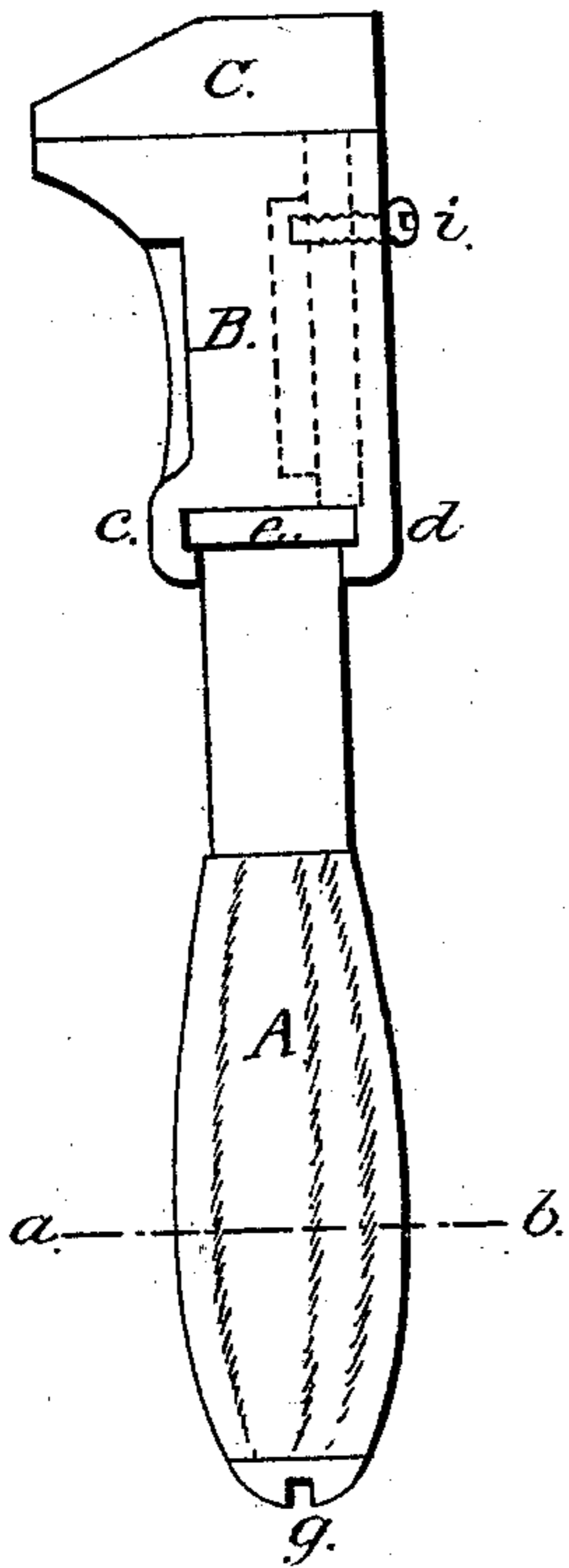


*G. P. Gunster,*

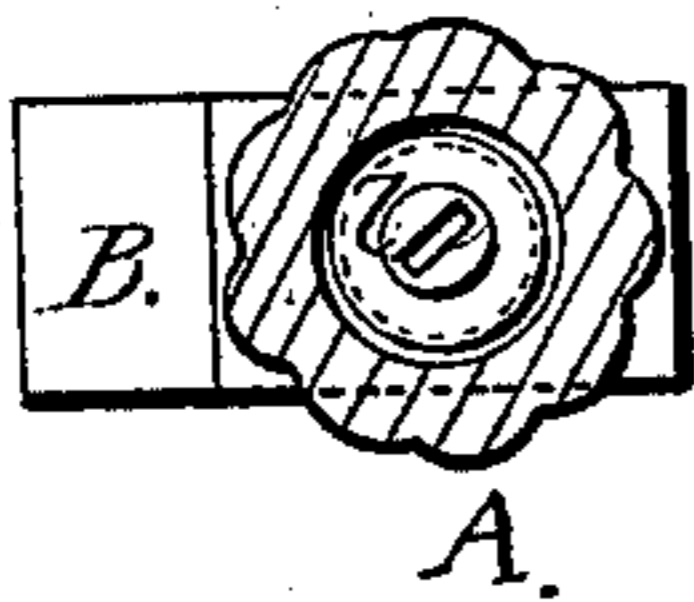
*Wrench.*

*No. 88,623.*

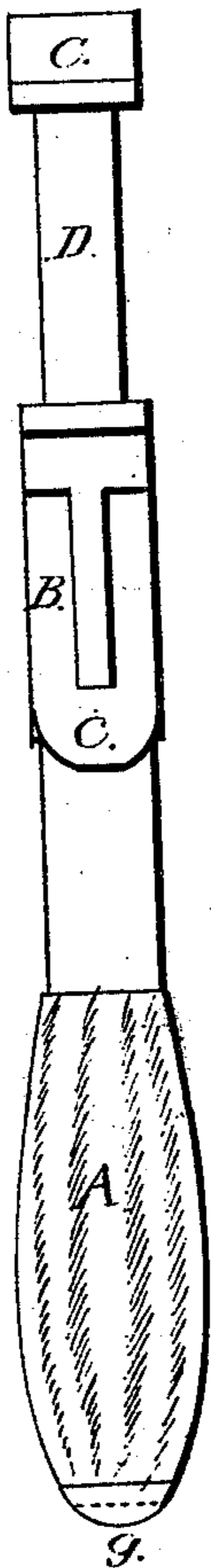
*Fig 1*



*Fig 1.*

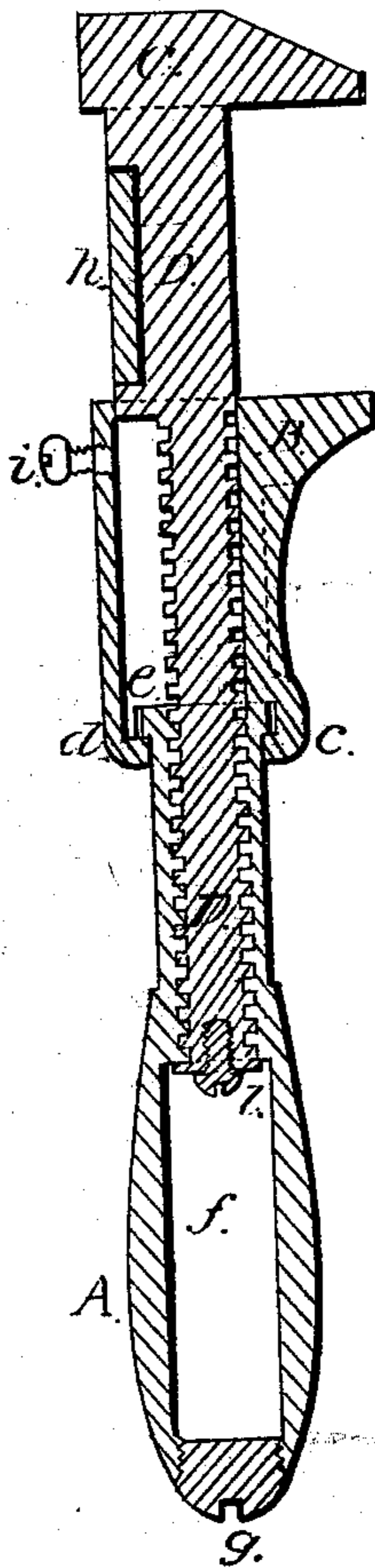


*Fig 2*



*Patented Apr. 6. 1869.*

*Fig 3.*



Witnesses:

*S. S. Rahnestock*  
*Edm F Brown*

Inventor:

*G. P. Gunster*

# United States Patent Office.

GEORGE P. GANSTER, OF NEW YORK, N. Y.

Letters Patent No. 88,623, dated April 6, 1869.

## IMPROVEMENT IN WRENCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE P. GANSTER, of the city, county, and State of New York, have invented a new and improved Wrench; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which like parts are indicated by like letters in the several figures.

The nature of my invention consists in a peculiar construction of wrench, to be hereafter described, consisting of but few parts, combining strength, durability, and economy of manufacture.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings—

Figure 1 represents a side elevation of my wrench;

Figure 2, a front one, showing the jaws open;

Figure 3, a section of same; and

Figure 4, a section on line *a-b*.

My wrench may be said to consist of three pieces, namely:

A, the hollow handle, having a thread cut in its upper part; B, the lower or stationary jaw, resting upon the upper part of A, and to a certain extent, embracing it; and thirdly, the upper jaw, C, with its shank, D, on which a thread is cut, and which passes through the lower jaw, which forms a sleeve, and extends down into the handle A, as seen.

Each of these pieces, A B, and C, can easily be cast.

