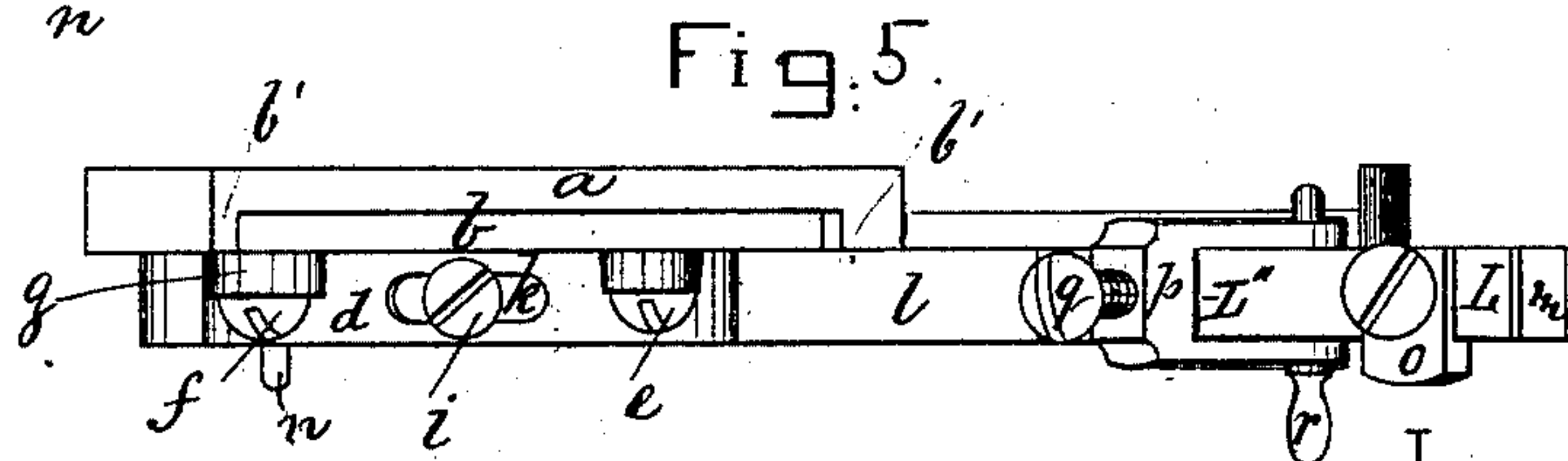
