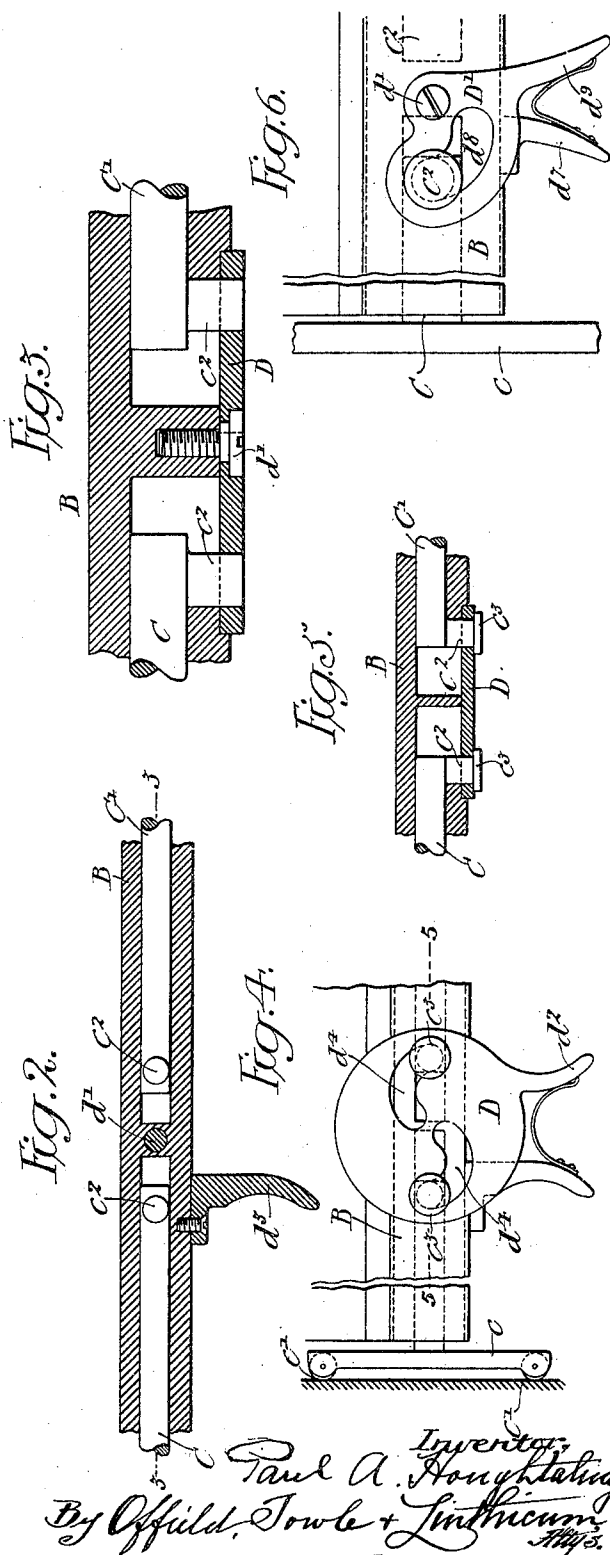
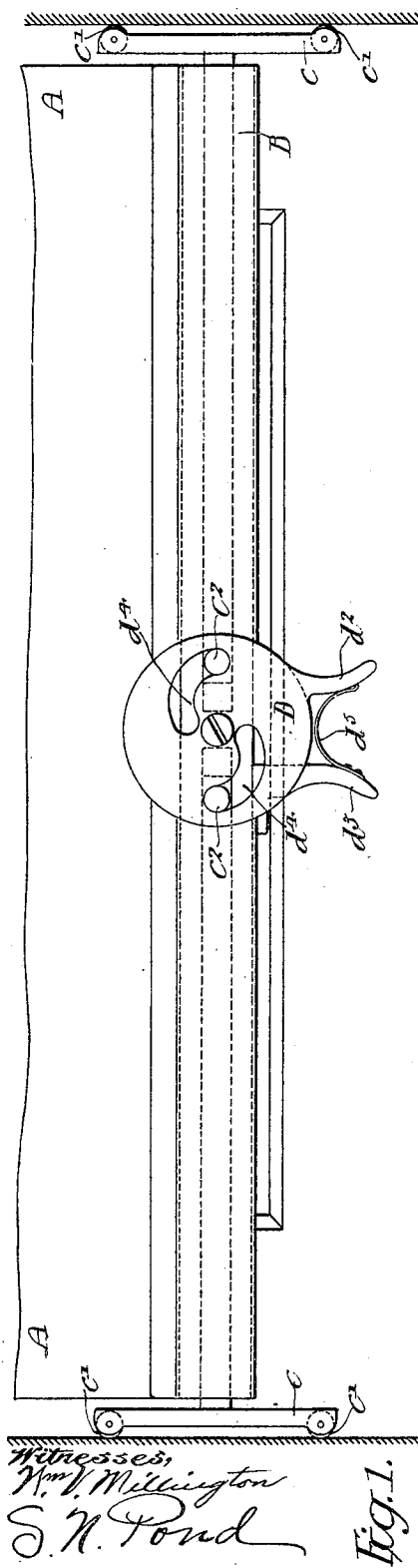


