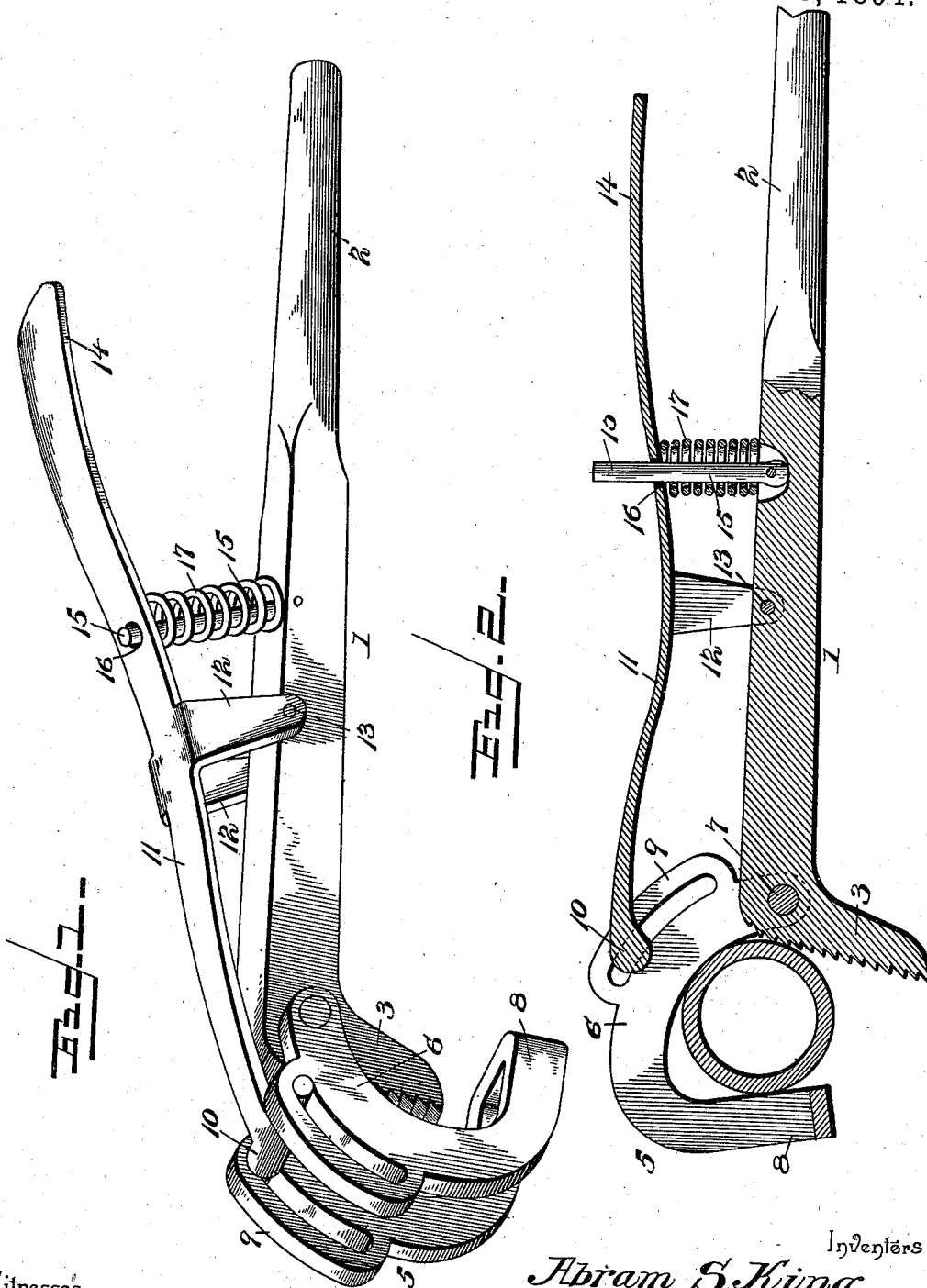


(No Model.)

A. S. KING & R. BEARDSLEY.
PIPE OR ROD WRENCH.

No. 513,580.

Patented Jan. 30, 1894.



Witnesses
E. H. Stewart
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By their Attorneys.

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UNITED STATES PATENT OFFICE.

ABRAM S. KING AND ROSWELL BEARDSLEY, OF ASHBY, MINNESOTA.

PIPE OR ROD WRENCH.

SPECIFICATION forming part of Letters Patent No. 513,580, dated January 30, 1894.

