine are thrust underneath the tied band, so that there will be one jaw on each side of the tie. The lever J is then brought over and back to the position indicated by the dotted lines in Fig. 2, which causes the toggle-lever to assume the position shown by the dotted lines in Fig. 1, and thus bring the rods or bars A and their prolongations (the jaws B) nearer together, as indicated by the additional dotted lines in the same figure. At the same time the inclined planes c c' on the ends of the upper jaws C and elbows F of the links G; by their operation against each other, elevate the rear ends of the jaws C, thus causing their forward ends to take, in conjunction with the under jaws B, a firm gripe upon the band, the ends of which are brought toward each other, as the toggle-lever is moved backward, by means

of the lever J and connecting-rod I. By thus bringing the two ends of the tied band together sufficient slack is created between the two jaws B to loosen up the tie and enable it to be easily unhooked and removed without cutting or in any wise injuring it for future use.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A machine having two pairs of jaws to seize and operate upon the two tied ends of cotton-bands, substantially as described.

2. The upper jaws C C, with an incline, c, on the under sides of their rear ends, substantially as described.

3. The elbowed links G F G F, substantially as and for the purpose described.

4. The combination of the pairs of jaws with the elbowed links G F, connecting-rod I, and lever J, substantially as described.

SAMUEL H. GILMAN.

Witnesses:

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