

No. 777,953.

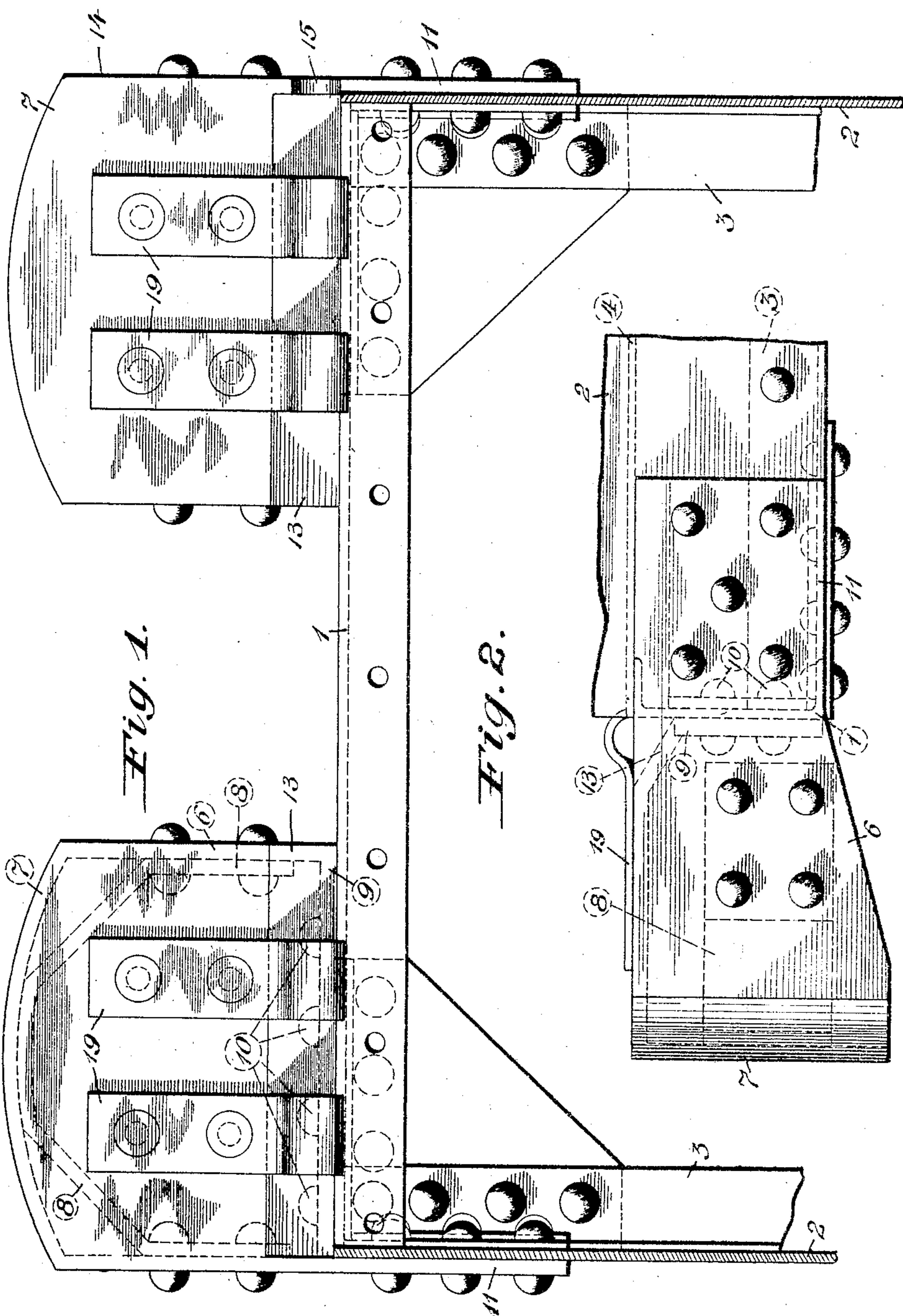
PATENTED DEC. 20, 1904.

