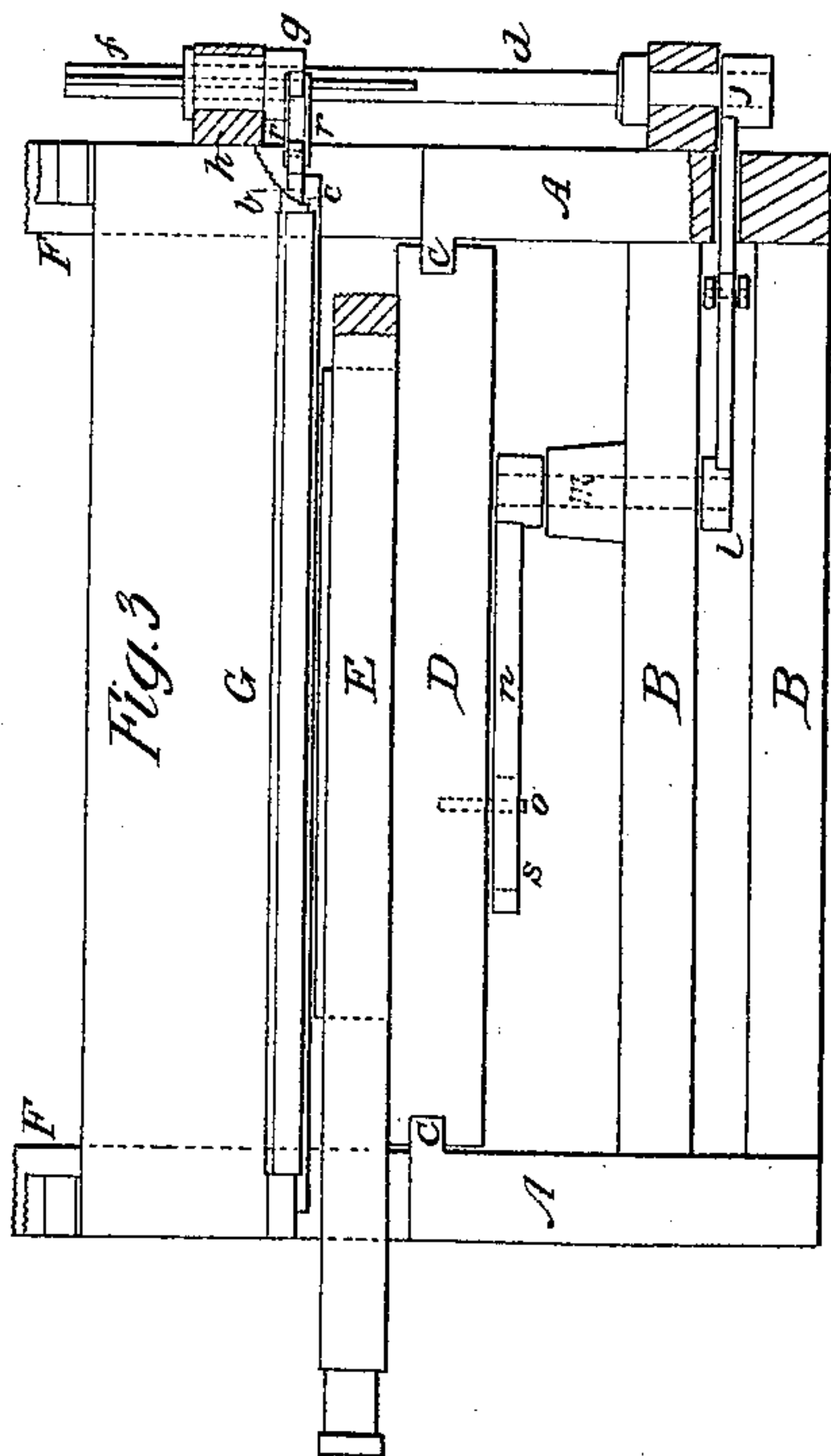
