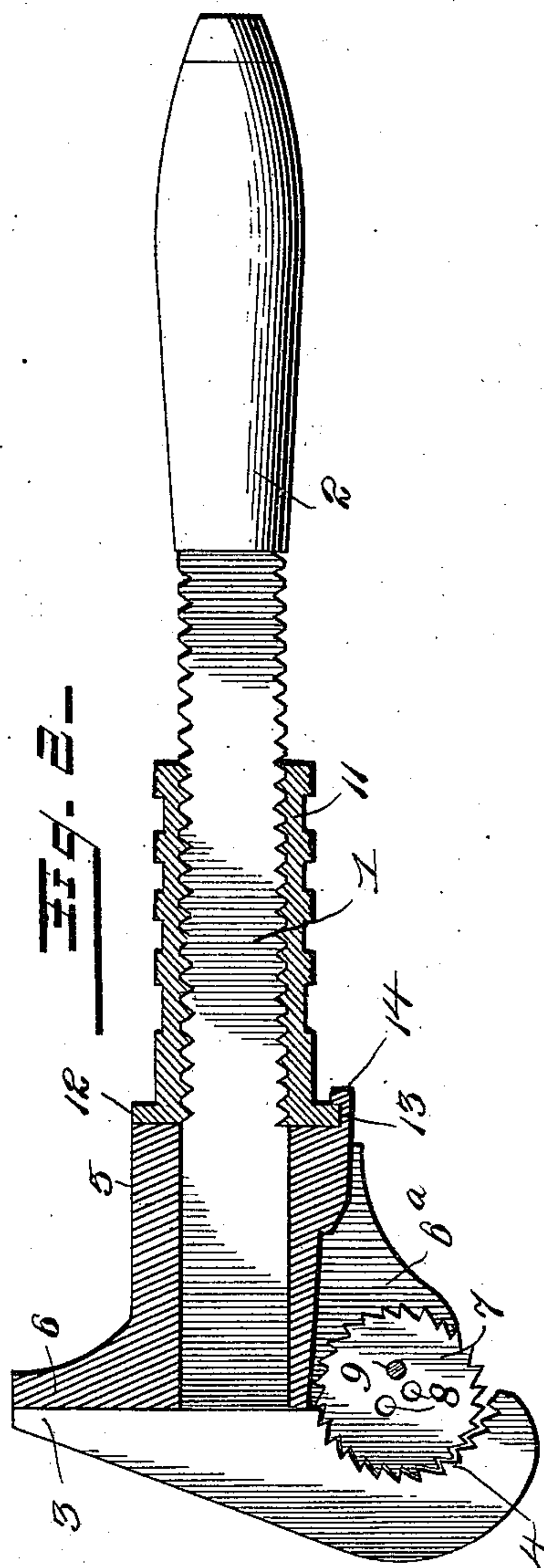
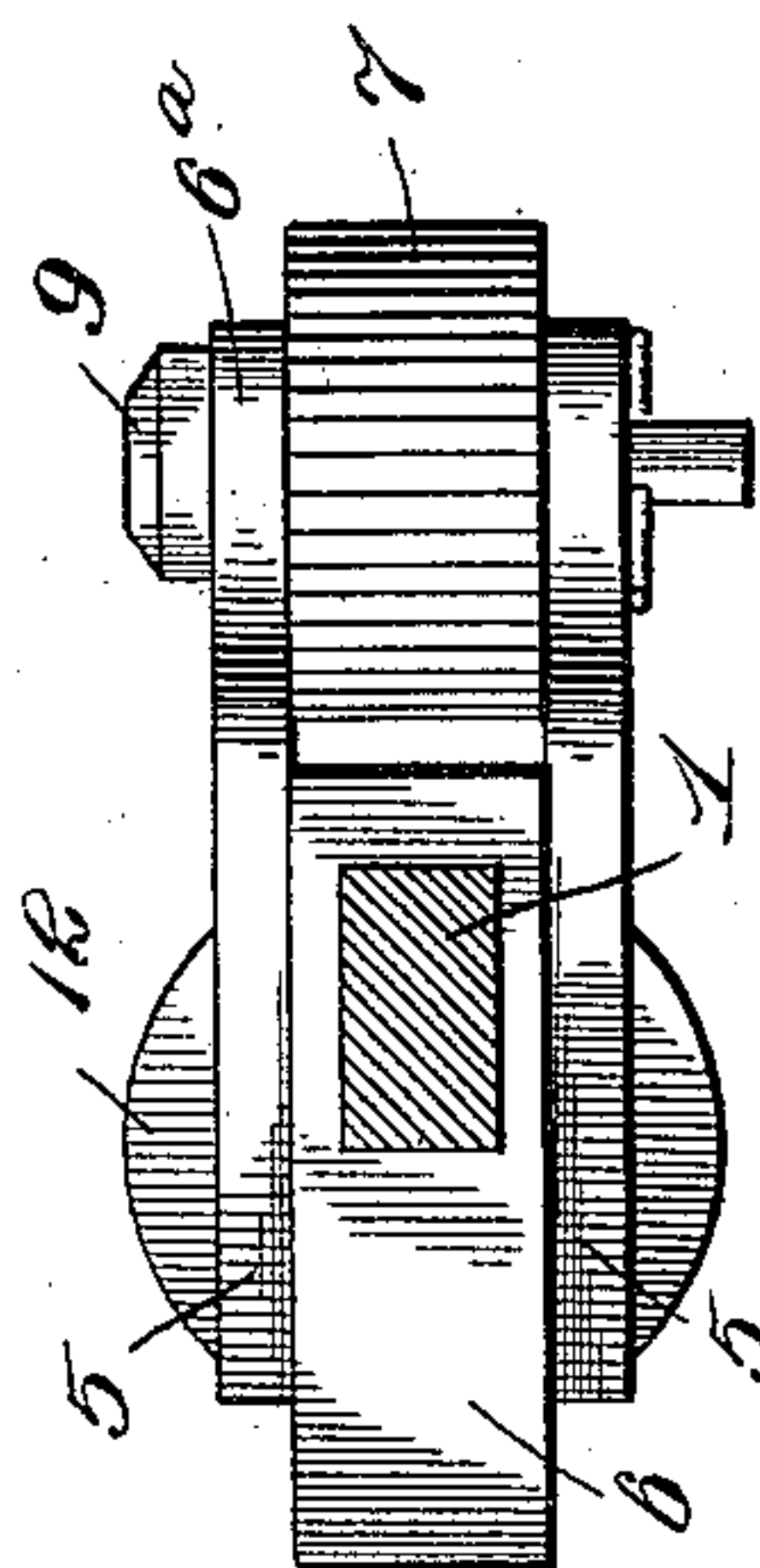
