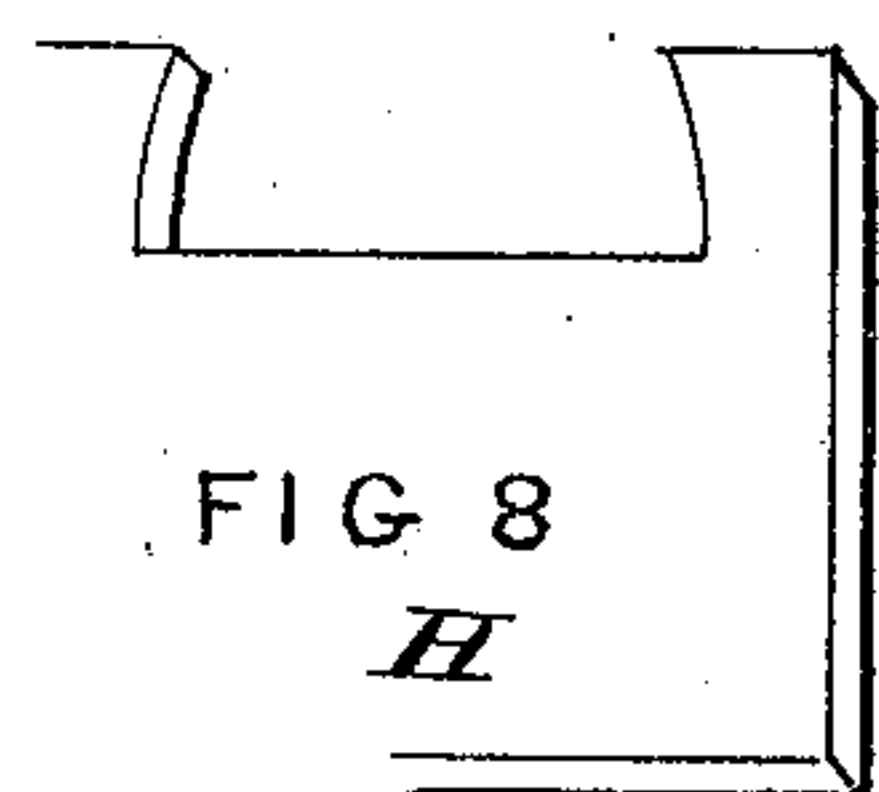
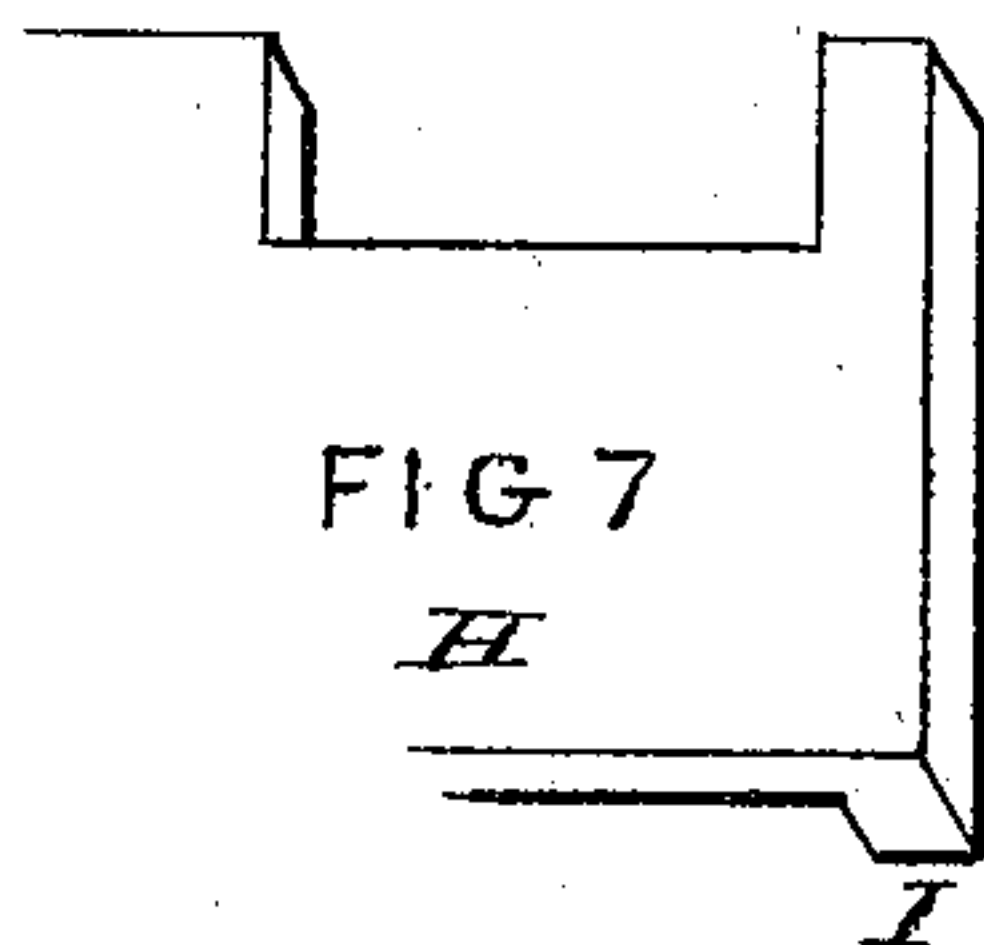
