H. P. Westcott,

Paneling Machine.

No. 34,083. Patented Jan. 7, 1862.

Fig. 1.

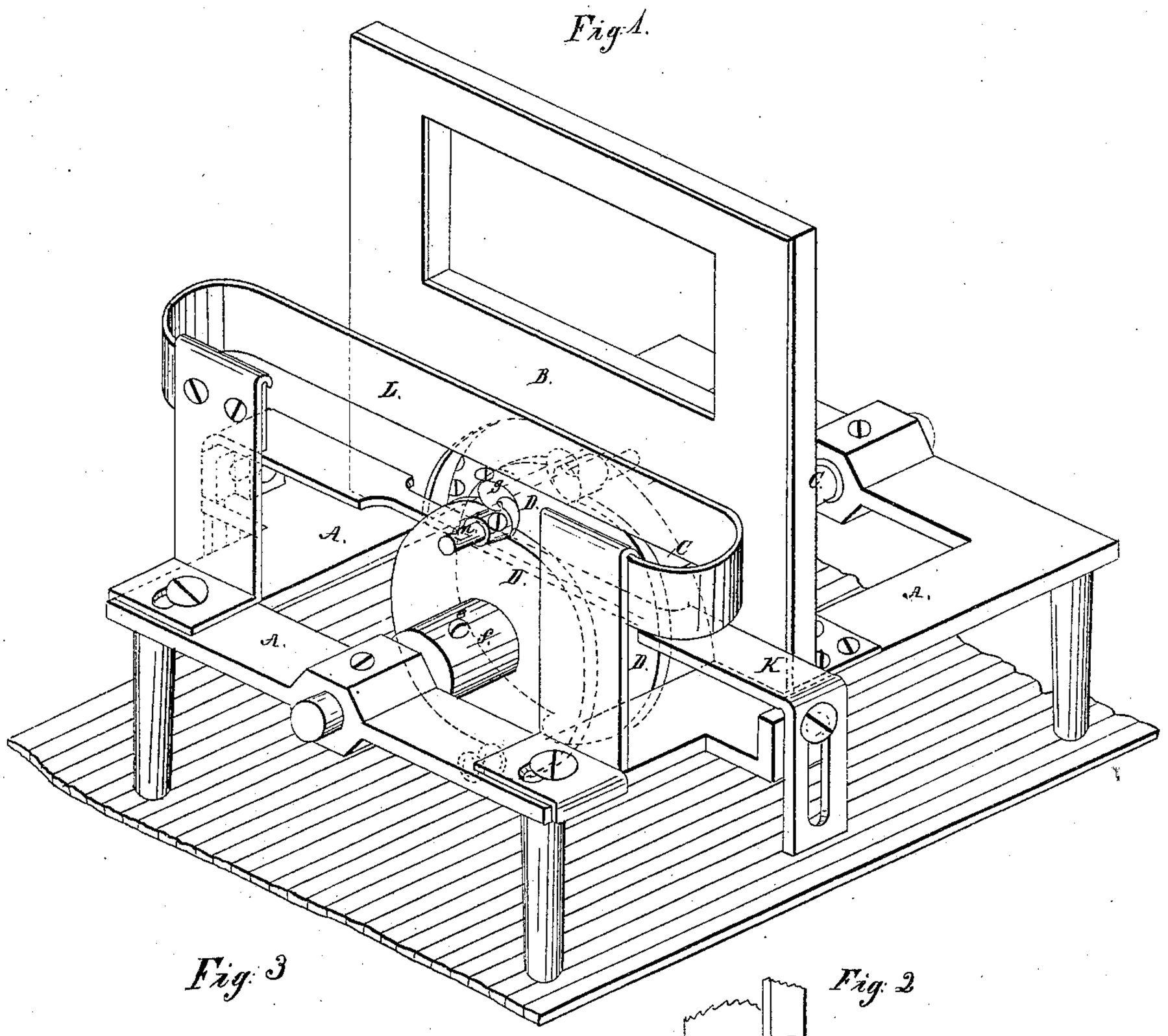


Fig. 3

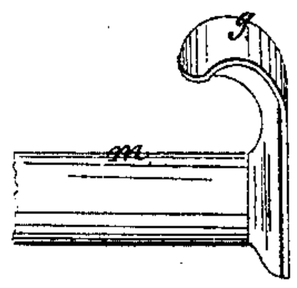
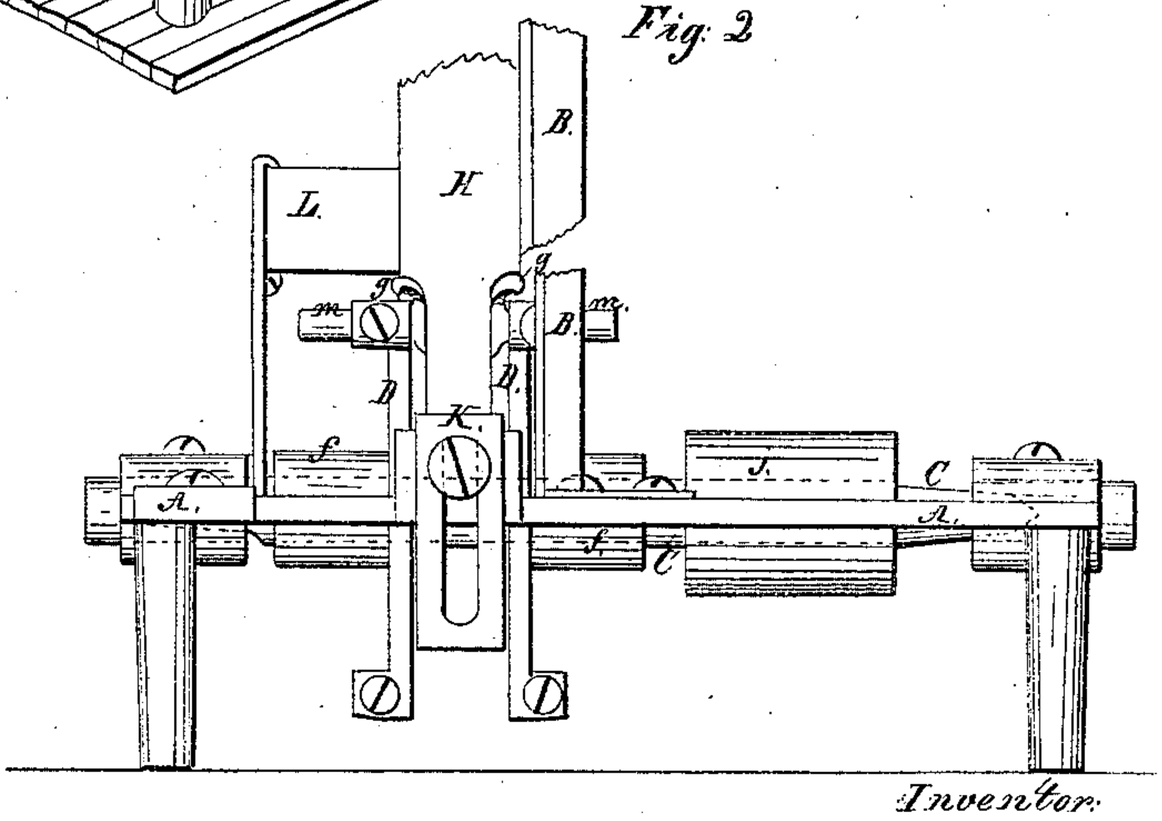


Fig. 2



Witnesses.

J. Fraser

D. C. Johnson.

Inventor.

H. P. Westcott

UNITED STATES PATENT OFFICE.

H. P. WESTCOTT, OF SENECA FALLS, NEW YORK.

IMPROVEMENT IN PANELING-MACHINES.

Specification forming part of Letters Patent No. **34,083**, dated January 7, 1862.

To all whom it may concern:

Be it known that I, H. P. WESTCOTT, of Seneca Falls, in the county of Seneca and State of New York, have invented a new and Improved Machine for Working Panels for Doors and other Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is an elevation representing a panel H in the act of being wrought. Fig. 3 is a view of one of the cutters detached.

