

Patented Nov 13, 1860.

Fig: 1.

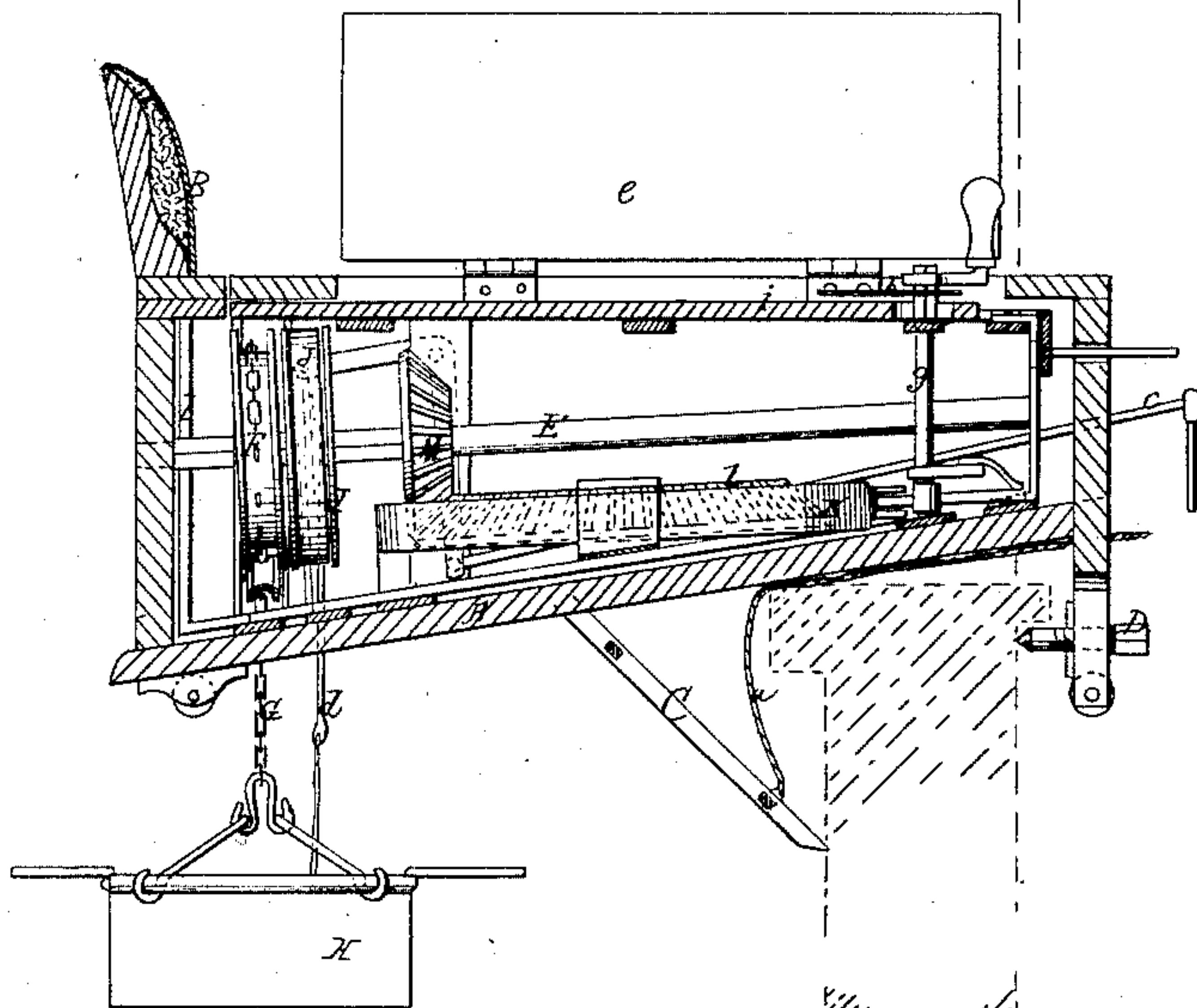


Fig. 2.

