

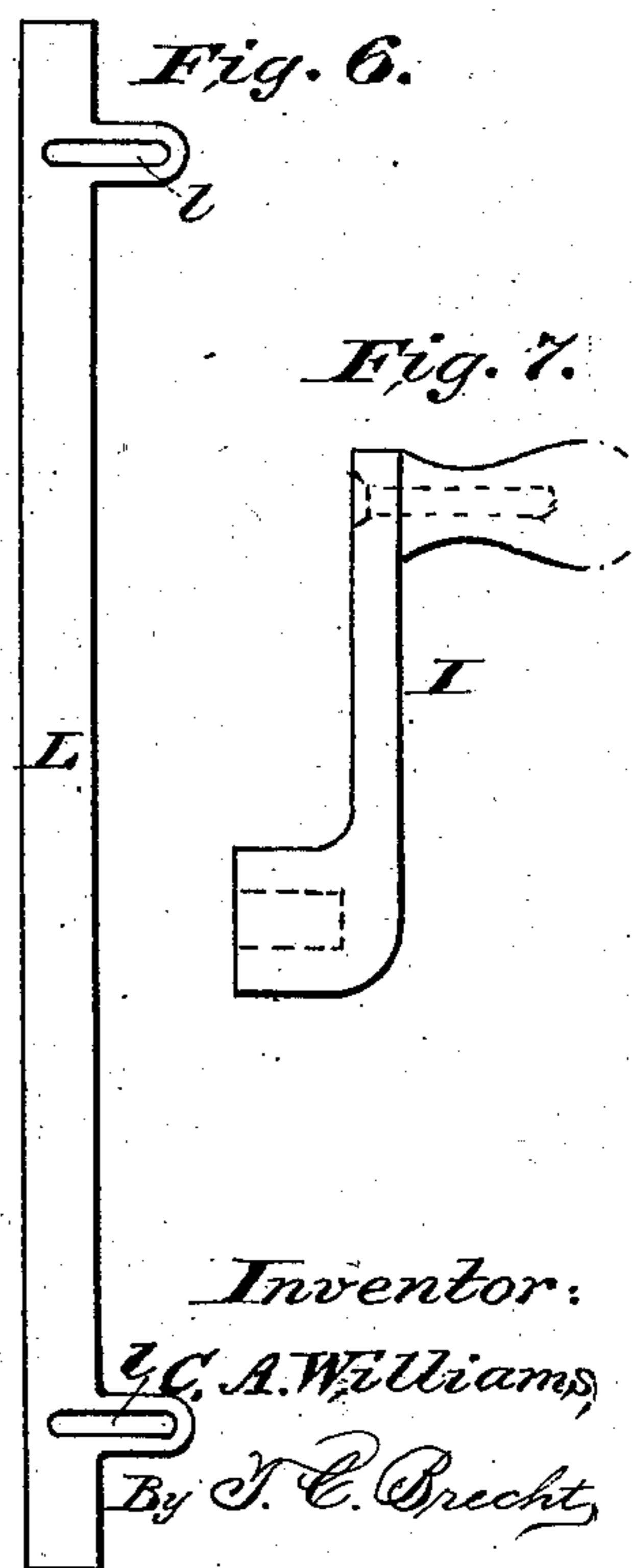
