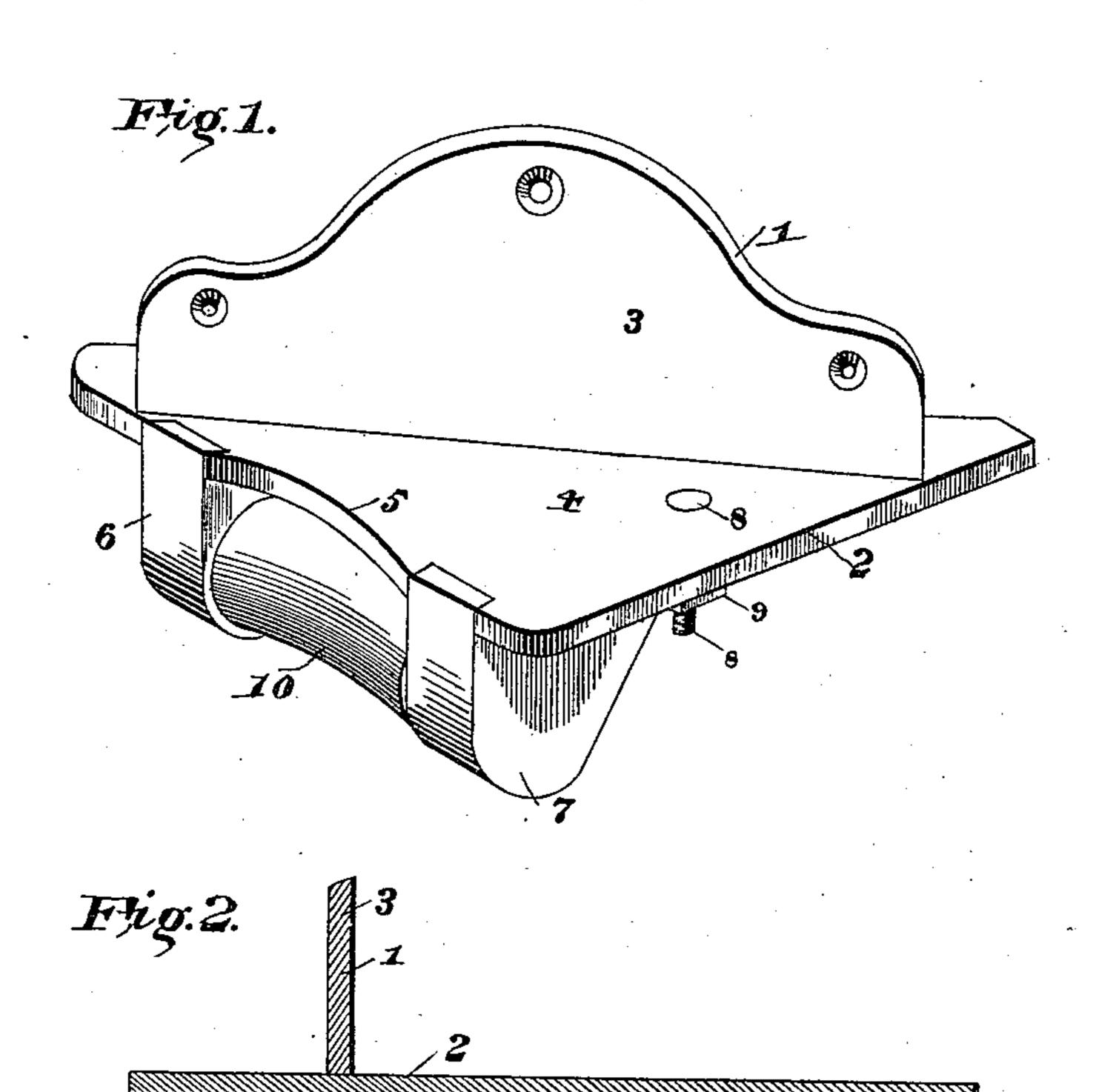
(No Model.)

