E. CARDARELLI.
FIRE ESCAPE TRUCK.

No. 519,234. Patented May 1, 1894.

FIG. 1.

FIG. 7.

Witnesses

Emilio Cardarelli

For his Attorney,

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D.C.
FIRE-ESCAPE TRUCK.

SPECIFICATION forming part of Letters Patent No. 519,088, dated May 1, 1894.

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To all whom it may concern:

Be it known that I, EMILIO CARDARELLI, a citizen of the United States, residing at Sumter, in the county of Sumter and State of South Carolina, have invented a new and useful Fire-Escape Truck, of which the following is a specification.

This invention relates to fire-escape trucks; and it has for its object to provide certain improvements in machines of this character which can be readily and conveniently transported from place to place for the purpose of gaining access to the upper stories and roofs of buildings, in order to facilitate the escape of occupants and the saving of property.

To this end the invention primarily contemplates an improved portable truck, carrying shooting track sections, means for adjusting and extending the same, together with necessary equipments and appurtenances for providing a safe car-way from one end of the apparatus to the other, while at the same time assisting the firemen in their work.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of the truck in position for use with all of its track extended. Fig. 2 is a vertical longitudinal sectional view of the apparatus in the position shown in Fig. 1. Fig. 3 is a side elevation of the apparatus in position to be transported from place to place. Fig. 4 is a vertical sectional view of the apparatus through one of the vertically adjustable racks, with the apparatus in its extended position as illustrated in Fig. 2. Fig. 5 is a sectional view on the line 5—5 of Fig. 3. Fig. 6 is a detail sectional view of the car hoisting drum-brake. Fig. 7 is a sectional view of the car. Fig. 8 is a perspective view of the inclined wheel lever. Fig. 9 is a detail sectional view of the upper end of the outermost track section. Fig. 10 is a detail sectional view of the sliding joint of the innermost extension section with the pivot track section. Fig. 11 is a similar view of the connection of the ground track section with the pivot track section.

Referring to the accompanying drawings, A represents a truck frame constructed and braced in any suitable manner and carried upon the wheels B, which provide means for the ready transportation of the apparatus from place to place to gain access to the buildings on fire.

Arranged between the end wheels near each end of the frame, and secured to the lower ends of the centrally depending supporting arms B, is a circular floor or platform b, upon which is supported for rotation the revoluble standard frame C. The revoluble standard frame C is provided at the lower end thereof with the pivot stud c, working in a central perforation in the platform b, so as to provide means for holding the said standard frame steady in its rotary movement, and at the base of the standard frame is arranged the circular base plate c', upon the underside of which is mounted the small anti-friction rollers c, which travel over the stationary platform suspended from the truck, in order to ease the standard frame from friction and allow the same to be turned easily inside of the truck. The revoluble standard frame C comprises the opposite tubular guide standards c, connected at their upper and lower ends, and said tubular standards are encircled at or about the plane of the truck frame A, by the roller ring c', to which ring are attached the anti-friction guide rollers c, adapted to work over the adjacent guide ring c, secured stationary to the center of the truck frame, so that the entire standard frame will be held steady in its vertical position within the truck frame when being turned in any direction as will be apparent. The revoluble standard frame when turned to any position, may be held firm in such position by means of the sliding bolt c, mounted on the roller ring c', and adapted to be thrown in engagement with a suitable keeper or loop c, several of which are secured at suitable points on the top of the truck frame A. The opposite tubular guide standards c, accommodate the opposite sliding vertically adjustable rack bars D. The rack bars D, which move with-
in the opposite tubular guide standards are connected at their upper ends by the upper cross-bar $d$, which forms the movable fulcrum for the extension track sections to be herein described, and it will be observed that the said rack bars $D$, carry at suitable points within the tubular guide standards small anti-friction rollers $d'$, which work against said guide standards, while said guide standards also have near their upper ends corresponding friction rollers $d''$, which bear against one face of the movable rack bars, so that the movement of the rack bars is greatly eased, owing to the disposition of said rollers.