W. V. JOHNSON.
BUMPER FOR CARS.

APPLICATION FILED SEPT. 24, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
Francis P. Vener
O. F. Funk

Inventor:
Warren V. Johnson
By Parkerwell Cornwall
Attys

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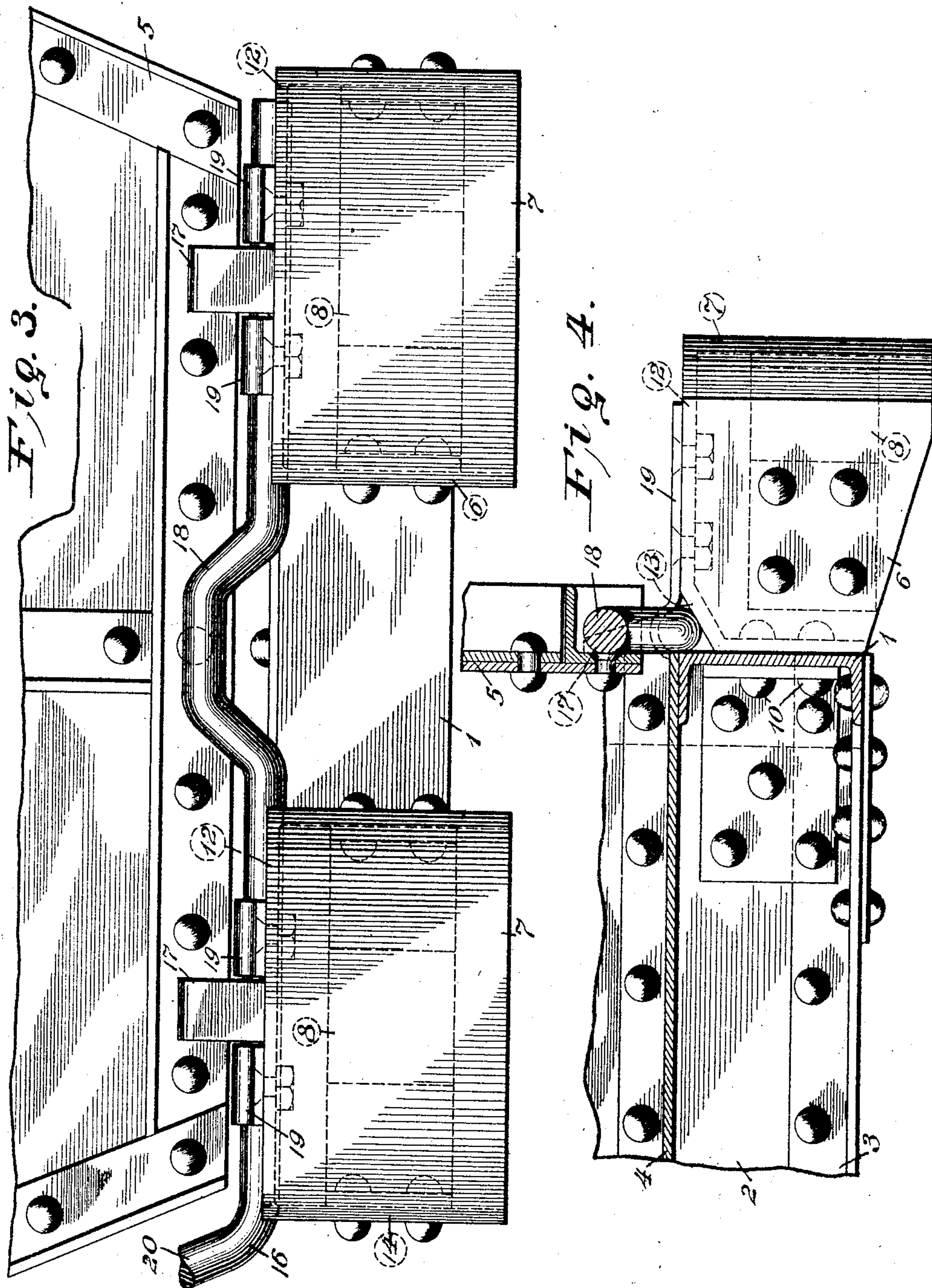
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UNITED STATES PATENT OFFICE.

WARREN V. JOHNSON, OF BERWICK, PENNSYLVANIA, ASSIGNOR TO
AMERICAN CAR & FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI,
A CORPORATION OF NEW JERSEY.

BUMPER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 777,953, dated December 20, 1904.

Application filed September 24, 1904. Serial No. 225,800.

To all whom it may concern:

Be it known that I, WARREN V. JOHNSON, a citizen of the United States, residing at Berwick, Columbia county, Pennsylvania, have
5 invented a certain new and useful Improvement in Bumpers for Cars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same,
10 reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of the bumpers applied to a car-body. Fig. 2 is a side elevational view of one of the bumpers. Fig. 3 is an end view of one of the bumpers; and Fig. 4 is a sectional view through a portion of the door, the floor-sheets, end sill, and door-lock-operating shaft, one of the bumpers being
20 shown in side elevation.

