

(No Model.)

G. A. ENNIS & C. J. WESTFALL.
WEATHER STRIP.

No. 457,851.

Patented Aug. 18, 1891.

Fig. 1.

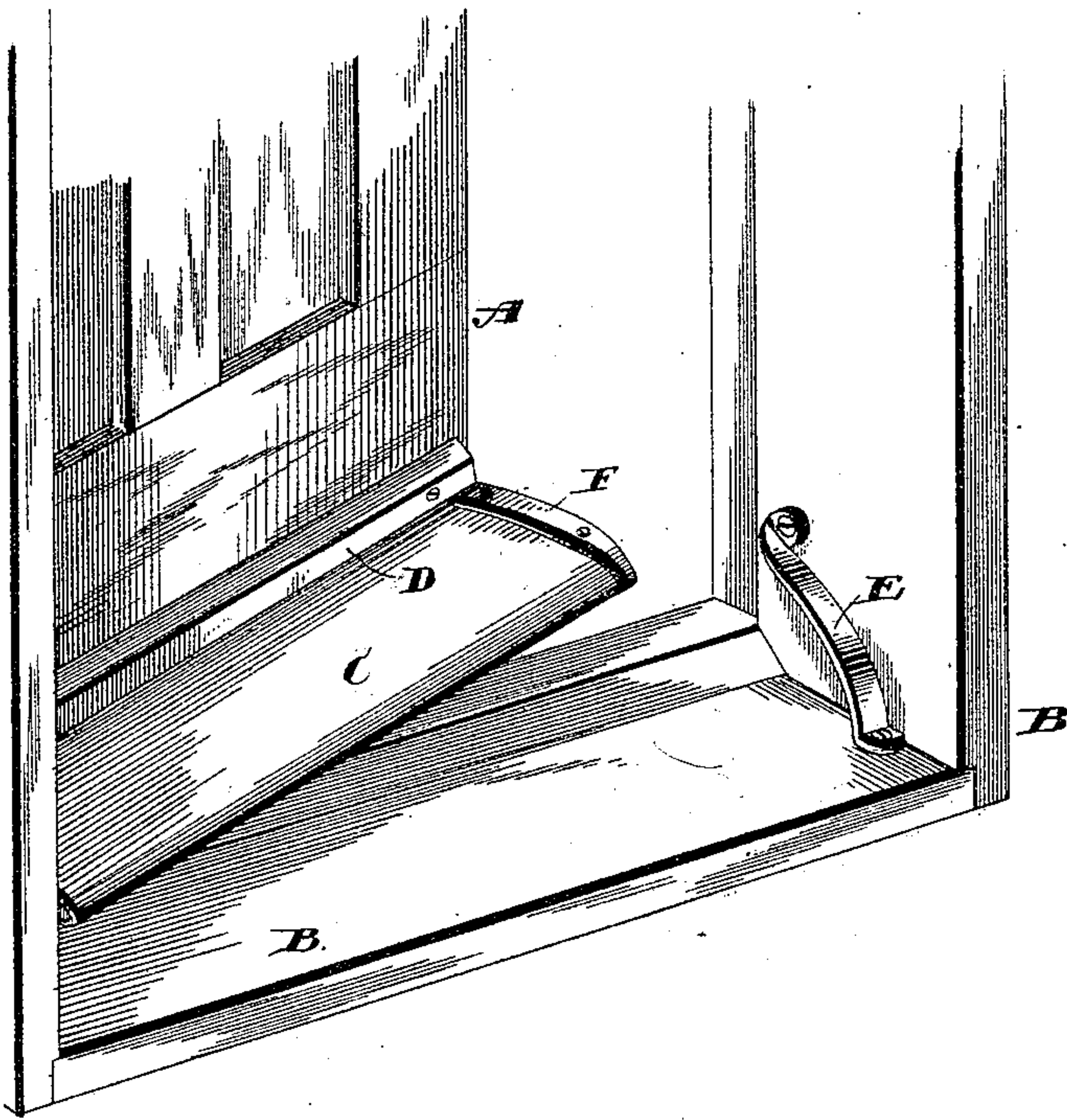


Fig. 2.

