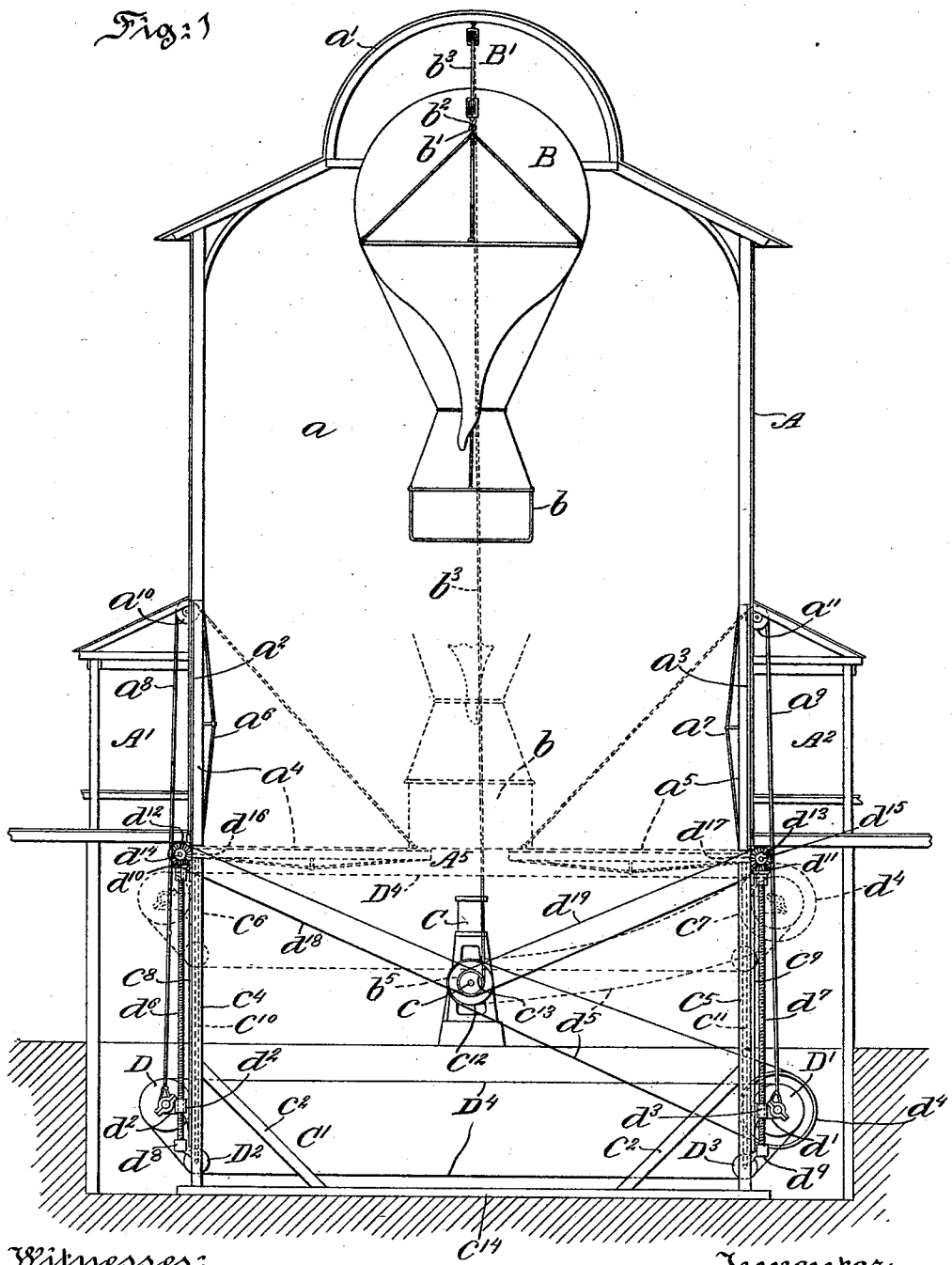
(No Model.) 3 Sheets—Sheet 1.

P. ROSENZWEY.

ILLUSION APPARATUS.

No. 530,128. Patented Dec. 4, 1894.

Fig: 1



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(No Model.) 3 Sheets—Sheet 2.

