

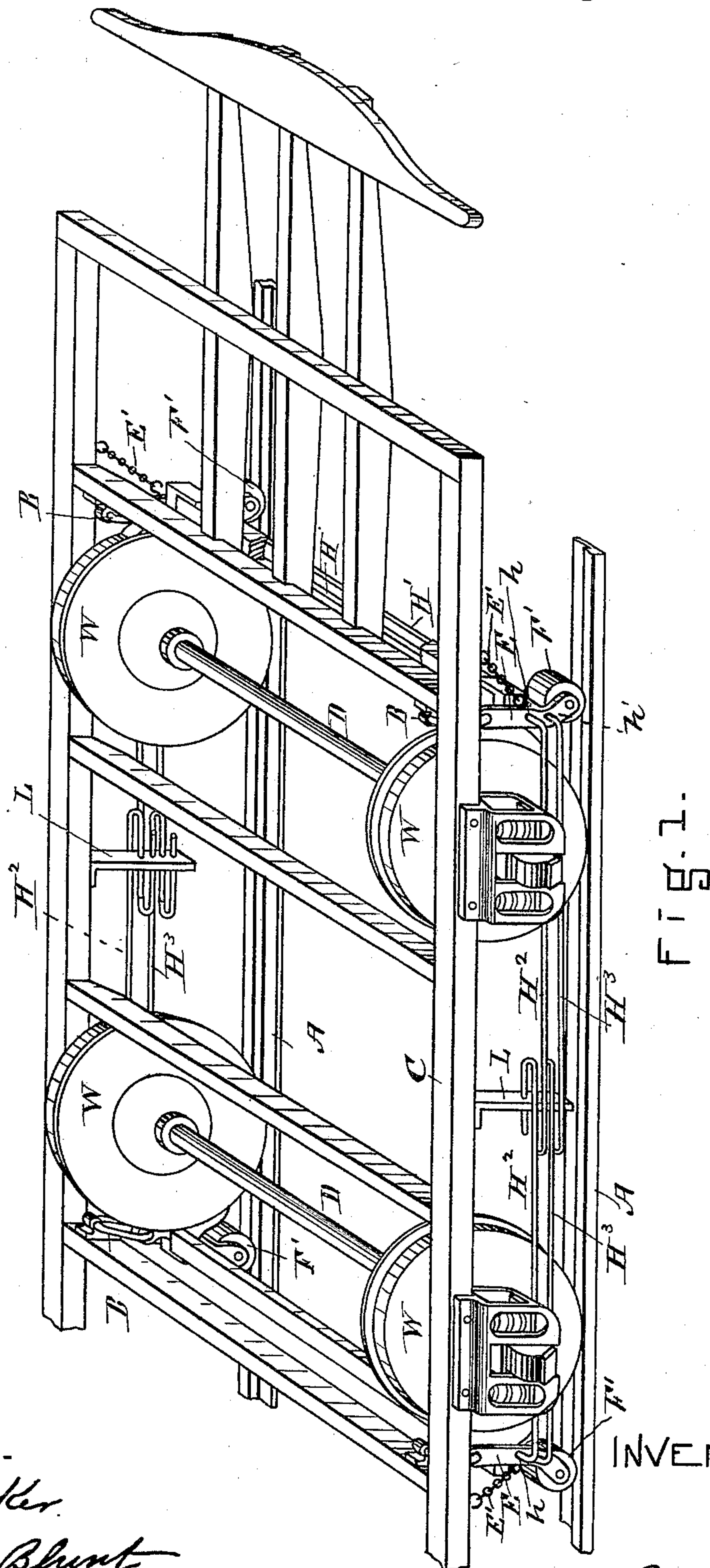
(No Model.)

2 Sheets—Sheet 1.

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SAFETY GUARD FOR STREET CARS.

No. 409,192.

Patented Aug. 20, 1889.



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INVENTOR.

