G. A. Jenks,

Pipe Wrench.

No. 15,184. Patented June 24, 1856.

Fig. 1.

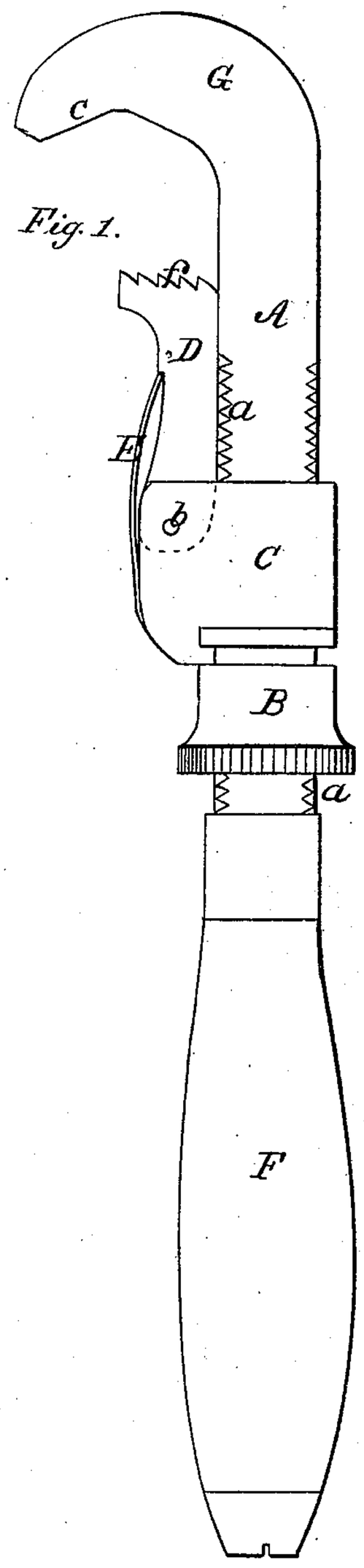
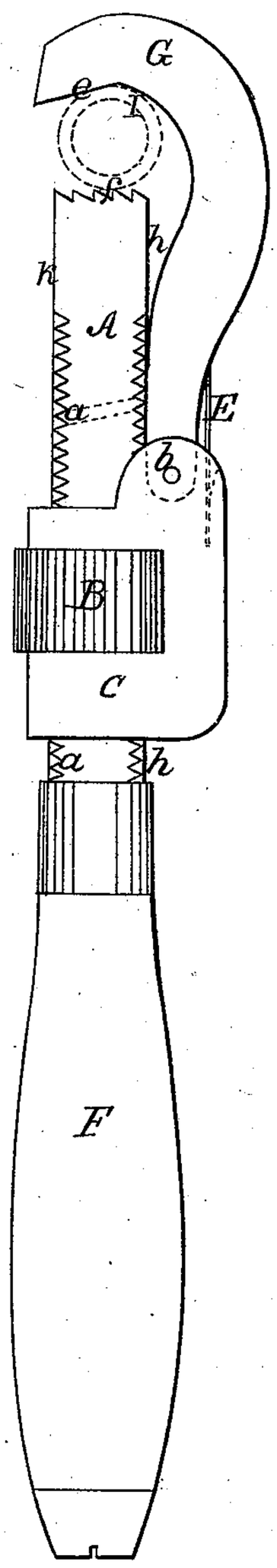


Fig. 2.



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UNITED STATES PATENT OFFICE.

GUSTAVUS A. JENKS, OF WORCESTER, MASSACHUSETTS.

WRENCH FOR GAS-PIPE, &c.

Specification of Letters Patent No. 15,184, dated June 24, 1856.

To all whom it may concern:

Be it known that I, GUSTAVUS A. JENKS, of Worcester, in the county of Worcester and State of Massachusetts, have invented an Improvement in Hand-Wrenches for Grasping and Turning Pipes, Rivets, or other Cylindrical Bodies; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, exhibits a side view of a wrench in common use, and on which my invention has been made. Fig. 2, is a side view of my improved wrench.

