J. NELSON.

JAR WRENCH.

APPLICATION FILED MAY 11, 1908.

907,857. Patented Dec. 29, 1908.

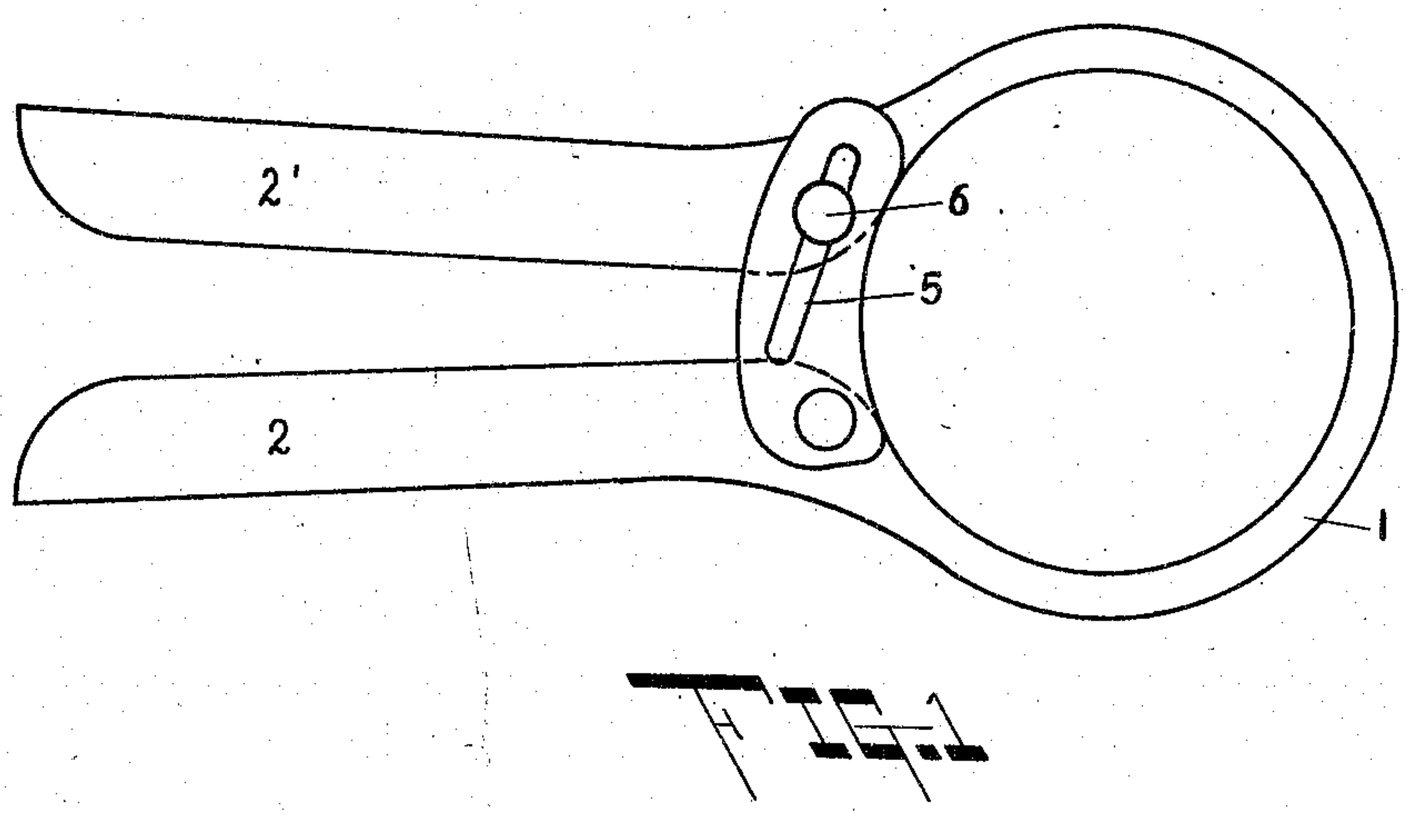

FIG. 1

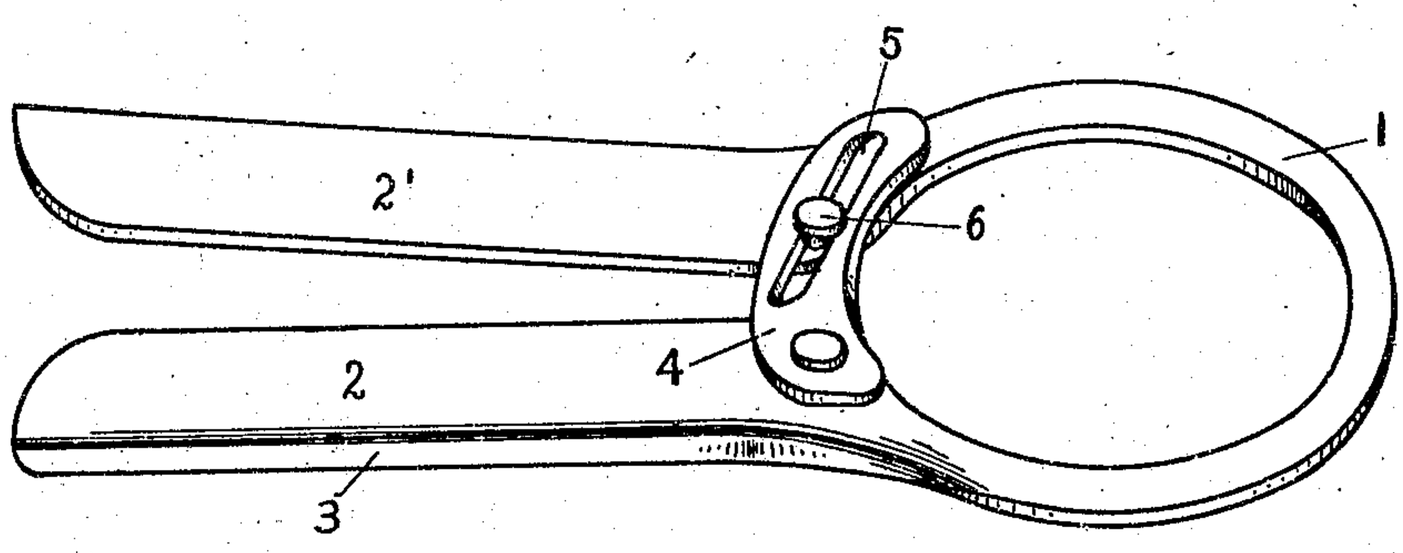

FIG. 2

WITNESSES:

J. Ray Abbey

Ralph E. Warfield.

INVENTOR

John Nelson

BY

Geo. B. Willcox

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN NELSON, OF BAY CITY, MICHIGAN.

JAR-WRENCH.

No. 907,857. Specification of Letters Patent. Patented Dec. 29, 1908.

Application filed May 11, 1908. Serial No. 432,190.

To all whom it may concern:

Be it known that I, JOHN NELSON, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Jar-Wrenches; 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.

My invention relates to jar wrenches for applying screw tops or covers to and removing them from jars or other receptacles.

One object of my invention is the provision of a yielding one-piece gripping jaw which will encircle the cover or top and bring an even pressure to bear throughout the entire circumference thereof.

Many screw tops are lined with porcelain to render them sanitary and this porcelain will crack and peel off if pressure is brought to bear only upon a portion of the circumference. The reason for this is that the covers are stamped from light sheet metal and pressure upon a portion only of the peripheries thereof, tends to squeeze the walls together and the metal is forced or bulges out at that point where there is no pressure. My invention completely encircles the cover and prevents this crowding out or bulging.

Another object of my invention is to provide a jar wrench which may be applied to any of the different sizes of covers now on the market and which will conform exactly to the contours thereof, the wrench closely fitting and having a complete peripheral contact therewith.

To these ends therefore, my invention consists in certain novel features and combinations such as will be described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of my invention and Fig. 2 is a perspective view thereof.

The invention consists solely of a wrench body consisting of a one-piece split annulus, the ends of which terminate conveniently in handles normally diverging from each other, all of which is preferably stamped from a single sheet of resilient or ductile metal and an adjustable link connecting the handles of the wrench and coöperating with the gripping member.

