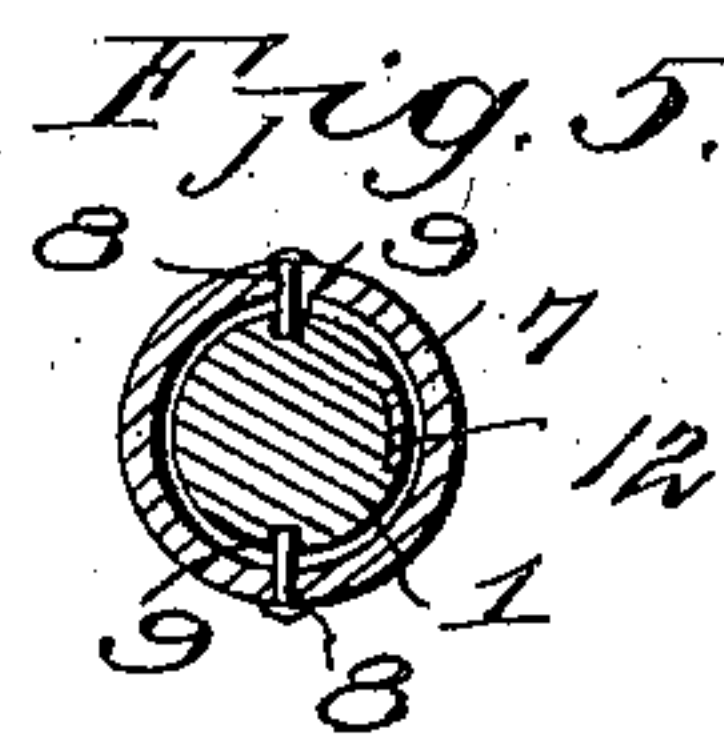
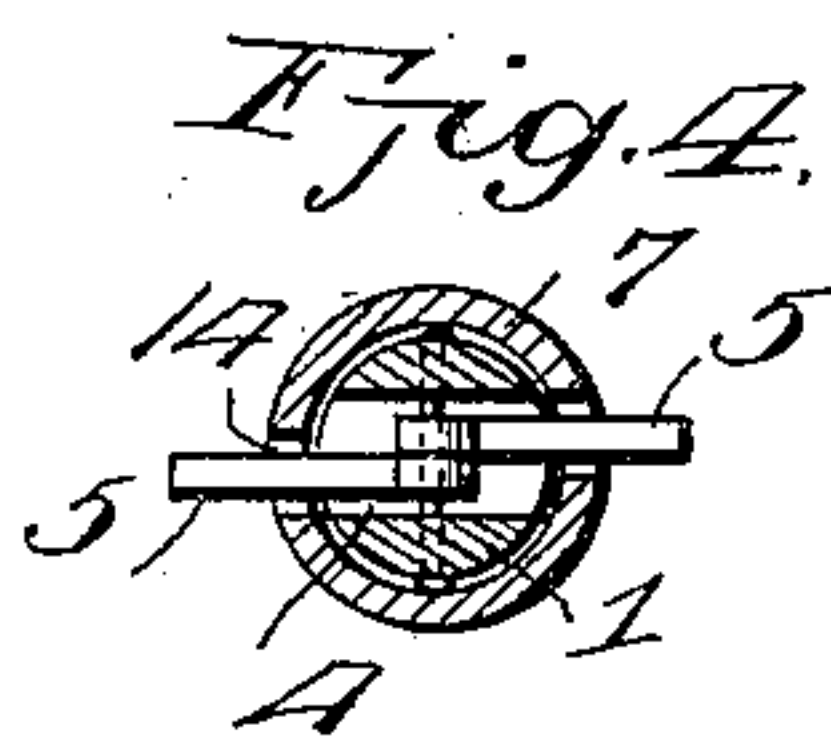
