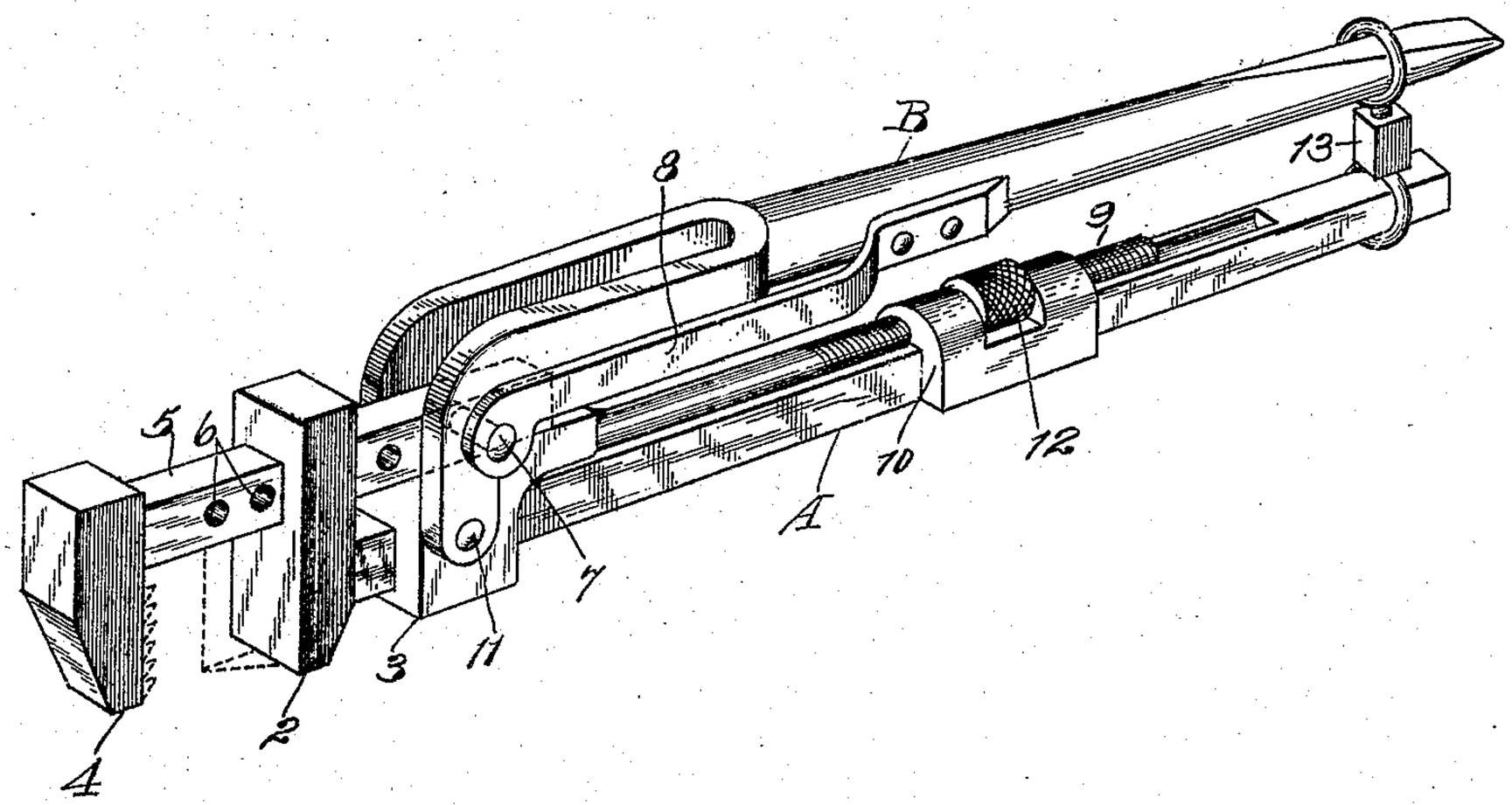
P. TAVERNETTI.

ADJUSTABLE WRENCH AND TOOL.

APPLICATION FILED JUNE 20, 1908.

911,629.

Patented Feb. 9, 1909.



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ADJUSTABLE WRENCH AND TOOL.

No. 911,629. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed June 20, 1908. Serial No. 439,492.

To all whom it may concern:

Be it known that I, PAUL TAVERNETTI, citizen of the United States, residing at Salinas, in the county of Monterey and State of California, have invented new and useful Improvements in Adjustable Wrenches and Tools, of which the following is a specification.

My invention relates to a tool which is especially designed to be used as a wrench, as a pincers, or forceps, or for bolt or pipe cutter, and for like purposes.

It consists in a combination of parts, and in details of construction which will be more fully explained by reference to the accompanying drawings, in which the figure is a perspective view of an adjustable wrench and tool embodying my invention.