P. A. HOUGHTALING.  
CURTAIN HOLDING DEVICE.  
APPLICATION FILED SEPT. 24, 1904.



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# UNITED STATES PATENT OFFICE.

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## CURTAIN-HOLDING DEVICE.

No. 804,319.

Specification of Letters Patent.

Patented Nov. 14, 1905.

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*To all whom it may concern:*

Be it known that I, PAUL A. HOUGHTALING, a citizen of the United States, residing at Riverton, in the county of Burlington and State of New Jersey, have invented certain new and useful Improvements in Curtain-Holding Devices, of which the following is a specification.

My invention relates to certain improvements in mechanism or devices for operating the holding-rods which are usually placed in the lower ends of curtains such as are found in railway-vehicles, said invention having for its object the provision of simple, convenient, and relatively inexpensive means whereby such curtain-rods may be moved longitudinally, so as to be gripped to or released from the guides or runways in which the ends of said rods or the shoes carried by said ends operate. This object I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of the lower end of a curtain equipped with my invention. Fig. 2 is a vertical sectional elevation of a portion of the device shown in Fig. 1. Fig. 3 is a sectional plan view of that portion of my device shown in Fig. 2, taken on the line 3 3 of said figure. Fig. 4 is a front elevation similar to Fig. 2, showing a slightly-modified form of my invention. Fig. 5 is a sectional plan view taken on the line 5 5 of Fig. 4, and Fig. 6 is a front elevation of another modification of my invention.

In the above drawings, A represents a portion of a curtain at whose lower edge is carried a tubular structure B. Within this latter are the two curtain-rods C and C', each carrying at its outer end a shoe c, which may, if desired, be provided with projecting portions or rollers c' for engagement with the sides or bottom of the guide for the curtain. Manifestly this shoe or guide-engaging portion of the device may be altered or changed at will.

Fastened to the central portion of the tubular structure B is a disk or plate D, revolvably held in position by means of a screw d', which is threaded into the structure B. From the lower portion of the plate D extends a handle d<sup>2</sup>, and there is a second similar handle d<sup>3</sup> fixed to and projecting from the part B. A curved spring d<sup>5</sup> may be confined between the adjacent faces of these two handles, so as to separate them as far as possible.

As shown in Fig. 3, the adjacent ends of the curtain-rods each have a projecting pin or lug c<sup>2</sup>, which extends through an elongated slot in the tubular structure B into curved cam-slots d<sup>4</sup>, so placed that one end is nearer the center of rotation of the plate D than is the other.

It will be seen that the spring d<sup>5</sup> normally maintains the curtain-rods, which are freely movable within the structure B, so that they press against the guideways on the curtain or window-frame. When, however, pressure is exerted upon the two handles d<sup>2</sup> and d<sup>3</sup>, so that the former is moved toward the latter by the rotation of the plate on its pivotal screw d', the cam-surfaces of the slots d<sup>4</sup> cause the pins c<sup>2</sup>, and consequently the curtain-rods C and C', to move toward each other, thereby withdrawing the shoes c from engagement with the guideways and permitting free motion of the curtain up or down.

In the form of my invention shown in Figs. 4 and 5 instead of holding the plate D in position by means of the pivot-screw, as in Figs. 1 to 3, I form heads on the pins c<sup>2</sup>, as indicated at c<sup>3</sup>, which accomplish the same purpose as did the screw d'.

