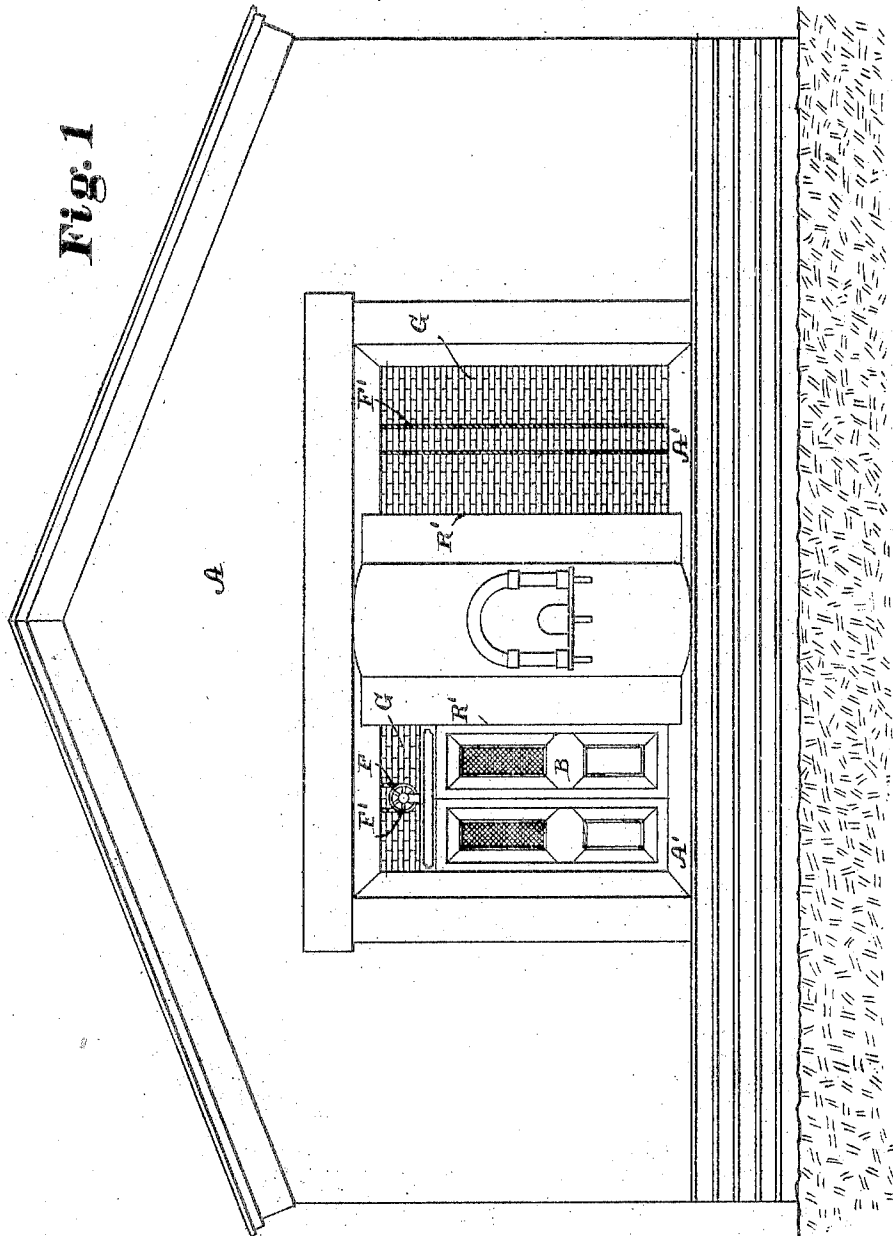


R. F. RICE.
ILLUSORY ELEVATOR DEVICE.
APPLICATION FILED JUNE 15, 1904.

4 SHEETS—SHEET 1.



Witnesses

