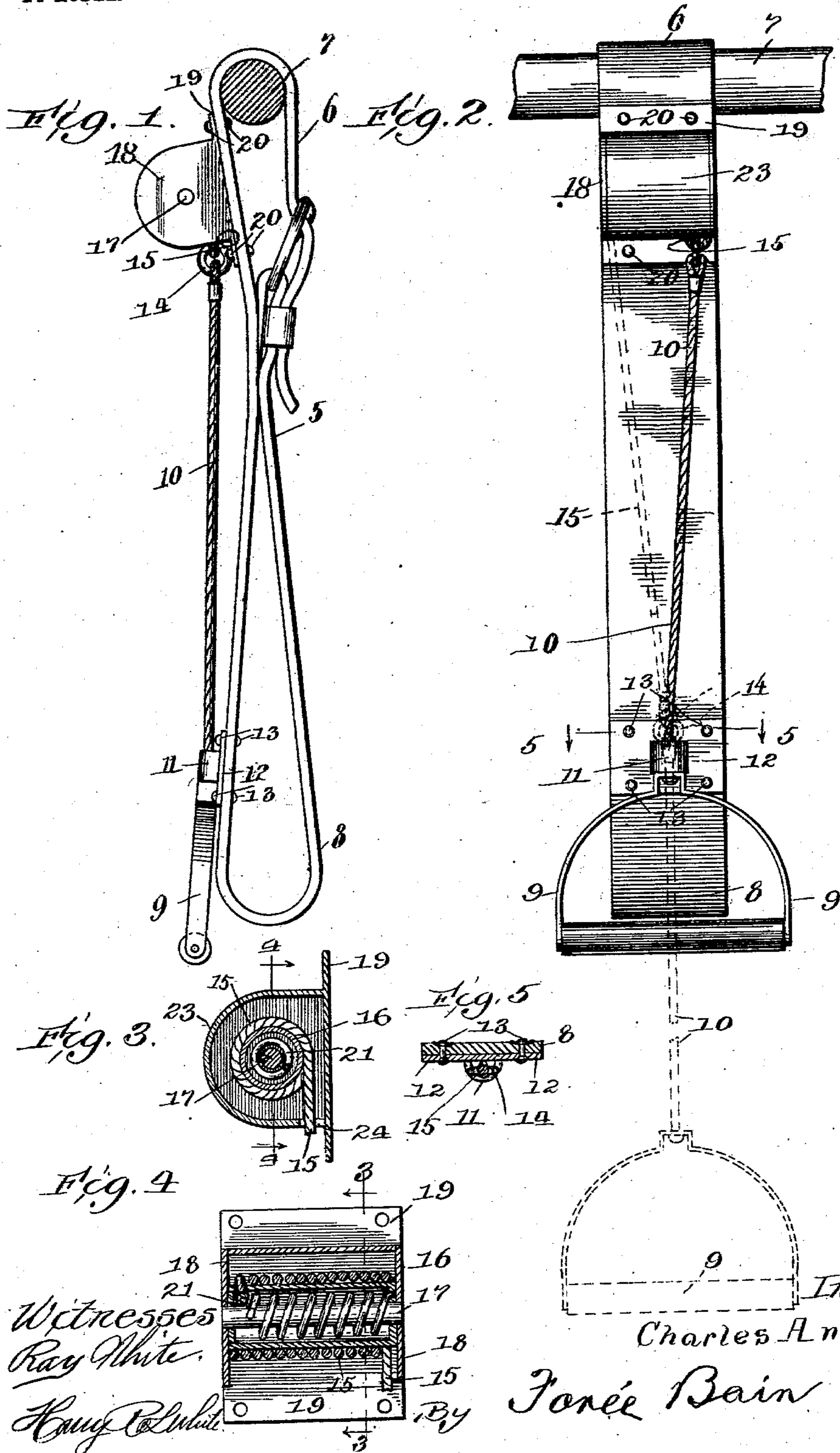


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PATENTED OCT. 6, 1903.

C. ANDRESS.  
ATTACHMENT FOR STREET CAR HAND STRAPS.  
APPLICATION FILED MAR. 2, 1903.

NO MODEL.



# UNITED STATES PATENT OFFICE.

CHARLES ANDRESS, OF CHICAGO, ILLINOIS.

## ATTACHMENT FOR STREET-CAR HAND-STRAPS.

SPECIFICATION forming part of Letters Patent No. 740,792, dated October 6, 1903.

Application filed March 2, 1903. Serial No. 145,653. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ANDRESS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attachments for Street-Car Hand-Straps; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an attachment for street-car hand-straps.

The primary object of my invention is to provide an extensible automatically-retracted auxiliary handle attachment for hand-straps such as are ordinarily employed in street-cars and like vehicles.

A further object of my invention is to provide an attachment of the character described which is simple, durable, and reliable in operation.

With a view to attaining these and further objects, which will become apparent from the following description, my invention consists in the features of construction and combinations of parts hereinafter more fully set forth, and specified in the claims.

