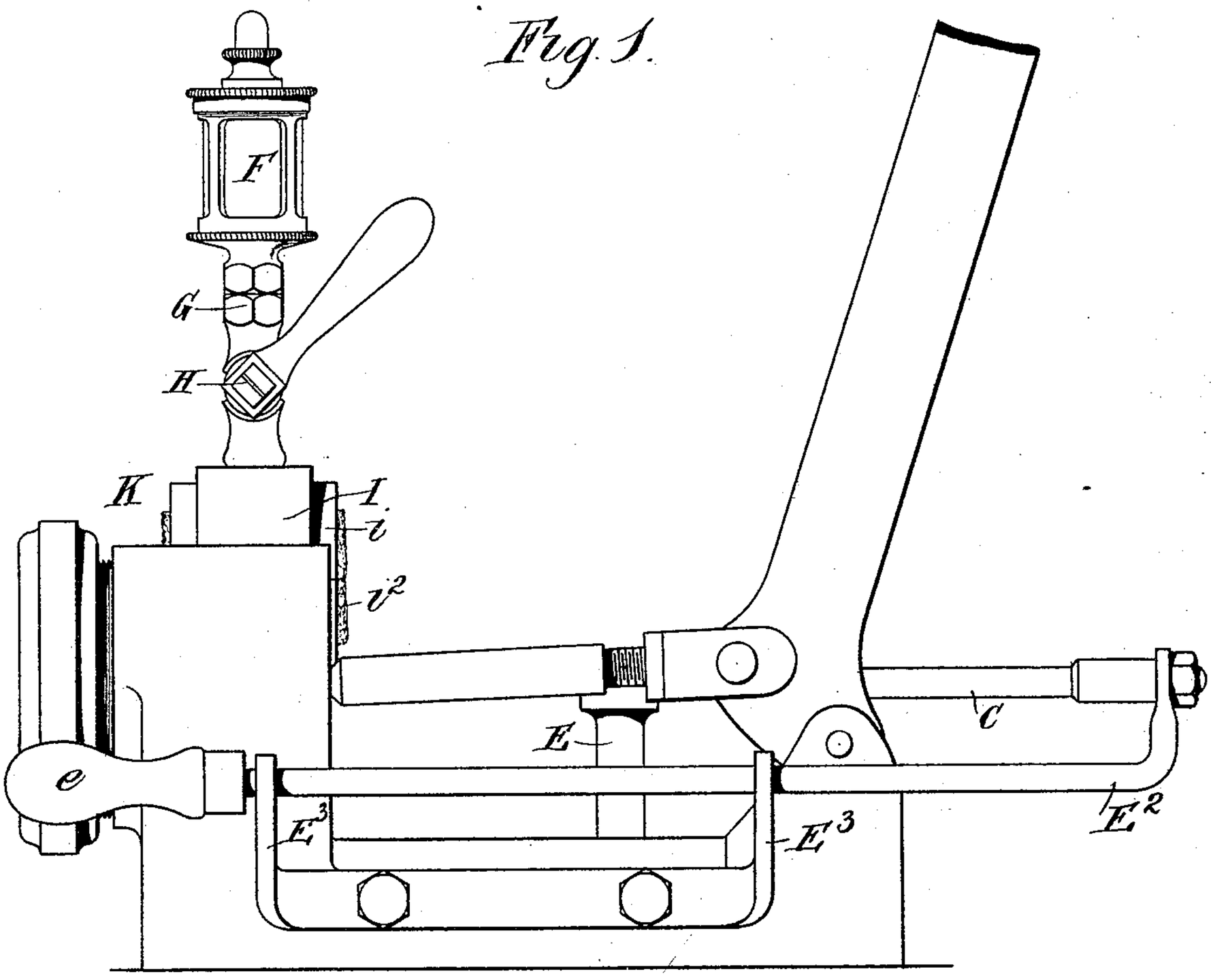
(No Model.) 3 Sheets—Sheet 1.

C. CHESWRIGHT.

MACHINE OR APPARATUS FOR CAPSULING BOTTLES.

No. 463,576. Patented Nov. 17, 1891.

Fig. 1.



Witnesses:
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(No Model.)

