

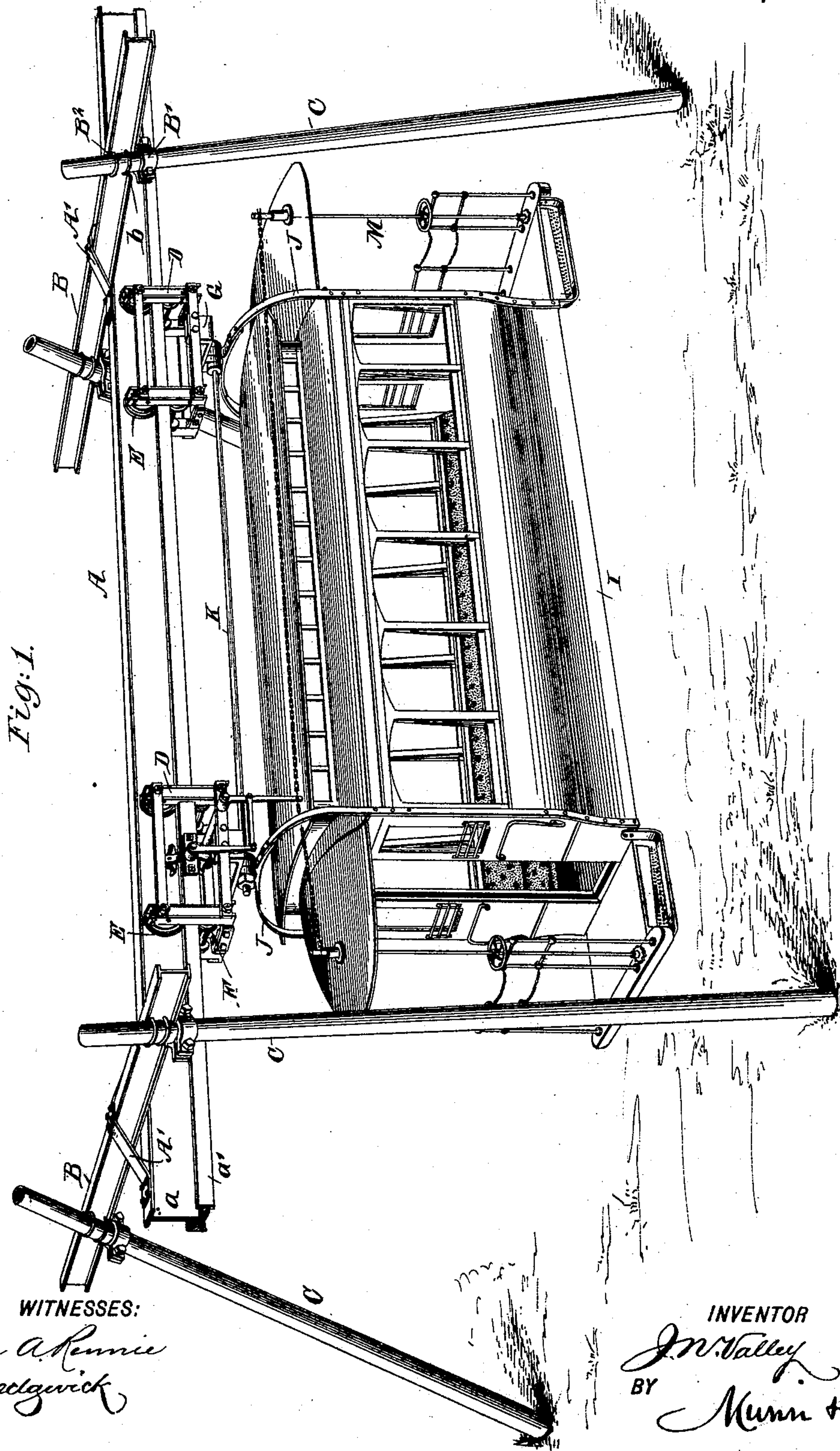
(No Model.)

2 Sheets—Sheet 1.

J. N. VALLEY.
ELEVATED RAILWAY.

No. 506,570.

Patented Oct. 10, 1893.



