

Belden & Cutler,

Planing Metals

No. 94,860.

Patented Sept. 14, 1869

Fig. 1.

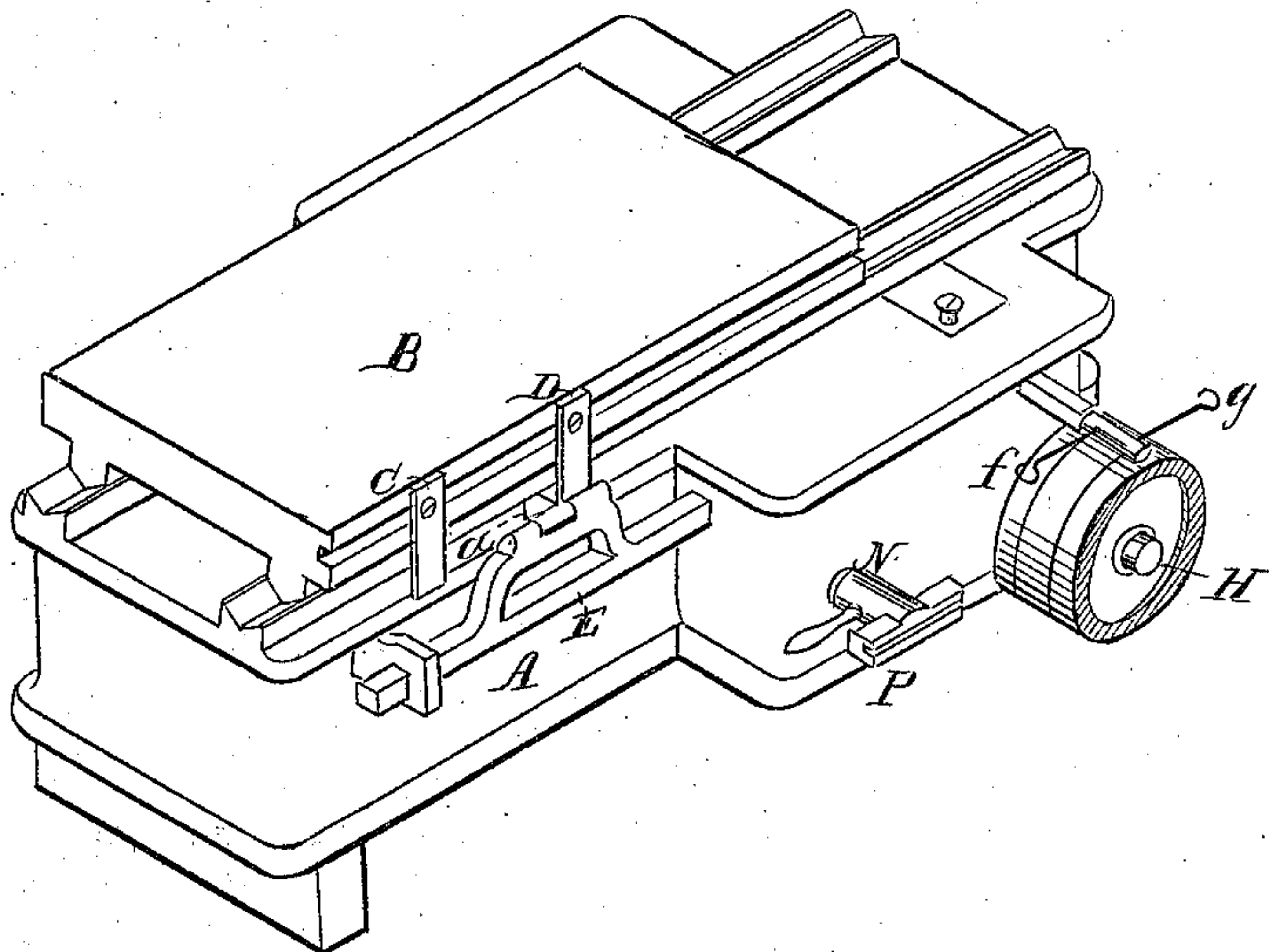


Fig. 2.

