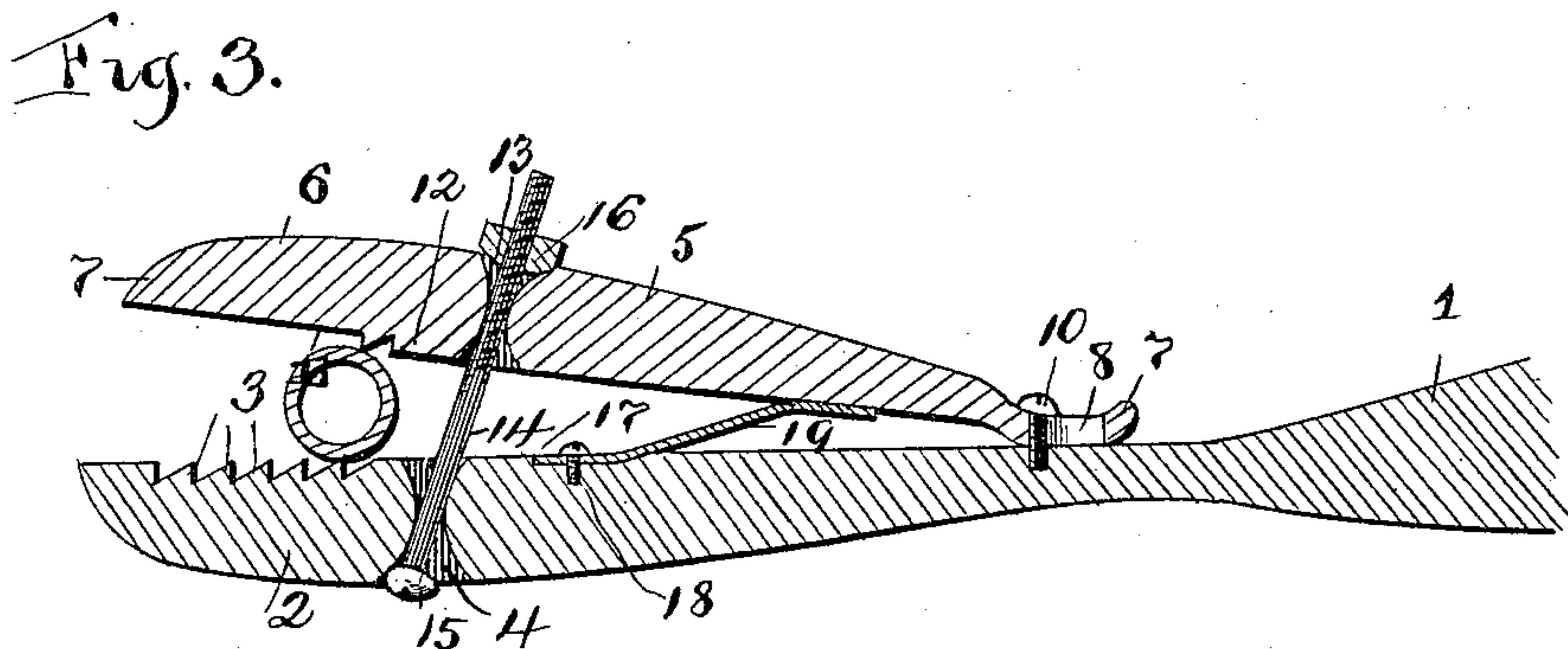
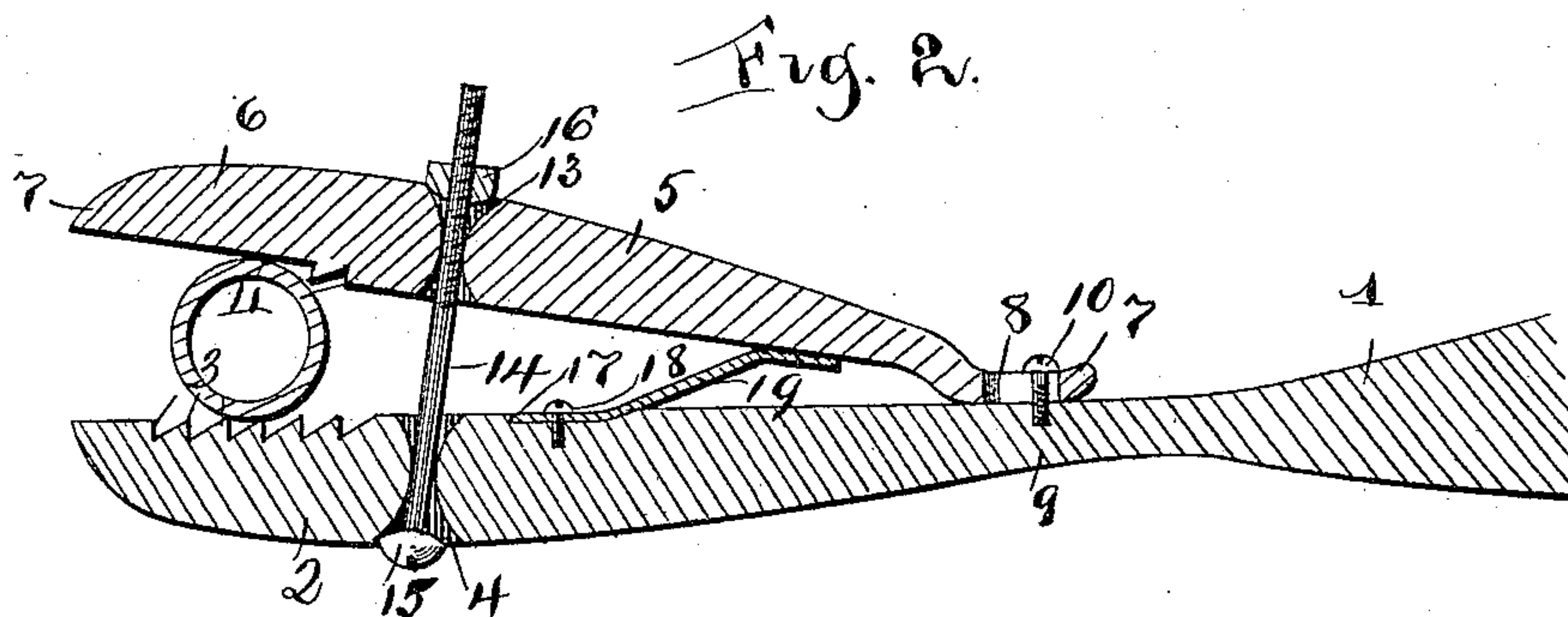
