

(No Model.)

2 Sheets—Sheet 1.

A. J. WEAVER.
PICTURE FRAME HOLDER.

No. 282,427.

Patented July 31, 1883.

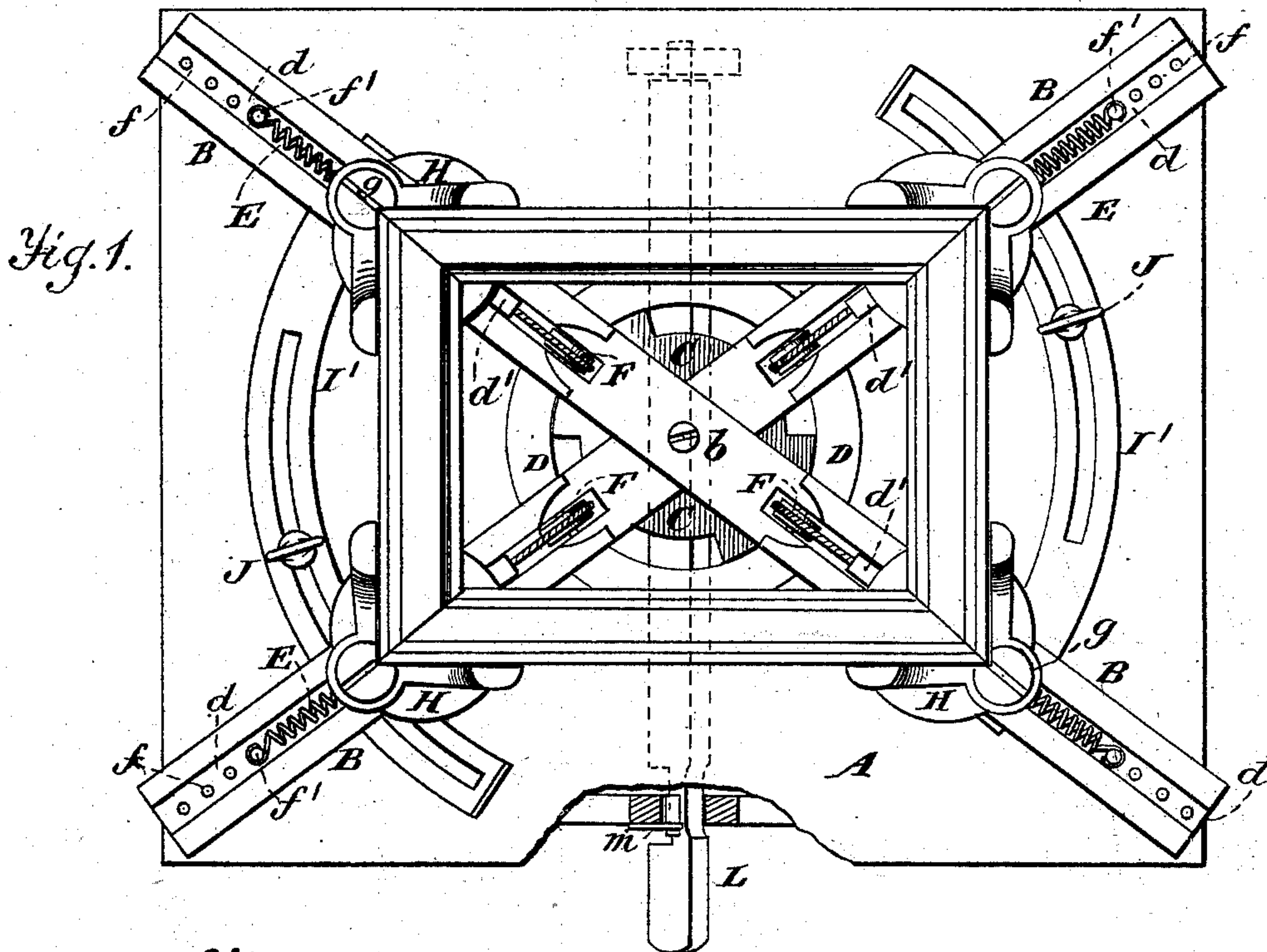


Fig. 4.

