A. McCAMBRIDGE.

FIRE-ESCAPE.

No. 191,455. Patented May 29, 1877.

FIG. 1

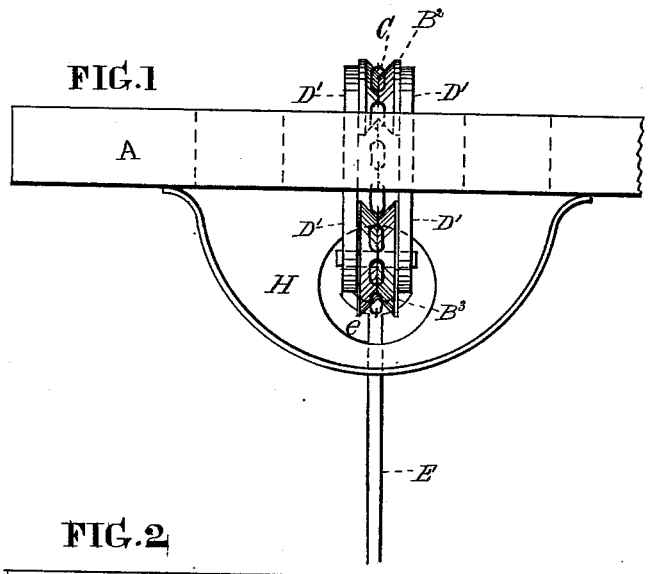


FIG. 4

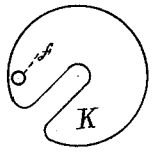


FIG. 2

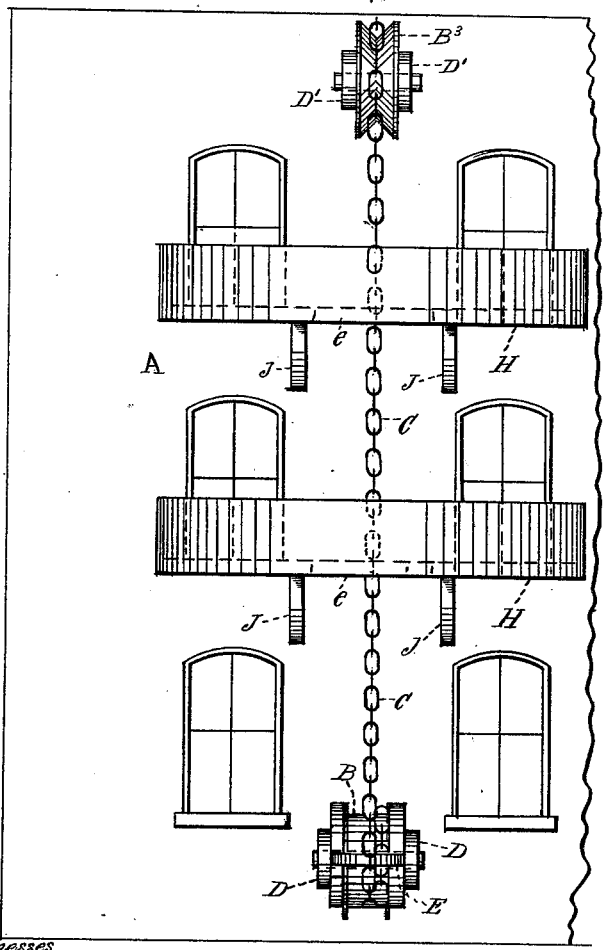
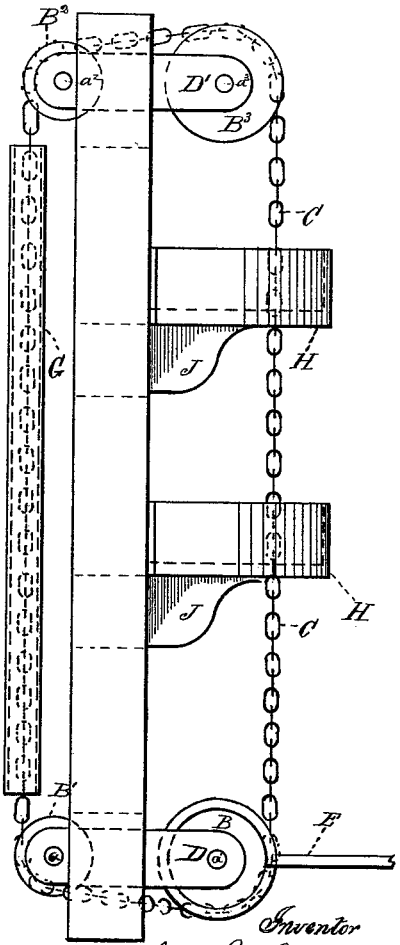


