

No. 786,147.

PATENTED MAR. 28, 1905.

E. L. PENCE.  
BALE TIE.

APPLICATION FILED APR. 22, 1904.

Fig. 1.

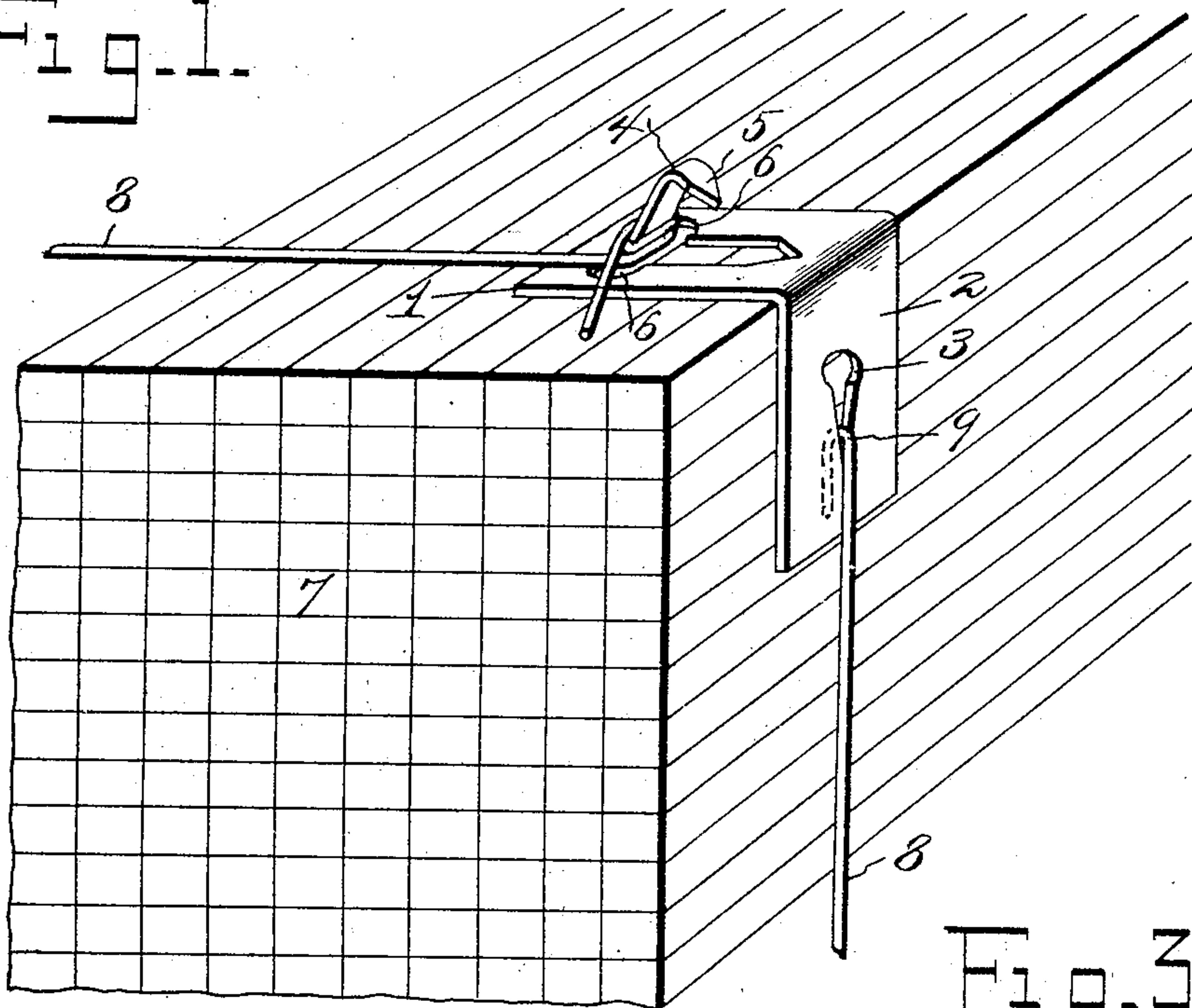


Fig. 3.

