

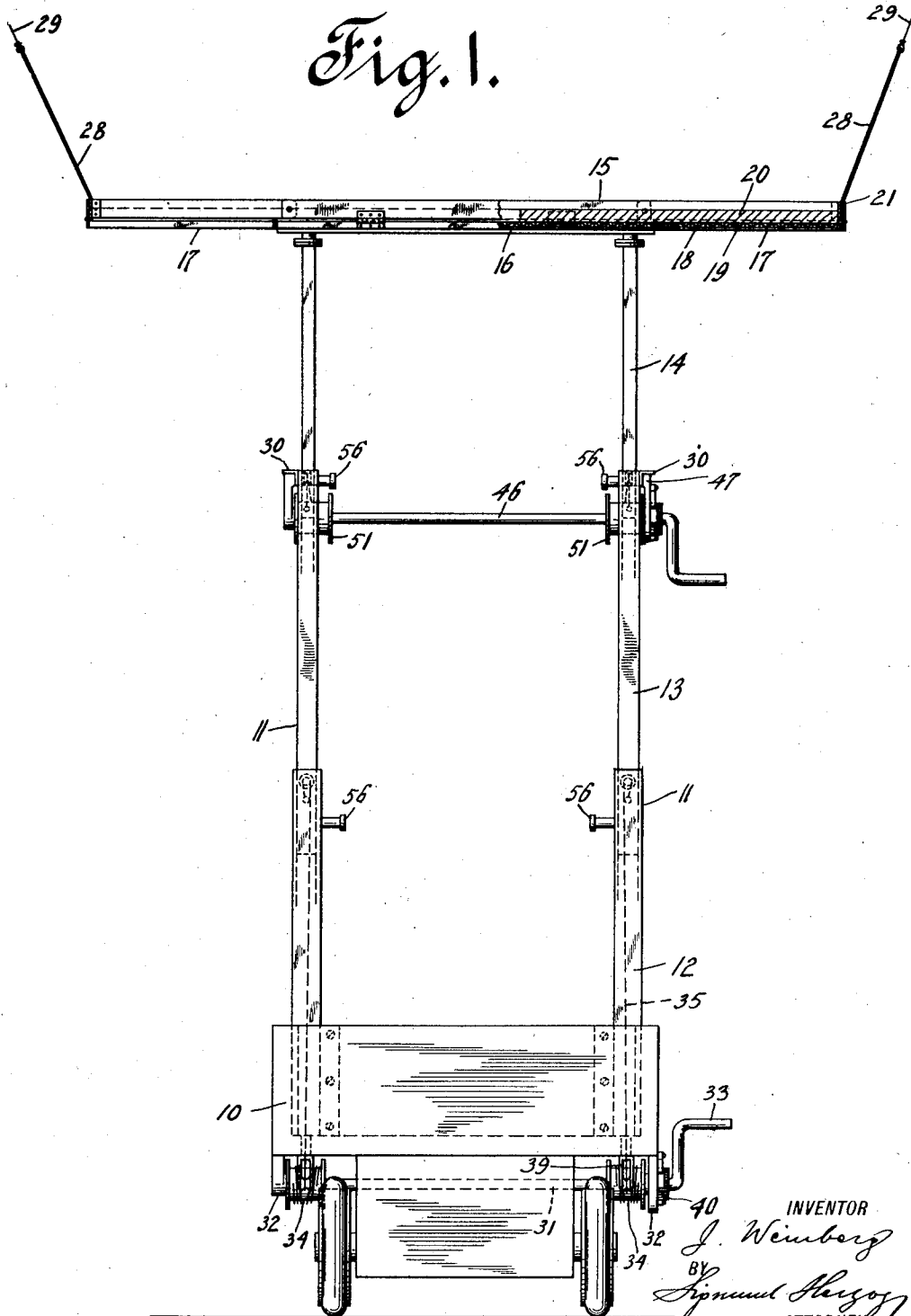
J. WEINBERG.
FIRE ESCAPE.
APPLICATION FILED FEB. 24, 1919.

