

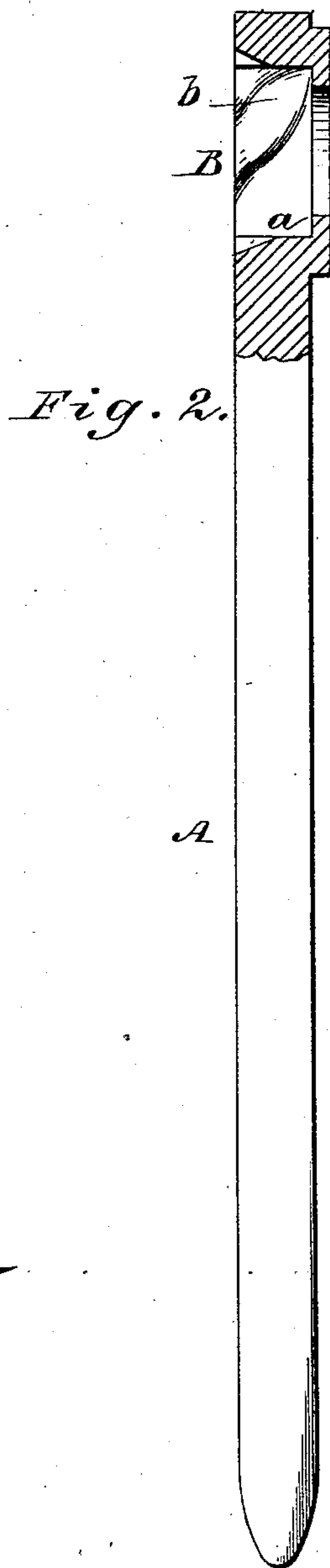
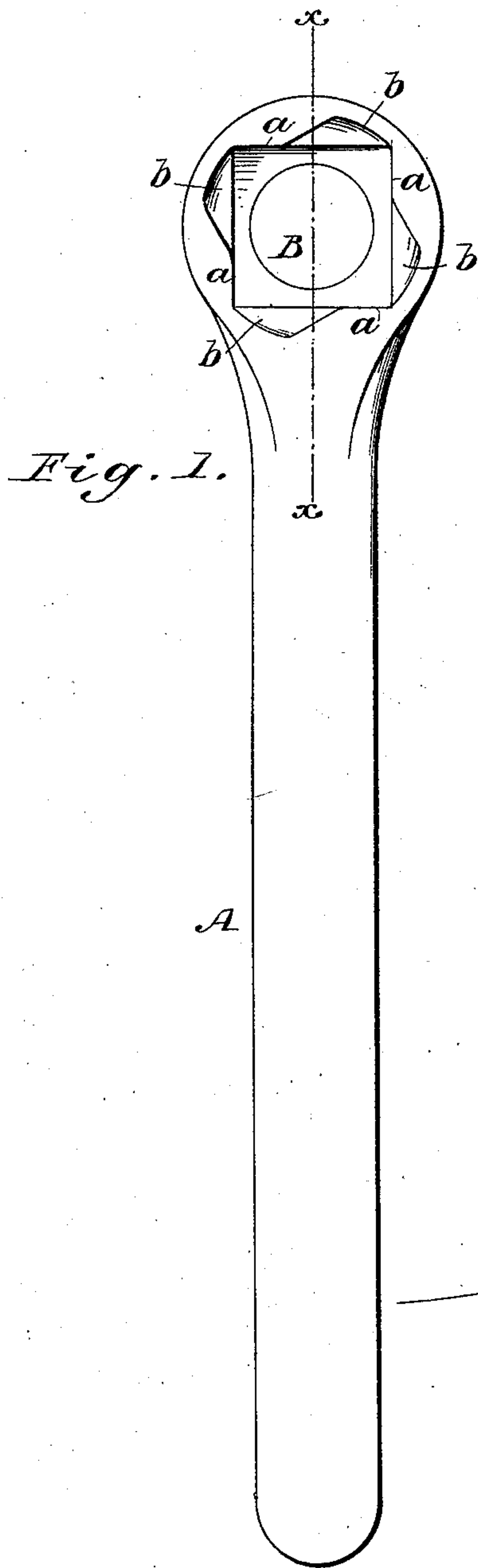
(No Model.)

A. WOOD.

WRENCH.

No. 347,262.

Patented Aug. 10, 1886.



WITNESSES:

*John H. Deemer*  
*C. Sedgwick*

INVENTOR:

*A. Wood*  
BY *Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ALFRED WOOD, OF TRENTON, NEW JERSEY.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 347,262, dated August 10, 1886.

Application filed December 14, 1885. Serial No. 185,613. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED WOOD, of Trenton, county of Mercer, New Jersey, have invented a new and Improved Wrench, of which  
5 the following is a full, clear, and exact description.

My invention consists of a wrench constructed with lift-cams to act against the nut for lifting the wrench, as hereinafter described  
10 and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

15 Figure 1 is a plan view of an ordinary wrench made in accordance with my invention, and Fig. 2 is a sectional side elevation of the same.

A represents the handle of the wrench, and  
20 B the socket to receive the nut. The socket B is formed with square corners or faces *a a*, that abut against the faces of the nut when the handle of the wrench is turned in the direction of the arrow in Fig. 1, and cause the  
25 nut to be turned with the movement of the wrench. The socket of the wrench is also formed with the cams *b b* at the corners of the socket B, adjacent to and on the opposite angle to the plain surfaces *a*, as shown in Fig. 1.  
30 These cams are slanted from their point of juncture with the plain surface *a*, at or near the bottom of the socket B, outward to the face

of the wrench, so that when the handle of the wrench is moved in the direction opposite to that indicated by the arrow, or backward for  
35 taking a fresh hold upon the nut, the cams will act upon the corners of the nut and cause the wrench to be lifted or moved to the top of the nut, so that the wrench will return without turning the nut and without a special move-  
40 ment on the part of the user to detach or lift the wrench from the nut, as with ordinary wrenches, when the socket or jaws of the wrench are made square or perfectly flat.

With this wrench no movement is required  
45 but to move the wrench back and forth, as the cams lift the wrench to the top of the nut upon the back-stroke and gravity causes the wrench to drop over the nut.

This wrench is particularly useful because  
50 it can be operated with much greater ease and rapidity than ordinary wrenches.

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

As a new article of manufacture, a wrench  
55 having square faces *a* and cams *b*, the square faces being adapted to turn the nut, and the cams to lift the wrench to the top of the nut, substantially as and for the purposes described.

ALFRED WOOD.

Witnesses:

JOSIAH HOLLIES,  
EDMUND WOOD.