

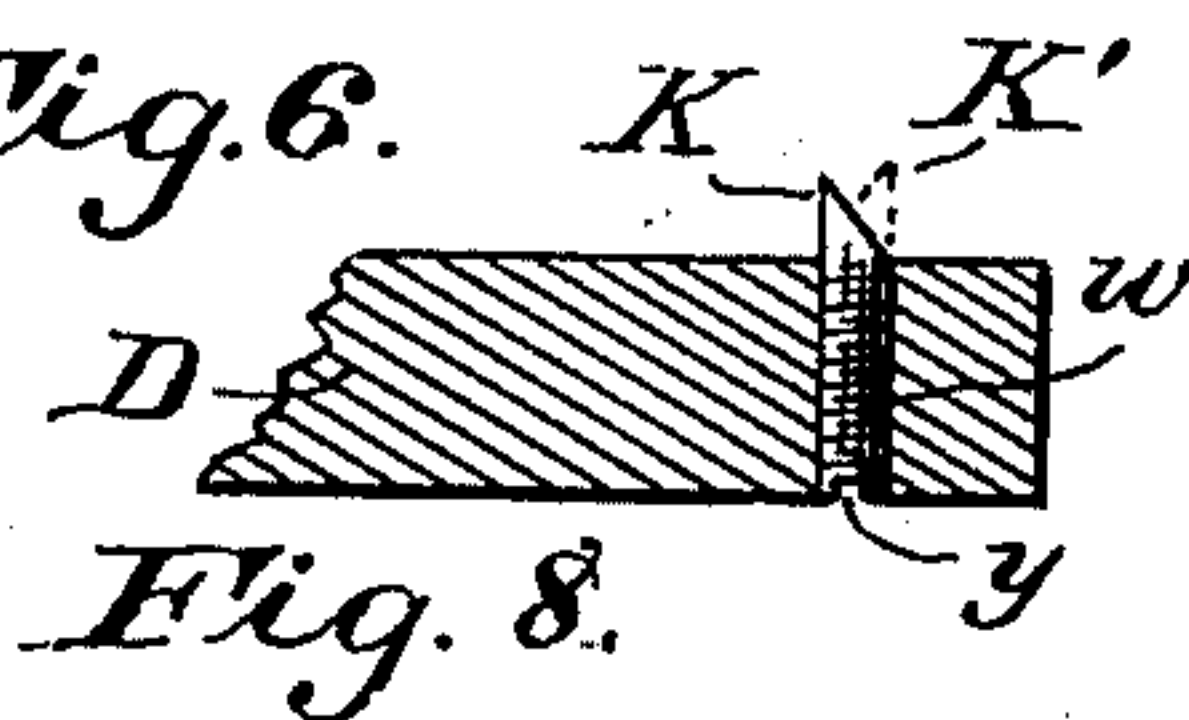
