K. FREULER.

CORK DRAWING APPLIANCE.

APPLICATION FILED MAR. 4, 1912.

1,123,723.

Patented Jan. 5, 1915.

3 SHEETS—SHEET 1.

Fig. 1

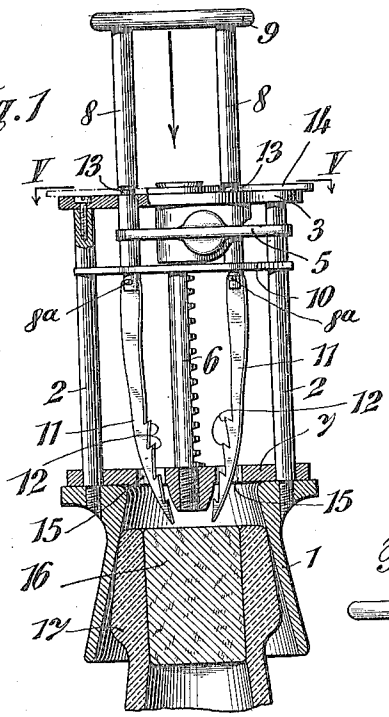


Fig. 2

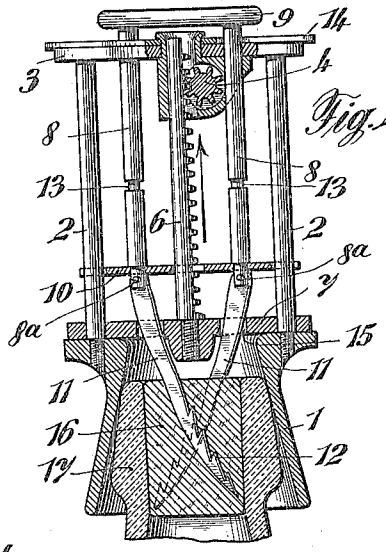


Fig. 4

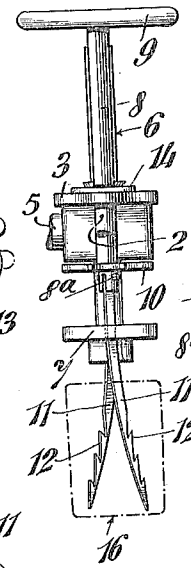


Fig. 3

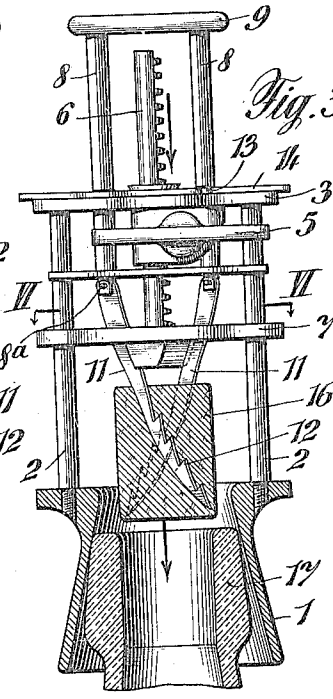


Fig. 5

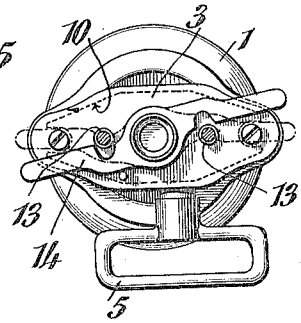
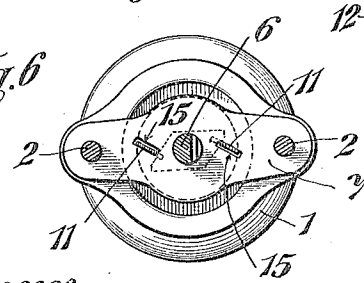


Fig. 6



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3 SHEETS—SHEET 2.

