

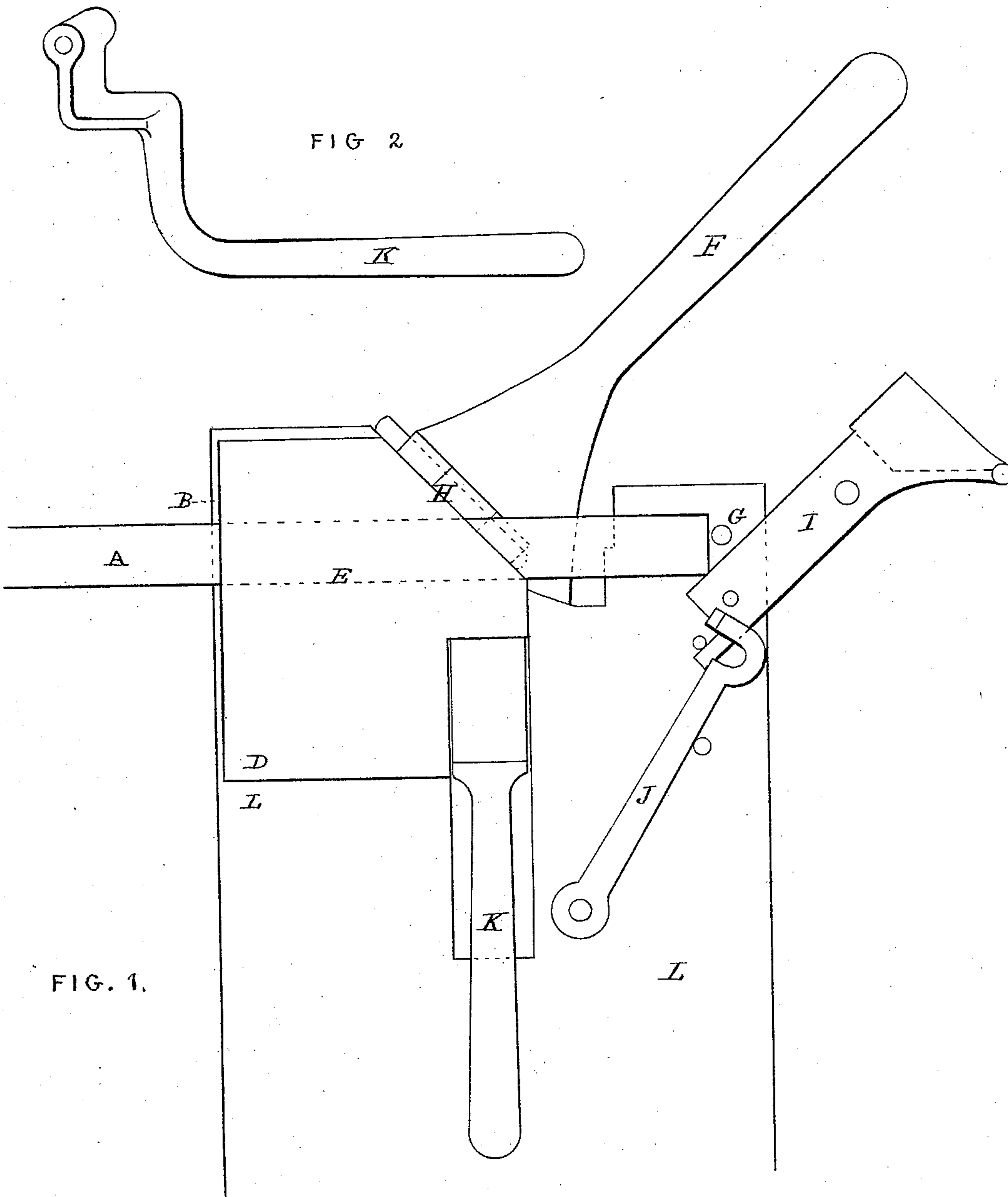
3 Sheets--Sheet 1.

J. McCLEAN.

Devices for Forming Bale-Ties.

No. 145,357.

Patented Dec. 9, 1873.



