

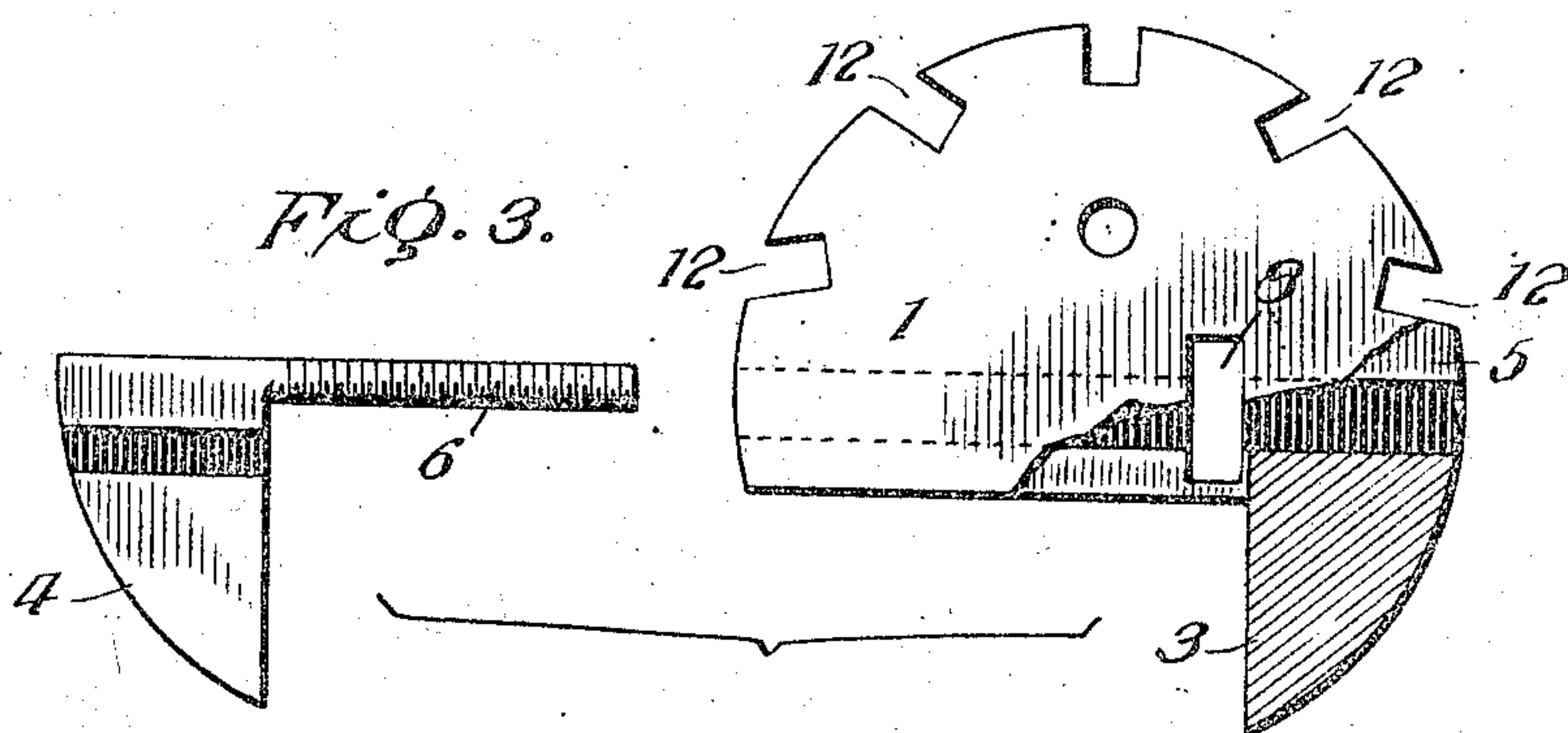
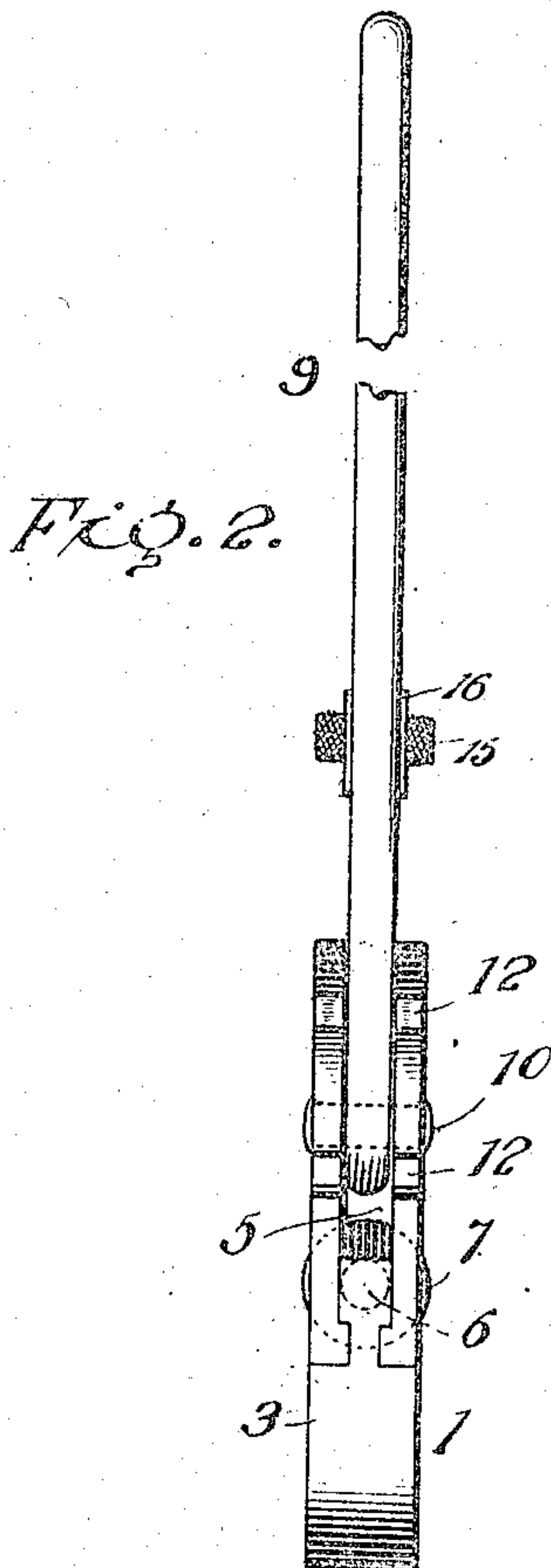
