

(No Model.)

W. R. CLOUGH.

CORKSCREW.

No. 302,321.

Patented July 22, 1884.

Fig. 1.

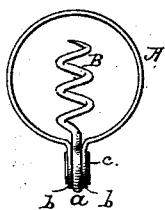


Fig. 2.

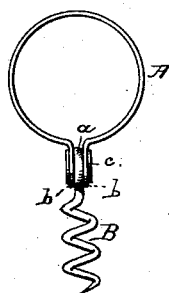


Fig. 9.

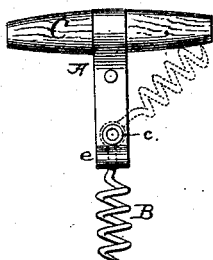


Fig. 3.

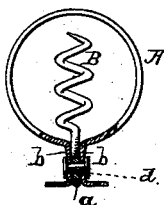


Fig. 4.

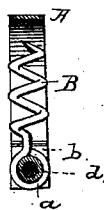


Fig. 5.

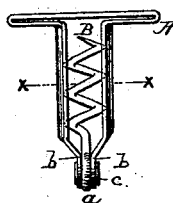


Fig. 10.

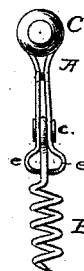


Fig. 11.



Fig. 6.



Fig. 8.

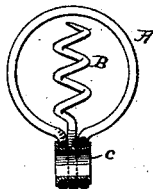


Fig. 7.



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# UNITED STATES PATENT OFFICE.

WILLIAM R. CLOUGH, OF BROOKLYN, NEW YORK.

## CORKSCREW.

SPECIFICATION forming part of Letters Patent No. 302,321, dated July 22, 1884.

Application filed December 26, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. CLOUGH, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Corkscrews, of which the following is a specification.

The invention relates to improvements in corkscrews, and particularly to that class of corkscrews designed for extracting the stoppers from small vials.

The object of the invention is to produce a small corkscrew of improved construction at a reasonable cost, and one which is attractive in appearance and adapted for immediate use without danger of injuring the finger of the user.

The object of the invention is, further, to provide a folding corkscrew, which may with safety be carried in the pocket, and the separate parts of which—namely, the handle and screw—may be separately treated according to their special requirements, and afterward combined to produce a completed article.

In the manufacture of corkscrews the handle thereof frequently requires fine finishing, while the screw or worm must be properly tempered. These two processes are of course entirely different from each other. In the corkscrews in which the handle and screw are formed of one piece of wire it frequently occurs that the tempering of the screw precludes the possibility of working the handle into any ornamental configuration, and it has not been unusual, in order to preserve the handle in condition for further treatment, that the tempering of the screw has been slighted. The present invention remedies these objections by producing an article the screw of which may be subjected to the tempering process without regard to the handle, and the latter may be worked as desired without reference to the treatment of the screw.

The particular advantages of the invention and of the details of construction will appear in full hereinafter.

The invention which is the subject of this application is an improvement upon the corkscrew patented to me on the 6th day of April, 1875.

Heretofore corkscrews of the class to which

the invention pertains have been made from a single piece of wire twisted to form a ring-handle, a shoulder or stop, and a worm or screw, and in order to prevent as far as possible the handle from cutting the finger during the extraction of a stopper it has been flattened in line with its width at its upper part, as shown in Letters Patent No. 242,602, granted to me on the 7th day of June, 1881. It is a fact, however, that in the employment of the most desirable size of wire for the manufacture of the article the handle cannot be sufficiently flattened to avoid hurting the finger, and hence it has often been necessary in the construction of the wire goods to employ heavy material for the sake of securing as much width as possible to the handle. As a consequence, the worm was much too bulky for small stoppers and the article rendered unseemly and expensive, besides the defect was only partially remedied.

To obviate the foregoing as well as other objections is the purpose of the present invention; and to this end my invention consists, essentially, first, of a corkscrew formed of a flat metallic band-handle and a worm or screw, the ends of the handle being rigidly secured with relation to each other; secondly, of a corkscrew composed of a flat metallic band-handle and a folding screw or worm connected therewith, the ends of the band being rigidly secured with relation to each other by the same means which unite the screw to the handle; and, thirdly, of certain details of construction specified hereinafter.

The invention will be more fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a corkscrew embodying the elements of the invention, the screw being folded into the handle. Fig. 1<sup>a</sup> is a detached side view of the eyelet which secures the ends of the handle and the screw. Fig. 2 is a similar view to Fig. 1, the screw in this instance, however, being extended. Figs. 3 and 4 represent a plan and section of an embodiment of the invention. Fig. 5 is a plan view of a modified construction, of which Fig. 6 is a transverse section on the line *xx*. Fig. 7 is a top view. Fig. 8 is a plan view, partly

in section, of a corkscrew the handle of which is made from a single piece of wire, the ends of the handle and the screw being secured by an eyelet. Fig. 9 is a plan view of a corkscrew embodying the invention sought to be protected hereby. Fig. 10 is an edge view of same; and Fig. 11 is a view looking at the lower end of the metallic part of the handle, the worm being in section.

