

E. BENJAMIN.  
Chip-Breaker for Planing-Machines.

No. 196,739.

Patented Nov. 6, 1877.

Fig. 1.

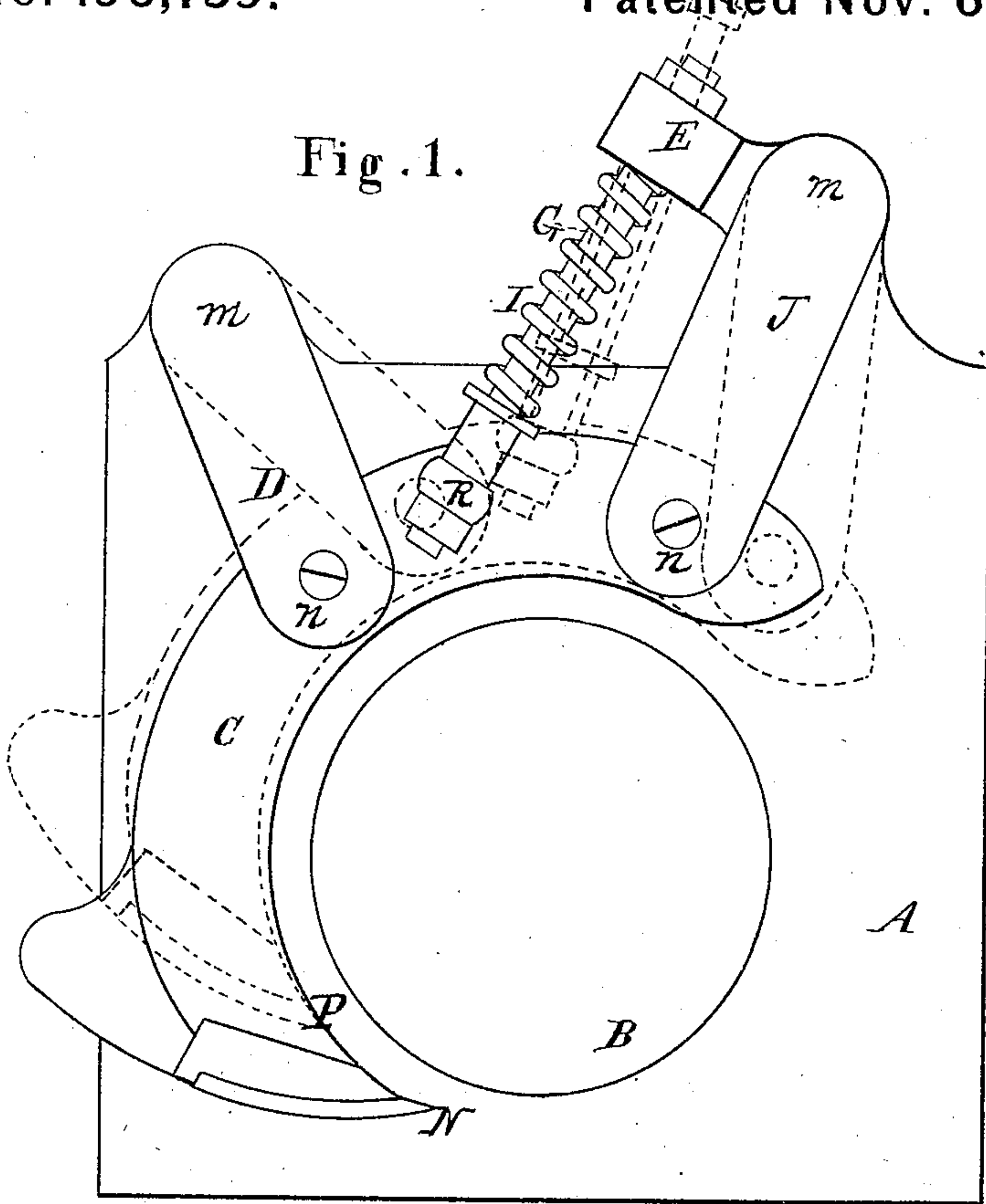
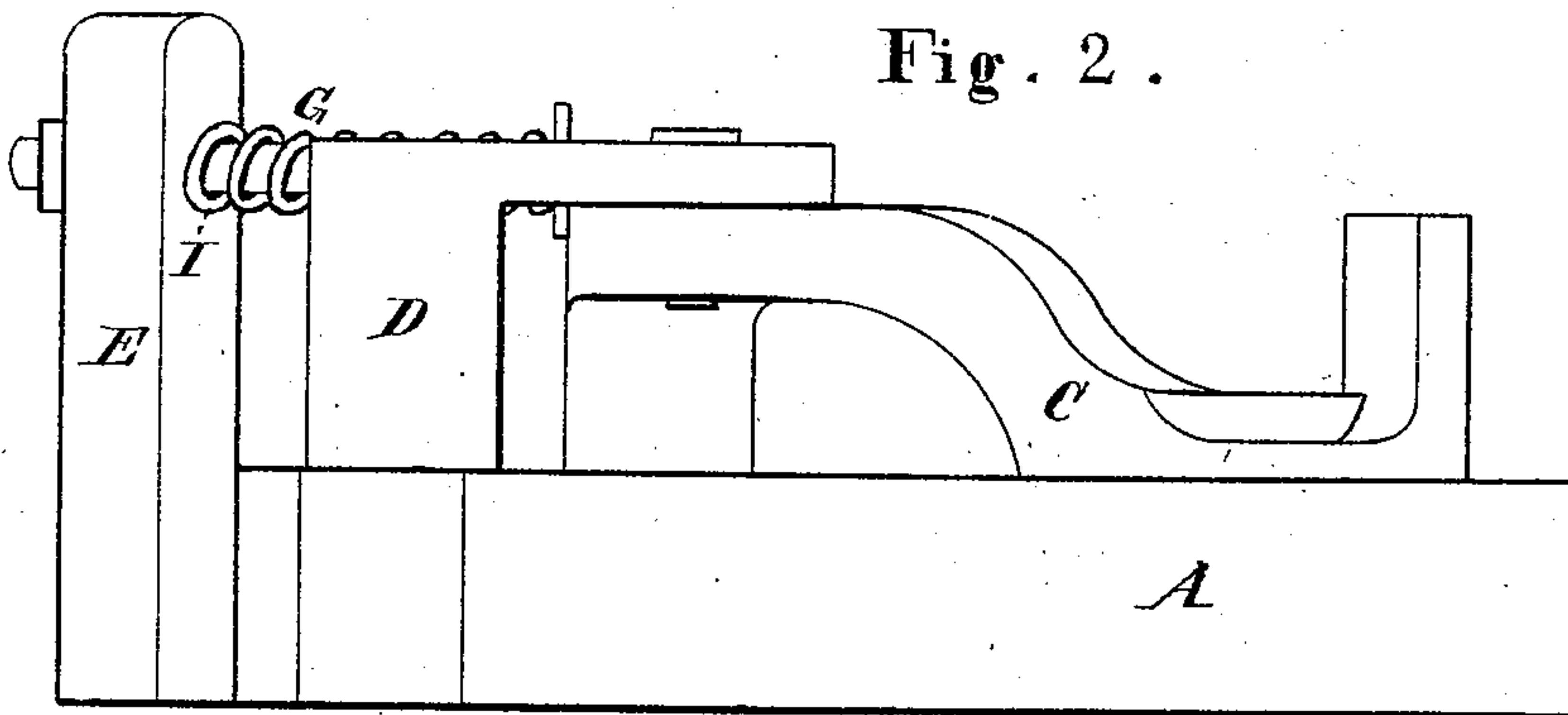


