

No. 713,540.

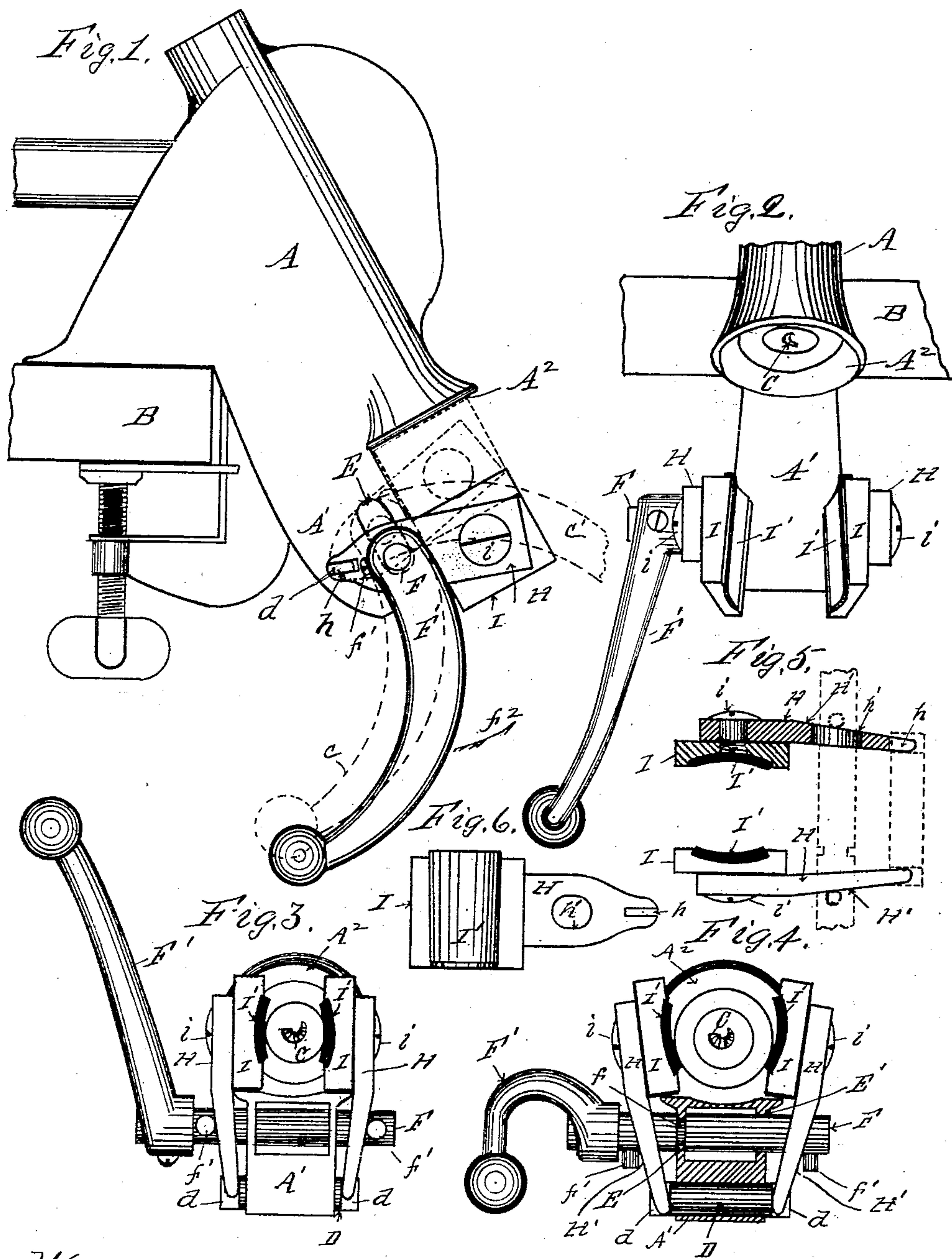
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E. WALKER.

