No. 649,966. Patented May 22, 1900.

B. W. THOMPSON.

FIRE ESCAPE.

(Application filed Jan. 15, 1900.)

(No Model.)

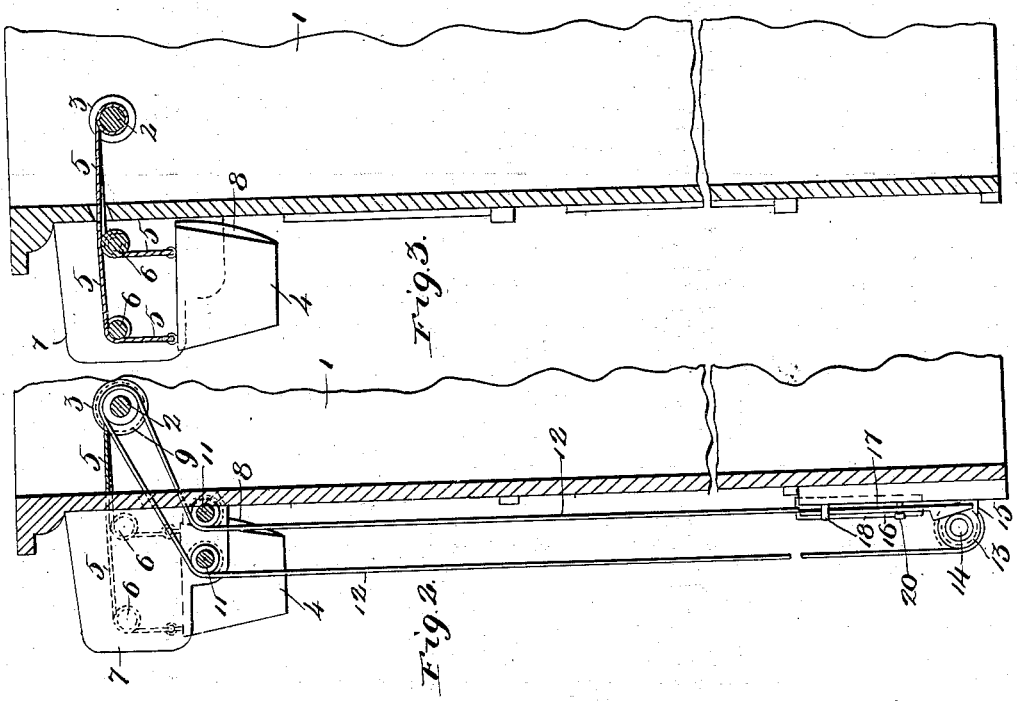

Fig. 3.

Fig. 2.

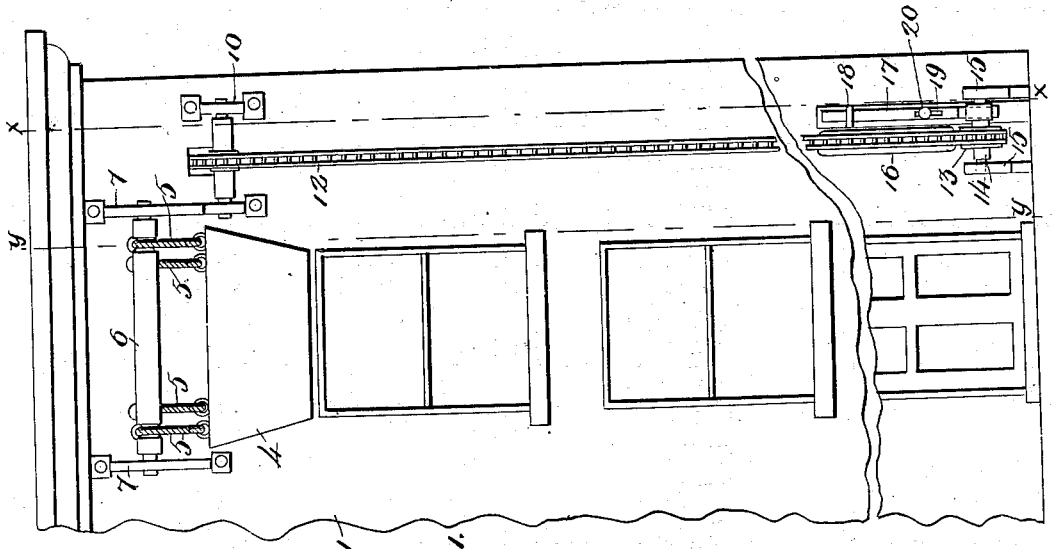

Fig. 1.

WITNESSES:

V. M. Bethe

J. Anderson

INVENTOR

Benjamin W. Thompson.

BY

Geller & Geller.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

BENJAMIN WALTER THOMPSON, OF TERRELL, TEXAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 649,966, dated May 22, 1900.

Application filed January 15, 1900. Serial No. 1,504. (No model.)

To all whom it may concern.

Be it known that I, BENJAMIN WALTER THOMPSON, a citizen of the United States, residing at Terrell, in the county of Kaufman and State of Texas, have invented certain new and useful Improvements in Fire-Escapes; and I do hereby declare the following to be 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.