In the drawings, wherein I have illustrated an advantageous embodiment of my invention, Figure 1 is a side elevation of a street-car strap equipped with my improved attachment. Fig. 2 is a front elevation of the same, illustrating in full lines the normal position of the parts when the handle is retracted and in dotted lines the position assumed when the handle is in position for use. Fig. 3 is a vertical section of the spring-actuating devices and their casing, taken on line 3 3 of Fig. 4. Fig. 4 is a longitudinal vertical section of the same, taken on line 4 4 of Fig. 3. Fig. 5 is a transverse section through the guide, taken on line 5 5 of Fig. 2.

Throughout the drawings like numerals of reference refer to like parts.

5 indicates as a whole a hand-strap of ordinary construction embodying an upper loop 6, loosely encircling the usual supporting-rod 7, and a lower hand-loop 8.

To the strap 5 is secured my attachment, which consists, essentially, of an auxiliary handle suspended from a support attached to the strap for vertical movement relative

thereto and means for normally holding the movable parts in elevated position.

In the specific embodiment shown, 9 indicates a handle of any preferred shape or construction, suspended from a wire cord 10 or other suitable suspension-support which extends through a guide 11, carried by a plate 12, suitably secured, as by rivets 13, to the strap 5, preferably near the lower extremity of the hand-loop 8 thereof. The guide and plate are strongly made and should be firmly secured to the strap.

14 indicates a ring, the diameter of which is too great to permit its passage through the guide 11, suitably secured to the upper end of the wire 10 to constitute an enlargement of the suspension-support.

15 is a retracting-cord, preferably of cotton or other suitable flexible material, secured at its lower end to the ring 14 aforesaid. At its upper end the flexible cord 15 is secured to a hollow roller 16, mounted for rotation upon a relatively stationary spindle 17, fixed at its ends in supports 18, projecting outward from a plate 19, secured to the strap 5, near the top thereof, as by rivets 20.

21 indicates a helical spring coiled around the spindle 17 within the hollow roller and secured at its opposite ends, respectively, to the roller and the spindle. If preferred, the roller may be inclosed in a casing 23, leaving only a slot 24, opening transversely thereof, through which the cord 15 may play.

The use and operation of my attachment will be as follows: When the moving parts—the handle and suspension-support—are drawn down to their downward limit of movement, the ring enlargement 14 contacts with the guide and the auxiliary handle 9 depends at a distance below the hand-loop of the hand-strap regulated by the length of the suspension-support. Any strain now put upon the auxiliary handle is transmitted through the wire suspension-cord and ring to the guide fixedly secured to the hand-strap, thus preventing any undue strain from coming upon the retracting devices. The retracting means may therefore be made light and small, as they are never under greater tension than that exerted by the retracting-spring. It will be observed that as the auxiliary handle is drawn down the retracted cord is unrolled,

turning its carrying-roller and putting the contained spring under tension. When now the handle is released, the spring reacts to re-wind the cord upon the roller, thereby re-  
 5 retracting the handle to its normal or elevated position.

The parts may be so proportioned and arranged that the handle when in normal position is just level with the strap, and the distance of its extension may be made to suit  
 10 the requirements of its use.

By the use of my invention, as will be apparent, the normal capacity of a given number of straps will be doubled—that is to say,  
 15 two persons can easily obtain handhold from the same strap, one using the hand-loop and the other the auxiliary handle. The primary advantage of the device, however, is that persons of different heights are accommodated  
 20 thereby without inconvenience. Street-car hand-straps are commonly hung at such a height as not to be struck by the seated occupants of the car in rising, and it is therefore often inconvenient and sometimes im-  
 25 possible for persons of short stature, and particularly ladies, to reach the straps.

It will be apparent that with my improved attachment while the auxiliary handle is normally held at approximately the same elevation as the bottom of the hand-strap, out  
 30 of the way of rising passengers, it may be drawn down to a convenient distance below the level of the hand-strap, so as to accommodate standing passengers without compelling them to assume a strained position and  
 35 to afford support to passengers below the average height.

I have herein described and illustrated for purposes of full disclosure a practical and  
 40 operative embodiment of my invention; but it will be apparent that many changes in the construction and arrangement thereof might be made without departing from the spirit

and scope of my invention, and it is therefore not my intention to limit myself to the exact construction shown and described. 45

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

1. In combination with a street-car hand- 50 strap, a spring winding-roller mounted thereon near its upper end, an apertured guide affixed to said strap near its lower end, a flexible cord wound upon the roller when the latter is wound up by its spring, a suspension- 55 support secured to the free end of the cord and extending down through the aperture in the guide, an enlargement at the point of juncture of the cord and the suspension-support, and a handle secured to the lower end 60 of the suspension-support.

2. In combination with a street-car hand-strap, an auxiliary handle, a suspension-support for the handle, a ring at the upper end of the support, a guide having an aperture of 65 less diameter than the ring surrounding the support below the ring and secured to the strap, and means for retracting the support and handle to elevated position.

3. In combination, a hand-strap 5, a spring- 70 actuated winding-roller mounted on the upper end of said strap, a cord connected to said roller and adapted to be wound thereon, a ring 14 secured to the lower end of said cord, a suspension-support depending from 75 said ring, a handle secured to said support, and a guide embracing said suspension-support and secured to the strap at the lower end thereof.

In testimony that I claim the foregoing as 80 my own I affix my signature in presence of two witnesses.

CHARLES ANDRESS.

In presence of—

MARY F. ALLEN,  
 GEO. T. MAY, Jr.