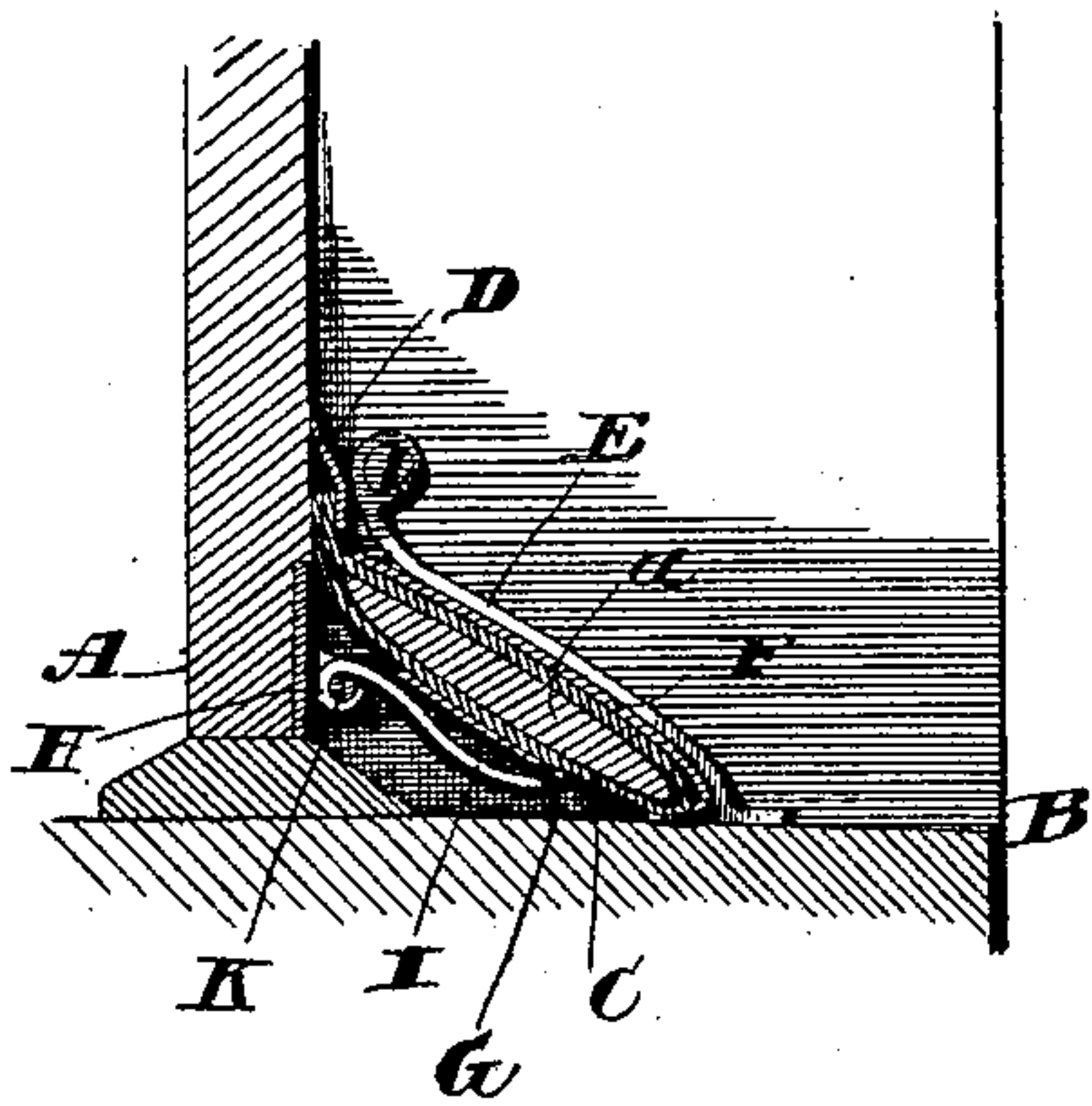
