

(No Model.)

2 Sheets—Sheet 1.

T. A. DEVANE.
CAR GUARD.

No. 550,069.

Patented Nov. 19, 1895.

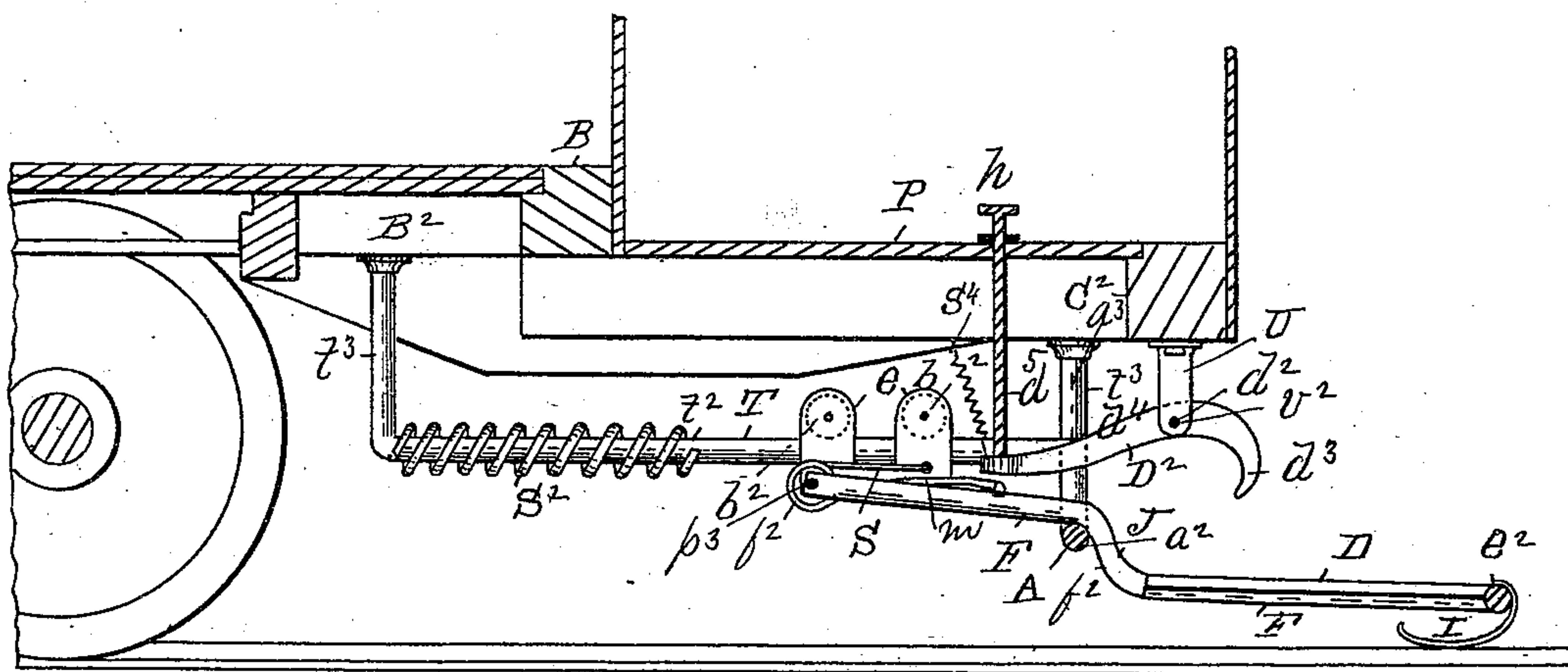


FIG 1

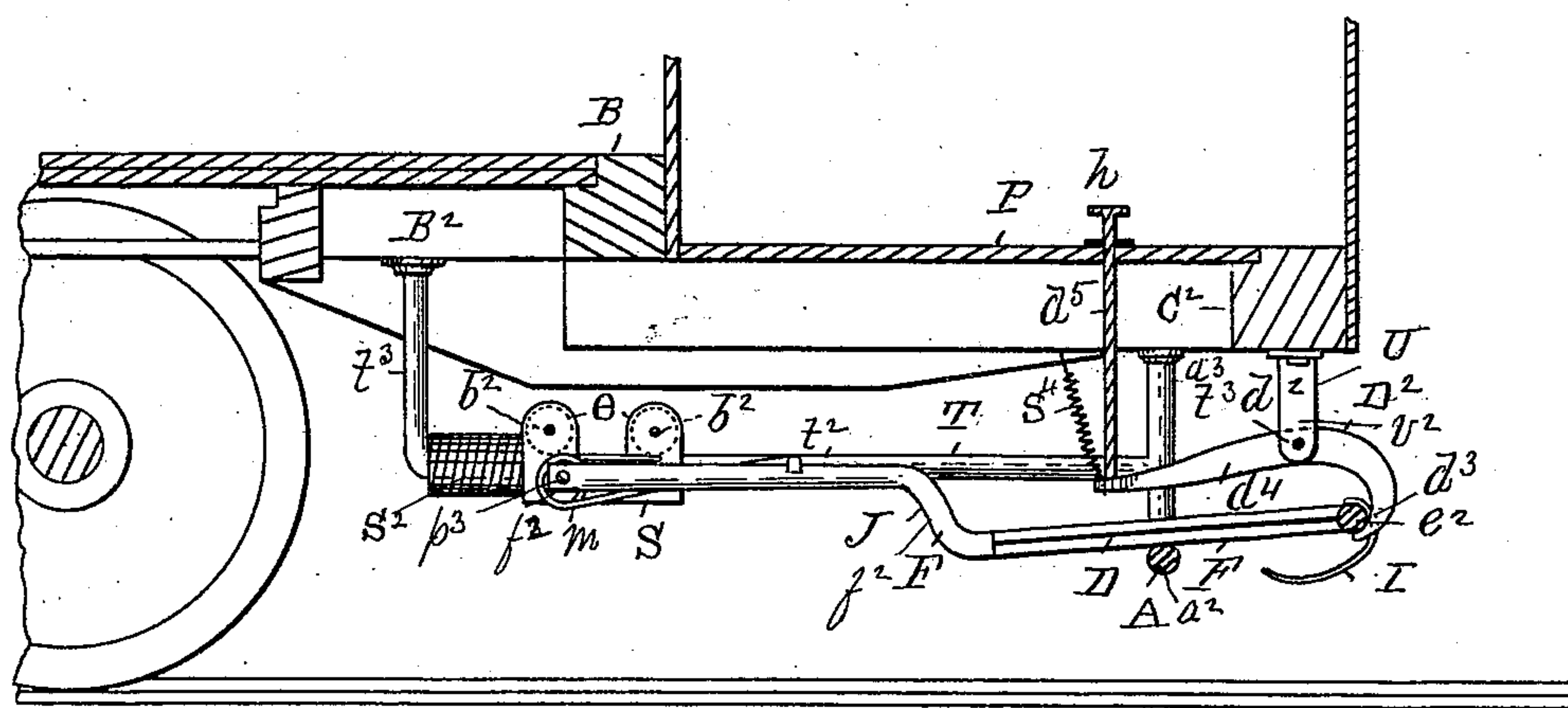


FIG 2

WITNESSES

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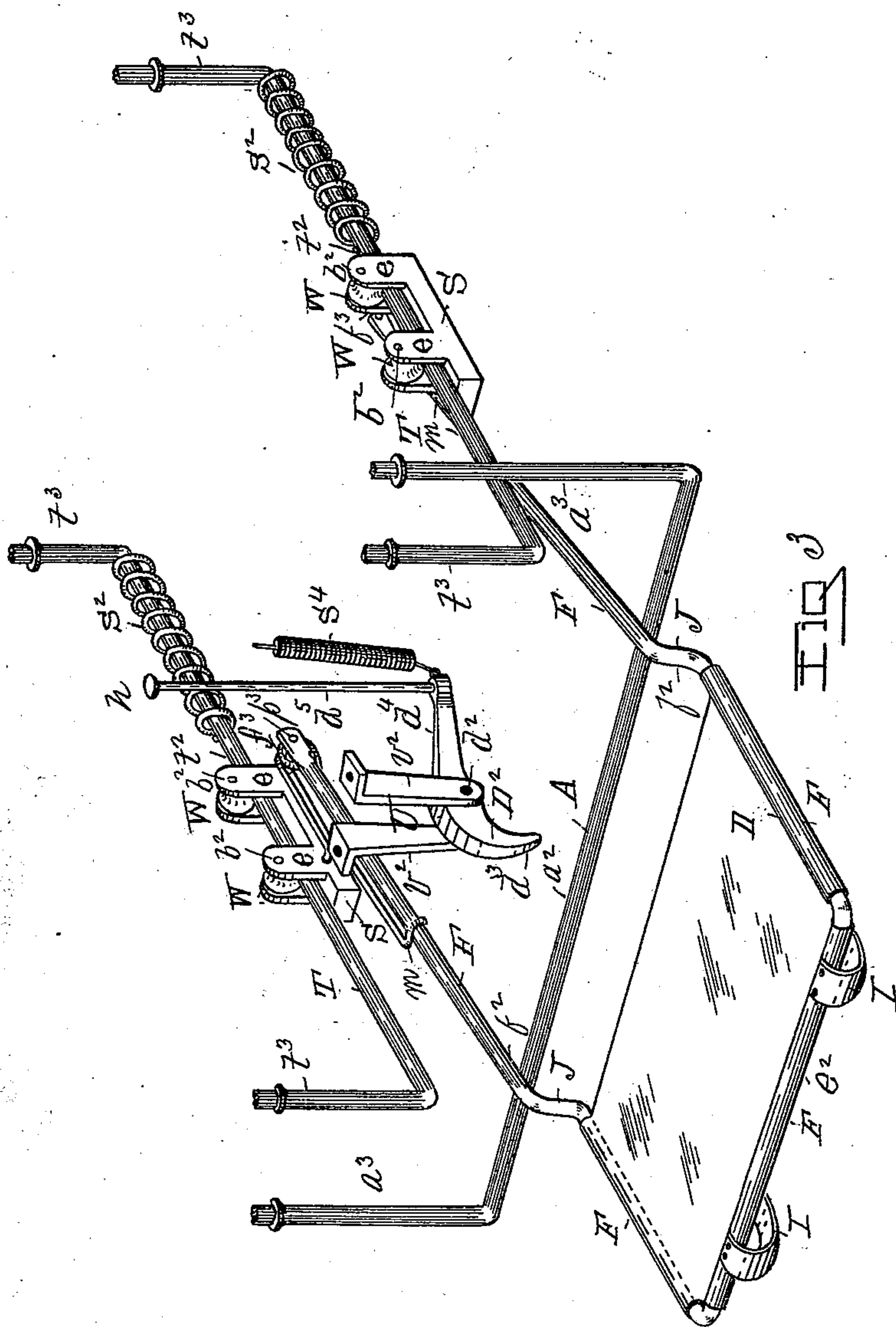
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UNITED STATES PATENT OFFICE.

TIMOTHY A. DEVANE, OF TROY, NEW YORK.

CAR-GUARD.

SPECIFICATION forming part of Letters Patent No. 550,069, dated November 19, 1895.

Application filed October 6, 1894. Serial No. 525,057. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY A. DEVANE, of the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Car-Guards, of which the following is a specification.

