

H. JULICH.
WRENCH.

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952,261.

Patented Mar. 15, 1910.

Fig. 1.

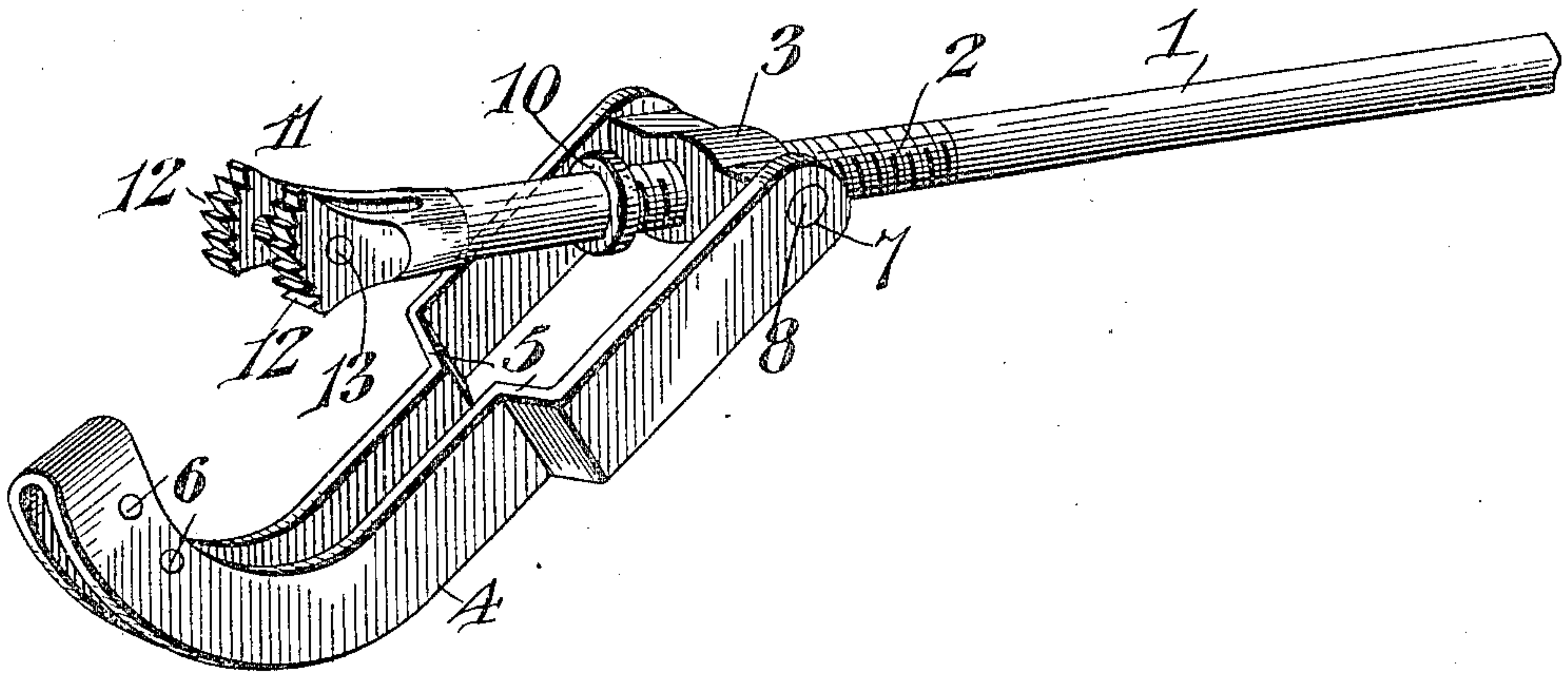


Fig. 2.

