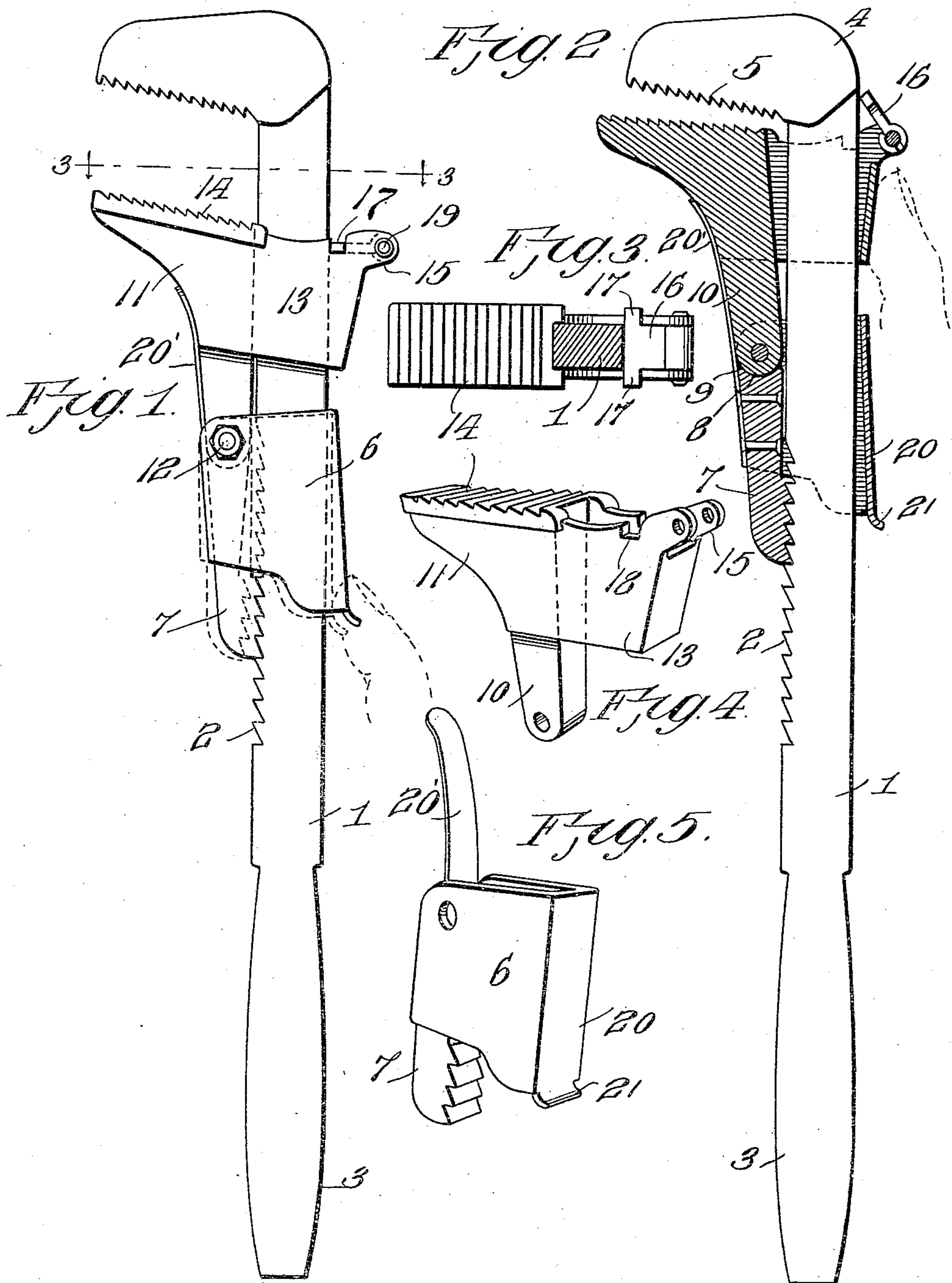


W. T. BENNETT.  
PIPE WRENCH.  
APPLICATION FILED MAY 21, 1909.

930,132.

Patented Aug. 3, 1909.



Inventor

William T. Bennett,

By Victor J. Evans

Attorney

Witnesses  
Frank Hough,  
R. M. Smith.



# UNITED STATES PATENT OFFICE.

WILLIAM T. BENNETT, OF GRANTS PASS, OREGON, ASSIGNOR OF FORTY ONE-HUNDREDTHS  
TO NANNIE E. ROAN, OF KENT, WASHINGTON.

## PIPE-WRENCH.

No. 930,132.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed May 21, 1909. Serial No. 497,475.

*To all whom it may concern:*

Be it known that I, WILLIAM T. BENNETT, a citizen of the United States, residing at Grants Pass, in the county of Josephine and State of Oregon, have invented new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention relates to wrenches and has for its object the production of a wrench embodying a fixed jaw and a movable jaw, combined with means for effecting both a sliding and a swinging or a rocking movement of the movable jaw, together with means for preventing the rocking or swinging movement of the movable jaw to adapt the wrench for use on nuts as well as rods, pipes and other round objects.