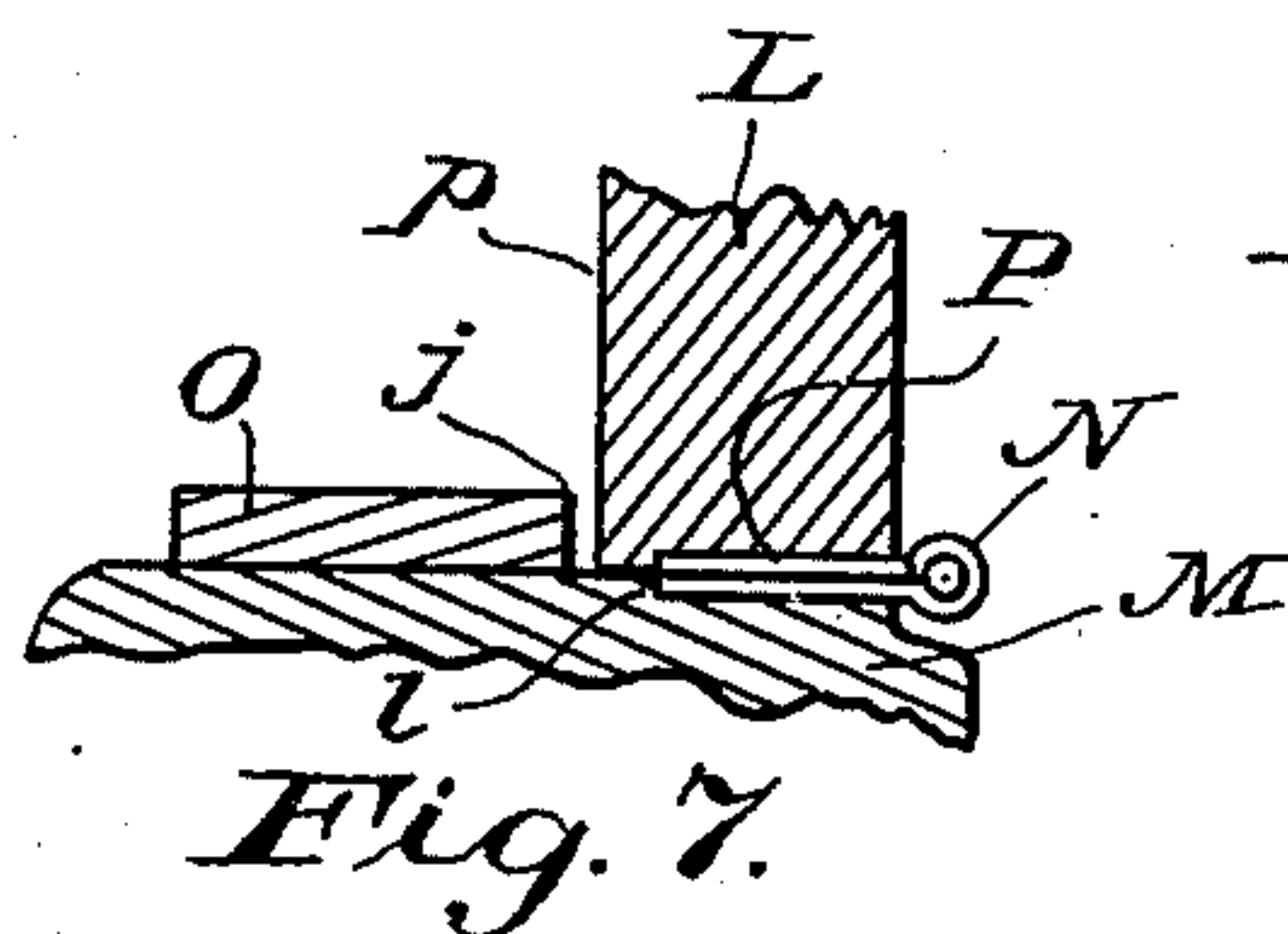
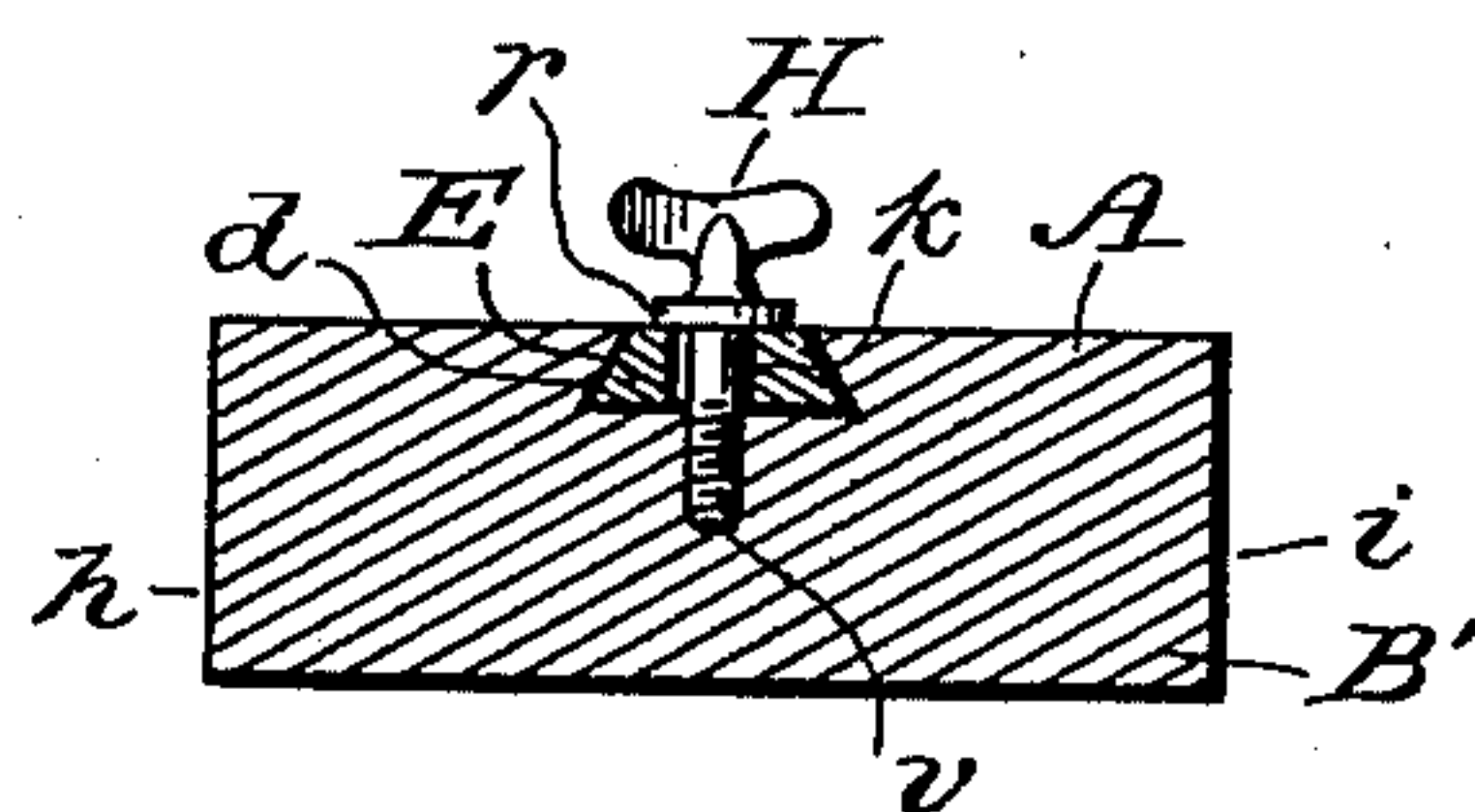
