

W. Fradley,

CORKSCREW,

№ 35,514,

Patented June 10, 1862.

Fig. 3.

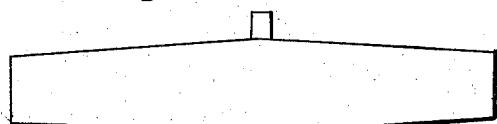


Fig. 2.

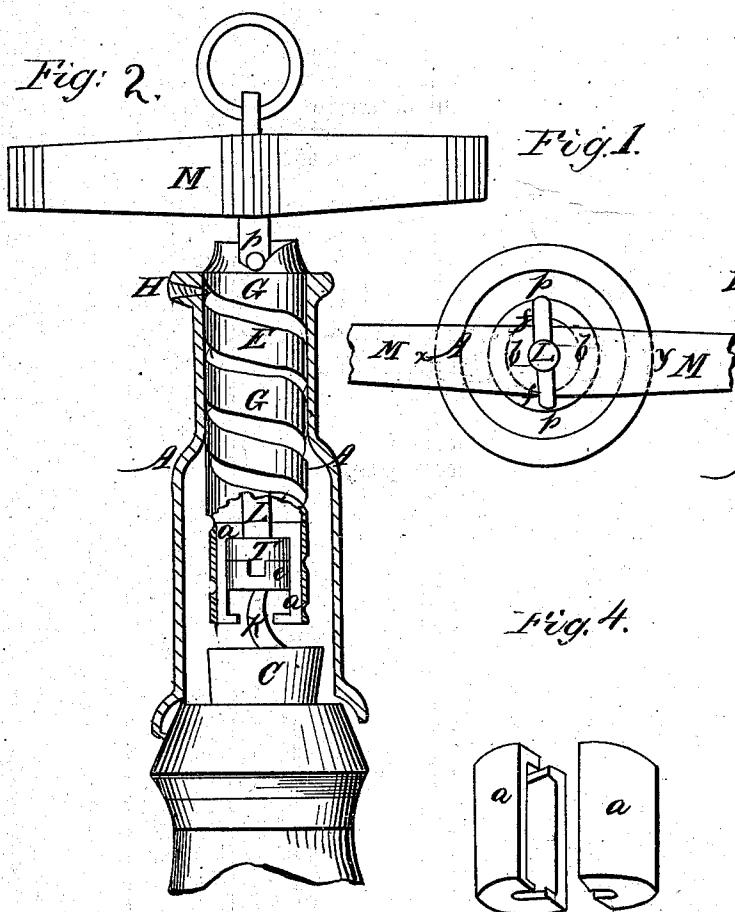


Fig. 1.

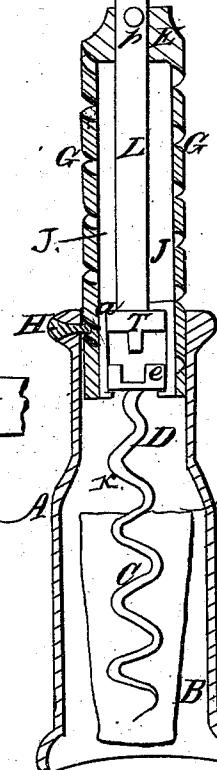


Fig. 4.

Witnesses

John Miller
John Parrot D. Miller

Inventor.

William Fradley

UNITED STATES PATENT OFFICE.

WILLIAM FRADGLEY, OF GREENBUSH, NEW YORK.

IMPROVED CORKSCREW.

Specification forming part of Letters Patent No. 35,514, dated June 10, 1862.

To all whom it may concern:

Be it known that I, WILLIAM FRADGLEY, of Greenbush, Rensselaer county, State of New York, have invented a new and useful Method of Constructing Corkscrews; and I declare the following specification, with the drawings here-to attached as part of the same, to be a full and complete description of my invention.

Figure 1 represents a bird's-eye view of the body of the instrument; Figs. 2 and 3, a vertical section in the line of *xy*, Fig. 1, showing the machinery in different positions of its operation. Fig. 4 is a perspective view of socket *a*.

Similar letters denote the same parts of the apparatus.

