

UNITED STATES PATENT OFFICE.

WILLIAM OTTIWELL AND JOS. C. KENT, OF NEW BEDFORD, MASSACHUSETTS.

WEATHER-STRIP FOR DOORS.

Specification of Letters Patent No. 5,566, dated May 16, 1848.

To all whom it may concern:

Be it known that we, WILLIAM OTTIWELL and JOSEPH C. KENT, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and Improved Air and Water Guard for Doors; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view of a door and casing having our improved air and water guard attached thereto; Figs. 2, and 5, are vertical sections through a portion of the door and threshold; Fig. 3, is an elevation, and Fig. 4, is a perspective view of a portion of the guard, and the movements for operating the same, detached from the door; and Fig. 6 is a plan of the bottom of the door and guard attached thereto.

Similar letters indicate like parts in all the figures.

A groove is formed in the bottom of the door B, for the reception of the metallic guard *a r*, *b*, *s*, which is secured in the same in the manner represented in Figs. 5 and 6.

One edge of the plate *a*, of the guard, is hinged to the bottom of the door, and the other is suspended by the lever *c*, operated by the spring *h*, and the movement *g*, *m*, and *l*, as shown in Figs. 3 and 4.

d, is a link connecting the lever *c*, to the guard plate *a*.

A, is a metallic casing inserted into a mortise in the inner edge of the door, in which is placed the lever *c*, and the movements for operating the guard.

In closing the door, the projecting bar *g*, strikes against the door casing and is forced inward into the position represented in Fig. 3; thereby relieving the pressure of the bar *l*, from the leg of the lever *c*, and allowing the moving edge of the guard plate *a*, to descend by its own weight; as the edge of the guard plate *a*, descends, the lip *v*, projecting from its under side, shuts over the outer edge of the threshold *i*, as shown in Fig. 5, and prevents all air and water from passing under the same.

b, *s*, is an angular plate rising from the lower edge of the lip *r*, serving as an auxiliary guard for preventing snow or water from being driven into the space over the guard plate *a*, and forming ice; which would obstruct the movements of the guard and cause its speedy destruction. As the guard plate *a*, descends, the upper face *s*, of the auxiliary guard, strikes against the side *n*, of the groove in the bottom of the door, and securely closes up the opening to the space over the plate *a*, at the same time that the lip *r*, shuts down over the outer edge of the threshold *i*, and closes the space between the threshold and door, as shown in Fig. 5.

When the door is opened, the spring *h*, operates the lever *c*, as represented in Fig. 4, and elevates the guard into its groove in the bottom of the door.

e, *e*, are friction rollers let into the inner side of the lip *r*, of the guard, which fit into grooved inclined planes *k*, *k*, in the outer edge of the threshold of the floor.

The object of the friction rollers, is to assist the spring *h*, in raising the guard, as they ascend the grooves *k k* when the door is opened, in case sleet or ice should adhere to the lower edge of *b*, and confine it to the floor.

Having thus fully described our improved air and water guard for doors, what we claim therein as new and desire to secure by Letters Patent, is—

The combination of the auxiliary guard *b s*, with the lip *r*, of the guard plate *a*, substantially as herein set forth; for the purpose of closing up the opening to the space above the guard plate, thereby preventing snow or ice from accumulating on the same, that would obstruct its movements, and speedily cause its destruction.

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JOS. C. KENT.

Witnesses:

JAMES D. THOMPSON,
I. W. ELLIS.