

No. 700,429.

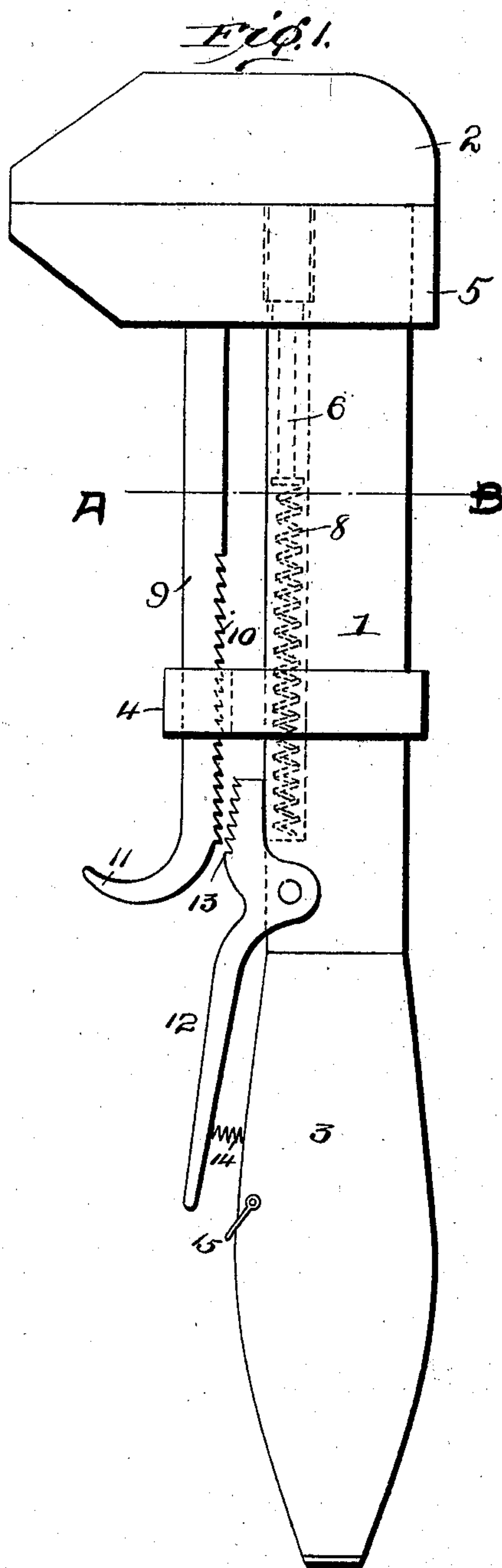