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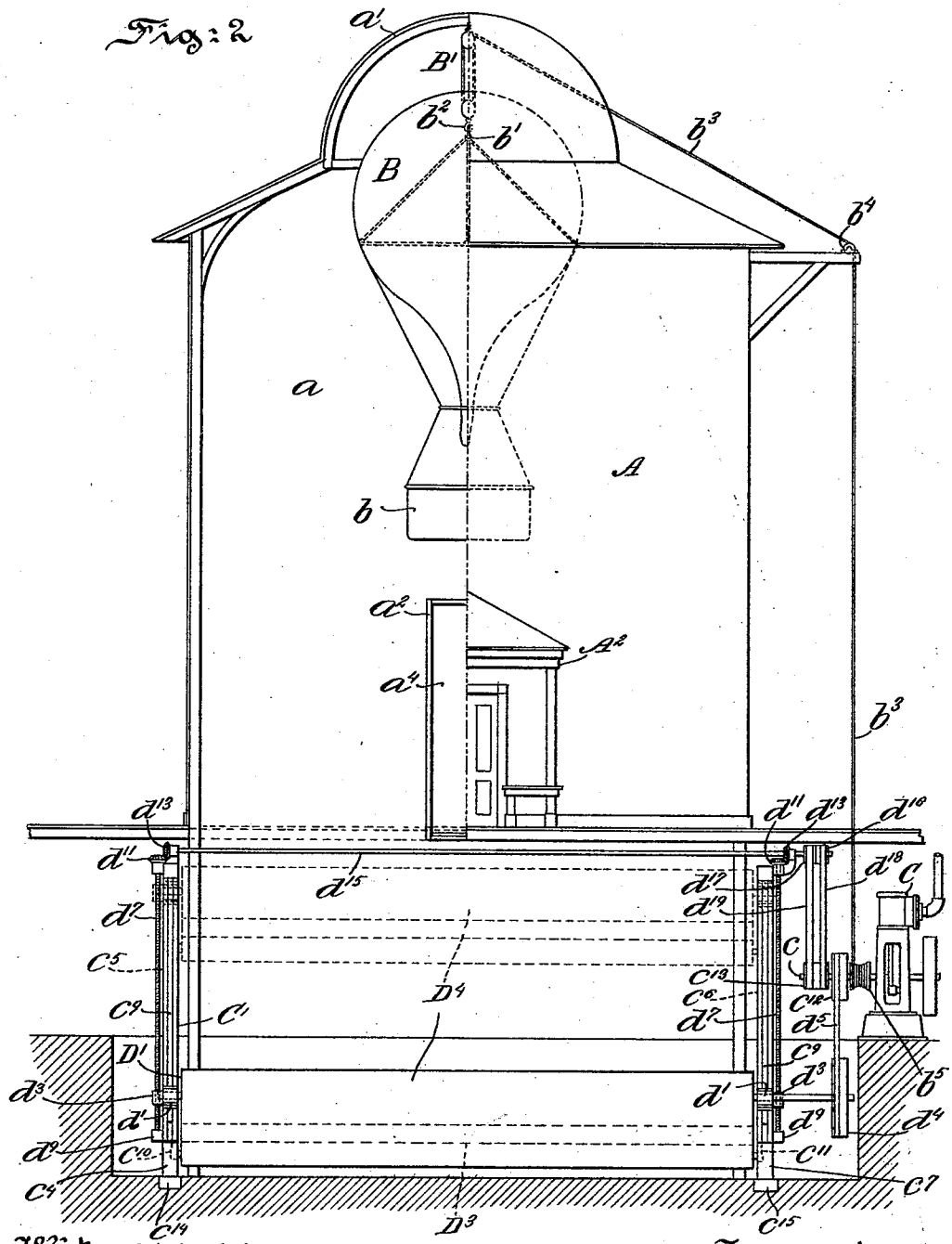
Fig: 2