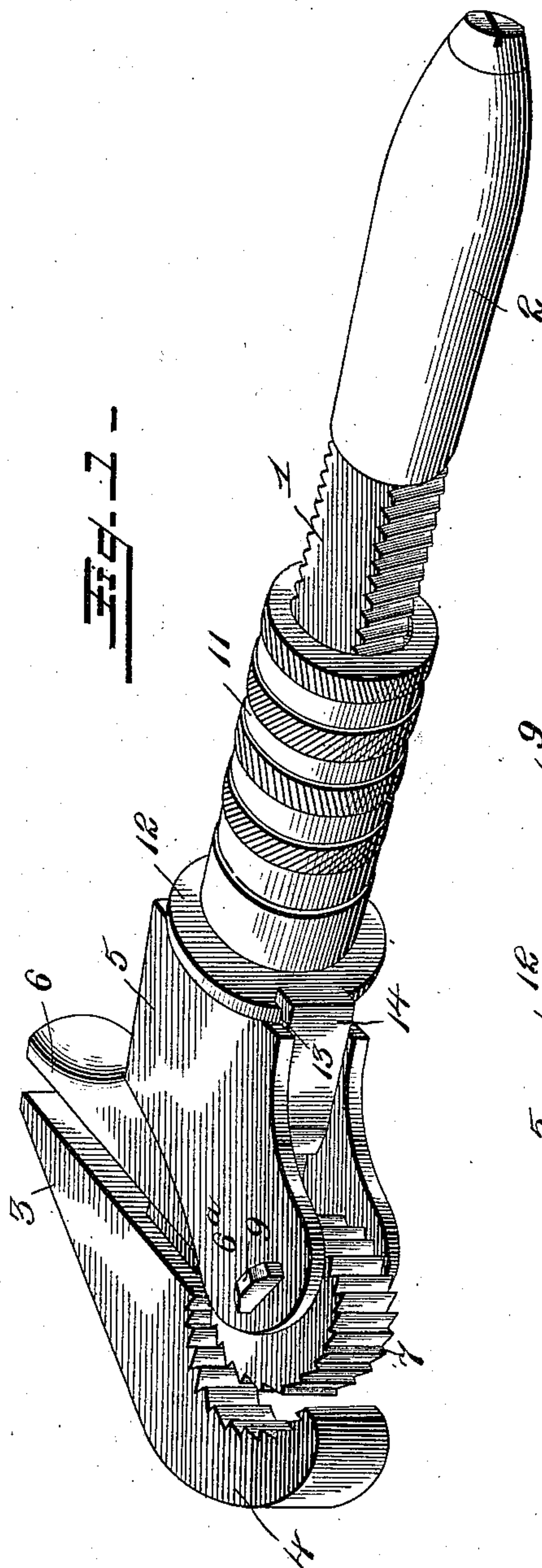


