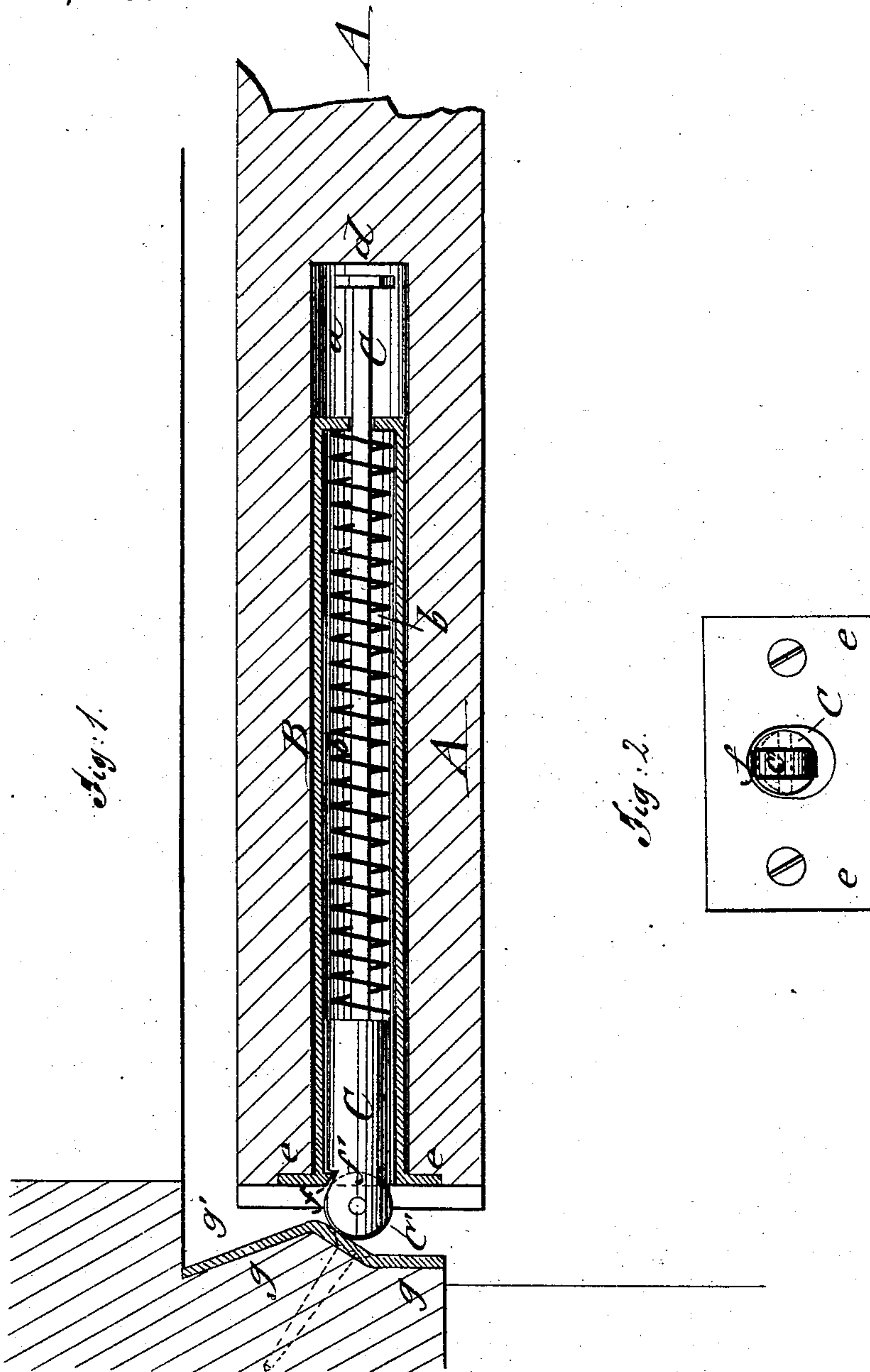


J. BLAKE.
Door-Fasteners.

No. 155,410.

Patented Sept. 29, 1874.



WITNESSES:

Chas. Nida.
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INVENTOR:

BY

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UNITED STATES PATENT OFFICE.

JAMES BLAKE, OF EAST PEPPERELL, MASSACHUSETTS.

IMPROVEMENT IN DOOR-FASTENERS.

Specification forming part of Letters Patent No. **155,410**, dated September 29, 1874; application filed April 25, 1874.

To all whom it may concern:

Be it known that I, JAMES BLAKE, of East Pepperell, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Door-Fastening, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a horizontal central section of my improved door-fastening as applied to the door and casing, and Fig. 2 is an end view of the bolt and face-plate.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a door-fastening by which warped or shrunk doors may be readily closed, and also the door carried into its proper place when nearly shut, and then securely latched.

My invention consists of a spring-bolt with projecting roller end, which slides in a socket set into the door, and fastens the door by means of an angular plate with suitable inclines applied to the casing. A catch of the socket face-plate projects into a recess of the spring-bolt, and retains the same inside of the socket during the time the door is open.

In the drawing, A represents the door, which is provided with a recess, *a*, for socket B, or other equivalent means for guiding the spring-bolt C therein. A spiral spring, *b*, is placed around the guide-stem of the bolt or piston C, between the broader forward projecting end of the same and the closed end of the socket, forcing thereby the bolt in outward direction until arrested by the nut or stop *d* at the rear end of the stem. The face-plate *e* of socket B is firmly screwed to the door, and provided with a projecting catch, *f*, which enters a corresponding recess, *f'*, of the bolt near its outer end, for retaining the same in the socket when placed over the catch. A small roller, C', is pivoted to the outer end of bolt C, for decreasing the friction on the angular plate *g*, which

is set into a recess, *g'*, of the door frame or casing. The angular plate forms two inclines, of which the outer is shorter than the inner, having also a greater inclination. The end roller of the bolt passes along the angular plate on closing the door, and releases, by running over the shorter incline, the bolt from its catch. After the highest point of the inclines is reached the roller passes over to the longer incline, and draws, by the action of the spring on the bolt, the door forward until the lowermost point of the angular plate is reached. The door is then tightly closed, and locked by the spring-bolt, whether the same is warped, shrunk, or otherwise out of shape.

On opening the door, the bolt is carried back into the socket by running along the inner inclined part of the plate, and is seated on the catch as soon as the highest point or apex is passed, so that the end of the bolt is not in the way, and ready to be released on closing. Thus a simple, strong, and very secure door-fastening is obtained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the spring-bolt C and roller C', of the angular plate *g*, having two reversely-inclined surfaces, the various parts being relatively arranged, in respect to the door and casing, as herein shown, to operate in the manner set forth.

2. The door face-plate *e*, having a projecting catch, *f*, in combination with recess *f'* of spring-bolt C, to retain the same in position in the door until released by the action of the inclined parts of the angular plate *g*, as described.

JAMES BLAKE.

Witnesses:

IDA A. BLAKE,
LOUISE E. BLAKE.