

C. A. STURM.
FIRE ESCAPE.
APPLICATION FILED AUG. 19, 1908.

936,280.

Patented Oct. 5, 1909.
2 SHEETS—SHEET 1.

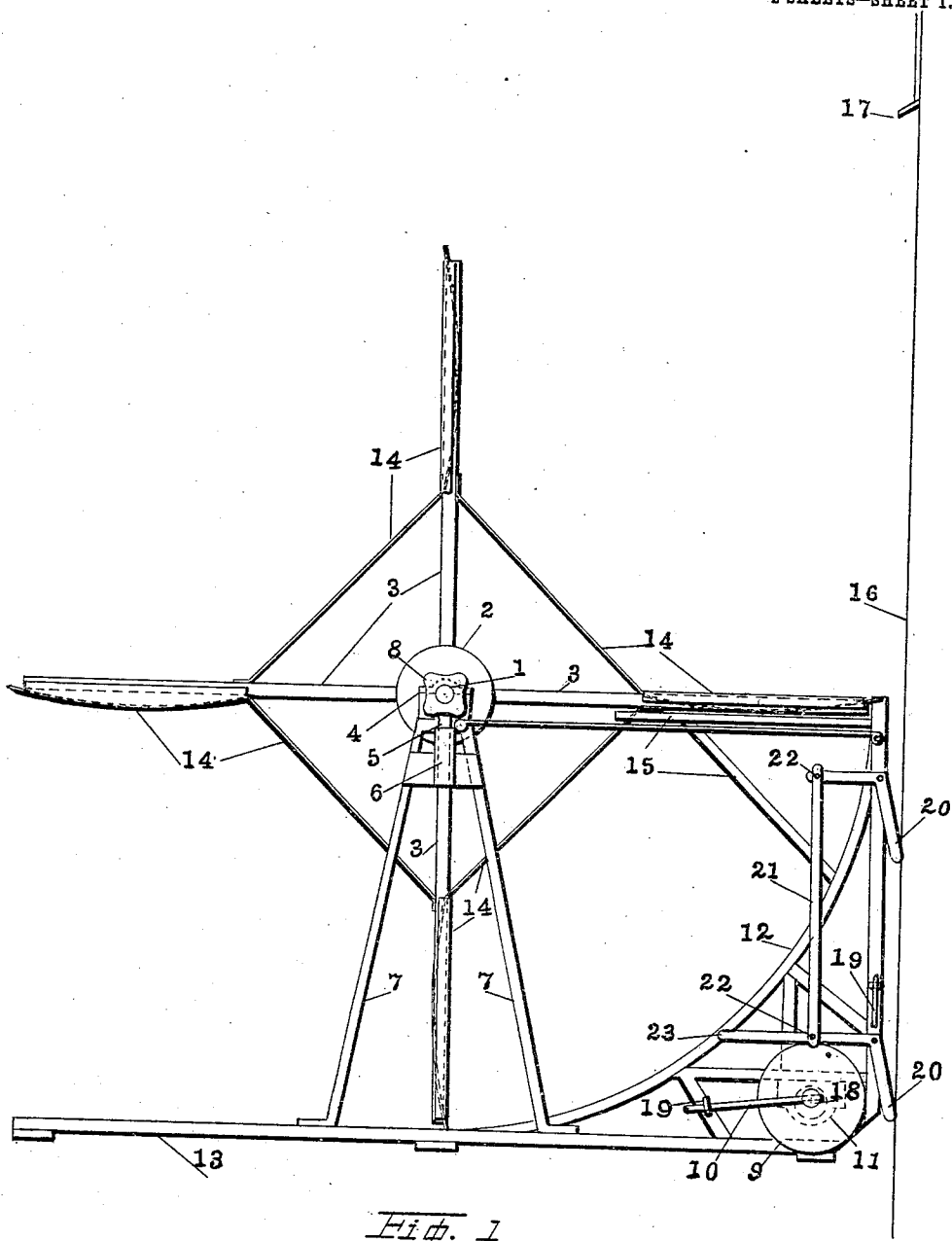


Fig. 1

WITNESSES

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E. Q. Ruppert

INVENTOR

Charles A. Sturm

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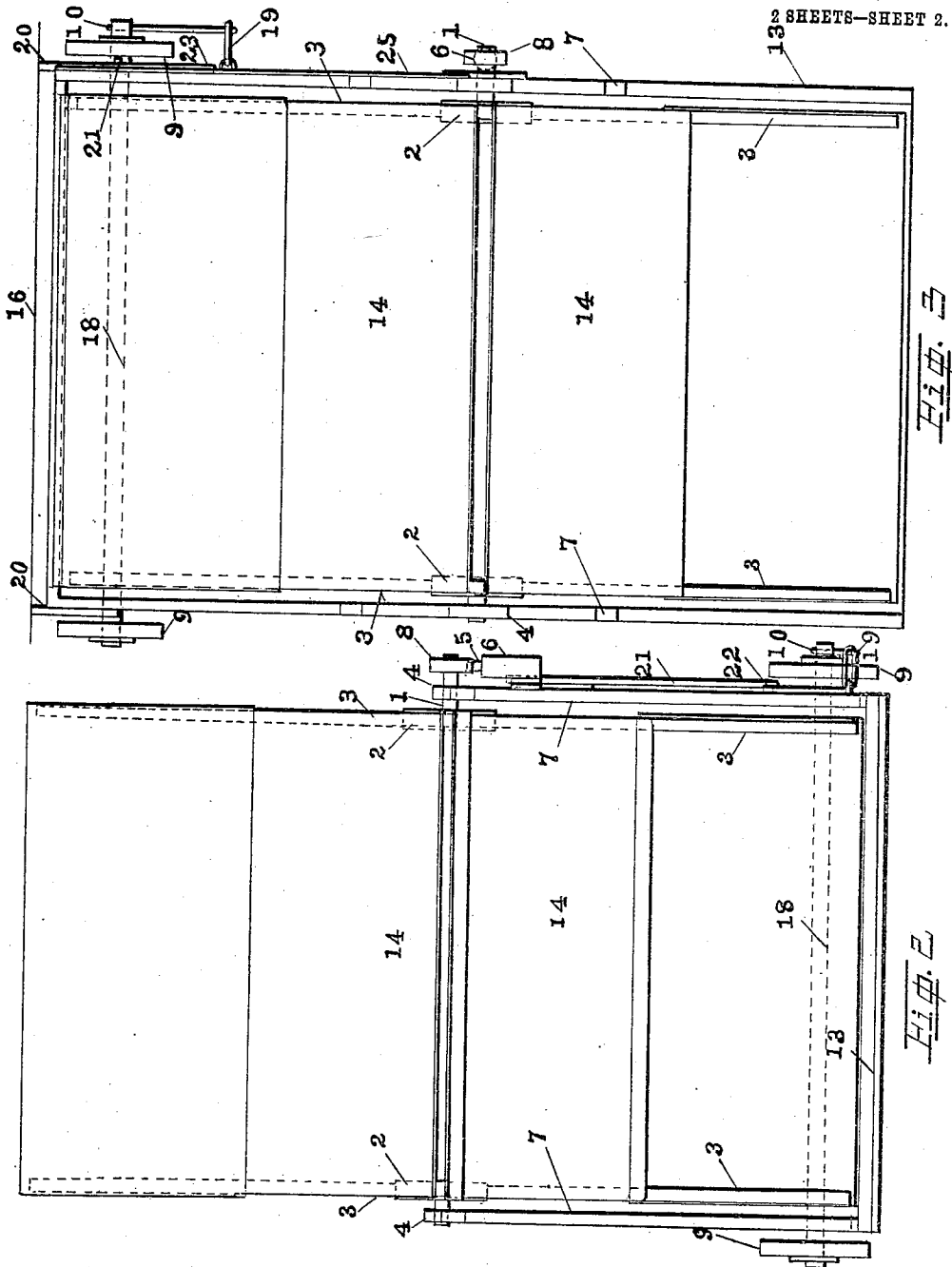
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UNITED STATES PATENT OFFICE.

CHARLES ANDREW STURM, OF PORTLAND, OREGON.

FIRE-ESCAPE.

936,280.

Specification of Letters Patent.

Patented Oct. 5, 1909.

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To all whom it may concern:

Be it known that I, CHARLES ANDREW STURM, citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to improvements in fire escapes and has for its object to provide a portable fire escape which can be placed beneath a window of a burning building to catch persons jumping from the building without injuring them. This object is attained by means of the apparatus illustrated in the accompanying drawings in which,

Figure 1 is a side elevation. Fig. 2 is a front elevation. Fig. 3 shows a top view.

Like numerals of reference indicate similar parts throughout the several views.