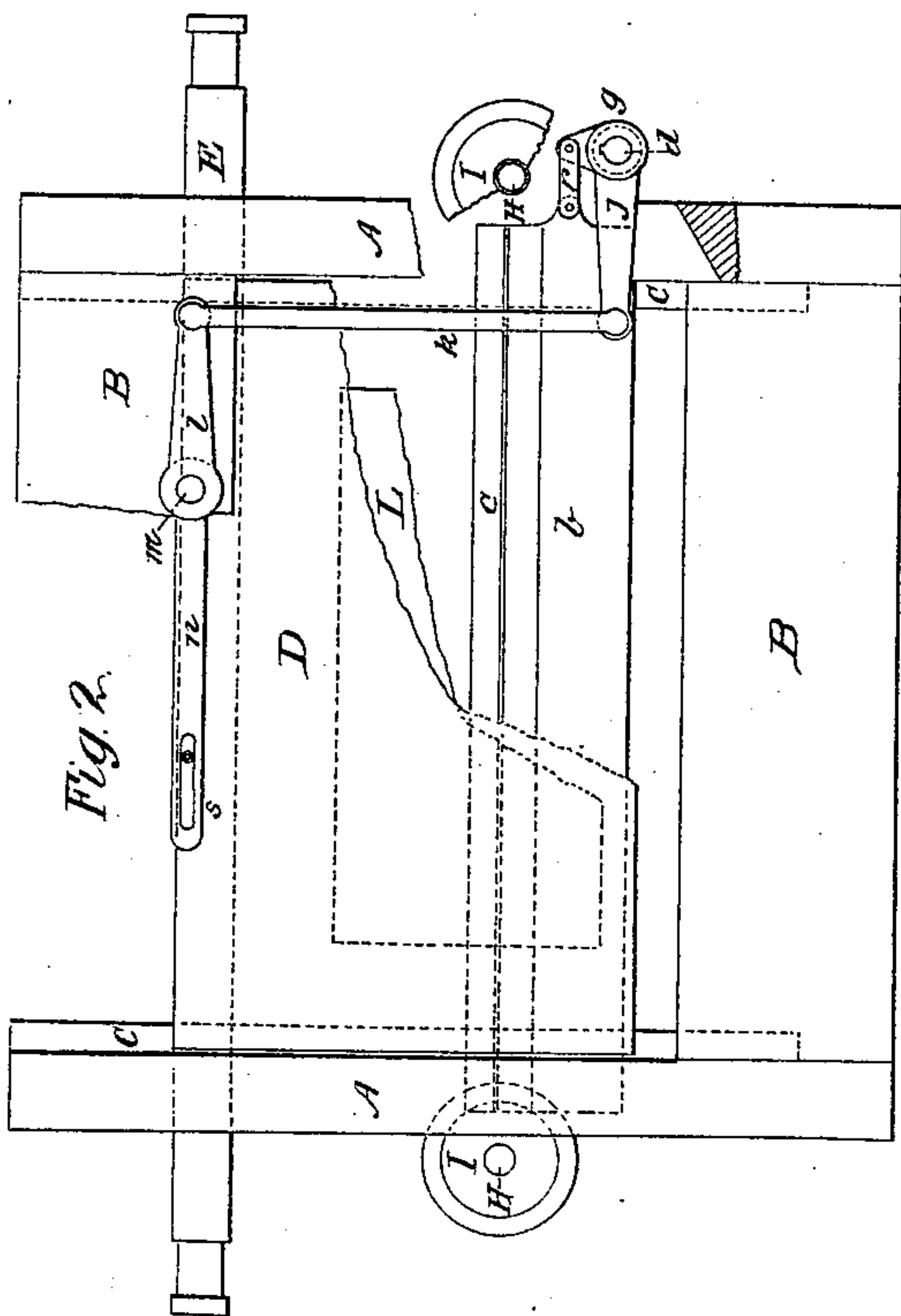
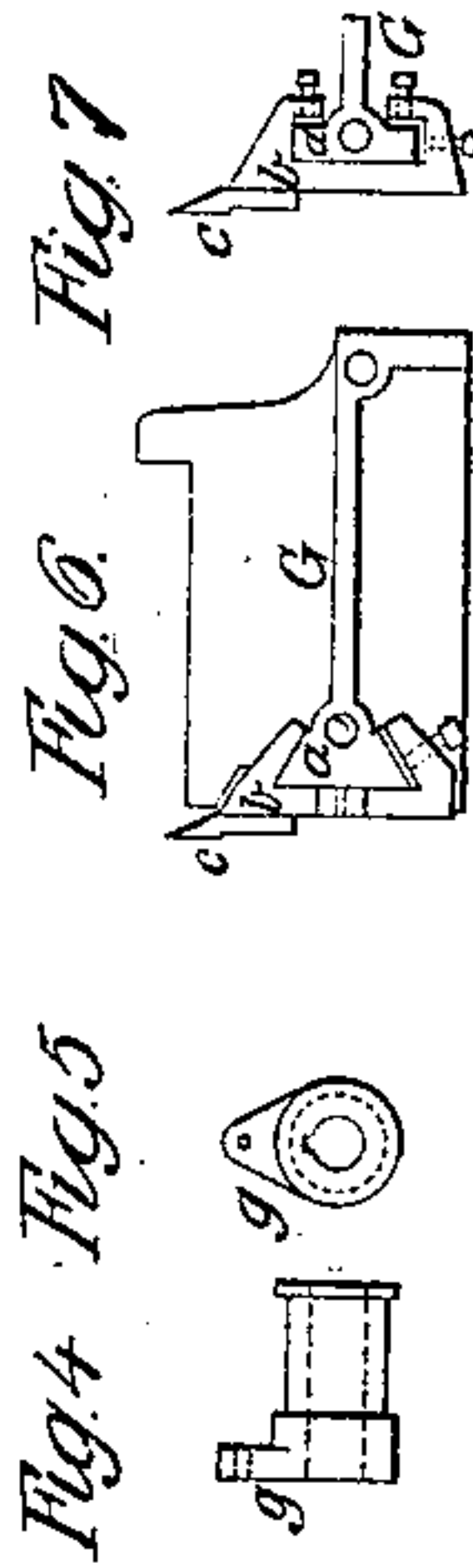
