No. 795,347. PATENTED JULY 25, 1905.

J. H. FITCH & C. H. GRAHAM.

CYCLORAMA.

APPLICATION FILED JAN. 13, 1905.

2 SHEETS—SHEET 1.

Fig. 2

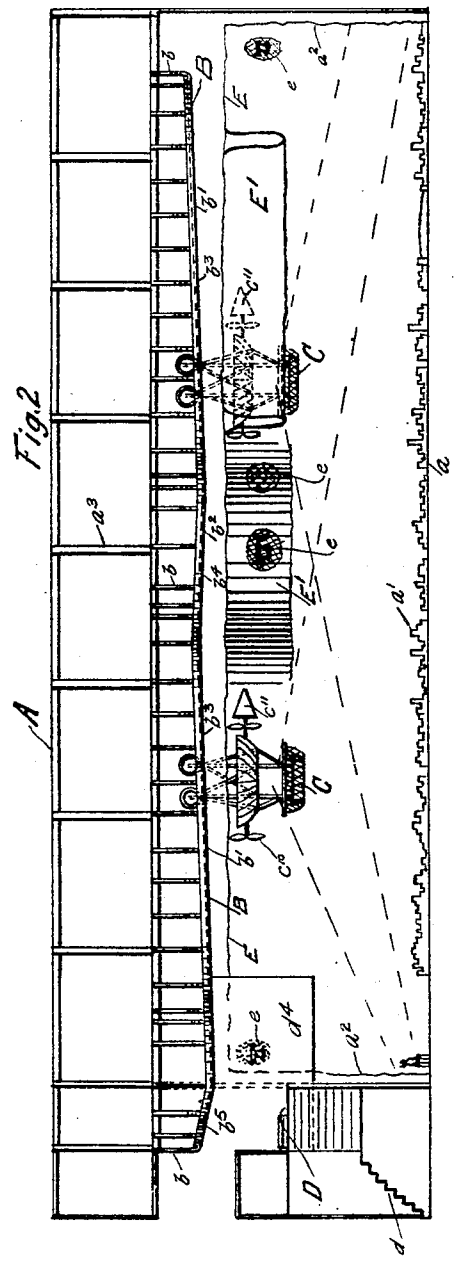

Fig. 1

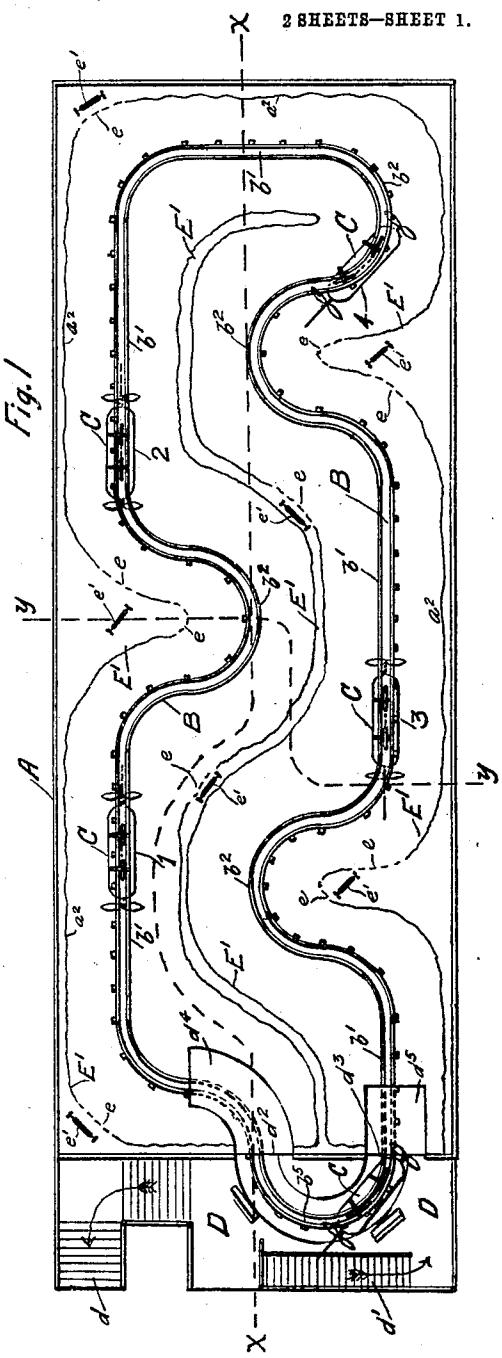

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Fig. 3

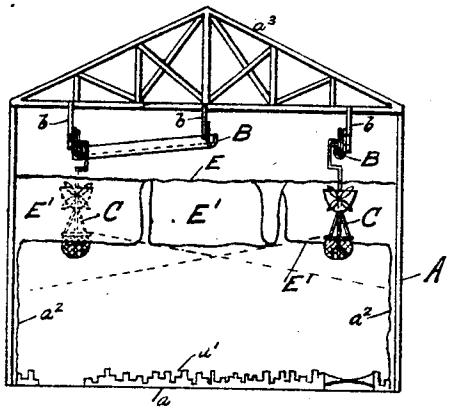
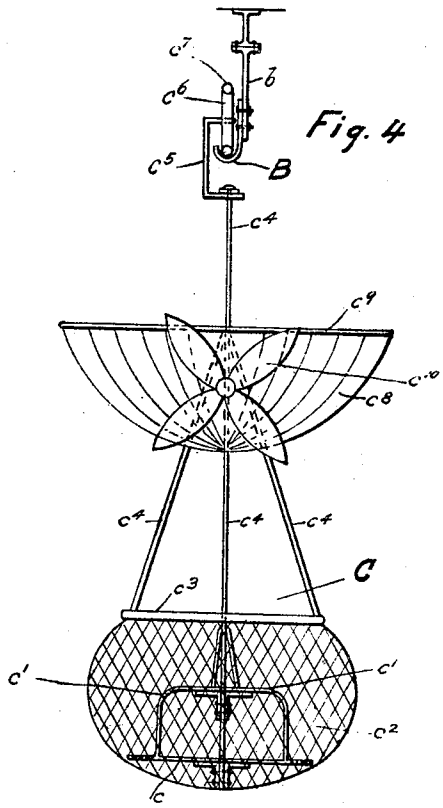


Fig. 4



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CYCLORAMA.

No. 795,347. Specification of Letters Patent. Patented July 25, 1905.

Application filed January 13, 1905. Serial No. 240,881.

To all whom it may concern:

Be it known that we, JOSIAH H. FITCH and CHARLES H. GRAHAM, of the borough of the Bronx, city of New York, county and State of New York, have invented certain new and useful Improvements in Cycloramas, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to means for producing the illusion of an observation from a moving object, such as the car of a balloon or air-ship at a considerable height, of a portion of the earth's surface and the sky cycloramically represented and whereby several such cars may be simultaneously employed, and while the view of the said cycloramic representation from each said car is unimpeded throughout its course of travel each said car during the entire traverse of its said course of travel is isolated and concealed from all other cars of the series thereof, and the desired illusion is thereby preserved and heightened.

Our invention consists in the combination, with the floor and side walls of a building bearing the cycloramic representation of a landscape or buildings and horizon and sky, of a track suspended from the roof of the building to constitute a course or run composed of alternately successive rectilinear and laterally-curved or loop-like sections, cars suspended from and to traverse said track or course, and a canopy bearing a representation of sky hung from said roof below said track and extending throughout above the said cycloramic representation, together with curtains bearing a