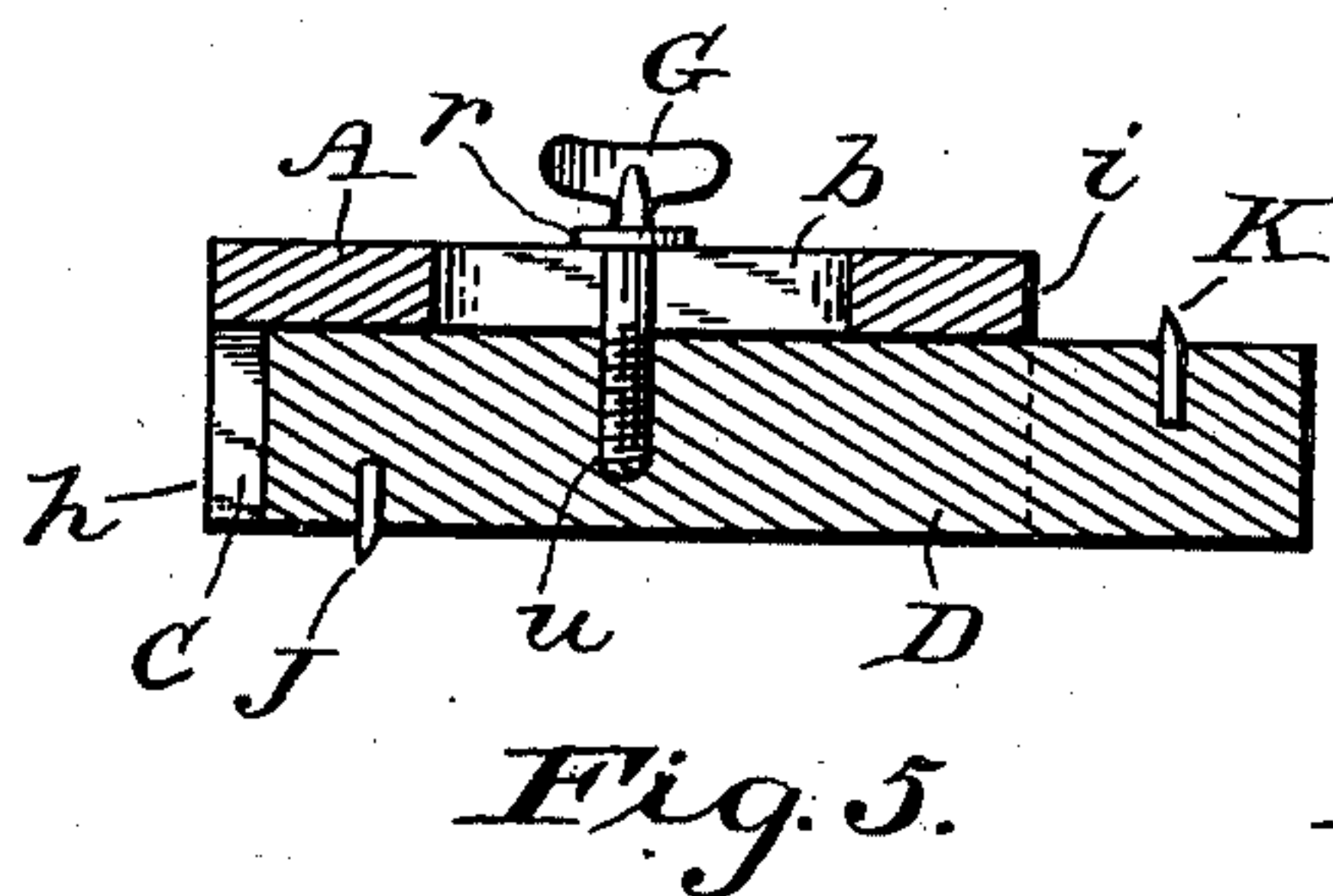
