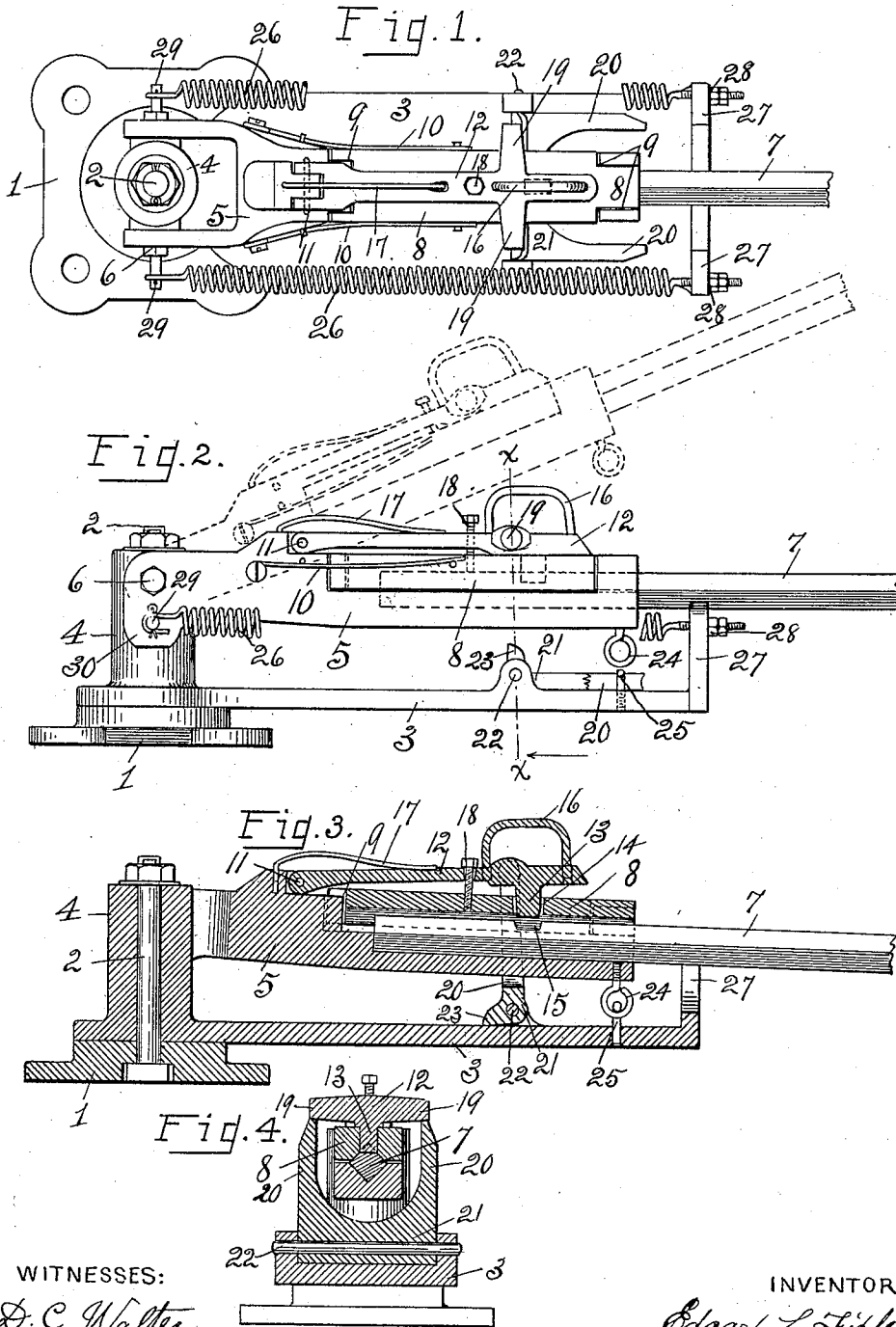


No. 857,612.

PATENTED JUNE 25, 1907.

E. L. FIXLER.
TROLLEY STAND.

APPLICATION FILED JULY 12, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDGAR L. FIXLER, OF DELTA, OHIO.