1,332,011.

Patented Feb. 24, 1920.

4 SHEETS—SHEET 1

Fig. 1.



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FIRE ESCAPE.

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4 SHEETS—SHEET 2.



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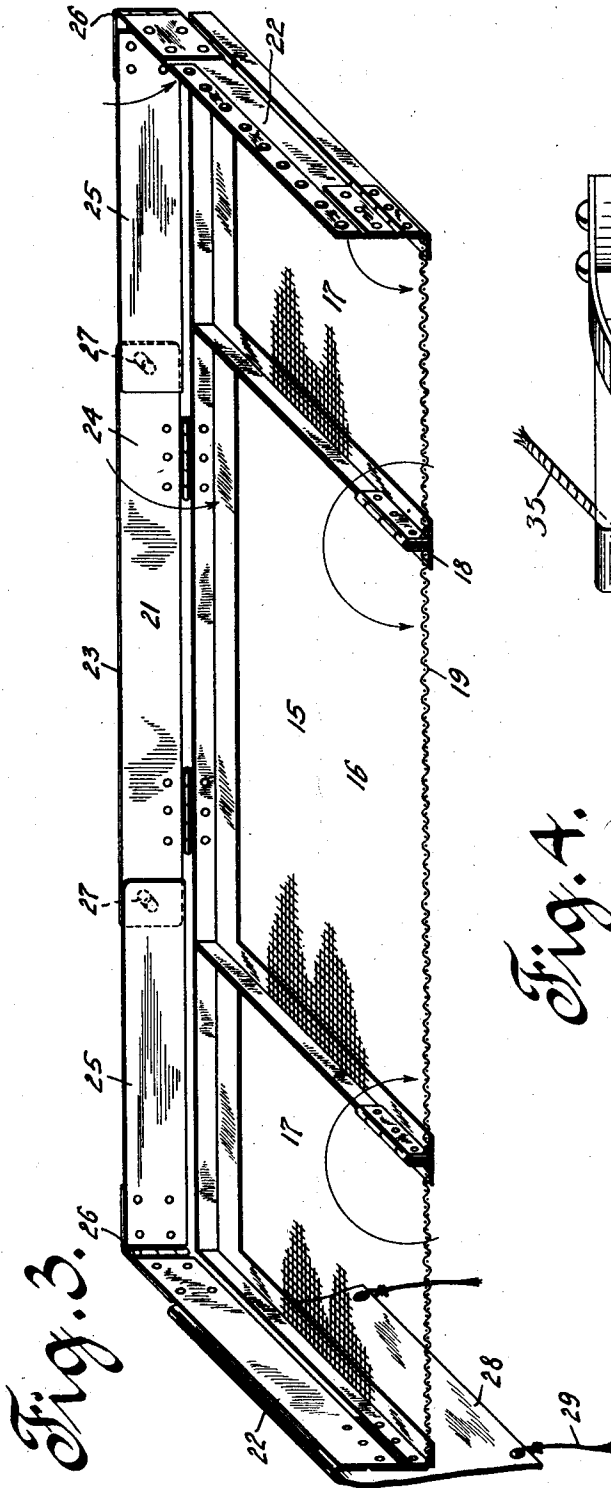
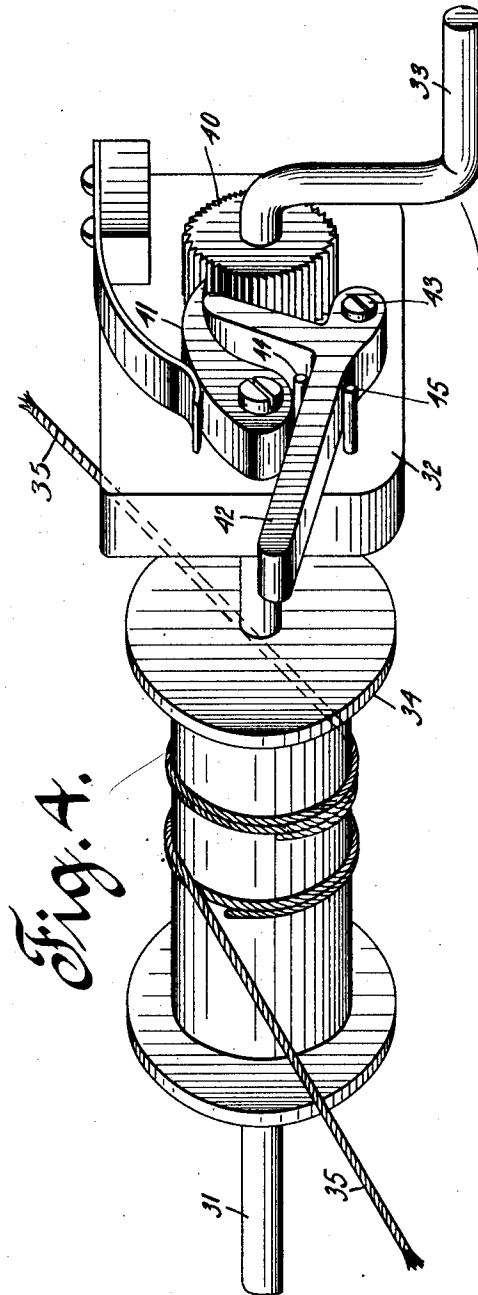
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4 SHEETS—SHEET 3.

