(No Model.)

N. BOUVIER & I. BELAIR.

FIRE ESCAPE.

No. 515,106. Patented Feb. 20, 1894.

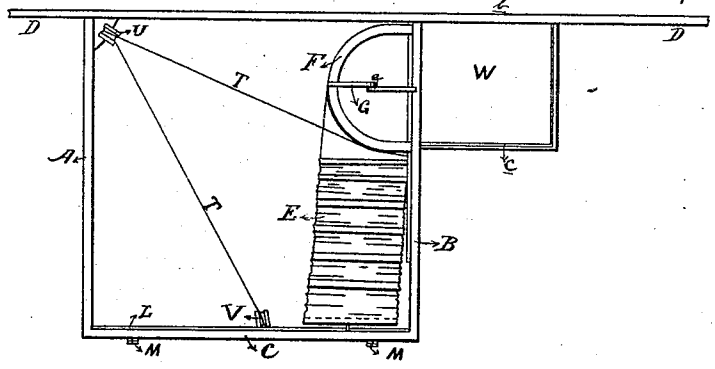

Fig. 1.

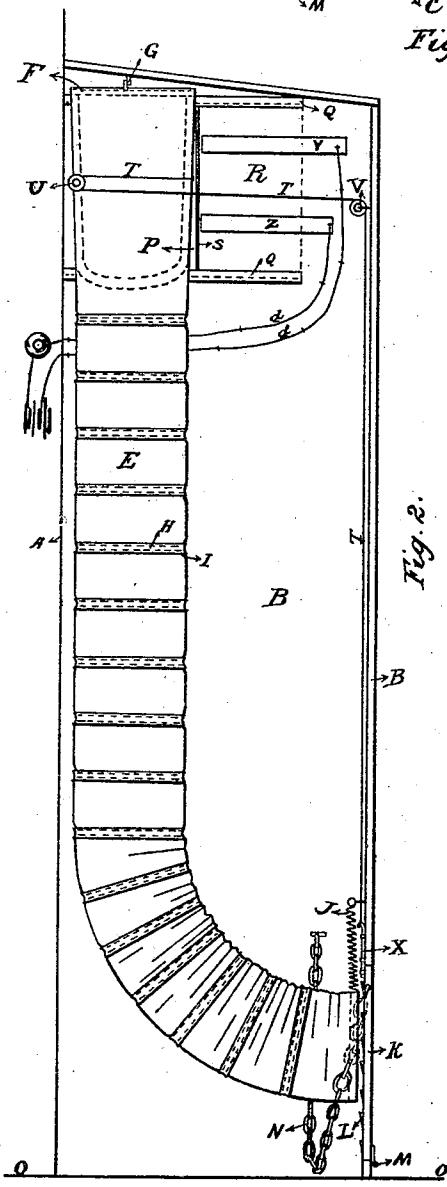

Fig. 2.

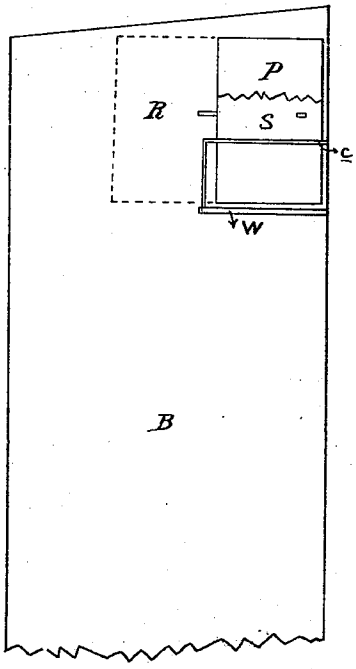

Fig. 3.

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NAZAIRE BOUVIER AND ISAI BELAIR, OF MONTREAL, CANADA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 515,106, dated February 20, 1894.

Application filed May 19, 1893. Serial No. 474,845. (No model.)

