

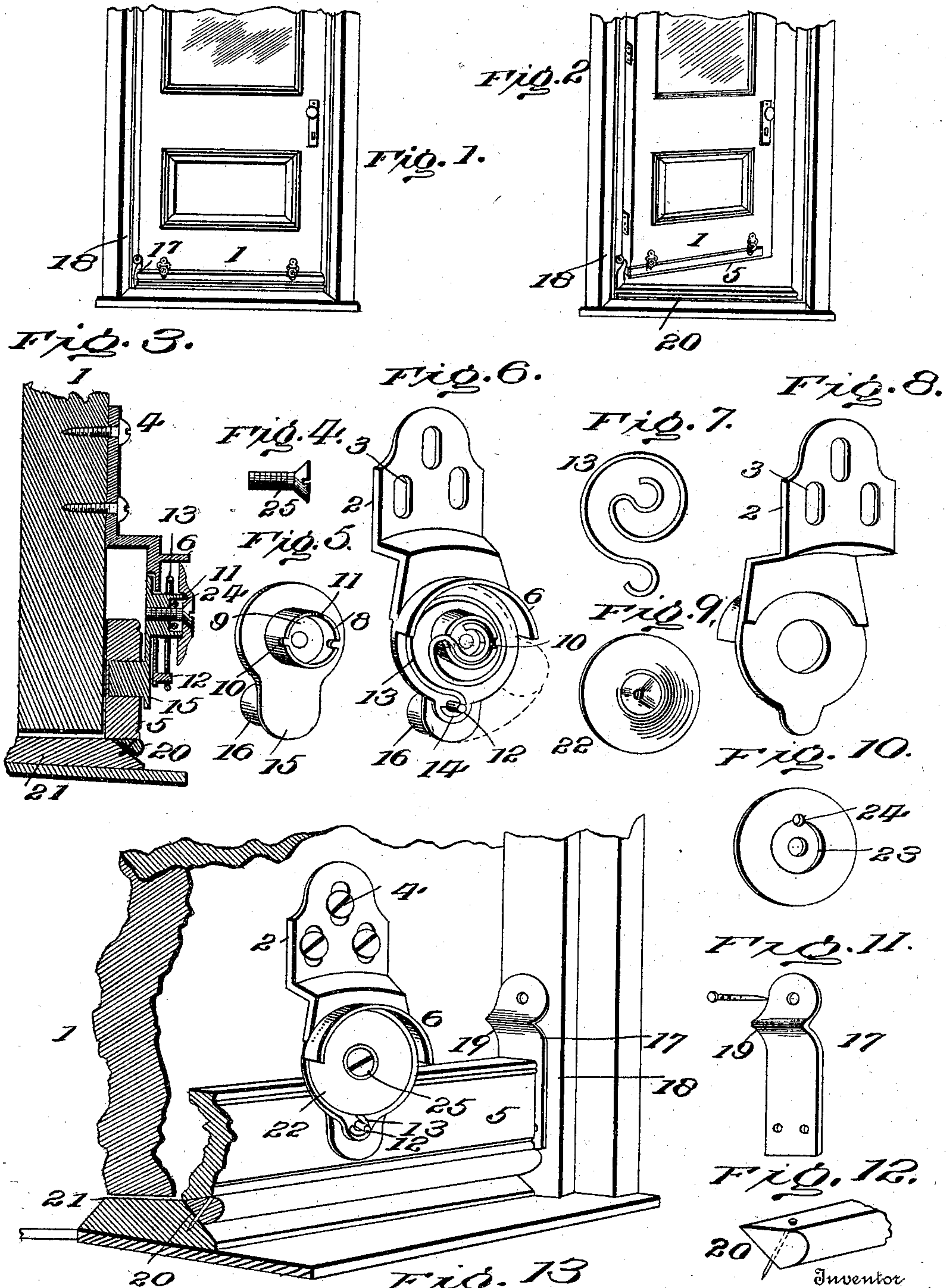
No. 625,840.

Patented May 30, 1899.

O. A. ESSIG.
WEATHER STRIP.

(Application filed Mar. 21, 1898.)

(No Model.)



Witnesses

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OZIA A. ESSIG, OF CANTON, OHIO.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 625,840, dated May 30, 1899.

Application filed March 21, 1898. Serial No. 674,616. (No model.)

To all whom it may concern:

Be it known that I, OZIA A. ESSIG, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Weather-Strips; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures marked thereon, in which—

Figure 1 is a view showing the weather-strip properly connected and illustrating the door closed. Fig. 2 is a similar view showing the door partially opened. Fig. 3 is a vertical section of the weather-strip and its attachments, showing the same connected to a door. Fig. 4 is a detached view of one of the connecting-screws or lock-bolts. Fig. 5 is a detached view of one of the weather-strip-connecting arms or bars. Fig. 6 is a view of the bracket, showing the pivoted arm connected thereto and the spring located in proper position. Fig. 7 is a detached view of the actuating-spring. Fig. 8 is a detached view of the bracket. Fig. 9 is a detached view of the cap, showing the front side thereof. Fig. 10 is a view showing the cap and illustrating the back face thereof. Fig. 11 is a view of the striking-plate. Fig. 12 is a detached view showing a portion of the supplemental strips. Fig. 13 is an enlarged view of the weather-strip proper, showing the position of the striking-plate and illustrating the strip connected to the door, showing one of the connecting-brackets and its arm or bar.