WITNESSES:

John A. Rennie
C. Sedgwick

INVENTOR

J. N. Valley
BY
Kunin & Co

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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ELEVATED RAILWAY.

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Fig. 2.

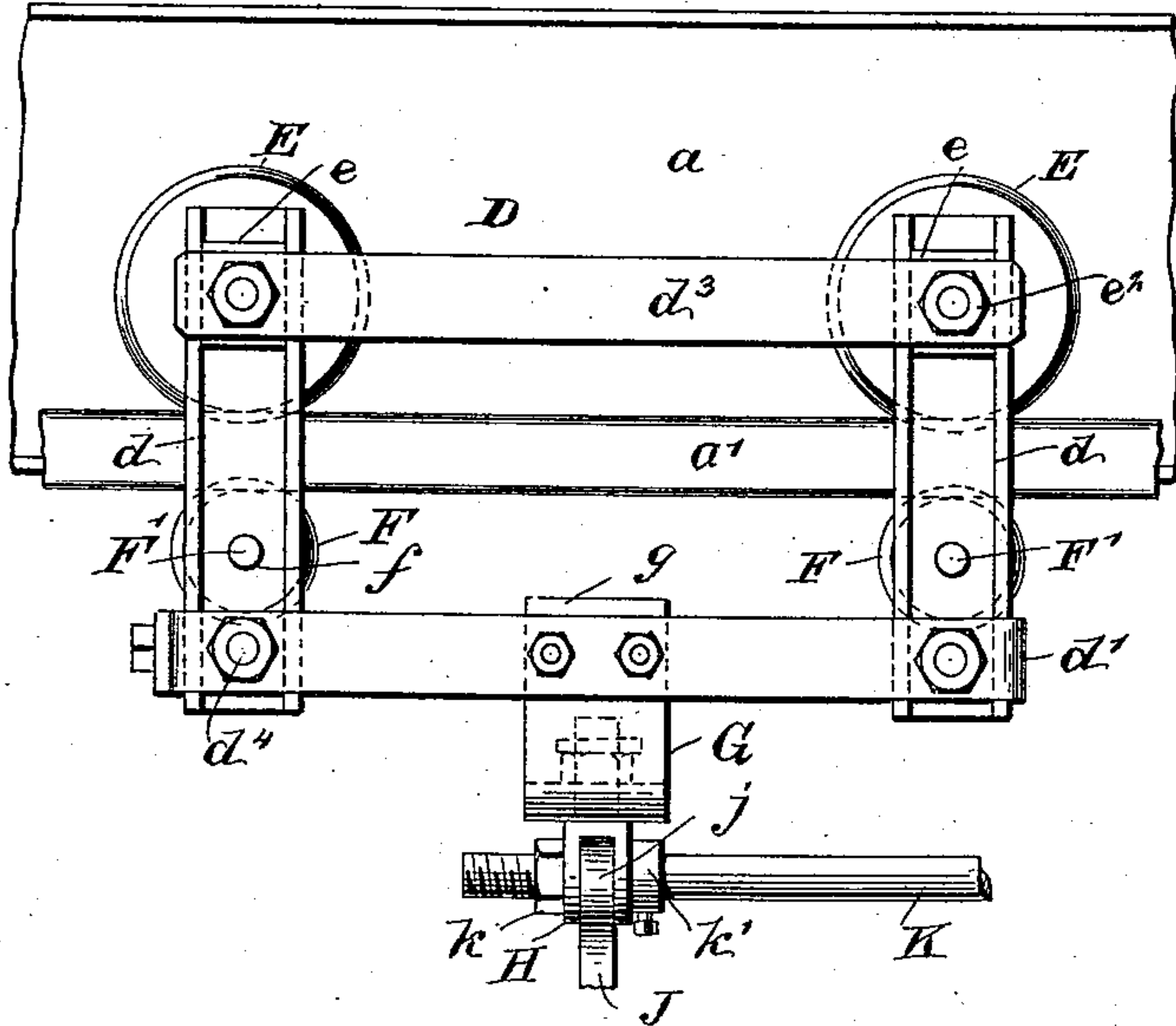


Fig. 3.