If desired, my invention may be so constructed as to act upon but one of the curtain-rods, as shown in Fig. 6, in which one of the curtain-rods, as C<sup>2</sup>, is permanently fixed to the tubular structure B, while the other rod, C, as before, is provided with a pin c<sup>2</sup>, passing through a slot in said structure, which has fixed to it a handle d<sup>7</sup>. The screw d' pivotally supports a cam-plate D', having a single groove d<sup>8</sup>, similar in form to one of those shown in Fig. 1 and constructed to move the rod C longitudinally in the structure B when the handle d<sup>9</sup>, which is attached to or is formed as a part of said cam-plate, is moved toward the handle d<sup>7</sup> on the part B.

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

1. The combination of a curtain, a curtain-rod therefor having a portion constructed to coact with a runway, a tubular housing for said rod and means including a cam arranged without the housing and movable in a plane parallel to the axis of the curtain-rod, and a portion coacting therewith for moving said portion of the rod toward and from the runway, substantially as described.

2. The combination of a curtain, a curtain-rod therefor having a portion constructed to coact with a runway, a tubular housing for said rod, means for pressing said rod toward said runway, and means including a cam arranged without the housing and movable in a plane parallel to the axis of the curtain-rod, and a portion coacting therewith for releasing the rod from the runway, substantially as described.

3. The combination of a curtain, a curtain-rod therefor having a portion constructed to coact with a runway, a tubular housing for said rod, a spring tending to force the rod toward said runway, a projection on the rod and a cam on the curtain arranged without said housing, with means for moving the cam in a plane parallel to the axis of the curtain-rod to release the rods from the runway, substantially as described.

4. The combination of a curtain having a guiding structure adjacent to its lower edge, a curtain-rod in said structure having a portion formed to coact with a runway, a plate formed with a cam-slot therein carried by said guiding structure movable in a plane parallel to the axis of the curtain-rod, and a projection on the rod entering said cam-slot, substantially as described.

5. The combination of a curtain having two relatively movable parts constructed to engage runways at opposite sides of said curtain, a plate pivotally mounted on the curtain to rotate in a plane parallel to the axis of said parts, and formed with a cam-slot therein, and a projection from one of the parts placed to enter said cam-slot, substantially as described.

6. The combination of a curtain carrying two relatively movable parts constructed to engage runways at the edges of said curtain, a plate pivotally mounted on the curtain to rotate in a plane parallel to the axis of said parts, and provided with a cam-surface, and a projection from one of the parts placed to be engaged by said cam-surface, with a fixed handle carried by the curtain and a second handle on said plate substantially as described.

7. The combination of a curtain carrying two relatively movable parts for engaging runways at the edges of said curtain, a plate pivotally mounted on the curtain movable in a plane parallel to the axis of said movable

parts and provided with a cam-surface, a projection from one of the parts placed to be engaged by said cam-surface, a fixed handle carried by the curtain and a second handle on the said plate, with a spring tending to force said handles apart and the movable parts into engagement with the runways, substantially as described.

8. A curtain-fixture comprising two relatively movable rods each having a portion to coact with a runway, a plate movable in a plane parallel to the axis of the curtain-rods and having two cams formed therein, and portions on the rods coacting with said cams for moving the runway-engaging portions of the rods relative to the runways.

9. A curtain-fixture comprising two rods one movable relative to the other each having a portion to coact with a runway, a plate movable in a plane parallel to the axis of the curtain-rods and having two oppositely-disposed cams formed therein, means operatively associated with one of said cams, and a portion of the movable rod coacting with said other cam for moving its runway-engaging portion relative to the runway.

10. A curtain-fixture comprising two relatively movable rods each having a portion to coact with a runway, a plate movable in a plane parallel to the axis of the curtain-rods and having two cams formed therein, and portions of said rods coacting with said cams for moving the runway-engaging portions of the rods relative to the runways, in combination with a fixed pinch-handle and an oppositely-disposed pinch-handle carried by the plate.

11. A curtain-fixture comprising two rods one movable relative to the other and each having a portion to coact with a runway, a plate movable in a plane parallel with the axis of the curtain-rods, and having two oppositely-disposed cams formed therein, means operatively associated with one of said cams, and a portion on the movable rod coacting with the other cam for moving its runway-engaging portion relative to the runway, in combination with a fixed pinch-handle and an oppositely-disposed pinch-handle carried by the plate.

PAUL A. HOUGHTALING.

Witnesses:

JOS. H. KLEIN,

WILL. A. BARR.