

No. 875,308.

PATENTED DEC. 31, 1907.

J. H. WOODBURY.

WEATHER STRIP.

APPLICATION FILED FEB. 15, 1907.

Fig. 1.

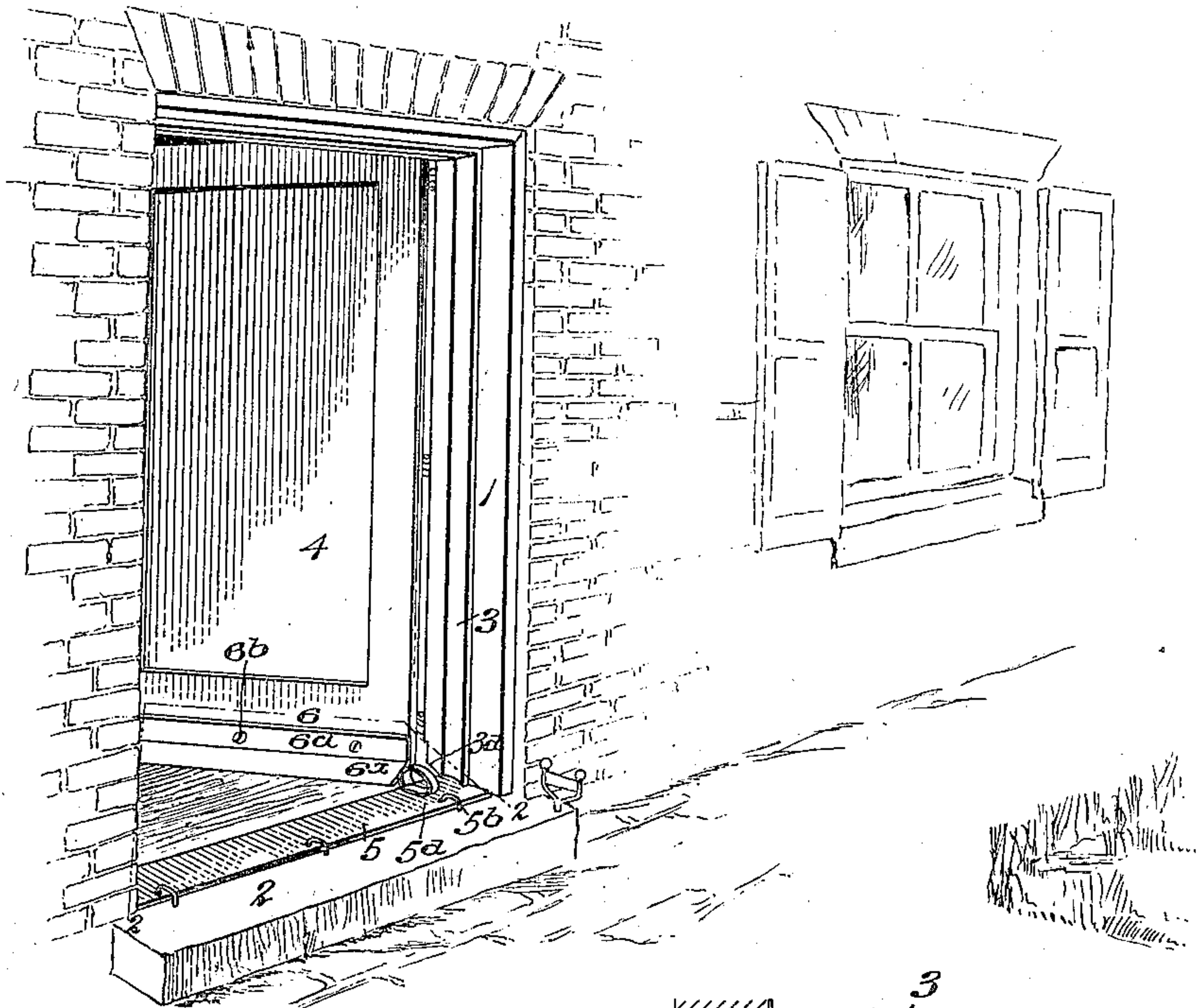


Fig. 2.

