

(No Model.)

R. T. MURPHY.
SAFETY SWITCH.

No. 488,172.

Patented Dec. 13, 1892.

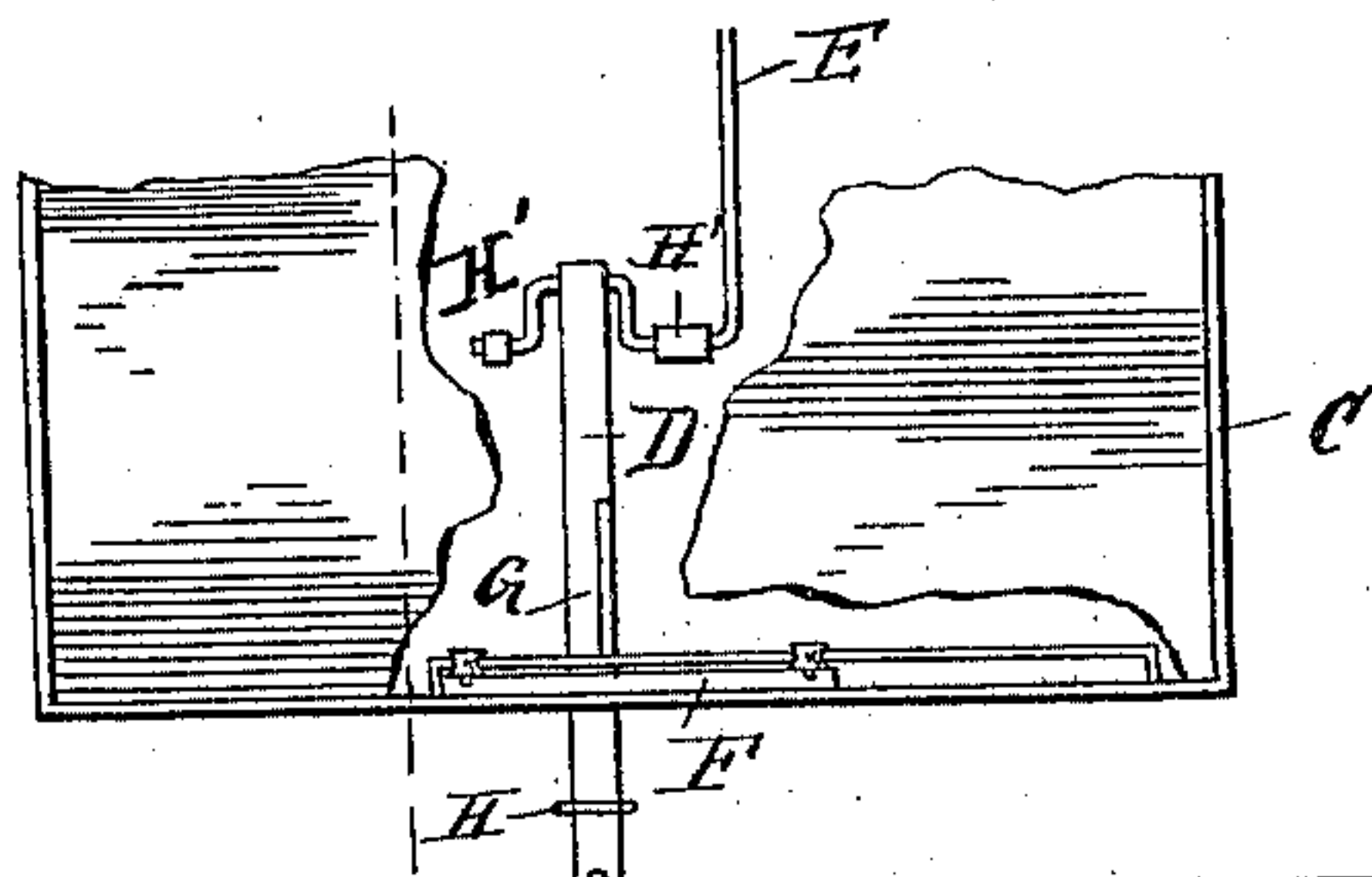


Fig. 1.