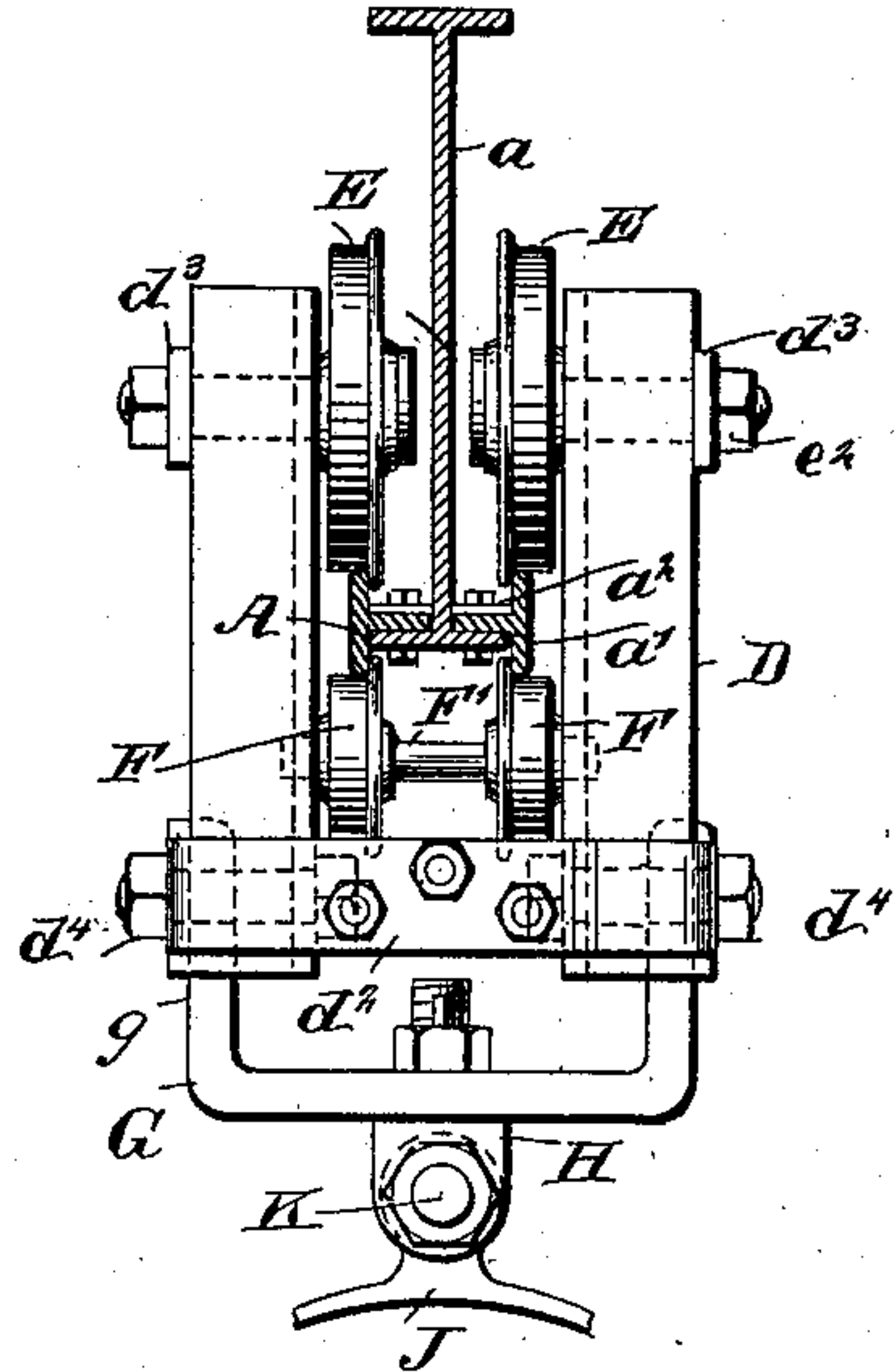


Fig. 5.