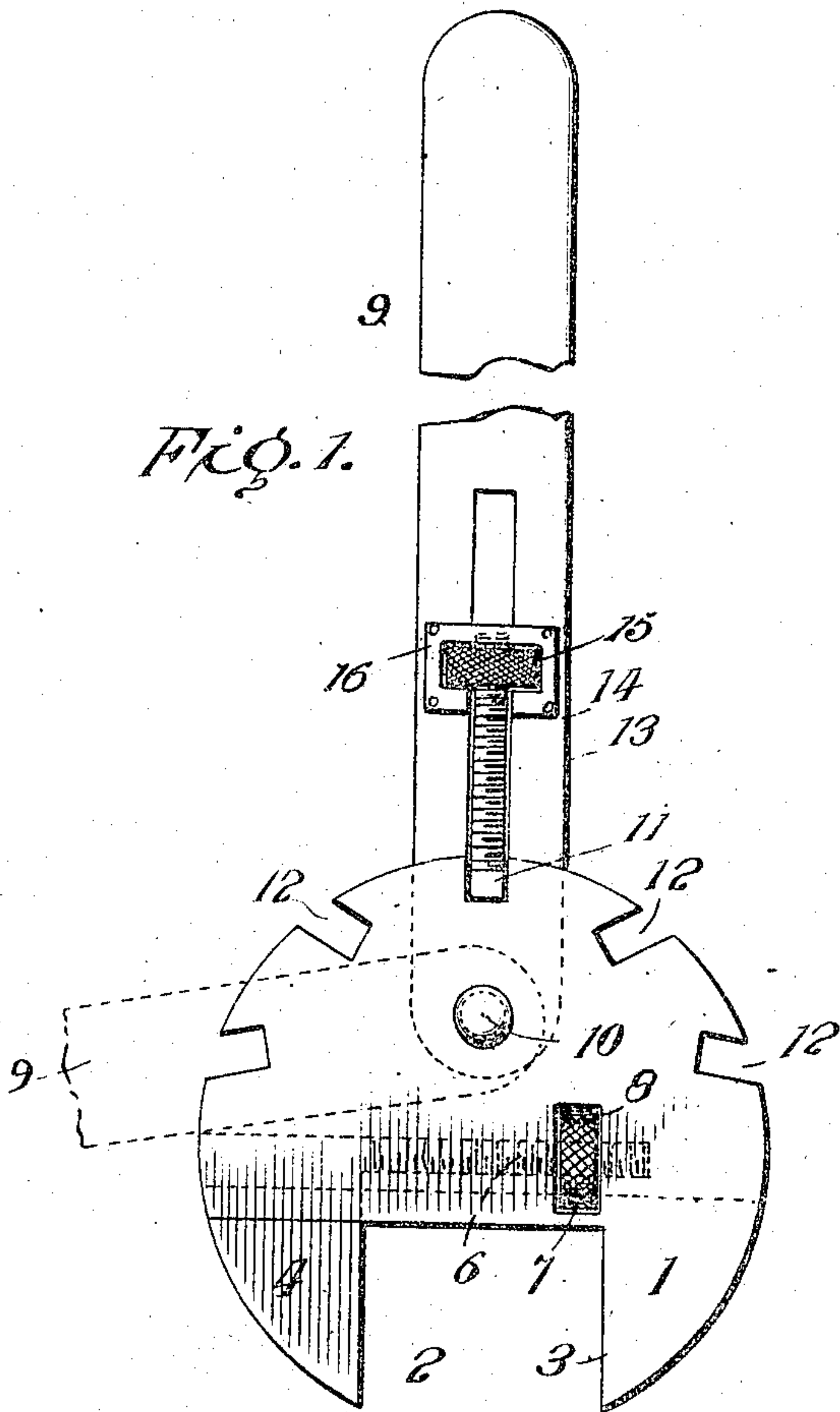
No. 855,014.

