

(No Model.)

W. CRABB.
CORKSCREW.

No. 337,309.

Patented Mar. 2, 1886.

Fig. 1.

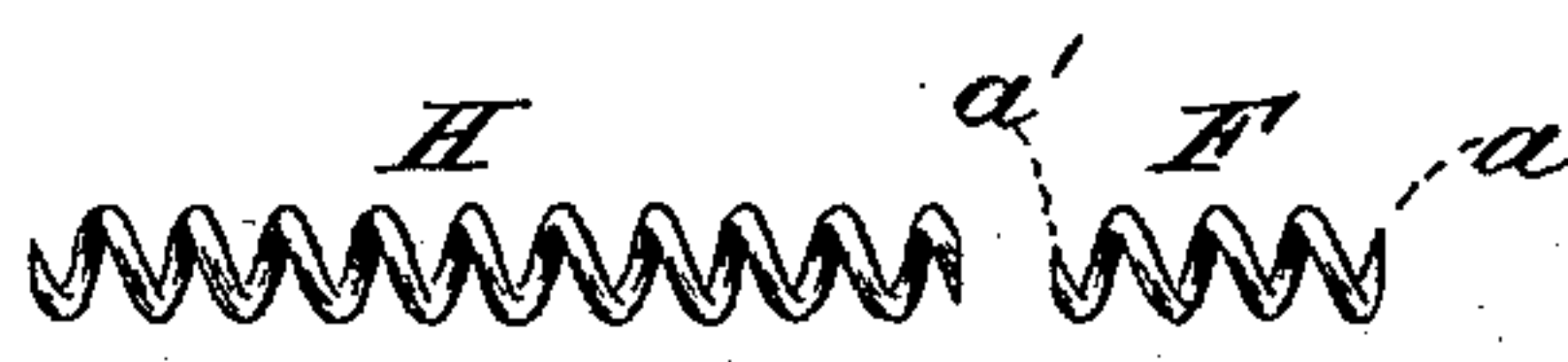
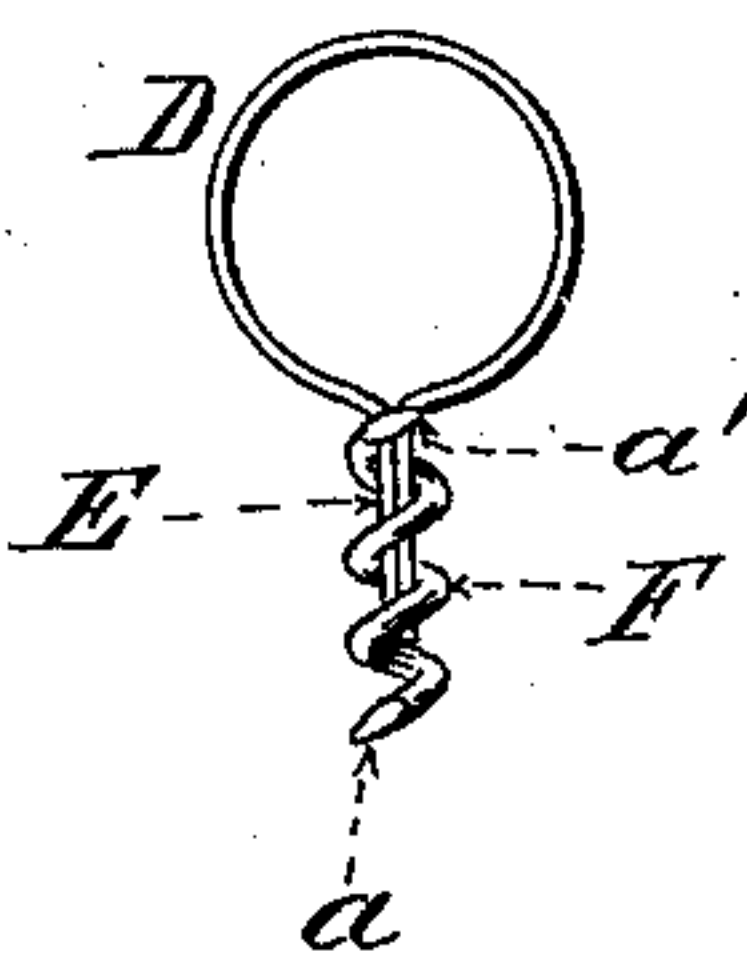


Fig. 2.