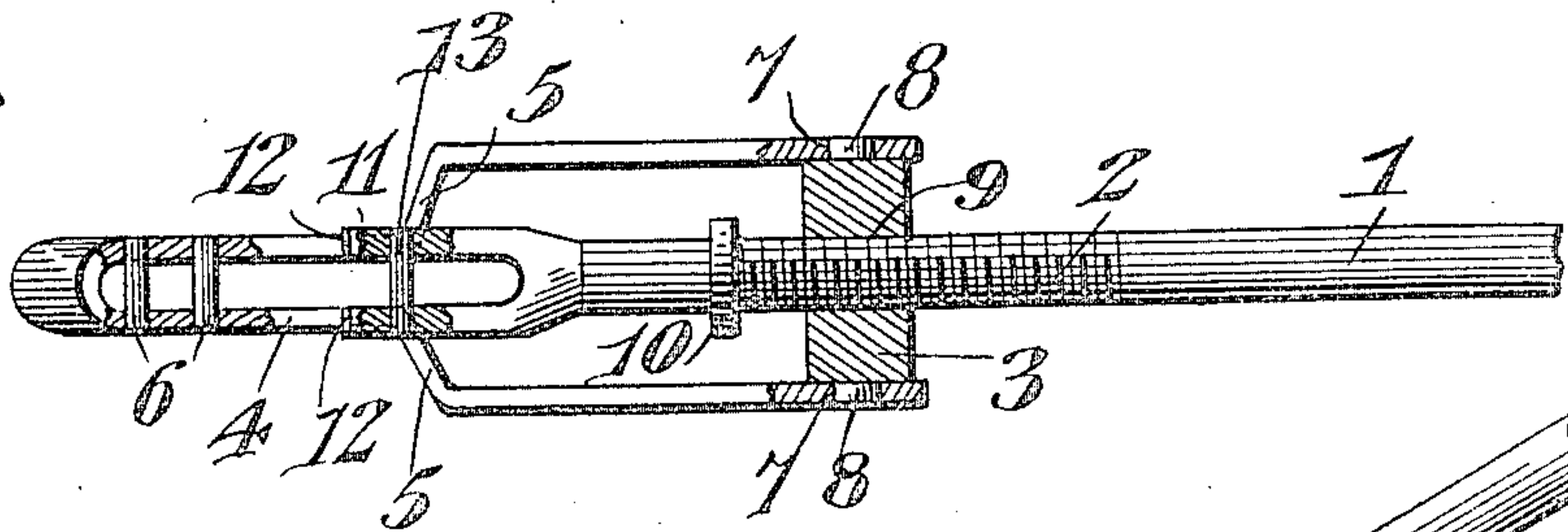
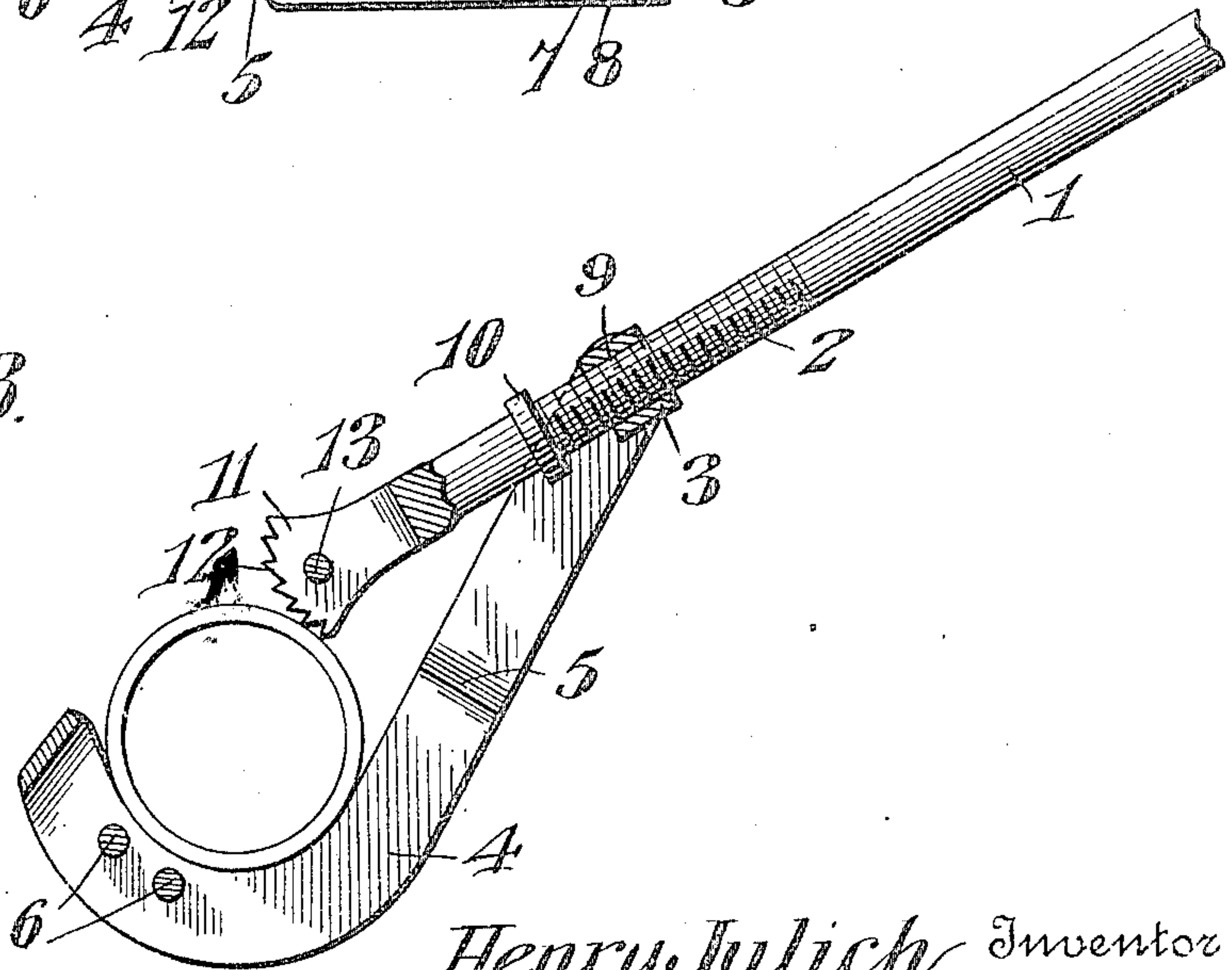


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY JULICH, OF MOUNT HOPE, WISCONSIN.

