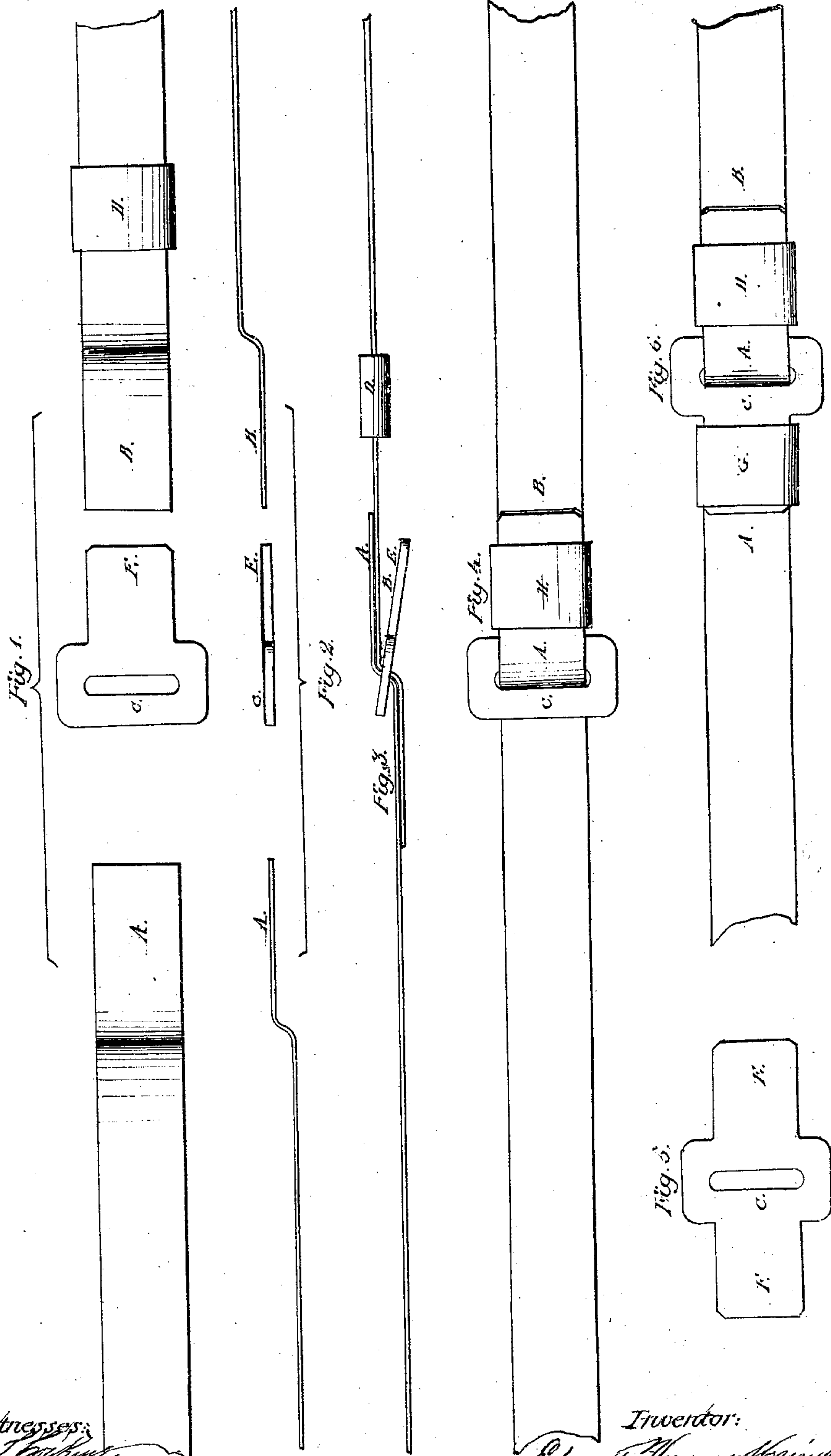


E. T. Mainwaring.

Cotton Bale Tie.

