

(No Model.)

J. B. MORRIS.
FENCE WIRE RATCHET.

No. 509,580.

Patented Nov. 28, 1893.

FIG. 1.

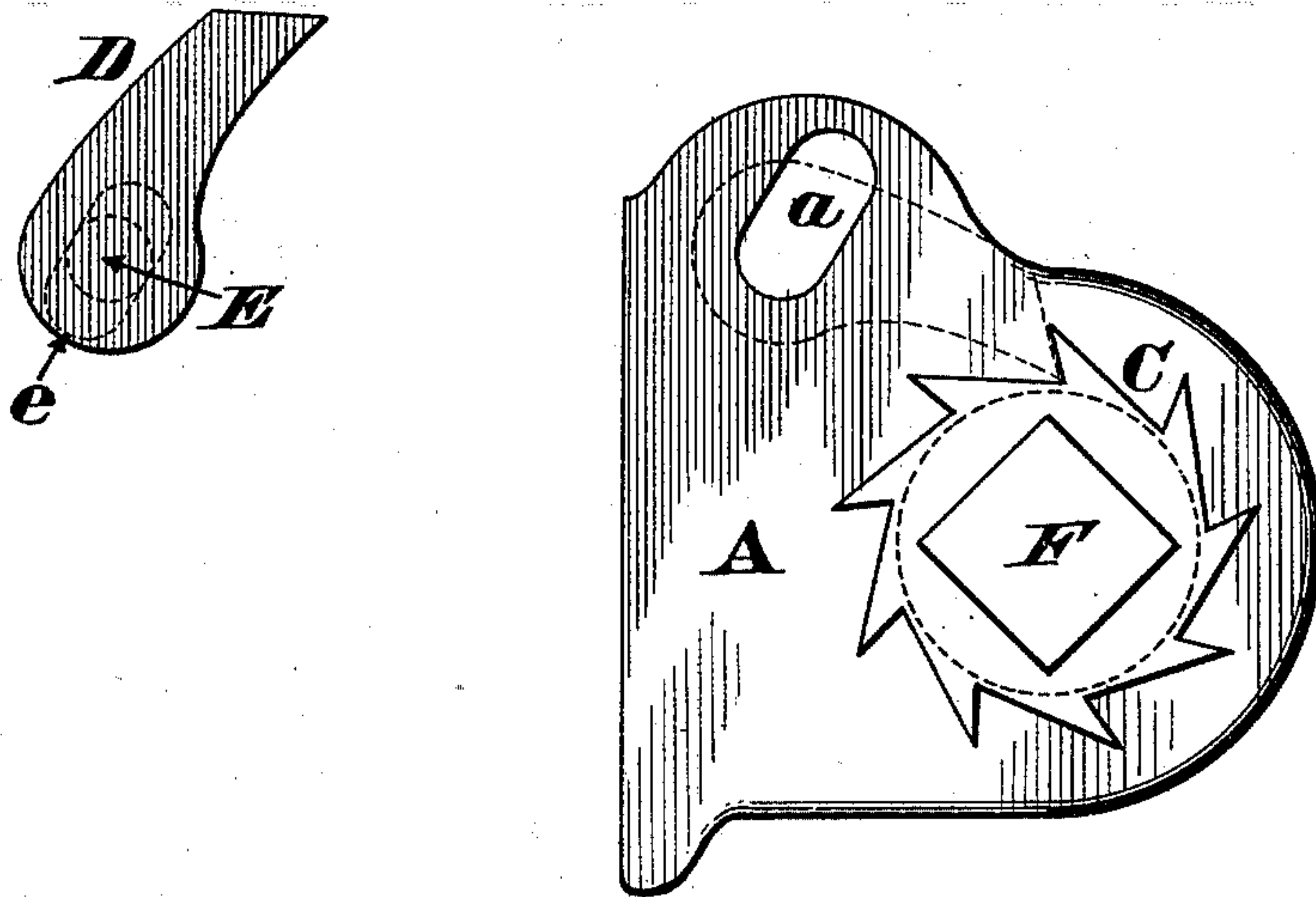


FIG. 2.