WRENCH.

952,261.

Specification of Letters Patent.

Patented Mar. 15, 1910.

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To all whom it may concern:

Be it known that I, HENRY JULICH, a citizen of the United States, residing at Mount Hope, in the county of Grant and State of Wisconsin, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

The object of the present invention is to improve the construction of wrenches, and to provide a simple and comparatively inexpensive one of great strength and durability, designed particularly for use on pipes and other round objects, and capable of securely gripping an object of any shape and of being quickly operated without injuring the pipe, or other object with which it is engaged.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a wrench, constructed in accordance with this invention. Fig. 2 is a plan view, partly in section. Fig. 3 is a longitudinal sectional view.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

The wrench comprises in its construction a handle or lever 1, provided intermediate of its ends with a threaded portion 2, adjustably engaging a transversely disposed bar or nut 3, which is pivotally mounted at the inner end of a substantially hook-shaped jaw or member 4. The hook-shaped jaw or member is constructed of a single piece of flat metal doubled at its center to form two spaced sides, which are outwardly bent at an intermediate point 5 to provide an outer narrow engaging portion or bill and a relatively wide inner portion. The outer engaging portions of the jaw or member are curved longitudinally and are arranged edgewise with relation to the engaging portion of the handle or lever. The sides of the narrow outer engaging bill form two

bearings for the pipe or rod and are preferably connected by transverse fastening pins 6, which operate to brace the hook-shaped jaw or member.

The inner terminals of the sides of the hook-shaped jaw or member are provided with openings 7, forming bearings for terminal journals 8 of the transverse bar or nut 3. The transverse bar or nut 3 is provided with a central threaded opening 9 to receive the threaded portion 2 of the handle or lever. By means of screw threads, the engaging outer end of the handle or lever is moved toward and from the engaging portion or bill of the hook-shaped jaw or member to arrange the wrench to suit the diameter of the pipe or other object to be operated on. The inner end of the handle or rod is designed to be equipped with a transverse grip for enabling it to be readily rotated to screw it in and out, and an annular flange or collar 10 is arranged at the outer end of the threaded portion 2. The outer end of the lever or handle is enlarged and is bifurcated to provide a pair of spaced heads 11, having convexly curved series of teeth 12 at their engaging edges. The convex engaging faces of the heads are uniformly curved at opposite sides of the center, so that the heads are reversible. By this construction, it is only necessary to rotate the handle or lever one half a revolution to effect an adjustment of the same, and should the engaging faces be injured at one end of the heads, the handle or lever may be reversed to bring the opposite ends in position for engaging a pipe or rod. The space between the engaging heads of the lever is approximately the same as the space between the front bearing portions of the hook-shaped jaw or member, the engaging heads and the bearing portions cooperating in coincident planes and exerting a double gripping action on a pipe or rod. The spaced heads may be connected by a transverse pin 13, extending across the space between the heads and adapted to space the same. The pin 13 may, of course, be omitted as the engaging end of the handle or lever is designed to be constructed of steel.

The wrench is adapted to securely grip the pipe or rod, which is placed in the recess formed by the curved or engaging portions of the hook-shaped jaw or member. The spaced heads engage the pipe or rod at the inner side at points diametrically opposite the engaging portions of the jaw or member,

and there is no liability of the wrench slipping or injuring a pipe, rod, or other object. The wrench is equally effective in gripping and operating on large and small objects, 5 and the teeth of the spaced jaws may be readily sharpened when they become dull.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

10 A wrench of the class described including a substantially hook-shaped jaw consisting of a single piece of flat metal doubled at the center to provide two spaced sides and to arrange the metal edgewise with relation to 15 a pipe or rod, and bent outwardly at a point intermediate of the sides forming two spaced bearing portions to receive a pipe or rod and relatively wide inner portions, a transverse bar or nut extending across and pivotally 20 mounted between the inner portions of the

sides of the jaw, and a handle or lever provided with a threaded portion to engage the nut or bar and having its outer end enlarged and bifurcated to form two spaced engaging heads, the enlarged outer portion of the 25 handle or lever being of substantially the same width as the front portion of the hooked-shaped jaw, and the said bearing portions and the engaging heads cooperating in coincident planes and doubly gripping a pipe or rod at diametrically opposite 30 points.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HENRY JULICH.

Witnesses:

JAS. K. HOYLE,
H. HANDY.