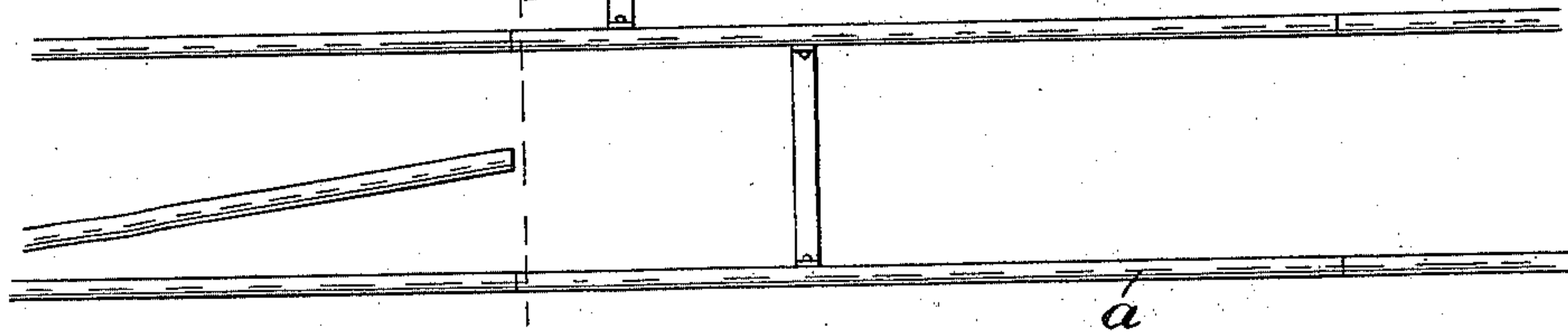


Fig. 2.

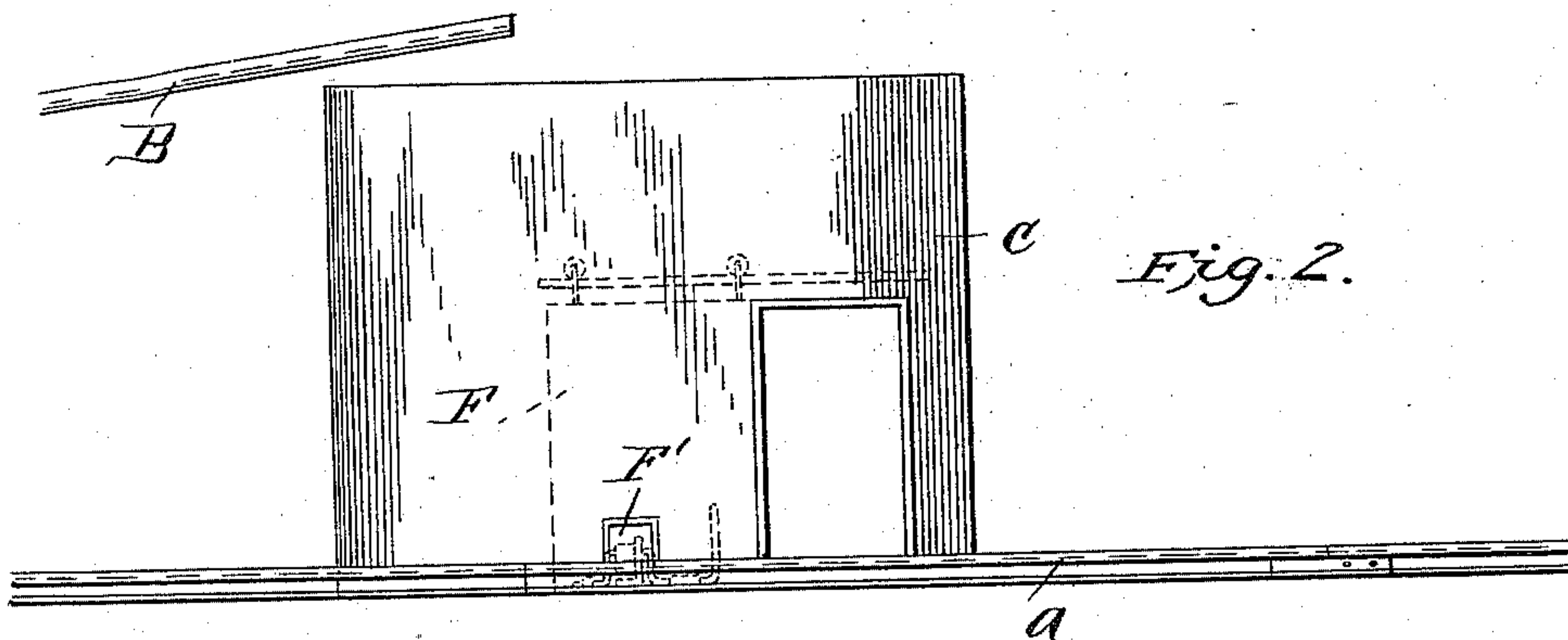


Fig. 3.