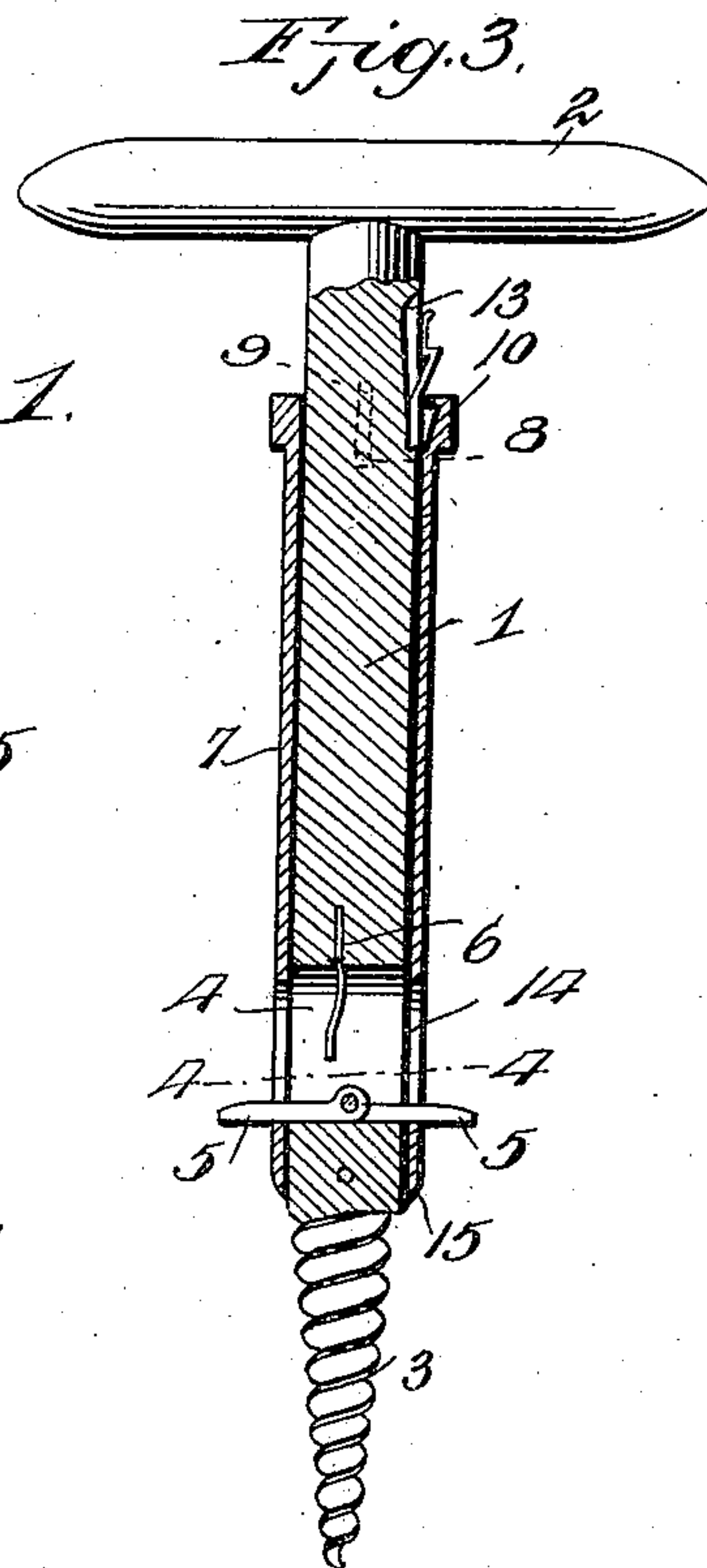
