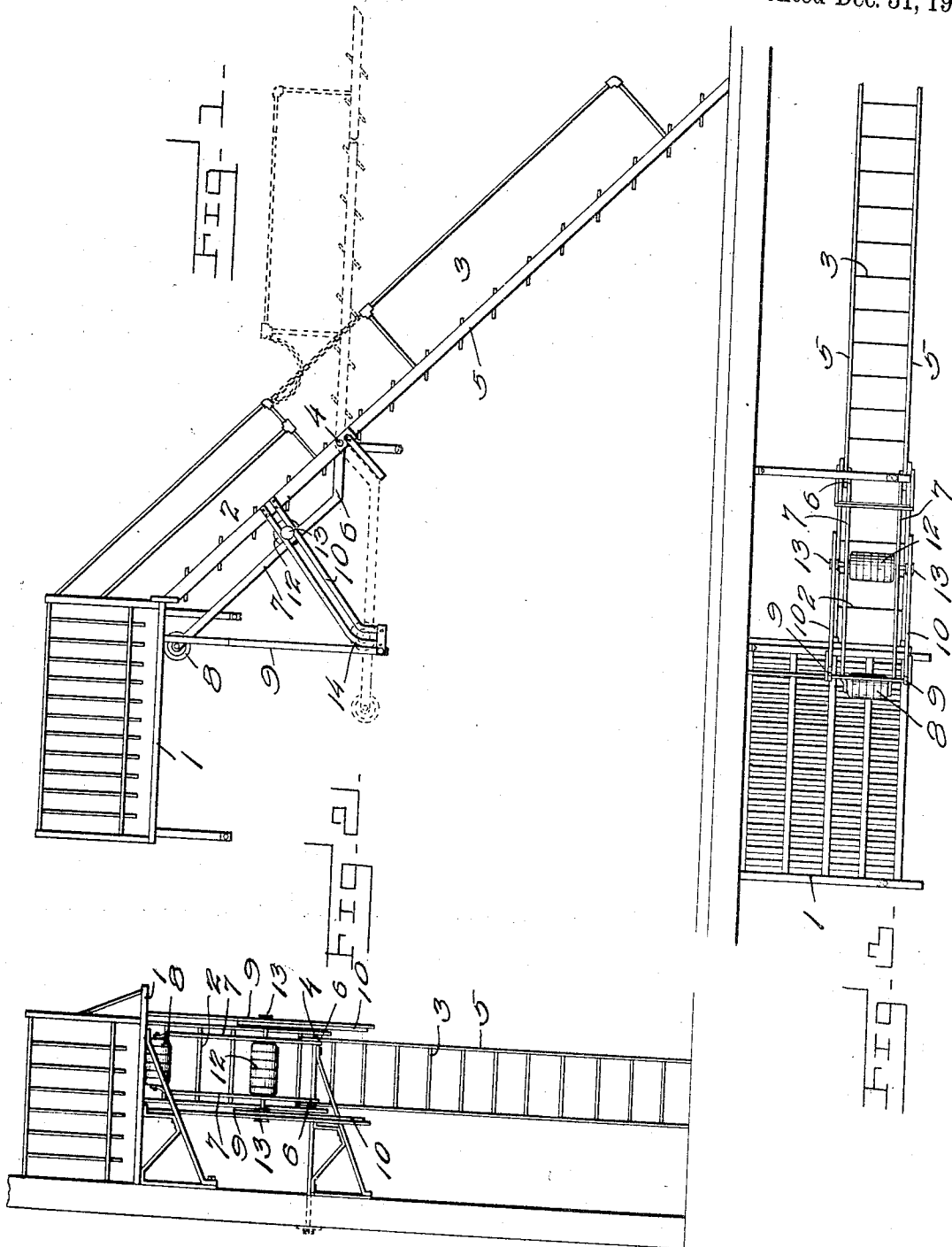


G. W. ANNE, SR.
FIRE ESCAPE.

APPLICATION FILED MAY 29, 1912.

1,049,033.

Patented Dec. 31, 1912.



Witnesses

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Witness

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UNITED STATES PATENT OFFICE.

GEORGE W. ANNE, SR., OF LANCASTER, PENNSYLVANIA.

FIRE-ESCAPE.

