

No. 631,801.

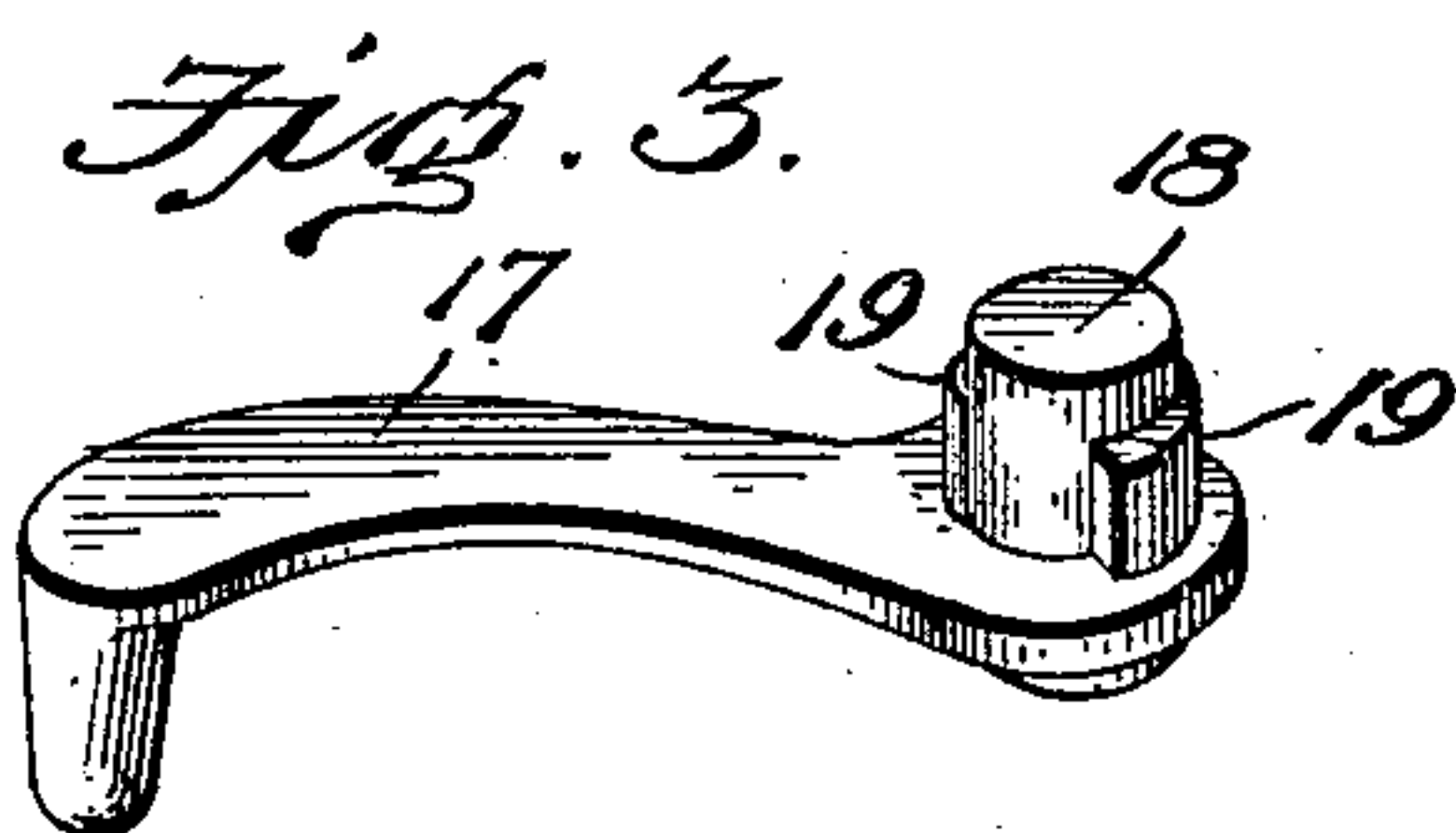