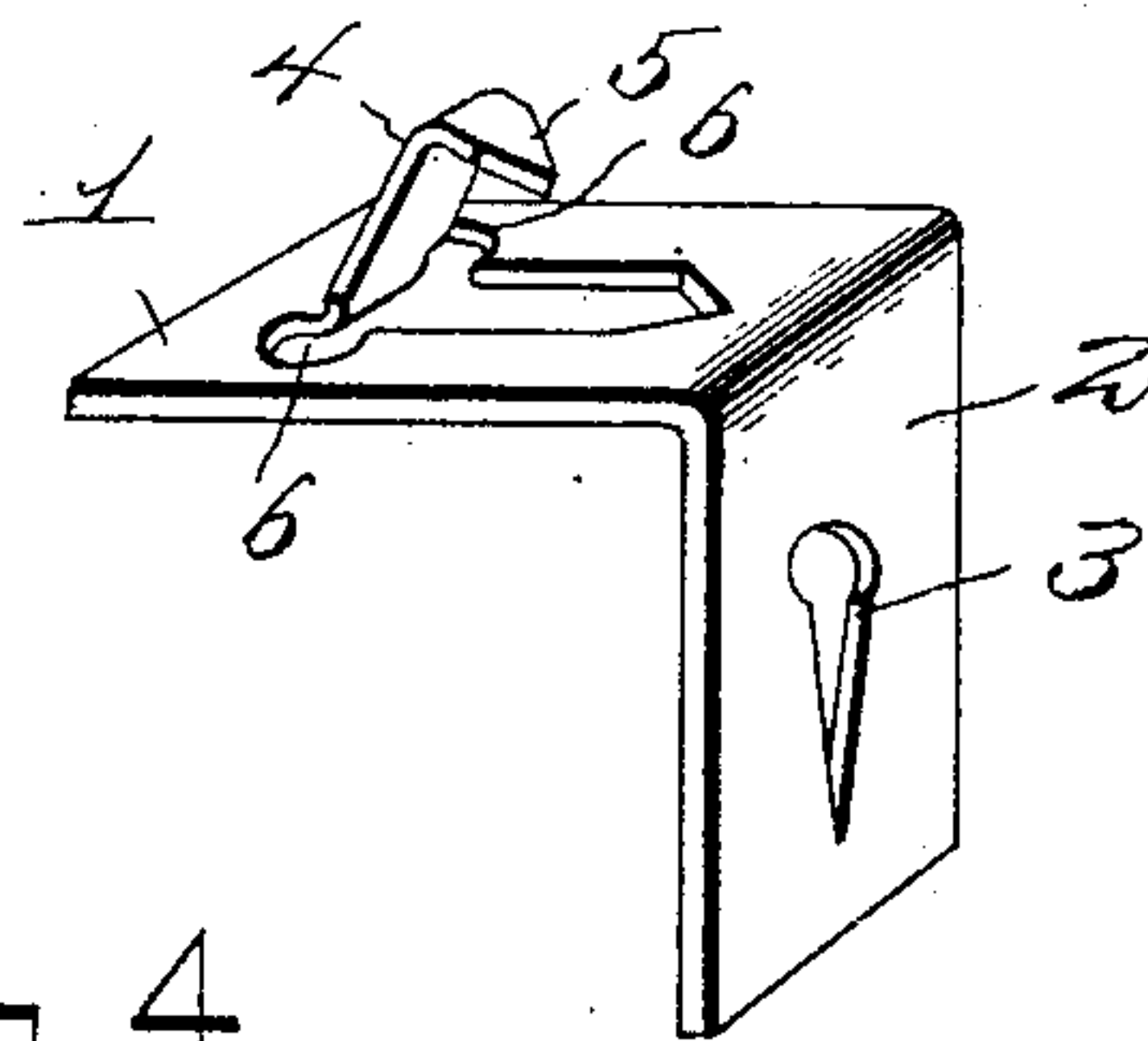


Fig. 2.