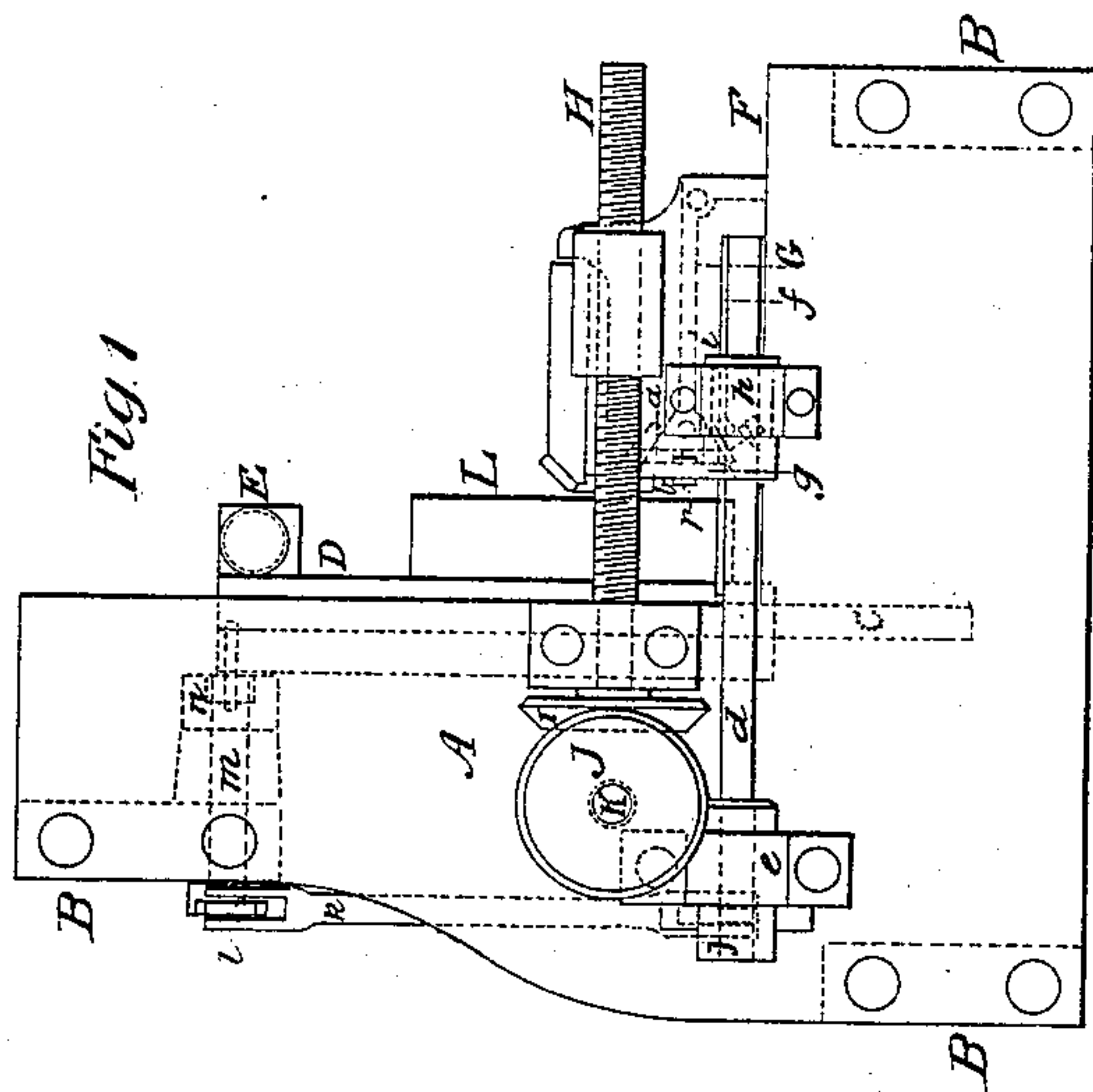


