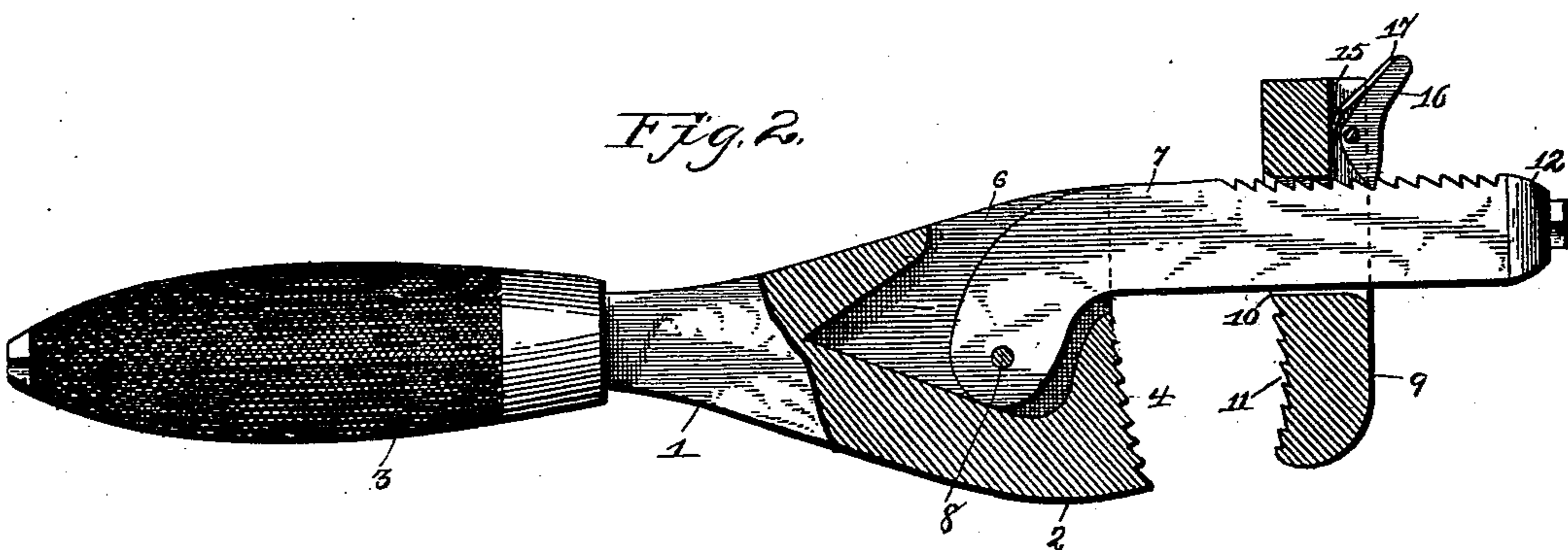
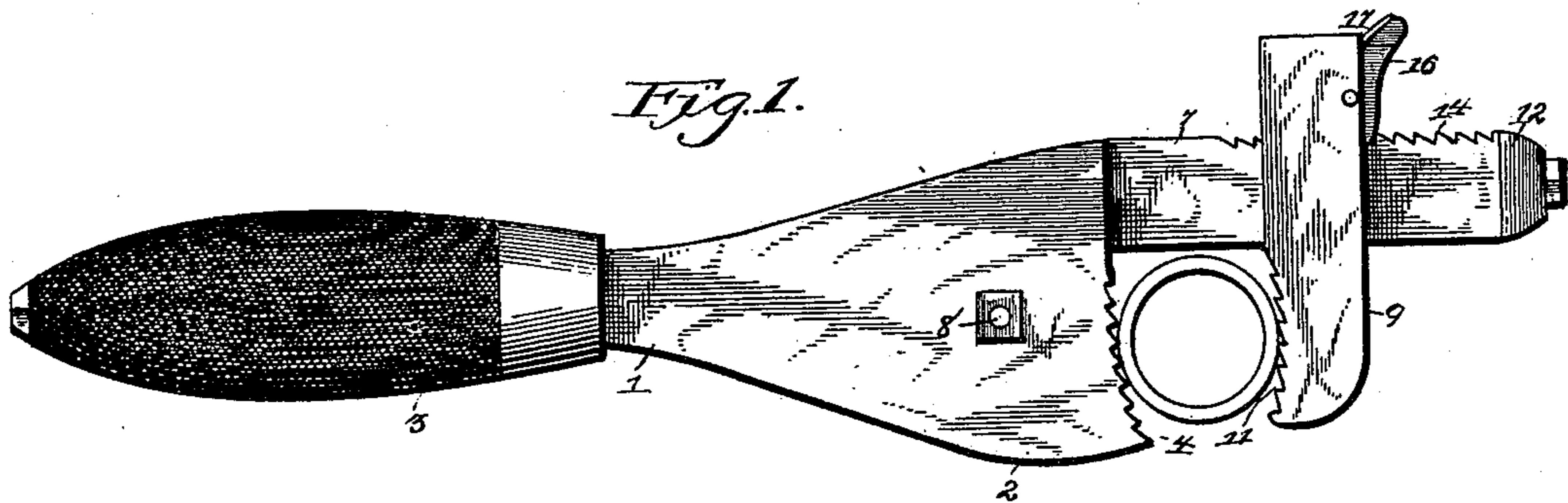


(No Model.)

