

No. 654,828.

Patented July 31, 1900.

D. A. CYPHER & W. L. DAYTON.

BALE TIE.

(Application filed Sept. 30, 1899.)

(No Model.)

Fig. 1.

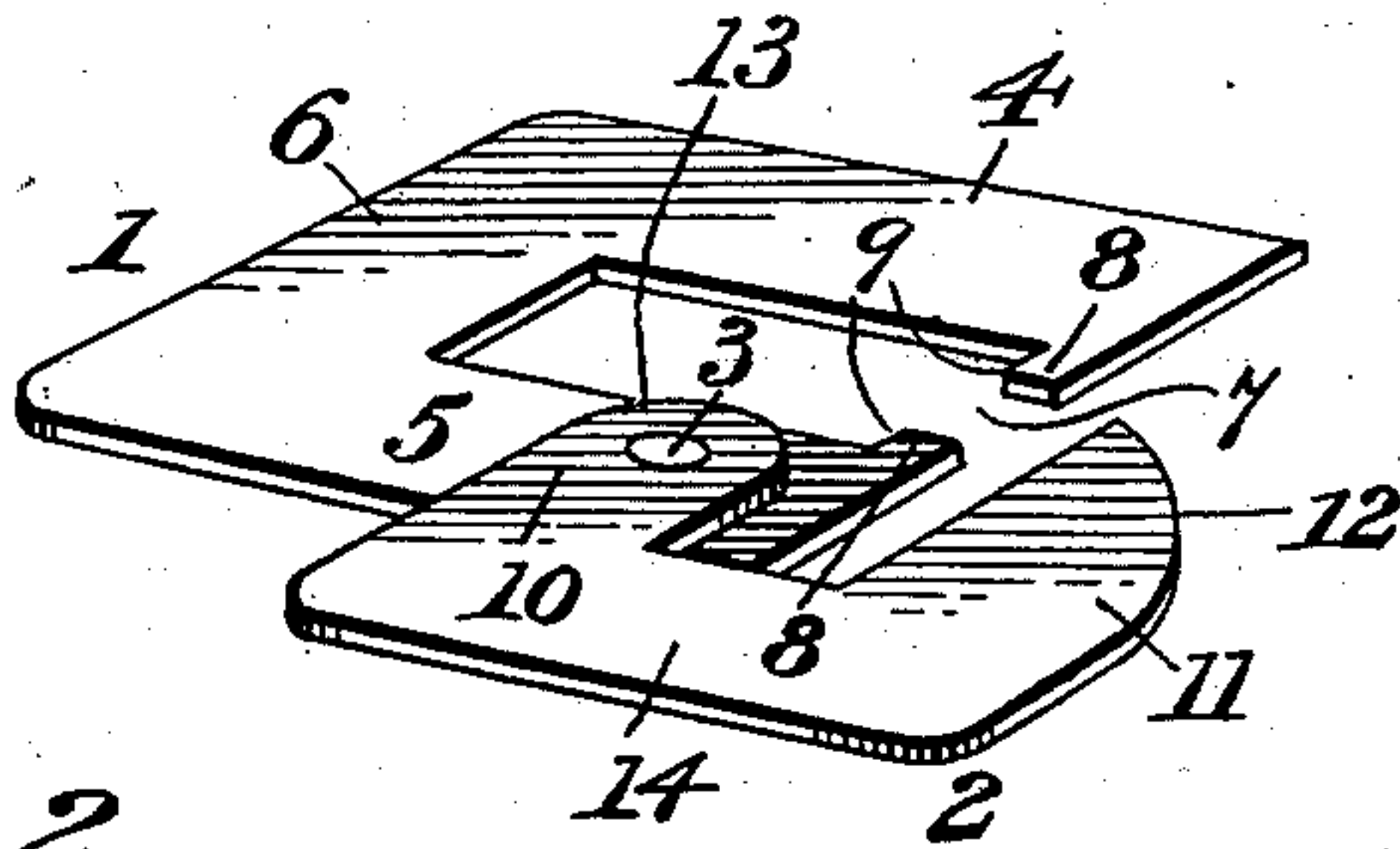


Fig. 2.

