(No Model.)

G. H. NEWELL.

OPERATING STORM DOORS.

No. 304,545. Patented Sept. 2, 1884.

Fig. 1.

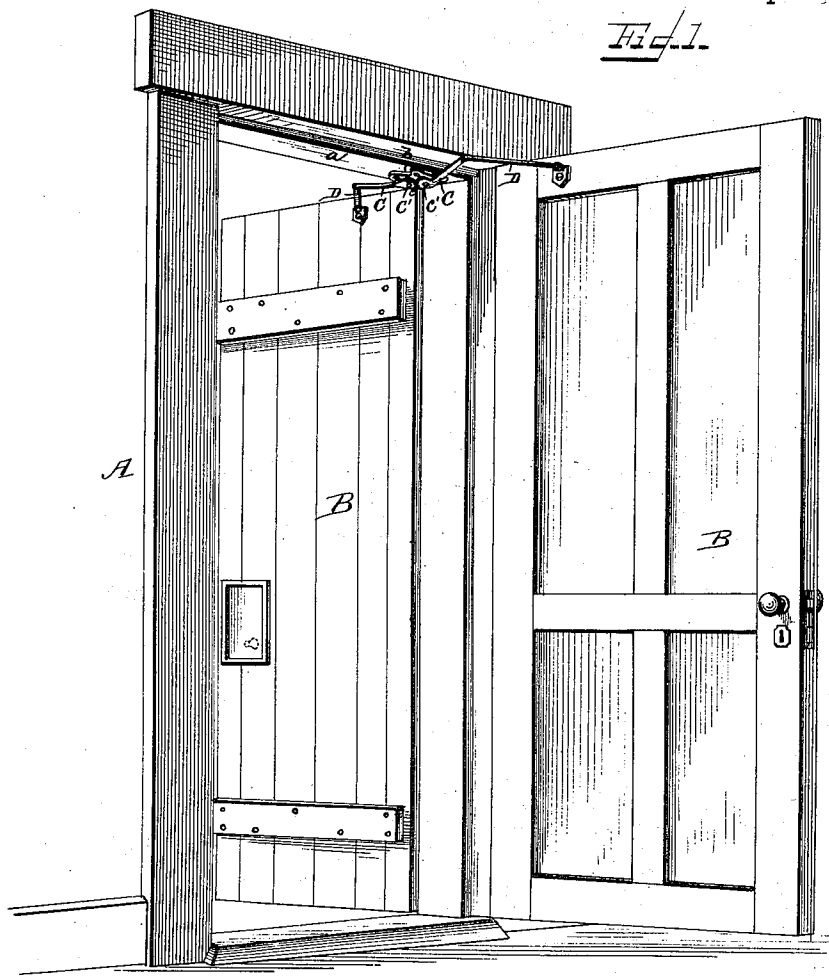
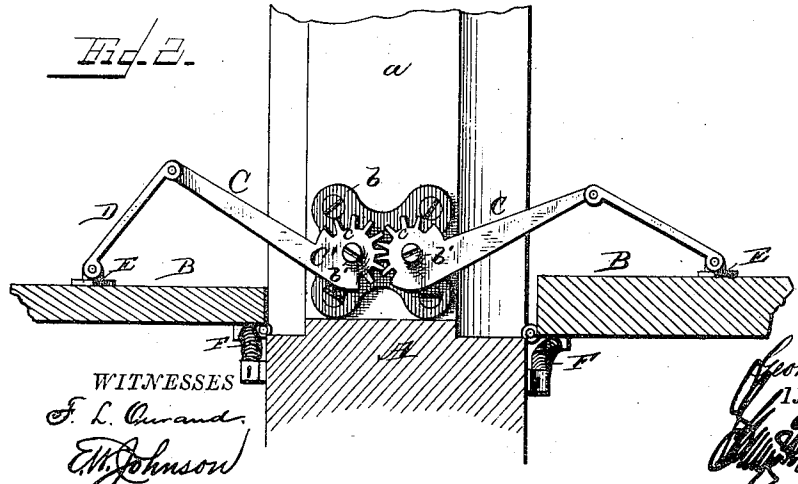


Fig. 2.