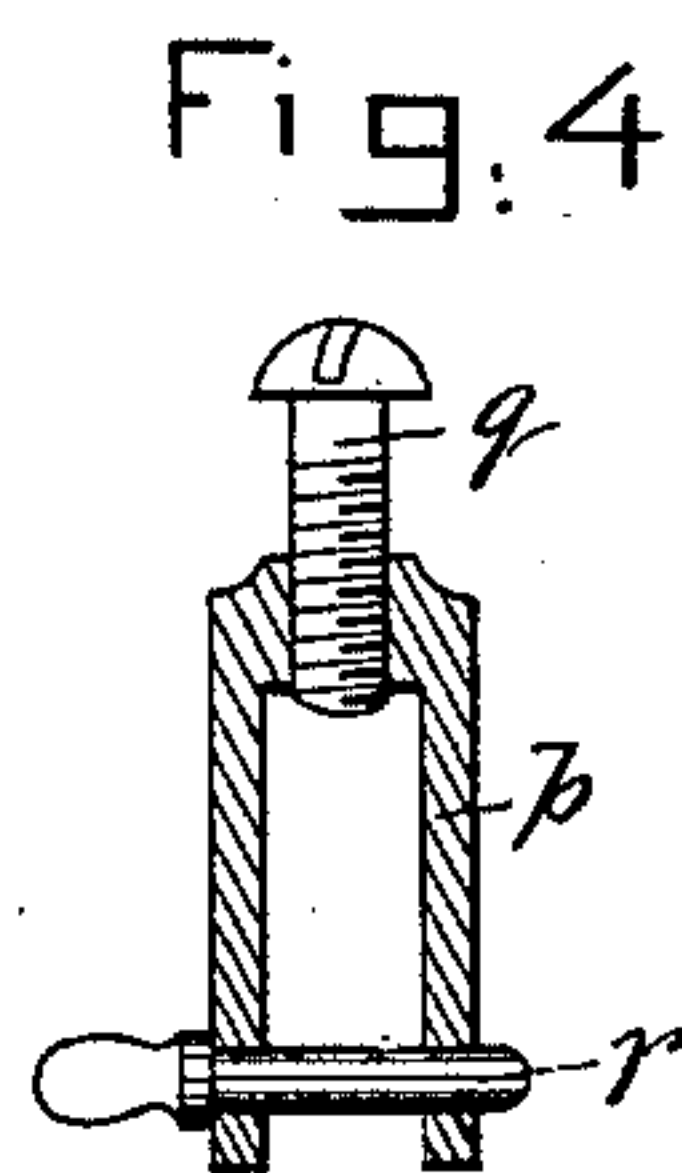
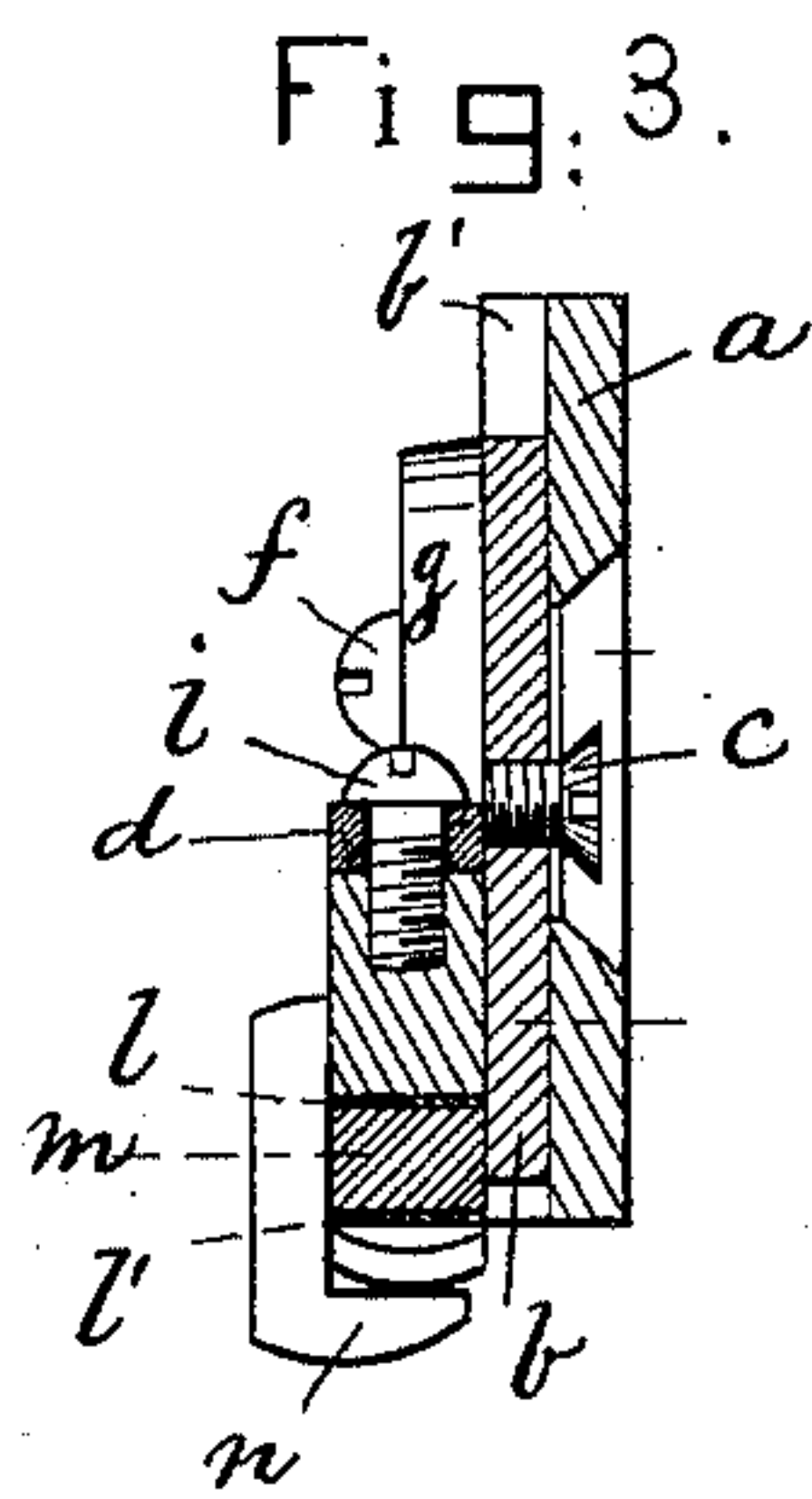