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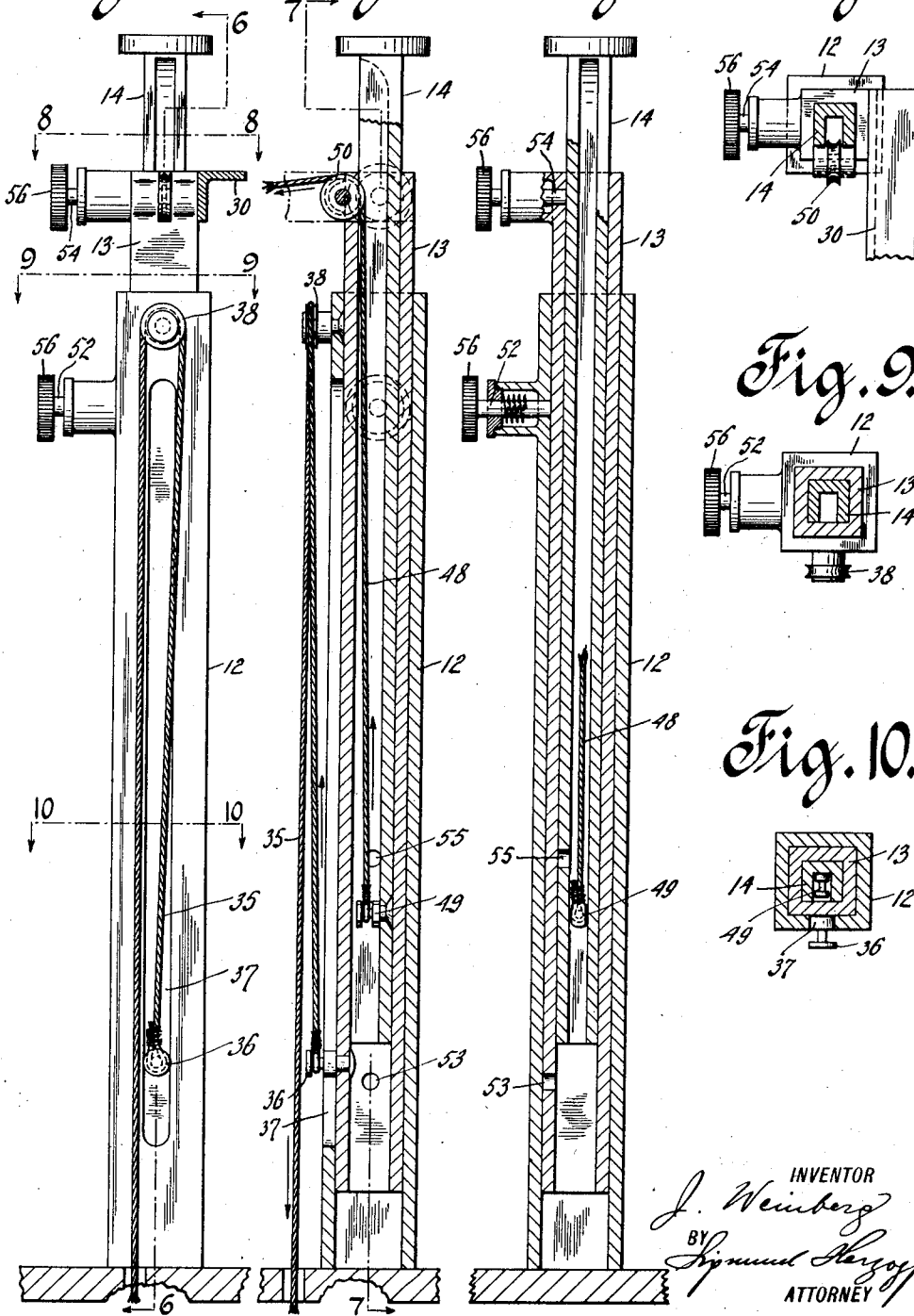
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4 SHEETS—SHEET 4.

