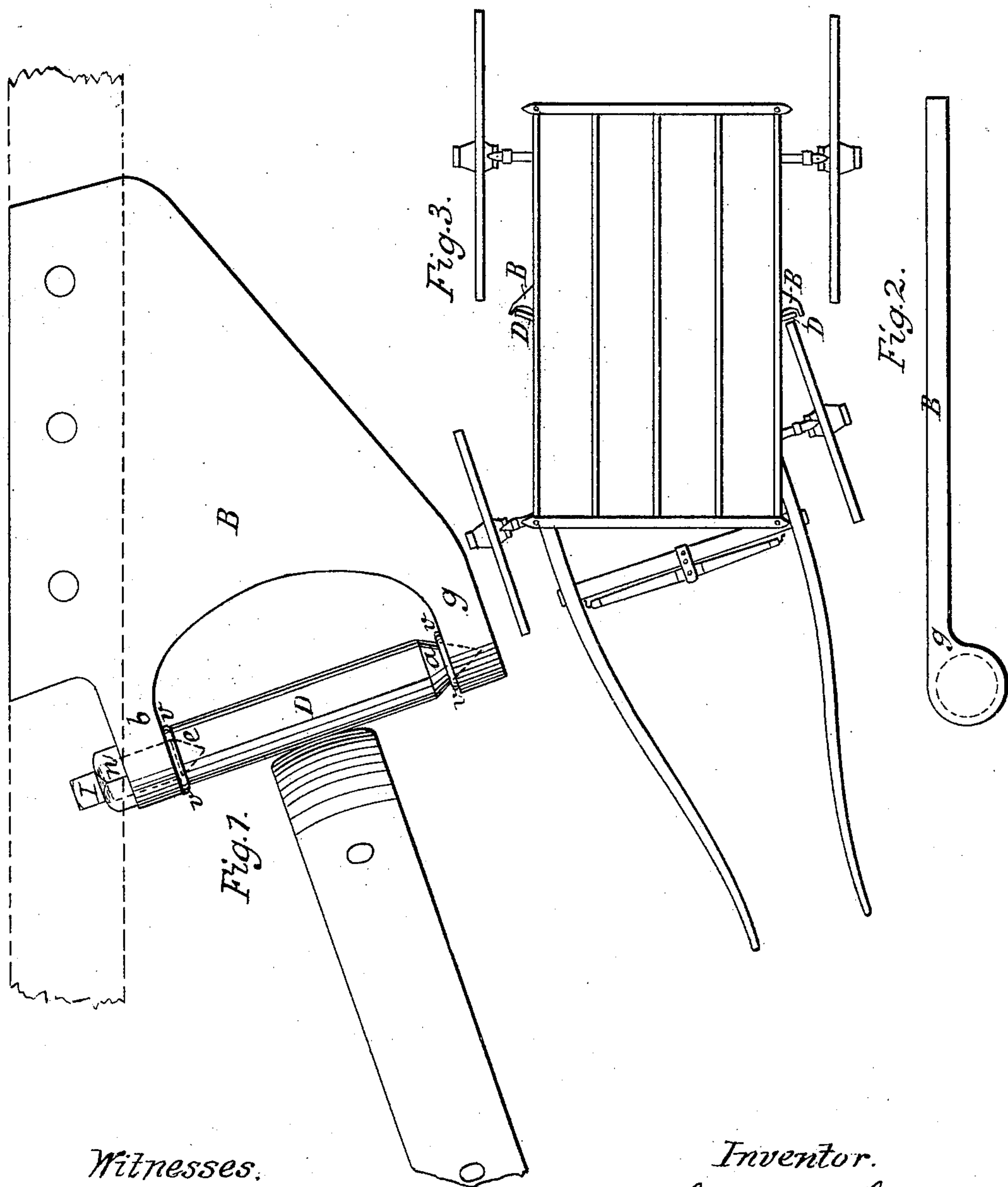


S. R. RAMSDELL.

Carriage-Fender.