Samuel C. Shaw
William R. DeWitt

Inventor

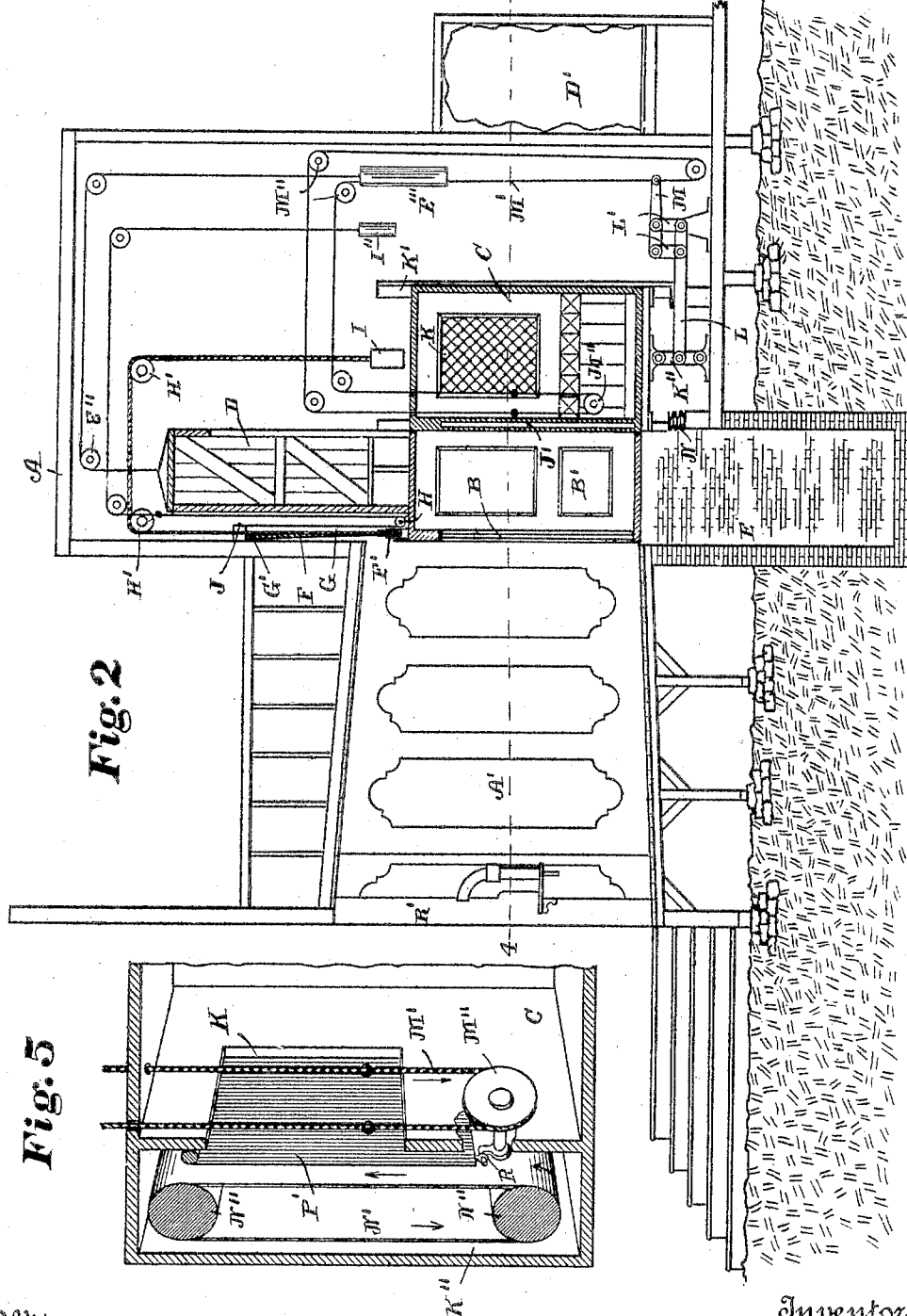
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4 SHEETS—SHEET 2.