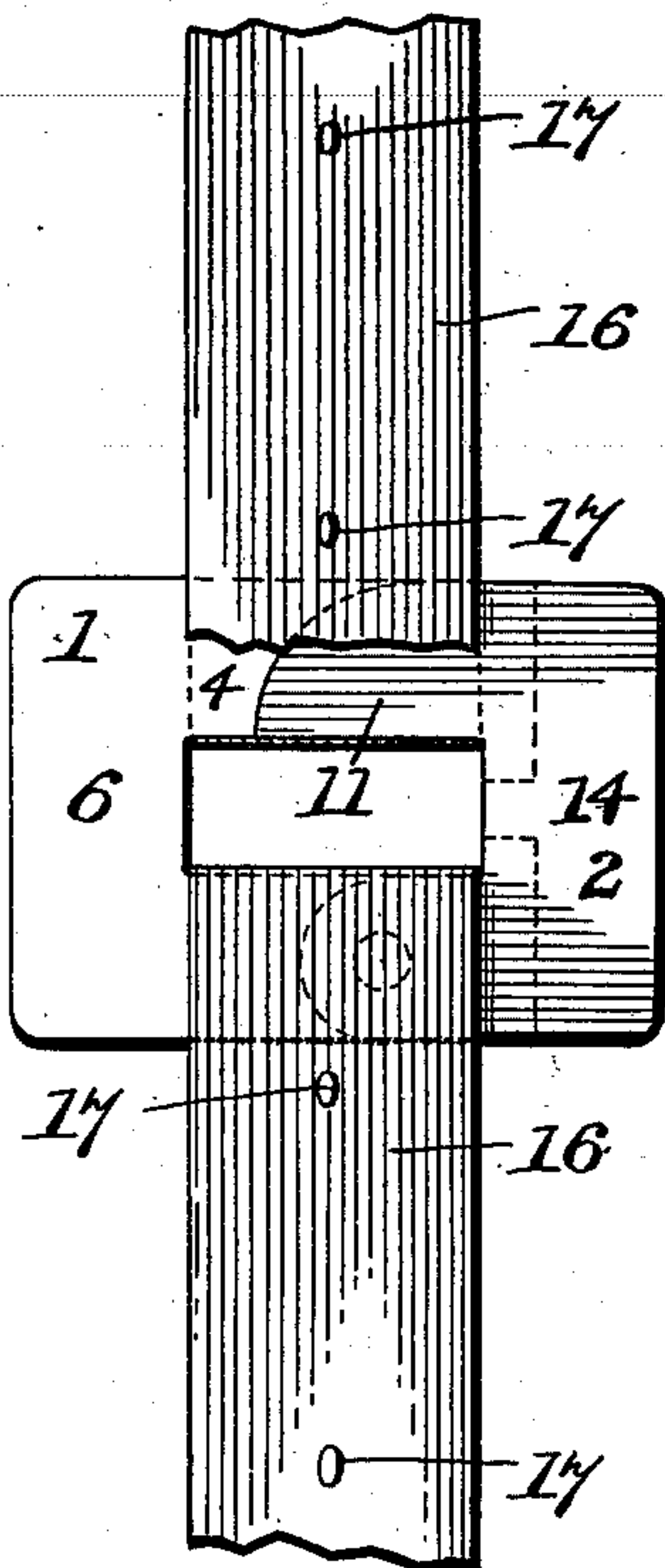


Fig. 3.

