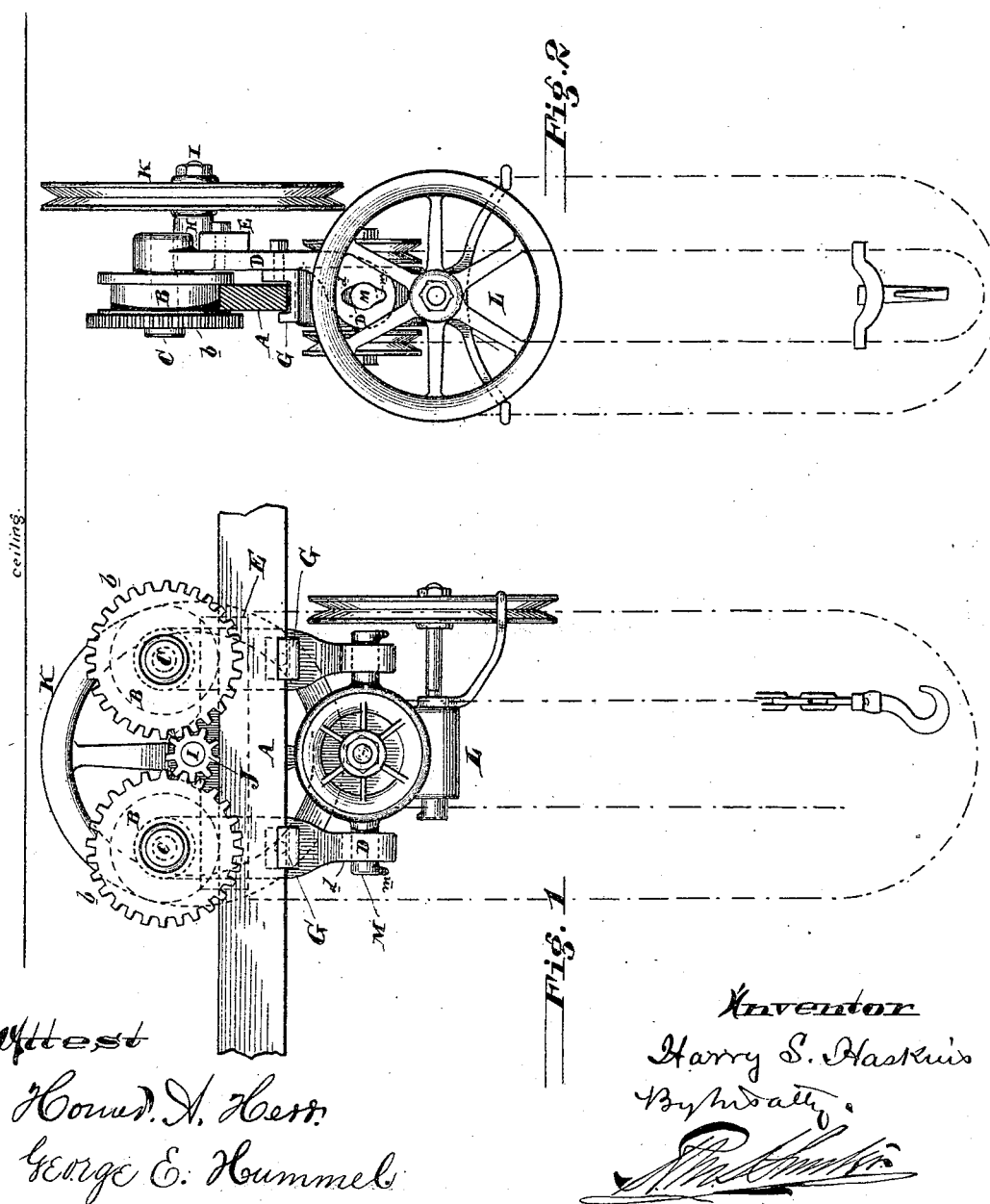


(No Model.)

H. S. HASKINS.  
OVERHEAD RAILWAY HOIST.

No. 304,194.

Patented Aug. 26, 1884.



Attest  
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By *[Signature]*

# UNITED STATES PATENT OFFICE.

HARRY S. HASKINS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
EDWIN HARRINGTON, SON & CO., OF SAME PLACE.

## OVERHEAD-RAILWAY HOIST.

SPECIFICATION forming part of Letters Patent No. 304,194, dated August 26, 1884.

Application filed June 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY S. HASKINS, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Overhead-Railway Hoists, of which the following is a specification.

