

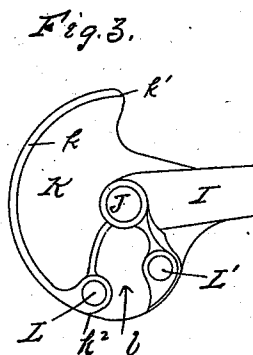
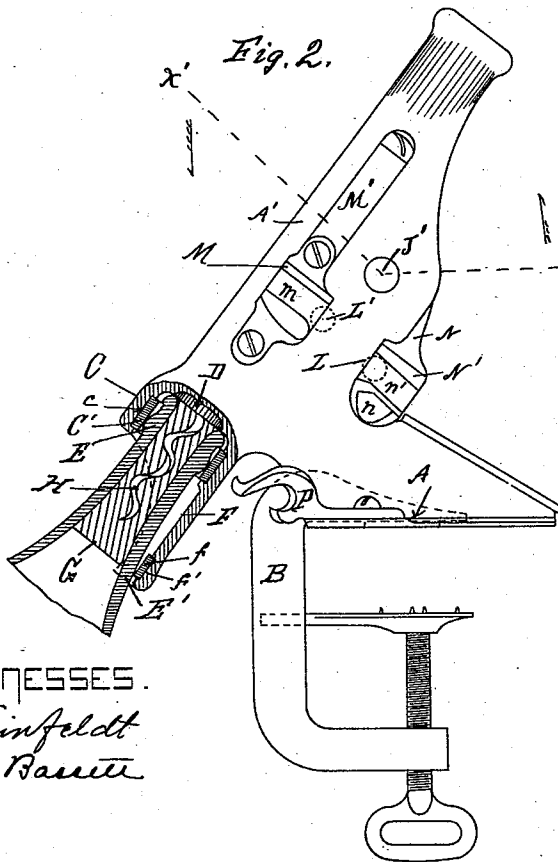
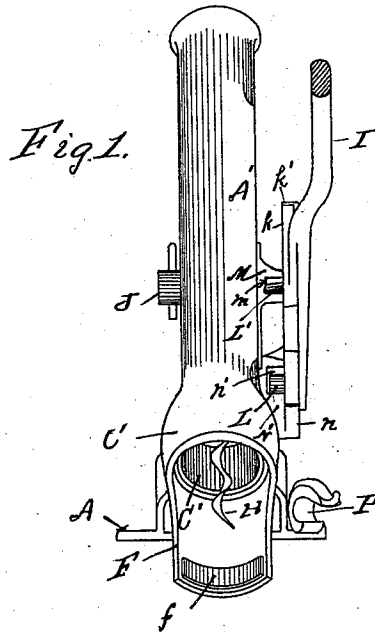
(No Model.)

2 Sheets—Sheet 1.

E. WALKER.
CORK PULLER.

No. 543,224.

Patented July 23, 1895.



WITNESSES.
F. Einfeldt
F. J. Bannett

INVENTOR.
Edwin Walker
By J. H. Stinson
att'y.

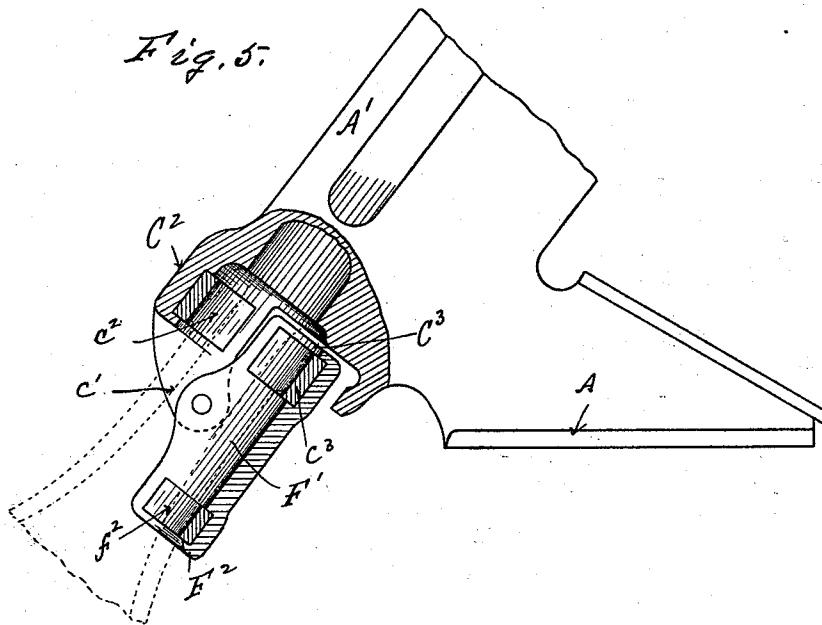
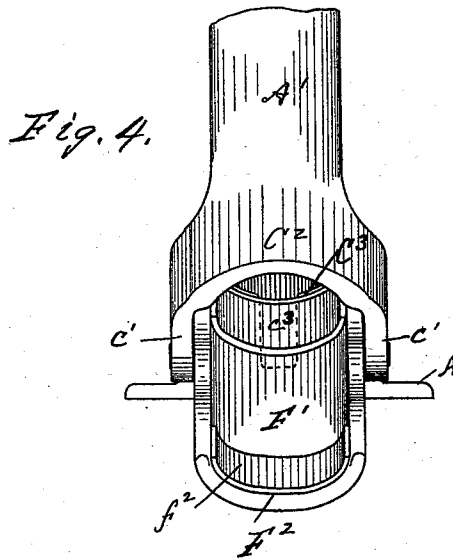
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2 Sheets—Sheet 2.

