(No Model.)

L. D. BLACKWOOD & M. A. GOFF.

WEATHER STRIP.

No. 463,886. Patented Nov. 24, 1891.

Fig. 1.

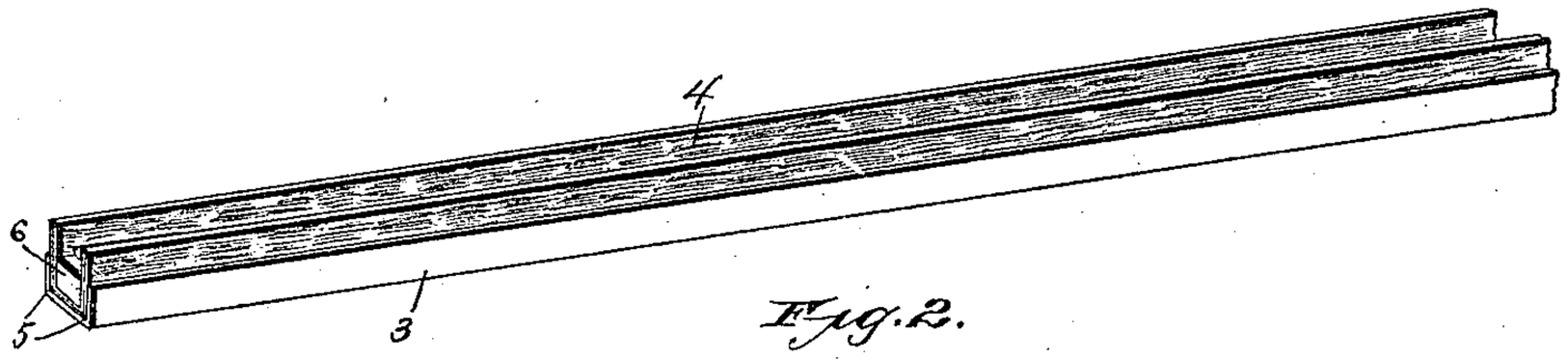


Fig. 2.

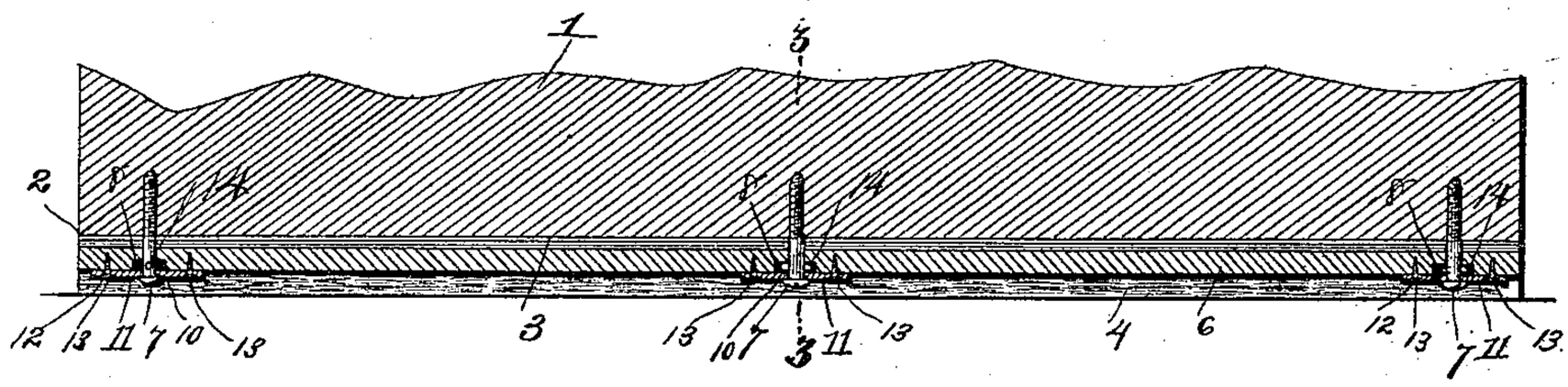


Fig. 4.

