(No Model.)

H. COCHRAN.

FOLDING GATE FOR CAR PLATFORMS.

No. 492,139. Patented Feb. 21, 1893.

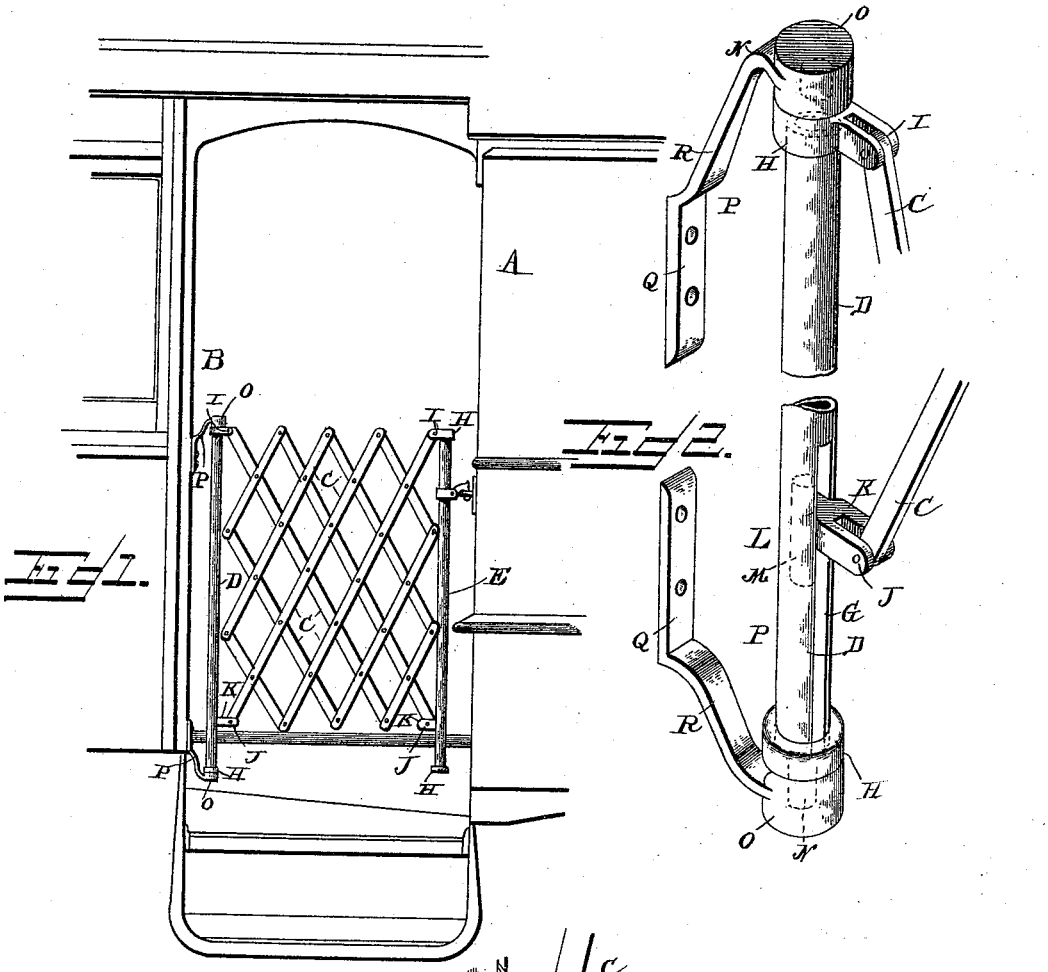

Fig. 1.

Fig. 2.

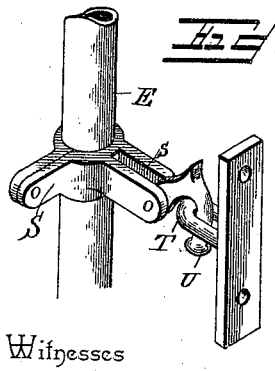

Fig. 4.

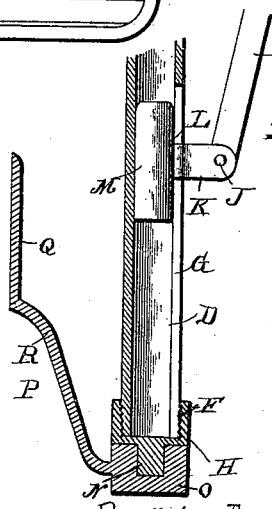

Fig. 3.

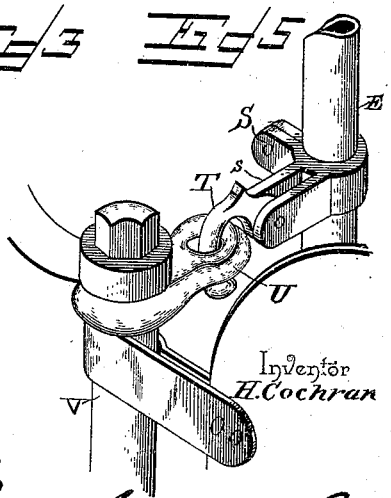

Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY COCHRAN, OF CHESTER, PENNSYLVANIA.

FOLDING GATE FOR CAR-PLATFORMS.

SPECIFICATION forming part of Letters Patent No. 492,139, dated February 21, 1893.

Application filed October 28, 1892. Serial No. 450,263. (No model.)

To all whom it may concern:

Be it known that I, HENRY COCHRAN, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented a new and useful Folding Gate for Car-Platforms, of which the following is a specification.

