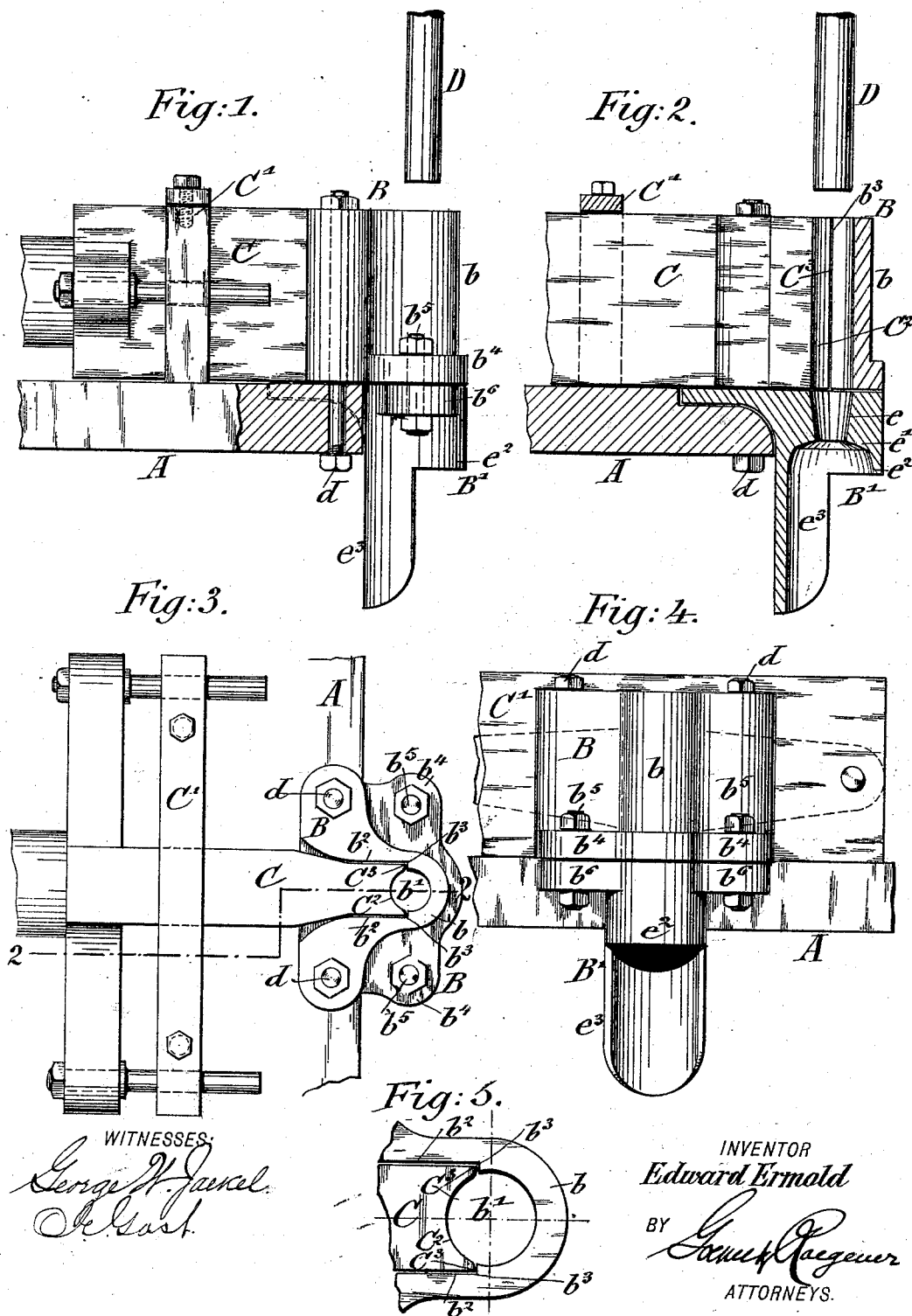


(No Model.)

E. ERMOLD.
COMPRESSOR FOR BOTTLE CORKING MACHINES.

No. 561,382.

Patented June 2, 1896.



UNITED STATES PATENT OFFICE.

EDWARD ERMOLD, OF NEW YORK, N. Y.

COMPRESSOR FOR BOTTLE-CORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 561,382, dated June 2, 1896.

Application filed March 29, 1895. Serial No. 543,855. (No model.)

To all whom it may concern:

Be it known that I, EDWARD ERMOLD, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Compressors for Bottle - Corking Machines, of which the following is a specification.