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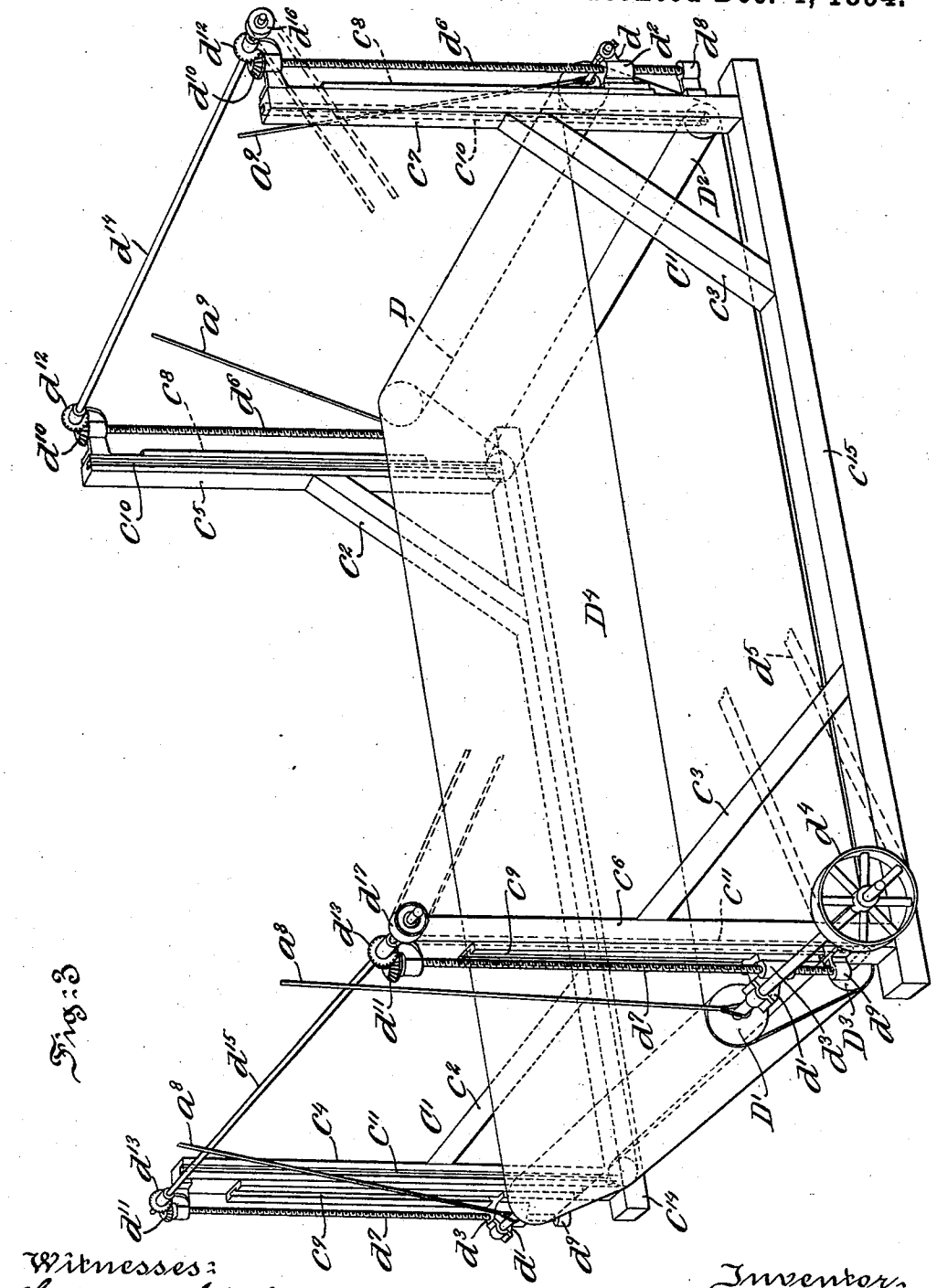

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UNITED STATES PATENT OFFICE.

PAUL ROSENZWEY, OF PHILADELPHIA, PENNSYLVANIA.

ILLUSION APPARATUS.

SPECIFICATION forming part of Letters Patent No. 530,128, dated December 4, 1894.

Application filed September 1, 1894. Serial No. 521,923. (No model.)

To all whom it may concern:

Be it known that I, PAUL ROSENZWEY, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Illusion Apparatus, of which the following is a specification.

My invention relates to an apparatus adapted to produce illusions; and it relates more particularly to the general construction and arrangement of an apparatus for such purpose.

The principal objects of my invention are, first, to provide a comparatively simple, safe and reliable apparatus for producing illusory effects and furnishing amusement to the old as well as to the young; second, to provide an illusory producing apparatus adapted to give all the sensations and effects of a balloon ascension, without the dangers and uncertainties attending such excursions and affording absolute security as to the descent of the appliance; and, third, to provide such an apparatus and its accessories for elevating and lowering the same with movable scenery adapted to establish and make the ascent within a building or structure specially arranged therefor, as far as possible realistic.

