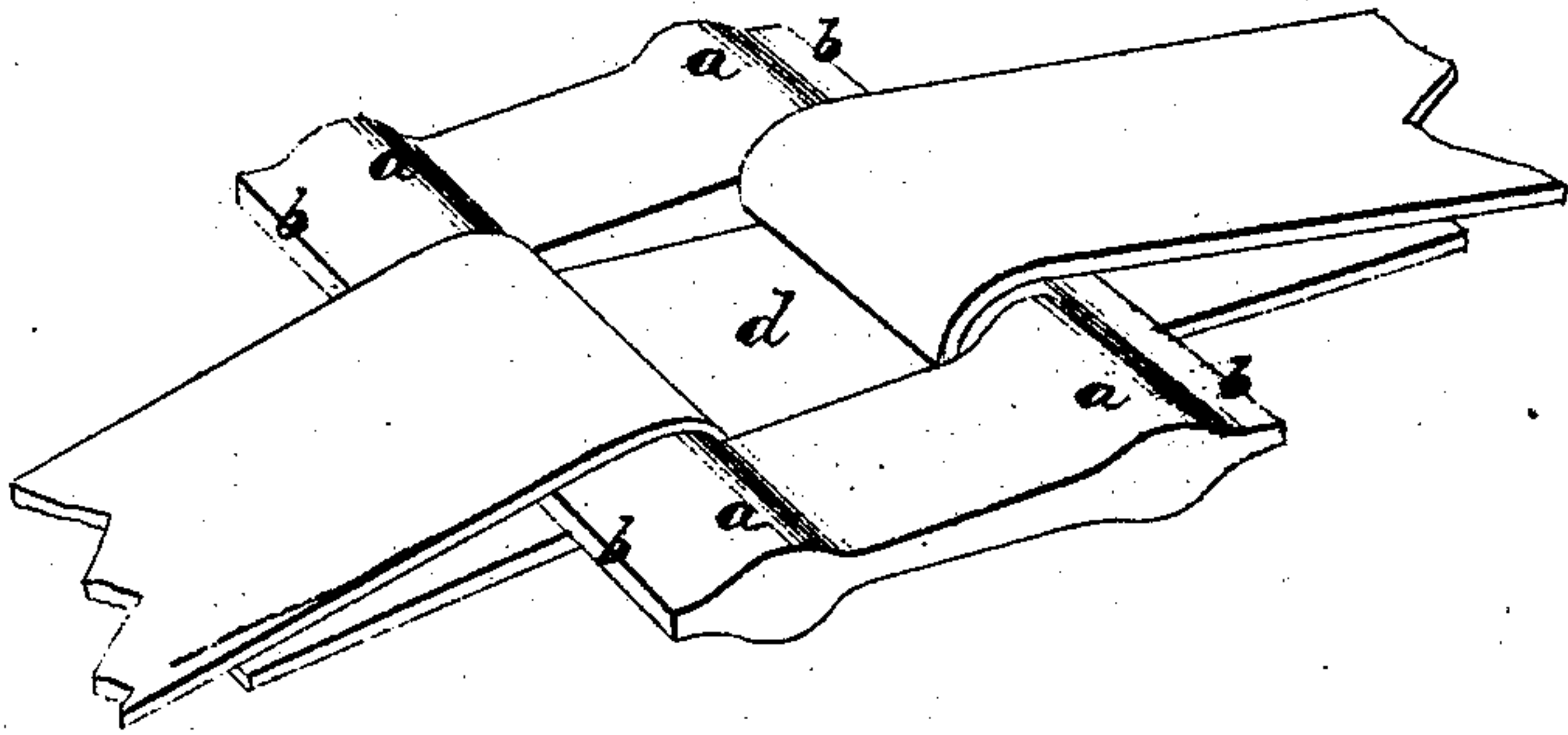


*George Bradie's Cotton Bale Tie*

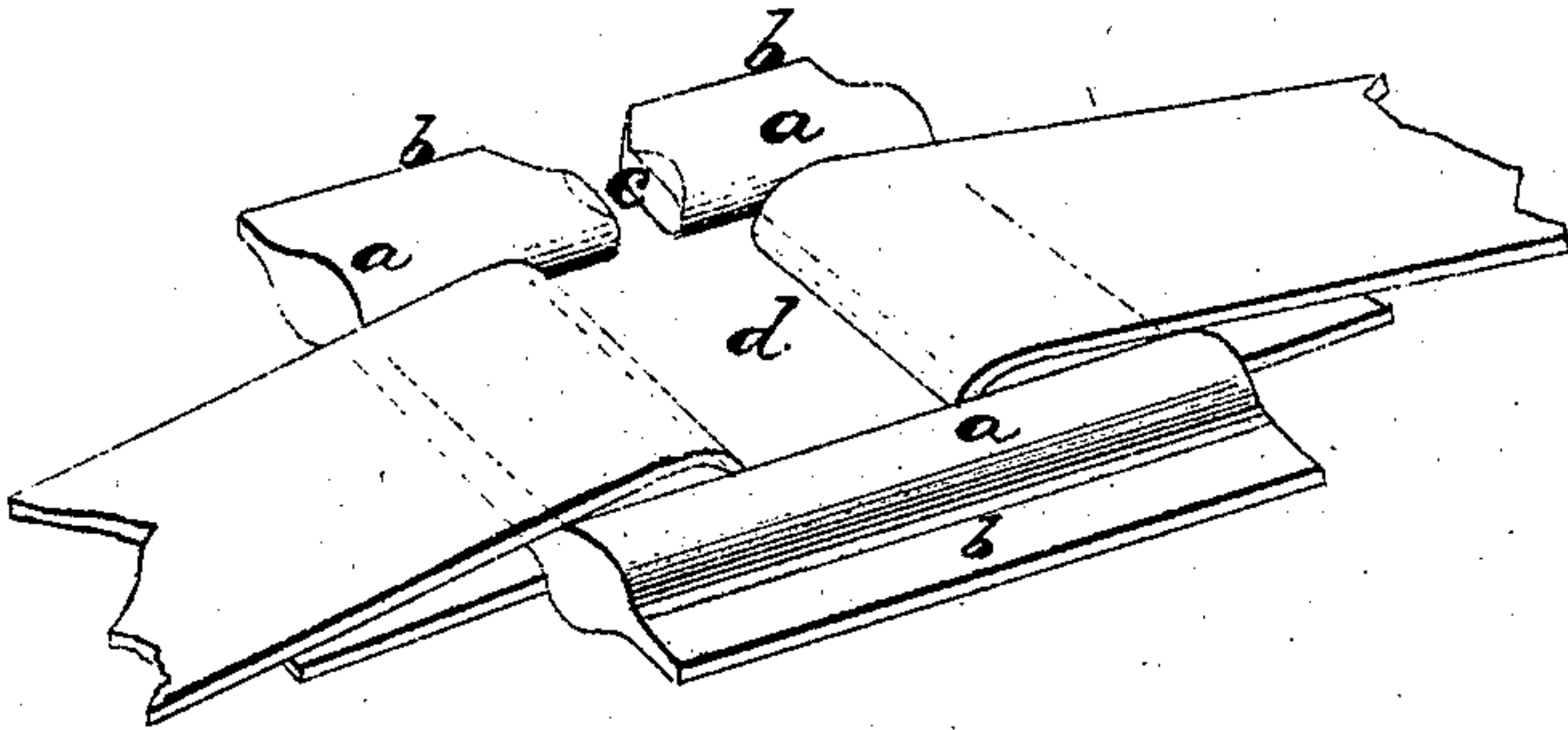