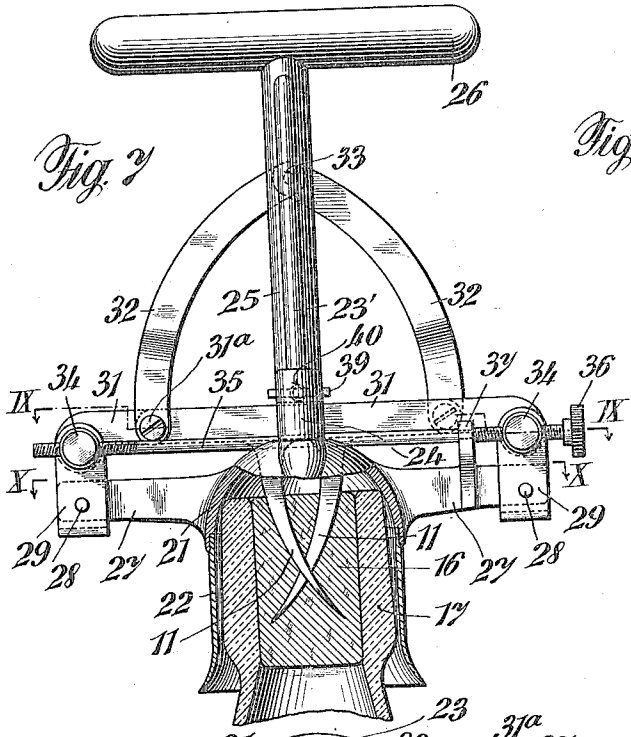


Fig. 7

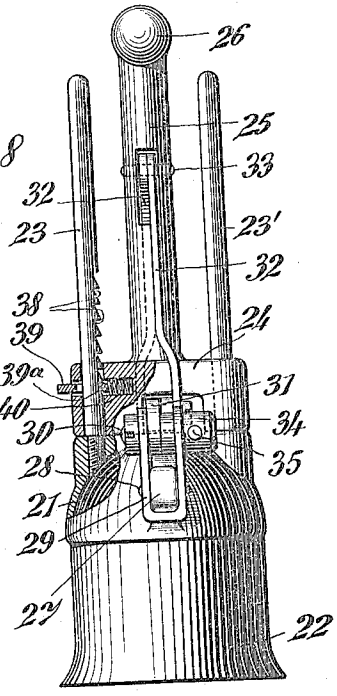


Fig. 8

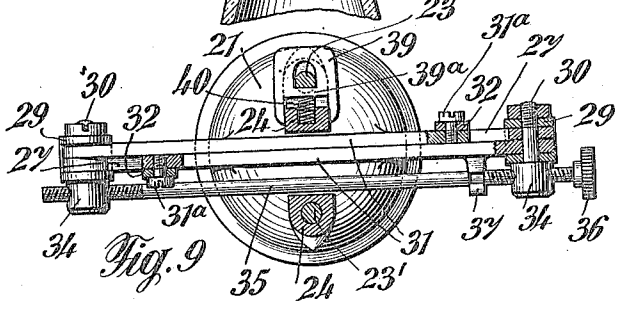


Fig. 9

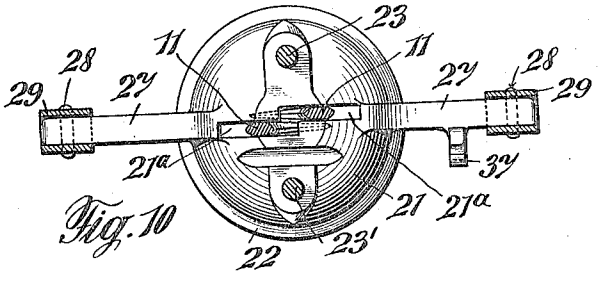


Fig. 10

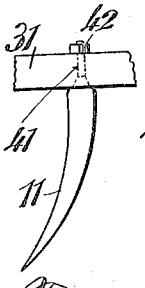


Fig. 11

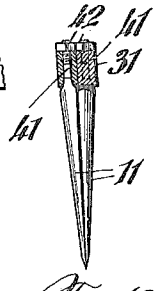


Fig. 12

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3 SHEETS—SHEET 3.