My invention stated in general terms, comprises an illusory apparatus constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and general features of my invention, will be more fully understood from the following description taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1, is a vertical section through a building provided with a well or circular internal compartment, showing the balloon suspended therein and the actuating means therefor, also the movable platforms leading to the entrance and exits of the structure, the movable scenery, motive power and mechanism controlled thereby, for permitting of the travel thereof and raising and lowering of the same. Fig. 2, is a transverse section of the structure with the illusory appliance of my invention, shown in application therein; and Fig. 3, is a perspective view of the movable scenery or canvas and its actuating mechanism, controlled by motive power such as shown in Figs. 1 and 2.

Referring to the drawings A, is the structure in the form of a hippodrome or circular building with a well a, and with a dome a', in the top thereof.

a^2 and a^3, are openings in the sides or surfaces of the building faced with stud-pieces to receive movable platforms a^4 and a^5, provided with straining pieces or struts a^6 and a^7, and raised and lowered by means of chains or cords a^8 and a^9, passing over pulleys a^{10} and a^{11}, pivotally secured into the building in the manner clearly shown in Fig. 1, and engaging at their lower looped ends with shafts to be presently explained.

A′ and A^2, are entrance and exit pavilions located adjacent to and communicating with the openings a^2 and a^3, in the walls of the building A. The interior wall of the building is provided with canvas suitably painted to represent the desired illusory effects in connection with a balloon ascension and so as to make the illusion as far as possible complete.

B, is the balloon provided with a basket b, which is supported therefrom in the usual manner.

b', is an eye secured to the upper end of the balloon and detachably engaged by the hook b^2, of a block and tackle mechanism B′, hooked to the dome a', and having a rope or chain b^3, leading therefrom over a pulley b^4, and winding onto a grooved pulley b^5, mounted on the main driving shaft c, which is actuated by a reversible steam engine C, in the manner clearly illustrated in Figs. 1 and 2.

The movable platforms a^4 and a^5, when in their normal position, as shown in dotted lines in Fig. 1, and the balloon B, is in a lowered position, the basket b, thereof closes the space between the two platforms so as to enable the occupants of the basket to alight and pass to the exit pavilion A^2, and of those waiting to make an ascension to enter through the opposite pavilion A′, and by the platform a^4, to enter the basket of the balloon and when seated therein, and the latter has been caused to assume an elevated position such as illustrated in Figs. 1 and 2, the openings in the wall of the building on both sides to the respective pavilions will have been closed by

the movable platform a^4 and a^5, rising and seating automatically therein, by means to be hereinafter fully explained.

In the lower portion of the well of the building is located a rectangular-shaped frame-work C′, consisting of base-strips c^{14} and c^{15}, having inclined braces c^2 and c^3, secured thereto and supporting or strengthening uprights or supports c^4, c^5, c^6, and c^7, as clearly illustrated in Fig. 3. The uprights or supports are each provided with channeled ways c^8 and c^9, and in the inner sides of the series of uprights or supports are provided grooves c^{10} and c^{11}, for purposes to be presently described.

D and D′, are end rolls journaled to brackets d and d', in sliding engagement with the channeled ways c^8 and c^9, of the series of uprights or supports c^4, c^5, c^6 and c^7. These brackets are provided with vertical internally threaded tubular bearings d^2 and d^3.

D^2 and D^5, are rollers having the end journals thereof frictionally engaging the grooves c^{10} and c^{11}, of the series of uprights or supports of the frame-work. Mounted on one of the journals of the upper roll D′, is a pulley d^4, engaged by a belt d^5, which passes around a pulley c^{12}, secured to the main driving shaft c, of the engine C.