My invention relates to that class of devices which are attached to the front ends of motor-cars and used to prevent persons falling in front of them from being run over by the cars; and my invention has for its object the rendering of this class of devices more efficient and to better adapt them to the uses for which they are designed.

Accompanying this specification to form a part of it there are two plates of drawings containing four figures illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 shows my invention as applied to the front end of a car with the apparatus down and in a position for use. Fig. 2 shows it as applied to a motor-car and as drawn up and out of position at the end of a car. Fig. 3 shows in perspective the apparatus illustrated as detached from the car.

The several parts of the apparatus thus illustrated are designated by letter reference, and the function of the parts is described as follows.

The letter B designates the front sill of the car, C² the front sill of the platform P, and B² one of the car side beams.

The letters T T designate side bars, of which there is one at each side of the car-bottom, each of which bars has a horizontal track part t² and vertical end parts t³ t³, with the upper ends of the latter attached to the car-bottom; and by means of which the side bars T are depending therefrom, with its side bar parts parallel to the car sides.

The letter S designates a slide-block, of which there is one used in connection with each of the side bars T, and each of these slide-blocks is provided with tracking-wheels W, which have grooved perimeters, and these tracking-wheels are each hung in ears e and therein provided with bearings b², in which to journal and to run upon the upper side of the tracking-bars or side bars T T.

