

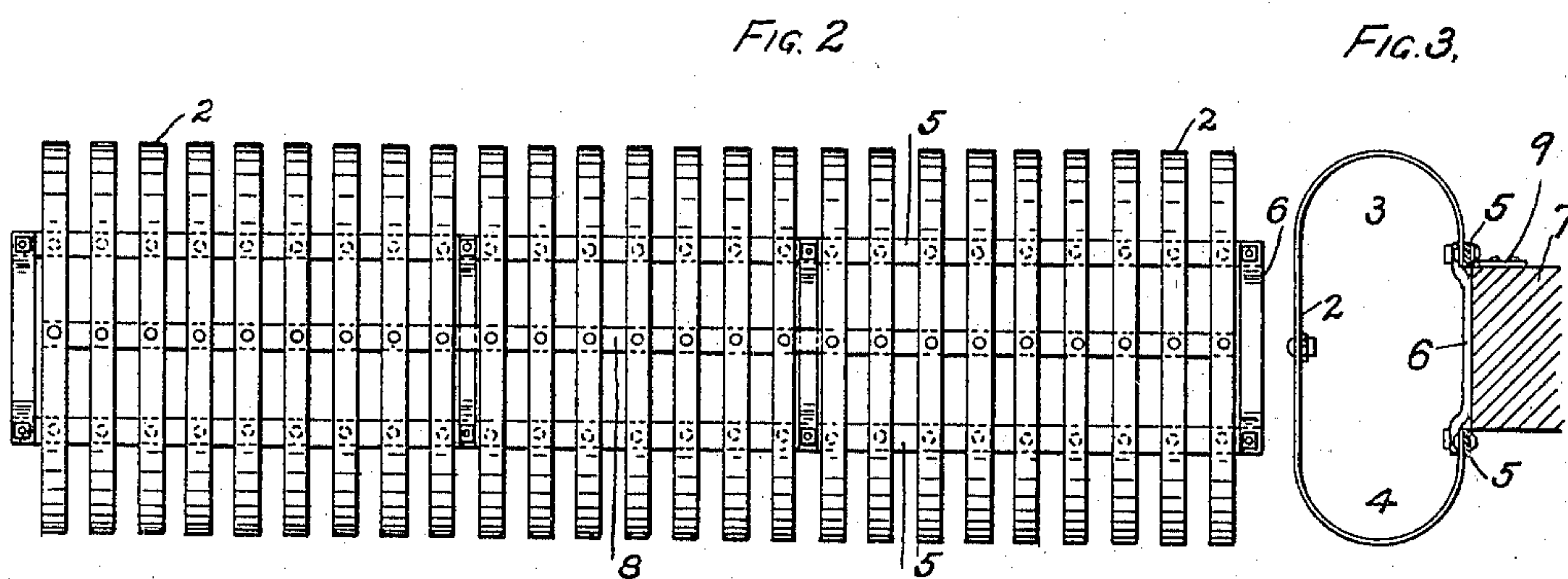
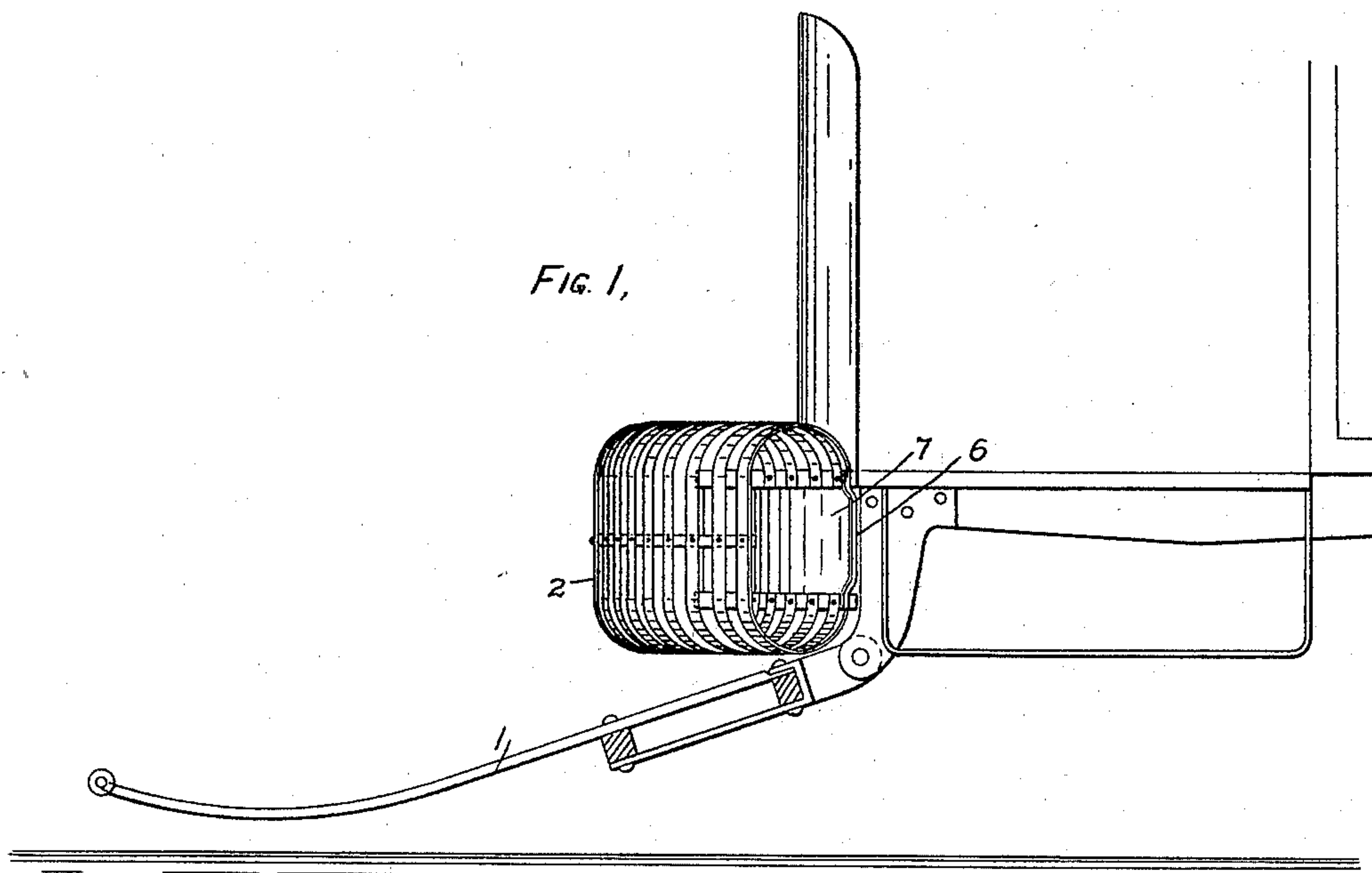
No. 607,901.