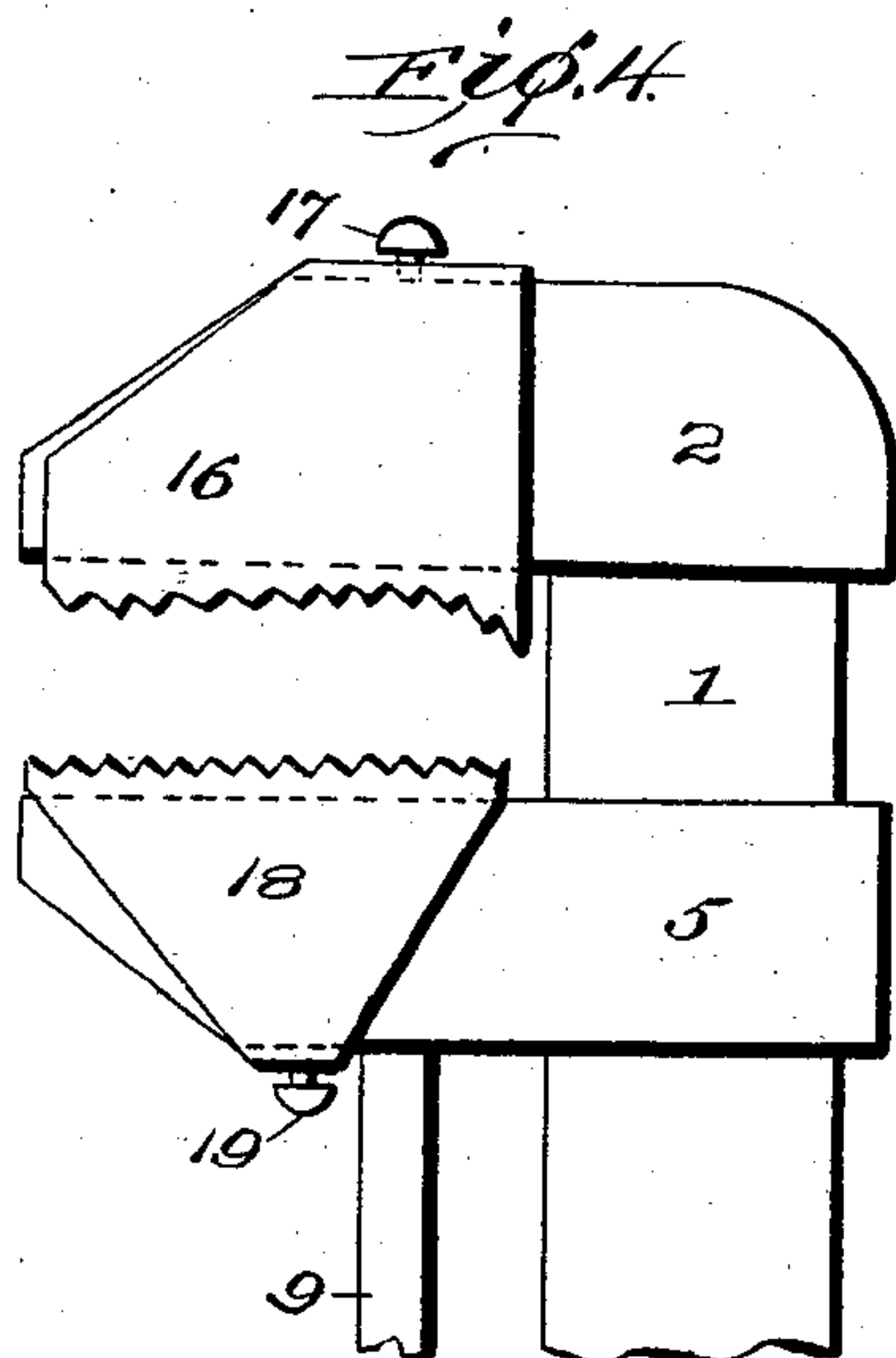
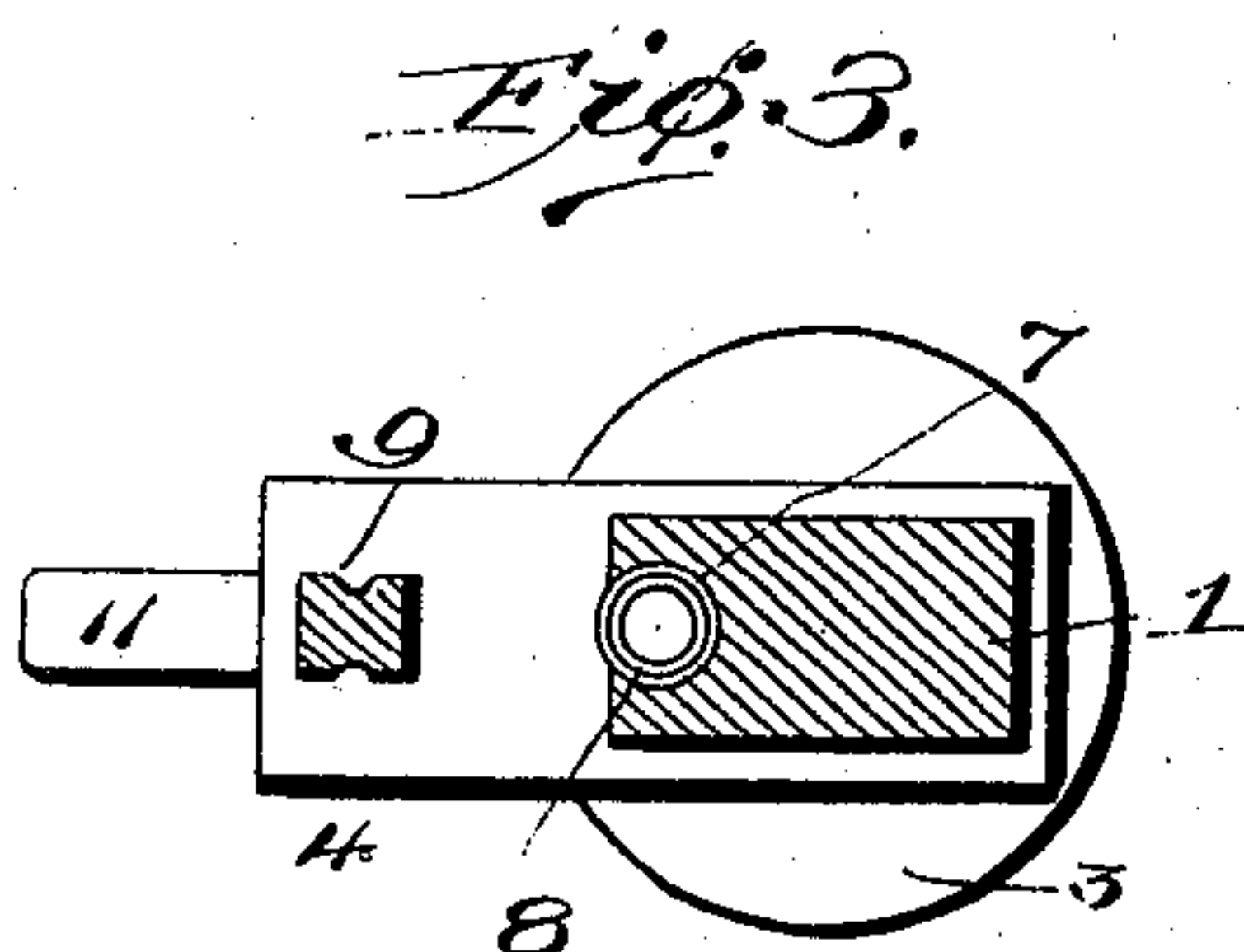
