

(No Model.)

2 Sheets—Sheet 1.

W. A. WILLIAMSON.  
CORKSCREW.

No. 587,900.

Patented Aug. 10, 1897.

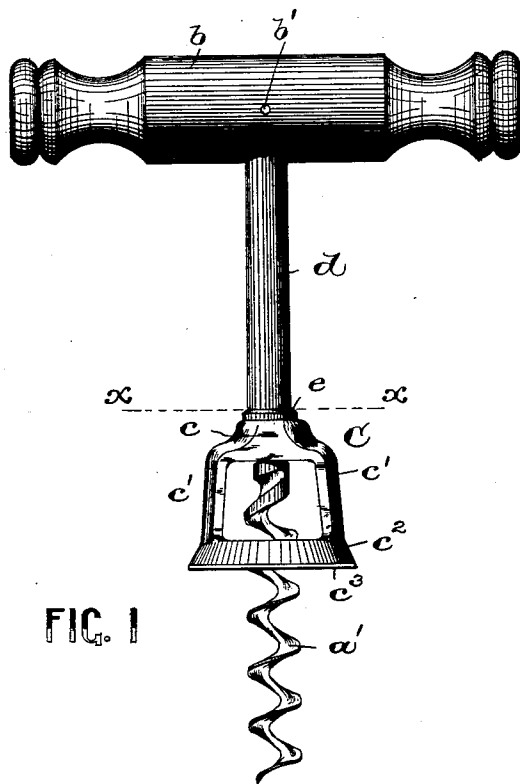


FIG. 1

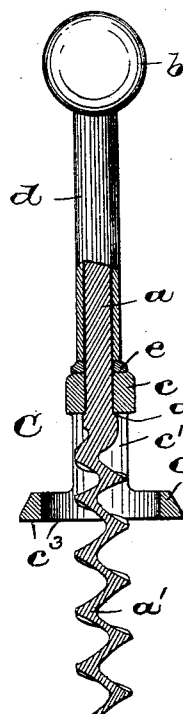


FIG. 2

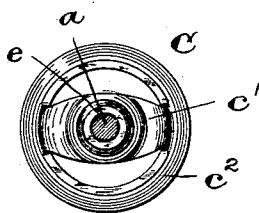


FIG. 3

WITNESSES:

*John H. Canfield Jr.*  
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INVENTOR:

WILLIAM A. WILLIAMSON,

BY  
*Fred C. Graentzel,*  
ATTORNEY

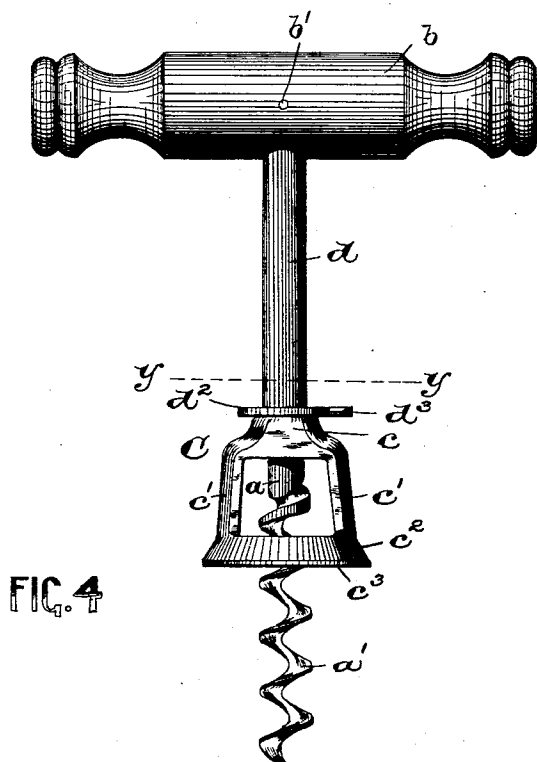
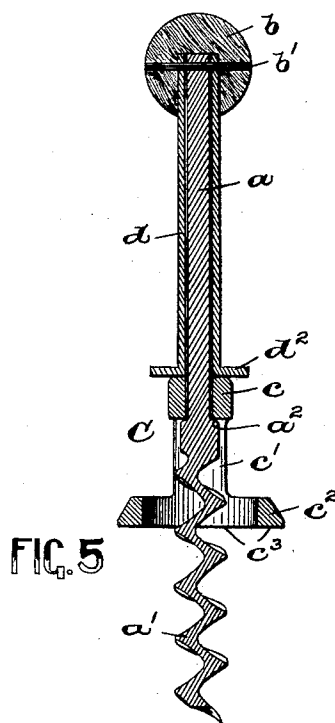
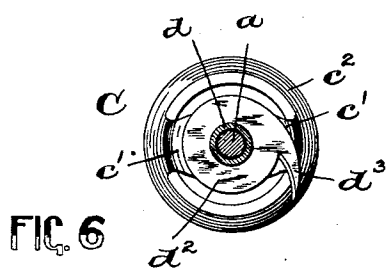
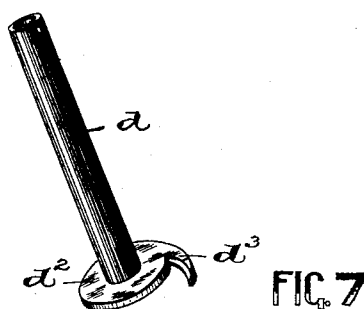
(No Model.)

