

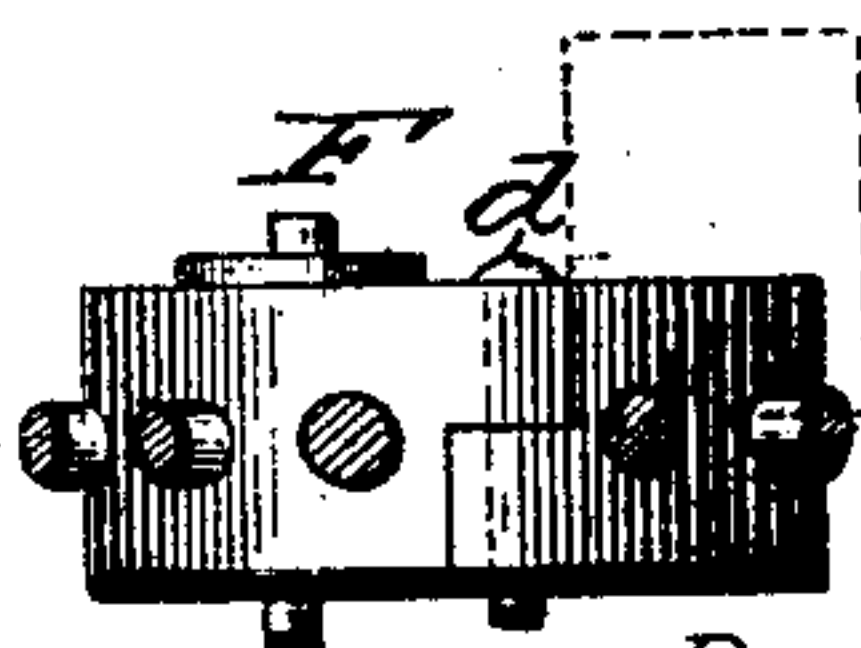