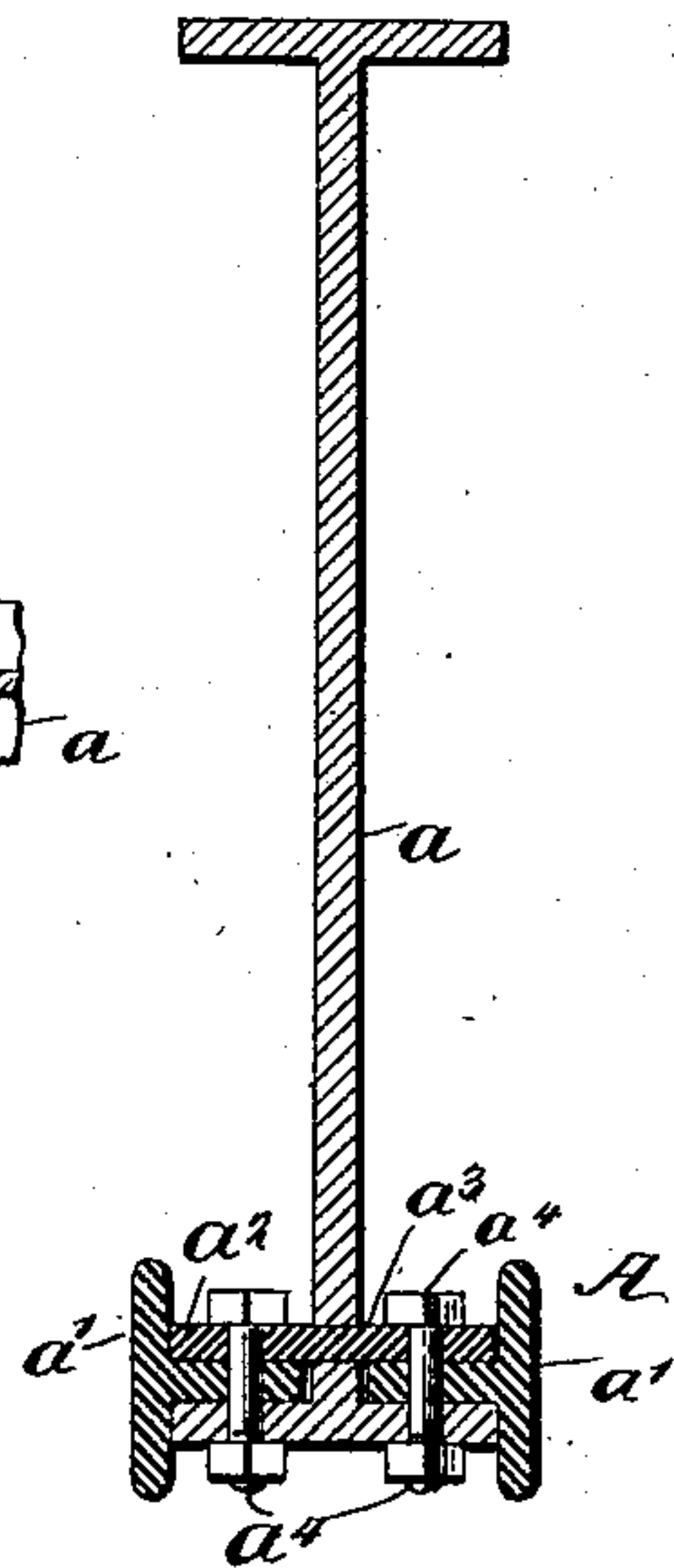
