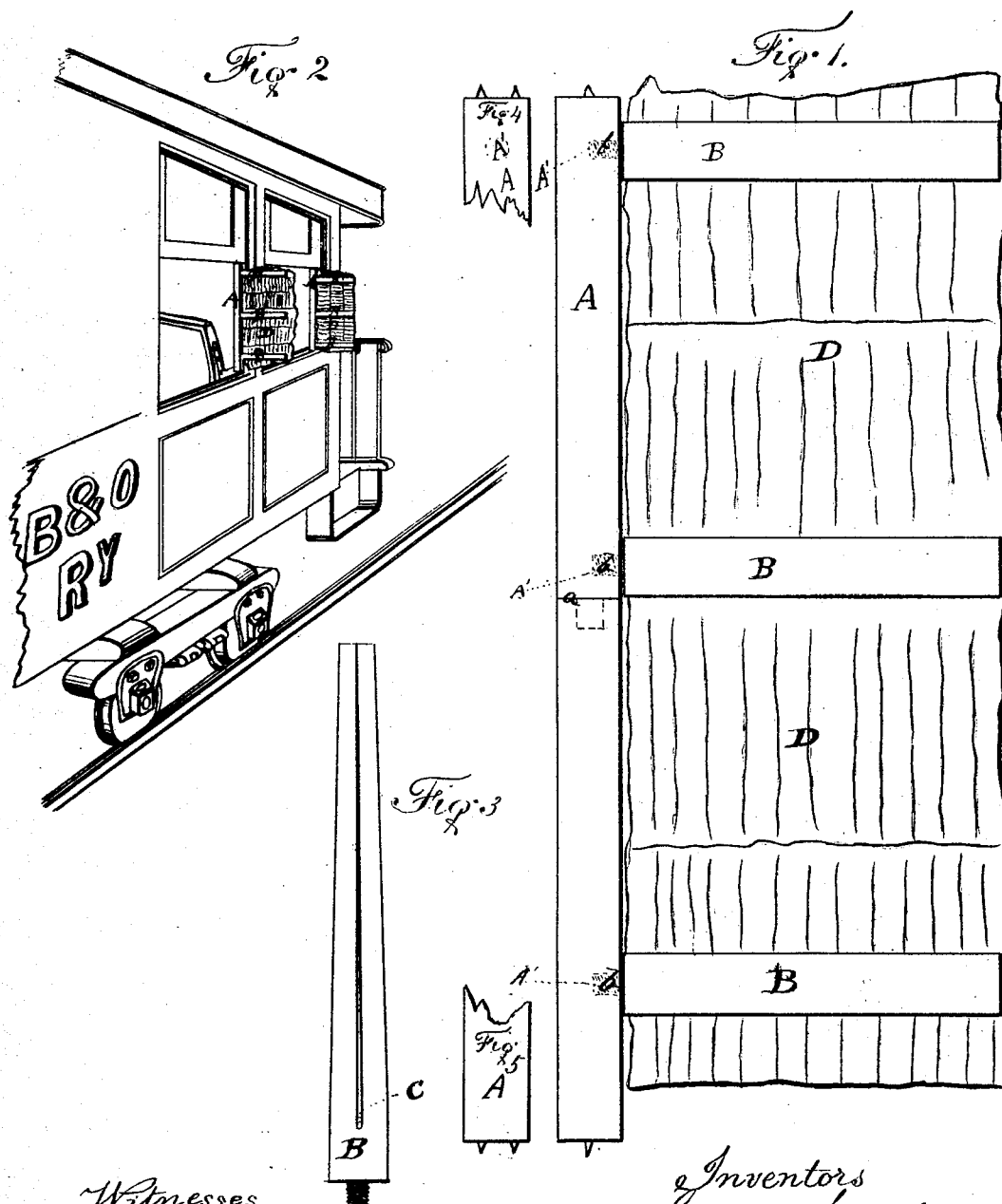


Armstrong & McLellan,

Car Ventilator.

No. 110416.

Patented Dec. 27. 1870.



Witnesses

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GEORGE B. ARMSTRONG, OF CHICAGO, ILLINOIS, AND GEORGE F. McLELLAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 110,416, dated December 27, 1870.

IMPROVEMENT IN RAILROAD-CAR VENTILATORS.

The Schedule referred to in these Letters Patent and making part of the same.

We, GEORGE B. ARMSTRONG, of Chicago, in the county of Cook and State of Illinois, and GEORGE F. McLELLAN, of the city of Washington, in the District of Columbia, have invented a new Dust-Guard and Fan for railway travelers, of which the following is a description.

It is well known that, by fixing in front of an open window of a railroad-car a screen projecting from the car, and at right angles with it, the screen not only acts as a shield, to prevent the dust and cinders from entering the window, but, when the car is in motion, creates a vacuum behind the screen, which causes the air to rush out of the car, fanning the person who sits in the draught.

The object of our invention is to provide a screen which shall operate in this manner, and which shall be so small that it may be carried in the pocket, and so cheap that every traveler may be able to buy one.

In the accompanying drawing—

Figure 1 is the guard ready to be applied.

Figure 2 is a part of a railway-car with two of our guards in place when in use.

Figure 3 is a horizontal section of arm B.

Figures 4 and 5 are vertical sections through the middle of both ends of rod A, at right angles with the side of the rod, as shown in fig. 1.

In all—

A is rod, supporting arms B B B.

A' A' A' are holes in A, to receive *b b b*.

a is a line of division between the two parts of A.

B B B are arms to project from rod A, and to be connected with it by screws *b b b*, or otherwise.

b b b are screws in the ends of arms B B B.

C is slot in arm B.

D is flexible material forming screen.

The following is a description of the manner of making and using our invention.

We make the rod A of wood, and of convenient length, say fourteen inches, and make the ends serrated, or cover them with India rubber, or insert in them two or more projecting points, as represented in the drawing.

In one of the sides we make two or more holes to receive screws.

We then make two or more arms, B B B, of wood

or metal, and of convenient length, say seven inches each, and in each of them make a longitudinal slot, as represented at C, although this is not necessary.

Each of these arms ends in a screw.

When it is desired to use the guard, the arms are attached to the rod A by inserting the screws in the hole provided for them in such a manner that the slots shall be in a line with the length of the rod A. We then take a piece of paper or cloth, or other flexible material, and insert it in the slots, as represented, and the apparatus is complete.

Opening the window of the car, we place the rod A under it, with the arms projecting from the car, and at right angles with it, as represented in fig. 2, and draw the window down, so that the points or serrated ends of the rod penetrate it and the base of the window-frame slightly, or so that the frame and the sash press against the India rubber, if that be used, holding the guard securely in position.

When its use is no longer required, the window is slightly raised, so as to detach it, and it is taken down, the paper or other flexible material removed, the arms unscrewed, and all may be put in the pocket.

For convenience, the rod A may be made in two pieces, which may be connected by tenon and mortise, by screw, by hinge, or in any convenient manner. Instead of attaching the flexible material by inserting it in slots, it may be provided with loops, rings or other arrangements for sliding it over the arms, and the arms may be connected with the rod A by hinges or in any other manner.

We do not confine ourselves to any particular method of making the attachment in either case.

What we claim as our invention, and desire to secure by Letters Patent, is—

A dust-guard and fan for railway travelers, consisting of the rod A, two or more arms B B B, and flexible material D, combined and operating substantially in the manner and for the purposes herein described and set forth.

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