

(No Model.)

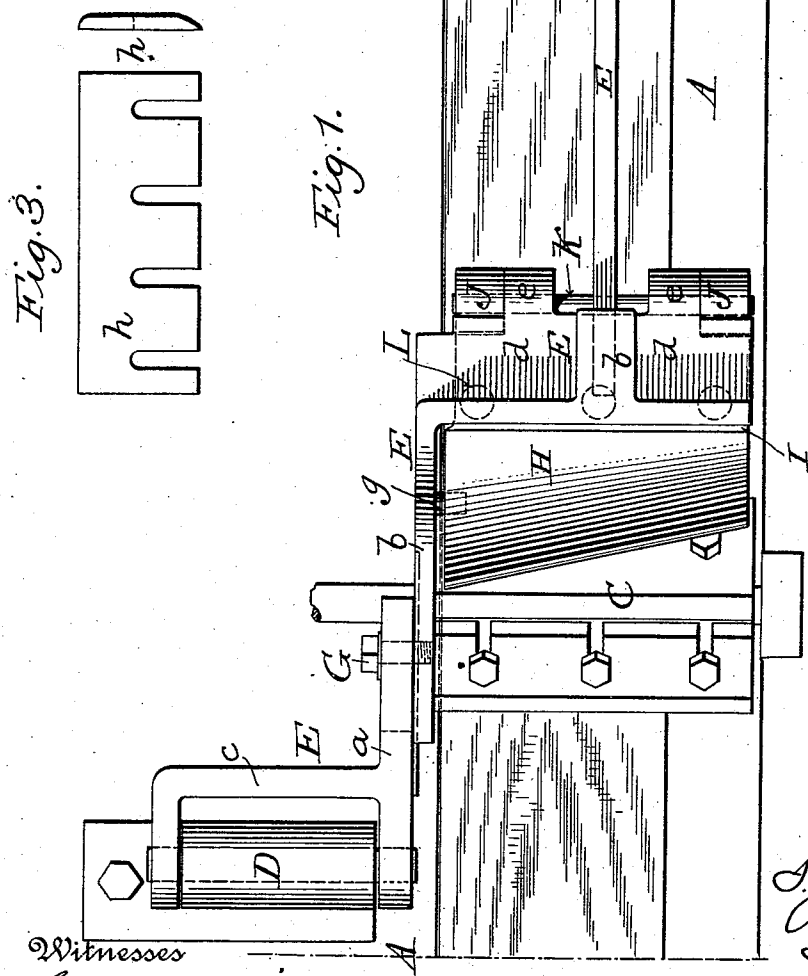
2 Sheets—Sheet 1.

S. J. LEONARD.

CHIP BREAKER.

No. 539,919.

Patented May 28, 1895.



Witnesses

C. C. Burdine.
C. B. Bull.

S. J. Leonard,
Inventor

by Dodge & Sons,
Attorneys.

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2 Sheets—Sheet 2.

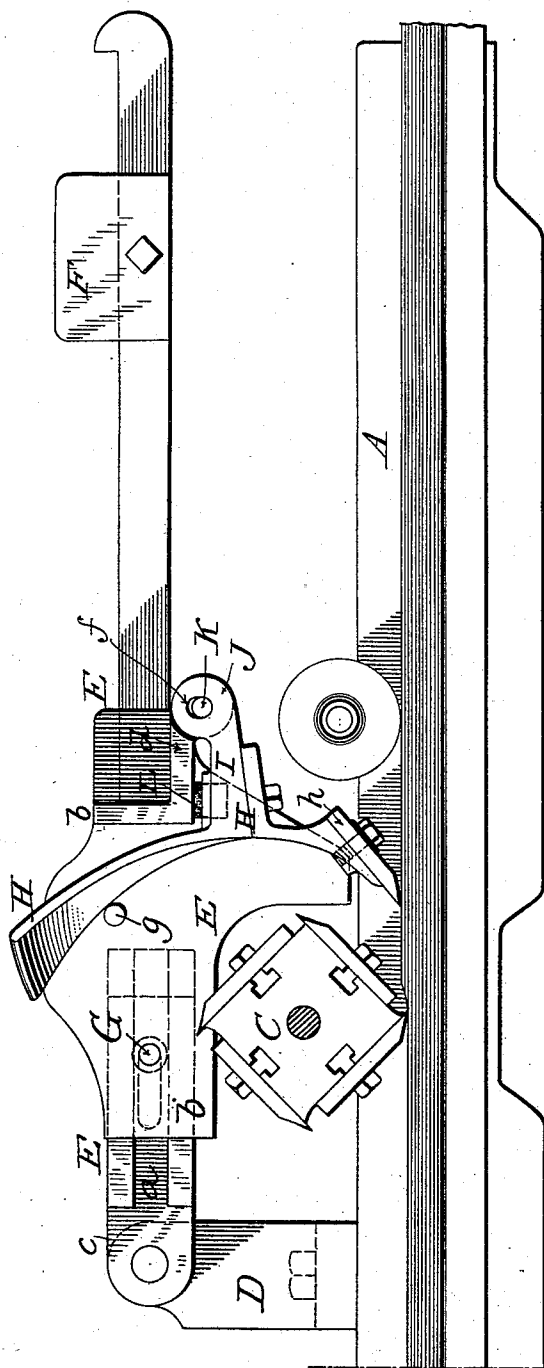
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Fig. 2.