Boitresses
 S. S. Carlisle
 J. Thayer

Investor?
John McLean

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FIG 4

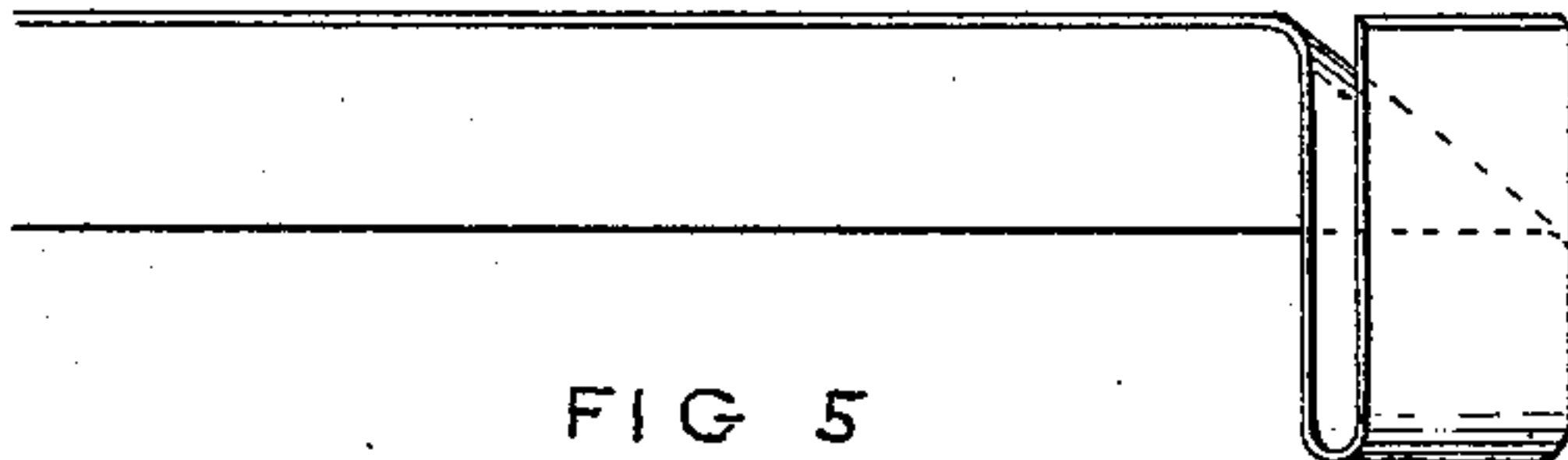
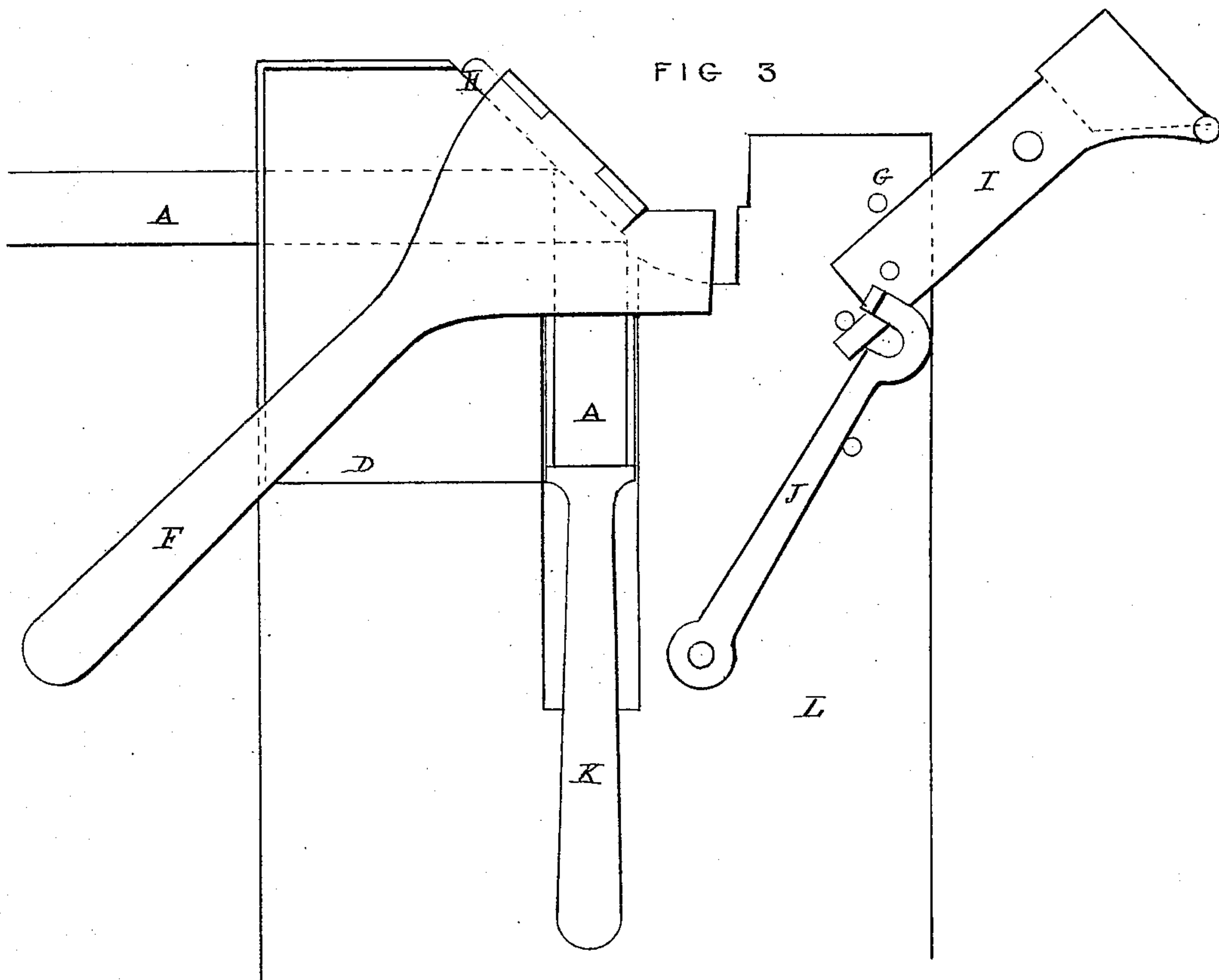
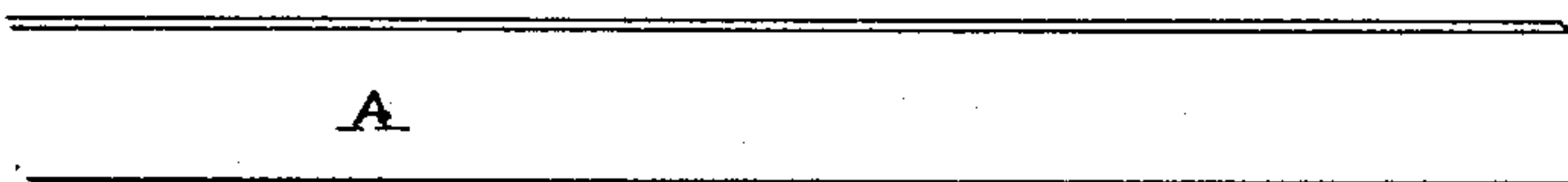


