(No Model.)

R. WILSON.

DOOR SADDLE.

No. 600,984. Patented Mar. 22, 1898.

Fig. 1.

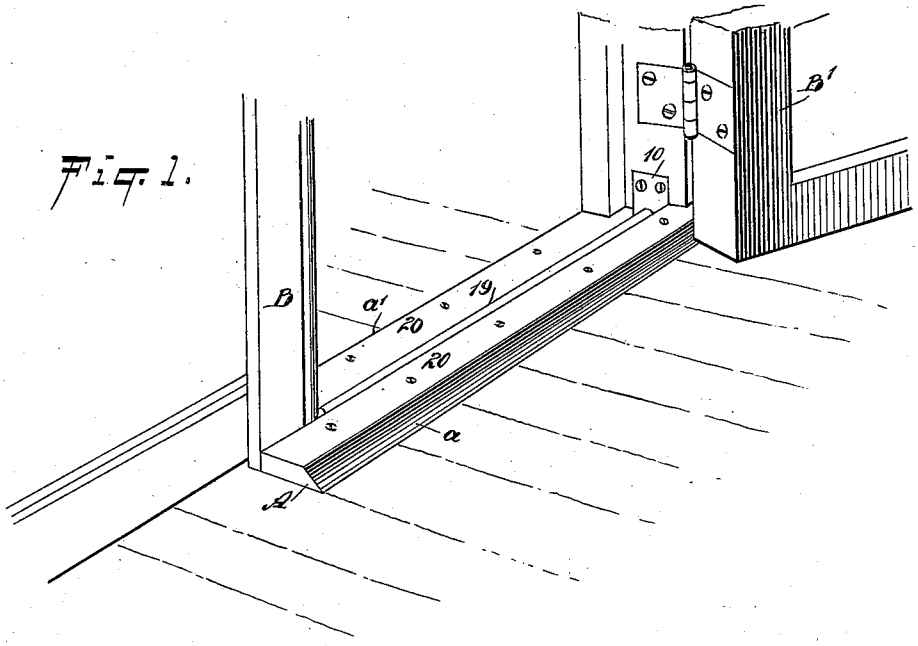


Fig. 2.

Fig. 3.

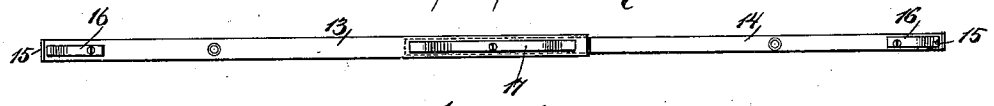


Fig. 5.

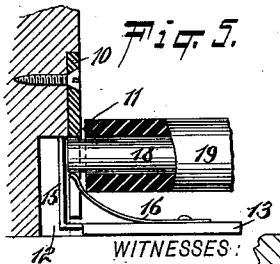
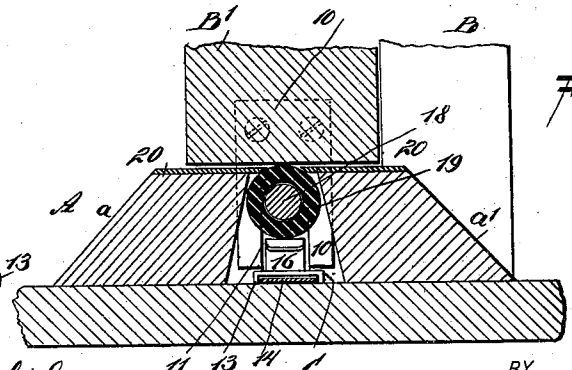


Fig. 4.



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DOOR-SADDLE.

SPECIFICATION forming part of Letters Patent No. 600,984, dated March 22, 1898.

Application filed June 17, 1897. Serial No. 641,158. (No model.)

To all whom it may concern:

Be it known that I, RICHARD WILSON, of New York city, in the county and State of New York, have invented a new and Improved Door-Saddle, of which the following is a full, clear, and exact description.

The object of the invention is to so construct a door-saddle or threshold-strip that when the door is closed the space which is often seen between the door and the saddle or threshold-strip will be effectually closed and whereby the closing medium may have a rotary movement and a vertical movement also, the entire closing device being located within the saddle or threshold-strip, entirely out of the way.

A further object of the invention is to provide a closing device for the space between the threshold-strip and the door that may be applied to doors of different widths in a convenient and expeditious manner and whereby the device will be exceedingly durable, simple, and economic.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the lower portion of a door-frame and door, the threshold-strip or saddle, and the closing or sealing device located in the saddle. Fig. 2 is a vertical section through the lower portion of a door-frame, showing the device partially in side elevation and partially in section. Fig. 3 is a detail plan view of the spring-strip for the device. Fig. 4 is a vertical transverse section taken on the line 4 4 of Fig. 2, and Fig. 5 is an enlarged sectional view of one end of the roller and a portion of the door-jamb.