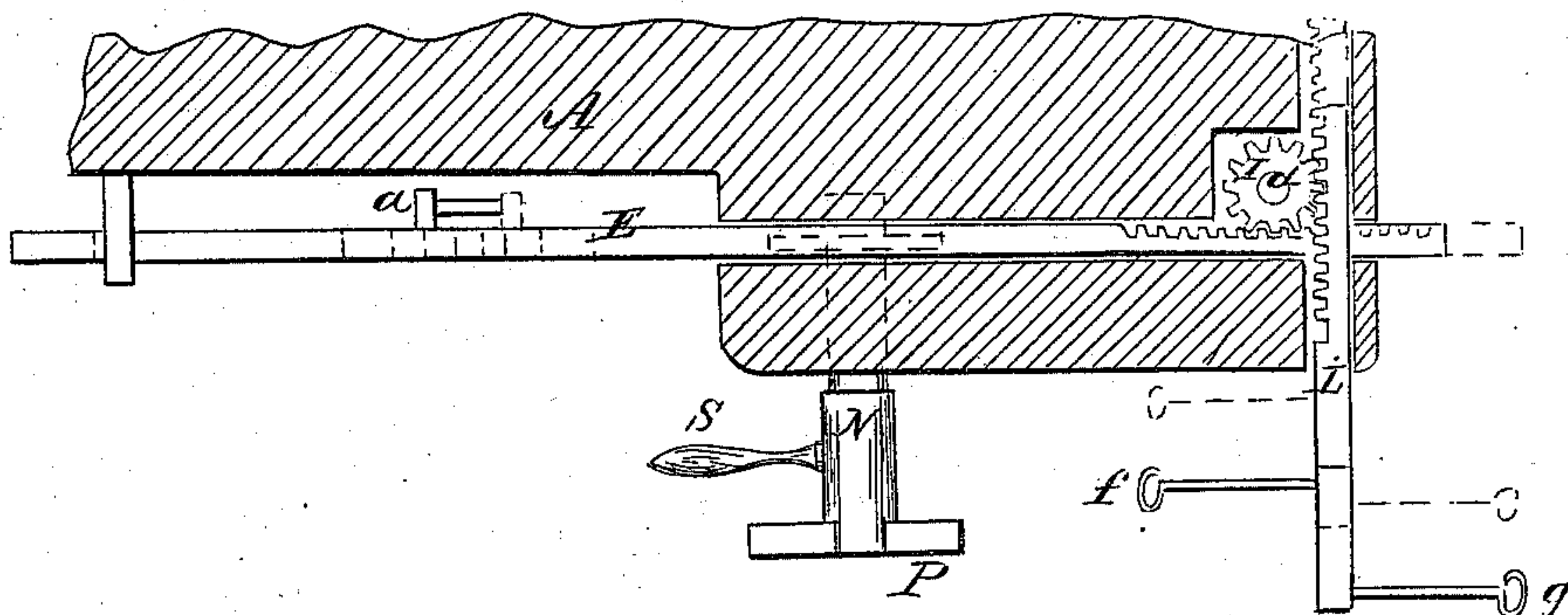
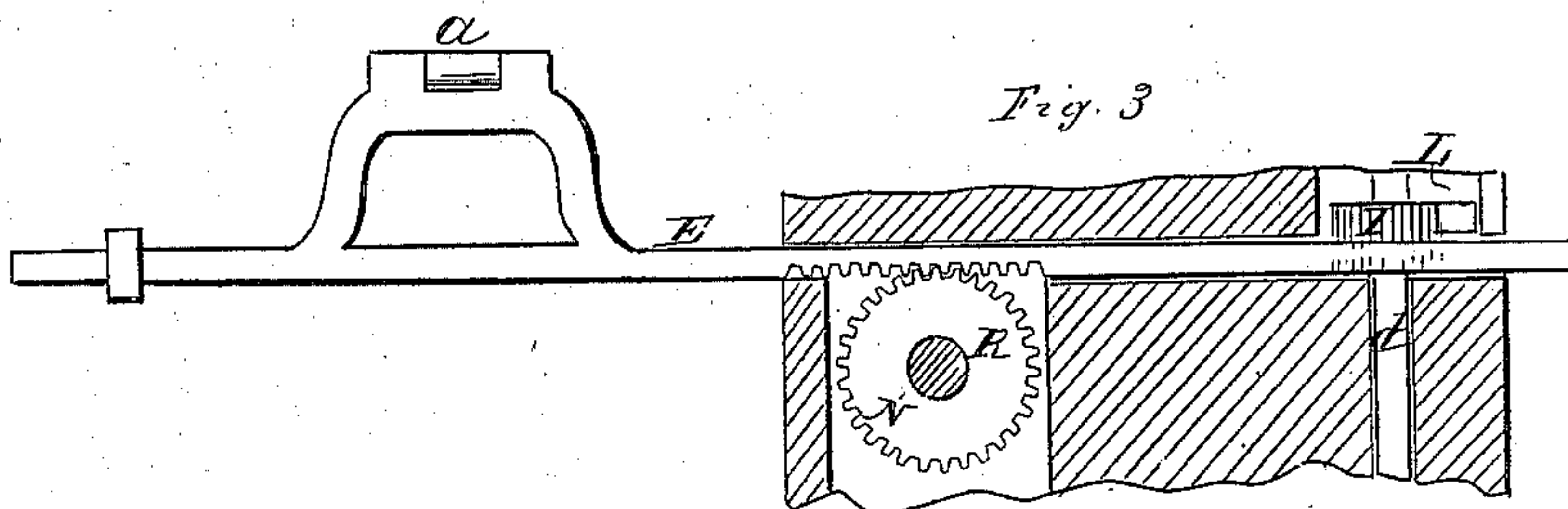