BOTTLE NECK CLAMPING MECHANISM FOR CORK PULLERS.

(Application filed May 17, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

EDWIN WALKER, OF ERIE, PENNSYLVANIA.

BOTTLE-NECK-CLAMPING MECHANISM FOR CORK-PULLERS.

SPECIFICATION forming part of Letters Patent No. 713,540, dated November 11, 1902.

Application filed May 17, 1901. Serial No. 60,682. (No model.)

To all whom it may concern:

Be it known that I, EDWIN WALKER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Bottle-Neck-Clamping Mechanism for 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 relates to improvements in bottle-neck-clamping mechanism, and particularly in clamping mechanism for holding a bottle-neck in line with the corkscrew of a cork-puller, and has for its object the construction and attachment of a bottle-neck-clamping mechanism to a cork-puller, so that a bottle-neck of any ordinary size or shape can be clamped therein, raised up against the mouth of the cork-puller, and held firmly therein during the operation of inserting the cork-puller screw into the cork and removing the cork from the bottle. I accomplish these results by pivoting a pair of arms or jaws in the cork-puller frame below the mouth of the cork-puller on universal joints, so that they are capable of moving laterally and vertically on the pivots thereof, and providing lever mechanism which operates both to move the jaws toward each other and also vertically, so that the same lever operates to close the jaws upon a bottle-neck and at the same time raise the jaws upward, with the bottle-neck clamped therein, until the end of the bottle-neck and the cork therein are firmly seated in the mouth of the cork-puller in line with the traverse of the corkscrew thereof and retain it in that position until the cork is withdrawn. This mechanism is hereinafter fully set forth and described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cork-puller embodying my improved bottle-neck-clamping mechanism. Fig. 2 is front elevation of a portion of a cork-puller embodying my invention. Fig. 3 is a bottom view of the same. Fig. 4 is a like view of the same with the cork-puller frame in section. Fig. 5 is a plan view

of one of the arms or jaws and of the other arm or jaw in section. Fig. 6 is an inside view in elevation of one of the arms and jaws thereon.

In the drawings thus illustrating my invention, A represents a cork-puller embodying the usual reciprocating screw, a bottle-neck-receiving mouth in line with the travel of the screw, mechanism for operating the screw, and means for securing the cork-puller to a suitable support B, all of which may be of the usual and ordinary construction, except the lower end A' of the cork-puller frame, which I extend down below the rear of the mouth A² of the cork-puller, with the front thereof preferably parallel with the line of travel of the corkscrew C. In this projection A' on the frame I pivot a transverse shaft D, having the ends *d d* thereof, which project beyond the sides of the part A' of the frame, flattened, and in front of this shaft I make slots E E' in the frame, the slot E being preferably narrower throughout the lower portion thereof than the slot E'. In these slots I place a transverse shaft F, provided with a groove *f* to fit the narrower slot E and prevent the longitudinal movement thereof, as clearly shown in Fig. 4. On one end of the shaft F there is an operating-lever F', secured for rotating the shaft F. Upon this shaft F at each side of the frame I place arms or levers H, having open slots *h* in the rear ends thereof adapted to embrace the flattened ends *d* of the shaft D and oblong holes *h'*, adapted to receive the shaft F, these features being clearly shown in Fig. 6. On the inner faces of the front ends of these arms or levers H I mount clamping-jaws I on pivots *i*. The rear ends of these jaws are square and extend back to the face of the frame A', so as to travel up and down thereon. In the faces of the jaws I, I secure rubber or other resilient gripping-surfaces I', adapted to fit against a bottle-neck.