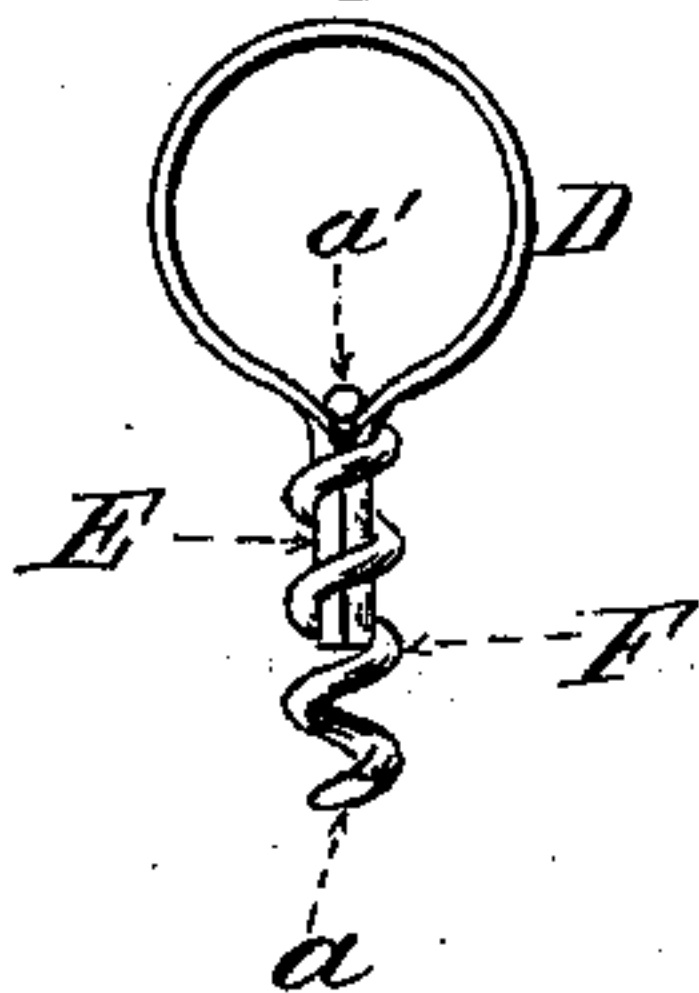


Fig. 3.