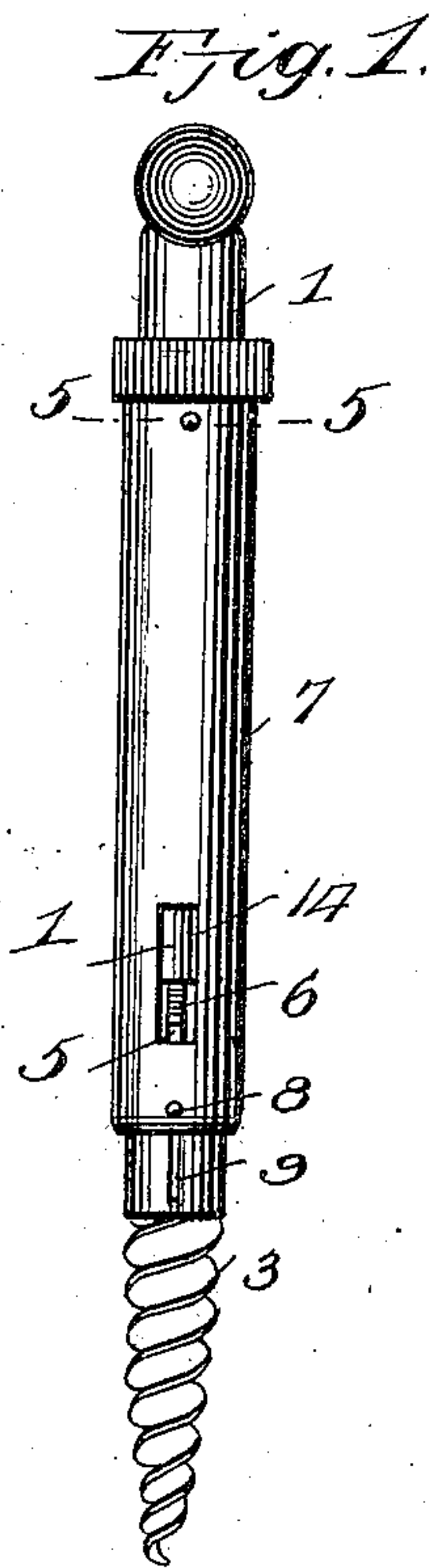
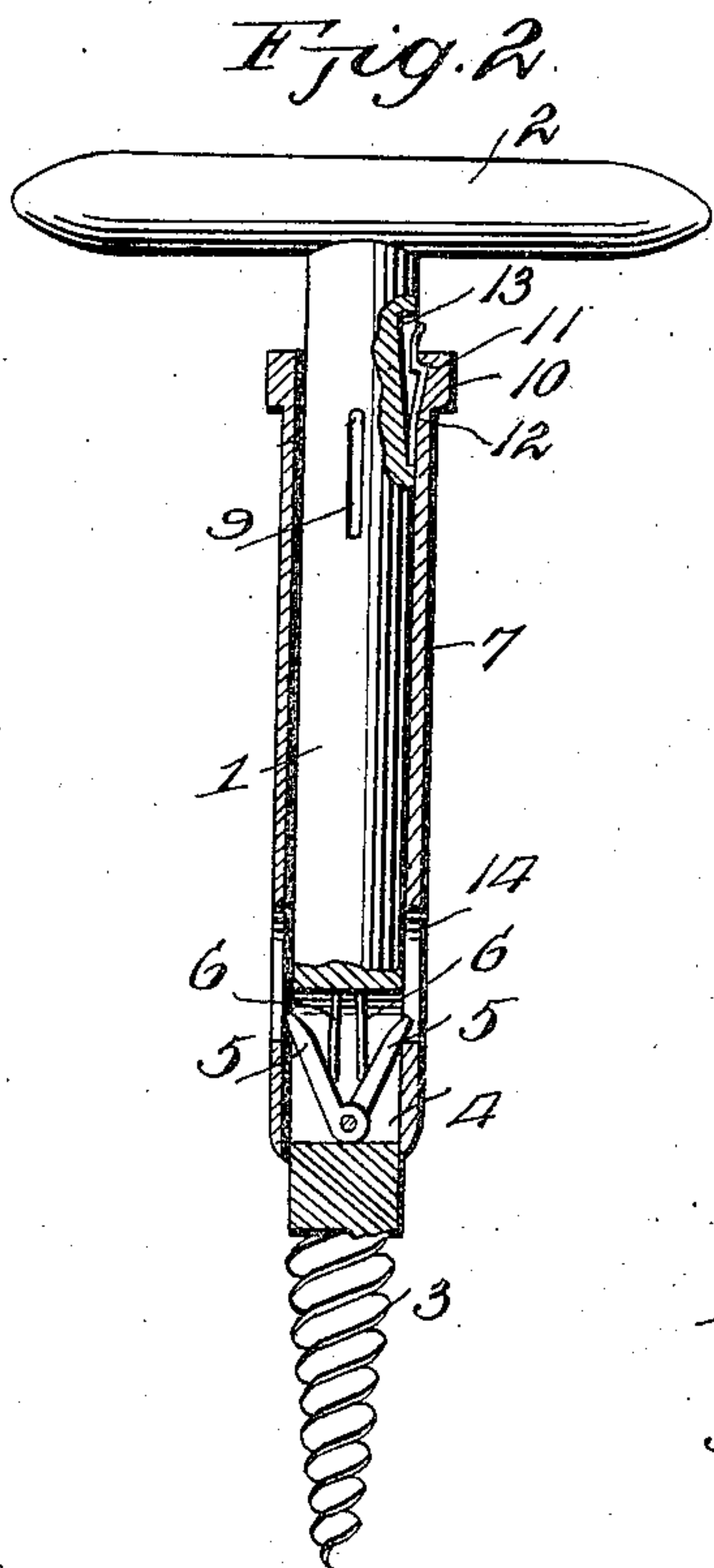


