

(No Model.)

J. E. SINCLAIR.

RATCHET DRILL.

No. 294,282.

Patented Feb. 26, 1884.

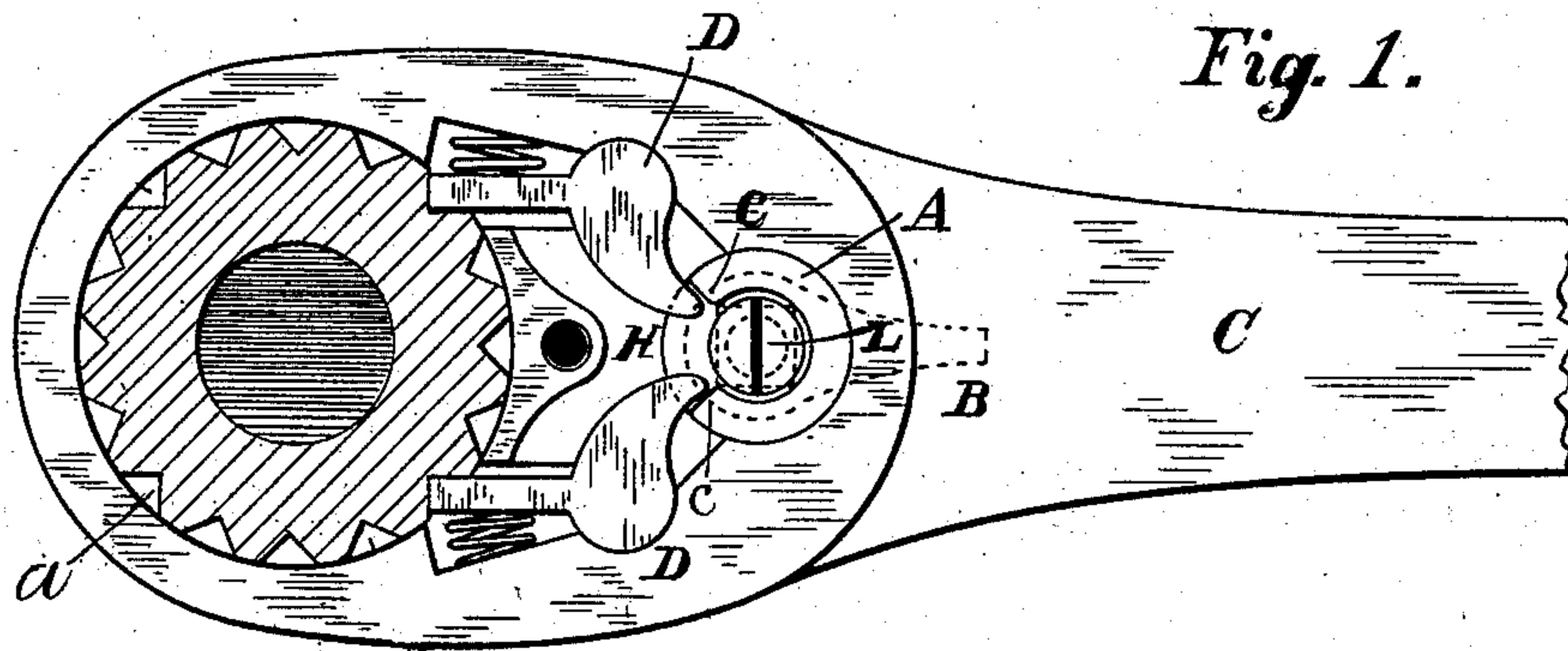


Fig. 1.

