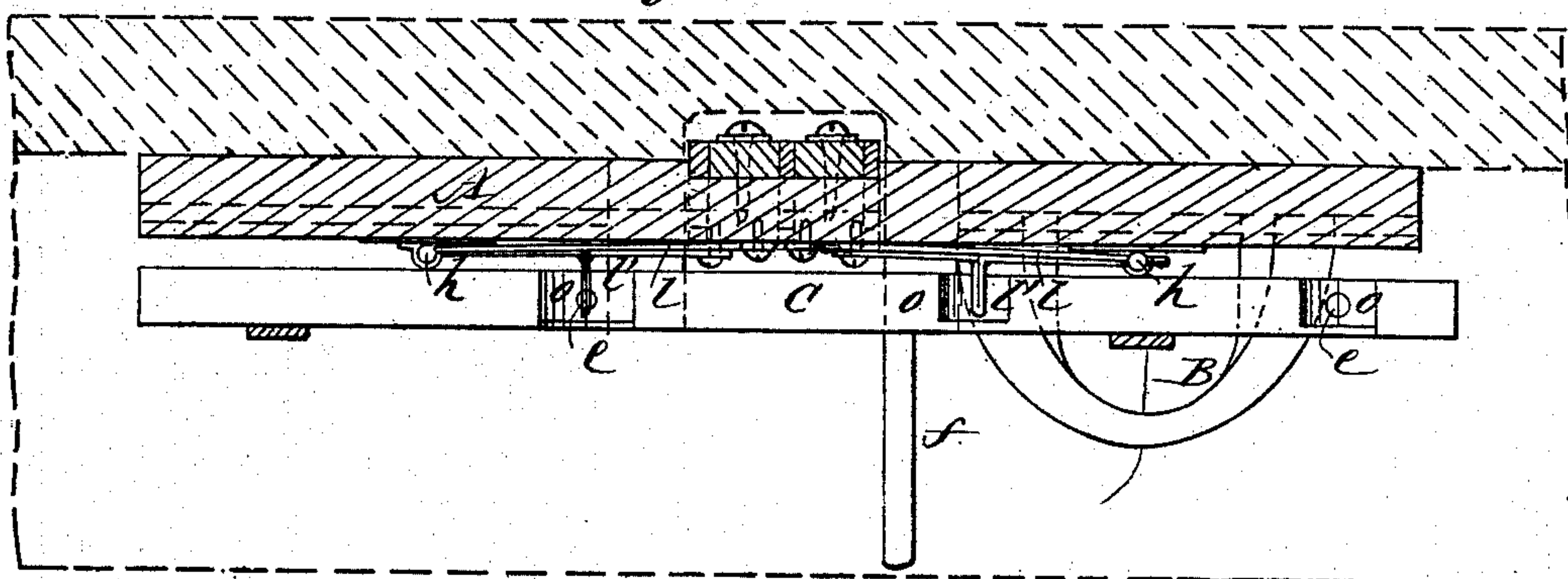