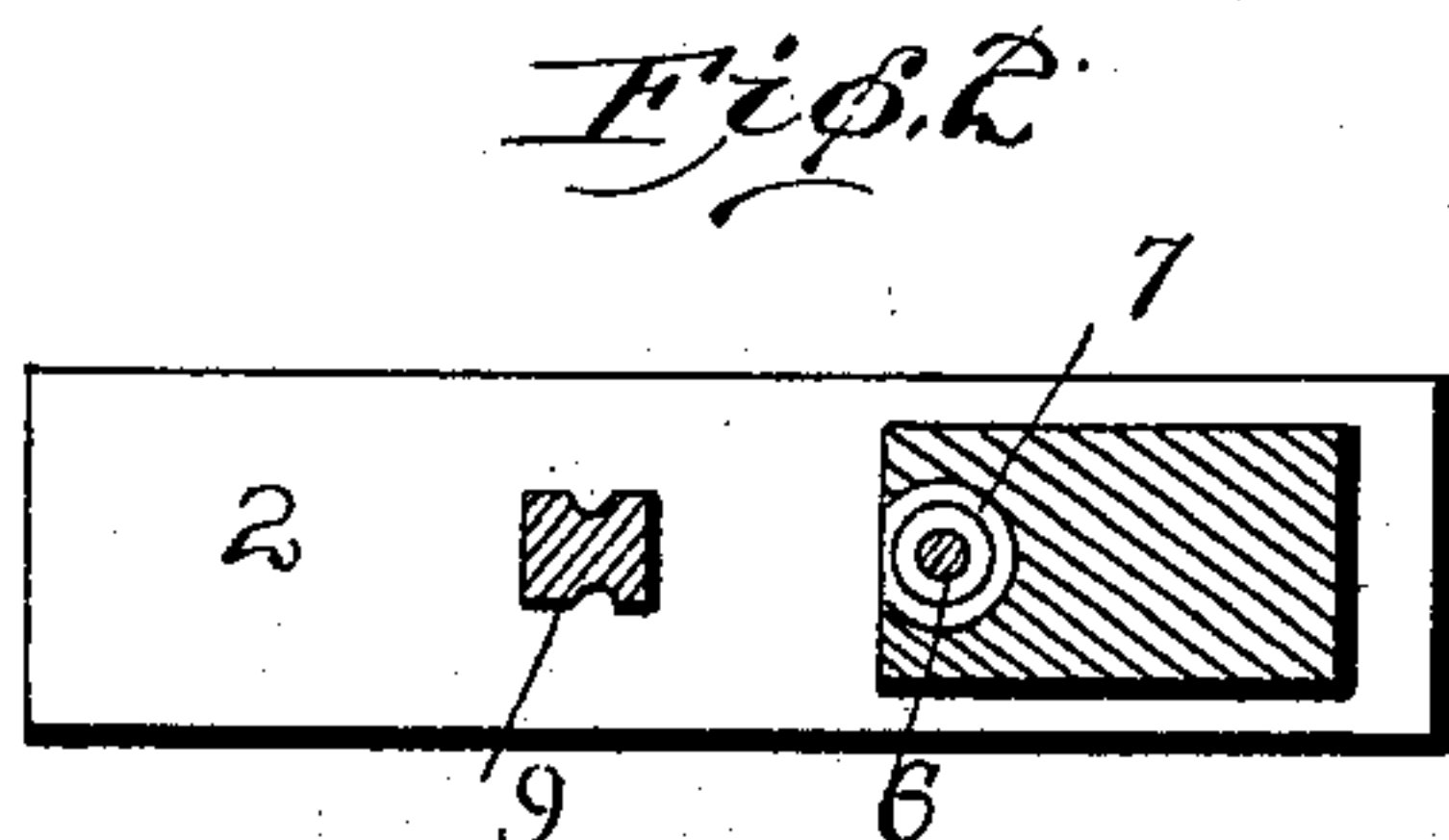
Patented May 20, 1902.

