E. P. Halsted,

Planing Mold.

No. 89990. Patented May 11. 1869.

Fig. 1.

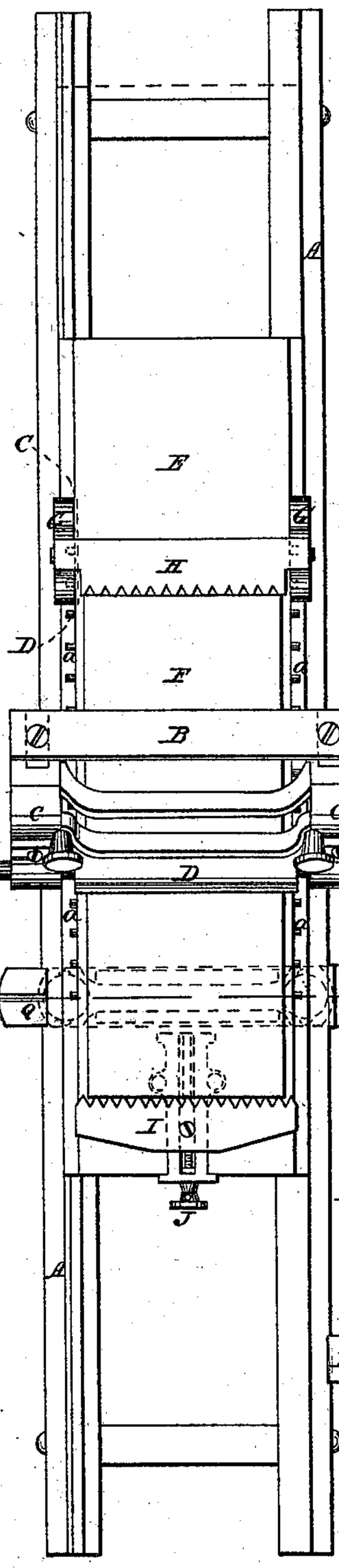


Fig. 2.

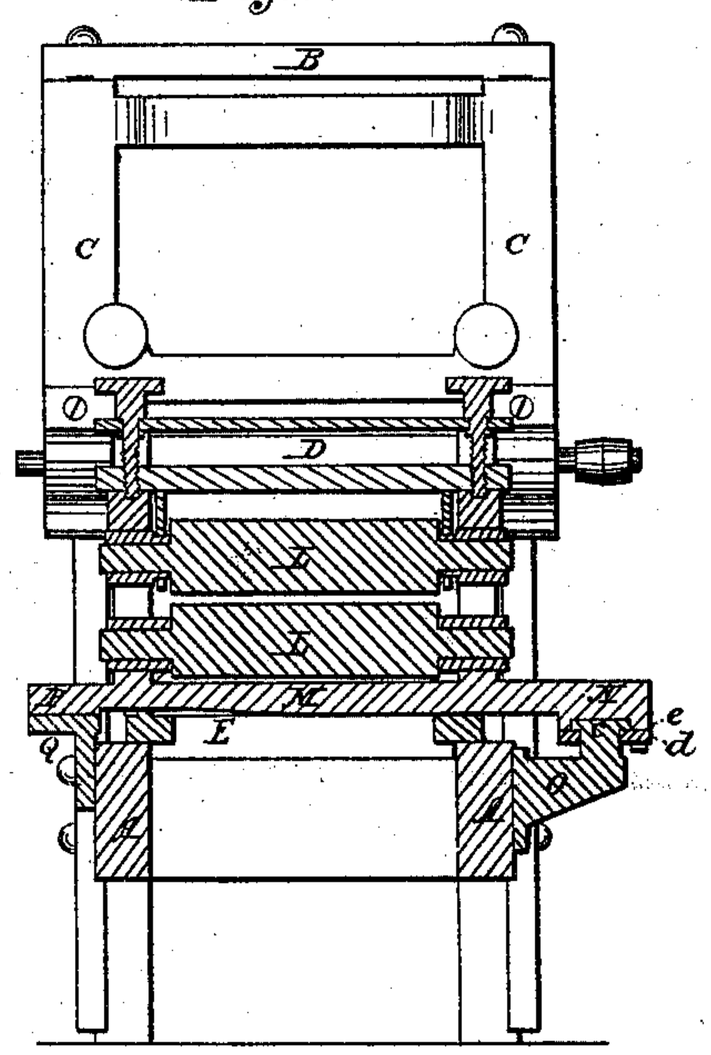


Fig. 3.

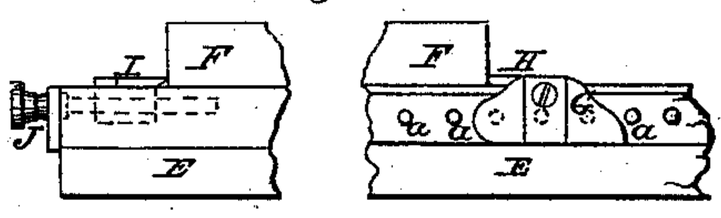


Fig. 4.

