

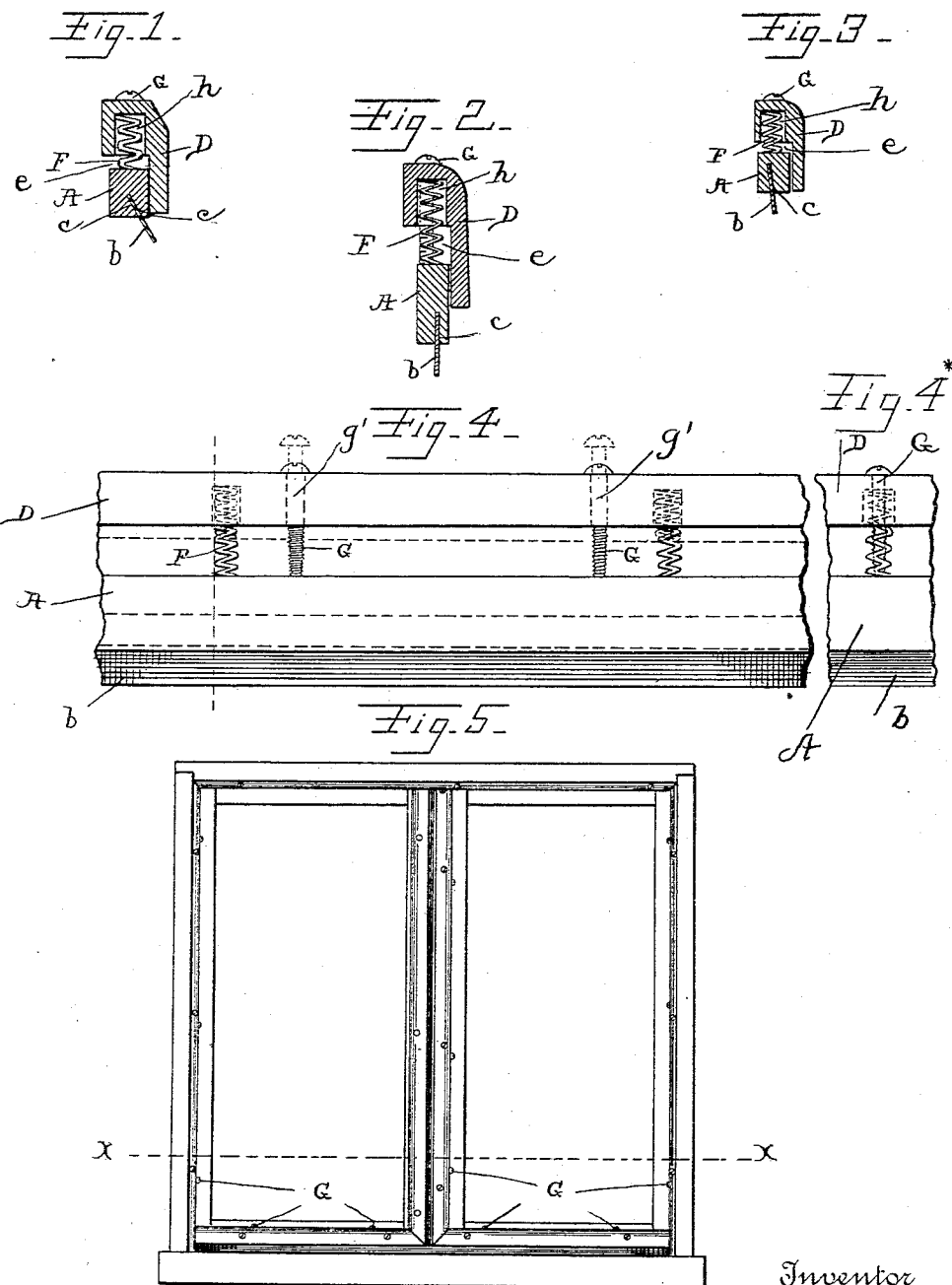
(No Model.)

2 Sheets—Sheet 1.

J. H. HULL.
WEATHER STRIP.

No. 476,646.

Patented June 7, 1892.



Witnesses

Claude Kesler
Henry C. Calver

Inventor

James Hunt Hull

By his Attorneys *John J. Macleod* for

(No Model.)

2 Sheets—Sheet 2.

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Fig-5. *

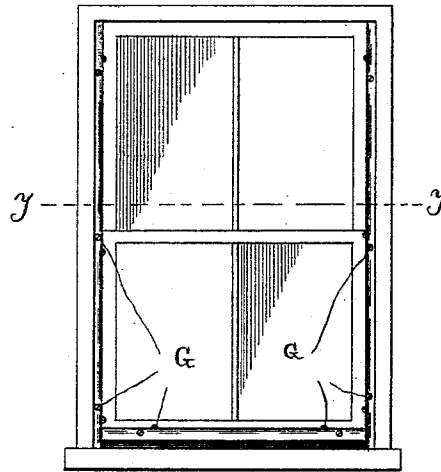
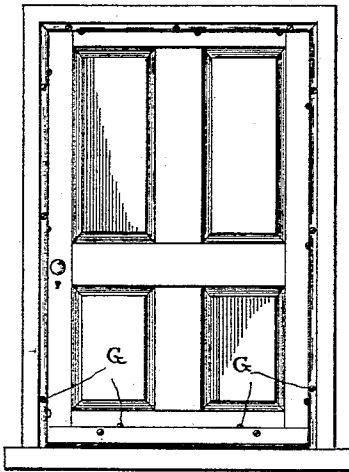
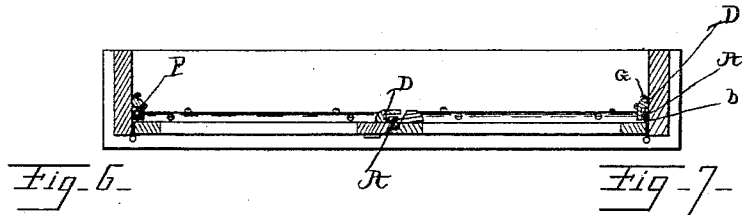
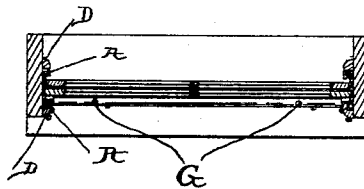


Fig-8.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES HUNT HULL, OF LENNOXVILLE, CANADA.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 476,646, dated June 7, 1892.