A represents a door-saddle or threshold-strip, B the door-frame, and B′ a door hinged to the said frame. The threshold-strip or saddle A, used in connection with the door-frame, is made in two longitudinal sections *a* and *a*′, their inner edges, which are separated a suitable distance, being beveled downwardly in opposite directions, as shown in Fig. 4. Beneath the opening in the threshold-strip or saddle an adjustable bar C is secured in any suitable or approved manner on the floor, extending from one jamb of the door-frame to the other, as shown in Fig. 2. This adjustable strip is illustrated as comprising two parts 13 and 14, having a sliding connection, so that the strip may be lengthened or shortened as required by the length of the space between the door-jambs of a door to which the improvement is to be applied.

At the outer end of each section of the strip C an upwardly-extending flange 15 is formed, and usually each strip C is made to carry two or more (preferably three) springs, a bow-spring 17, attached at the central portion of the strip upon its upper face, and an upwardly-inclined strap-spring 16 near each end, the inner ends of these springs being secured to the upper faces of the sections of the strip, while their upper or free ends are curved downwardly and given somewhat of a cylindrical formation. The end springs are within the flanges 15 and when compressed will not strike said flanges. The central bow-spring 17 has its ends curved in like manner as the free extremities of the end springs, as is likewise shown in Fig. 2. A recess 12 is made in each door-jamb at the floor to receive the lugs 15 of the floor-strip C, or the strip carrying the said springs.

A face-plate 10 is countersunk in each door-jamb, being held thereto by screws or otherwise, and each face-plate is provided with a slot 11 at its lower end or is bifurcated at that section. The trunnions 18 of a roller 19 are made to enter the openings 11 in the face-plate 10, and said trunnions rest upon the end springs of the floor-bar C, as is also shown in Fig. 2, the central spring of this bar engaging with the central bottom portion of the roller. This roller may be made of any desired material. Usually, however, the spindle is covered with rubber or other yielding material, and the roller is of such length that it will extend practically from one door-jamb to the other, the springs 16 and 17 serving to hold the roller slightly above the plane of the upper face of the threshold-strip or door-saddle. The upper edges of the sections of the saddle at their inner sides are brought sufficiently close to the roller to prevent dust

or foreign material from entering the space where the roller is located, or, as shown in the drawings, metal plates 20 may be secured to the upper face of the saddle and be carried very close to the periphery of the roller, as shown in Fig. 4. Under this construction as the door is closed the roller will be pressed downward against the tension of the springs 16 and 17 and will constantly engage with the under surface of the door, acting as a weather-strip and completely closing the space which ordinarily exists between a door and its saddle.

In the event any object should be wheeled or drawn over the saddle the roller will be forced downward, thereby preserving it from injury, and as soon as the article has passed the saddle the springs will restore the roller to its normal position. By removing one of the face-plates 10 the roller may be taken out for the purposes of repair or for any other purpose.

I desire it to be understood that if in practice it is found desirable the roller may be placed in the bottom of the door instead of in the saddle; but preferably the roller will be applied as illustrated. The lugs 15 of the floor-strip carrying the springs will be opposite the ends of the trunnions of the roller and will prevent said trunnions from engaging with the vertical walls of the recesses 12, made in the door-jambs.

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

1. A weather-strip for doors comprising a base or frame bar composed of two parts adjustable longitudinally upon each other and a roller journaled at the outer ends thereof, substantially as described.

2. A weather-strip for doors comprising a base or frame bar composed of two parts adjustable longitudinally upon each other, a roller journaled at the outer ends thereof and springs attached between the base or frame bar and said roller, pressing the same apart, substantially as described.

3. A weather-strip for doors comprising a base or frame bar composed of two parts adjustable longitudinally upon each other, the outer ends thereof being bent upwardly, a roller journaled at the outer ends thereof, and plates fastened to the door-jambs having a bifurcated end embracing the roller-journals, substantially as described.

4. A weather-strip for doors comprising a base or frame bar composed of two parts adjustable longitudinally upon each other, a roller journaled at the outer ends of said bars, springs between the base or frame bar and said roller, pressing the same apart, plates fastened to the door-jambs having a bifurcated end embracing the roller-journals, the outer ends of the base or frame bars being bent upwardly and extending beyond the ends of the journals, preventing endwise movement thereof.

5. The combination, with a threshold-strip, a door-saddle or the like, provided with a longitudinal opening, of a roller located in said opening, bearings for the ends of the roller, cushions serving to normally hold a portion of the roller above the plane of the outer face of the threshold-strip or saddle, and an adjustable support for said cushions.

6. The combination, with a threshold-strip or door-saddle constructed in sections, of a roller located between the sections of the saddle or threshold-strip, bearings for the ends of the said roller, springs upon which the roller rests, the springs normally holding a portion of the roller above the plane of the upper face of the saddle or threshold, and an adjustable strip supporting said springs, for the purpose described.

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