

No. 753,436.

PATENTED MAR. 1, 1904.

K. SCHMIDT.

SAFETY APPARATUS FOR MOTOR CARS OF ALL KINDS.

APPLICATION FILED OCT. 12, 1903.

NO MODEL.

Fig. 1.

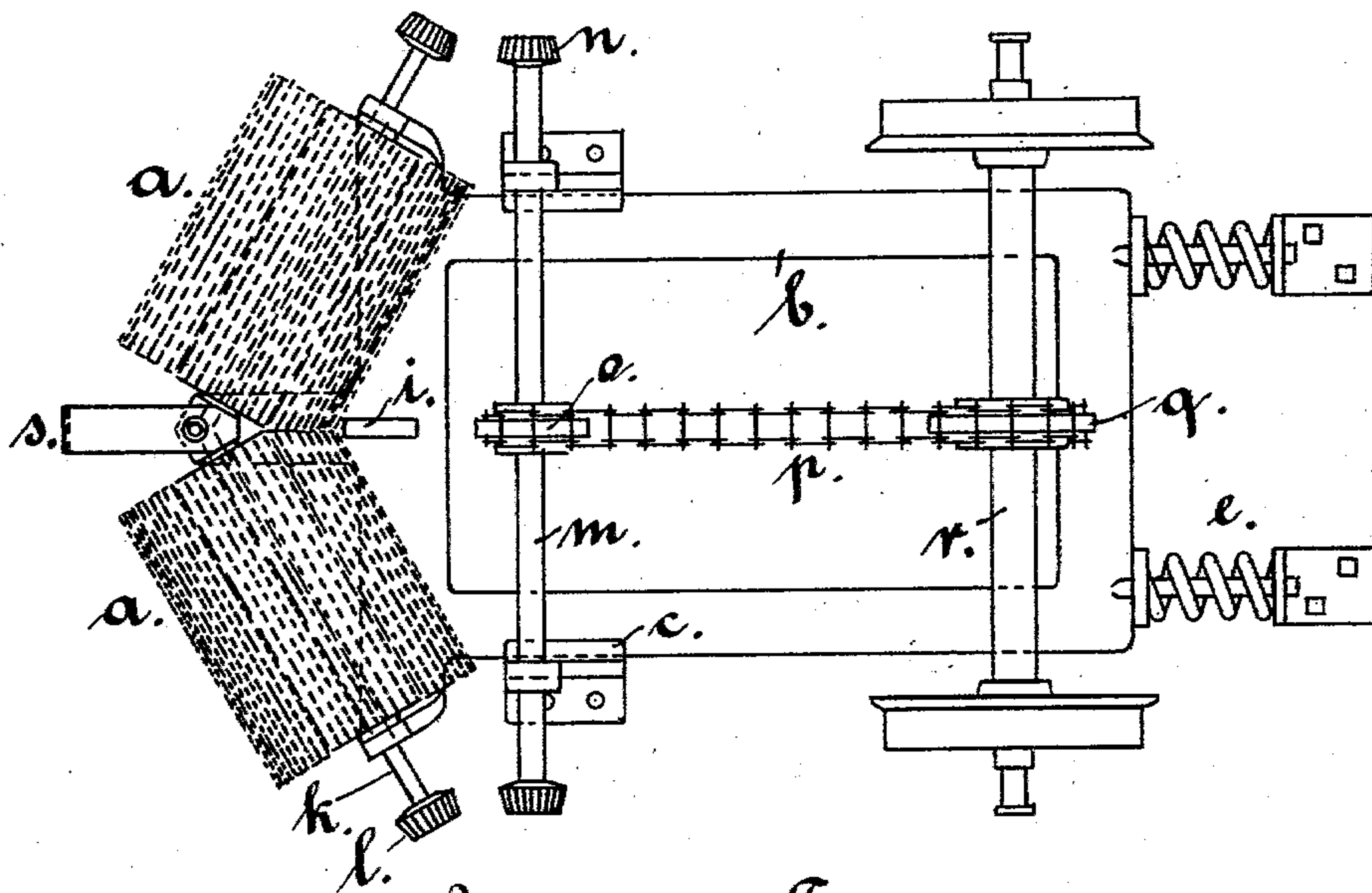
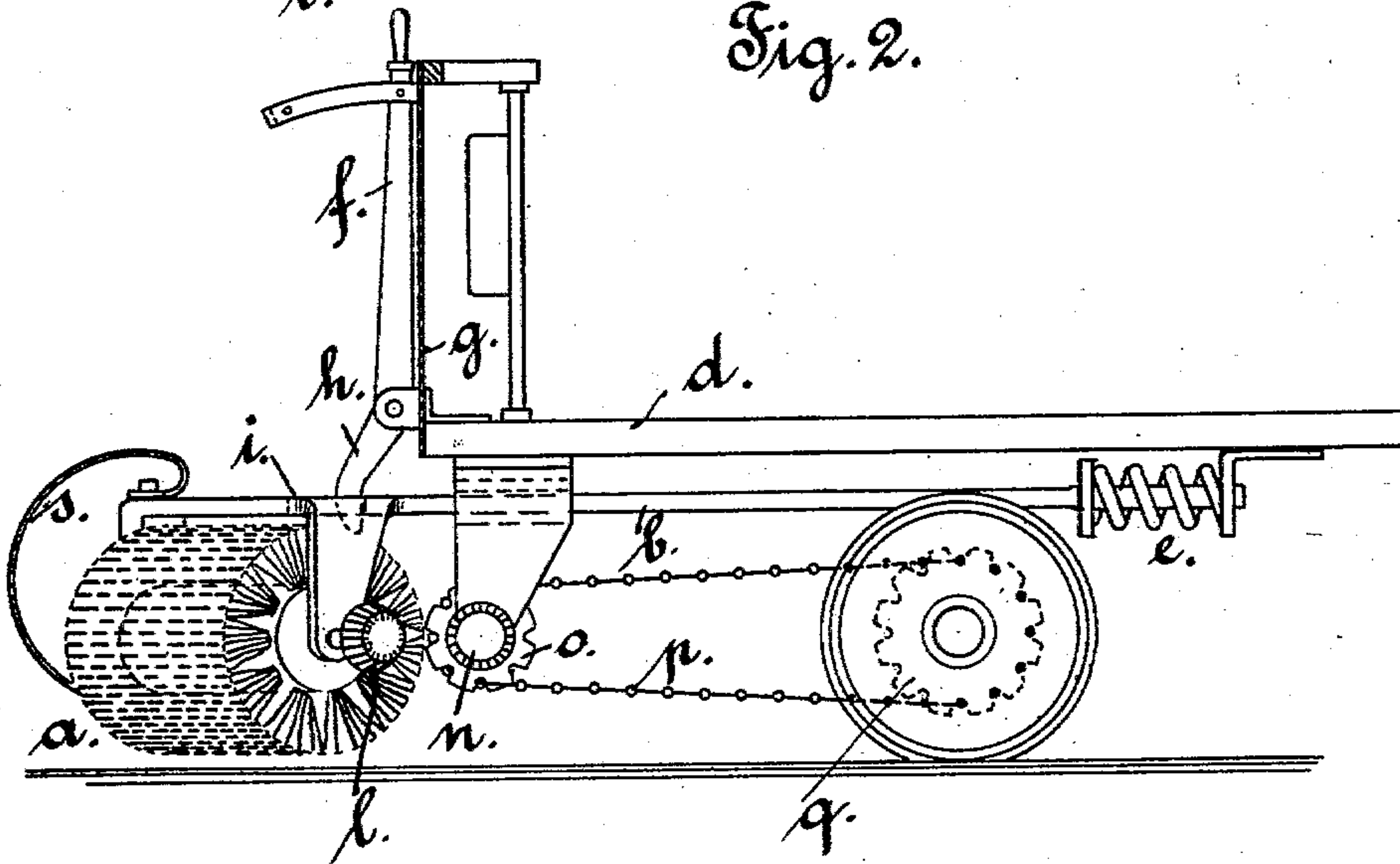


