

J. JONES.

Carpenters' Benches.

No. 135,342.

Patented Jan. 28, 1873.

Fig. 4

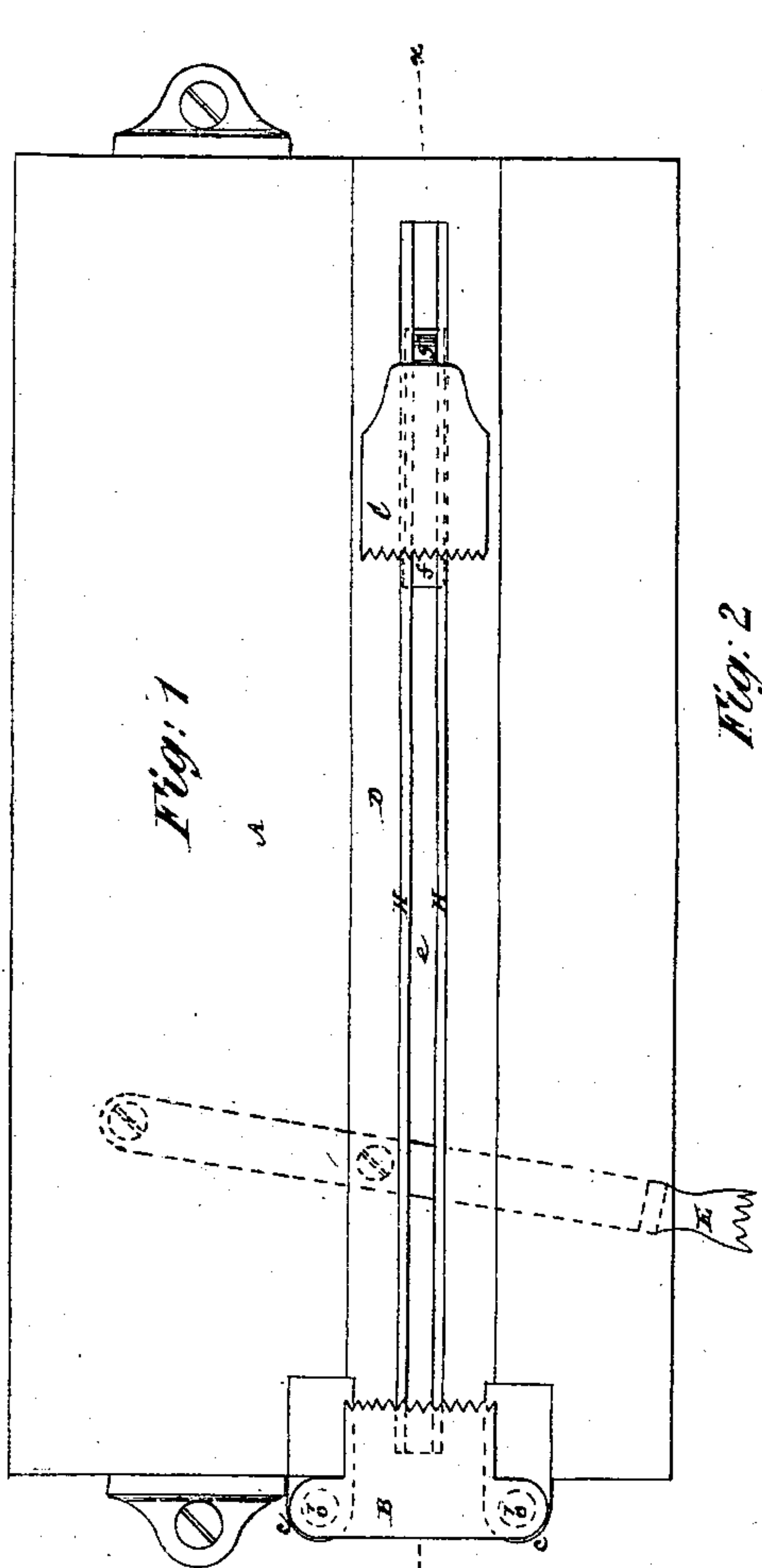
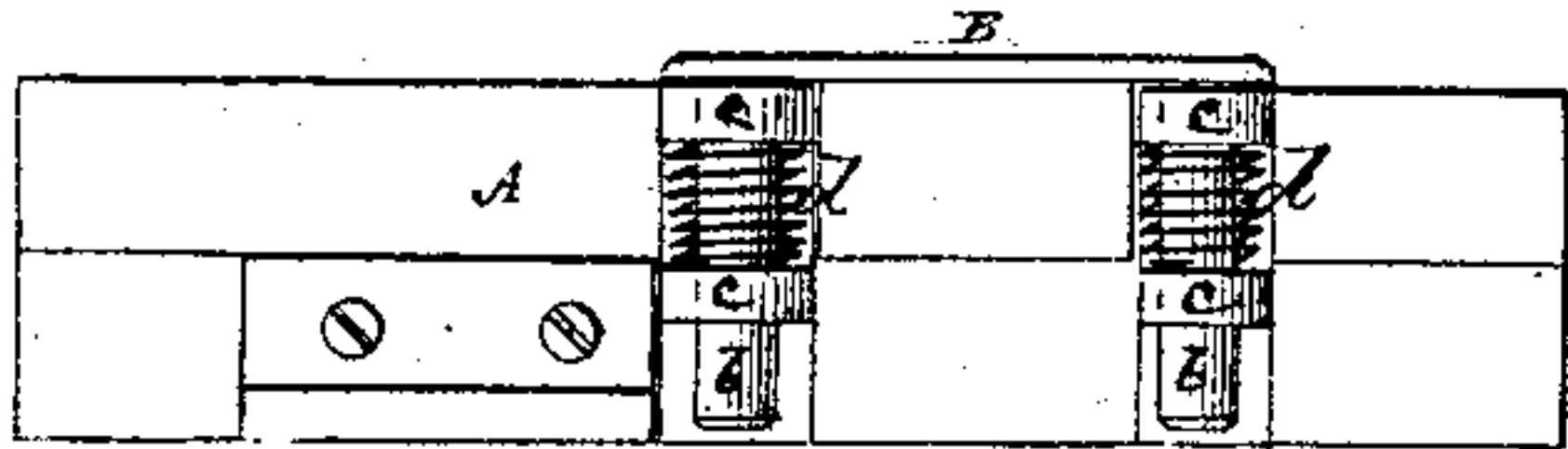