Parker & Hawkes,
Cutting Veneers,

No 39,352,

Patented July 28, 1863.



Witnesses
B. F. W. Johnson
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Harrison Parker
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UNITED STATES PATENT OFFICE.

HARRISON PARKER AND CHARLES W. HAWKES, OF BOSTON, MASS.

IMPROVEMENT IN MACHINES FOR CUTTING VENEERS.

Specification forming part of Letters Patent No. 39,352, dated July 28, 1863.

To all whom it may concern:

Be it known that we, HARRISON PARKER and CHARLES W. HAWKES, both of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement on a Machine for Cutting Veneers; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is an end elevation. Fig. 2 is a back-side elevation, with a portion of the frame and bed cut away to show the method of operating the knife. Fig. 3 is a plan. Fig. 4 is a side, and Fig. 5 is an end view, of the sliding rocker-lever which operates the knife. Fig. 6 is an end view of the head-block, with one of the end pieces left off, showing the manner in which the knife and slide is attached thereto; and Fig. 7 represents another method of forming the slide.

The blue diagonal lines represent sections, and similar letters of reference indicate corresponding parts in the several figures.

The nature of our invention consists in giving a longitudinal sliding motion to the knife while performing the cut, thus producing a draw cut, which greatly facilitates the cutting of veneers.