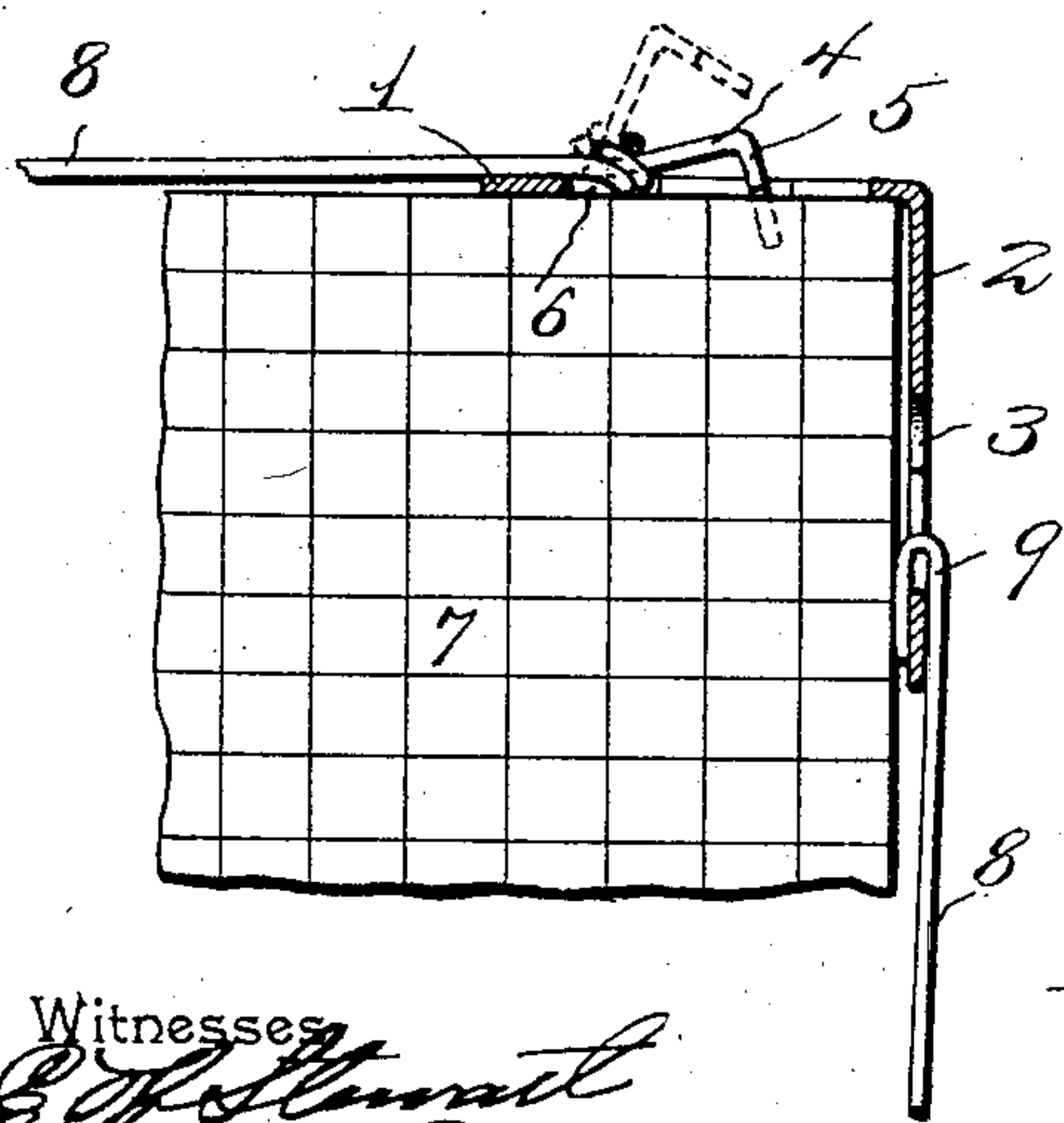
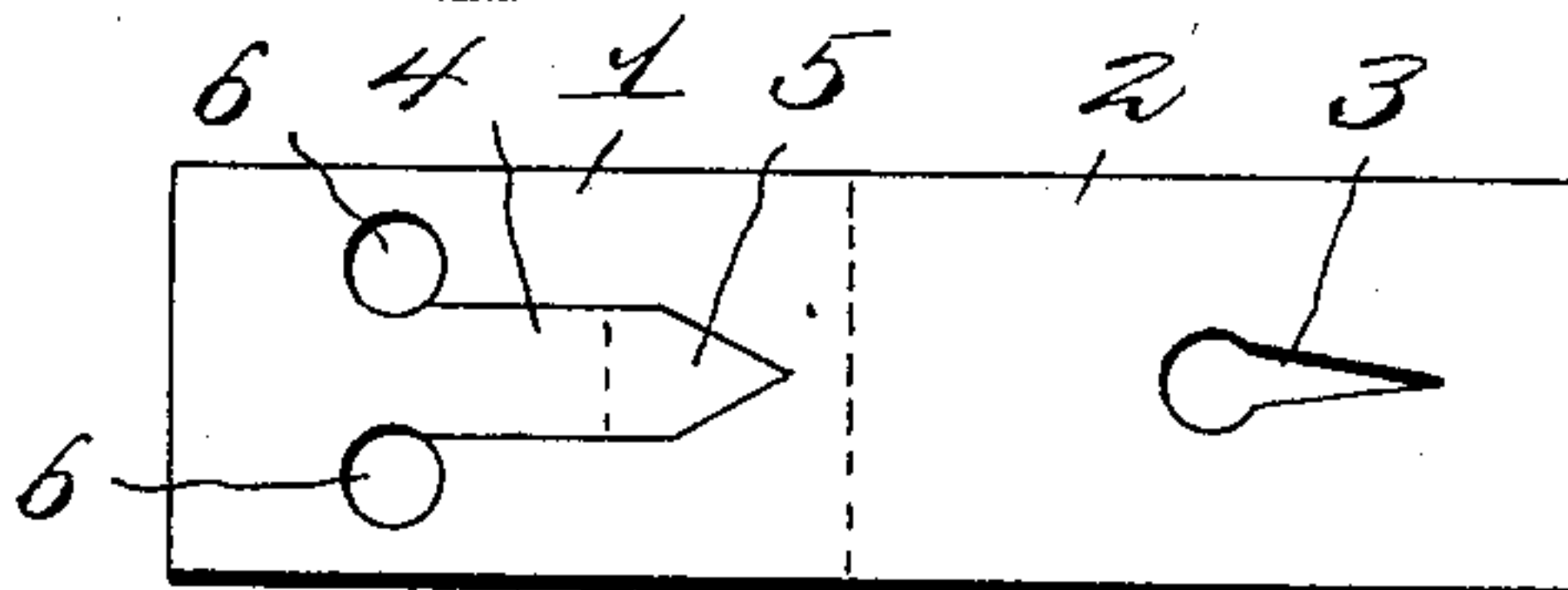