3 Sheets—Sheet 2.

C. CHESWRIGHT.

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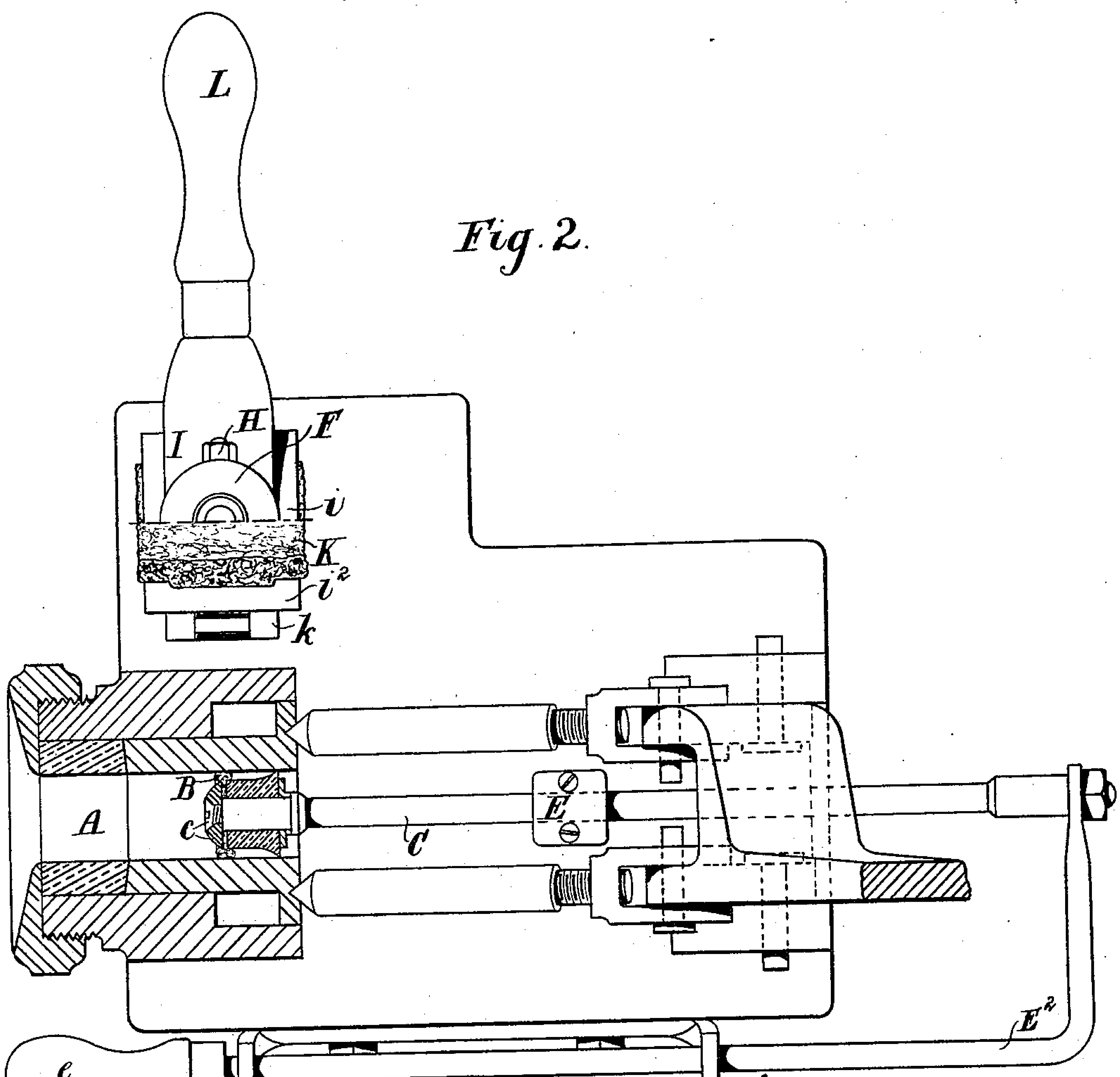
No. 463,576.

Patented Nov. 17, 1891.

Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 3 Sheets—Sheet 3.

C. CHESWRIGHT.

MACHINE OR APPARATUS FOR CAPSULING BOTTLES.

