B. W. HANLE.

WRENCH.

APPLICATION FILED DEC. 22, 1921.

1,422,760.

Patented July 11, 1922.

Fig. 1.

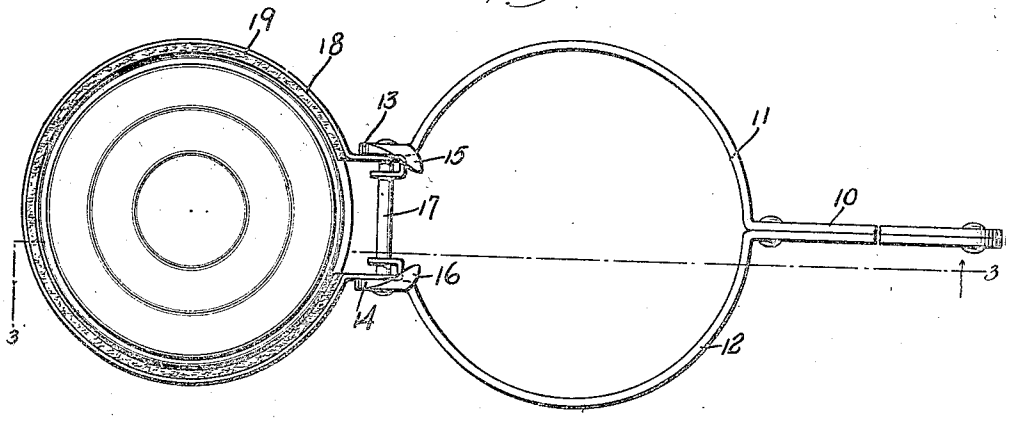


Fig. 2.

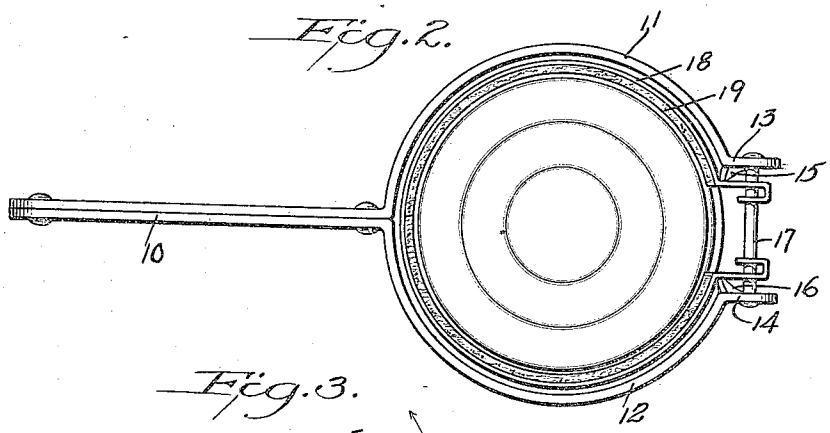


Fig. 3.

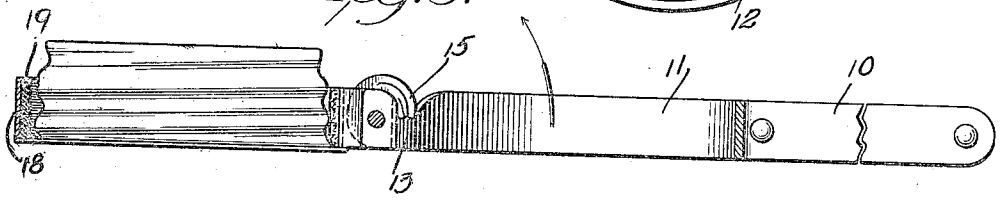


Fig. 5.

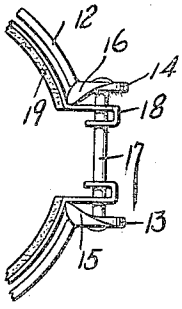
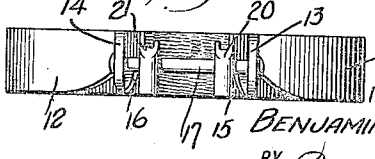


Fig. 4.



WITNESSES

Oliver K. Holmes

E. W. Savage

INVENTOR

BENJAMIN W. HANLE

BY

ATTORNEYS

UNITED STATES PATENT OFFICE.

BENJAMIN W. HANLE, OF ROSELLE PARK, NEW JERSEY.

WRENCH.

1,422,760. Specification of Letters Patent. Patented July 11, 1922.

Application filed December 22, 1921. Serial No. 524,213.

To all whom it may concern:

Be it known that I, BENJAMIN WILLIAM HANLE, a citizen of the United States, and a resident of Roselle Park, in the county of Union and State of New Jersey, have invented new and useful Improvements in Wrenches, of which the following is a full, clear, and exact description.