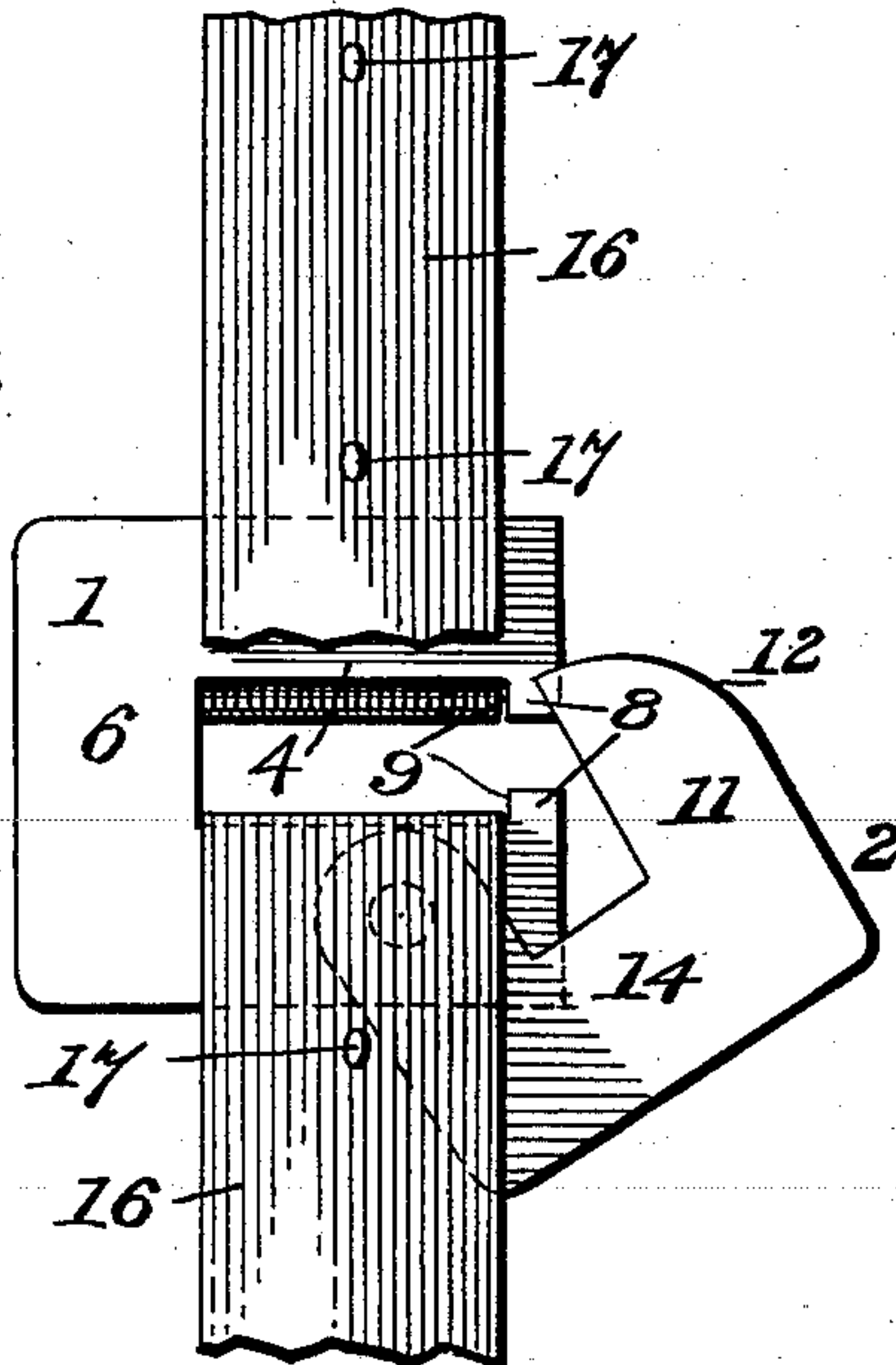
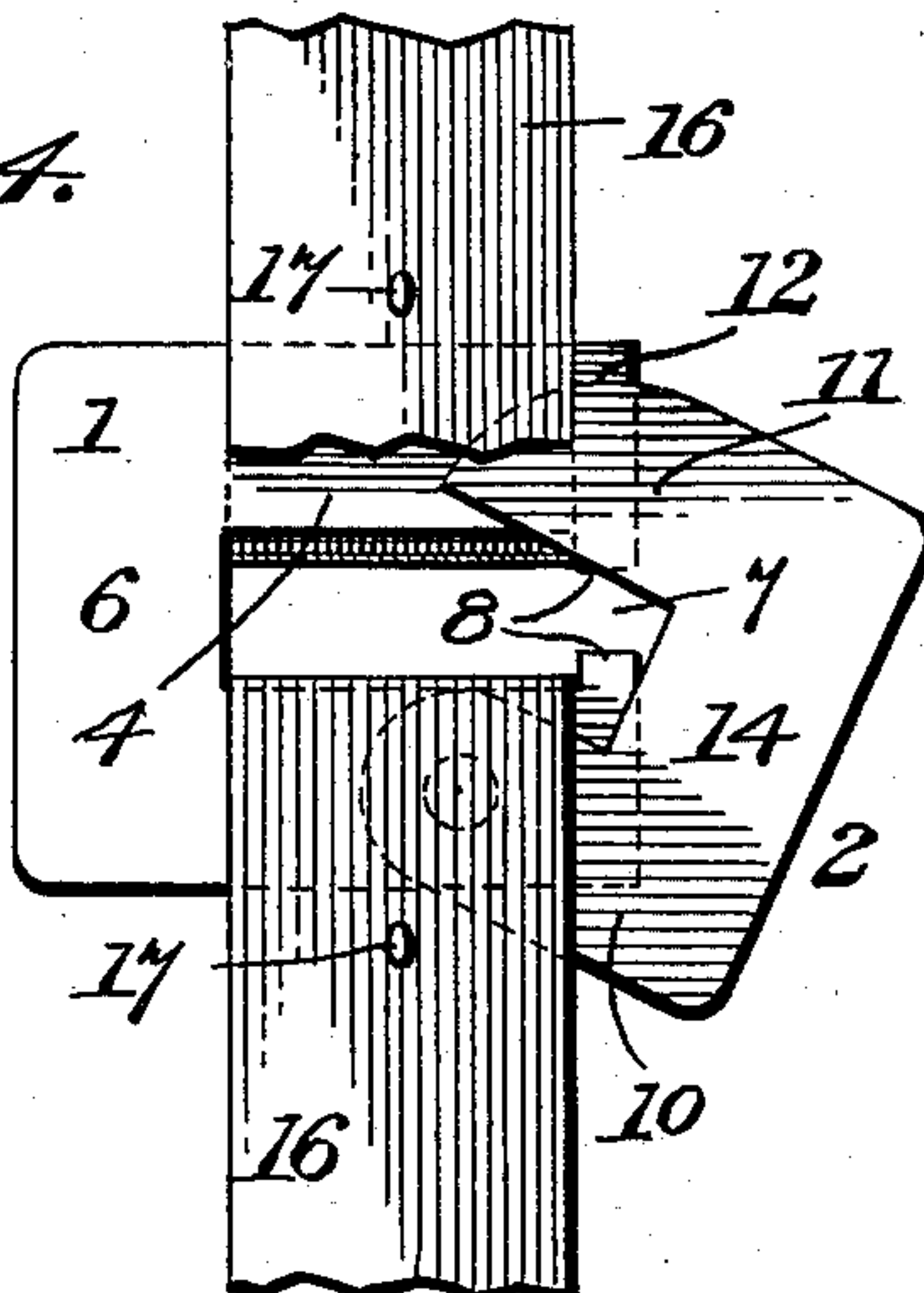