The upper part of A has a flanged projection, or rim, *e*, around it, which enters a recess, or slot in the lower part of B, between two clasping-fingers, *c* and *d*.

It will be seen that the jaw C is run up or outward, simply by turning the handle A, and its movement is limited in two different ways:

First, as shown in fig. 3, a cap, or washer, *l*, being secured to the lower end of shank D, it sliding in a recess, *f*, in A, and said cap not being able to pass out of the screw-opening in the upper end of the recess. This recess, or chamber is closed at its lower end by a screw-plug, *g*. A can be cast hollow by a core, as usual.

But a more simple and economical method of limiting the opening of the jaws, and which I prefer, is by making a slot, *h*, on the back of the upper end of shank D, above the screw, shown in dotted outline in fig. 1, and in section in fig. 3.

In this last, however, the jaw C is shown run out beyond its usual limit, the screw-stop *i*, in sleeve-jaw B, being withdrawn for such purpose, as seen in fig. 3. This arrangement will render unnecessary the plug *g* and washer *l*.

I prefer a left-hand screw on shank D, for the reason that in operating the wrench, the grasp of the hand upon the handle will tend to tighten the jaws upon a nut.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a wrench, the construction and combination of the parts A, B, and C, arranged as shown and described, and for the purpose described.

2. The combination of shank D, sleeve-jaw B, and stop *i*, arranged as shown and described.

3. The combination of shank D, stop *l*, and handle A, arranged as shown and described.

GEO. P. GANSTER.

Witnesses:

S. S. FAHNESTOCK,  
EDM. F. BROWN.