A *A* is a metal cylindrical case, large enough to hold a quart-bottle cork, *C*, within its lower cavity, *B*, which has a bell-mouth to fit over and upon the neck of a bottle, as shown at Fig. 2. Its upper cavity, *D*, is made smaller and truly cylindrical to receive snugly another metal cylinder, *E*, fitted accurately to its bore, so as to move steadily through it from the position shown in Fig. 2 to that in Fig. 3. Within the outer periphery of *E* a square threaded screw-groove, *G*, is cut, of a suitable pitch for the power required to draw a cork, and at *H* in the upper rim of *A* a pin is inserted, projecting through it into the groove *G* as the point of resistance for the groove to act upon, so that as the cylinder *E* is turned to the right or left hand it will be forced upward or downward within *A*. Cylinder *E* contains a hollow cavity, *J*, bored truly nearly through it, so as to permit to move through it a hollow socket, *a*, being two half-cylinders, (shown in large scale in Fig. 4,) which, when placed together, are intended to hold within them by a flange or head, *e*, the corkscrew *K*, and by head *r* the handle-shaft *L*. These heads are fitted, as shown in the drawings, as couplings, the one with a tongue the other with a groove, so that when in the position shown in Fig. 2 the shaft *L*, by its handle *M*, can turn the screw *K*; but when as shown in Fig. 3 the screw remains still while the handle is turning, the socket *a* having room in it for that purpose.

In putting the parts together, the shaft *L* and screw *K* are put together within the socket

a and the whole inserted within the cavity of *E*, the shaft *L* passing through an opening in the top of the cavity, and then is secured within the handle *M*. Through the upper part of shaft *L* a cross-pin, *p*, is inserted, and in the top edges of *E* a deep notch, *f*, is sunk for the pin to lie in, the pin being adjusted so that when in the notch the base of socket *a*, hanging from *L*, shall align with the base of *E*. To facilitate the entrance of the pin into the notch, the edge of *E* is beveled from *b* to *f*, corresponding with the inclination of the screw *K*.

The operation of the apparatus is thus: The cylinder *E* being down within *A*, as in Fig. 2, the shaft *L* is drawn upward through it by its handle *M* until the socket *a* reaches the top of the cavity *J*. This brings the point of screw *K* up even with the mouth of *A* when it is to be placed upon the cork. Upon the pressing down of the handle the couplings *e* and *r* unite and the screw passes down into the cork until the pin *p* enters its notch, as shown in Fig. 2, when the further movement of the handle turns cylinder *E*, whose grooves, moving along pin *H*, raise it up. By this movement *e* and *r* become uncoupled, so that the screw *K* draws the cork directly upward until the apparatus takes the position shown in Fig. 3 and the cork is free from the bottle.

I am aware that there is a corkscrew bearing a partial resemblance to mine; but in that one the corkscrew is firmly fixed to a shaft like *L*, which fits with a screw-thread within a hollow cylinder, like *E*, the thread of the screw being intended to correspond with the spiral of the corkscrew. When this shaft arrives at the end of its movement, the further turning of its handle turns the cylinder corresponding to *E* and forces it upward, as in my machine; but of course this turning twists with it the corkscrew, the consequence of which is that if the cork be so firmly fixed within the bottle that it will not yield promptly to the twist of the screw, it (the screw) cuts out from the cork a cylindrical core and leaves the cork behind. Besides, if, as frequently happens, the corkscrew become slightly elongated, so that its spiral differs from the thread of the screw upon the shaft, then the cork-core is cut out by the entrance of the screw. In either case the cork

has to be extracted by piecemeal, fouling the contents of the bottle with its débris. Now, my apparatus, by the free motion of the shaft, permits the screw to make its own way into the cork, and when entered, by the disengagement of the couplings, to be drawn directly upward without being twisted within the body of the cork.

What I claim, and desire to secure by Letters Patent, is—
The screw K and handle-shaft L, with their

coupling-heads e and r and their socket a, the pin p in the shaft, with its notch f in the top of cylinder E, the cylinder E, with its groove G, and pin H of outer cylinder, A, the whole operating together as a corkscrew, substantially in the manner set forth in the within specification.

WILLIAM FRADGLEY.

Witnesses:

E. J. MILLER,

RUH VARUK DE WITT.