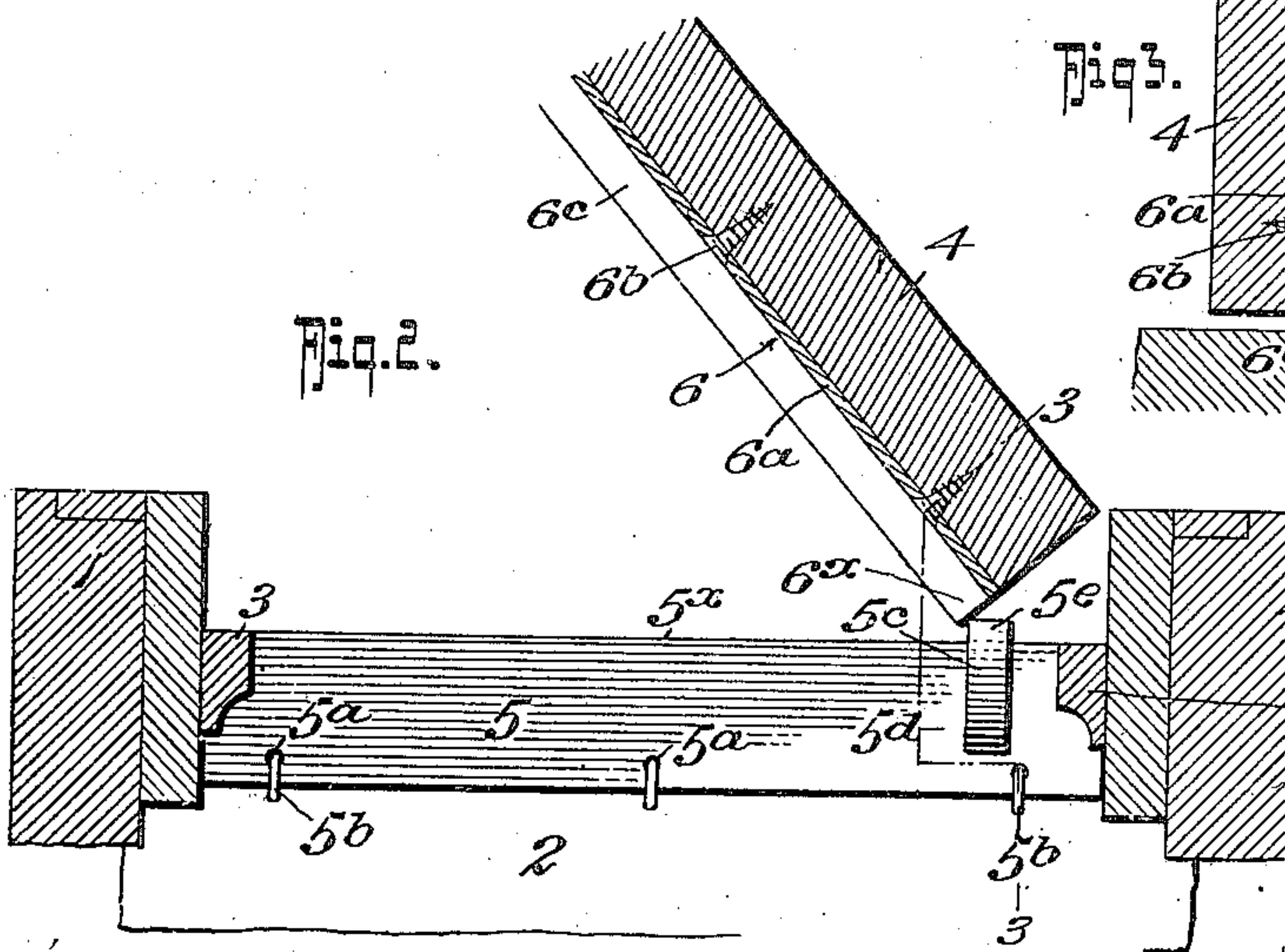


Fig. 3.