H. ZUBER.  
PIPE OR ROD WRENCH.

No. 421,062.

Patented Feb. 11, 1890.



Witnesses:

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# UNITED STATES PATENT OFFICE.

HENRY ZUBER, OF NORWICH, KANSAS.

## PIPE OR ROD WRENCH.

SPECIFICATION forming part of Letters Patent No. 421,062, dated February 11, 1890.

Application filed October 19, 1889. Serial No. 327,518. (No model.)

*To all whom it may concern:*

\* Be it known that I, HENRY ZUBER, a citizen of the United States, residing at Norwich, in the county of Kingman and State of Kansas, have invented a new and useful Pipe or Rod Wrench, of which the following is a specification.

This invention has relation to pipe or rod wrenches, and among the objects in view are to provide a wrench for the above purpose adapted to automatically grip a pipe when placed in certain relative positions thereto, said wrench being easily adjusted for different-sized pipes or rods, all as will hereinafter appear, and together with the novel features be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of my invention applied to a pipe. Fig. 2 is a partial side elevation in section of a wrench.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the shank of the wrench, the upper end of which is flared to form a head or stationary jaw 2, and to the shank end there is connected a suitable handle 3. The upper end of the head is provided with a series of outwardly-disposed teeth or serrations 4, extending for about half the width of the head, and the remaining portion of said head is bifurcated, as at 6.

7 represents an L-shaped rack-bar, the lower L portion of which is by a bolt 8 pivotally mounted between the bifurcations of the stationary jaw or head.

9 represents a movable jaw having an opening 10 for the reception of the rack-bar, the forward under surface of said jaw being provided with a series of inwardly-disposed teeth 11. The upper end of the rack-bar is provided with a block 12, that prevents a separation of the movable jaw therefrom, and the rear edge of the rack-bar is provided with a series of inwardly-disposed teeth 14. A recess 15 is formed in the upper rear end of the movable jaw, and pivoted upon the same is a pawl 16, from the rear end of which there depends a spring 17, the opposite end of the pawl engaging with the teeth formed at the rear end of the rack-bar, whereby the movable jaw is maintained in any desired

adjusted position upon the rack-bar, and thereby increasing or diminishing the space between the jaws of the wrench and adapting them for the accommodation of pipes and rods of varying sizes.

The movable jaw is first adjusted to suit the size of the pipe or rod to be operated upon, which may be accomplished, as will be readily understood, by simply releasing the pawl from the teeth of the rack-bar. Now by inverting the wrench and at the same time introducing the same over the pipe or rod the pivoted rack-bar will drop by gravity and embrace the pipe.

Having thus described my invention, I claim—

1. The combination, with the wrench-head forming a stationary jaw, of a rack-bar pivoted to the head and a movable head mounted on the rack-bar, and a pawl mounted on the movable head and meshing with the rack of the bar, substantially as specified.

2. The combination, with the wrench-head forming a stationary jaw, of an L-shaped bar pivoted at its lower L end to the head and having its rear edge provided with a series of teeth, an adjustable jaw mounted on the bar, and a pawl pivoted on the jaw and meshing with the teeth of the bar, and a spring for maintaining the pawl in mesh, substantially as specified.

3. In a wrench, the combination, with a shank flared at its upper end to form a head and having one half of the head provided with teeth and the opposite half bifurcated, of an L-shaped bar, the L end of which is pivoted between the bifurcations, and the other end of which at its outer side is provided with a series of inwardly-disposed teeth, a sliding head having an opening and mounted on the bar and having its jaw provided with teeth, a recess formed in the upper rear surface of the movable head, and a pawl pivotally mounted in the recess and having its front end engaging the said teeth of the L-shaped bar, and a flat spring attached to the free end of the pawl for maintaining the same in mesh with the teeth in said bar, substantially as specified.

4. In a wrench, the shank having its outer end enlarged, having a socket therein, and

flared to form a stationary jaw 2, a bar 7,  
hinged at one end within the socket of the  
stationary jaw, and a movable jaw mounted  
on the said bar and provided with a detain-  
5 ing device, substantially as shown and de-  
scribed, as set forth.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in  
presence of two witnesses.

HENRY ZUBER.

Witnesses:

W. E. HAYNES,

JOHN F. LYTLE.