Fig. 13

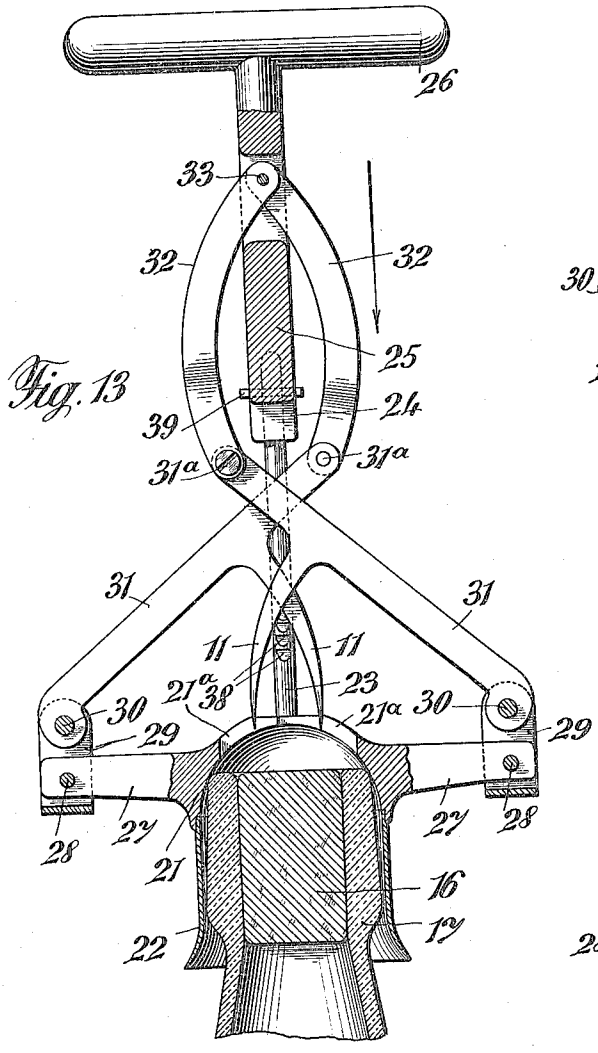


Fig. 14

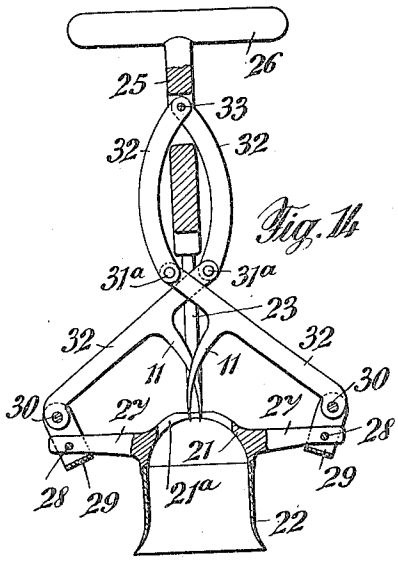
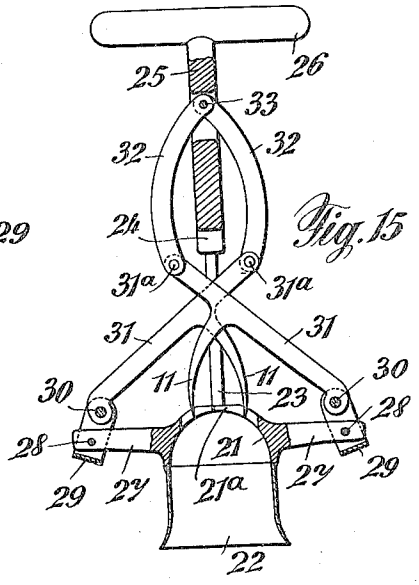


Fig. 15



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UNITED STATES PATENT OFFICE.

KASPAR FREULER, OF ZURICH, SWITZERLAND.

CORK-DRAWING APPLIANCE.

1,123,723. Specification of Letters Patent. Patented Jan. 5, 1915.

Application filed March 4, 1912. Serial No. 681,435.

To all whom it may concern:

Be it known that I, KASPAR FREULER, a citizen of the Republic of Switzerland, residing at Zurich, Switzerland, have invented new and useful Improvements in Cork-Drawing Appliances; 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 or figures of reference marked thereon, which form a part of this specification.

This invention relates to cork drawing appliances which are provided with claws crossed in the cork.

The object of my invention is to positively guide the claws when being pressed in the cork.