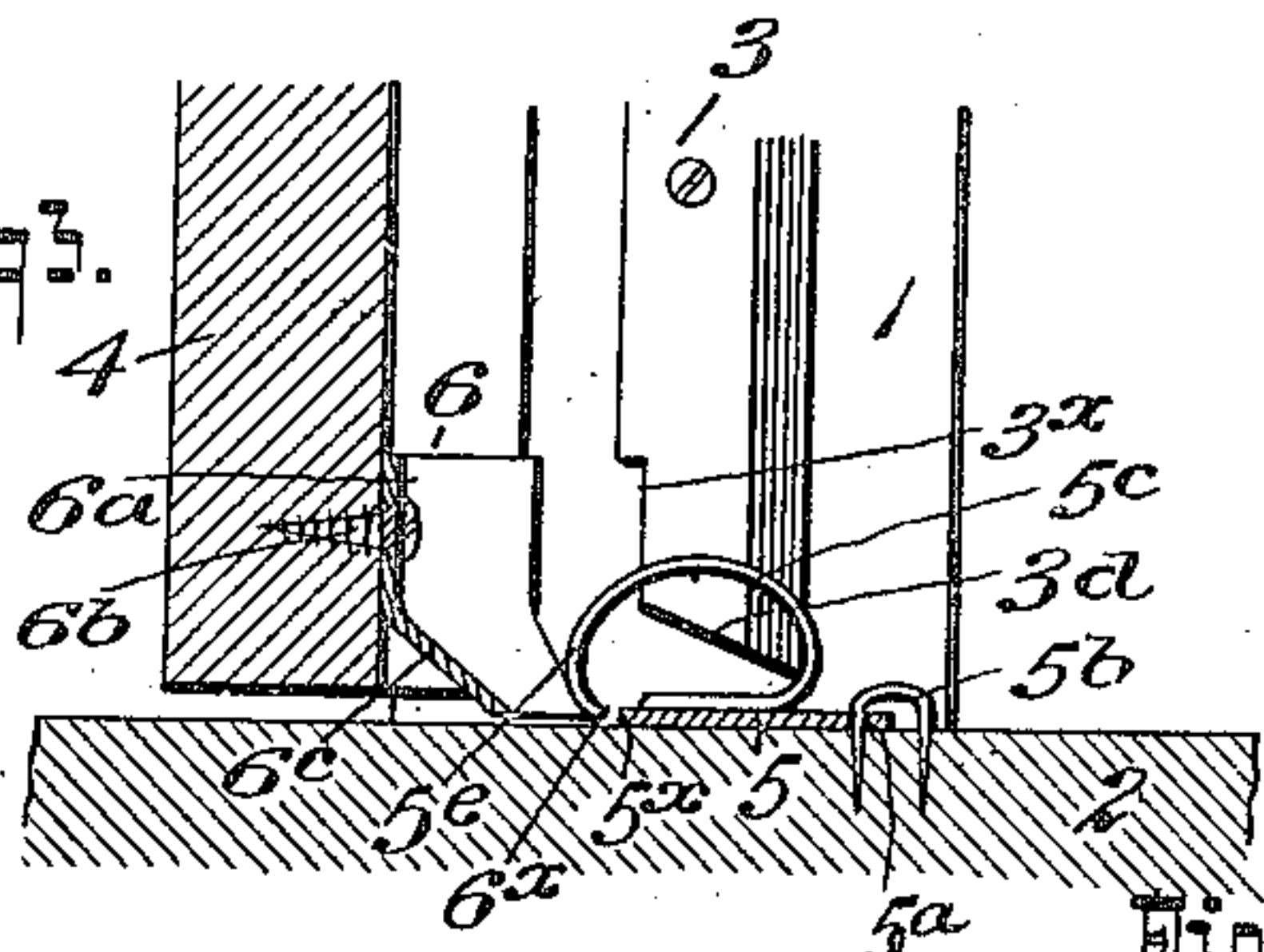


Fig. 4.

