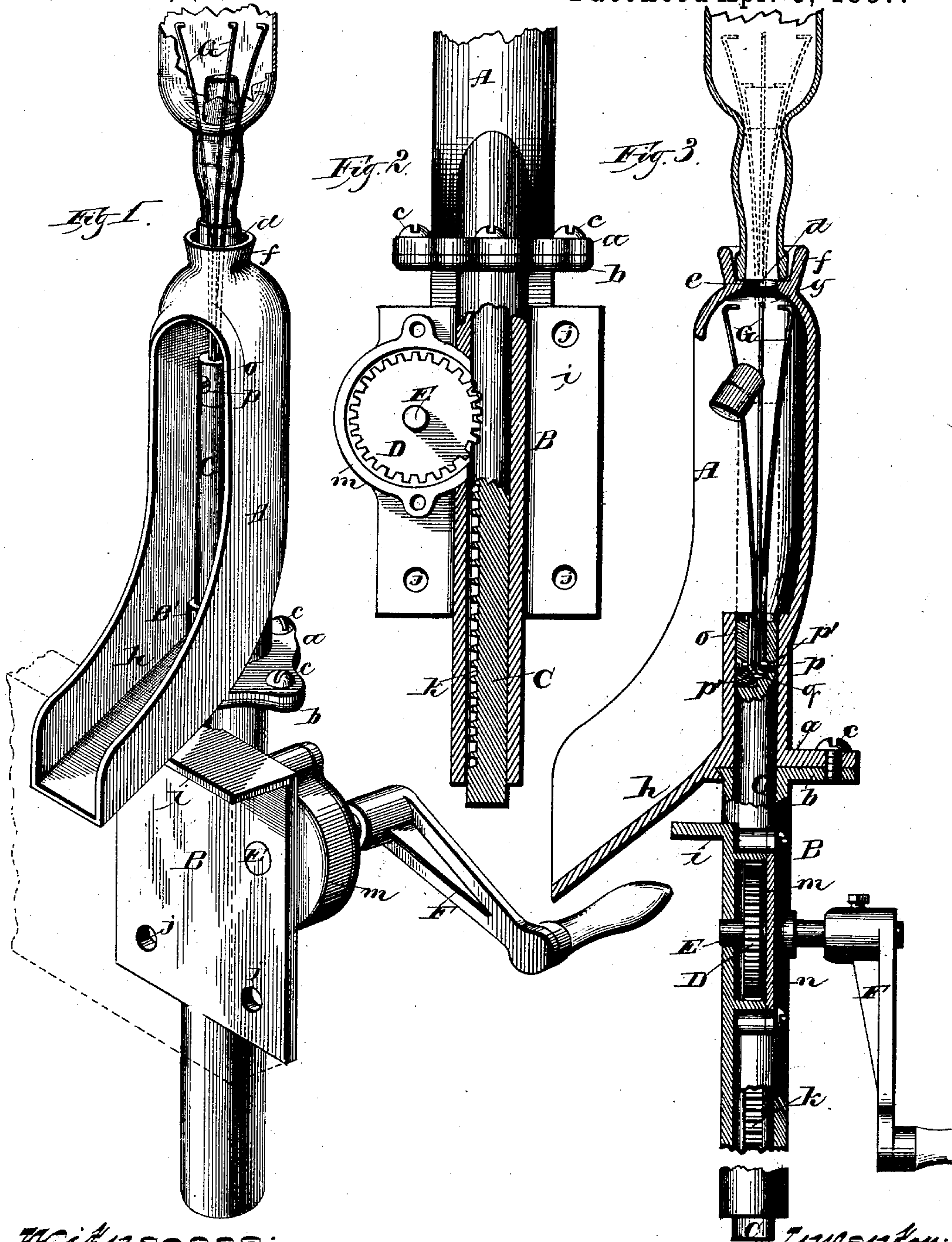


(No Model.)

F. E. SCHMITT.
CORK EXTRACTING MACHINE.

No. 360,734.

Patented Apr. 5, 1887.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDERICK E. SCHMITT, OF MILWAUKEE, WISCONSIN.

CORK-EXTRACTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 360,734, dated April 5, 1887.

Application filed December 21, 1886. Serial No. 222,151. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. SCHMITT, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Cork-Extracting Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to machines for extracting corks that may have been forced down into bottles, said invention, essentially, consisting of a suitable frame provided with a seat for the neck of a bottle and guide for the hooks or fangs that clasp a cork when in the bottle, a plunger carrying said hooks or fangs, and means for operating this plunger, as will be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a perspective view of a machine constructed according to my invention; Fig. 2, an elevation of a portion thereof, partly in section; and Fig. 3, a vertical transverse section of my machine, partly in elevation.

