

No. 613,691.

Patented Nov. 8, 1898.

H. W. LIBBEY.

LIFE SAVING APPARATUS FOR STREET CARS.

(Application filed Jan. 24, 1898.)

(No Model.)

Fig. 1.

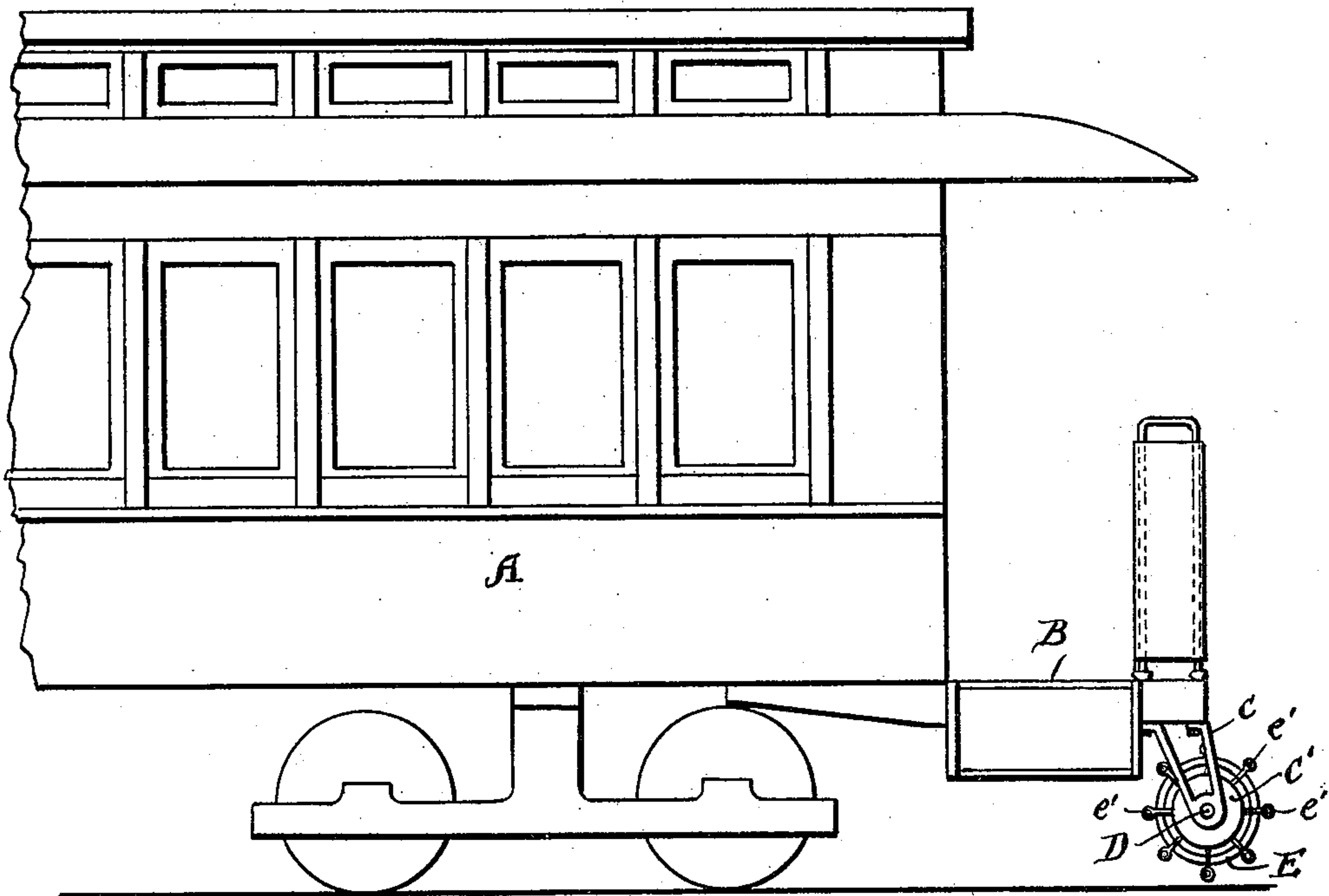


Fig. 2.