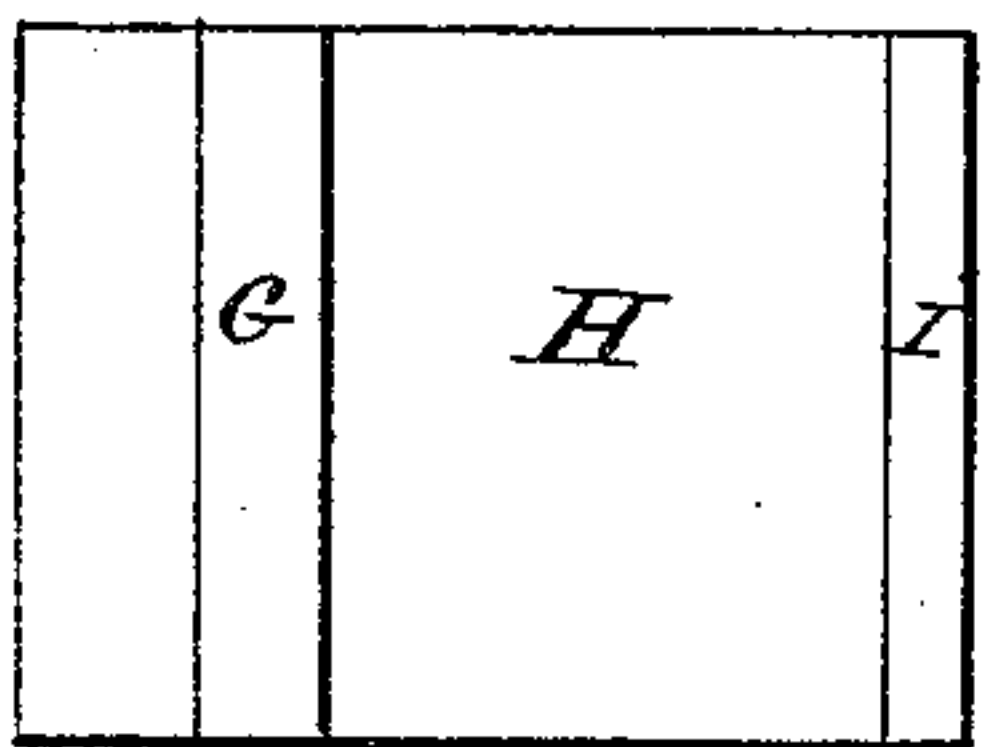
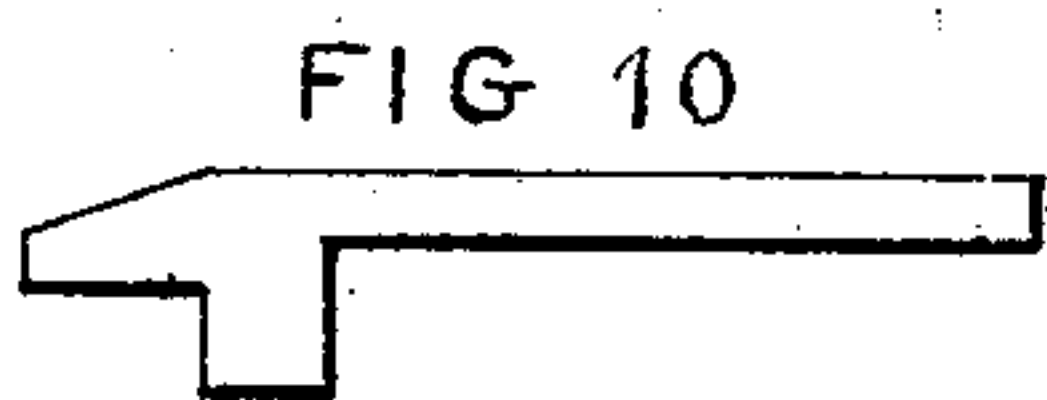
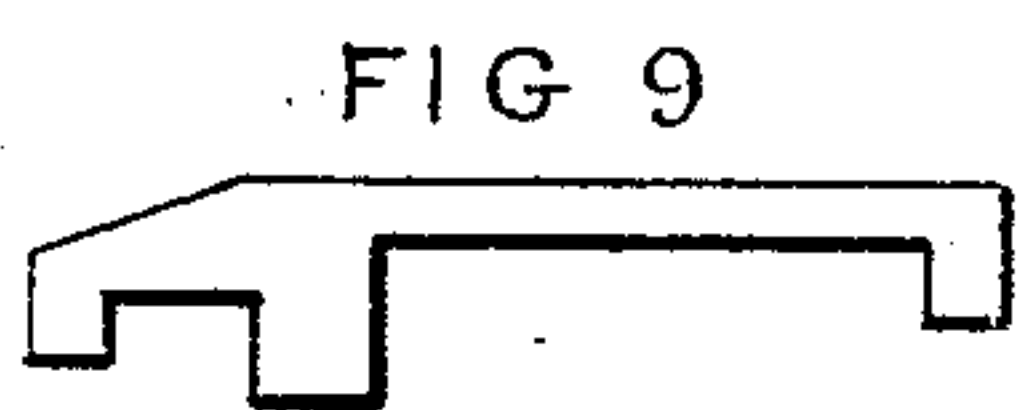
