

No. 836,711.

PATENTED NOV. 27, 1906.

S. ROTHSCHILD.
COMBINATION TOOL.
APPLICATION FILED JULY 21, 1906.

2 SHEETS—SHEET 1.

Fig. 1

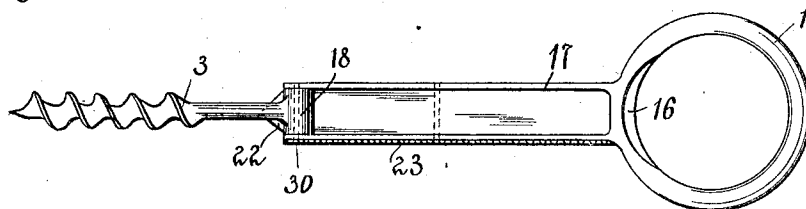


Fig. 2

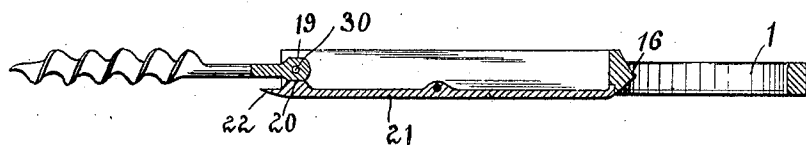
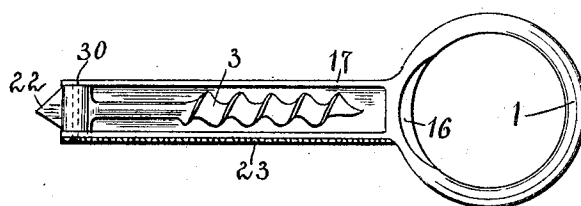


Fig. 3



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4

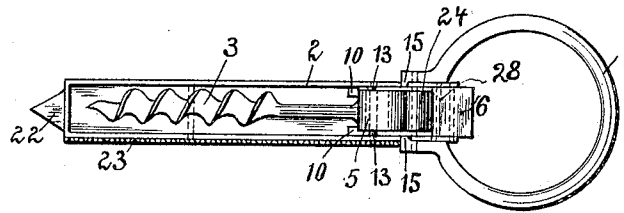


Fig. 5.

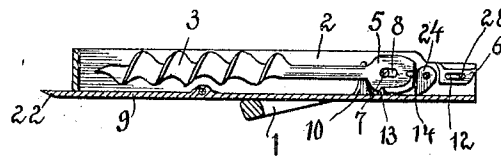


Fig. 6

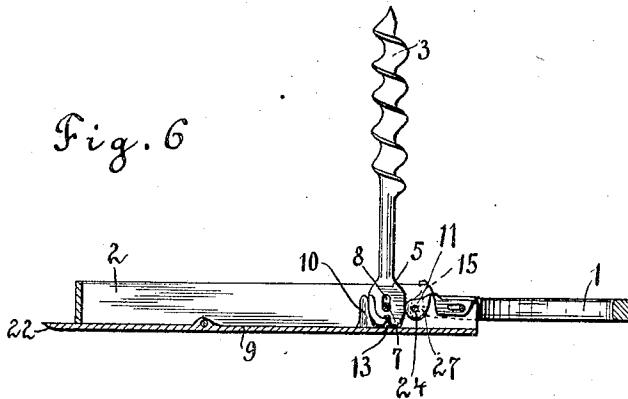


Fig. 7

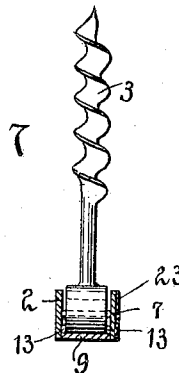
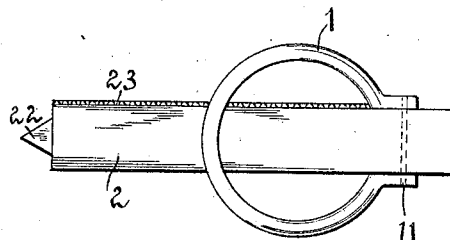


Fig. 8



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UNITED STATES PATENT OFFICE.

SAMUEL ROTHSCHILD, OF LITTLE FALLS, NEW YORK.

COMBINATION-TOOL.

No. 836,711.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed July 21, 1906. Serial No. 327,112.

