

(No Model.)

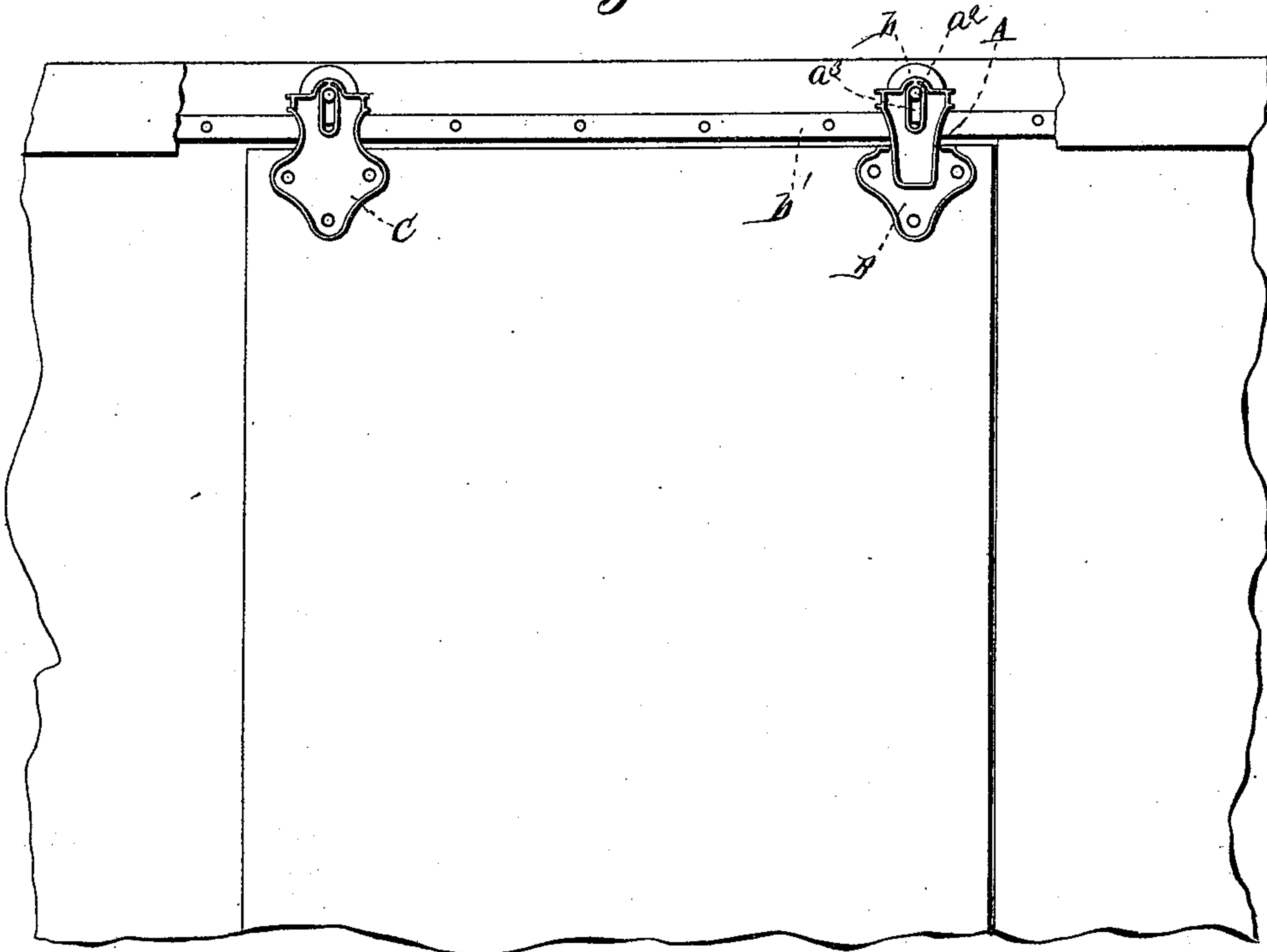
2 Sheets—Sheet 1.

