

(No Model.)

2 Sheets—Sheet 1

J. B. KENDALL.
FENDER FOR CARS.

No. 553,754.

Patented Jan. 28, 1896.

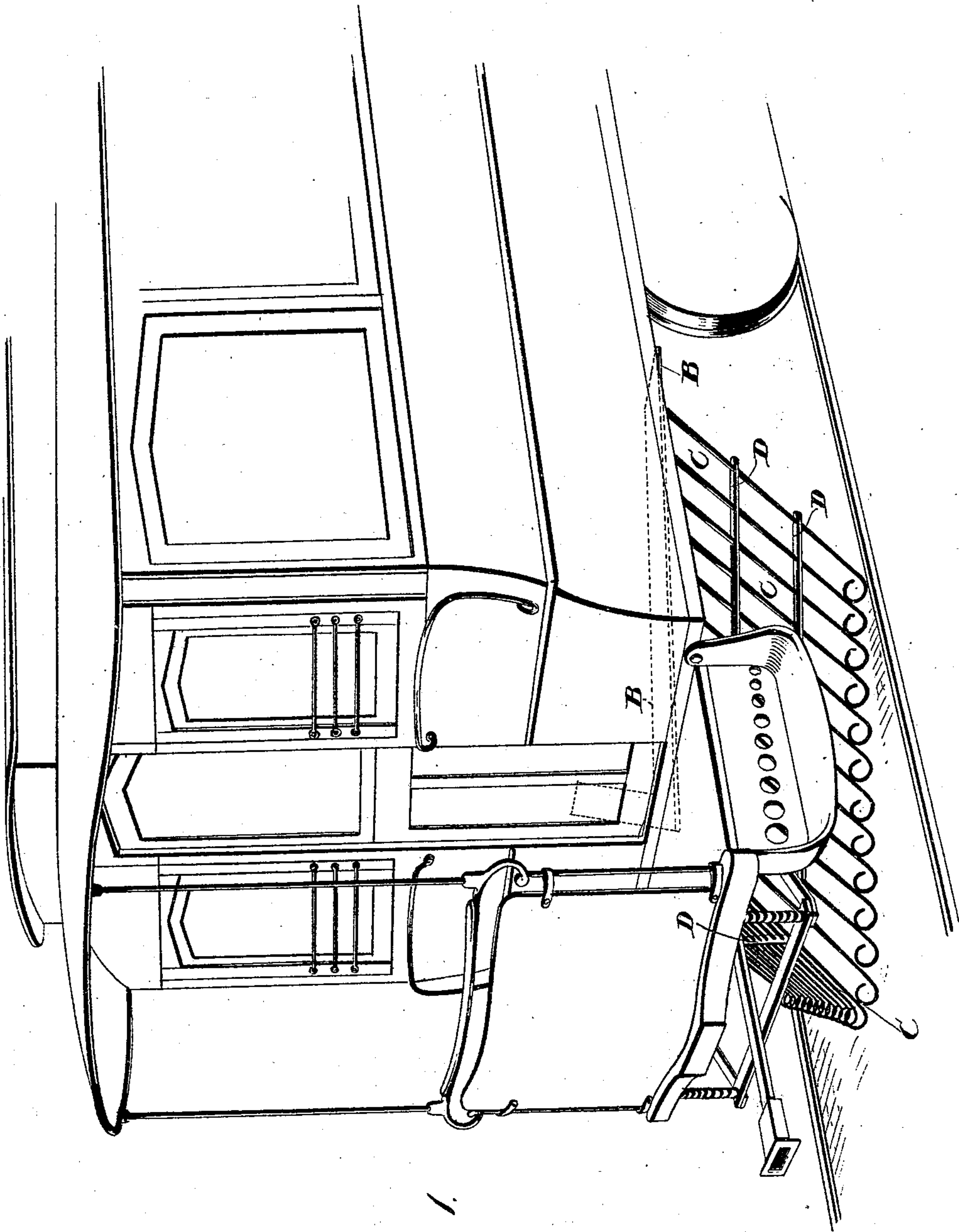


Fig. 1.

Witnesses
C. J. Williamson,
Henry C. Hazard.