Fig. 4.



Witnesses
Edwin L. McKee.
R. M. Smith.

D. A. Cypher Inventors
and William L. Dayton
By *E. J. Sizer* Attorney

UNITED STATES PATENT OFFICE.

DAVID A. CYPHER AND WILLIAM L. DAYTON, OF AUSTIN, TEXAS.

BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 654,828, dated July 31, 1900.

Application filed September 30, 1899. Serial No. 732,225. (No model.)

To all whom it may concern:

Be it known that we, DAVID A. CYPHER and WILLIAM L. DAYTON, citizens of the United States, residing at Austin, in the county of Travis and State of Texas, have invented a new and useful Bale-Tie Fastener, of which the following is a specification.

This invention relates to bale-tie fasteners; and the object in view is to provide a simple, effective, and reliable buckle or connection for the adjacent ends of a band or tie such as is ordinarily employed in connection with bales of cotton and the like.

The primary object of the invention is to provide a two-part buckle or coupling for the ends of the band, the parts or members of which are so associated that they may be operated with ease and rapidity either to fasten the ends of the band together or release the same when it is desired to open the bale.

The detailed objects and advantages of the invention will appear more fully in the following description.

The invention consists in a bale-tie fastener embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a bale-tie fastener constructed in accordance with the present invention, the parts being thrown open to admit the bale tie or band. Fig. 2 is a plan view of the same, showing the members closed and the ends of a band or tie engaged therewith. Fig. 3 is a plan view of the fastener, showing the end of the pivoted member in position to enter the loop of the tie or band. Fig. 4 is a similar view showing the pivoted member moved farther inward.