The letter D designates the guard proper, which preferably consists of a cloth or wire-screen apron, secured to the frame F at its sides and outer end e², and this frame is jogged at each side at J, so as to extend downwardly, and back of where thus jogged, at each of its sides f², this frame F connects with one of the slide-blocks S at f³ by means of the pivot p³.

The letter m designates a spring, which at its rear end rigidly connects with one of the slide-blocks, and which spring in each instance of its use from where thus rigidly connected is extended frontwardly to rest on top of one of the side bars T, so as to force downwardly the outer end of the frame F and its guard when frontwardly-projected beyond the car-bottom.

The letter S² designates a spiral spring encircling each of the side bars T between its slide-block S and its rear vertical end part t³, so that when the frame F is moved rearwardly it is so actuated against the force of the springs S².

The letter D² designates a detaining and tripping dog, which is pivoted at d² to the V-form depending leg U between its sides v² v², said leg being attached at its upper ends to the under surface of the car-bottom. This dog has a hook-form engaging end d³ and a lever d⁴ at its inner end, and at the latter is connected to a vertical tripping-bar d⁵, the latter passing up through the car-platform and made with a head h, where it can be pressed down by the motorneer's foot.

The letter S⁴ designates a spring connecting with the lever end of the dog and the under side of the car-platform.

The letter I designates a shoe-form spring that is projected from the outer end of the guard proper at each side, so as to pass down under the front edge of the latter, and the function of this spring is to engage with the ground when the guard is suddenly forced into position of use and thus prevent the guard from abutting against any projection in the pavement.

The letter A designates a depending support on which the guard and its frame rest when in use, and this support has a horizontal part a², on which the frame rests, and de-

pending arms a^3 , which at their upper ends connect with the under side of the car-platform.

As thus made, when the guard is not in use 5 it is moved rearwardly and hooked onto the dog D^2 , with the parts in the position shown at Fig. 2. When a person falls in front of the moving car or is likely to be struck by it, the motorneer presses down with his foot the 10 tripping-bar d^5 , which instantly releases the engagement between the dog and the frame F, rendering active the springs S^2 and m , which instantly force outwardly and downwardly the frame F and its guard to rest on the sup- 15 port A, and whereby the guard is in a position at its outer end so near the ground as to interpose between the person in danger and the car-wheels.

In ordinary use the guard is in the position 20 shown at Fig. 2, where it is out of the way, and when tripped for emergent use it is in the position as shown at Fig. 1.

Having thus described my invention, what I claim, and desire to secure by Letters Pat- 25 ent, is—

1. The combination with the depending side-bars T, T, of the slide-blocks S, S, each having tracking rollers W, mounted in ears e , and adapted to run upon one of said side-bars; 30 the springs S, S, of which there is one encircling each of said side-bars back of its slide block; the frame F, pivoted at each of its rear ends to one of said slide-blocks and projected downwardly as extended forwardly; said 35 frame being provided with an apron D, and shoe-form spring I; and the depending sup-

port A, on which said frame may rest when projected forwardly, substantially in the manner as and for the purposes set forth.

2. The combination with the depending side- 40 bars T, T, of the slide-blocks S, S, each provided with tracking rollers W, and mounted to run on one of said side-bars; the frame F, pivotally connecting at each of its inner ends with one of said slide-blocks and therefrom 45 extended downwardly and forwardly and provided with an apron D, and the spring m , connected rigidly at its inner end with each of said slide-blocks, with its outer free end bearing upon the top of each of said side- 50 bars; and the depending support A, on which the frame and guard may rest when projected forwardly, substantially in the manner as and for the purposes set forth.

3. The combination with the frame F, pro- 55 vided with the guard or apron D, and constructed to be projected forwardly and downwardly by the springs S, S, and m , and the slide blocks S, S, tracking on the side-bars T, T, substantially as described of the dog D^2 , 60 pivoted at d^2 , to a hanger U, and having a hook-form end d^3 , and provided at its lever end with a tripping-bar d^5 , constructed and arranged to be operated substantially in the 65 manner as and for the purposes set forth.

Signed at the city of Troy this 5th day of September, 1894, in the presence of the witnesses whose names are hereto written.

TIMOTHY A. DEVANE.

Witnesses:

W. E. HAGAN,

CHARLES S. BRINTNALL.