To all whom it may concern:

Be it known that I, SAMUEL ROTHSCHILD, a citizen of the United States, and a resident of Little Falls, State of New York, have invented a new and useful Improvement in Combination-Tools, of which the following is a specification.

My invention relates to a combination-tool for opening bottles.

10 The invention consists in providing a combination-tool for undoing wire often found for securing corks in bottles, a means for pulling the cork, and a means for removing caps found on bottles.

15 The invention also consists in providing a folding corkscrew and a means for automatically locking the said corkscrew when used.

The invention also consists in providing a folding corkscrew and a folding ring for removing caps, the said ring having a movable engaging catch, the said corkscrew having a head adapted to lock the corkscrew when operated upon and to lock the said movable catch.

25 The invention also consists in providing a folding combination-tool having a corkscrew which has a cam-shaped head which is adapted to operate upon a catch to force it to an engaging position when the corkscrew is folded and to operate upon a spring when the corkscrew is in another position and a means for locking the corkscrew when the said spring is operated upon.

35 The invention consists in other features described in the following description, illustrated in the drawings, and set forth in the claims.

Referring to the drawings, Figure 1 illustrates a top view of my combination-tool. Fig. 2 illustrates a side view, and Fig. 3 illustrates the said tool when open. Figs. 4, 5, 6, 7, and 8 illustrate a modification of my invention. Fig. 4 illustrates a top view of the modification. Fig. 5 illustrates a sectional view showing the tool closed. Figs. 6 and 7 illustrate sectional side view and end view, respectively, showing the corkscrew open. Fig. 8 illustrates the back of the tool, showing the ring closed.

50 Referring to Fig. 1, 1 indicates a ring for the purpose of removing caps from bottles. The ring has on its inner side a blunt edge 16. The ring is attached to a handle 17. The ring may be inserted over the top of the bottle and in the manner well known in the art. The handle 17 may be raised, the edge 16 en-

gaging the projecting or fluted points of the cap and the opposite side of the ring operating as a fulcrum, and the cap can be lifted from the bottle.

60 To the other end of the handle is attached a corkscrew 3. The corkscrew 3 is secured to the handle by means of the pivot-pin 30. The head 18 of the corkscrew is flattened at points 19 and 20, located on opposite sides of the head. A spring 21 is adapted to press against the head 18. When the corkscrew 3 is opened or closed, the flattened portions of the head are operated upon by the spring 21, which prevents the screw from shutting or opening unless it is positively opened or closed by the hand. The spring 21 extends out beyond the handle 17 and is brought to a point 22. If it is desired to open a bottle which is held closed by means of a wire, the wire may be first removed by prying it off by means of the point 22.

75 A saw or file 23 may be also located on the side of the tool for cutting wire or for other purposes.

80 The operation of the tool is simple. If the cork of the bottle is held closed by means of a wire, it is removed by the point 22, and the cork is removed by means of the screw 3. The device can, moreover, be folded up and conveniently inserted in the pocket.

85 In the modification illustrated in Figs. 4 to 8, inclusive, a folding ring 1 is provided, which is pivoted to the shell or handle 2 by means of pin 11, which extends through the shell. The ring is provided with two lugs 15, which extend toward each other and are located in front of the handle when the ring is opened. The lugs 15 extend over the edges of the handle or shell 2, so that when the ring is opened, as illustrated in Fig. 6, the lugs prevent further movement of the ring 1 with respect to the handle 2.

90 The corkscrew 3 is provided with a head 5. The head 5 is oblong and is provided with a slot 8, extending lengthwise of the head. A pin 7 extends through the head and is secured to the side of the shell or handle 2. The position of the screw is controlled by the spring 9, which has a lug 10 extending upward and on either side of the shank of the screw 3. When the screw 3 is closed, the lug 10 pushes the head 5 against the cam 24.

95 When the screw is opened, the spring 9 is pressed downward by the operation of the cam 5 until the flat end of the head comes in contact with the spring 9, when the screw

will extend at right angles to the shell. Also the head is pressed upward, so that the pin 11 will be located in the lower end of the slot 8. The shell 2 is provided with lugs 13 13, located on opposite sides of the spring 9. The head 5 is provided with notches 14 14, which are adapted to register with the lugs 13. When the screw is open and is about to be inserted in a cork and pressure is brought to bear on the back of the handle 2 and the ring 1, the head 5 presses against the spring 9, forcing it back and allowing the lugs 13 13 to enter the notches 14 14 and lock the screw in position, thus automatically preventing any doubling of the screw upon the hand when pressure is applied thereto.