representation of clouds pendent from said canopy on either side of said track and conformable in such pendency throughout their length to the said course of the rectilinear and curved or loop-like sections of the track to isolate and obscure from each other cars which may respectively be in or upon said successive track-sections during their traverse thereof, but to permit an unimpeded view from each said car of the aforesaid cycloramic representation on the floor and walls; and our invention comprises the further feature hereinafter described, and more at length recited in the claims.

In the drawings, Figure 1 is a plan of a building or apparatus containing our invention, the roof and canopy being removed to more fully disclose features thereof. Fig. 2 is a longitudinal sectional elevation of the same, including the roof and canopy, taken on the line $x\,x$, Fig. 1. Fig. 3 is a lateral section of the same, taken on the line $y\,y$, Fig. 1; and Fig. 4 is an enlarged end view in detail of the desirable form of car and showing the track from which it is suspended for traverse thereof.

Upon the floor a of a building A is indicated the representation, preferably in relief, as at a', of the buildings, &c., of a city, and upon the side walls a^2 is hung canvas or other suitable material which may bear the representation (not indicated) of the landscape, horizon, and part of the sky of a cycloramic picture.

A track or runway B, which may be in the form of a trough, as shown, is suspended, as by hangers b, from the roof a^3 of the building, and the course of said track or run above the described cycloramic picture describes or is composed of alternately-successive rectilinear sections b' and laterally-curved or loop-like sections b^2. For convenience and economy in installation and operation the track B may be given a general course or direction from one end of the building to the other and back again to the place of beginning, as indicated in Fig. 1, the building itself being of the adequate dimensions for this purpose.

