

CORKSCREW.

1,012,931.

Fig. 1.

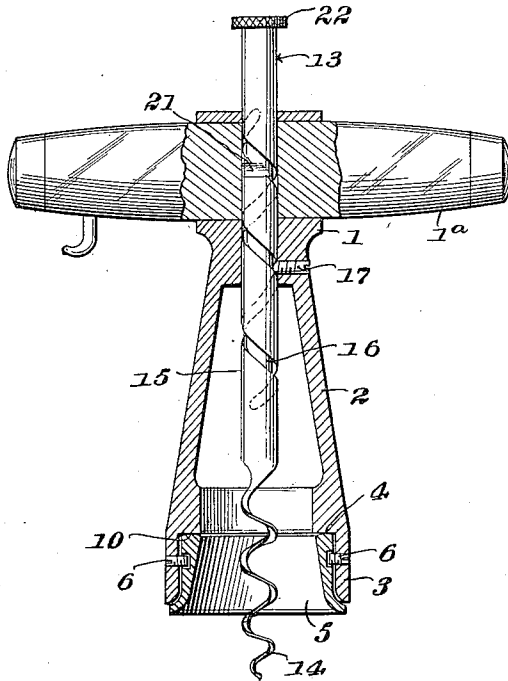
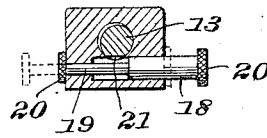
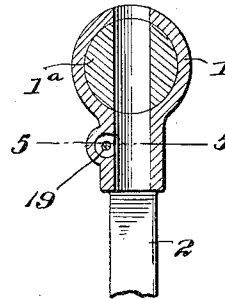


Fig. 5.



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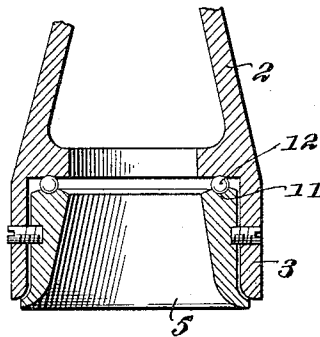
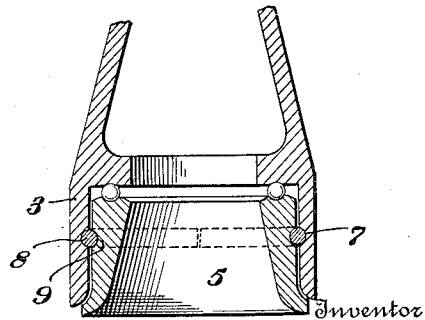


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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CORKSCREW.

1,012,931.

Specification of Letters Patent.

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Application filed February 10, 1910. Serial No. 543,134.

To all whom it may concern:

Be it known that I, DAVID McBAIN SYME, a citizen of the United States, residing at Newport, in the county of Newport and State of Rhode Island, have invented new and useful Improvements in Corkscrews, of which the following is a specification.

This invention relates to improvements in corkscrews, and the object is to provide a simple and effective construction of corkscrew by means of which a cork, no matter how tightly fixed in the bottle-neck, may be easily and readily drawn without clipping, cracking or breaking the bottle.

With the above object in view, the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claims, and clearly illustrated by the accompanying drawing, in which—

Figure 1 is a side elevation, partly in section of a corkscrew constructed in accordance with my invention; Fig. 2, a sectional view taken centrally through the handle with the screw removed; Fig. 3, a sectional view through the head of the corkscrew showing a modified form of bearing for the frame and ring; Fig. 4, a similar view showing a modified construction for retaining the ring and frame in rotatable connection, and Fig. 5, a sectional view taken on line 5—5 of Fig. 2, the shank of the screw being shown.

In carrying out my invention, I provide a frame consisting of a head 1 having a transversely-extending bore to receive a handle 1^a, and a yoke 2 extending therefrom and carrying an annular head 3 having at its inner end, a shoulder 4 which is disposed on the inside of said head.