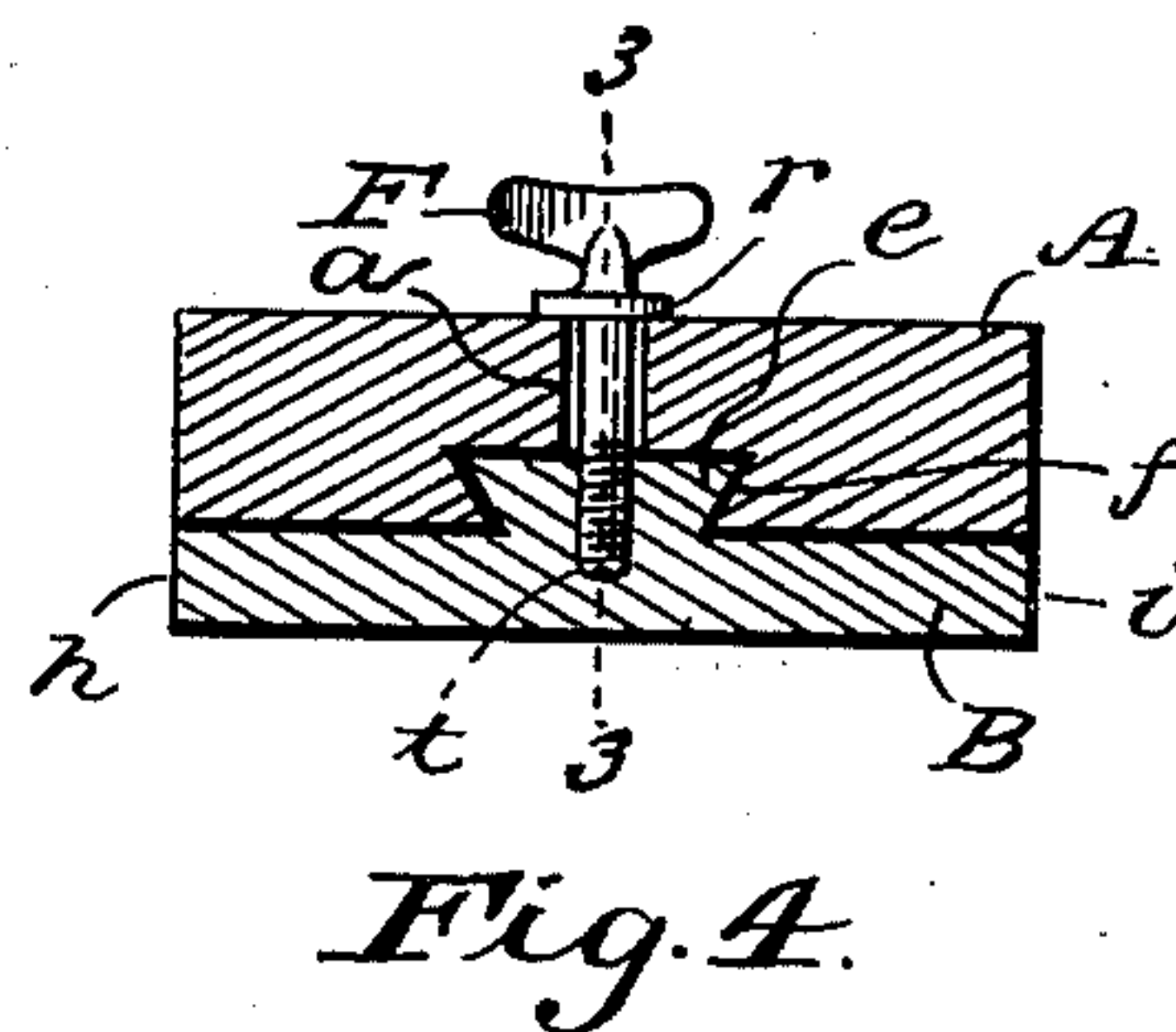
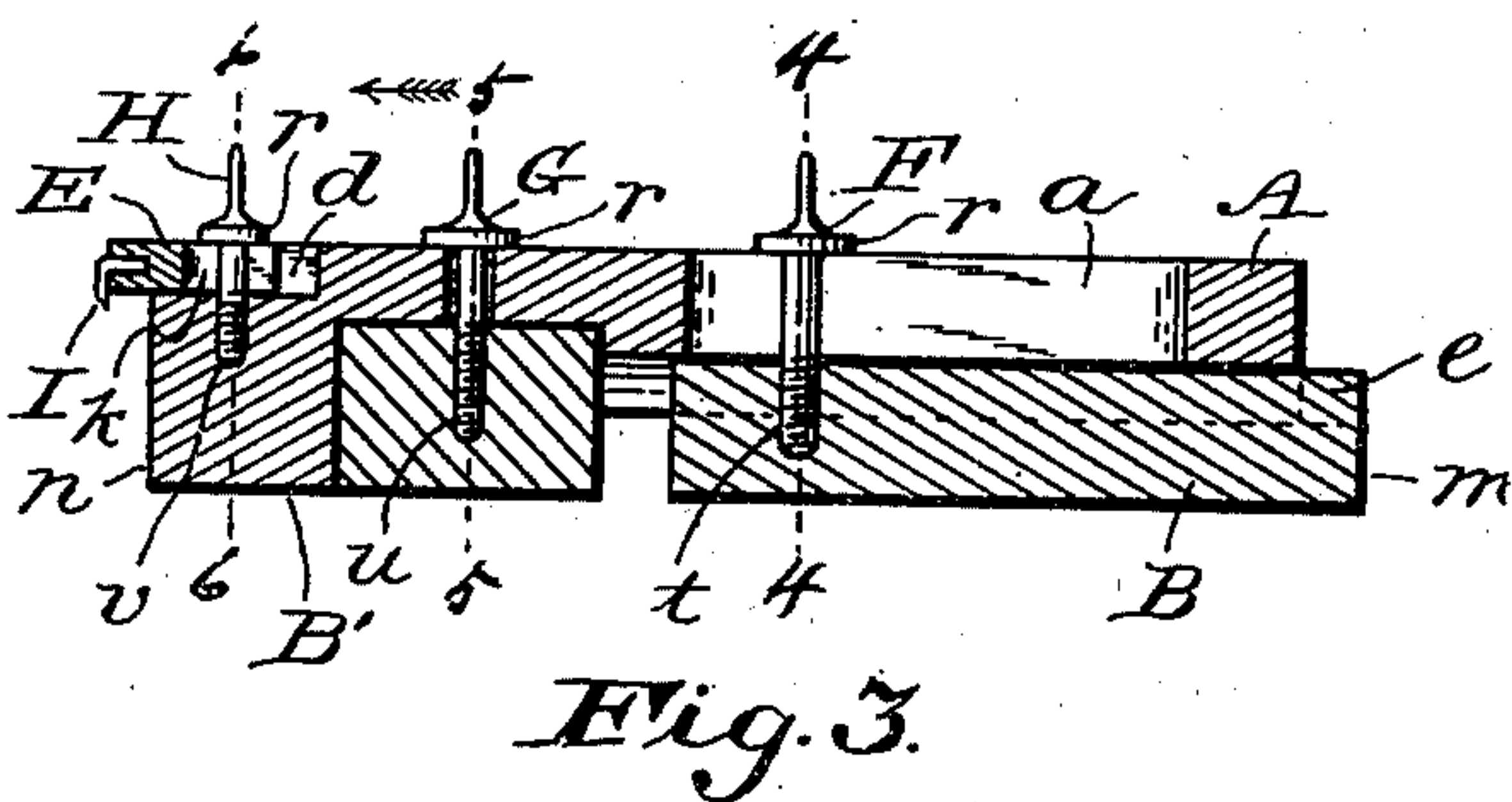