Referring by letter to the drawings, the frame of my machine is represented as preferably made in two hollow sections, A B, the opposing ends of which have flanges *a b*, joined together by suitable bolts or screws, *c*. The top section, A, of the frame is provided at its upper end with an opening, *d*, circular flange *e*, and a similar extension, *f*, said flange and extension forming a seat to receive the neck of a bottle from which a cork is to be extracted, and the opening *d* corresponding in diameter with the mouth of an ordinary beer or wine bottle.

Immediately below the flange *e* the interior of the frame-section A is essentially reduced or cone-shaped, as best illustrated at *g*, Fig. 3; and to effect a saving in material, or to give a more finished effect to said frame-section, its outside, at the upper end, may be also conically reduced, this being the preferable form, and so illustrated in the drawings. On one side thereof the top section, A, of the frame is preferably open and laterally extended to form a curved spout, *h*, that carries off such liquid or sediment that may escape from the bottles operated upon by my machine.

The bottom section, B, of the frame is pro-

vided with a right-angular plate, *i*, preferably in one piece therewith, and having perforations *j* for bolts or screws, by which said frame may be secured to a suitable standard or table.

Operatively arranged in the bottom section, B, of the frame is a plunger, C, preferably provided with rack-teeth *k*, to engage a pinion, D, operative in a housing, *m*, that may form part of the plate *i*, said plate and a removable cover-piece, *n*, for the housing being perforated to form bearings for the pinion-shaft E, to which latter is secured a crank, F.

A continuation, B', of the plunger-bearing is provided in the top frame-section, A; but, if desirable, this extension may be omitted.

The upper end of the plunger C is ordinarily provided with a detachable section, *o*, secured in position by a screw, *p*, this section and the adjacent main portion of said plunger being hollowed out to form a socket, *q*, for the lower ends of spring-wire hooks or fangs G, that are designed to grasp the loose cork inside a bottle, said hooks or fangs being similar to those employed in the ordinary hand cork-pull, and retained in position by the screw *p* passing through the eye *p'*.

The conically-reduced portion *g*, at the upper end of the frame-section A, serves to compress the adjacent ends of the hooks or fangs G, and thereby guide the same up through the opening *d*, and into a bottle that may be held mouth down upon the flange *e*, as shown by Figs. 1 and 3, said hooks or fangs being thus actuated by a movement of the plunger C. After the upper ends of the hooks or fangs have passed the mouth of the bottle, they will, by their own elasticity, spread out and encircle the cork in said bottle. By a reverse movement of the plunger the hooks or fangs are retracted from the bottle, and carry the cork therewith, the upper ends of these hooks or fangs spreading out after passing the flange *e*, to thus discharge the cork, as illustrated in Fig. 3.

My machine is intended for bottling-establishments, and by its use a saving in time and labor will be effected over the ordinary means heretofore employed to accomplish a like purpose, while at the same time, said machine being positive in its action, there is no uncertainty in its operation.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. A machine for extracting corks from bottles, that comprises a suitable frame, a plunger operative in the frame and provided with hooks or fangs, and means, substantially as described, for actuating the plunger and automatically compressing and guiding the hooks or fangs, as and for the purpose set forth.

2. A machine for extracting corks from bottles, that comprises a suitable frame having one end thereof conically reduced upon the interior and provided with an opening, a plunger operative in the frame and carrying hooks or fangs, the free ends of which latter normally rest against said reduced portion of the frame, to be compressed and guided thereby, and means, substantially as described, for actuating the plunger, as and for the purpose set forth.

3. A machine for extracting corks from bottles, that comprises a suitable frame having one end thereof conically reduced upon the interior, provided with an opening and flanged extension, a plunger operative in the frame and carrying hooks or fangs, and means, substantially as described, for actuating the plunger, as set forth.

4. A machine for extracting corks from bottles, that comprises a hollow frame, a portion of which is open on one side, laterally extended to form a spout, and has a conically-reduced end provided with a suitable opening, a plunger operative in the frame and carrying

hooks or fangs, and means, substantially as described, for actuating the plunger, as set forth.

5. A machine for extracting corks from bottles, that comprises a hollow frame in two united sections, one of the sections having its upper end conically reduced upon the interior and provided with a suitable opening, and the other section provided with a right-angular clamping-plate, a plunger operative in the frame and carrying hooks or fangs, and means, substantially as described, for actuating the plunger, as set forth.

6. A machine for extracting corks from bottles, that comprises a hollow frame, a portion of which is open on one side, laterally extended to form a spout, and has a conically-reduced end provided with a suitable opening and bottle-seat, a perforated right-angular plate forming part of the frame and provided with a housing having a removable cover, a rack-plunger operative in the frame and carrying spring-wire hooks or fangs, and a crank-pinion journaled in the housing to engage the rack-plunger, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FREDERICK E. SCHMITT.

Witnesses:

MAURICE F. FREAR,
N. E. OLIPHANT.