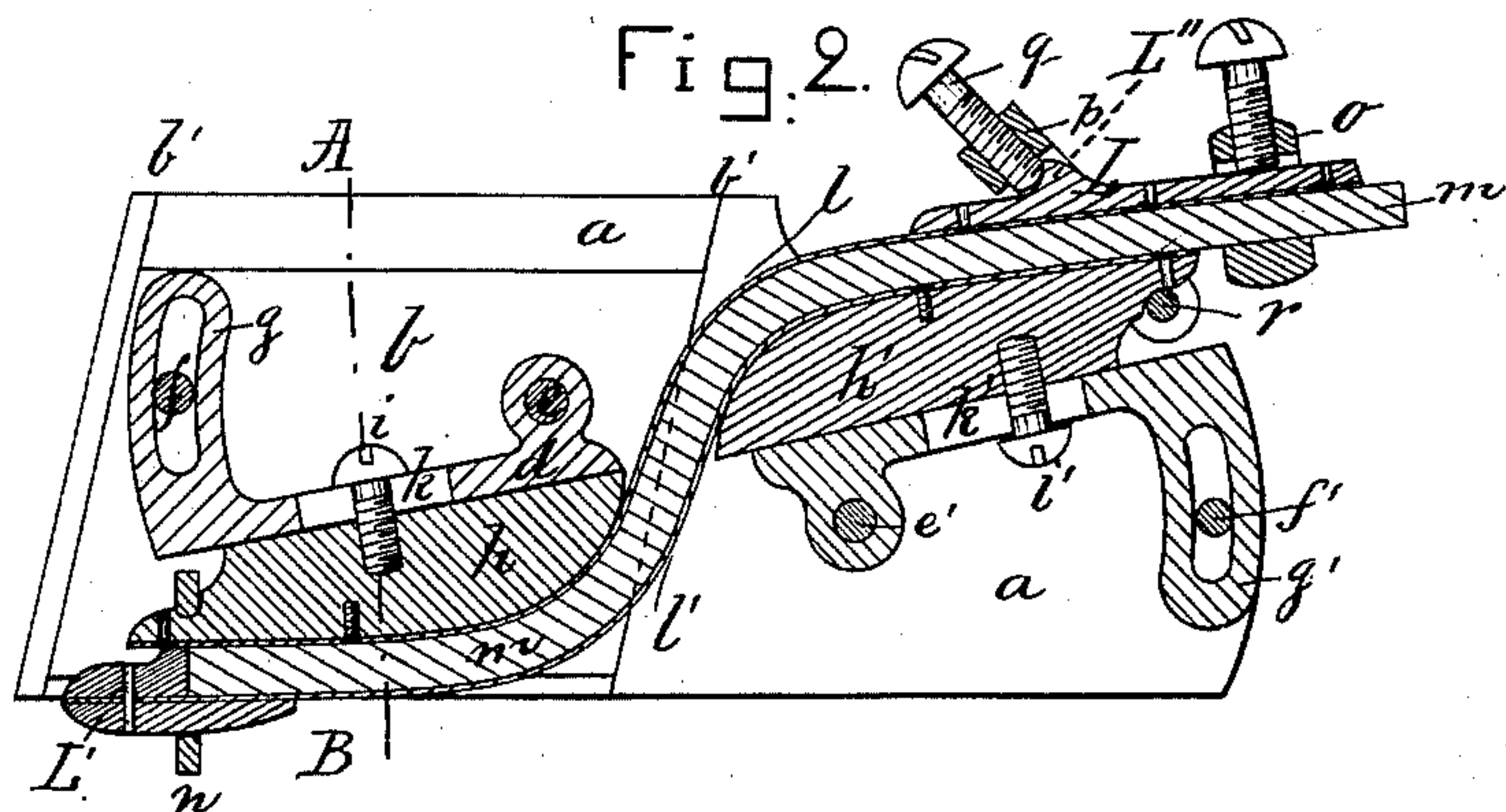