1,049,033.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, GEORGE W. ANNE, Sr., a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to fire escapes of the kind that are permanently attached to buildings, and consists in the improvements hereinafter described, which I have made in connection with the lower sections of such fire-escapes. These lower sections are pivoted or made movable so that, when not in use, they are raised from the ground and are out of the way. Difficulty has been encountered in properly counterbalancing such pivoted sections, so that they can be raised or lowered easily and yet will be held firmly in both their raised and lowered positions. When a sufficiently heavy counterweight is used to hold the section raised, it frequently happens that the foot of the section will not rest firmly on the ground when the section is lowered for use, owing to the counterweight tending to raise it.

In the accompanying drawing, I have illustrated a portion of a building-attached fire-escape, embodying the improved construction of counterbalancing the pivoted section.

Figure 1 is a side view, Fig. 2 an end view, and Fig. 3 a plan, of such portion of a fire-escape.

In these views 1 represents a platform or landing on the outside of a building and from which the lowest section of the fire-escape leads to the ground. Obviously, the same construction can be used between the platform of the various stories of a building or elsewhere, but it will be convenient to describe it as applied to the lowest story of a building.

2 represents the upper part of the inclined ladder or stairway, constituting the fire-escape, which part is rigidly attached to the platform and building, as shown.

3 represents the lower part of the ladder, which is pivoted at 4, 4, to the bottom of the fixed part 2.

5, 5, are the side members of the ladder 3, and they are continued beyond the pivots 4, 4, being first bent rearwardly or offset, as at 6, 6, and then running parallel with the upper part 2, as shown at

7, 7. At their ends, the rails 7, 7, carry between them the usual counterweight 8.

9, 9 represent bars depending vertically from the platform 1, and 10, 10, represent guide-rails secured to the bottoms of said bars at one end and to the fixed ladder section 2 at the other end, the angle formed by said guide-rails and ladder section being approximately a right angle. Each rail 10 is formed of two parallel bars, spaced apart, thus forming guideways for the trunnions of a second counterweight 12, provided also with rollers 13, 13, on its trunnions, which rollers run on the rails 7, 7.

The operation will now be evident. When the ladder 3 is not in use, it is swung up into the horizontal position indicated in dotted lines in Fig. 1, in which position the movable counterweight 12 has been carried, by the guide-rails 10, toward the outer end of the rails 7. The lower ends of these guide-rails are preferably curved, as shown at 14, to hold the ladder section 3 more firmly in its horizontal position. When the section 3 is lowered for use, the counterweight 12 is automatically moved up in the guides 10, by the engagement of its rollers 13 with the rails 7. It then, being much nearer the fulcrum 4, naturally acts with less leverage against the weight of the ladder itself and, consequently, the latter rests solidly on the ground.

Having thus described my invention, what I claim is:—

1. A ladder for building-attached fire escapes, comprising a fixed inclined upper section and a swinging lower section, pivoted to the lower end of said upper section and adapted to be swung into horizontal position when not in use and to extend in line with said upper section when in use, said upper section having inclined guides secured thereto and extending rearwardly therefrom and said lower section having members extending beyond its pivots substantially parallel to and beneath said upper section, and a weight movably mounted on said members and engaging said guides whereby it is moved rearwardly toward the ends of said members, as the lower section is swung up and inwardly toward the upper ends of said guides when said ladder section is swung down into position for use.

2. A building attached fire-escape ladder, comprising a platform, an inclined ladder

section rigidly secured thereto but extending for a short distance only downwardly therefrom, a lower ladder section pivoted thereto and adapted, when in use, to rest with its foot on the ground or on the next lower platform, and having an extension beyond its pivot, counterbalancing means movably carried on said extension to hold it in a horizontal position when not in use and to permit it to rest securely in its inclined position when in use, and guides secured beneath said rigid section to cause said counterbalancing means to move on said extension.

3. In a fire-escape ladder of the type described, the combination with the fixed upper section of the ladder, of the lower section pivoted thereto so that it can be swung up from its operative position in

line with the upper section into a horizontal position, rearward projections on said lower section on the other side of its pivot from the ladder portion proper, a weight carried in the ends of said projections, a second weight movably supported on said projections, and fixed guides for said second weight secured to said upper section, whereby as said lower section is raised, said second weight is moved rearwardly away from said pivots and vice versa.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. ANNE, SR.

Witnesses:

ALLAN A. HERR,
W. E. MORTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."