

(No Model.)

E. J. BLOOD.

ELASTIC CUSHION FOR CUTTER BARS.

No. 280,902.

Patented July 10, 1883.

Fig 1.

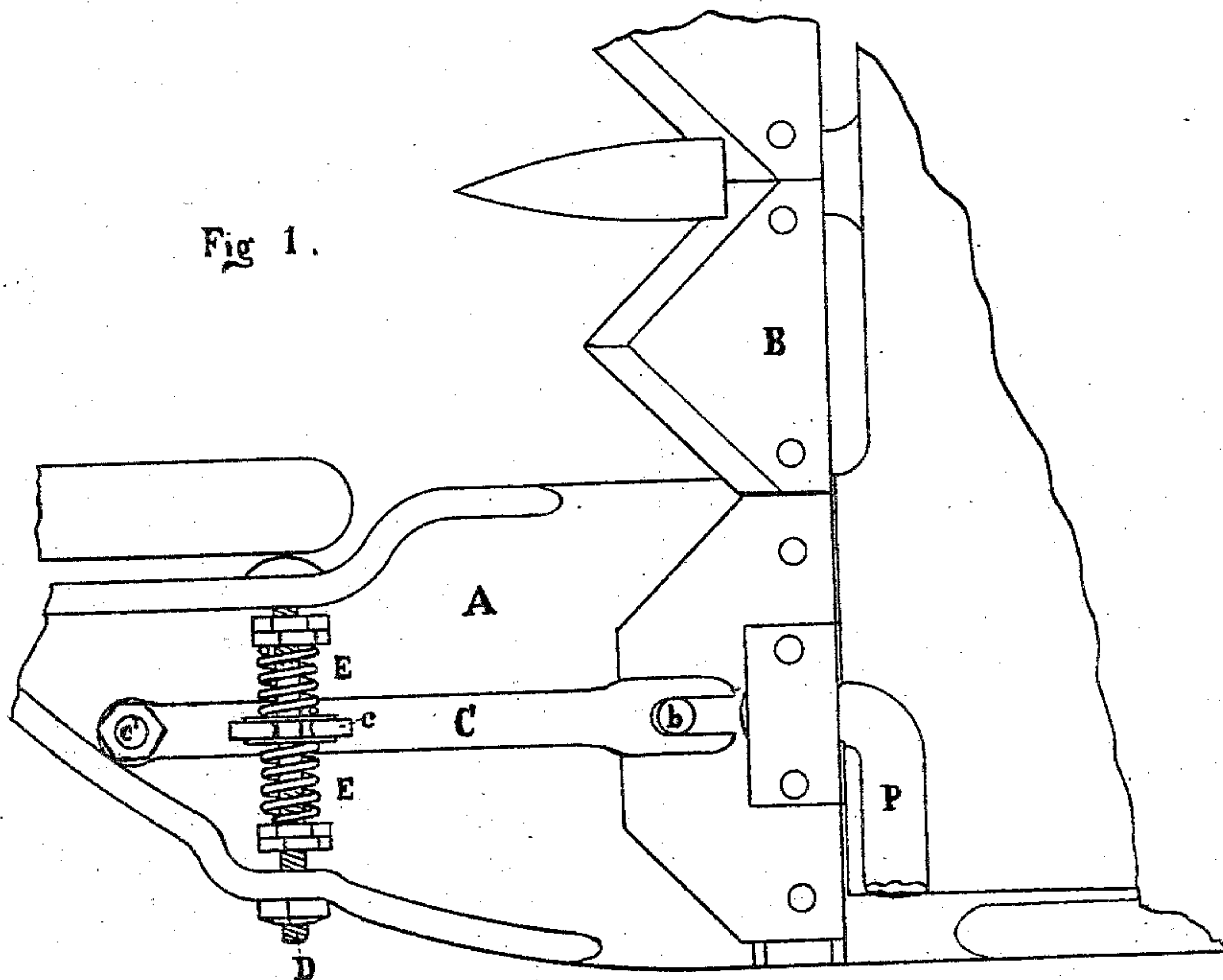


Fig. 2.