No. 90,761.

Patented June 1, 1869.



Witnesses:
James T. Cochran
William Leach

Inventor:
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United States Patent Office.

EDWARD THOMAS MAINWARING, OF TIPTON, ENGLAND.

Letters Patent No. 90,761, dated June 1, 1869.

IMPROVEMENT IN COTTON-BALE TIES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD THOMAS MAINWARING, of Tipton, in the county of Stafford, England, have made and invented a new and improved Bale, or Metallic Tie; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

My improvements consist in deflecting the surface at any suitable part, near the ends of the hoops, to the extent of about one-eighth of an inch, more or less, which may be effected by any convenient means.

Hoops thus treated, I propose tying or holding together for the confining, holding, or binding up of bales of merchandise, such as cotton, woven fabrics, or other like goods, usually packed or made up under great pressure, by a metallic tie of the following construction, viz:

I fashion a plate of metal, in a part rectangular form, with a rectangular hole formed in the same, the length of which should be slightly in excess of the width of the hoop.

This plate I prefer to be equivalent in thickness to the deflection at the ends of the hoop before referred to, and the width of the rectangular hole sufficient to allow the deflected portions of the hoops to lie within the slot.

On one or both sides of such rectangular tie, a shank or shanks are formed, of the width of the hoop, around which and the ends of the hoop a metal clip or clips slide, and when thus adjusted, form a simple, efficient and ready means of tying or holding together the ends of thin hoop-iron, as used for baling up merchandise.

On reference to the accompanying drawings—

A and B, Figure 1, represent, in flat view, two ends of hoop-iron, bent and arranged for being held together by means of the tie C; also the tie C and the loop D.

Figure 2 represents the same parts in edge view, minus the clip D.

Figure 3 represents the several parts together, requiring only the strap of the tie marked E to be brought up in a line with A and B, when the clip D may be slid over the three, holding them firmly in contact.

Figure 4 represents all the parts firmly secured together, and which may be undone or disunited without the slightest injury to the parts, by slipping the clip D off from the tongue E of the tie C, and the end

of the strap A, and deflecting the same so as to allow the straps to slip freely through the opening in the tie C, and rearranged, or the deflections otherwise placed for re-use, as frequent as may be necessary.

At Figure 5, I have exhibited the tie C, with an additional shank, marked F, merely to show that it may be so made, if necessary; and

Figure 6 represents the double-shanked tie in use, and held by an additional clip, marked G.

The principle of constructing, fashioning, and uniting, or securing the ends of thin iron, as herein exhibited, for the purpose of confining or holding bales of cotton, woven fabrics, or other raw or wrought merchandise, is applicable to all sizes, strengths, and widths of hoop-iron which are invariably used for this purpose.

I have not thought it necessary to exhibit any particular apparatus or appliances for bending the hoops into the suitable deflected form, as exhibited at figs. 2 and 3, as it is obvious that this may be readily effected in such a variety of ways, that description is unnecessary, beyond merely stating that I have adopted the use of a piece of iron, large enough for screwing to a stand, with a hinge-joint at one end, and a slight projection as near the joint, or fulcrum as possible, and also to the height of the deflection required in the hoop, and with, by preference, an opening at the back for the hoop to slide through; and, in connection with this bed, or bottom part, I use a top part, similarly constructed with the hinge-joint and counter-projection, with an extended lever-handle, that by sliding the iron through the opening and into position, the mere pressing down of the lever will be sufficient to form the desired deflection.

I do not claim a bale-tie in which the ends of the hoop are bent through a slotted plate, back upon themselves, and secured by clips, as I am aware that the same has heretofore been used; but, having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The bale-tie, consisting of the rectangular slotted plate C, having one or more extended sides E, and applied to the deflected portion of the hoop A, in the manner described, and secured thereto by the clip or clips D, as herein set forth, for the purpose specified.

EDWARD THOMAS MAINWARING.

Witnesses:

JAMES S. COCKINGS,
WILLIAM LOACH.