S. B. FORBES.

Door-Lifting Jack.

No. 211,232. Patented Jan. 7, 1879.

Fig. 1.

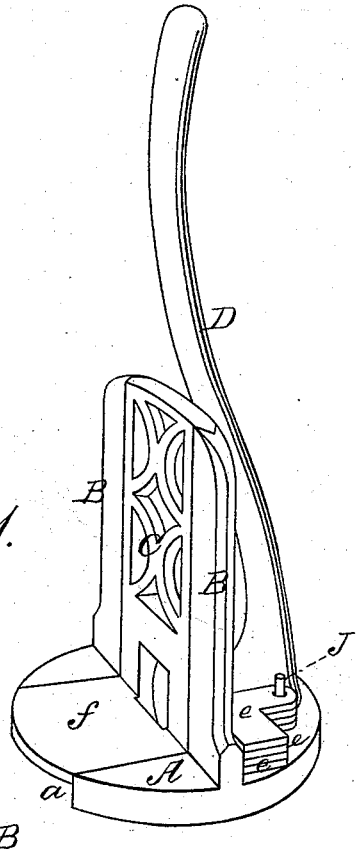

Fig. 2.

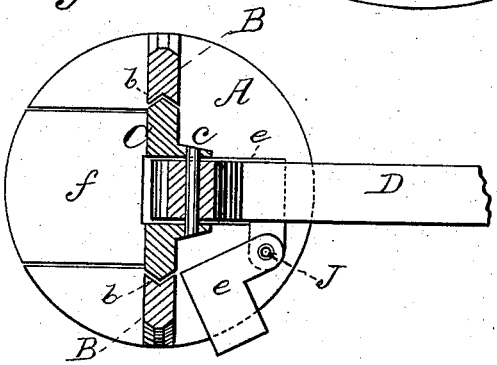

Fig. 3.

WITNESSES

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SAMUEL B. FORBES, OF WINCHESTER, CONNECTICUT.

IMPROVEMENT IN DOOR-LIFTING JACKS.

Specification forming part of Letters Patent No. **211,232**, dated January 7, 1879; application filed December 7, 1878.

To all whom it may concern:

Be it known that I, SAMUEL B. FORBES, of Winchester, in the county of Litchfield, and State of Connecticut, have invented a new and valuable Improvement in Door-Lifting Jacks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my improved door-jack. Fig. 2 is a horizontal section thereof, and Fig. 3 is a longitudinal vertical section of the same.

This invention has relation to improvements in means for raising doors upon their hinges, in order that the latter may be conveniently lubricated and creaking prevented when the door is opened or closed.

The nature of the invention consists in combining, with a base, notched upon its edge, and two parallel uprights erected thereon and grooved upon their opposite faces, of an elevator-frame, having a foot designed to enter the notch of said base and sashed in said uprights; an angular lever, pivoted at one end to the said frame and bearing with its angle against the base; and an independent step plate or plates, vibrating independently on the base, and adapted to be swung, one, more, or all, under the lever, as hereinafter shown and described.

In the annexed drawings, the letter A designates a preferably circular metallic plate, constituting the base of my improved door lifter or jack, having in its edge a deep rectangular notch, *a*, extending in half-way through the base, as shown in Fig. 2. At each side of this notch are erected two parallel upright posts, B B, the contiguous faces of which are grooved, as shown at *b*, the said grooves being carried through the base.

C indicates a sufficiently-strong frame, sashed in the groove *b* of uprights B B′, and provided with a horizontal foot, *f*, fitting snugly in the notch *a*, aforesaid. Upon this frame is a boss or offset, *c*, to which is pivoted one end of a vertically-vibrating angular lever, D, whose bearing is at the angle of intersection of its weight and power arms. (Lettered in the drawings *i* and *i′*, respectively.) This angle is made rounding, as shown at *d*, for the purpose of lessening its friction upon the base; and I may, if I so elect, sink a steel bearing into this base at the portion thereof upon which this lever works, in order to prevent undue wearing of the same. It is evident that by depressing this lever, the foot *f* having been previously introduced under the door, between it and the floor, the sash will be raised, carrying the door with it, and exposing the pintles or hinge-pins of the hinges, so that they may be conveniently oiled. When the lever D is thrust down, a flat portion, *x*, on the power-arm of said lever bears squarely upon the base and locks the elevating-sash against casually descending until the said lever is again raised.

The space between the bottom edge of a door and the floor varies according to the thickness of the weather-strip. Hence, in some instances, the rise imparted by the mechanism above described to the door would prove insufficient to expose the pintles of the hinges. This defect is remedied by the following devices: Upon the base, at one side of the lever, is erected a cylindrical post, J, of suitable length, upon which are strung, the one after the other, the metallic steps *e*. These are of angular form, and swing freely in a horizontal plane upon the post J. Should the sashed frame, by the full effort of the lever, fail to raise the door, the lowest step *e* is swung under the latter, thus raising the foot above the base and increasing the effect of the lever by so much. Should this be still insufficient, a second step is swung upon the first under the lever, and so on until the foot rests against the lower edge of the door, the base being upon the floor. By thrusting the power end of this lever down the door will now be sufficiently raised to expose a part of the hinge-pin, so that it may be conveniently oiled; but at no time will the rise imparted to the door by this device be sufficient to lift it off its hinges. Sometimes the lever may be made of any desired metal or combination of metals.

Sometimes, instead of a number of independent steps, a single one may be used, if it be deemed expedient.

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

1. The combination, with a base, A, having a deep notch, *a*, in its edge, and the grooved uprights B B′, of a sash, C, vertically movable in said uprights, and having a foot, *f*, fitting in said notch, and an angular lever, D, pivoted to said sash and bearing on the base, substantially as set forth.

2. The combination, with a base notched upon its edge and the uprights B B′, erected thereon, of the angular elevator-frame C, sashed in said uprights, an angular lever, D, pivoted to said frame, and the independent vibrating step-plates *e*, adapted to be swung successively, one at a time, under said lever to raise its fulcrum, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL B. FORBES.

Witnesses:

GEORGE M. CARRINGTON,

ELIZABETH S. CAPRON.