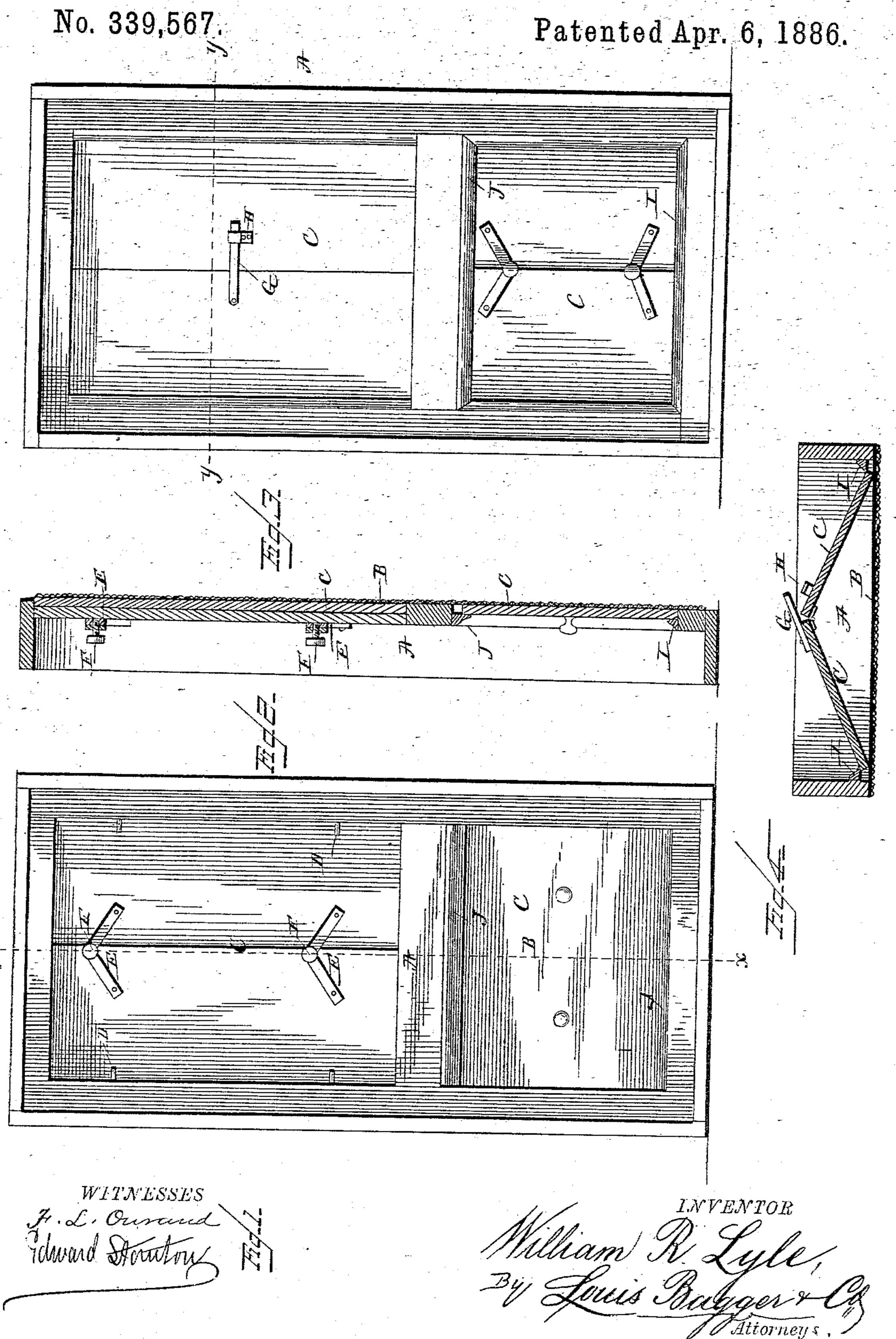
W. R. LYLE.

STORM DOOR.



## United States Patent Office.

WILLIAM R. LYLE, OF RIPON, WISCONSIN.

## STORM-DOOR.

SPECIFICATION forming part of Letters Patent No. 339,567, dated April 6, 1886.

Application filed February 20, 1886. Serial No. 192,721. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. LYLE, a citizen of the United States, and a resident of Ripon, in the county of Fond du Lac and State 5 of Wisconsin, have invented certain new and useful Improvements in Storm-Doors; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it to 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 view of the inside of a screen-15 door, which is provided with two forms of my improved storm-door panels. Fig. 2 is a vertical sectional view of the same, taken on the line x x of Fig. 1. Fig. 3 is a view of a door in which are shown two modifications 20 of the method of securing the parts of the panel in position; and Fig. 4 is a transverse sectional view of the same, taken on the line yy of Fig. 3.

Similar letters of reference indicate corre-

25 sponding parts in all the figures.

My invention relates to screen-doors, and has for its object to provide means by which they can be easily and quickly converted into storm-doors, which object is accomplished by 30 the construction and combination of parts, as will be hereinafter more fully described, and pointed out in the claims.

Referring to the drawings, A represents the frame of a common screen-door, and B the

35 wire covering upon the outside.

C represents a panel of wood or other suitable material, secured in place upon the inside of the door by means of screws or nails D, placed along the inside of the frame. In-40 stead of nails, however, strips of molding can be used, beneath which the edges of the panel are slipped and secured.

material, which together are a little wider 45 than the inside width of the frame, so that when they are placed with their outer edges bearing against the sides of the frame they will lap enough to make a water-tight joint.

A toggle-joint, E, at the top and bottom of 50 the two parts of the panel secure them to-

gether, and also provide a means by which they can be spread apart, and a thumb-nut, F, at the center of the joint, furnishes a means by which they can be held in position after

they are spread apart.

Instead of toggle-joint, the parts of the panel can be hinged together, as shown in Fig. 3, and a latch, G, can be secured to one part and a catch, H, upon the other. When this method is employed, the panel is placed in 60 position by folding it up in the middle, as shown in Fig. 4, instead of being slipped over one another, as shown in Fig. 1, until the edges can be introduced under the nails or molding at the sides of the frame.

When the molding I is used, it can be placed at the sides or at the top and bottom, or entirely around the inside portion of the frame.

By making one of the pieces J wider than the other the panel can be made of a single 70 piece of material, and can be placed in position by slipping the upper edge under the wide piece of molding until the bottom edge will pass over the narrow strip, and then letting it drop down into place behind the lower 75 strip. This method can also be used to very good advantage with the panel made in two pieces, as then the molding can be made to extend entirely around the frame, and after the panel is in place behind the top and bot-80 top pieces it can be spread apart so as to pass behind the side pieces of molding. It will be seen that by this means a close joint is made all around, and that it will be impossible for the rain or storm to pass to the inside of the 85 door.

The device is cheap, simple, and effective, easily put up, and easily removed.

Having thus described my invention, I claim and desire to secure by Letters Patent 90 of the United States—

1. The combination, with the frame of a I prefer to make the panel of two pieces of | screen-door, of a removable panel secured thereto, said panel being composed of two pieces, said pieces being adjustably secured 95 together at their middle portions, as shown and described.

> 2. The combination, with the frame of a screen-door, of a removable panel secured thereto, said panel being composed of two 100

pieces, which together are wider than the inside width of the frame and overlap each other at their middle portion, and a toggle-joint having a thumb-nut at its center securing said two pieces together at their top and at their bottom, as shown and described.

In testimony that I claim the foregoing as

my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM R. LYLE.

Witnesses:
GEO. L. FIELD,
ED. REICHMUTH.