No. 697,587. Patented Apr. 15, 1902.

R. J. WILLIAMSON.

CORK EXTRACTOR.

(Application filed Feb. 23, 1901.)

(No Model.)

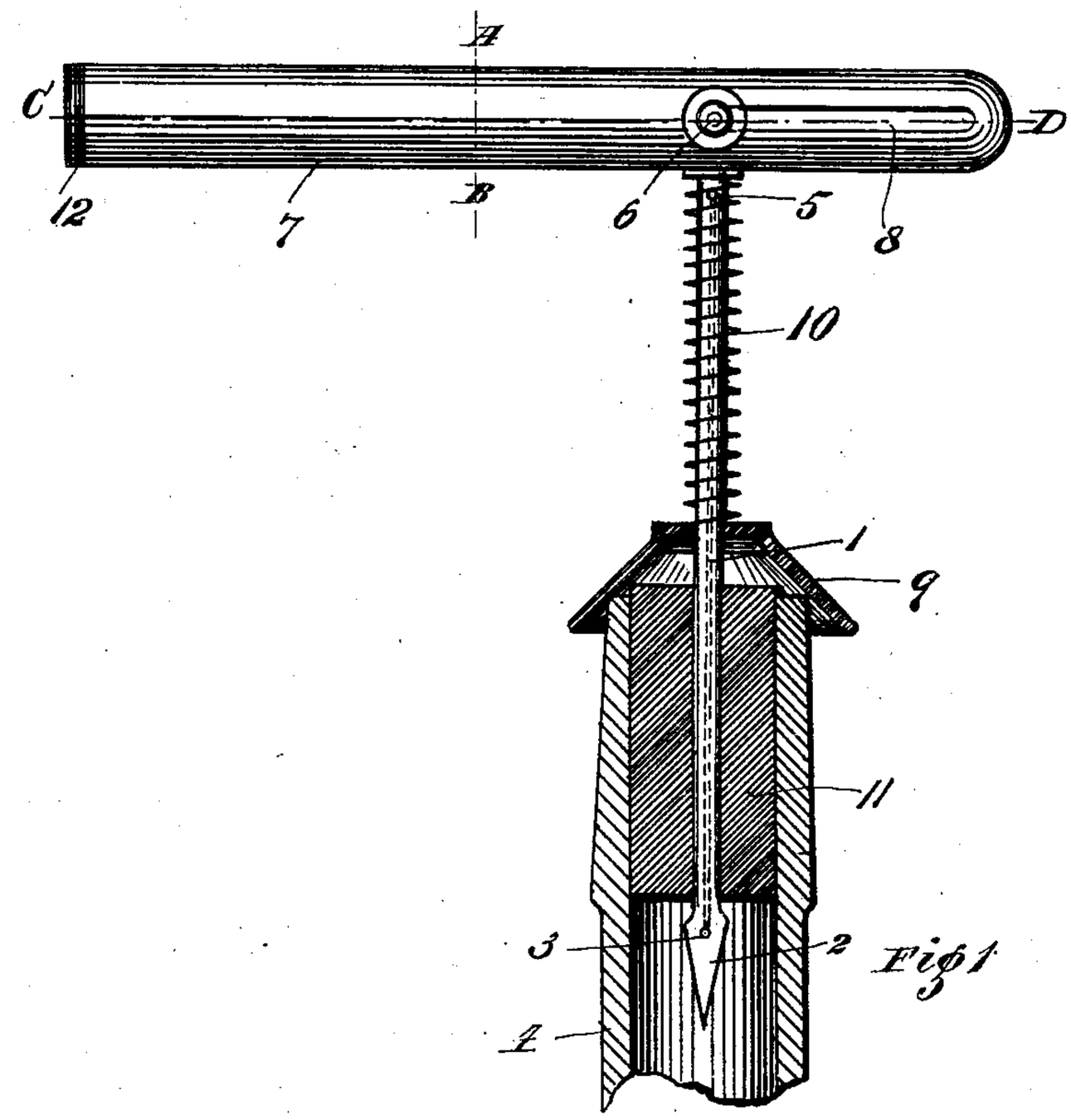

Fig 1

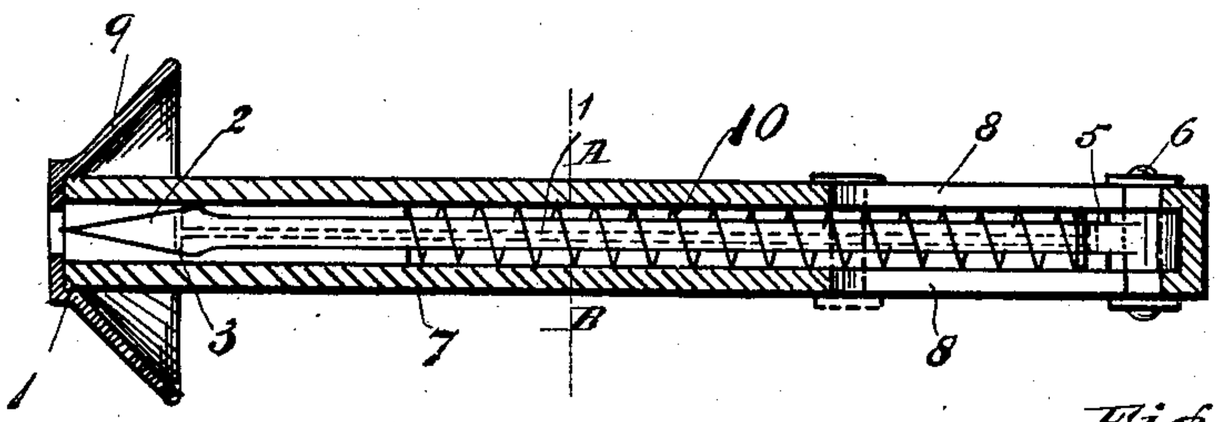

Fig 2

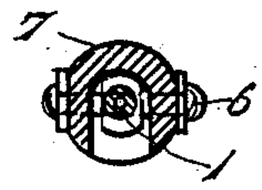

Fig 3

Witnesses

Wm. O. Morck

Jno. G. Thurtle

Inventor

Robert J. Williamson

By Thompson & Bell

Attorney.

UNITED STATES PATENT OFFICE.

ROBERT J. WILLIAMSON, OF MONTMORENCI, INDIANA.

CORK-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 697,587, dated April 15, 1902.

Application filed February 23, 1901. Serial No. 48,480. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. WILLIAMSON, a citizen of the United States, residing at Montmorenci, in the county of Tippecanoe and State of Indiana, have invented new and useful Improvements in Cork-Extractors, of which the following is a specification.

My invention relates to certain new and useful improvements in cork-extractors, hereinafter more particularly described, and pointed out in the claims.

The object of my invention is to provide a simple, durable, and efficient tool for extracting cork stoppers from bottles and other analogous liquid or cork-sealed receptacles. This object is attained by means of the device illustrated in the accompanying drawings, in which similar numerals of reference designate like parts throughout the several views.

Figure 1 is a part sectional elevational view of the cork-extractor, showing the spear-pointed perforator inserted in the cork of the bottle. Fig. 2 is a sectional view of the cork-extractor, taken through the line C D, Fig. 1, and folded or closed, so as to be carried in the pocket with safety; and Fig. 3 is a transverse sectional view of the same, taken through the line A B. (See Figs. 1 and 2.)