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UNITED STATES PATENT OFFICE.

SUMNER J. LEONARD, OF MONTGOMERY, PENNSYLVANIA, ASSIGNOR TO
CELIA HOUSTON ARMSTRONG, OF SAME PLACE.

CHIP-BREAKER.

SPECIFICATION forming part of Letters Patent No. 539,919, dated May 28, 1895.

Application filed February 15, 1895. Serial No. 538,531. (No model.)

To all whom it may concern:

Be it known that I, SUMNER J. LEONARD, a citizen of the United States, residing at Montgomery, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Chip-Breakers, of which the following is a specification.

My invention relates to molding and planing machinery, and consists in a novel construction of the chip-breaker and the devices for supporting the same. Uneven or rough boards in passing beneath the chip-breaker raise the latter suddenly from the board, and leave the board free from downward pressure where acted upon by the cutter. This results in the production of uneven work, and chattering, and the object of the present invention is to overcome both of these annoyances.

In the drawings, Figure 1 is a side elevation of my improved attachment; Fig. 2, a plan view of the same, and Fig. 3 views of the detachable bearing-foot.

A indicates the bed or frame of the machine, and C the rotary cutter, all of which may be of the usual construction. Pivoted at one end to a bracket D secured to the main frame, is a lever E, or pivoted frame, which carries at its outer or free end a weight F, said lever being advisably made in two parts *a* and *b*, adjustable lengthwise one upon the other, and rigidly secured together by bolt G, as shown in Figs. 1 and 2.

The lever or pivoted frame E is attached to the bracket or support D, inside the cutter, and its end portion *a* is preferably forked as at *c* to give a broad bearing to counteract any tendency of the other part of the frame or lever E to tip laterally. Part *b* of the frame or lever extends behind the inner end of the chip breaker, and laterally in line with the axis of the cutter, and is there broadened or flattened as at *d*, and provided with perforated ears or lugs *e*, as shown in Fig. 1. In rear of the cutter, and to the rear edge of this flattened portion *d* is hinged or pivoted the chip-breaker H, said chip-breaker being provided with a rearwardly-extending plate or flattened portion I having perforated ears J to receive the pintle or hinge-rod K carried by the lever. The ears J are slotted vertically, as at *f*, Fig. 2, where the pin or rod K passes through, so that when a board which is thinner at one edge than the other, passes beneath the chip-breaker, the latter may tip

or rock laterally with reference to the lever 55 or frame which carries said chip-breaker.

In the plate I (or in the lever or frame) is seated one or more,—preferably three,—blocks of rubber, or springs, L, upon which rest the lever E,—the point at which said 60 springs or blocks bear against the lever being located in advance of the pivot of the chip-breaker.

From the foregoing it will be seen that by reason of the flexible connection between the 65 chip-breaker and the weighted lever, the chip-breaker may rise and fall slightly, independently of the lever, to accommodate itself to any unevenness in the surface of the lumber, and this, too, without actually leaving the 70 lumber, or lifting the pivoted frame or lever.

In order to limit the downward movement of the chip-breaker, relatively to the pivoted frame or lever, I provide the latter with a pin 75 *g*, Figs. 1 and 2, to engage the chip-breaker.

The foot of the chip-breaker wears rapidly and unevenly, and requires comparatively frequent renewal, and to avoid this, I make the foot *h* thereof detachable, so that when worn, it may be removed and replaced by another. I have found that knives which are no longer serviceable upon the cutter head, may advantageously be employed as the foot, such knife or foot being shown in Fig. 3.

Having thus described my invention, what 85 I claim is—

1. In combination with the main frame and cutter; the weighted lever pivoted to the main frame; a rigid continuous chip-breaker pivoted to the under side of the lever by a 90 slotted connection; and the cushion interposed between the chip-breaker and the lever, whereby the chip-breaker may bodily rise and fall and rock laterally with reference to the lever. 95

2. In combination with the main frame, and cutter; the weighted lever pivoted to the main frame; the chip-breaker H provided with slotted ears J; the hinge rod K carried by the lever and passing through the ears; and the 100 cushion interposed between the chip-breaker and the lever.

In witness whereof I hereunto set my hand in the presence of two witnesses.

SUMNER J. LEONARD.

Witnesses:

ROBERT F. ALLEN,
JOHN B. EMBICK.