This invention relates to bumpers for cars, one of the objects being to provide an inexpensive, durable, and efficient bumper which may be readily attached to a car and which
25 will possess the requisite strength demanded of this class of devices.

Another object is to provide a bumper which will have means for supporting a door-locking device.

30 Other objects and advantages, as well as the novel details of construction of this invention, will be more specifically described hereinafter, it being understood that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

In order to clearly illustrate the application of the device, the bumper or bumpers are illustrated as being applied to one type of car, in which—

1 designates one of the end sills; 2, the side sheet; 3, an angle at the end of the side sheet, and 4 a flanged floor-sheet, 5 being a swinging
45 door.

Each bumper, as illustrated in Fig. 1, consists of a box-casting having a side plate adapted to be attached to the side of the car, the

end of the box-casting resting against and riveted to the end sill of the car.

The casting 6 is of box-like formation, having a top, sides, and ends. The outer end of this casting is curved, as at 7, and secured to the sides of the casting is an approximately U-shaped brace-plate 8, the intermediate portion of which bears against the inner face of the end 7 to efficiently brace the same. The opposite end 9 of the casting rests against and is secured to the end sill by rivets 10.

Integral with and extending rearwardly from one side of the casting 6 is a plate extension 11, adapted to be secured to the side of the car. By reference to Figs. 1, 2, and 4 it will be apparent that the rear end of the casting is of less depth than the forward or outer end, and the rear end of the top or cover plate 12 is inclined toward the end sill to provide a recess 13.

The casting 14 at the opposite corner of the car is substantially the same as the casting 6, the difference being that a concavity or groove 15 is formed in the upper edge of the plate 11 to form a bearing for a transversely-arranged rock-shaft 16, which constitutes an operating element for the rock-arms 17 carried thereby, and which, together with the intermediate crank 18, are adapted to bear against the edge of the door 5 to normally prevent the swinging movement thereof. The body portion of the shaft 16 rests in the recesses 13, formed by the peculiar construction of the bumpers, and this shaft is secured against lateral displacement by means of the straps 19, bolted to the top of the bumpers. A longitudinal displacement of the shaft is prevented by the rock-arms 17, which are interposed between the straps 19 on the respective bumpers, so that the operator may rock the shaft 16 through the medium of the handle 20.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A bumper for cars comprising a casting, and a brace riveted to the sides and bearing against the end of the casting; substantially as described.

2. A bumper for cars comprising a box-casting, and a brace secured to the sides of the casting and bearing against one end thereof; substantially as described.
- 5 3. A bumper for cars comprising a casting having a side plate extending from one end thereof; substantially as described.
4. A bumper for cars comprising a casting having a top, sides, and ends, and a plate extending beyond one of the ends thereof; substantially as described.
- 10 5. A bumper for cars comprising a casting having a top, sides, and ends, and a plate at one side and extending beyond the end of the casting; substantially as described.
- 15 6. A bumper for cars comprising a hollow casting, an end brace for the casting, the top of the casting being inclined, and a portion of the casting projecting beyond one end thereof; substantially as described.
- 20 7. A bumper for cars having a shaft-receiving recess, and an attaching-plate formed integral therewith; substantially as described.
8. A bumper for cars having an inclined end, and a plate integral therewith and extending beyond one end of the casting for attachment to the side of the car; substantially as described.
- 25 9. The combination with the end sill of a car, of bumpers carried thereby and having a shaft-receiving means, and a shaft in the shaft-receiving means provided with door-locking devices; substantially as described.
- 30 10. The combination with the end sill of a car, of bumpers carried thereby, a rock-shaft carried by the bumpers, means on top of the bumpers for securing the shaft against displacement, and locking devices carried by the shaft; substantially as described.
- 35 11. The combination with the end sill of a car, of bumpers carried by the end sill, a rock-shaft resting upon the bumpers, means carried by the bumpers for preventing displacement of the shaft, and door-securing devices carried by the shaft; substantially as described.
- 40 12. A bumper for cars comprising a hollow casting having vertical sides and ends, and a transverse top, one end of the casting being of less depth than the opposite end, and means on the casting for attachment to the car side; substantially as described.
- 50 13. A bumper for cars comprising a casting having vertical sides and ends, and a transverse top, one end of the casting being of less depth than the opposite end, and means projecting from the shallowest end for engagement with the sides of the car; substantially as described.
- 55 In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 17th day of September, 1904.
- 60 WARREN V. JOHNSON.
- Witnesses:
CH. McHENRY,
R. O. BOWER.