No. 733,295. PATENTED JULY 7, 1903.

S. S. STITES.

WEATHER STRIP.

APPLICATION FILED SEPT. 22, 1902.

NO MODEL.

Fig. 1.

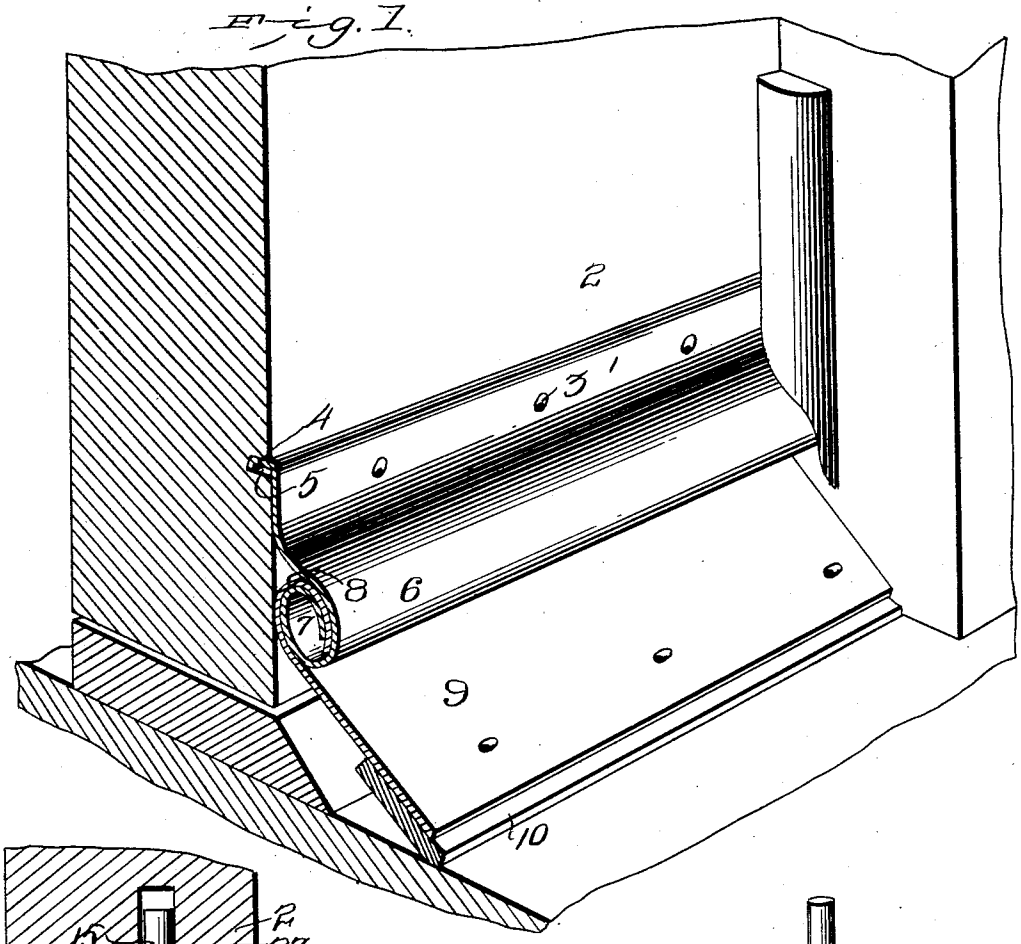


Fig. 2.

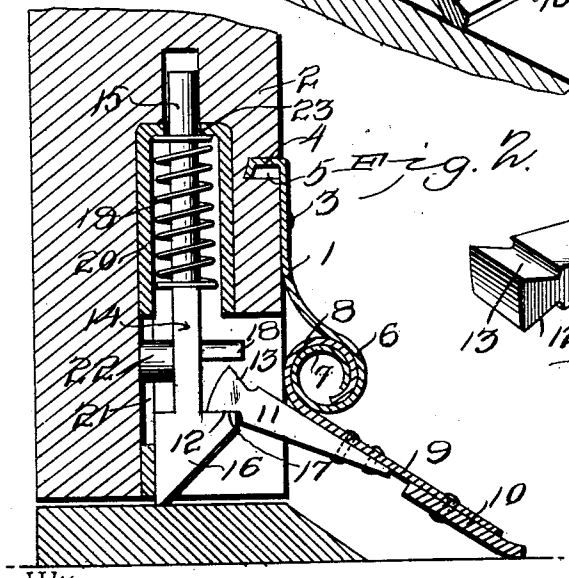


Fig. 4.

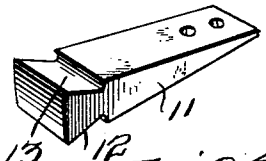
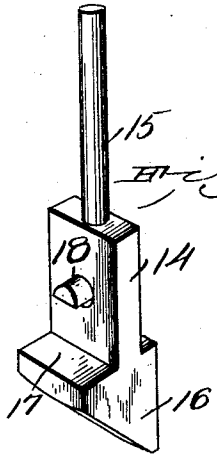


Fig. 3.



Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 733,295. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

SIMEON S. STITES, OF RIPLEY, OKLAHOMA TERRITORY.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 733,295, dated July 7, 1903.

Application filed September 22, 1902. Serial No. 124,475. (No model.)