(No Model.)

C. H. DRIVER.
COMBINED PIPE AND NUT WRENCH.

No. 575,564.

Patented Jan. 19, 1897.



Witnesses

H. J. Koerth.
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UNITED STATES PATENT OFFICE.

CHARLES H. DRIVER, OF VALDOSTA, GEORGIA.

COMBINED PIPE AND NUT WRENCH.

SPECIFICATION forming part of Letters Patent No. 575,564, dated January 19, 1897.

Application filed November 30, 1895. Serial No. 570,643. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. DRIVER, a citizen of the United States, residing at Valdosta, in the county of Lowndes and State of Georgia, have invented a new and useful Combined Pipe and Nut Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

The object of the present invention is to provide a combined pipe and nut wrench, which will be simple and inexpensive in construction and strong and durable, and which will be capable of ready adjustment and adapted to exert a firm grip on a pipe, rod, or the like.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a combined pipe and nut wrench constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view.

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

1 designates a shank or bar receiving at one end a handle 2 and provided at its outer end with a head extending from opposite sides of the shank or bar 1 and forming rigid nut and pipe engaging jaws 3 and 4. The nut-engaging jaw 3 is provided with a smooth plane face and the pipe-engaging jaw 4 has an inner curved engaging face provided with teeth. A sliding jaw 5 is mounted on the shank and is provided at one side with a nut-engaging face 6, disposed opposite the jaw 3 and adapted to cooperate therewith; and the sliding jaw 5 is provided at the opposite side of the shank with perforated ears 6^a, between which is eccentrically pivoted a pipe-engaging wheel 7.

The pipe-engaging wheel 7 is provided at its periphery with shouldered teeth similar to those of the pipe-engaging face, and when the sliding jaw is moved to the outer extremity of the shank or bar 1 the pipe and rod engaging wheel 7 fits snugly within the rigid

jaw 4 and conforms substantially to the configuration of the engaging face thereof, and by this construction any size pipe or rod within the capacity of the wrench may be firmly gripped and securely held. The wheel 7 is provided with a series of eccentrically-arranged perforations 8, adapted to receive a pin 9 or other suitable form of pivot, and by employing a series of perforations the pin or pivot may be readily transferred from one to another, as the perforations become worn, thereby increasing the durability of the wheel. The pin is preferably provided at one end with a head and is detachably secured to the perforated ears by a key passing through a perforation of the other end of the pin.

The sliding jaw is operated by a nut 11, arranged on a threaded portion of the shank and provided adjacent to the sliding jaw with an annular flange 12, which engages a recess 13 of a projecting lip or flange 14 of the sliding jaw, whereby the nut is interlocked with the latter.

It will be seen that the combined pipe and nut wrench is exceedingly simple and inexpensive in construction, that it possesses strength, durability, and efficiency, and that it is capable of firmly gripping a pipe, rod, nut, or the like.

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

What I claim is—

1. In a wrench, the combination of a threaded shank provided with a pipe-engaging jaw, a sliding jaw mounted on the shank and provided with a lip disposed longitudinally of the shank and having a recess at its inner side, a pipe-engaging wheel provided with a series of eccentrically-arranged perforations and adjustably mounted on the sliding jaw, and a nut engaging the shank and provided with an annular flange fitting in the recess of said lip, substantially as and for the purpose described.

2. In a wrench, the combination of a shank, a head arranged at one end of the shank or bar and projecting from opposite sides thereof and forming a nut-engaging jaw 3 and a pipe-engaging jaw 4 having a curved engag-

ing face, a sliding jaw mounted on the shank
and provided at one side with a nut-engaging
portion and having at the opposite side ears,
a pipe-engaging wheel pivotally mounted be-
5 tween the ears and provided with a series of
eccentric perforations for the reception of the
pivot and conforming to the configuration of
the curved engaging face of the jaw 4 and
adapted to fit snugly therein, and a nut
10 mounted on the shank and connected with

and operating the sliding jaw, substantially
as described.

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

CHARLES H. DRIVER.

Witnesses:

H. C. BRIGGS,

ARTHUR S. HARRIS.