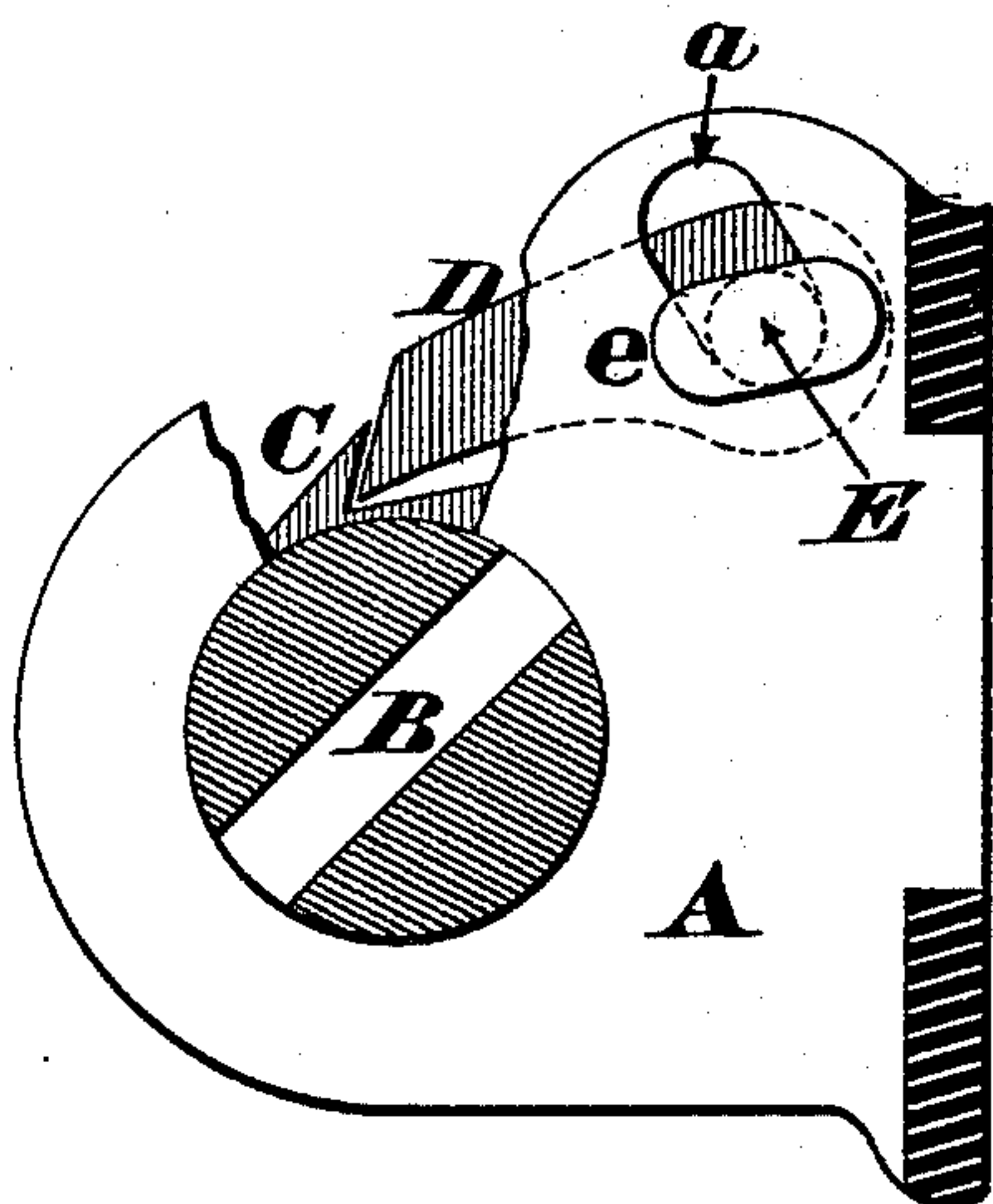
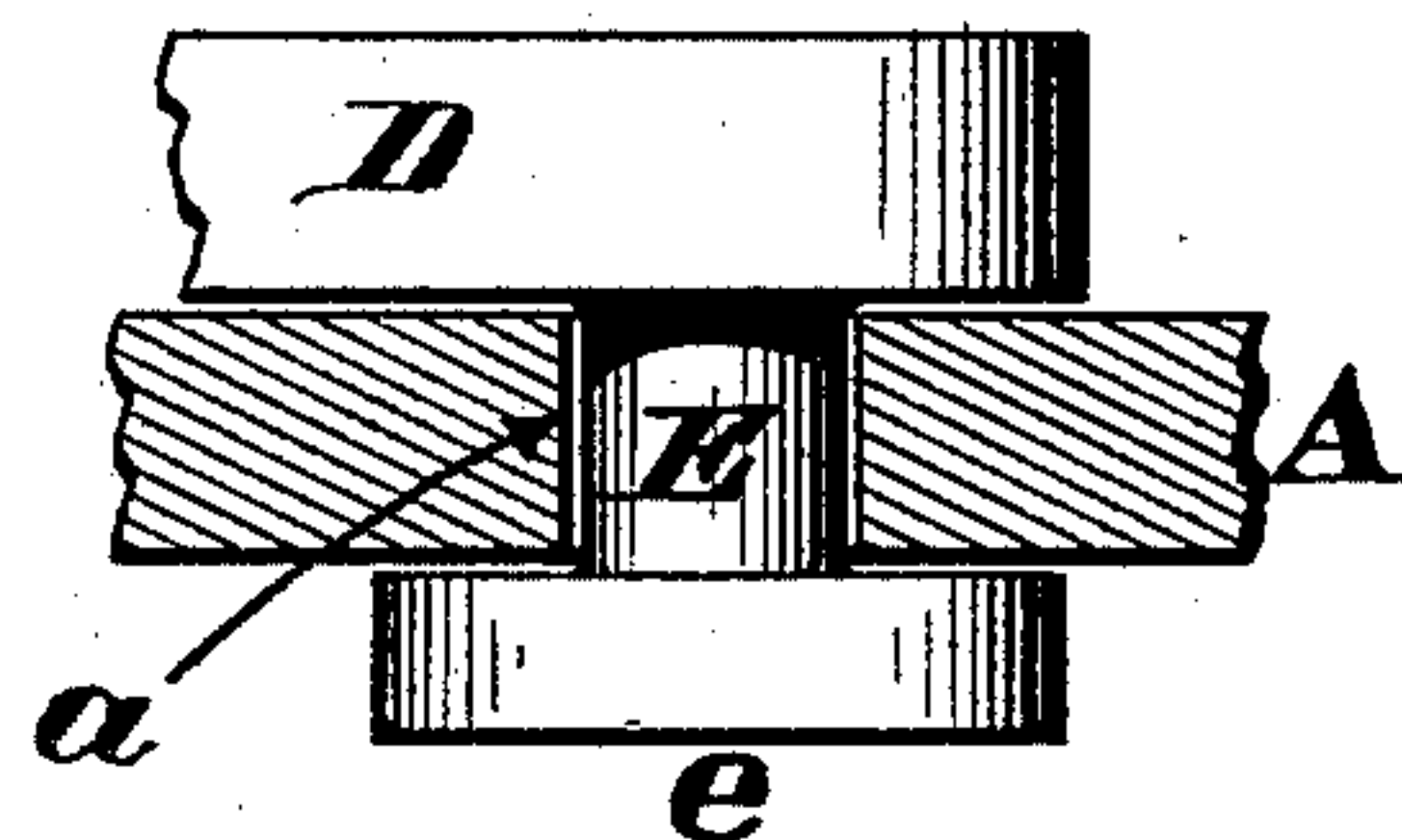


