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W. BROWN

CONTROLLER HANDLE

Filed March 18, 1925

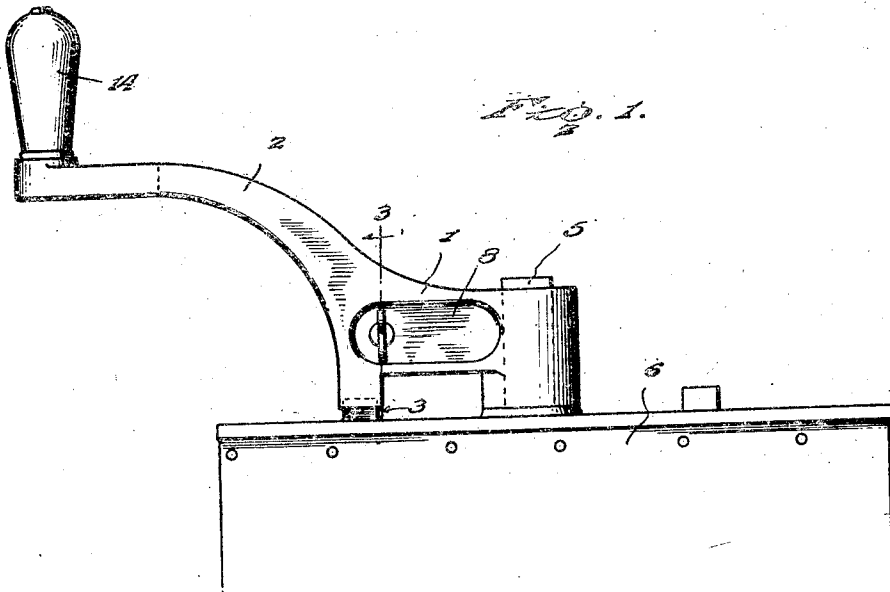


Fig. 2.

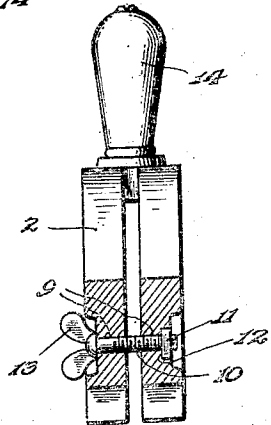
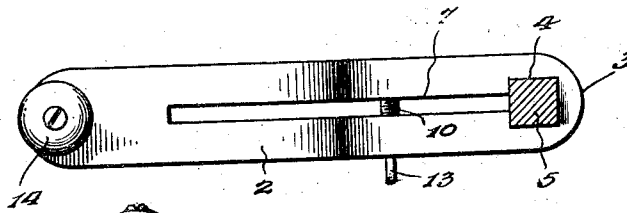


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM BROWN, OF SAN FRANCISCO, CALIFORNIA.

CONTROLLER HANDLE.

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To all whom it may concern:

Be it known that I, WILLIAM BROWN, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Controller Handles, of which the following is a specification.

This invention relates to improvements in controller handles of the type adapted to be applied to the stem of the controller of an electric railway car for the purpose of operating the controller, and one of the objects of the present invention is to provide a handle which may be readily applied to the controller stem and, when properly applied, will be securely held upon the stem and adapted to be operated to rotate the stem without any lost play, such as is often present in the use of ordinary controller handles.

While I am aware that controller handles have previously been designed and constructed to adapt them to be clamped to the controller stems to which they are applied, nevertheless, such handles have consisted of two hinged sections and as a result the handles are incapable of withstanding the rough usage to which they are subjected. It is a well known fact that such handles are frequently carelessly and roughly handled by motormen not only when they are in place upon the controller stems, but also after they have been removed from the stems, so that the handle which comprises several pivoted or hinged parts does not possess sufficient strength and durability to render it desirable for use. Therefore, it is another important object of the present invention to provide an integral or one-piece controller handle possessing great strength and durability and, at the same time, embodying means to adapt it to be firmly clamped upon a controller stem.