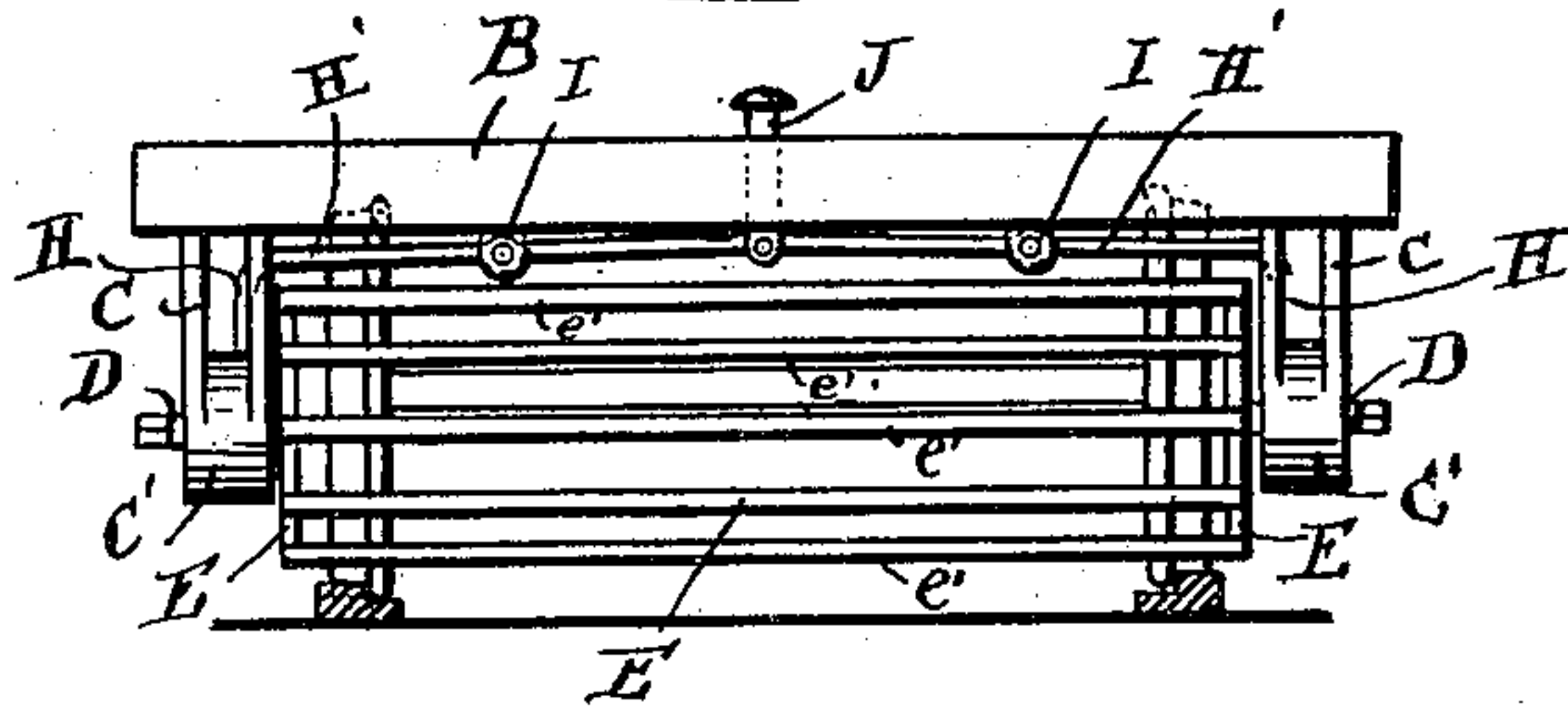


Fig. 3.