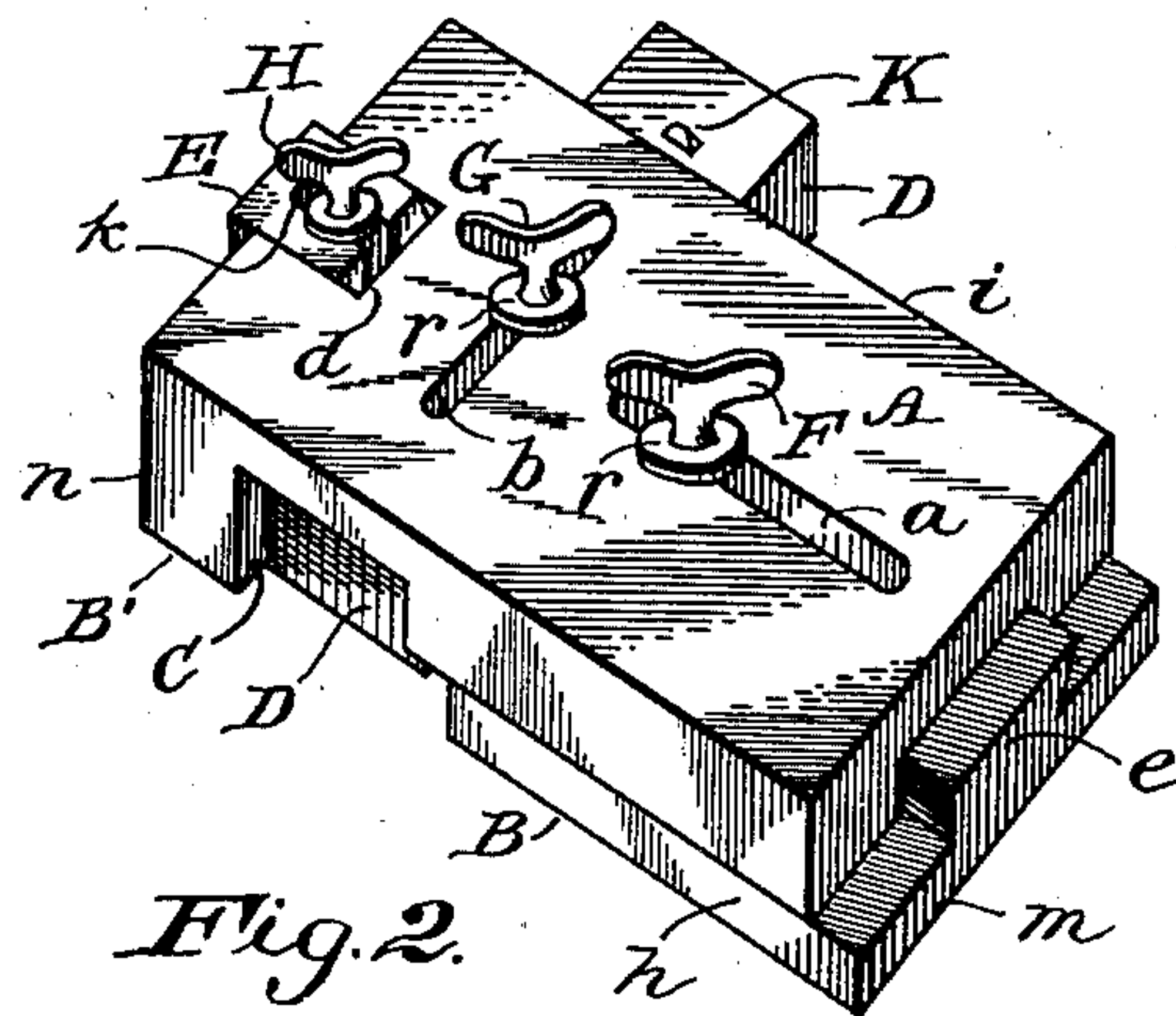
