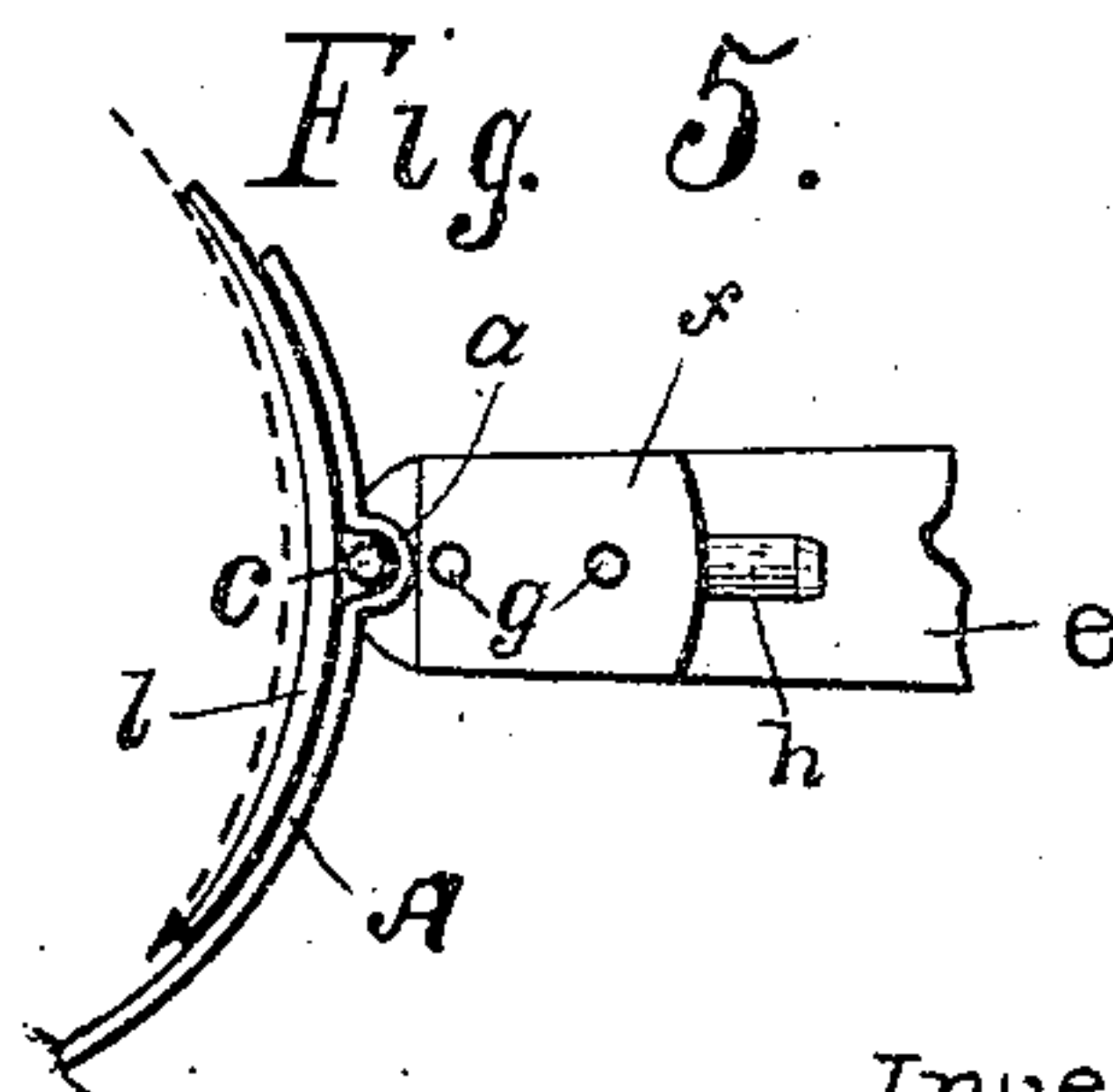
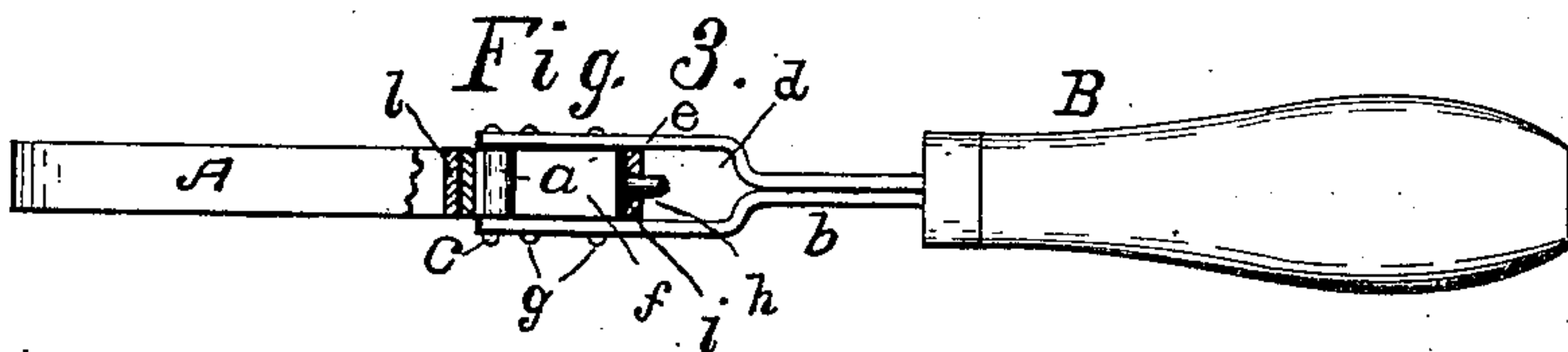
