

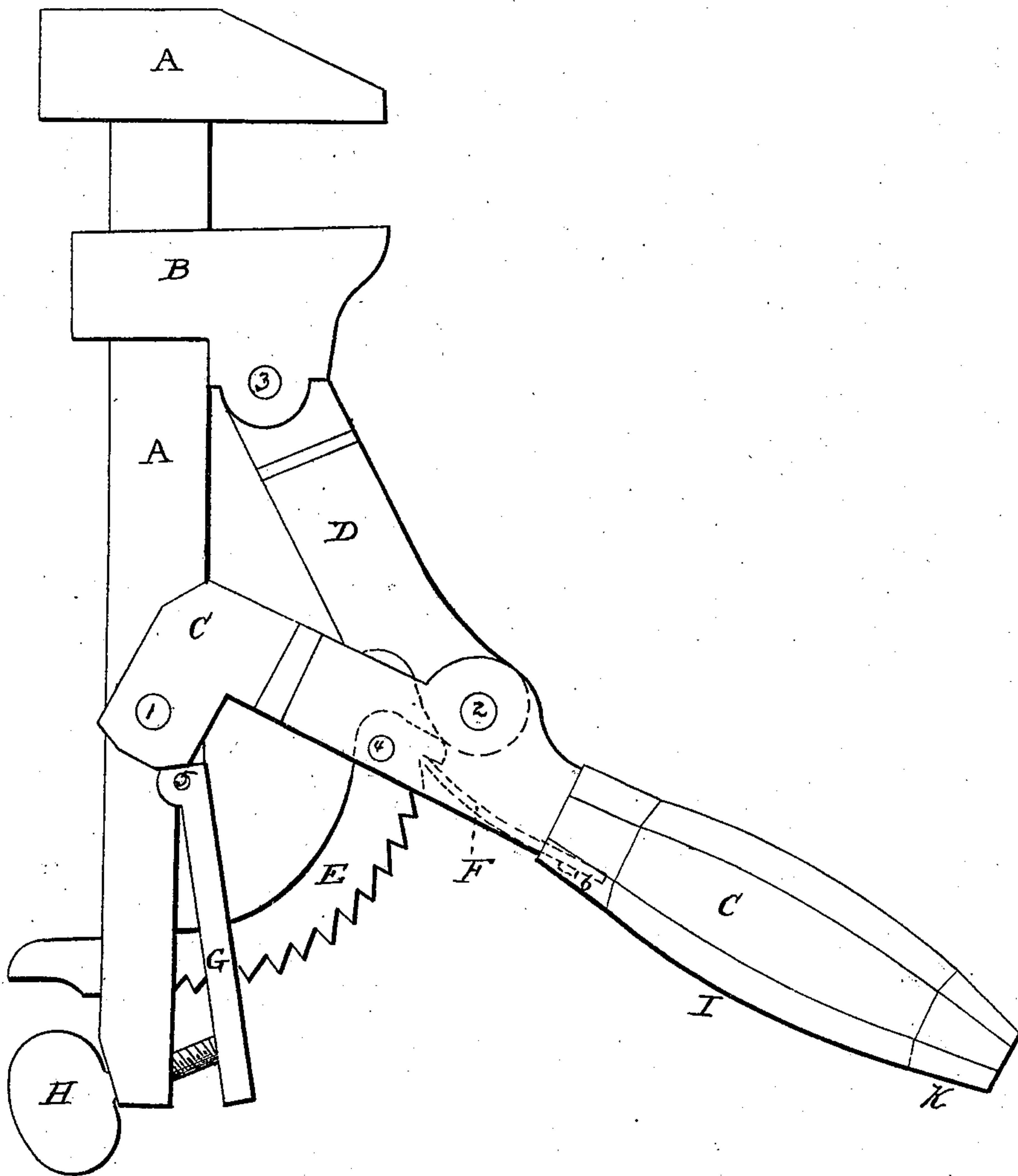
Sheet 1-2 Sheets.

F. W. Kroeber,

Wrench,

No 30,975,

Patented Dec. 18, 1860.



