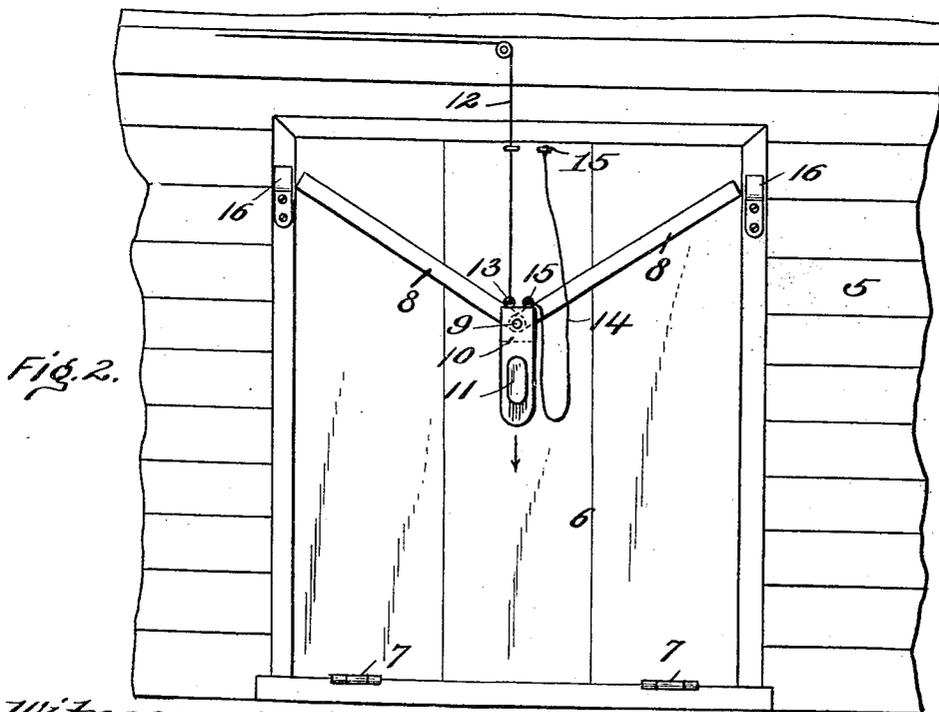
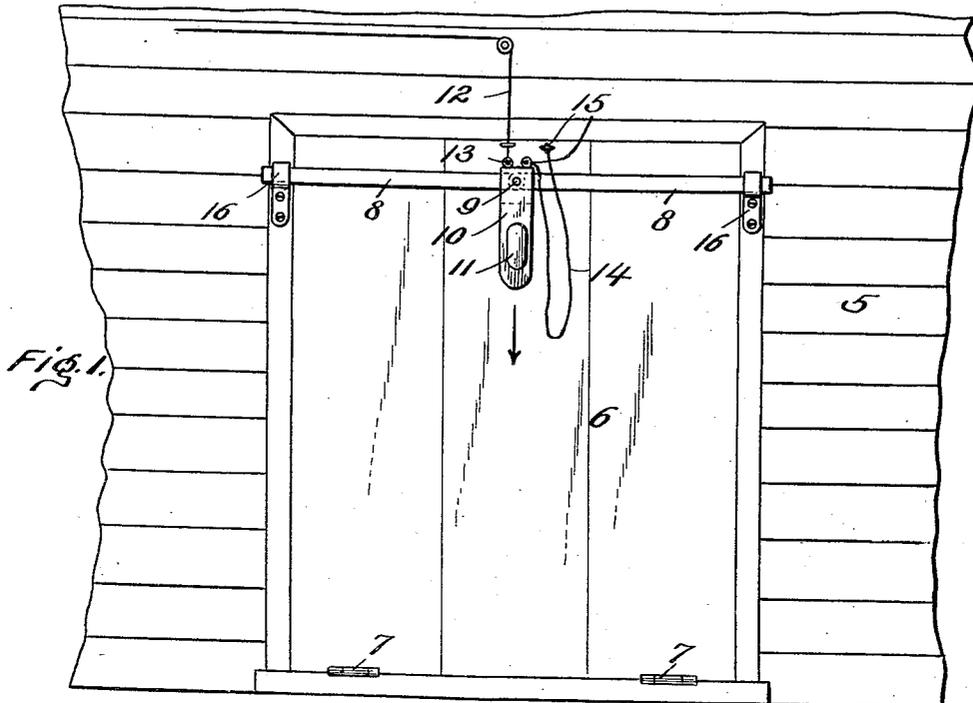


L. R. LIVINGSTON.
AUTOMATIC DOOR.
APPLICATION FILED APR. 6, 1911.

999,116.