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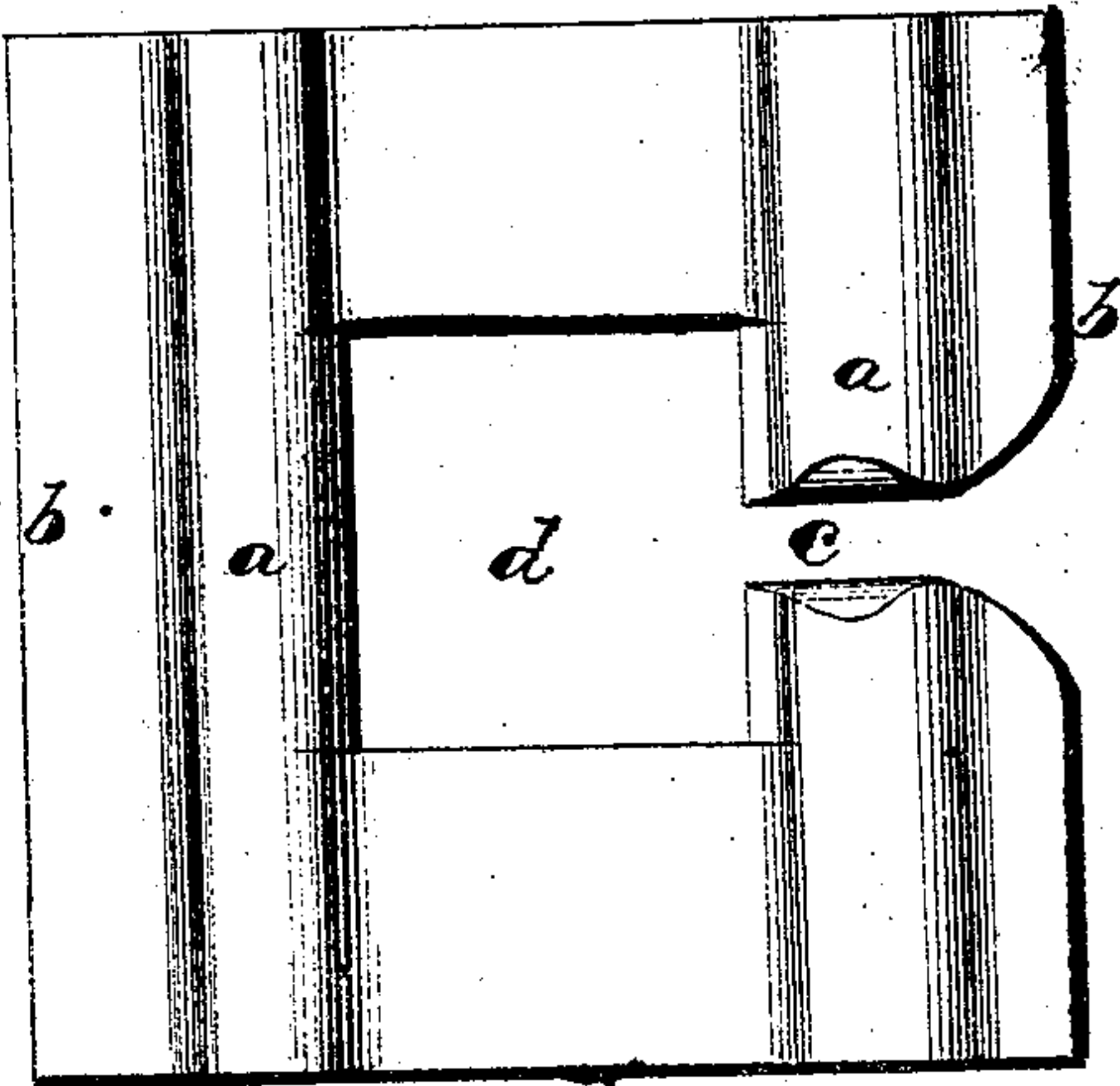
*Fig. 4*