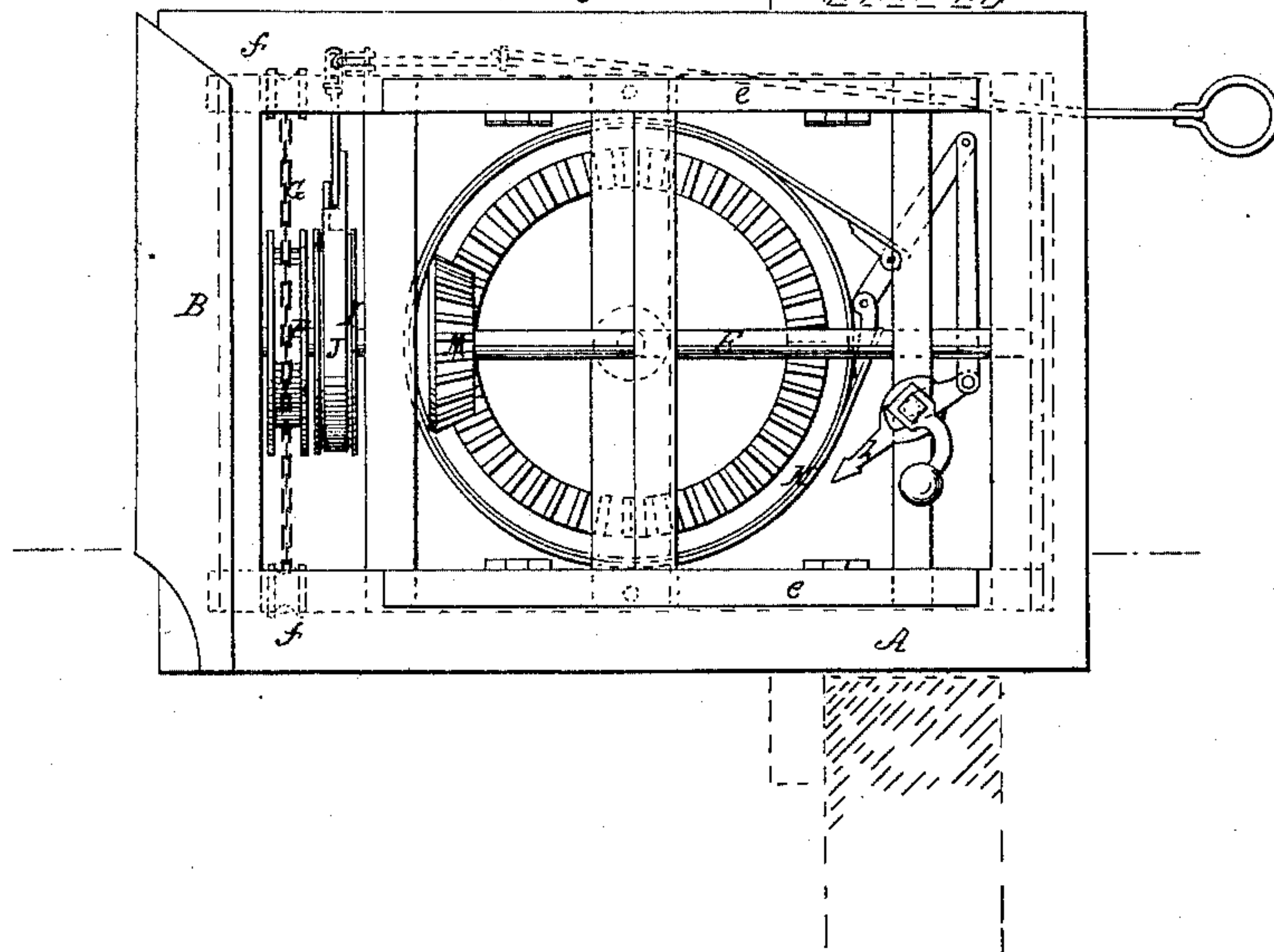
