

(No Model.)

E. P. ATHERHOLT.

SPRING TOOTH FASTENER FOR CULTIVATORS.

No. 409,817.

Patented Aug. 27, 1889.

Fig. 1

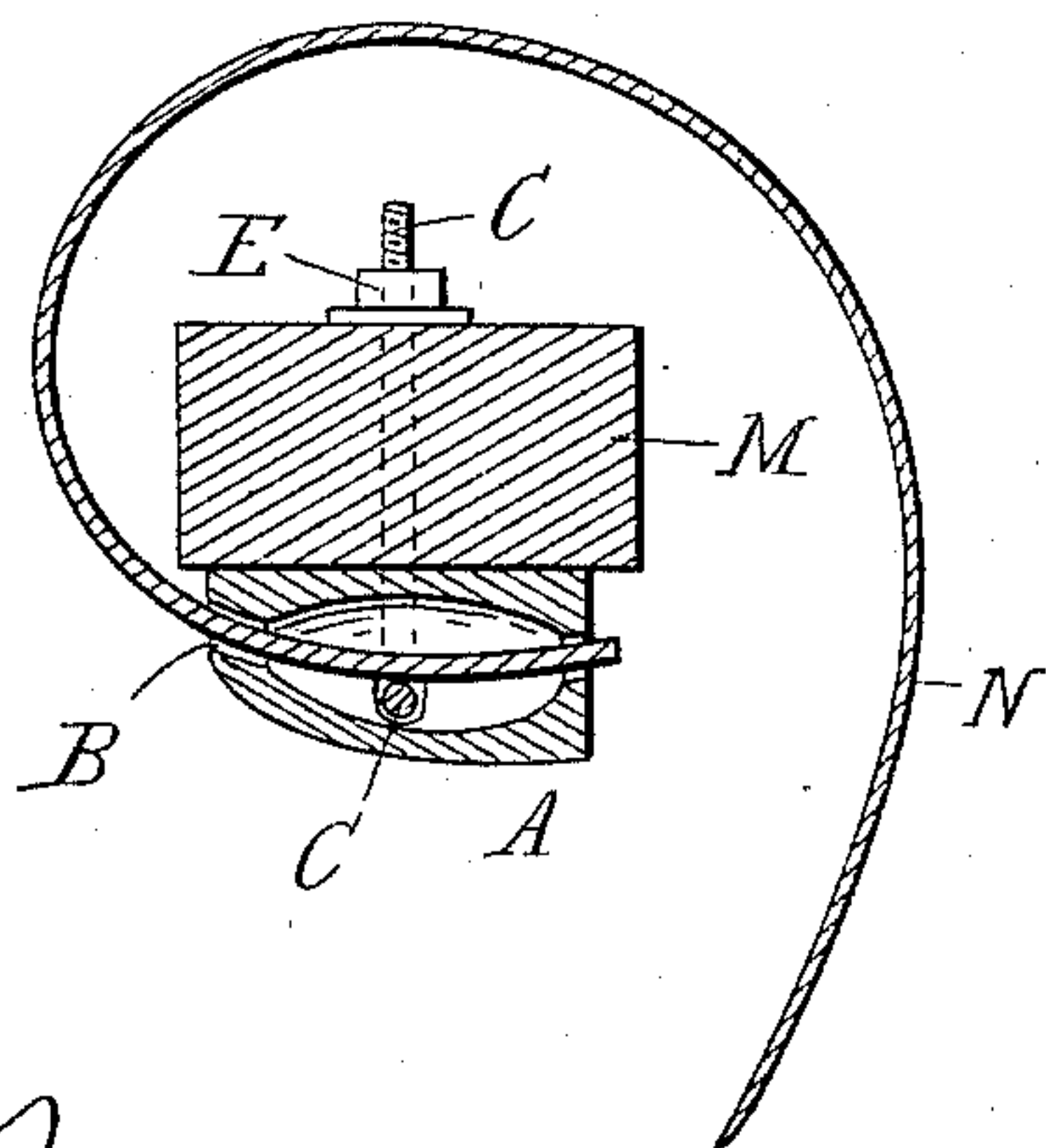


Fig. 2