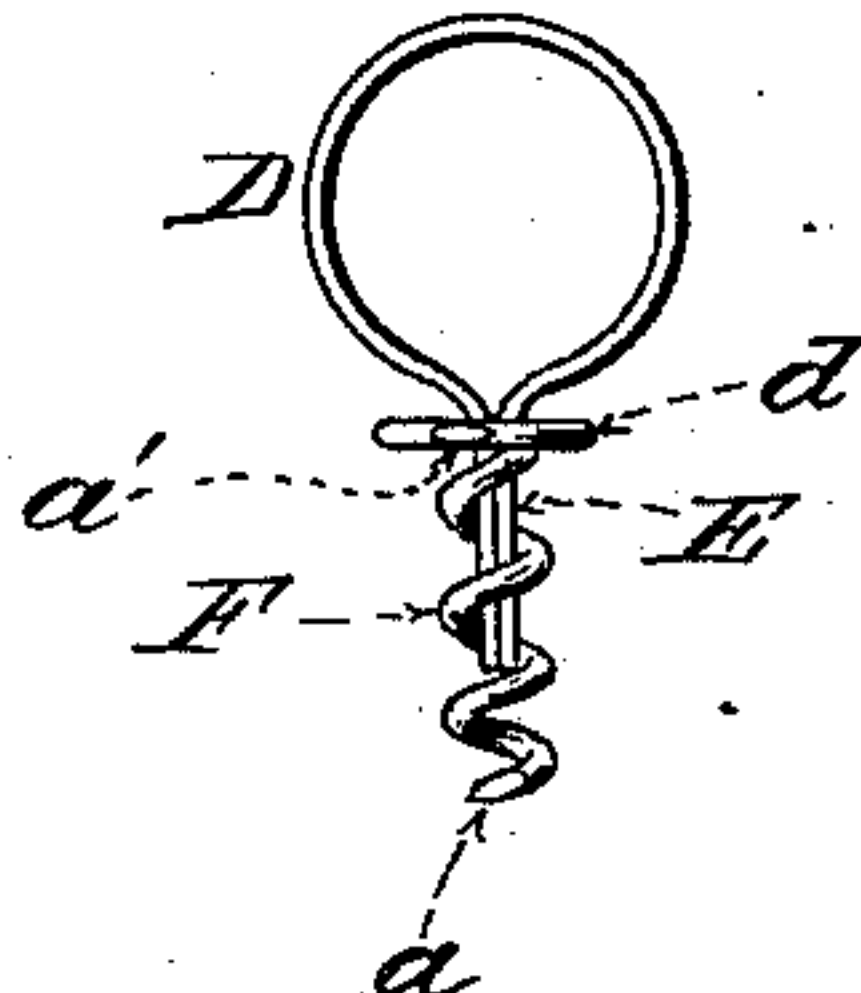


Fig. 4.

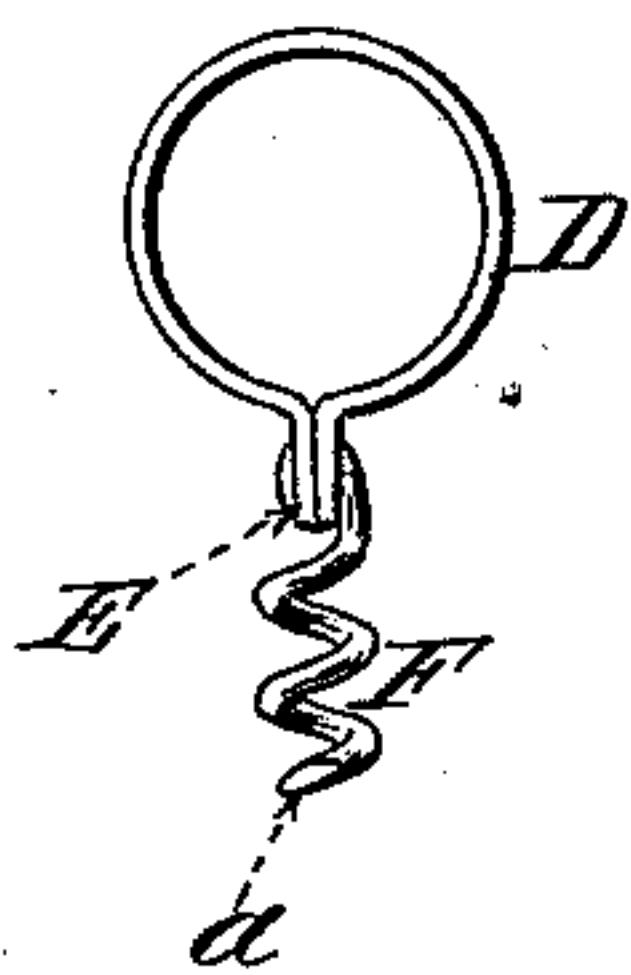
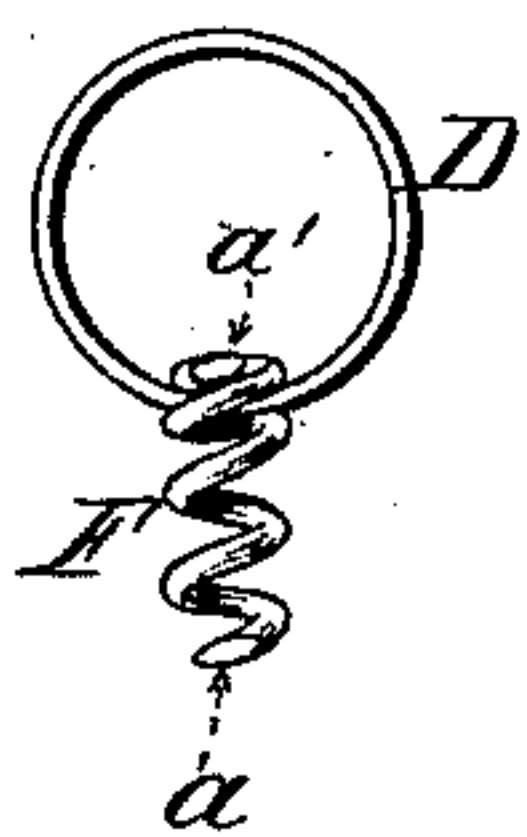


