

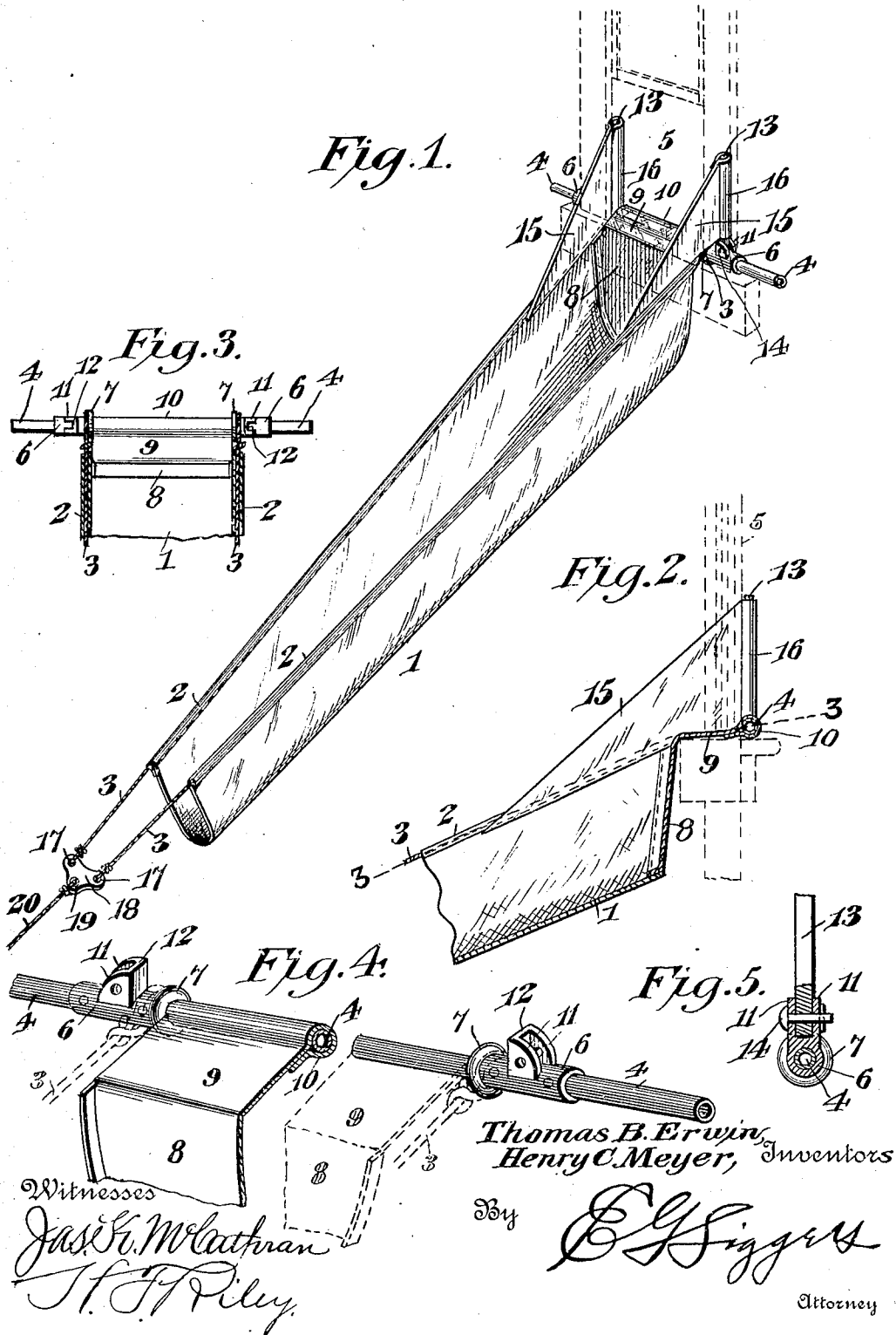
T. B. ERWIN & H. C. MEYER.

FIRE ESCAPE.

APPLICATION FILED APR. 7, 1908.

920,296.