Fig. 2

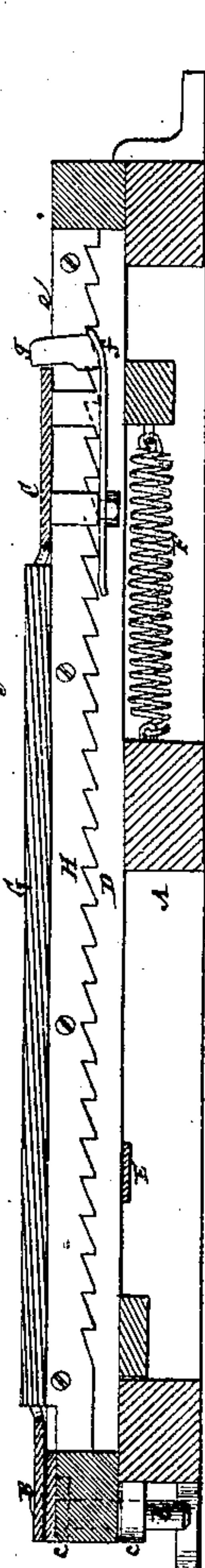
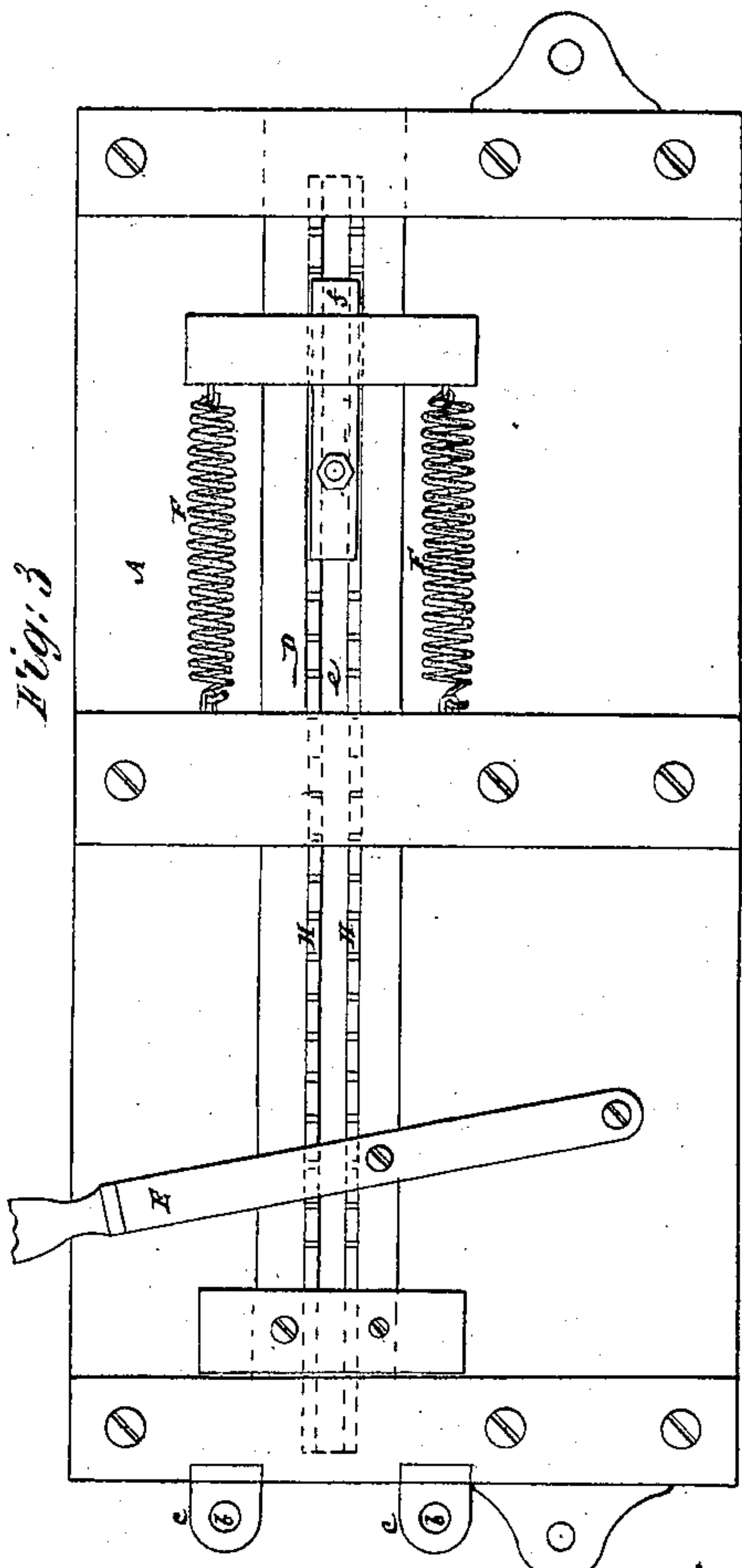