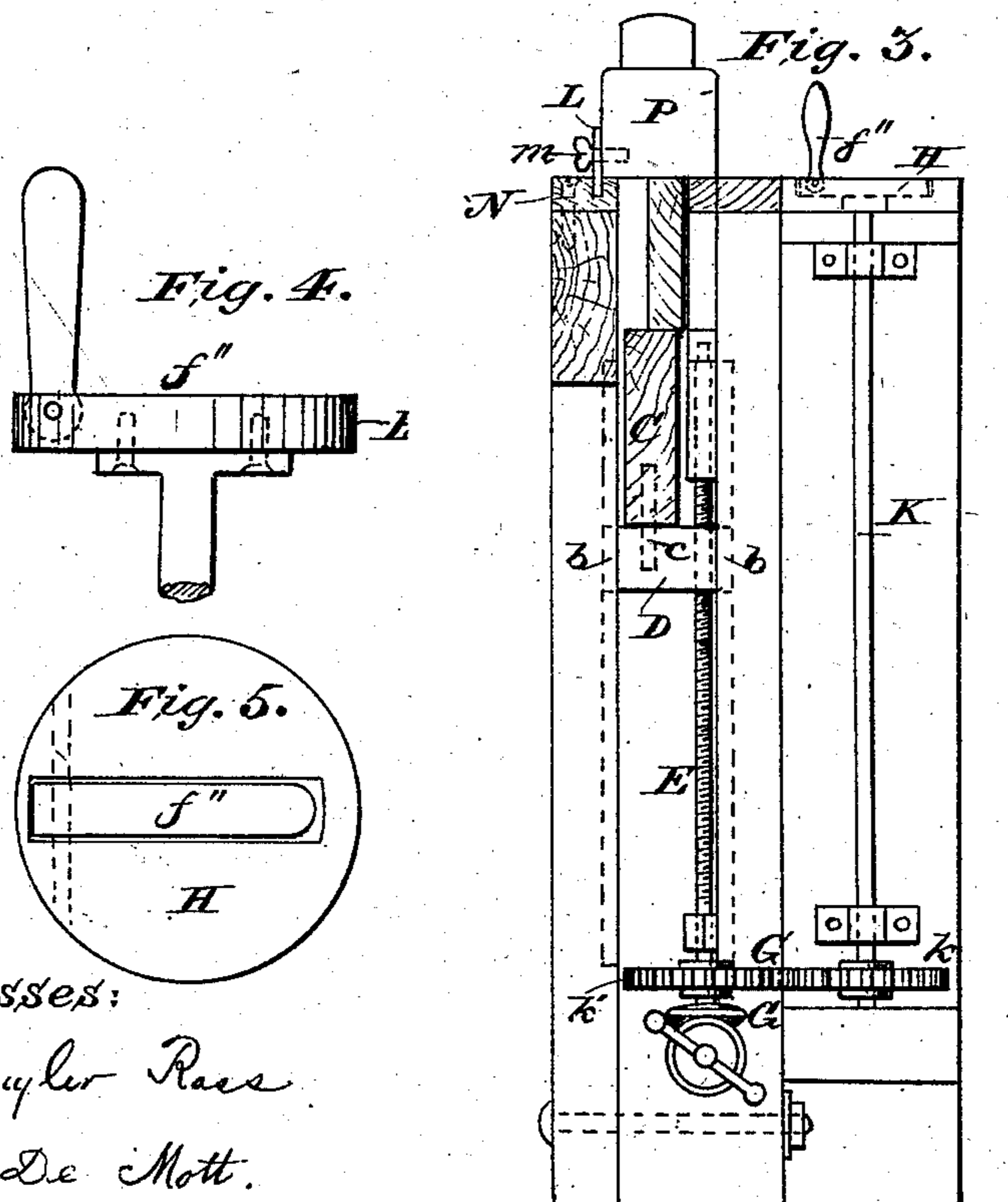
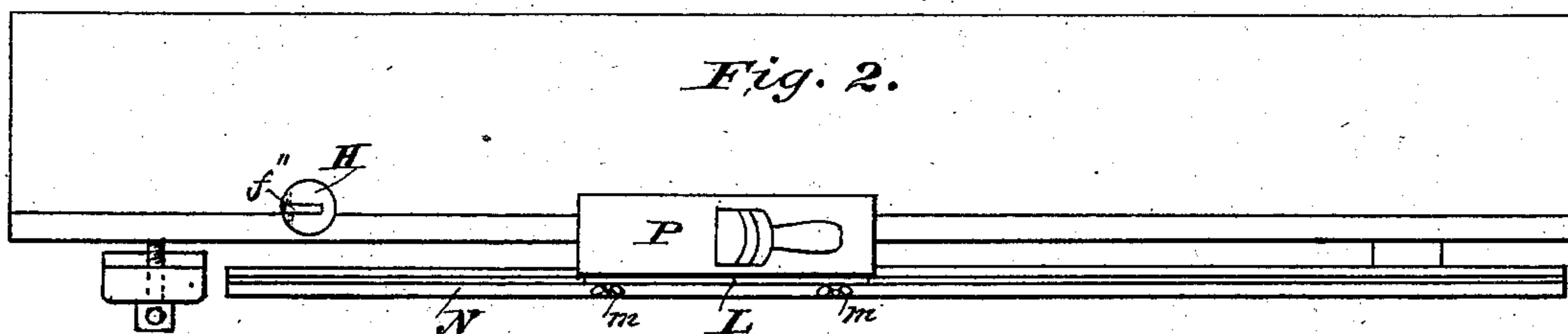
