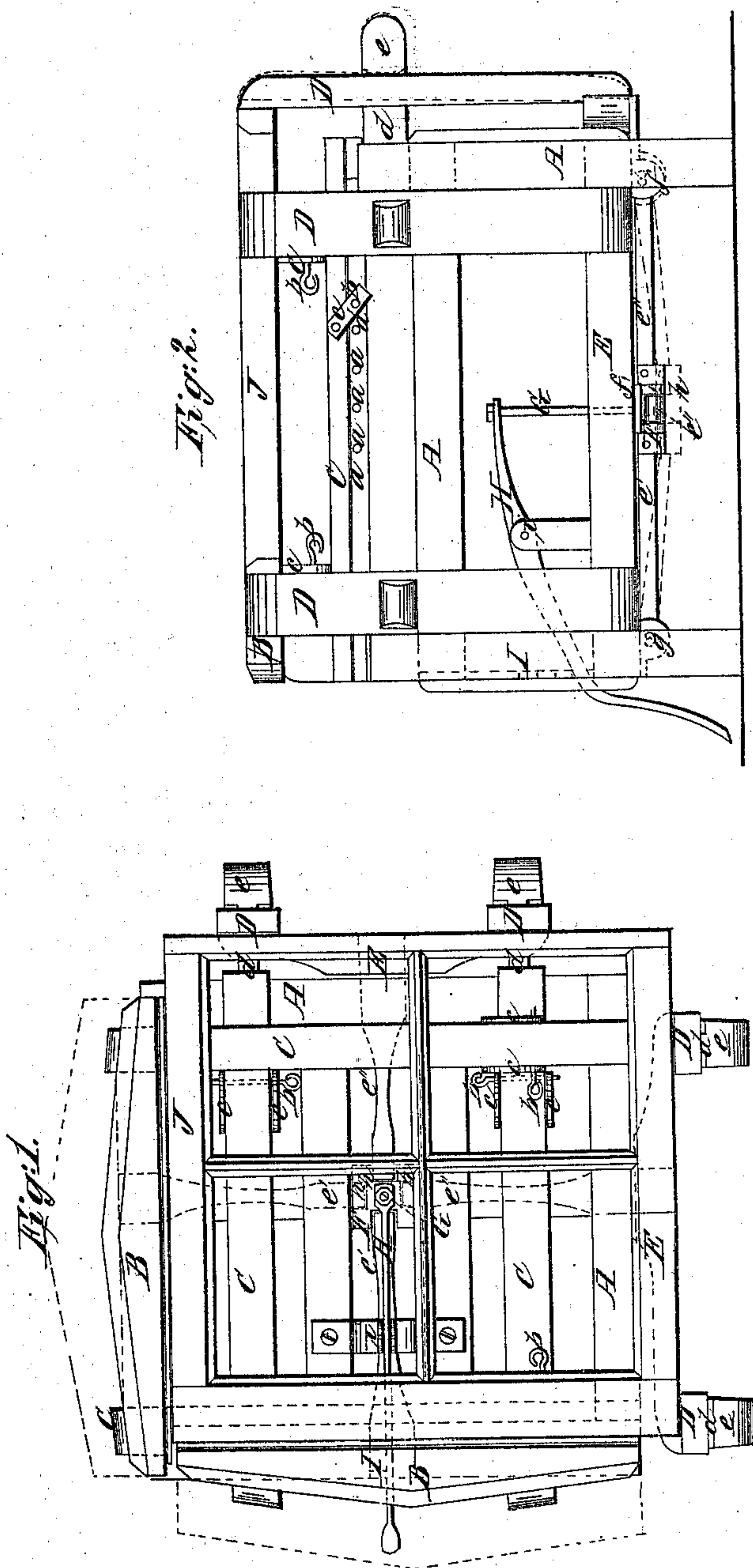


*S. P. Smith,*  
*Sash and Door Clamp.*

*N<sup>o</sup> 12,797.*

*Patented May 1, 1855.*





# UNITED STATES PATENT OFFICE.

SOLOMON P. SMITH, OF HALF MOON, NEW YORK.

