

J. LALONDE.
STAIR GUARD.

APPLICATION FILED AUG. 10, 1908.

938,771.

Patented Nov. 2, 1909.
3 SHEETS—SHEET 1.

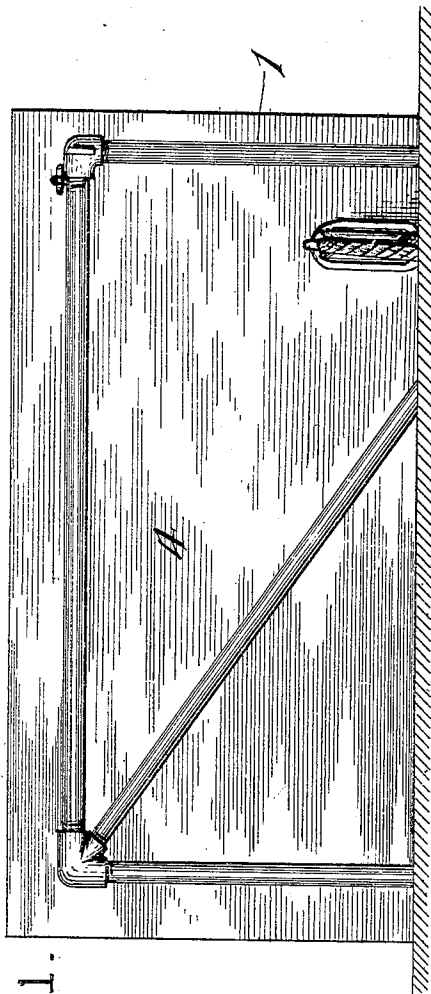


FIG. 1.

FIG. 2.

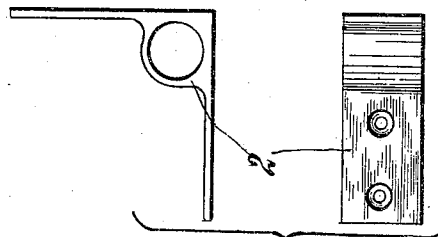
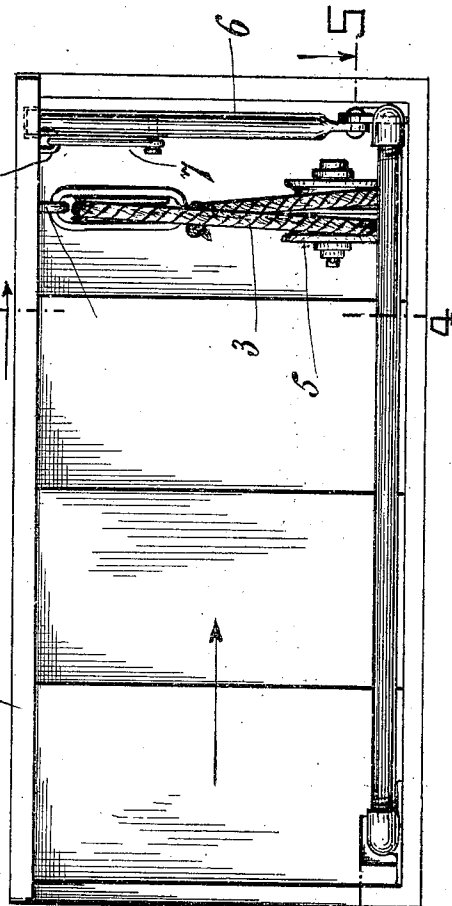


FIG. 3.

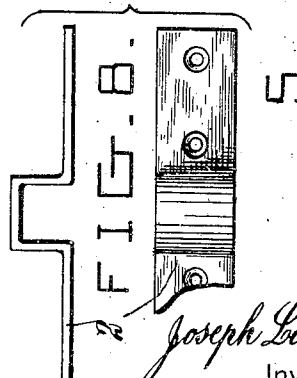


FIG. 4.

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3 SHEETS—SHEET 2.

FIG. 4.