Witnesses:

A. Bartholomew  
L. P. Smith

Inventor:  
F. W. Kroeber

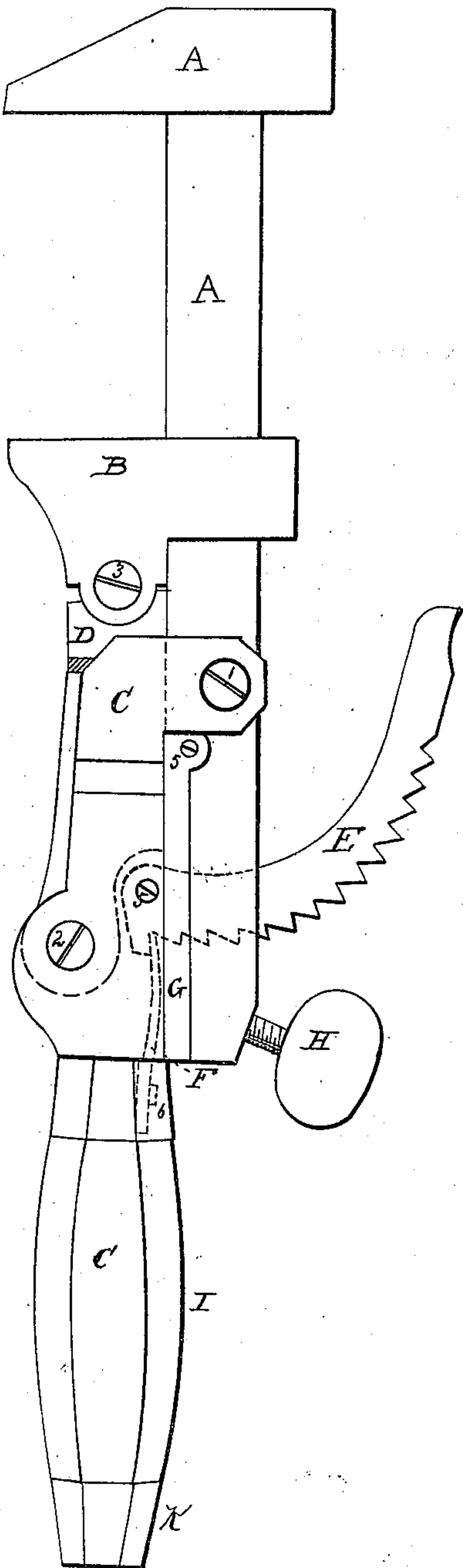
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F. W. Kroeber,

Wrench,

No 30,975,

Patented Dec. 18, 1860.



Witnesses:

A. P. Holman  
L. P. Smith

Inventor:

F. W. Kroeber

# UNITED STATES PATENT OFFICE.

F. W. KROEBER, OF FORBESTOWN, CALIFORNIA.

## WRENCH.

Specification of Letters Patent No. 30,975, dated December 18, 1860.

*To all whom it may concern:*

Be it known that I, F. W. KROEBER, of the town of Forbestown, in the county of Butte and State of California, have invented a new and Improved Wrench, which I call the Lever-Action Wrench; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in the application of the lever to the movable jaw of the monkey-wrench, which lever is sustained or kept in its place by a curved ratch, thus allowing the jaws of the wrench to be adjusted much more accurately, and in infinitely less time than it can be done with any other wrench now in use, so far as I know.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation by reference to the annexed drawings, which are a part of the specification.

A A is a hammer and its handle all in one piece—the handle nearly square.

B is the movable jaw.

C C is the lever secured to the handle at the point 1 with bolt or screw.

D is the arm connecting the lever with the movable jaw, and secured at the points 2 and 3.

E is a curved ratch secured to the lever at the point 4 and passing through the handle of the hammer, and of such curvature that its radius is nearly the distance from 1 to 4.

F is a spring to hold the ratch in its place.

G is a catch through which the ratch passes, and is secured to the handle at the point 5.

H is a screw to adjust the catch more accurately to the ratch when necessary, thus assisting in the adjustment of the jaw.

I is a wooden hold for the hand, and, when the wrench is adjusted, to be drawn in a direction from H.

K is a tap, movable at will, to secure the hold.

What I claim as my invention, and desire to secure by Letters Patent, is—

The application of the lever and the curved ratch to the adjustment of the jaws of the wrench as hereinbefore described.

F. W. KROEBER.

Witnesses:

I. BARTHOLOMEW,  
L. P. SMITH.