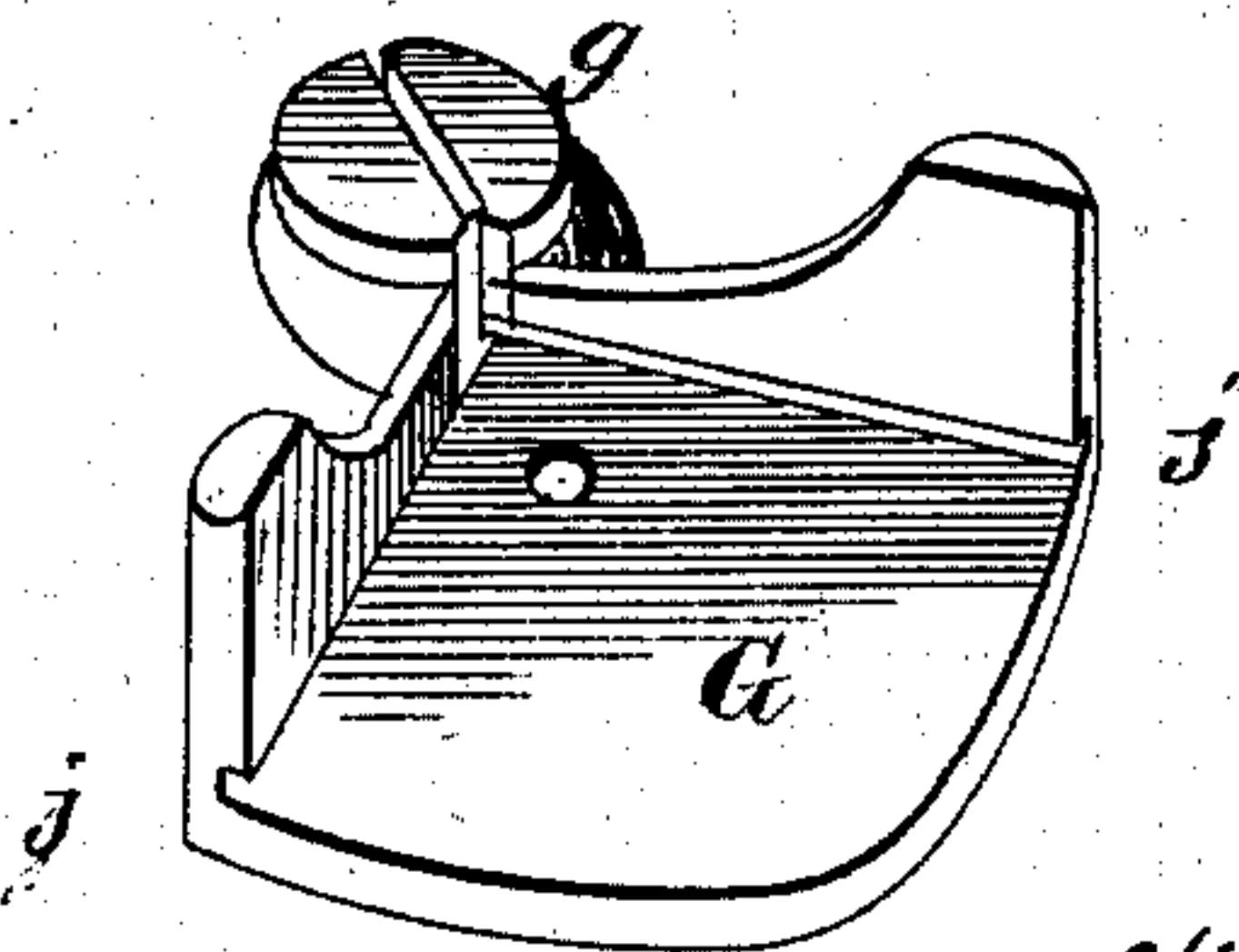


Fig. 6.

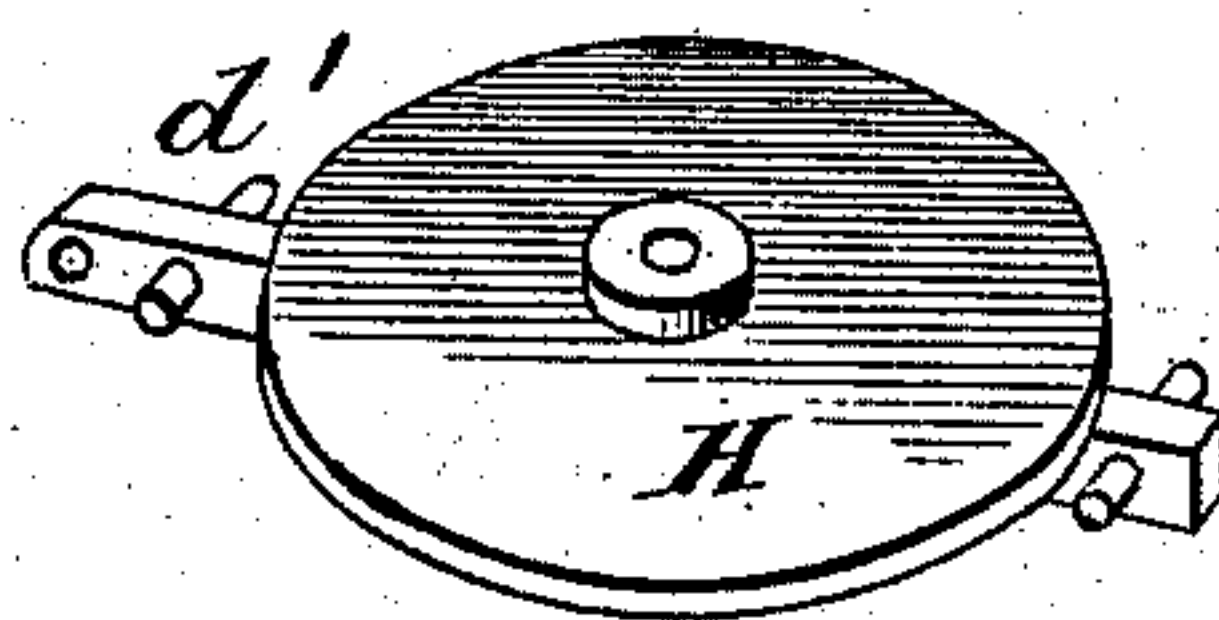


Fig. 8.

