G. J. Rugg,

Planing Machine,

No. 61,264, Patented Jan. 15, 1867.

Fig. 1.

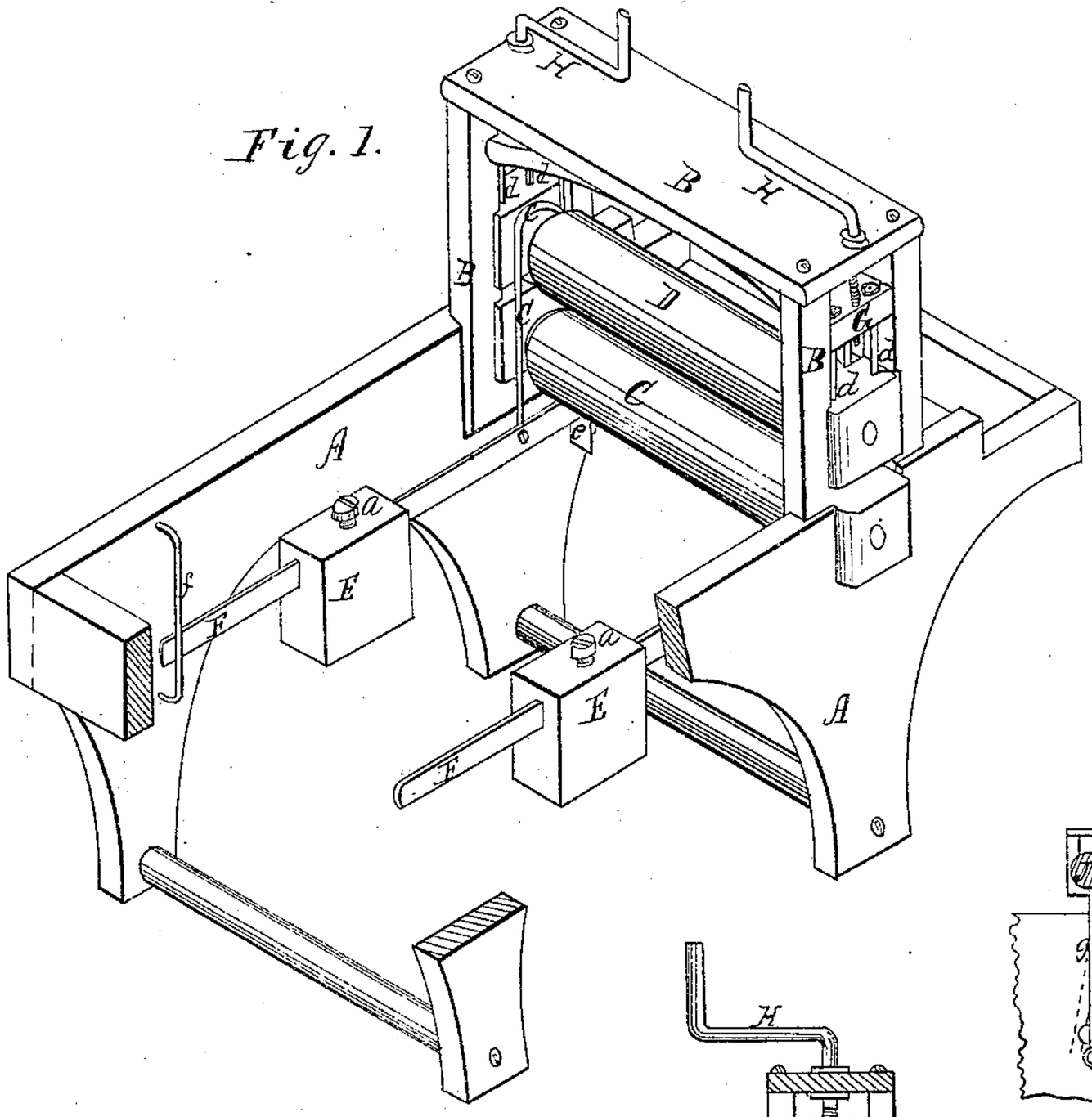


Fig. 3.