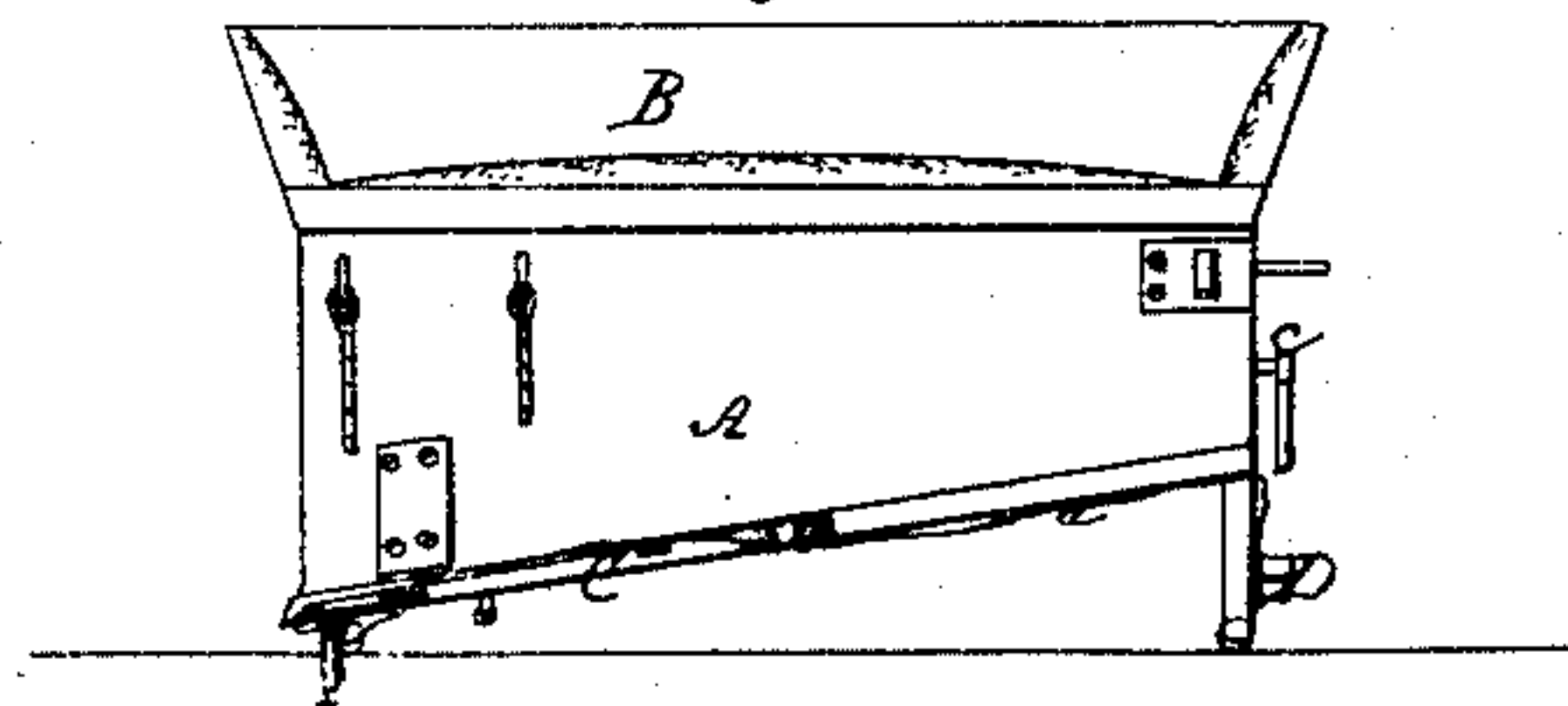