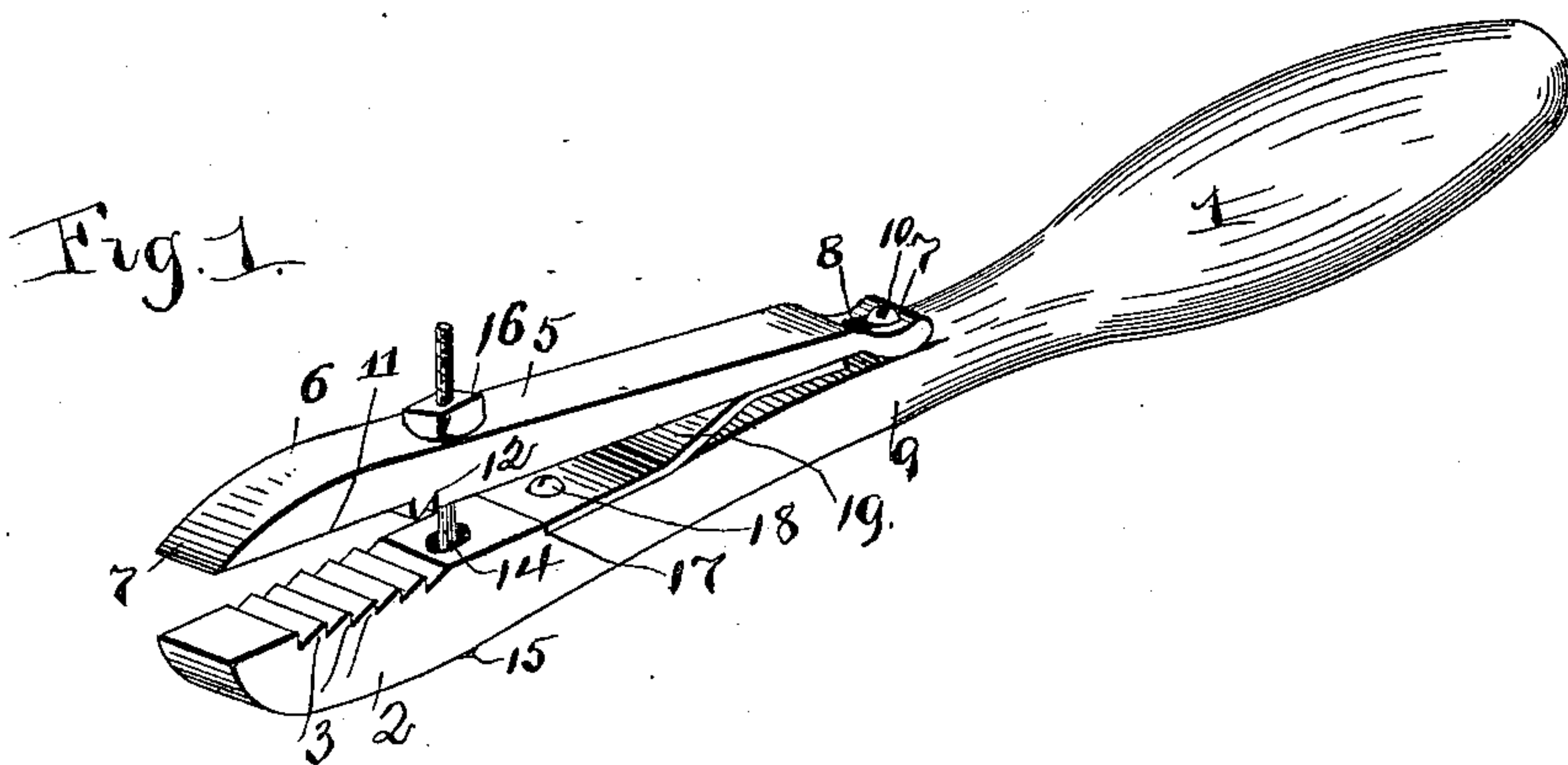