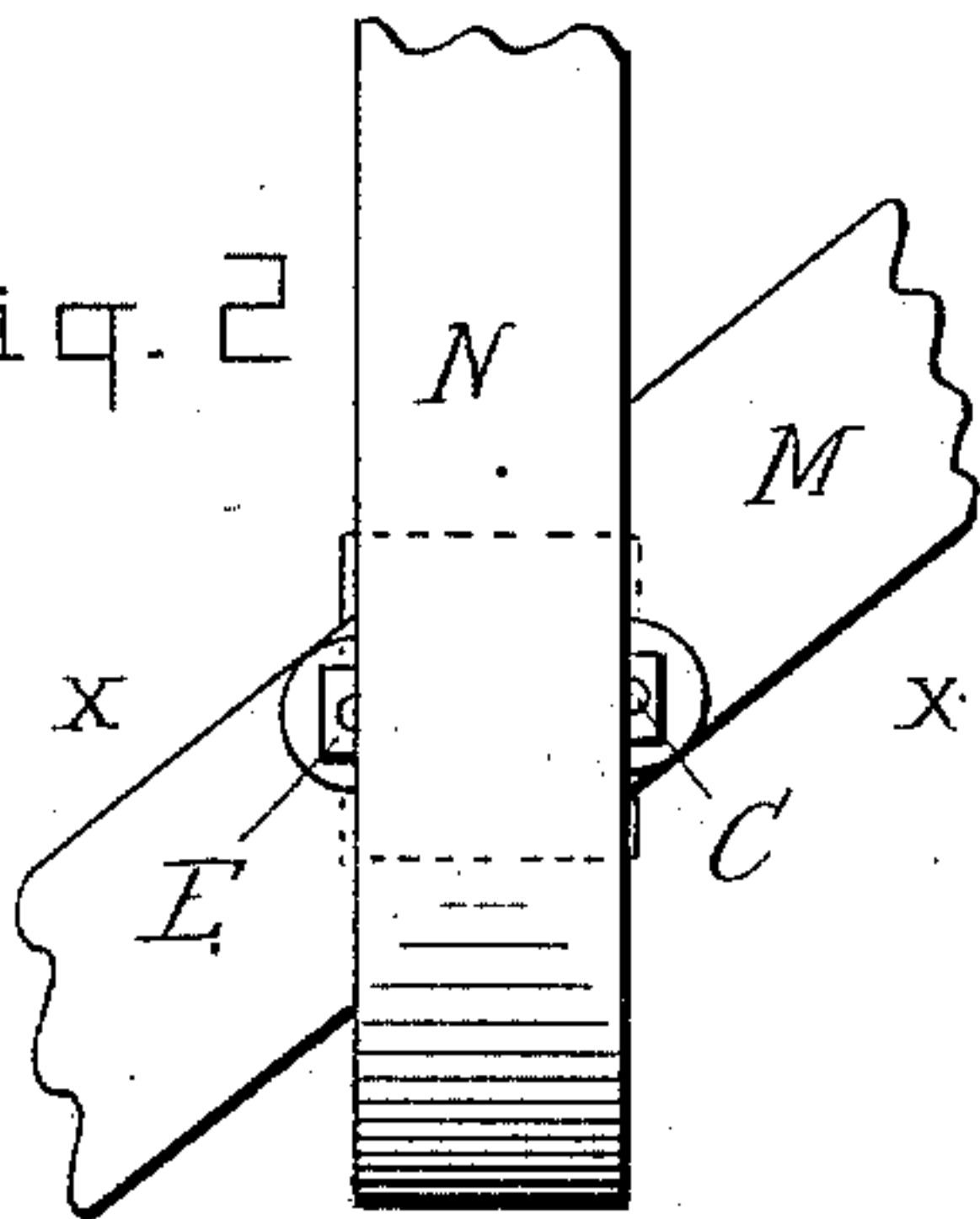


Fig. 4

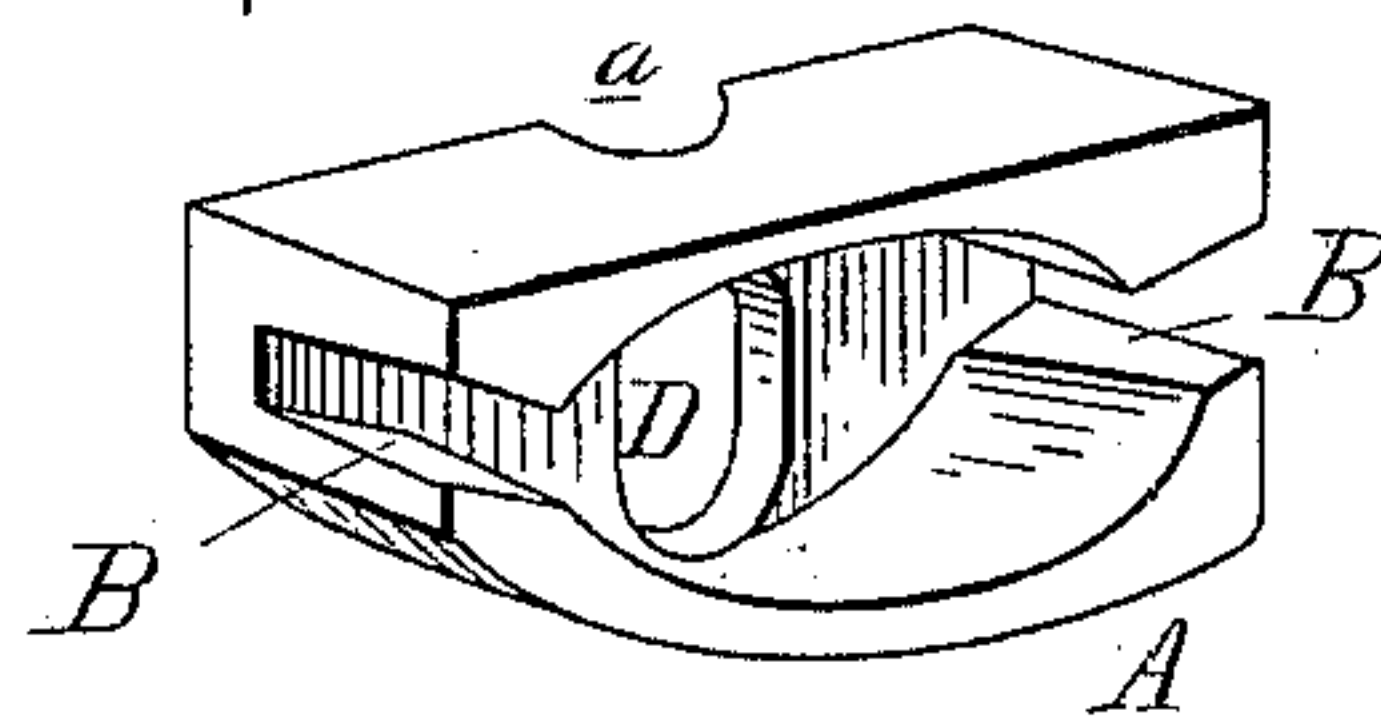