Inventor
John Blake Kendall
by Prindle & Russell
his Attorneys

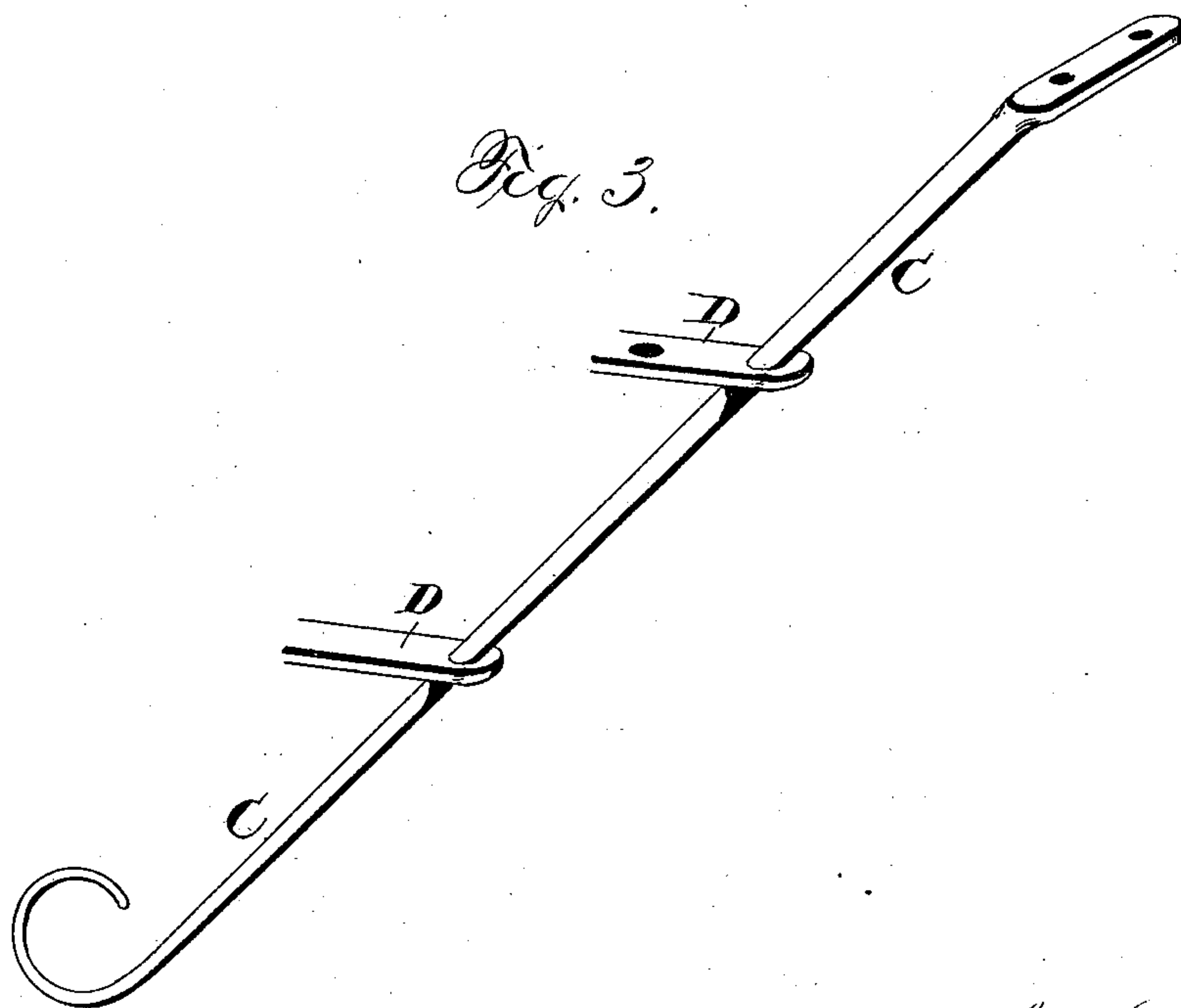