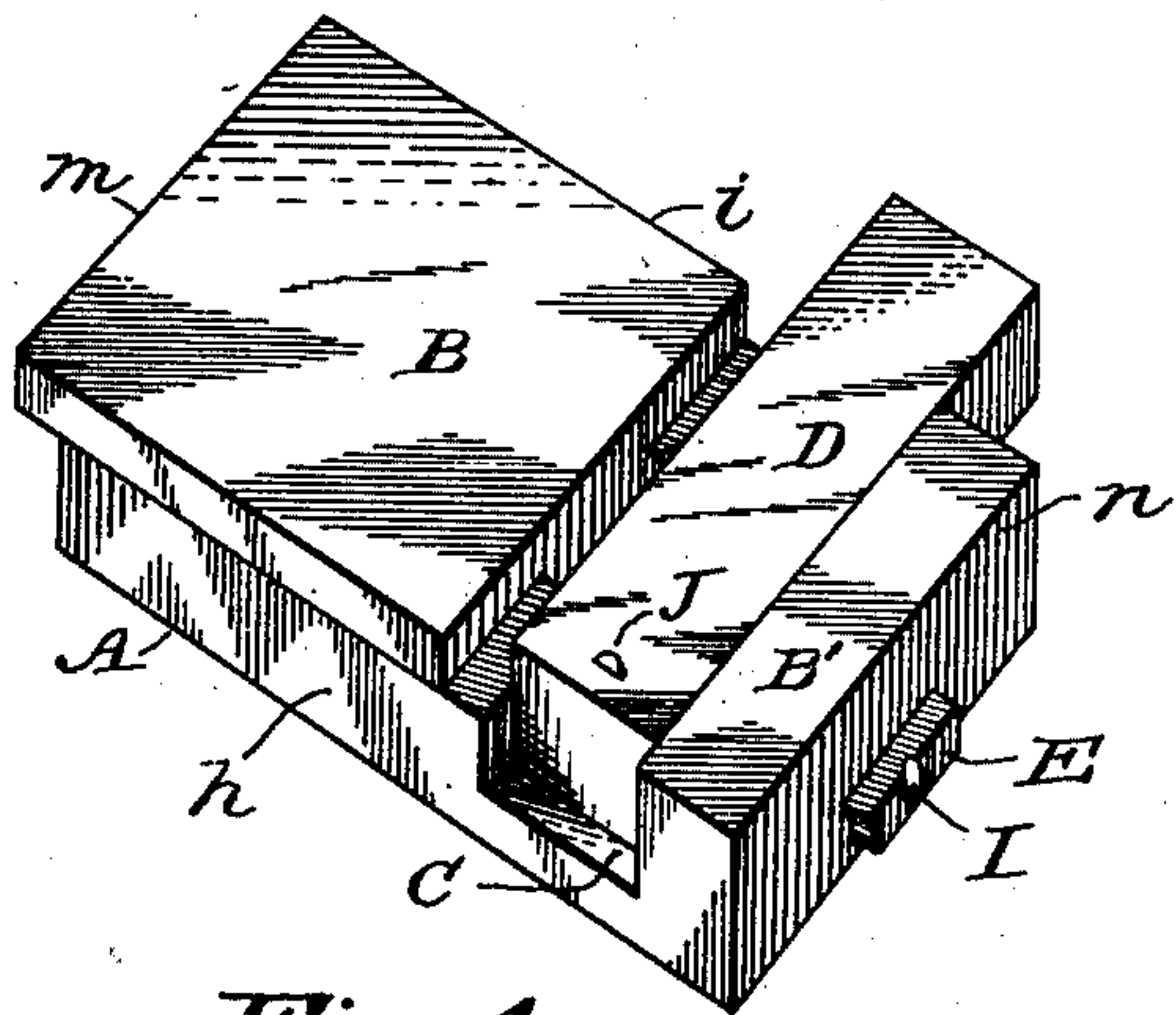
**No. 671,198.**

