R. H. PETERS.

WRENCH.

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961,894. Patented June 21, 1910.

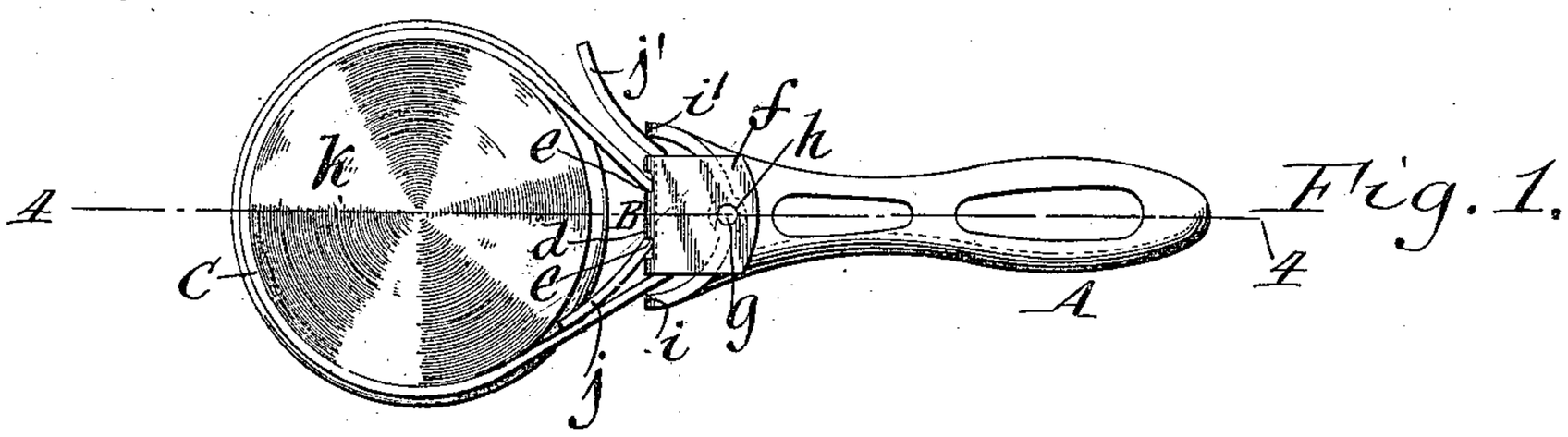

Fig. 1.

