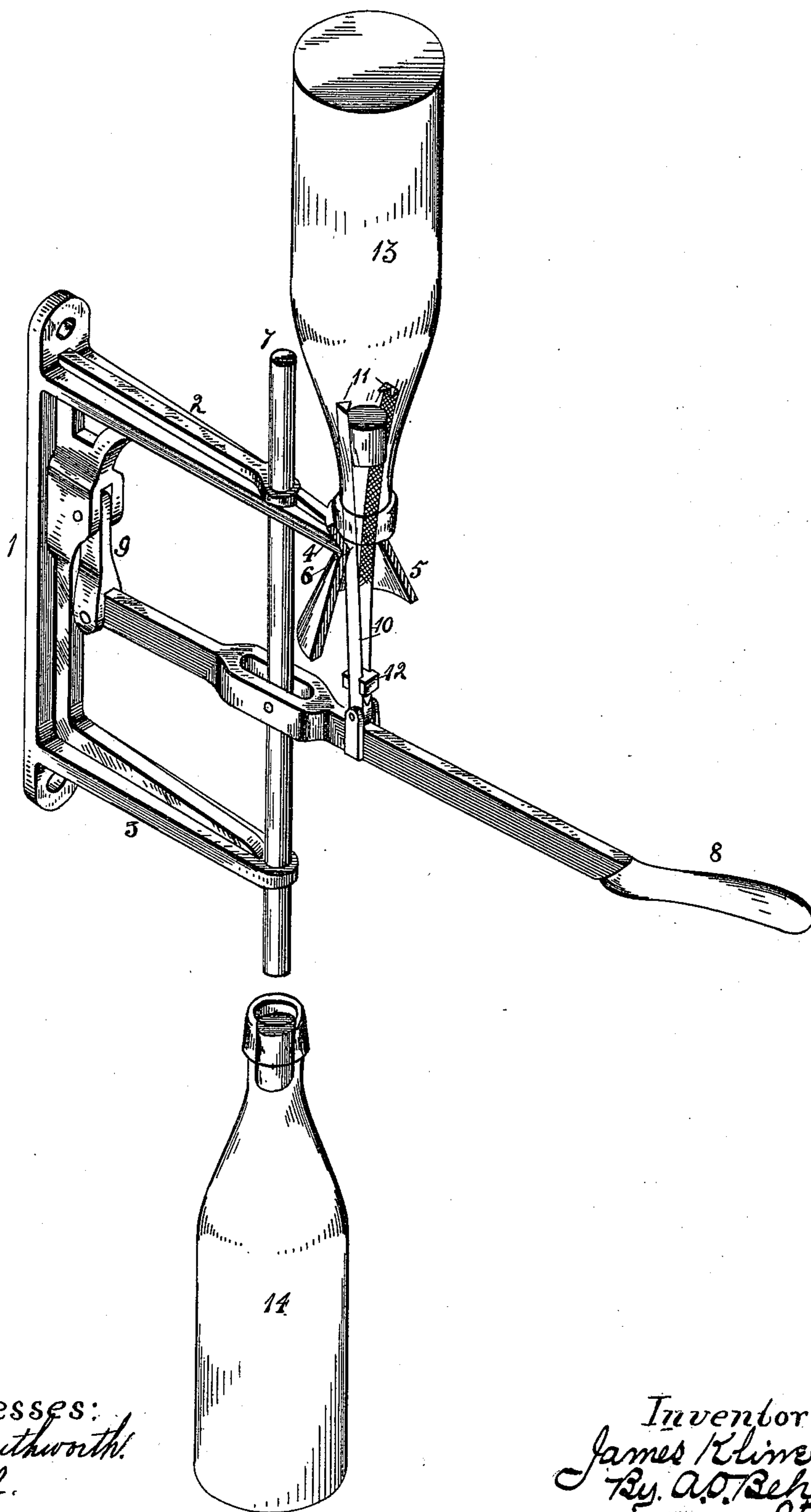


(No Model.)

J. KLINE.
CORK EXTRACTOR.

No. 441,422.

Patented Nov. 25, 1890.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES KLINE, OF BELOIT, WISCONSIN.