Patented May 4, 1909.



UNITED STATES PATENT OFFICE.

THOMAS B. ERWIN AND HENRY C. MEYER, OF BRITT, IOWA.

FIRE-ESCAPE.

No. 920,296.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed April 7, 1908. Serial No. 425,760.

To all whom it may concern:

Be it known that we, THOMAS B. ERWIN and HENRY C. MEYER, citizens of the United States, residing at Britt, in the county of Hancock and State of Iowa, have invented a new and useful Fire-Escape, of which the following is a specification.

The invention relates to improvements in fire escapes.

The object of the present invention is to improve the construction of fire escapes, and to provide a simple, inexpensive and efficient one, designed to be stored inside of a building, and capable of being arranged quickly for use at one of the windows of the building, and adapted to permit the occupants thereof to descend rapidly without injury.

With these and other objects in view, the invention consists in the construction, and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a fire escape, constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the upper end of the fire escape. Fig. 3 is a sectional view, taken substantially on the line 3—3 of Fig. 2. Fig. 4 is a detail perspective view of the transverse supporting bar or member, and illustrating the construction of the sleeves and the arrangement of the apron. Fig. 5 is a detail sectional view, illustrating the manner of mounting the foldable standards or arms.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates an inclined chute, designed to be constructed of canvas, or other suitable material and tapered downwardly toward its lower end and having downwardly converging sides, adapted to check the speed of a person as he approaches the lower end of the chute. The chute is provided at its upper edges with longitudinal hems or casings 2 for the reception of longitudinal side ropes 3, or other flexible connections, which

are secured at their upper ends to a transverse bar or member 4, adapted to be arranged inside of a building and to extend across a window 5 thereof, as illustrated in Fig. 1 of the drawing.

The transverse bar or member 4, which may be made of any suitable material, is preferably constructed of tubular metal, and it engages the wall of the building at opposite sides of the window. It is provided with sleeves 6, secured by pins or rivets to the transverse bar and having annular flanges 7 at their inner ends, forming stops for retaining the upper ends of the side ropes or connections 3 on the sleeves. The upper end of the chute is equipped with an apron 8, extending across the upper end of the chute and having an extension or flap 9 at the top. The flap or extension 9 is designed to extend across the window sill, and its outer portion 10 is secured around the intermediate portion of the transverse bar 4 between the spaced sleeves 6 thereof. This construction permits the chute to be attached to the transverse bar or member while the upper end of the chute fits against the exterior of the building below the window. The sleeves 6 are also provided with spaced ears 11, connected by webs 12 forming stops for arms or standards 13, constituting supporting members and pivoted at their lower ends between the ears by bolts 14, or other suitable fastening devices. The upper ends of the side ropes encircle the sleeves between the ears and the annular flanges 7. The standards, which are foldable downwardly and outwardly against the end portions of the transverse bar or member, receive the outer edges of the tapering side wings 15, constructed of canvas, or other suitable material and connected with the upper portions of the sides of the chute at the upper edges thereof, as clearly shown in Fig. 1 of the drawing. These wings form guards to enable a person to enter the chute with safety. They extend through the window and retain the arms or standards in an upright position. The wings are provided at the arms or standards with hems or casings 16 in which the said arms or standards are arranged, but they may be connected with the arms or standards in any other preferred manner. The wings or guards 15 extend from the sides of the chute to the anchoring bar 4, and the preferred form of

wing or guard is shown and described in our co-pending application, filed Apr. 7, 1908, Serial No. 425,760.

The lower ends of the side ropes are secured in opposite eyes or openings 17 of an approximately triangular plate or member 18, having an outer eye or opening 19 for the reception of the upper end of an anchoring rope or line 20, adapted to be secured to a stake, or other anchoring means, or to be held by several persons. The side ropes 3 extend beyond the lower end of the chute, and the distance between the eyes or openings 17 of the transverse plate or member 18 is less than the width of the chute, whereby the said plate or member is adapted to maintain the chute in its downwardly tapered condition.

