

B.F. Averill,

Weather Strip,

N^o 79,625.

Patented July 7, 1868.

Fig. 1.

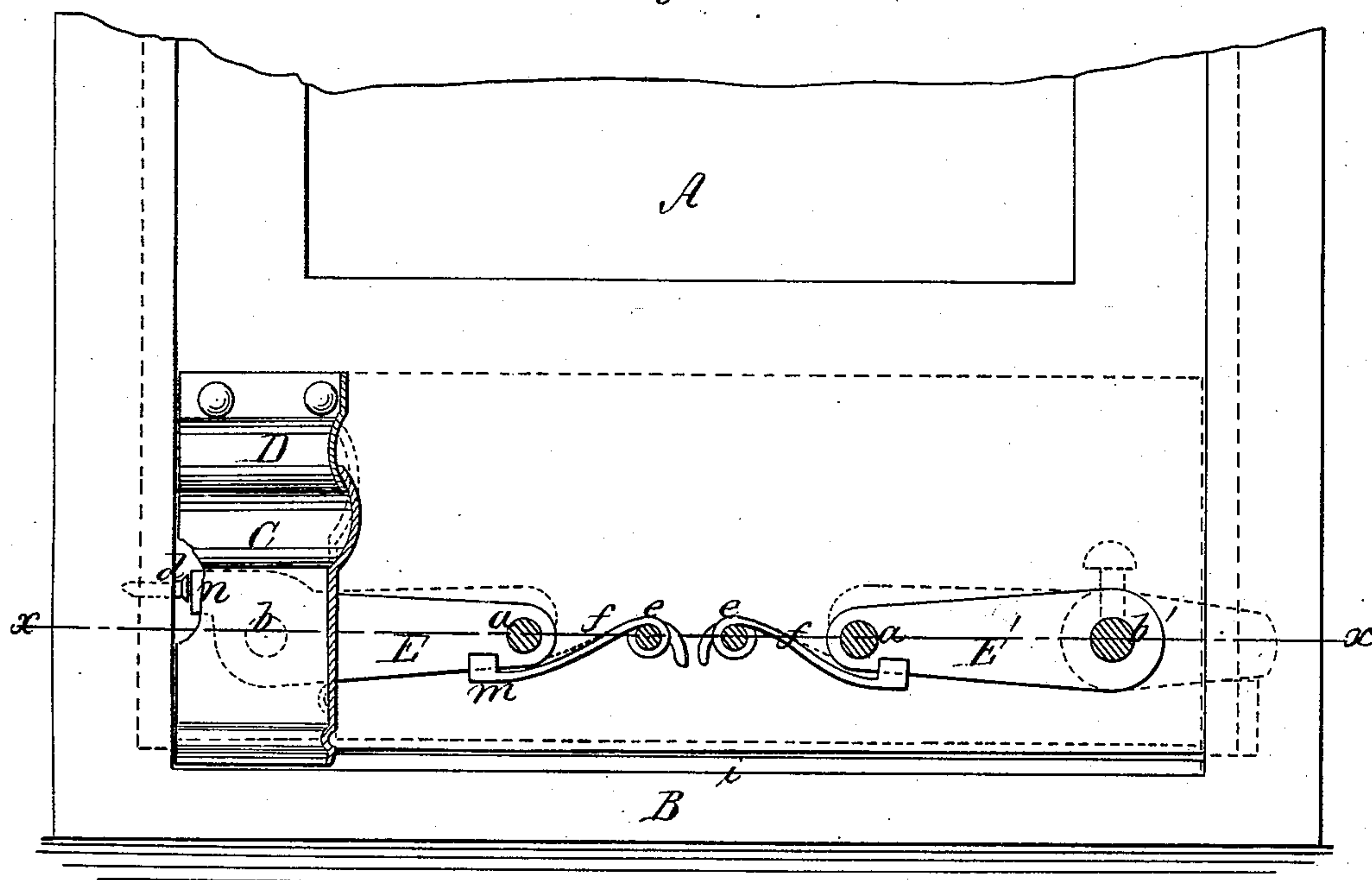
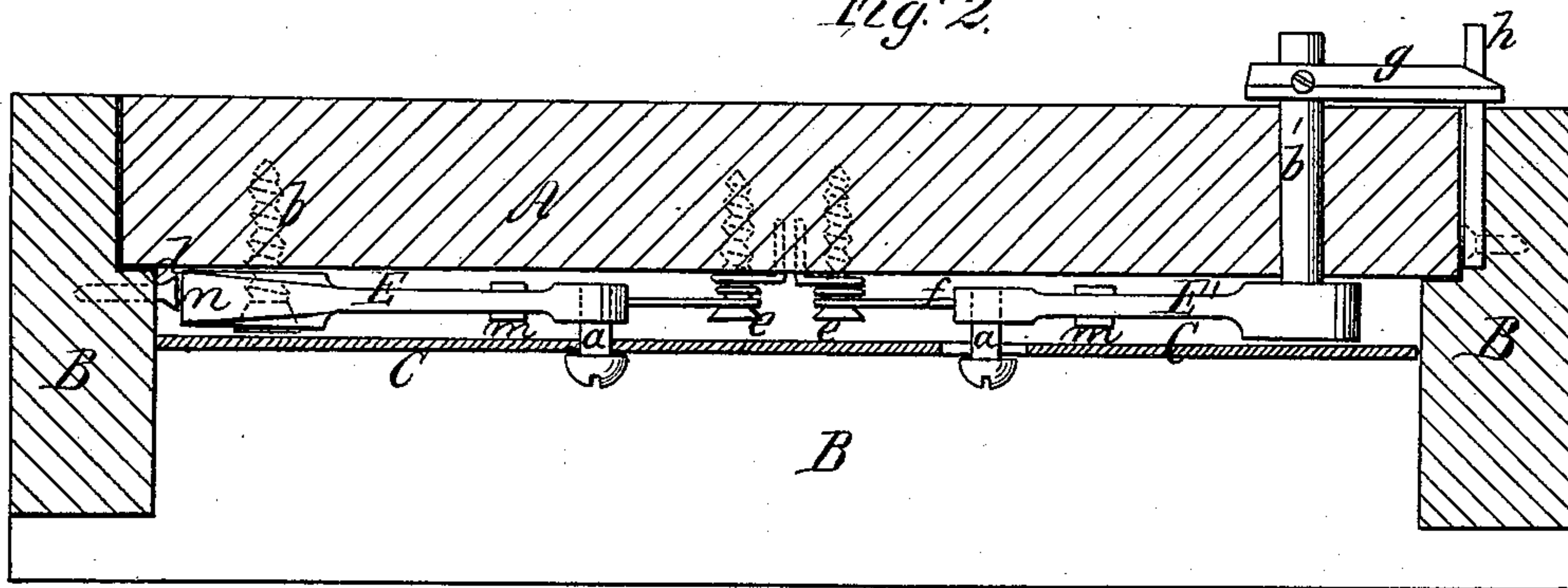