CORK-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 441,422, dated November 25, 1890.

Application filed April 17, 1890. Serial No. 348,364. (No model.)

To all whom it may concern:

Be it known that I, JAMES KLINE, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Cork-Extractors, of which the following is a specification.

The object of this invention is to construct a cork-extractor having spring-arms which have a connection with an operating-handle, by means of which the arms may be inserted within an empty bottle and expand to receive a cork, and upon the withdrawal of the arms the cork will also be withdrawn.

The further object is to provide a plunger by means of which a cork which is lodged in the neck of the bottle may be forced within the bottle, so as to be in position to be withdrawn by my extractor; and the further object is to provide means for adjusting the spring-arms so that they will readily expand when they have been inserted within an empty bottle, thereby permitting the cork to be grasped by the arms, and also of serrating the inward faces of the spring-arms to more surely withdraw the cork.

In the accompanying drawing is represented a cork-extractor embodying my invention.

The main frame of my extractor consists of a base-plate 1, which can be secured to a stationary support. From the base-plate projects an upper arm 2 and lower arm 3 laterally therefrom, which form the supports and guides for the operating mechanism of the extractor. The extreme outer end of the upper arm 2 is formed with an upper socket 4, of a size to receive the end of any ordinary bottle, and a lower bell-shaped opening 5, having a connection with the upper socket through a neck 6. A vertical guide-rod 7 is fitted to move endwise in bearings formed in arms 2 and 3.

An operating-handle 8 has a pivotal connection with the base-plate 1 through the medium of an intermediate link 9, which has one end pivoted to the base-plate and its other end to the operating-lever. This operating-lever is slotted vertically, and through said slot is passed the guide-rod 7, which has a pivotal connection with the handle at 8. To the operating-handle and directly under the vertical center of the neck-opening 6 are pivoted

spring-arms 10, which extend vertically and enter the bell-shaped opening 5 when the operating-handle is down. These arms have their inner faces serrated and their free ends provided with prongs or points 11. Near the junction of these arms is placed a wedge 12, which can be moved in the lengthwise direction of the arms to hold their free ends separated, the arms are curved outward, so as to conform more nearly to the inside shape of the bottle.

The operation of my extractor is as follows: The bottle from which the cork is to be removed is placed so that its neck will rest in the socket 4, as shown at 13, and is held in such position by one hand. The operating-lever is raised so as to force the spring-arms within the bottle, where they will separate and allow the cork to fall between them and come in contact with their serrated faces. By depressing the lever the spring-arms will be withdrawn from the bottle and bring the cork with them. Should the serrated faces not be sufficient to withdraw the cork, the prongs will engage the cork and secure its withdrawal. By means of the operating-handle, a swinging link-connection with the base-plate, and a pivotal connection with the guide-rod 7 a substantially vertical movement is imparted to the spring-arms, thereby preventing all liability of breaking the bottle by cramping therein.

It often happens that corks are lodged within the neck of the bottle, and it requires some tool to drive the cork within the bottle before it can be extracted. I employ the lower end of the guide-rod 7 for this purpose, and at 14 is represented a bottle with a cork lodged within its neck. By depressing the lever the lower end of the rod 7 will enter the neck of the bottle and come in contact with the cork, forcing it within the bottle, when it can be removed by my extractor, as above set forth.

I claim as my invention—

1. In a cork-extractor, the combination of a base-plate, arms projecting laterally therefrom, a guide-rod held by the arms, an operating-lever having a pivotal connection with the base-plate and guide-rod, and cork-extracting arms having a connection with the handle, substantially as set forth.

2. In a cork-extractor, the combination of a base-plate, arms projecting laterally therefrom, a guide-rod held by the arms, an operating-lever having a pivotal connection with the base-plate and guide-rod, cork extracting arms having a connection with the handle, and a device for increasing the spring force of the arms, substantially as set forth,
- 5 3. In a cork-extractor, the combination of a base-plate, a guide-rod supported by arms projecting from the base-plate, an operating-lever having a pivotal connection with the base-plate through the medium of a swinging link, and cork-extracting arms having a connection with the handle, substantially as set forth.

JAMES KLINE.

Witnesses:

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