

J. J. McComb,

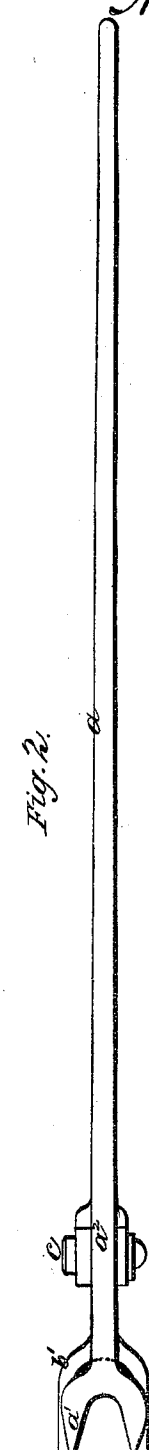
2. Sheets, Sheet 1.

Boat Tie.

Patented Oct. 23, 1866.

No. 59,151.

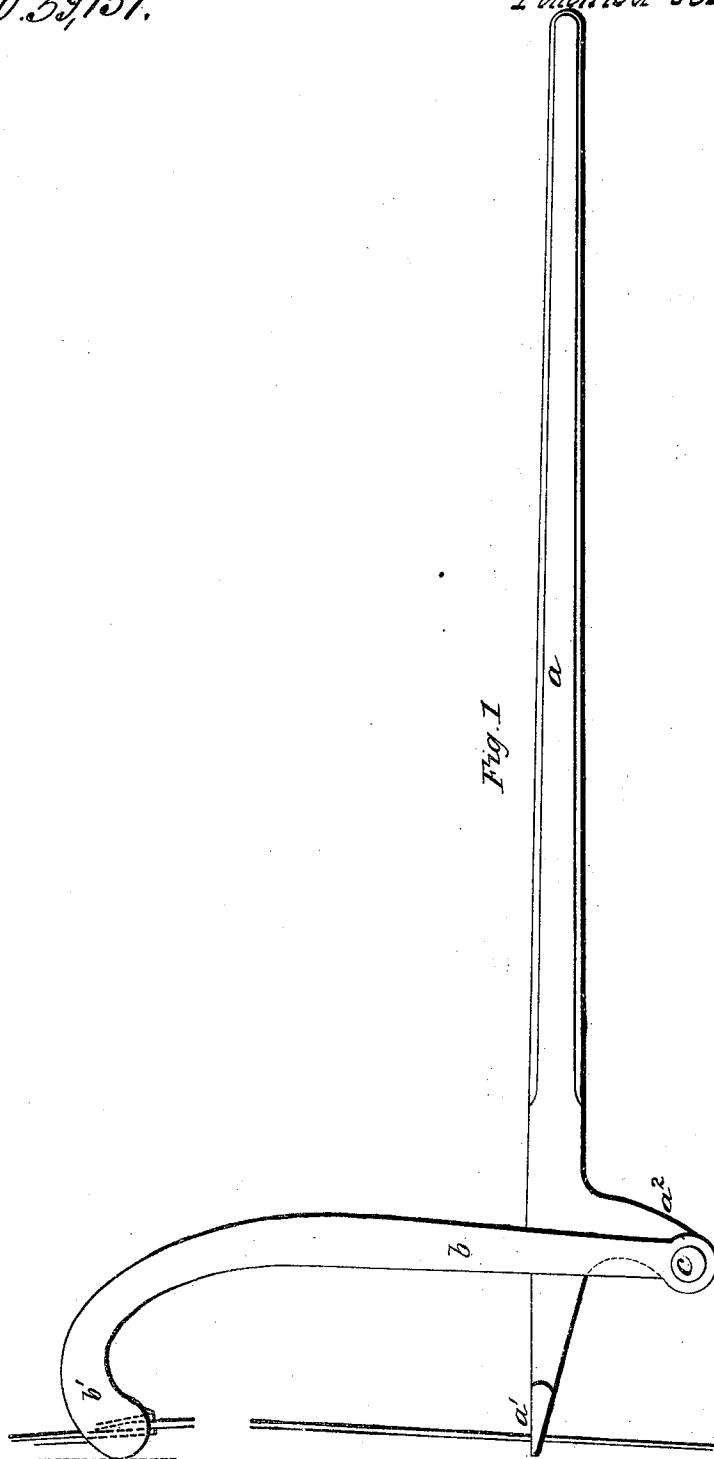
Fig. 2.



Witnesses.

J. D. Patton.
D. J. Chamberlain.

Fig. 1.



Inventor.