TROLLEY-STAND.

No. 857,612.

Specification of Letters Patent.

Patented June 25, 1907.

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To all whom it may concern:

Be it known that I, EDGAR L. FIXLER, a citizen of the United States, and a resident of Delta, in the county of Fulton and State of Ohio, have invented a certain new and useful Trolley-Stand; and I do hereby 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 an improved trolley-stand for electric cars and has particular reference to the trolley-pole socket and the means for securing the pole in its socket.

The primary object of my invention is to provide a trolley-stand whereby a damaged trolley-pole can be quickly and easily removed and a new pole substituted with slight loss of time and minimum danger to the operator from contact of the pole being handled with the live wires overhead.

Another object is to so securely fasten the pole in its socket as to avoid the pulling out of the pole while the car is in motion and consequent injury to the passengers, people on the street, or the car itself.

It is a very common occurrence for trolley-poles to become damaged or defective while the car is on its run, thus necessitating the immediate substitution of a new pole by the employees in charge of the car. Especially is this true on the interurban lines. With the forms of trolley-stands now in common use the changing of a pole requires the services of two men for from ten to twenty minutes, and as the change must be made while the pole is in vertical position there is great danger of injury from shock by contact of the pole with the trolley wires. This danger is especially great at night, when it is also difficult to get the pole in proper position so that the wheel will run on the wire. With my improved trolley-stand it is a simple task for one man to remove an old pole and replace a new one in a few moments' time without danger from shock, and the pole when in place is positively secured against pulling out and the trolley-wheel always in proper position to run on the wire.

Further objects of my invention, as well as

the operation, construction and arrangement of the parts thereof, will be apparent by reference to the following specification and the accompanying drawings illustrating one form thereof, and in which,—

Figure 1 is a plan of my improved trolley-stand, with the pole and its socket in lowered or inoperative position. Fig. 2 is a side elevation thereof in similar position. Fig. 3 is a central vertical longitudinal section thereof with the socket and pole locked in lowered position and the key released from the pole, and Fig. 4 is a cross-section taken on the line $x x$ in Fig. 2 with the key releasing standard raised.

Referring to the drawings, 1 indicates the stand base, which may be bolted to the roof of a car in the usual way and carries the vertical pin or pivot 2 on which the table 3 is mounted at one end to adapt it to have a swinging movement. This table is provided at one end with the upwardly projecting boss 4 through which the pin or pivot 2 passes, and to this boss near its upper end is pivoted the forked end of the pole-socket or barrel 5 of the stand, as shown at 6 in Figs. 1 and 2.

The barrel 5 is preferably formed with a socket which is polygonal in cross-section to receive the base of a trolley-pole 7 of similar shape to prevent it turning therein, and is provided longitudinally thereof with a removable section or block 8 which covers the socket and has its under surface shaped to conform to a portion of the socket as shown. This section has its ends fitted to guides formed on the barrel proper, as shown at 9 in Figs. 1, 2 and 3, and is yieldingly retained in position relative to the barrel proper by means of springs 10 or in any other suitable manner.

Pivoted to the upper side of the barrel 5, as at 11, with its free end overlapping the major portion of the barrel section or block 8 is a pole-locking key 12, which is formed on its inner surface adjacent its free end with a lug 13 adapted to project through a registering opening 14 in the section or block 8 and seat within a socket 15 in the pole 7 to retain it against removal from the barrel. A handhold 16 is provided at the free end of the key to facilitate its being released from the pole 7, and a flat-spring 17 of suitable tension is secured to the barrel and coacts with the key

11 to normally maintain it in locked position. The block 8 and key 12 are loosely connected by a screw 18, which passes loosely through an aperture in the latter and is threaded to the former and acts as a stop for limiting the relative movements thereof, as hereinafter more fully described.