Witnesses

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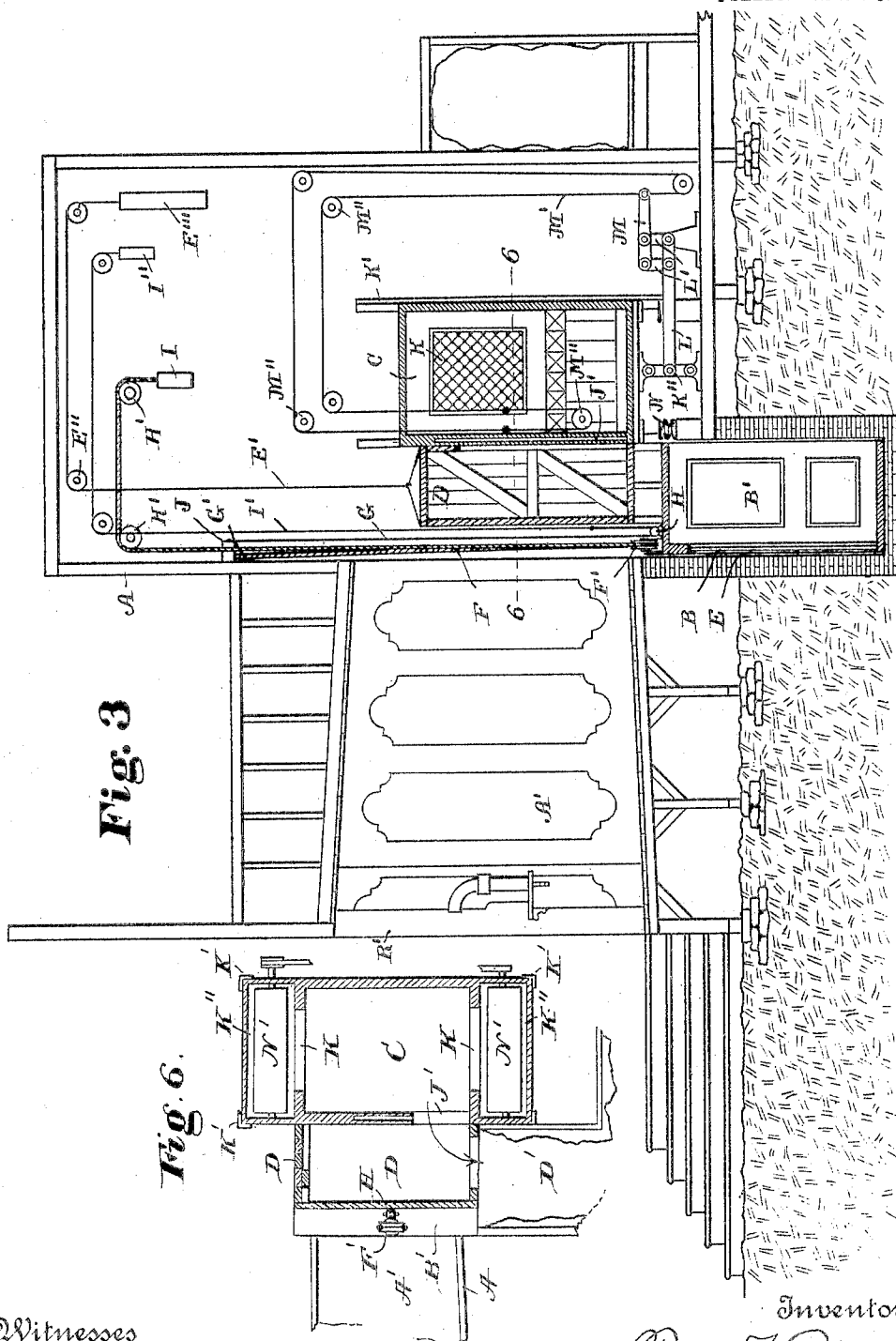
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4 SHEETS—SHEET 3.



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4 SHEETS—SHEET 4.