Referring to the drawings, there is shown a frame 13 mounted on wheels 9 which are revolubly mounted on shaft 18. Said shaft 18 is revolubly held in bearings 11 and has its protruding ends eccentric. The wheels 9 are mounted on these eccentric ends thus allowing the frame to be raised or lowered by the turning of said shaft 18. A rod 10 may be inserted in holes in the end of said shaft for the purpose of revolving same and raising or lowering the frame. Said rod may be held in any desired position by means 19. Other means may be used for raising or lowering the frame if desired, and four wheels may be used in place of two thereby making it easier to manipulate. Shaft 1 revolves in bearings 4 on brackets 7 which are attached to the frame. Hubs 2 are rigidly attached to shaft 1 and are provided with arms 3 having canvas 14 attached to it as shown. Revolving arms 3 are held in the proper position by means of the mechanism shown in Fig. 1, consisting of a pin 5 slidably mounted in bearing 6 and held against 8 by a spring. Part 8 is rigidly attached to shaft 1 and revolves with it. The spring which holds 5 against 8 is just strong enough to hold arms 3 in position yet not strong enough to prevent said arms from turning when a person jumps from window 17 onto canvas 14. A person alighting on said canvas would be carried by said reel along the curved portion 12 of frame 13 toward the straight flat surface of the frame and gradually slowed up to a stop on ac-

count of the resisting action of the curved portion 12 assisted by the wind resistance of canvas 14.

The aforementioned reel may be dispensed with and bracket 15 used in its stead. In this case a canvas sheet would be spread across the brackets 15 to catch the falling person and relieve the friction against the surface of the frame—the canvas being only loosely spread over the brackets and enveloping the person and thence being carried along with him. This canvas would also tend to partially break the fall.

Arms 20 are pivotally mounted on the sides of the frame at 22 and connected by rod 21 lower arm 20 is provided with an extension 23 with which to operate said arms which can be used to throw the frame forward when desired to catch a person when falling too far from the wall 16. In order to operate said arms 20, 23 is moved downward, thus throwing the arms out against the wall and thereby pushing the frame forward.

It is understood that slight changes may be made in the specific structure shown without departing from the spirit of the invention.

What I claim is:

1. A portable fire escape comprising a frame, body-receiving means mounted for revolution thereon, and means adapted to brake said body-receiving means against accidental revolution.

2. A portable fire escape comprising a frame, body-receiving means adapted for revolution thereon, means adapted to brake said body-receiving means against revolution, and supplementary body-receiving means adapted to receive a body from the revoluble means.

3. A portable fire escape comprising a frame, body-receiving means mounted for revolution thereon, means adapted to brake said body-receiving means, and supplementary body-receiving means disposed in the path of the revoluble means to receive a body therefrom.

4. A portable fire escape comprising a frame, body-receiving means mounted for revolution thereon, means adapted to brake said body-receiving means against accidental revolution, and a chute adapted to receive a body from the body-receiving means.

5. In a movable fire-escape, a frame, a reel mounted for revolution thereon com-

prising a plurality of receptacles adapted to receive a falling body, means to brake said reel against revolution said means being adapted to permit revolution of said reel under stress of a falling body, and means to lock said fire-escape against accidental movement.

6. In a movable fire-escape, a frame, an inclined, curved chute at one end thereof, a reel mounted for revolution on the frame comprising a plurality of receptacles adapted to receive a falling body, means to brake said reel against accidental revolution, said means being adapted to permit revolution of said reel under stress of a falling body, means to lock said fire-escape against accidental movement, and means to operatively position said fire-escape while locked against accidental movement.

7. In a fire escape, the combination with a frame having a curved surface at one end arranged to catch a falling person jumping down from above, of a revolving reel mounted in bearings attached to the frame and

carrying canvas between the arms of said reel, wheels upon which the frame is mounted, means for raising or lowering said frame on said wheels, means for quickly moving the frame forward and away from the wall against which it is placed.

8. In a fire escape, the combination with a frame having a curved surface at one end, a canvas bearing reel, wheels upon which the frame is mounted, means for raising and lowering the frame, means for moving the frame forward, of a mechanism for holding the reel in proper position and consisting of a spring actuated pin held against a square portion mounted rigidly on the reel shaft so as to allow the reel to revolve only when great pressure is applied.

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

CHARLES ANDREW STURM.

Witnesses:

A. J. MATTER,
E. B. SEABROOK.