In order to counterbalance the weight of the vertically adjustable rack-bar frame and the devices carried thereby, I employ the counter-balancing weights $d''$, mounted to slide in the opposite guides $d'$, secured at the opposite inner sides of the tubular guide standards, and said weights $d''$ are suspended from one end of the weight ropes $d''$, passing over the upper guide pulleys $d''$, arranged at the upper end of the standard frame, and connected at their other lower ends to the lower inner ends of the rack bars, or at least to the center of the lower cross-bar $d'$, connecting the lower ends of the rack bars. It will therefore be readily seen that as the rack frame is adjusted vertically, the counter-balancing weights necessarily drop or lower, and vice versa. The opposite tubular guide standards are provided at one side of the same with the bearing lugs $E$ in which is journaled the transverse raising and lowering shaft $e$, carrying the opposite pinions $e'$, which project through slots in one side of the tubular standards and engage the teeth of the rack bars, so that as the said shaft is turned, the rack bars are raised or lowered as desired. At each end of the shaft $e$, outside of the bearing lugs, are mounted the hand-wheels $e''$, which are easily controlled by means of the firemen on the truck to raise and lower the rack frame, but one of said wheels may be a fly-wheel, while to the other may be connected any suitable devices for driving by means of motive power. After the rack bar frame has been elevated to any height desired the same may be held in such adjusted position by means of a stop pin $e''$, passing through any one of the perforated spokes of the wheel, or other equivalent means to secure the same result. The upper end of the rack-bar frame moving within the tubular standard frame forms an adjustable fulcromed or pivotal support for the pivoted track section $F$. The pivoted track section $F$, comprises the opposite angular or angle iron rails $f'$, having the inner face grooves $f''$, and connected at their ends, and an intermediate point by the bracing bridges $f''$, the central one of which is hinged or pivotally connected to the upper cross-bar $d$, of the rack-bar frame, as at $f''$, so as to provide means for allowing the said track section to be raised and lowered from the ground, and when raised from the ground and resting in its approximately horizontal position in a line with the disposition of the track, out of use, the central bridle of said track section rests against the stop shoulders $f''$, secured to the top of the rack bar frame and preventing the track section from tilting to the opposite side of the machine. The rails of said track section rest directly on top of said stops, which also form supports therefore. The fixed pivoted track section $F'$, accommodates the lower or inner ground track section $G$, and the outer telescoping extension sections $H$, to be presently referred to.

The ground track section $G$, comprises the opposite angular rails $g'$, corresponding to those of the fixed track section, and branching and sliding over such rails, and the rails of the ground track section $G$ are also connected by the bracing bridges $g''$, so as to form the track, and it will be readily understood that when the tubular standard frame is turned around in its proper position for use, and the pivoted or fixed track section $G'$ tilted toward the ground, the ground track section $G$, can be drawn out from the fixed track section until its lower end touches the ground at any point desired, according to the tilt or inclination to be given to the entire track.

To hold the lower end of the ground track section, when extended, firmly to the ground, I employ the sectional ground locking bar $g''$. The sectional locking bar $g''$, comprises the sliding members $g''$, having a series of adjustment perforations $g''$, which receive a locking pin $g''$, holding the same in any adjusted position. One of said members is pivoted at its inner end to the lower end of one of the arms $b$, of the truck frame, while the other member is provided at its outer end with a locking tongue $g''$, adapted to engage the socket $g''$, on the lower or outermost bridle of the ground track section. When the apparatus is not in use, the locking bar can be folded back against the side of the track frame, and held thereto by means of a suitable sleeve, $Z$, slipped thereover and over one of the keepers or loops $y'$. When the ground track section is distended from the lower end of the pivoted track section, the adjacent bridles of said track sections are connected by means of a locking strap $Z'$, which strap when tightened serves to stiffen the entire track, so that the same will not sag and away while the apparatus is in use. The outer telescoping extension sections $H$, are adapted to slide one within the other and all be nested inside of the rails of the pivoted or fixed track section $F$, and may be in any number desired according to the height which it is necessary for the machine to reach. The telescoping outer sections $H$, comprise the opposite rails $h$, identical in construction with the rails of the other sections described, and which are also connected by the cross-bracing bridges $h'$, serving to strengthen each track section, and it will be noted at this
point that the rails of the sections which are extended beyond the upper end of the pivoted or fixed track section, work inside of the face groove of the top and bottom sides of the rails of the next lower section, this arrangement providing means whereby the outer telescoping sections can be nested within the single pivoted or fixed track section within the compass of a single section.