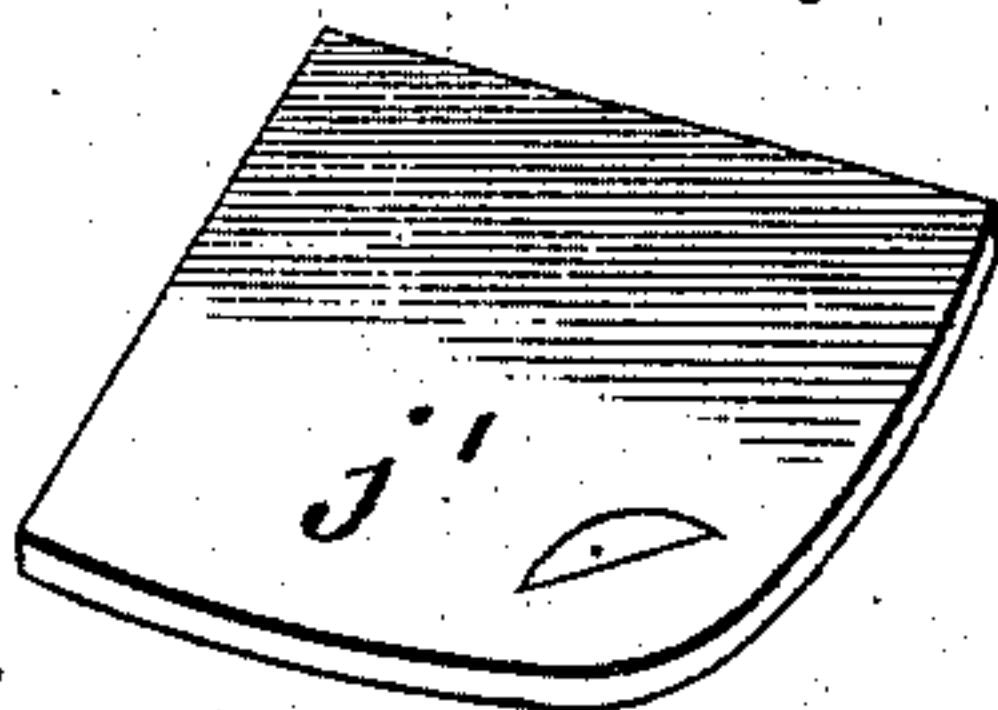


Fig. 9.