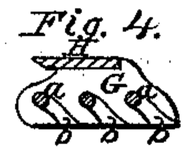
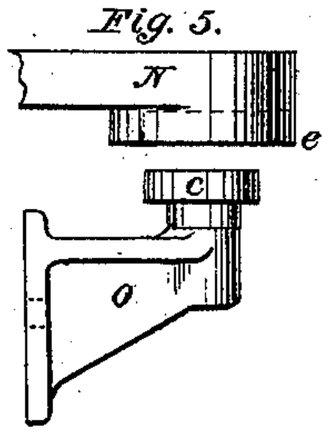


Fig. 5.



Witnesses,
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Inventor.
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E. P. HALSTED, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO R. BALL AND COMPANY.

Letters Patent No. 89,990, *dated May* 11, 1869.

IMPROVEMENT IN PLANING-MACHINE.

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

Know all men by these presents:

That I, E. P. HALSTED, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Planing-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 the specification, in which—

Figure 1 represents a plan view of so much of a combination or dimension planing-machine as is necessary to illustrate my said improvements;

Figure 2 represents a section on line A B, fig. 1, when the feed-rolls and table are in the positions shown or indicated in red lines;

Figure 3 represents side views of broken parts of the machine;

Figure 4 represents a section of a part of the machine on line C D, fig. 1; and

Figure 5 represents, upon an enlarged scale, a side view of detached parts, hereafter to be explained.

To enable those skilled in the art to which my invention belongs, to make and use the same, I will describe it more in detail.

The nature of my invention consists in a particular mode of supporting the feed-rolls, as will be hereafter described.

In the drawings, the part marked A is the main frame, from which rises the frame B, to which is secured the frame C, for supporting the cutter-cylinder D, and E is the table for supporting the material F to be planed.

Table E is to be operated back and forth in the usual manner, and its edges are provided with a series of round pins, *a*, to fit the inclined slots, or recesses *b*, formed in the inner sides of the end-pieces G G of the dogging-device H.

The opposite end of table E is provided with another dogging-device I, which can be moved back and forth by screw J, for securing the board or timber F in a firm position on the table.

The dogging-device H can be easily and quickly removed and replaced nearer to or further from the centre of the table E, to hold longer or shorter boards or pieces of timber.

In some cases it is not necessary to have the boards planed "out of wind," and then the work can be performed in a more expeditious manner by the use of feed-rolls, and for which purpose, machines of this class have been made in such a manner, that the feed-rolls L L, with their frame M, can be turned or swung to one side of the machines, as shown in dark lines, fig. 1, when the table is to be used for feeding the material, as in the Daniels planer, so called, while frame M, with its feed-rolls L L, can be turned or swung back across the frame, as shown in red lines, fig. 1, when the roll-feed is to be used.

The feed-rolls L L are driven by gearing, but as the arrangement of gearing is well known, and forms no part of my present improvements, a detailed description is unnecessary.

One end of the lower part N of the feed-roll frame M, as heretofore made, has been secured to a stand, attached to the side of the frame, by means of a bolt passing through both, the bolt forming the joint, or pivot on which the frame turned.

This mode of construction is objectionable, since the nut on the bolt is liable to work loose, and allow the frame to sag or drop when turned; besides, the strain on the parts is such that there is great liability of the connections breaking.

To obviate the above and other objections, I make the stand O with a flanged head, *c*, and the end of the piece N with a recess to receive such head, the parts being held together by means of cap *d*, made in the form of a half circle, and which fits under the flanged head *c*, and is secured to the lower side of the projection *e*, by screws or otherwise. (See dotted lines, fig. 1, and full lines, fig. 2.)

It will be seen, from the foregoing description, that by my invention, the connection is firm and strong, and that there is no danger of the parts becoming detached.

In lieu of the projection *e* with its socket being cast with the part N, it may be cast separate therefrom, and fastened thereto by bolts or screws.

The end P of the part N, when swung across the frame, as shown in dark lines, fig. 2, is supported by a stand, Q, and when it is turned to the position shown in dark lines, fig. 1, it is supported by a stand, R, in the usual manner.

In place of a single cap, *d*, two or more narrow pieces may be fastened to the under side of the socket or projections *e*, or even straight pieces may be used for the same purposes.

Two or more hooks may also be employed to gib the head *c* to the socket or disk *e* of frame M.

Having described my improved compound or dimension planer,

What I claim therein as new, and desire to secure by Letters Patent, is—

The construction and arrangement herein described, of the swinging feed-roll frame-joint, consisting of the recessed piece N, flanged head *c*, bracket O, and cap *d*, operating as described for the purpose specified.

E. P. HALSTED.

Witnesses:

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