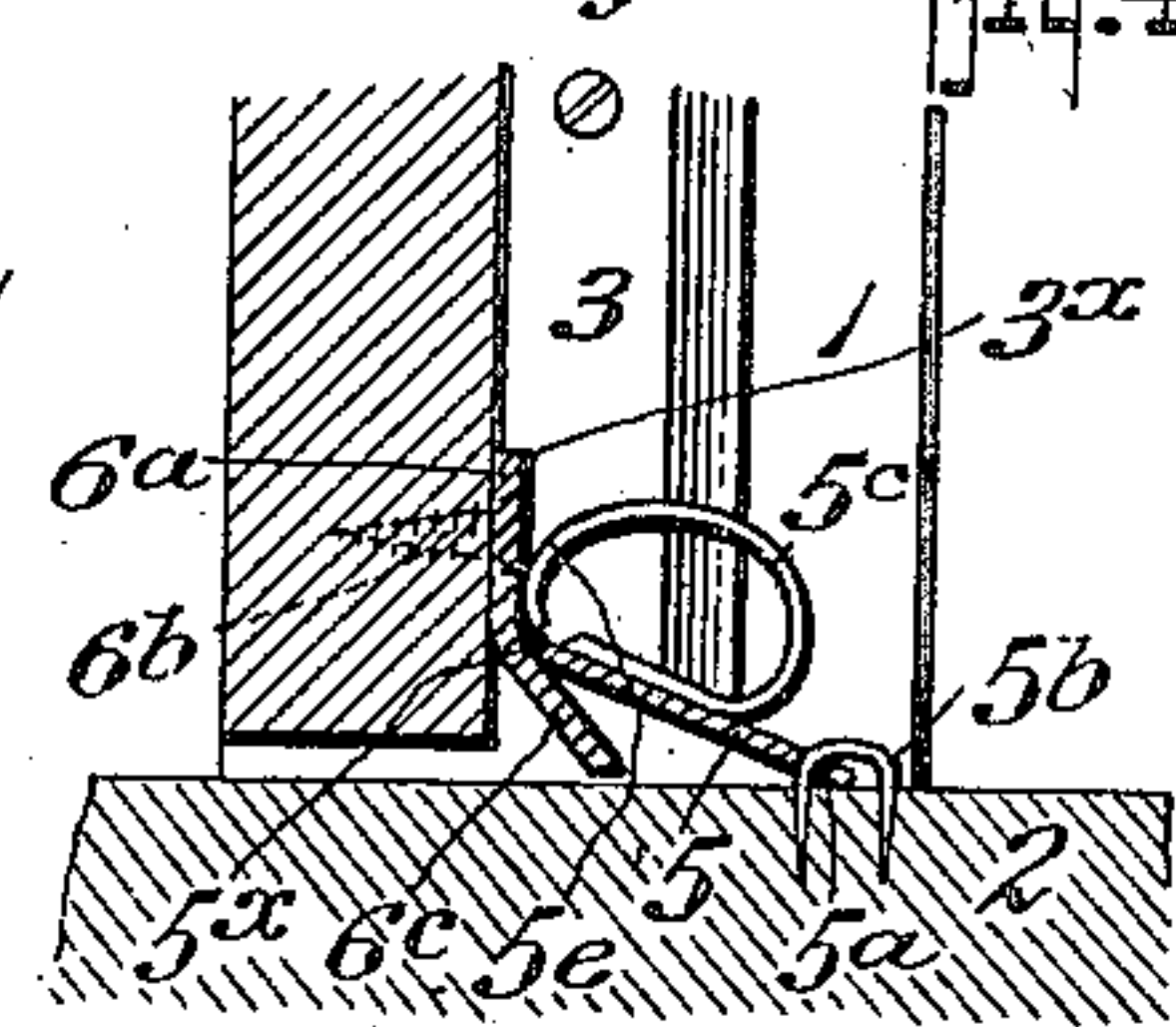