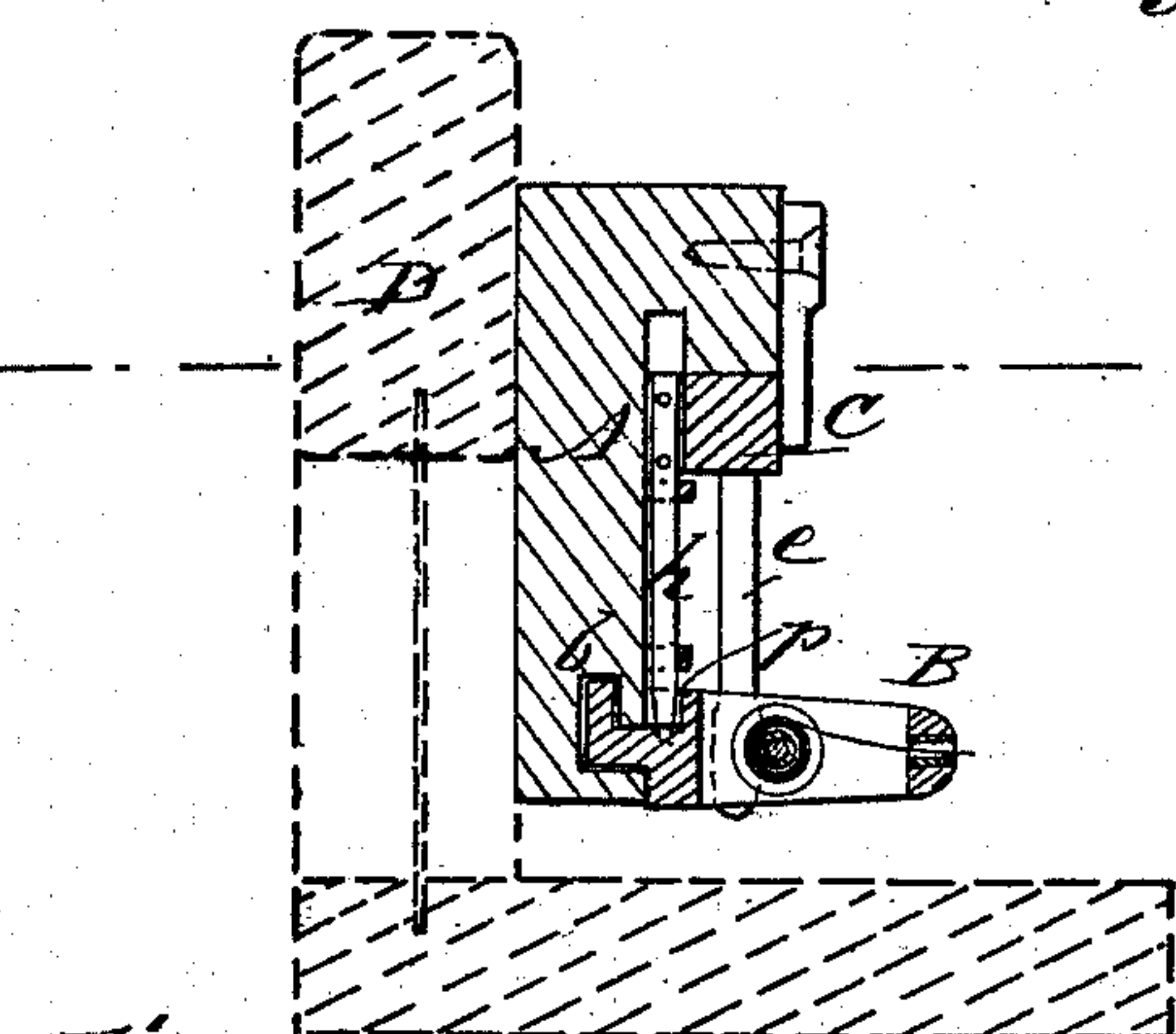