Fig. 2.



Witnesses:  
M. Peters.  
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# UNITED STATES PATENT OFFICE.

KARL SCHMIDT, OF CÖTHEN, GERMANY.

## SAFETY APPARATUS FOR MOTOR-CARS OF ALL KINDS.

SPECIFICATION forming part of Letters Patent No. 753,436, dated March 1, 1904.

Application filed October 12, 1903. Serial No. 176,753. (No model.)

*To all whom it may concern:*

Be it known that I, KARL SCHMIDT, copper-smith, a subject of the King of Prussia, German Emperor, residing at Cöthen, Kingdom of Prussia, Germany, have invented a new and useful Improvement in Safety Apparatus for Motor-Cars of All Kinds, of which the following is a specification.

My invention consists in a safety apparatus on motor-cars of all kinds for the purpose of removing obstacles in the path of the motor-cars.

Figure 1 of the accompanying drawings shows the construction seen from underneath; Fig. 2, a lateral view.

The axle-bearings, as well as the impulsion arrangement for the axle, are removed.

The means used to clear the path (or the catching apparatus) are here the well-known rotary rollers *a*, made of caoutchouc, brushes, or such like. However, these rollers *a* during the motion of the car also are in rotation. It is here shown as a new contrivance, first the spring-sliding of the motionless brushes or caoutchouc rollers, then the setting in motion first when coming into contact with the obstacle. For this purpose the roller or rollers *a* are situated in a frame *b*, which slides in guides *c*, placed under the car-frame *d*. Springs *e*, arranged in a suitable manner, press the frame *b* with the rollers *a* continually before the front.

A hand-lever *f* on the front side *g*, where the conductor of the car stands, the lowest part *h* of which fastens into a slit *i* of the roller-frame *b*, enables the conductor to move the apparatus backward.

The axles *k* of the rollers *a* are provided on their rear ends with beveled pinions *l*.

Under the conductor's stand lies a horizontal axle *m*, which has on each end a beveled wheel *n* and on the middle part a chain-wheel *o*, which gears, by means of a chain *p*, with a chain-wheel *q*, situated on the wheel-axle

*r* of the car. Axle *m* and its beveled pinions *n* rotate when the car moves, while the rollers *a* remain out of action.

When the rollers *a* meet with an obstacle, then the blow will be caught up by means of the springs *e*, and the frame is pressed backward. Hereby the beveled pinions *l* become in gear with the rotating beveled pinions *n* on the axle *m*, and then the rollers *a* begin to turn, whereby the obstacle rolls to the side of the car. This invention grants, therefore, the advantage that the rollers require no impulsive power, that they only in case of danger, and then automatically, come in action. Then the break effect is increased in case of danger. By means of the elastic guidance of the roller-frame the blow against the obstacle is softened.

If, as in the drawings, for instance, as represented, two rollers are arranged which stand at an angle to each other, then their front part will have to be protected by a spring *s*, so that the obstacle cannot come between the rollers.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination in a safety apparatus for motor-cars of all kinds, a frame sliding in guides under the car-frame, springs behind pressing the frame, rotatable brushes in front part of frame having each an axle, beveled pinions on the rear ends of these axles, a shaft under the car-bottom, rotating in bearings, a chain-wheel in the central part of said shaft, a chain-wheel on the running-axle of the car, an endless chain between both chain-wheels, all as described and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

KARL SCHMIDT.

Witnesses:

ARTHUR LIPS,  
JAMES L. A. BURRELL.