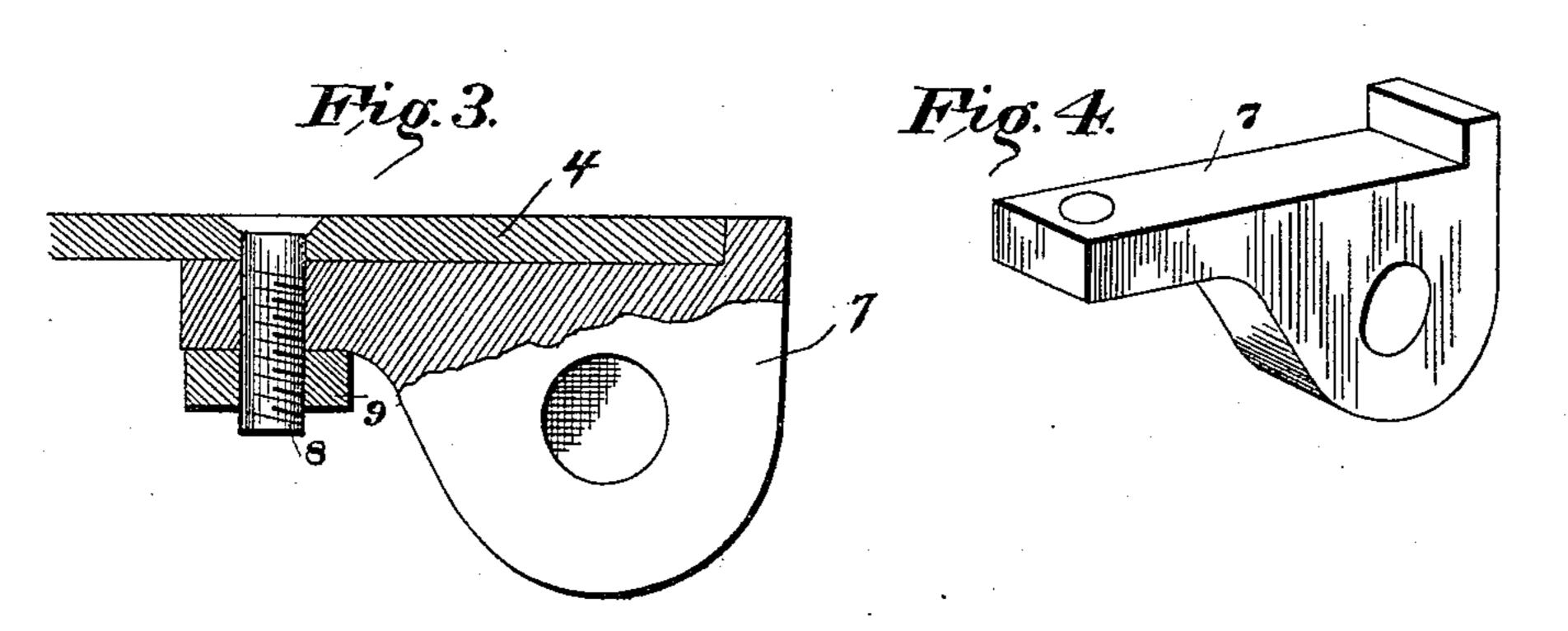
## A. McCULLOCH.

COMBINED STEP AND FENDER FOR VEHICLES.

No. 449,084.

Patented Mar. 24, 1891.





avid Polhaupter. By Mis Allerneys.

Inventor

Archibald McCulloch.

## United States Patent Office.

ARCHIBALD McCULLOCH, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ALEXANDER VINETT, OF SAME PLACE.

## COMBINED STEP AND FENDER FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 449,084, dated March 24, 1891.

Application filed June 17, 1890. Serial No. 355,747. (No model.)

To all whom it may concern:

Beitknown that I, Archibald McCulloch, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented a new and useful Combination Step and Guard for Vehicles, of which the following is a specification.

My invention relates to an improvement in guards or chafing-irons for wagons or other wheeled vehicles in which rollers are used to prevent the body of the vehicle from coming in contact with the wheel, and also relates to

a step for the same.

The object of the present invention is to provide a simple and inexpensive attachment for vehicles that will serve both the purpose of a rub-iron and a step, and to provide for the ready removal and replacing of old and new rollers when it is necessary, and an attachment that will not detract from the attractiveness of the vehicle; and it consists of a novel arrangement of the step and roller hereinafter more fully described, illustrated in the accompanying drawings, and particutarly pointed out in the claim.

In the accompanying drawings, Figure 1 represents a perspective view of a combined step and rub-iron constructed in accordance with my invention. Fig. 2 is a sectional view longitudinally through the roller and bearings. Fig. 3 is a sectional view through the detachable lug. Fig. 4 is a detail of the de-

tachable lug.

1 represents the casting forming a corner angle bracket, consisting of the triangular-shaped piece 2 and the right-angularly-disposed piece 3. Bracket 1 is attached to the vehicle-bed at the point where the rub-irons are placed by means of the usual bolts or nails.

40 Triangular piece 2 extends forward a sufficient distance out from the bed of the vehicle to form a convenient step 4, which is provided on the edge facing the front of the conveyance with a concavity 5. On either side of this cut-out portion 5 and on the under face of said triangular piece are two lugs 6 and 7, in which is journaled a concave roller 10, situated immediately under said concavity 5, its

outer edge being a slight distance in front of the plane of the edge of the concavity and a 50 slight distance to the rear of the plane of the edge of the triangular piece, thus having the roller presenting its face at right angles to the course of the wheel when bearing thereon and under the step sufficiently so as 55 to be out of the way, preserving the symmetry of the attachment, but still performing its function.

Lug 6 is rigidly secured to the main bracket, while the opposite lug 7 is detachably con- 60 nected thereto by means of the bolt 8, passing through the step 4 and said lug and firmly held by the nut 9, screwing thereon, thereby allowing a ready detachment for a worn-out roller and attachment of a new one in place 65 thereof. It is thought from the foregoing that the attachment and operation of my invention will be apparent.

It is well known that roller-carrying brackets having corner angles for securing to the 70 vehicle and presenting the roller at right angles to the course of the wheel while turning is old, but it is not known that the combination of a step and roller, together with the arrangement of said roller thereon, as de-75 scribed, has ever been used.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

A guard and step attachment for vehi- 80 cles, the same consisting of a bracket formed of two right-angularly disposed pieces, one of which is triangular in shape and extends forward, forming a step, said step being provided on one side with a concavity, and a roller 85 situated immediately beneath said concavity and journaled in lugs on either side thereof, one of the lugs being detachably connected to step and roller, substantially as described.

In testimony that I claim the foregoing as 90 my own I have hereto affixed my signature in presence of two witnesses.

ARCHIBALD McCULLOCH.

Witnesses:
JOSEPH KNOX,

THOMAS GREER.