Arranged in the head is a ring 5 which is rotatably connected with the head by pins or screws 6 which are carried by the head and extend into an annular groove formed in the ring. Instead of this pin and groove connection, the ring may be rotatively connected with the head by the construction shown in Fig. 4. In this instance the head is formed with an annular groove 7 to receive a split spring ring 8 which is carried in an annular groove 9 in the ring. The ring is of such normal size as to project from the groove of the head, the spring ring is forced entirely into the groove of the ring, until the groove

of the head is reached, when it springs partially out of the groove of the ring and into that of the head, thus holding the frame and ring rotatively together. It will be understood that there are many ways in which the ring and frame could be secured together, so that one will rotate on the other, and I do not limit my invention to the specific structure shown and described.

The inner edge of the ring where it contacts with the shoulder of the head is crowned, as indicated by the numeral 10, so as to reduce the bearing surface and insure the free and easy rotation of the frame on the ring regardless of the angle at which the corkscrew may set with relation to the bottle-neck, which is essential in order to draw the cork easily and readily.

Instead of providing the bearing between the head and ring, the shoulder of the head and the inner edge of the ring might be provided with grooves or ball-races 11 to receive anti-friction balls 12, as shown in Fig. 3.

The ring at its outer end projects beyond the outer-edge of the head and is flared to extend in front of said outer-edge of the head, thereby preventing the latter from coming in contact with the neck of the bottle.

The numeral 13 designates the screw which comprises a screw-portion 14 and a stem or shank 15 with which it is integral. The stem is movable through the handle, a suitable perforation being formed in the latter, and said stem is formed with a spiral groove 16 in which a screw 17 carried by the frame, projects, so that the movement of the screw to draw the cork is effected when the frame is rotated on the ring. The frame adjacent to the handle is formed with a transversely-extending perforation of two diameters, to receive a locking sliding-pin 18 reduced in diameter for a portion of its length as indicated by the numeral 19 and having at each end, a knurled head 20. The stem of the screw is cut-out on one side near its upper end as indicated at 21, so that when it is in its lowermost position with its head 22 resting on the handle-portion, said cut-out portion or recess is in position to receive the larger portion of the locking-pin when the latter is pushed in as shown in dotted lines in Fig. 5.

In operation, the locking-pin is placed in

engagement with the stem of the screw, locking the latter to the handle and frame. The lower portion of the screw is entered in the cork and said screw screwed into the cork as with an ordinary corkscrew, and the edge of the ring brought in contact with the upper edge of the bottle. The screw being released, by moving the locking-pin out of engagement with the hook, said screw is moved outwardly by revolving the frame on the ring, thus drawing the cork. By means of the almost frictionless bearing between the frame and ring, the former revolves freely on the latter at all times regardless of the angle of the screw with respect to the bottle thus requiring but slight effort to draw the cork and also preventing the turning of the whole article on the bottle neck and the consequent clipping or breaking of the latter.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States, is:—

1. A corkscrew comprising a revolving frame consisting of a handle, a yoke extending therefrom, an annular head carried by the yoke having an internal shoulder at its inner end, a ring fitting in said head and projecting beyond the outer end of the head, means for rotatively securing said ring in the head, said ring having its inner edge which contacts with the shoulder of the head crowned, and a screw the longi-

tudinal movement of which is effected by the rotation of the frame.

2. A corkscrew, comprising a revolving-frame having a handle, a yoke extending therefrom, a head carried thereby formed with an annular groove and with a shoulder at its inner end, a ring fitting in the head and projecting beyond the outer end of the head, means for rotatively securing the ring in the head comprising a split spring ring carried in a groove in the ring and adapted to engage in the groove in the head, an anti-friction bearing between the inner edge of the ring and the shoulder of the head, and a screw the longitudinal movement of which is effected by the rotation of the frame.

3. A corkscrew comprising a revolving frame, a screw the longitudinal movement of which is effected by the rotation of the frame, said frame being formed with a transversely-extending perforation of two diameters and the shank of said screw with a transversely-extending recess near its upper end, and a locking-pin of two diameters slidable in said perforation of the shank, the larger portion of said pin adapted to engage in the recess of the shank when the screw is in its lowermost position.

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

DAVID McB. SYME.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."