This invention has reference to certain improvements in a compressor for bottle-corking machines for which Letters Patent were granted to me heretofore, No. 492,540, dated February 28, 1893, said improvements being designed with a view to overcoming an objection to the compressor referred to. This objection consists in the fact that the upper or compressing portion exerts by its edges a creasing action on the cork, so that small ridges are formed at diametrically opposite points of the same, by which the reliable and tight closing of the bottle is prevented.

My improved compressor is designed to overcome this defect; and for this purpose the invention consists of a compressor for bottle-corking machines in which the upper portion of the cork guiding and compressing tube is provided with a semicircular front portion and slightly-offset parallel sides and of a squeezer provided likewise with parallel sides, with an arc-shaped front end formed by a semicircular recess, and with front edges that fit into the offset of the cork-guiding tube, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of my improved cork-compressor for bottle-corking machines. Fig. 2 is a vertical longitudinal section of the same on line 2 2, Fig. 3. Fig. 3 is a plan view; Fig. 4, a front elevation of the same, and Fig. 5 is a broken detail plan view of the squeezer and the cork-guiding tube.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the table of a bottle-corking machine of any improved construction, and B B' a cork guiding and compressing tube, which is formed of an upper portion B and a lower portion B'. The upper portion B is provided with a semicircular front portion b and with a recess b' at the rear part of the upper portion, which re-

cess is provided with parallel sides b^2 , which are offset at b^3 at opposite points and the ends of which flare in outward direction toward the rear part of the upper portion, as shown clearly in Fig. 3. The recess b' serves for the purpose of admitting a horizontally-reciprocating squeezer C, which is guided in a suitable manner in a stationary cross-head C' and provided with an arc-shaped front end formed by a semicircular recess C², so as to push the cork that has dropped into the recess of the upper portion B toward the semicircular front portion b of the latter and compress it between the semicircular portions ready for the action of the plunger D, that is arranged vertically in line with the axis of the cork-compressing tube and operated by a suitable mechanism. (Not necessary to be shown.)

The upper portion B is provided with lugs b^4 at its lower end, that are connected by screw-bolts b^5 with the lugs b^6 of the lower portion B'. The lower portion B' of the compressor-tube is further connected at its upper part by means of screw-bolts d with the rear part of the upper portion B, by which the connection of the compressor with the table A is made. The lower portion B' is provided with a conically-tapering opening e vertically below the semicircular front portion b of the upper portion B, into which opening the cork, after its compression by the squeezer, is pushed by the plunger. The lower portion B' is further provided with an outwardly-flaring part e' , which is surrounded by a lip e^2 at the front part of the lower portion B' and by a downwardly-extending segmental flange e^3 , which latter serves as a rest for the bottle-head. The outwardly-flaring part e' below the conically-tapering opening e serves as a rest for the rim of the bottle-head, so that the passage of the cork from the compressing-tube into the bottle-mouth is facilitated.

The curvature of the semicircular recess C² at the end of the squeezer C corresponds exactly with the inner curvature of the semicircular front portion b of the upper portion B. The narrow front edges C³ of the squeezer C at both sides of the semicircular recess C² fit into the offsets b^3 , formed at both sides of the semicircular front portions b , while the parallel sides of the squeezer fit between the

parallel sides b^2 of the upper portion B, as shown clearly in Figs. 3 and 5. The opening in which the cork is compressed is entirely cylindrical and has no projections at diametrically opposite points, (see dotted lines, Fig. 5,) so that the cork is marred but little, and even if slight ridges are formed in the cork they are both located at one side of the diameter thereof and consequently are less objectionable than when they are located at diametrically opposite points of the cork.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a compressor for bottle-corking machines, of an upper portion having a semicircular front part and provided with offset parallel sides having a recess between them, with a horizontally-reciprocating squeezer provided with an arc-shaped front end with rounded-off edges and guided between the parallel sides of the upper portion, the offsets of said parallel sides being located at one side of the diameter of the opening formed by the semicircular front part of the upper portion and the arc-shaped

front end of the squeezer, substantially as set forth.

2. The combination in a compressor for bottle-corking machines, of an upper portion having a semicircular front part and provided with offset parallel sides having a recess between them, and a lower portion secured to the upper portion and having a conically-tapering opening arranged vertically below the front end of the recess, with a horizontally-reciprocating squeezer provided with an arc-shaped front end and guided between the parallel sides of the upper portion, and a plunger, said offsets of the parallel sides of the upper portion being arranged to one side of the diameter of the opening for the plunger which is formed by the semicircular front part and the arc-shaped front end of the squeezer, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

EDWARD ERMOLD.

Witnesses:

PAUL GOEPEL,
S. E. SMITH.