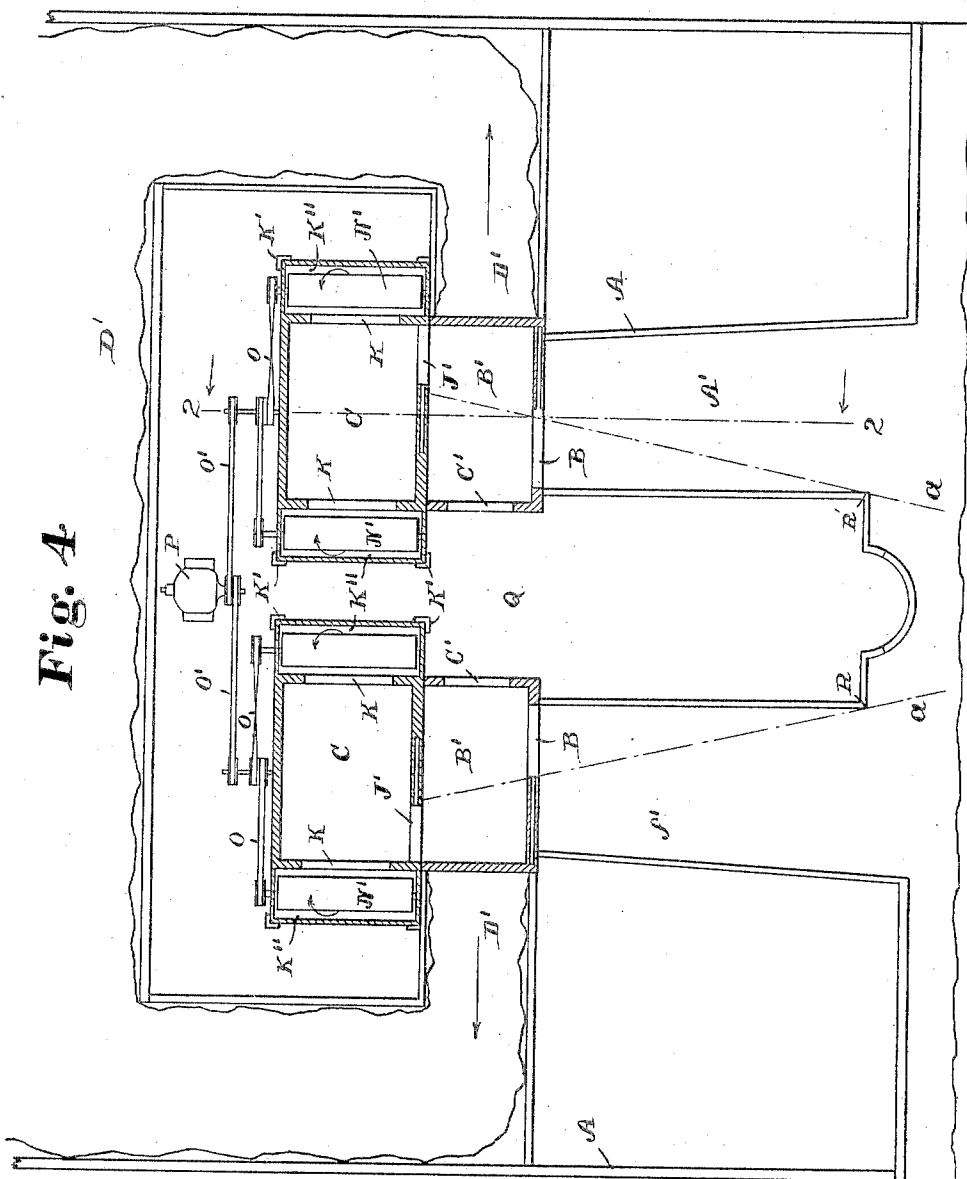


Fig. 4

Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT F. RICE, OF BRIDGEPORT, CONNECTICUT.

ILLUSORY ELEVATOR DEVICE.

No. 797,372.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed June 15, 1904. Serial No. 212,701.

To all whom it may concern:

Be it known that I, ROBERT F. RICE, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Illusory Elevator Devices, of which the following is a specification.

This invention relates to new and useful improvements in illusory subterranean exhibition apparatuses for instalment at pleasure resorts and like places where people frequent for amusement in great numbers.

It is the object of this invention to provide an illusory amusement elevator device which shall have the effect of giving spectators a trip in an elevator-car to great depths in the earth and then guide them through proper channels to subterranean exhibitions of artificial and supposed natural wonders of any prearranged characters, but which spectacular device as a matter of fact is not of a subterranean character as supposed, but a building on the surface of the earth properly inclosed and provided with the necessary illusory devices to obtain the above effect, including vestibules and elevator-cars, moving scenery, trip-levers, passage-ways, galleries, and like devices, as will be more fully described.

With the above objects in view my invention resides and consists in the novel construction and combination of parts shown upon the accompanying four sheets of drawings, forming a part of this specification, upon which similar characters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a front elevation of the building inclosing my novel illusory device, and especially illustrating the duplicate elevator-entrances. Fig. 2 is a central vertical cross-section taken through the vestibules, elevators, &c., on line 2 2 of Fig. 4, said elevator and the adjoining mechanism being in their normal positions. Fig. 3 is a similar cross-section, but with said operative parts in their shifted positions. Fig. 4 is a sectional plan view through my illusory mechanism on the line 4 4, Fig. 2, but with the scenic effects omitted. Fig. 5 shows a detail sectional perspective view through one side of the elevator-car. Fig. 6 is a fragmentary sectional plan view on the line 6 6, Fig. 3.