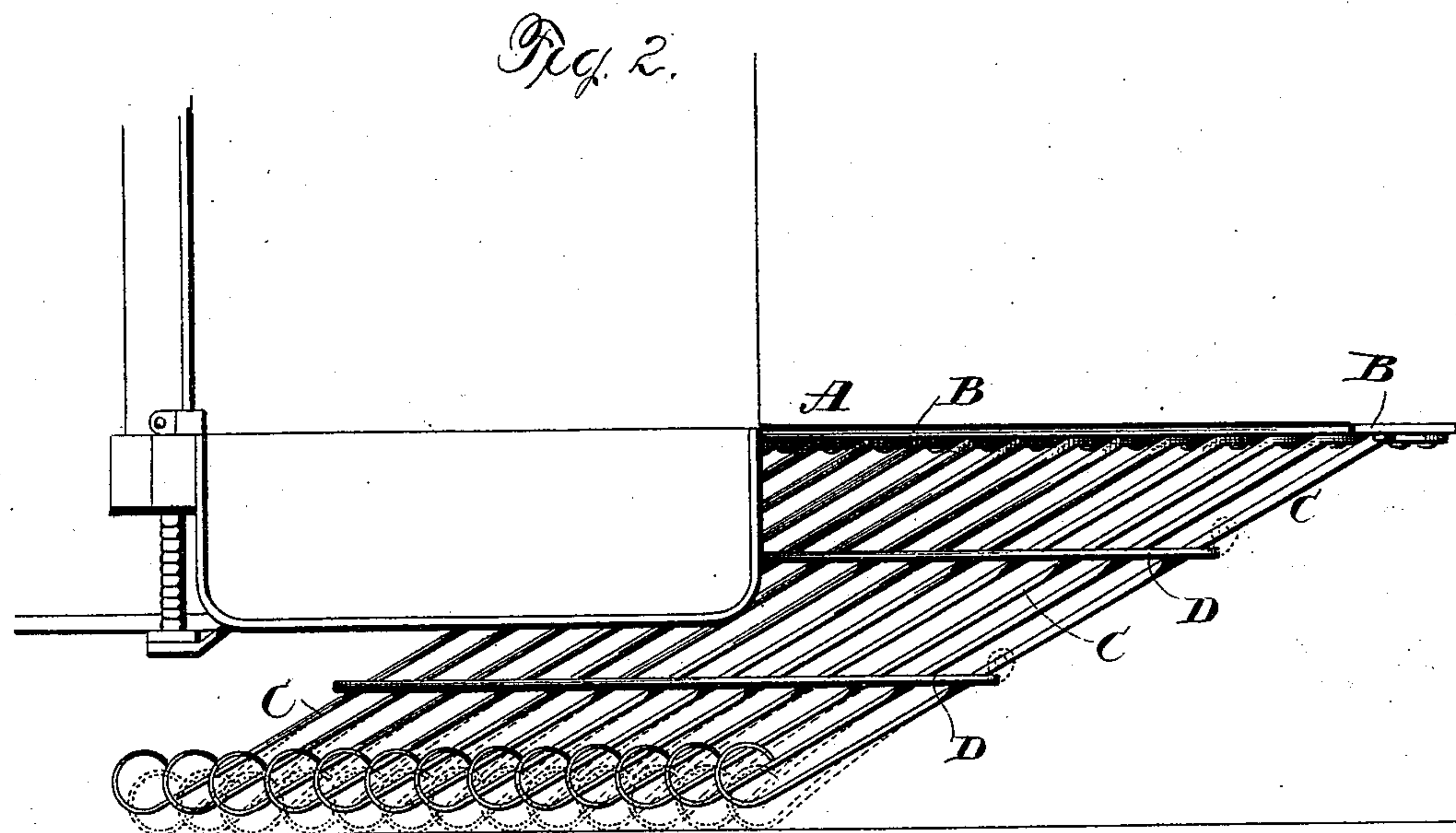
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his attorney