MACHINE FOR CLAMPING SASH, &c.

Specification of Letters Patent No. 12,797, dated May 1, 1855.

*To all whom it may concern:*

Be it known that I, SOLOMON P. SMITH, of Half Moon, in the county of Saratoga and State of New York, have invented a new and Improved Apparatus or Device for Clamping Sashes, Doors, Window-Blinds, etc., While Being Pinned or Secured Together; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a plan or top view of my improved apparatus or device. Fig. 2, is a side view of ditto.

Similar letters of reference indicate corresponding parts in the two figures.

The nature of my invention consists in the employment or use of two or more clamps operated by a toggle joint, in combination with adjustable heads, the above parts being arranged as will be hereafter shown, whereby sashes of different dimensions, doors, blinds, etc., may be firmly held while being pinned or fastened at the joints.

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

A, represents a rectangular frame, having at its upper part two heads or bars B, B, which are attached to the ends of horizontal slides C, said slides resting upon cross pieces (a), see Fig. 2, of the frame, and secured to them at the desired points by bolts or pins (b), which pass through plates (c), attached to the slides C, and through holes (a'), in the cross pieces (a). The two heads or bars B, B, are so arranged as to be at adjoining sides of the frame A, as clearly shown in Fig. 1, the slides C, and cross pieces (a), crossing each other at right angles. The two sides of the frame opposite to the sides at which the heads or bars B, B, are placed, have clamps D, D, opposite them, two clamps being at each side. These clamps are upright bars which work on projections (d), which extend outward horizontally from the frame A, and are provided with knobs or heads (e), at their ends. The clamps fitting loosely on the projections and the heads or knobs being on the outer sides of the clamps. The lower ends of the clamps at each side of the frame A, are connected together by a bar E. Underneath the frame A, there is a toggle joint having four levers (e'), (e'), (e''), (e''); the two levers (e''), (e'), being con-

nected at their outer ends by joints (f), to the bars E, E, and the other two levers being secured at their outer ends by joints (g), to the lower part of the frame A, see Fig. 2. The inner ends of the four levers are connected by joints (h), to a head F, which is directly underneath the center of the frame A, see Fig. 1.

G, is a vertical rod, the lower end of which is secured to the center of the head F. To the upper end of the rod G, there is attached a lever H, having its fulcrum (i). The outer end of this lever is bent downward, as shown in Fig. 2, and projects a short distance from the side of the frame A, and works against a vertical notched bar I, shown more particularly by dotted lines in Fig. 2.

J, represents a window sash secured between the heads or bars B, B, and the clamps D, D. The sash J, or door or blind to be clamped is laid horizontally upon the upper part of the frame A, two adjoining sides of the sash being against the heads or bars B, B. The outer end of the lever H, is then depressed by the foot and the head F, underneath the frame A, is raised, and the levers (e'), (e''), force outward the lower ends of the clamps D, and cause their upper ends to press against two sides of the sash, which will subsequently be firmly secured between the clamps D, and heads B. The heads or bars B, B, by being secured to studs C, may be adjusted nearer to, or farther from the frame A, so that different sized articles may be clamped with the same apparatus.

I do not claim separately, the adjustable heads B, B, neither do I claim operating the clamps D, by a toggle joint irrespective of their connection with the adjustable heads and the arrangement herein shown, but

What I do claim as new and desire to secure by Letters Patent, is:

The employment or use of the clamps D, D, D, D, operated by levers (e'), (e''), connected to a head F, and forming what is commonly termed a toggle joint, in combination with the adjustable heads B, B, the above parts being arranged and operating in the manner, and for the purpose as herein shown and described.

SOLOMON P. SMITH.

Witnesses:

NATHAN F. PHILO,  
JAMES NOXON.