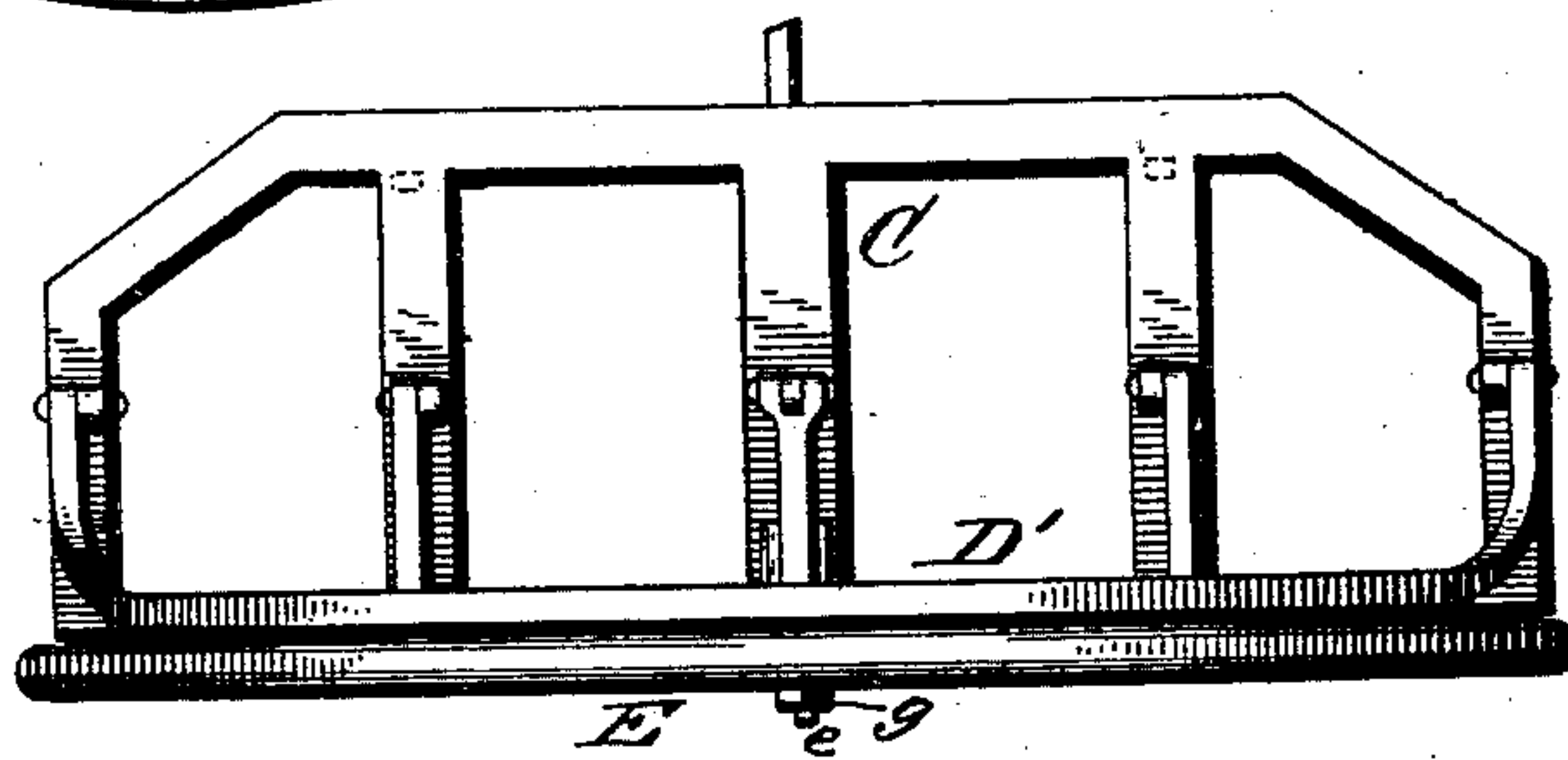
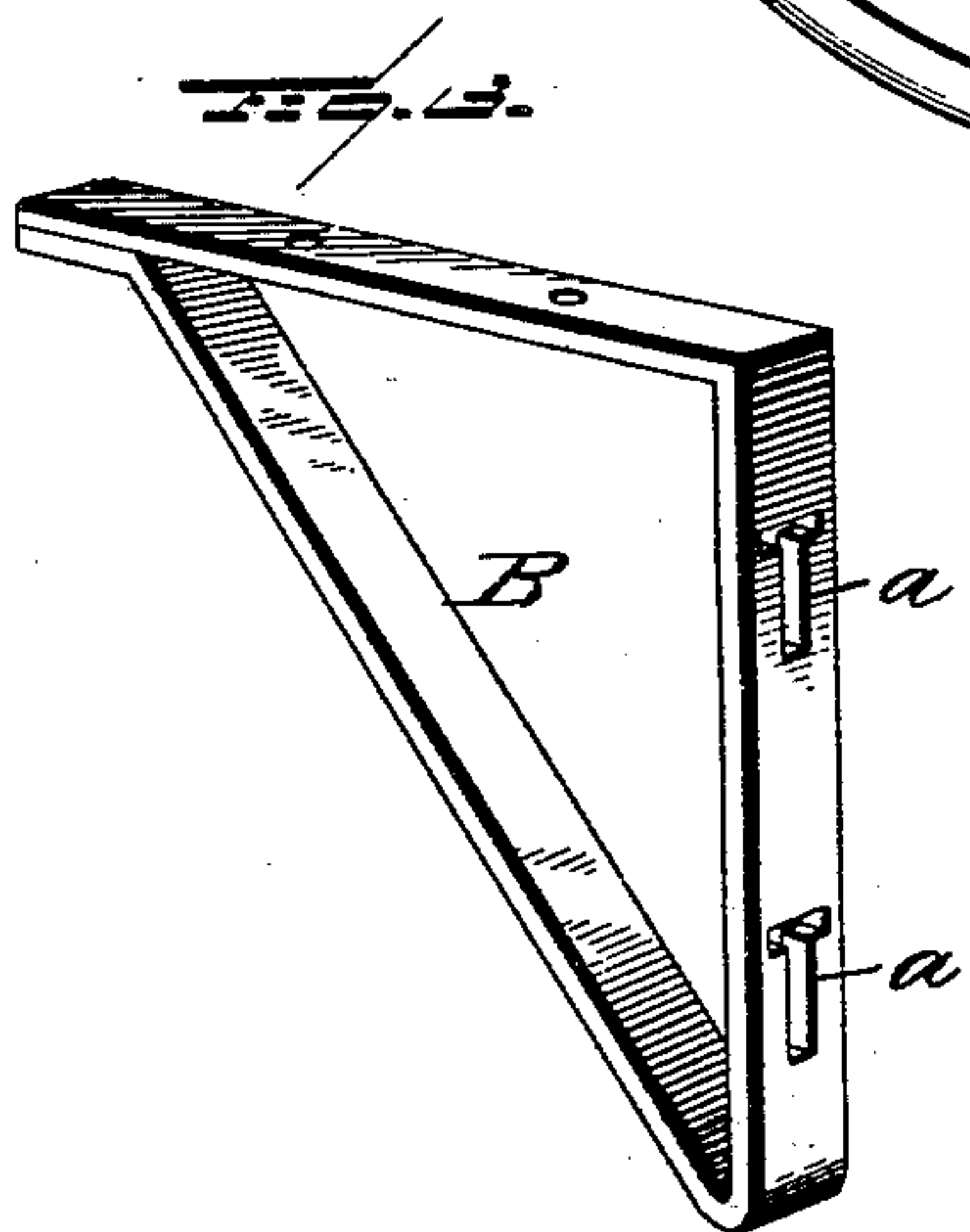