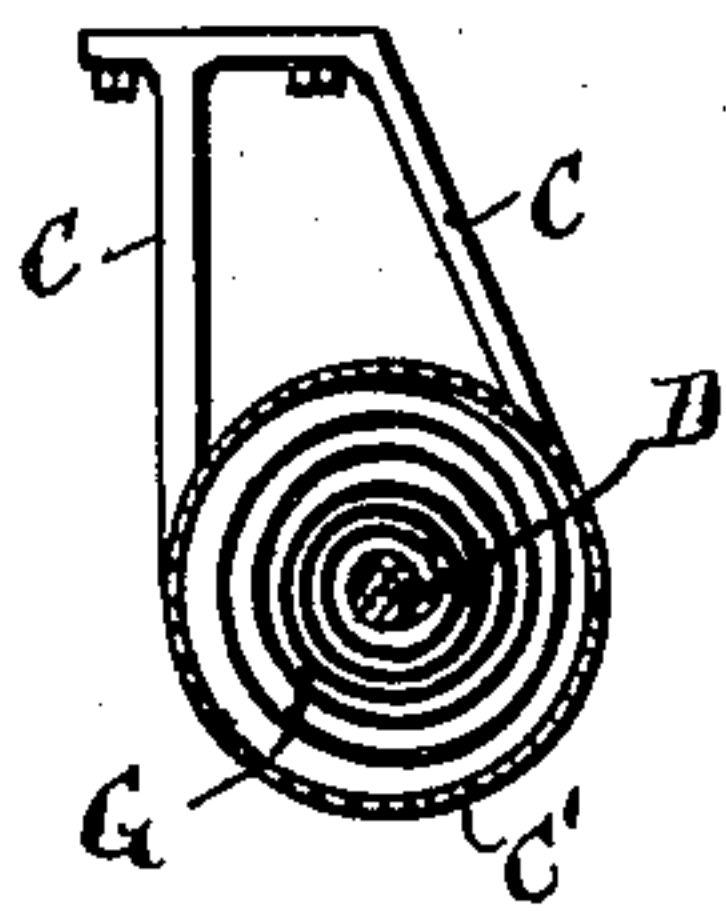


Fig. 5.

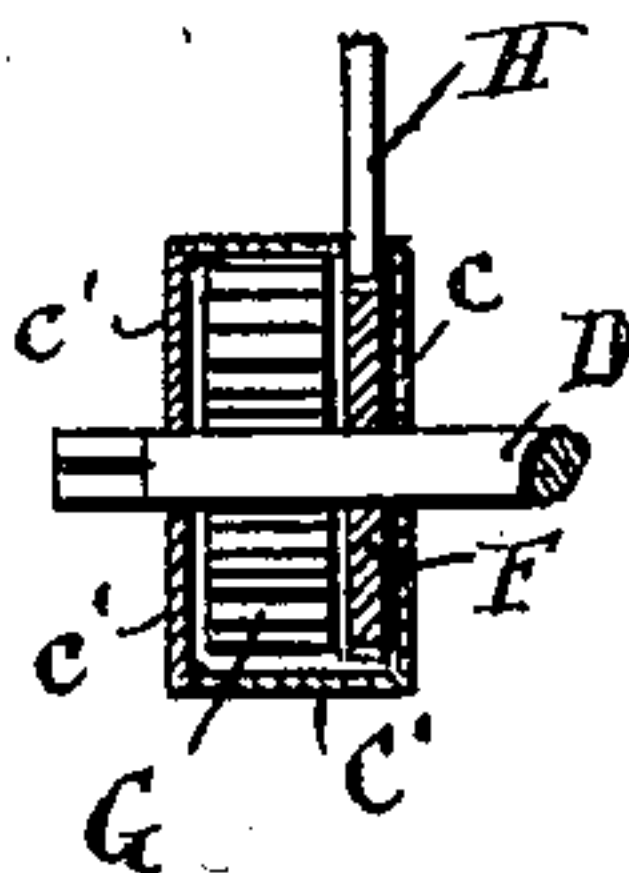
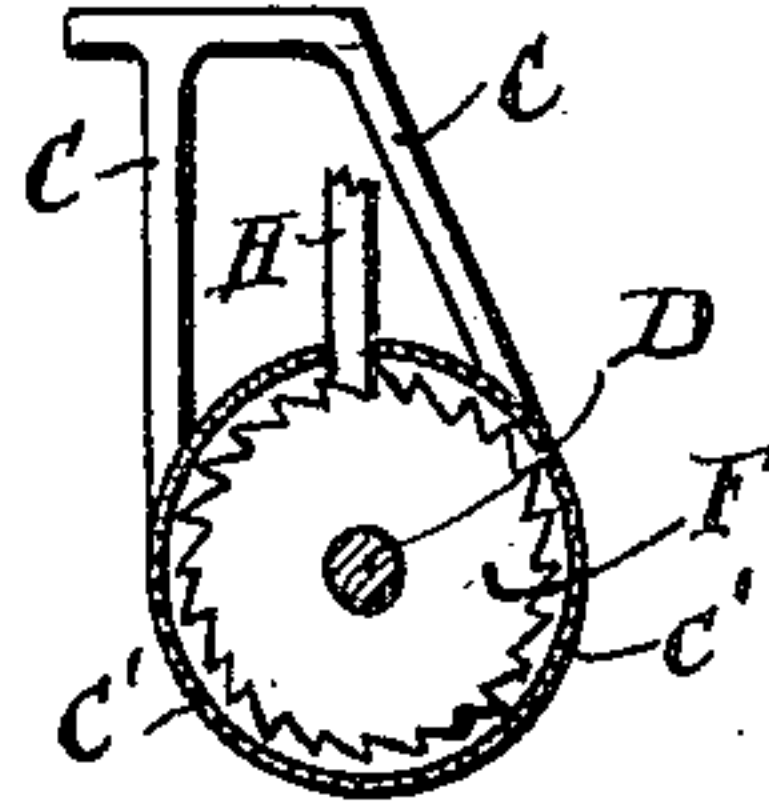


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

LIFE-SAVING APPARATUS FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 613,691, dated November 8, 1898.