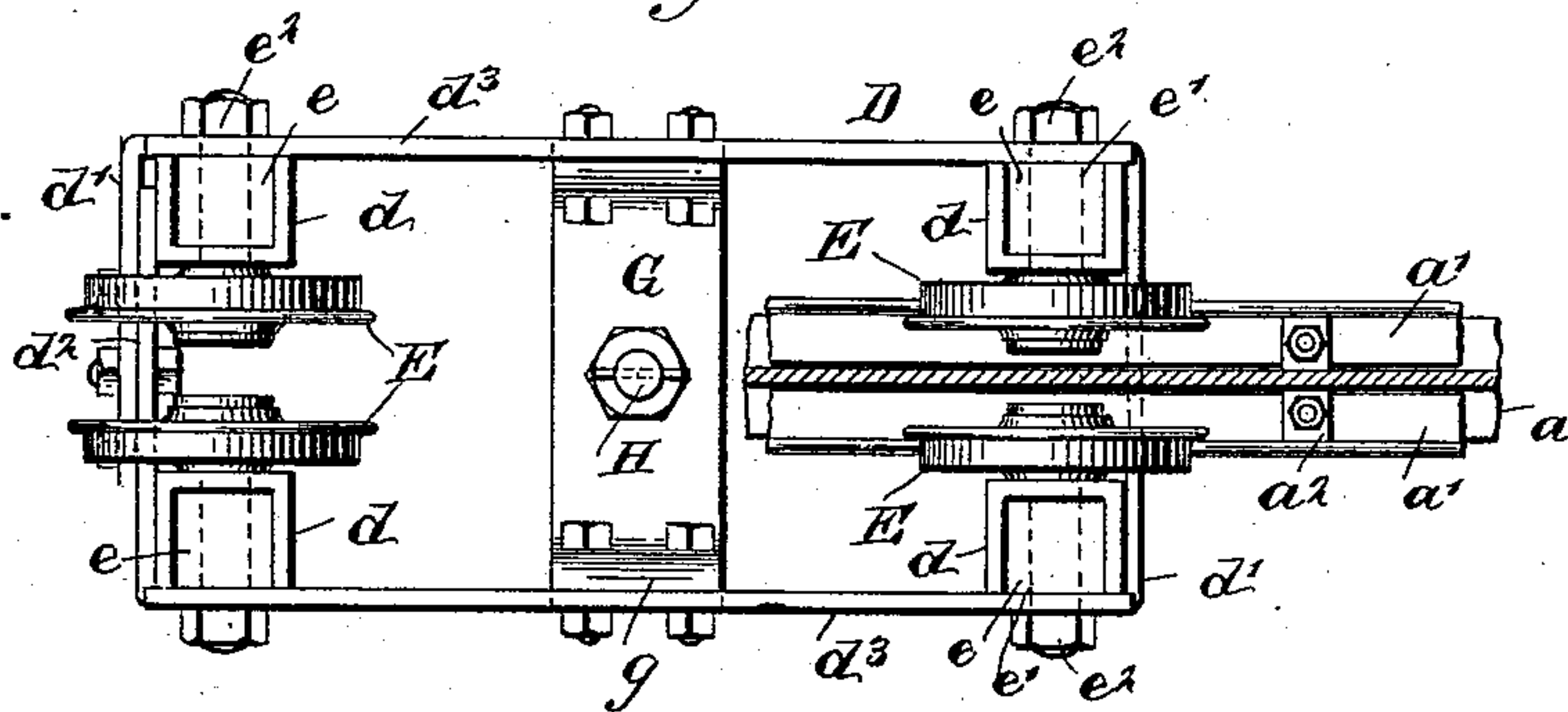