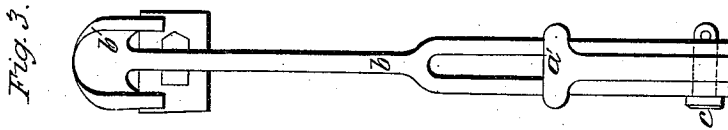
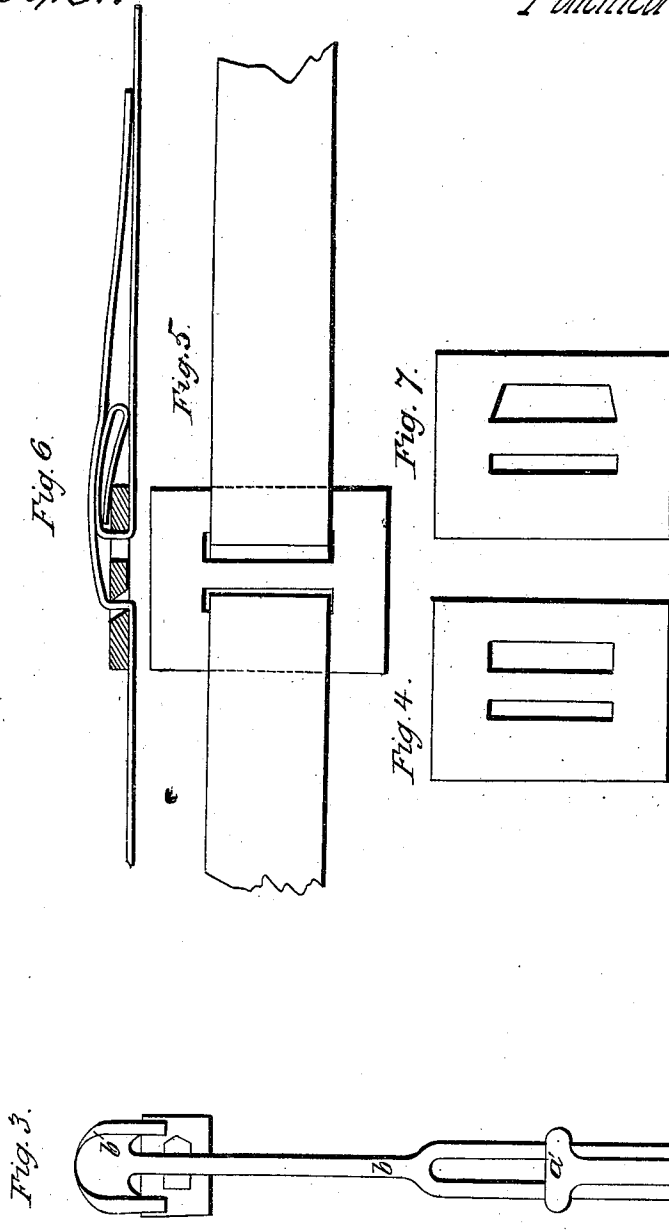
James J. McComb.
By Atty. A. B. Stoughton.

J. J. McComb,

Belt Tie.

No. 59,151.

Patented Oct. 23, 1899.



Witnesses.

J. D. Patten.
T. J. Chamberlain.

Inventor.

James J. McComb
By Atty A. B. Stoughton

UNITED STATES PATENT OFFICE.

JAMES J. McCOMB, OF LIVERPOOL, ENGLAND.

IMPROVEMENT IN APPLYING AND SECURING METAL BANDS ON COTTON-BALES.

Specification forming part of Letters Patent No. 59,151, dated October 23, 1866.

To all whom it may concern:

Be it known that I, JAMES JENNINGS McCOMB, at present residing at Liverpool, in the county of Lancaster, in that part of the United Kingdom of Great Britain and Ireland called England, a citizen of the United States of America, have invented certain new and useful Improvements in Ties for Connecting the Ends of Flat Metal Bands or Straps Surrounding Bales of Cotton and other Materials, and in the apparatus for facilitating the connection; and do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The nature of this my said invention consists of an improved grapple-lever for tightening the metal bands and facilitating the connection of the ends thereof with the improved nipping-ties or buckles, for one modification of which I obtained Letters Patent for Great Britain, dated 3d June, 1863, and numbered 1,390, and which modification consists of a small rectangular piece of metal having two transverse longitudinal slots formed therein to receive the ends of the hoop-iron or other metal bands used for binding the bales, which, on reference to the specification of the patent hereinbefore referred to, the said slots, cuts, or slits, it will be seen, are formed with rectangular sides and of a length equivalent to the width of the hoop-iron or other metal band.