**Patented Apr. 2, 1901.**

**J. H. STULTS.**  
**DOOR HANGING GAGE.**

(Application filed Oct. 30, 1900.)

(No Model.)



*WITNESSES:*

Wm. H. Payne.  
Sara Alexander.

*INVENTOR:*

BY *J. H. Stults,*  
*E. T. Silvius,*  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

JEREMIAH H. STULTS, OF INDIANAPOLIS, INDIANA.

## DOOR-HANGING GAGE.

SPECIFICATION forming part of Letters Patent No. 671,198, dated April 2, 1901.

Application filed October 30, 1900. Serial No. 34,967. (No model.)

*To all whom it may concern:*

Be it known that I, JEREMIAH H. STULTS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Door-Hanging Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 the letters of reference marked thereon, which form a part of this specification.

The invention relates to that class of marking-gages employed for gaging and marking the positions and lengths of hinges on doors and door-jambs, respectively, preparatory to cutting the recesses for the hinge-leaves.

One object is to improve the forms of construction of the elements in gages of this character that are designed for marking the positions of the hinges and to also provide in such a gage means whereby the length of the hinge may be marked, so as to avoid the necessity of measuring for each hinge and handling a square for scoring.

A further object is to provide a simple and cheaply-constructed gage for the above purposes so constructed that each part thereof may be set and used independently of the other parts.

With the above objects in view my invention consists in an extensible body having a substantially plane under face and two parallel straight edges whereby to score or mark the length of a hinge, an adjustable gage-bar adapted to be operated in connection with two opposite sides of the body, and a depth-gage for scoring for thickness of the hinge-leaf; and the invention consists also in the parts and combination and arrangement of parts hereinafter particularly described and claimed.

Referring to the drawings, Figure 1 represents my invention perspective view of the under or plane-faced side thereof; Fig. 2, a perspective view of the upper side; Fig. 3, a vertical longitudinal central sectional view as on a line 3 3 in Fig. 4; Fig. 4, a vertical transverse sectional view as on a line 4 4 in Fig. 3; Fig. 5, a vertical transverse sectional

view as on a line 5 5 in Fig. 3; Fig. 6, a vertical transverse sectional view as on a line 6 6 in Fig. 3; Fig. 7, a fragmentary horizontal sectional view illustrating the connection of a door with a door-jamb for reference in pointing out the adaptability of my invention, and Fig. 8 a fragmentary detail view showing a modification of the gage-bar.

Similar reference characters in the several figures of the drawings refer to similar parts.

For convenience, the uppermost face shown in Fig. 1 is designated as the "lower" side, and the uppermost face shown in Fig. 2 is designated the "upper" side of the tool or implement, although in operation either side may be uppermost.

In construction any suitable metal or material may be employed, the main parts being preferably cast metal. The main body A is rectangular and preferably oblong in plan and of suitable thickness and may be cored out to dispense with surplusage of metal. At the under side of one end is a movable portion B, slidingly connected with the main body, whereby the same may be rendered extensible, and at the opposite end of the main body is a projecting portion B' thereof, extending down to a plane coinciding with the lower face of the part B. The part B is suitably guided, as by a rib *e*, working in a groove *f*, and is removably secured, when adjusted to the body A, by means of a suitable thumb-screw F, extending through a slot *a* in the body and having a threaded end *t* engaging a threaded hole in the part B, the screw having a collar *r* bearing upon the top of the body A. The body A and the plate portion B are of even width, and the outer end *m* of the plate B is a straight edge at a right angle to its line of movement. The two sides (or, properly, edges) *h* and *i* are straight and parallel and employed as gage-faces. The outer face *n* of the projecting portion B' is also straight and is parallel to the face *m*.

Adjacent the projecting portion B' and between it and the inner end of the movable portion B is a transverse guide-channel C in the under side of the main body A and extending from side to side thereof, in which is slidingly fitted a gage-bar D, adjustably secured therein by means of a suitable thumb-screw or binding-screw G, extending through



a transverse slot *b* in the top of the body and having a threaded end *u* engaging a threaded hole in the bar D, the screw having a collar *r* bearing upon the top of the body at the sides of the slot *b*. The bar D in cross-section fills the channel C and is provided with a scoring-point J at the under side thereof near the end adjacent the gage-face *h*, and also a like point K at the upper side thereof, near the opposite end thereof, at a suitable distance from the gage-face *i* of the body. The two scoring-points are so spaced, respectively, that the point J shall be a somewhat-greater distance from the face *h* than the distance from the point K to the face *i*, and when the bar D is moved in its channel the two points obviously maintain the same proportionate relations with respect to their respective gage-faces. As the greater distance between the point J and the face *h* is designed to provide clearance for the door when hung, it is desirable that the amount of clearance should be adjusted to suit conditions, and therefore I may provide that either one or both points be adjustable relatively to the other, as may be suitably accomplished by the means shown in Fig. 8, in which the stem *w* of the point K is threaded and fitted into a corresponding threaded hole extending through the gage-bar D, the stem fitting snugly and having a slot *y* in its head, in which a screw-driver may be inserted for rotating the same. The extreme point for scoring is at one side of the axis of the stem, so that if the latter be rotated one-half of a revolution the point will be moved nearer to the adjacent end of the bar, as shown at K' in dotted lines.