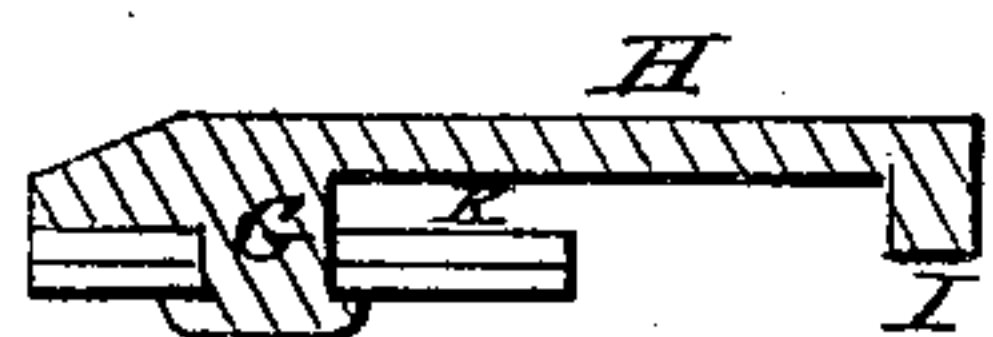
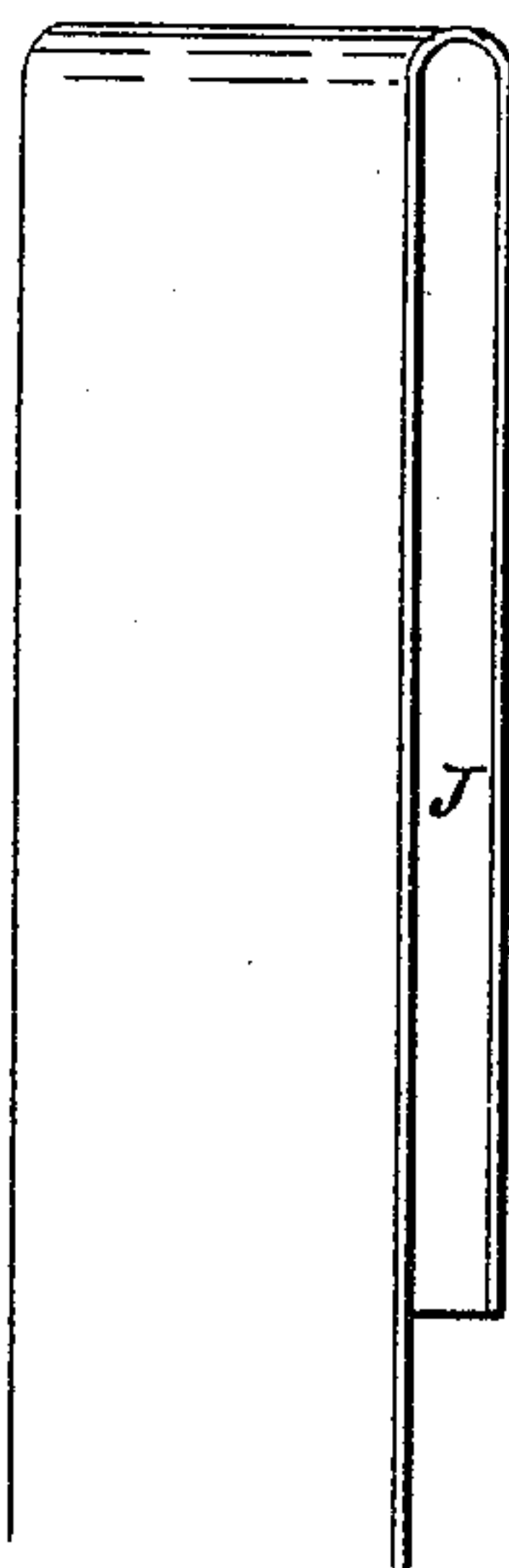