FIG 5



Witnesses
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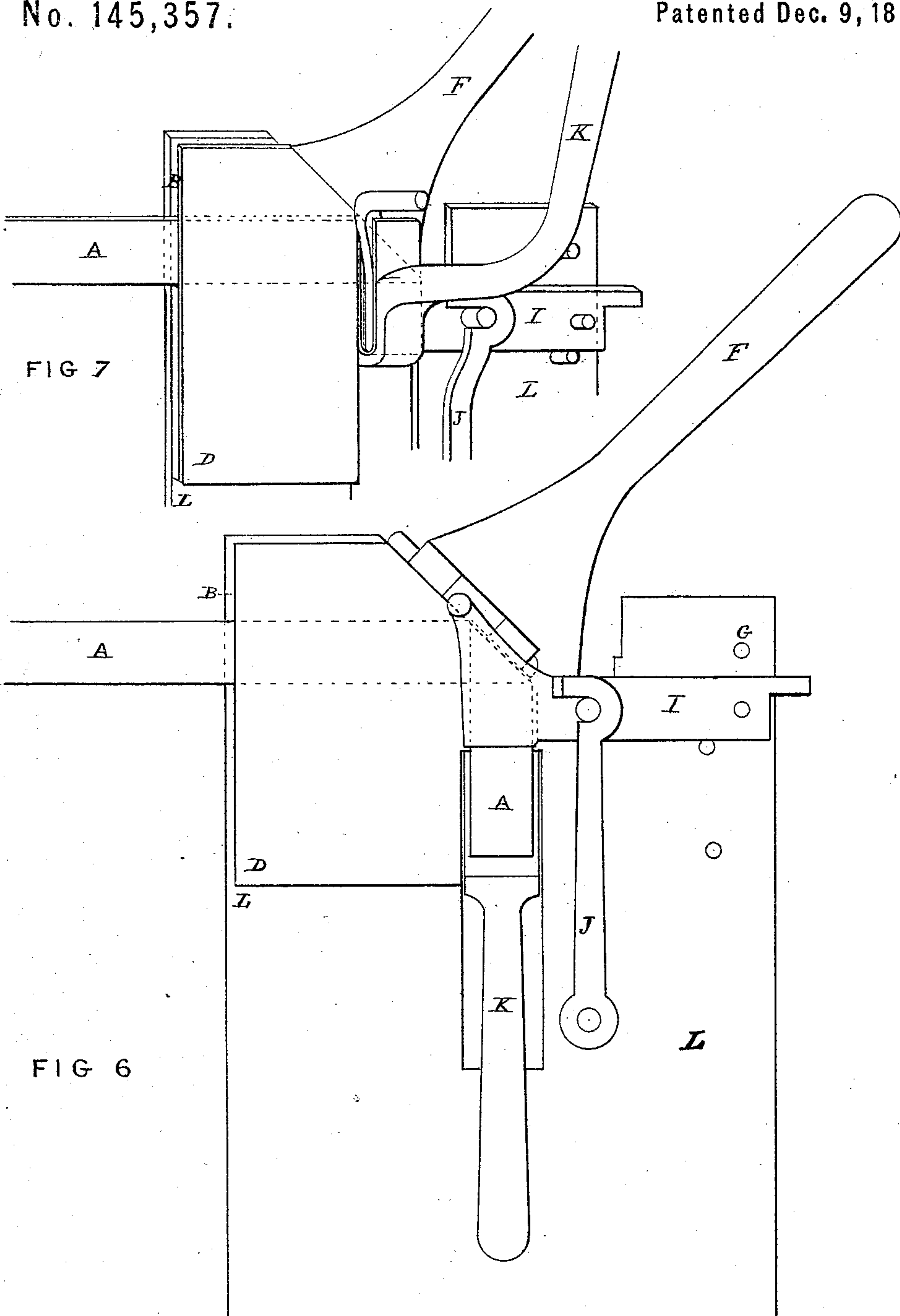
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UNITED STATES PATENT OFFICE.