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No. 543,224.

Patented July 23, 1895.



WITNESSES.
F. Einfeldt
F. J. Bassett

INVENTOR.
Edwin Walker
By J. C. Sturgis
att'y.

UNITED STATES PATENT OFFICE.

EDWIN WALKER, OF ERIE, PENNSYLVANIA.

CORK-PULLER.

SPECIFICATION forming part of Letters Patent No. 543,224, dated July 23, 1895.

Application filed February 20, 1895. Serial No. 539,147. (No model.)

To all whom it may concern:

Be it known that I, EDWIN WALKER, a citizen of the United States, residing at the city of Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Cork-Pullers; and I do hereby 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, forming part of this specification.

My invention consists in the improvement in cork-pullers, hereinafter set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a front view in elevation of my improved cork-puller with part of the operating-lever broken away. Fig. 2 is a side view partially in elevation and partially in section and with the operating-lever removed. Fig. 3 is a rear view of a portion of the operating-lever. Fig. 4 is a front view in elevation of a section of the frame of my improved cork-puller embodying a modified construction of my improvement thereon. Fig. 5 is a side view of the same, partially in elevation and partially in section.

My invention relates to improvements in the cork-puller described in my Letters Patent No. 515,412, granted February 27, 1894; and it consists chiefly in the addition of a bottle-rest and support to the lower end of the frame, whereby the axis of the cork is more readily brought into line with the axis of the screw and breakage of the bottle-neck by the contact of the screw therewith is prevented, and in the modification in the construction of the operating-lever, whereby the travel of said lever during the operation of the machine is largely reduced and a more available leverage obtained for forcing the screw into the bottle-cork. These features are hereinafter fully described in the specification and claims.

In the construction of my improved cork-puller shown in the drawings, A is the base of the frame thereof, adapted to be secured to a counter or suitable support by means of a clamp B, or in any other convenient man-

ner. The upright portion of the frame A' rests upon this base A, and is provided with a tubular passage, within which the corkscrew mechanism operates, this mechanism being, however, the same in all respects as that described in my said Letters Patent No. 515,412 above referred to. Further description thereof herein is not deemed necessary. The lower end of the tubular portion of the frame is extended downward for some distance below the lowest point of the traverse of the corkscrew-nut D, so as to form a tubular extension or sleeve C, which is made large enough to receive the necks of bottles to be uncorked, and within this sleeve C is cut an annular recess c, within which is preferably secured an annular ring C', of rubber or other resilient substance, within which ring C' the upper end E of the bottle-neck passes, and is thereby prevented from contact with the metal sides of the sleeve C, as illustrated in Fig. 2. From the under side of the lower end of the tubular portion C a semitubular arm F extends downward some distance, and at its lower end is preferably provided with a semicircular cushion f, of rubber or other suitable resilient substance, secured in a recess f' in the part F, upon which cushion the lower part E' of the bottle-neck rests, as illustrated in Fig. 2, while the cork G is being withdrawn, and is thereby prevented from contacting with the metal end of the arm F.

It will readily be seen that in placing a bottle in position to draw the cork therefrom the lower part of the neck rests upon the cushion f, while the mouth of the neck is pushed into the annular ring C', which operation brings the bottle-neck and cork therein substantially central and in line with the screw H of the cork-puller, so that the screw H will pass down through the center of the cork without striking the sides of the bottle-neck.

In Figs. 4 and 5 I have shown a modified construction of the improvement hereinbefore described. In this modified construction, instead of making the tubular extension C therein in the shape of a solid sleeve, I make the upper half C² of said tubular extension integral with the frame A', and extending longitudinally downward from each side thereof I make ears c' c', in which I pivot a semitubular lever F', the upper end C³ of which

forms the lower half of said tubular extension of the frame and operates to clamp the upper end of a bottle-neck, while the lower end F^2 of said lever operates as a rest or support for the lower part of a bottle-neck. In the inside of the upper half C^2 of said tubular extension and in the upper surface of the end C^3 of the lever F' , I preferably secure semicircular cushions c^2 and c^3 , of rubber or other resilient substance, between which the upper end of a bottle-neck is received, and in the lower end F^2 of said lever I preferably secure a semicircular cushion f^2 to receive the lower part of the bottle-neck and prevent its contact with the metal end of the lever F' . It will readily be seen that this construction, in addition to the advantages hereinbefore described, is also adapted to grip the mouths of bottles of different sizes and clamp them firmly while the corks are being withdrawn therefrom.