(No Model.)

E. J. BARBER.
WRENCH.

No. 459,733.

Patented Sept. 22, 1891.



Witnesses:

H. G. Sutz
W. F. Duval

By his Attorneys,

Inventor
Edwin J. Barber
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

EDWIN J. BARBER, OF GOVE CITY, ASSIGNOR OF ONE-HALF TO BURTON SMITH, OF MONUMENT, KANSAS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 459,733, dated September 22, 1891.

Application filed January 8, 1891. Serial No. 377,137. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. BARBER, a citizen of the United States, residing at Gove City, in the county of Gove and State of Kansas, have invented a new and useful Wrench, of which the following is a specification.

This invention has relation to improvements in combined pipe and rod wrenches; and the main objects in view are to provide a cheap and simple wrench adapted to firmly and positively grip pipes or rods for the purpose of applying or removing the same, said wrench being strong and durable and capable of being operated by one hand, thus leaving the remaining hand free to be employed for the purpose of holding the pipe or rod, &c.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a perspective of a wrench constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same, said wrench being applied to a rod. Fig. 3 is a similar view, the parts being in the position assumed by them after the grip has been made upon the rod.

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

The wrench comprises a rigid and a loose member, and the former consists of a suitable handle 1 at one end and merges into a jaw 2 at the opposite end, which upon its upper surface is provided with a series of preferably-graduated teeth 3, and in rear of the same is provided with an opening 4, flared at each end, as shown. The movable member 5 is shorter than the rigid member and comprises a jaw 6 at one end and a bent or curved terminal 7 at the inner end. The terminal 7 is provided with an elongated slot 8, and through the same and into the shank 9 of the rigid member is passed a stud or bolt 10, which loosely connects the member 5 to the rigid member. The inner side or face of the jaw 6 is preferably perfectly plain for the major portion of its length, as shown at 11, while at its rear end it is provided with one or more teeth 12, adapted to coact with the teeth 3 of the opposite jaw 2. In rear of the teeth 12

the member 5 is provided with an opening 13, which, like the opening 4, has its opposite ends flared. Through the two openings of the jaws is passed a bolt 14, provided with an oval head 15 at one end and having its opposite end threaded and provided with a nut 16, the under side of which is oval. The head of the bolt and nut loosely fit in the flared openings 13 and 4, so that the two jaws may assume various angles and yet the nut and head will fit against the same and serve to limit their separation. The inner face of the rigid member in rear of its perforation 4 is provided with a recess 17, and in the same there is secured by a screw 18 a flat rearwardly-disposed spring 19, which bears against the under surface of the movable jaw or member and serves to maintain the jaw in an open position.

In use the nut 16 is so adjusted upon the bolt as to adapt the jaws to receive and operate upon the desired sized pipe or rod over which the wrench is placed and swung up or away from the operator, which movement causes the pipe or rod to fit snugly at the rear ends of the jaws, which is accomplished by the loose member sliding to the rear, being forced in this direction by the pipe or rod until it has reached its limit, when the continued movement or elevation of the wrench serves to tighten or bind the pipe or rod between the teeth 3 and 12 of the two jaws. Further movement of the wrench in the same direction serves to rotate the pipe or rod. By a slight movement in the reverse direction or a removal of the force the grip of the teeth is loosened and the wrench may be readily withdrawn. It will be seen that the entire strain comes upon the bolt 14 and that no strain of any consequence comes upon the stud or screw 10.

It is apparent that I have provided an extremely simple, strong, and durable pipe and rod wrench, consisting of few parts, easily manufactured and assembled, and when so assembled combined to form a most efficient tool, and one capable of being used with one hand of the operator both in applying and removing the wrench, thus leaving the remaining hand free to be used for other purposes.

Having described my invention, what I claim is—

In a wrench of the class described, the combination, with the rigid member terminating at one end in a jaw provided upon its inner face with a series of teeth in rear of the same,
5 with a flared perforation, and in rear of the perforation with a stud or screw, of a movable member provided at its rear end with an elongated opening or slot loosely receiving the pin or stud and at its front end in a jaw the
10 face of which is plain for the major portion of its length and terminating at its rear end in one or more teeth, and in rear of the same is provided with a flared opening, a bolt hav-

ing a rounded head passed through the two openings, a round surfaced nut mounted on 15 the bolt, and a spring connected to one member and bearing against the opposite and serving to maintain the jaws in an open position, substantially as specified.

In testimony that I claim the foregoing as 20 my own I have hereto affixed my signature in presence of two witnesses.

EDWIN J. BARBER.

Witnesses:

ULIS S. HANDLEY,
ED STICKNEY.