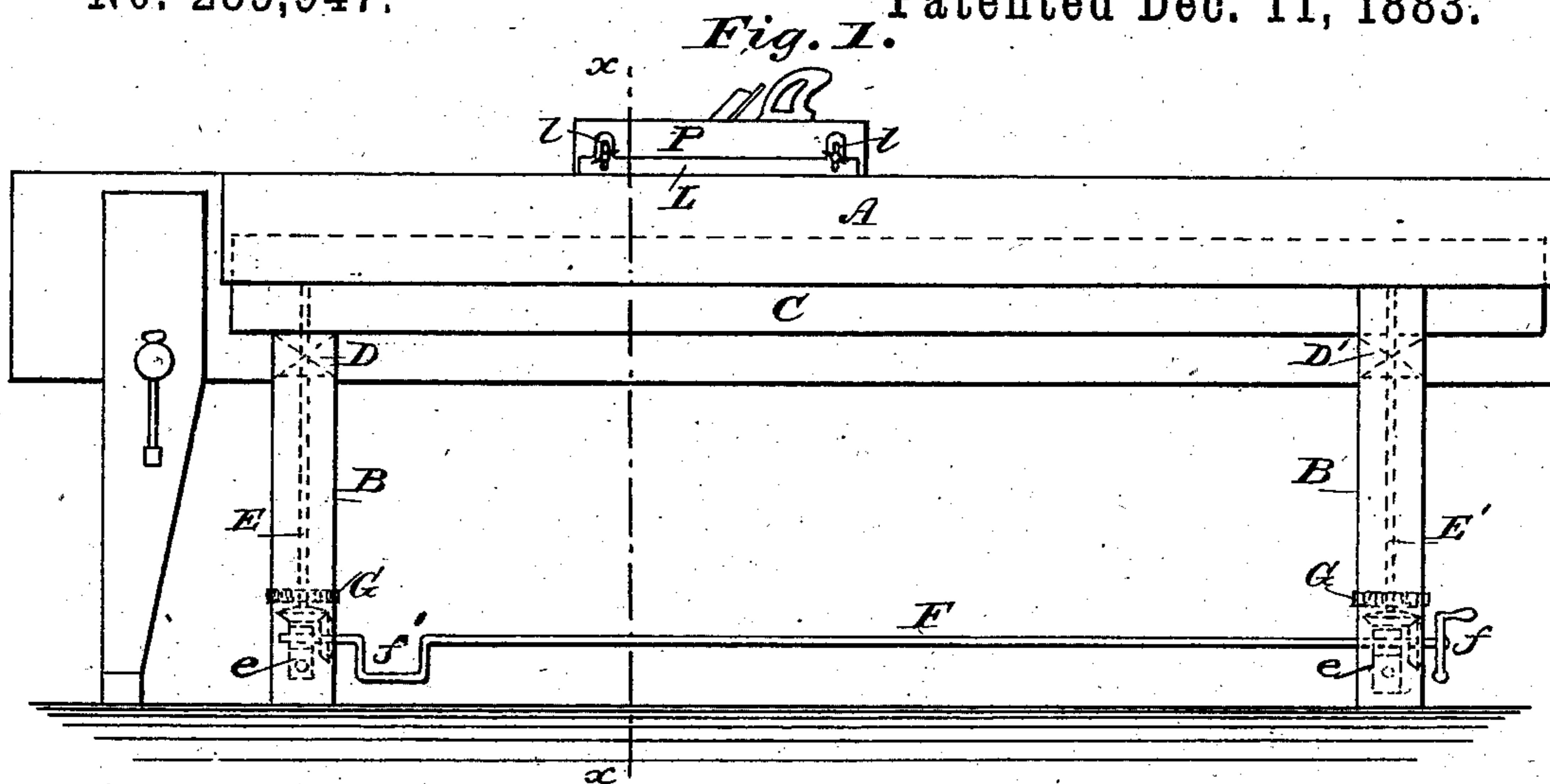
(No Model.)