UNITED STATES PATENT OFFICE.

JOHN BLAKE KENDALL, OF WASHINGTON, DISTRICT OF COLUMBIA.

FENDER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 553,754, dated January 28, 1896.

Application filed November 21, 1894. Serial No. 529,437. (No model.)

To all whom it may concern:

Be it known that I, JOHN BLAKE KENDALL, a citizen of the United States, residing at Washington, in the District of Columbia, have
5 invented certain new and useful Improvements in Fenders for Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

10 Figure 1 shows a perspective view of the end portion of a street-car provided with my improved fender; Fig. 2, a view of the fender in side elevation; and Fig. 3, a detail perspective view on an enlarged scale, showing
15 in perspective one of the rods and the portions of the bars through which it passes.

Letters of like name and kind refer to like parts in each of the figures.

20 The object of my invention has been to provide an improved fender for use on cars; and to this end my invention consists in the fender and in the parts thereof constructed, arranged, and combined as hereinafter specified.

25 The special purpose which I have had in view in inventing this improved fender has been to provide effective means for use on street-cars, to prevent the loss of life or limb by any one getting or falling in front of the
30 car while the latter is in motion. With this purpose in view I have devised the fender which, as will be seen from the drawings and description to be hereinafter given, will not only keep the body or limbs of any person
35 falling on the track from getting under the wheels, but is also adapted to effectually prevent any danger of the fender itself riding up over a body or limb to the injury thereof, as in fenders as heretofore made and used.

40 In the drawings, A designates the sill of the car to which my fender is applied, and B designates a plate bolted or otherwise fastened thereto. Such plate, which forms the attaching and supporting part of my fender,
45 extends on opposite sides of its middle point rearward and outward at an angle, as shown in Fig. 1, so that the body of the fender, conforming in general outline to such plate, will present oppositely-inclined faces, which, en-
50 gaging any body or object as the car advances, will tend to guide or throw it to one side or the other of the track. Riveted, bolted,

or otherwise fastened to this plate B are the upper ends of the rod C, preferably, but not necessarily, made of steel.

55 The rods, as shown, are made tapering from their upper ends downward, though they can be otherwise formed, as desired, without departure from my invention. Below their upper ends they pass through openings in the
60 bars D D, which have the same general configuration as plate B, having the portions on opposite sides of their middle points extending at opposite angles rearward and outward. While I have shown two of these bars, obvi-
65 ously a greater or less number of them could be used. They are preferably fastened to the rods by passing the latter through suitable openings in the bars and then setting the material of the latter in to clinch the in-
70 closed portions of the rods.

If desired, the outer ends of the bars may be bent up and riveted to the adjoining outer rods, as indicated in dotted lines in Fig. 2.

75 From the plate B the rods extend at an angle downward and forward to a point close to the surface over which the track for the car to run upon is laid. Their lower portions are made thin enough to form spring-fingers, which, when any body strikes them, will yield
80 and bend backward and downward toward the ground or surface over which the car is traveling. At their extreme ends they are curled up, or bent upward and backward upon themselves, to present rounded spring-sur-
85 faces to any object coming against them from in front.

The rods C and C are preferably made of such length that when any heavy object, as the body of a human being, comes against
90 and bears upon them the lower spring portions, forming the spring-fingers with turned-up ends, can bend down to rest upon the ground or street-surface, so as to effectually prevent any portion of the body or of a limb
95 thereof getting under the fingers and between them and the surface over which they slide as the car carrying the fender advances. By curling up the extremities of the spring-fingers I form them so that they will ride easily
100 over the surface of a street, even where such surface is made of cobble-stones or any other irregular material.

Such of the spring-fingers as are engaged

by a body or object on the track in front of the fender being pressed down upon the surface adjoining and between the rails automatically accommodate themselves to any irregularities in such surface, so that no space is left below them through which any part of the object can get.

The rounded forward faces of the curled-up portions of the fingers will push and roll any body easily along in front of them, as each acts, independently of the others, with a yielding pressure upon the part of the body or object engaged by it.

My construction of fender is particularly well adapted for application to a great variety of cars, as the rods and bars forming it can be easily spaced or shaped to permit the passage of the draw-bar and the rods or chains of the brake mechanism.

Having thus described my invention, what I claim is—

1. A fender having its object-engaging part composed of a number of rods that extend at an incline downward and forward, the upper parts of said rods being rigid, and the lower parts yielding, whereby the latter will move toward the ground as they are bent backward, substantially as and for the purpose specified.

2. A fender for cars and the like having along its lower part a series of spring-fingers

extending at an angle downward and forward and having their lower ends curled upward and backward to form rounded yielding surfaces, substantially as and for the purpose specified.

3. In a fender for cars and the like, in combination with the attaching-plate, the taper rods having their upper ends attached to such plate, and their lower portions made yielding to form spring-fingers with their lower extremities curled up, and one or more cross-bars connecting the rods above the yielding portions, substantially as and for the purpose described.

4. In a fender, the combination with the attaching-plate, the taper rods secured at their upper large ends to said plate, and one or more cross-bars connecting said rods, above the lower ends of the latter to leave the same free, and being provided with openings through which the same pass, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of November, A. D. 1894.

JOHN BLAKE KENDALL.

Witnesses:

O. T. THOMPSON,
I. N. BIRCKHEAD.