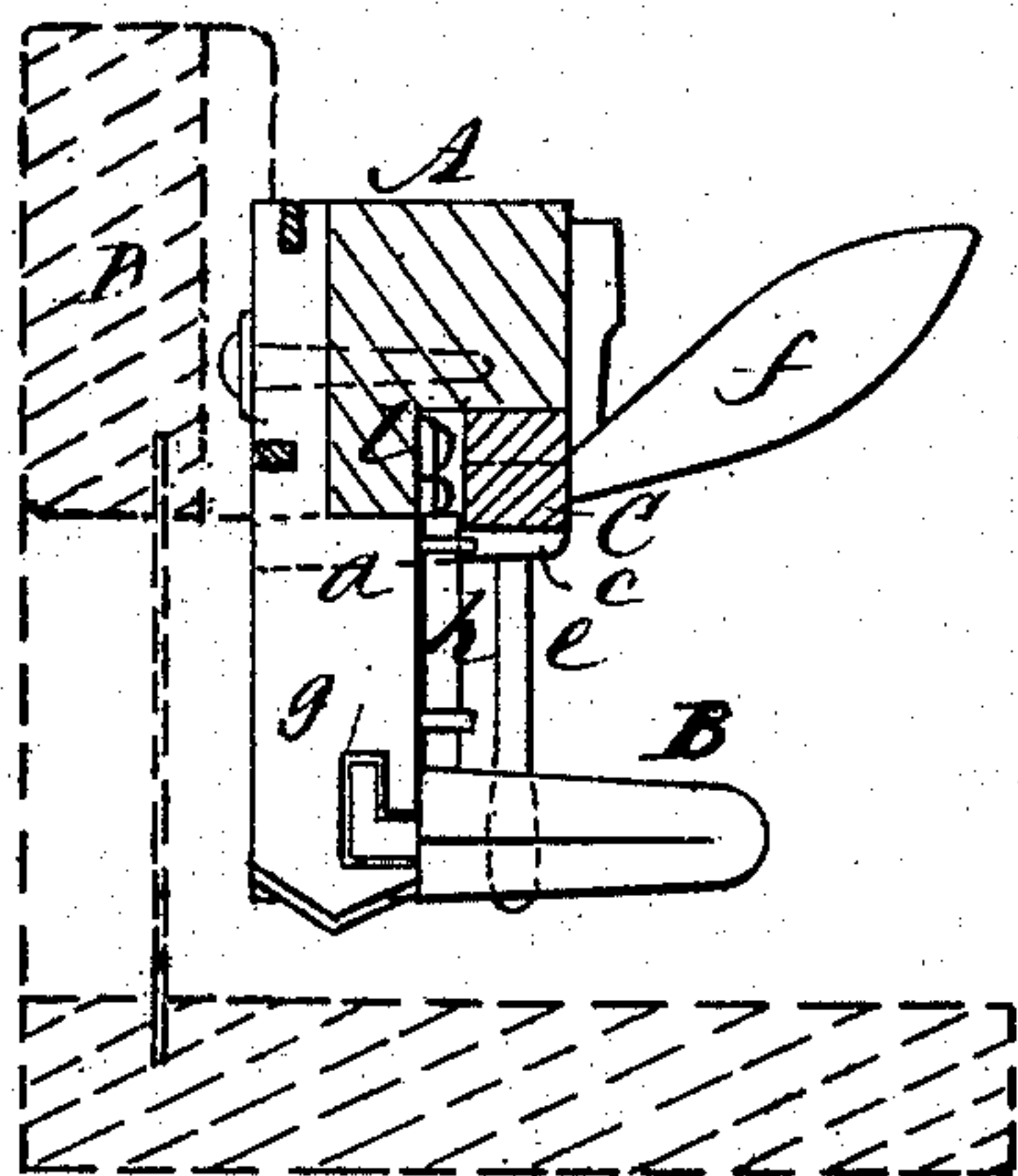
