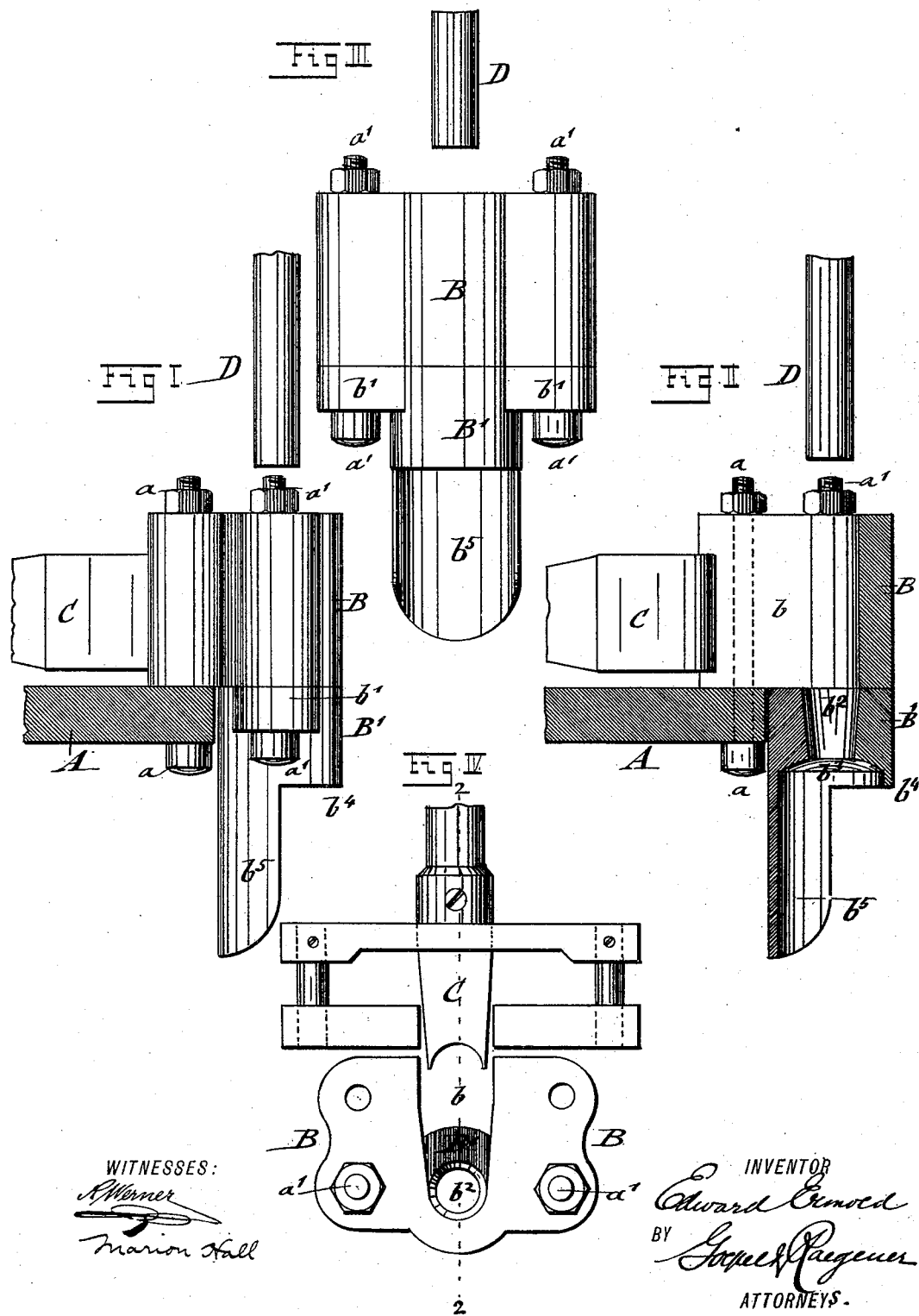


(No Model.)

E. ERMOLD.
COMPRESSOR FOR BOTTLE CORKING MACHINES.

No. 492,540.

Patented Feb. 28, 1893.



UNITED STATES PATENT OFFICE.

EDWARD ERMOLD, OF NEW YORK, N. Y.

COMPRESSOR FOR BOTTLE-CORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 492,540, dated February 28, 1893.

Application filed April 10, 1891. Renewed January 12, 1892. Again renewed August 4, 1892. Serial No. 442,122. (No model.)

To all whom it may concern:

Be it known that I, EDWARD ERMOLD, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Cork-Compressors for Bottle-Corking Machines; and I do declare the following to be a full, clear, and exact description of the invention.