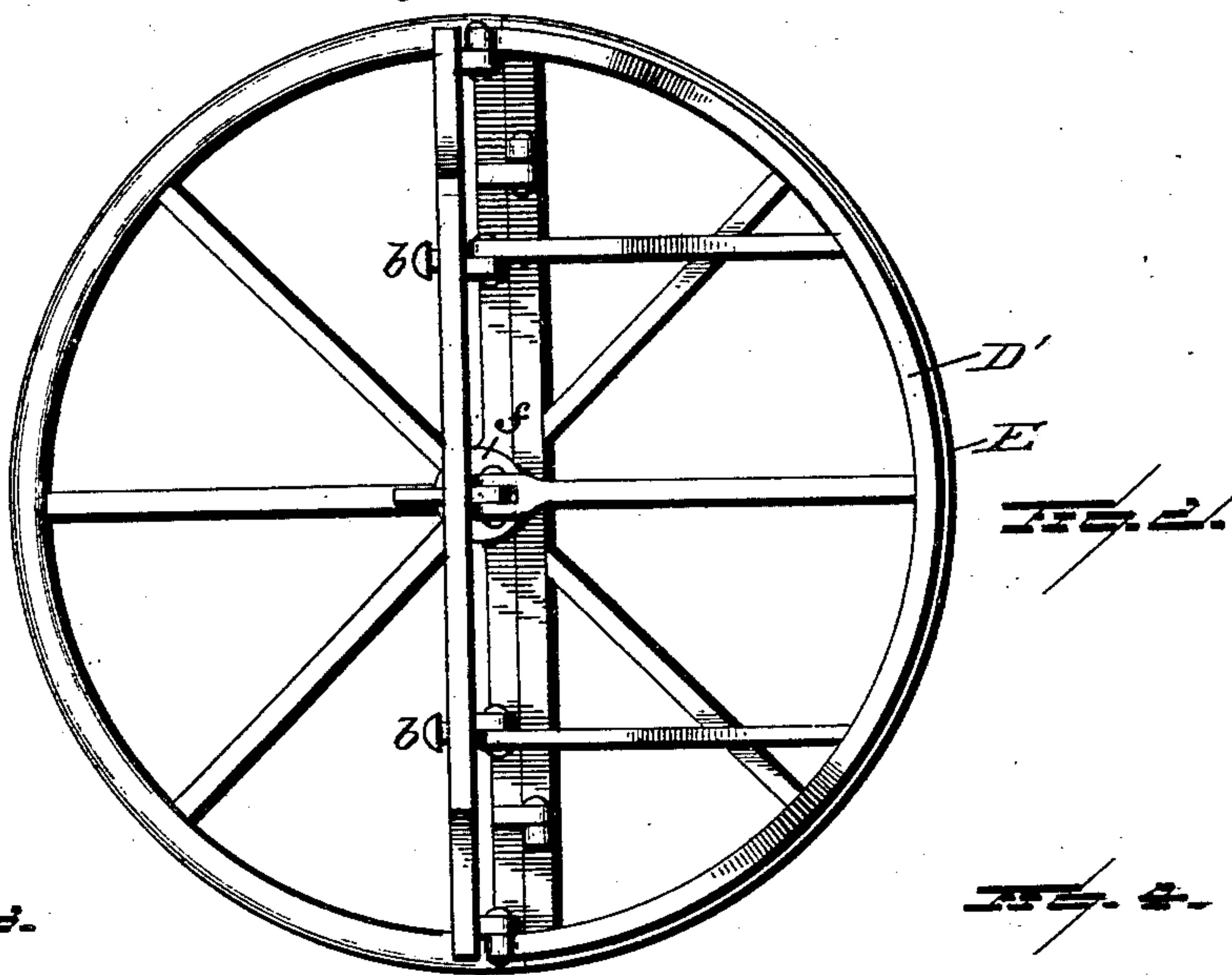