A movable catch 6 is located in one end of the shell and is guided thereby. The said catch may be provided with a slot 12, having a pin 23 inserted therein to limit the motion of the said catch. The catch is operated by the cam 24 and the cam or head 5. The cam 24 is attached to a pin 11, which is located in a slot 27, formed in the shell or handle of the combination-tool. The cam 24 being thus supported by a pin which is located in the slot formed in the shell may be moved lengthwise of the shell by the operation of the head of the screw. When the screw is closed in the shell, the head pressing against the lug 10 forces the head toward one end, it moving relative to the pin located in the slot 8, and forces the pin 11 of the cam 24 to the end of the slot 27. The pin 11 is attached to the ring 1 and is turned therewith. The ring 1 is provided with inwardly-extending lugs 15 15, which extend over the edges of the shell or handle of the combination-tool and operate to limit the movement of the ring 1, as shown in Figs. 4 and 6. When the ring 1 is closed, the short diameter of the cam 24 comes in line with the axis of the screw and the long diameter of the head of the screw. The catch 6 can then be easily pressed into the shell or handle, or, indeed, it may be dropped in by merely turning the handle vertically. When, however, the corkscrew is closed and the ring 1 is open, the long diameter of both cams is in line with the catch 6, and the catch 6 is forced out of the handle or shell. When, however, the screw is open and the ring is open, the short diameter of the head of the screw is in line with the long diameter of the cam of the ring, and the catch 6 will not be forced from the handle. This prevents any injury being done the hand while screwing the screw into a cork of a bottle. The catch 6 being sharpened at its outer end, the ring, together with the handle, may be used for removing caps from bottles. This is done in the manner well known in the art by merely placing the ring over the cap and placing the edge of the catch 6 underneath the fluted points of the cap and then lifting the handle.

When the screw is open and is to be used

in connection with removing a cork and the ring is also opened to increase the size of the handle for the purpose of operating the screw, the short diameter of the cam forming the head of the screw will then be in line with the sharpened catch 6 and the said catch will not be pushed out of the shell or handle. This will prevent the hand from being injured in the process of screwing the screw into a cork and in removing the cork. When the screw is closed and the ring is closed, the catch 6 will drop to its position within the shell and the tool may be folded into a small compass, the spring 9 operating to keep both the screw and the ring closed, which permits it to be inserted in the vest-pocket of the user.

The tool may also be used for the purpose of removing wire used for binding corks in bottles. The spring 9 is made so that the end 4 extends out beyond the shell and is formed into a point. The point may be inserted in the wire and the latter easily removed.

The invention may be modified by those skilled in the art without departing from the spirit thereof.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a combination-tool the combination of a handle having a spring, a ring pivotally mounted on said handle, and an engaging device located in the said handle and adapted to be moved into an engaging position upon opening the said ring.

2. In a combination-tool the combination of a handle, a corkscrew mounted in the said handle, a ring mounted on the said handle and an engaging catch adapted to be controlled by the said ring and the said corkscrew.

3. In a combination-tool the combination of a handle, a corkscrew mounted in the said handle, a ring mounted on the said handle, an engaging device located in the said handle and adapted to be brought in engaging position when the said corkscrew is closed and the ring is open.

4. In a combination-tool the combination of a handle, a corkscrew mounted in the said handle, a ring mounted on the said handle, an engaging device located in the said handle and adapted to be brought in engaging position when the said corkscrew is closed and the ring is open but to remain closed when the corkscrew and the ring are closed and when the corkscrew is open and the ring is open.

5. In a combination-tool the combination of a handle, a corkscrew mounted in the said handle, a ring mounted on the said handle, an engaging device controlled by the said corkscrew and the said ring, a spring for controlling the said corkscrew and the said ring.

6. In a combination-tool the combination of a handle having a spring, a corkscrew mounted in the said handle, the said cork-

screw adapted to be locked to the said handle when the same is pressed in the use thereof, a ring attached to the handle and adapted to be folded against the same, a movable catch
5 adapted to be controlled by the head of the corkscrew.

7. In a combination-tool, the combination of a handle having a spring, a ring pivotally mounted on the said handle, an engaging device
10 vice located in the said handle and adapted to be moved into an engaging position upon

opening the said ring and lugs located on the said ring and adapted to limit the movement of the said ring.

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

SAMUEL ROTHCHILD.

Witnesses:

F. F. CRAMPTON,

V. N. HOPPING.