Fig. 4.



WITNESSES:

John A. Rennie
C. Sedgwick

INVENTOR

J. N. Valley
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN N. VALLEY, OF JERSEY CITY, NEW JERSEY.

ELEVATED RAILWAY.

SPECIFICATION forming part of Letters Patent No. 506,570, dated October 10, 1893.

Application filed March 29, 1893. Serial No. 468,154. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. VALLEY, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Elevated Railway, of which the following is a full, clear, and exact description.

The invention has for its object to provide an improved traveling carriage or hanger, suitable for suspending any desired form of car, whereby the derailment of the car will be positively prevented.

A further object is to provide an improved track and support for the same.

The invention consists in the novel construction and combination of parts, as hereinafter particularly described and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a section of a railway embodying my improvements, and representing a passenger car thereon suspended by my improved carriages or hangers. Fig. 2 is a side view of one of the carriages and a portion of the track, the brake shown in Fig. 1 being omitted, as it forms no part of the present invention. Fig. 3 is an end view of such carriage, the track being shown in transverse section. Fig. 4 is a plan view of the carriage with a portion of the track in section; and Fig. 5 is an enlarged transverse sectional elevation of the track.

In constructing a railway in accordance with my invention, the track A is secured to girders B by straps A', or the like, the girders being clamped, or bolted, as hereinafter described, to supporting posts C, which are preferably inclined toward each other.

The track A comprises the I-beam a , and the rails a' which are secured to the lower head of the I-beam. The said rails are T-shaped in cross section, the stem or web of the T lying horizontally on the lower flanges of the I-beam at each side of the latter, the head of the T being disposed vertically. As best seen in Figs. 3 and 5, the rails a' are secured in place by means of transverse keeper bars a^2 , which extend through openings a^3 in the web of the I-beam, bolts a^4 , serving to complete the connection, the bolts being

passed through the keeper bars a^2 , the horizontal member of the T rails a' and the lower head or flanges of the I beams a . Thus a firm connection is secured and the strain on the rails is distributed.

The improved carriages or hangers comprise the frame D, the suspension wheels E, and the safety wheels F, the construction and arrangement of which are as follows:—The carriage has four standards d of U-shape in horizontal section, there being two such standards at each side of the carriage, the whole being united at the bottom by a band d' , extending around the sides and ends of the carriage, the ends of the band being overlapped and bolted together as at d^2 , or otherwise united. The band d' is bolted to the standards d by the bolts d^4 . At the top, side bars d^3 , unite the standards d and within the U-shaped standards, blocks e , are fitted, through which the axles e' of the wheels E pass, the axles passing also through the standards d and side bars d^3 , and secured by nuts e^2 , the wheels E being mounted to rotate on the inwardly projecting ends of the axles, a separate axle being provided for each wheel E, and the wheels being preferably arranged so that their flanges are on the inside of the tread of the rails a' , as will appear from Fig. 3.

The safety wheels F are mounted on axles F', which have suitable bearings in the standards d , as at f , or the wheels may rotate on such axles. The treads of the safety wheels F are spaced from the running wheels E, below the same, a sufficient distance to receive the rails a' between them, whereby the flanges of the running wheels and safety wheels will travel at the inside of the track rails and engage the same and positively hold the carriage on the track. By this construction it will be seen that it will be almost impossible for the carriage to become derailed. About centrally of each carriage a yoke G is bolted or otherwise secured by its upwardly extending arms g to the band d' , and to such yoke there are swiveled forks H, between the arms of which forks is received the eye j , of a bail or suspension frame J, which extends down the sides of the car I, and is secured to the latter. A tie rod K, connects the two carriages of each car, said tie rod being passed through the fork H and the eye j of the bail

J, the ends of the tie bar being threaded to receive nuts *k*. An adjustable collar *k'* is also provided on the tie rod, the fork being clamped between the nut *k* and said collar.

5 In practice, the car may be propelled by animal power, or by an electric motor on one or both of the carriages. The girders B, are in the form of **I**-beams, and the flanges thereof at one side are cut away, as at *b*, to receive
10 the posts C. A collar or clip B' formed in flanged half-sections, is bolted on each post below the girders, and forms a rest or support therefor. The collars may be adjusted to conform to the height it is desired to place
15 the girders. U-bolts B², embracing the posts and passing through the girders, complete the connection of the latter to the posts.

The brake devices shown in Fig. 1, and lettered M, form no part of the present invention.
20 tion.

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

25 1. In an elevated railway, a track comprising a longitudinally ranging beam having a

head at its lower end forming horizontal flanges, and T-rails secured to such flanges at each side of the beam, the heads of such T-rails being disposed vertically, substantially as described.

2. In an elevated railway, the herein described track, comprising a beam having side flanges at its lower end, T-rails having their stems resting on such flanges and their T-heads disposed vertically, keepers passing
35 transversely through the beam and bearing on the said rails, and bolts or rivets passing through the keepers, the rails, and the flanges on the beam, substantially as described.

3. In an elevated railway structure, the combination with supporting posts, of adjustable girders in the form of **I**-beams, said girders having their flanges cut away at one side to receive the posts, and clamped to the latter, substantially as described.
40

JOHN N. VALLEY.

Witnesses:

J. L. MCAULIFFE,
C. SEDGWICK.