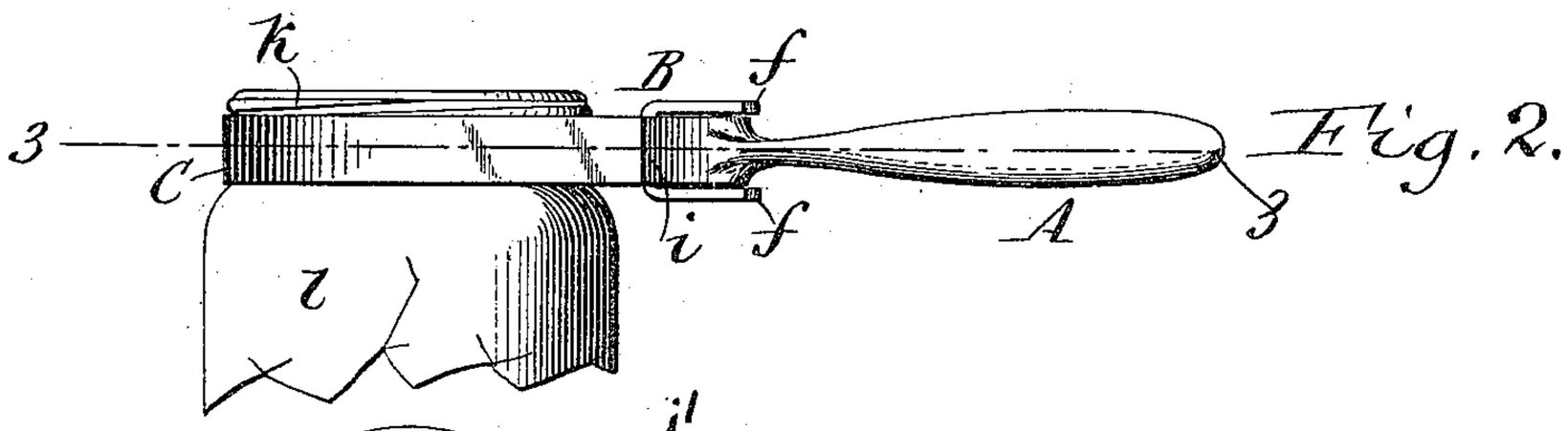

Fig. 2.

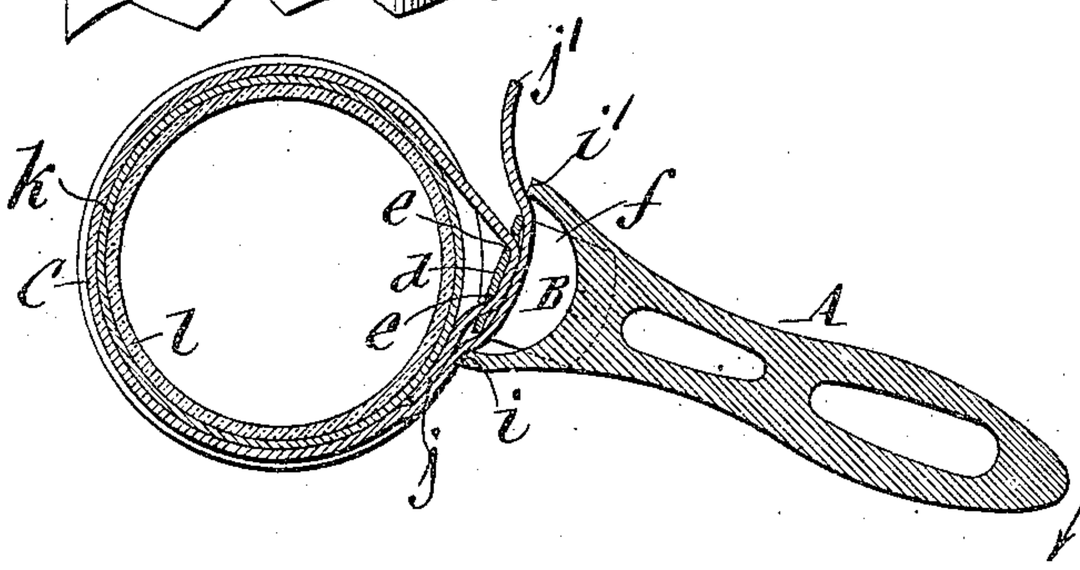

Fig. 3.

