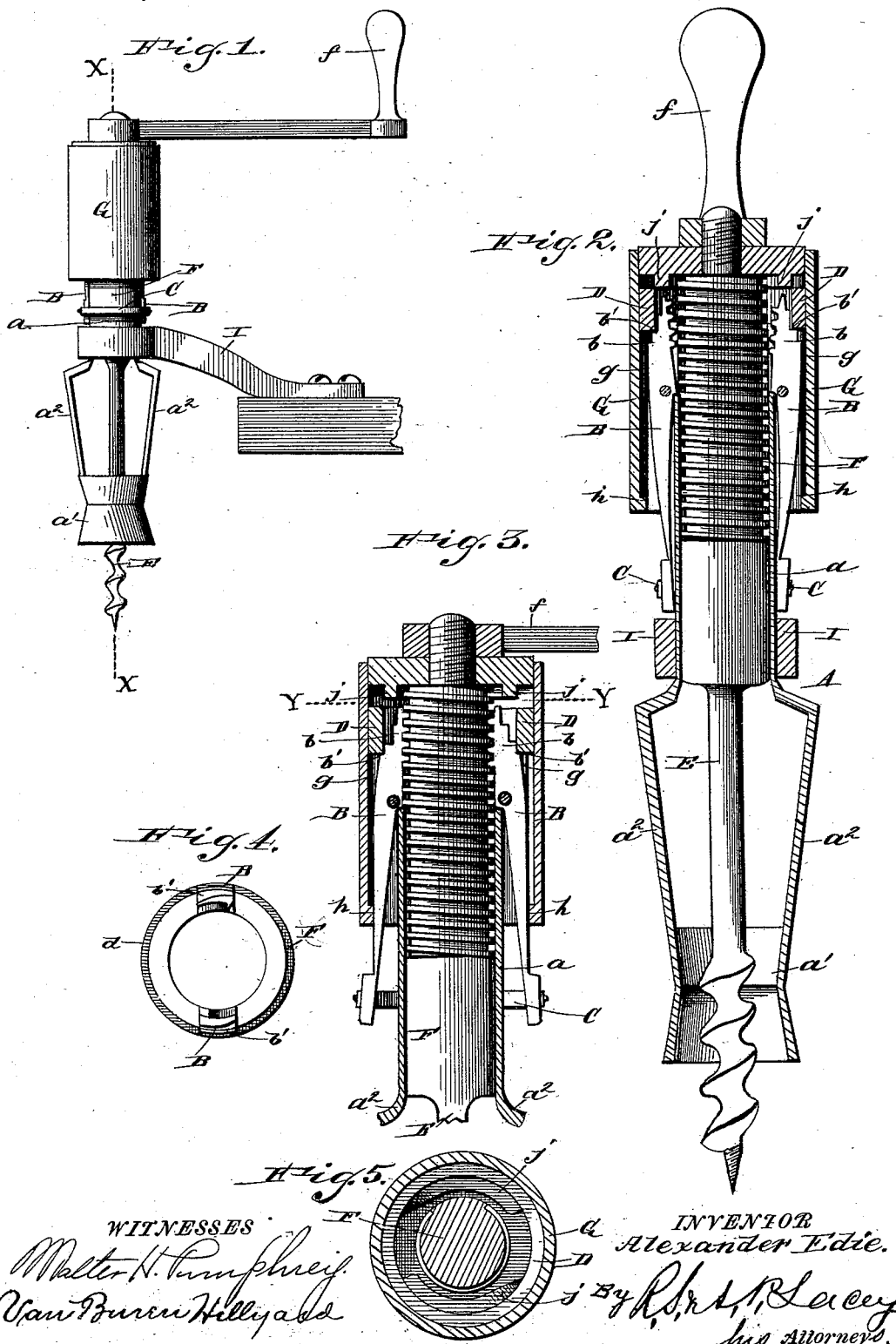


(No Model.)

A. EDIE.
CORKSCREW.

No. 420,572.

Patented Feb. 4, 1890.



UNITED STATES PATENT OFFICE.

ALEXANDER EDIE, OF BUTTE CITY, MONTANA; ASSIGNOR OF ONE-HALF TO
JAMES A. MURRAY, OF SAME PLACE.

CORKSCREW.

SPECIFICATION forming part of Letters Patent No. 420,572, dated February 4, 1890.