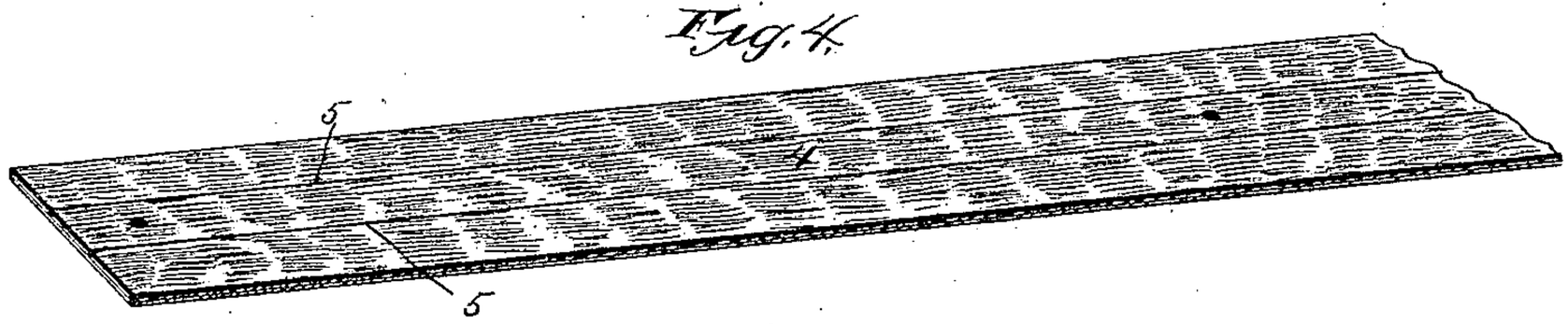


Fig. 5.

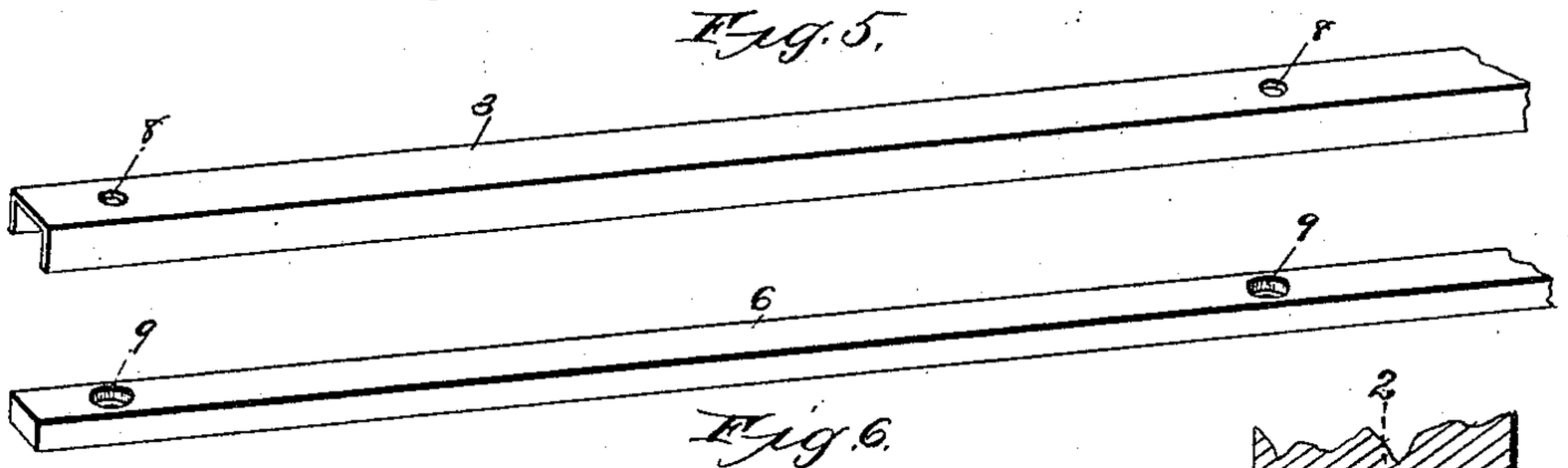


Fig. 6.

Fig. 7.

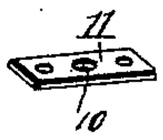


Fig. 8.

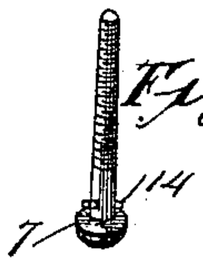
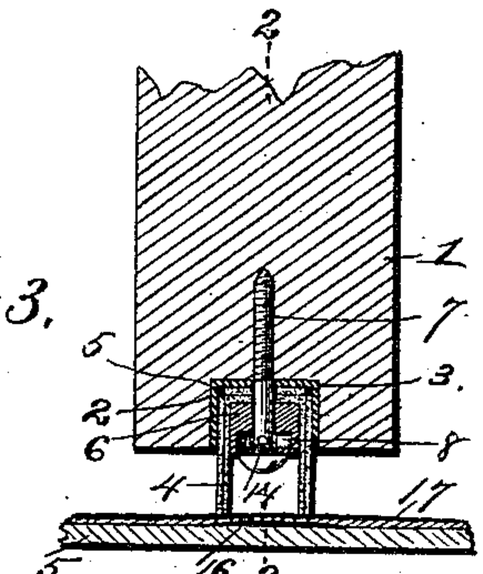


Fig. 3.



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UNITED STATES PATENT OFFICE.

LORENZO D. BLACKWOOD AND MOSES A. GOFF, OF LATHROP, MISSOURI.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 463,886, dated November 24, 1891.

Application filed May 16, 1891. Serial No. 393,029. (No model.)