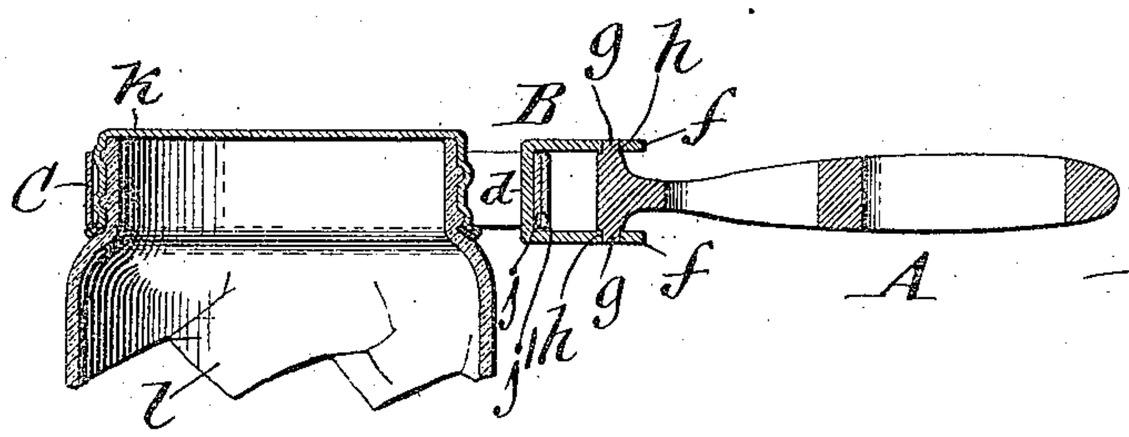

Fig. 4.

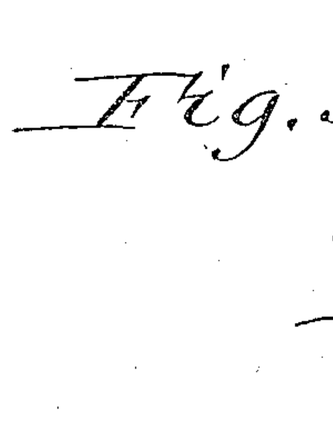

Fig. 5.

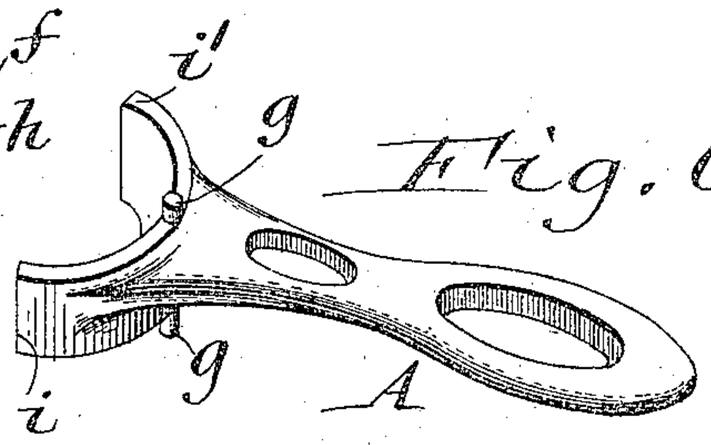

Fig. 6.

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WRENCH.

961,894. Specification of Letters Patent. **Patented June 21, 1910.**

Application filed June 10, 1909. Serial No. 501,278.

To all whom it may concern:

Be it known that I, ROBERT H. PETERS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

This invention relates to a wrench which is more particularly designed for tightening or loosening the screw covers of fruit jars or cans although the same may also be used for turning other articles of like character.

The object of this invention is the production of a wrench for this purpose which permits of obtaining a firm grip of the part to be turned without liability of breaking or marring the same and which can be readily adjusted for use on cans or similar articles of different diameters.

In the accompanying drawings: Figure 1 is a top plan view of my improved wrench applied to the cover of a fruit jar. Fig. 2 is a side elevation thereof. Fig. 3 is a horizontal section in line 3—3, Fig. 2. Fig. 4 is a vertical transverse section in line 4—4, Fig. 1. Figs. 5 and 6 are detached perspective views of the head and handle of the wrench, respectively.

Similar letters of reference indicate corresponding parts throughout the several views.

This improved wrench consists essentially of a handle A, a coupling head B pivoted to the head and a clamping band or strap C which is adapted to be tightened by the head and handle on the part to be turned.

The coupling head is U-shaped and consists of a cross piece *d* arranged opposite the front end of the handle and provided with two parallel longitudinal slots *e*, *e*, and two ears or lugs *f*, *f* projecting rearwardly from opposite ends of the cross piece and pivoted to opposite sides of the handle by pins *g*, *g* projecting laterally from the handle and engaging with openings or perforations *h* in said ears. These pins are preferably formed integrally with the handle by casting and the head is preferably formed of sheet metal and engaged with its ears over the pins *g* by bending the ears toward each other while their openings are in line with said pins.