This invention has reference to overhead railways and hoisting machinery therefor; and it consists in a movable or traveling carriage or trolley arranged to run upon an overhead rail, combined with hoisting apparatus and connecting devices, by which said hoisting apparatus is carried by said trolley or carriage and close up to the under side or edge of the rail, and in many details of construction, all of which are fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

Heretofore it has been customary to provide the trolley or carriage with an eye extending down some distance below the rail, and to which the hoisting apparatus is hung by means of a long hook secured to the top of the said hoisting apparatus, which construction was very objectionable, inasmuch as considerable of the lifting-space was lost—an objection not perceived in high-ceilinged rooms or shops, but extremely objectionable in the majority of cases, as shops usually have very low ceilings; or the hoist has been provided with a rectangular loop, which was hung upon a hook depending from the trolley and interposed between the hoist and rail, as shown in Patent No. 171,855, of 1876, which construction is simply reversing the order first mentioned. The space above the rail necessary for working the trolley or carriage and to allow play for its supporting-wheels is of necessity considerable and cannot be reduced. So, also, is the space occupied by the depth of the rail, and as these spaces cannot be reduced it becomes necessary to make great alterations in the connection of the hoist to the said trolley or carriage, and at the same time in no manner impair the perfect working of the machine as an entirety.

The object of this invention is therefore to overcome the above existing objection to the construction as at present put in practice in all overhead traveling hoisting apparatus in which a hoisting-machine is suspended or hung

to a traveling trolley or carriage adapted to run upon a rail.

In the drawings, Figure 1 is a side elevation of the complete machine, and Fig. 2 is an end elevation with the rail in section.

A is the rail, and is supported from the ceiling in any suitable manner.

B are the supporting-wheels for the trolley or carriage, and are grooved to run upon said rail A. These wheels are journaled upon studs C, secured to the upper ends of two vertical bars, D, which are united by a cross bar or brace, E, and have their lower ends bent under the rail A, so as to come in the same vertical plane therewith, and are provided with apertures D, having enlargements *d*. G are lugs secured to said bars D, and are adapted to extend up on the outside of the lower edge of the rail, as shown, to prevent the trolley or carriage from becoming derailed or swinging laterally upon its supporting-rail. If desired, these lugs G may be made in one piece, or one of them may be dispensed with. The brace-bar E is provided with a long bearing, H, in which a shaft, I, works, carrying a chain-wheel, K, upon one end and a pinion, J, upon the other, which pinion meshes with the teeth *b* of the outer flanges of the supporting-wheels B. The construction of traveler or trolley shown is perhaps the most preferable; but it is to be understood that the gearing *b* J might be dispensed with and any number of supporting-wheels might be used, the particular construction of the trolley or the hoisting apparatus proper being immaterial to this invention, the principles involved being applicable to all kinds of hoisting-machines of this general class.

L is the hoisting-machine proper, and is provided above its center of gravity with the fore and aft lugs or bearings M, which extend through the apertures D' of bars or arms D, and are locked therein by extensions *m*, which extensions were originally passed through the enlarged part *d* of apertures D'. By this means the hoisting apparatus L is brought up close to the rail A, and much valuable space is saved. The hoist L may swing or oscillate laterally upon its bearings M, as is desirable; but it should not swing in a line with the move-

ment of the trolley or carriage. In this class of machines as heretofore made the hoist was enabled to swing in all directions; but by this improvement the objection to fore and aft swinging is entirely overcome.

While I prefer the mode of connection between the trolley and hoist shown, I do not limit myself to the details thereto, as it may be made in various ways without departing from my invention.

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

1. The combination of a trolley, a rail, a hoisting-machine, and connecting devices, substantially as set forth, whereby the said hoisting-machine is supported by said trolley and held up close to the rail, substantially as and for the purpose specified.

2. The combination, with a rail, of a trolley or carriage having arms extending down and under said rail, and a hoisting-machine carried by and between said arms, whereby it can be brought up close to the rail, substantially as and for the purpose specified.

3. The combination, with a rail, of a trolley or carriage having arms extending down and under said rail, and a hoisting-machine carried by and between said arms and journaled therein, whereby it can be brought up close to the rail and swing laterally upon said arms, substantially as and for the purpose specified.

4. The combination of a trolley or carriage with a hoisting-machine hinged thereto at a point just above its center of gravity, and adapted to have an oscillatory or swinging motion in one direction, but not in the other, substantially as and for the purpose specified.

5. The combination of a rail with a trolley or carriage provided with rigid depending arms at each end, and a hoisting-machine hinged to said arms and arranged close up under the rail, so that it shall not swing in the direction of its line of movement over said rail, substantially as and for the purpose specified.

6. The combination of a trolley provided with arms D D, having apertures D', and a hoisting-machine provided with lugs M, adapted to work in said apertures, substantially as and for the purpose specified.

7. The combination of rail A, wheels B B, arms or bars D, brace E, and hoisting-machine L, supported between said arms or bars D by lugs M, substantially as and for the purpose specified.

8. The combination of rail A, wheels B B, having teeth, arms, or bars D, brace E, having bearing H, shaft I, pinion J, chain-wheel K, and hoisting-machine L, supported between said arms or bars D by lugs M, substantially as and for the purpose specified.

9. The combination of rail A, wheels B B, having teeth, arms, or bars D, lug G, extending up around the under part of said rail, brace E, having bearing H, shaft I, pinion J, chain-wheel K, and hoisting-machine L, supported between said arms or bars D by lugs M, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

HARRY S. HASKINS.

Witnesses:

R. M. HUNTER,  
JAMES S. PHILLIPS.