

C. W. WAILEY.  
Cotton Bale Tie.

No. 27,660.

Patented Mar. 27, 1860.

Fig. 1.

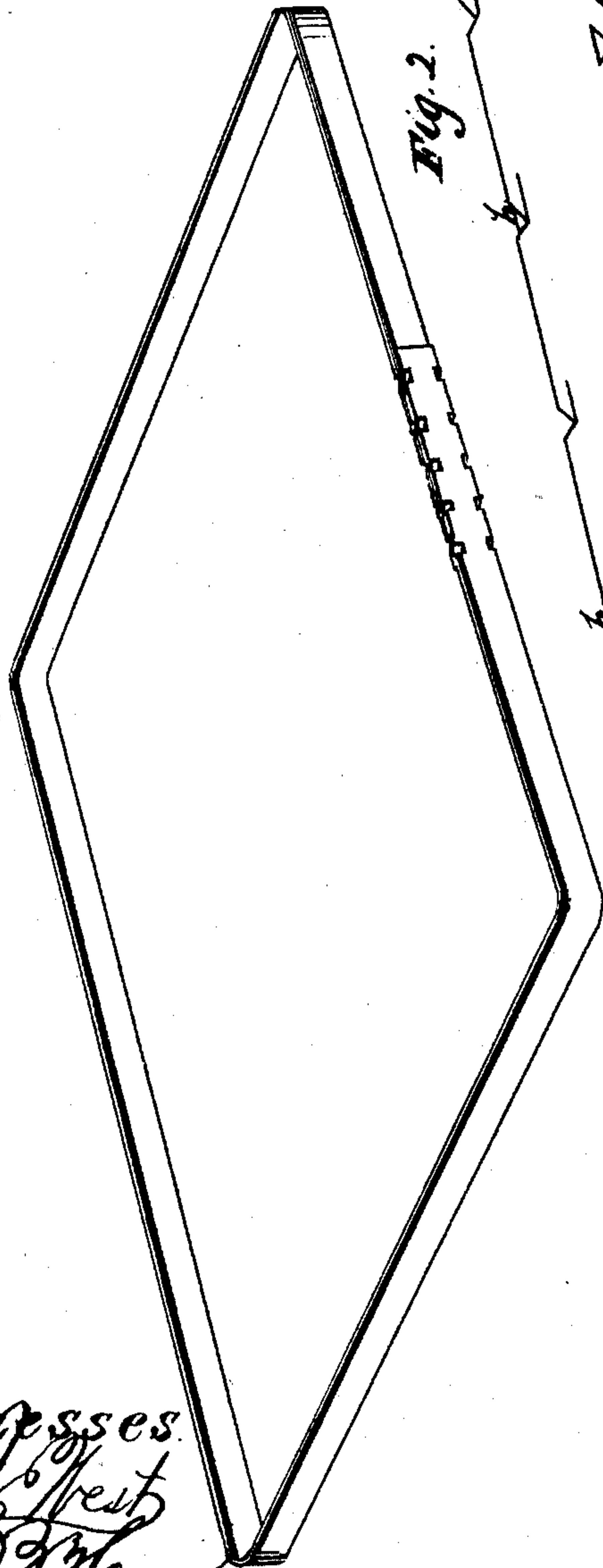


Fig. 2.