This invention relates to wrenches and was primarily designed for use as a jar cap wrench for opening jars having circular tops.

The general object of the invention is the provision of a jar cap wrench simple in construction, efficient in operation, and one which does not damage the jar cap.

This object is accomplished by providing a resilient cap band having an elastic gripping means in conjunction therewith and supplying a handle in conjunction with the resilient band, said handle being provided with means which co-operate with the band to decrease its diameter to cause it to grip the jar cap.

This and other objects of the invention will be more clearly understood from the following detailed description and accompanying drawings.

Figure 1 is a plan view of the wrench showing the resilient band loosely positioned on the jar cap;

Figure 2 is a top plan view of the wrench after it has been operated to grip the jar cap;

Figure 3 is a section along the line 3—3, Figure 1;

Figure 4 is an end view of the wrench after it has been operated to grip the jar cap; and

Figure 5 is a detail plan view of the means in conjunction with the handle for operating the resilient band to decrease its diameter.

Referring to the above-mentioned drawings, a handle 10 is provided with two curved jaws 11 and 12 which are shaped to conform to a circle. The ends 13 and 14 of the jaws are bent outward parallel to one another and parallel to a diameter of the circle formed by the jaws. An oblique cut is made in each jaw near the ends, and the portion severed from the jaw by the oblique cut is bent inward and formed into cams 15 and 16. A bar 17 is supplied for connecting the ends 13 and 14 of the jaws together. A resilient circular cap band 18 has its ends bent outward parallel to one another and slidably mounted on the bar 17. An elastic gripping member 19 is mounted on the inside of the resilient cap band 18. This member serves to grip the cap and due to its resilient qualities does not damage the same. The corners of the ends of the band 18, as shown in Figure 4 at 20 and 21, are cut away so that they will not catch on the cam members and make operation difficult.

The operation of this device is as follows:

The resilient cap band 18 is rotated to the position shown in Figure 1 where it extends on the opposite side of the bar 17 from the jaws 11 and 12. The resilient band is then positioned over the jar cap. The handle 10 is then rotated about the axis of the bar 17, the cams 15 and 16 engaging with the ends of the resilient band 18, forcing them inward along the bar 17. This decreases the diameter of the circular portion of the resilient band and causes it to grip the cap. Then force may be applied to the handle to rotate the cap in either direction to loosen it from the jar or tighten it upon the jar.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention I do not limit myself strictly to the exact details herein illustrated since manifestly the same can be considerably varied without departing from the spirit of the invention as defined in the appended claims.

Claims:

1. As a new article of manufacture, a jar cap wrench of the class described, comprising a handle having a pair of curved jaws, the ends of which are spaced apart, a rod joining the ends of said jaws, a one-piece cap band having its ends slidably mounted on the rod, and cam members attached to the ends of the handle jaws and co-operating with the ends of the cap band to move them inward along the rod to decrease the diameter of the cap band to grip the jar cap.

2. As a new article of manufacture, a jar cap wrench of the class described, comprising a handle having two jaws shaped to conform to a circle having the ends bent outward parallel to one another and to a diameter, said ends being connected together by a rod, a resilient jar cap band of circular shape having its ends slidably mounted on the rod, means associated with the jaw ends and cap band for decreasing the diameter of the cap band, and elastic gripping means

in conjunction with the cap band to grip the jar cap.

3. As a new article of manufacture, a jar cap wrench of the class described, comprising a handle having two jaws curved to conform to the shape of a circle, the ends of said jaws being bent outward parallel to one another and to a diameter of the circle, a rod connecting the parallel ends, a one-piece resilient circular jar cap band having its ends slidably mounted on the rod, and cams formed integral with the parallel ends of the jaws and co-operating with the ends of the cap band to move the latter inward along the rod to decrease the diameter of the band.

4. A jar cap wrench of the class described comprising a handle having curved jaws spaced apart at the ends, a rod carried by the jaws, a cap band rotatably mounted on the rod and adapted to be rotated about the rod to a position between the jaws, and means in conjunction with the jaws for forcing the ends of the band inward along said rod as the band is rotated into position between the jaws.

5. A jar cap wrench of the class described comprising a handle having curved jaws spaced apart at the ends, a rod extending between said spaced ends, a cap band rotatably mounted on the rod and adapted to be rotated between said jaws, and means carried by the jaws for decreasing the diameter of the cap band to grip the jar cap as the cap band is rotated into a position between the jaws.

6. A jar cap wrench of the class described comprising a handle having curved jaws spaced apart at the ends, a rod carried by said spaced ends of the jaws, a cap band slidably and rotatably mounted on the rod, and cams attached to the jaws and co-operating with the cap band to decrease the diameter as the handle is rotated about the axis of the rod to enclose the cap band.

BENJAMIN W. HANLE.