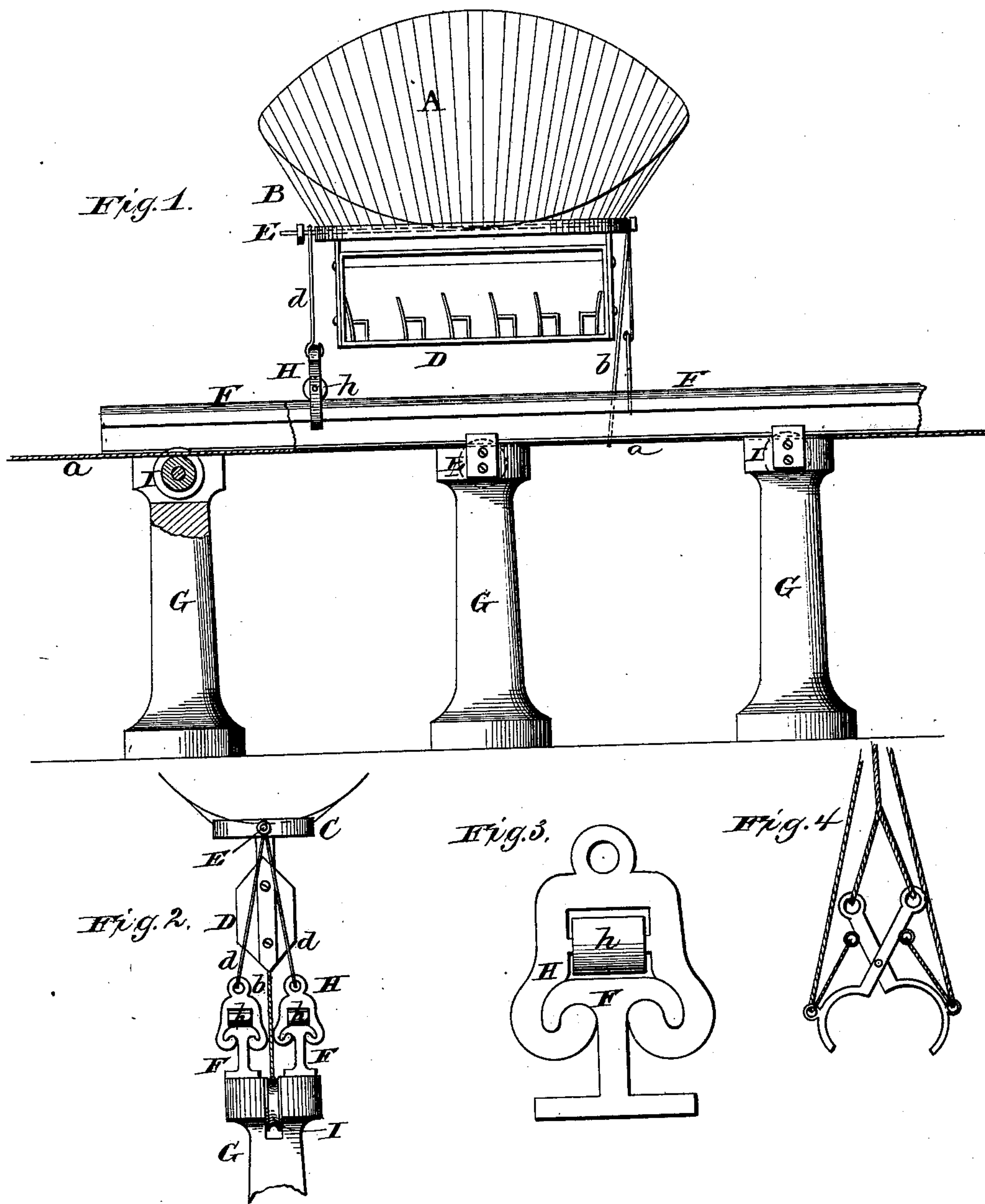


J. A. COLLINS.  
Inland Transportation.

No. 214,886.

Patented April 29, 1879.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JAMES A. COLLINS, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN INLAND TRANSPORTATION.

Specification forming part of Letters Patent No. 214,886, dated April 29, 1879; application filed March 21, 1879.

*To all whom it may concern:*

Be it known that I, JAMES A. COLLINS, of New Orleans, in the parish of Orleans, and in the State of Louisiana, have invented certain new and useful Improvements in Inland Transportation; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in a device for transporting freight and passengers over swampy and other places where it would be inconvenient or impossible to build ordinary railroad-tracks sufficiently firm to support a train of cars, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation of my device. Fig. 2 is an end view of the same. Fig. 3 is an enlarged end view of one of the rails with the grappling-hook holding thereon. Fig. 4 is a view of one form of grappling-hook that may be used for connecting the car with the traction rope or wire.

A represents a balloon or float, made of silk or other suitable material, in the form of an ellipse or cylinder, in length about twice the size of the diameter, and varnished with caoutchouc or other elastic varnish impervious to gases. This balloon or float is inflated with coal-gas of about one-sixth the weight of air, or with hydrogen or other suitable gas.

The balloon or float is provided with a suitable netting, B, to which an iron frame, C, is attached, and longitudinally through this frame is passed an iron rod, bar, or beam, E.

D is a car suspended from the rod or bar E by means of wire ropes or other suitable fastenings. The car D being thus suspended from the center causes it to maintain an upright position at all times, the weight or load resting on the bottom of the car.

G G represent posts, set at suitable intervals in the ground across the place to be trav-

ersed, and these posts support two parallel lines of rails, F, constructed substantially in the form shown in Fig. 3.

Between the rails F in each post is mounted a grooved pulley, I, over which passes a wire rope, *a*. This wire rope is to be put in motion by a series of stationary engines placed at proper intervals.

To the center, at each end of the frame C, is attached a draft-rope, *b*, which is connected by clamps or hooks with the wire rope *a*, and said wire rope being in motion gives a forward or backward motion to the car and float.

Guide-ropes *d d* are also connected to one or both ends of the frame, which guide-ropes are attached to double guide-hooks H H, and these hooks embrace the rails F F, as shown.

The clamps or grappling-hooks which connect the draft-ropes *b* with the wire rope *a* are to be constructed so as to be opened by lines passing from them through sheaves at the center of the end of the frame C to a reel under control of the conductor in the front of the car, by which means said draft-ropes may be detached from the wire rope in a moment, and the car and float stopped by the guide-ropes *d* by means of the friction of the guide-hooks H upon the rails F.

In operation the car and float are drawn by the draft-ropes *b* and move forward, guided by the guide-hooks H, which slide along the rails F, and to the form of which they conform, and their friction on the top of the rails is relieved by the pulleys *h h*, mounted in the guide-hooks above the rails.

When it is desired to stop the car the grappling-hooks are opened to release them from the wire rope *a*, and the guide-ropes *d* are drawn upon hard enough to cause a sufficient friction of the guide-hooks H upon the rails to stop the car and float.

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

1. A float or balloon for floating the weight to be moved, in combination with a wire rope, or its equivalent, and means for moving said wire rope, substantially as herein set forth.

2. The combination of a float or balloon, a car suspended therefrom, a moving traction

rope or wire for giving motion thereto, and guide-rails for directing the course, substantially as herein set forth.

3. The combination of the float A, netting B, frame C, with central rod E, and the car D, substantially as and for the purposes herein set forth.

4. The combination of the frame C and car D, suspended from a float, A, the ropes *d*, guide-hooks H, with pulleys *h*, the rails F, and

traction rope or wire, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of March, 1879.

J. A. COLLINS.

Witnesses:

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