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CONTROLLING LEVER LOCK.

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1,160,002. Patented Nov. 9, 1915.

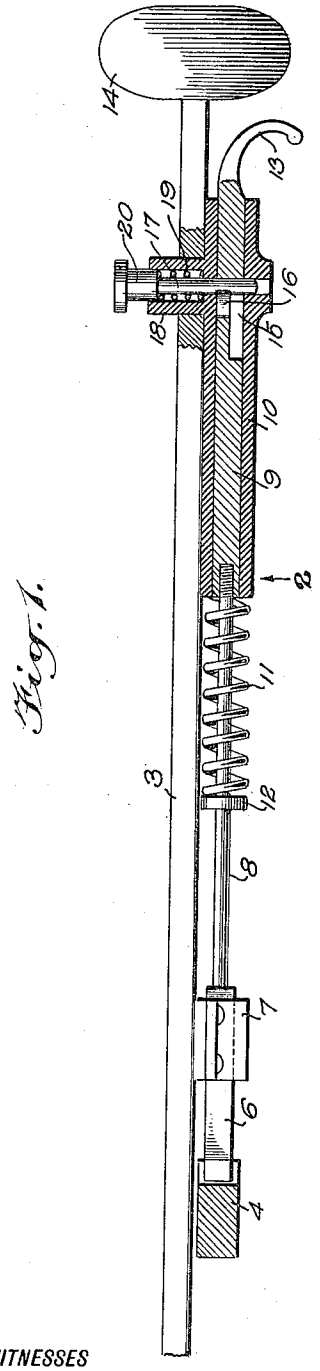


Fig. 1.

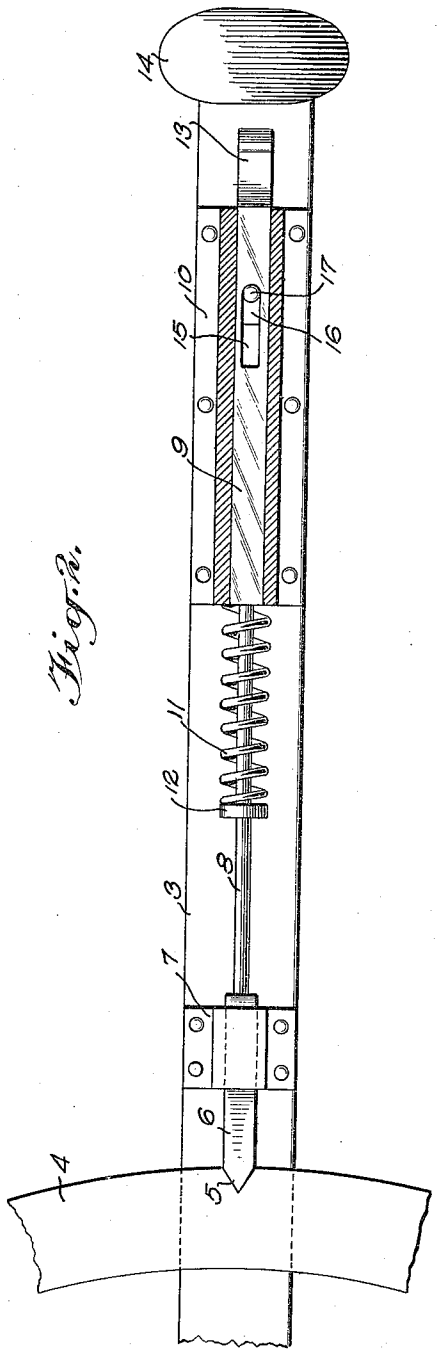


Fig. 2.

WITNESSES

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CONTROLLING-LEVER LOCK.

1,160,002. Specification of Letters Patent. Patented Nov. 9, 1915.

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To all whom it may concern:

Be it known that we, CHARLES A. SCHULTZ, Jr., a citizen of the United States, and a resident of the borough of Richmond, city of New York, county of Richmond, and State of New York, and EDWARD L. McMANUS, Jr., a citizen of the United States, and a resident of the borough of Manhattan, city of New York, county of New York, and State of New York, have invented a new and Improved Controlling-Lever Lock, of which the following is a full, clear, and exact description.

Our invention relates to locking means for controlling levers, and has reference more particularly to locking means for the controlling levers of electric motors for vehicles.

An object of the invention is to provide a simple, easily operable and inexpensive lock for the controlling lever, whereby the lever is locked in a neutral position when the vehicle is at rest.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings forming part of the application similar characters of reference indicate corresponding parts in all the views, and Figure 1 is a side elevation of the controlling lever and a sectional view of the lock therefor; and Fig. 2 is a plan view in the direction of the arrow 2 in Fig. 1 of the lock casing, being partly in section to show the details of construction.