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## BALE-TIE.

SPECIFICATION forming part of Letters Patent No. 786,147, dated March 28, 1905.

Application filed April 22, 1904. Serial No. 204,465.

*To all whom it may concern:*

Be it known that I, EDWARD L. PENCE, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Bale-Tie, of which the following is a specification.

This invention relates to bale-bands, and has for its object to provide an improved form of lock or tie for the ends of the band.

It is furthermore designed to have the tie especially applicable to polygonal bales, as, for instance, bales or bundles of lumber.

Another object is to permit of the use of a wire as the bale-band, and to have the tie cooperate with any size of wire without slipping thereof.

A still further object of the invention is to provide for fastening the tie directly to the bale independently of the band, thereby to prevent slipping and displacement of the tie upon the bale.

With these and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportions, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view illustrating the application of the present invention to a bale or bundle of lumber. Fig. 2 is a cross-sectional view thereof. Fig. 3 is a detail perspective view of the tie removed from the band. Fig. 4 is a detail view of the blank prior to bending the same.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The tie of the present invention is formed from a blank of metal which is bent intermediately to form the angularly-related arms or members 1 and 2, which may be arranged at any angle according to the shape of the bale or bundle to which the tie is to be applied, as will

be hereinafter explained. In one of the arms there is a keyhole-slot 3, the substantially circular or enlarged terminal of which is next the bend of the plate, while its elongated portion has its walls converged toward the outer end of the arm to form a V-shaped slot. A longitudinal tongue 4 is cleft from the other arm or member of the tie, with its shank portion adjacent the outer end of the member and extending outwardly therefrom, the outer free extremity of the shank being bent inwardly and pointed to form a spur 5. The outer end portion of the slot produced by bending the tongue outwardly is enlarged at opposite sides of the base of the shank, as indicated at 6, for a purpose as will be hereinafter explained.

For an explanation of the application and operation of the present invention reference is had particularly to Figs. 1 and 2 of the drawings, wherein the reference character 7 indicates a bale or bundle of lumber which is substantially rectangular in form. The bale-band 8 is of wire, one end of which is bent to form a hook 9, which is engaged with the keyhole-slot 3 and wedged within the V-shaped terminal thereof, the remaining portion of the band being passed around the bale, with its free end wrapped around the tongue of the tie after having been drawn as tightly as possible around the bale. It will of course be understood that the tie has been previously placed so as to embrace one of the corners of the bale or bundle, and after the wire has been wrapped around the tongue the projecting portion thereof is cut off close to the tongue and then the free extremity of the latter is struck with a hammer or the like, so as to sink the point of the spur 5 into the adjacent portion of the bale, thereby connecting the tie to the bale independently of its connection therewith through the medium of the band, and hence preventing slipping and displacement of the tie upon the bale or bundle.