Application filed November 7, 1893. Serial No. 490,266. (No model.)

To all whom it may concern:

Be it known that we, ABRAM S. KING and ROSWELL BEARDSLEY, citizens of the United States, residing at Ashby, in the county of Grant and State of Minnesota, have invented a new and useful Pipe or Rod Wrench, of which the following is a specification.

Our invention relates to improvements in pipe and rod-wrenches; and the objects in view are to provide a wrench of cheap and simple construction that may be conveniently operated and will automatically adjust itself and grip upon in a secure manner a rod or pipe.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a pipe or rod-wrench embodying our invention. Fig. 2 is a vertical longitudinal sectional view of the same, the wrench being applied to a pipe.

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

In the practice of our invention we employ a stock 1, which at its inner end is shaped to form a handle 2, while its outer end is disposed laterally at nearly a right-angle to the stock to form a fixed jaw 3, whose outer edge or face is provided with a series of inclined teeth or serrations disposed toward the toe or outer end of the jaw. The movable jaw 5 is U-shaped, is formed of a blank doubled upon itself, and comprises the curved terminals 6 which embrace and are pivoted to the heel of the fixed-jaw by a transverse pin 7, and the outer or bent end 8, which is disposed at an angle to the terminals. Curved keepers 9, are formed upon the outer curved sides or edges of the terminals of the movable jaw. In these keepers engages the transverse head 10 of a lever 11, said lever being mounted upon the back of the stock and having inwardly disposed bearing-ears 12, which are pivoted at 13 to said stock about midway the same. In rear of the ears the lever is shaped to form a handle 14.

Loosely pivoted in the stock in rear of the ears is a guide-pin 15, the outer end of which projects through an opening 16 formed in the

lever, and a coiled spring 17 is interposed between the stock and lever and surrounds the pin, so that the lever and stock are spread in rear of their point of pivot. This completes the construction of the wrench and it will be seen that by compressing the two handles of the stock and the lever the outer ends thereof are separated against the tension of the coiled-spring, and inasmuch as the curved keepers on the movable jaw are eccentrically located with relation to the point of pivot of said movable-jaw, the latter will be swung outward or away from the fixed jaw. In this manner and when in this position the two jaws are introduced over the pipe or rod and immediately upon release thereof by the hand of the operator, the springs separate the inner ends of the lever and stock and swing their upper ends together. The head of the lever moving in the curved keepers or guides serves to press the movable jaw toward the fixed jaw, so that any object therein is securely gripped and can only be removed by an opening of the jaws. Attempts to remove the wrench only serve to cause the latter to bind more securely upon the object.

From the foregoing description in connection with the accompanying drawings, it will be seen that we have provided a very simple construction of wrench that may be operated by one hand, and will automatically adjust itself to pipes or rods of different diameters and also will grip upon the same in such manner as to obviate any slipping or accidental removal whatever.

We do not limit our invention to the precise details of construction herein shown and described, but hold that we may vary the same to any degree and extent within the knowledge of the skilled mechanic without departing from the spirit or sacrificing any of the advantages thereof.

Having described our invention, what we claim is—

1. In a wrench, the combination with a stock terminating at its upper end in a fixed-jaw, of a swinging-jaw pivoted to and embracing the fixed-jaw, curved guides formed on the rear edge of the movable jaw and eccentrically located with relation to the pivot thereof, and a lever fulcrumed on the stock

and engaging the guides, substantially as specified.

2. In a wrench, the combination with a stock terminating at its upper end in a fixed-jaw, of a swinging-jaw pivoted to and embracing the fixed-jaw, curved guides formed on the rear edge of the movable jaw and eccentrically located with relation to the pivot thereof, a lever fulcrumed on the stock and engaging the guides, and a spring for normally pressing the outer end of the lever toward the stock, substantially as specified.

3. In a wrench, the combination with the stock having the serrated fixed-jaw, of the U-shaped movable-jaw having its terminals embracing and pivoted to the heel of the fixed jaw and its outer end abruptly bent, the curved keepers arranged upon the terminals

of the movable jaw, the lever having the bearing-ears pivoted to the stock at the rear side thereof and provided at its front end with a transverse head engaging the keepers, a pin loosely connected to the stock and passed through a perforation in the lever in the rear of the ears, and a curved spring interposed between the lever and stock and mounted on the pin, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ABRAM S. KING.
ROSWELL BEARDSLEY.

Witnesses:

FRANZ WAHLDRICH,
K. N. O. MELLEY.