Fig. 3.



Witnesses:

Wm Thompson
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UNITED STATES PATENT OFFICE.

HUGH MOROHAN, OF BROOKLYN, NEW YORK.

FIRE-ESCAPE.

Specification of Letters Patent No. 30,639, dated November 13, 1860.

To all whom it may concern:

Be it known that I, HUGH MOROHAN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, represents a longitudinal vertical section of my invention when arranged to be used as a fire-escape. Fig. 2, is a plan or top view of the same, the cover being removed so as to expose the working parts. Fig. 3, is a front elevation of the same when arranged as a sofa, or other piece of furniture.

Similar letters of reference indicate corresponding parts in the three views.

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

The frame A, of a sofa, or other article of common household furniture, B, is fitted up with hinged braces C, in its bottom, and on one of its sides are two set-screws D, which, together with said braces, serve to secure the frame to the sill of an ordinary window, as clearly shown in Fig. 1. The braces C, turn under the bottom into a suitable recess, and a wire or cord *a*, serves to let them down to the proper position, and said braces may also be so arranged, that their pivoted ends can be brought close up to that edge of the frame A, which is farthest from the window, when it is arranged as shown in Fig. 1, thereby increasing the supporting power of said braces.

In the inside of the frame A, and extending in a longitudinal direction from one end of the same, nearly to the other, is the arbor E, which has its bearings in metal plates or standards *b*, that are secured to the inside of the frame A. This arbor bears the chain-wheel F, and a chain G which runs over said chain wheel and from which the baskets H, are suspended, serves to lower persons or articles from the window to which the frame is secured. A brake-wheel I, arranged with a friction-brake J, serves to regulate the speed of the descent, and the

friction brake is operated either from the interior of the building by means of a rod *c*, or from the persons in the descending basket, or on the ground outside the building by means of a rope or chain suspended from a rod *d*. In passing out of a window, the hinged tops *e* of the frame A, are turned out, forming rails to prevent persons falling off sideways, and steps *f*, on the sides of the frame facilitate the descent to the baskets.

An extra brake K, is arranged on the bottom of the frame A, and this brake connects, by means of the bevel gear L, M, with the chain wheel shaft E. The brake K, is operated by an upright arbor *g*, which bears an index *h*, and by turning this index in one direction or in the other, the brake K, is adjusted according to the weight of the person or persons to be lowered. A suitable scale on the surface of the board *i*, facilitates the setting of the index, according to a certain weight.

The operation is as follows: When my apparatus is not used, it is put up as shown in Fig. 3, and in this state it has the appearance of an ordinary sofa, or other piece of furniture, being furnished with a suitable seat and back in the ordinary manner. When a fire breaks out, or whenever by any other accident, the ordinary way of egress from the house is cut off, the seat and back of the sofa are taken off and the frame A, is now placed on the sill of a window, and secured to the same as shown in Fig. 1. The hinged tops *e*, are turned up and the ends of the chain G, which was previously concealed in the interior of the frame A, are drawn out through openings in the bottom of said frame. In passing out through these openings, the chain is guided by suitable guide rollers, and its ends are furnished with hooks to receive the baskets H. The person or persons to be lowered, enter one of the baskets, care being taken to apply the brake or brakes so as to prevent a sudden or premature descent, and after the basket has received its charge, it is lowered, the speed of descent being regulated by the brake J, or by the extra brake K, or both brakes may be brought into action at the same time. If only one person is left in the house, he or she can regulate the brake

K, according to the weight supposed to be necessary to sufficiently check the velocity of the descent, and the person in question can get down from any height, without
5 danger, and without assistance.

The principal advantage of this apparatus is, that it can be kept on hand in every family without being in the way, as it takes the place of an ordinary piece of furniture,
10 and in case of danger it can be secured to any window in front or in the rear of the building in a few minutes, and the persons in the house, or at least in that story, in

which my apparatus is attached, have an easy and ready way to descend. 15

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

The arrangement and combination as herein shown and described of the brakes J, K, gears L, M, shaft E, drums F, I, 20 chain G, and rod *d*, as and for the purpose herein shown and described.

HUGH MOROHAN.

Witnesses:

WM. THOMPSON,
B. GIROUX.