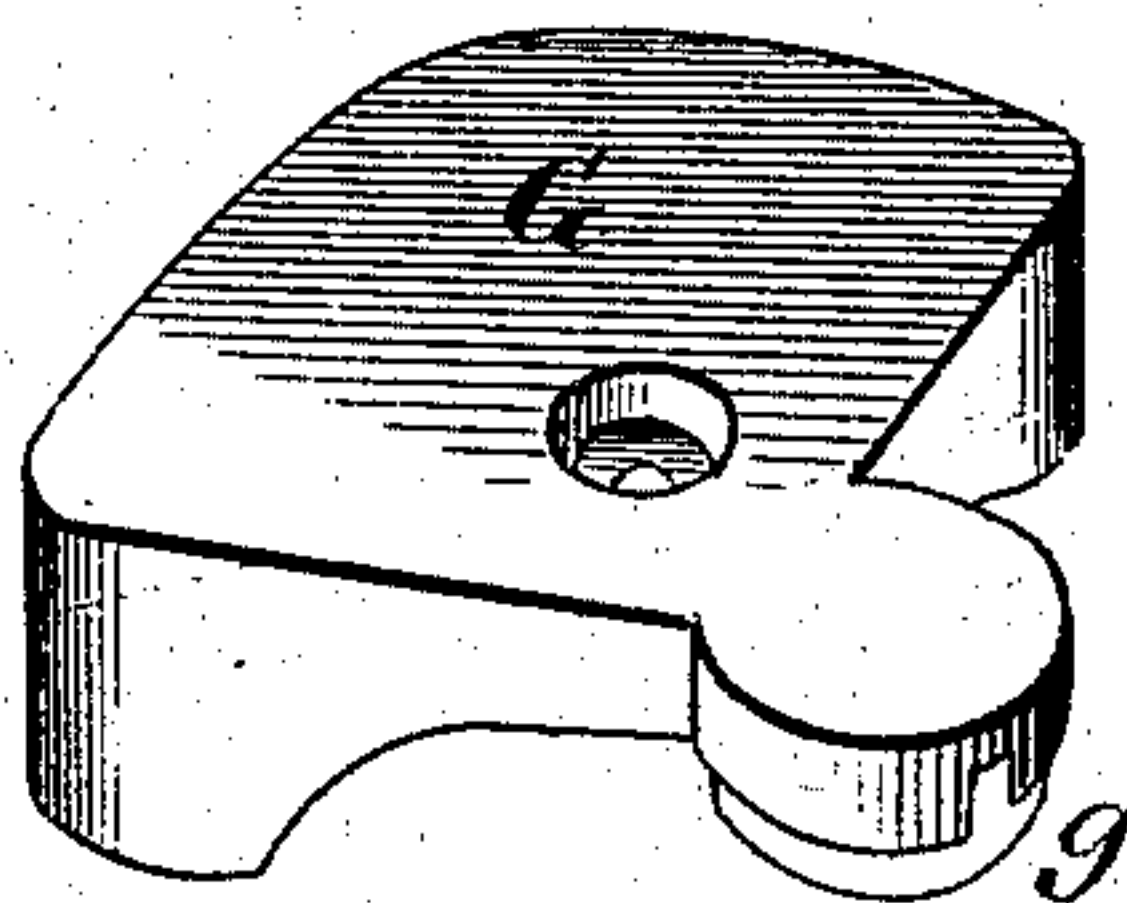
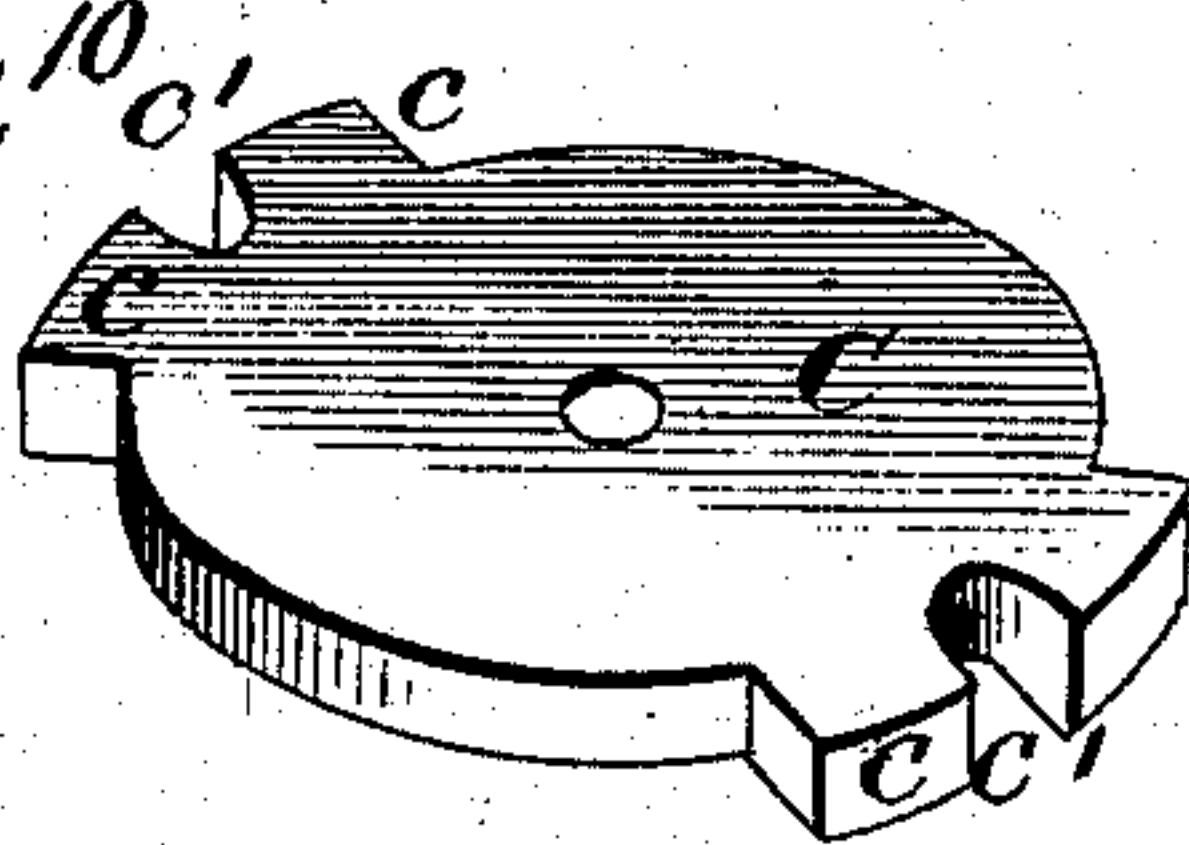


Fig. 10.



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2 Sheets—Sheet 2.