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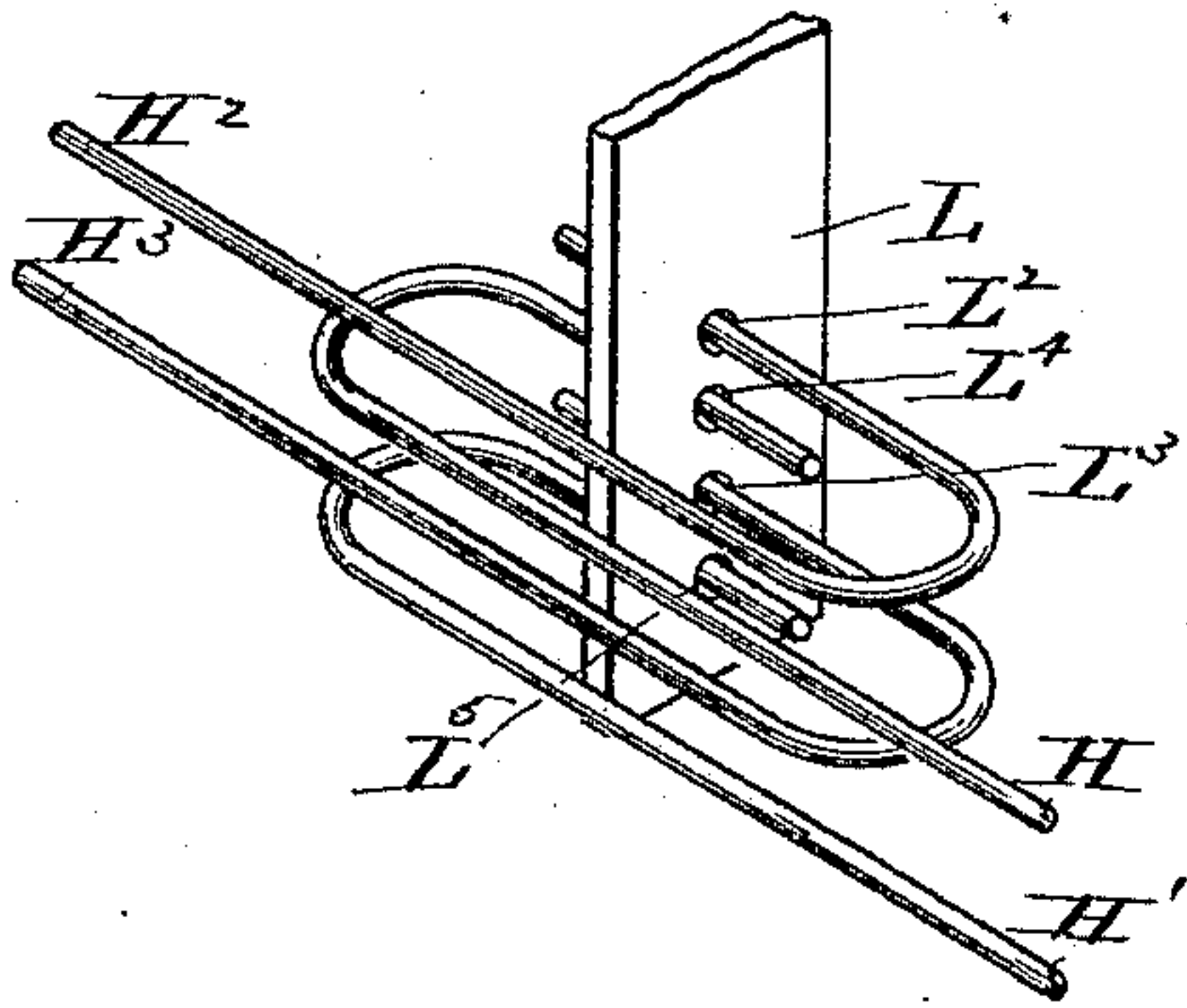
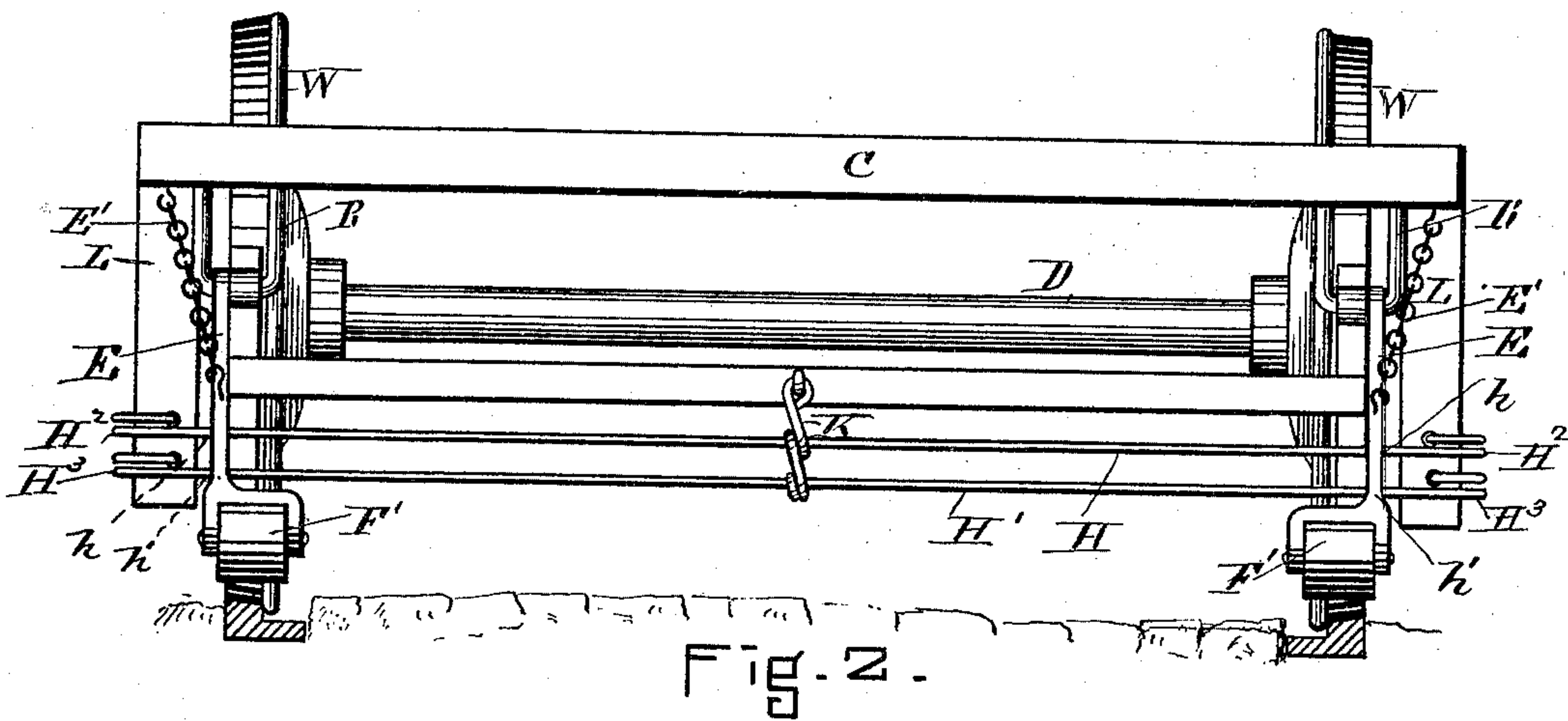