H. KINTZ & M. J. LENNARD.

WRENCH.

(Application filed Sept. 30, 1901.)

(No Model.)



Herbert Kintz  
Michael J. Lennard  
Inventors

Witnesses

Wm. C. Coshin  
O. J. Moore

by J. H. Stevenson  
Attorney



# UNITED STATES PATENT OFFICE.

HERBERT KINTZ AND MICHAEL J. LENNARD, OF SHARPSBURG, PENNSYLVANIA, ASSIGNORS OF ONE-THIRD TO FRANKLIN P. BOOTH, OF PITTSBURG, PENNSYLVANIA.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 700,429, dated May 20, 1902.

Application filed September 30, 1901. Serial No. 77,013. (No model.)

*To all whom it may concern:*

Be it known that we, HERBERT KINTZ and MICHAEL J. LENNARD, citizens of the United States of America, residing at Sharpsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to improvements in wrenches.

The object of our invention is to provide a simple and practical wrench that can be quickly adjusted to various-sized nuts.

In the accompanying drawings we have illustrated our invention by various views, in which—

Figure 1 is a vertical side view of the wrench. Fig. 2 is a sectional view of the top portion through the line A B of Fig. 1. Fig. 3 is a sectional view of the lower portion of the same section-line, and Fig. 4 is a view showing corrugated shoes fitted to the jaws.

In said views the numeral 1 designates the wrench-shank, having a head 2 and handle 3. 4 is a strap secured to said shank. 5 is an adjustable jaw. 6 is a pin extending from said adjustable jaw into an opening 7, formed in the front of said shank. 8 is a spiral spring seated in said opening to engage said pin and hold said adjustable jaw in closed position. 9 is an arm or stem depending from said adjustable jaw through the strap 4 and is provided on its inner edge with teeth 10 and is turned outward at the lower end in a hooked form at 11.

12 is a lever pivoted to the main shank 1 and has teeth 13 at its upper end. A spring 14 is arranged between the lower end of this lever and the wrench-handle. 15 is a V-shaped keeper pivoted to the wrench-handle.

At Fig. 4 we show how the wrench may be

used for pipes. 16 is a corrugated shoe fitted to the upper jaw and secured in position by a screw 17. 18 is another corrugated jaw secured to the lower jaw by a screw 19.

In practice the lower or movable jaw is pulled downward by grasping the hook 11 the distance necessary to take in the nut, and upon releasing said hook the spring 8 closes the jaw upon the nut. The lever then is depressed to cause its teeth to engage those of the shank 9 and when in this depressed condition is secured by the keeper 15. Releasing the lever 12 permits the jaw to close by action of the spring 8 when released from the nut.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A wrench consisting of the shank, the rigid jaw on the shank, the sliding jaw on the shank, the vertical spring-pin connected to the sliding jaw and arranged in the shank, the stem or arm depending from the sliding jaw and provided with teeth, the guiding-strip, and the grasping-lever fulcrumed to the shank and having teeth on its upper end to engage the teeth on the depending shank.

2. In a wrench, the combination of the shank carrying the rigid jaw, the sliding jaw mounted on the said shank, the stem or arm depending from the sliding jaw having teeth on its inner face, the lever fulcrumed to the shank and having a grasping lower portion and teeth on the upper portion to engage the teeth of the said shank.

In testimony whereof we have hereunto affixed our signatures in the presence of two subscribing witnesses.

HERBERT KINTZ.  
MICHAEL J. LENNARD.

Witnesses:

WM. LOWRY, Jr.,  
S. C. WORKMAN.