The outer surfaces of the rear portions H' of the arms or levers H are inclined from the rear ends thereof to a point slightly beyond the point where the shaft F passes through the openings *h'*, so as to form cam-surfaces thereon, and on the shaft F, outside of the arms or levers H, I secure studs or cams *f'*, which operate on the cam-surfaces H' of the

levers or arms H when the shaft F is rotated, so that when the studs or cams f' extend upward, downward, or forward the front ends of the arms or levers H and the jaws I thereon are moved toward each other, and when rotated so that the studs f' extend rearward, as illustrated in Fig. 4, the front ends of the arms or levers H can be moved away from each other. For example, if the lever F' is moved backward in the direction indicated by the dotted line c in Fig. 1 the front ends of the arms H will be moved toward each other; but if the lever F' is moved forward in the direction indicated by the dotted lines c' the front ends of the arms H will be moved toward each other and raised to the position illustrated by the dotted lines in Fig. 1, with the tops of the jaws I thereon in contact with the lower end of the cork-puller mouth A^2 , and the reverse movement of the operating-lever F' at once returns them to their normal position. (Shown in full lines in Fig. 1.)

In operation the neck of a bottle is placed between the jaws I I. The operating-lever F' is then moved forward in the direction of the arrow f^2 , which operates to clamp the bottle-neck and raise it up into the mouth A^2 of the cork-puller, where it is firmly held by means of the lever F' until the cork is withdrawn, when a reverse movement of the lever F' lowers the bottle away from the cork-puller mouth A^2 and opens the clamping-jaws I I, so that the bottle can be removed.

I have thus shown and described mechanism for the utilization of my invention; but I am aware that many parts thereof can be modified, both in their construction and arrangement, without departing from the spirit of my invention.

Therefore what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a bottle-neck clamp for cork-pullers, a pair of arms or levers pivoted to the frame, and a hand-lever mechanism engaging said arms or levers to move them toward each other and raise them, substantially as set forth.

2. In a bottle-neck clamp for cork-pullers, a pair of arms or levers pivoted to the cork-puller frame, and a hand-lever mechanism pivoted in and operating said arms or levers, to move them toward each other and raise them substantially as set forth.

3. In a bottle-neck clamp for cork-pullers, a pair of arms or levers, universal joints connecting the rear ends of said arms or levers

with a suitable support, jaws pivoted to said arms or levers, and a hand-lever mechanism mounted in and operating thereon, to move said arms or levers together and raise them, substantially as set forth.

4. In a bottle-neck clamp for cork-pullers, an extension on the cork-puller frame, a pair of arms or levers, inclined surfaces thereon, universal joints connecting the rear ends of said arms or levers with said frame, a shaft passing through said arms, an operating-lever on said shaft, and studs on said shaft adapted to engage the inclined surfaces on said arms or levers to close them toward each other and raise them when said shaft is rotated, substantially as set forth.

5. In a bottle-neck clamp for cork-pullers, a projection on a cork-puller frame extending downward below the cork-puller mouth having a slot therein, arms or levers at each side of said projection, openings in said arms or levers, inclined surfaces on said arms or levers, universal joints connecting said arms or levers therewith, jaws pivoted to the front ends of said arms or levers, a transverse shaft passing through the slot in the frame and through the openings in said arms or levers, an operating-lever on said shaft, and studs on said shaft engaging the inclined surfaces on said arms or levers to close them together and raise them when the shaft is rotated, substantially as set forth.

6. In a bottle-neck clamp for cork-pullers, a projection on a cork-puller frame extending downward from the rear of the cork-puller mouth parallel with the line of the travel of the corkscrew thereof, and having a longitudinal slot therein, arms or levers at each side of said projection having holes therein coinciding with the slot in the frame, and inclined surfaces on their outer sides, jaws pivoted to the inner faces of the front ends of said arms or levers, resilient faces on said jaws, a transverse shaft passing through the holes in the arms or levers and the slot in the frame, an operating-lever on said shaft, and studs on said shaft engaging the inclined surfaces on said arms or levers, operating to move said arms or levers and the jaws thereon toward each other and raise them when said shaft is rotated, substantially as set forth.

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

EDWIN WALKER.

Witnesses:

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