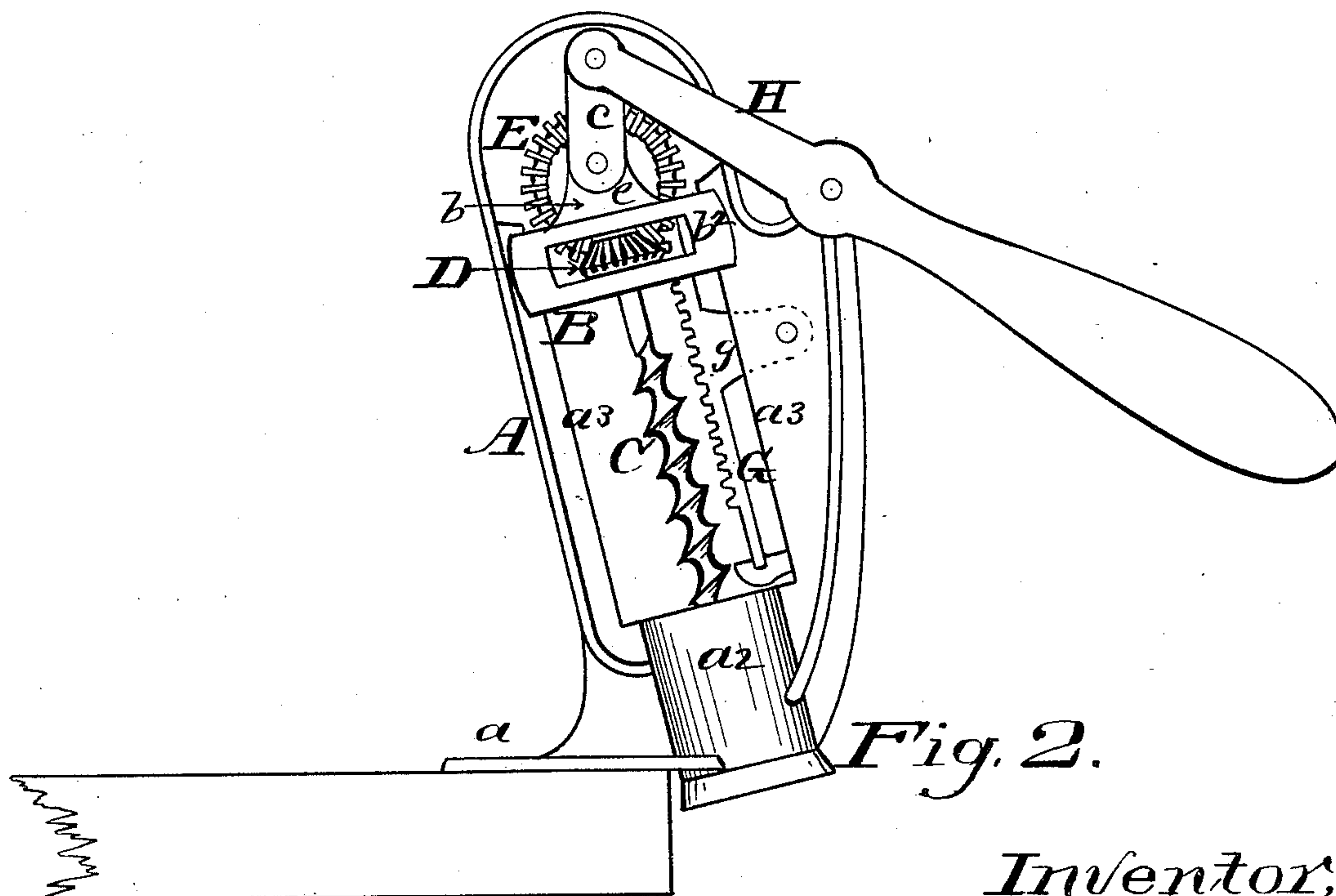