J. C. WANDS.  
DOOR HANGER.

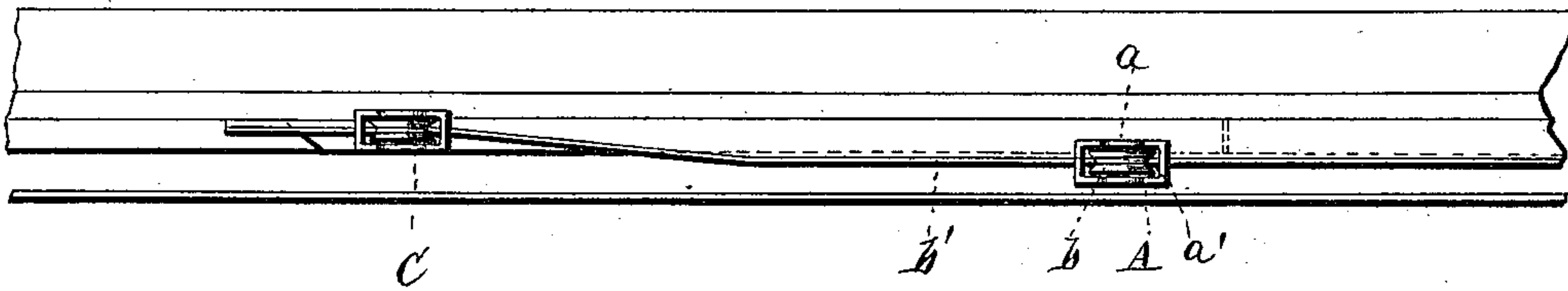
No. 438,510.

Patented Oct. 14, 1890.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Chas. L. Taylor*  
*Philip C. Massi.*

INVENTOR

*Jno C Wands*  
*by E. W. Anderson*  
*his Attorney*

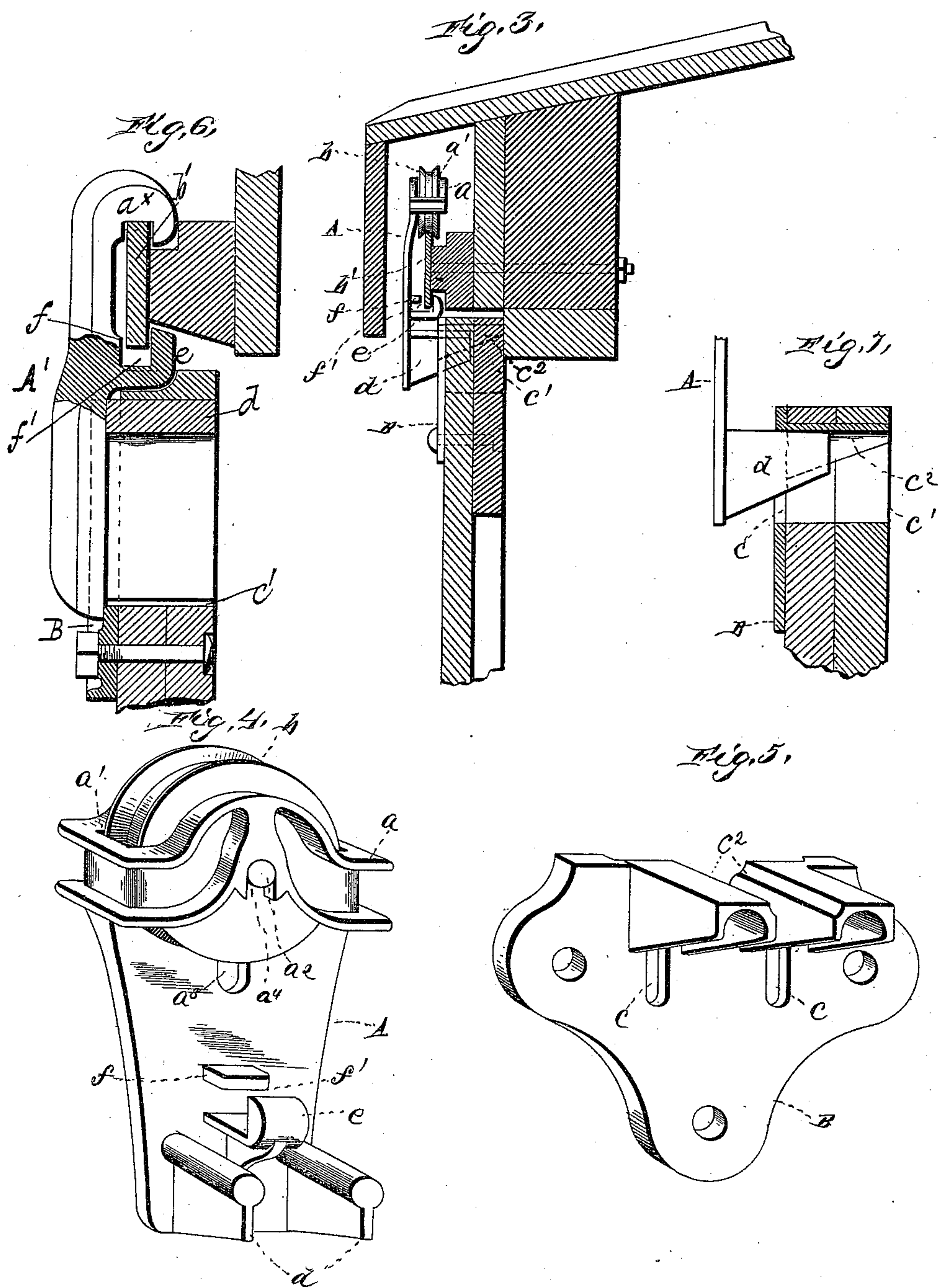
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*Chas L Taylor*  
*Phillips*

