No. 771,376. PATENTED OCT. 4, 1904.

H. LOXTERKAMP.

FLEXIBLE WRENCH.

APPLICATION FILED APR. 30, 1904.

NO MODEL.

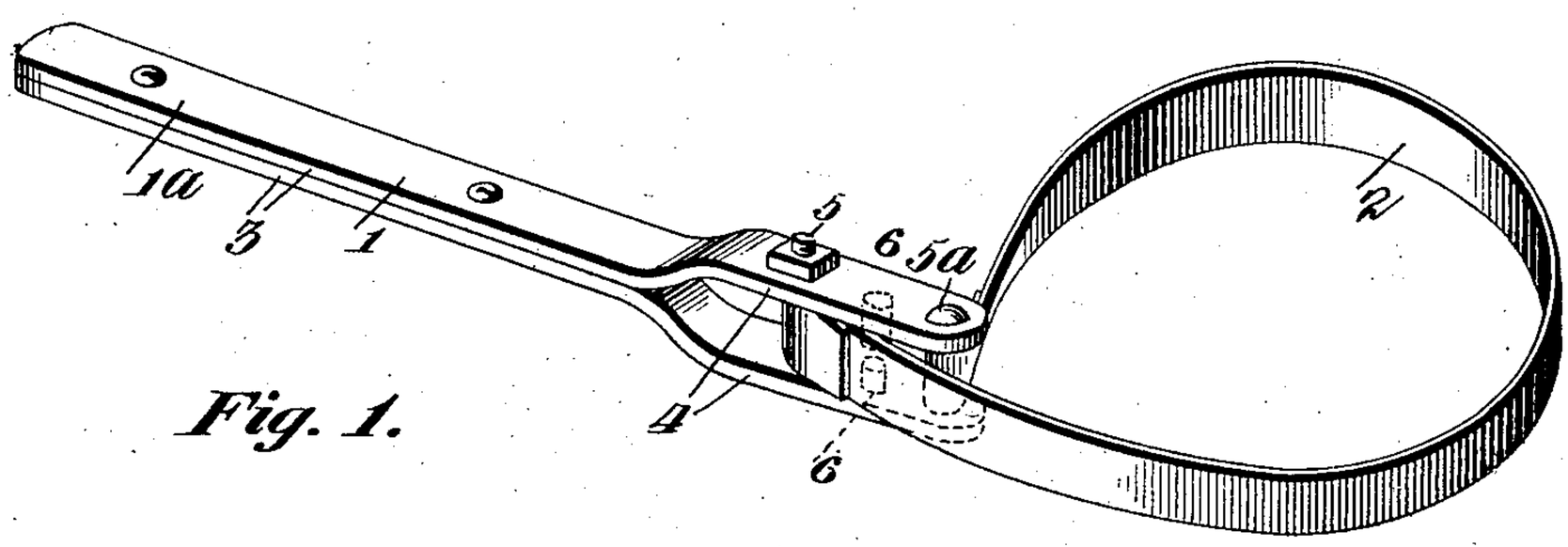


Fig. 1.

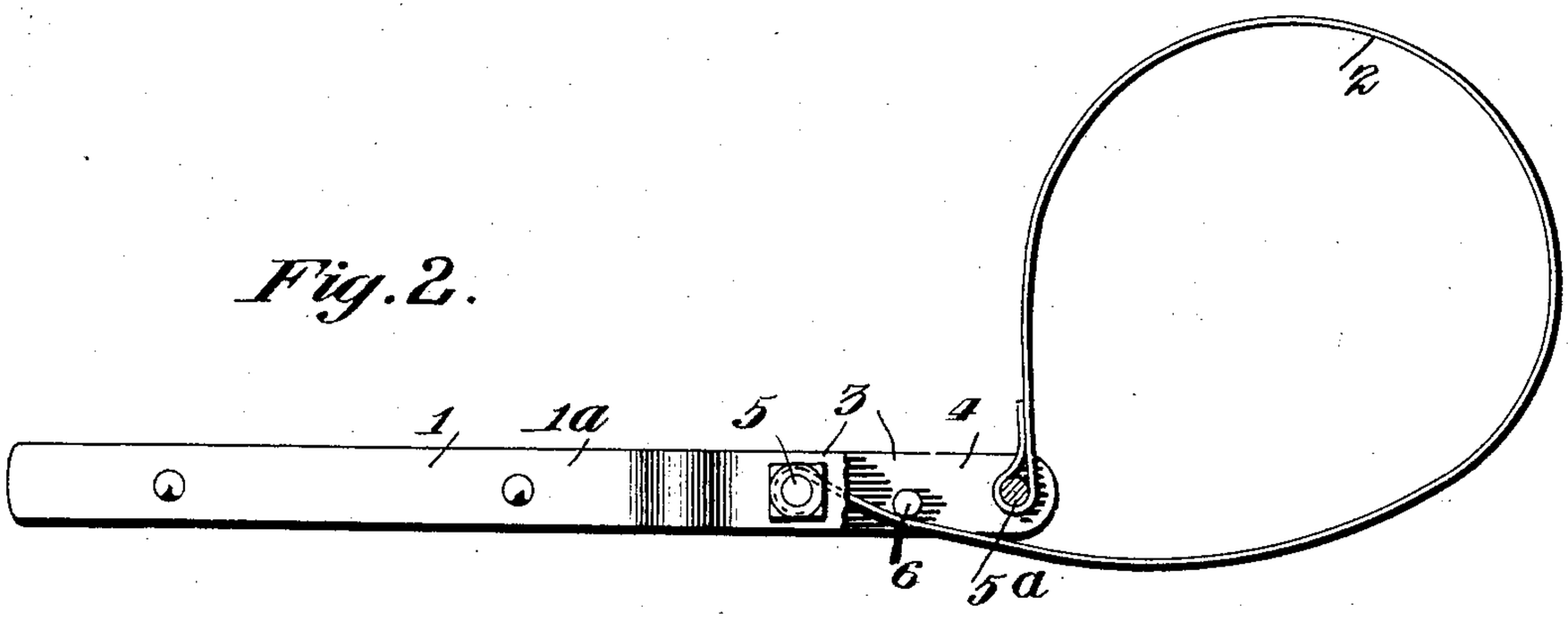
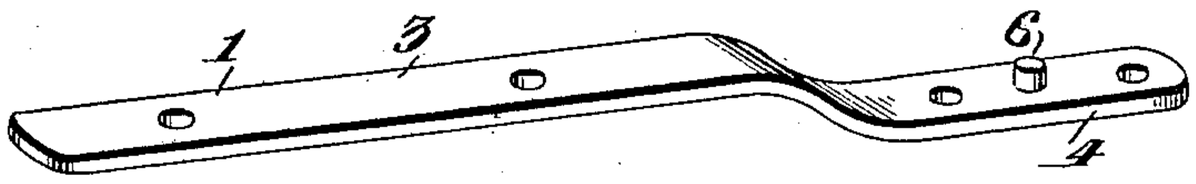