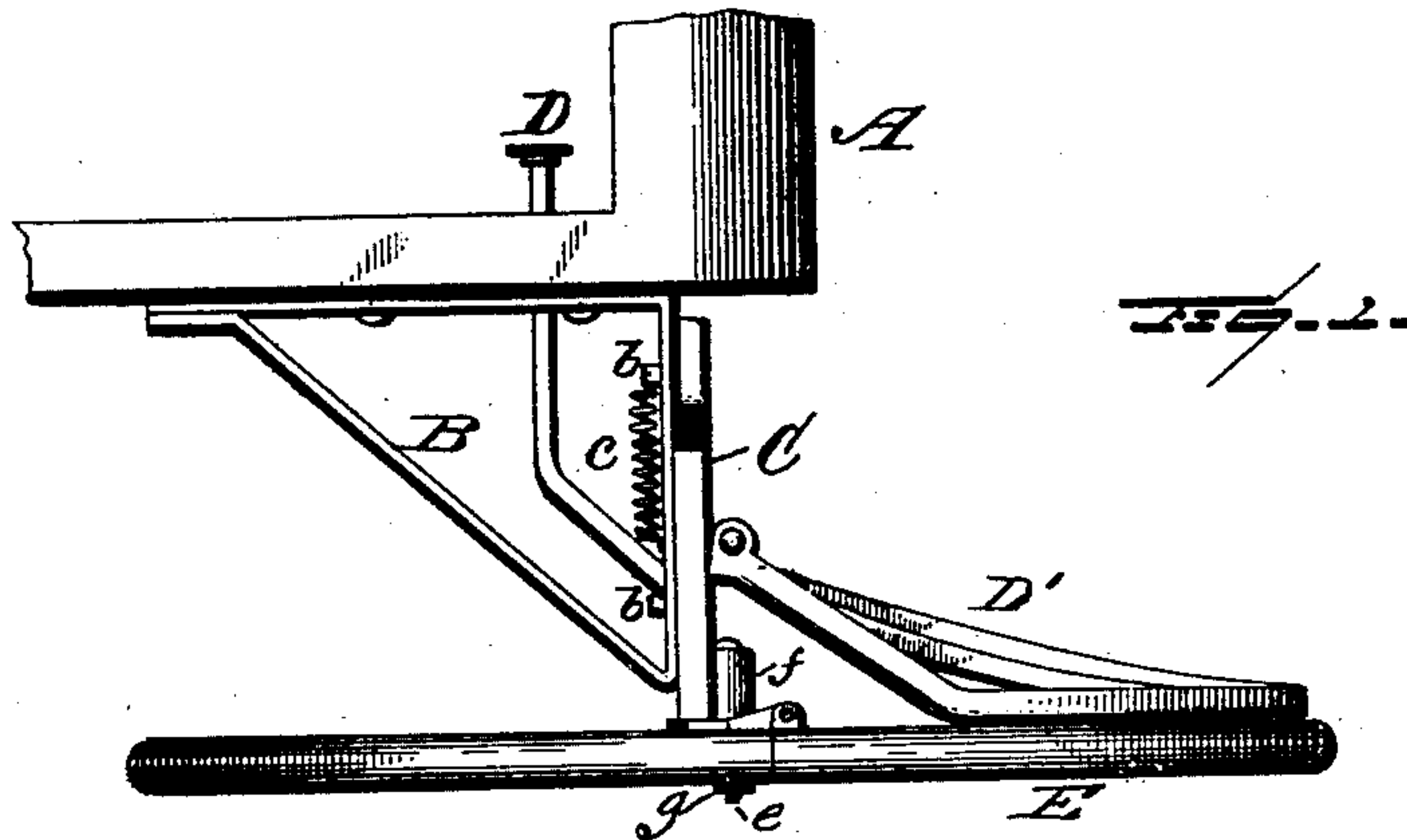
No. 677,523.