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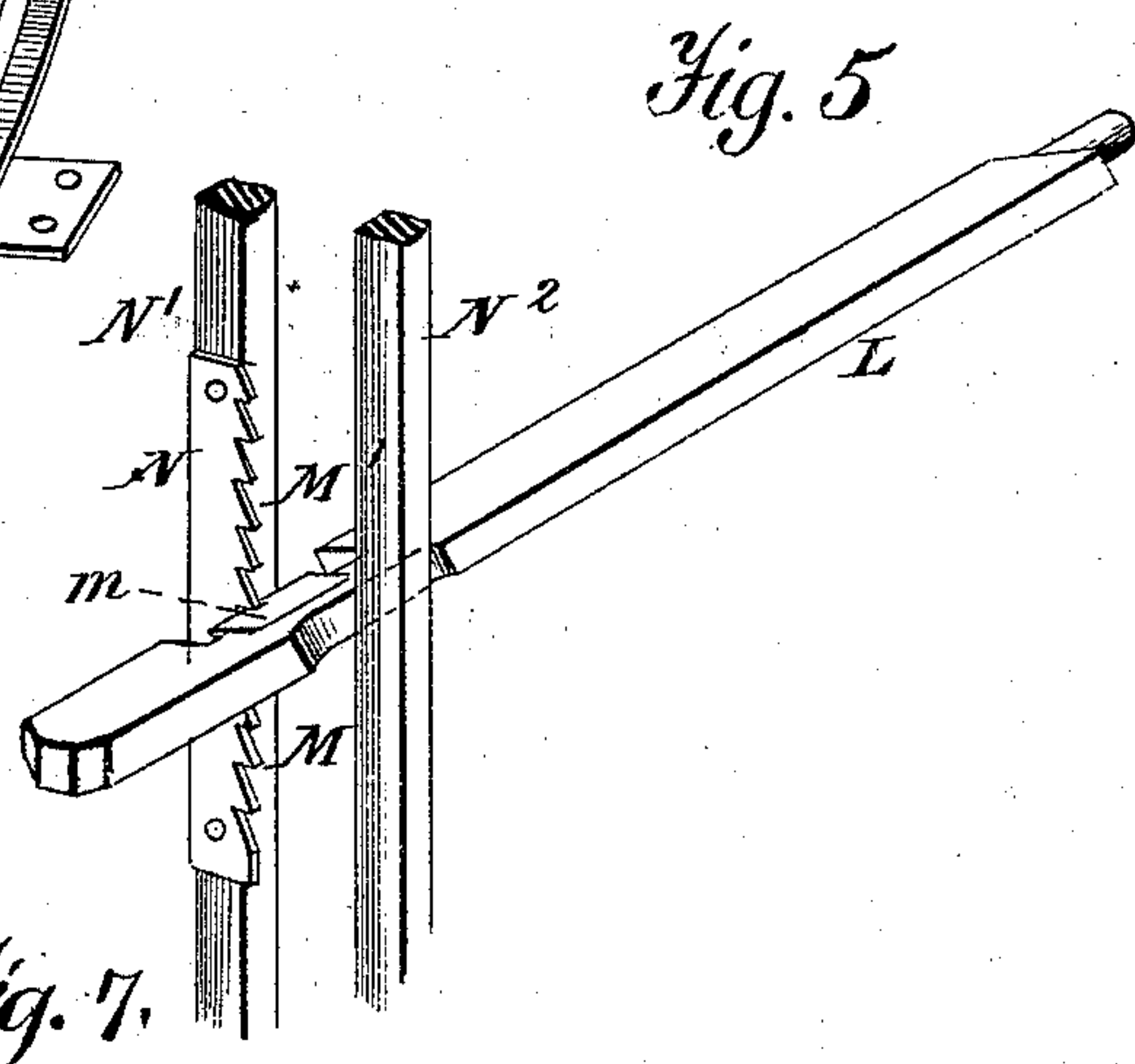