Before proceeding to a more detailed description of our invention, it must be clearly understood that, although the description and drawings refer to a controlling lever of an electrically propelled vehicle, the lock can be as efficiently applied, with slight or no modifications, to controlling levers of vehicles propelled by means of any other motive power.

Referring to the drawings, 3 represents the controlling lever, which is mounted to oscillate over the sector 4, a fragment of which only is shown. The sector has a notch 5, preferably V-shaped, and which notch is adapted to be engaged by a V-shaped end of a bar 6 mounted to slide in a bearing 7 secured to the controlling lever 3. The bar 6 is connected by a stem 8 to a slide 9, engaged in a casing 10, secured to the lever 3. A resilient member 11, preferably in the shape of a coil spring, is mounted on the stem, so that one end of the spring is abutting against the casing 10 while the other abuts against a collar 12 provided on the stem. The tendency of the spring 11 is to move the bar 6 against the sector and thereby to bring the end of the bar 6 into engagement with the notch 5. The slide 9 is provided with a handle 13, in the shape of a hook, located adjacent to a knob 14 on the controlling lever 3. The slide 9 has a stepped slot 15, which is engaged by the leaf 16 of a key 17, mounted to move transversely in the slot, and guided within a socket 18, forming part of the casing 10 and projecting through the lever 3. The length of the leaf 16 is substantially equal to the shorter part of the recess 15. A coil spring 19 is provided within the socket, and which engages the head 20 of the key, and normally tends to move the leaf 16 of the key from the larger part of the recess into the smaller part thereof. The end of the stem of the key is also guided by the casing 10, as will be seen from Fig. 1.

It will be seen from the drawings that when the bar 6 engages the notch 5, the leaf 16 of the key is engaging the smaller portion of the shouldered recess 15, thereby preventing displacement of the slide 9, and consequently locking the lever 3 in its neutral position. To operate the lever 3, pressure must be applied with one finger on to the head 20 of the key, while the hollow of the hand engages the knob. This displacement of the key brings the leaf 16 in alinement with the larger portion of the stepped slot 15, unlocking the slide, which may be then operated by its handle 13, thereby disengaging the bar 6 from the notch 5 of the sector. The lever 3 can then be moved, and until the bar 6 of the lever 3 is not in alinement with the notch 5, the lock remains inoperative, as the leaf 16 is not in alinement with the smaller portion of the slot 15. It may be remarked that our lock is of such nature, and so located on the controlling lever 3, that the same is operable by the fingers of the hand which engages the handle of the lever, so that by the same hand the lock and the lever can be controlled with ease.

One of the principal reasons for providing this lock is to prevent children in the street from moving the controlling lever

when the vehicle is left unattended. As a rule, they try to push the lever to one side or the other, setting the vehicle in motion and causing great damage.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. In combination with a controlling lever and a sector therefor, of a lock for the lever, comprising a slide on the lever; a resilient member associated with the slide and normally tending to engage the same with the sector; a depressible key associated with said slide, mounted to move transversely thereof and adapted to lock said slide when the same is engaged with the sector; said key must be maintained in the depressed position when it is desired to disengage the slide from the sector, said key and slide having means adjacent to the handle of the lever so that the same can be operated by the same hand which engages the handle of the lever.

2. The combination with a controlling lever and a sector therefor, of a lock comprising a casing secured to the lever, a slide in said casing adapted to move longitudinally of the lever, said slide having a stepped slot whereby a longer and a shorter portion of the slot is formed, a key having a leaf engaging said slot, the leaf of the key being of a length substantially equal to the shorter portion of the slot, a resilient member associated with the key and normally tending to move the leaf thereof from the larger into the smaller portion of the slot, a bar associated with the slide, the sector having a recess adapted to be engaged by said bar, and a resilient member normally tending to move the bar into the recess, said controlling lever having a handle, said slide having a handle adjacent to the handle of the controlling lever, said key being also located adjacent to the handle of the lever whereby the hand operating the lever can operate the key and the slide.

3. The combination with a controlling lever and a sector therefor, of a lock comprising a slide mounted on the lever, a resilient member associated with the slide and normally tending to move the same into engagement with the sector, said lever having a handle, said slide also having a handle for operating the same located adjacent the handle of the lever, said slide having a stepped slot whereby a longer and a shorter portion of the slot is formed, a depressible key located adjacent the handle of the lever engaging the slot, said key being adapted to engage the shorter portion of the slot when the slide engages the sector and whereby the lever is locked, and by depressing the key from the shorter portion into the larger portion of the slot the slide can be disengaged from the sector thereby unlocking the lever.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES A. SCHULTZ, JR.
EDWARD L. McMANUS, JR.

Witnesses:
B. JOFFE,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."