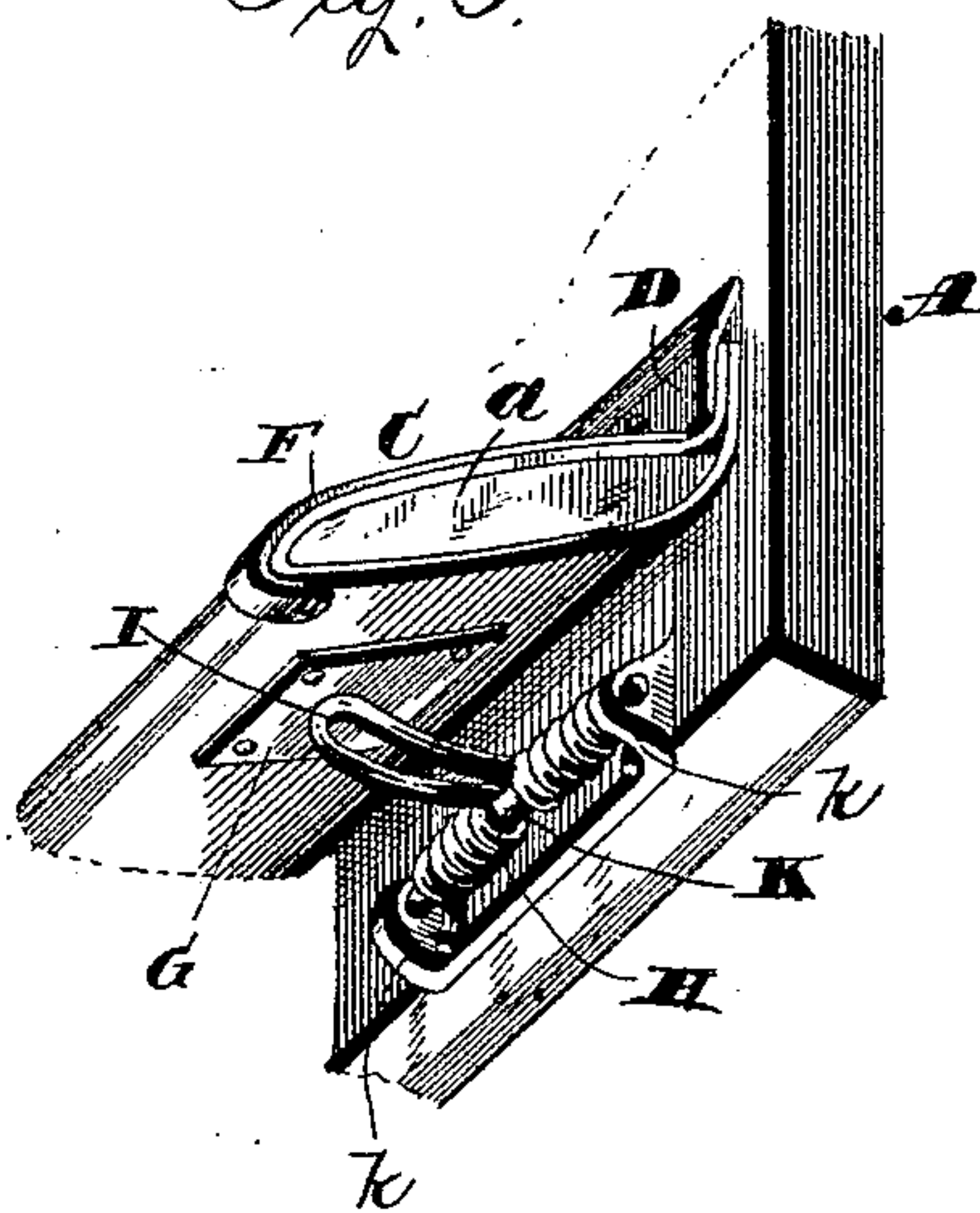