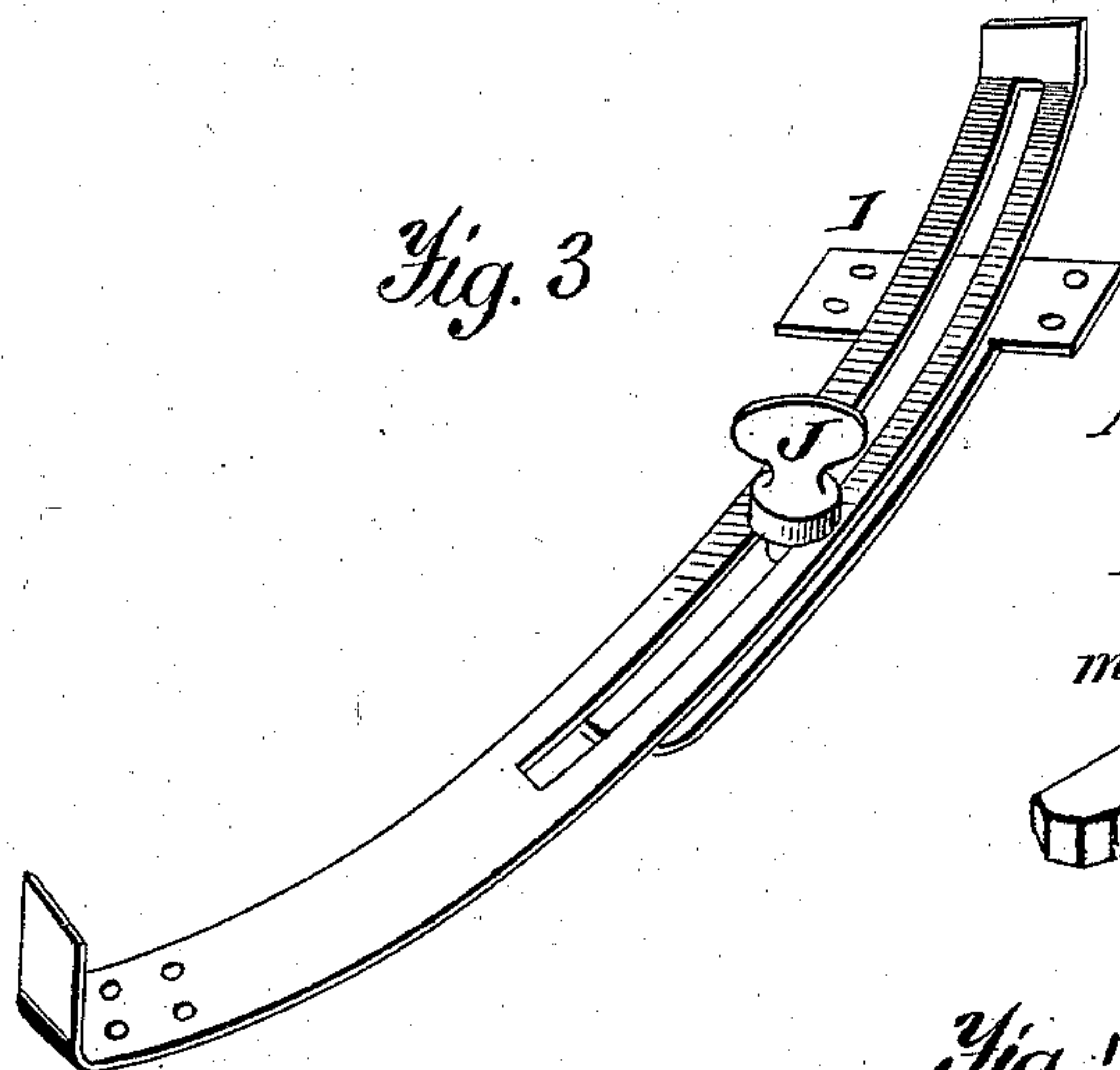
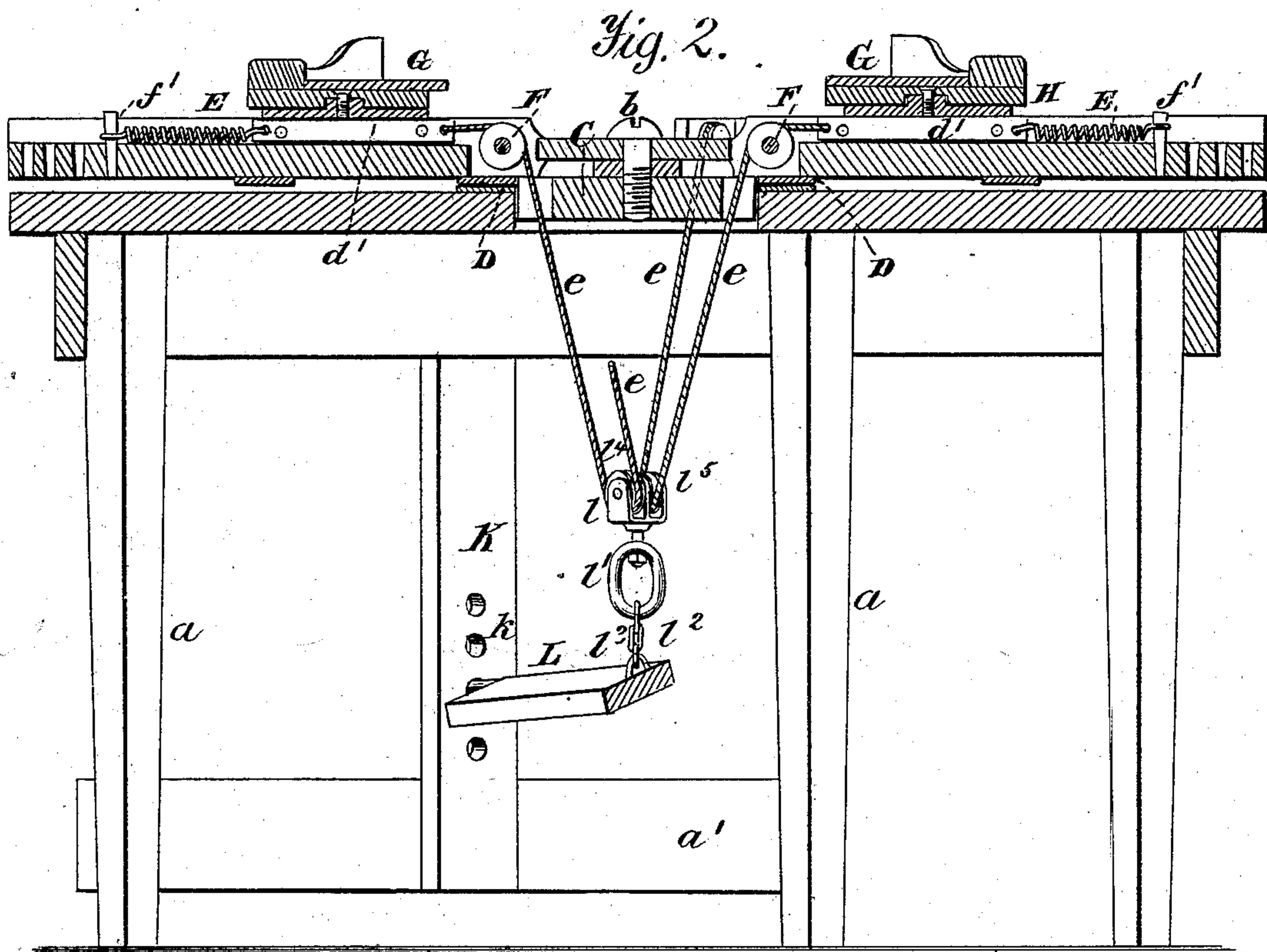
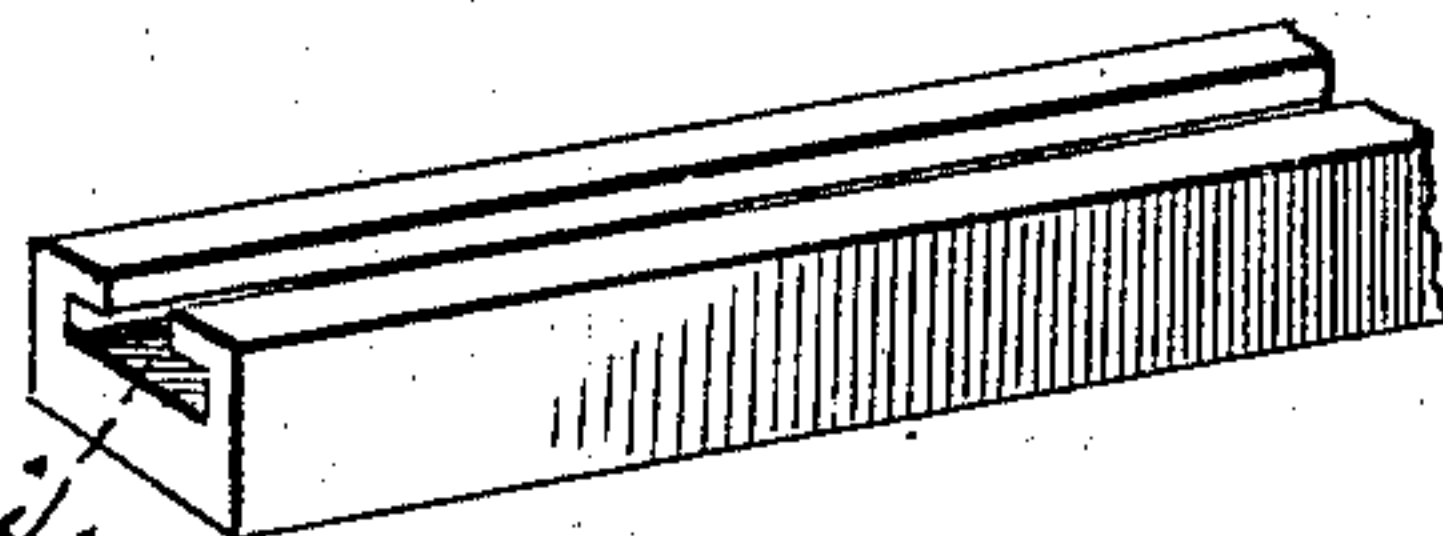