In Figs. 1 to 7, A denotes the handle, and B the worm or screw. The handle consists of a broad metallic band, the ends of which project therefrom in parallel planes and have secured between them so as to fold, when desired, the worm or screw B. The worm or screw B consists of a piece of wire coiled in the usual manner, its shank end being formed into an eye, *a*, which rests between the projecting ends *b* of the handle A, being there secured by an eyelet, *c*, as shown in all of the figures except Figs. 3 and 4, in which the screw is secured to the handle by means of a rivet, *d*. The eyelet or the rivet, when the latter is employed, holds the two ends of the handle rigidly with relation to each other and secures the screw in place. In Fig. 3 the extremities of the ends *b* of the handle are turned outward horizontally, as indicated, and when thus arranged they form a suitable stop, which will come in contact with the cork when the screw has been inserted therein. In this figure, also, the rivet *d* is employed to secure the screw and handle, and, as shown in Fig. 4 more distinctly, the rivet passes through a small washer, which is inclosed by the eye formed upon the shank end of the screw or worm B.

The device illustrated in Fig. 5 is different from the other embodiments of the invention only in the shape of the handle, which, instead of being circular, is bent to form vertical sides and a horizontal top. The sides, however, are given a concave form, so that when the screw is folded it may be sprung between them and held in the concavity.

In Fig. 8 I illustrate the eyelet securing the two ends of a wire handle and the screw. The ends of the wire forming the handle are bent into eyes corresponding in size to the eye formed in the shank end of the screw, and through these eyes is inserted and secured the eyelet *c*.

In Figs. 9, 10, and 11 I have shown the band-handle A with an elongated shank or ends, and inclosing in its upper part a wooden supplemental handle, C, to assist in extracting the corks from large bottles. The screw is secured between the sides of the handle by means of an eyelet or rivet, which, in addition to holding the same, prevents lateral expansion of the said sides. Below the eyelet or rivet *c* the ends of the metal of which the handle is composed may be bent inward toward each other, forming springs which will clasp the shank of the screw when the latter is opened. This may be the construction of the ends of the metal band in any of the corkscrews illus-

trated. I have shown it, however, in Figs. 9 and 10 for purposes of explanation.

In Fig. 11 I illustrate the position of the ends of the handle with relation to the screw when said ends are formed into springs, as above described, and in said figure the ends of the handle are lettered *e*. The facing extremities of the ends *e* are beveled at their opposite edges, so as to permit the passage between them of the shank of the screw, and the said ends are provided at their center with cavities *f*, which serve as a pocket to receive the screw. The springs *e*, as aforesaid, may be constructed in any of the corkscrews illustrated for holding the shank of the screw when said screw is open—*i. e.*, folded from the handle. To provide a similar spring for securing the screw when folded into the handle, the upper portions of the projecting ends *b* need only be pinched or set toward each other a little nearer than the thickness of the wire of which the screw is formed, for under these conditions, when the screw is folded, the sides of the handle will be sprung slightly apart, and the tension which they will exert toward each other will be sufficient to hold the shank of the screw. An illustration of this is shown in Fig. 5, where the sides of the handle are indicated as having been sprung apart to receive the screw B.

It will be noted without elaborate description that in the manufacture of any of the corkscrews described the handle and screw may be separately treated at will and afterward united; that the means which secures the screw to the handle retains at the same time the two opposite sides of the said handle in a rigid position with relation to each other, and that the handle may be of proper width to wholly avoid injuring the finger, and, owing to the ends of the loop or handle being rigidly secured, instead of being left free or loose, as with all other folding corkscrews, the weight of the handle may be materially decreased without sacrificing the needed strength and elasticity. The eyelet, when used as a rivet, also serves a very useful purpose in presenting a small opening for the insertion of cord or wire used by ink-makers and others to fasten the small screws to the neck of bottles.

Other advantages, which need not be specified in view of the foregoing description, will suggest themselves to those having a knowledge of the manufacture to which the invention relates.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cork-extractor consisting of a flat band-handle and a wire screw applied thereto.
2. A cork-extractor consisting of a flat band-handle and a worm or screw, the ends of the handle being rigidly secured with relation to each other, and the screw properly attached by same means.
3. A cork-extractor consisting of a flat

band-handle having its ends rigidly secured with relation to each other, and a worm or screw.

4. A cork-extractor consisting of a flat band-handle and a folding screw.

5. A cork-extractor consisting of a handle and a worm or screw, the latter being secured by means of an eyelet.

6. A cork-extractor consisting of a handle and a worm or screw, the latter having upon its upper end an eye through which is passed an eyelet or rivet which secures the said ends of the handle and permits the folding of the screw.

7. A cork-extractor consisting of a handle, and a screw secured between the ends thereof upon a rivet or eyelet, a portion of said ends either above or below said rivet or screw being projected or set inward, so as to serve as a spring for holding the screw when opened or closed.

Signed at New York, in the county of New York and State of New York, this 10th day of November, A. D. 1883.

WILLIAM R. CLOUGH.

Witnesses:

CHAS. C. GILL,  
HERMAN GUSTOW.