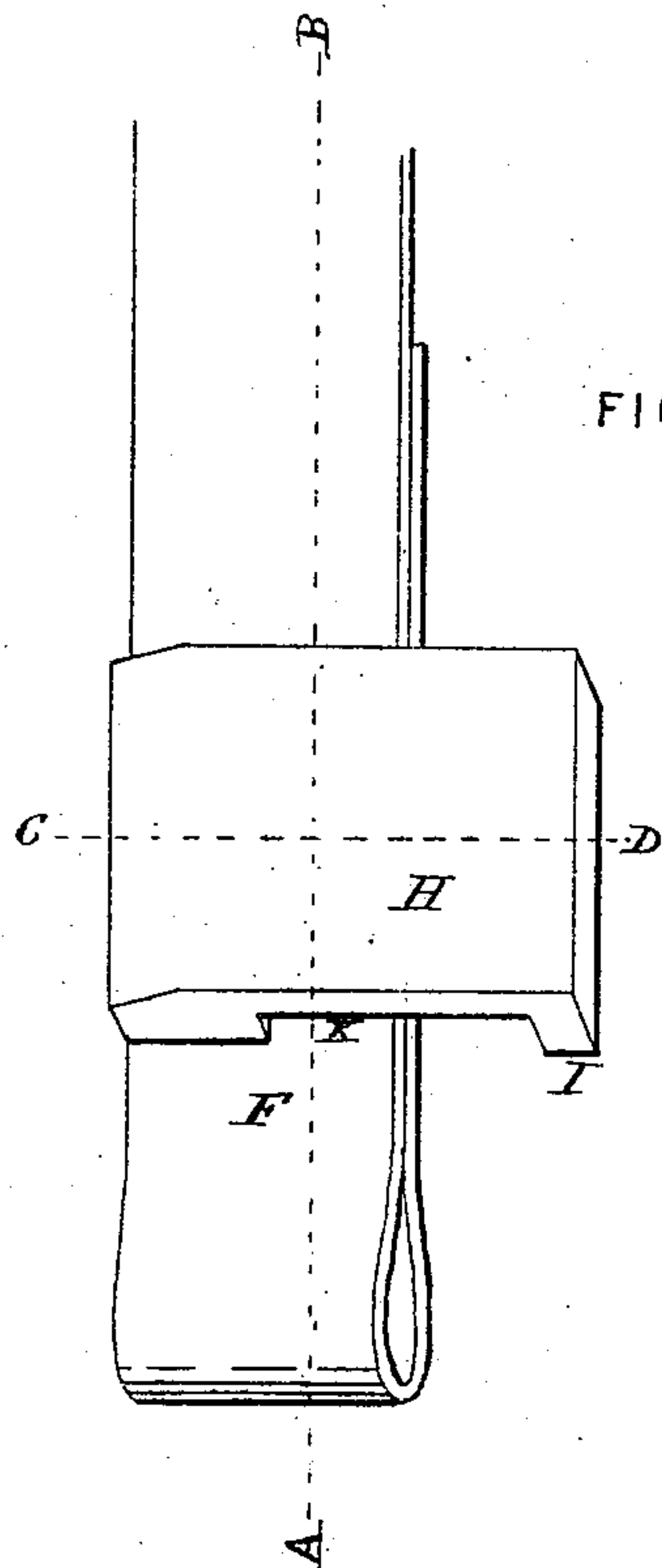
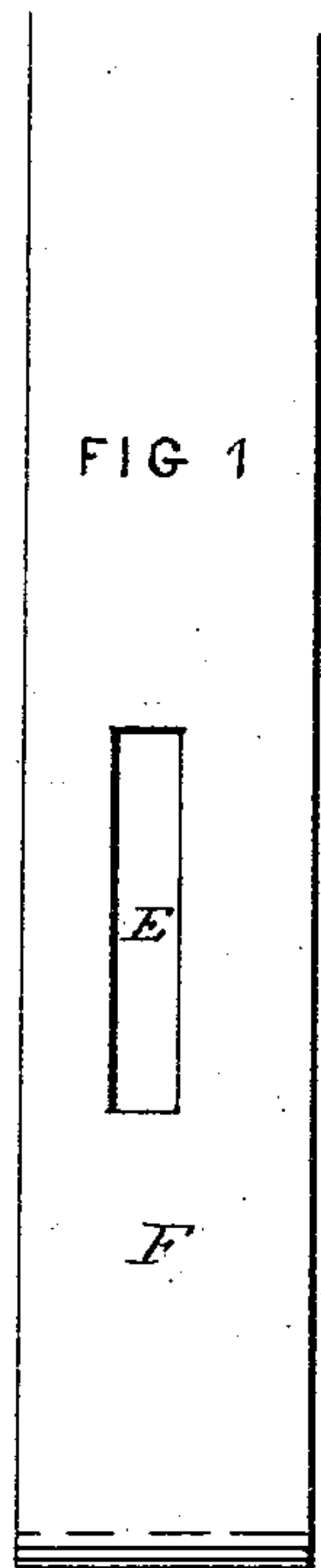