Fig. 2.



ATTEST:  
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By G. L. Chapin Atty.

# UNITED STATES PATENT OFFICE.

EDWIN BENJAMIN, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN CHIP-BREAKERS FOR PLANING-MACHINES.

Specification forming part of Letters Patent No. **196,739**, dated November 6, 1877; application filed January 10, 1876.

*To all whom it may concern:*

Be it known that I, EDWIN BENJAMIN, of Chicago, county of Cook and State of Illinois, have invented a new and useful Improvement in Chip-Breakers for Planing-Machines, of which the following is a specification:

The nature of the present invention consists of a chip-breaker pivoted to long and short bridges, which, at their opposite ends, are pivoted to the bed of the matcher-head, and a spring holding the chip-breaker to the edge of the board being matched.

By this combination of chip-breaker bridges of unequal length, the point of the chip-breaker has a traveling line some distance parallel with the line described by the matcher-bits, whereby the chip-breaker point is kept close to the lumber, and so short a distance from the bits that the edge of the board being worked cannot be peeled off by the bits.

In the drawings, Figure 1 is a plan view of my improved chip-breaker in position on a cutter-head table or bed, and Fig. 2 is an elevation thereof.

A represents the cutter-head table or bed, and B represents the line or circumference of the vertical knives when in motion. C shows the chip-breaker, which may be made of iron or steel, pointed at N, so that the wearing-surface may be removed when required. D J

represent bridges, which are pivoted to the chip-breaker at *n n*, and to the bed A at *m m*. The form of the bridges is shown in Fig. 2.

The bridge J is longer than D, for the purpose of bringing the point N back to P, Fig. 1, on a line parallel to line B, in order to keep the point N all the time close to the cutter or matcher head, whether a board be narrow or wide, and thus prevent chips from being torn from a board, as is the case where the chip-breaker swings out from the cutter-head.

An ordinary spring-rod attachment, G I, is secured to the chip-breaker at B, and to a stud, E, by means of which the chip-breaker is held against a board.

I am aware that chip-breakers are old devices, and that they are applied to planers and matchers in various ways; but I am not aware that my device has been employed to operate the point N parallel to the cutter-line of matcher-bits.

I claim and desire to secure by Letters Patent of the United States—

The combination of the longer bridge J and shorter bridge D with the chip-breaker C and spring-rod attachment G I, as set forth.

EDWIN BENJAMIN.

Witnesses:

G. L. CHAPIN,  
O. H. ADIX.