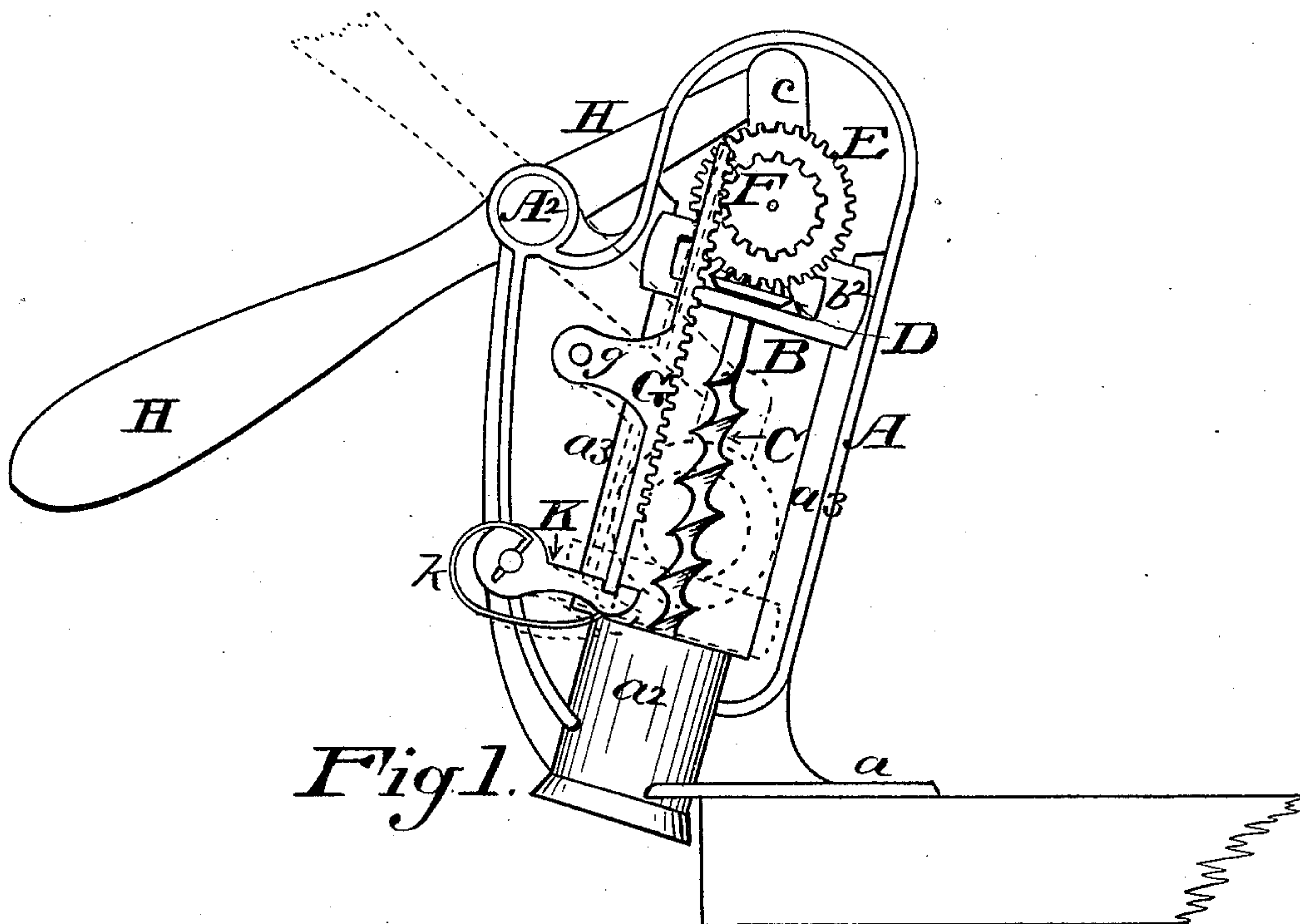