10 The outer or upper end bridle of the fixed or pivoted track section and the corresponding end bridle of the first extension section II, or all of the extension sections H, except the last outermost section, if there are more than illustrated in the drawings, are provided with the inwardly extending stop flanges J, which are struck by the lowermost bridle of the extension sections when the same have been extended to their limit, so as to prevent the several track sections from becoming disconnected. The upper end briddles carrying the stop flanges also accommodate the pulleys or guide wheels K, over which are designed to pass the operating wires L of the several track extensions H. The operating wire K, which operates the innermost of the track sections H, has one end thereof connected to the innermost bridle of said section, and is passed over the pulley or guide wheel at the outermost end of the pivoted or fixed track section, while the other end of the wire is secured to the winding drum L. The winding drum L is loosely mounted on the stationary shaft M, secured at its ends to the opposite arms m, which are secured to and at one side of the tubular guide standards of the revoluble standard frame. The drum L, which is loosely mounted on the stationary shaft M, is provided with the laterally projecting hollow hand spokes N, which can be readily grasped by the operator in order to revolve the drum, it being readily seen that when the said drum L is revolved, the wire referred to, which passes over the guide wheel at one end of the pivoted track section draws the innermost end of the innermost extension section toward said guide wheel, and therefore shoots or extends the said innermost track section from the pivoted track section. When this track section has been extended its full length, the winding drum L, is held firm by means of a sliding bolt catch l mounted to slide at one side of one of the tubular guide standards, and be projected within any one of the hollow hand spokes N, thereby locking the drum and preventing the same from rotating, so as to hold the track section in its extended position. If found necessary, or whenever desired the other extension section or sections can be extended in a similar manner from the last extension section, by the same means just described, and the operating wire therefore is connected at one end to the innermost bridle of the section to be extended, and passing over the pulley or guide roller at the outer or upper end of the section in which it slides, is passed to an operating drum L', similar in construction to the drum L, just described and mounted alongside of the same on the same stationary shaft. It will of course be understood by those acquainted with apparatus of this character that there may be any number of the extension sections H, which are to be extended from the pivoted or fixed track section, so that the apparatus can be accommodated to the very tallest buildings, and according to the number of such extension sections H, the winding drums and the operating wires winding thereon must necessarily correspond in the same number, for there is a single drum and a single operating wire for each of the extension sections. Now it will be readily seen that when the several track sections, have been extended at the incline desired and to the height desired and locked at the ground by the means described and stiffened by means of the locking strap referred to, the track is ready for use. The several track sections in this position guide and support the escape car O. The escape car O, is constructed of suitable material and in a suitable shape, so that the main body thereof works over the top of the rails, and the said car has secured to the bottom side thereof the bearings o, which receive the car axles P, which carry on each end thereof the guide wheels or rollers p. The said guide wheels or rollers work inside of the inner side grooves of the angle rails, so that as the car travels up the track, the said rollers or wheels hold the same firmly to the track and effectually prevent the possibility of the same becoming displaced, and to assist in guiding the car and holding the same to the rails I further employ the short depending guide arms p', which project from opposite sides of the same and overlap the sides of the rails. The car O, is of course provided with suitable grasps or holds for the persons carried therein and with a suitable door Q, for entrance and exit, and in order to provide means for carrying the hose up to any point desired, the same is provided with a hose roller guide R, at the lower end thereof and a nozzle hook r, inside of the same in which the nozzle of the hose can be caught so that the hose can be carried up with the car in its ascent. The car is raised and lowered over the track by means of the hoisting wire S, connected at one end to the body of the car and passing through the entire length of the track to the upper end of the outermost track section, and at such point passes over the guide wheel or pulley s, mounted at said extreme upper end. The hoisting wire S, which passes over the guide pulley at the extreme upper end of the last track section has another end thereof secured to the drum or windlass T. The journals of the drum or windlass T, are mounted in suitable bearing arms t, secured at one end to the opposite tubular guide stems of the revoluble standard frame. An operating wheel v' is connected to one end of the drum shaft.
or journal and may be operated by hand or other power, and a similar wheel can be connected to the other end thereof in order to allow the same to be controlled from both ends. As the drum or windlass is wound in one direction, the hoisting wire S draws the car up the track to the top thereof, and by easing the drum or windlass in the other direction the car is lowered, and the descent of the car is regulated by means of the spring actuated brake shoe U. The spring actuated brake shoe U, is arranged over the rim of the wheel t′, and is secured to one end of the bar ν. The bar ν, works in the socket ν′, extended from one of the bearings t, and accommodating a spring ν″, which normally holds the brake shoe away from the wheel, and said brake shoe is hold as tightly as desired onto the rim of the wheel t′, by means of a regulating set screw W, working through a threaded support ν, extended from the socket ν′. At the upper end of the last or uppermost ladder section is arranged the pivoted cap ν″, which encloses the upper guide roller for the hoisting wire, and also provides a platform at the upper end of the track, and at said upper end of the track is also arranged the guard roller ν″, which serves to ease the upper end of the track from the building. It found necessary to extend the use of the machine beyond the upper end of the track, I will then employ one or more auxiliary ladders X, which ladders are fastened to the body of the car O, by being passed through suitable retaining loops x, secured to the car body and having their lower ends held within a receiving pocket x′, secured to the car body, so that when the car is carried to the top of the track, the auxiliary ladder is necessary carried therewith and is extended its own length beyond the end of the track, thus enlarging the use of the apparatus. It will be seen that when one of these ladders is on the car the persons can be delivered from the windows or roofs of the building into the car as is clearly shown in the drawings.