Fig. 5

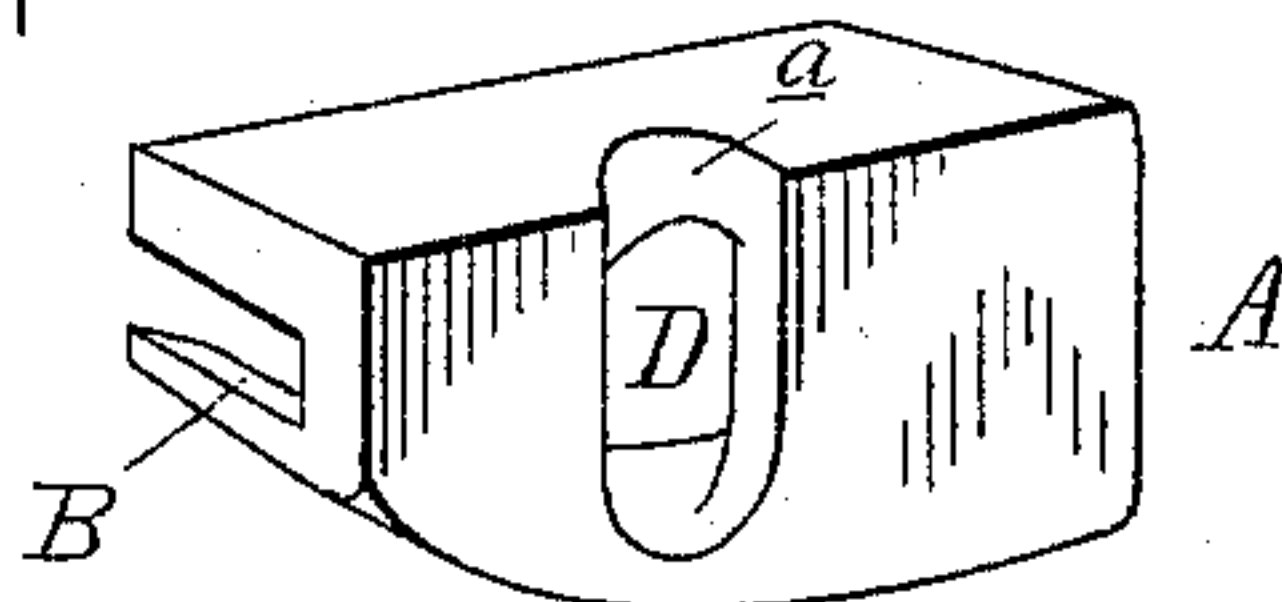
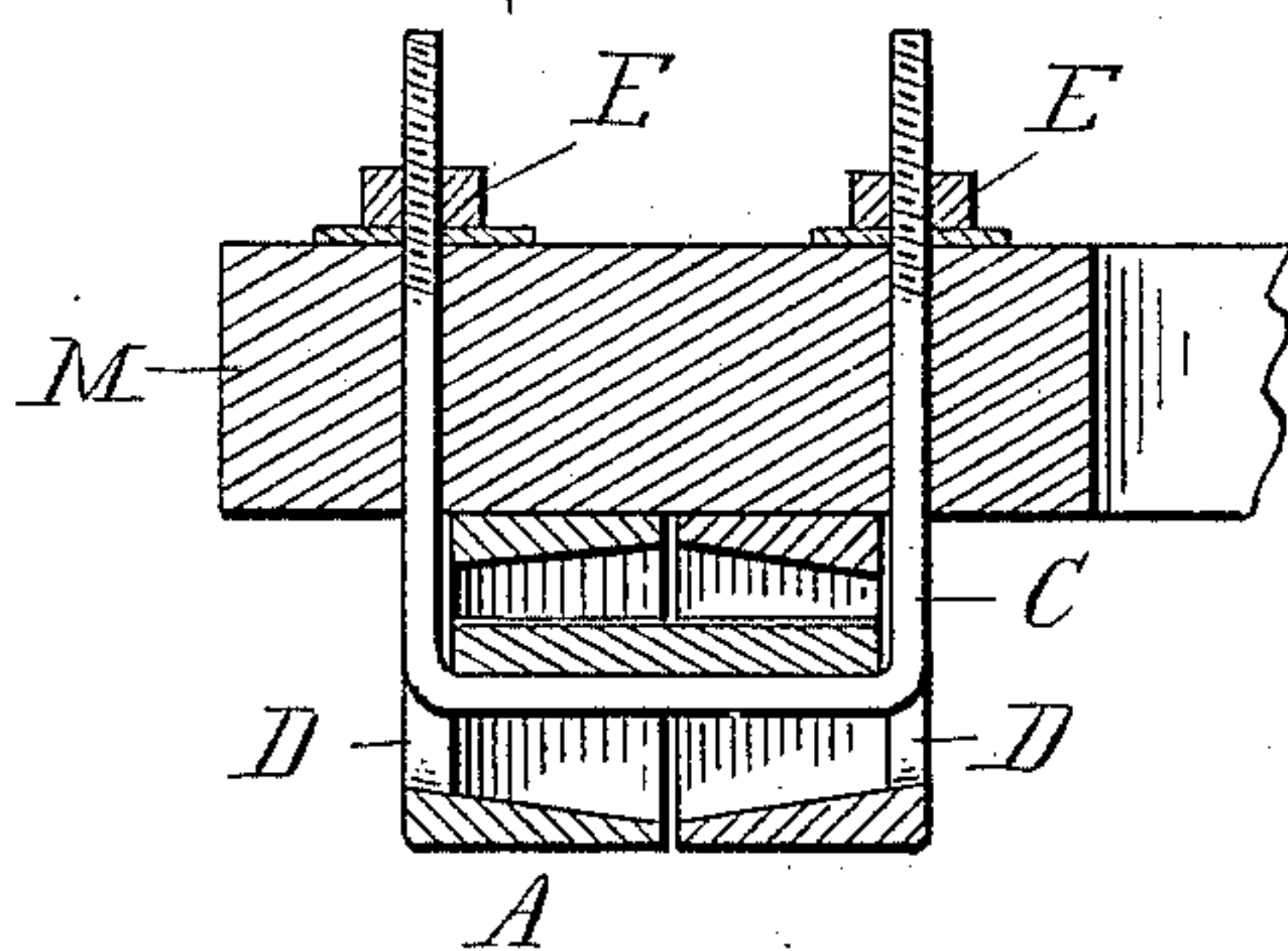