FIG. 3



Witnesses.
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UNITED STATES PATENT OFFICE

ANDREW McCAMBRIDGE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **191,455**, dated May 29, 1877; application filed March 9, 1877.

To all whom it may concern:

Be it known that I, ANDREW McCAMBRIDGE, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of my escape, in connection with the front of a building. Fig. 2 is a front elevation of the same. Fig. 3 is an edge view of the same. Fig. 4 is a face view of the cover K.

Like letters of reference in all the figures indicate the same parts.

My invention is especially adapted for factories, school-houses, and other buildings which contain a large number of persons, being adapted to a rapid escape of persons from all the stories of a building at the same time.

The invention consists of the following particulars: An endless chain is passed over a pair of pulleys near the ground and floor of the building, and a pair near the roof, one of each pair being inside of the building and the other outside. A brake is connected with the lower pulley. The chain passes up in the inside of the building through a tube made of iron, or other suitable material, to protect it from heat. The chain passes down the outside, through platforms located at convenient height of the different stories, to approach from the doors or windows. The platforms may be either stationary, to remain in a fixed position, or hinged in such a manner as to fold against the side of the building when not required for use. They have openings, through which the chain passes, of sufficient size for the passage of persons. The openings are provided with covers, as protection against burglars. Suitable guards are connected with the edges of the platforms. The platforms may extend over the whole extent of the front of the building, or any desirable portion thereof. The chain has a second turn around the lower outside pulley, to prevent a too rapid descent of the persons escaping, and the pulley is also provided with a brake to control the movement of the chain.

I contemplate arranging the lower pulleys in the cellar or basement, when it is most convenient to have them so; and, when desired, the pulleys may be all arranged outside of the front of the building.

A represents the front wall of the building, to which my improved fire-escape is connected. B B^1 B^2 B^3 are pulleys, which support the carrying-chain C. The pins or rods a a^1 of the lower pulleys B and B^1 are held by the horizontal support D, which is permanently secured in the wall A, and the pins a^2 a^3 of the upper pulleys B^2 B^3 are held by the support D′, arranged in like manner, as seen more clearly in Fig. 2. The front lower pulley B is of cylindrical form between its flanges, and long enough to admit of at least of a second winding around of the chain C. E is a brake-lever, connected with the support D, for regulating the movement of the carrying-chain C.

In order to protect the carrying-chain C against the action of fire there is a tube, G, which extends the whole distance between the pulleys B^2 and B^1. The tube may be made of sheet metal or any other suitable material.

At each story of the building there is a platform, H, of any desirable extent for the admission of persons from the rooms.

The descending part of the chain passes through openings e of the platforms, which are of suitable size for the free passage of persons in their descent when holding onto the carrying-chain C.

The platforms are firmly secured by means of brackets J J, or in any other convenient manner, to the front of the building, or may be connected by means of suitable hinges and movable braces, so as to fold against the front when not in use, if desired.

K is a cover (seen in Fig. 4) for connection with the opening e of the lower platform H, to prevent the ascent of burglars. It turns on a pin, which passes through the pivot-hole f into the platform, and is held in its closed position by any suitable device.

I claim as my invention—

1. The fire-escape, consisting of the carrying-chain C, pulleys B B^1 B^2 B^3, having supports D D′, the pulley B being provided with a brake-lever, E, substantially in the manner and for the purpose set forth.

2. The combination of the platforms H, having openings *e*, with the carrying-chain C and supporting-pulleys B, substantially as and for the purpose set forth.

ANDREW McCAMBRIDGE.

Witnesses:

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