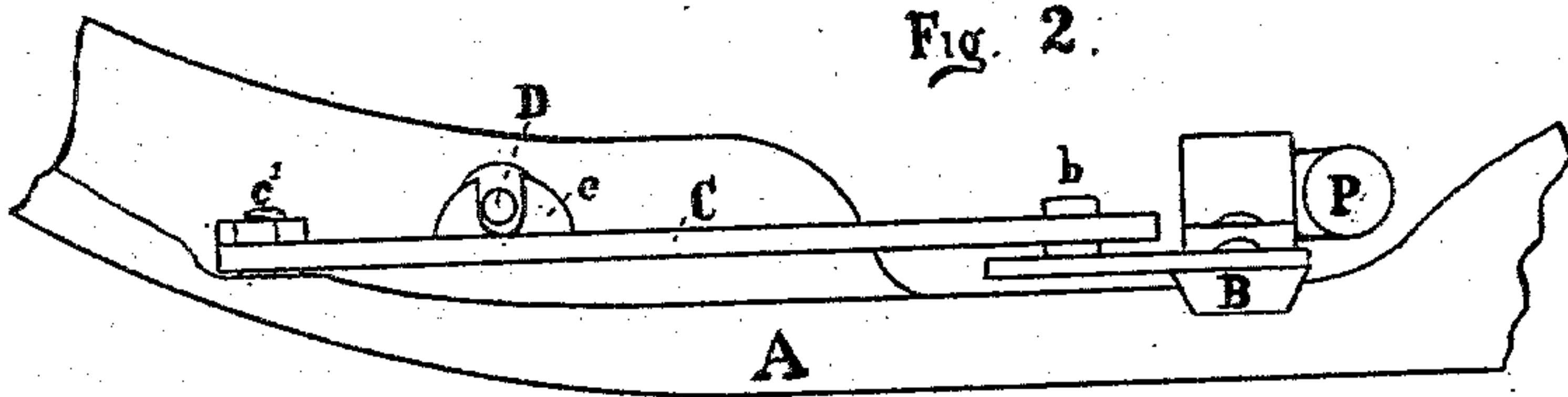
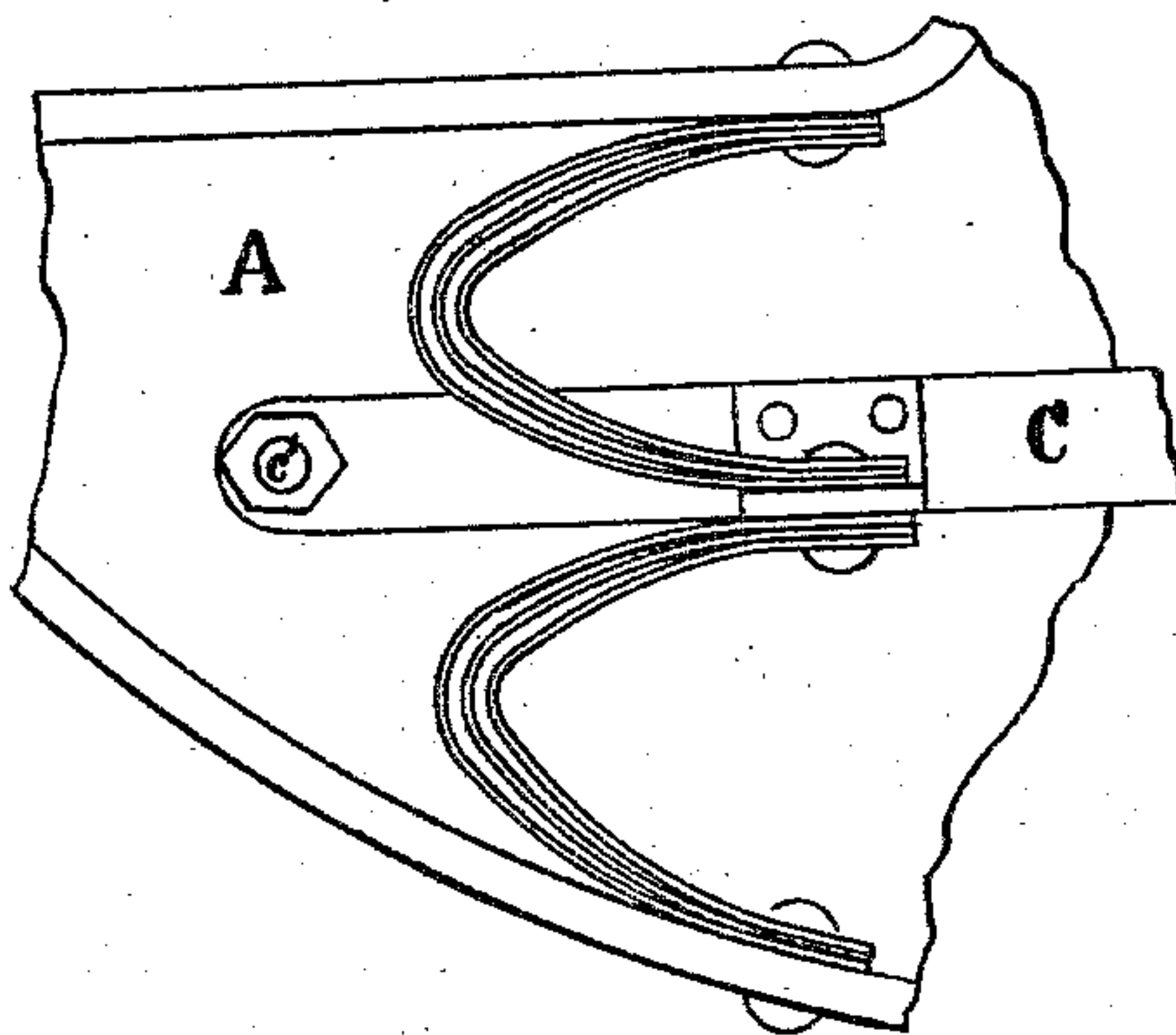


