No. 776,063. PATENTED NOV. 29, 1904.

J. M. HOKE.

WRENCH.

APPLICATION FILED APR. 23, 1904.

NO MODEL.

Fig. 1.

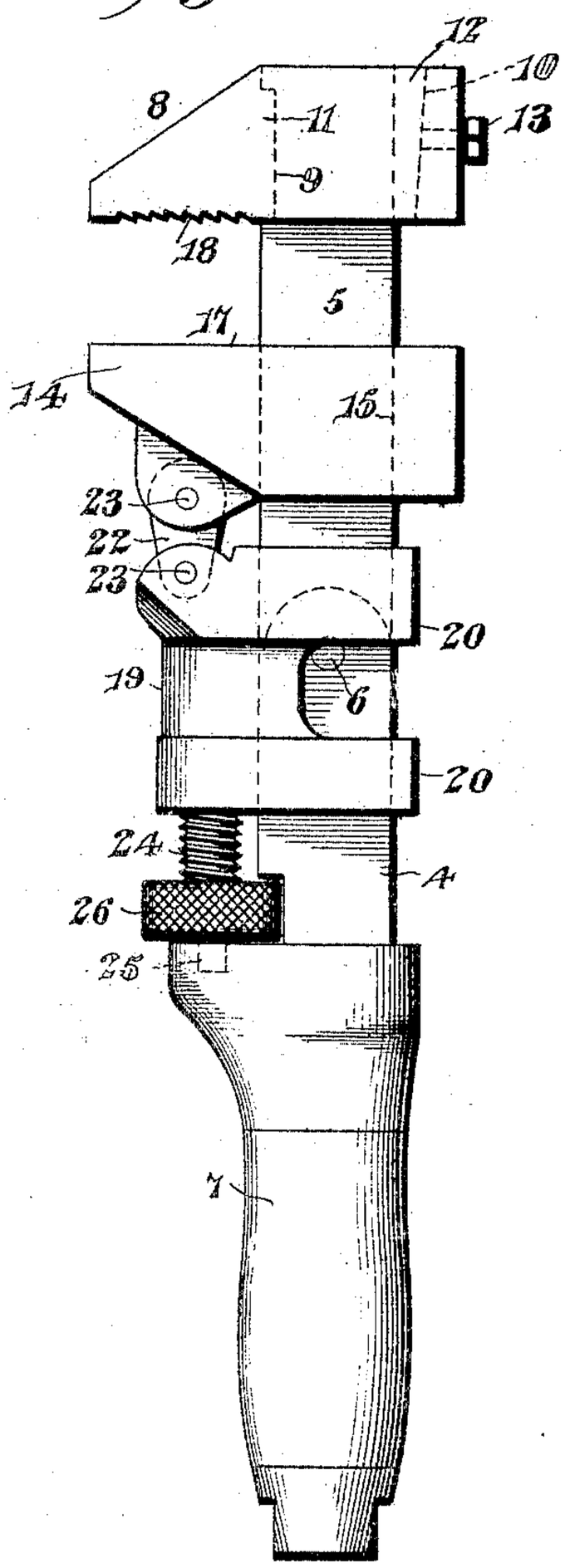


Fig. 2.