2 Sheets—Sheet 2.

W. A. WILLIAMSON.  
CORKSCREW.

No. 587,900.

Patented Aug. 10, 1897.



WITNESSES:

*John H. Dwyer*  
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# UNITED STATES PATENT OFFICE.

WILLIAM A. WILLIAMSON, OF NEWARK, NEW JERSEY.

## CORKSCREW.

SPECIFICATION forming part of Letters Patent No. 587,900, dated August 10, 1897.

Application filed December 8, 1896. Serial No. 614,916. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. WILLIAMSON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Corkscrews; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has reference to that class of corkscrews provided with a yoke which when it comes in contact with the annular edge of the mouth of a bottle as the screw is continued to be turned will cause the cork to be loosened from within the neck of the bottle and will turn it up into said yoke with but little difficulty.

The object of this invention therefore is to provide a corkscrew of this character having a yoke loosely arranged on the shank of the corkscrew, said yoke having a flat surface which can be brought to bear firmly upon the edge of the mouth of the bottle, whereby the screw portion is turned in a vertical direction through the center of the cork and causes its withdrawal from the bottle without any binding action and the disintegration of the cork.

Another object of this invention is to provide a corkscrew having a washer of a hard metal arranged between the top of the yoke and the lower edge of a tube on the shank of the corkscrew which overcomes the danger of the wearing-off or the burring of the lower part of said tube or the upper portion of the yoke caused by the frictional contact between the lower end of the tube with the yoke against which said end rotates.

Other objects of this invention will be clearly evident from the description of the accompanying specification.

This invention therefore consists in the novel construction of corkscrew and also in the arrangements and combinations of the several parts thereof and such details of construction as will be hereinafter fully set forth,

and finally embodied in the clauses of the claim.

The invention is clearly illustrated in the accompanying sheets of drawings, in which—

Figure 1 is an elevation of the corkscrew provided with a washer between the yoke and the tube arranged on the shank of the corkscrew. Fig. 2 is a longitudinal vertical section; and Fig. 3, a horizontal section of the same, taken on line *x* in said Fig. 1. Fig. 4 is a view of the corkscrew similar to that illustrated in Fig. 1, but showing the tube and washer combined in one piece and the latter provided with a cutter. Fig. 5 is a longitudinal vertical section of the same; and Fig. 6 is a horizontal section taken on line *y* in said Fig. 4. Fig. 7 is a perspective view of said combined tube, washer, and cutter.

Similar letters of reference are employed in all of the above-described views to indicate corresponding parts.

