

T. S. URIE.
Sash and Door-Clamps.

No. 139,281.

Patented May 27, 1873.

Fig. 1.

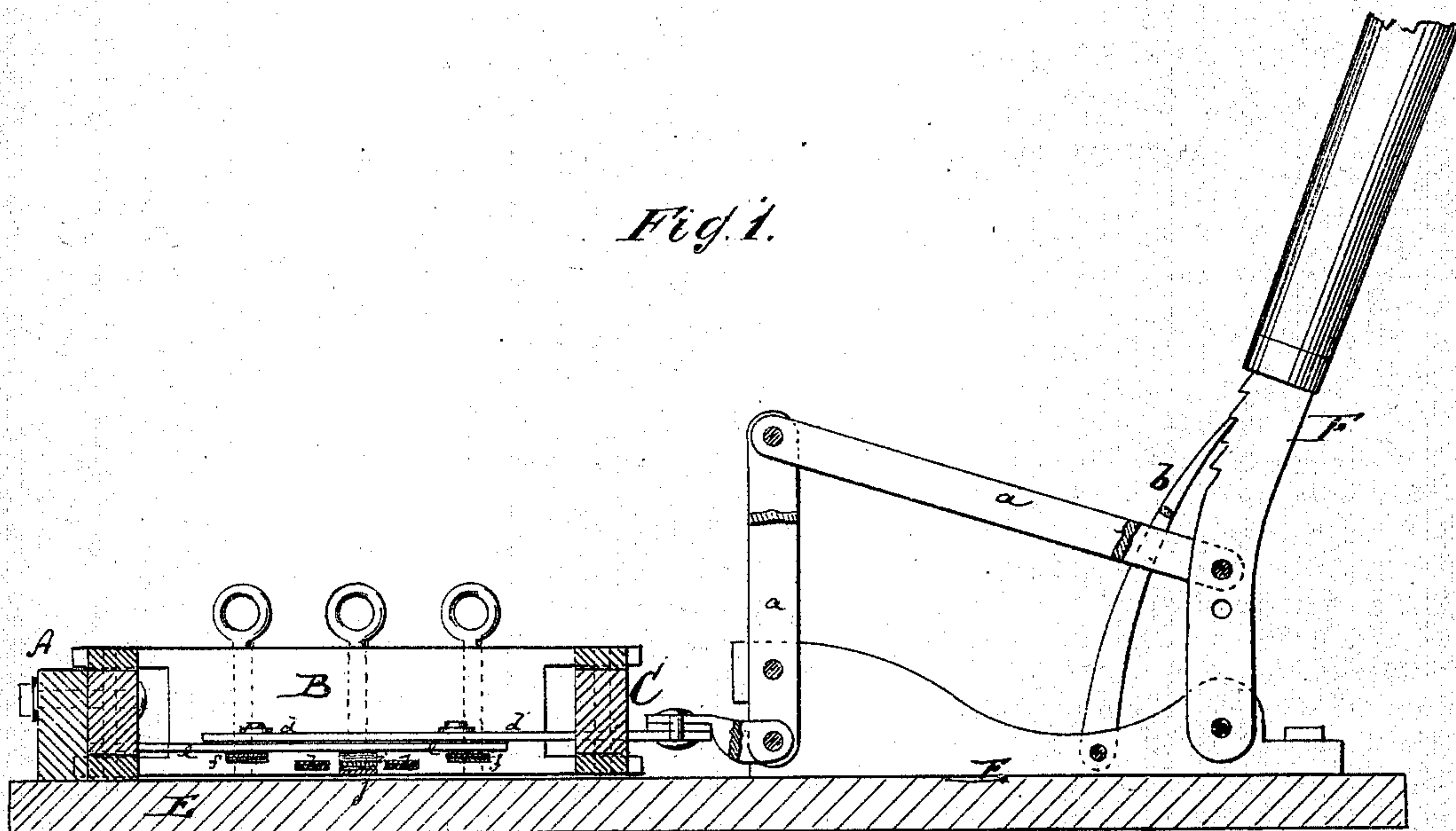
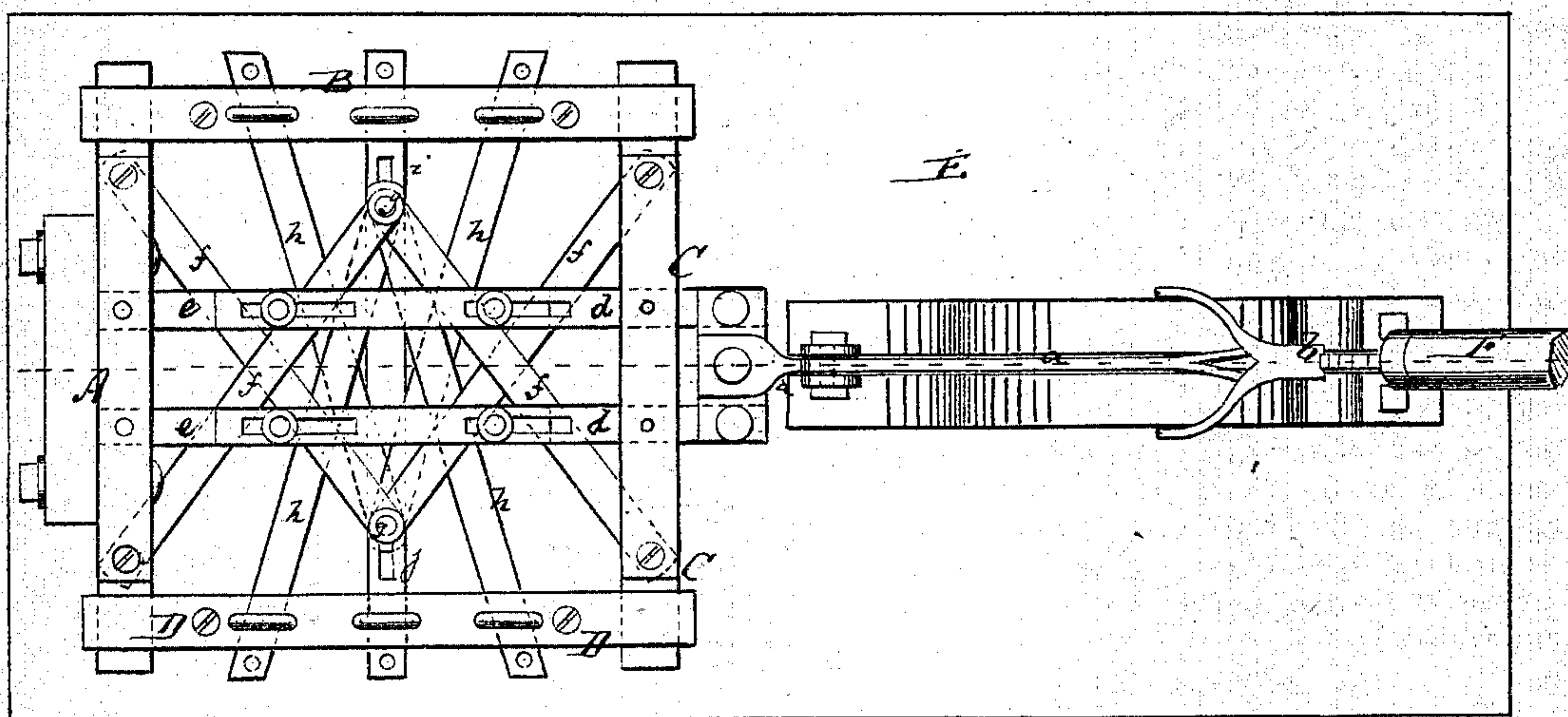


