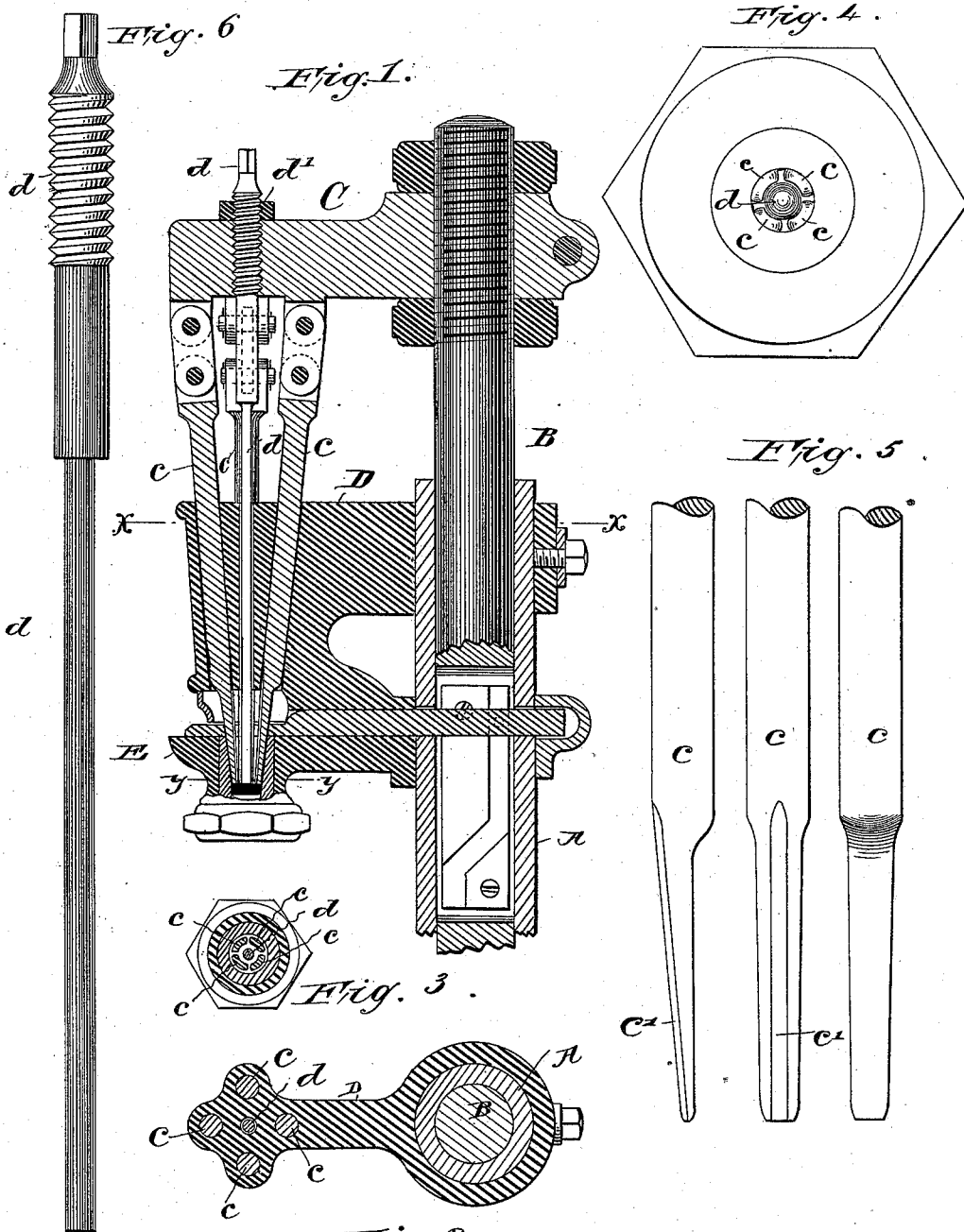


(No Model.)

G. F. MEYER.
CORKING MACHINE.

No. 533,135.

Patented Jan. 29, 1895.



Attest,

L. M. Benjamin,
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Fig. 2.

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CORKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 533,135, dated January 29, 1895.