In controller handles of the type comprising two pivotally or hinged connected sections, a set screw or clamping screw is ordinarily provided for drawing the sections together to clamp them at their ends about the controller stem and it is quite obvious that in such a construction the clamping screw is subjected to considerable strain because, when the handle is swung, the tendency is for the ends of the sections thereof to be spread apart through the resistance offered by the controller stem, its

end being of rectangular form and fitted between said ends of the handle sections. Therefore, the present invention has as a further important object, to so construct the handle that the clamping screw or bolt employed in connection therewith will be subjected to minimum strain.

In the accompanying drawings:

Figure 1 is a view in side elevation of the controller handle embodying the invention mounted upon an electric railway car controller.

Figure 2 is a plan view of the handle, the controller stem being shown in horizontal section.

Figure 3 is a vertical transverse sectional view taken substantially on the line 3—3 of Figure 1, looking in the direction indicated by the arrows.

The handle embodying the invention comprises a shank portion indicated by the numeral 1 and an upwardly curved arm 2 which extends from one end of the shank portion. The handle is of substantially uniform width throughout its entire length and the body of the handle is preferably formed from a single metal blank. At its end opposite its end from which the arm 2 extends, the shank is preferably rounded as at 3, at its exterior surface, and is formed with a rectangular socket indicated by the numeral 4, of dimensions to adapt this end of the shank to be fitted to the stem 5 of the controller 6. Said shank 1 and the arm 2 are formed with a slot 7 which extends longitudinally thereof and at one end opens into the socket 4 and at its other end terminates short of the free end of the arm 2. Ordinarily, the handles will be made of brass, which metal possesses a degree of resiliency suitable for the purposes of the present invention, and the socket 4 will be of such dimensions as to adapt it to be initially freely fitted onto the stem 5 of the controller. The shank 1 of the handle is preferably formed in its opposite sides with recesses 8 and, at its end from which the arm 2 extends, the said shank is formed with aligned transverse openings 9. A clamping bolt 10 is fitted through the openings 9 and has its shank threaded into a nut 11 which is seated in a shallow recess 12 formed in the wall of the corresponding recess 8, the other end of the shank of the clamping bolt being provided with a winged head 13 adapting the bolt to

be readily tightened by hand, the base of the head seating within the other recess 8, as clearly shown in Figures 1 and 3 of the drawings.

5 From the foregoing, it will be evident that while the socket 4 is so proportioned that it will initially freely accommodate the stud 5, when the handle is fitted to the stud and the bolt 10 is tightened, the opposite walls of
10 the slot 7 will be brought together and the socket 4 will thus be sufficiently contracted to cause its walls to firmly frictionally bind the controller stem 5. In this manner the handle is securely and yet readily removably
15 fixed upon the controller stem and may be operated to rotate the stem without any play or lost motion. Furthermore, there is no likelihood of the handle becoming accidentally disengaged from the stem.

20 At its outer end, the arm 2 supports a hand grip 14 which may be grasped, as usual for the purpose of swinging the handle.

It will be understood that inasmuch as the handle is of integral construction as distinguished from comprising two pivotally, or
25 hingedly connected sections, minimum strain is imposed upon the clamping bolt 10. Furthermore, the handle possesses greater strength and durability and is not liable to
30 be damaged through the rough usage to which such handles are ordinarily subjected and as would be likely to occur if it embodied two relatively separable sections.

Having thus described the invention, what I claim is:

35 1. A controller handle comprising an integral handle body including a shank portion having a controller-stem socket adjacent one end thereof and an arm extending
40 from the other end thereof, the said handle body being formed with a slot extending longitudinally of its shank and the arm portion and terminating at one end short
45 of the outer end of the arm portion and at its other end opening into the said socket, and means for relatively adjusting the walls of the slot to effect contraction of the socket and thus cause the walls of the socket to bind the controller stem.

50 2. A controller handle comprising an integral handle body having a controller-stem socket adjacent one end and formed with a slot extending longitudinally thereof and opening at one end into the socket, the opposite faces of the said body near the socket
55 being formed with recesses, a clamping bolt having a head received in one of the recesses, said bolt having a shank extending through the walls of the slot at the recesses, and a nut upon the bolt housed within the other recess,
60 the bolt being adjustable to relatively adjust the walls of the slot to effect contraction of the socket.

In testimony whereof I affix my signature.

WILLIAM BROWN [L. s.].