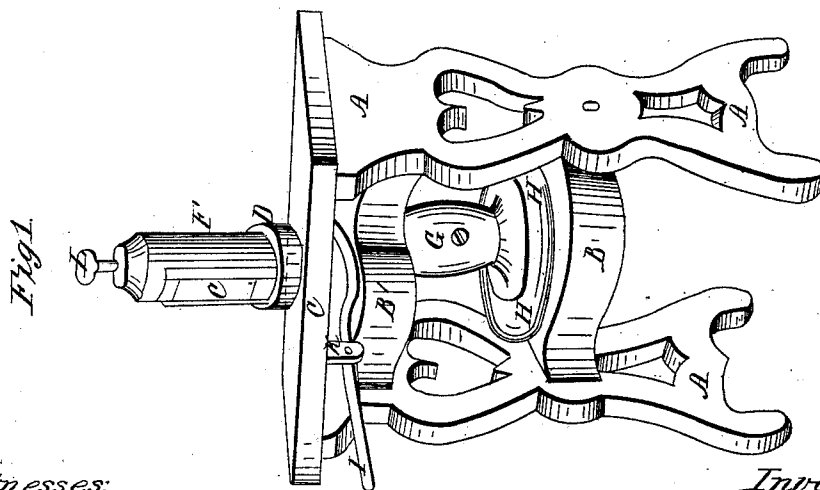
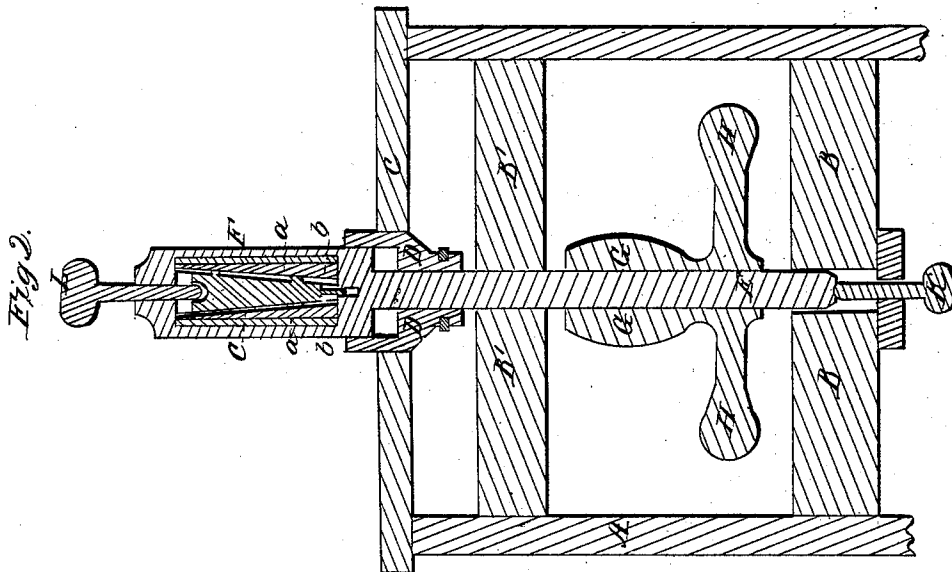


S. M. Hamilton,
Wood Molding Machine,
No 81,898, *Patented Sep. 8, 1868.*



Witnesses:

A. Ruppert,
C. Clausen

Inventor:
S. M. Hamilton
D. R. Holloway & Co
Atty's.

United States Patent Office.

S. M. HAMILTON, OF BALTIMORE, MARYLAND.

Letters Patent No. 81,898, dated September 8, 1868.

IMPROVEMENT IN PLANING-MACHINES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, S. M. HAMILTON, of Baltimore, in the county of Baltimore, and State of Maryland, have invented a new and useful Improvement 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 annexed drawings making part of this specification.

A A are the end-pieces of the frame, which support the machinery, and may be of wood or metal, as desired.

B B' are the cross-beams, which extend from one of the frames A to the other, and to which they are firmly secured in any convenient manner. The lower one, B, of these beams forms a bearing for the lower end of the shaft E, while the upper one, B', forms or receives the bearing for the upper end of the shaft.

These beams are placed at such a distance apart as to permit of placing upon the shaft E, between them, a driving-pulley and a small balance-wheel.

C is the table, upon which the timber to be worked is placed. It is secured to the upper end of the frames A A by being bolted thereto, or it may be in any other convenient manner. This table has an aperture cut in or near its centre, through which the shaft E passes, and in this case the aperture is so much enlarged as to enable it to receive the adjustable guide D, and permit it to be moved up and down freely through it.

D is the adjustable guide, above alluded to, which, in this case, is of circular form, and is constructed with an aperture through its centre of sufficient size to receive the shaft E which passes through it. This guide has a recess formed in its upper face, of sufficient size to receive the lower end of the cutter-head over which it passes when raised to its full height; the object of this adjustable guide being to regulate the work with reference to the knives.

E is the mandrel or shaft of the machine, having its upper end enlarged, as shown at F, Figure 2, to receive the knives, and the wedges which hold them in position. This shaft has its bearings in the cross-beams B and B', between which it has attached to it a driving-pulley, C, and a balance-wheel, H, while its lower end rests upon a set-screw, K, which passes through a plate of iron, secured to the lower side of the cross-beam B.

F is the enlargement of the shaft E, or it may be a cutter-head, secured thereto.

G is the driving-pulley, secured to the shaft E, as above described, and H is the balance-wheel, also secured to the shaft E.

I is a lever, one end of which is forked, so as to embrace the lower portion of the guide D directly beneath the table C, while its outer end extends beyond said table a distance sufficient to enable the operator to raise and lower the guide D with it easily. This lever has its fulcrum in a stand, d, which is secured to the under side of the table C.

K is a set-screw, upon which the shaft E rests, and by which said shaft may be raised or lowered at pleasure.

L is a set-screw, which passes through the outer end of the cutter-head, and is designed for securing the knives in their places by being turned down upon the central wedge, and thus pressing the outer ones firmly against said knives, they resting against the walls of the cutter-head.

a a are the knives, shown in position in fig. 2.

b b are the outer wedges, constructed as shown in fig. 2, with their outer faces parallel with the walls of the cutter-head, while their inner faces are bevelled to correspond with the bevel of the central wedge. These wedges are placed within the slot cut in the cutter-head, with their bases or thickest end resting upon the lower portion of such slot.

c is a central wedge, placed between the two last-described ones, it having projections upon its sides to pass into slots in the outer ones for the purpose of guiding it in its up-and-down motion between said outer wedges.

It also has a pin inserted into its lower end, or it may be a portion of the wedge made of suitable form and length to enter a hole which is bored into the upper end of the shaft E, which pin is also for guiding the wedge c. In the upper end of this wedge a hole is bored, which receives the inner end of the set-screw I, said screw having a groove turned in it, so that upon passing a small pin through the upper end of the wedge, by boring a

hole for the purpose, a portion of the diameter of the pin will rest within said groove, and thus prevent the screw from being withdrawn from the wedge as the screw is turned backwards for the purpose of withdrawing the wedge for releasing the knives.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—
The combination of the adjustable guides D with the cutter-head, constructed and operating substantially as described and shown.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

S. M. HAMILTON.

Witnesses:

D. P. HOLLOWAY,

C. F. CLAUSEN.