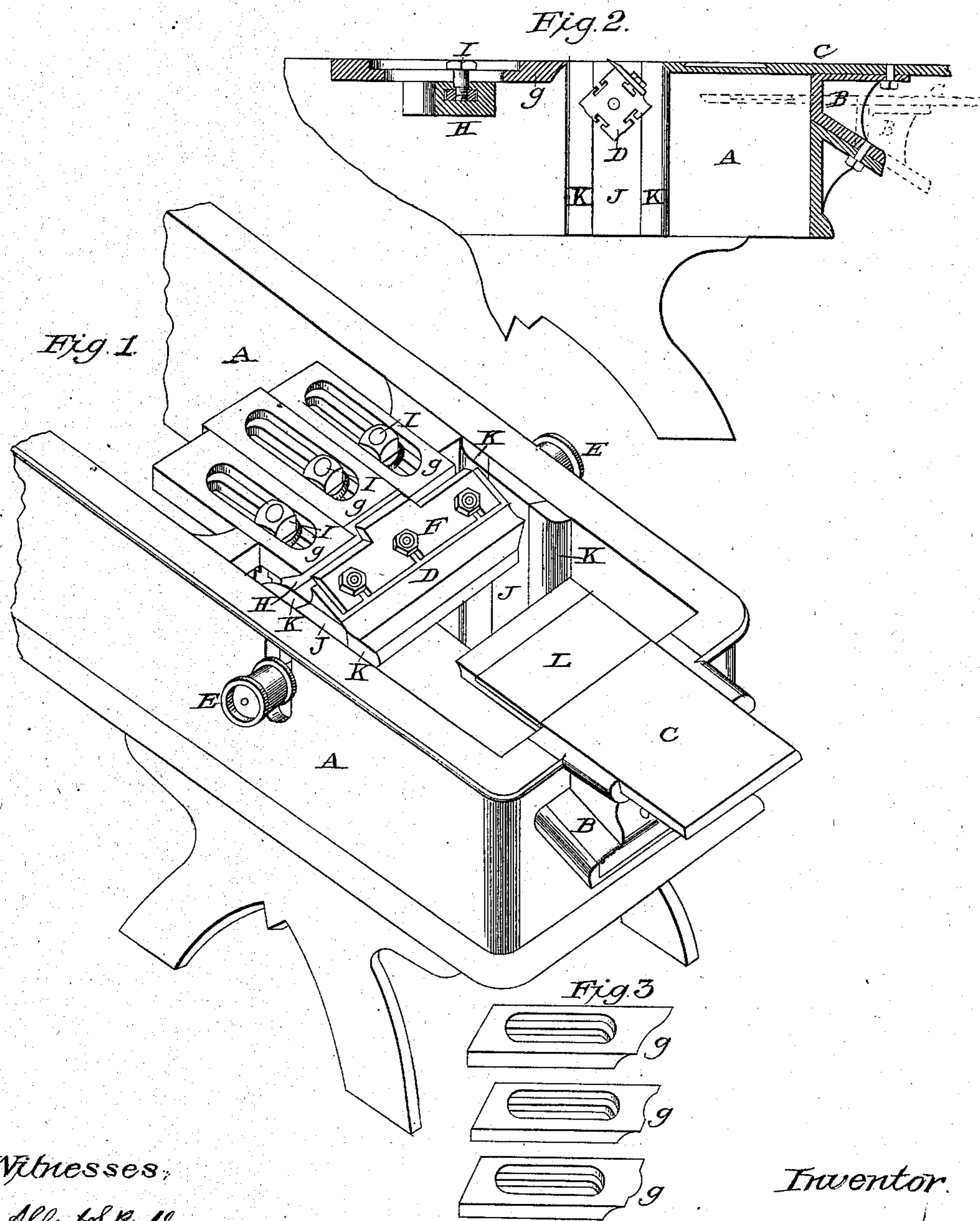


F. DOUGLAS.

PLANING AND MOLDING MACHINE.

No. 105,657.

Patented July 26, 1870.



Witnesses:
Allen S. Bolles,
B. A. Rogers.

Inventor.
F. Douglas.

United States Patent Office.

FRANK DOUGLAS, OF NORWICH, CONNECTICUT.

Letters Patent No. 105,657, dated July 26, 1870.

IMPROVEMENT IN PLANING AND MOLDING-MACHINE.

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

I, FRANK DOUGLAS, of Norwich, in the county of New London and State of Connecticut, have invented certain Improvements in Planing and Molding-Machines, of which the following is a specification.

My invention relates to a combination of adjustable chip-breakers with the under cylinder or cutter-head of a planing or molding-machine, in such a manner that long projecting molding or rabbeting cutters may be used on the under planing-head, and the chip-breakers or rest, over which the work is driven, may be adjusted up closely to the knife or cutters, so as just to let them pass, and thereby form a perfect chip-breaker, without which smooth and accurate work cannot be done. They also serve to hold the work firmly, close up to the cutters, and prevent its vibration by the action of the cutters.

Figure 1 is a perspective view of one end of a planing or molding-machine, in which the under planing-head is placed, showing the adjustable chip-breakers and angular end piece, which slide to and from the cutter-head.

Figure 2 is a vertical longitudinal sectional view of the same.

Figure 3 is a perspective view of three adjustable bed pieces, with irregular shaped ends, to conform nearly to the shape of cutters used.

A is the frame of the machine, which should be substantially made, to resist the vibration of the operating parts.

B is an angular part, gibbed into the end of the machine, for raising or depressing the bed piece C, as will be seen by dotted lines, fig. 2.

C is an adjustable bed, gibbed into the angular end piece B, and can be moved to or from the cutter-head, or raised or depressed, at the will of the operator.

D is the cutter-head, on which the knife F, or molding-cutters, are firmly bolted.

E E are pulleys, by which the cutter-head is driven.

The boxes J J are made so as to raise and depress the cutter-head in the usual way.

H is a cross-bar, firmly attached to the sides of frame A, in which a T-shaped groove is made to run lengthwise of the bar, for the reception of nuts for bolts I I I.

The chip-breaker bed pieces G G G, are firmly bolted to the cross-bar H by bolts I I I.

The elongated recess in bed piece G, is as deep as the thickness of bolt-head I, and long enough to admit of the desired movement to or from the cutter-head.

When a piece of work is to be planed with straight cutters on the under cutter-head, the bed pieces G G G are moved up as close to the knives as practicable, and with suitable arrangement of feed-works and pressure-bar over the cutter-head, the board or work is moved over the bed pieces G G G, and the cutter-head D takes off the amount of chip required.

The work then gets a bearing on bed piece C, which is adjustable up to the board after the chip is taken off.

When molding-cutters are used on the cutter-head, one or more of the bed pieces G, in fig. 3, may be used, and by means of the T-groove in box H, and elongated recess for bolt I, the bed G may be adjusted to the desired place.

After the molding has passed the cutter-head, it rests upon a jack or inverted piece of molding, made to receive it.

This jack is fastened to part L of bed C, after it has been dropped below the top of machine, as shown by dotted lines in fig. 2, and forms a perfect guide and rest for the molding, as it is delivered from the machine, which is an absolute necessity when irregular shapes are worked by the under cutter-head.

Claims.

I do not claim the angular end piece B with bed C, as that was granted me October 12, 1869; but

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

1. The adjustable bed pieces G G G, when used in combination with the under planing or cutter-head D of a planing or molding-machine, for the purpose herein specified.

2. The combination of the bed G, cutter-head D, with the elevating and depressing end pieces B and C, substantially as and for the purpose herein specified.

FRANK DOUGLAS.

Witnesses:

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