

B. KIMBALL.
Cotton-Bale Ties.

No. 143,911.

Patented Oct. 21, 1873.

Fig. 1.

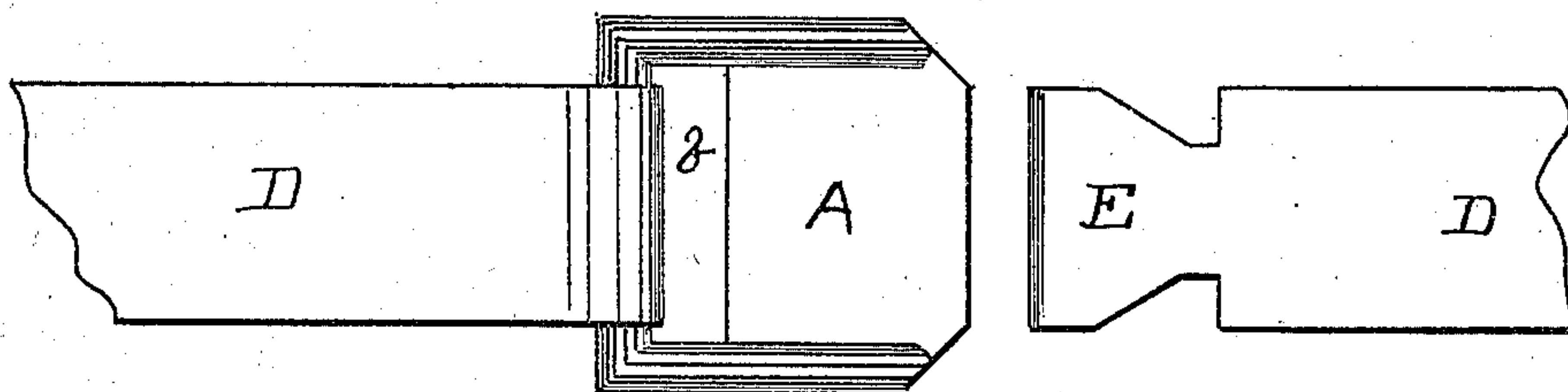


Fig. 2.

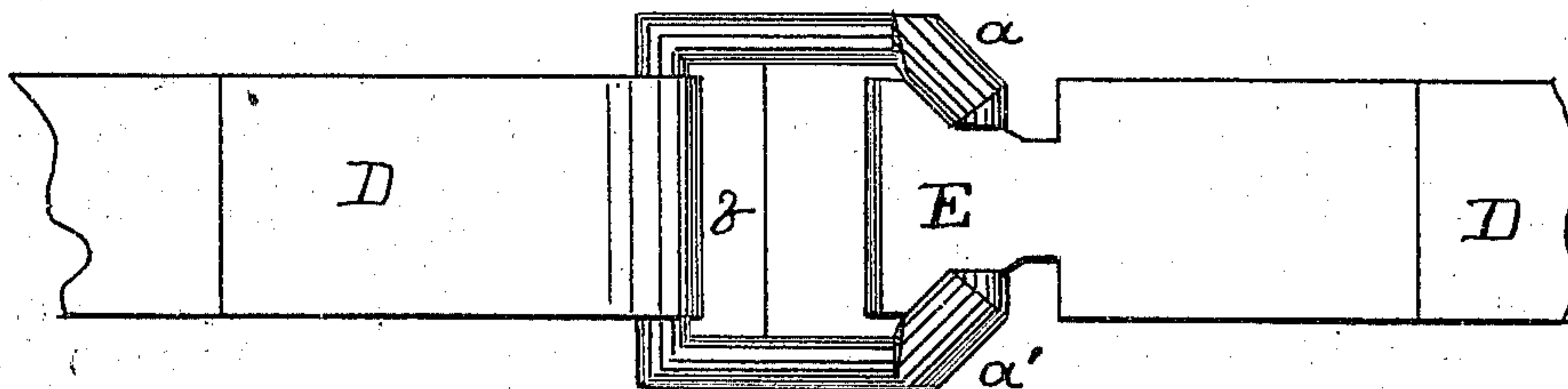
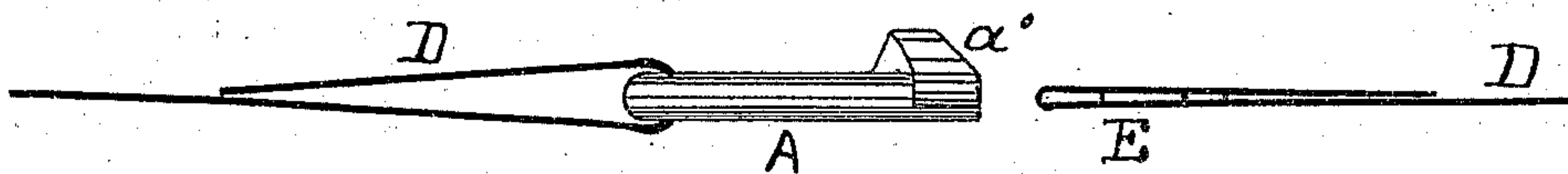


Fig. 3.



WITNESSES
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BENJAMIN KIMBALL, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COTTON-BALE TIES.

Specification forming part of Letters Patent No. **143,911**, dated October 21, 1873; application filed October 2, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN KIMBALL, of the city and county of St. Louis, State of Missouri, have invented a new and useful Improved Cotton-Bale Tie, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a back view of same. Fig. 2 represents a face view of same. Fig. 3 represents a side view of same.

Similar letters indicate like parts.

The object of my invention is to produce a metallic tie for use especially on cotton-bales in connection with the usual metallic hoops, and to obtain one which shall be easily adjusted, cheap of construction, and a secure fastener under all the conditions to which such devices are exposed when in actual use.

It consists of a metallic plate, A, Figs. 1, 2, 3, having the two corners turned up and back so as to form two ears, *a a'*, as seen clearly in Fig. 2. In the back or side opposite that having the ears is a slot, *b*, into which one end of the hoop D is inserted, and permanently fastened by being turned back upon itself, as seen in Figs. 2, 3, or in any other convenient and appropriate manner. The other end of the hoop is provided with a dovetailed tongue, E, Figs. 1, 2, 3, the hoop being bent back upon itself, if necessary, in order to make this tongue stronger when thin iron is used for the hoop.

To fasten the tie, this tongue is inserted be-

tween the ears *a a'*, the dovetail being so proportioned that, while its apex is narrow enough to pass between the ears, its bevel or angle is such as not to permit the head or base of the dovetail to be drawn through, however great the tensile strain upon it. Of course the hoop may have any required number of these dovetails, so as to adapt it for use with bales of different sizes.

It is evident that to fasten this tie but little "slack" of the hoop is required, and, as a consequence, the hoop may be put on much tighter than when the contrary is the case, thereby more nearly keeping the bale of the size to which it has been reduced by the compressing apparatus.

The tie, though so easy to fasten, is yet not liable to become disengaged, as, being put on with its face to the bale, the greater the tensile strain upon it the more surely will the consequent pressure of the cotton upon its face keep the tongue in position.

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

The combination of the plate A, having a slot, *b*, and ears *a a'*, hoop D, provided with one or more tongues, E, constructed for joint operation substantially as and for the purpose shown and specified.

BENJ. KIMBALL.

Witnesses:

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