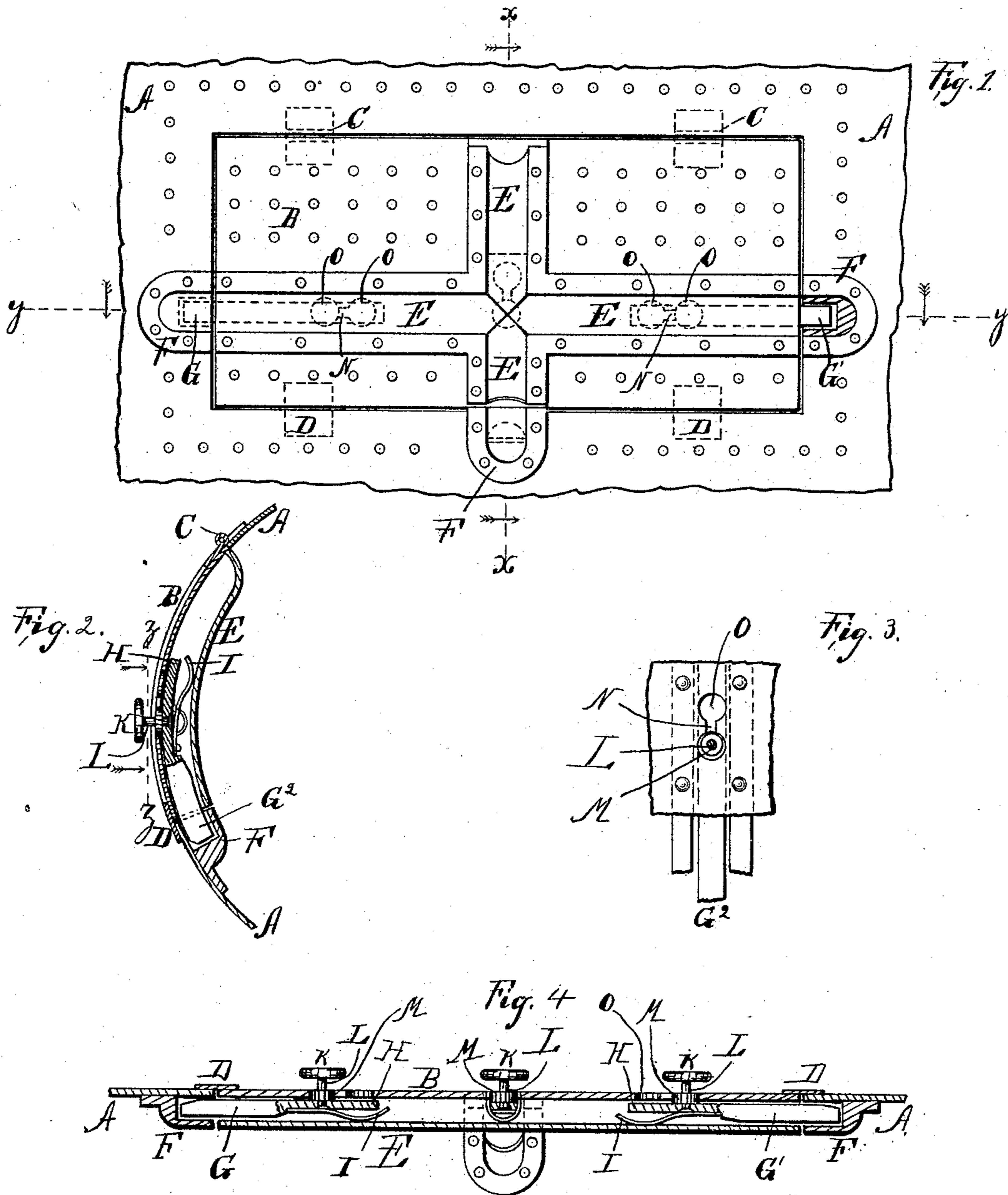


(No Model.)

H. E. SMITH.  
BOLT.

No. 417,105.

Patented Dec. 10, 1889.



WITNESSES:  
*Oscar A. Michel.*  
*William L. Miller*

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ATTORNEYS

# UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF NEW YORK, N. Y.

## BOLT.

SPECIFICATION forming part of Letters Patent No. 417,105, dated December 10, 1889.

Application filed July 11, 1889. Serial No. 317,120. (No model.)

*To all whom it may concern:*

Be it known that I, HAMILTON E. SMITH, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Fastenings for Doors and other Articles, of which the following is a specification.

This invention relates to an improvement in fastenings for such articles as doors, traps, or shutters; and the invention consists in the details of construction set forth in the following specification and claim, and illustrated in the accompanying drawings, in which—

Figure 1 is an inner view of a door and its supporting-frame. Fig. 2 is a section along  $x x$ , Fig. 1. Fig. 3 is a section along  $z z$ , Fig. 2. Fig. 4 is a section along  $y y$ , Fig. 1.

Similar letters indicate corresponding parts.

In the drawings, the letter A indicates the supporting-frame of the door B. The frame A, in the example shown in the drawings, is represented as being part of a cylinder or shell of a washing-machine; but of course the invention can be applied in other devices than in washing-machines. The door B is shown supported by joints or hinges C, and flanges or lips D insure a proper position of the door when closed. The door is provided with a cruciform or cross-shaped casing E, each arm of which forms a groove or guideway for a slide-bolt, and the frame A has caps F, corresponding to the casing E. In the grooves or guideways of the arms comprising the cruciform casing slide the bolts  $G G' G^2$ , and when the door is closed and the bolts are moved into engagement with the caps F the door is locked. The tails H of the bolts are provided with springs I and with finger-buttons K, whose stems L have enlargements M. Slots N allow the movement back and forth of the stems L and of the bolts, so as to lock and unlock the door. The slots N have enlargements O, adapted to receive the stem-enlargements M. To move a bolt, the finger-button K is pressed, so as to move the tail-piece H against the resistance of the spring I, thereby moving the stem-enlargement M out of the slot-enlargement O and allowing

the stem L to be slid along the slot N to the extremity of its movement. When the finger-button is released, the spring I presses the stem-enlargement M into a slot-enlargement O, so that the bolt is held against sliding until the stem-enlargement is again pressed out of the slot-enlargement, when the bolt can again be slid. This bolt is of particular advantage for doors of the cylinders which are used in washing-machines or for other purposes, and which when closed must be firmly retained, so that there is no danger that they will open spontaneously while the cylinder is in motion, and if the door is opened it is equally desirable that the various bolts applied to the door shall be locked in the backward position, so that neither of said bolts will move outward spontaneously or accidentally and prevent the door from reaching its closing position.

In my application for Letters Patent filed May 17, 1888, Serial No. 274,214, I show but do not claim the fastening which constitutes the subject-matter of the present application.

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

The cruciform casing E, having each arm formed into a guideway and provided with a slot N, having an enlargement O, in combination with the three radially-sliding bolts  $G G' G^2$ , moving in arms of the cruciform casing, and each having a rigid tail-piece H, movable toward and from the front wall of the casing, a spring I, secured at one end to each tail-piece and bearing at the opposite end in sliding contact with the inner surface of the casing to permit the tail-piece of the bolt to move inward and outward, and a finger-button K, mounted on the rigid tail-piece of each bolt and having a shank provided with an enlargement, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HAMILTON E. SMITH.

Witnesses:

WILLIAM C. HAUFF,  
ERNST F. KASTENHUBER.