JOHN McCLEAN, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO FREDERIC COOK, OF SAME PLACE.

IMPROVEMENT IN DEVICES FOR FORMING BALE-TIES.

Specification forming part of Letters Patent No. **145,357**, dated December 9, 1873; application filed September 13, 1873.

To all whom it may concern:

Be it known that I, JOHN McCLEAN, of New Orleans, Louisiana, have invented a Bale-Tie-Forming Machine, of which the following is a specification:

The object of my invention is to make a machine to form one end of metallic bands, for baling purposes, into suitable shapes to produce a means of tying the other end of the band by hooking or looping the other end into it, without the interposition of a link or buckle.

This machine, now shown, is adapted to form band-tie ends at right angles to the band, like that shown at Fig. 4, patented by Frederic Cook, May 6, 1873, No. 138,484; but it may also be adapted to form tie ends of a double thickness of the band equally as well. And the tie ends may be formed by this machine on the ends of the band, or on short pieces of band, and afterwards riveted to main band.

Reference is made to the accompanying drawings, in which like letters refer to like parts in all the figures.

Figure is a front view of my machine, showing it in first position, with a piece of band-iron, A, inserted ready to be bent. Fig. 2 is a perspective view of hinged lever K. Fig. 3 is a front view, showing the machine in second position and the first bend formed in the band A. Fig. 4 is a perspective view of the formed band end complete. Fig. 5, a flat view of end of band before entering machine. Fig. 6 is a front view, showing machine in third position, and ready to form the last bend in the band. Fig. 7 is a perspective view of upper portion of machine, showing the last bend made in the band end.

The various parts of the machine are attached to a metal plate, L, which forms the body of the machine, and may be conveniently fastened in any suitable manner to steady it. At Fig. 1 the straight band A is shown first

inserted into space B, left between the two plates D and L, as far as the stop G. The space B is made by inserting a plate of metal, a little thicker than the band-iron to be bent, between plates D and L, and then riveting the three plates together. This middle plate extends only as far as the lower line of band at E, and thus forms a bottom or guide for the band to rest on.

The machine being in the position shown at Fig. 1 and the band A inserted, the hinged lever F is then brought down, as shown at Fig. 3, and, as it descends, the end of the band is bent over the angular edge H, which is shown at an angle of forty-five degrees, and a bend in the band is obtained at right angles, and a space left between the planes of the band. The lever F is now thrown up and the catch I is thrown down, as shown at Fig. 6. This catch keeps the right-angle piece of the band in position. The catch I is held in place by the hook J. The hinged lever K is now thrown up, as shown in Fig. 7, and the last bend in the band formed, and a space is left between the planes of the band by the band end being bent around the lower portion of catch I. The band end is then removed from the machine and is found formed like Fig. 4, ready for use.

This machine may be worked either by hand, as shown, or power may be applied to it with cogged, eccentric, or any other gear.

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

In a bale-tie-forming machine the combination of the angular shaping-edge H, the holder I, and the two hinged bending-levers F and K for shaping and bending the end of a bale-tie, substantially as described and represented.

JOHN McCLEAN.

Witnessed by—

S. S. CARLISLE,
J. THAYER.