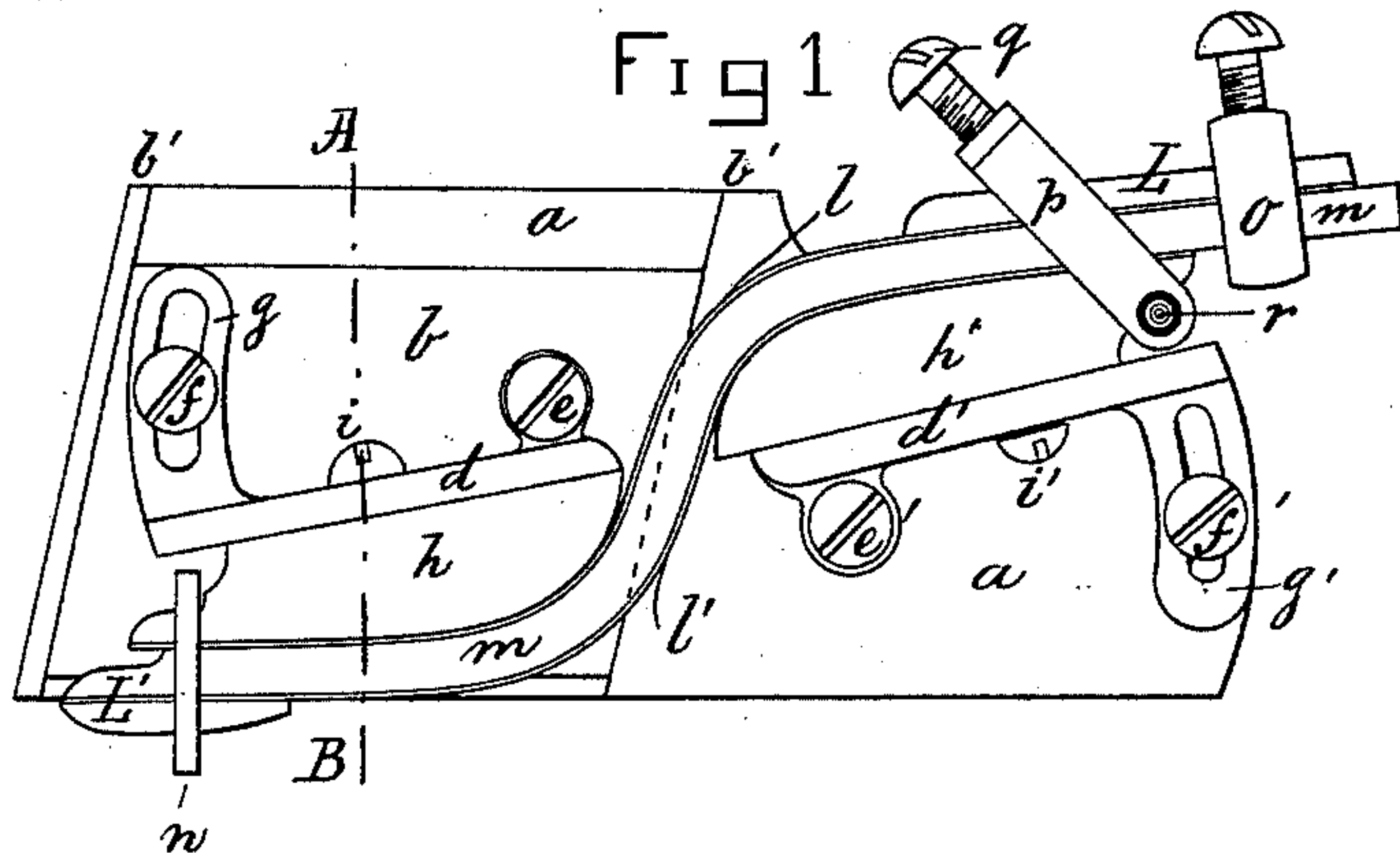