F. COOK.  
Bale-Ties.

No. 145,847.

Patented Dec. 23, 1873.



Witnesses.  
*J. S. Carls*  
S. S. Carls

Inventor  
*Frederic Cook*

# UNITED STATES PATENT OFFICE

FREDERIC COOK, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN BALE-TIES.

Specification forming part of Letters Patent No. **145,847**, dated December 23, 1873; application filed October 25, 1873.

*To all whom it may concern:*

Be it known that I, FREDERIC COOK, of New Orleans, State of Louisiana, have invented an Improvement in Bale-Ties, of which the following is a specification:

The nature of my invention consists of an improvement on my bale-tie patented September 16, 1873, No. 142,772. The improvement in construction of the hook-piece dispenses with separate rivets when wrought-iron hook-pieces are used. This is effected by rolling strips of iron with a riveting-strip rolled on. The hook-pieces are then cut off the strip in suitable lengths, and a hole shaped like a parallelogram punched through the band, (either single or double thickness.) The riveting-strip is passed through and riveted over and back of the band. Also, it consists of improved form of hook-piece, as shown on the drawings, in which—

Figure 1 shows a face view of the end of the band, with the hole punched ready to receive the riveting-strip of hook-piece. Fig. 2 shows the complete tie in perspective, and the other end of the band ready looped to go on the hook-piece. Fig. 3 is a section through A B of Fig. 2. Fig. 4 is a section through C D of Fig. 2. Fig. 5 is an end view of the hook-piece before riveting on, and is also the shape the strip-iron is rolled to make the hook-pieces. Fig. 6 is a view of the face of hook-piece that goes against the band. Figs. 7 and 8 are views of ends of hook-piece with notches cut out, of the shapes indicated, to receive the looped end of the band. Figs. 9 and 10 show shapes of strip-iron to make hook-pieces.

Where hook-pieces are made like Fig. 8, the strip-iron to make them is rolled like Fig. 10; and, when made like Fig. 7 and Fig. 2, the strip-iron is rolled like Fig. 5. E is the hole

through band F to receive the riveting-strip G of hook-piece H. F is the band, onto which the hook-piece H is attached, and may either have the end of band turned back onto itself before punching the hole E, or a separate washer may be used, or the single thickness of band alone. H is the hook-piece, which is made with a projecting flange, I, to prevent the bent end of the loop J getting out of place after insertion into the recess K, which it enters by pressing the looped end J sidewise, and springs in by the bent end J giving way enough to let it find its seat by side pressure; and, once in, the projection flange I prevents its getting out.

When a notch like Fig. 8 is cut into the hook-piece no projecting flange I is required, as, from the shape of the notch, the looped end, which enters the notch on an angle, cannot come out from any slacking of the tie, as the notch is narrower at top than at bottom, where the band strains, and the looped end will not pass out as long as the band ends are parallel.

The looped end J may be either passed over the hook-piece H, or may be hooked endwise into it.

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

A bale tie or fastening, composed of a hook or band piece, H, having a long solid riveting-strip, G, rolled upon it, by which it is riveted to a single or double thickness of the band, and a recess, K, to receive and retain the bent end of the band, which is slipped laterally over it, as described and represented.

FREDERIC COOK.

Witnesses:

F. B. PARKINSON,  
S. S. CARLISLE.