Fig. 7.

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UNITED STATES PATENT OFFICE.

ANDREW J. WEAVER, OF ST. PETERSBURG, PENNSYLVANIA.

PICTURE-FRAME HOLDER.

SPECIFICATION forming part of Letters Patent No. 282,427, dated July 31, 1883.

Application filed January 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. WEAVER, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Picture-Frame Holders; 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 the letters of reference marked thereon, which form part of this specification.

This invention relates to improvements in clamps for the construction of picture-frames, or the putting of them together in such a manner that a perfectly-fitting or close joint is made with but very little expenditure of labor and time, and the same being performed through the medium of devices that have a simultaneous movement, said devices being fitted to a table or bench provided with an opening in the center, through which pass ropes over pulleys over the opening in the table, and pulleys in a swivel-link secured to one end of an adjustable treadle beneath said table; and the invention consists in the construction and novel arrangement of parts, as will be hereinafter more specifically described, and set forth in the claims.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a top or plan view of my invention. Fig. 2 is a vertical transverse section of the same, partly in elevation. Fig. 3 is a view of one of the segmental guides and adjusting device. Fig. 4 is a perspective view of one of the clamps. Fig. 5 is a perspective view of the rear portion of the treadle. Figs. 6, 7, 8, 9, and 10 are detail views.

A represents the table, provided with legs *a a a* and side pieces, *a' a'*, upon which is supported the machine; and B B are the cross-bars, pivotally connected together in the center by a screw, *b*, which passes through a hole in the center of a metallic revolving center plate, C, which is screwed fast to one of the cross-bars, and is provided with lugs *c c c c* and recesses *c' c'*, fitted within an opening in the center of the table A, and surmounting this opening and center plate, C, are two flat

and smooth rings, D D. One of said rings is screwed fast to the table, and the other screwed fast to the same cross-bar as plate C, and placed upon the other, which abut against the lugs *c c c c* of the plate C, leaving space between the lugs and rings D D for ropes to pass back or forward, and for pulleys journaled in cross-bars B B to rest in. These cross-bars, when secured together, are in the form of the letter X, and move around upon or with these rings D D when required. These cross-bars B B have also longitudinal grooves *d d d d* therein, beginning from the center thereof and running to their outer ends, and within said grooves play short bars *d' d' d' d'*, each of said bars having fastened at one end springs E E E E, and to the other end are secured ropes *e e e e*, which pass over pulleys F F F F, journaled in cross-bars B B at a point nearly or immediately over the opening in the table A, for a purpose to be hereinafter explained. The cross-bars B B also have perforations *f f f f* in the grooves to receive adjusting-pins *f' f' f' f'*, fastened to and which hold the opposite ends of the springs E E E E, above referred to, to allow for the adjustment of the metallic flanged and recessed followers or corner clamps or plates G G G G, said recesses being adapted to receive wood-plugs *g g g g*, with saw-kerfs in, (clearly shown in Fig. 4 of the drawings,) for the double purpose of protecting the saw from coming in contact with the iron while refitting the corner of frame in case of a miscut, and also to receive the corner of the frame and protect it from being damaged, and hold it steady while the frame is being nailed, and said corner-clamps or followers being provided with grooves *j j*, within which slide wood-plates J', (see Fig. 4,) corresponding in form to the bottom of the followers, for the purpose alone of protecting the saw from coming in contact with the iron in case of a miscut, as above described, in wood-plugs *g g g g*. These flanged followers or corner-clamps G G G G rest upon circular plates H H H H and short bars *d' d' d' d'*, to which the springs and ropes are attached. The circular plates have annular projections or lugs in their centers, which fit in holes in the flanged corner-plates or followers on their under sides, and which plates are held together by means of a screw, the object of

