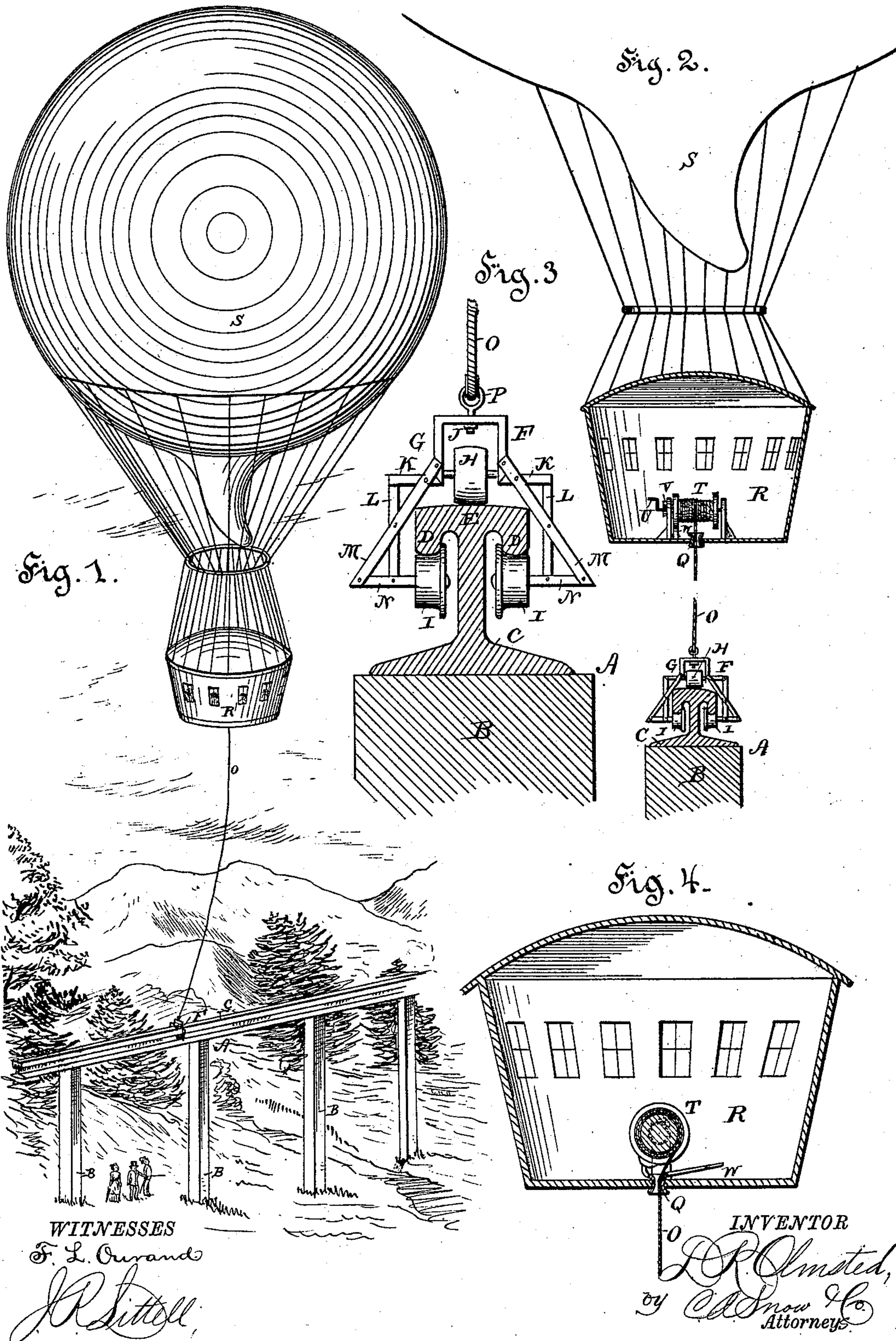


(No Model.)

D. R. OLMSTED.
AERIAL RAILWAY.

No. 287,458.

Patented Oct. 30, 1883.



UNITED STATES PATENT OFFICE.

DAVID R. OLMSTED, OF PROPHETSTOWN, ILLINOIS.

AERIAL RAILWAY.

SPECIFICATION forming part of Letters Patent No. 287,458, dated October 30, 1883.