This invention relates to folding gates; and it has for its object to provide certain improvements in folding gates of the lazy-tong type, which are employed for closing the platforms of railway cars in order to guard the passage ways and avoid accidents.

To this end the invention primarily contemplates certain improvements in the mounting and construction of folding lazy-tong gates, whereby the same are rendered more efficient for the usage they are subjected to in railway service.

With these and many other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of the parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a detail elevation of a gate constructed in accordance with this invention, applied to a vestibule platform. Fig. 2 is an enlarged detail in perspective of the pivotal supports and the pivot end post of the gate. Fig. 3 is a detail sectional view of the lower end of the pivot end post and its pivotal support. Fig. 4 is a detail in perspective of the catch. Fig. 5 is a similar view of a modification of the catch.

Referring to the accompanying drawings:—A represents one end of the car body to which the gate is shown applied, and B the vestibule post, which, as illustrated, carries the supports for the gate.

The gate is of the ordinary lazy-tong type and comprises a series of folding bars C, pivoted at their points of intersection and having their corners connected with the end posts D, and E, respectively. The end posts D and E are tubular in cross section, and are each provided with threaded ends F, and with the longitudinally disposed guide slots G, extending up a suitable distance from the lower ends of said posts. The threaded ends of the posts receive the screw caps or castings H, the upper ones of which are provided with the parallel securing lugs or ears I, between which are pivoted the upper corner ends of the folding panel, while the lower corner ends of the folding panel are pivoted, at large J, between the parallel lugs or ears K, of the T-shaped guide castings L. The T-shaped guide castings L slide freely in the vertical longitudinally disposed slots G, of the end posts, and have the right angularly disposed heads M, thereof work within the tubular posts, so that the castings are held steady in their sliding movement, as the folding panel is either extended or collapsed.

It will be observed that as the end posts are always in a vertical plane, that as the swinging end post is moved toward or away from the pivot end post, the lower corner ends of the folding panel necessarily slide up and down, and by the construction just described, such movement is readily compensated, while at the same time the disadvantages of the method heretofore used are avoided, in which the slides move outside of the end posts, thereby scratching and defacing the paint and creating undue friction.

The tubular end post D, of the gate serves in the capacity of the pivot post, and in order to securely and efficiently pivot the gate, the end caps H, on said post D, are provided with the projecting pivot studs or pins N, which are received by the reversely arranged bearing sockets O. The bearing sockets O, are arranged at the outer ends of the bearing brackets P, which brackets comprise the flat securing plates Q, which are attached either to the car body end A, when used on open platform cars, or to the vestibule post B, on vestibule cars, and the off-standing arms R, projecting outwardly from said flat plates and terminating at their outer ends in the sockets just described.

By pivoting the gate in the aligned bearing brackets, in lieu of the bearing steps usually employed, it will be observed that the pivot post is mounted in duplicate bearings, relatively reversed, and secured to the same portion of the car body or frame, so that any disturbance of the platform or step does not affect the alignment of the gate pivots, which usually happens where the bearings are secured to different parts of the car.

At a suitable point on the outer end post E, of the gate, is secured the split sleeve or collar S, having the extended ears or lugs *s*, between which is pivoted a hook catch T. The hook catch T, is adapted to engage a securing eye or link U, which is placed on the car body for the purpose of holding the gate in an extended position and thus closing the passage to and from the platform. In the open platform car, this eye or link is constructed as illustrated in Fig. 5 of the drawings, in order that the same can be secured to the upper end of the platform standard V, to secure the same result. It will of course be understood that a similar eye or link may be fastened to the body of the car on the inside of the opening, when the gate is used on open platforms, so as to receive the hook catch and hold the gate in position against the side of the car when closed and swung around out of the passage way.

The operation of the gate is plain. When in use the folding panel is extended and held in such position, as clearly illustrated in Fig. 1 of the drawings. When not in use the gate is collapsed to its smallest compass and swung inwardly toward the platform out of the way of entrance and exit, as is apparent.

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

1. The combination of a folding lazy-tong gate having vertical end posts, caps or castings secured to the ends of said posts, the upper caps being provided with extended ears or lugs pivotally connected with the upper end corners of the panel, vertically movable guides arranged to work inside of said vertical end posts and loosely connected to the lower end corners of the gate panel, pivot studs on the caps of the pivot or inner end post, and relatively reversed bearing brackets comprising flat securing plates, and off-standing arms terminating at their outer ends in bearing sockets which receive said pivot studs, substantially as set forth.

2. The combination in a folding lazy-tong gate; of the tubular end posts having longitudinally disposed slots in their lower ends, caps secured to the upper ends of said posts and having pivot lugs or ears, guide castings sliding in the slots of said posts, and the folding bars connected at their corners to the upper caps and said castings respectively, substantially as set forth.

3. The combination in a swinging lazy-tong gate; of the tubular end posts having longitudinally disposed slots, T-shaped guide castings moving in said slots and the posts, and the folding bars connected fixedly to the upper ends of the posts and with said sliding castings at their lower corners, substantially as set forth.

4. The combination in a folding gate for car platforms, of the duplicate pivotal supports for the gate, the tubular slotted end posts, T-shaped guide castings moving in the posts and the slots thereof and provided with parallel ears or lugs, the folding bars pivotally connected at their upper corners to the upper ends of the posts and at their lower corners between the ears or lugs of said castings, a securing eye or link, and a hook pivotally connected to the outer end post and adapted to engage said eye or link, substantially as set forth.

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

HENRY COCHRAN.

Witnesses:
JOSIAH SMITH,
H. R. CRESSMAN.