In order to provide for signaling from the track to the top of the ladder and vice versa, I attach the alarm bells Y, to the upper end of the track section and to one of the standards of the revolving standard frame, and to the hammer of each of the bells I attach a signaling cord y. It will be seen that one end of the cord y, is always attached to the hammer of the upper bell, while the other end of the cord is connected to the reel γ′, mounted loosely on one end of an extension of the shaft e, and held fast on the shaft when desired by means of the nut γ″, working on a threaded portion of the shaft. Now it will be apparent that as the track sections are extended the reel will pay out the signal cord, so that when the extension of the track sections is stopped, the reel can be made fast by means of the nut, and the slack of the cord attached to the hammer of the lower bell, and thus provide a signal communication between the track and the upper end of the apparatus. When the track sections are lowered, the slack of the signal cord is taken up on the reel. In case the carriage or truck is put in use on a hill or upon unlevel ground, I then employ the leveler Y′. The leveler Y′, comprises the opposite connected inclined flanged short rails or blocks Y″, at the highest ends of which are arranged the stops Y‴, to prevent the wheels of the carriage from passing out of the same, said leveler being adapted to be placed under the wheels of the carriage which are in the lowest position, so that the entire truck or carriage is placed level or in a horizontal position to hold the apparatus level while in use.

It is thought that from the foregoing description, the operation and many advantages of the herein described fire truck, will be fully apparent without further description, but reference may be further made at this point to the positions of the apparatus illustrated in the drawings. When the machine is not in use and is being transported from place to place, the several track sections are nested within each other, and the car is driven to one end of the nested sections and held at such end by means of the drum or windlass brake referred to, thereby holding the nested track sections in approximately a horizontal position in alignment with the length of the truck or the carriage, the auxiliary ladder X, being hung on suitable hooks at one side of the apparatus as illustrated. When the machine reaches the point of use, the revolving standard frame is turned or rotated to the necessary position at any angle and locked in such position as herein described. The rack bar frame is now elevated to the height desired, and the latter sections tilted and extended into position for use as herein specifically set forth. The car is now manipulated as described.

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of a wheel truck, a hollow standard frame revolvingly mounted within the truck frame, a vertically adjustable frame mounted to slide within the standard frame, an extensible track pivotally mounted on the upper end of said adjustable frame, a car for the track, and suitable operating mechanism, substantially as set forth.

2. The combination of a carriage or truck, a hollow standard frame revolvingly mounted within the truck or carriage, a vertically adjustable frame mounted to slide within the standard frame, counterbalancing devices for the vertically adjustable frame, a track piv-
otally mounted on the upper end of said adjustable frame, a car, and suitable operating mechanism, substantially as set forth.