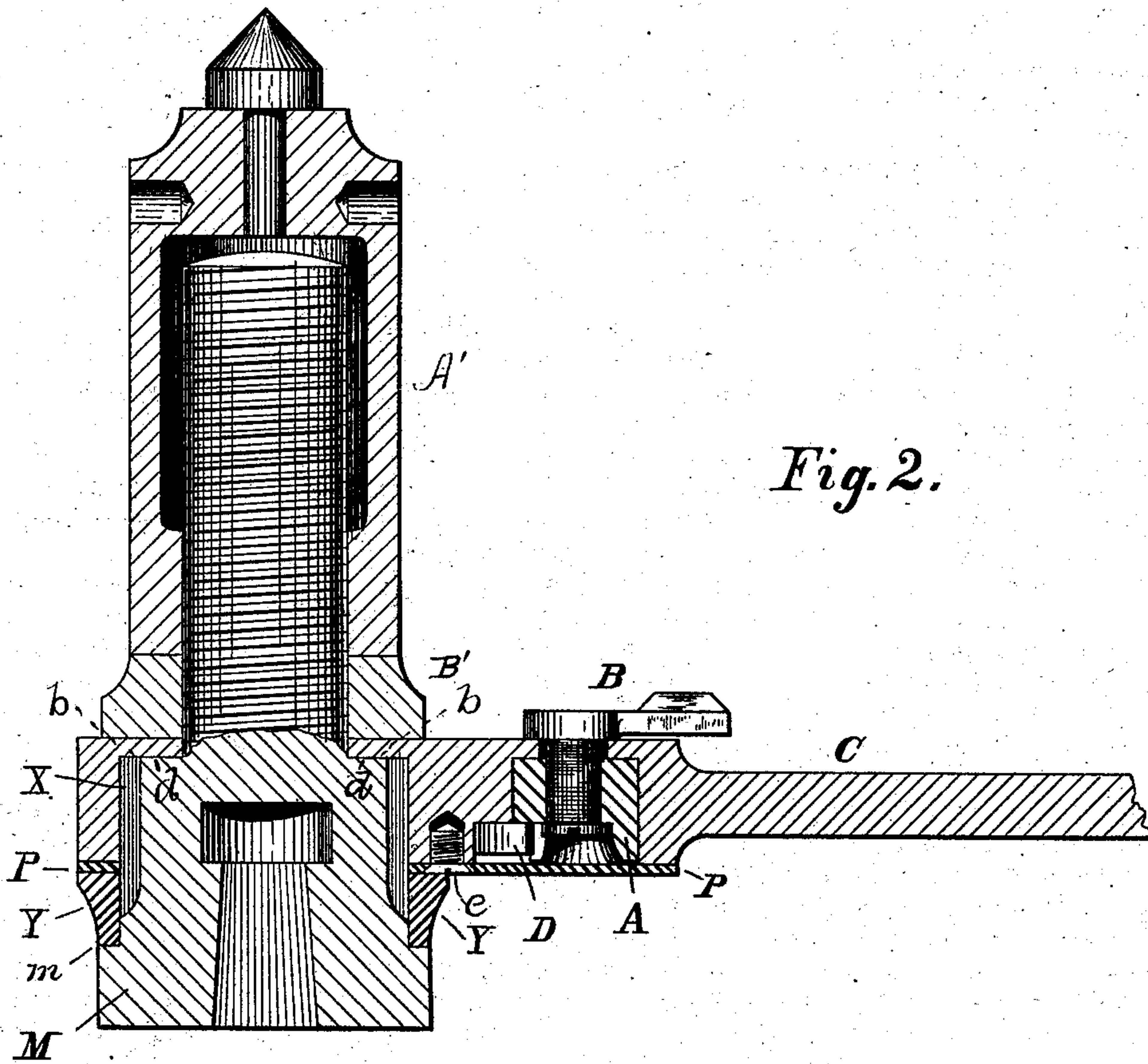


Fig. 2.

WITNESSES.
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RATCHET-DRILL.

SPECIFICATION forming part of Letters Patent No. 294,282, dated February 26, 1884.

Application filed August 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. SINCLAIR, a citizen of the United States, residing at Worcester, in the county of Worcester, State of Massachusetts, have invented a new and useful Ratchet-Drill, of which the following is a specification.

This invention has relation to improvements in ratchet-drills; and it consists in the peculiar construction and arrangement of devices, as will be hereinafter more fully set forth, and particularly pointed out in the claims appended.

In the annexed drawings, Figure 1 is a bottom view of my device, showing the ratchet-wheel in section and the bottom securing-plate removed; and Fig. 2 is a longitudinal vertical sectional view of the same.

Referring by letter to the accompanying drawings, C indicates the handle, the enlarged end of which is provided with a vertical aperture, *a*, having an annular interior shoulder, *b*, which engages the shoulder *d* of the drill-stock when the latter is in its normal position, as shown in Fig. 2. The handle-stock is also provided on its under side with a recess, H, for the reception of the pawls and their actuating-springs. Within this recess is a perforated block, A, which is held therein by means of a screw-bolt, L, the bolt projecting a sufficient distance above the handle-stock to receive and hold the thumb-latch B. This block A is provided with shoulders *e e*, which engage the rear ends of the pawls alternately in throwing their forward ends in and out of engagement with the ratchet-teeth.

Y indicates a collar, and *m* an annular shoulder near the lower end of the drill-stock. After the teeth are cut in the stock this collar is

forced down upon the shoulder *m*, and the handle, when the spring-pawls and thumb-latch, with the securing-plate P, are applied, is brought down upon the stock engaging the collar. It will thus be perceived that the said collar not only strengthens the nose of the stock, where the greatest strength is required, but also closes the opening of the stock formed by the ratchet-teeth, preventing any dirt and the like from entering them. The covering-plate P is secured to the handle by means of the screw *e*, with the assistance of the collar. The upper end of the stock is cylindrical, and provided with a thread to receive the threaded cap A'. The drill-stock is let into handle from below, and secured therein by means of a threaded nut, B', applied above the handle.

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

1. The combination, with the drill-stock provided with the shoulders *d* and *m*, the threaded stem, and ratchet-teeth, of the handle having the aperture *a* and interior shoulder, *b*, the collar Y, nut B', and means for actuating the spring-pawls contained in the handle, substantially as specified.

2. In a ratchet-drill, the combination, with the drill-stock constructed as described, of the handle provided with the under recess, H, the thumb-latch B, perforated block A, having shoulders *e e*, to engage the rear ends of the spring-pawls D D, the securing-plate P, and bolt L, with means for securing the stock to the handle, substantially as specified.

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Witnesses:

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