Illustrative embodiments of my invention are represented by way of example in the accompanying drawings, wherein:

Figure 1 is a side elevation partly in section of a first example in a position before the claws are pressed in the cork. Fig. 2 is a similar view with the claws pressed in the cork. Fig. 3 illustrates the withdrawing of the cork. Fig. 4 is a front elevation of the same, parts being omitted. Fig. 5 is a section on line V—V of Fig. 1. Fig. 6 is a section on line VI—VI of Fig. 3. Fig. 7 is a side elevation partly in section of a second example in which the motion of the claws can be adjusted. Fig. 8 is a front elevation of the same, partly in section. Figs. 9 and 10 are sections on lines IX—IX and X—X respectively of Fig. 7. Figs. 11 and 12 are detail views showing another form of the claws. Figs. 13, 14 and 15 illustrate the adjustment of the claws.

Referring firstly to Figs. 1 to 6, 1 designates a conical ring adapted to be adjusted to the mouth of a bottle 17. Two rods 2 are secured to the conical ring and connected on the top by a cross bar 3. On this latter bar is mounted a toothed wheel 4 which can be rotated in the usual manner by means of a handle 5. The toothed wheel 4 engages a toothed rack 6 fixedly carrying a cross bar 7 guided on the rods 2. Two rods 8 connected by a plate 9 and a cross bar 10 pass through the cross bar 3, the cross bar 10 being guided on the rods 2. The rods 8 pivotally carry the two claws 11 of any suitable shape which are pointed and provided with teeth 12 for some part of their lengths. The rods 8 are provided with a circular groove 13 adapted to be engaged by a bolt 14 supported by the cross bar 3. The bolt is mounted to turn about a box guiding the toothed rack 6. The claws 11 are positively guided by passing through slots 15 provided in the cross bar 7 (Fig. 6) so that the claws are crossed in the cork 16 always at the same angle.

The operation of the cork drawer is as follows: The conical ring 1 having been adjusted to the mouth of the bottle 17 (Fig. 1), by pressing on the plate 9 the rods 8 are moved downward and the claws 11 being positively guided by the slots 15 are forced in the cork. As the distance of the rods 8 is larger than the distance of the slots 15, the claws 11 are turned about the axles 8^a and crossed at a distinct angle (Fig. 2). By turning the handle 5 the toothed rack 6 and the cross bar 7 are raised. The claws 11 being guided by the slots in the cross bar 7 are prevented from being separated and cause the cork to be withdrawn (Fig. 3). When the rack 6 is moved in the highest position, the bolt 14 is inserted in the grooves 13 of the rods 8 securing thus the latter rods and the claws 11 to the cross bar 3. Then, by turning the handle 5 in the opposite direction as before the cross bar 7 is moved downward and the cork removed from the claws.

In the example described the claws are guided in slots of a plate which requires the claws to be pivotally mounted. In the illustrative embodiment according to Figs. 7 to 10 the claws are positively guided by being fixedly secured to levers which are pivotally mounted on laterally projecting arms.

21 designates a cap adapted to be adjusted to the mouth of a bottle 17. The cap carries a downwardly projecting bell mouthed ring 22 to surround the neck of the bottle. On the top of the cap 21 two rods 23 and 23′ are secured on which rods a cross bar 24 is guided. A rod 25 provided with a transverse handle 26 is secured to the cross bar. The cap 21 carries two laterally projecting arms 27 at the ends of which arms U-shaped bearings 29 are mounted to turn about axles 28. The bearings are provided with axles 30 on which axles levers 31 are mounted to turn. The axles 30 are free to turn in the bearings but prevented from

axially moving. The claws 11 passing through a hole 21ª of the cap 21 are secured to the levers. Links 32 of any suitable shape are at their upper ends pivotally mounted on an axle 33 fixed in a cut away portion of the rod 25, while the lower ends of the links are pivotally connected to the ends 31ª of the levers 31. Heads 34 are fixed to one end of the axles 30. One of the heads is provided with right-handed female thread and the other head with left-handed female thread. The heads are screwed on threaded parts of a spindle 35 which can be turned by means of a button 36. A bearing 37 connected by one of the arms 27 engages a circular groove of the spindle and prevents thus the spindle from being axially displaced. The lower portion of the rod 23 is provided with teeth 38 (Fig. 8). A latch 39 through an opening of which the rod 23 projects is mounted in a slot of the cross bar 24 and a spring 40 presses the edge 39ª of the latch against the rod 23. The teeth 38 are formed so that the cross bar 24 can be moved downward but not upward without pressing the latch 39 inwardly.