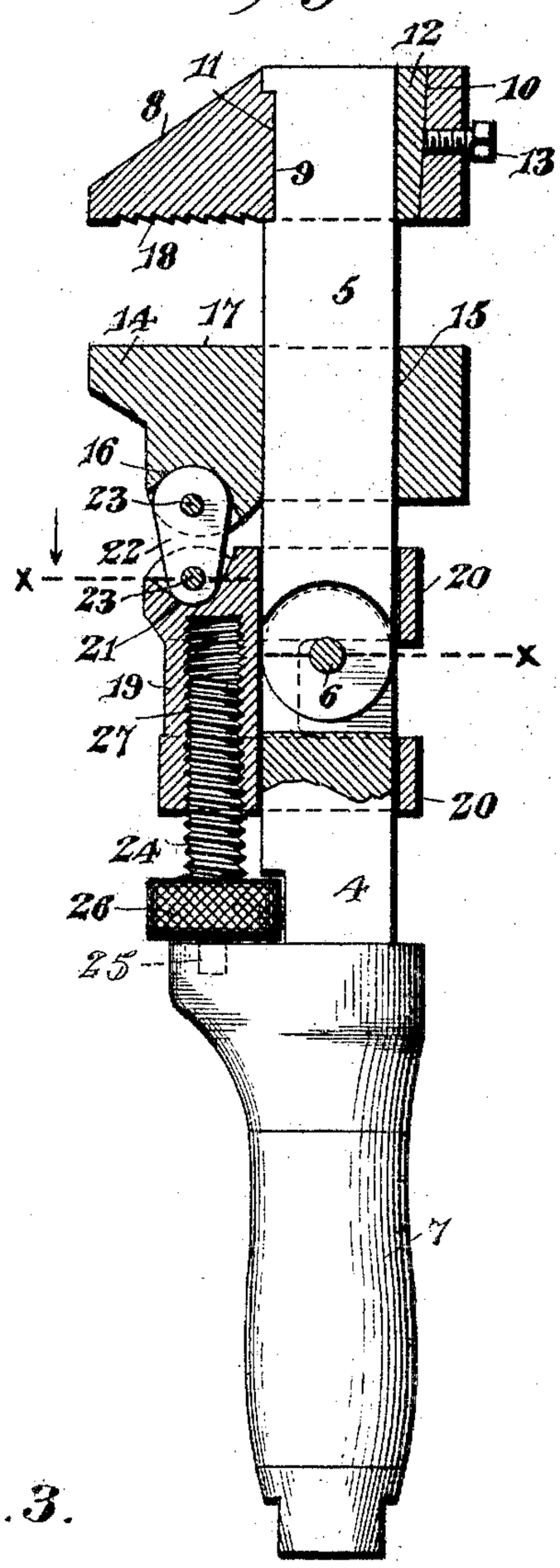
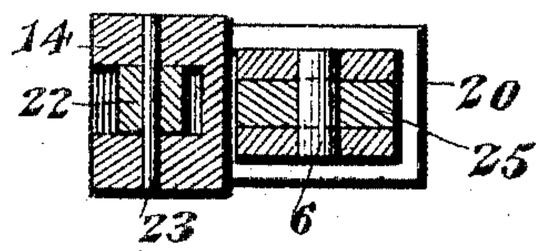


Fig. 3.



John M. Hoke, Inventor

Witnesses
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No. 776,063. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

JOHN MONROE HOKE, OF STATESVILLE, NORTH CAROLINA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 776,063, dated November 29, 1904.

Application filed April 23, 1904. Serial No. 204,578. (No model.)

To all whom it may concern:

Be it known that I, JOHN MONROE HOKE, a citizen of the United States, residing at Statesville, in the county of Iredell and State of North Carolina, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches capable of use upon either angular or round objects, such as nuts and pipes.

The object of the invention is to provide a simple tool of this sort that may be readily manufactured and with which a powerful grip may be secured on the article operated upon, thereby prohibiting the slipping of the wrench on such article and the consequent marring or injury of the same.

The preferred form of construction is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the wrench. Fig. 2 is a longitudinal sectional view therethrough, and Fig. 3 is a cross-sectional view on the line *x x* of Fig. 2.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment illustrated a stock is employed comprising sections 4 and 5, connected by a pivot-joint 6, that permits the relative swinging movement of said sections. The section 4 carries the usual handle 7, while secured to the free end of the section 5 is a stationary or rigid jaw 8. This jaw is detachable and is secured to the section 5, as illustrated in Fig. 2—that is to say, the section 5 is provided in one side with a seat 9, and the jaw has an opening 10 to receive said section, one wall of the opening having an inwardly-projecting extension 11, that fits in the seat 9. A filling-block 12 is also located in the opening 10 in rear of the stock-section 5 and bears against the same on the side opposite the seat 9. The block is held in place by any suitable means—as, for instance, a set-screw 13.