Patented July 2, 1901.

S. LIND.  
CAR FENDER.

(Application filed Jan. 18, 1901.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

SAMUEL LIND, OF DAVENPORT, IOWA.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 677,523, dated July 2, 1901.

Application filed January 18, 1901. Serial No. 43,765. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL LIND, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have  
5 invented certain new and useful Improvements in Car-Fenders; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being  
10 had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple, effective, and easily-operating fender for street-cars and that will possess the required strength and durability; and  
15 it consists in a fender constructed substantially as shown in the drawings and herein-after described and claimed.

Figure 1 of the drawings is a side elevation  
20 of a portion of the front end of a car with my improved fender connected thereto; Fig. 2, a top plan view of the fender; Fig. 3, a detail view, on an enlarged scale, of one of the supporting-brackets; Fig. 4, a front elevation of  
25 the fender; Fig. 5, a side elevation, on an enlarged scale, of the section-hub of the fender-wheel.

In the accompanying drawings, A represents a portion of the front end of a car, to  
30 which my improved fender is connected through the medium of suitable brackets B, which are secured to the under side of the car. These brackets are formed with T-shaped slots *a*, with which engage the headed pins *b*  
35 on the inner side of an upright fender-frame C to hold said frame suspended. Suitable springs *c* connect with the frame C in any suitable manner, as does also a foot-lever D, which lever extends up through the bottom  
40 of the car and into the same, and by pressing on this lever with the foot the entire fender may be lowered, and by removing the foot from the lever the springs will force the fender up to its normal position.

45 The means herein described renders the fender spring-actuated to bring it back to its normal position, and I do not wish to be understood as limiting my invention to any particular means for rendering the fender spring-actuated, as the automatic action of the fender  
50 when the pressure on the foot-lever is released

to bring the fender up to its normal position may be accomplished in various ways without departing from the principle of the invention. The length of the slots *a* in the brackets B is sufficient to allow of this elevation or  
55 depression of the fender, and the horizontal portion of the slots is to admit the head of the pins *b* when first engaging the pins with the slots and also allow of the fender being dis-  
60 connected from the brackets.

The fender consists of three elements—viz., the upright frame C, the frame D', and the sectional wheel E, the frame D' being of any  
65 suitable construction and suitably hinged to the frame C and the wheel E pivotally connected with the upright frame, so that it will readily revolve upon its axis.

The frame D' may be covered with wire-netting or canvas, or any suitable material  
70 may be used to form a covering therefor, as found best adapted to the purpose, said frame being preferably hinged to the upright frame, so that it may be detached when desired by removing the pins of the hinges.  
75

The hinged frame D' has a jointed movement up and down to render it easy of action when catching any object coming in contact with the wheel at its center; but should the  
80 object strike the wheel on the side the wheel will push it off the track.

The wheel E has a hub formed of two sections, the hub, as indicated at F, being shown in detail in Fig. 5 of the drawings, the two  
85 sections being held together by a pin *d*. The hub is one of many forms of sectional hubs that may be used in connection with the wheel. The main object of making the hub in sections is to allow the two sections of the  
90 wheel to be separated or folded together when desired.

The hub F revolves upon a short axle *e*, extending down through a projection *f* on the upright frame C, the hub being held  
95 thereto by a nut *g*, so that the wheel may be conveniently removed from its connection by removing the nut and the two sections of the wheel folded together or separated by first removing the pin *d* of the hub.

Any suitable means may be provided for  
100 connecting the wheel to the upright frame, so long as the wheel is free to revolve, the



disconnecting or folding together of the sections of the wheel and the frames rendering the fender capable of being placed in a small compass for convenience of storing or transportation.

It should be understood that there are many changes in the details of construction that may be resorted to without departing from the principle of the invention, and any such changes or modifications as would come within ordinary mechanical skill may be made without in any manner affecting the essential features of the invention.

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

1. A street-car fender comprising a horizontal wheel, an upright frame connected thereto, and a frame extending over the front portion of the wheel and hinged to the upright frame, substantially as and for the purpose set forth.

2. A street-car fender comprising a horizontal wheel, an upright frame to which the wheel is connected, a frame projecting over the front part of the wheel and hinged to the upright frame, and means substantially as described for rendering the fender spring-

actuated, substantially as and for the purpose described.

3. A fender for street-cars, comprising a horizontal wheel formed in two hinged sections, an upright frame to which the wheel is detachably connected, and a frame extending over the front of the wheel and hinged to the upright frame, substantially as and for the purpose specified.

4. A fender for street-cars, consisting of an upright frame, a bracket or brackets to which the frame is detachably connected and adapted to slide up and down, a suitable spring or springs connecting with the frame to retain it in its normal position, a foot-lever connecting with the upright frame, a frame extending horizontally from the upright frame and hinged thereto, and a horizontal wheel suitably connected to the upright frame, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL LIND.

Witnesses:

BYRON RUMSEY,

JOHN H. BURCHARD.