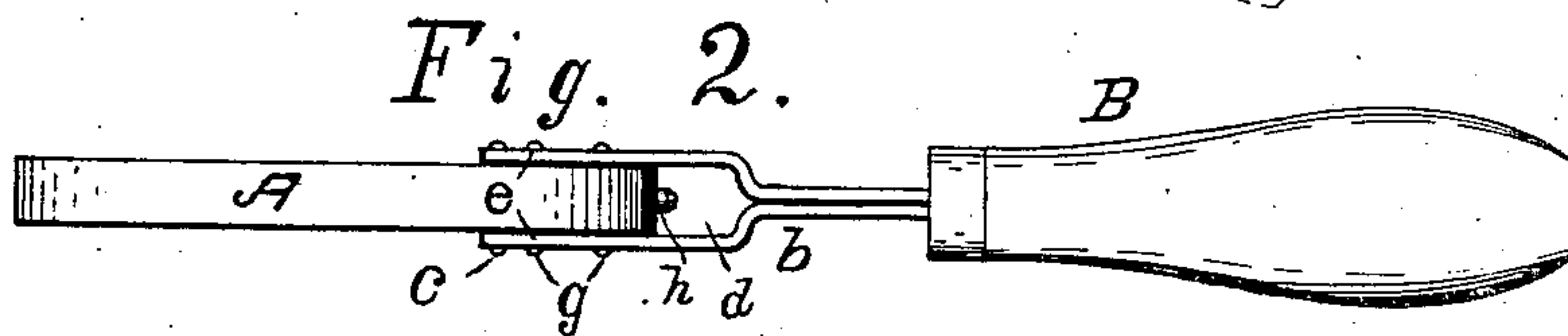
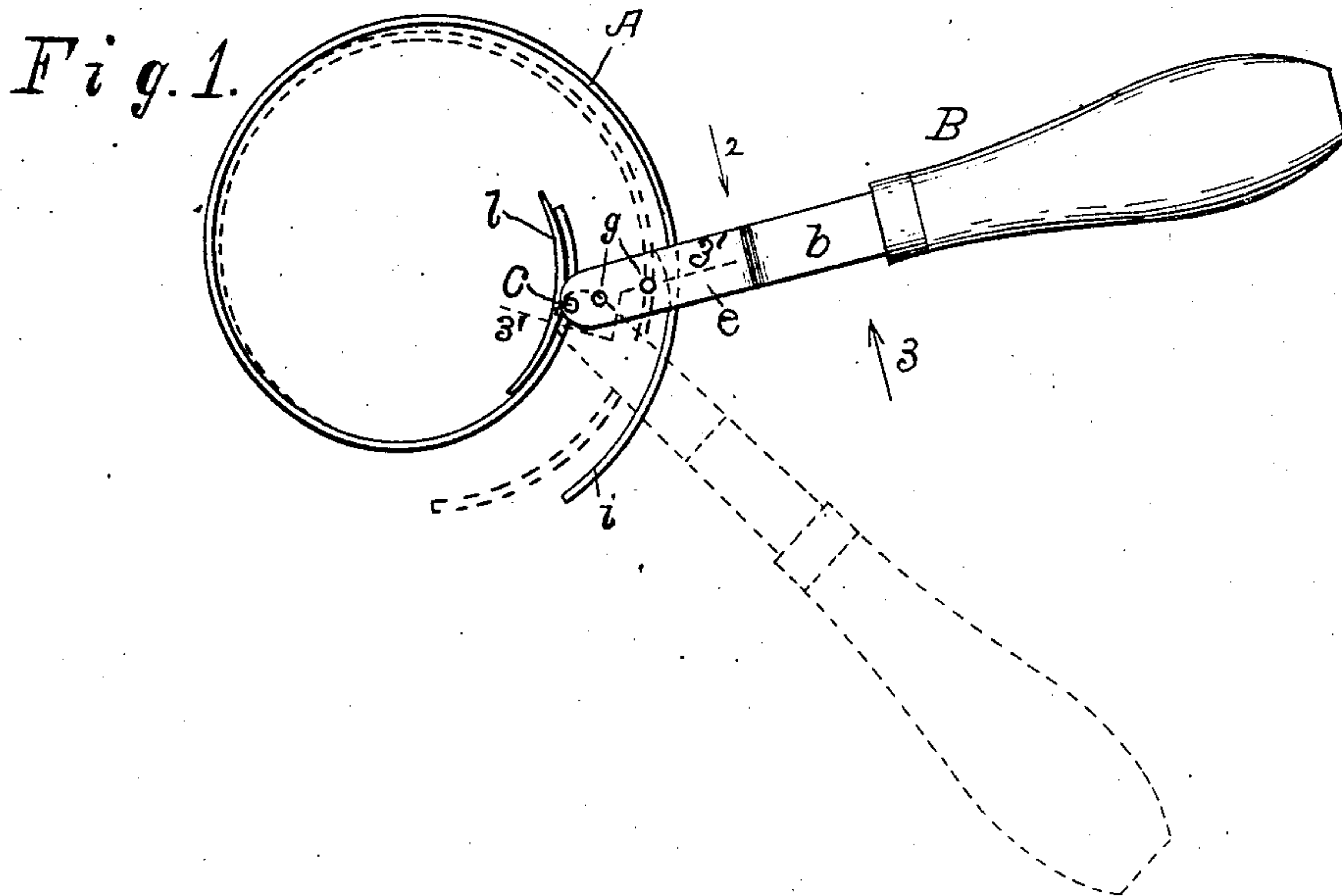