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE A. ENNIS AND COLUMBUS J. WESTFALL, OF LIVINGSTON, MONTANA.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 457,851, dated August 18, 1891.

Application filed March 2, 1891. Serial No. 383,453. (No model.)

To all whom it may concern:

Be it known that we, GEORGE A. ENNIS and COLUMBUS J. WESTFALL, citizens of the United States, residing at Livingston, in the county of Park and State of Montana, have invented certain new and useful Improvements in Weather-Strips; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in weather-strips of that class wherein the strip is hinged or otherwise connected to the door, so as to turn as the door is closed, and a plate or other provision affixed to the door-frame, against which the strip engages to cause the strip to fold down against the threshold. A suitable spring is provided upon the door beneath the strip.

The object of the present invention is to provide an improved weather-strip of this character which shall be simple, cheap, and durable, easily applied, and not liable to get out of repair. We construct the strip itself of a suitable core surrounded by a piece of rubber or other suitable material, which entirely envelops the core and at its upper end is extended to form the means by which it is hinged to the door, a suitable covering-piece being provided to hide the securing means. A spring is provided beneath the strip, which bears upon a wearing-plate secured to the under side of the strip. The edge of the strip which contacts with the plate on the frame is faced with metal to take the wear from the rubber covering.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The novelty in the present instance resides in the peculiarities of construction and the combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claim.

The invention is clearly illustrated in the

accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing our improved weather-strip affixed to a door. Fig. 2 is a cross-section through the strip. Fig. 3 is a detail view showing the spring and its wear-plate on the strip.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates a portion of a door, and B its frame.

C is the weather-strip, which we construct as follows: We take a strip of wood or other rigid material *a* and shape it in the form, preferably, of a compound curve, as seen in Fig. 2, with the edges brought practically to a point, and make this strip or core of a length nearly equal to the width of the door, as seen in Fig. 1. We then take a strip of rubber and wrap it around this core or wooden strip, covering it entirely, except at the ends and at the upper edge, having the two sides or portions or ends of the rubber extend beyond the core, as seen in Fig. 2, and then secure these extended ends or portions to the door by any suitable means, such as nails, screws, or analogous provisions. This forms a hinge connection which is springy in itself and which normally holds the strip thus formed in its distended or horizontal position, yet yields readily to allow the strip to fold as it comes in contact with the fixed plate on the door-frame and which will soon be described.

D is a plate or strip of metal secured to the door and covering the means which secure the weather-strip to the door.

E is a curved plate secured to the frame and projecting so as to leave a space, into which the end of the weather-strip enters as the door is closed and the strip drawn down into an angular position. The end of the weather-strip which enters beneath this plate is protected by a metal strip F, as seen in Fig. 1.

Upon the under side of the strip and secured to the rubber covering near the end which enters beneath the plate E is a wear-plate G, against which the end of the spring H engages to protect the weather-strip from

wear. This spring is formed of a single piece of heavy wire, which is bent upon itself at the center to form the arm I, which bears against said wear-plate, being coiled around
5 a rod K, held in the ears *k* of a bracket secured in a recess in the door near its lower edge, the free ends bearing against the bracket, as shown in Fig. 3. This spring serves to
10 normally keep the weather-strip in its nearly horizontal position, but yields when the door closes.

The device is simple, can be manufactured at a minimum cost, and is an ornament rather than otherwise. It is durable and not liable
15 to get out of order.

What we claim as new is—

The weather-strip herein described, consisting of the rigid strip *a*, formed on a compound curve, the rubber strip wrapped around the

rigid strip, except at the end, with the upper 20 edges of the rubber strip extended for attachment to a door, the metal strip D, covering the means which secure the extended edges of the rubber strip to the door, the metal
25 strip F, secured to one end of the strip *a*, the curved strip E on the door-frame, the wear-plate G on the under side of the strip *a*, the bracket secured to the door, and the spring I coiled around a rod in said bracket and bearing against the wear-plate G, all substantially 30 as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE A. ENNIS.

COLUMBUS J. WESTFALL.

Witnesses:

AMOS ESTEY,

GEORGE HARPER.