Fig. 5.



Witnesses:

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Inventor.

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CORKSCREW.

SPECIFICATION forming part of Letters Patent No. 337,309, dated March 2, 1886.

Application filed August 11, 1884. Serial No. 140,230. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CRABB, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Corkscrews, of which the following is a specification.

The invention relates to improvements in corkscrews, and more especially to that class of corkscrews used with medicine and ink bottles for extracting and handling their corks.

The object of the invention is to produce a corkscrew which shall possess all the necessary requirements and at the same time be inexpensive to produce. In short, the main object is to cheapen the cost of such articles, so that they may be more generally brought into use. I propose to effect a very material saving in the cost of manufacture by a new construction.

Heretofore corkscrews have been provided with a ground or forged point, the production of which forms quite a material proportion of the total cost, both owing to the actual cost of the grinding or forging and what is in most cases necessary, the special preparation of the wire for receiving such a point—as, for instance, in wire corkscrews the wire must be straightened and cut into lengths, in order to be ground, which would not be necessary to any other part of the process. Heretofore, also, in corkscrews the worms of same have been homogeneously extended at one extremity into either a shank, loop, or handle—i. e., the shank or a part of same, where a shank exists, and the handle or a loop, where the shank does not exist, is a continuation of the worm of the corkscrew and a part of the same piece. Such constructions are not well adapted to rapid manufacture. To overcome the above, as well as other objections, is the purpose of this invention.

It consists, first, of a corkscrew having a spirally-wound wire worm with a cut-scarf point, and, secondly, a corkscrew composed of a spirally-wound wire worm attached to a suitable handle, said handle having one or more projecting legs, which leg or legs are driven through or partially through the hollow center of the said wire worm for the purpose of securing the worm and handle together, and of preventing the free end of the

handle from being extended when the corkscrew is in use.

The invention will be better understood from the detailed description given below, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of what I consider the most approved construction of my invention. The handle D is in the form of a ring-staple, and the screw F is a wire worm, made from a piece of wire of proper length or cut from spiral H, uniform in diameter from end to end, and absorbing the entire length of wire. The loop or handle D is made from sheet-iron, tin, rolled wire, or any suitable material. The legs E, projecting therefrom, are driven into the hollow center of the worm F. The parts are held securely together by the tightness of the fit in driving in the legs, and, if necessary, the complete device or a portion is then tinned, which gives the corkscrew a bright and durable finish, and at the same time effects a soldered union of the parts, in which case it will, as is obvious, be unnecessary to observe a close, tight, or exact fit for the legs E. *a* and *a'* are the scarf-points of the worm.

As shown at H in Fig. 1, when sections of the spiral are cut off transversely, they constitute worms which without further manipulation will be complete and pointed at both ends, one of which serves as the corkscrew-point and the other a graduated and proper termination of the opposite extremity of the worm.

Fig. 2 illustrates a device in all respects like that shown in Fig. 1, except that the extremity at *a'* is made to embrace or clasp the handle D at or near the joint with its legs for the purpose of additional security in the union of the parts.