FIG. 3.



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UNITED STATES PATENT OFFICE.

JOHN B. MORRIS, OF CINCINNATI, OHIO.

FENCE-WIRE RATCHET.

SPECIFICATION forming part of Letters Patent No. 509,580, dated November 28, 1893.

Application filed October 9, 1893. Serial No. 487,684. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. MORRIS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fence-Wire Ratchets; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

This invention relates to those devices commonly known as fence-wire ratchets, and my improvement comprises a specific construction of parts wherewith a readily-detachable pawl or click is coupled to the frame within which the spool is journaled. Said construction includes an angular slot in one of the side plates of the frame and an oblong-headed pivot projecting from the inner face of the pawl, the arrangement of these devices being such as to enable the ready application of said pawl, while any accidental detachment thereof, by ordinary use, is prevented, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a side elevation of a ratchet embodying my invention, the pawl being detached from the frame, and its proper position indicated with dotted lines. Fig. 2 is a vertical section of a complete ratchet, a portion of the slotted side-plate being broken away to show the engaged position of the pawl. Fig. 3 is an enlarged horizontal section through the pivot connections.

A represents one of the side plates of a well-known form of frame for a fence-wire ratchet, and B is a spool journaled in said frame, in the usual manner, said spool being provided with teeth C, wherewith is engaged the free end of a pawl or click D. Projecting laterally from the inner face of this pawl, and near its fixed end, is a pivot E, terminating with an oblong head *e*, which is disposed lengthwise of said pawl. Furthermore, this head *e* is of such a size and shape as to pass through an inclined slot *a* of the plate A, whenever the pawl is applied in a certain position. This slot pitches forward, so as to be, practically, at a right angle to the line of thrust of the pawl D, when the ratchet is subjected to the strain of a fence wire.

F is a "square" on the toothed end of the spool, which square is grasped by a wrench when it is desired to tighten the wire coiled around said spool.

In fitting my ratchet together, the spool B is first journaled in the frame, and then pawl D is brought to the position seen in Fig. 1, which act causes the oblong head *e* of pivot E to be in line with the inclined slot *a* of side plate A. The head is now readily passed through the slot and the pawl permitted to swing down until its free end rests upon the ratchet teeth C, and when it reaches this position, said head stands at a right angle with reference to said slot, as seen in Fig. 2. Consequently, any strain brought to bear against the pawl D is transferred by the pivot E to the rear edge of slot *a*, and as the latter inclines forward, said pivot has no tendency to slip up, but if it should do so the pawl can not become detached from the frame. Such a bodily detachment can be effected only by intentionally swinging the free end of the pawl up so high as to bring the head *e* lengthwise in line with the slot *a* and then drawing said pawl laterally away from the plate A, which combined movements can not result from any ordinary use of the device.

Another advantage due to my construction, is that all parts of the device can be fitted together just as they come from the sand, no filing nor other finishing of the castings being required, and therefore the cost of manufacture is reduced to a minimum.

I claim as my invention—

In a fence-wire ratchet, the frame A having a toothed spool B, C, journaled in it, and provided with the forwardly-inclined slot *a*; in combination with the readily-detachable pawl D having a lateral pivot E terminating with an oblong head *e*, which is disposed, substantially, at a right angle to said slot when said pawl is coupled to said frame, all as herein described, and for the purpose stated.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. MORRIS.

Witnesses:

JAMES H. LAYMAN,
ARTHUR MOORE.