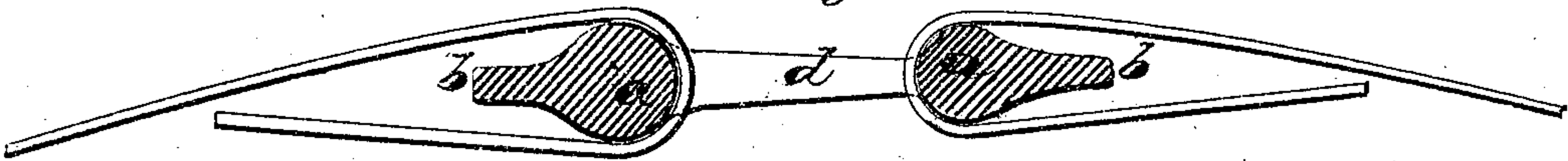
*Fig. 3*



*Fig. 1*



*Fig. 2*



*Witnesses.*

Witnesses:  
J. N. Campbell

*Inventor*

E. Provie  
Maur. Frederick Lawrence

# UNITED STATES PATENT OFFICE.

GEORGE BRODIE, OF PLUM BAYOU, ARKANSAS.

## IMPROVEMENT IN TIES FOR METALLIC BANDS OR HOOPS USED IN BALING COTTON.

Specification forming part of Letters Patent No. 116,925, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, GEORGE BRODIE, of Plum Bayou, in the county of Jefferson and State of Arkansas, have invented a new and Improved Tie for the Metallic Bands or Hoops used in Baling Cotton; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 represents a plan of the tie. Fig. 2 represents an edge view or section of the same. Figs. 3 and 4 are perspective views, showing the bands in different positions.

The new tie now invented by me has a general resemblance to that for which I obtained a patent March 22, 1859, and which was numbered 23,291, and is an improvement thereupon. It will be more fully understood by reference to the accompanying drawing.

The bars from which the ties are to be formed are rolled throughout of the shape represented by Fig. 2 as a cross-section, having ribs *a a*, as there represented, and being made thinner at the outer edges *b b*. The web in the central portion between the beads or ribs is made a little tapering in thickness, being thinner as they approach the side which contains the cut or slot *c*. The object of all these forms will be stated presently. These bars are then cut into portions of proper length to form the ties. The central portion *d d* is then cut out, leaving a rounded surface next the ribs *a a*, and after the opening *c* is formed the tie is ready for use.

The object of forming the beads or ribs *a a* with rounded surfaces next the opening *d d* is to

give a more gentle curved surface, around which the metallic bands are to be bent, as shown in Fig. 2. The web is rolled thinner on the side next the bead or rib in which the slot or opening *c* is to be formed, in order to graduate the strength of the different parts to the relative strain that is to bear upon them respectively, so as to make the strongest practicable tie out of a given weight of metal. The outer edges *b b* are made thin for a like reason, and also to allow the band to be pressed more closely around the bead or rib so as to hold the tie more firmly and prevent it from turning or sliding out.

I am aware that bars from which ties were to be made have been rolled so that a cross-section should show a uniform taper from one edge to the other. To such an arrangement, therefore, I make no claim. I am also aware that such bars have been rolled with beads or ribs, but having the web between such beads of uniform thickness from side to side, and also having the outer edges made thinner, like *b b*. To none of these devices, therefore, do I lay claim; but

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

A tie for cotton-bales and other analogous uses, having beads or ribs *a a* and a slot, *c*, in combination with intervening webs which taper toward the side in which the said slot is constructed, in the manner and for the purpose hereinbefore described.

GEORGE BRODIE.

Witnesses:

J. N. CAMPBELL,  
EDM. F. BROWN. *e*