No. 57,765.

Patented Sept. 4, 1866.



Witnesses.
Isaac A. Brunell.
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UNITED STATES PATENT OFFICE.

STEPHEN R. RAMSDELL, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN FENDERS FOR CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 57,765, dated September 4, 1866.

To all whom it may concern:

Be it known that I, STEPHEN R. RAMSDELL, of the city and county of Providence and State of Rhode Island, have invented a new and useful Improvement in Fenders for Carriage-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of my improved fender, showing its application. Fig. 2 is a side view of the same. Fig. 3 is a plan of a carriage arranged with my improved fender, showing its application.

Similar letters refer to like parts in all the figures.

My invention consists in a peculiar manner of constructing and mounting a roller as a fender for carriage-wheels to insure its turning freely by contact with the wheel at all times and render it generally serviceable for this purpose.

In the use of a roller heretofore for this purpose the roller was formed with a journal of a smaller diameter at each end, on which it turned, and the bracket-iron in which the roller was mounted was generally formed in two pieces, that the roller might be inserted therein, and the roller thus mounted was secured to the carriage-body in a position parallel to its sill or framing, so that only the corner of the wheel's face could bear against the roller, which presented so small a bearing-surface on the roller compared with the bearing-surface of the journals on which the roller turned that the roller did not turn by contact with the wheel, as it was designed to do, and in consequence the wheel cut into and wore away the roller in the same manner as it would a stationary metal surface, and as, under the circumstances, the roller presented no advantages over a fixed fender-iron, the use of the roller for this purpose has been almost entirely dispensed with.

By my improved mode of constructing and mounting the roller, however, these and other difficulties are overcome and a better fender

produced than any heretofore in use to my knowledge.

To enable others skilled in the art to make use of my invention, I will proceed to describe the same.

In the drawings, D is the roller, of cast-steel or hardened iron, with a male center, *a*, at one end and a female center, *e*, at the other end, on which the roller turns. A center set-screw, I, is fitted to the female center, and by this means the roller may be mounted in a bracket, B, formed of one piece of metal, which is much firmer, in the arm *g* of which the male center of the roller turns, and between which arm and the arm *b* the roller may be readily inserted, and by screwing the center set-screw into this arm the roller is held sufficiently secure to resist the action of the carriage-wheel, and at the same time revolve freely.

A check-nut, *n*, is used on the shank of the set-screw to prevent it from becoming loose, and by this means, whenever the roller becomes loose by wearing, the set-screw may be set up so as to tighten the roller and prevent it from rattling with the motion of the carriage.

To prevent the dust and mud from working into the bearings of the roller and causing excessive wear, or preventing the roller from turning, I place a leather washer, *v*, on the centers at each end of the roller, which will catch the dust and mud on their edges and exclude it from the bearing.

In order to present the roller squarely to the face of the wheel instead of to the edge or corner of the face, I construct the bracket-iron in which the roller is mounted in such a manner that when it is bolted to the carriage-body the surface of the roller will meet the wheel on the same angle with its face in the position of turning the carriage, as shown in Figs. 1 and 3, and thus present a sufficient bearing-surface to insure the turning of the roller at all times when the revolving wheel comes in contact with it in turning the carriage.

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

1. A rotating fender provided with a pro-

jection at one end and a recess at the other for the reception of an adjustable center-pin, in order that said roller may be placed in or removed from its bearings, or adjusted therein with facility, in the manner described.

2. A bracket having arms provided with bearings for said rotating fender, and set at such an angle with the side of the carriage on which it is placed that the wheel, when in

contact with said fender, shall present to it as large a portion of the surface of its rim as possible, or, in other words, shall be nearly or quite at right angles therewith, substantially as set forth.

STEPHEN R. RAMSDELL.

Witnesses:

ISAAC A. BRUMELL,

JOSEPH S. PITMAN.