Fig 3



WITNESSES.

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UNITED STATES PATENT OFFICE.

EDWIN J. BLOOD, OF CHICAGO, ILLINOIS.

ELASTIC CUSHION FOR CUTTER-BARS.

SPECIFICATION forming part of Letters Patent No. 280,902, dated July 10, 1883.

Application filed July 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. BLOOD, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Elastic Cushions for Cutter-Bars, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to the application of elastic cushions to cutter-bars for the purpose of neutralizing the concussion arising from their rapid reciprocation where each stroke of the cutter-bar compresses a cushion, the reaction of which upon the bar prevents the return-stroke of the pitman from producing that concussion which would otherwise ensue. In my present invention I accomplish this purpose by pivoting one end of a lever to the shoe or some other rigid attachment of the finger-bar, and so adjusting it that its fore end shall engage the cutter-bar, which, as it reciprocates, shall vibrate the lever, each vibration of the lever compressing elastic cushions which react upon it.

In the drawings, Figure 1 is a top view of the device. Fig. 2 is a side elevation; and Fig. 3 presents the same view as Fig. 1, with the substitution of a different style of spring.

A is the shoe of the finger-bar of an ordinary reaping or mowing machine.

B is the cutter-bar, operated by the pitman P.

C is a lever pivoted at *c'* to the shoe. The lever is forked at its free end, and the fork engages a pin, *b*, projecting from the cutter-bar or its attachments; but the engagement of the cutter-bar by the lever may be provided for by any other suitable means. A rod, D, is secured by suitable fastening to the shoe above the lever and at right angles to it when in a state of rest. A bracket, *c*, is secured upon the lever C, and is provided with an open slot, through which the rod D passes, so that as the lever vibrates, the bracket reciprocates along the rod. If preferred, the lever itself might be perforated or provided with a slot, through which the rod should pass. Upon the rod are slipped the coiled springs E E, one upon each side of the bracket *c*, and which bear against the bracket and bearing nuts or collars threaded upon the ends of the rod, washers being interposed between the springs and the bracket. By means of the bearing-nuts the tension of the springs may be ad-

justed. These springs form the elastic cushions, and as the cutter-bar is reciprocated, and thus vibrates the lever, the cushions are compressed at each vibration, and, reacting upon the cutter-bar at each stroke, relieve the machine of the concussion which would otherwise take place.

In Fig. 3 is shown the application of a pair of C-springs compressed between the lever and bearing on either side of it, the spring being composed of a number of leaves of thin plate-steel, a spring so formed being more durable than one of the same expansive power composed of a single plate. Elliptic springs or springs of many other forms could be easily and conveniently interposed.

I do not limit myself to the form of cushion or method of securing the same shown, any form of spring or elastic cushion which shall be compressed by the action of the vibrating lever being embraced in my invention.

The advantage which the use of the vibrating lever in combination with the elastic cushion possesses is that by this means a cushion of greater power may be used which is subjected to a less degree of compression, and such a spring will endure longer than one of less power subjected to greater compression.

This device can be applied to any other reciprocating mechanism where it is desired to neutralize the concussion, and when so applied to any such reciprocating mechanism of any character would be equivalent to the form of invention herein specifically described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The lever C, pivoted at one end, and the elastic cushions secured on either side thereof and arranged to bear against it, in combination with the knife-bar engaging the free end of the lever, whereby the reciprocation of the knife-bar shall vibrate the lever and alternately compress the elastic cushions.

2. The pivoted lever C, provided with the bracket *c*, and arranged to be engaged and vibrated by the knife-bar, in combination with the rod D and elastic cushions E E.

EDWIN J. BLOOD.

Witnesses:

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