More particularly my invention consists of an open annulus (1) constituting a part of the gripping jaw or head. Handles (2), (2′), project from the annulus and the outer edges of the handles are flanged as at (3) to afford a broad bearing surface for the hand of the operator.

In order to bridge the opening in the annulus, I provide a link (4), one end of which is pivotally secured to the handle (2). The free end of the link overlies the opposite handle (2′) and is slotted as at (5) to receive a stud (6) carried by the handle (2′). This permits the handles to move relative to each other to expand and contract the annulus, the link automatically adjusting itself to complete the varying curvatures of the annulus when expanded or contracted. The link is longer than the opening in the annulus. By this means the gripping annulus adjusts itself to the contour of any cover to which it is applied, the full circle formed by the annulus and the link operating to engage the cover and forming the complete gripping jaw.

The inner face of the link is curved to conform to the curve of the inner periphery of the gripping jaw and the slot (5) is so arranged relative to the curved inner face of the link that movement of the handles toward each other will hold the curved face of the link tightly against the cover.

By the combination of the curved link completing the annular gripping jaw and adjusting itself automatically to the expansion and contraction of the jaw, I have produced an article which will press tightly and evenly throughout the entire circumference of the top or cover. This avoids cracking or breaking the lining of the cover and also facilitates its placing on or removal from the covers.

Owing to the resiliency of the wrench it can be expanded or contracted to fit a wide range of sizes of covers.

The curved face of the pivoted link accommodates itself to the varying arcs of the covers so that the cover is firmly gripped and completely encircled, every part of the gripping face of the wrench engaging with the surface of the cover, and forming a complete peripheral contact. The arrangement of the slot (5) at an angle to the curved face of the link causes the curved face to conform to the arc of curvature of the gripping surface of the annulus when the latter is expanded or contracted. The overlapping extension of the slotted link permits the

latter to accommodate itself to the expansion or contraction of the annulus.

Having thus fully disclosed my invention, what I claim as new is:—

1. An adjustable wrench comprising an open annulus, handles projecting therefrom, a link pivotally secured to one of the handles and overlapping the opposite handle, a slot in the link and a stud carried by the last named handle and received in the slot, the inner face of the link being curved and completing the inner periphery of the annulus.

2. A tool for covers comprising an open annulus adjustable to covers of varying sizes, handles projecting from the annulus, a link pivotally secured to one handle and slidingly connected to the opposite handle, the link bridging the opening in the annulus and being curved to coöperate with the annulus at all times to form a complete circular gripping jaw.

3. An adjustable wrench comprising an open annulus, handles projecting therefrom, and a link pivotally secured to one handle and slidingly connected to the opposite handle, the link being longer than the opening in the annulus and having a curved inner face adjustable to the varying curvatures of the annulus, and coöperating therewith to form a circular gripping jaw.

4. A fruit jar wrench comprising an open annulus, handles projecting therefrom, a link pivotally secured to one handle, the inner edge of the link being curved to conform to the curvature of the inner periphery of the annulus and bridging the opening in the annulus the free end of the link overlying the opposite handle and having a slot extending at an angle to the curved edge of the link, and a stud carried by the handle and received in the slot.

5. A wrench comprising an open one-piece annulus, handles secured to and projecting from opposite sides of the opening in the annulus, the handles being independent of each other, a link pivotally secured to one of the handles, and slidingly secured to the opposite handle, the link bridging the opening in the annulus and having its inner face curved to engage and conform to the curvature of the article operated upon whereby to complete the circular gripping surface of the annulus.

6. A wrench comprising an open one-piece annulus, handles projecting from opposite sides of the opening in the annulus, and a member pivotally secured to one handle, and slidingly secured to the other handle, the member bridging the opening in the annulus, one edge of the member being curved and automatically coöperating with the inner periphery of the annulus to form a complete circular gripping jaw conforming to and exerting an equal pressure throughout the entire circumference of the work.

In testimony whereof, I affix my signature in presence of two witnesses.

JOHN NELSON.

Witnesses:
RALPH S. WARFIELD,
ROY WALLIS.