May 31, 1938. A. SAMPIERI 2,119,444

SAFETY FIRE ESCAPE FOR BUILDINGS

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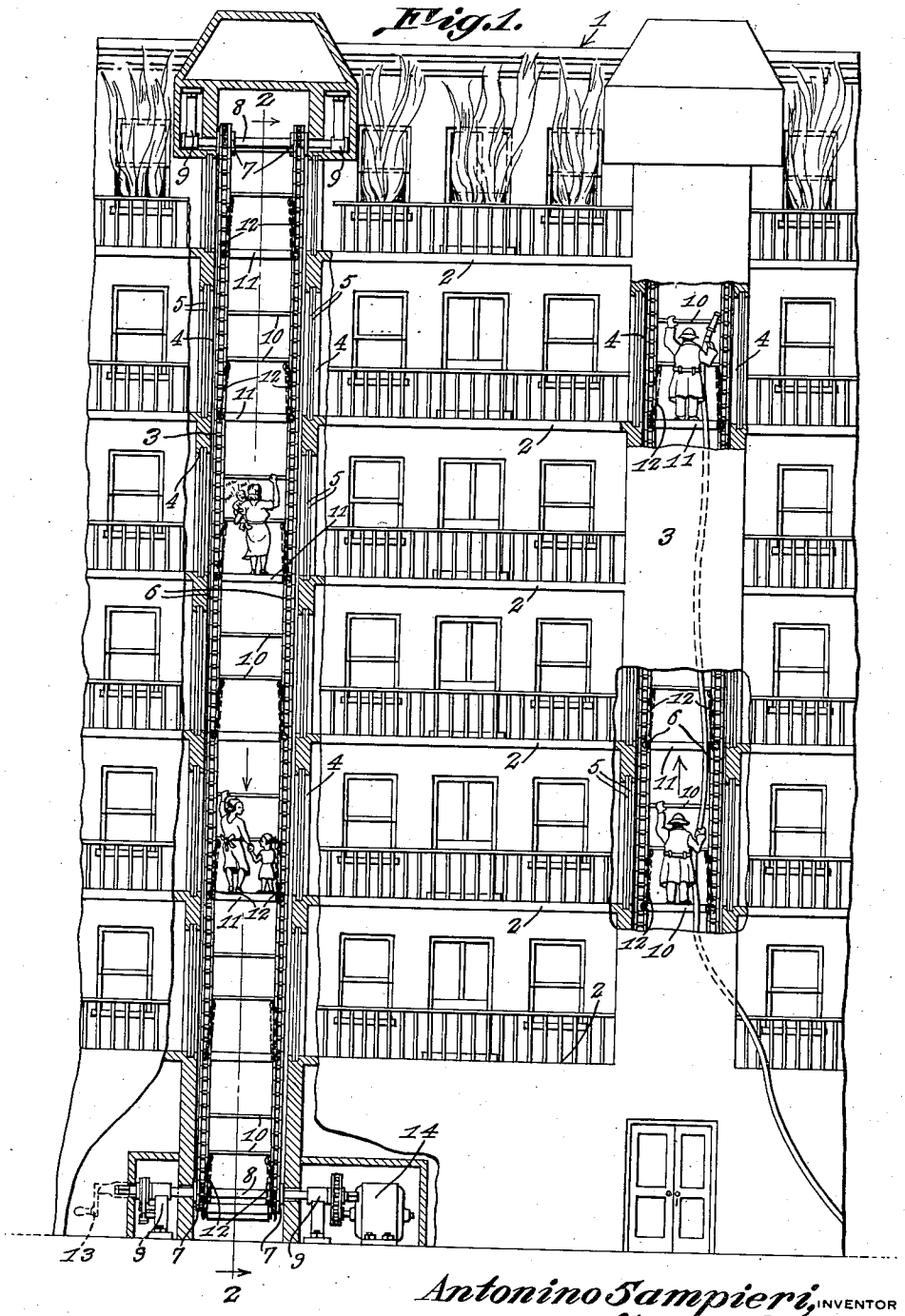
Fig. 1.