The frame is composed of two side pieces, A A, and three girts, B B B, secured together in the usual manner with bolts. There is a vertical guide, C, formed on each of the side pieces, A A, projecting inwardly, and a vertical bed-plate, D, is fitted to slide freely up and down thereon. A horizontal cross-beam, E, is secured to the upper edge of the bed-plate D, each end of which extends out by the frame with wrist-pins formed thereon, to which connecting-rods are to be attached to give motion to the bed-plate. A portion of the lower part of the frame A A projects out in front a distance sufficient to form a seat, F F, in a horizontal plane, for the head-block G to rest and slide upon. The head-block G extends across from one side of the frame to the other, and has a bearing at each end on the seat F F, to which it is fitted to slide toward and from the bed-plate D. This head-block is

fed by means of a feed-screw, H, at each end outside of the frame, each screw having a bevel-gear, I, fixed thereon, and corresponding gears J meshing therein, fixed on a cross-shaft, K, by which means the feed-screws H H are geared together for the purpose of giving a uniform feed to both ends of the head-block. The block L, to be cut into veneers, is secured to the front side of the bed-plate D. There is a way, a, formed on the back side of the head-block G, toward the bed-plate D, extending horizontally nearly the whole length of the head-block. This way a may be made V-shaped, as represented in Fig. 6, or it may be made square, as represented in Fig. 7, or in any other shape required. A knife-slide, b, extending nearly the whole length of the head-block G, is fitted to slide a short distance horizontally back and forth on the way a. The knife c is firmly secured to the upper edge of the knife-slide b, as represented in Figs. 2 and 6.

At one end of the machine, outside of the frame, there is a horizontal rocker-shaft, d, fitted to turn in a box, e, secured to the rear part of the frame, and on one side of this shaft there is a fixed spline, f, extending from the front end back about half its length. A sliding rocker-lever, g, is fitted to this rocker-shaft d, with a groove, i, to receive the spline f, and is so fitted that it will slide longitudinally on the shaft and also turn with it. This sliding rocker-lever g has a long hub fitted to turn in a box, h, secured to the end of the head-block G, by which it is held in its required position. This sliding rocker-lever g is also connected by links r r to the knife-slide b. On the rear end of the horizontal shaft d there is a fixed lever, j, extending through a narrow opening in the side of the frame A, and to the end of this lever j, inside of the frame, a connecting-link, k, is attached and extending upward. It is also attached to a corresponding lever, l, fixed to a short horizontal shaft, m, hung to or extending through the upper girt, B. On the other end of the shaft m, near the back side of the bed-plate D, there is a long lever, n, fixed thereto with a fork or slot, s, cut through the outer end, in which a stud or pin, o, set in the back side of the bed plate, is made to play.

Operation: This machine is operated by means of connecting-rods attached to the cross-

beam E and to cranks below, which give an up-and-down motion to the bed plate D, and, as the pin *o* is fixed in the bed-plate and works in the slot *s*, a vibratory motion is communicated to the long lever *n*, and also to the lever *l*, and by means of the connecting-link *k* the same vibratory motion is communicated to the lever *j*, thus giving a rocking motion to the horizontal rocker shaft *d*, and a vibratory or rocking motion to the sliding rocker-lever *g*, and, as this sliding rocker-lever is connected by the links *r r* to the knife-slide *b*, a reciprocating motion is communicated to the slide and knife *c*, attached thereto. By this arrangement the knife is made to slide lengthwise during the whole time the cut is being performed, thereby producing a draw cut,

which enables the knife to cut smoother and more freely.

Having thus given a full description of the nature, construction, and operation of our invention, we will now proceed to point out the parts which we claim.

We claim—

The arrangement of the knife *c*, bed-plate D, head-block G, feed-screws H H, lever *g*, and rocker-shaft *d*, all arranged and operated as set forth.

HARRISON PARKER.
CHAS. W. HAWKES.

Witnesses:

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