No. 824,369.

PATENTED JUNE 26, 1906.

E. W. MACAULEY.  
FRUIT JAR WRENCH.  
APPLICATION FILED AUG. 3, 1905.



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# UNITED STATES PATENT OFFICE.

EDWIN W. MACAULEY, OF ROCHESTER, NEW YORK.

## FRUIT-JAR WRENCH.

No. 824,369.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 3, 1905. Serial No. 272,544.

*To all whom it may concern:*

Be it known that I, EDWIN W. MACAULEY, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Fruit-Jar Wrenches, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention is a kitchen utensil, the same being an improved wrench for conveniently turning various light articles, but designed more particularly for turning the covers of screw-top fruit-jars either onto or off of the jars.

Lever-wrenches for turning the covers or the metallic cover-rings of fruit-jars have been used; but such are found to be in some ways objectionable, and in producing my present invention I have aimed to improve upon other similar devices by making it more perfect, less liable to injure the parts of the fruit-jar, and generally useful.

One object of my invention is to provide for a more convenient adjustment and shifting of the parts to fit jar-covers or cover-rings of different diameters.

Another object of the invention is to provide for a yielding or elastic grip upon the cover or ring for the purpose of preventing injury to the parts of the jar while operating.

A further object of the invention is to produce a wrench that will exert a substantially uniform or even pressure inwardly around the periphery of the jar-cover when applied thereto for turning it.

Other objects and advantages of the invention will be brought out and made to appear in the following specification and the construction more particularly pointed out in the appended claims, reference being had to the accompanying drawings, which, with the reference characters marked thereon, constitute a part of this specification.

Figure 1 is a plan of the wrench with parts shown in various positions by full and by dotted lines. Fig. 2 is an edge view seen as indicated by arrow 2 in Fig. 1. Fig. 3 is an edge view seen as indicated by arrow 3 in Fig. 1, the clamping-band being in part broken away and sectioned on the broken dotted line 3' 3' in said figure. Fig. 4 shows in elevation the perforated end portion of the clamping-band. Fig. 5 is a plan of parts at the end of the lever-handle, parts being broken away. Figs. 4 and 5 are drawn to a scale larger than that of Figs. 1, 2, and 3.

In the drawings, A is a strip of elastic metal constituting a band to encircle the cover or cover-ring of a fruit-jar, said band having normally an involute form, as appears in Fig. 1.

B is a lever-handle carrying and controlling the band A, this lever-handle comprising a bifurcated portion or member *b*. The band A is formed near its inner end with a bend or loop *a*, Figs. 3 and 5, to pass around or encircle a pin *c*, crossing at their extreme ends the branches *e e* of the divided part *b* and made rigid therein. The band is uniform in width and of a width to just pass freely into the space or opening *d* between the branches *e e* of the part *b*, it having a pivotal or swinging motion upon the pin *c*.

