

(No Model.)

A. PREMO.

CHIP BREAKER FOR MOLDING AND PLANING MACHINES.

No. 584,084.

Patented June 8, 1897.

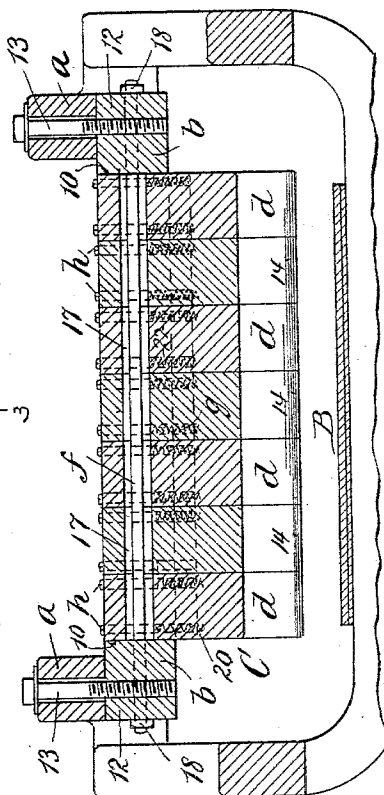
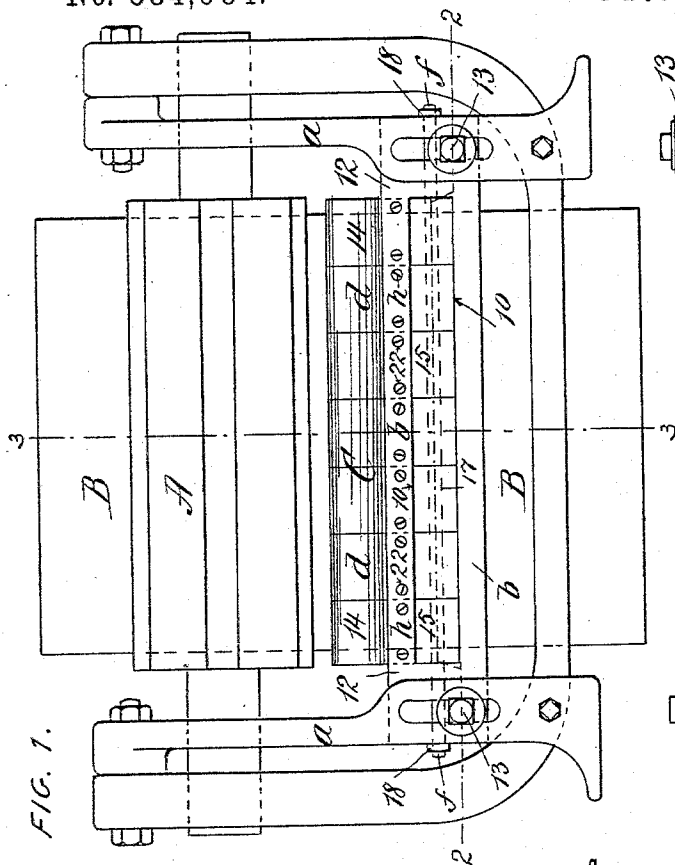
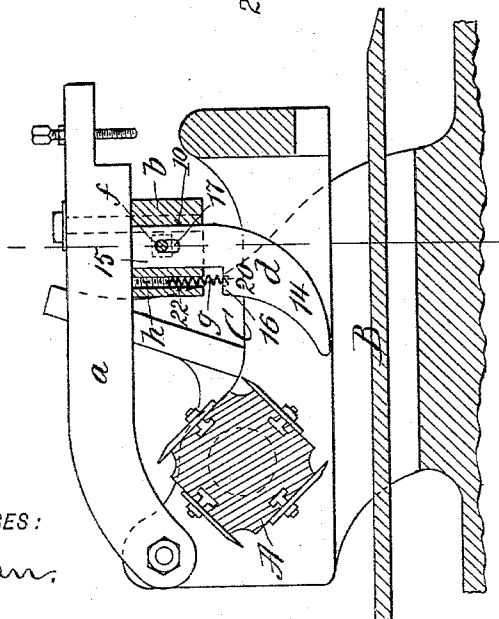


FIG. 3.

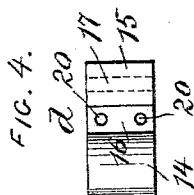


WITNESSES:

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FIG. 4.



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CHIP-BREAKER FOR MOLDING AND PLANING MACHINES.

SPECIFICATION forming part of Letters Patent No. 584,084, dated June 8, 1897.

Application filed October 9, 1896. Serial No. 608,338. (No model.)

To all whom it may concern:

Be it known that I, ALBERT PREMO, a citizen of the United States, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Chip-Breakers for Molding and Planing Machines, of which the following is a specification.

This invention relates to improvements in that class of pressure-exerting chip-breakers for wood working, molding, and planing machines which comprise a series of spring-pressed sections which may individually yield to the unevenness of the work or portions thereof passing thereunder so that the action of the machine becomes uniform.