INVENTOR  
*Jno C. Wands,*  
*by E. W. Anderson*  
*Attorney*



# UNITED STATES PATENT OFFICE.

JOHN CLARK WANDS, OF ST. LOUIS, MISSOURI.

## DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 438,510, dated October 14, 1890.

Application filed May 5, 1890. Serial No. 350,642. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN CLARK WANDS, a citizen of the United States, and a resident of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Car-Door Hangers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view. Fig. 2 is a top view. Fig. 3 is a cross-section. Figs. 4 and 5 are perspective details. Fig. 6 is a broken sectional view of a modified form of my invention as applied for use, and Fig. 7 is also a sectional broken view of my invention in its preferred form.

This invention relates to certain improvements in door-hangers especially designed for car-doors; and it consists in the construction and combination of parts, as will hereinafter appear.

In the accompanying drawings, the letter A designates a bracket or hanger, which is formed at its upper end with a skeleton-like overhanging portion *a*, carrying a sheave or pulley-wheel *b*, running on rail *b'*, inclined for a portion of its length inward toward the rear end of the door-opening and secured to the car-body just above said opening, the forward end of said rail being curved inward. The overhanging portion *a* is arched and stands off from the bracket or hanger A, it only being connected at its ends to the latter, thus providing an opening or slot *a'*, through which the pulley-wheel or sheave *b* projects. The axle or shaft *a<sup>2</sup>* of the wheel *b* bears in a slot *a<sup>3</sup>* in the hanger A and in a cavity *a<sup>4</sup>* in the lower edge of the portion *a* thereof.

The bracket or hanger A has projecting from its inner side, a short distance above the studs or projections *d*, an upwardly-facing hook *e*, and a slight distance inward from and opposite the latter, said bracket or hanger has a guide-stud *f*, providing a space *f'*, with-

in which the lower projecting edge of the rail *b'* is received to steady the hanger in position.

B is a plate suitably bolted or secured to the door at its upper rear corner edge, and having two openings *c*, coinciding with openings *c'* in the door and permitting the passage therethrough of studs or projections *d* upon the inner side of the bracket or hanger A near its lower end to prevent the swaying of the door through the unsteady bearing afforded by the pulley-wheel or sheave.

Projecting from the inner side of the plate B and overhanging the entrance to the openings *c* are housings or bearings *c<sup>2</sup>*, entering the openings *c'* in the door and having their inner bearing-surfaces conforming to the rounded surfaces of the studs or projections *d*, for which they form bearings. This arrangement, while it primarily effects the suspension or hanging of the door in place, provides for the inward movement of the door at its edge by reason of the projections or bearings *c<sup>2</sup>*, upon which the door is adapted to slide toward the car or away from it to enable it to stand flush thereat with the side of the car.

At the upper forward edge of the door is secured a hanger C in one piece, which, together with the sliding-hanger connection at the rear edge of the door and the inward curving forward end of the rail *b'*, permits the inward movement of the forward edge of the door and its standing thereat also flush with the side of the car.

In the modification as disclosed in Fig. 6, hereinbefore briefly referred to, the same principle is carried out in connection with a shoe bracket or hanger A'.

The hanger A' is formed at its upper end with an overhanging hook *a<sup>x</sup>*, adapted to engage the upper edge of the rail *b'* and slide thereon, but is otherwise substantially of the same construction as the hanger A.

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

1. In a door-hanger, the combination of the bracket adapted for suspension from the

track-rail and the plate adapted to be secured to the door and having a sliding connection with said bracket, substantially as set forth.

2. The combination, with the bracket or  
5 hanger, and a pulley-wheel or sheave carried by said bracket or hanger and engaging the rail, said hanger being provided with inwardly-projecting studs, of the door-plate having openings through it coinciding with openings

in the door and receiving said studs, permitting said plate, with the door, to slide inward toward the car, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN CLARK WANDS.

Witnesses:

H. O'HARA,

C. T. WESTLAKE.