The operation of the cork drawer is as follows: The cap 21 having been adjusted to the mouth of the bottle 17 (Fig. 13), by pressing on the handle 26 the claws 11 are forced in the cork, so that the parts assume the positions shown in Fig. 7. By simultaneously turning and lifting the handle 26 the cork 16 is withdrawn from the bottle. By the latch 39 securing the cross bar 24 to the rod 23 the pulling action exerted on the handle 26 is transmitted to the cap 21 and the parts are prevented from being displaced with regard to each other. To remove the cork from the claws 11 the handle 26 is moved upward while pressing on the latch 39 to disconnect the cross bar 24 and the rod 23. The parts assume hereafter the positions shown in Fig. 13.

By rotating the spindle 35 the distance of the axles 30 can be altered and the cork drawer adjusted for corks of different diameters. By increasing the distance of the axles 30 (Fig. 14) the cork drawer is adjusted for corks of small diameters while by decreasing the said distance (Fig. 15) the cork drawer is adjusted for corks of large diameters.

With the modified forms shown in Figs. 11 and 12 the claws are removably connected to the levers 31. The upper end of the claw is provided with a screw 41 mounted in a hole of the lever 31. A nut 42 on the screw secures the claw in position. In Fig. 12 the surfaces of the claws facing each other are plane and guide each other. The cork drawer could also be constructed so that the device for adjusting the distance of the axles 30 is omitted. In this case the bearings 29 are fixedly secured to the arms 27 (Fig. 13). The teeth of the rod 23 and the latch 39 may be dispensed with and it is only necessary then to keep two fingers under the arms 27, when withdrawing the cork.

While I have thus described my invention, I wish it to be distinctly understood that I do not limit myself to the exact details shown and described, as these might be varied widely without departing from the spirit of my invention.

I claim:

1. In an appliance for drawing corks, the combination with a cap surrounding the mouth of the bottle, of two claws supported by said cap, and means for inserting and drawing said claws out of the cork and at the same time positively guiding said claws in such a manner that they cross one another within the cork.

2. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws and means for positively moving the levers.

3. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, arms forming a bracket pivotally carrying the levers and means for positively moving the levers.

4. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, arms forming a bracket pivotally carrying the levers, a vertically guided rod provided with a handle and means connecting the levers to the rod.

5. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, arms forming a bracket pivotally carrying the levers, a vertically guided rod with a handle and links pivotally connected to the levers and to the rod.

6. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, a cap adapted to be adjusted to the mouth of a bottle, two arms laterally projecting from the cap and pivotally carrying the levers, a vertically guided rod provided with a handle and links pivotally connected to the levers and to the rod.

7. In an appliance for drawing corks, two claws adapted to be crossed in the cork, means for positively guiding the said claws and means for varying the course of the claws.

8. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, a cap adapted to be adjusted to the mouth of a bottle, two arms laterally projecting from the cap, a bearing pivotally mounted on the free ends of the arms, an axle mounted in

both of the bearings, the said levers being mounted to turn on said axles, a vertically guided rod provided with a handle, links pivotally connected to the levers and to the rod, and means for varying the distance of the said axles.

9. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, arms forming a bracket pivotally carrying the levers, a vertically guided rod provided with a handle, links pivotally connected to the levers and to the rod, and means for securing the rod to the arms.

10. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, a cap adapted to be adjusted to the mouth of a bottle, two arms laterally projecting from the cap and pivotally carrying the lever, a vertically guided rod provided with a handle, links pivotally connected to the levers and to the rod, and means for securing the rod to the arms.

11. In an appliance for drawing corks, two claws adapted to be crossed in the cork, levers fixedly carrying the said claws, a cap adapted to be adjusted to the mouth of a bottle, two arms laterally projecting from the cap and pivotally carrying the lever, two vertical guide rods fixed on the top of the cap, a vertical rod provided with a transverse handle, a cross bar connected to this latter rod and guided on the said vertical rods, links pivotally connected to the levers and to the rod carrying the handle, teeth provided on one of said guide rods, a latch mounted in a cut away portion of the said cross bar, a spring pressing the latch to engage said teeth, the teeth being formed thus that without pressing on the latch the rod carrying the handle can be moved downwardly but not upwardly.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

KASPAR FREULER.

Witnesses:

CARL GUBLER,

ARNOLD LEHNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."