The present invention has relation to weather-strips; and it consists in the novel arrangement hereinafter described, and particularly pointed out in the claims.

Similar numbers of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents a door, which may be of any desired style and is hinged in the ordinary manner. To the bottom or lower portion of the door 1 are connected the brackets 2, which brackets are provided with the slots 3, through which slots the attaching-screws 4 are passed and connected to the door 1. The object of providing slots, such as 3, is to provide a means for adjusting the brackets 2, together with the weather-strip

5, for a short distance up or down, as may be required from time to time. The brackets 2 are provided with the outer-extending flanges 6, which flanges are for the purpose hereinafter described. The brackets 2 are provided with the openings 7, through which brackets the spindles or bearings 8 are passed, said spindles or bearings being located, when placed in proper position, as illustrated in Fig. 3. The outer ends of the spindles or bearings 8 are formed hollow or, in other words, are provided with the annular flanges 9, which flanges are provided with the notches or recesses 10 and the lugs 11, said parts being for the purpose hereinafter described.

Below the opening 7 formed in each bracket is located the pin or lug 12, which pin or lug is for the purpose of holding the bottom or lower end of the spring 13 by means of the hook 14, formed upon said spring. The spring 13 is provided at its top or upper end with convolutions, which convolutions are so formed that the inner one will come within the flange formed upon the outer end of the spindle and the outer convolution will come upon the outside of the spindle, substantially as illustrated in Fig. 6. For the purpose of providing a bearing-point for the spring the notches 10 are provided, which notches engage the spring, as illustrated in Fig. 6. It will be understood that when it is desired to change the location of the spring so as to change from a right-hand-working spring to a left-hand-working spring, said spring is turned over and the opposite notch 10 engaged.

The arms or oscillating bars 15 are each provided with the integral lug 16, located at the bottom or lower end of the bars 15 and are entered into suitable apertures formed in the weather-strip 5 and are for the purpose of carrying said weather-strip. The springs 13 are so formed that they will oscillate the bars 15 and move the weather-strip longitudinally and upward when the door is opened, and when the door is closed the end of the weather-strip 5 will come in contact with the striking-plate 17, which striking-plate is attached to the door-jamb 18 or its equivalent, and for the purpose of forcing the weather-strip down said striking-plate is provided with the curved portion 19, said curve portion being so located that the upper corner

of the weather-strip will engage said curve portion as the door swings upon its hinges to be closed. It will be understood that as the door closes the weather-strip 5 will be crowded or forced downward, thereby bringing it onto the top or upper side of the supplemental strip 20 or upon the top of the sill 21, as the case may be. The only object in providing the supplemental strip 20 is to provide a bearing-surface for the weather-strip 5 in case the sill 21 does not extend forward a sufficient distance to extend under or below the lower edge of said weather-strip.

For the purpose of holding the springs 13 in proper operating position and at the same time covering said springs the caps or washers 22 are provided, said caps or washers being located substantially as shown in the drawings. The rear faces of the washers are provided with the recesses 23, into which recesses the outer ends of the spindles 8 are seated. For the purpose of preventing the caps from becoming accidentally displaced by the movement of the oscillating arms 15 they are each provided with the recesses 24 and into which recesses the lugs 11 are seated, thereby preventing any loosening of the caps or washers.

It will be understood that the connecting-screws 25 are to be connected to the oscillating arm 15, substantially as shown in Fig. 3, by means of suitable screw-threaded apertures formed in said arm and in the spindle 8.

The supplemental strip 20 may be formed of any suitable material and is for the purpose of preventing any water or dust from finding its way under the weather-strip; but it will be understood that the supplemental strip may be dispensed with in case the sill 21 provides a sufficient bearing-point for the weather-strip 5.

The flange 6, formed upon the outer side of the bracket 2, is for the purpose of properly protecting the spring and cap from the weather and also acts as a shield.

The plate 17 serves the double purpose of providing a means for assisting in forcing the weather-strip downward and at the time forms a wear-plate.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a hinged door, brackets adjustably connected to the bottom or lower end of the door, shields formed upon the outer faces of the brackets, arms connected to the brackets by pivot-spindles and provided with recessed flanges located upon the spindles, caps connected to the spindles and a weather-strip carried by the pivoted arms, and springs engaging the recesses of the spindles and the bracket, substantially as and for the purpose specified.

2. The combination of a hinged door, brackets secured to the door carrying arms having pivot-spindles, springs connected to the spindles and to the brackets, caps connected to the spindles and a wear-plate on the door-jamb provided with a curve face, and a weather-strip carried by the pivot-arms, substantially as and for the purpose specified.

3. The combination of a hinged door, brackets secured to the door, arms pivoted to the brackets and provided with spindles, springs connected to the spindles and to the brackets, lugs or projections located upon the ends of the spindles caps connected to the spindles and provided with recesses 23 and 24, and a weather-strip pivotally connected to the arms, substantially as and for the purpose specified.

4. The combination of a hinged door, brackets adjustably attached to the door, arms pivotally connected to the brackets a weather-strip connected to the bottom or lower ends of the pivoted arms, a wear-plate provided with a curved face, and held in a fixed position, a supplemental strip located below the weather-strip when in a closed position, and springs engaging the recesses of the spindles and the brackets, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

OZIA A. ESSIG.

Witnesses:

J. A. JEFFERS,
F. W. BOND.