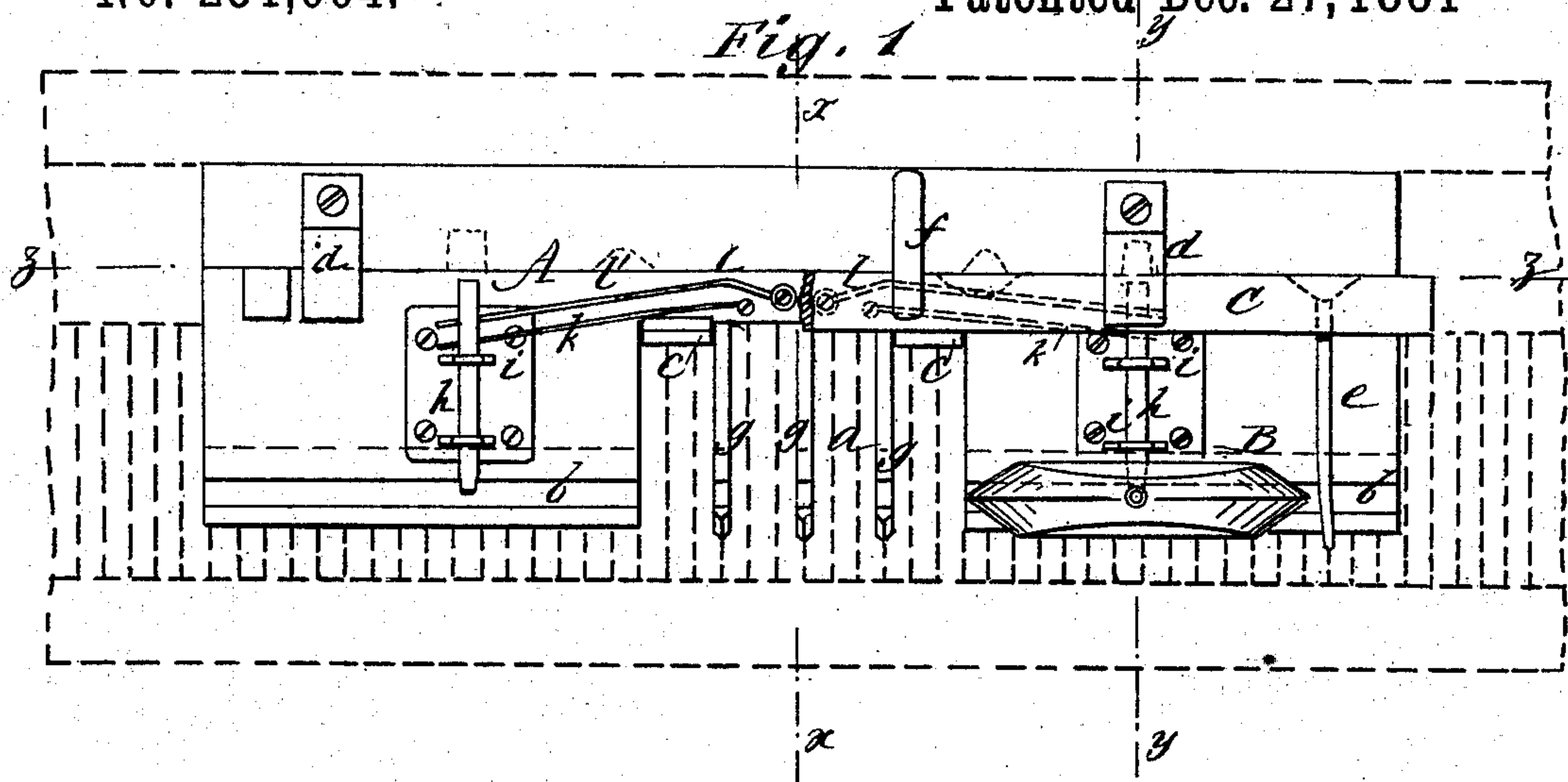