PATENTED MAY 28, 1907.

W. McGLONE.

WRENCH.

APPLICATION FILED NOV. 3, 1906.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM McGLONE, OF MOUNT IRON, MINNESOTA.

WRENCH.

No. 855,014.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM McGLONE, a citizen of the United States, residing at Mount Iron, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches of the type specially designed for use in connection with nuts or angular work and which are provided with an adjustable jaw to admit of adapting the wrench to different sizes of nuts and objects to be forcibly turned when tightening or loosening the same.

The purpose of the present invention is to simplify the general structure of tools of the nature aforesaid and to provide novel mountings for the movable jaw and for the handle, whereby the latter may be moved to different angular positions with reference to the head and according to the nature of the work.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a side elevation of the wrench embodying the invention. Fig. 2 is an edge view of the wrench. Fig. 3 is a side elevation of the wrench head and the movable jaw, parts being broken away and separated.

The wrench comprises a head 1 which is approximately of circular outline and formed with flattened sides, an edge portion of the head being cut away to form an opening 2 to receive the work. The projecting part 3 at one side of the opening 2 constitutes the fixed jaw of the wrench. The movable jaw 4 is similar in appearance to the fixed jaw 3 and is mounted to slide in ways formed in the head at opposite sides of a space 5 formed therein. A threaded stem 6 projects from the engaging face of the movable jaw 4 and passes through a nut 7 arranged in an opening 8 formed transversely of the head 1 and intersecting with the space 5, said nut 7 being milled or otherwise roughened and pro-

jecting beyond opposite sides of the head so as to be engaged by the thumb and fingers of the hand to admit of rotating the nut when it is required to adjust the jaw 4 toward and from the fixed jaw 3. Grooves are formed in opposite sides of the movable jaw 4 near its upper end to receive ribs projected from sides or walls of the head bordering upon the spaces 5, thereby constituting means to hold the jaw against casual displacement and to direct it in its adjusting movements.