Fig. 3 represents a device the same in construction as that shown in Fig. 1, with the addition of the shoulder *d*, which is formed by the elongation of the wire at the upper extremity of the worm F', the same being wound into a flat spiral shoulder. It is obvious that the legs of the handle greatly strengthen the worm of the corkscrew; hence the latter may be made of considerably lighter wire than if it stood alone, as in corkscrews heretofore in use. This is another element of cheapness, and at the same time supplies a worm that

will enter the cork more easily, being of thinner wire.

Figs. 4 and 5 are modifications of my invention, embracing the cut scarf-point and showing where my process of lightly securing the parts and then tinning facilitates the production of the article, besides leaving well-finished work. In Fig. 4 the point a' is thrust through holes in the legs F and bent down onto the same, which holds the parts together. In Fig. 5 the legs E are omitted, and the extremities of the ring D are placed between the two upper coils of the worm, the latter then being pressed together so as to pinch the said extremities of the ring D.

In Figs. 4 and 5 the tinning process should be used, so as to more firmly bind the parts together. The same devices show the proper utilization of the scarf-points a and a' . The one constitutes a graduated and proper termination, and the other the corkscrew-point.

It will be found advisable in the manufacture of these stuffed worms to let the stuffing or core fall about one coil short of the entering end of the worm for the purpose of facilitating the draft of the worm in the cork. This forms a wire corkscrew-worm with a combined solid and open center. One objection found with wire corkscrews heretofore in use is that the worms are liable to breakage and distortion, owing to the necessity of using a wire of slender diameter. The stuffed wire worm can be made of much thinner wire than it has been heretofore possible to use. In fact, I have found that the stuffed worm may be made of iron wire, and needs no hardening beyond what the wire receives in its manufacture, while in the manufacture of the old style worms steel wire of good quality must be used and the same hardened and tempered to produce an article that will stand the test required, and, furthermore, when the stuffed worms are tinned, the great advantages of lightness and strength are powerfully increased.

The legs or core E may be flat, round, half-round, or of any other desired shape, or it may be tubular.

The forged or ground point for wire corkscrews described in the first part of the foregoing specification is illustrated in the patents to William R. Clough, No. 242,602, dated June 7, 1881, and No. 302,321, dated July 22,

1884, the former of which describes a corkscrew made of wire, and the latter a corkscrew consisting of a spiral worm and a tin-band handle. The patent to J. Barnes, June 27, 1876, describes a wire corkscrew in which both ends of the wire have ground or forged points and enter the cork. The patent to J. A. Smith, June 3, 1884, illustrates a corkscrew having a ground or forged point and a twisted wire shank, upon which is cast a metal handle. The patent of W. R. Clough, of April 6, 1875, shows a corkscrew made from a single piece of wire, one end forming the worm having a ground or forged point, and the other being bent into a handle, its extremity being wrapped around the first-mentioned end of the wire above the worm, forming a flat stop.

In most of the patents mentioned the corkscrews described are of an expensive nature, the wire must be of special strength and quality, and the points are ground or forged.

By the term "scarf-cut point" as used in this application I mean a point formed by cutting the wire diagonally to its length, whereby the operations of tempering, grinding, or forging, as well as other incidental operations, are obviated.

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

1. A corkscrew consisting of a worm and handle, the entering end of the worm terminating in a scarf-cut point, substantially as and for the purpose specified.

2. A corkscrew consisting of a worm and handle, both extremities of the worm terminating in a scarf-cut point, substantially as shown and described.

3. A corkscrew consisting of a wire worm and a handle, the worm having a sharp point and containing for a portion of its length a core or stuffing, substantially as and for the purposes described.

4. A corkscrew consisting of a worm having a sharp point, and a handle whose ends meet and form legs, the legs being inserted into the upper end of the worm, substantially as set forth.

WILLIAM CRABB.

Witnesses:

CHAS. H. MAYHEW,
HENRY BUCHMAN.