Similar letters designate corresponding parts in all of the figures.

My invention has for its object the production of a simple and convenient machine for working the tenon or tongue on panels having a raised surface, and also adapted to rabbeting and matching and grooving on various kinds of work and stuffs.

As represented in the drawings, A is a horizontal frame, which may be of wood or metal, having a permanent vertical guide B across its center, transversely of which is hung an arbor C, which carries two rotary disks or stocks D D. These are adjustable upon the arbor, so as to be moved to or from each other to adapt them to the different thicknesses of the stuff or lumber which is used, being fixed in their appropriate positions by means of set-screws *e* in the sleeves or hub *f* of each. These stocks are provided each with a pair of knives or cutters *g*, (more or less of which may be used,) the points being curved to the shape or form desired to be given to the tenon portion of the panel H, as shown in Fig. 2. A rapid motion being given to the arbor by means of a band running from an adjacent driving-wheel on the pulley *j*, the panels (having been previously squared to the required size) are passed through between the cutters on a way or track K, being held firmly against the stationary guide B by a spring pressure-guide L. The cutters remove the superfluous wood and produce a tenon of the proper thickness to exactly fit the groove of the stile, that having been prearranged by setting the cutters at a suitable distance apart for that purpose. Each side is passed through successively until the finished panel is produced. The track K is adjustable vertically by means of slot and set-screw to regulate the distance of the shoulder from the edge, and also horizontally by the same means to adapt it to different thicknesses. The spring pressure-guide L is also mounted upon standards which are capable of a similar adjustment for the same purpose. One end of the pressure-guide L is made fast by screws, bolts, or otherwise to one of its standards, while the other end is free to slide endwise in a slot or grasping-space of the other standard, so that the elastic action of the guide may not be impeded through rigid confinement by the lengthening and shortening of the same in the act of springing, and thus a more free and uniform pressure is produced at both ends.

The cutters *g* are each constructed with a round shank *m*, which passes transversely through the stock forming an axis at right angles to the planes of the cutter's motion or action, on which the cutter may be turned to adjust it to the best angle to insure easy and smooth cutting, in which position it is held by a set-screw. This method of adjustment proves a very convenient one, enabling the operator to readily find by experiment the position best adapted to produce good workmanship. This construction also enables the cutters to be adjusted lengthwise of their axial shanks *m m* and at right angles to the disks or cutter-heads, so that the positions thereof may be varied at pleasure without adjusting the disks or cutter-heads themselves. Thus a double adjustment, angular and axial, is obtained, thereby effecting all the purposes and conveniences desired; but the disks or cutter-heads are themselves sometimes adjusted, especially when the relation of their positions to the positions of the guides B L is to be changed—as, for instance, when the machine is to be adjusted so as to make a raised panel only on one side, and vice versa. This construction also admits of a ready change of the curved cutters for those of different shapes, to adapt the machine to rabbeting, matching and grooving, and other kinds of work without other change of the machine except the use of a single disk for some kinds of work. Thus a machine simple and inexpensive in itself may be made to do the work of several machines, making it not only a sub-

ject of economy but of convenience in many shops where various kinds of mechanical jobbing is done, such as making of boxes, chests, drawers, &c., as well as doors and shutters.

An important consideration in its use in making panels is that its construction is such as to render each panel perfect, the tenon and shoulder being of exact thickness, and true to the plane to which they are worked, thereby producing a perfect adaptation to the groove of the stiles or frame in which the panels are set.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combined arrangement of the spring pressure-guide L, constructed and operating as described, the stationary guide B, and separately adjustable disks or cutter-heads D D, substantially as and for the purposes herein specified.

2. The construction and arrangement of the cutters *g g*, with round axial shanks *m m* projecting at right angles from the planes of the cutter's motion and fitting into sockets of the disks or cutter-heads D D in positions parallel with the axis of the said disks, thus producing the angular and axial adjustments thereof, substantially as and for the purposes herein specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

H. P. WESTCOTT.

Witnesses:

J. FRASER,

SIDNEY GEO. GWYNNE.