Application filed April 12, 1892. Serial No. 428,875. (No model.)

To all whom it may concern:

Be it known that I, JAMES HUNT HULL, of Lennoxville, in the county of Sherbrooke, Province of Quebec, and Dominion of Canada, have invented certain new and useful Improvements in Weather-Strips for Doors, Casements, Windows, &c.; and I 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, and to letters of reference marked thereon, which form a part of this specification.

My invention, which includes a special construction of parts and a self-adjustment or adaptation when in use, has been patented to me in Canada by Letters Patent No. 36,189, dated March 19, 1891.

In my invention I employ a wooden strip well known as having a thin strip of flexible material securely inserted in a groove or slit therein and from which groove it projects; but I do not fasten such wooden strips immovably, nor do I rely on them alone, but I employ in combination with them other strips or bars having recesses or rabbets (not sockets or holes) into which the first-named strips are placed, and I interpose springs between such parts and connect them together by means of bolts, rods, or screws, whose threaded ends enter the body of the strips having the projecting flexible material, which allow these strips to be adjusted as desired and also render them self-adjusting, as exigencies may demand, the bolts, rods, or screws being inserted in lines parallel with the direction of movement of the yielding strip.

I would here premise that my improvements are applicable to doors and windows of all kinds, for dwellings, passenger-cars, carriages, &c., and whether the door be single or double or French doors, and that they may be applied entirely around the door or window and also up the center or meeting line of double doors, and in all cases serving to make the structure dust and weather tight.

The following description will make clear the invention and its operation and advantages.

Figures 1, 2, and 3 are cross-sections of devices showing my improvements, the varia-

tions in their relative proportions adapting them for the various uses to which they may be applied; Fig. 4, a side view of Fig. 2, the dotted lines showing the two strips pressed closer together; Fig. 4*, a fragmentary view showing a coil-spring surrounding one of the rods G. Fig. 5 shows the improvements applied to a double door or French windows; Fig. 5*, a cross-section of the same in the line *xx* of Fig. 5. Fig. 6 shows them applied to a single door. Fig. 7 shows them applied to a common sash-window or car-window, and Fig. 8 is a cross-section in the line *yy* of Fig. 7.

A represents a wooden or other strip having a thin flexible material *b*—such as rubber or rubber or other cloth—let into a slit or groove *c* in the strip in a well-known manner.

D is another and larger L-shaped bar or wooden strip having at one side a spacious L-shaped longitudinal recess or rabbet *e* made therein of a size sufficient or more than sufficient to receive within it the part A and to allow of any desired number of springs F of any suitable kind to be interposed between A and D, in order that the bar D may be free to move to and from A as need be. As sustaining-guides for such movement screw-rods G extend through holes *g'* in bar D and are free to move back and forth therein; but their ends are screwed, as shown, into the strips A, and, if desired, small recesses *h* may be made in the inner face of bar D to receive the springs F to assist in keeping such springs, especially if spirals, properly to place. The rods G may, if desired, be passed through or be surrounded by the coils of these spirals, as shown in Fig. 4*; but I prefer to locate these rods independently of the spirals, as shown in Fig. 4. It will be readily seen that this construction when in use not only permits the strip A automatically to yield as need be, either in closing or opening a door or window to the full extent permitted by the springs by its pushing or pulling the screw-rod G in or out of holes *g'*, but also upon screwing the rods G farther in or out this strip may be adjusted to any desired position relatively to the casement, door, window, &c., or the amount of play regulated as circumstances may require, and that in any such adjusted position the springs always force the strips A and its flexible material snugly up to cover, as desired, the other-

wise unclosed crack or open space, and thus to effectively exclude streams of air or dust, cinders, snow, rain, &c., as the case may be, and they also prevent all rattling and jarring of the windows, &c., of vehicles, cars, street-cars, &c., when in motion. It will also be seen that in addition to the mere yielding of the flexible material *b* my improvement has the important further advantage of steady continuous pressure of the bars A and of this material *b* by force of the springs F. The screw-heads, as seen, are always outside and in accessible position, so that they may be readily adjusted as desired by a screw-driver or its equivalent.

Another advantage of my improvement is that, even if there should be a large open space between the door or window and its frame—as, for instance, between the bottom of a door and the door-sill—the springs will force the strip A forward or downward, so that its flexible portion shall close such gap or open space, and that the adjustment of the screws per-

mits the forcing forward of such portion more or less, as need be, to adapt it to the size of such gap or open space.

I claim—

1. In combination with the bar A and its flexible material and with the rabbeted strip or bar D, L-shaped in cross-section, and springs interposed between these bars, guide-rods G, screwed to strip A and free to play through holes in bar D, all substantially as set forth.

2. In combination with a bar of wood having a strip of flexible material let into a slit therein and having a set of adjustable screws inserted in the side opposite such strip, a bar D, provided with a set of holes through which said screws are passed and on which the bar is loosely held, and a set of springs between such bars, all substantially as set forth.

JAMES HUNT HULL.

Witnesses:

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