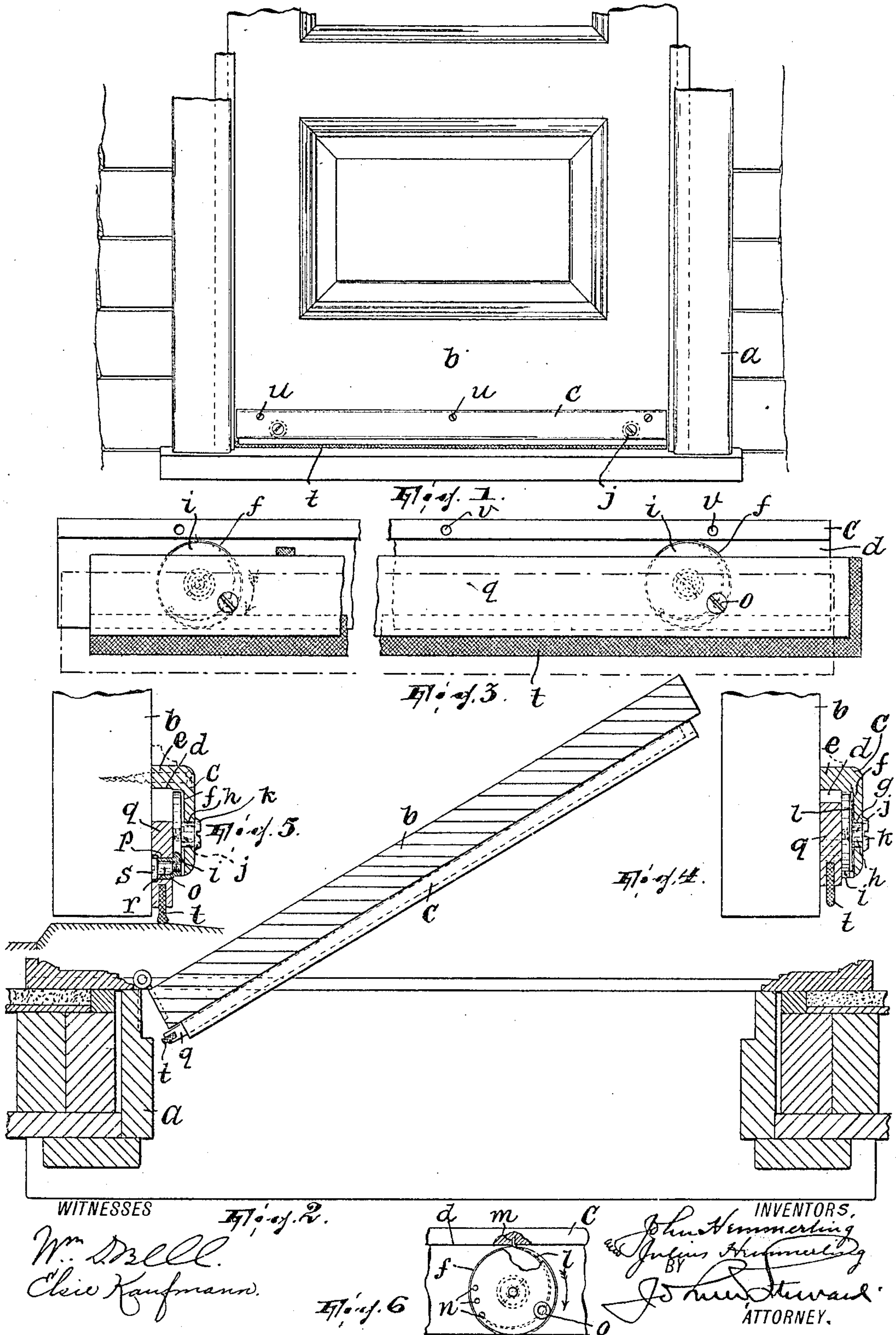


JOHN HEMMERLING & JULIUS HEMMERLING.
MOVABLE WEATHER STRIP.

APPLICATION FILED JUNE 22, 1909.

944,093.

Patented Dec. 21, 1909.



UNITED STATES PATENT OFFICE.

JOHN HEMMERLING AND JULIUS HEMMERLING, OF PATERSON, NEW JERSEY.

MOVABLE WEATHER-STRIP.

944,093.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed June 22, 1909. Serial No. 503,599.

To all whom it may concern:

Be it known that we, JOHN HEMMERLING and JULIUS HEMMERLING, citizens of the United States, residing in Paterson, Passaic county, New Jersey, have invented a certain new and useful Improvement in Movable Weather-Strips; and we 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 of reference marked thereon, which form a part of this specification.

Our invention relates to weather-strips, and particularly to movable weather-strips to be attached to doors to close off the opening between the same at the bottom and the floor.