(No Model.)

S. T. JULL.  
CORK PULLER.

No. 422,348.

Patented Feb. 25, 1890.



Geo B. Tibbitts  
E. de Tibbitts

Witness,

*Inventor,*  
*Samuel T. Full,*  
*By his Attorney Geo. W. Tibbitts*

# UNITED STATES PATENT OFFICE.

SAMUEL T. JULL, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF  
TO FARNUM T. FISH, OF SAME PLACE.

## CORK-PULLER.

SPECIFICATION forming part of Letters Patent No. 422,348, dated February 25, 1890.

Application filed July 6, 1889. Serial No. 316,678. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL T. JULL, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Cork-Pullers, of which the following is a specification.

This invention relates to a device for extracting corks from bottles; and it consists in the peculiar construction and combination of parts comprising the same, the object being to quickly and easily extract a cork from the bottle and to remove the cork from corkscrew by the simple up-and-down movement of a hand-lever.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, mounted and in position ready for operation. Fig. 2 is a reverse side elevation, also mounted, showing the several parts comprising the device, the dotted lines showing the movement of the lever and connected parts in operating the same.

A represents a frame having a suitable post  $a$  for securing same to a table, shelf, or counter, and a socket  $a^2$  to receive the cork of a bottle. In the sides of the frame are slides  $a^3$ .

B is a cross-head having grooves in its end fitted to ride on the said slides, and has a boss  $b$ , to which is pivoted a link  $c$ , connecting it with the end of a handle  $H$ , fulcrumed to a projection  $A^2$  on the side of the frame  $A$ . In said cross-head is made a wide slot  $b^2$ , in which is located a bevel-pinion  $D$ , and  $C$  is a corkscrew, the upper end of which is fixed in said pinion  $D$ , passing through a hole in the under side of the cross-head, thus forming the journal for the pinion.

$E$  is a bevel-gear fixed to turn on a pin  $e$  on the side of the said boss  $b$  of the cross-head opposite to the aforesaid link  $c$  and meshes with the pinion  $D$ . On the face of the gear  $E$  is also made a pinion  $F$ .

$G$  is a rack-bar having an arm  $g$  at its middle part, by which it is pivoted to the side of the frame  $A$ , and upon which pivot it is given a tilting motion at each downward stroke of the said cross-head, for a purpose hereinafter shown.

$K$  is a latch-lever pivoted to the side of frame  $A$ , and has a notch in its top face in which the lower end of the rack-bar  $G$  rests, and serves to hold the rack-bar in mesh with the pinion  $F$ , the lever  $K$  being held up by a spring  $k$ .

The operation of this device is as follows: The lever, cross-head, and corkscrew being in the position shown in Fig. 1, which is the normal position, the operator holds a bottle with its neck up against the flange of the socket with the left hand and with the right hand raises the lever. This forces the cross-head downward. The pinion  $F$ , being in mesh with the rack-bar  $G$ , is caused to rotate as the cross-head travels downward, and through the medium of the gear  $G$  the pinion  $D$  is made to rotate, thus turning the corkscrew  $C$ , thereby forcing the corkscrew into the cork in the bottle. When the cross-head reaches the lower limit of its stroke, it strikes upon the latch-lever  $K$ , moving it down so as to unlatch the end of rack-bar  $G$ , and upon the latter thus being released, its upper end tilts forward and its lower end tilts backward and disengages it from the pinion  $F$ . The spring  $k$  will hold the rack-bar in the tilted position until the cross-head has made a part of its return (upward) movement, and during this part of the return movement the cork is drawn from the bottle, while the corkscrew is making no revolutions, because of the said disengagement of the pinion, as stated. The cork is now received in the socket and the bottle may be removed. When the cross-head has thus passed part way of its upward stroke, the pinion  $F$  again meets the tilted rack-bar  $G$ , straightens it up into position again, carrying the lower end forward until it meets the notch in the latch-lever  $K$ , and then the spring  $k$  lifts the latch-lever, again securing the rack-bar in position. The pinion  $F$  is again in mesh with the rack-bar, so that the continued upward movement of the cross-head rotates the corkscrew in the reverse direction, and thereby releases it from the cork. The device is then in position for repeated operations.

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



In a cork-puller, the combination of a stationary frame having a socket to receive the cork, a moving cross-head having a bevel-pinion and a corkscrew attached, a bevel-  
5 gear and pinion attached to said cross-head, a hand lever and link connected to said cross-head, the hand-lever fulcrumed to side of the frame, and a tilting rack-bar pivoted to side

of frame and engaging with pinion E, a latch-lever holding said rack-bar, all constructed 10 and arranged to operate substantially as described.

SAMUEL T. JULL.

Witnesses:

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