(No Model.)

B. WESTON.
SWIVEL RACK FOR LOOMS.

No. 251,664.

Patented Dec. 27, 1881



WITNESSES:

C. Newell
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INVENTOR:

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UNITED STATES PATENT OFFICE.

BUCKLEY WESTON, OF PATERSON, NEW JERSEY, ASSIGNOR TO WRIGHT SMITH, OF SAME PLACE.

SWIVEL-RACK FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 251,664, dated December 27, 1881.

Application filed December 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, BUCKLEY WESTON, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Swivel-Racks for Looms, of which the following is a specification.

My invention relates to improvements in swivel-racks for looms, and its objects are to provide improved means for throwing and to prevent the rebound of the shuttle.

My invention consists in the combination, with the rack-bar, swivel-shuttle, and pick-bar, of pins hung on wires attached to the rack-bar and provided with lugs designed to drop in recesses near the extremities of the pick-bar, said pins being actuated by springs, substantially as hereinafter described, whereby they are caused to engage in holes formed in the shuttle, as set forth.

The construction and operation will be more particularly explained hereinafter, with reference to the accompanying drawings, wherein—

Figure 1 is a front elevation, partially in section, of my improved swivel-rack. Fig. 2 is a vertical cross-section on line *xx* of Fig. 1. Fig. 3 is a section on line *yy* of Fig. 1, and Fig. 4 is a horizontal section on line *zz* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the rack-bar, which is of suitable length and formed at its under side with an opening, *a*. At the lower edge of the bar A an L-shaped slot, *b*, is formed, that receives the shuttle B, so that the shuttle is sustained by the bar at either side of the opening to which it may be slid in the groove.

C is the pick-bar, inserted beneath a shoulder on the upper part of the bar A, and held in place by lugs *c c* at the under side and *d d* at the front, so that bar C may move lengthwise, the extent of movement being limited by lugs *c*. The bar C is provided with fingers *e* at its ends, that project downward across the path of the shuttle, and with a handle, *f*, by which the pick-bar is to be moved.

The opening *a* in rack-bar A is shown as about the length of the shuttle; but it may be longer, if desired—say, from three to five inches.

To the bar A, at the upper side of opening *a*, plates *g g g* are attached so that they project into the opening, with their lower ends about on line with the bottom of bar A. These plates *g* are placed equidistant from each other and the sides of the opening, and are formed with L-shaped slots corresponding with slot *b* of bar A, so that the shuttle may pass through said slots in passing from one end of the rack-bar to the other.

Upon the face of bar A, at each side of the opening *a*, a pin, *h*, is fitted in lugs *i*, so as to be capable of vertical movement, and to each pin is connected the end of a spring, *k*, that tends to force the pin downward. The pins *h* are hung on the ends of wires or rods *l*, that are pivoted at the mid-length of bar A, which wires are formed with lugs *l'*, that rest on the upper side of bar C, so that the pins *h* are held upward, except at the extremes of movement of the pick-bar, when the lugs *l'* drop into inclined recesses *o* on bar C, and the pin above the shuttle enters a recess, *p*, in the upper side thereof.

The rack-bar A is to be attached to the lay of the loom in the manner shown in English Patent No. 3,239 of 1869, in order to permit vertical movement of bar A, so that it can be brought down in front of the reeds when required for use. The relative position is shown in the drawings, wherein the lay is shown by dotted lines at D. In this position the warps that are opened for the swivel-shuttle to pass extend through the opening *a* of the rack-bar, so that when the swivel-shuttle B is thrown it passes through the shed. The figure required may thus be produced in the fabric, and the shuttle being held up by the plates *g* a wide figure may be formed. It will be understood that this rack-bar and shuttle are used in connection with the ordinary ground-shuttles and Jacquard mechanism.

By the use of plates *g* figures may be formed requiring heretofore to be made by the ground-shuttles, thus involving a waste of silk, as the wefts in that case extend the full width of the fabric.

The shuttle is prevented from rebounding by the pins *h*, which enter and hold the shuttle as it reaches its place. The inclined sides of

recesses *o* raise the pins *h* as the bar *C* is moved to throw the shuttle, and as the bar *C* reaches the end of its movement before the shuttle the pin *h* in advance of the shuttle which has
5 fallen is raised by contact with the shuttle until it is over the recess *p*, when the pin falls.

This improvement may be applied to either hand or power looms.

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

The combination of springs *k*, pins *h*, wires *l*, having lugs *l'*, pick-bar *C*, having recesses *o*, swivel-rack *A*, and recessed shuttle *B*, substantially as and for the purposes specified.

BUCKLEY WESTON. [L. S.]

Witnesses:

S. A. MCGREGOR,
W. P. MCGREGOR.