My invention relates to improvements in fire-escapes; and it consists in the novel combination and arrangement of parts, as will be hereinafter more particularly described and claimed.

In the drawings, Figure 1 is a front elevation of my complete invention as applied to a building. Fig. 2 is a vertical transverse section of my invention, taken on the line *x x* of Fig. 1; and Fig. 3 is a similar section taken on the line *y y* of Fig. 1.

The object of my invention is to construct a cheap, practical, and durable fire-escape, and it is of such a nature that people irrespective of age, sex, or condition may be safely carried from any landing or floor of a building to the sidewalk or street with safety and with comparatively no work on the part of the operator, said fire-escape being so constructed as to be capable of operation by an inexperienced person.

Referring to the drawings, 1 represents a building, to which my invention is easily applied. Mounted within the building or upper room of the same above the highest window of said building is a shaft 2, provided with a series of flanges 3, providing spools or drums upon which the ropes leading from the car 4 are attached and upon which the same are adapted to be wound and unwound when the device is in operation. The cords or ropes 5, which suspend the car 4, are four in number, one end of each of which is attached to the shaft 2, between the flanges 3 thereof, and has its opposite end attached to said car, as shown, whereby the latter is held in a position to properly receive the persons to be carried to the sidewalk from any one of the windows of the building and in close proximity to the front of said building in a line with the windows thereof. Said ropes pass over rollers 6, which are two in number and are mounted in brackets 7, fixed to the front of the building at a suitable distance above the highest window of said building.

Secured to the rear surface or side of the car 4 are curved shoes 8, which are adapted to come in contact with the outer wall of the building should said car move out of its true vertical position in ascending or descending, and thereby prevent said car from being interrupted in its travel in either direction.

Fixed to one end of the shaft 2 is a sprocket-wheel 9, and mounted in one of the brackets 7 and in an additional bracket 10 are the opposite ends of two short drums or rollers 11, over which an endless sprocket-chain 12 is adapted to pass and also over the sprocket-wheel 9 on the shaft 2, said sprocket-chain leading downwardly on the outside of the building and also passing over a sprocket-wheel 13, forming a part of the shaft 14, the latter being journaled in the bearings 15, preferably fixed to the front of the building adjacent to the ground or sidewalk and within easy reach of the operator, and secured to the sprocket-chain or the lap of the same adjacent to the building is a weight 16, which is somewhat heavier than the car 4 or parts comprising the same, whereby said car will always be held in its highest position when the same is empty; but should one or more persons be placed in or enter said car their weight will be sufficient to cause the car to descend, and when said car is emptied the weight therefore is sufficient to automatically cause the car to be elevated to its normal position.

In order to regulate the downward movement of the car after one or more persons are contained therein, I employ a brake, which is very simple and compact and which I shall now proceed to describe, although I do not limit myself to any particular form of brake, as other forms may be employed without departing from the nature of my invention.

Movably fixed to the front wall of the building is a wedge-bar 17, the same being secured in position by a staple 18, secured to said wall and forming a guide for the upper end of said bar. In the bar is a slot 19, through which a pin 20 passes and is secured in said wall, whereby the bar is held in its proper position

in respect to the short shaft 14 and provided with a suitable movement whereby the lower wedge-shaped end of said bar is adapted to be interposed between said shaft and wall of the building, and therefore a proper amount of friction may be given or brought to bear upon the shaft for regulating the movement of the car 4 in its downward direction.

From the foregoing description it is obvious that the ropes 5 for suspending the car 4 and the endless sprocket chain 12 necessarily pass through suitable openings formed in the front wall of the building, which openings are properly constructed and of such a size as to freely admit said ropes and chain.

Having fully described my invention, what I claim is—

1. A fire-escape comprising a suitable car, ropes whereby said car is suspended leading from the same, rollers on the wall of the building over which said ropes pass, a shaft mounted within the building to which the ends of the ropes are attached and upon which the latter are adapted to be wound, a sprocket-wheel on said shaft, rollers mounted on the outside of the building, an endless sprocket-chain passing over said sprocket-wheel, and last-named rollers, a sprocket-wheel located on the outside of the building adjacent to the ground, over which said sprocket-chain also passes, and a weight fixed to one of the laps of the chain and heavier than the car, as and for the purpose described.

2. A fire-escape, comprising a suitable car, ropes, one end of each of which is attached to said car, rollers mounted on the outside of the building, over which said ropes pass, a shaft provided with flanges forming drums to which the opposite ends of said ropes are attached, a sprocket-wheel on said shaft, a sprocket-chain passing over said sprocket-wheel, short rollers mounted on the outside of the building over which the laps of the chain pass, a short shaft mounted on the outside of the building adjacent to the ground, a sprocket-wheel forming a part of the same, over which the sprocket-chain also passes, a wedge-shaped bar movably fixed to the front wall of the building, the lower end of which is adapted to be interposed between the last-named shaft and the wall of the building, and a weight secured to one lap of the chain and somewhat heavier than the car, whereby the latter is held in its elevated or normal position when empty, substantially as described.

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

BENJAMIN WALTER THOMPSON.

Witnesses:
W. P. WILLIAMS,
A. C. ALEXANDER.