Fig. 5. *Fig. 6.* *Fig. 7.* *Fig. 8.*



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UNITED STATES PATENT OFFICE.

JOSEPH WEINBERG, OF NEW YORK, N. Y.

FIRE-ESCAPE.

1,332,011.

Specification of Letters Patent.

Patented Feb. 24, 1920.

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To all whom it may concern:

Be it known that I, JOSEPH WEINBERG, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

The present invention relates to improvements in fire-escapes, and more particularly to devices of this type which are portable.

The main object of the invention is to provide a fire-escape mounted upon a truck and in the form of a cushioned or resilient platform, adapted to catch falling bodies, such as persons jumping out of windows of a burning building or off the platforms thereof, in combination with means for raising the said platform above the truck to predetermined heights.

Another object of the invention is to provide a platform of the character described which, when folded, is substantially of the size of the truck, to permit the apparatus to travel through the streets without interfering with the traffic, etc.

A further object of the invention is to make the platform supporting means of a plurality of telescoping sections, having independent means for raising the same.

A still further object of the invention is to provide a device of the character described which is simple in construction, efficient in operation and which can be quickly put in place, when needed.

With these and other objects in view, which will more fully appear as the nature of the invention is better understood, the same consists in the combination, arrangement and construction of parts hereinafter described, pointed out in the appended claim and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and details of construction within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a front elevation, partly in section, of a fire-escape constructed in accordance with the present invention, the same being shown in its extended position;

Fig. 2 is a side elevation thereof, partly in section, some of the elements being shown in their normal positions for transport; Fig. 3 is a sectional perspective view showing a portion of the resilient platform, certain elements being omitted; Fig. 4 is a perspective view of the mechanism for raising one section of the platform support; Fig. 5 is a front elevation of one of the platform supporting standards, the sections thereof being shown in their lower positions; Fig. 6 is a section taken on line 6—6 of Fig. 5; Fig. 7 is a section taken on line 7—7 of Fig. 6; and Figs. 8, 9 and 10 are sections taken, in their order, on lines 8—8, 9—9 and 10—10 of Fig. 5.