A further object of the invention is to provide a special form of pivot joint between the shank of the movable jaw and the adjusting and locking slide whereby all strain is entirely removed from the pivot connecting said parts.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of a wrench embodying the present invention. Fig. 2 is a longitudinal section through the same, showing the stock and fixed jaw in elevation. Fig. 3 is a cross section on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of the movable jaw. Fig. 5 is a similar view of the slide.

Referring to the drawings, 1 designates the stock of the wrench which is provided along one side with teeth or serrations 2. At one end the stock terminates in a suitable hand grip 3 while at the other end it is provided with a laterally projecting fixed jaw 4 provided on its working face with backwardly pitched teeth 5.

6 designates the adjusting slide which embraces the stock 1 and is movable lengthwise thereon. Connected rigidly to the slide 6 is a toothed dog 7, the teeth of which are adapted to engage the teeth 2 of the stock 1, as clearly illustrated in Figs. 1 and 2. The slide 6 is provided with a concaved recess 8 adapted to receive the correspondingly rounded extremity 9 of the shank 10 of the movable jaw 11, the shank 10 being con-

nected to the slide 6 by means of a pivot 12. This pivot may be comparatively small in view of the fact that the strain is entirely removed from said pivot and transmitted by the movable jaw 11 to the concaved shoulder or recess 8 in the slide 6, as clearly shown in Fig. 2, thus adding greatly to the strength and durability of the wrench.

The movable jaw 11 comprises an integrally formed sleeve 13 which embraces the stock 1 and is adapted to slide thereon when actuated by the slide 6. The jaw 11 is toothed or serrated on its working face, as shown at 14 and at the opposite side of the stock 1, the sleeve 13 is provided with pivot lugs 15 between which is mounted a pivoted stop 16. This stop 16 is T-shaped, as best illustrated in Fig. 3, or in other words, is provided with oppositely projecting extensions or finger pieces 17 which are receivable in notches 18 in the opposite side walls of the sleeve 13. The stop 16 which is mounted on the pivot 19 is adapted to be swung into and out of engagement with the adjacent side of the stock 1, as indicated in Figs. 1, 2 and 3, and when in engagement with the stock, said stop prevents the swinging or rocking movement of the movable jaw 11, thereby adapting the wrench to be used on nuts. When the stop is swung backward, as shown in Fig. 2, the movable jaw 11 is adapted to rock in a manner similar to the movable jaw of a Stillson wrench for obtaining the necessary grip on a rod or pipe and intermittently releasing and renewing said grip as the stock is swung back and forth in the usual way.

20' designates a spring connected at one end to the slide 6 and bearing at its opposite end against the movable jaw 11, said spring serving to press both the slide and the movable jaw toward and against the stock 1. The rear wall 20 of the slide 6 is extended to form a projecting lip 21 adapted to receive the operator's finger and enable him to readily rock the slide on the pivot 12 for moving the dog 7 into and out of engagement with the teeth on the stock.

To adjust the wrench to any object, it is only necessary to press the dog 7 away from the stock after which the slide and also the movable jaw may be slid lengthwise of the stock until the object is held between the fixed and movable jaws, whereupon by releasing the slide, the dog 7 interlocks with the stock and holds the movable jaw against



sliding movement without, however, preventing said jaw from oscillating or rocking back and forth to release and renew its hold on the object being operated upon. The  
5 construction above described enables the slide and the sleeve to be made narrower than the jaws 5 and 11 so that said parts will not interfere with the operation of the wrench by coming in contact with objects  
10 and surfaces adjacent to the object being operated upon and held between the jaws.

I claim:—

1. A wrench comprising a stock having teeth along one side thereof, a fixed jaw on  
15 said stock, a slide movable along the stock and provided with a concaved recess, a toothed dog rigidly attached to and carried by the slide and adapted to engage the teeth on the stock, a movable jaw having a shank  
20 with a rounded extremity fitting and working in said concaved recess in the slide, a pivot connecting said shank and slide, and a spring extending across the joint between the shank and slide and attached at one end  
25 to one of the last-named members and operating to press both the shank and dog against the stock.

2. A wrench comprising a stock having teeth along one side thereof, a fixed jaw on  
30 said stock, a slide movable along the stock, a toothed dog carried by the slide and adapted to engage the teeth on the stock, a movable

jaw having a shank, a pivot connecting said shank and slide, a spring extending across the joint between the shank and slide and  
35 operating to press both the shank and dog against the stock, and a stop pivotally mounted on the movable jaw and adapted to be swung into engagement with the stock to prevent the movable jaw from swinging on  
40 said pivot, substantially as and for the purpose described.

3. A wrench comprising a stock having teeth along one side thereof, a fixed jaw on  
45 said stock, a slide movable on said stock, a toothed dog carried by the slide and adapted to engage the teeth on the stock, a movable jaw having a shank and provided with oppositely located notches, a pivot connecting  
50 said shank and slide, a spring extending across the joint between the shank and slide and operating to press both the shank and dog against the stock, and a T-shaped stop pivotally mounted on the movable jaw and  
55 provided with oppositely projecting finger pieces adapted to enter said notches, said stop acting to prevent the movable jaw from swinging on said pivot.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. BENNETT.

Witnesses:

R. M. SMITH,  
K. ALLEN.