The operating-lever I of my improved cork-puller is provided with a central stud-pin J, which passes through and rotates freely in the hole J' in the rear part of the upright portion of the frame. Upon the operating-lever I there is also secured a semidisk K, in which is secured two inwardly-projecting stud-pins L and L' , and on the periphery of this semidisk K there is also an inwardly-projecting cam-surface k , which extends from the point k' around to the point k^2 at the stud-pin L, leaving an opening l between the stud-pins L and L' without any cam-surface therein, through which opening the lug n on the nut-carrier N passes up between the stud-pins L and L' during a portion of the traverse of the operating-lever I.

In operation, at the time when the bottle-mouth is placed in position, as hereinbefore described, for removing the cork therefrom, the operating-lever I is normally in substantially the position shown by the dotted line x in Fig. 2. At this time the stud-pin L' thereon is engaged with the slot m in the projection M on the cork-screw carrier M' , the end k' of the cam k on the semidisk K being then in engagement with the top of the projection n on the nut-carrier N, and as the operating-lever I is moved upward and forward these parts continue in engagement until the operating-lever I has reached substantially the position shown by the dotted lines x' in Fig. 2. At this point in its traverse the screw H has been driven into the cork G and the stud-pin L' is just passing out of the rear end of the slot m , and the stud-pin L is just entering the front end of the slot n' in the projection N' on the nut-carrier N, as is clearly illustrated by the dotted lines in Fig. 2, while at the same instant the end k^2 of the cam k has passed off of the projection or lug n on the nut-carrier N, and as the operating-lever travels onward and downward the stud-pin L, operating in the slot n' in the nut-carrier N, raises the nut-carrier, the projection or lug n thereon meanwhile passing up into the opening l be-

tween the stud-pins L and L' , and this movement continues until the operating-lever I is moved forward and downward to a position substantially parallel with the tubular portion A' of the upright portion of the cork-puller frame, at which point the forward traverse of the operating-lever I is complete and the cork completely withdrawn from the bottle; and then by simply reversing the movement of the operating-lever I and moving it upward and backward, thereby reversing the action of the parts above described until it reaches its normal position at the dotted line x , the cork is automatically removed from the screw H and the machine is again ready for operation.

On the base A of the cork-puller frame I have shown an auxiliary device P for removing crowns and seals from bottles; but as I have fully described and claimed said device in a separate application, filed coincident herewith, further description herein is deemed unnecessary.

Having thus fully described my invention so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a cork-puller, of an extension at the lower end of the frame, substantially in line with the travel of the cork screw, adapted to receive the upper end of a bottle neck, with an arm or support at one side of and substantially in line with one side of said tubular extension adapted to engage one side of the lower part of the bottle neck, and operate as a lateral support therefor, substantially as and for the purpose set forth.

2. The combination in a cork-puller, of an extension at the lower end of the frame, at one side of and substantially in line with the traverse of the cork screw, and adapted to engage one side of the upper end of a bottle neck, and a pivoted arm adapted to engage and support the opposite side of both the upper end and the lower part of a bottle neck, substantially as and for the purpose set forth.

3. The combination in a cork-puller, of an extension at the lower end of the tubular part A' of a cork puller frame, a cushion of resilient material therein adapted to receive the upper end of a bottle, an arm projecting from the under portion of the lower end of said extension, substantially in line with one side thereof, and a cushion in the top of the lower end of said arm adapted to engage the lower part of a bottle neck, substantially as and for the purpose set forth.

4. The combination in a cork puller, of a cork screw carrier, a nut carrier an operating lever, a stud pin on said lever, adapted to engage and operate the cork screw carrier, a stud pin on said lever adapted to engage and operate the nut carrier of said cork screw, and a cam surface thereon adapted to engage a lug on the nut carrier, substantially as and for the purpose set forth.

5 5. The combination in a cork puller, of a
cork screw carrier M' having a projection M
thereon, and a slot *m* in said projection, a
nut carrier N having a projection N' thereon
and a slot *n'* in said projection, and a lug *n*
on said nut carrier N, an operating lever I
having a semi-disk K thereon, an inwardly
projecting cam *k* on the periphery of said
semi-disk, and stud pins L and L' in said

disk, substantially as and for the purpose set forth.

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

EDWIN WALKER.

Witnesses:

FRED EINFELDT,
ISADOR SOBEL.