

D. F. Walker's
Improved Paneling Machine.

Sheet 1 - 2 Sheet.

117020

PATENTED JUL 11 1871

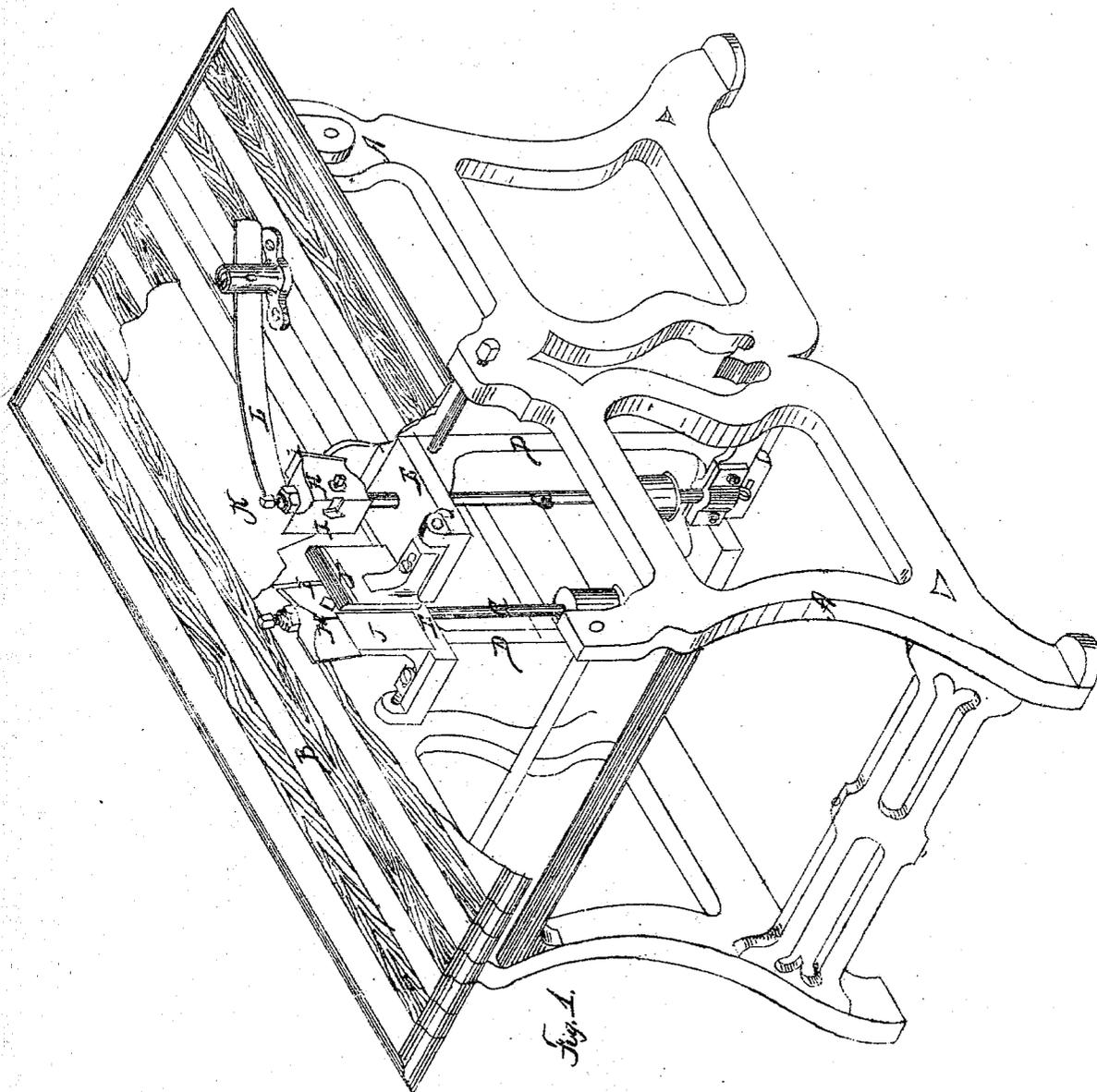


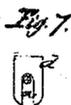
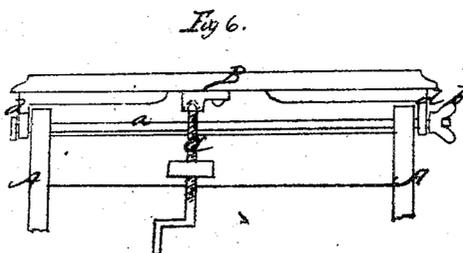
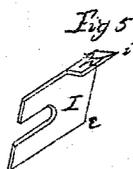
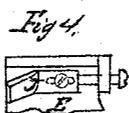
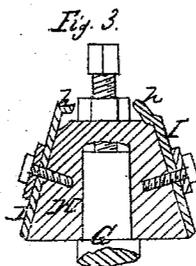
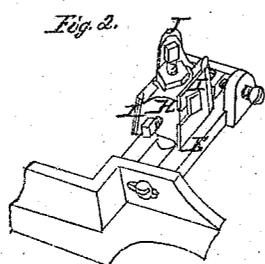
Fig. 1.