In the month of January, A. D. 1849, Letters Patent of the United States were granted to Frederic H. Bartholomew and Solyman Merrick on a screw wrench for grasping cylindrical forms such wrench being represented in Fig. 1, herein before mentioned, and it is this article or tool, which I have improved, the nature of my invention or improvement being confined to one or more new arrangements of its parts as will be hereinafter described.

In Fig. 1, the main bar of the wrench is shown at A, and as provided with a slide, C, which is moved on the said bar by means of a screw nut B, operating on a male screw cut on the bar as seen at *a*, *a*, *a*. The slide, C, carries a jaw lever, D, which turns on a pin, *b*, (extending through it and the slide) and is pressed up to the main bar, A, by a spring, E, arranged as seen in said figure. The bar, A, is provided with a hooked claw, G, extended from it and with respect to the lever, D, as represented in the figure, such hooked claw being made with a jaw whose arrangement causes it to be extended beyond the lever, D.

In my improved wrench, the hook or claw, G, does not form a part of the main bar, A, but is separate therefrom, and is hinged or jointed to the slide, C, as shown by dotted lines at *b*, in Fig. 2; the said claw being pressed toward the bar, A, by a spring, E, applied to it and the slide, C. On the upper end of the main bar, A (see Fig. 2) I form a jaw or teeth as shown at *f*, in said figure and directly in range of the main bar A, I arrange the other jaw, *e*, of the claw, G, and cause said claw, G, to be bent backward with respect to the plane of the rear side, *h*, *h*, of the bar A, as seen at, I, in said Fig. 2, the bend or recess, I, enabling me to bring the two jaws in range of the bar, A, and still obtain room or sufficient space between them for the reception of any cylindrical article to which the tool may be applied. The jaw, *e*, has little or no projection beyond the plane of the front edge *k* of the bar, A, whereas in the wrench shown in Fig. 1, the jaw, E, or a large portion of the hook of the claw extends beyond the plane of the front edge of the jaw lever, D, such plane being supposed to be parallel to the axis of the bar, A, shown in said Fig. 1.

My improved arrangement of the parts or principal members of the wrench gives to it several advantages, in point of construction and operation over the arrangement shown in Fig. 1. In the first place, as the diameter of the article grasped within the jaws of my improved wrench is increased we increase the leverage of the wrench whereas, the reverse is the case with regard to the wrench shown in Fig. 1. Next, my improved wrench may be removed from an article, without the necessity of turning back the screw nut, B. This is not the case with the wrench shown in Fig. 1, as a practical operation of the same would readily prove. Consequently with my improved wrench when it is once fitted to grasp an article of any given diameter, it may be readily removed from it, without the necessity of rotating the screw nut B such nut working on a screw, *a*, cut on the shank or bar, A, as seen in said Fig. 2. This often will be found of importance. My arrangement also has advantages as far as economy of construction is concerned.

My improvement has reference to hand or pipe wrenches whose movable jaw is carried by a carriage moved on a screw shank, and adjusted by a screw nut, and it has no reference to pipe wrenches, wherein the movable jaw is fastened by a fulcrum pin to a handle carrying the stationary jaw, and is only made movable and adjustable by changing said fulcrum pin from one to another of series of holes made in the shank or handle of the stationary jaw. The adjustability of these latter pipe tongs or wrenches is limited, or at any rate is very inconvenient to be effected in comparison to what can be accomplished in this respect by my improved wrench. In the pipe tongs such as referred to there is on the shank, no slide or carriage adjustable by a screw. The method of adjustment of the movable jaw of the pipe tongs is not analogous to that

of my improved wrench, and by no means so advantageous. Therefore I do not claim the pipe tongs made as described, viz, with a curved movable jaw affixed by a pin to a handle having a station jaw and not provided with a screw adjustment and furthermore I do not claim the combination as patented by the said Bartholomew and Merrick, and on which my invention is an improvement, but what I do claim is—

Arranging the hook or claw, G, and the spring, E, with respect to the slide, C, and the main bar, A, and hinging or jointing the claw directly to the slide, C, substantially as exhibited in Fig. 2.

In testimony whereof I have hereunto set my signature this second day of April, 1856.

G. A. JENKS.

Witnesses:
J. B. DEXTER,
WM. N. GREEN.