d^6 and d^7, is a series of vertical threaded rods or stems engaging the tubular threaded bearings d^2 and d^3, and at their lower ends supported in socketed bearings d^8 and d^9, which are secured to the uprights or supports c^4, c^5, c^6 and c^7, and at their opposite ends provided with miter-gear wheels d^{10} and d^{11}. These wheels mesh with complemental miter-gear wheels d^{12} and d^{13}, which are keyed or otherwise secured to cross-shafts d^{14} and d^{15}, journaled to the tops of the said series of uprights or supports and on one of the ends of both of said shafts are provided pulleys d^{16} and d^{17}, engaged by belts d^{18} and d^{19}, which latter engage also a pulley c^{13}, rigidly secured to the main driving shaft c, whereby in the rotation of said driving shaft by means of the reversible engine C or other suitable motive power, motion is imparted to the series of pulleys and belts for permitting of the actuation of said miter-gear mechanism to rotate the series of vertical threaded rods or stems d^6 and d^7, to not only by frictional contact of the rollers D, D′, D^2 and D^3, with the painted canvas D^4, cause the latter to travel but also the bearings d^2 and d^3, to move up and down on said stems or rods and therewith said scenery D^4. With the rise of the scenery D^4, the balloon in the manner above explained will be lowered and the belt d^5, connected with the pulley d^4, and pulley c^{12}, of the main driving shaft, will slacken and thus enable the block and tackle mechanism B′, to operate so as to permit the basket b, of the balloon B, to assume the position indicated in dotted lines in Fig. 1, to permit of the discharge of the passengers therefrom and for enabling others to enter for another ascension of the balloon.

The movable canvas D^4, it will be understood is to be painted to give the desired effects looking onto the same from the elevated position of the balloon and the painted stationary canvas of the well and about the dome of the structure on the interior thereof will be painted to represent sky or other effects so as to make the spectacle not only realistic but also to enliven the illusory sport and in order to make the same still more complete electric lights may be employed to represent the stars, moon and other bodies disposed behind or in suitable connection with the painted canvas of the structure.

The operation of the apparatus of my invention, is as follows:—Motion is imparted to the main driving shaft c, by means of the reversible engine C, which communicates motion to the belt and pulley connections and miter-gear mechanism hereinabove described, so that when the movable platforms a^4 and a^5, are in the position illustrated in dotted lines in Fig. 1, and the basket b, of the balloon B, has cleared the space A^5, between them, the balloon will be caused to occupy an elevated position at the top in the dome a', of the structure by the winding of the chain or cord b^3, connected with block and tackle mechanism B′, onto the grooved pulley b^5, of the main driving shaft c, and at the same time the movable platforms a^4 and a^5, will be caused to assume by rising, a position in the openings a^6 and a^7, of the structure and the traveling scenery D^4, will assume a lowered position in the well a, as indicated in full lines in Fig. 1, by means of the miter-gears rotating the series of threaded stems or rods, thereby causing the bearings of the series of brackets to travel downward in the channeled ways of the series of uprights or supports c^4, c^5, c^6 and c^7, as clearly illustrated in Fig. 1.

It will be manifestly obvious, that as to minor details, modifications may be made without departing from the spirit of my invention; and hence I do not wish to be understood as limiting myself to the precise arrangements of the members of the actuating mechanisms of the balloon as hereinbefore explained; but

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An illusion apparatus, comprising a structure having a well or chamber, openings for exit and entrance, a balloon and its accessories, movable platforms adapted to engage said openings, movable scenery, motive power and mechanism controlled thereby for actuating said platforms, scenery and balloon, substantially as and for the purposes set forth.

2. An illusion apparatus, comprising a structure provided with a well or chamber, having movable platforms adapted to close

openings in the wall of said structure, a balloon and block and tackle mechanism, scenery movable in several directions, an engine and means for controlling said balloon, scenery and platforms, substantially as and for the purposes set forth.

3. An illusion apparatus, comprising a structure provided with a well having platforms adapted to close openings in the wall thereof, entrance and exit pavilions communicating with said openings, a balloon provided with a basket, means adapted to elevate and lower said balloon, scenery and mechanism for controlling said platforms and scenery, substantially as and for the purposes set forth.

4. An illusion apparatus, comprising a structure provided with a well having painted stationary and movable scenery therein, movable platforms adapted to close the openings leading to entrance and exit pavilions, a balloon with a basket, mechanism for raising and lowering certain of said scenery with the raising and lowering of said balloon, substantially as and for the purposes set forth.

5. An illusion apparatus, comprising a structure provided with an internal chamber or well having a balloon suspended therein, canvas adapted to be raised and lowered and moved transversely of said well, motive power and means for controlling said balloon and scenery, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

PAUL ROSENZWEY.

Witnesses:
GEO. W. REED,
RICHARD C. MAXWELL.