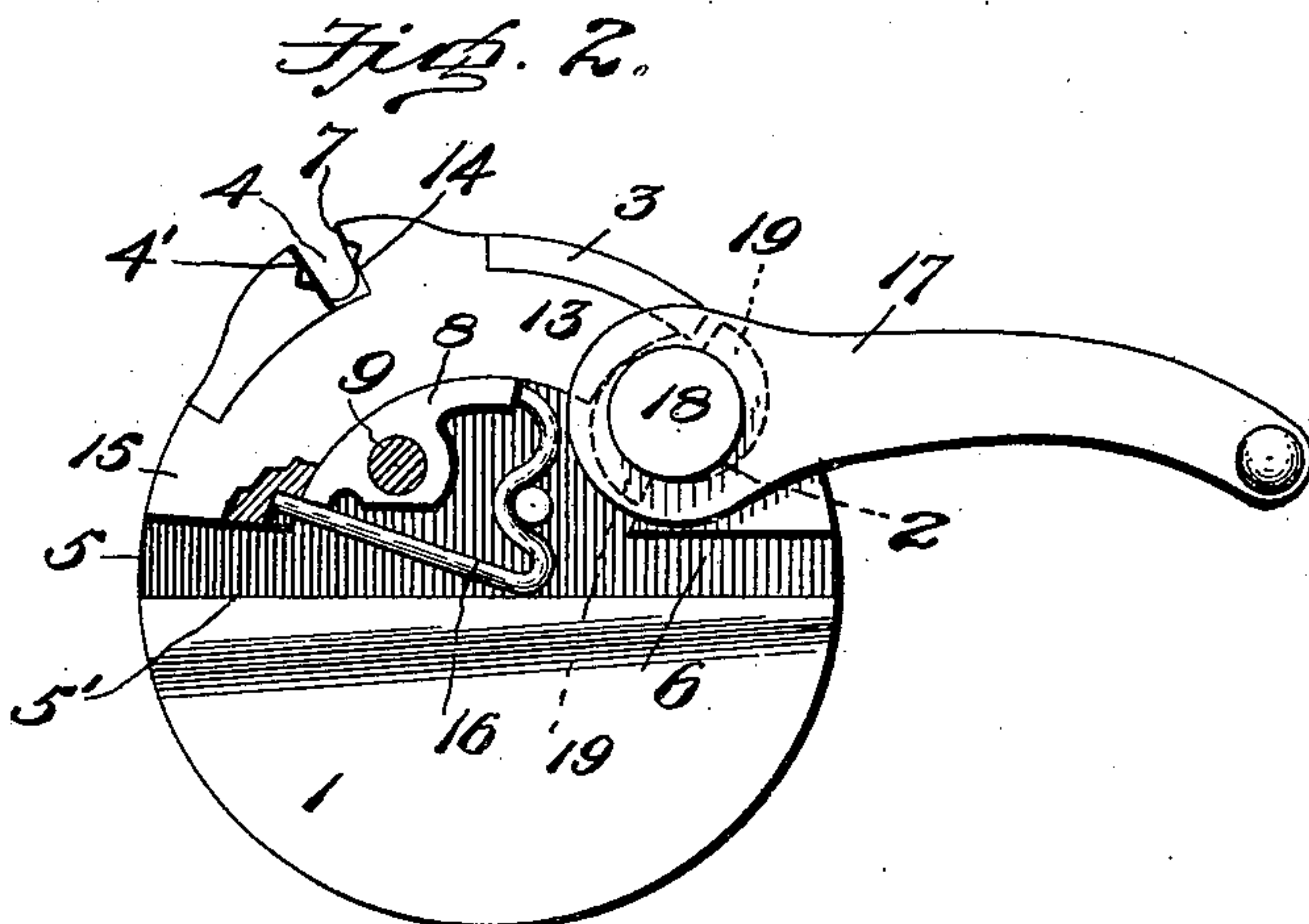