We aim to provide an inexpensive, durable and efficient weather-strip of this kind which may be sold and applied to a door as a completely assembled article and when attached will effectively close out the weather.

To this end our invention consists in a supporting strip preferably rabbeted lengthwise at the back to form a housing, a weather-strip arranged within the rabbeted portion of the housing of the supporting strip and means for attaching the weather-strip to the supporting strip so as to project normally at one end and be capable of movement, after the manner of a parallel rule, downwardly into contact with the floor when, upon closing the door, its projecting end impinges against the door jamb.

Figure 1, in the accompanying drawing, is a front elevation of a door with the improved device attached thereto; Fig. 2 is a view on a larger scale showing the door and its frame in horizontal section and the improved device in plan; Fig. 3 is a rear elevation of the device detached from the door and showing the weather-strip partly depressed; Fig. 4 is a vertical sectional view of what is shown in Fig. 3, a certain disk and other parts appearing in side elevation and the device being attached to the door and in its elevated position; Fig. 5 is a view similar to Fig. 4 except that the weather-strip is depressed and a certain spring omitted; and, Fig. 6 illustrates a detail.

a is the door frame and *b* the door hinged therein in the usual manner.

c is the supporting strip, the same having its front face formed to resemble a piece of

molding, so that when it is attached to the door *b* it will impart a finish thereto. The back of the strip *c* is formed with a longitudinal rabbet *d* extending from a line suitably near its top edge to its bottom edge, thereby producing a space forming a housing when the overhang *e* is in contact with the door, as hereinafter explained. The back of the strip *c* has near each end a circular recess *f* and concentric with each recess a hole *g* is bored through the strip. In this hole is journaled the trunnion *h* of a disk *i*, the disk being held in place, if desired, by a screw *j* having a head or enlargement *k*. A flat helical spring *l*, having one end introduced into a hole *m* in the overhang *e* and its other end inserted into one of several holes *n* in the disk, is coiled within the recess *f* and acts normally to thrust the disk rotatively in the direction opposite to that indicated by the arrow in Fig. 6. On the back of each disk is a stud *o*, the two studs extending into holes *p* in the weather-strip *q*. The weather-strip may be retained on the studs by screws *r* having the enlargements *s*. The weather-strip has an elastic cushion or strip *t* which projects below its lower edge for the entire length thereof and beyond its right-hand end in Fig. 3.

The relation of the weather-strip to the strip *c* is normally such that the former projects at its right-hand end in Fig. 3 beyond the corresponding end of the strip *c*. The strip *c*, with the other parts attached thereto, as above described, is secured to the bottom of the door *b* by means of the screws *u* which penetrate holes *v* in the overhang *e* of the strip *c*. It is attached in such manner that when the door is in the closed position, the strip *q* will be displaced by the side of the door frame to which the door is hinged laterally and downwardly (the disks turning in the direction of the arrows in Figs. 3 and 6, against the tension of the springs) so as to bring the elastic strip *t* into regular contact with the floor from one end to the other thereof; when the door is opened the springs *l* will turn the disks *i* in the reverse direction and so raise the strip out of contact with the floor.

In view of the foregoing it will be seen that the improved device may be sold and applied to the door as an assembled article of manufacture; the devices may be made up in suitable lengths so that all that the purchaser has to do in any case is to saw

off the left-hand end of the article in Fig. 3 (having first depressed the weather-strip) in order to fit it to the door.

Since the weather-strip lies flat against
5 the vertical face of the rabbet in the supporting strip and the disks and springs stand close between the weather strip and the bottoms or plane faces of the recesses, the parts being held in this position by the screws $\frac{1}{2}$
10 and $\frac{7}{8}$, undue lost motion of any kind is avoided and the device rendered compact and capable of being assembled readily; the only moving part which is exposed is the weather-strip, so that the device may be applied to a door without its being an unsightly or conspicuous accessory thereof.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:

20 As an article of manufacture, the combination of a supporting strip having circular recesses in one face thereof, and an overhang projecting from said face immediately above said recesses, a weather-strip having a flat
25 face lying squarely against the recessed face of said supporting strip under the overhang

of the latter, disks fitting said recesses and each having one face thereof squarely contacting with the flat face of the weather-strip and also having a stud projecting into 30 the weather-strip and forming a pivot therefor and another stud projecting from its opposite face into the supporting strip and serving as a bearing for the disk, a flat helical spring disposed flatwise in each recess and fitting between the disk and the supporting strip, one end of each spring being secured in the corresponding disk and the other end in the overhang, and headed devices introduced into the free ends of the 35 studs and holding them in the weather-strip and supporting strip, substantially as described.

In testimony, that we claim the foregoing, we have hereunto set our hands this 19th day 45 of June, 1909.

JOHN HEMMERLING.
JULIUS HEMMERLING.

Witnesses:

JOHN W. STEWARD,
BARTON H. WALKER.