In the carrying out of my invention I have provided a suitable building with preferably duplicate entrances, vestibules, and illusory

elevator-cars and actuating mechanisms, both sets of which are common to each other and which have exits leading into a common apartment, as will be apparent from the accompanying drawings. I will therefore use similar characters of reference to designate the corresponding parts of the two sets of mechanism and in a measure describe in detail the construction and operation of but one set of said operative parts.

Referring in detail to the characters of reference marked upon the drawings, A represents the building as a whole, which may be of any preferred material and exterior design, and, as before stated, with duplicate entrance-ways, each of which are designated by A'. These entrance-ways are purposely made comparatively long and narrow, and each leads to doors of their respective vestibules, elevator-cars, and supposed subterranean exhibits. The door B, leading from each of these entrances to the vestibule B', is located at the inner end of the vestibule and adjacent to one side. The floors of said vestibules are normally on a level with that of the entrances and also with the normal position of the floor of the elevator-cars C, located at the rear. To an outside observer these fronts and doors of the vestibules have the appearance of being fronts to elevator-cars, since the inner or elevator doors proper are in a diagonally-opposite corner of the vestibules and are not seen from without on account of obstructing corner at R', (see dotted line *a a*, Fig. 4,) and consequently outside spectators are led to believe that said doors and fronts belong to the car which conveys the passengers to the subterranean passages. This vestibule would be decorated in keeping with a vestibule such as it represents, and the passengers on entering are conducted through and into the car C. This vestibule is entirely open at its inner or rear side, as clearly shown in Fig. 4, and is provided with a side door C', through which an attendant passes to open the front door to the vestibule and for permitting the attendant to pass out again to his station at Q when raising or lowering the said apparatus, as will be more fully described. Upon the top of this vestibule is a roughly-constructed second apartment D, which is formed of rough boards, open upon two sides, (see Fig. 3,)—namely, that next to the car and that adjoining an alley-way D', leading to the so-called "subterranean exhibits." This substitute vestibule is designed to represent rough

sheathing and timber such as are found in mines and like underground passages, and serves to better present the illusory effects to passengers when leaving elevator-car C. These compartments or vestibules are suspended over a well E by means of a cable E', which is carried up over suitable pulleys E'' and provided with a counterbalancing-weight E''' of proper size to equalize the weight of the vestibules, so as to permit of them being readily shifted up or down when empty to register with either the floor of the entrance or elevator-car. In practice these compartments or vestibules are used alternately, the bottom one through which spectators are conducted when entering the elevator-car, as shown in Figs. 2 and 4, and the top one through which they pass when leaving the elevator-car, supposedly under ground, as indicated in Fig. 3.

In order to better insure the desired effect exteriorly for the benefit of the public and prospective patrons, I have represented an elevator at the end of the passage-way by constructing the same with doors and panels to imitate the front of an elevator and also provided a rope F, pulley F', and decorated curtain G, all of which are drawn down in front of the upper compartment with the descent of the vestibule and which curtain is decorated to represent the brickwork of an elevator-shaft. The rope F, appearing centrally over the panels in question, is suitably attached to the building, as at G', and carried down under a pulley F', secured to the top of the lower compartment of the vestibule, and then up over an idle pulley H' and counterbalanced with a weight I, which clearly appears in Fig. 2. The same method is also employed in the use of the curtain G, which, as shown, has one end attached to the structure of the building, as at J, and is carried down under a roll and upward again, having an attached rope I', which is also carried over pulleys and provided with a weight I'', permitting said curtain to play out with the descent of the vestibules or supposed elevator, as is clearly apparent from Figs. 1 and 2 of the drawings.

The so-called "elevator-car" is reached through the door J' at the far corner of the supposed elevator or vestibule and is in all respects upholstered and fitted up to represent a first-class elevator, including side windows K K, having curtains P', as shown. This car is mounted in suitable guides K' and supported upon a central toggle-jointed support K'', which is connected by links L and L' to a lever M, connected with a rope M', said cable being passed over suitable guide-pulleys M'' and through the car in a continuous manner. The purpose of this mechanism is not only to impart a sudden starting motion to the car, but also offers a descending feeling and belief to the passengers, while

in practice the actual amount of downward movement of the car would be but a few inches.