The importance of the enlarged portion 6 of the slot formed by the removal of the tongue from the body of the tie resides in the fact that the strain upon the wire band tends to work the portion which is wrapped around the tongue downwardly and beneath the base



thereof, the enlarged portion of the slot accommodating the wrapped portion of the wire band, so as to permit the same to readily work beneath the base of the tongue, and thereby  
 5 bring the strain more directly upon the body of the tie, and hence remove considerable strain from the tongue, which would otherwise tend to bend the same backward and permit the wire to slip therefrom.

10 From the foregoing description it will be understood that the bale-tie of the present invention is complete in itself and may be applied and removed without requiring any particular skill or specially-adapted tool. Moreover,  
 15 it is accommodated to wires of different sizes, and by reason of the V-shaped slot 3 a small wire will be held just as effectively as a much larger wire. The angular relation of the arms or members of the tie may be changed  
 20 to accommodate the tie to the form of the bale or bundle to which it is to be applied, and in fact the members may lie in the same plane instead of being angularly related without otherwise changing any of the other parts of  
 25 the device and without changing the manner of engaging the band with the tie.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent,  
 30 is—

1. A bale-band tie consisting of a plate which is bent to produce angularly-related members, one of which members is provided with a substantially V-shaped slot having its  
 35 walls converging outwardly, the other member having a tongue cleft therefrom and extended outwardly, the base of the tongue being next the outer end of the member and the extremity of the tongue being pointed and  
 40 bent inwardly to produce a spur, the slot produced by the displacement of the tongue from the tie being enlarged at opposite sides of the base of the tongue, said tongue capable of being forced inwardly toward the slot to permit  
 45 of the spur being sunk into a bale.

2. A bale-band tie consisting of a plate having angularly-related members, one of the members having means for connection with one end of a bale-band, and the other member  
 50 having a tongue cleft therefrom with its base next the outer end of the member, said tongue being projected upon the outer side of the member at an inclination thereto with its free extremity formed into a pointed spur and bent  
 55 inwardly toward the member and capable of being driven through the opening in the adjacent member produced by the tongue and into a bale to anchor the tie, said tongue also constituting means for connection with the  
 60 opposite end of a bale-band.

3. A bale-band tie comprising a plate provided at one end with means for connection with one end of a bale-band, and also having means to anchor the tie to a bale consisting of  
 65 a tongue cleft from the opposite end portion of the plate at the outer side thereof with its base next to the said opposite end of the plate and inclined outwardly toward the first-mentioned end of the plate with its free extremity  
 70 bent inwardly toward the plate and formed into a pointed spur capable of being driven through the opening produced by the tongue and into a bale to anchor the tie.

4. The combination with a bale-band, of a tie therefor consisting of a plate having one  
 75 end connected to one of the ends of the band, and its opposite end portion provided with a tongue cleft therefrom and projected upon the exterior of the plate at an inclination thereto, the other end of the band being connected to  
 80 the tongue, and the free extremity of the tongue being bent inwardly toward the plate and formed into a pointed spur which is capable of being driven through the opening produced by the tongue to engage the bale and  
 85 anchor the tie.

5. A bale-band tie having a tongue cleft therefrom with its free extremity bent inwardly toward the tie and formed into a pointed spur capable of being driven through  
 90 the opening produced by the tongue and into a bale to anchor the tie.

6. A bale-band tie having a tongue bent therefrom with its outer end bent to form a pointed spur, the tie also being provided with  
 95 an opening through which the pointed spur is capable of being driven into a bale to anchor the tie.

7. As a new article of manufacture, a blank for a bale-band tie having a slot formed in one  
 100 end thereof, the opposite end of the blank being cleft to form a pointed tongue having its free extremity extending toward the slot.

8. As a new article of manufacture, a blank for a bale-band tie having a longitudinal slot  
 105 formed in one end thereof with the edges of the slot converged toward the adjacent end of the tie, the opposite end of the tie being cleft to form a longitudinal pointed tongue having its free extremity extending toward the slot  
 110 and the tie also being provided with openings intersecting the clefts at the base of the tongue.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD L. PENCE.

Witnesses:

H. GOLDBERG,  
 DIRK ISOM.