No. 617,309. Patented Jan. 3, 1899.

O. COBB.

STORM DOOR.

(No Model.) (Application filed Jan. 31, 1898.)

Fig. 1.

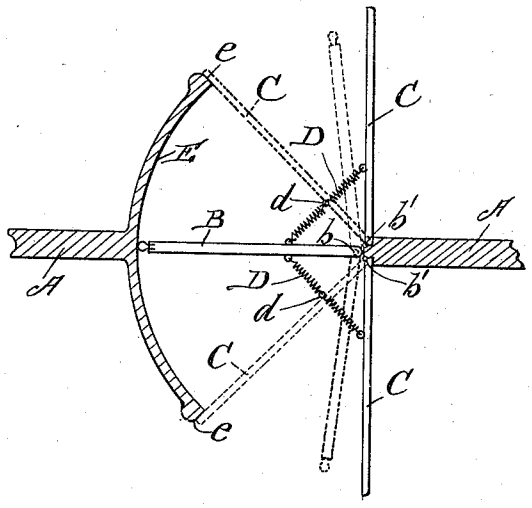
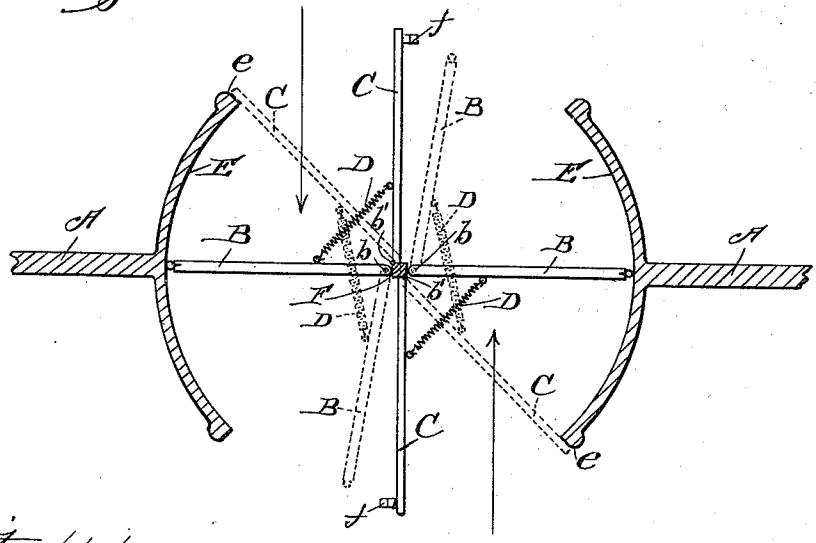


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

OSCAR COBB, OF CHICAGO, ILLINOIS.

STORM-DOOR.

SPECIFICATION forming part of Letters Patent No. 617,309, dated January 3, 1899.

Application filed January 31, 1898. Serial No. 668,575. (No model.)

To all whom it may concern:

Be it known that I, OSCAR COBB, of Chicago, in the State of Illinois, have invented certain new and useful Improvements in Storm-Doors, of which the following is a specification.

This invention relates to storm-doors adapted to keep a passage-way constantly closed to drafts of air, while permitting persons to pass through; and the object of the improvements is to provide a reversing or oscillating door in connection with an arc side of the casing and with hinged flaps or flies adapted to close with the casing just before or simultaneously with the opening of the door. The invention comprises an oscillating door arranged in connection with two hinged flaps having spring connection therewith, so that the swinging of the door in either direction shall cause one of the flaps to follow after the door and close the opening behind the door before the door passes by the opposite side of the arc casing to open the way before the person, the spring connection with one flap being expanded, while that with the other collapses or is compressed.

The accompanying drawings illustrate the invention.

Figure 1 is a sectional plan view showing the hinged flaps adapted to a single door designed to swing in either direction for passages in opposite directions. Fig. 2 is a similar view showing the hinged flaps in connection with two doors, each arranged for passage in one direction, as indicated by the arrows.

In the drawings, A designates the wall or partition having the opening for a passage-way.

B designates the door, C the hinged flaps, and D the springs connecting the flaps with the door.

E is the arc side of the casing.

In the case of a single door it is hinged or pivoted at *b* to the plain or straight side of the door-case, so as to swing in either direction, and preferably by a double-acting spring-hinge designed to keep the door normally in the center of the arc, and the flaps C are hinged at *b'* to the casing on opposite sides of the wall or partition, so that they may be turned out at right angles thereto. When the door is connected with both flaps, as shown at Fig. 1, the springs D, if made of coiled wire, should be jointed in the middle, as shown at *d*, and pivotally connected with the door and flap so as to fall and hang down between the flap and door when these parts are brought close together, or a rubber cord may be used instead of a coiled-wire spring.

In the case of double doors, as illustrated in Fig. 2, the doors and flaps are hinged to a central post or standard F in the manner before described, and stops *f* are provided to limit the backward movement of the flaps, and only a single spring D is employed, connecting each of the flaps with the one of the doors with which it is designed to coöperate. The flaps are slightly wider than the doors and cannot be turned within the arc casing.

In operation the pushing or turning of the door B from its normal position out of the arc side of the casing to open the door pulls the flap after it until it strikes the outer edge of the arc casing, as shown at *e*, after which the spring D permits the door to be further pushed, so as to open the way for one passing through, as appears by the position of the doors and flaps represented in the drawings by dotted lines.

What I claim is—

1. The combination with a door-casing having one side made in the form of an arc, of a door pivoted to that side of the casing which is opposite to the arc so as to swing through the arc and open the passage-way in either direction, flaps adapted to cover the passage-way on either side and oppositely hinged to the same side of the casing as the door and springs connecting the flaps with the door as specified.

2. The combination with a door-casing having one side made in the form of an arc, of a door pivoted to that side of the casing which is opposite to the arc so as to fill the opening and swing out of the arc in one direction for opening the passage, a flap adapted to cover the passage-opening and hinged to the same side of the casing as the door so as to swing in the same direction with the door, and a spring connecting the flap with the door and adapted to cause the flap to move with the door as specified.

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