WITNESSES
F. L. Durand.
E. W. Johnson

George H. Newell
INVENTOR
Attorney

UNITED STATES PATENT OFFICE.

GEORGE H. NEWELL, OF WOODSVILLE, NEW HAMPSHIRE.

OPERATING STORM-DOORS.

SPECIFICATION forming part of Letters Patent No. 304,545, dated September 2, 1884.

Application filed May 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. NEWELL, a citizen of the United States of America, residing at Woodsville, in the county of Grafton and State of New Hampshire, have invented certain new and useful Improvements in Operating Storm-Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in means for operating doors when a pair are attached to the same door-frame on opposite sides; and it consists in the construction and combination of parts, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a perspective view showing my invention applied, the doors being opened. Fig. 2 is a plan view showing the doors and door-frame in section.

A represents a door-frame, to which are hinged on opposite sides the doors B B. To the upper part of the horizontal transverse strip *a* of the door-frame is rigidly attached, by means of screws, a plate, *b*, which is provided with screw-threaded openings on each side of its central portion for the reception of screws or bolts *b'*. To the plate *b* are attached, by means of the screws *b'*, arms C C, which are provided with enlarged ends C', which have teeth *c* engaging with each other, as shown. To the ends of the arms C, which are provided with perforations, are attached or pivoted arms D, which are in turn pivoted to brackets or projections rigidly secured to the doors. The arms C C are bent near their ends, so that they will travel in different planes, and may lie one above the other when the doors are closed. Each of the doors is provided with springs F, which are attached to the door and frame, so as to close the same.

The outer door may be provided at a point opposite the door-knob of the inner door with an opening having a sliding gate operating over said opening, which gate may be raised when it is desired to have access to the knob of the inner door for turning the latch, it being evident that only one lock is required to secure both doors in a closed position.

If desirable, the lock and latch may be attached to the door-frame so as to engage with each of the doors and hold them in a closed position, the doors being merely provided with knobs.

The doors are normally held in a closed position by means of the springs F, which are of usual construction, and are attached in the ordinary manner, and when one of the doors is opened the door on the opposite side of the frame will be correspondingly moved. The arm D, being drawn outward and swinging upon a pivot, draws the arm C outward and enforces a corresponding movement of the similarly-constructed arms attached to the opposite door.

I am aware that previous to my invention it has been proposed to operate an outer door by means of the door proper, the devices described being two segmental racks, which mesh with one another, and have extensions respectively connected to the hinge of the outer door and of the door to operate either of the same by the movement of the other. My invention will be distinguished from such construction, in that it can be applied to any existing door and storm-door without alteration, and by connecting the arms D to the doors in lieu of the extensions to the hinges the said doors can be operated with a smaller degree of leverage.

I claim—

1. The combination, with the double doors B B, of means attached to the door-frame and to the doors independent of the hinge devices of said doors, whereby one door controls the other, substantially as described.

2. In combination with the doors B B, the arms C C, provided with teeth *c*, and arms D, pivoted thereto and to the doors independent of their hinges, substantially as set forth.

3. In combination with the door-jamb of the doors B B, pivoted to the door-jamb so as to open in opposite directions, the closing-springs F, connected to the door and fixed portion forming part of or located adjacent to the door-frame, and pivoted arms C D, connected to each other so as to operate simul-

taneously, substantially as shown, for the purpose specified.

4. In combination with the doors B B, hinged to a door-frame so as to open in opposite directions, the arms D D, pivotally attached to the doors independent of the hinge devices of said door, and to the ends of the arms C C, having teeth *c*, said arms being pivoted to a plate attached to the upper part of a door-frame, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. NEWELL.

Witnesses:
GEO. LESLIE,
M. F. YOUNG.