Coacting with the jaw 8 is an adjustable jaw 14, having an opening 15 therethrough that receives the stock and permits the sliding movement of the jaw 14 thereon. This jaw 14 is provided in its rear side with a socket 16. The face 17 coacts with the inner face 18 of the jaw 8, being preferably flat and smooth, while said face 18 may be provided with teeth, as shown.

The means for adjusting the jaw 14 comprises a sleeve member 19, having a sleeve portion 20 surrounding and slidable upon the stock, the opening therethrough being slightly larger than the cross-sectional area of said stock, so as to permit the relative swinging movements of the sections 4 and 5 without interference and without regard to where the portion 20 may be located with respect to the pivotal connection 6. The portion of the sleeve member 19 directly adjacent to the socket 16 of the jaw 14 is provided with a socket 21, and said sockets 16 and 21 receive the opposite ends of a link 22, having pivotal connections 23 with the jaw and sleeve member, said link preferably bearing against the walls of the sockets to relieve the pivots 23 of abnormal strain. An adjusting-screw 24 is journaled, as shown at 25, at one end of the handle 7 and is provided with a knurled operating-head 26. This screw has a threaded engagement, as at 27, with the sleeve member.

In use the wrench is adjusted to the article in the ordinary manner by turning the screw, and thus carrying the adjustable jaw toward and from the stationary jaw. When properly positioned upon such article, it will be apparent that upon exerting a turning movement of the handle the section carrying the same will be moved upon the pivotal connection 6, and as a result the jaw 14 will be moved still farther toward the jaw 8, thereby effecting a secure clamping action which will prevent the turning of the wrench upon the object held therein. If it becomes necessary to sharpen, temper, or replace the outer jaw 8, the same can be readily accomplished by removing said jaw, first releasing the filling-block 12 and taking the same from the opening, whereupon said jaw can be detached from the stock.

It will be evident that this device can be readily and cheaply manufactured and that it constitutes a powerful tool for the purposes specified.

From the foregoing it is thought that the

construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a wrench, the combination with a stock, of a jaw carried thereby, another jaw adjustably mounted on the stock and movable toward and from the first-mentioned jaw, means for adjusting said jaw, and a link having a pivotal connection with the adjusting means and also with the jaw.

2. In a wrench, the combination with a stock comprising pivotally-connected sections, of a jaw carried by one of the sections, another jaw adjustably mounted on the stock and movable toward and from the first-mentioned jaw, means for adjusting said jaw, and a connection between the adjustable jaw and the adjusting means having a pivotal connection with each.

3. In a wrench, the combination with a stock comprising pivotally-connected sections, of a jaw rigidly secured to one of the sections, another jaw having an opening that receives the stock, said jaw being slidably mounted on said stock, adjusting means having a portion slidably mounted on the stock, and a link connecting and pivoted to both the adjusting means and the slidable jaw.

4. In a wrench, the combination with a stock, comprising pivotally-connected shank-sections, of a handle carried by the free end of one section, a jaw carried by the free end of the other section, another jaw slidably mounted on the stock and movable toward and from the first-mentioned jaw, a sleeve member slidably mounted on the stock between the movable jaw and handle, a pivotal link connection between the sliding jaw and sleeve member, and a screw journaled upon the handle and having a threaded engagement with the sleeve member.

5. In a wrench, the combination with a stock having a seat in one side, of a jaw having an opening to receive the stock and a portion arranged to engage in the seat thereof, a filling-block also arranged in the opening of the jaw, a holding device for securing the block in place, said block bearing against the side of the stock opposite the seat, and a movable jaw coacting with said first-mentioned jaw.

6. In combination with the stock formed of pivotally-connected sections, a jaw fixed on the outer section, a sliding jaw also mounted on the outer section, means for adjusting the sliding jaw, and means connecting the adjusting means and sliding jaw and flexibly connected to both.

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

JOHN MONROE HOKE.

Witnesses:
ZEB. V. LONG,
R. B. MCLAUGHLIN.