Similar numerals of reference designate corresponding parts in the figures of the drawings.

The bale-tie fastener contemplated in this invention consists of two members 1 and 2, pivotally connected at 3. The member 1 is three-sided, as clearly shown in Fig. 1, consisting of the parallel portions or arms 4 and 5, around which the ends of the tie or band are received, and a connecting portion 6, forming the third side of the member and extending at right angles to the portions or arms 4

and 5. The fourth side of the member 1 is left open to form an entrance-throat 7 for the ends of the band or tie, and at such open side the member 1 is provided with oppositely-extending lugs or projections 8, which face toward each other and form at their inner edges shoulders 9, against which the edges of the band or tie abut when in engagement with the arms 4 and 5. The other member 2 in its general shape resembles the member 1, with the exception that the lugs or projections 8 are omitted and the outer corners or angles of the parallel arms 10 and 11 thereof rounded, as shown at 12 and 13. The arms 10 and 11 are preferably of unequal length and united by a connecting portion 14, as shown. The pivot at the point 3 passes through the extremity of the arm 10 of the pivoted member 2 and passes through the arm 5 of the member 1 at a point intermediate the ends of the latter, the object of this arrangement of the pivot being to prevent any strain being brought upon said pivot by the end of the band or tie when looped around the arms 5 and 10. The object in rounding the arm 10, as shown at 13, is to prevent that arm from interfering with the looped portion of the band or tie as the member 2 is swung on its pivotal connection with the member 1, and the object in rounding the corner of the arm 11, as shown at 12, is to facilitate the insertion of the extremity of said arm into the looped end of the band passing around the arm 4 of the member 1. The rounding of said corner also facilitates the withdrawal of the arm 11 for opening the buckle or fastener.

The ends of the band or tie (indicated at 16) are looped around the parallel arms or portions 4 and 5 of the member 1, as shown in Fig. 2, the extremities of the band being folded upon the inner side of the body of the band or tie and between such body and the bale, whereby they are securely held. Any liability of the ends of the band slipping may be prevented by providing the band at intervals with interlocking projections, (indicated at 17.) When the two parts of the fastener are in their operative positions, as shown in Fig. 2, the arm 11 is held frictionally in place by the looped end of the tie or band being tightly pressed and held between the band or tie and the arm 4 of the member 1. In addition to

this the arm 11 of the pivoted member is prevented from moving outward by reason of the fact that the band or tie engages the inner edge of said arm. This is best illustrated in Fig. 4, in which it will be seen that as the arm 11 begins to swing outward the inner edge thereof moves across the angle between the inner edge of the arm 4 and the lug or projection 8, so that in order for the arm 11 to swing outward the tension or pressure of the tie or band must be overcome. The tie or band is, however, held tightly stretched by the bale, and therefore in order to withdraw the arm 11 sufficient pressure must be applied outwardly to the pivoted member in order to draw the looped ends of the band slightly toward each other, as illustrated in Fig. 4. While this may be done by applying the necessary force in the proper direction to the pivoted member, the outward movement of the arm 11 cannot accidentally occur, and the pivoted member is therefore held locked in the position shown in Fig. 2. Any tendency of the ends of the tie to slip laterally is overcome by the shoulders 9, formed by the lugs 8, and also by the connecting portion 14 of the member 2, which crosses and closes the open end of the entrance-throat 7. A simple, strong, and durable bale-tie fastener is thus provided, which may be quickly applied to the ends of a tie or band and as readily removed therefrom. By arranging the pivotal connection of said device at the point indicated all strain applied to the device by the ends of the band or tie is removed from said pivot and falls wholly upon the body of the

device, which is preferably made of sheet metal of the requisite gage and strength to withstand such strain.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

A bale-tie fastener comprising a pair of three-sided members having reversely-disposed entrance-throats, the parallel arms of one member being of greater length than the width of the tie or band, the other member having one of its parallel arms terminally and pivotally connected to a medial point of one arm of the first-named member, and its other arm terminally reduced and pointed by rounding off the outer corner thereof, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

DAVID A. CYPHER.
WILLIAM L. DAYTON.

Witnesses:

GARNETT KING,
J. A. FRUANDER.