The cork-extractor comprises a tubular stem 1, having a perforating spear-point 2, which latter has its larger coned portion of a diameter somewhat greater than the diameter of said stem 1. The spear-point 2 is bored transversely with its axis to form the lower vent-openings 3 and to connect the center bore of the tubular stem 1 with the interior of the bottle 4, and a top vent-opening 5 connects the said central bore of the stem 1 with the atmosphere. The top end of the stem 1 is pivoted on the pin 6 of the handle 7, and the said pin is loosely secured at its ends in the slots 8, formed longitudinally in said handle 7, so as to be freely moved therein. A conical or funnel-shaped cap 9 is drilled at its central portion to loosely receive the stem 1, and said funnel is adapted to be applied to the top of the neck of the bottle 4, as shown in Fig. 1. A coil-spring 10 of suitable elasticity and strength surrounds the stem 1, between the handle 7 and the cap 9, and is provided for the purpose of disengaging and discharging the cork 11 of the stem 1 when said cork has been extracted from the neck of the bottle. The slot 8, formed in the handle 7, is provided for the purpose of permitting the stem 1 being folded into the hollow central portion of said handle to be completely inclosed therein, and the said handle is threaded at its open end 12 to permit the threaded portion of the cap 9 to be screwed thereon, as shown in Fig. 2, in order to be the more compact and portable.