3. The combination of a wheel supported truck carrying a central platform or floor, a revoluble standard frame pivotally connected to the platform or floor and adapted to revolve thereon, means for locking the standard frame in any adjusted position, a vertically adjustable frame arranged to slide within the standard frame, counterbalancing devices for the vertically adjustable frame, an extensible track pivoted or fulcrumed on the adjustable frame, and a car adapted to move over the track, substantially as set forth.

4. A wheel supported truck, a central platform or floor suspended centrally from the body of the truck, a revoluble standard frame having a pivot stud working in the center of said platform or floor and a lower base plate carrying anti-friction rollers traveling on the platform or floor, a vertically adjustable frame mounted within the standard frame, an extensible track pivoted at a central point to the top of the vertically adjustable frame, and a car adapted to move over the track, substantially as set forth.

5. The combination of a wheel supported truck, carrying a central suspended stationary platform, a stationary guide ring secured to the truck frame above the platform, a revoluble standard frame pivotally connected to the platform and adapted to work inside of the guide ring, said standard frame having a lower base plate provided with rollers working on the platform, a roller ring secured to the standard frame inside of the guide ring and having anti-friction rollers working over the latter ring, an adjustable frame arranged within the standard frame, an extensible track pivoted to the adjustable frame, and the car, substantially as set forth.

6. A wheel supported truck, carrying a stationary platform, a revoluble standard frame mounted within the truck and working over the stationary platform, said standard frame having opposite tubular guide standards, means for holding the revoluble frame in its adjusted position, a vertically adjustable rack bar frame moving within the tubular guide standards, a transverse operating shaft mounted on the standard frame and having operating pinions meshing with the teeth of the rack bar frame, a stop for said transverse shaft to hold the same stationary, an extensible track pivoted to the upper end of the rack bar frame, the car adapted to move over said track, and suitable operating mechanism, substantially as set forth.

7. The combination of a wheel supported truck, a revoluble standard frame mounted within the truck and having opposite tubular guide standards provided with opposite guides at their inner sides, a vertically adjustable frame moving in said tubular guide standards, means for adjusting said frame, counterbalancing weights moving in said opposite guides, weight cords connected at one end to the weights, passing over suitable pulleys at the upper end of the standard frame and connected at their other lower end to the lower end of the adjustable frame, the track pivoted to the upper end of the adjustable frame, and the car, substantially as set forth.

8. A wheel supported truck, a revoluble standard frame mounted within the truck and having opposite tubular guide standards, a vertically adjustable rack bar frame having opposite rack bars moving in the tubular guide standards of the standard frame, and combined stop and rest shoulders on the top thereof, a transverse operating shaft journaled on the standard frame and carrying operating pinions meshing with the teeth of the rack bar frame, and operating wheels at its ends, an extensible track pivoted to the upper end of the rack bar frame and resting on and bearing against the combined stop and rest shoulders, and a car, substantially as set forth.

9. In an apparatus of the class described, the combination with the standard frame, the extension track, the raising and lowering devices, and a shaft of said devices having a threaded end, alarm bells attached to the standard frame, and the upper extremity of the track, a reel loosely mounted on the threaded end of said shaft, a binding nut engaging the threads of the shaft and adapted to hold the reel stationary or allow the same to revolve, and a bell cord connected at one end to the hammer of the track bell and at the other end to the reel, the slack of the bell cord near the reel being adapted to be connected to the hammer of either bell when the track is extended, substantially as set forth.

10. The combination in a fire truck, of a revoluble vertically adjustable support, a series of extensible telescoping track sections, one of which is pivoted to the support, said track sections each comprising opposite angular connected rails having inner face grooves or channels, and the car having guides traveling within said face grooves or channels, substantially as set forth.

11. The combination of a revoluble standard frame having the opposite tubular guide standards, anti-friction rollers mounted on said tubular guide standards near their upper ends and projecting into the same, a vertically adjustable frame moving within the guide standard and against the projecting rollers near the upper ends of said standards, anti-friction rollers mounted on the vertically adjustable frame bars near their lower ends and working against the inner sides of the tubular guide standards, the pivoted track, and the car, substantially as set forth.