Application filed June 27, 1892. Serial No. 438,196. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. MEYER, a citizen of the United States, and a resident of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Corking-Machines, of which the following is such a full, clear, concise, and exact description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The invention relates more especially to that class of corking machines which are employed for inserting bottle seal-stoppers, having a displaceable plug or portion for relieving the pressure of the stopper against the neck of the bottle during extraction. After this class of stoppers first became known and it was desired to introduce them, peculiar difficulties were experienced in connection with their insertion into the bottle-neck. The forms of plungers previously used, such as the several convergent plungers and the collapsible plungers, were not well adapted to the insertion of plug-stoppers, the outer part of the seal receiving the force of the plungers, which failed to carry the plug or central part down with it so that when seated the outer edge of the seal was below the level of the plug. The result of such irregular compression was to give the plug an enlarged or increased diameter at the top due no doubt to the greater compression at the edges of the seal. As a consequence the plug was hard to displace, and all efforts to fashion the plungers so as to obviate that objection proved futile.

The object of this invention is to overcome the difficulties heretofore experienced, and it consists in the construction and adaptation of the parts, and combinations of parts or elements as hereinafter more fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a vertical section of the upper portion of a sealing machine provided with four convergent plungers, and with a central plunger passing within and between the same. In this figure the plungers are shown as in the act of compressing a seal through the throat. The improvement is shown in this figure as

applied to a machine having a finger guard and feed attachment connected with the operating-shaft, but these form no part of my invention. Fig. 2 is a cross section through the line *x, x*, of Fig. 1. Fig. 3 is a cross section through the line *y, y*, of Fig. 1, showing the position of the plungers with respect to each other a short distance above the seal. Fig. 4 is an enlarged bottom plan of the head-piece and shows the lower ends of the plungers after passing through the throat so as to deliver the seal to the bottle mouth. Fig. 5 is a side, face and rear view of the lower portion of one of the convergent plungers and in the first and second views thereof shows the circular groove through which the central plunger passes. Fig. 6 is an enlarged view of the central plunger removed from the machine.

In the drawings A represents a portion of the standard of the machine, within which the operating-shaft B moves vertically, and its upper head is provided with a plunger-head C which carries four convergent plungers *c, c, c, c*, and also a central or fifth plunger, *d*. The convergent plungers are guided in the usual way through a guide-piece D and the throat through which the stopper passes is located in the head-piece E immediately below and in line with the plungers. The operation of these various parts is well known and understood in the art, the downward movement or stroke of the plungers being that which forces and compresses the seal or stopper through the throat and into the bottle mouth, and the upward movement that which releases the bottle after being stoppered, permitting another seal to be fed into the throat while another bottle is placed in position to receive it. The convergent plungers are each provided with a circular groove, *c'*, on the inside so that when brought together at the extreme limit of their downward movement there remains within them a hollow space or contour of about one-quarter of an inch in diameter within which the central plunger, *d*, extends and operates. The upper part of the central plunger is enlarged and screw-threaded and is screwed through the plunger-head C, being provided with a lock-nut, *d'*, above the plunger-head for securing

it at a determined point. The upper end of the plunger, *d*, is preferably made square to receive a wrench for adjusting it. By these means the central plunger, *d*, may be adjusted 5 and screwed so that the seal and its plug are concurrently carried down by the plungers into the bottle.

It is sometimes desirable to slightly lengthen or lower the central plunger so as to give to 10 the plug a somewhat lower position in the body of the stopper, thus making it easier to displace when it is desired to extract the stopper from bottle.

The central-plunger allows of a perfect regulation as to the position of the plug when 15 the seal is inserted, and it overcomes the difficulties which were at the outset experienced as previously explained. It is obvious that this central plunger may be applied to machines having convergent plungers, collapsible 20 plungers or any other form of plungers in connection with which it may be made to perform the functions and produce the result for which it is intended.

Having thus described my invention, what 25 I claim as new, and desire to secure by Letters Patent, is—

1. In a corking machine provided with a throat for the passage of a stopper, a plunger adapted to press upon the outer portion of 30 the top of the stopper, said plunger being hollow, and in combination therewith an inside or central plunger adapted and arranged to act upon the central portion of the stopper concurrently with the outer plunger, substan- 35 tially as described.

2. In a corking machine having a throat for the passage of a stopper, convergent plungers each of which has a circular groove on its inner face, in combination with a central plunger 40 extending within the grooves of the outer plungers, all being arranged to act concurrently upon a stopper.

GEO. F. MEYER.

Witnesses:

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