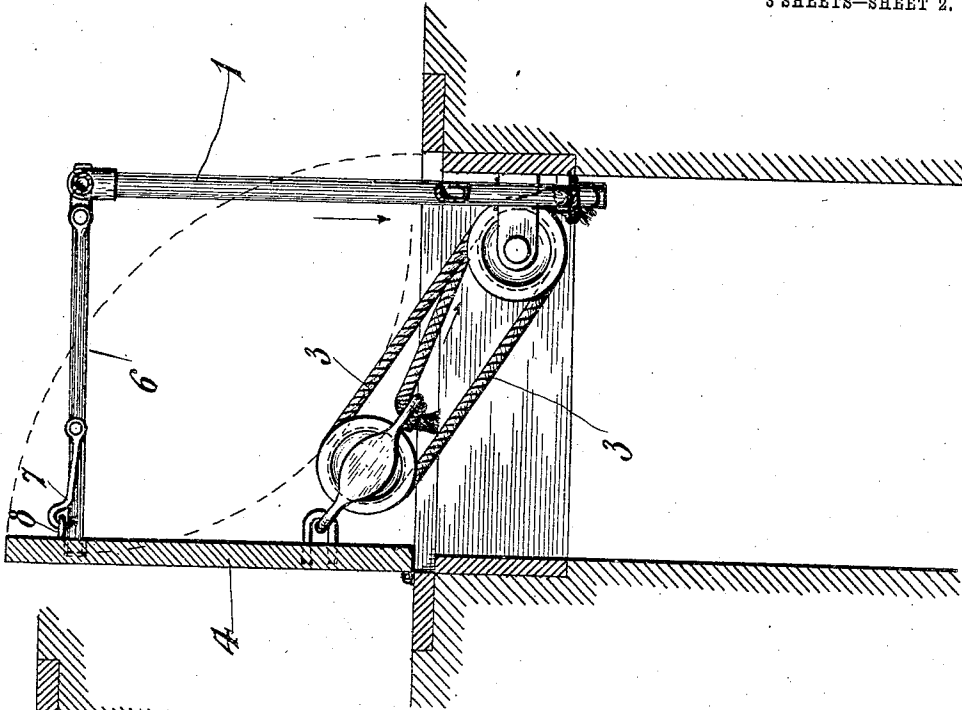
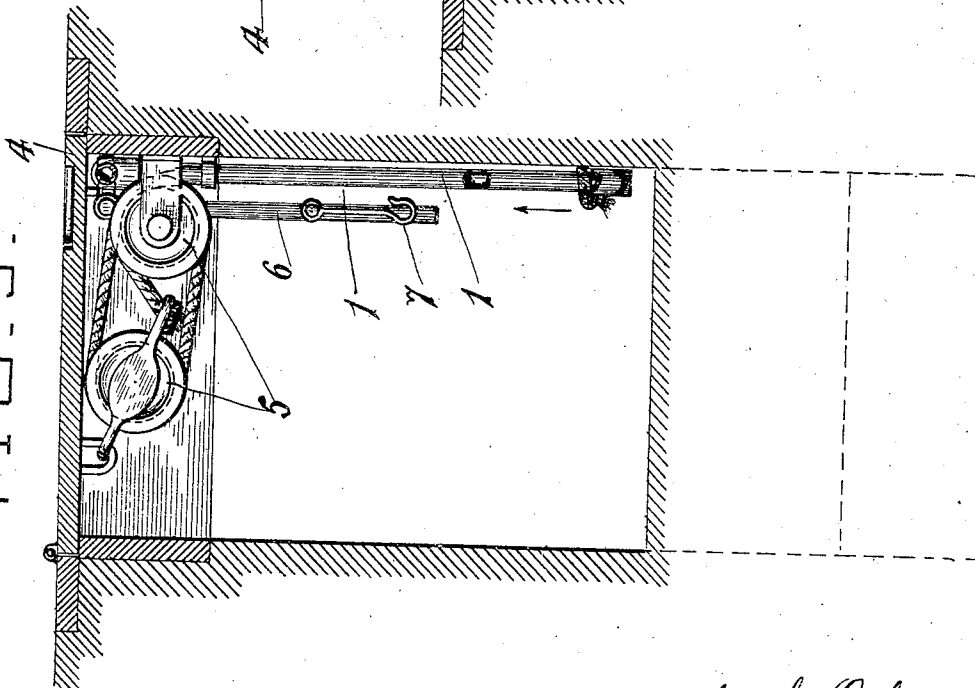


FIG. 3.



