(No Model.)

A. B. HUTCHINSON.

WOOD PLANING MACHINE.

No. 396,934. Patented Jan. 29, 1889.

Fig. 1.

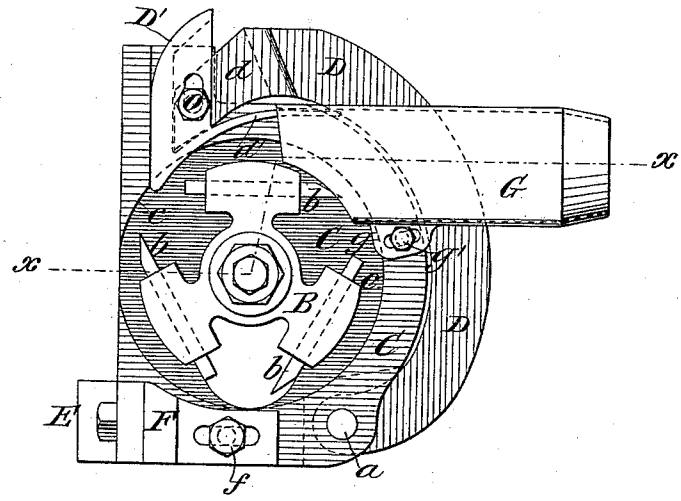


Fig. 2.

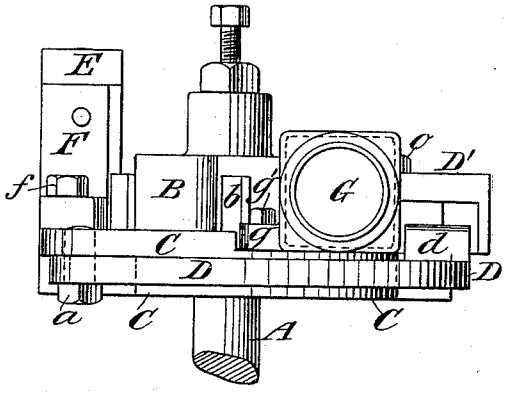
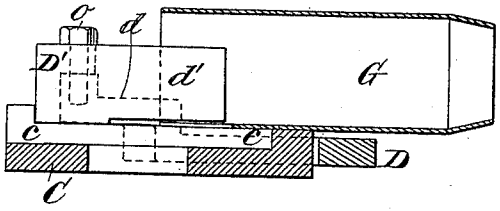


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED B. HUTCHINSON, OF BROOKLYN, N. Y., ASSIGNOR TO THE GLEN COVE MACHINE COMPANY, (LIMITED,) OF SAME PLACE.

WOOD-PLANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 396,934, dated January 29, 1889.

Application filed September 27, 1888. Serial No. 286,534. (No model.)

To all whom it may concern:

Be it known that I, ALFRED B. HUTCHINSON, of Brooklyn, (Green Point,) in the county of Kings and State of New York, have invented a certain new and useful Improvement in Wood-Planing Machines, of which the following is a specification, reference being had to the accompanying drawings.

To enable others skilled in the art to make and use my invention, I will first describe it with reference to the drawings, and afterward point out its novelty in claims.

Figure 1 in the drawings represents a plan view of those parts of a planing-machine necessary to illustrate my invention. Fig. 2 is an elevation of the same parts as viewed from the right side of Fig. 1. Fig. 3 represents a vertical section in the line $x\ x$ of Fig. 1.

Similar letters of reference designate corresponding parts in the several figures.

A designates the upright spindle of one of the matcher-heads B of a planing-machine. This spindle is supported in the usual or any suitable manner in bearings in the matcher-leg of the machine, which it is not considered necessary herein to show or describe. The matcher-head B is represented as furnished with cutters *b*, such as are commonly used.

C designates what is commonly known as the "head-plate," which is intended to be supported in the usual manner and secured to the top of the matcher-leg. In the upper part of this head-plate is represented a circular recess, *c*, which receives the lower part of the matcher-head B, so that the cutters *b* stand above the upper surface of the said plate.

D designates the arm of a chip-breaker, pivoted by a pin, *a*, to the head-plate C and having the greater portion of its length arranged below the upper surface of the said plate and outside of the outer margin of said plate, but having that end farthest from the pivot *a* projecting upward above the said plate, as shown at *d* in Figs. 1 and 2, to carry the nose-piece D′, which acts in conjunction with the cutters to break the shavings into chips. This nose-piece is secured to the chip-breaker by means of a bolt, *o*.

The above-described construction of the chip-breaker and arrangement of the same, in combination with the cutter-head and head-plate, are not intended to be claimed herein, but constitute the subject-matter of my application for United States Letters Patent, Serial No. 282,993, filed August 17, 1888.

E designates a guide for the edge of the board bolted to a guide-carrier, F, which is bolted to the head-plate C by a bolt, *f*, in the usual manner.

G designates a shaving-hood consisting of a tube through which the chips are blown away by the blower-like action produced by the cutter-head and cutters in their rotation. This shaving-hood is furnished on one side with a slotted lug, *g*, through which it is bolted by a bolt, *g′*, to the head-plate C in such manner as to be adjustable toward and from the center of the axis of the cutter-spindle to permit a proper adjustment of the said hood relatively to the cutters. The arrangement of the chip-breaker arm below the upper surface of the head-plate C permits the shaving-hood to occupy a position over the said arm without either interfering with the other and allows the entrance of the said hood to be brought very close to and exactly opposite the edges of the cutters *b*.

The nose-piece D′ of the chip-breaker is provided with a long tongue, *d′*, which projects backward into the receiving-mouth of the shaving-hood G, as shown in Figs. 1 and 3, for the purpose of directing the chips into the shaving-hood as they are broken off by the chip breaker and cutters. This tongue *d′* has its face which is toward the cutter-head eccentric to the axis of said head, as shown in Fig. 1, in order that the chips, which are subject to the centrifugal current of air produced by the cutters, may not be driven against said face, but may pass freely by it into the shaving-hood G.

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

1. The combination, in a wood-planing machine, with a side cutter-head, a fixed head-plate below said cutter-head, and a chip-breaker a portion of which is below the level of the upper surface of said plate, of a shav-

ing-hood secured to said plate and lying over the said portion of the chip-breaker, substantially as herein described.

2. The combination, in a wood-planing machine, with the side cutter-head and its cutters, and a shaving-hood opposite the said cutters, of a chip-breaker provided with a tongue which enters the mouth of the said hood for the purpose of guiding thereinto the shavings or chips produced by the said cutters, substantially as herein described.

3. The combination, in a wood-planing machine, with the side cutter-head and its cutters and a fixed head-plate below the said cutter-head, of a chip-breaker a portion of which is below the level of the said head-plate, but the nose of which is above the said head-plate, a shaving-hood which is attached to the head-plate and which overlies the portion of the chip-breaker below the said plate, and a tongue attached to the chip-breaker and entering the mouth of the shaving-hood, substantially as and for the purpose herein set forth.

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