In the drawings, the numeral 10 indicates a truck of any suitable construction, preferably a self-propelled vehicle, the motor of which is not shown as the same does not form part of the present invention. From the four corners of this truck rise standards 11, each of which is made of a plurality of sections, in the present case three sections, denoted in their order by the numerals 12, 13 and 14.

To the upper ends of the sections 14 of the said standards is secured, in any suitable manner, a platform 15, comprising a central section 16 and two side sections 17. Each of these sections consists of a frame 18, having a resilient bottom, in the form of a bed spring fabric 19 of any suitable construction. The central section of the platform is of a size corresponding to that of the truck, the side sections of the platform being hinged to the central section along the longitudinal edges of the latter, and are adapted to be folded onto the said central section. The sections of the platform each support a mattress 20 of a suitable thickness, so as to prevent injury to persons jumping from the windows or balconies of a building onto the said platform.

All around the platform extends a railing 21, comprising two longitudinal portions 22, which are hinged to the free longitudinal edges of the side sections 17, and two transverse portions 23, which extend adjacent the transverse edges of the platform. Each of the transverse railing portions is made in three sections, to wit: A section 24, that is hinged to one of the transverse edges of the central section 16 of the platform, and two sections 25, which are fastened by vertically extending hinges 26 to the respective

longitudinal portions 22 of the railing. Suitable separable fastening means 27 are provided for uniting adjacent sections 25 and 24 of the transverse portions 23 of the railing. When the platform is to be folded, first these fastening means are disengaged and the sections 25 of the railing folded onto the portions 22 thereof. The portions 22 with the sections 25 are then folded onto the sections 17 of the platform. The portions 24 of the railing are then folded onto the platform section 16, after which the sections 17 of the platform are folded onto the middle section.

To the railing portions 22 are attached in any suitable manner aprons 28, for instance strong fabrics, which are provided along their longitudinal edges with ropes 29, that are adapted to be engaged with a building.

The standards 11 comprise each, as above mentioned, three telescoping sections, the sections 12 being fixedly attached to the frame of the truck and being made each in the form of a tubular member, having a quadrangular cross-section. Into each section 12 is adapted to telescope a section 13, that is also tubular and of quadrangular cross-section, fitting snugly the section 12. Into each section 13 is adapted to telescope a section 14, that is preferably of U-shaped cross-section, fitting snugly the section 13. The purpose of making these members of quadrangular cross-section is to prevent relative rotation between the elements of a standard. The standard sections 13 on each side of the truck are united by longitudinally extending tie-bars 30, which are attached to the said standard sections at their upper ends. These tie-bars not only serve to properly space the sections 13 of the standard, but also as a means, as will hereinafter appear, for supporting the actuating mechanism of the sections 14 of the standard.

For lifting the sections 13 of the standards, there is a single mechanism provided, comprising a shaft 31, which extends transversely of the truck and is journaled in hangers 32. These hangers depend from the sides of the truck, as clearly appears from Figs. 1 and 2 of the drawings. The shaft 31 is provided with a crank 33, and has keyed or otherwise attached thereto two drums 34. These drums are connected by cables with the standard sections 13, there being one cable 35 associated with each of these sections. This cable is attached at one of its ends to a lug 36, that is secured to the lower end of a section 13 and projects through a longitudinal slot 37 in the respective standard section 12 adjacent its upper end, running thence downward over a sheave 39 to a drum, to which it is secured in any suitable manner. Each drum has attached

to it, as appears from Fig. 2 of the drawings, two cables 35. To the shaft 31 is furthermore secured a ratchet wheel 40, in engagement with a spring-pressed pawl 41, the latter being pivoted to one of the hangers 32. With this pawl is adapted to cooperate a bell-crank lever 42, that is fulcrumed at 43 to the said hanger; stop pins 44 and 45, disposed adjacent to the bell-crank lever, limiting the movement of the latter around its fulcrum.