To all whom it may concern:

Be it known that we, NAZAIRE BOUVIER and ISAI BELAIR, subjects of the Queen of Great Britain, residing at Montreal, in the district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

Our invention consists in an improvement to fire escapes with the object to give a fire escape permanently fixed and always ready to work with surety and rapidity.

Figure 1 is a top view, the roof being taken away. Fig. 2 is an interior side view, the side A being taken away. Fig. 3 is an exterior view of the side B.

Similar letters refer to similar parts throughout the several views.

This fire escape is composed of a frame or construction with three faces A, B, C, joining immediately the building wall. Materials of any kind can be employed in the erection of this construction. In the interior of this frame is placed a linen tube. This tube is suspended to one of the faces of the frame by means of the iron half circle F and of the bar G acting as spring at the point *a*. Every two feet, the tube is provided with strings H which exteriorly surround the tube with a light strangulation. To give a better appearance those strings are covered with strips I. The lower end of the tube which is curved is suspended by means of spring J.

K is a door to go out provided with laths L and that can turn around the hinges M.

N is a chain whereof one end is fixed to the face B and the other end to the upper part of the door K. The object of this chain is to sustain the door when it is opened, and in the case where it would be too high to rest on the ground O.

P is a slide bar door allowing a person to enter into the tube E.

Q, Q are two slide bars on which the door P slips and which allow the door to take the position R.

S is a copper plate covering the door P exteriorly. This plate is but partly shown on Fig. 3.

T is a small string fixed on the edge of the door P running on the pulleys U and V going down along the face C as far as the little bolt X to which it is attached.

Y and Z are two copper strips each of which is provided with an electric wire *d* communicating one with a bell and the other with a battery placed in the building.

W is a platform establishing communication between a door or a window in *b* of the building and the door P.

c is a parapet.

Our invention being so described we have now but to give an explanation of its working. Upon the outbreak of fire, the first person who notices it does not need to give alarm to anybody. She has nothing to do but to go toward the door or window of the building which leads to the platform W. She jumps on the latter, seizes the door P, and makes it slip in such a manner to place it in the position R. Then the copper plate S which covers the door P is brought in connection with the copper strips Y and Z. The electric circuit being established the bell rings and the alarm is given through the building. If it be desired, bells can be placed in each flat which causes an alarm to be given at once in each part of the building. The door P assuming the position R not only gives the alarm, but also causes the whole fire escape to work. The sliding back of the door pulls the string T and consequently causes to ascend the little bolt X which keeps the door K shut up. The latter being no more kept in place by the little bolt turns on its hinges M. As it is seen, having caused the door P to assume the position R, the unfortunates have nothing else to do but to throw themselves into the tube E. The descent into the tube is easily accomplished. One has but to let himself go down. It is well however to open arms and legs which, by means of their friction on the strangulations caused by the strings H, will moderate the rapidity of the descent. In the case where frightened persons do not take that care, they are not however in danger; for they are forcibly stopped in the curved part of the tube. The violent shock cannot be dangerous on account of the spring J. The one who descends having arrived at the lower part of the tube E, the spring J stretches so that the tube is lowered as far as the point M

and the escaping party is deposited without violence on the door K which is then used as a platform. In the case where the door K would be placed at several feet above the ground it can be used once opened, as stairs, the laths L then becoming steps. The chain N is extended to give to the door K the slope that is wanted when once opened. We may add that we can establish as many tubes as wanted according to the number of flats and the needs of the building each one of those tubes having the same dispositions, the same working and all ending at one and the same door K.

We do not claim as our invention the tube E, for it is not new. But

What we do claim as our invention, and desire to secure by Letters Patent, is—

1. The permanently fixed tube E inclosed in the frame A B C provided with the half circle F and the bar G, the platform W and the door P giving an entrance into the tube E all substantially as set forth and for the purpose specified.

2. In a fire escape, the combination with the door K provided with the chain N, laths L and hinges M, and the door P and slides Q, Q, therefor, said door provided with a copper plate S, of strips Y and Z, electric bell circuit, rope T, pulleys U and V and bolt X substantially as described.

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