The objects of the invention are to devise constructions and combinations of the parts comprised in the yielding-section chip-breaker whereby the parts may be of simplified and cheapened construction, whereby they are capable of being assembled with the utmost ease, whereby a section or sections may be most easily removed or replaced, and whereby the arrangements for the application of the pressure-springs and the means for varying the pressure of the springs at pleasure are very simple, practical, and unusually desirable.

The invention consists in the particular specific construction and combinations of parts, all substantially as will hereinafter fully appear and be set forth in the claims.

Reference is to be had to the accompanying drawings, in which the present improvements in the construction of chip-breakers are illustrated in conjunction with so much of a wood molding or planing machine as renders manifest the connection of the improved device therewith.

In the drawings, Figure 1 is a plan view. Fig. 2 is a vertical sectional view taken on line 2 2, Fig. 1. Fig. 3 is a cross-sectional view on the line 3 3, Fig. 1. Fig. 4 is a plan view of one of the chip-breaker sections.

Similar characters of reference indicate corresponding parts in all the views.

A represents the knife-cylinder, B the bed thereunder, and C the chip-breaker, having their relative positions, as usual.

The chip-breaker comprises the two pivotally-supported arms *a a* and the cross-bar *b*,

bolted thereto and having mounted thereupon the individual sections *d d*. It is particularly to the construction and relative arrangement of the cross-bar *b* and the sections *d d* that this invention relates, and particular description thereof will now follow. Said cross-bar *b* has a long centrally-ranging rectangular mortise, the boundaries of which are indicated by 10, the same extending through it from top to bottom, the ends 12 12 of the bar being left solid through which, by the bolts 13, to securely confine the bar upon the ends of the aforesaid arms *a a*. Each of the individual sections *d* has the foot portion 14, which is downwardly divergent, with a curvature or inclination toward the knives, and the rectangular shank 15, narrower than the upper part of the foot-piece, whereby the shoulder 16 is produced at their junction. Each section has in its shank the slot 17, extending through it from side to side. The shanks of the several sections *d* are entered in the long mortise or aperture of the cross-bar sidewise in proximity the one to another, their slots all coming opposite one another, and a long rod *f* is passed through the solid end portions 12 of the bar, traversing the mortise and passing through the slots of the plurality of individual sections *d*, nuts 18 screwing on the end of the rod, confining it firmly as one with the bar.

The stepped or shouldered part 16 of each section *d* has within the top thereof a socket or sockets, preferably two, as indicated at 20, and above each of these sockets the bar *b* is vertically drilled through from top to bottom, producing the sockets 22, in which the spiral springs *g*, preferably two for each section, may be dropped from the top, their lower ends resting in the said sockets 20 in the sections *d*. The said sockets 22 are screw-tapped at their upper parts, receiving therewithin the screw-plugs *h h*, which may be easily operated at the top edge of the bar to vary the compression of the springs. The rod engaging the several sections through the slots thereof prevents the latter from falling away from the bar or having an undue downward movement when there is no work passing under the chip-breaker, and the sides of the sections being formed flat renders each section a guide for the vertical movements of the ad-

joining one, and no specially-formed guiding device is necessary. The manufacturer can construct the novel parts mostly from iron castings and with very little machine-work or finishing, and the user will be enabled at very little trouble to himself to take out and replace sections whenever cause renders this advantageous.

I do not desire to be understood as claiming novelty, broadly, in a sectional chip-breaker having springs individually applied to the sections nor to means, broadly, for varying the compression of the springs, as these have been heretofore proposed in a way; but I do claim particular constructions as above described and as hereinafter claimed, which involve invention and which render the present improved sectional chip-breaker most acceptable and desirable, both from the standpoint of the maker and from that of the user; and therefore

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

1. In a molding or planing machine the combination, in the chip-breaker thereof, with the bar having the opening 10 longitudinally thereof and having a series of vertical perforations at intervals through its portion near one edge, of the sections *d* each having a foot portion, and a shank of rectangular form, with a shoulder 16 at the junction of the foot and shank; which is overlaid by said perfo-

rated portion of the bar, springs let into said perforations and bearing against the said shouldered portions of the sections, and screw-plugs, threading into said perforations and compressing the springs, substantially as described.

2. In a molding or planing machine, the combination, in the chip-breaker thereof, with a bar having the longitudinal opening 10 therein, and having a series of vertical perforations at intervals through its portion near one edge, of the series of sections *d* each having a foot portion, and a shank of rectangular form provided with the slot *f* and with the shoulder 16, at the junction of the foot and shank, which is overlaid by said perforated portion of the bar, the rod *f* having a supporting engagement in the bar and passing through the slots of the several sections, springs let into said perforations and bearing against the said shouldered portions of the sections, and the screw-plugs threading into said perforations and compressing the springs, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

ALBERT PREMO.

Witnesses:

WM. S. BELLOWES,
E. C. DUMBLETON.