For lifting the sections 14 of the standards, a mechanism is provided that is in all respects similar to the one adapted to raise the sections 13. This mechanism comprises a shaft 46, disposed transversely of the truck and journaled in hangers 47, the latter being attached to the tie-bars 30. A cable 48 is associated with each section 14, one end of said cable being secured to a lug 49, adjacent the lower end of the respective section 14, and running over a sheave 50 upon the respective tie bar 30, extending thence and being attached to a drum 51 on the shaft 46. On this shaft there are provided two drums, with each being associated two cables. Upon the shaft is mounted a ratchet wheel 40, cooperating with a spring-pressed pawl 41, with the latter being associated a bell-crank lever 42 and two stop pins 44 and 45.

The outermost positions of the sections 13 of the standard are determined by spring-pressed pins 52, one of the same being slidably mounted adjacent the upper end of each section 12 and adapted to be seated by its spring in an aperture 53, which is formed in the respective section 13 of the standard adjacent its lower end. In a similar manner is mounted upon each section 13 of the standard, adjacent its upper end, a spring-pressed pin 54, cooperating with an aperture 55, formed in the respective standard section 14, and more particularly adjacent the lower end of the same. The pins are each provided with a milled knob 56, by which they may be grasped, if it is intended to disengage the same from the apertures in which they are seated.

The operation of the fire-escape is as follows:—In the folded, normal positions of the elements, the frame sections 17 of the platform rest upon the central section 16, and the standards are telescoped. The telescoped positions of these standards are shown in larger views in Figs. 5 to 7, inclusive, from which it appears that the spring-pressed pins 52 and 54 bear against the respective standard sections 13 and 14, holding the springs under compression.

The size of the truck is in no way enlarged in width by the folded platform thereon, so that it can be drawn through the streets without interfering with the traffic.

When the fire-escape is to be put to use,

it is brought, preferably adjacent the curb, in parallel relation to the burning building. First the platform is extended, and the railing thereon put in operative position. It is to be observed that, when in extended position, the platform is disposed in a horizontal plane, the side sections 17 being prevented from sinking below the level of the central section 16 by resting against the longitudinal edges of the latter. The shaft 46 is then turned in the proper direction, whereby the cables 48 are wound upon the drums 51 on the said shaft, with the result that the sections 14 are raised until the spring-pressed pins 54 on the standard sections 13 are seated in the apertures 55 in the standard sections 14. If it is intended to lift the platform still higher, the shaft 31 is turned until the spring-pressed pins 52 on the standard sections 12 are seated in the apertures 53 in the standard sections 13.

When the platform has been raised to the proper height, the ropes 29 on the apron 28 adjacent the burning building are engaged with the said building, and the ropes on the opposite apron are attached to the building opposite the burning one. In this manner, the size of the platform is greatly enlarged, persons jumping on the apron sliding onto the platform. Persons, who jump onto the platform, are saved from injury, since the platform is cushioned and has a resilient bottom.

In order to telescope the sections of the

standards, first the bell-crank lever 42 on one of the hangers 32 is shifted, to disengage the respective pawl 41 from the ratchet-wheel 40. The sections 13 of the standards are thus telescoped into the sections 12 by the weight resting thereon. After this, the pawl, cooperating with the ratchet-wheel on the shaft 46, is disengaged from the said wheel, whereby the sections 14 of the standards telescope automatically into the sections 13. The platform is then folded, whereby the device is ready for transportation.

It is obvious that, while herein the standards have been shown as being made each of three sections, any other suitable number of sections may be provided.

What I claim is:—

A portable fire-escape comprising a truck, a plurality of standards mounted thereon, a platform supported by said standards, said platform including a plurality of sections, one section being fixed to said standards and the other sections being hinged to said fixed section so as to be foldable thereonto, a foldable railing around said platform, an apron secured to the railing portion of each hinged platform section, and ropes upon said apron adapted to secure the latter to fixed supports.

Signed at New York, in the county of New York, and State of New York, this 20th day of February, A. D. 1919.

JOSEPH WEINBERG.