Application filed June 29, 1889. Serial No. 315,966. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER EDIE, a citizen of the United States, residing at Butte City, in the county of Silver Bow and Territory of Montana, have invented certain new and useful Improvements in Corkscrews; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to corkscrews; and it consists of the novel features which will be hereinafter more fully described and claimed, and shown in the annexed drawings, in which—

Figure 1 is a side view of a corkscrew embodying my invention. Fig. 2 is a vertical section about on the line *xx* of Fig. 1 on an enlarged scale. Fig. 3 is a detail view of the upper portion of the frame, showing the toothed levers in position. Fig. 4 is a top plan view of the frame. Fig. 5 is a sectional view of the closed end of the screw-cylinder on the line *yy* of Fig. 3.

The frame A comprises the upper tubular portion *a*, the lower collar or ring *a'*, and the bars *a''*, connecting the parts *a* and *a'*. The toothed levers B are arranged in grooves in the sides of the tubular portion *a* and are pivoted between their ends to the sides of said tubular portion. The lower ends of the levers B are connected by the spring C, which is semicircular and adapted to press the ends of the levers together. The upper ends *b* of the levers B are beveled from one side to the other, for the purpose hereinafter more particularly described. The levers are reduced in thickness below the beveled portion *b* to form the shoulder *b'*, and the upper end of the tubular portion *a* is reduced to form the stop or shoulder *d*, which limits the downward movement of the ring D relative to the frame A.

The screw E is fastened at its upper end to the externally-threaded stem F, which is provided with the crank *f* or other handle at its

upper end for rotating the stem F and screw E. The cylinder or case G is fastened at its upper end to the stem F, and is adapted to encircle the tubular portion *a* of the frame, a space *g* the width of the ring D being left between the sides of the casing G and the tubular portion *a* for the said ring D to work in. The inner flange or shoulder *h* at the lower end of the case fits the tubular portion *a* snugly and steadies the said case and stem F in their movements, and forms a stop for the ring D to strike against and disengage itself from the frame and the shoulders *b'* of the levers B.

The device is supported on the end of a bracket I, which is secured to a counter, table, shelf, or other support. To remove a cork, place the bottle at the end of the screw or frame and rotate the stem. As the screw enters the cork, the stem and case descend until the closed end of the case rests on the top of the levers B, when the cams *j* at said end of the cylinder G will engage with the inclined or beveled ends *b* of the levers and press them in and bring the teeth thereon in engagement with the thread on the stem. At the same instant the ring D will drop over the shoulders *b'* of the levers and hold the toothed ends of the levers in engagement with the thread of the stem F. The stem and case are rotated in the same direction and are caused to rise by reason of the teeth on the levers B engaging with the thread on the stem F, thereby extracting the cork which is carried up with the rising screw. When the case reaches a certain elevation, which is sufficient to remove the cork, the ring D strikes the shoulder or stop *h* and is disengaged from the levers, and the spring C, reacting, presses the lower ends of the levers together and disengages the toothed ends of the said levers from the threaded stem F. The stem and case, being released, will fall and be in position to repeat the operation above described.

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

1. In a corkscrew, the combination, with the frame and the screw having a threaded

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stem, of toothed levers carried by the frame and adapted to be thrown in engagement with the thread on the stem and means, as the ring D, for locking the levers when in engagement with the said thread, substantially as described.

2. The combination, in a corkscrew, of the frame, a threaded stem journaled in the frame and having screw E at its lower end and 10 cams *j* at its upper end, toothed levers pivoted to the frame and operated on by cams *j* to throw them in engagement with said threaded stem, a spring for throwing the levers out of gear with the threaded stem, and a locking- 15 ring D, substantially as specified.

3. In a corkscrew, the combination, with the frame, the threaded stem, and the toothed levers, of the cams *j*, for throwing the levers in engagement with the said stem, and the 20 locking-ring, and the spring C, substantially as described.

4. In a corkscrew, the combination, with the frame and the toothed levers, of the threaded stem carrying the screw, the case having the inner flange or shoulder *h* and having the 25 cams *j*, and the locking-ring D, and the spring C, substantially as described.

5. The herein shown and described corkscrew, composed of the frame, the toothed levers B, the spring C, the threaded stem F, 30 having the screw E, the case G, having the cams *j* and the inner flange *h*, and the locking-ring D, substantially as and for the purpose described.

In testimony whereof I affix my signature in 35 presence of two witnesses.

ALEXANDER EDIE.

Witnesses:

Z. E. THOMAS,
JOHN S. ROBERTS.