WITNESSES:

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ROBERT T. MURPHY, OF GAINESVILLE, GEORGIA.

SAFETY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 488,172, dated December 13, 1892.

Application filed April 2, 1892. Serial No. 427,484. (No model.)

To all whom it may concern:

Be it known that I, ROBERT T. MURPHY, of Gainesville, in the county of Hall and State of Georgia, have invented certain new and
5 useful Improvements in Safety-Switches; 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 appertains to make and use the same,
10 reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to certain improvements in safety-switches, its object being to provide (wherever the switching mechanism is located) an inclosure having a suitable door, through which the operator must enter to operate the switch, the door and operating
20 mechanism being so arranged that in order to throw the track to the siding it will be necessary for the operator to pass through the door of the inclosure and when once within the same to close the door before the switch
25 can be thrown, and be compelled to remain therein until the time arrives for the track to be again thrown into continuity with the main line, thereby preventing serious accidents by the possibility of the operator leaving his post of duty after the switch has been
30 thrown to the siding.

With these ends in view my invention consists in certain novel features of construction and combinations of parts hereinafter more
35 fully described, and afterward particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a top plan showing my improved apparatus. Fig. 2 is a front elevation; and
40 Fig. 3 a cross-section taken on the lines $x x$, Fig. 1.

Like letters of reference mark the same parts throughout the different views.

a represents the main track, and B the
45 branch track or siding.

C indicates a house or cage (preferably of open metallic material) large enough to contain the switch-rod D and hand-lever E and to allow the operator to move around therein.
50 This cage is provided with a sliding door F, through which the operator must enter before he can operate the switch.

F' indicates an opening located near the sliding door, through which the switch-rod passes, one end of the rod being attached to
55 one section of the main track and the other end to lever E.

G indicates an upwardly-extending projection formed integral with the rod D for part of its length, the object of which will be shortly
60 described.

H H' represent pins or other suitable retaining means for securing the switch-rod and lever in position.

When it is desired to throw the track to the
65 siding, the operator must open the sliding door of the cage from the outside. When he is once inside, he is compelled to close the door, and thereby lock himself within the inclosure. If he failed to do this, he could not operate the lever, for if an attempt were made
70 to throw the switch while the door remained open the edge of the projection G on the rod D would bear against the door, thereby preventing the switch-rod being thrown to the
75 desired position. The operator must therefore (in order to throw the section of the main track into continuity with the siding) when once inside the inclosure close the door, which action again opens up the opening F'. The
80 switch can then be thrown by the lever, as the rod D and projection G will then pass through such opening and allow the connection to be made with the siding. By these means the operator is compelled to remain within the
85 inclosure until the train has passed before he can leave his post of duty, for when the section of the main track is thrown into continuity with the siding the side of the projection G presses against the edge of the door,
90 thereby preventing the door being opened during the switching operation. After the train has passed the lever can be thrown to its original position, thereby connecting the main line. The door can then be opened and
95 the operator can then leave the inclosure.

With my improved apparatus serious accidents will be averted, as it will be impossible for the operator to leave the switch open or leave his post of duty during the switching
100 operation.

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

1. In combination, a switch, a switch-oper-
ating mechanism extending into an inclosure,
and a door, said mechanism having a projection
arranged to move into the path of and directly
5 lock the door when the switch is thrown to
one position and so arranged that the door
will lock said mechanism when in the oppo-
site position, substantially as described

2. In combination, a switch, a switch-rod
10 having a projection, the switch-operating
means in an inclosure, and a door for said in-
closure, the projection arranged to move into

the path of the door when the switch is in one
position and the door arranged to move into
the path of the projection when the switch is 15
in the other position, substantially as de-
scribed.

In testimony that I claim the foregoing as
my own I affix my signature in presence of
two witnesses.

ROBERT T. MURPHY.

Witnesses:

H. P. BELL,

J. T. R. McDONALD.