At the upper side of the body A, at the end thereof having the projecting portion B', is an adjustable depth-gage comprising a sliding bar E, working in a recess *d* and having a slot *k*, through which a suitable thumb-screw H extends, and having a threaded end *v*, engaging a correspondingly-threaded hole in the body A, the screw having a collar *r*, bearing upon the top of the bar E, which is provided with a scoring-point I, extending below the under face of the bar.

In Fig. 7, L designates the door; M, the door-jamb; N, the hinge; O, the facing on the door-jamb. An exaggerated clearance-space is shown between the cheek *j* and the side *p* of the door, which may be accurately gaged and marked by my implement, so as to be either increased or decreased, as may be desired, in locating the hinges after the strip O is applied to the jamb. This strip, however, may be integral with the jamb when the latter is rabbeted to receive the door.

In using my improved gage the bar D may be set so that the point J shall score for the edge *l* of the hinge-leaf P at the desired distance from the cheek *j* when the face *h* is in contact with the cheek. The point K may then be used to score the edge of the door, with the face *i* in contact with the side *p* of

the door, and if the adjustable points be employed the clearance may be varied when desired, as when doors may be warped. The bar E may then be properly set, so that when the face *n* is in contact with the edge of the door to which the leaf is to be applied the point I may mark the depth to be cut to admit the leaf. The body portion B may then be projected to the length of the hinge-leaf, and after marking the points of one end of each hinge in the usual manner the length of the hinge may be marked by scratching the wood at the ends *m* and *n*, one of which ends having been placed at the position-mark, and this will be found a great convenience when a large number of doors are to be hung.

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

1. In a door-hanging gage, an extensible body comprising two portions of equal width the edges of which form relatively fixed gage-faces and having two adjustable gage-faces at right angles to the edges thereof, a binding-screw adjustably securing one to the other, and a gage-bar movable in a line parallel to the adjustable gage-faces and having a scoring-point at one side thereof near one of the fixed gage-faces and a scoring-point at the opposite side thereof near the other one of the fixed gage-faces.

2. In a door-hanging gage, an extensible body having two parallel gage-faces, a gage-bar movable in a line parallel to said gage-faces and having a scoring-point at one side near one end thereof and a like point at the opposite side thereof near the edge of said body opposite the first-described end of said bar, and a depth-gage at the upper edge of one of said parallel gage-faces.

3. In a door-hanging gage, the combination of the main body having the transverse guide-channel and the depending portion at one side of said channel having the straight gage-face, the gage-bar working in said channel, the binding-screw for said bar, the scoring-points at opposite sides of said bar, the extensible portion movable in a line at a right angle to the line of movement of said gage-bar and having the outer straight gage-face parallel to said straight gage-face on said main body portion, and the binding-screw for said extensible portion.

4. In a door-hanging gage, the rectangular main body having the two parallel fixed gage-faces and having the guide-channel extending from one to the other of said faces, the gage-bar sliding in said channel, the binding-screw for said bar, the scoring-point at one side of said bar near one of said gage-faces, and the scoring-point at the opposite side of said bar near the opposite one of said gage-faces, substantially as set forth.

5. In a door-hanging gage, the combination of the main body A having the extensible portion B each having a straight gage-face parallel to each other, the binding-screw,



the depth-gage mounted at the upper end of said body A opposite said portion B, the binding-screw for said depth-gage, the gage-bar movable across said body A in a path at a right angle to the path of movement of said portion B, the binding-screw for said gage-bar, and the scoring-points at opposite sides of said gage-bar, substantially as set forth.

10 6. In a door-hanging gage, an extensible body having a transverse channel therein near one end thereof and a movable gage portion extending from the channel to the opposite end of the body, a gage-bar movable in  
15 the channel, a scoring-point in the bar at one side thereof near one of the edges of the body, and a scoring-point in the bar at the opposite side thereof near the opposite edge of the body.

20 7. In a door-hanging gage, the combination of the main body portion having parallel fixed gage edges, the sliding portion connected with said body, the depth-gage movable at

the end of said main body portion opposite said sliding portion, the gage-bar mounted  
25 slidably transversely in said main body, and the adjustable scoring-points in said gage for coacting with said fixed gage edges, substantially as and for the purposes shown and described.

30 8. In a door-hanging gage, the combination of an oblong rectangular main body portion having a transverse channel therein, a movable portion equal in width to the main body portion and extending from one end of the  
35 main body portion to the channel therein, a binding-screw for the two portions, and a gage-bar having scoring-points at opposite sides thereof and movably secured in the channel.

40 In testimony whereof I affix my signature in presence of two witnesses.

JEREMIAH H. STULTS.

Witnesses:

E. T. SILVIUS,

ROBERT S. MCMEANS.