(No Model.)

G. C. SKINNER & C. M. BROOKS.

WEATHER STRIP.

No. 347,206. Patented Aug. 10, 1886.

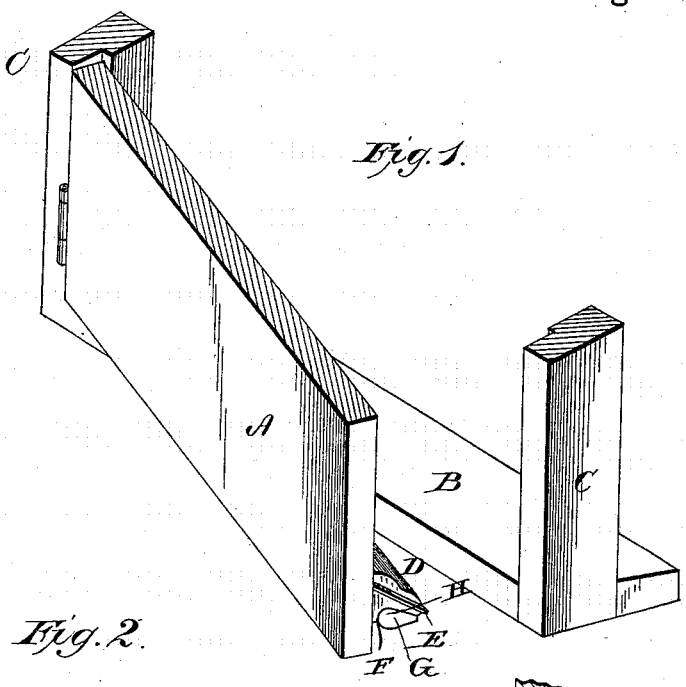


Fig. 1.

Fig. 2.

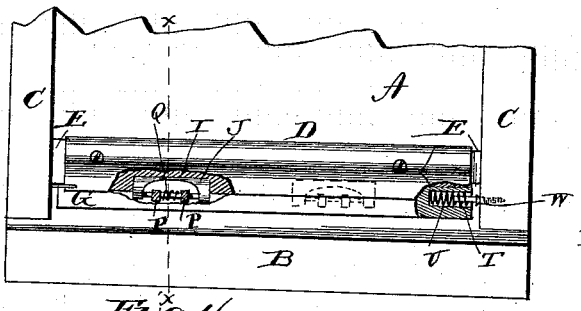


Fig. 4.

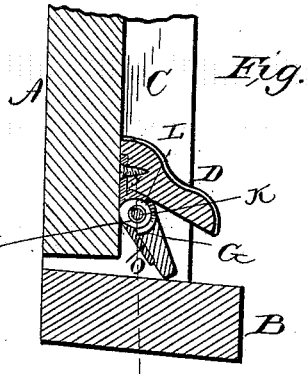
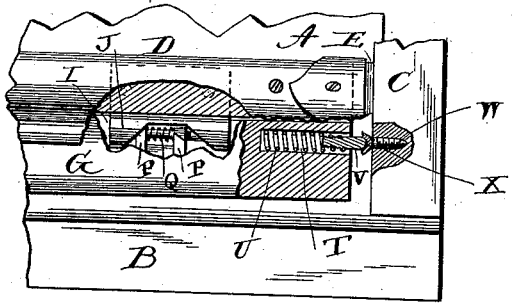
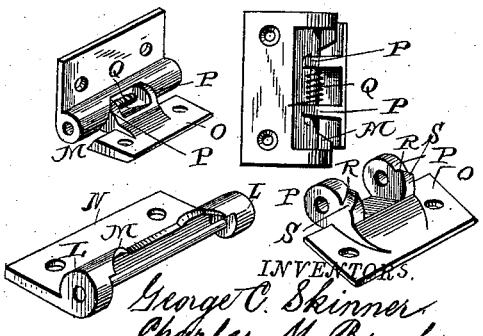


Fig. 3.

Fig. 5.





WITNESSES

F. L. Ormand.

Edward Stanton

INVENTORS.

George C. Skinner

Charles M. Brooks

By Louis Bagger & Co.

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE C. SKINNER AND CHARLES M. BROOKS, OF TROY, OHIO.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 347,206, dated August 10, 1886.

Application filed December 12, 1885. Serial No. 185,465. (No model.)