From the foregoing it will be apparent that with the manipulation of the rope M' referred to the lever M would be raised in a way to draw out the toggle connection and drop the car down until it strikes the spring-abutment N, (shown in the drawings,) which contact imparts a jar or thrust to the apparatus similar to that experienced in many elevators when starting to descend, and especially when operated by an inexperienced or careless person.

In front of the windows K of the car I provide in a suitable pocket K'' an endless curtain N' in the form of a belt, passing over an upper and lower roll N'', which is driven through belt connections O and O' by a suitable motor P. The surface of this endless curtain may be decorated somewhat similar to the curtain G, attached to the top of the movable vestibule B' to represent brick and other objects such as are usually observed in the descent through an elevator-shaft of this character. Intermediate of this endless curtain and the face of the window of the car I provide a blank spring-shade P' of ordinary construction and preferably of a dark color, which curtain is normally down, as shown in Fig. 5, and which with the starting of the elevator is automatically released and allowed to slowly wind upon its roll, thus gradually exposing to view through the window the illusory endless curtain N', representing the elevator-shaft, which curtain would have already been set in motion, as indicated by the arrow, thus conveying to the spectators by reason of such movement of the curtains the feeling that they are descending rapidly and deeply toward the earth's center.

In illustrating my invention I have purposely omitted any effort to indicate or represent the respective locations or character of attractions which I shall provide for the amusement of my patrons aside from the above described, since it would not form any part of this invention, but may be covered by separate applications, being equally applicable for amusement in connection with other devices. These attractions, however, would necessarily be reached after alighting from the car and substitute vestibule.

The operation of my invention therefore is as follows: An attendant is normally located at Q, Fig. 4, intermediate of the vestibules and is supposed to take care of the passengers on either side alternately and in the performance of his duties steps into the vestibule through the side door C', throws open the vestibule-door B, directing the spectators to the door of the elevator-car C, which would be operated by another attendant or elevator-man. After a sufficient number of persons have been admitted to the car the door of the

car and the door of the vestibule are both closed. The first attendant then steps back to his post at Q, after which the second attendant or elevator-man signals the attendant at motor P to start the endless curtain in motion and then manipulates the rope M' in a manner to throw the lever M and operate the toggle-joint in a way to drop the car a few inches on its cushioned supports, simultaneously releasing the spring-shade P', as shown at R'. The before-mentioned attendant stationed at Q thereupon lowers the vestibule by drawing down upon the same, thereby shifting the upper or roughly-constructed vestibule to a position occupied by the first-mentioned vestibule. This movement also draws the curtain G down, as previously described, presenting a view to an outside observer, as shown at G, Fig. 1, whereupon the elevator attendant, after signaling the attendant at motor P to stop the endless curtain N', reverses the motion of the rope M', bringing the lever M and the links L L' to their original position, thereby imparting a sudden upward motion to the so-called "elevator-car." This movement is designed to produce an effect similar to the stopping of an ordinary elevator and must be done simultaneously with the stopping of the endless curtain N'. The door to the elevator is then opened by the elevator attendant and the occupants allowed to pass out through the rough board structure or vestibule to passage-ways leading to attractions provided.

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

1. In an illusory device of the class described, the combination with an elevator-car bearing inclosed pockets on either side, windows between the car and pockets, and a traveling curtain within the pockets arranged to move across the front of said window.

2. In an illusory device of the class described, the combination with an elevator-car bearing inclosed pockets on either side, windows between the car and said pockets, a traveling curtain within the pockets arranged to move across the front of said window, and means for operating the same, all adapted to create an illusory movement of the car.

3. In an illusory device of the class described, the combination with an elevator-car having suitable windows, of a spring-shade therefor, an endless curtain adjacent to the shade, means for driving the curtain, and an inclosure for said curtain and shade substantially as shown and described.

4. In an illusory device of the class described, the combination with an elevator-car, an endless curtain adjoining the same, means for operating it in a vertical direction to afford an illusory effect from the inside of the car, and an inclosure for said curtain opening into the car only.