To all whom it may concern:

Be it known that we, LORENZO D. BLACKWOOD and MOSES A. GOFF, of Lathrop, Clinton county, Missouri, have invented certain new and useful Improvements in Weather-Strips, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to devices for preventing drafts of cold air underneath doors; and the objects of our invention are to provide means whereby the space between either an inside or an outside door can be perfectly closed, and which shall be easily adjustable, so as to completely close the space between the door and the floor even when the door has warped, or when the floor is not level.

To the above purposes our invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described, and pointed out in the appended claims.

In order that our invention may be fully understood, we will proceed to describe it, with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of our improved weather-strip detached from the door. Fig. 2 is a vertical longitudinal section of our improved weather-strip applied to a door, the said section being on the line 2 2 of Fig. 3. Fig. 3 is a transverse vertical section of the same on the line 3 3 of Fig. 2. Fig. 4 is a detached perspective view of the elastic packing of the weather-strip. Fig. 5 is a detached perspective view of the metal frame of the weather-strip. Fig. 6 is a detached perspective view of the wood filling of the strip in inverted position. Fig. 7 is a detached perspective view of one of the adjusting-plates. Fig. 8 is a detached perspective view of one of the adjusting-screws.

In the said drawings, 1 designates a door, which may be either an outer door of a building or an inside door, as circumstances may demand. In the lower edge of this door is formed an inverted-U-shaped groove 2, which extends throughout the length of the said lower edge of the door.

3 designates an elongated metal strip, which is of U form in cross-section, and which is of brass, iron, tin, or any other suitable or preferred metal. This strip is inserted in inverted position in the groove 2, and is of such length as to completely fill the said groove longitudinally.

4 designates an elongated strip of flexible material, preferably rubber packing, but permissibly any other suitable or preferred flexible material. This strip is provided on one side with two parallel longitudinal cuts or scores 5, which extend almost through the strip transversely and which also extend parallel with each other throughout the length of the strip.

6 designates an elongated strip of wood, which is of a length corresponding to that of the strip 3, and which is also of a width corresponding with the internal width of said strip 3.

The parts above described are arranged in the following order: The U-shaped metal strip 3 is first inserted in inverted position in the recess of the door, the flexible strip 4 is next inserted into said strip 3 and bent at its scores so as to assume approximately inverted-U form in cross-section, the scores or cuts 5 imparting perfectly rectangular bends to the flexible strip 4. The strip 6 is now inserted into position in the strip 3, and thus lies beneath the upper part of the flexible strip 4.

7 designates any suitable or preferred number of screws, which pass upwardly through a similar number of holes 8 and 9 in the strips 3 and 6, respectively, and also through the flexible strip 4, the holes 9 in the strip 6 being countersunk on the under side of said strip. Each of these screws 7 passes also through a middle hole or opening 10 in a small metal plate 11, each of which plates 11 is also formed with two holes or openings 12 at opposite points from the middle hole 10. Through these two holes 12 pass two screws 13, which are shorter than the screws 7, so as to enter only the strip 6 while the screws 7 enter the lower part of the door. Each of the screws 7 is provided with a cross-pin 14, which passes through the lower part of the screw just above its head, and which lies immediately above the plate 11 and in one of the countersunk openings 9 of the plate 6. It will thus be seen that if there be any warp-

ing of the door or unevenness of the floor the entire weather-strip can be adjusted closer to or farther from the door by simply turning one or more of the screws 7, the pins 14 of said screws abutting against the plates 11 and thus in connection with the screw-heads holding the parts in adjusted position.

In order to further insure the perfect closing of the space between the door 1 and the floor 15, an extra thickness of lining 16, of paper or other suitable material, may be placed beneath the carpet 17 at the place where the lower edges of the flexible strip 4 come into contact with the carpet.

From the above description it will be seen that we have produced a weather-strip which completely closes the space between the bottom of the door and the floor, and which can be readily adjusted so as to compensate for warping or sagging of the door and unevenness of the floor. It will be further seen that by virtue of this construction of this weather-strip the usual carpet-strip which is usually placed upon the door-sill is rendered entirely unnecessary.

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

1. An improved weather-strip comprising an elongated metal portion or strip of substantially U form in cross-section, an elongated flexible strip having longitudinal parallel cuts upon one of its sides and inserted into the metal strip, and an elongated wooden strip also inserted into the metal strip and lying beneath the flexible strip, substantially as set forth.

2. An improved weather-strip comprising an elongated metal strip of substantially U form in cross-section and elongated wooden strip inserted into the metal strip, an elongated flexible strip interposed between the metal and the wooden strip and having parallel longitudinal cuts or scores on its upper surfaces, a number of plates having each openings for screws formed in its body, a longer screw passing through one of said openings and provided with a cross-pin and shorter screws passing through the outer openings of said plate, the said plates lying beneath the wooden strip, the longer screws passing through the wooden and metal strips, the shorter screws passing into the wooden strip, and the cross-pins of the longer screws lying in recesses in the wooden strip, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LORENZO D. BLACKWOOD.
MOSES A. GOFF.

Witnesses:
BENJ. F. COCHRAN,
JOHN T. SUMNER.