At its front end the handle is provided with two gripping jaws *i*, i^1 which are arranged on opposite sides of the pivotal connection between the same and the head and which are adapted to move past the longitudinal sides of the cross piece upon turning the handle in one direction or the other relatively to the coupling head.

The clamping band or strap is preferably constructed of leather and the fixed end *j* of the same is inserted in one direction through both slots of the cross piece so as to project beyond one side thereof while its free end j^1 is passed in the opposite direction between the rear side of the cross piece and the front end of the handle so as to project beyond the other side thereof, thereby forming a circular loop or belt. The diameter of this belt may be increased or decreased by letting out or taking in the free end of the band.

In the use of this wrench the band is placed around the article to be held or turned which in the example shown in the drawings consists of the cover *k* of a fruit jar *l*, and the free end of the same is drawn through the space between the cross piece of the head and the handle until the same fits comparatively close around said article, as shown in Fig. 1.

Assuming that the handle is now turned in the direction toward which the fixed end of the band projects, the jaw *i* on that side of the handle will bear against the outer side of the adjacent part of the band and the fixed end of the band which is arranged between the body of the band and the article to be turned or gripped, as shown in Fig. 3, thereby tightening the band on said article and causing it to be firmly gripped.

Upon turning the handle in the opposite direction its other jaw i^1 will bear against the free end of the band, and the adjacent part of the body of the band between said free end and the article to be turned or gripped, whereby the band is firmly tightened and the handle and coupling head are connected with said article, so that they are compelled to either move together or are held at rest while other parts are moved relatively thereto. The screw cover of a fruit jar may be gripped sufficiently tight in this manner so that it is compelled to either screw on or off the jar while the latter is held stationary or the cover may be held at rest while the jar is turned relatively thereto. If desired the wrench may be applied to the jar instead of to the cover or two wrenches operating in opposite directions may be applied to the cover and jar, respectively.

Inasmuch as the band is flexible the same exerts a yielding pressure against the parts which it encircles, thereby enabling the same to adapt itself to the surface which it engages and avoiding marring or crushing the article which is being held or turned.

My improved wrench contains but few parts, the same are not liable to become broken or dismembered and it can be instantly adjusted to suit articles varying in diameter, thus rendering the same particularly desirable for use in tightening fruit jar or bottle covers, oil or syrup cans and similar articles.

I claim as my invention:—

1. A wrench for the purpose described, comprising a handle, a head pivoted on said handle, and a band fastened at one end on said head while its opposite end is arranged between said head and handle, said handle having jaws on opposite sides of the pivot and adapted to bear against the adjacent parts of the band, substantially as set forth.

2. A wrench for the purpose described, comprising a handle, a head pivoted on said handle and provided with slots on opposite sides of the pivot, and a band arranged with one end in said slots while its opposite end is arranged between said head and handle, substantially as set forth.

3. A wrench for the purpose described, comprising a handle, a head pivoted on said handle and provided with slots on opposite sides of the pivot, a band arranged with one end in said slots while its opposite end is arranged between said head and handle, and jaws arranged on said handle on opposite sides of the pivotal connection between the same and the head and adapted to bear against said band, substantially as set forth.

4. A wrench for the purpose described, comprising a handle, a U-shaped head having a cross piece arranged opposite the front end of said handle and provided with two parallel transverse slots and two ears which project rearwardly from the ends of the cross piece and are pivoted to opposite sides of the handle, a band arranged with one end in the slots of the cross piece and with its opposite end between said cross piece and the handle, and jaws arranged on the handle on opposite sides of the pivotal connection between the same and the head and adapted to bear against said band, substantially as set forth.

Witness my hand this 21st day of May, 1909.

ROBERT H. PETERS.

Witnesses:
THEO. L. POPP,
E. M. GRAHAM.