To all whom it may concern:

Be it known that we, GEORGE C. SKINNER and CHARLES M. BROOKS, both residents of Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Weather-Strips; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of the lower portion of a door-frame and door provided with our improved weather-strip, showing the door opened. Fig. 2 is front view of the same, showing parts broken away, and showing the door closed. Fig. 3 is a vertical sectional view on line *x x*, Fig. 2. Fig. 4 is a vertical sectional view on line *y y*, Fig. 3, and Fig. 5 is a perspective detail view of one of the hinges.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to that class of weather-strips for doors in which a strip is hinged near the lower edge of the door, and is tilted down, when the door is closed, by suitable mechanism; and it consists in the improved construction and combination of parts of such a weather-strip, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the door. B is the sill, and C C are the jambs, of the door-frame. A molding or cleat, D, is secured upon the outer side of the door, near the lower edge of the same, and is provided with elastic strips E E at its ends, which strips may bear against the jambs of the door-frame when the door is closed. The under side of this molding or cleat is recessed longitudinally, as shown at F, and the hinged strip G fits with its rounded upper edge, H, in this recess and is hinged in it. The rounded edge of the strip is formed with recesses I, into which hinge-ears J project in pairs from the under side of the molding, the distance between the ears of each pair being less than the length of each recess in the upper edge of the strip. A pintle, K, connects each pair of ears, and the outer edges of each pair of ears are connected by means of flanges L, having oblique downwardly-diverging edges M, the cut which forms the oblique edges extending nearly to the base-plate N of the ears, which plate is secured between the inner side of the molding and the front side of the door. Plates O are secured upon the under side of the hinged strip at the edges of the recesses in the edge of the same, and these plates are provided with perforated ears P P, which turn and slide upon the pintles of the ears secured to the molding, between which ears springs Q are wrapped around the pintles, bearing with their projecting ends against the hinge-plates. The distance between each pair of ears projecting from the plate O is less than the distance between the ears projecting from the plate N, so that the former may slide upon the pintle between the latter, and the ears of the plate O are provided with outwardly-projecting lugs R R, which have inclined side edges, S, with which they may bear against the inclined edges M of the flanges upon the ears of the plate N. The strip is formed at the end nearest to the hinge-edge of the door with a longitudinal recess or bore, T, within which fits a spiral spring, U, which bears against the inner end of the recess with its inner end, while a screw-threaded bolt, V, fits in the outer end of the spring and is formed with a pointed outer end. A screw, W, having a bore or recess, X, in its outer end or head, fits within a perforation in the jamb of the door, and serves as an abutment for the pointed bolt in the end of the strip when the door is closed, the point of the bolt bearing into the recess in the head of the screw. The hinged strip projects with its inner end slightly beyond the hinge-edge of the door, and it will be seen that when the door is closed the spring-cushioned bolt will first strike the recessed screw, when the bolt will be forced against the spring, and the hinged strip will thereupon be forced toward the free edge of the door, which will cause the inclined edges of the lugs upon the ears to strike the inclined edges of the flanges, causing the strip to be turned downward at its free edge, bearing with the said edge against the sill of the door-frame. When the door is opened, the springs in the hinges will turn the strip up into the recess, and will at the same time force the inclined edges of the lugs and the flanges toward each other, causing the strip to slide toward the

hinge-edge of the door. It will be seen that this strip may be used in doors opening to either side, and that the molding or cleat will protect the hinges, and the spring-cushioned bolt and the recessed screw will serve to break or cushion the force with which the door is closed, preventing any injury to the parts forming the hinges. It will also be seen that by screwing the bolt and the screw farther out of their respective seats the strip will be forced farther to one side, and consequently be forced harder against the sill with its lower edge, while screwing the bolt and screws farther in will have the opposite effect.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a weather-strip, the combination, with the door, of a molding or cleat secured to the outside of the door, near the lower edge, and having a recess or groove in its under side and flexible strips at its ends, and a hinged strip having its rounded hinge-edge fitting into the recess or groove of the molding or cleat, as and for the purpose shown and set forth.

2. In a weather-strip, the combination of a door having a cleat or molding secured to its outside, near the lower edge, a strip having recesses in its upper or inner rounded edge, plates secured to the door having ears projecting into the recesses in the strip, and having pintles connecting the pairs of ears, and flanges connecting them formed with diverging oblique edges, plates secured to the under side of the strip, and having pairs of ears turning and sliding upon the pintles, and having outwardly-projecting lugs provided with oblique edges, and springs wrapped around the pintles between the ears of the strip and bearing with their ends against the two hinge-plates, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

GEORGE C. SKINNER.
CHARLES M. BROOKS.

Witnesses:
JOHN M. CAMPBELL,
ARTHUR S. MCKINNEY.