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH JONES, OF NEWARK, NEW JERSEY, ASSIGNOR TO WILLIAM A. FREEMAN, OF SAME PLACE.

IMPROVEMENT IN CARPENTERS' BENCHES.

Specification forming part of Letters Patent No. 135,342, dated January 28, 1873.

To all whom it may concern:

Be it known that I, JOSEPH JONES, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Carpenters' Benches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a plan of a work-holder constructed in accordance with my invention; Fig. 2, a longitudinal vertical section of the same at the line *x x*; Fig. 3, an inverted plan; and Fig. 4, an end view of the forward bench-hook.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

My invention generally consists in a combination, with the usual or forward bench-hook, of an adjustable and sliding back bench-hook, whereby increased facility is afforded for holding the work to its place and of introducing or removing the same; also of holding or removing work of different sizes or length. The invention also consists in a novel elastic friction device for retaining the forward bench-hook at different altitudes from the surface of the bench to suit different thicknesses of work.

Referring to the accompanying drawing, A represents a board or bed-piece having my improved work-holder applied. This bed-piece may be secured by screws or otherwise to the top of a work-bench or be let into the latter, or it may form a part of the same. B is the outer or forward bench-hook, which I prefer to construct with stems or legs *b b*, each of which is arranged to pass down through fixed portions or pieces *c c* at the end of the bench or bed-piece A. Between the upper and lower piece *c c* coiled springs *d d* are crowded and made to hug with an elastic pressure the legs *b b* of the hook, but having no longitudinal movement. By these means the bench-hook B may be slid up or down to suit any required thickness of work, subject to a controlling or elastic friction, as effected by the springs *d d*. C is the back bench-hook, car-

ried by a longitudinal slide, D, in the bench or bed-piece A, and which is worked backward by means of a hand-lever, E, and pressed forward by a spring or springs, F F, to force the back bench-hook C up against the work, to hold the latter (that may be a board, G) to its place. The springs F F serve to give the hook C a firm but elastic hold on the work. In addition to this longitudinal adjustment of the back bench-hook C, the same has an independent back-and-forth adjustment to suit work of different or rather largely-different size or length, for the purpose of approximating the position of the back bench-hook relatively to the front hook, and whereby the movement of the slide D need only be a very restricted one for work of largely-different sizes or length. This independent adjustment of the back bench-hook C is effected by constructing the slide D with a longitudinal slot, *e*, formed by metallic or other ways H H, along which the hook C is capable of being slid, and which are made to form ratchet-like racks on their under edges; and, furthermore, connecting the hook C with said racks by a spring pawl or catch, *f*, made capable of being released from the racks by depressing a stud, *g*.

When the catch *f* is released, then the hook C may be independently adjusted back or forth along the slide D, as required, for the purpose hereinbefore named; but when pressure is taken off the stud *g*, then the catch *f* holds said hook to the slide, and so that it is only moved in common with the latter by the springs F F or lever E to admit of the introduction of the work, and to hold on and remove the work, as required.

Instead of the spring-pawl *f* and racks H H a simple screw or other clamp might be used for holding the back hook C at any desired point in its adjustment along the slotted slide D.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination, with the forward bench-hook B, of the back bench-hook C, the slide D, the lever E, and one or more springs, F, substantially as specified.

2. The independently-adjustable back bench-

hook C, in combination with the slotted slide D, the lever E, and spring or springs F, essentially as described.

3. The racks H H of the slotted slide D, in combination with the back bench-hook C and spring pawl or catch *f*, substantially as specified.

4. The springs *d d*, in combination with the

stationary pieces *c c* and legs *b b* of the bench hook B, essentially as and for the purpose herein set forth.

JOSEPH JONES.

Witnesses:

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