Fig. 3



Witnesses:

P. M. Hulbert
J. Paul Mayer

Inventor:

Ezra P. Atherholt
By Thos. S. Sprague & Son
Att'y.

UNITED STATES PATENT OFFICE.

EZRA P. ATHERHOLT, OF ADDISON, OAKLAND COUNTY, ASSIGNOR OF ONE-HALF TO GEORGE R. BLOOD, OF METAMORA, MICHIGAN.

SPRING-TOOTH FASTENER FOR CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 409,817, dated August 27, 1889.

Application filed March 1, 1889. Serial No. 301,619. (No model.)

To all whom it may concern:

Be it known that I, EZRA P. ATHERHOLT, a citizen of the United States, residing in the township of Addison, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Spring-Tooth Fasteners for Harrows or Cultivators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in spring-tooth fasteners for harrows or cultivators; and the invention consists in the peculiar construction and arrangement of the parts, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a vertical central cross-section through a spring-tooth secured by means of my fastener to the carrying-bar of a harrow. Fig. 2 is a plan thereof. Fig. 3 is a vertical section on line $x x$ in Fig. 2. Fig. 4 is a perspective view of one half of the holding-box, and Fig. 5 is a perspective view of the corresponding other half of the box.

M is a carrying-bar, to which the spring-tooth N is secured in the following manner:

A is the holding-box, preferably of cast-iron, in the form shown in the drawings, and wherein B are openings in the front and rear wall of the box to form bearings for the spring. Between these two bearings the box is cored out to prevent the spring from catching either top or bottom side of the box.

C is a staple transversely engaging in vertical slots D in the side walls. The holding-box is susceptible of a free vertical adjustment therein. The parallel legs of this staple are screw-threaded upon the ends and pass through the carrying-bar, to which they are secured by screw-nuts and washers, as shown.

In practice, the parts being constructed and arranged as shown and described, they are intended to operate as follows: The end of the spring-tooth is inserted into the bearing B in the holding-box, the two parts of which embrace the legs of the spring-tooth. The

staple is then made to firmly bear against the spring-tooth between the bearings by tightening the nuts E sufficiently to prevent any possible movement of the spring-tooth in operation. It will be seen that my device is extremely simple and at the same time forms a very effectual fastener for all kinds of spring-teeth. By having the holder constructed in two parts it will be seen that wider or narrower springs may be secured with it, provided the necessary width of staple is chosen. The slots D extend from the lower to the upper side of the box for the purpose of clamping the spring to any desired degree, and by cutting the half-circular notches a upon the upper ends of the slots the two half-boxes may be readily engaged upon the staple for the purpose of joining the parts in the necessary manner.

My fastener may be applied to any rectangular carrying-bar for holding harrow or cultivator teeth.

What I claim as my invention is—

1. The combination, with the carrying-bar of the spring-tooth, of the holding-box provided with bearing for the spring-tooth in its front and rear walls only, and of the securing-staple transversely engaging through the sides of the box between said front and rear bearings in vertical slots in the side walls of said box, substantially as described.

2. The combination, with the carrying-bar of the spring-tooth harrow, of the two-part holding-box A, provided with bearing B for the spring-tooth in its front and rear walls only, and the screw-threaded securing-staples C, transversely engaging in vertical slots D in the side walls of the holding-box and susceptible of free vertical adjustment therein, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of January, 1889.

EZRA P. ATHERHOLT.

Witnesses:

W. B. CHURCHILL,
PETER STIVER.