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS S. URIE, OF HUBBARDSTON, MICHIGAN.

IMPROVEMENT IN SASH AND DOOR CLAMPS.

Specification forming part of Letters Patent No. **139,281**, dated May 27, 1873; application filed November 16, 1872.

To all whom it may concern:

Be it known that I, THOMAS S. URIE, of Hubbardston, in the county of Ionia and State of Michigan, have invented a new and Improved Sash and Door Clamp, of which the following is a specification:

This invention relates to a new apparatus for clamping the outer frame of a panel-door, window-sash, or other similar article, while in process of construction, in such manner as to hold the frames rigidly together and permit the application thereto of suitable workmanship. The invention consists in making a clamping-frame of one fixed and three movable side pieces, and connecting the latter with a lever in such a manner that all three are moved apart or together simultaneously, to secure or release the article to be clamped.

A, B, C, and D, in the drawing, are the four sections or sides of the rectangular clamping-frame. The piece A is firmly secured by nails or screws to a table or support, E, while the other pieces, B, C, and D are movable horizontally, at right angles to their inner sides respectively. To the table E is pivoted a lever F, which is, by suitable links or rods *a a*, connected with the frame piece C in such manner that by swinging the lever the said frame piece will be moved nearer to or further away from the fixed frame piece A opposite. A pivoted pawl, *b*, catching into a notched portion of the lever, serves to lock the same, and also the piece C, in any suitable position. From the frame piece C project, at right angles toward A, straight slotted rods *d d*, which are by rivets or pins connected with other rods, *e e*, that project in similar manner from the stationary piece A toward C. When

C is moved by the lever the rods *d* will slide on *e* and thereby insure the straight motion of C. The pieces A and C are also connected with each other by two pairs of diagonal braces, *f f*, joined at their converging ends to form a set of lazy-tongs. The connecting pivots *g g* of these lazy-tongs are by other braces *h h* connected with the sliding side-pieces B and D, respectively, as shown in Figure 1. Thus, whenever the piece C is moved by the lever the consequent motion of the lazy-tongs will cause the pieces B and D to be moved apart or together simultaneously with the shifting of C. Guide-rods *i* and *j*, similar to the rods *d* and *e*, connect the pieces B and D directly and insure their direct motion. The ends of the braces *h h* and rods *i j* are or may be perforated or slotted to be fastened in suitable position to the pieces B D in order to enlarge or diminish the frame and the proportionate distance between its opposite sides.

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

1. The combination of the lever F, movable frame pieces B C D, and fixed frame piece A with the lazy-tongs *f f* and braces *h h*, all arranged substantially as herein shown and described.

2. The extension guides *d e* and *i j* in combination with the subject-matter of the foregoing clause.

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Witnesses:

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