

United States Patent Office.

SAMUEL W. GEAR, OF WHITESTONE, NEW YORK.

Letters Patent No. 78,521, dated June 2, 1868.

IMPROVEMENT IN DOOR AND WINDOW-CATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL W. GEAR, of Whitestone, in the county of Queens, and State of New York, have invented a new and useful Improvement in Door and Shutter-Catches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is an elevation of a door or shutter, together with the frame thereof, fitted with a catch constructed according to my invention, the door being shown in an open position.

Figure 2 is a vertical section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention is designed, more especially, for application to the doors or shutters of closets, cabinets, and the like, which it is desirable to hold in a closed position, with such tightness as to prevent the opening thereof by ordinary accidental causes, but without hindering such opening of the door or shutter by the use of a comparatively moderate degree of force.

The invention consists in two curved springs, attached, one to the door or shutter, and the other to the frame thereof, and so arranged that when the door is closed one will fit into and be clasped by the other with sufficient force to secure the aforesaid door or shutter in a closed position, as hereinbefore mentioned.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A represents the rectangular frame of the door or shutter B, hinged to the said frame at one of its lateral edges, in the ordinary or any suitable manner.

The opposite or free edge of the aforesaid door or shutter has formed in it a recess, *a*, as shown in fig. 1, and situated in the said recess is a spring, *b*, of nearly circular shape, and fixed at its central part to the door, as shown at *a'*, by any suitable means, but preferably by a supporting-plate, *a**, to which it is fastened at its just-mentioned central part, and which, in its turn, is attached to the door by a screw, *a''*, the two end portions of the aforesaid spring *b* constituting, as it were, two semicircular elastic prongs, curving toward each other, and projecting toward the inner side of the door, as represented in the fig. 1 just mentioned.

Attached to that inner side of the frame A, contiguous to the free or swinging edge of the door or shutter B, is a spring, *c*, corresponding in shape to the spring *b*, and secured in position by similar means, the extremities of the spring *c* being, however, curved or flared outward, as shown at *c'*, the side, or rather the end portions of the said spring *c* projecting toward the front of the frame. The spring *c* being attached, as just set forth, at the proper point upon the frame, when the door or shutter is closed, the spring *b*, striking between the flared extremities of the spring *c*, forces apart the two end or side portions thereof, and passing between them, is clasped thereby, the two springs *b c* yielding mutually, to allow the one to pass within the other, as just mentioned, and as shown in fig. 2. The spring *b*, attached to the door, being thus clamped within the spring *c* attached to the frame, the door is held closed with sufficient security against being opened by accidental causes of ordinary character, at the same time that it may be swung outward or open by the application of a sufficient degree of force to withdraw the spring *b* from the clamping action of the spring *c*, such force being the most advantageously applied to a knob, *d*, affixed to the door, near the free or swinging edge thereof.

What I claim as my invention, and desire to secure by Letters Patent, is—

The two springs *b c*, constructed to lock one within the other, as shown and described, and arranged in relation with each other upon the door and frame, substantially as and for the purpose specified.

SAMUEL W. GEAR.

Witnesses:

J. W. COOMBS,

A. LE CLERC.