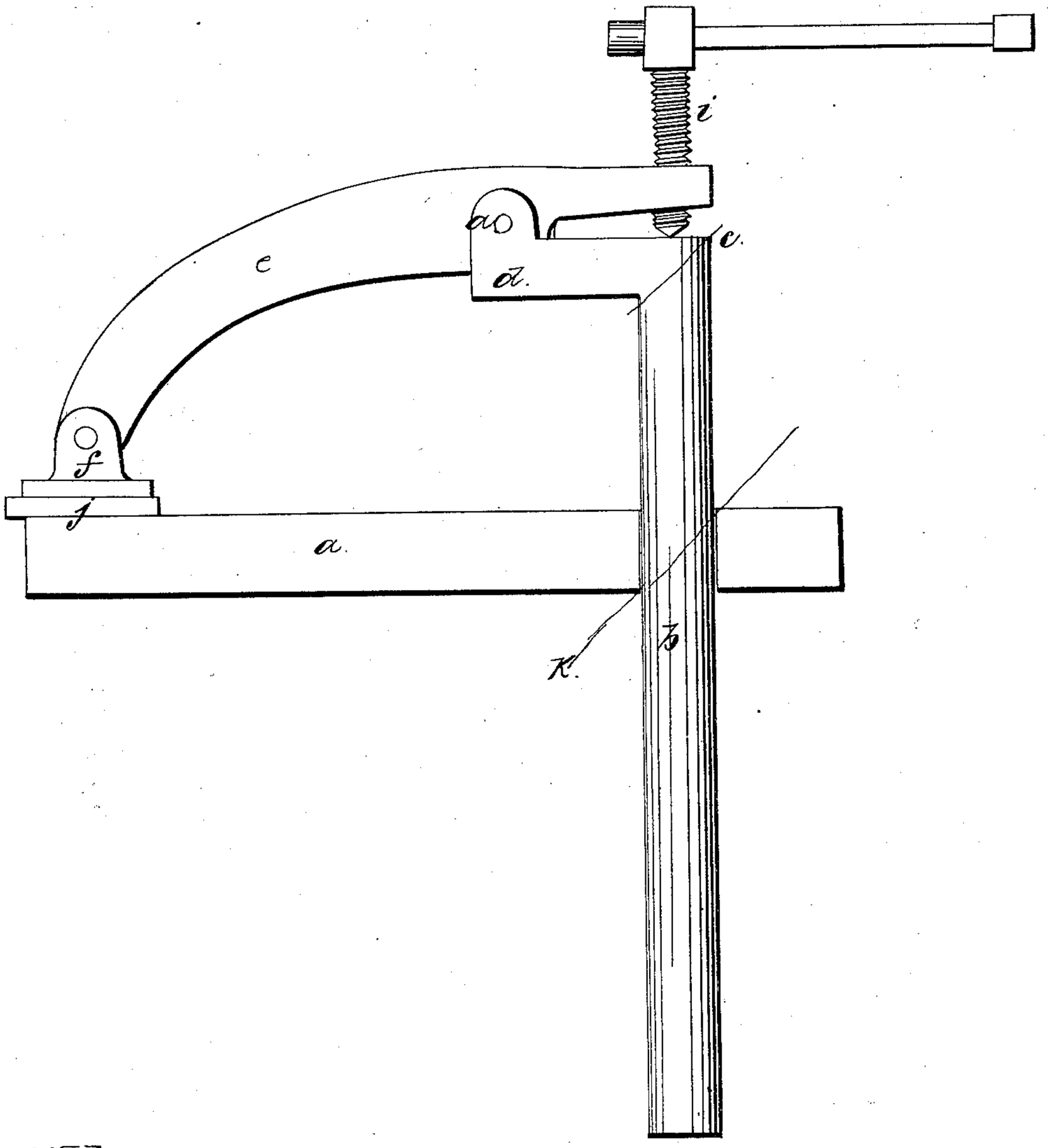
No. 27,592. PATENTED MAR. 20, 1860.

G. COOPER.

BENCH CLAMP.



Witnesses:
Edward Mc Bliss
Jerry W Bliss.

Inventor:
George Cooper

UNITED STATES PATENT OFFICE.

GEORGE COOPER, OF HARTFORD, CONNECTICUT, ASSIGNOR TO ALBERT BURGESS, OF WINDSOR LOCKS, CONNECTICUT.

BENCH-CLAMP.

Specification of Letters Patent No. 27,592, dated March 20, 1860.

To all whom it may concern:

Be it known that I, GEORGE COOPER, of Hartford, county of Hartford, and State of Connecticut, have invented certain new and useful Improvements in Holdfasts for Cabinet-Makers', Carpenters', and Machinists' Benches, &c.; and I do hereby declare that the same is described and represented in the following specification and drawings, and to enable others skilled in the art to make and use my said improvement I will proceed to describe its construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this improvement consists in making certain additional improvements in or upon the old holdfast as commonly used by cabinet makers (which has a pawl and shank all in one piece and holds the work to the bench by the cramping of the shank, which is dropped into a hold in the bed of the bench). By forming a joint and fulcrum pin in a projecting arm and at a proper distance from the angle at the top of the shank (which is dropped into a hole in the bed of the bench) into which is secured a projecting arm by means of a fulcrum pin. Said arm projects forward of the fulcrum pin the required distance, and having an oscillating or adjustable pad secured on the end, so as to adapt its surface to the surface of the work to be held thereby. Said arm also projects back from the fulcrum pin to the back edge of the shank, and has a screw fitted thereto, so as to take its bearing on, or directly over the end of the shank. Thus when the work to be held is placed on the bench, the holdfast shank is placed into one of the holes prepared in the bed of the bench, and dropped down as far as the pad, resting upon the work, will allow, when the screw is turned, and thereby compressing the work (to be held) firmly to the bench.

In the accompanying drawings *a*, represents the bed of a bench; *b*, the shank of the holdfast.

c, is an angle, from which the arm *d*, projects, having a joint and fulcrum pin, or opening, to receive and hold the arm *e*. Said arm *e* is provided with an oscillating, or adjustable pad *f*, secured thereto, so as to adapt its surface to the surface of the work to be held thereby, and is secured in the joint of the arm *d*, by a fulcrum pin *g*, and is also provided with a screw *i*, (or a cam, which I propose to use sometimes) which passes through a nut, cut in the back end of said arm, and directly over the end of the shank *b*, or nearly so, so that the screw when turned, lifts the back end of the arm *e*, and forcing down the front end with its pad closely upon the work, while the shank *b*, is gripped in the hole of the bench in the line *k*.

Now it will be seen that when the work *j*, is placed on the bed *a*, of the bench, and the shank *b*, of the holdfast is dropped firmly into the hole thereof, so as to bring the pad *f*, onto the work *j*; that by turning the screw *i* the work will be held firmly in place without the use of a hammer or maul as is required in the use of the old holdfast.

Having thus described my improvement in such a manner as I believe will enable a person skilled to make and use the same, and also believing its advantages will be clearly seen in distinction from others by reference to the drawings and description,

What I claim and desire to secure by Letters Patent is—

The arranging together the shank *b*, arm *e*, pad *f*, with a proper fastening device as a screw *i*, substantially in the manner as and for the purpose described.

GEORGE COOPER. [L. S.]

Witnesses:

EDWARD M. BLISS,
JEREMY W. BLISS.