The preferable construction of a car C, of which several are employed, as indicated in Figs. 1 and 2, is illustrated in Fig. 4, each such car being desirably constituted of a platform c, provided with seats c', extending longitudinally thereof back to back and inclosed in a netting c^2, as of wire, which is open at the top, as at c^3, to permit the ingress and egress of passengers, the platform and its seats and netting being sustained by rods c^4, which suspend it from a truck c^5, the wheels c^6 of which are preferably provided with pneumatic tires c^7 and run in the trough-like track B. To obscure the track and the car-trucks from occupants of the car and to produce the illusion of the gas-bag of a balloon or air-ship, a convex screen-piece, which may be of cloth c^8, distended on a frame c^9, carried by the rods c^4, may be interposed between the car-body and the truck, as illustrated in Fig. 4, and dummy propellers c^{10} and steering-gear c^{11} may be mounted on the screen-piece, as shown, for like purpose.

The propulsion of the cars C over the course of the track B may be accomplished by any known means for such purpose; but it is preferably accomplished by giving to the track in its suspension from the roof a succession of alternate downwardly-inclined sections b^3

and upwardly-inclined sections b^4, and in order that the cars may move by gravity comparatively slowly throughout their course in simulation of the travel of an air-ship at a considerable height above the earth these inclined sections should be slight and gradual in their inclines and they should be so proportioned in their respective lengths that the impetus gained by a car in each descending incline will carry it over the succeeding ascending incline of the track.

A landing-stage for the cars is provided, as at D, in a separate compartment of the building A, accessible by staircases d d' to respectively permit the entrance and exit of patrons, as indicated in Figs. 1 and 2, the track B emerging from the cyclorama-chamber through an opening d^2 and continuing over the landing-stage and reëntering the cyclorama-chamber through another opening d^3, and the portions of the track immediately beyond these openings in the cyclorama-chamber being preferably hooded or inclosed in tunnel-like structures d^4 d^5, respectively, to desirably screen the cycloramic picture from observation from said landing-stage.

As the cars will successively approach the landing-stage D at a somewhat lower level on the track B than that at which they leave said stage when the described gravity-track is employed, an upwardly-inclined section of the track is provided at b^5 leading from and uniting the lower level of the track with the higher, and it is intended that the cars as they thus approach said landing-stage shall be propelled up said incline b^5 by positive power, as by an adequate crew of attendants.

A canopy E, of canvas or other suitable material, bearing a representation of sky, is hung from the roof a^3 below the track B and extends throughout the cyclorama-chamber above the cycloramic picture, as indicated in Figs. 2 and 3, and in carrying out the primary feature of our invention we provide curtains E′, which may also be of canvas or other suitable material and which depend from the canopy E on either side and throughout the length of and desirably at some considerable distance away from the track B conforming in their pendency to the course of the described rectilinear and curved or loop-like sections b' and b^2 thereof and of a length from the canopy downward to reach just below the top c^3 of the car-nettings c^2, so that while they will permit the free and unobstructed view and observation of the cycloramic picture by the occupants of the several cars moving over said track they will serve to isolate and obscure from one another cars simultaneously respectively traversing a rectilinear section of the track on either side of and beyond a curved or loop-like section thereof, as indicated at 1 and 2, Fig. 1, or which are simultaneously respectively traversing a rectilinear and a curved or loop-like section of said track, as indicated at 3 and 4, said Fig. 1. The illusion thus produced upon the vision of the occupants of each car as it traverses the track-course will be that of traveling in an air-ship in or among clouds, with no object visible near them to contrast with the size of their individual ship or car nor to impair by its comparative size the illusion of great distance from each car to the picture of the earth's surface on the floor of the cyclorama-chamber. In carrying out a further feature of the invention we preferably cut away at intervals of their extent portions of the body of the canvas or other continuate curtains E′ and fill such openings with gauze, as shown at e, painting the gauze to harmonize with the clouds depicted on the curtains, and behind these gauze-openings in the curtains we suspend determinate objects, such as stationary dummy balloons or miniature air-ships or other figures, as at e', which will thus be visible through the gauze to occupants of a passing car, and thereby when observed by them will produce the illusion to occupants of the cars C of distant air-ships or other said objects also navigating the air among the clouds.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a cyclorama device the combination with the floor and side walls of a building bearing a cycloramic representation, a track suspended from the building-roof to constitute a course or run, composed of alternately-successive rectilinear and laterally-curved or loop-like sections, cars suspended from and to traverse said track or course, and a canopy bearing a sky-picture hung below the track and extending throughout and above the cycloramic representation, of curtains bearing cloud-pictures, pendent from said canopy on either side of said track throughout its length, conformable to the described course thereof and of an extent to permit an unobstructed view of the cycloramic picture from the several cars traversing said track while they serve to isolate and obscure from each other cars simultaneously respectively traversing said described track-sections.

2. In a cyclorama, the combination with a car suspended from and to traverse a track over and above a cycloramic representation, of continuate curtains pendent upon either side, throughout the length and conformable to the course of said track, and having gauzed apertures at intervals of their length, together with determinate objects suspended or fixed behind said gauzed apertures in said curtains.

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