This invention relates to an improved cork-compressing tube for bottle-corking machines; and it consists of a cork-compressing tube that is composed of an upper portion having a recess opening at the rear end, tapering in its middle part and semi-circular at its closed end, said upper portion being attached by bolts to the supporting table of the corking machine, a detachable lower portion having laterally-extending perforated ears, a conically-tapering opening vertically below the rounded off part of the recessed upper portion, an outwardly-flaring part at the lower end of said tapering opening and a segmental flange or bottle-rest extending below the lower portion, and screw-bolts for connecting the ears of the lower portion of the compressing tube, as will be fully described hereinafter and finally pointed out in the claim.

In the accompanying drawings, Figure I represents a side-elevation of my improved cork-compressing tube for bottle-corking machines, showing it as attached to the supporting table, which is shown in vertical section. Fig. II is a vertical longitudinal section, on line 2 2, Fig. IV. Fig. III is a front-elevation, and Fig. IV is a plan-view of the same.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the table of a bottle-corking machine of any approved construction, and B B' a cork-guiding and compressing tube, which is formed of an upper and lower portion, the upper portion B having a recess *b*, which extends through the rear part of the upper portion and tapers gradually toward the rounded off opposite end, as shown clearly in Fig. IV. The recess *b* serves to admit a tapering and horizontally-reciprocating squeezer C, which is guided in suitable manner and provided with a concave face, so

as to push the cork that is dropped into the recess of the upper portion B toward the rounded-off end of the recess *b* and compress it, in connection with said rounded-off end, 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 suitable mechanism. The upper portion B is provided with four bolt-holes and is attached by two screw-bolts *a* that pass through the rear holes to the table A. The lower portion B' of the compressing tube is provided with laterally-extending and perforated ears *b'*, which are attached by bolts *a'* to the two front holes of the upper portion *b*, as shown clearly in the drawings. The lower portion B' is provided with a conically-tapering opening *b*² vertically below the rounded-off end of the recess *b*, into which opening the cork, after its compression by the squeezer, is pushed by the plunger.

Below the lower end of the conically-tapering opening *b*² is arranged an outwardly-flaring part *b*³, which is surrounded by a short lip *b*⁴ at the front part and by a downwardly-extending segmental flange *b*⁵, which latter serves as a rest for the bottle-head. By exchanging the lower portion B' of the compressing tube, which is readily accomplished by loosening the attaching screw-bolts *a'*, bottles of different sizes of mouths can be corked with great facility, as the conical opening *b*² is made either somewhat larger or smaller at its lower end, according to the size to which the cork is to be compressed. The diameter of the upper end of the tapering opening *b*² remains the same with all sizes of corks, while the taper of the opening, or in other words, the diameter of the lower end of the opening, varies according to the size of the bottle-mouth, so that the required degree of compression can be imparted to the corks used for corking. The flaring part *b*³ at the lower end of the lower portion *b*² is arranged for the purpose of serving as a guide for the sponge that is used for wiping off the moisture that is pressed out of the moist cork and exuded at the lower end of the cork after the same has received its primary compression, and also 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 upper portion B is permanently attached to the supporting table of the bottle-corking machine, 5 the lower portion only being made exchangeable so as to provide for the different sizes of corks and bottle-mouths, whereby a wider range is imparted to the corking machine, inasmuch as all sizes of bottles can be corked by 10 the same. By the two compressions to which the cork is subjected in its motion through the compressing tube, first by the action of the squeezer and then by the action of the plunger in forcing the cork through the tapering 15 opening of the lower portion, the structure of the cork is not injured, which is frequently the case when only one compression of the cork is used, as the squeezer produces indentations or marks on the cork as the degree of 20 compression at one time is too great. This marking of the cork and injuring of its structural condition is entirely avoided by my cork-compressor, as the final compression takes place in the tapering opening b^3 of the 25 lower portion B', from which the cork is transferred into the bottle-mouth without any in-

jury or structural change being imparted to the same.

Having thus described my invention, I claim as new and desire to secure by Letters 30 Patent—

A cork-guiding and compressing tube for bottle-corking machines, composed of an upper portion having a tapering recess opening at the rear part and rounded off at its opposite 35 end, bolts for attaching the upper portion to the supporting table, a detachable lower portion provided with laterally-extending perforated ears, a conically-tapering opening in line with the rounded-off end of the recess of 40 the upper portion, an outwardly-flaring part at the lower end of said opening and a downwardly-extending segmental flange or bottle-rest, and screw-bolts for attaching the ears of the lower portion to the upper portion, sub- 45 stantially as set forth.

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

EDWARD ERMOLD.

Witnesses:

PAUL GOEPEL,

CHARLES SCHROEDER.