The manner of using my invention will be understood from the following: The spear-point 2 of the extractor is forced against the central portion of the end of the cork 11 till it penetrates the cork through to the interior of the bottle and till the vent-opening connects with the interior of the bottle, thereby connecting the interior of the bottle 4 with the outer atmosphere and destroying any partial vacuum that may exist in the interior of said bottle and permitting the free extraction of the cork 11, which in most cases when the vacuum is destroyed is discharged without any apparent force being applied to the extractor. The cork 11 being discharged from the neck of the bottle is by means of the coil-spring 10 pressing against the cap 9 forced off the stem 1, and the extractor is ready for use again.

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

1. In a cork-extractor, the combination with a tubular stem provided at one of its ends with a perforating-point and having adjacent to each of its ends a vent-opening communicating with the bore of the stem, of a handle pivotally and slidably connected to said stem and into which the latter is folded when not required for use, and means for automatically removing the cork from the stem after the cork is withdrawn from the bottle.

2. In a cork-extractor, the combination with a stem provided at one of its ends with a perforating-point, of a handle pivotally and slidably connected to said stem and into which the latter is folded when not required for use, a cap adapted to be mounted upon said stem and to slide longitudinally thereon, and a spring encircling said stem and interposed

between the handle and said cap, whereby said cap is adapted, under the tension of said spring, to force the cork from the stem after the cork is withdrawn from the bottle.

3. In a cork-extractor, the combination with a stem provided at one of its ends with a perforating-point, of a handle pivotally connected to said stem, said handle being provided with oppositely-disposed longitudinally-extending slots into which the pivot of said handle is arranged and capable of sliding movement, whereby the stem may be folded into said handle when not required for use, a cap adapted to be mounted upon said stem and to slide longitudinally thereon, and a spring encircling said stem and interposed between the handle and said cap, whereby said cap is adapted, under the tension of said spring, to force the cork from the stem after the cork is withdrawn from the bottle.

4. In a cork-extractor, the combination with a tubular stem provided at one of its ends with a perforating-point and having adjacent to each of its ends a transversely-extending vent-opening communicating with the bore of the stem, of a handle pivotally and slidably connected to said stem and into which the latter is folded when not required for use, a cap adapted to be mounted upon said stem and to slide longitudinally thereon, and a spring encircling said stem and interposed between the handle and said cap, whereby said cap is adapted, under the tension of said spring, to force the cork from the stem after the cork is withdrawn from the bottle.

5. In a cork-extractor, the combination with a stem provided at one of its ends with a perforating-point, of a handle pivotally connected to said stem, said handle being provided with oppositely-disposed longitudinally-extending slots in which the pivot of said handle is arranged and capable of sliding movement, whereby the stem may be folded into said handle when not required for use, said handle also having one of its ends screw-threaded, a cap normally mounted upon the screw-threaded end of said handle but adapted to be positioned upon said stem, when the extractor is required for use, and to slide longitudinally thereon, and a spring encircling said stem and interposed between the handle and said cap, when the latter is mounted upon the stem, whereby said cap is adapted, under the tension of said spring, to force the cork from the stem after the cork is withdrawn from the bottle.

6. In a cork-extractor, the combination with a tubular perforating-stem having closed ends one of the ends of which is pointed and a gripping-handle pivotally mounted on the opposite end of said stem, of a coned or funnel-shaped collar loosely mounted on said stem, said coned collar having its interior coned surface directed outwardly, and a coil-spring interposed between said cone and said handle, all substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ROBERT J. WILLIAMSON.

Witnesses:

PETER J. MCCORKHILL,

THOMAS W. FIELD.