C. A. WILLIAMS.

WORK BENCH.

No. 289,947.

Patented Dec. 11, 1883.



Witnesses:

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UNITED STATES PATENT OFFICE.

CLARENCE A. WILLIAMS, OF WEBSTER CITY, IOWA.

WORK-BENCH.

SPECIFICATION forming part of Letters Patent No. 289,947, dated December 11, 1883.

Application filed July 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE A. WILLIAMS, a citizen of the United States, residing at Webster City, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in Work-Benches; and I do hereby 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.

My invention relates to improvements in work-benches for dressing, beveling, tapering, &c., planks, boards, staves, and other timber or wood. The object is to produce this in an economical and expeditious as well as reliable manner, and so that the different pieces of material to be operated on are of uniform size or shape, as required.

The invention consists in the construction and arrangement of parts, as will be more fully described hereinafter, and more specifically pointed out in the claims, reference being had to the accompanying drawings and the letters of reference marked thereon.

Like letters indicate like parts in the different figures of the drawings, in which—

Figure 1 represents a side elevation of my improved work-bench. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section, partly in elevation, of the same on line *x x*. Fig. 4 is an enlarged view of the folding crank-handle raised for use. Fig. 5 is a plan view of the same, showing the crank-handle dropped. Fig. 6 is the guide-plate detached. Fig. 7 is a modification of crank-handle.

In the accompanying drawings, A is a work-bench, provided with grooved legs B, in the grooves of which the tongues *b* of the sliding nuts D are moved up and down, as desired, by vertical screws E E', which pass through them. The movable rest C rests upon these nuts and holds the rest from lateral movement by the pins *c*, which enter partly into each—*i. e.*, into the nuts and the rest. The nuts are moved up and down in the grooves of the legs by vertical screws E E', (one at the front end not being shown,) both of which are operated by the line-shaft F and suitable gearing, G. Motion is imparted to said shaft either by a crank, *f*, at the end of the shaft, or a double crank, *f'*, or a crank, *f''*, pivoted to a crank-

plate, H, secured to the upper end of a shaft, K, provided with a gear-wheel, *k*, which meshes into a similar gear-wheel, *k'*, on the front screw, E. The pivoted crank is arranged so as to fold into a recess in the crank-plate H, and be out of the way when it is not to be used. A crank, I, having a socket at one end, may, however, be used, which fits on the squared end of the shaft K. This crank is removed when not in use.

A guide-plate, L, provided with slots *l*, is secured to the plane P by thumb-screws *m*, so that it can be adjusted, and the lower edge of said plate fits into a groove in the plane-rest N, which is secured to the top of the side piece, A. The object of said plate is to prevent the plane from cutting the rests when the board, &c., is brought down to its proper width. The crank-plate H fits into a recess in the top of the bench, so as to be below the surface with its handle. The shaft K is supported in brackets or bearings *d*, as also the line-shaft F, which is supported in bearings *e e*. The plane-rest and grooved guide may be made of wood or metal.

The operation is as follows: The board or other material to be planed, beveled, joined, &c., is placed upon the rest C, which is adjusted by the sliding nuts and screws E, operated by the crank-handles. The guide-plate is adjusted to the plane, as desired, by the thumb-screws and entered into the groove, and prevents lateral motion of the plane. If it is desired to taper a board, one of its ends is raised higher than the other, which is accomplished by adjusting the nut D', by means of the screw E', to a higher or lower position in the grooves of the leg B.

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

1. In a work-bench, the combination of a plane provided with an adjustable guide-plate, L, with the rest N, having a groove into which the lower edge of said plate fits, as and for the purpose specified.

2. In a work-bench, the combination of an adjustable rest, C, arranged to be moved in grooves in the legs of the bench by the screws E E' and suitable gearing, with the vertical shaft K, having a crank-plate provided with

a pivoted handle, F, all substantially as set forth.

3. In a work-bench, the combination of the vertical shaft K, provided with a crank-plate, H, arranged in a recess in the top of the bench, and having a folding handle, F, with the gear-wheels for operating the screw E, nut D, and rest C, as and for the purpose set forth.

4. In a work-bench, the nuts arranged to move in grooves in the legs and having pins c, for preventing lateral movement of the rest C, and said nuts operated by vertical screws and gearing, as described, all arranged substantially as and for the purpose specified.

5. In a work-bench, the combination of the vertical shaft K, operating the screws and nuts, with the crank-plate H, arranged in a recess in the top of the bench, and having the folding handle F, pivoted to said crank-plate, substantially as and for the purpose herein described.

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

CLARENCE A. WILLIAMS.

Witnesses:

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GUY DE MOTT.