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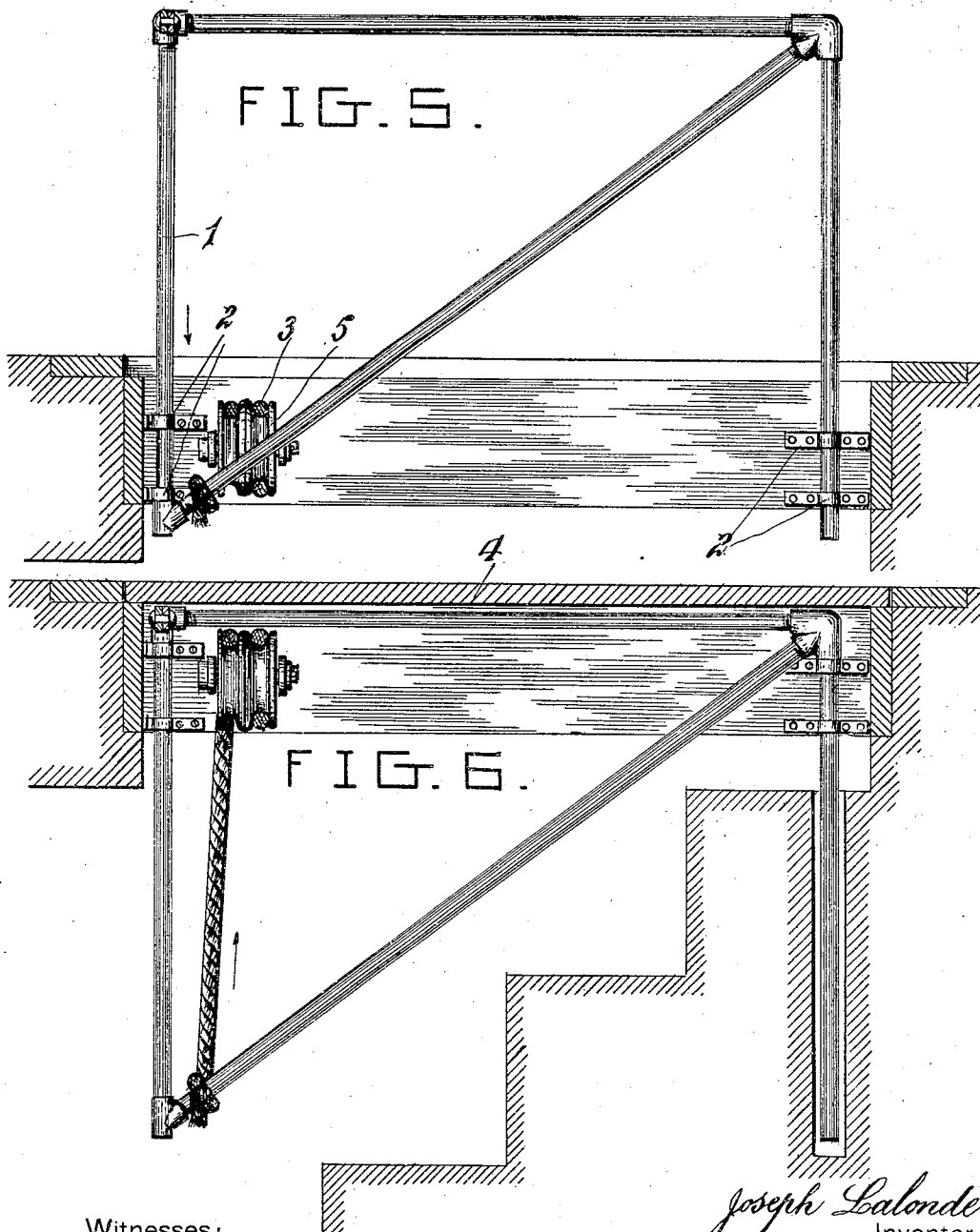
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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STAIR-GUARD.