The handle 9 has one end fitted into the space 5 and connected to the sides or walls of the head bordering upon said space by means of a pin 10 or other type of pivot fastening. The handle is adjustable with reference to the head of the wrench so as to be set at any required angle, the same turning upon the pin or pivot 10. To hold the handle in the required adjusted position, a dog 11 is provided and is adapted to engage one of a series of notches 12 formed in the edge portion of the head, said dog 11 extending across the space 5 and having its end portions adapted to engage with corresponding notches 12 formed in the edges of the sides of the head bordering upon the space 5. The dog 11 has a threaded stem 13 which enters the longitudinal slot 14 formed in the handle, said threaded stem passing through a nut 15 fitted into a transverse opening of the handle and having its edge milled and projecting beyond opposite sides of the handle to be readily engaged so as to be turned when it is required to throw the dog 11 into or out of engagement with the notches 12.

The dog 11 and its threaded stem 13 constitute a lock of T form which is adjustable with reference to the handle and head so as to release the handle when it is required to adjust the same and to secure the handle to the head when it is desired to fix the position thereof. A plate 16 closes the opening provided in the handle to receive the lock so as to retain the same in place, said plate being riveted or otherwise fastened to the handle. In the event of the opening extending entirely through the handle a plate 16 will be provided for each side, but should the opening extend through one side of the handle, only, a single plate will suffice, as will be readily understood.

From the foregoing it will be understood that the wrench involves a simple construction and arrangement of parts and admits of ready access to any of the parts for any

desired purpose. By turning the said nut 7 in one direction or the other, the opening or space 2 between the jaws may be regulated to suit the size of nut or work for which the wrench is to be adapted. Upon backing the T lock by means of the set nut 15, the handle is released and may be turned to any angular position with reference to the head to suit the convenience and nature of the work, and after the handle has been adjusted it may be secured by turning the set nut in the opposite direction to advance the T lock and cause the dog 11 to engage with selected notches 12.

Having thus described the invention, what is claimed as new is:

1. In a wrench, the combination of a head having a nut receiving opening and provided with a space intermediate of its sides and having corresponding notches in the edges of said sides, a handle arranged within the space of the head and pivoted to the latter, a T lock fitted in an opening of the handle and comprising a cross head adapted to engage corresponding notches in the edges of said sides, a threaded stem, and a set nut arranged in the opening of the T lock to admit of adjusting the latter.

2. In a wrench, the combination of a head provided with cooperating jaws and having a space forming sides, the latter having corresponding notches in their outer edges, a handle having an end portion fitted in the space and pivoted to the sides of the head, a T lock fitted in an opening in the handle and comprising a dog and a threaded stem, the ends of the dog projecting beyond opposite sides

of the handle and adapted to enter selected notches of the aforesaid sides, a plate closing a side of the opening in the handle to retain the T lock in place, and a set lock mounted upon the threaded stem of the T lock for adjustment thereof.

3. The herein described wrench comprising a head of approximately circular form having an edge portion removed to form a fixed jaw and having a space to provide side pieces and having corresponding notches in the edges of said side pieces, a movable jaw fitted between the side pieces and having interlocking connection therewith and provided with a threaded stem, a set nut mounted upon the threaded stem of the movable jaw and fitted in a transverse opening of the head extending through the outer faces of said side pieces, an operating handle pivoted between said side pieces and having an opening therein, a T lock mounted in the opening of the handle and comprising a dog, a threaded stem, the ends of the dog projecting beyond opposite sides of the handle to enter selected corresponding notches in the sides of the head, a set nut mounted upon the threaded stem of the T lock for adjustment thereof, and a plate for closing the side of the opening in the handle receiving the T lock to retain the latter in place.

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

WILLIAM McGLONE. [L. s.]

Witnesses:

JAMES MURPHY,
VERNON REECH.