To all whom it may concern:

Be it known that I, SIMEON S. STITES, a citizen of the United States, residing at Ripley, in the county of Payne and in the Territory of Oklahoma, have invented a new and useful Weather-Strip, of which the following is a specification.

The invention relates to improvements in weather-strips.

The object of the present invention is to improve the construction of weather-strips, and to provide a simple, inexpensive, and efficient one of great strength and durability adapted to be readily applied to a door and capable of effectively excluding the weather and of operating automatically to fit tightly against a door-sill when the door is closed and to swing upward clear of the sill and the floor when the door is opened.

The invention consists in the construction and novel combination and arrangements of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a weather-strip constructed in accordance with this invention and shown applied to a door. Fig. 2 is a vertical sectional view of the same, illustrating the construction for swinging the hinged strip upward and downward. Fig. 3 is a detail view of the arm of the hinged strip. Fig. 4 is a similar view of the spring-actuated device for swinging the hinged strip upward and downward.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an upper stationary strip designed to be secured to a door 2 by suitable fastening devices 3 and having its upper edge bent inward to form a flange 4, which is arranged within a groove 5 of the door. The flange is angularly bent, as shown, and it effectually excludes moisture from the space between the plate 1 and the door and is adapted to shed water. The lower portion of the plate 1 is bent outward and is coiled to form a roll 6, which is approximately cylindrical, the lower end 7 of the plate 1 being arranged within the coil and being spaced from the front portion thereof to receive a partially-rolled upper edge or portion 8 of a hinged plate 9, whereby the two plates are hinged together. The upper plate forms a support for the lower plate, and its roll serves as a pintle to fit the eye formed by the roll of the lower plate. The lower strip extends outward and downward at an inclination and is designed to be provided with a lining or strip 10, of leather, felt, rubber, or other suitable material, to form a yieldable lower portion adapted to fit snugly against a door-sill or other surface, whereby air and moisture are effectually excluded.

The hinged strip 9 is provided at its upper portion with an inclined arm 11, secured to the inner or lower face of the said strip 9 and projecting upward beyond the roll of the same and provided with an oppositely-tapered head 12, having recesses 13 at opposite sides thereof forming shoulders at the shank or body portion of the arm. The arm is engaged by a spring-actuated device 14, consisting of a plate or bar having a stem 15 and provided at its lower end with a beveled head 16. The beveled head 16, which is adapted to engage the threshold-strip or raised portion of a sill, forms an upper shoulder 17, which is adapted to engage the lower side of the head 12 of the arm 11, and the upper side of the arm is engaged by a projection or lug 18 of the spring-actuated plate or bar. The spring-actuated device is mounted within a suitable casing or housing 20, which is located within a suitable recess of the door. The casing forms a housing for a coiled spring 19 and is provided with a slot 21 to receive a stud 22 of the spring-actuated device 14. The spring is interposed between the top of the casing and the shoulder formed by reducing the plate or bar to form the stem, and the latter extends through an opening 23 of the top of the casing. The spring is adapted to force the plate or bar downward to hold the weather-strip out of engagement with the floor or other surface, and the arm 11 extends inward beyond the hinge or fulcrum, whereby when the arm is forced downward the hinged strip will be swung upward, and when

the spring-actuated device is moved upward the weather-strip will be forced downward against the sill.

It will be seen that the weather-strip is exceedingly simple and inexpensive in construction, that it is automatic in its operation, and that it is capable of effectually excluding air and moisture. It will also be clear that the weather-strip is adapted to be readily applied to a door and that the hinge connection, which possesses great strength and durability, is especially adapted for coöperation with the spring-actuated device.

What I claim is—

1. A weather-strip comprising a hinged strip, and a vertically-movable spring-actuated device having its lower portion arranged to engage the door-sill, whereby it is forced upward, said device being connected with the hinged strip and adapted to swing the same upward and downward, substantially as described.

2. A weather-strip comprising a hinged strip having an arm extended inward beyond the point of hinging, and a vertically-movable spring-actuated device connected with the arm and having a beveled head for engaging the sill of a door, substantially as described.

3. A weather-strip comprising a hinged strip, a casing designed to be mounted on a door, a vertically-movable plate or bar mounted in the casing and provided at its lower end with a beveled head arranged to engage a door-sill, whereby the bar or plate is forced upward, said bar or plate being connected with the hinged strip, and a spring housed within the casing and engaging the plate or bar, substantially as described.

4. A weather-strip comprising a hinged strip, a vertically-movable spring-actuated plate or bar having a beveled head and provided above the same with a lug, and an arm secured to the hinged strip and extending between the head and the lug and arranged to be engaged by the same, substantially as described.

5. A weather-strip comprising a hinged strip provided with an arm having a tapered head, and a vertically-movable spring-actuated plate or bar having its lower portion arranged to engage the door-sill, whereby it is forced upward, said plate or bar being provided with means for engaging the head of the said arm, substantially as described.

6. A weather-strip comprising an upper stationary strip provided at the top with an inwardly-extending flange and having its lower portion rolled, a hinged strip provided at its top with a roll arranged on the rolled portion of the upper strip, an arm extending from the hinged strip, and a spring-actuated plate or bar engaging the arm and provided with a beveled head for engaging the sill of the door, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SIMEON S. STITES.

Witnesses:
GEO. H. FOSTER,
EDITH B. FOSTER.