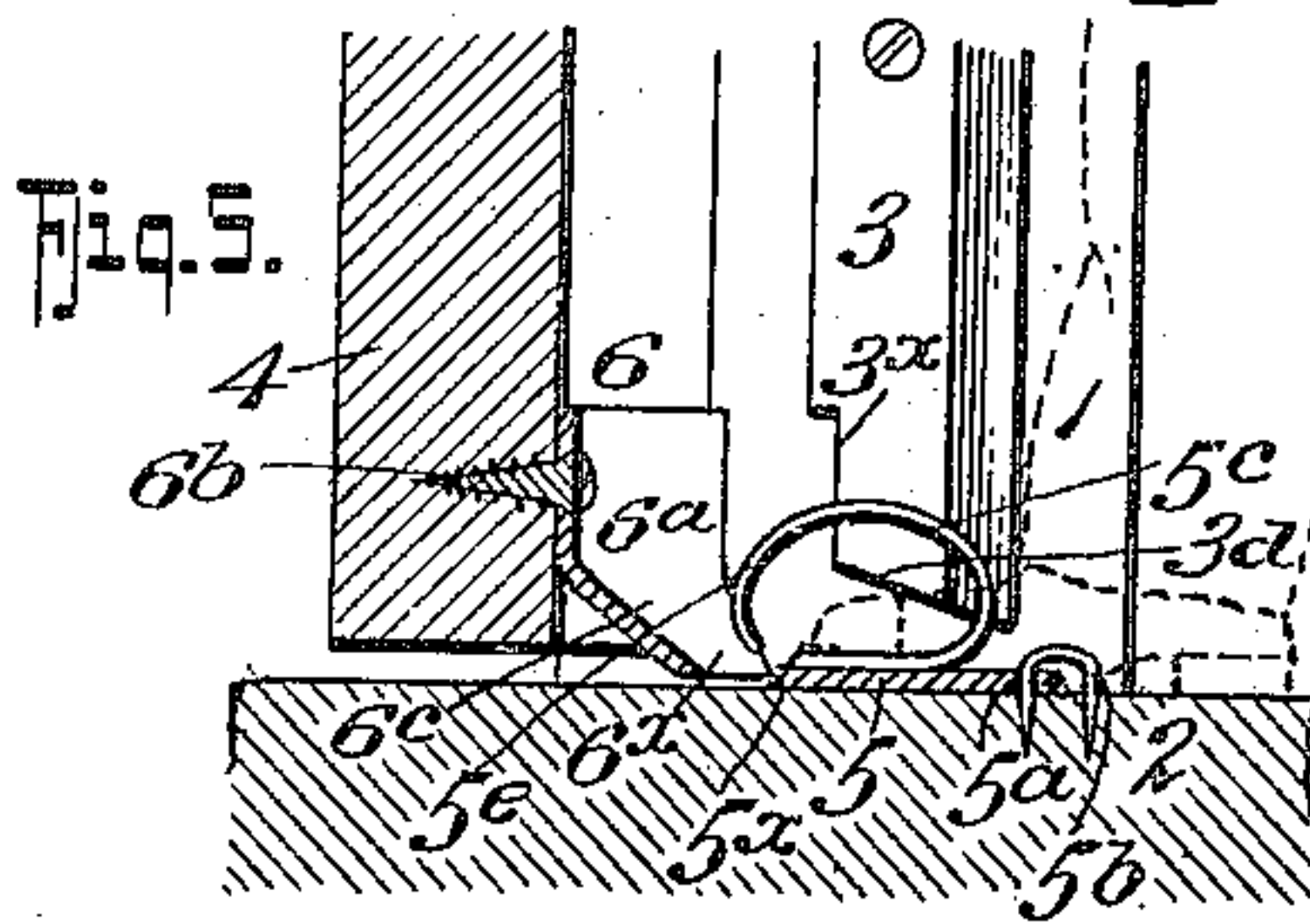