938,771.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed August 10, 1908. Serial No. 447,852.

To all whom it may concern:

Be it known that I, JOSEPH LALONDE, a subject of the King of Great Britain, residing at the city and district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Stair-Guards; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention to be hereinafter described relates to stair guards and means for raising the same, and holding them in raised position, and is particularly adapted for use on cellar stairs or the like.

Broadly speaking, it comprises a slidably mounted frame or rail, a trapdoor, lift or the like adapted to close a stairway opening, connections between the trapdoor and the frame whereby the raising of the trapdoor causes the frame to rise, and an arm pivoted to the frame and adapted to engage the trapdoor to hold it in raised position.

In order to more clearly disclose the construction, operation and use of the invention, reference should be had to the accompanying drawings, forming part of the present application.

Throughout the several views of the drawings like reference characters designate the same parts.

In the drawings: Figure 1 is a side elevation of the device in operative position; Fig. 2 is a plan view of Fig. 1; Fig. 3 is a rear end view of the device in lowered or inoperative position; Fig. 4 is a similar view in raised or operative position; Fig. 5 is a section on line 5—5 of Fig. 2, looking in the direction of the arrow; with the rail raised or in operative position; Fig. 6 is a similar view with the guard rail lowered or in inoperative position; Fig. 7 is a plan and edge view of the corner sleeve brackets for supporting the frame; and, Fig. 8 is a similar view of the side brackets.

A frame 1 of piping, iron rods or any similar suitable construction is slidably

mounted in corner and side sleeves 2 secured to the framework at the side of a stairway and is adapted to be raised or lowered through the sleeves as desired. To the lower part of this frame is fastened one end of a draw rope 3, the body of the rope being passed over multiplying sheaves 5 which are carried by blocks secured to the stair framework and to a trapdoor 4 respectively, and the opposite end of the rope is made fast to the sheave block which is secured to the trapdoor. Thus as the trapdoor is raised the frame is necessarily raised with it and as the trapdoor falls the frame is allowed to drop below it.

In order to hold the trapdoor 4 in raised position and thus prevent the dropping of the frame 1, an arm 6 is provided. This arm is pivoted to the forward end of the frame 3 and adapted, in raised position, to be seated in a notch cut in the under face of the trapdoor. To hold the arm 6 properly seated in the notch, a hook 7 is pivoted to its side and adapted to engage a staple 8 fixed to the door. Thus it will be seen that the arm 6 acts both as the forward part of the guard, extending, as it does, directly across the top of the stairs, and at the same time holds the trapdoor raised and thereby locks the frame 1 in operative position.

Many changes in the details of the construction of the several parts, many rearrangements of these parts, many substitutions for them and many other combinations of them may be had without in any way departing from the field and scope of the present invention, and it is meant to include all such within this application, wherein only the preferred form has been shown and described.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a stair guard of the character described, a movable frame, a trapdoor, means for raising said movable frame comprising multiplying sheaves connected to the frame of the stairway and to the trap door re-

spectively, and a rope connected to the frame and passing over the sheaves, and means for holding the frame in raised position.

2. In a stair guard of the character described, a movable frame, a trapdoor, means for raising said movable frame comprising multiplying sheaves connected to the frame of the stairway and to the trap door respectively, a rope connected to the frame and

passing over the sheaves, an arm pivotally 10 connected to the frame, and means for connecting the arm to the trapdoor.

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

JOSEPH LALONDE.

Witnesses:

T. MYNARD,
E. BIRON.