In order to effect an automatic release of the pole 7 on the lowering of the barrel or socket 5 to horizontal position the key 12 is formed near its free end with the opposite laterally-extending wings or arms 19, which are intended to coact with alining stops or uprights 20 at a predetermined point in the lowering of the barrel and effects a stopping of the movement of the key just previous to the limit of the lowering movement of the barrel, thus causing the lug 13 on the key to be raised out of engagement with the pole. When the key 12 has been moved sufficiently relative to the barrel to release the pole it then engages the head of the screw 18, which is properly adjusted, and stops the descent of the block or section 8 on the barrel so as to release its spring actuated pressure on the pole base, as shown in Fig. 3, and permit an easy removal or insertion of the pole. The stops or uprights 20 are shown as rising from a single transversely disposed member 21, which has its base pivoted to the table 3, as shown at 22, to adapt it to be folded thereagainst when not in use and formed with a toe 23 to adapt it to maintain an upright position when set up. The barrel 5 is retained in unlocked position, as shown in Fig. 3, by means of an eye 24 thereon cooperating with a hook 25 on the table 3 or in any other suitable manner, thus obviating the necessity of one person holding the barrel down while another removes or places a pole therein.

The trolley is normally retained in yielding contact with the conductor-wire by means of the usual tension springs 26, each of which is fixed at one end to an upright 27 at the outer end of the table 3, as shown at 28, and at its outer end to a pin 29 projecting from the stepped or angled portion 30 of the contiguous fork-arm at the fulcrum end of the barrel.

It will be apparent with this construction of trolley-stand that a pole may be inserted therein or removed therefrom with slight loss of time and minimum danger to the operator and without the tightening or loosening of bolts or screws usually employed to retain the pole in position; and also that the difficulty incident to the adjusting of the pole in the old style of stand for its trolley to properly coact with the conductor-wire is avoided, inasmuch as the pole can only be locked within the barrel when its trolley is in proper adjustment relative to the conductor-wire.

While I have shown a preferred construction of my invention, I wish it to be under-

stood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

1. In a trolley-stand, a barrel having a yieldingly mounted socket part, and a spring-pressed key pivoted to the barrel and overlapping the movable socket part and having a part adapted to normally lock with the pole.

2. In a trolley-stand, a barrel, a pole, a key associated with the barrel for normally locking the pole therein, and means for effecting a movement of the key to release the pole at a predetermined point in the lowering movement of the barrel.

3. In a trolley-stand, a socket part, a pole, a movable member associated with the socket-part for normally coacting with the pole to prevent withdrawal thereof, and means for automatically effecting a release of said member from the pole at a predetermined point in the lowering movement of the socket-part.

4. In a trolley-stand, a barrel having a perforated movable socket part, a pole, a key movably carried by the barrel for locking with the pole, said key overlying the socket-part with its pole coacting part operating through the perforation therein and being capable of a limited movement relative to the socket-part, and means for normally retaining the socket-part in one position relative to the barrel.

5. In a trolley-stand, a barrel having a movable part forming one side of its socket, a pole, a member carried by the barrel for normally coacting with the pole to retain it in position and having a limited movement relative to the movable barrel part, and means for effecting a release of the member and a movement of the barrel part relative to the pole.

6. In a trolley-stand, a table, a barrel pivotally carried thereby, a pole, a key for locking the pole to the barrel, and means on the table for effecting a movement of the key to release the pole at a predetermined point in the lowering of the barrel.

7. In a trolley-stand, a table, a barrel pivotally carried thereby, a pole, a key for locking the pole to the barrel, means on the table for effecting a release of the key from the pole at a predetermined point in the movement of the barrel, and means for retaining the barrel in unlocked position relative to the table.

8. In a trolley-stand, a table, a barrel having a movable socket part, a pole, a key yieldingly carried by the barrel and having a portion protruding through the socket part

and coacting with the pole to normally retain
it fixed to the barrel, means connecting the
key and socket part for enabling them to
have limited relative movements, and means
5 on the table for causing a release of the key
from the pole and a movement of the socket
part relative thereto at a predetermined
point in a movement of the barrel.

In testimony whereof I have hereunto
signed my name to this specification in the 10
presence of two subscribing witnesses.

EDGAR L. FIXLER.

Witnesses:

WILBER A. OWEN,
HAZEL B. HIETT.