Patented July 25, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEON R. LIVINGSTON, OF SPARTANBURG, SOUTH CAROLINA.

AUTOMATIC DOOR.

999,116.

Specification of Letters Patent. Patented July 25, 1911.

Application filed April 6, 1911. Serial No. 619,355.

To all whom it may concern:

Be it known that I, LEON R. LIVINGSTON, a citizen of the United States, residing at Spartanburg, in the county of Spartanburg and State of South Carolina, have invented certain new and useful Improvements in Automatic Doors, of which the following is a specification.

The door which is the subject of the present invention is designed more particularly to be applied to barns and stables, means being provided whereby it is automatically released and caused to swing open in case of fire, thus permitting the horses or other stock to escape from the building.

It is the object of the invention to provide a releasing mechanism which is simple in construction and reliable in operation, said mechanism being entirely devoid of complicated parts to get out of order.

In the accompanying drawing forming a part of this specification, Figure 1 is an elevation of a door equipped with the releasing mechanism which is the subject of the present invention, the door being shown closed. Fig. 2 is a similar view showing the device in release position and the door ready to swing open.

Referring specifically to the drawing, 5 denotes one of the walls of a stable or barn. A door is indicated at 6, said door being hinged at its lower edge as indicated at 7 so that it may swing downwardly and outwardly to open position when released. The latch or holding device of the door comprises a cross-bar which is in two pivotally connected sections or arms 8 which are also pivotally connected as indicated at 9 to a block 10 carrying a weight 11. The block is held suspended by means of a line 12 connected to its upper end by means of a screw-eye 13. The top edge of the door is also provided with a screw-eye through which the line 12 passes and is thus guided. Another line 14, connected at its ends to the block and to the door by means of screw-eyes 15, is also provided. The keepers for the arms 8 are brackets 16 secured to both sides of the door frame, behind which brackets the free ends of the arms are adapted to be extended to hold the door closed, said arms in this position being in alinement and extending in opposite directions from the block.

The line 12 is led by means of suitable guide pulleys around to different portions of the barn, its end being made fast at any suitable place.

The holding device herein described is held suspended in locking position by means of the line 12, as shown in Fig. 1, the arms in this position extending behind the keepers 16. If a fire breaks out in the barn and the line 12 burns through, the block 10 is released, whereupon it drops down and disengages the arms 8 from the keepers, thus releasing the door, and the latter then automatically swings downwardly to the ground. The dropping down of the block 10 starts the opening swing of the door. As the block 10 drops downwardly upon being released as stated, it draws the arms 8 downwardly, causing said arms to swing upwardly from behind the keepers. The line 14 provides a connection between the holding device and the door to prevent loss of the former.

The door herein described is intended only for emergency exits, but if desired, all the doors of the barn may be similarly mounted and equipped with the automatic latch.

I claim:

1. The combination with a door hinged at its lower edge; of latch keepers on opposite sides of the door, a block, pivoted arms carried by the block and adapted to be extended in opposite directions therefrom into engagement with the keepers, and a suspension device carrying said block and holding the same on one side of the door in position to engage the aforesaid arms with the keepers, said block and the arms being free from the door.

2. The combination with a door hinged at its lower edge; of a cross-bar for securing said door, said cross-bar comprising pivotally connected sections, keepers for the free ends of said sections, a support for the sections, said support and sections being free from the door, and a suspension device for the support.

In testimony whereof I affix my signature in presence of two witnesses.

LEON R. LIVINGSTON.

Witnesses:

W. R. STOVALL,
C. B. CARTER.