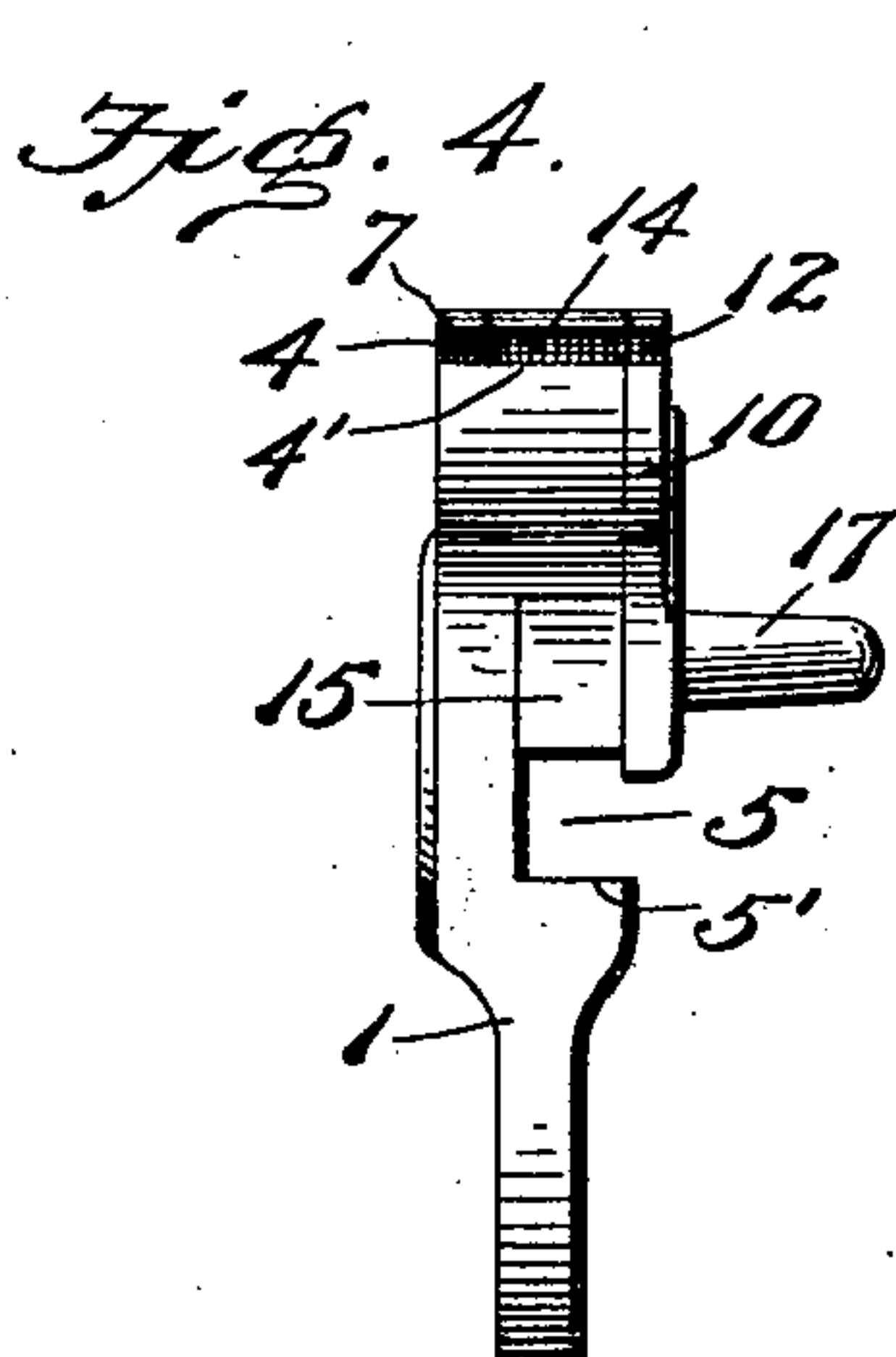