Fig. 5

WITNESSES.

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UNITED STATES PATENT OFFICE.

MAXWELL J. GOODWIN, OF SOMERVILLE, MASSACHUSETTS.

SAFETY-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 409,192, dated August 20, 1889.

Application filed June 14, 1889. Serial No. 314,299. (No model.)

To all whom it may concern:

Be it known that I, MAXWELL J. GOODWIN, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Safety-Guards for Street-Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to so construct and arrange a guard for street-cars that it shall be light, flexible, self-adjusting, and strong, and to be so placed that when a street-car is equipped with it in good working order there will be no danger of serious injury to a person who by accident falls or is thrown upon the track. This object I attain by the mechanism shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing the frame-work of a car with my safety-guard attached. Fig. 2 is a front end elevation of the same. Fig. 3 is a sketch in perspective giving an enlarged view of the side adjusting arrangement.

In the drawings, A A represent the rails upon which the car runs. C shows the ordinary construction of the lower part of the frame-work of a street-car, W W the wheels, and D D the axles. These parts require no description, as they are of the common well-known construction and in no way limit my invention.

At each end of the car I have hangers B B, which serve to suspend from the frame-work of the car swinging bars E E—two at each end of the car. These swinging bars E E each have at their lower ends trolley-wheels F', arranged to hang normally just above the track and perfectly free, and serve to protect the ends of the swinging bars E E in case they should from any cause come in contact with the track, and also to freely pass over any small obstruction that may be on the track.

E' E', Figs. 1 and 2, are check-chains connected to the frame C and to the swinging bars E E, and serve to limit the downward motion.

The guards proper of my device consist of strong flexible rods H H' for the ends of the car and rods H² H³ for the sides. The front guard-rods H H'—one set of which are shown

in Fig. 2—are represented as suspended at a central position by a twisted link K, the upper end of which may be attached to the framework of the car at the brake-bar. The end guard-rods H H' pass through the swinging bars E E at h h', as shown in Figs. 1 and 2; thence they continue along the side of the car, as indicated at H² H³, Fig. 1. The ends of the guard-rods may pass directly through the pendent bracket L, Fig. 1, or may pass it with a return-bend, as shown more clearly in Fig. 3, in which the returns are shown as passing through holes L² L³ L⁴ L⁵, made in the pendent bracket L. By this arrangement the outer edge of the pendent bracket L is covered, so that it cannot hit and injure a person on the ground. This arrangement also leaves the ends of the guard-rods on the inner side end in a position in which they can do no injury. As the guard-rods pass somewhat loosely through the hanging bars E E and have their ends free to slide longitudinally in the pendent bracket L, it is evident that the whole system of guard-rods is self-adjusting and arranged so that it will not in the least interfere with the free movements of the car on its trucks, and that it will not get out of order or have any of its parts displaced, and that its flexibility will insure its durability and usefulness.

I claim—

1. In a safety-guard device for street-cars, the combination of the flexible guard-rods and swinging bars E E, adapted to suspend the said guard-rods and provided with trolley-rollers F F, with the pendent bracket L, substantially as and for the purpose set forth.

2. In a safety-guard device for street-cars, the combination of the guard-rods having return-bends at their ends and adapted to slide freely in the pendent brackets L L, with the pendent brackets L L, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of June, A. D. 1889.

MAXWELL J. GOODWIN.

Witnesses:

FRANK G. PARKER,

MATTHEW M. BLUNT.