No. 847,124.

PATENTED MAR. 12, 1907.

G. SPARANO.
CORK PULLER.

APPLICATION FILED JUNE 9, 1906.



Witnesses
Frank Hough
D. W. Gould.

Inventor
G. Sparano

By Victor J. Evans.
Attorney

UNITED STATES PATENT OFFICE.

GENNARO SPARANO, OF PHILADELPHIA, PENNSYLVANIA.

CORK-PULLER.

No. 847,124.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed June 9, 1906. Serial No. 321,009.

To all whom it may concern:

Be it known that I, GENNARO SPARANO, a subject of the King of Italy, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Cork-Pullers, of which the following is a specification.

The invention relates to an improvement in cork-pullers of the usual corkscrew type comprehending, essentially, a hand implement in the use of which a cork may be removed.

The main object of the present invention is the provision of means by which the cork is removed entirely from the bottle-neck and breaking or chipping of the cork wholly avoided.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved cork-puller. Fig. 2 is a similar view with the sleeve and portions of the stem in section. Fig. 3 is a central vertical section of the same, partly in elevation, the device being shown in operative position. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a section on line 5 5 of Fig. 1.

Referring to the drawings, my improved extractor comprises a stem 1 of appropriate size and length, provided at one end with an operating-handle 2 and at the opposite end with the usual spiral screw 3 to provide for the introduction of the device into a cork. Immediately adjacent the screw end of the stem the latter is formed with a diametrically-arranged opening 4, in which is pivotally secured a plurality of arms 5, the pivotal support of which is arranged adjacent the lower end of the recess. The arms 5 are adapted when in inoperative position to be seated within the recess 4 wholly within the plane of the stem, as clearly shown in Fig. 2, and are normally spring-pressed in a direction away from the longitudinal center of the stem through the medium of leaf-springs 6, arranged within the recess 4, and preferably depending from the upper wall of said recess.

A sleeve 7 is arranged to encircle the stem 1 and is adapted for longitudinal movement thereon, being slidably connected to the stem through the medium of diametrically-opposed pins 8, projecting from the sleeve

and seating in longitudinally-disposed grooves 9, formed in the stem. By this construction the sleeve and stem are arranged for independent longitudinal movement, but prevented from independent rotary movement. The upper end of the sleeve is provided with an enlargement 10, peripherally roughened for service as a handhold, said enlargement being formed on its inner wall with a notch 11, designed to receive a spring-catch 12, secured in the stem, the upper end of the catch projecting above the sleeve to provide for a manual operation thereof. The catch is seated within a recess 13, formed in the stem, and is so tensioned that in the proper position of the sleeve said catch will operate to secure the sleeve and stem together, the recess 13 being of a depth to permit the manual inward movement of the catch to release the sleeve when desired. The lower end of the sleeve is formed with diametrically-opposed openings 14, normally disposed to aline with the opening 4 in the stem. Said openings 14 are so disposed relative to the recess 4 and arms 5 that when the sleeve and stem are locked together through the medium of the catch 12 the lower walls of the openings will bear against the lower edges of the arms 5 and maintain the same within the plane of the stem against the tension of the spring 6. When the sleeve is released from the catch and moved downward on the stem, the openings 14 register with the opening 4 to permit the springs 6 to force the arms 5 to their downward limit of movement—that is, directly transverse the limit of the stem. In the latter position the arms 5 extend beyond the plane of the sleeve to provide projections to engage the lower surface of the cork. By preference the lower edge of the sleeve is rounded at 15 to provide for the ready introduction of the device into the cork.

When ready for use, the parts are in position illustrated in Fig. 2, with the sleeves locked to the stem and the arms 5 disposed wholly within the plane of the stem. In this position the extractor is introduced into the cork by the usual corkscrew movement and the operation of the handle 2. When the screw 3 has been passed wholly through the cork, the spring-catch 12 is released from engagement with the sleeve and the latter moved downward to permit the automatic

projection of the arms 5, it being understood that the implement has been passed through the cork a sufficient distance to permit said arms to normally rest below the surface of the cork, as clearly shown in Fig. 3. A pull exerted upon the handle 2 will, through the medium of the arms 5, withdraw the cork from the bottle in unbroken condition.

After introduction of the extractor into the bottle should it be discovered that the arms 5 are of too great a length for the width of the bottle-neck the sleeve 7 may be readily returned to locking position relative to the stem with the effect to again move the arms 5 to inoperative position, and the cork may be removed by the use of the corkscrew 3 in the usual manner or the implement wholly removed from the cork and the latter extracted in any other manner. This particular construction provides a means by which the device may be removed without effecting the cork, if such is desired—a material advantage over devices of a similar character and heretofore in use.

Having thus described the invention, what is claimed as new is—

A cork-extractor comprising a stem, arms connected therewith, means for projecting said arms to arrange them transverse the stem, a sleeve mounted for longitudinal movement on the stem, said sleeve being formed with diametrically-opposed openings to receive and engage the arms, means for preventing independent rotation of the stem, and means for locking the sleeve against independent longitudinal movement relative to the stem, the walls of the openings in the sleeve serving to engage the arms in the longitudinal movement of the sleeve and force said arms within the plane of the sleeve and against the tension of the arm-projecting means.

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

GENNARO SPARANO.

Witnesses:

DESIDERIO C. SANTANIELLO,
ANTONIO HADONNA.