Fig. 2.



Witnesses;
W. C. Ashkettle
Am A Morgan

Inventor;
B. F. Averill
per Munn & Co
Attorneys

United States Patent Office.

BENJAMIN F. AVERILL, OF DUNKIRK, NEW YORK.

Letters Patent No. 79,625, dated July 7, 1868.

IMPROVED WEATHER-STRIP.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, BENJAMIN F. AVERILL, of Dunkirk, in the county of Chautauqua, and State of New York, have invented a new and improved Weather-Strip; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view of the mechanism by which the weather-strip is operated.

Figure 2 is a top view of the same from a section taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

The nature of this invention relates to weather-strips for shutting out the draughts of cold air under the bottoms of doors.

It consists of a movable plate, provided with certain mechanism by which the said plate is made to shut downward and close the crack between the door and the sill, and to rise again when the door is swung open. It consists of the lever-and-spring mechanism, in combination with the said movable strip, the construction and operation of which will be duly set forth in the following.

In the accompanying plate of drawings, the door is shown at A, B being the casing of the same.

The movable strip C is a plate of sheet metal, fluted at its upper edge to fit under a reversely-fluted plate, D, affixed to the door, as shown, whereby a sliding joint is obtained, which enables the movable strip C to work up and down, and when down, in contact with the floor, the edges of the flutings will be brought in contact, and thereby form a joint to prevent a draught between the flutings.

The lower edge of the strip C rests against a bead, *i*, forming part of the sill, and the draught excluded at that point.

The mechanism by which the strip is operated consists of two levers, E E, pivoted to the door at *b b'*, as shown. The pivot *b*, which is nearest the hinges of the door, is merely a screw, upon which the lever E vibrates, but the pivot *b'* is affixed to the lever E', and turns when the latter vibrates. By the vibration of these levers the strip C is raised and lowered, and the said vibration is performed against the tension of the uprights *f f*, which are inserted into the door, and are coiled once or more around the screws *e e*, and pass under the levers, terminating in shoes *m m*, against which the levers work. The strip C is attached to the levers by means of stud-pins *a a*, as shown, which work in holes or slots in the said strip, and are provided with heads, as shown, to keep the strip from coming off.

In fig. 1, a portion only of the strip C and plate D is shown, the remainder being broken away to exhibit the lever-mechanism behind them.

The means by which the strip may be actuated downward when the door is in the act of being closed are various, but two only of such devices are shown.

The first consists in vibrating the lever E' by an arm, *g*, affixed on the pivot *b*, and a bevelled projection, *h*, affixed to the casing B, as shown.

When the door is nearly closed, the arm *g* is raised by the bevelled projection *h* in a manner similar to that of a door-latch, and the lever E' is vibrated by its pivot *b*, thereby bringing the end of the strip down in contact with the bead *i*. The vibration of the said lever continuing, the whole strip is brought down horizontally, and with the whole lower edge in contact with the bead *i*, by the action of the stud *a* of the lever E', for when the end of the strip has come in contact with the sill or bead, that point of contact constitutes a fulcrum for a lever of the third order, the strip acting as a lever, and the stud *a* of the lever E' being the point of application of the power.

The second modification of this device may be employed. It consists in placing a projection, *d*, in such a position that it will impinge against some point of the lever E, above the vibrating-centre of that lever, as shown at *n*, when the proximate end of the strip will descend first, and the other be made to follow in the manner above described.

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

1. The weather-strip constructed as described, of the strip C, fluted along its upper edge to work under and in contact with the reversely-fluted plate D, secured to the door, the plate C being hung upon the headed pins *a*, affixed to the levers E E' beneath the plate, which levers are pivoted to the door at *b b'*, and held up at their inner ends by the springs *ff*, all arranged as described for the purpose specified.
2. The arrangement of the screw *d*, projection *n* upon the lever E, the pivoting-pin *b'* upon the lever E', the arm *g* and incline *h*, all operating as described, to depress the fluted plate C against the tension of the springs *f*, as herein described for the purpose specified.

BENJAMIN F. AVERILL.

Witnesses:

R. D. WILCOX;

SOLOMON BOND.