Fig. 5.



WITNESSES:

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JAMES H. WOODBURY, OF KEOKUK, IOWA.

WEATHER-STRIP.

No. 875,308.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed February 15, 1907. Serial No. 357,437.

To all whom it may concern:

Be it known that I, JAMES H. WOODBURY, residing at Keokuk, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification.

My invention relates to weather strips for doors and the like, and it primarily has for its object to provide a weather strip of a very simple and effective construction in which the parts are so designed and arranged as to effect a positive water-tight engagement throughout the entire length thereof to serve as a practically air and water-tight closure between the door and sill.

Again, my invention has for its object to provide a weather strip which can be easily manufactured at a minimum cost.

In its generic nature my invention comprises a door carried strip and a sill carried strip, the door strip being relatively fixed, while the sill strip is hingedly secured in place, the door boards or strips of the door frame being undercut to receive the ends of the sill strip. The sill strip has a foot on the side adjacent the hinge ends of the door to be engaged by the door strip as the door is beginning to close to raise the sill strip and permit the door strip passing thereunder, and it also serves to aid in holding the door and sill strips in tight engagement when the door is closed.

In its more subordinate nature, the invention includes certain novel construction, combination and arrangement of parts, all of which will be first described in detail, and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which:—

Figure 1, is a perspective view of a door with my invention applied, the door being open and about ready to have its strip engage the sill strip foot to lift the sill strip. Fig. 2, is a horizontal section on the line 2—2 of Fig. 1. Fig. 3, is a detail vertical section on the line 3—3 of Fig. 2. Fig. 4, is a similar view, the door being closed. Fig. 5, is a diagrammatic view similar to Fig. 3, showing how the sill strips serve to hold the door open when a weight is applied on the strip.

Referring now to the accompanying drawings in which like letters and numerals of reference indicate like parts in all of the figures, 1 designates the door frame, 2 the sill and 3 the side weather strips of the door frame. The

door 4 is hinged to the frame in the usual manner and the construction and design of the frame and door may be of any approved type since my weather strip is readily applicable to any ordinary door.

The frame strips 3 are cut away as at 3^d at the lower ends adjacent the sill and this cut is so made that the planes of the lower ends of the strips 3 will lie at an acute angle to the sill and form a joint with the upper face of the sill carried door strip 5 which extends from one side of the door frame to the other and is hingedly secured at its outer edge to the sill in any approved manner, preferably by staples 5^b passing through apertures 5^a in the strip 5.

The strip 5 is preferably formed of a rectangular piece of sheet metal such as brass, iron or the like, and has a spring metal foot 5^c, adjacent the hinge side of the door frame. The foot 5^c is secured at one end to the strip 5 and is bent back on itself to form a curve which terminates in a heel portion 5^e that projects slightly beyond the inner edge of the strip 5 and whose extreme edge terminates near the edge 5^x of the strip for a purpose presently apparent.

The frame strips 3 are also cut away at the side adjacent to the door at the lower ends as at 3^x to receive the door carried strip 6 when the door is closed.

The door carried strip has a foot portion 6^a, secured to the door by screws 6^b, which extends the full width of the door. It also has a portion 6^c projecting downwardly and outwardly at an acute angle to the plane of the door to engage the underside of the sill strip 5 when the door is closed.

In operation as the door is being closed, the corner 6^x of the strip 6 will first engage beneath the foot 5^c (see Fig. 1) and lift the strip 5 sufficient to permit the corner 6^x of the strip portion 6^c to move under the strip 5 until the door is fully closed when the parts will be in the position shown in Fig. 4. By reason of the under cut portions of the side strips 3 when the door has closed the strip 5 will be forced against the lower edges of said strips 3 and thereby be also tightly held against the strip 6 throughout the entire length of the strips 5 and 6.

The foot 5^c performs a two-fold function, since should it happen that someone is standing on the strip 5 as the door is being shut (an action which were it not for the foot 5^c would result in bending or buckling of the

strip 5) the edge 6^x will engage the heel portion of the foot 5^c moving under the same, and raising the foot and at the same time the edge 6^x will engage the edge 5^x of the strip 5 (see Fig. 5), and stop the further closing of the door. The moment, however, that pressure on the strip 5 is released, the resiliency of the foot 5^c will raise the strip 5 enough to permit the strip 6 sliding under the same and the door may be then fully closed as before described.

From the foregoing description taken in connection with the accompanying drawings it is thought the complete construction, operation and numerous advantages of my invention will be readily understood by those skilled in the art to which it appertains.

What I claim is:—

The combination with a door frame and a

door hingedly secured thereto, said door frame having side strips with under-cut portions, a weather strip hingedly secured to said sill and adapted to have its movement limited by such under-cut portions of the side strips, a door strip secured to the door to coöperate with the sill strip and pass under the same when the door is closed, said sill strip arranged to lie flat against the sill when a weight is applied thereon to be engaged by the edge of the door strip and form a door stop, and resilient means carried by the sill strip for engaging the door strip and raising the sill strip when the weight thereon is released, substantially as shown and described.

JAMES H. WOODBURY.

Witnesses:

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ALFRED E. BUCK.