In said drawings, *b* indicates a suitable handle, preferably made of wood and of any desired shape and ornamentation, in which is secured, by means of a suitable pin *b'* or in any other well-known manner, the shank *a*, provided with the screw portion *a'*. Said shank *a*, as will be seen from Fig. 2, is provided with an enlarged part forming a shoulder *a''*, on which is rotatively arranged the perforated hub or collar *c* of a yoke *C*. Connected with the two downwardly-extending arms *c'*, formed integral with said hub or collar *c*, is an annular rim or support *c''*, having its under surface *c'''* made flat, as shown, so that it will rest squarely upon the upper edge of the mouth of the bottle and will thus cause the screw portion *a'* to be forced into and through the cork in a vertical direction. In the manufacture of this form of corkscrew said yoke is placed upon the shank *a* before the latter is secured at its upper end to the handle *b*, and a suitable tube *d* is then slipped over said shank, as indicated more especially in Fig. 2. The upper end of said tube *d* is forced into the opening formed in the handle *b*, where it is held by the tight fit, which prevents its turning on the shank *a*, or said tube *d* may be made of the same length as the shank *a* and provided with perforations cor-

responding to the perforation in the end of the shank, and both said shank and tube can then be permanently secured in the handle *b* by means of the pin *b'*, as clearly illustrated in Fig. 5.

The operation of the corkscrew to draw a cork is as follows: The screw portion *a'* is forced into the cork in the usual manner; and upon entering the cork will soon bring the flat surface *c<sup>3</sup>* of the yoke down upon the edge of the mouth of the bottle, whereupon the cork is loosened in the neck of the bottle by continuing to turn the screw, and the cork is then forced up between the arms *c'* of the yoke until entirely withdrawn from the neck of the bottle.

In the construction of corkscrews as heretofore made, in which the lower edge *d'* of the tube *d* is made to turn directly upon the hub or collar *c* of the yoke *C*, I have found that the friction between the two metallic surfaces will cause the hub or collar to become worn, or it will cause the end of the tube *d* to be burred, which might render the device inoperative after constant use. To overcome this serious objection, I have placed upon said shank *a* and between the upper surface of the hub or collar *c* of the yoke *C* and the lower edge of the tube *d* a washer *e*, which turns upon the upper surface of said hub or collar *c* when the corkscrew is forced into the cork, and by the increased area of the two surfaces working against each other all possibility of the parts becoming worn is obviated and the danger of rendering the corkscrew inoperative is entirely overcome.

In some instances the washer may be formed integral with the tube *d*, as at *d<sup>2</sup>*, and may be provided with a cutter *d<sup>3</sup>*, as clearly illustrated in Figs. 4, 5, 6, and 7; but said washer *d<sup>2</sup>* may be made independent from said tube *d* and may be soldered fast to the end thereof, or it may be otherwise secured to said tube *d*, as will be clearly understood.

Having thus described my invention, what I claim is—

1. A corkscrew comprising, a handle, a shank having a screw end and a shoulder immediately above said screw end, a yoke loosely and rotatively arranged on said shoulder, and an independent tube on said shank, immovably arranged between the upper portion of said yoke and the handle by having its upper end fixed in said handle, and a washer on said shank, between the upper surface of said yoke and the lower end of said tube, substantially as and for the purposes set forth.

2. A corkscrew comprising, a shank having a screw end and a shoulder, a yoke rotatively arranged on said shoulder, an independent tube on said shank, and a washer on said shank between said yoke and the one end of said tube, substantially as and for the purposes set forth.

3. A corkscrew comprising, a shank having a screw end and a shoulder, a yoke *C* on said shoulder, consisting, essentially, of a hub or collar *c*, arms *c'*, and an annular rim or support *c<sup>2</sup>*, having a flat under surface *c<sup>3</sup>*, an independent tube on said shank, and a washer on said shank between the hub or collar of said yoke and the one end of said tube, substantially as and for the purposes set forth.

4. A corkscrew comprising, a shank having a screw end and a shoulder, a yoke rotatively arranged on said shoulder, a tube on said shank, a washer on said shank, and a cutter on said washer, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 5th day of December, 1896.

WILLIAM A. WILLIAMSON.

Witnesses:

FREDK. C. FRAENTZEL,  
WM. H. CAMFIELD, Jr.