12. The combination in a fire truck, of a revoluble vertically adjustable support, a series of extensible telescoping track sections, one of which is pivoted to the top of the support, said track sections each comprising opposite connected rails having inner face grooves or
channels, operating wires connected with each of the extensible sections, and suitable operating mechanisms, and the car having guides traveling within said face grooves or channels of the rails, and guide arms overlapping the sides of the rails, substantially as set forth.

13. The combination in a fire truck, of an adjustable support, a fixed track section pivoted at its center to the top of said support, and having a rail bridle at one end a sliding ground track section arranged to be extended from one end of the fixed track section, and having a corresponding bridle adjacent to the fixed track rail bridle, a locking and strengthening strip adapted to connect the adjacent bridle of the extended ground and fixed track sections to stiffen up and brace the track sections, a series of outer telescoping extension sections adapted to be nested within the fixed track section and extended therefrom, and a car adapted to move over the track, substantially as set forth.

14. In a fire truck, the combination of an adjustable support, an extensible track pivoted to the top of said support and having at its lower end a socket, a sectional locking bar comprising duplicate members having adjustment means adapted to receive a locking pin, one of said members being pivoted or hinged to the truck body, and the other member being provided with a locking tongue adapted to be inserted in the socket at the lower end of the track to hold the same in its tilted position, and a catch or clamp for holding the locking bar to the body of the truck, substantially as set forth.

15. The combination in a fire truck, of an adjustable supporting standard frame, a fixed angular track section pivoted to the top of said frame, a series of extensible telescoping angular track sections adapted to be nested within and extended from the rails of the fixed track section, and having bridle's at their lower ends stop flanges arranged at one end of the fixed track section, and the extensible sections except the last, guide pulleys or wheels mounted at the same end of the same sections near the stops, operating wires connected at one end to the lower bridle's of each extensible track section and passing over the guide pulley or wheel secured to the track section in which such section slides, said bridle's being adapted to be drawn against the stop flanges by the operating wires, suitable winding devices for each separate wire, and the car moving over the track, substantially as set forth.

16. The combination in a fire truck, of a supporting frame, a series of extensible telescoping track sections one of which is pivoted to the support, separate operating wires connected at one end to each of the extensible section and passing over suitably arranged guide wheels or pulleys, a stationary shaft supported off from the supporting frame, winding drums loosely mounted on said stationary shaft side by side, and having a series of laterally projecting hollow hand spokes sliding locking bolts adapted to engage any one of said spokes to hold the drums at any point at which they stop, said drums each receiving an operating wire, and the car moving over the track, substantially as set forth.

17. The combination in a fire truck, of a supporting frame, an extensible track pivotally mounted on the frame and having a guide roller or pulley at its upper end, a car moving on the track, a drum or windlass journaled in suitable supports at one side of the supporting frame and having an operating wheel, a spring actuated brake shoe supported alongside of said wheel, an adjusting screw moving against the brake shoe and adapted to regulate the pressure of the same against the wheel, to properly ease the descent of the car and a hoisting wire connected at one end to the car, passing over the guide wheel or pulley at the upper end of the track and connected at its other end to the drum or windlass, substantially as set forth.

18. The combination in a fire truck, of a supporting frame, an extensible track pivotally mounted on the frame and comprising opposite inner face grooves or channels, a car moving over the track and having opposite guide rollers or wheels moving inside of the grooves or channels of the rails, opposite depending guide arms overlapping the opposite sides of the rails, and suitable supports for persons and a hose, and means for operating said car, substantially as set forth.

19. The combination in a fire truck, of the inclined track, a car adapted to move over said track and provided with a retaining pocket upon its face and an adjacent retaining loop, and an auxiliary ladder adapted to be passed through said loop and have one end thereof rest in said retaining pocket, substantially as set forth.

20. The combination in a carriage or wheel truck for fire escapes; of a truck or carriage leveler comprising opposite connected inclined or beveled flanged rails or blocks adapted to receive the wheels of the truck or carriage which are in the lowest position, and provided at their ends with stops, substantially as set forth.

21. The combination in a fire truck, of the track having a buffer spring at its lower end, and the car having a flexible roll at its lower end adapted to strike the buffer spring to ease the descent thereof, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EMILIO CARDARELL

Witnesses:
JOHN H. Siggers,
HORACE G. Pfierson.