Application filed January 24, 1898. Serial No. 667,784. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Life-Saving Apparatus for Street-Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to certain improvements in life-saving apparatus for street-cars whereby any body that may be upon the track and which the car is liable to come into contact with can be easily removed, and that without serious injury to said body.

The invention consists of a circular framework provided with elastic sweepers and adapted to be rotated by springs that are under the control of the driver, so that when the driver sees an object in front of the car he has simply to press his foot upon a lever, thus releasing the springs, which then cause the circular frame to rotate and sweep the body forward, and thus prevent it coming under the wheels of the car.

Referring to the accompanying drawings, Figure 1 represents a side view of one end of a car fitted with my improved life-saving apparatus. Fig. 2 is a front view; Fig. 3, a vertical transverse section taken through one of the springs; Fig. 4, a vertical transverse section taken through the ratchet. Fig. 5 is a vertical longitudinal section taken through one of the springs and ratchets.

A represents a portion of the body of an electric car, and B the platform. To the under side of the front portion of the platform, at each end, is secured a suitable hanger C, formed in one with or secured to a circular casing C', having a back c (see Fig. 4) formed in one therewith. The front end of said casing is closed by a cover c', that is secured in position in any suitable manner. Through the center of this casing C' is passed a shaft D, on the central portion of which, between the hangers C, is secured a circular frame E, the longitudinal bars of which are fitted with straight pieces of india-rubber, or, preferably, with rubbers formed tubular at their outer ends, as shown at e', Fig. 1, which act as brushes when the device is in operation. Although I prefer to employ rubber, it is obvious

that any other suitable material to form a sweeper might be employed.

Upon the ends of the shaft D that extend through the circular boxes are secured ratchet-wheels F, and outside of same is a spiral spring G, one end of which is secured to the shaft D and the other end is secured to the box or casing C'.

The outer ends of the shaft D are formed square to receive a crank to wind up the spiral springs.

H H are pawls in gear with the teeth of the ratchet-wheels F. These pawls are on the ends of bent levers H', that are fulcrumed to bearings I, attached to the under side of the platform B, and the ends of the levers H' are attached to an upright rod J, that passes through the platform B, in the central portion thereof, so as to be convenient for the driver to place his foot upon same to raise the pawls, and thus allow the sweeper to be rotated by the springs.

The outer surface of the longitudinal pieces of rubber or other suitable material are mounted so as to be normally but a short distance from the track, so that when they are allowed to rotate they will readily sweep any object from off the track.

In order to wind up the springs G to hold them in readiness for action, the driver first winds them up from either side of the car with the same crank that he uses for operating the electric contacts. Now when the springs are thus wound up they are ready for use at any moment by simply withdrawing the pawls from the ratchet-wheels, when the said springs will cause the sweeper to be rapidly rotated until said springs are run down, when the driver will again have to wind up the springs. It will be seen that by this construction the rotary sweeper is always ready and can be instantly put into operation upon the driver depressing the rod J whenever he sees an object upon the track which the car would come into contact with.

What I claim is—

1. A circular frame mounted in brackets secured to the under side of the platform of a street-car, springs capable of being wound up to cause same to rotate, ratchet-wheels and pawls for holding said springs in place when wound up and a presser-bar for withdrawing

the pawls from the ratchet-teeth substantially as set forth.

2. In a street-car, circular casings secured to the under side of the platform by hangers, 5 a shaft mounted in said casings, a rotary frame on the shaft between the casings a volute spring and ratchet-wheel within each of the casings, pawls for holding the ratchet-wheels in place and a presser-bar for releasing 10 same when desired substantially as set forth.

3. In combination with an electric car a circular frame mounted upon a shaft and fitted

with rubber strips, springs for causing same to rotate ratchet-wheels secured to the shaft and pawls capable of being operated by the motor- 15 man substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of December, A. D. 1897.

HOSEA W. LIBBEY.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.