

No. 704,143.

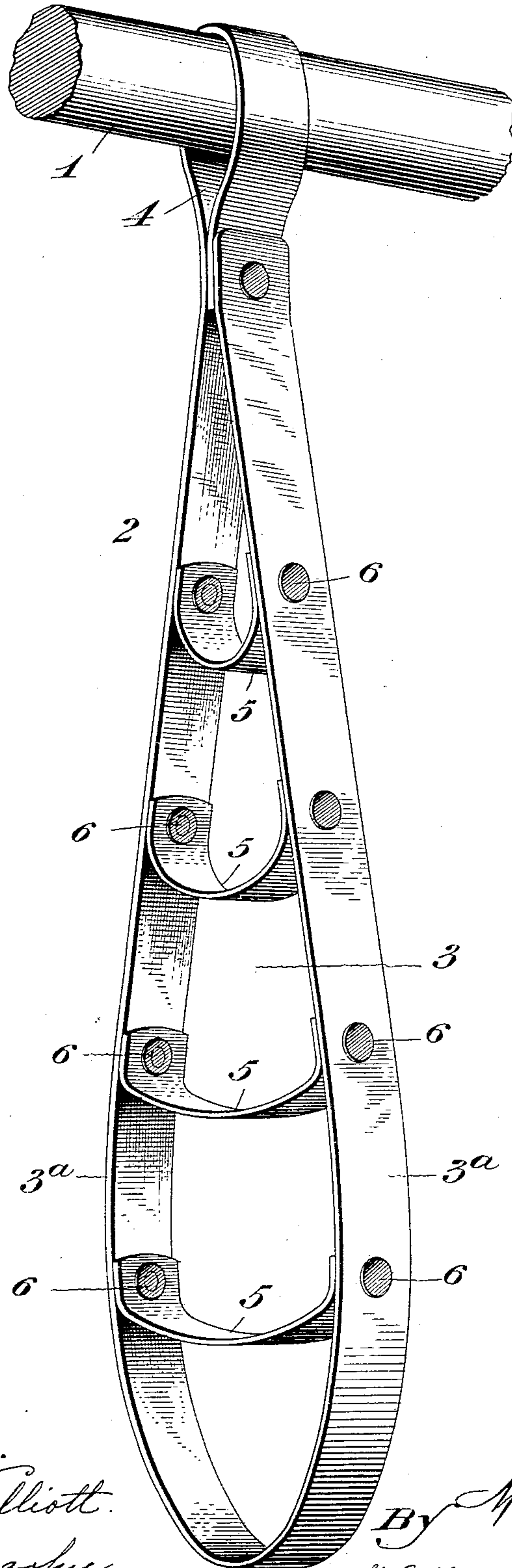
Patented July 8, 1902.

M. STRAUS.

HAND STRAP FOR STREET RAILWAY CARS.

(Application filed Oct. 28, 1901.)

(No Model.)



*Witnesses:*  
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# UNITED STATES PATENT OFFICE.

MAX STRAUS, OF DENVER, COLORADO.

## HAND-STRAP FOR STREET-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 704,143, dated July 8, 1902.

Application filed October 28, 1901. Serial No. 80,297. (No model.)

*To all whom it may concern:*

Be it known that I, MAX STRAUS, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Hand-Straps for Street-Railway Cars; 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hand-straps for railway-cars.

The object of the invention is to produce a hand-strap which shall be constructed so that persons of varying heights may be accommodated by the same strap, or that two or more persons may grasp the same strap simultaneously, or that a person of very short stature may use the hooked end of a cane or umbrella to engage the said strap, even though the same may be grasped by another person. To this end I provide the hand-strap now in general use with a plurality of steps or grasping portions arranged one above the other between the two members of the said hand-strap and secured to the same in any preferred manner, as will be set forth in the accompanying specification and claims.

In the accompanying drawing, forming part of this application, I have illustrated my invention by a perspective view of the same.

Referring to the said drawing, the numeral 1 indicates the usual supporting-rod, which is secured to the roof of the car in the well-known manner. Upon this rod 1 the hand-straps 2 are hung, so as to have a sliding movement thereon. The hand-straps in general use are arranged so as to present a long loop or grasping portion 3 and a short loop 4, through which the supporting-rod 1 passes. The free ends of the strap overlap between the two loops, and a rivet passing through the said ends and through the other member of the strap secures the ends and forms the loop 3 and 4, as shown. Between the two members 3<sup>a</sup>, forming the long loop 3, are secured a plurality of short straps 5, ar-

ranged one above the other in step fashion, as shown. These straps 5 are secured at each end to a member 3<sup>a</sup> of the loop 3 by a rivet 6 or in any other preferred way, and thus form a number of small loops or grasping portions, by which persons of varying heights may be accommodated or two or more persons may be accommodated by the same strap simultaneously. My invention contemplates making the loop 3 somewhat longer than those in use at the present time, so that short persons or children may grasp the lower end of the loop 3 or the first or second step-loop 5, while persons with a longer reach would naturally take one of the upper loops, and while I have illustrated four of these step-loops a greater or less number may be used, as desired.

This form of hand-strap is especially desirable when a car is crowded, for, as previously mentioned, two or more persons may use a single strap at the same time, and each passenger is thus accommodated and may be saved the annoyance of being thrown from side to side as the car is started and stopped.

From the foregoing it will be seen that my improved hand-strap possesses superior advantages to those now in use and that its employment will be conducive of comfort and convenience.

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

1. A hand-strap, the lower end of which is formed into a loop; a plurality of steps or loops, arranged one above the other, between the two members of the main loop, and securely attached at each end to one of the members of the said loop, substantially as shown.

2. A hand-strap, the lower portion of which is formed into a loop, a plurality of short straps which extend longitudinally from one member of the loop to the other, the said straps being arranged one above the other, and secured to the members of the aforesaid loop, substantially as shown.

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

MAX STRAUS.

Witnesses:

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