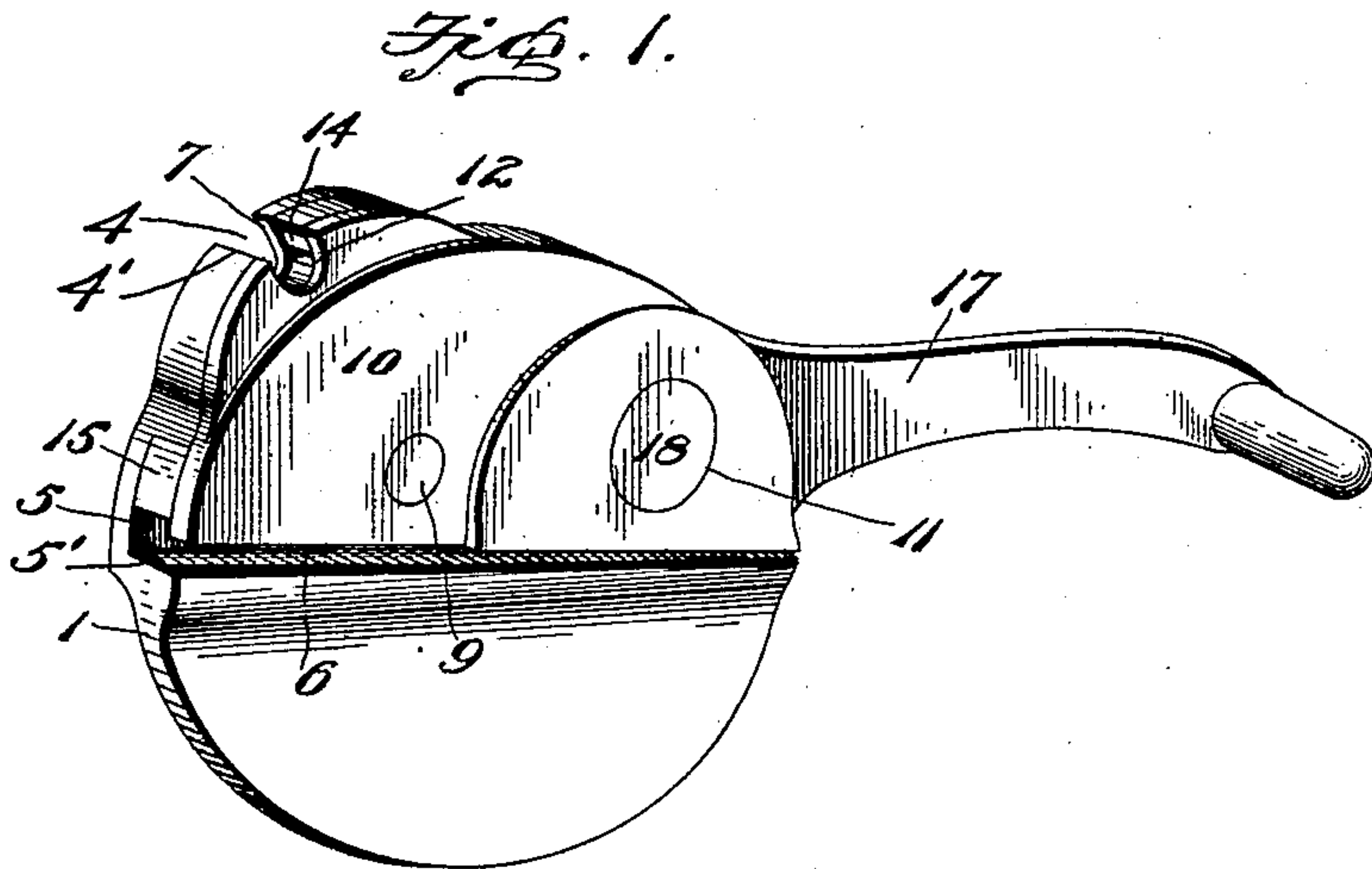
Patented Aug. 29, 1899.