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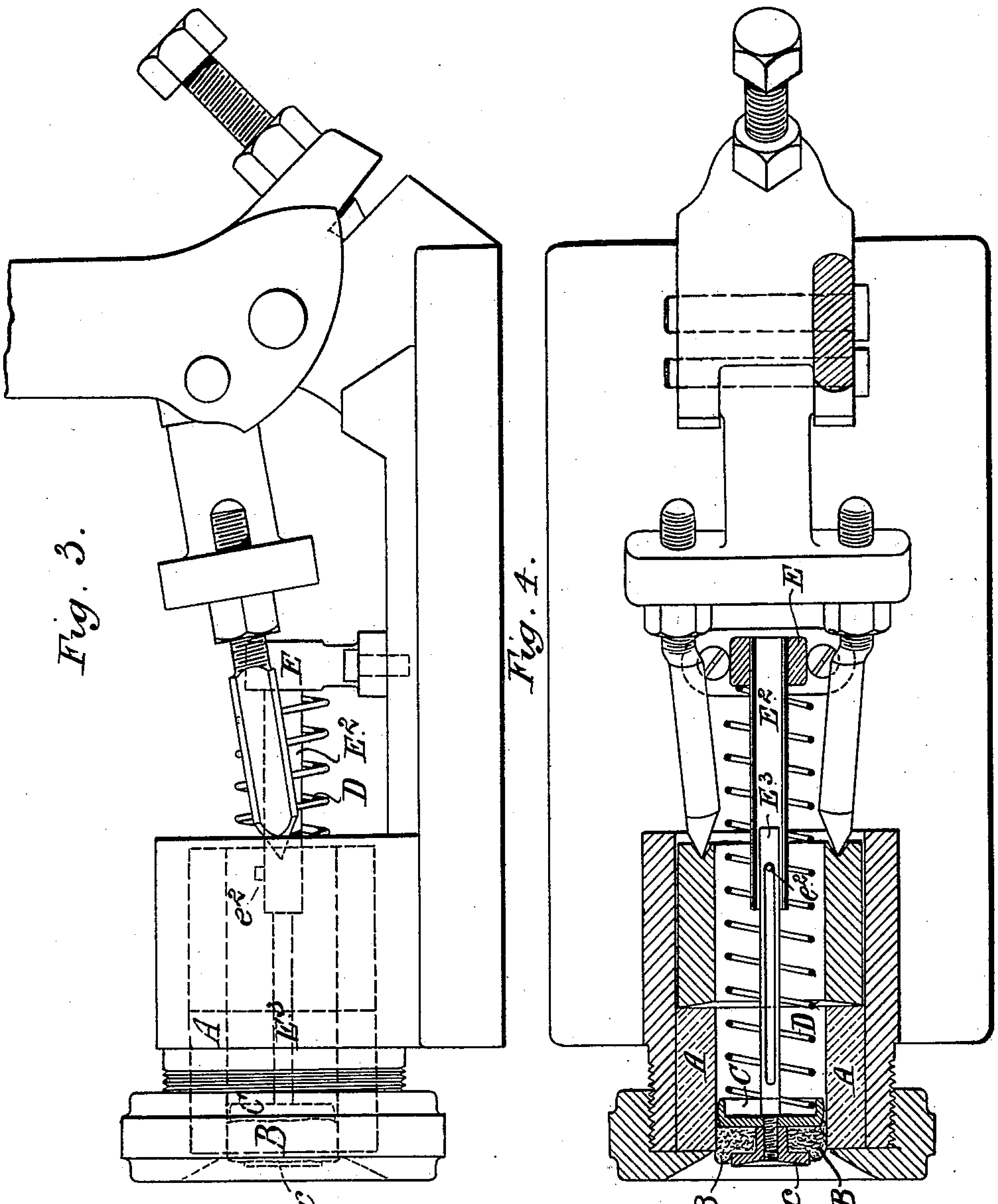

Witnesses;
Jonathan Cilley
John Gustafson

Inventor.
Charles Cheswright
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his Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES CHESWRIGHT, OF LONDON, ENGLAND.

MACHINE OR APPARATUS FOR CAPSULING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 463,576, dated November 17, 1891.

Application filed May 12, 1891. Serial No. 392,515. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CHESWRIGHT, gentleman, a subject of the Queen of Great Britain and Ireland, and residing at Hillside, Upper Hornsey Rise, London, in the county of Middlesex, England, have invented certain Improvements in Machines or Apparatus for Capsuling Bottles or Like Vessels, of which the following is a specification.

My invention relates to machines or apparatus—such, for instance, as are described in the specification of British Letters Patent No. 3,319 of 1877; and the object of my said invention is to provide such machines or apparatus with means whereby they can be cleaned of any adhesive matter which may adhere on the part whereinto the necks of the bottles are inserted to be capsuled. The invention is more especially designed for use in machines or apparatus wherein perforated capsules are manipulated, as in that case the adhesive matter used to secure the capsule to the bottle-neck may exude from the perforations and so accumulate that it may attach itself to the exteriors of the capsules.