The fire escape, when folded, will occupy but a small amount of space, and it is adapted to be quickly applied to a window. The chute may be arranged at different inclinations to secure the desired speed, and it is adapted, owing to its downward taper, to check the speed of a person before he reaches the lower end of the chute.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. A fire escape including an inclined chute, means located at the upper end of the chute for attaching the same to a building, and side wings located above and secured to the upper edges of the sides of the chute and extending beyond the chute in a longitudinal direction so as to project into a window while the upper end of the chute rests against the exterior of the building below the window.

2. A fire escape including an inclined chute, means for attaching the upper end of the chute to a building, said means being provided with vertical standards or arms located beyond the chute and arranged to be fitted within a window while the upper end of the chute rests against the exterior of the building at a point below the window, and side wings connected with the standards and with the sides of the chute.

3. A fire escape including an inclined chute, means for attaching the upper end of the chute to a building, said means being provided with upwardly extending foldable standards or arms, and side wings connected with the sides of the chute and with the upwardly extending standards or arms and foldable with the same.

4. A fire escape including an inclined chute, a transverse bar or member located at the upper end of the chute, an apron extending vertically across the upper end of the chute and provided with a flap projecting beyond the chute in a longitudinal direction so as to extend across the window sill while the upper end of the chute rests against

the exterior of the building below the window, said flap being attached to the transverse bar or member and permitting the same to engage a window at the interior thereof.

5. A fire escape including an inclined chute, a transverse bar located at the upper end of the chute, a vertical apron extending across and connected with the upper end of the chute and provided with a horizontal extension or flap projecting in a longitudinal direction beyond the upper end of the chute so as to extend across a window sill while the upper end of the chute fits against the exterior of the building below the window, said extension or flap being attached to the transverse bar or member, and side wings located above and secured to the upper edges of the sides of the chute and extending beyond the same to the transverse bar or member, and standards mounted on the transverse bar or member and supporting the wings in an upright position.

6. A fire escape including an inclined chute tapered downwardly and provided with side ropes or connections extending beyond the lower end of the chute, a transverse plate provided with opposite eyes or openings receiving the lower terminals of the side ropes or connections, the distance between the said eyes or openings being less than the width of the chute, whereby the said plate or member is adapted to maintain the chute in its tapered condition, and an anchoring rope or line centrally connected with the plate.

7. A fire escape including an inclined chute, a transverse bar or member connected with the upper end of the chute, sleeves arranged on the transverse bar or member and provided with ears and having flanges spaced from the ears, side ropes or connections extending along the sides of the chute and having their upper terminals attached to the sleeves between the flanges and ears thereof, standards secured between the ears, and side wings connected with the sides of the chute and with the standards.

8. A fire escape including an inclined chute, a transverse bar or member connected with the upper end of the chute, spaced ears carried by the transverse bar or member, webs connecting the ears at the inner edges thereof and forming inner stops, standards pivoted between the ears and having their inward movement limited by the stops, and side wings secured to the standards and connected with the sides of the chute.

9. A fire escape including an inclined chute, a transverse bar or member connected with the upper end of the chute, vertical standards pivotally mounted on the transverse bar and foldable outwardly, means for limiting the inward movement of the standards, and wings extending from the sides of

the chute and connected with and supported by the standards.

10. A fire escape including an inclined chute, a transverse rod connected to the upper end of the chute and adapted to be arranged across the inside of a window, wings or guards connected to the rod and also to the chute at the sides thereof, said wings or guards being located above the chute at each side thereof, and rigid members located at opposite sides of the chute and supporting the wings in their extended position.

11. A fire escape including an inclined chute, a transverse rod connected to the upper end of the chute and adapted to be arranged across the inside of a window,

wings or guards connected to the rod and also to the chute at the sides thereof, said wings or guards being located above the chute at each side thereof and having a hinged connection with the transverse rod and foldable inwardly, and rigid members located at opposite sides of the chute and supporting the wings in their extended position.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

THOMAS B. ERWIN.
HENRY C. MEYER.

Witnesses:

C. W. IRWIN,
JNO. T. McGRUDER.