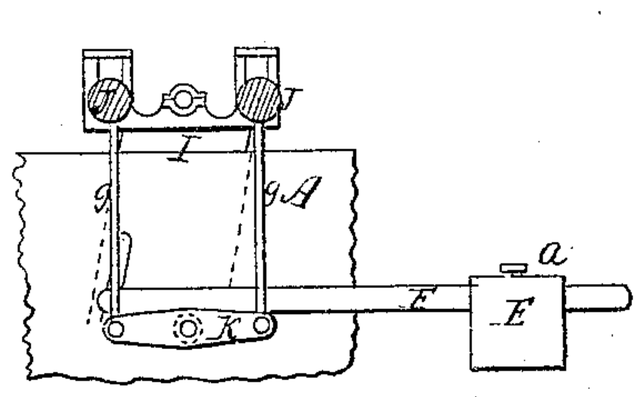
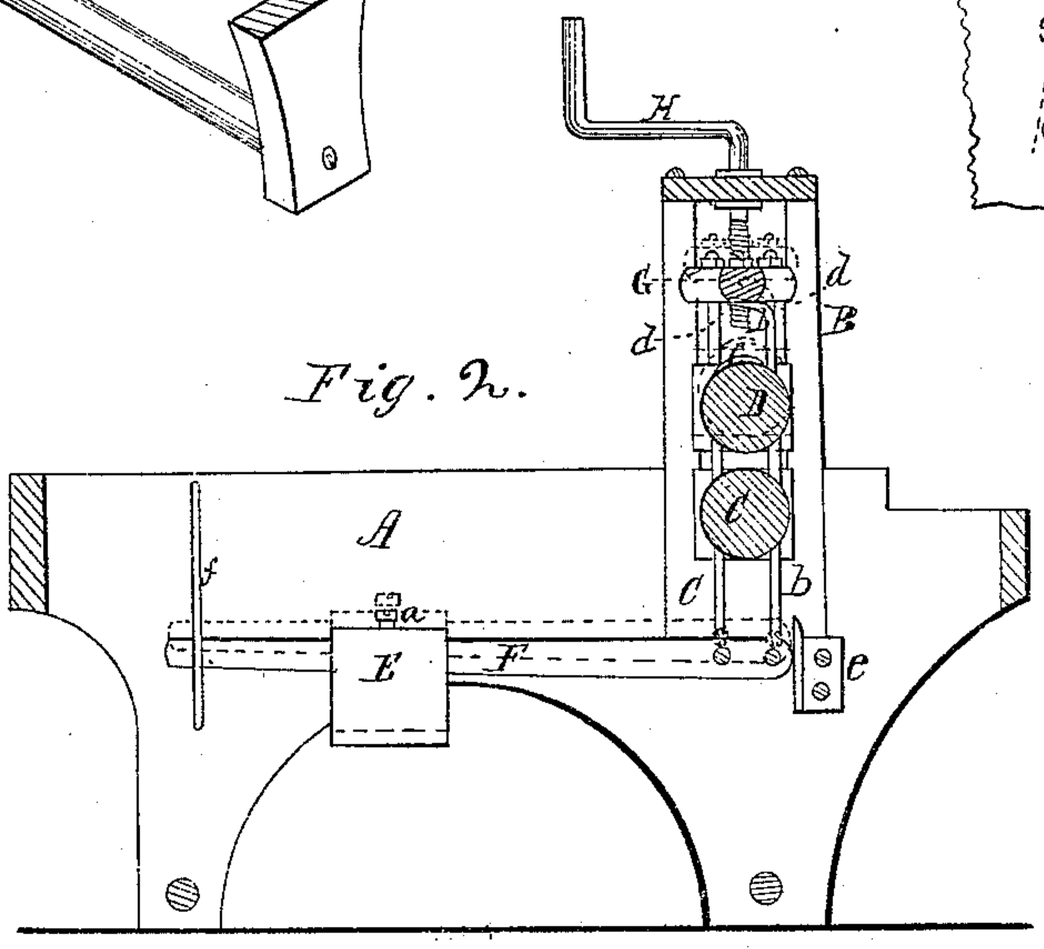


Fig. 2.



Witnesses

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GILBERT J. RUGG, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 61,264, *dated January* 15, 1867.

IMPROVEMENT IN PLANING MACHINES.

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

KNOW ALL MEN BY THESE PRESENTS:

That I, GILBERT J. RUGG, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful improvements in Wood-Working Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of so much of a machine for working wood as is necessary to illustrate my invention, a portion of the frame being broken away to show the parts more fully.

Figure 2 represents a longitudinal central section; and

Figure 3 represents a modification of the invention, as will be hereafter more fully explained.

The nature of my invention consists in a novel arrangement of weighting the feed-rolls in a planing machine.

In the drawings A represents the frame, B the feed-roll frame, and C D the feed-rolls. The weights E can be slid back and forth on the lever F, and fastened at any desired point by the set-screws *a*. Lever F, on one side, is hinged at its front end to the lower end of rod *b*, which extends up, and is fastened to the cross-piece G. The same lever is also hinged to another rod, *c*, which extends up and hooks around the box in which the journal of one end of the feed-roll D rests and turns. The lever F, on the other side of the machine, is arranged and connected in the same manner just described, so that the top-roll D is weighted by both weights E. The upper boxes or bearings of the journals of the top-roll D, are connected with the cross-piece G by rods *d*, two at each end. It will now be seen that if the feed-roll D is raised in a horizontal position, as it can be by the aid of crank-screw levers H, that lever F will also be raised in a horizontal position, or nearly so, as indicated in red lines, fig. 2. Guide pieces *e* prevent levers F from swinging forward, while guides *f* keep them from lateral play.

The operation is as follows: The operator, by means of the crank screw, levers H, adjusts roll D at the desired distance above roll C, and the work of planing commences, roll D yielding bodily, or at either end, to the inequalities of the board. This arrangement is very simple, cheap, and yet very durable. It is such that the power of the weights E upon the boards is the same, whether set for thick or thin material, since, as before explained, the lever is raised bodily, when the upper roll is raised by the screw lever H, and yet when the board is running through, roll D can rise, and then fall back to its proper position; the rear ends of one or both of levers F being elevated, together with the weights E, through the action of roll D upon rod *c*. In fig. 3 is shown a modification of my invention applied to weight a double set of rolls. I represents a slide-piece, in which the journals of rolls J J have their bearings; rods *g g* hook around or are connected to the journals or bearings of rolls J, while their lower ends are hinged to the connection piece K, as fully shown in the drawings. It will be seen that when slide-piece I is raised, lever F is raised in a horizontal position, the same as shown in fig. 2, while either roll can rise to conform to the inequalities of the board. Slide-piece works up and down in proper guides in the side of the frame.

Having described my improvements in machines for planing boards and for other purposes, what I claim as new and of my invention, and desire to secure by Letters Patent, is—

The combination of lever F with roll D, cross-piece G, and rods *b* and *c*, when constructed and operating substantially as shown and set forth.

GILBERT J. RUGG.

Witnesses:

THOS. H. DODGE,

D. L. MILLER.