Between the branches *e e* of the lever-handle B is placed a metal block *f*, Figs. 3 and 5, made rigid in place by means of projecting pins *g g*, one end of the block being adjacent to the loop *a* of the band A. The block *f* is provided at its inner or rear end with a central longitudinal pin *h*, Figs. 2, 3, and 5, to engage the band near its outer overlapping end *i*, which end passes through the space or opening *d* of the handle B, said free end *i* being formed with a series of openings *k*, Fig. 4, to pass upon the pin *h*. The elasticity or spring of the band causes it to maintain its position upon the pin *h*, and by means of the construction above set forth the lever-handle B holds and controls both ends of the band A—that is to say, has two holds or bearings upon the band, one at the pivot-pin *c* and the other by means of the catch-pin *h*. This enables the lever-handle to maintain in any given case without change the length of the band A between said pins *c h*, measured around the curve of the band from one pin to the other, and by causing different ones of the apertures *k* to pass upon the pin *h* the length of the band between the pins *c* and *h* may be readily varied to fit jar-covers of different diameters.

In using the device for turning a cover onto a jar the device is ordinarily held in the right hand, the handle B being temporarily turned slightly away from the operator, as shown by full lines in Fig. 1, which expands the involute band A ready for placing upon the periphery of the jar-cover to be turned. When in place on the cover, the handle is drawn toward the operator, as to the position shown by dotted lines in the figure, which contracts the band tightly upon the cover and enables



the operator to turn it firmly onto the neck of the jar. To remove the cover from a jar, the device is turned the other side up and similarly operated, the handle being first  
5 held near the operator and then pushed away. In these operations of the device the handle part B as a whole acts as a lever of the first order, the fulcrum being at the pin *c*, with the pin *h* pulling upon the encircling  
10 band A, as will be clearly understood by viewing Fig. 1.

In some similar devices in use the grip upon the cover or the cover-ring is positive, and thus harsh and unyielding and liable to  
15 injure the part of the jar directly operated upon. I aim to overcome this in the construction herein set forth by providing a curved elastic strip or shoe *l*, Figs. 1, 3, and 5, secured to the inner face of the band A at  
20 its inner end to directly engage and press the cover or cover-ring of the jar, the concave side of the shoe being turned inward. This shoe *l* is commonly made of the same width as the band, though I may in some cases find  
25 it desirable to make it wider, so as to present a broader surface against the cover. I make this shoe comparatively thick at the middle and thin at the ends, as clearly shown in Fig. 5, thus giving it the form of a spring. I also  
30 make the shoe of a sharper curvature than that of the peripheries of jar-covers generally, so that when pressed against the cover its ends will first touch and yield as greater pressure is brought against it by the action of  
35 the lever-handle. This spring action of the shoe, together with the elastic action of the band as a whole causes the grip of the instrument upon the cover to be yielding, though very firm, and not harsh and liable to break  
40 or injure the adjacent parts of the fruit-jar, and it will be also understood that on account of the nature and form of the encircling band A it tightens by the action of the lever around the edge of the cover and exerts substantially a uniform inward pressure all  
45 round thereagainst, on account of which there is very little tendency to press the cover or the cover-ring out of shape or make it flat in spots or on opposite sides, as is the case

where lever devices of positive and more 50 harsh action are employed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A wrench consisting of a handle with bifurcated portion, a block rigidly held in the 55 bifurcation thereof, an elastic band having one end held on the handle upon one side of said block and the other end freely movable upon the opposite side of said block, the free end of said band being provided with a plu- 60 rality of perforations, and means on the block coöperating therewith, said free end being movable between the walls of the bifurcated portion of the handle and a shoe carried by the inner face of said band at its inner end. 65

2. A wrench for turning the covers of fruit-jars, comprising a handle and a band to engage the cover of the jar, and a block within the bifurcation of said handle forming a bearing for said band, said band being secured 70 near one end to the handle, and having its opposite end freely movable through an opening in, and controlled by the handle, and an elastic shoe on the band tapered from the center toward each end and made springy to 75 engage the cover.

3. A wrench for turning the covers of fruit-jars, comprising a handle and a band to engage the cover of the jar, said band being secured near one end to the handle, and having 80 its opposite end controlled by the handle, and a shoe on the band to engage the cover, said shoe being thinner at its ends than at the middle and having the nature of a spring.

4. A device such as described, comprising 85 a handle and a band carried by the handle, a concave shoe with tapered ends on the band, said shoe being elastic and its concavity of a radius less than that of the cover of the fruit-jar. 90

In witness whereof I have hereunto set my hand, this 1st day of August, 1905, in the presence of two subscribing witnesses.

EDWIN W. MACAULEY.

Witnesses:

ENOS B. WHITMORE,  
ADA M. WHITMORE.