A. C. WOODWORTH.
CAR FENDER.

Patented July 26, 1898.

(Application filed Apr. 12, 1897.)

(No Model.)



WITNESSES,

R. A. Bates

Irce L. Fish

INVENTOR,

Albert C. Woodworth

BY Wilmott H. Thurston

Attorney.

UNITED STATES PATENT OFFICE.

ALBERT C. WOODWORTH, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO
THE CONSOLIDATED CAR FENDER COMPANY, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 607,901, dated July 26, 1898.

Application filed April 12, 1897. Serial No. 631,667. (No model.)

To all whom it may concern:

Be it known that I, ALBERT C. WOODWORTH, of Providence, county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Car-Fenders; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

The present invention relates to fenders for street-cars, and more especially to a guard or cushion to overlie the bumper or other unyielding part of the car or fender, and thus present a yielding surface against which a person may strike without injury.

The object of the present invention is to provide a cushion which is simple in construction and presents a surface which while it will yield sufficiently to prevent injury to a person coming in contact therewith will not yield to a sufficient extent to allow contact with the bumper or other unyielding part; and to that end the invention consists in a guard or cushion formed of a series of resilient strips, which have return curves at each end.

It is preferred to form the entire front of the guard of resilient material, as with such construction a cushioning effect is obtained, due to the resiliency of the other portions of the front, as well as to the resiliency of the return curves. Any suitable material may be used in forming such a guard or cushion; but it is preferred to use a series of resilient strips which are secured together in any suitable manner, and in the accompanying drawings is shown such a preferred form of guard or cushion and one manner of applying such a guard.

In said drawings, Figure 1 is a side elevation showing a preferred form of guard or cushion secured to a car. Fig. 2 is a front elevation of the guard or cushion. Fig. 3 is a cross-section of the cushion, showing the manner of securing the same to the bumper.

In the drawings the invention is shown embodied in a guard or cushion for overlying the bumper of the car and preventing injury

to any person who may be caught upon the pilot member 1 and thrown against the end of the car. As shown, the guard or cushion consists of a series of resilient strips 2, preferably of spring metal, which have return curves at 3 and 4 and are secured to the cross strips or bars 5. The bars 5 are connected by the strips or bars 6, which lie against the front of the bumper 7. The strips 5 may be and preferably are curved to conform to the front of the bumper, as shown in Fig. 1. The cushion may be strengthened by a strip 8, extending along the front and assisting in holding the strips 2 in their proper relation to each other. The cushion or guard may be secured in position by any suitable means and is preferably secured to the bumper 7 by means of hinges 9, which allow the guard to be swung up out of the way of the coupling-bar when two cars are to be coupled together.

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

1. A cushion or guard for a street-car consisting of cross-bars for engaging the end of the car, a series of resilient strips having their ends secured to said bars, said strips having a substantially straight front portion, and having return curves at the top and bottom, substantially as described.

2. A cushion or guard for a street-car consisting of a series of resilient strips having return curves at the top and bottom and secured to cross-bars, substantially as described.

3. A cushion or guard for a street-car consisting of a series of resilient strips having return curves at the top and bottom and secured to cross-bars, and bars connecting said cross-bars, substantially as described.

4. A cushion or guard for a street-car consisting of a series of resilient strips having return curves at the top and bottom and secured to cross-bars, said bars being curved to conform to the ends of the car, substantially as described.

ALBERT C. WOODWORTH.

Witnesses:

R. A. BATES,

W. H. THURSTON.