S. R. BAILEY.  
Wood-Bending Machine.

No. 223,269.

Patented Jan. 6, 1880.



Witnesses.

Henry Chadbourne.  
J. Allen.

Inventor.  
Samuel R. Bailey  
by *Alvan Judson*  
his atty.



# UNITED STATES PATENT OFFICE.

SAMUEL R. BAILEY, OF BOSTON, MASSACHUSETTS.

## WOOD-BENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 223,269, dated January 6, 1880.

Application filed May 31, 1879.

To all whom it may concern:

Be it known that I, SAMUEL R. BAILEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Wood-Bending Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in wood-bending machines; and it consists, first, in the combination, in a machine for bending wood, of two formers adjustably mounted on swinging tracks, one of said tracks being pivoted to the supporting-plate of the machine and the other to a sliding carriage, the formers, tracks, and carriage being provided with suitable adjusting mechanism, whereby a vertical, longitudinal, and swinging adjustment is obtained; second, in the combination, in a wood-bending machine, of rectilinearly-sliding formers mounted on two swinging adjustable tracks with suitable devices for securing the said formers and tracks, as more fully hereinafter set forth; third, in the combination, in a wood-bending machine, of a supporting-plate provided with an adjustable swinging track carrying an adjustable former, having mechanism for clamping the wood, with an adjustable sliding carriage carrying a similar track and former, having mechanism for securing the wood to be bent, as more fully hereinafter set forth; and, fourth, in the combination, with the former secured to the supporting-plate of the machine, of a strap for confining the wood and a strap-plate bearing against said strap, and provided with a projection on its outer surface, against which a forked drafting-plate is brought to bear by means of a pin and screw, as and for the purposes more fully hereinafter specified.

On the accompanying drawings, Figure 1 represents a side elevation of my invention. Fig. 2 represents a longitudinal section. Fig. 3 represents a cross-section on the line A B, shown in Figs. 1 and 2. Fig. 4 represents a longitudinal section of the drafting-clamp; and

Fig. 5 represents an end view of the machine, seen from A in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

*a* is the plate or frame. *b* is the sliding carriage, movable in guides *b' b'* on the plate *a*, as shown. *c* represents a fastening device for securing the carriage *b* in place on the plate *a*. *d d'* represent the swinging tracks, movable on fulcras *e e'*, and provided with fastening devices *f g f' g'* for securing them in position after adjustment. *h h'* are the curved formers, arranged to slide on the tracks *d d'*, and provided with fastening devices *i i'* passing through slot-holes *k k'* in the tracks *d d'*. *l l'* are the metallic straps, the strap *l* being secured to the former *h*, and the strap *l'* being secured to the former *h'*. *L'* is a foot piece or rest, against which the end of the wood *m* is pushed previous to the bending of the wood. *n* is the ordinary clamp for holding the foot-piece *L'* and strap *l'* in their proper relative positions to the former *h* after the wood is bent. *o* is an ordinary screw-clamp for securing the wood *m* and the metallic strap *l* and its plate *L* together previous to the bending of the wood. *p* is the forked drafting-clamp, provided in its upper end with a pressure-screw, *q*, the lower end of which is forced against the projection *L''* on the strap-plate *L*. The lower end of said clamp is preferably perforated, and through its perforations is inserted the bolt or pin *r*, that is made to rest against the outer notched end of the former *h'*.

The plate or frame *a* is shown in the drawings as a single one, arranged below the tracks and formers; but where additional strength is required I prefer to make said plate or frame duplex—that is, extending both above and below said tracks and formers—without departing from the spirit of my invention.

In case it is required to bend a great number of pieces of wood of the same size and with the same curvature at one operation, it is preferable to make one of the formers cast in one piece with the frame, and to use only one movable former, arranged to slide on its track. The other former in this case would preferably be cast in one piece with the plate or frame *a*.



Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a machine for bending wood, the combination of the formers *h h'*, adjustably mounted on the tracks *d d'*, one of said tracks being pivoted to the base-plate *a* and the other to a sliding carriage, *b*, the formers, tracks, and carriage being provided with suitable adjusting mechanism, whereby a vertical, longitudinal, and swinging adjustment is obtained, substantially as specified.

2. The combination of the rectilinearly-sliding formers *h h'*, the swinging adjustable tracks *d d'*, supporting said formers, and devices for securing said formers and tracks in position, substantially as described.

3. In combination, in a machine for bending wood, a supporting-plate provided with an

adjustable swinging track carrying an adjustable former, having mechanism for clamping the wood, with the sliding adjustable carriage carrying a similar swinging track and former, having mechanism for securing the wood to be bent, substantially as specified.

4. The combination, with the former *h'*, strap *l*, and strap-plate *L*, provided with a projection on its outer surface, of the forked drafting-clamp composed of the bifurcated piece *p*, pin *r*, and screw *q*, substantially as described.

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

SAMUEL R. BAILEY.

Witnesses:

ALBAN ANDRÉN,  
ALEX. M. WOOD.