Witnesses
E. M. Leopold
Harry King

Inventor
Dwight B. Walker

D. F. Walker's
Improved Paneling Machine.

Sheet - 2. - 3 Sheet



Witnesses
E. M. Crosby
Harry King

Inventor:
Dwight F. Walker

UNITED STATES PATENT OFFICE.

DWIGHT F. WALKER, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN PANELING-MACHINES.

Specification forming part of Letters Patent No. 117,020, dated July 11, 1871.

To all whom it may concern:

Be it known that I, DWIGHT F. WALKER, of Minneapolis, in the county of Hennepin and State Minnesota, have invented certain new and useful Improvements in Panel-Machines; and I declare the following to be a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists: 1st, in the construction of the adjustable knives or cutters; 2d, in the arrangement of the cutter-heads, knives, shafts, and platforms; and 3d, in the combination, with the cutter-heads, of certain guides and spring, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and arrangement, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my machine. Fig. 2 is a perspective view of one of the cutter-heads with guide. Fig. 3 is an enlarged vertical section of one of the cutter-heads. Fig. 4 is a plan view of one of the guides. Fig. 5 is a perspective view of one of the cutters. Fig. 6 is an end view of the work-table, showing the manner of fastening and adjusting the same; and Fig. 7 is a side view of an ear attached to the front end of the table.

A represents the frame of my machine, constructed in any suitable manner, and supporting the work-table B, which is hinged at one end and secured at the other end in the following manner: A rod, *a*, passes through ears or projections at the end of the frame A, said rod being, at one end, provided with a flange or collar, and at the other end with a thumb-nut, *b*. On the under side of the table B are projections or forked ears *d d*, which, when the table is down in its position, embrace the ends of the rod *a*, and by tightening the nut *b* the table is secured firmly in place. Prior to securing it by the nut it is adjusted by the set-screw C, as shown in Fig. 6. At suitable points in the frame are secured two bent bars, D D, which are so arranged that they can be adjusted at both their upper and lower ends, to be brought closer to or farther from the center, as may be desired. At their upper ends said bars D D are provided with horizontal bed-

pieces E, firmly secured to them. Through these the mandrels or shafts G G pass, their lower ends having suitable bearings in the lower ends of the bars D. At the upper ends of the shafts G are secured the cutter-heads H, which are provided with two inclined sides, as shown in Fig. 3, to which the knives or cutters I are firmly secured. These knives have, in addition to the usual cutting-edge from *e* to *f*, also an inclined projection, *h*, at the upper cutting-corner, said projection having a cutting-edge from *f* to *i* for the purpose of cutting smoothly the under side of the groove in the panel. In the usual paneling-machines the side only has been cut, often leaving the edge rough or broken to be finished by hand; but by the addition to the knife of the projection *h* this part is cut smoothly at the same time and needs no finishing. It will be noticed that the projections *h h* on the two cutters of the same cutter-head are not shaped alike, but so constructed that one will cut the rabbet while the other cuts the molding. The knives I I are attached to the cutter-heads H H by means of set-screws passing through slots in the knives, so that, in addition to the adjustability of the cutter-heads by means of the adjustable bars D D, the knives themselves can also readily be adjusted. At the side of the cutter-heads, on the bed-pieces E, are placed adjustable guides J J. The saw-table B is, of course, provided with suitable holes for the cutter-heads and cutters to project through it, the guides J J also projecting through the same. Running lengthwise on the saw or work-table is a guide-bar, K, against one side of which the work to be cut is placed and held against the same by a spring, L, as shown in Fig. 1. The guide K is provided with an opening opposite the second cutter-head for its knives to work through.

The work to be cut being inserted between the guide K and spring L, and the mandrels revolved by means of belts or other suitable means, it will be seen that when the knives on the first commence to operate the work has a solid bearing on the other side, namely, the guide K, while, as soon as the second set of cutters commences to operate on the opposite side, the first side has a solid bearing in the guide J, attached at the side of the first cutter-head. The work is then carried on out between the two guides J J, and hence there is no liability of the work springing or in anywise becoming warped, which is often the

case when the cutters operate directly opposite each other, and there is no solid bearing for the work at the points where the cutters operate on same.

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

1. The arrangement of the knives or cutters I I provided with inclined cutting projections *h h* on cutter-heads H H, constructed as shown and described, so that one will cut the rabbet and the other on the same head cut the molding, substantially as herein set forth.

2. The arrangement of the bars D D, having platforms E E, shafts G G, adjustable cutter-

heads H H, and adjustable cutters I I and guides J J, constructed substantially as and for the purposes herein set forth.

3. The combination of the cutter-heads H H, constructed as described, with the adjustable guides J J, stationary table B, guide K, and spring L, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of February, 1870.

DWIGHT F. WALKER.

Witnesses:

D. G. SHEILLOCK,

E. A. WALKER.