Antonino Sampieri, INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

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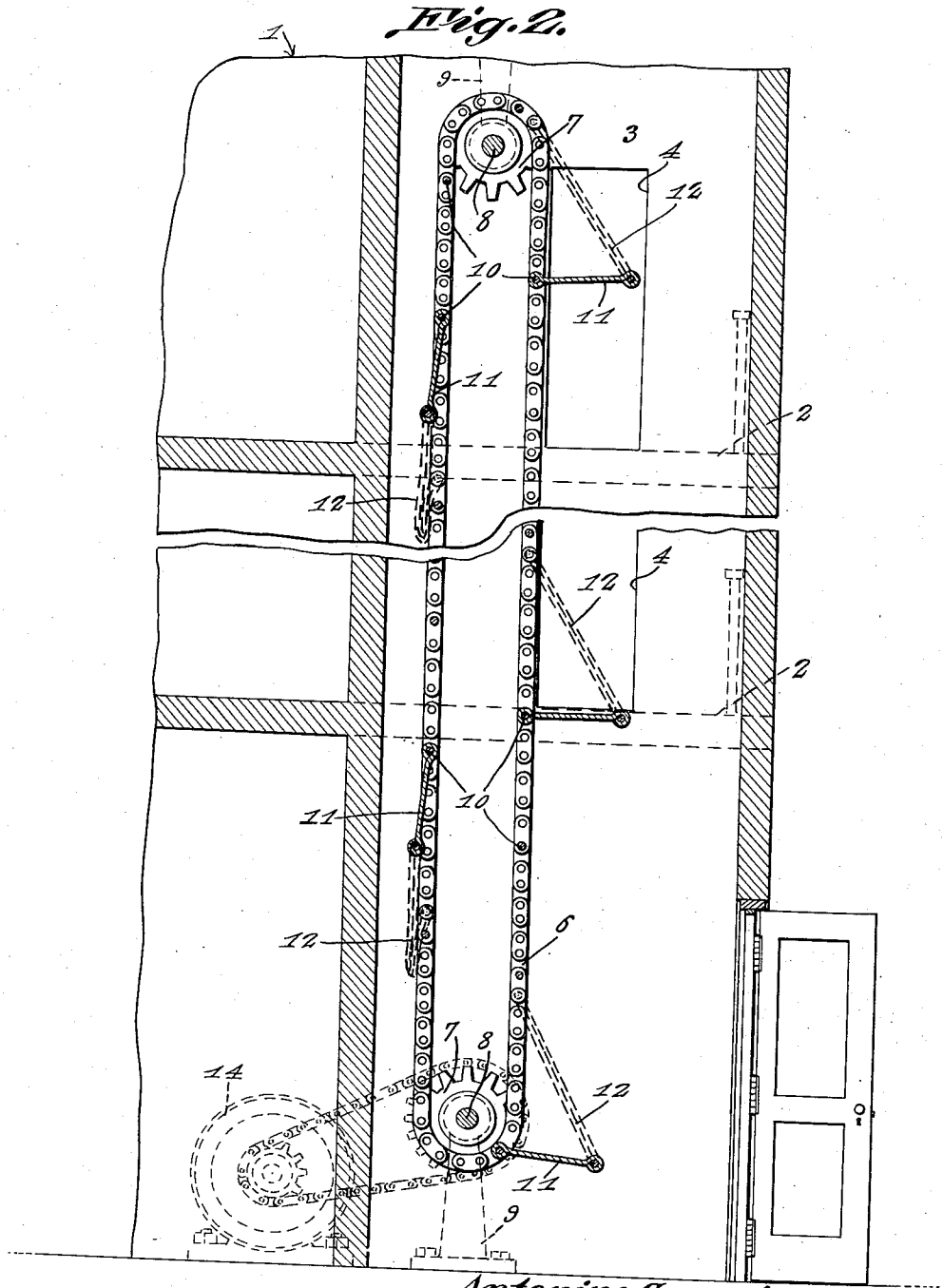
Fig. 2.



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SAFETY FIRE ESCAPE FOR BUILDINGS

Antonino Sampieri, Pittsburgh, Pa.

Application April 27, 1937, Serial No. 139,269

1 Claim. (Cl. 227—28)

This invention relates to fire escapes for buildings and has for the primary object the provision of a device of this character which will convey occupants of each floor of a building to the ground or to a place of safety in case of a fire and which will afford protection to the persons when being carried to the place of safety and also may be employed for conveying firemen from the ground to the floor of the building which is on fire.

With these and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a fragmentary front elevation partly in section showing a building of several stories equipped with fire escapes and constructed in accordance with my invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Referring in detail to the drawings, the numeral 1 indicates a building consisting of a plurality of stories each having a balcony 2 and built onto the exterior of the building and passing through the balconies are vertical shafts 3 having communication with the balconies by doorways 4. The doorways are normally closed by doors 5 so that the balconies can be used with comparative safety by persons under normal conditions. The shafts 3 extend from the roof of the building to the ground and form part of the fire escape arrangement and as each fire escape and shaft is identical in construction with every other one reference in detail to one specifically is thought sufficient.

Extending substantially the full length of the shaft 3 are endless sprocket chains 6 trained over upper and lower sprocket gears 7. The sprocket gears are secured on shafts 8 rotatably supported by supports 9 suitably fixed against movement. Connecting the sprocket chains are spaced flights 10 certain ones of which have journaled thereon platforms 11. The free ends of the platforms are connected to the sprocket chains by flexible elements 12 so that during the downward movement of the platforms they automatically assume horizontal position and when moving upwardly will fold and assume a collapsed position against the chains.

The lower shaft 8 may be rotated manually by a crank handle 13 or may be power driven by an electric motor 14.

The sprocket chains are so mounted in the shaft 3 as to present rear and front runs and during the operation of the device the front runs move downwardly while the rear runs move upwardly. The platforms being connected to the sprocket chains as described will always assume horizontal position when traveling downwardly on the front runs so that a person stepping from a balcony onto the platform can be carried with safety to the ground. By reversing the direction of travel of the sprocket chains the platforms can be made to convey persons upwardly thus rendering the device especially advantageous to firemen carrying hose and like equipment to a portion of the building which is on fire.

What is claimed is:

A fire escape of the class described, comprising, in combination, a building, a plurality of longitudinally extending balconies secured on said building one above the other, a plurality of enclosed vertically extending shafts without said building and intersecting said balconies, a pair of endless sprocket chains extending substantially the full length of each of said shafts, means for mounting said sprocket chains for movement in either direction, an operating means connected to said first mentioned means, a plurality of flights connecting each pair of sprocket chains together and said pairs of sprocket chains each including inner and outer runs traveling in opposite directions, platforms hinged to certain of said flights, flexible elements connecting the free ends of said platforms to other of said flights whereby the platforms may assume horizontal positions on the outer runs to transport persons and fold in parallelism on the inner runs, and doors effecting communication from the balconies to the respective shafts and arranged to permit access to the horizontally extending platforms and to preclude access to the folded platforms whereby persons may be transported on said platforms within said shafts adjacent the outer walls thereof and away from the outer wall of said building.

ANTONINO SAMPIERI.