Application filed February 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID R. OLMSTED, a citizen of the United States, residing at Prophetstown, in the county of Whiteside and State of Illinois, have invented a new and useful Aerial Railway and Balloon-Guide, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to aerial navigation; and it consists, substantially, in the combination, with a balloon or other aerial vessel or conveyance, of a guide-track arranged above the ground, and a truck traveling on the said track and connected with the aerial vessel, all as will be hereinafter more fully specified, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of my improved aerial railway. Fig. 2 is a vertical cross-section thereof, taken through the balloon and track. Fig. 3 is a detail transverse sectional view of the track, with an end view of the track in position. Fig. 4 is a detail sectional view, taken through the car of the aerial vessel.

Referring to the drawings, A designates the ground-track, which comprises the supporting-pillars B, and the rails C, secured thereon. These rails C are formed T-shaped in cross-section, and have their heads provided with longitudinal downwardly-extending flanges D, arranged one at each side the head E, to serve as an auxiliary track.

F is the truck to which the aerial vessel is connected. This truck is composed of a simple frame, G, carrying a top wheel or roller, H, that runs on the head of the rail, and two auxiliary under-flanged wheels, I I, that run on the auxiliary flanges D D. The frame of the truck comprises an arch, J, over the roller H, lateral beams K, projecting from the bottom of the arch and carrying at their outer end vertical beams L L, horizontal beams N, carrying the rollers or wheels I I, and supported by the beams L and diagonal braces M M, extending from the lower ends of the arch down to the outer ends of the bottom beams N. By reason of the track being elevated, the truck can travel thereon, as it is carried by the aerial vessel, without liability of encountering any obstacles, and the rope that connects the aerial vessel with the truck

can sag without danger of engaging fences and other surface obstructions. Any sag of the said rope or line can, however, be taken up by mechanism in the vessel, as will be hereinafter specified. 55

O is the cable or rope, which is preferably formed of wire strands, that connects the truck and aerial vessel. The cable has a swiveled connection, P, with the arch of the truck, and passes through a guide-tube or casing, Q, in the bottom of the car R of the vessel S, and is secured to a drum, T, in the said car. This winding-drum is provided with an operating-crank, U, by which the drum can be turned to wind the balloon down when desired. The drum is provided with a pawl-and-ratchet mechanism, V, by which it can be locked in position to hold the balloon at any desired height from the track. 60 65 70

W is a brake-lever, adapted to be operated by the foot, and to act on the drum T, to prevent the too sudden rising of the balloon, which might damage the track.

The operation and advantages of my invention will be readily understood by reference to the foregoing description and annexed drawings. As the aerial vessel travels, it carries the truck along the guide-track, and is thereby retained from deviation out of the desired course. When the cord or cable O is slack, the truck is supported on the track by the roller H, and the balloon is prevented from rising by the auxiliary wheels I I. The flanges of these latter wheels retain the truck on the track. 75 80 85

I am aware that aerial railways and balloon-guides have been heretofore constructed with a guide-track formed of a single T-rail, on which travels a truck carrying a roller running on the head of the rail, and two side rollers running under the flanges, and a connecting-rope extending from the said truck and passing through the bottom of the car and wound upon a drum. Therefore I do not wish to be understood as claiming, broadly, this construction, my claim being for my own novel construction and arrangement of parts. 90 95

I claim as my invention—

1. The combination of the T-shaped track having the head of the rail provided with longitudinal downwardly-extending flanges at its 100

sides, that form auxiliary rails, the truck having its frame consisting of a top arch, laterally projecting top and bottom beams, and beams or braces connecting the lateral beams, said frame carrying a main roller or wheel under the arch, and two auxiliary wheels at the bottom, a cable or rope connected to the said arch, and an aerial vessel or conveyance secured to the said cable, as set forth.

10 2. The combination, with the guide-truck, to which is swiveled the connecting cable or rope, of the aerial vessel having the guidetube in the bottom of the car, the drum to which the cable is secured arranged over this

tube, the pawl-and-ratchet mechanism arranged in connection with the drum, and the brake-lever W, fulcrumed to the floor of the car, and arranged to be operated by the foot to bear upon the periphery of the drum, as set forth. 15 20

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

DAVID RINALDO OLMSTED.

Witnesses:

GEORGE W. OLMSTED,
WM. MATHIS.