R. L. LEVIN & C. BONGFELDT.

WRENCH.

(Application filed June 21, 1899.)

(No Model.)



Witnesses  
*Ed. Hunt*  
*W. Wilson* by *A. B. Wilson & Co.*  
Inventors  
- R. L. Levin and  
Charles Bongfeldt.  
Attorneys



# UNITED STATES PATENT OFFICE.

RUDOLPH L. LEVIN AND CHARLES BONGFELDT, OF MENOMINEE, MICHIGAN.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 631,801, dated August 29, 1899.

Application filed June 21, 1899. Serial No. 721,321. (No model.)

*To all whom it may concern:*

Be it known that we, RUDOLPH L. LEVIN and CHARLES BONGFELDT, citizens of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented certain new and useful Improvements in Wrenches; and we do 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.

The invention relates to wrenches, and more particularly to that class of inventions designed for the purpose of tightening the nipples of wire spokes used in the construction of bicycles and other similar wheels.

The object of the invention is to provide a device of this character which shall be simple and compact in construction, durable in use, and comparatively inexpensive of production.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of our improved wrench. Fig. 2 is a top plan view with the top piece or cover removed. Fig. 3 is a detail perspective view of the operating-lever, illustrating its cam-hub. Fig. 4 is an edge view of the complete wrench.

In the drawings the same reference characters indicate the same parts of the invention.

1 denotes the body of the wrench, which is preferably circular in form and is provided with an aperture 2 and formed around a portion of its periphery with a flange 3, provided with notches 4 and 5, thereby forming fixed clamping-jaws 4' 5'. A longitudinal groove 6 extends across the face of the plate and registers with the recess 5, and a notch 7 is made in the edge of the plate and registers with the notch 4.

8 denotes an integral lug, through which passes a rivet 9, that holds the cap-plate 10 in position. This cap-plate has an aperture 11, which registers with the aperture 2, and a notch 12, which registers with the notches 4 and 7.

13 denotes a sliding bar which is fitted between the inner face of the flange 3 and the integral lug 8 and is provided with two

clamping-jaws 14 and 15, respectively, the former coacting with the clamping-jaw 4' and the latter with the clamping-jaw 5'.

16 denotes a spring connected with the bar and exerting its energy to hold the jaws thereof away from the respective jaws of the plate.

17 denotes a clamping-lever having a hub 18 journaled in the apertures of the plate and its cover and formed with the cams 19, which are adapted one to engage the end of the bar and the other one of the walls of the aperture 2, whereby as the lever is depressed the jaws of the bar will be moved toward the fixed jaws and clamp anything in place therebetween.

In operation if it be desired to apply the device to a wire spoke the jaws are engaged with the spoke and the lever is depressed, thus forcing the jaw 14 firmly against the spoke and clamping the spoke between said jaw 14 and jaw 4'. In this position the device may be rotated and the spoke either tightened or loosened, as may be desired. Should it be desired to attach the device to the spoke-nipple, the jaws 15 and 5' are engaged with the nipple and the wire spoke with the longitudinal groove 6. The operating-lever is now depressed, which causes the jaws 5' and 15 to firmly clamp the nipple. In depressing the lever it will be noticed that it will cross the groove 6, in which the wire spoke is located, and thus prevent the device from accidentally slipping off the spoke in the act of rotating it axially about the spoke. It will thus be seen that when the device is used for adjusting the nipple the lever performs two functions—namely, that of clamping the jaws about said nipple, as well as closing the groove in which the wire spoke lies; and thereby preventing the device from becoming accidentally disengaged.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a wrench of the character described, the combination of the body portion provided with a groove extending across its face and a

fixed jaw formed by one of the walls of said groove, a sliding bar having a jaw to coact with the first-named jaw, a lever for clamping the jaws together, and a spring for separating the jaws when released by the lever, substantially as and for the purpose set forth.

2. In a wrench of the character described, the combination of the body portion provided with fixed jaws and with a groove that extends across its face, one of the walls of said groove forming one of the fixed jaws, a sliding bar provided with coacting jaws, a lever having a cammed hub to force the jaws of the bar toward the jaws of the body portion, said

lever adapted to cross the groove in the body portion, and a spring to separate the jaws of the bar from the jaws of the body portion when the bar is released by the lever, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

RUDOLPH L. LEVIN.  
CHARLES BONGFELDT.

Witnesses:

WM. O. CARLSON,  
FRANKLIN H. BROWN.