Fig. 3.



Witnesses

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Letters Patent No. 94,860, dated September 14, 1869.

IMPROVEMENT IN MACHINES FOR PLANING METALS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, R. A. BELDEN and E. H. CUTLER, of New Haven, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Iron-Planers; and we do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view,

Figure 2, a longitudinal transverse section, and in Figure 3, a vertical section.

This invention relates to an improvement in automatic shipping-apparatus of planing-machines; and consists in a longitudinal bar, arranged parallel with the planer-table, so that the table, as it moves back and forth, will, at each extreme of the required movement, connect so as to move the said bar, and the said bar constructed with a rack, operating in a pinion, which said pinion also communicates to a transverse rack-bar at the driving-pulleys, and on to which said transverse bar shipping-guides are fixed. The movement given to the longitudinal bar by the table communicates a movement to the transverse bar, so as to ship the belts to reverse the action of the machine.

The invention also consists in combining with the said longitudinal bar a pinion, operating a transverse shaft, upon which a slotted or other head is fixed, to communicate with and operate the feeding-device of the cutter-head.

To enable others skilled in the art to construct and use our invention, we will proceed to describe the same as illustrated in the accompanying drawings.

A is the planer-bed.

B, the table, moving thereon in the usual manner.

C D are adjustable stops, arranged upon and so as to move with the table in the usual manner.

Along the side of the bed a bar, E, is arranged, to which is fixed a trip, a, so that one of the said stops will strike the said trip when the table is moving in one direction, and the other stop will strike the trip when moving in another direction, in similar manner as other arrangements in common planing-machines.

The bar E extends along the side of the bed to near the pulley-shaft H, here represented as being over the

said shaft, and at that part of the bar a rack is formed, as seen in fig. 2, which works in a pinion, I, arranged upon a vertical shaft, d. (See figs. 1 and 2.)

The said pinion is of sufficient length to extend above the bar E, as seen in fig. 3, (or may be two pinions on the same shaft,) and a transverse bar, L, with a corresponding rack, is worked by the said pinion, so that as the bar E is moved back, the transverse bar L will be drawn in, as denoted in red, fig. 2. Then when the bar E is returned, the bar L will be thrown out.

To the said bar L, belt-shippers F and G are fixed, operating the belts to change the movement of the table in the usual manner.

At a convenient point for connecting with the cross-head of the planer, we arrange a transverse shaft, N, to which a cross-head, P, is fixed, and on this shaft we fix a pinion, R, as seen in fig. 3, working in a rack upon the bar E, so that as the bar E is moved back and forth, the cross-head P will be correspondingly turned. From this cross-head P, we connect to the feeding-device in the cross-head of the planer, in the usual manner.

For convenience of operating the shipping-apparatus by hand, we attach a handle, S, to the shaft N, by moving which the bar E will be thrown forward or back, as the case may be, to throw the shipper out or in, according to the direction in which it is desired the plate should move.

Having fully described our invention,

What we claim as new and useful, and desire to secure by Letters Patent, is—

1. The longitudinal bar E, combined with the transverse bar L and pinion I, so that the movement of the planer-table B will force the transverse bar out and in to ship the belt, substantially in the manner described.

2. In combination with the above, the arrangement of the pinion R, to operate the cross-head P, to work the feeding-device of a planing-machine, substantially as set forth.

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Witnesses:

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