One of the means I take to prevent the drawing or rendering of the bands is to form one of the sides of the slots in the buckle or tie-piece a little shorter than the width of the strap of hoop-iron or other metal to be used therewith, and one or both sides of each slot or opening is formed at a convenient angle, so that when the tension comes on, say, the wrought-iron strap the edges in contact with the angular side of the slot will naturally slide toward the vertical side, when one rectangular side is used, by the opposite side of the band sliding down the inclined side, thus causing the edge of the strap or band to be forced against the right-angular side of the slot, as the nipping-point of the buckle is a little shorter than the width of the strap, thereby, in most

cases where heavy pressure is used, causing an indentation to be made in the side of the strap, thus effectually preventing the strap being drawn through the buckle or tie-piece. When both ends of the slots are at an angle, when heavy tension is brought on the strap, a slight indentation will be formed on both edges of the strap, thus effectually preventing the rendering or drawing of the same through the buckle or tie-piece; and I prefer to cut the second slot in the tie-piece in an oblique direction, so as to form acute angles, against which the strap presses, thus forming a crank in the strap and effectually preventing the rendering of the same, as will be readily seen on reference to the accompanying drawings.

This my said invention also relates to an improved compound grapple-lever for applying the self-acting nipping-ties, and for which part of my invention I obtained Letters Patent for Great Britain, dated 2d June, 1864, and numbered 1,377.

In order to secure the compressed bale it is necessary to apply tension to the bands to draw their ends together while the bale is under pressure. To do this I have designed the improved grapple shown in the accompanying drawings, in which—

Figure 1 is a side view; Fig. 2, an inverted plan view, and Fig. 3 a front view.

It consists of a handle-lever, *a*, formed with a forked extremity, the prongs *a'* of which are pointed, for the purpose of being thrust into the bale to obtain a fulcrum for the lever.

Projecting from below the lever is a horn, *a²*, to which is jointed a grapple-iron, *b*, by means of a pin, *c*. This iron is divided up the middle for nearly half its length, in order that it may embrace the lever *a*, and yet leave it free to work upon the coupling-pin *c*. At its upper end this grappling-iron is formed with curved horns *b'*, which are notched at the under side of their extremities to catch onto the top edge of the fastening as it depends from the band the other ends of which it is desired to secure. By thus shaping the end of the grapple-iron it is enabled to lay hold of the fastening at either side of the band, as shown in Fig. 3.

The following is the mode of using the grapple: The pointed prongs of the handle-lever are thrust into the bale below, and in a line

with the pendent fastening, and by depressing the handle the horns of the grapple-iron are brought over the fastening and caused to engage therewith; then by further depressing the handle the grapple-iron will draw down the fastening and bring it within range of the free end of the band, which is then to be inserted into the fastening in the usual way. This being effected, the strain of the grapple is removed, and the coupled ends of the band will be held securely by the metal fastening.

Fig. 4 is one modification of my improved tie or buckle, having one of the slots formed in an oblique direction; and Fig. 5 is a plan of the same, shown with the ends of the bands engaged therewith, which are shown broken off; and Fig. 6 is a section of the same. Fig. 7 is a plan of another modification of my improved tie or buckle, having one of the holes or slots formed obliquely therethrough, and the other with oblique sides, so that that end of the band is held by the inclined sides. In this modification the two ends of the hole are shown inclined; but the same may be formed with only one inclined side.

Having now fully described and ascertained the nature of this my said invention, and how I believe the same may be best carried into practical effect, I wish it to be understood that I do not confine myself to the relative proportions or dimensions of the several parts of

the improved ties or that of the improved grapple-lever, as the same may be considerably varied without departing from the invention; but

What I claim as new and my invention is—

1. The peculiar form of the self-acting nipping-ties or metal-band lock for connecting the ends of metal bands surrounding cotton and other bales, as hereinbefore described and set forth, and forming the slots or holes through the same in an oblique direction, and also forming the holes or slots on one end a little narrower than the width of the metal band by forming the side or sides at an angle, substantially in the manner and for the purposes hereinbefore described and set forth.

2. The improved construction of grapple, jointed to and operated by a hand-lever, having pointed prongs, substantially in the manner and for the purposes hereinbefore described and set forth.

In witness whereof I, the said JAMES JENNINGS McCOMB, have hereunto set my hand and affixed my seal this 7th day of April, A. D. 1866.

JAMES J. McCOMB. [L. S.]

Witnesses:

WILLIAM WALKER,

Of 44 Castle Street, Liverpool.

J. H. REDMOND,

Secretary to the above Wm. Walker.