said annular projection being for the double purpose of allowing said corner-plates G G G G to accommodate themselves to the angle of any frame, as well as to directly resist the force of the hammer while the frame is being nailed, the several corner and circular plates fitting snugly together and secured to the cross-bars B B by short bars $d' d' d' d'$, springs and ropes running in the grooves of same, said circular plates being shown in Fig. 6. Half-way between centers and ends of cross-bars B B are fastened to their under side T-shaped concave plates I I, over which slide slotted segments I' I', having their ends bent up at right angles, and both being adjusted on each other, as well as held at any desired point by a set-screw, J, as shown in Fig. 3, and upon these segments rest the cross-bars, so that they can be adjusted to suit any-sized sections of picture-frames that may be required to be joined together, the adjustment laterally of said bars, holding the sections of picture-frames, being performed by the slotted segments and set-screws above mentioned, and the adjustment longitudinally of the clamps or followers, also containing the picture-frame, by the springs and short bars and ropes passing over pulleys in the cross-bars B B. Attached to one side of the table A is an upright board, K, provided with perforations k near the lower end to receive the tenon of one end of a treadle or lever, L, and to the center of said treadle is secured a swivel, l , and smaller links l^2 and staple l^3 , said swivel having journaled therein two pulleys, $l^4 l^5$, over which the ropes pass for adjusting the followers G G G G. Near the other end of said treadle L are made notches M M. Within the notches M is rigidly fastened a plate, m , which engages the teeth of a rack-bar, N, fastened to one of the two uprights N' N', (clearly shown in Fig. 5 of the drawings,) whereby the treadle can be adjusted to any height required.

Having thus described my invention, I will now explain the operation of the same.

The sections of picture-frames to be jointed together are first glued and placed in position in the corner-clamps or followers, and by the downward movement of the treadle by the operator the followers and circular plates upon which they rest are caused by the short bars which are connected to the circular plates and ropes fastened to one end of the short bars and passing over pulleys journaled in the cross-bars, all moving within the grooves of the cross-bars B B, to slide or adjust the clamps or followers containing the picture-frame sections longitudinally on the cross-bars toward the center of the table, and hold them in position there tightly by means of the treadle coming in contact with the teeth in the rack-bar, and the entire combination is so constructed as to revolve it, in order to bring the corner around, that it may be nailed while the operator stands in the same place, and when the frames are thus finished the foot-treadle is released from its fastening, and by

means of the springs, which are attached to the adjusting pin, the corner-clamps spring back to their normal position, which operation releases the frame from the clamps. Frames of any size to the full capacity of the machine can be made by setting the pins to which the springs are attached inward or outward, as the case may require, and adjusting the treadle correspondingly. This mode of adjustment just described is rectangular in form; but the adjustment laterally by means of the slotted arcs or segments, which I use in connection with the followers and cross-bars, enables the operator to join and glue together sections of equal length by moving the cross-bars around the slotted segments and adjusting them thereon by means of the set-screw heretofore described, thus making a complete square frame, if desired.

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

1. In a machine for making picture-frames, the combination of the revolving center plate provided with the lugs located over an opening in a bench or table, and rings as a guide for the cross-bars, in combination with the pivoted cross-bars having journaled thereon the pulleys, and the means herein described whereby the machine is operated from beneath, substantially as described, and for the purpose set forth.

2. In a machine for making picture-frames, the combination of the flanged and recessed followers, circular plates, springs, and ropes attached to short bars upon which the circular plates rest, with the grooved and perforated cross-bars, substantially as described, and for the purpose set forth.

3. In a machine for making picture-frames, the combination, in a work bench or table, of the cross-bars, arranged thereon as described, and grooved and perforated for the reception and adjustment of the springs and short bars, pulleys journaled therein and carrying ropes fastened to the end of said short bars, with the swiveled pulley-links, adjustable treadle, and uprights, one of which is provided with a rack-bar for the adjustment of said treadle, substantially as described.

4. In a machine for making picture-frames, the combination, in a bench or table, as described, of the slotted segments provided with the adjusting-screw, flanged and recessed followers, circular plates, and the corner-plate or slide fitting within the flanged followers, grooved and perforated cross-bars, springs, ropes, and pulleys, arranged and located as described, with the swiveled pulleys, links, and adjustable treadle, the whole operated from beneath said table by foot-power, substantially as described, and for the purpose set forth.

5. The table provided with a ring or annulus encircling the opening of said table, and upon which the grooved or slotted cross-bars

move, in combination with the central revolving plate provided with the lugs, substantially as and for the purposes set forth.

6. In a machine for making picture-frames,
5 the combination of the longitudinally-grooved and hinged cross-bars, followers, circular plates, springs, and short bars, arranged in conjunction with said cross-bars as described, with the revolving center plates provided with
10 the lugs, the whole secured to and operated from beneath a table or bench by the pulleys

carrying the ropes and foot-treadle, all arranged and constructed for joint operation substantially as set forth.

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

ANDREW J. WEAVER.

Witnesses:

JEREMIAH REIGHNE,
DAVID JONES.