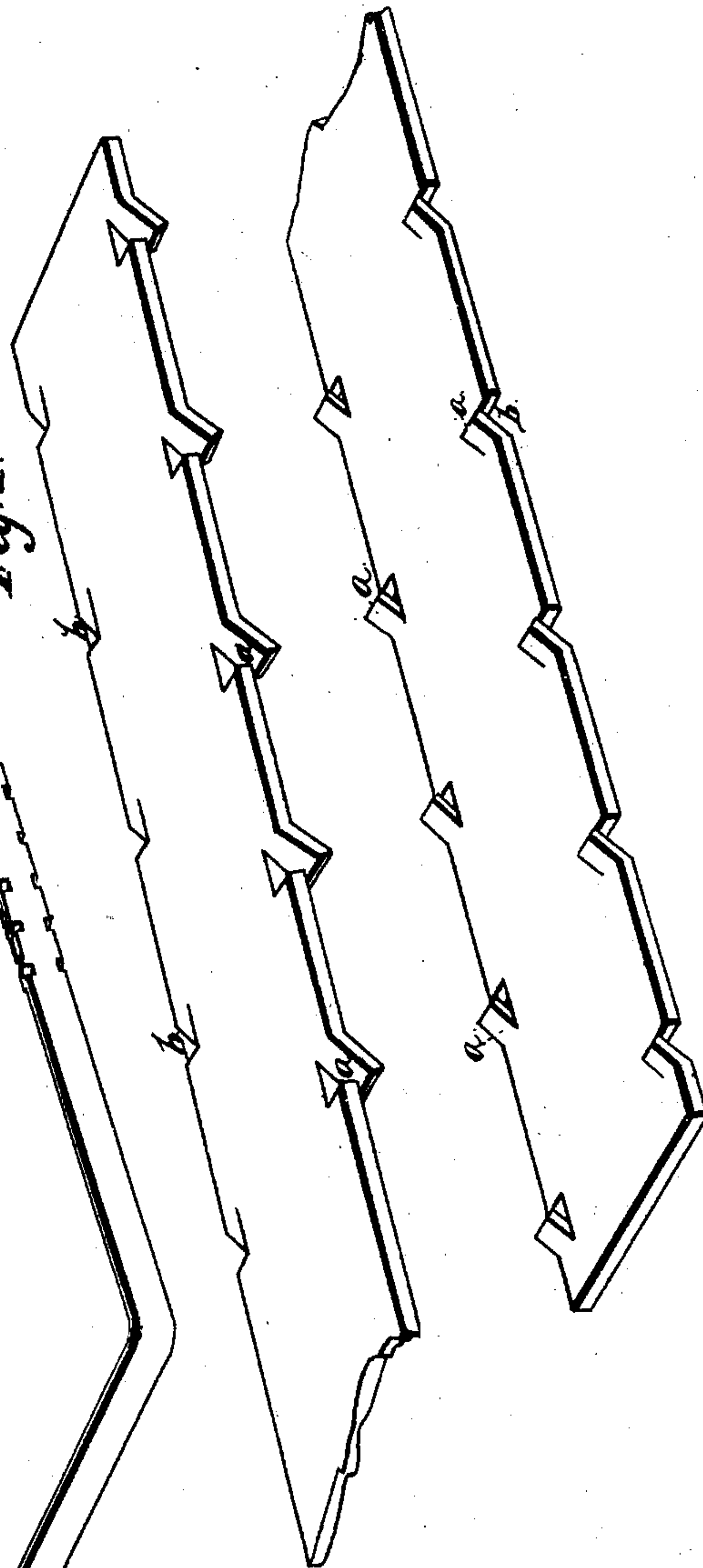


Fig. 3.



Witnesses.  
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## IMPROVEMENT IN IRON TIES FOR COTTON-BALES.

Specification forming part of Letters Patent No. 27,660, dated March 27, 1860.

*To all whom it may concern:*

Be it known that I, C. W. WAILEY, of the city of Lexington, county of Fayette, in the State of Kentucky, have invented a new and useful Improvement in Iron Ties for Bales; and I do declare that the following is a full and complete description thereof, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification.

The nature and purpose of my improvement is to afford a tie of iron or other suitable metal, which shall combine strength, simplicity, facility of adjustment to the bale, and which will at the same time be adapted to bales of different dimensions, enabling the operator to "take up" the tie nearly taut and retain the bale within the compass to which it has been compressed.

My improvement entirely dispenses with the use of auxiliary parts—such as sleeves, loops, rivets, keys, &c. It also, by not requiring the metal to be subjected to short bends, permits of the use of any ordinary quality of hoop-iron. Moreover, the hoop-iron may be prepared and adapted to be used with my improved tie by the simple process of striking up the lugs or lips upon the sides and near the ends of the hoops with dies in a hand-lever press, and the work may thus all be performed upon the premises when the ties are required to be used, the operator purchasing the iron for his ties in the cheapest and most convenient market.

Referring to the accompanying drawings, Figure 1 is a representation in perspective of a tie or hoop united by my improved tie. Fig. 2 represents the ends of the two parts of the hoop prepared to be united to form the tie. Fig. 3 is an edge view of the parts united and locked, forming my improved tie.

*a* represents the lips or lugs, which are formed or struck by a single motion of the tool. They may be extended indefinitely from the ends of the hoop, permitting the tie to be made upon

the bale at the point which will secure and retain it at its greatest compression.

*b* indicates the openings in the edges of the hoop left by the displacement of the parts which form the lugs, and which correspond to and accommodate the lugs upon the other end of the hoop, so that when the two opposite ends of the hoop are brought together—as around a bale—the lips or lugs upon either end corresponding to the spaces vacated by the displacement of the lugs from the other end of the hoop, enter these spaces, and the inclined surfaces meeting each other and receiving the strain, cause the two parts of the hoop to be brought together, where they are held, and where all parts remain securely fixed.

It will be observed that the strength of the hoop is impaired very much less by the formation of a considerable number of small lugs and spaces upon the edges of the hoop than it would be if they were formed at the center, when the process of forming them, besides unduly impairing the strength, would be attended with danger of rupturing the iron.

In the use of my tie upon repressed cotton for shipping, when the hoops are rendered entirely slack by the process of close stowing between decks, and when the ordinary ties have been found to become unfastened, it is only necessary, in the use of my tie, to close down the points of a few of the lugs with a single blow of the hammer, when they are rendered perfectly secure against an occurrence of that kind.

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

The lugs *a*, in combination with the spaces *b*, formed at the edges of the hoop, and extending any required distance from the ends so as to unite and form a tie, substantially as set forth.

Witnesses:

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