According to my invention I apply a cleaning device—such as a sponge, for instance—which can be moved backward and forward in the part of the machine whereinto the capsules and bottle-necks are inserted, so as to clear the said part of any matter which might otherwise accumulate in it. I may arrange the cleaning device so that it can be operated at intervals, or I may cause it to be urged forward by a spring, so that when the capsule and bottle-neck are inserted the said cleaning device is pressed back against the pressure of the spring, which, when the capsuled bottle-neck is withdrawn, urges the cleaning device forward again, and so wipes the aforesaid part clear of any adhesive matter which may have exuded from the capsule.

The accompanying drawings represent a machine or apparatus to which my invention is applied.

Figures 1 and 2 show the cleaning device arranged to be operated by hand, and Figs. 3 and 4 show an arrangement by which it oprates automatically.

Referring first to Figs. 1 and 2, A is the india-rubber ring or tube into which the capsule and bottle-neck are inserted, the capsule being applied to the neck by inward pressure of the india-rubber due to its compression as described in the aforesaid specification. B is a sponge or piece of equivalent comparatively soft material suited to act as a cleaner. It is attached to one end of a rod C by a screw and washer *c*, and can bear all round the interior surface of the tube A. The rod C slides in a guide provided in a projection E on the base of the machine, and is attached at its opposite end to another rod E^2, fitted to slide in guides E^3. This rod E^2 extends to the front of the machine, where it is provided with a handle *e* in position convenient to enable the operator to slide the sponge B or the like to and fro in the tube A.

In the arrangement illustrated by Figs. 3 and 4 the sponge B or the like is attached to a disk C by the nut *c*, which disk has at its back a spring D, bearing at one end on the back of the disk and at its other end on a projection E, attached to the base of the machine and carrying a tube E^2, surrounded by the spring D. In this tube slides a rod E^3, which is attached to the disk C, and serves to guide the disk in its longitudinal movements in the tube A, the extent of which movement is governed by a pin e^2, fixed in the tube E^2 and entering a slot in the rod E^3. The inner end of the spring may bear on any other part of the machine which is suited to the purpose, and other means than those described may be provided for guiding the disk in its motions in the tube A. When the capsule and bottle-neck are inserted, the sponge and disk are forced back and the spring is compressed, and when the capsuled bottle is withdrawn the spring urges out the sponge and disk again, and by this backward and forward movement of the sponge it keeps the interior of the tube A clear of any adhesive matter which may exude from the capsule and which otherwise might collect in the interior of the said tube. The sponge may be secured to the disk by a screw or other convenient fastening, by which it can be readily removed for cleansing and refixed in position.

In combination with either of the arrangements hereinbefore described there may be provided means for supplying to the neck of the bottle suitable cement or adhesive material before the capsule is placed thereon. A

convenient arrangement for this purpose is shown in Figs. 1 and 2, and consists of a vessel F to contain the adhesive material communicating by a tube G, fitted with a regulating-cock H, with a tube or chamber I, containing a lining of sponge or like absorbent or cement-holding material K. This tube or chamber is divided longitudinally into two parts $i\ i^2$, the said parts being hinged together at k to permit of their being opened out or separated by means of the handle L to admit of placing between the parts the neck of the bottle to receive a supply of cement from the sponge K, which, when the parts $i\ i^2$ are closed, bears on the neck of the bottle at the part which is to receive the capsule.

I do not limit myself to the precise modes I have described of moving the cleaning device to and fro, as it may be so moved by any suitable means—for instance, by attaching it to a crank on a shaft turned by the operating-handle of the machine.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a capsuling machine or apparatus, the combination, with the tubular socket or ring in which the neck of the bottle is inserted for application of the capsule, said socket being open at both ends, of a reciprocatory cleaner supported and guided by the frame of the machine or apparatus in the end opposite that in which the bottle-neck is inserted and operating means, such as specified, for moving the cleaner back and forth over the interior surface of the ring or socket, substantially as described.

2. In a capsuling machine or apparatus, the combination, with the ring or socket in which the neck of the bottle is inserted for application of the capsule, of a cleaner fitted to the interior of said ring or socket and movable lengthwise thereof, and a spring normally holding the cleaner in position to obstruct the orifice of the ring or socket, so that the cleaner is pushed back by the insertion of a capsule and bottle-neck and returned when the latter is withdrawn by said spring, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES CHESWRIGHT.

Witnesses:

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EDWD. GEO. DAVIS,

Both of 47 Lincoln's Inn Fields, London.