The device includes two handles A and B having any suitable or desired length. The handle A carries one member 2 of the tool which is to be operated; as shown in the figure, this member is the jaw of a wrench. It may also be the one member of a pipe or bolt cutting tool, or of a forceps for gripping articles. The other member B is bent at the inner end, and is pivoted or fulcrumed to the slide 3 as shown at 11, so that when the jaws are separated, or closed toward each other, the movement of B is about the fulcrum 11, and the angle or bend, will have a forward and back movement. 4 is a second member of the tool; either a wrench jaw, a cutting blade of a pipe or bolt cutter, or the jaw of a gripping tool. This jaw 4 has a shank 5, which extends through the upper part of the jaw 2, and is slidable therein; the jaw 2 forming a guide to steady the movements of this shank. The shank is perforated with a number of holes 6, and any one of these holes may receive a pin 7, which also passes through the bend or angle of the lever arm B. In practice, there will be provided sufficient lost motion in the sliding and pivoted parts of the tool, to make said parts operative. It will thus be seen that when the handles are separated, the handle B pivoting upon the pin 11, will move the jaw or tool member 4 outwardly, thus opening the space between the two members. When the handles are closed together, the jaws will be caused to approach each other so as to grip the article between them, with such force as may be desired.

The pivot pin 11 connects the end of the handle B with a slide 3 which is movable upon the shank A, the latter being made rectangular as here shown to provide a steady and even movement.

The slide 3 has an extension 9, which is screw-threaded, and passes through a housing 10 which is carried upon the main handle bar A, and by means of a milled turnable nut 12 the screw shank, and the parts connected therewith, may be advanced or retracted with relation to the handle A. Thus the shank 5 having been fixed by the pin 7, passing through a hole in it so that the jaws 2 and 4, are separated to nearly the desired distance, the minor adjustment may be made by turning the nut 12, and advancing the slide 3 which carries the handle B and its attachments, until the exact adjustment has been made.

The pin 7 is preferably carried upon an elastic arm 8, which extends rearwardly along the handle B to such a distance that it will allow the pin to be withdrawn so as to change the position of the shank 5. This elastic arm 8 is bolted or otherwise secured to the handle B.

With the device thus constructed, it will be seen that when the proper adjustment has been made of jaws, shown at 2 and 4, the device will serve as a wrench, by simply maintaining the handles A and B in a closed position. After the proper adjustment has been made for the wrench, the outer ends of the handles may be held together by links, or a chain with a turnbuckle 13, or other tightening connection, so that the jaws are rigid while being used in this manner.

If it is desired to use the device as a forceps to grip and hold articles, it is only necessary to open the jaws by separating the handles, then closing the handles to grip the article.

It will be understood that the jaws 2 and 4 may be made in any suitable form for such a purpose, without changing the mechanism of the operative part.

If it is desired to use the device for cutting bolts, pipe or like material, it will only be necessary to substitute cutting jaws for the solid ones, and the operation will be similar. The jaws being closed upon the pipe or bolt, the attachment 13 will hold them, while the device is moved to cause the cutters to travel around the article to be cut, and by turning the turnbuckle, as the cut progresses, the jaws will be gradually closed until the cut has been completed.

It will also be apparent that when the pin 7 is fixed in any one of the holes 6 of the shank 5, that there will be a free movement of this shank 5 and the handle A when the other handle B is opened or closed about the pivot pins 7 and 11.

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

1. An implement of the character described, having in combination, a handle with a jaw at one end, a shank parallel with said handle and having a jaw at one end to coact with the first-named jaw, a slide mounted on the handle, a second handle having one end substantially bent at right-angles, said bent-end and a portion of the handle being forked so that the members thereof straddle said shank and the slide, means pivotally securing the bent-end of the second handle to said slide, means for adjusting the slide on the first-named handle, and detent means on the second handle engaging said shank and moving the jaw thereof relative to the companion jaw.

2. In an implement of the character described, the combination with a handle having a jaw at one end, a slide mounted on said handle, means for operating said slide, a second handle having its inner end bent substantially at right-angles and forked so as to straddle the slide, said bent-end being pivotally secured to the slide, a shank slidably mounted in said jaw, and extending rearwardly between the forks of the second handle, said shank having a jaw on its outer end, and means connecting said shank with the angle of the second handle whereby when said second handle is operated, the jaws are moved one relative to the other.

3. In an implement of the character described, the combination of a handle having a jaw at one end, a housing carried by said handle, a slide embracing said handle and movably mounted thereon, said slide having a threaded extension passing through said housing, a nut in the housing engaging the threaded portion of said extension whereby the slide is adjustably mounted, a second handle having its front end forked and provided with a right-angled portion which straddles said guide, a shank extending through the jaw of said handle and between the forks of the second handle, said shank having a jaw on its outer end, and a spring-plate carried by the second handle having a transversely extending pin operating through the forked-portion thereof contiguous to the handle of the bent front end thereof, and engaging said shank whereby the latter and its jaw are reciprocated by the opening and closing of the second handle.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PAUL TAVERNETTI.

Witnesses:
THOS. RENISON,
JOHN OLSEN.