Fig. 2.

Fig. 3.



Witnesses
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No. 771,376. Patented October 4, 1904.

UNITED STATES PATENT OFFICE.

HENRY LOXTERKAMP, OF ROSELLE, IOWA.

FLEXIBLE WRENCH.

SPECIFICATION forming part of Letters Patent No. 771,376, dated October 4, 1904.

Application filed April 30, 1904. Serial No. 205,701. (No model.)

To all whom it may concern:

Be it known that I, HENRY LOXTERKAMP, a citizen of the United States, residing at Roselle, in the county of Carroll and State of Iowa, have invented certain new and useful Improvements in Flexible Wrenches, of which the following is a specification.

My invention relates to that class of devices commonly known as "flexible wrenches," and aims especially to provide an improved form of wrench which may be manufactured at a minimum cost and embodying an exceedingly simple and serviceable arrangement of parts as regards the structure thereof.

Generally describing my invention, the same comprises a handle-lever and a flexible, preferably metallic, band adapted to encircle a part so as to bind thereagainst upon operation of the handle-lever to unscrew said part or to otherwise manipulate same.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a wrench embodying my invention. Fig. 2 is a plan view. Fig. 3 is a detail perspective view of one of the complementary members comprising the handle.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The preferred adaptation of my invention is in its use as a wrench device for opening the bowls of cream-separators. However, it will be understood that the same may be utilized in various capacities where it would be desirable to secure a means readily applicable and operable for unscrewing parts or the like.

In the drawings the handle-lever is designated by the numeral 1, and the metallic band is indicated by the numeral 2. In order to secure a maximum degree of cheapness in the manufacture of my wrench, the handle-lever is constructed of complementary or similar bars 3 of flat form, and these bars are secured together at corresponding ends by means of suitable fastenings, so that the adjacent sides abut. The meeting portions of the bars 3 of the handle-lever extend the major portion of the length of the said lever and constitute the handle, which is grasped in the operation of the wrench. The ends of the bars 3 opposite to those which are secured together, as above mentioned, to form the handle 1^a are deflected from each other to form spaced arms 4, which arms are provided with two pivot members 5 and 5^a. The pivot member 5^a is disposed at the ends of the spaced arms, connecting these arms at each portion, wherein the pivot member 5 is located some distance away from the member 5^a and adjacent the handle 1^a. The band 2, which is made of steel metal preferably, is secured at one end to the pivot member 5 and at the other end is secured to the pivot member 5^a, so that movement of the lever will tend to cause the band to bind against the part which is being operated upon. In the operation of the device after the same has been so disposed as to embrace the part which is to be operated upon the end pivot member 5 constitutes the center of axis upon which the handle-lever 1 pivotally moves, whereas the pivot member 5 draws the flexible band 2, so as to effect the binding action thereof.

It is advantageous that the flexible band 2 be normally held open, and in order to positively cause the band 2 to spring into a position so as to likewise be ready for application to a part preparatory to use of the wrench lugs 6 are projected inwardly from the inner sides of the spaced arms 4 of the handle-lever, and these lugs engage the band 2 as the same is tightened about a part. The engaging coöperation of the lugs 6 with the band tends to throw the lever into a position causing the band to loosen about the object which is embraced thereby as soon as the pressure upon the handle-lever is relieved.

Having thus described the invention, what is claimed as new is—

In a wrench of the class described, the combination of a handle-lever composed of complementary bars secured together in abutting relation throughout the major portion of their length, corresponding ends of said bars being deflected from each other to form spaced members, a pivot member carried by the outer ends of the spaced members aforesaid, a second pivot member carried by the arms aforesaid and located adjacent the first-mentioned pivot member, a band having its ends secured to the pivot members upon the spaced arms, and lugs projected from the inner sides of the spaced arms between the pivot members and coöperating with the band to hold same in an open position.

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

HENRY LOXTERKAMP. [L. S.]

Witnesses:

FRANK X. ROTH,

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