5. In an illusory device of the class described, the combination with an elevator-car, a toggle-joint with lever connections for supporting and releasing the same, a rope passed through the car and connected to said lever for operating the same, springs beneath the car to support the same when dropped to its lower position substantially as described.

6. In an illusory device of the class described, the combination with an elevator-car provided with guides, cushioned supports below the normal position of the car, a toggle connection beneath the car for supporting the same, levers and ropes for operating the toggle-joint from within the car in a manner to lower the same in an abrupt manner.

7. In an illusory device of the class described, the combination with an elevator-car, a moving curtain arranged adjacent thereto, a pocket in which the curtain is housed, a toggle connected beneath the car for supporting the same, levers and ropes for operating the toggle-joint from within the car in a manner to abruptly lower the same.

8. In an illusory device of the class described, the combination with a suitable entrance, of a shiftable vestibule adjoining the same, an elevator-car adjacent to said vestibule, doors to admit passengers through the vestibule to the car, endless curtains arranged to move vertically adjacent to the car and means for imparting movement to the car.

9. In an illusory device of the class described, the combination with an elevator-car, of endless vertically-moving curtains arranged adjacent thereto, movable vestibules adjacent to the car, adapted to be shifted and used alternately in the transferring of passengers to and from the car respectively.

10. An elevator-car of the class described, the combination with a pair of vestibules with means for alternately shifting the same in line with the car, one to admit passengers there-through to the car and the other through which to go out.

11. In an illusory device of the class described, the combination with an elevator-car, of a pair of vestibules adapted to alternately move to and from the entrances to said car in a way to admit passengers through one and discharge them through the other, an entrance-way to one of said vestibules and a passage-way leading from the other vestibule.

12. The combination with an elevator-car, of a pair of movable vestibules adjacent to the entrances of said elevator-car, one to admit passengers to the car, and the other through which they are discharged.

13. The combination with an elevator-car, of a pair of movable vestibules located one above the other and adjacent to the entrance of said car, one vestibule to admit passengers to the car and the other through which they are discharged.

14. The combination with an elevator-car,

of a pair of movable vestibules joined together and located adjacent to the car-entrance, one vestibule to admit passengers to said car and the other through which they are discharged.

15. The combination with an elevator-car, of a pair of vertically-movable vestibules formed together one above the other, adjacent to the entrances to said elevator, one to admit passengers to the car and the other through which they are discharged, an entrance-way for said elevator leading to said first-mentioned elevator, an illusory curtain adapted to be exposed to cover said entrances by the downward movement of the vestibules.

16. In an illusory device of the class described, the combination with a car, of a pair of vertically-movable vestibules adapted to alternately move to and from the entrances of said elevator, a curtain arranged to be exposed in lieu of one of said vestibules with a downward movement thereof in a way and decorated to represent an elevator-shaft, and a rope also arranged to be displayed with a downward movement of vestibules in imitation of an elevator-supporting cable.

17. In an illusory device of the class described, the combination with a building and a car having an entrance thereto, of a vestibule adjacent to the car having an entrance in a diagonally opposite corner from that of the entrance to the car, and an obstruction exterior of the vestibule to prevent a view of the car-entrance through the entrance of the vestibule.

18. In an illusory device of the class de-

scribed the combination with a suitable building and an elevator-car having an entrance, of a movable vestibule adjacent thereto containing an entrance diagonally located from the entrance of the car, and an obstruction to prevent seeing the car-entrance through the vestibule-entrance from the exterior of the building.

19. In an illusory device of the class described, the combination with a suitable structure, of an elevator-car within the same containing an entrance, a vestibule adjacent to said car and having an entrance diagonally located from that of the car, a passage-way leading to the vestibule and an obstruction to prevent a viewing of the car-entrance through the vestibule-entrance when the same is open.

20. In an illusory device of the class described, the combination with a suitable structure, and an elevator-car within the same having an entrance, a vestibule adjacent to said car, and having an entrance located diagonally from that of the car and a passage-way leading to the vestibule containing an obstruction which prevents a viewing of the car-entrance through the vestibule-entrance when the same is open.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 8th day of June, A. D. 1904.

ROBERT F. RICE.

Witnesses:

C. M. NEWMAN,
RUTH RAYMOND.