J. O. MULLIGAN.

WIRE SPLICER.

APPLICATION FILED NOV. 19, 1913.

**1,099,390.** Patented June 9, 1914.

Fig. 1

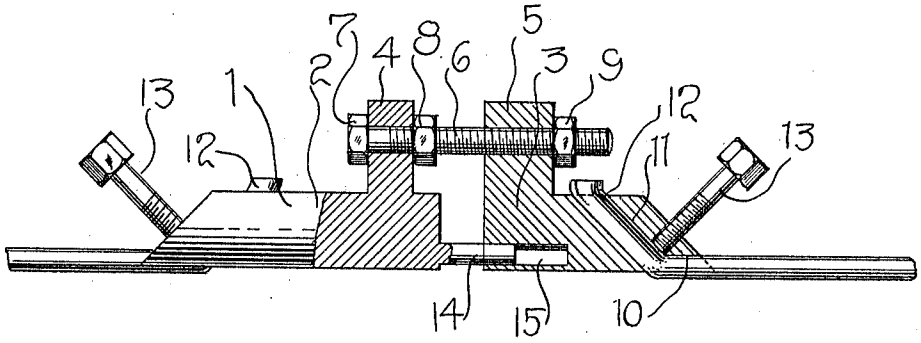



Fig. 2

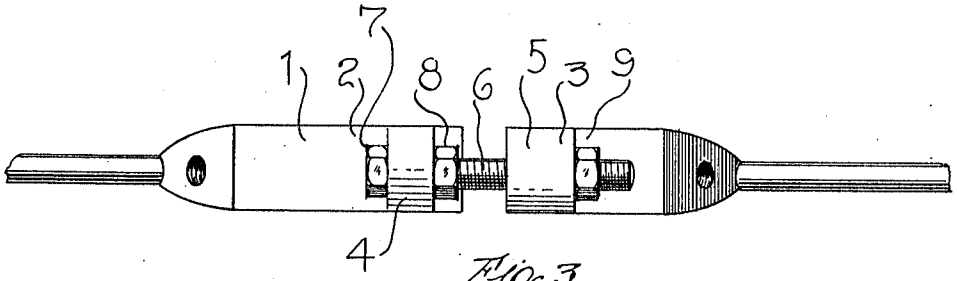
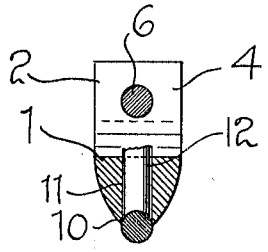



Fig. 3




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# UNITED STATES PATENT OFFICE.

JOSEPH O. MULLIGAN, OF ECCLES, WEST VIRGINIA.

## WIRE-SPLICER.

1,099,390. Specification of Letters Patent. Patented June 9, 1914.

Application filed November 19, 1913. Serial No. 801,893.

*To all whom it may concern:*

Be it known that I, JOSEPH O. MULLIGAN, a citizen of the United States, residing at Eccles, in the county of Raleigh and State of West Virginia, have invented certain new and useful Improvements in Wire-Splicers, of which the following is a specification, reference being had to the accompaying drawings.

This invention relates to new and useful improvements in trolley splicers and more particularly to a splicer adapted for application to overhead trolley wires, the object of the invention being to provide a splicer of the above character which is adapted to be arranged between two wire ends and is made adjustable so that the slack in the wires may be readily taken up, as desired.

Another object of the invention is to provide a wire splicer of the above character which will possess advantages in points of efficiency and durability, is inexpensive to manufacture and at the same time is simple in construction and operation.

With the above and other objects in view, the invention consists in the novel features of construction and the combination and arrangement of parts to be hereinafter more fully described, pointed out in the claim and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a wire splicer constructed in accordance with my invention, parts thereof being broken away and shown in cross section; Fig. 2 is a top plan view; and Fig. 3 is a transverse sectional view through one of the conducting members.

Referring more particularly to the drawings, 1 indicates generally my improved splicer, which includes two sections indicated by the numerals 2 and 3 which are in the form of conductors comprising elongated bodies formed of any suitable conducting material. The section 2 is formed at one end thereof with an outwardly projecting perforated lug 4 and the section 3 is provided adjacent its inner end with a perforated lug 5 adapted to be arranged in alinement with the lug 4 to receive the connecting bolt 6, said connecting bolt having the usual head 7 thereon and mounted upon said bolt and arranged between the two lugs 4 and 5 is a nut 8 which is screwed upon the bolt 6 and is adapted to engage one face of the lug 4 to securely retain the bolt against movement within this lug. An adjusting nut 9 is threaded upon the outer end of the bolt 6 and is adapted to engage the outer face of the lug 5 whereby turning movement of the nut will adjust the two conductors 2 and 3 longitudinally with respect to each other. It will be noted that by forming the lug 5 at a point removed from the inner end of the conductor 3, it provides a recess between the two lugs for the reception of the bolt 8. The outer ends of each of the conductors 2 and 3 are provided with longitudinal recesses 10 which are adapted to communicate with substantially vertical openings 11 extending upwardly through the conductors and in which are arranged the ends of the trolley wires, as indicated at 12. The trolley wires are held securely in position by means of the set screws 13 which are removably arranged within slanting openings formed in each of the beveled ends of the conductors.

The conductor 2 is provided with a longitudinally extending pin 14 which is adapted to be movably arranged within a longitudinal bore 15 formed in the conductor 3, thus providing a continuous connection between the two conductors.

It will be apparent from the above that two ends of the trolley wires may be quickly and readily attached to the ends of the splicer and securely held in position while the bolt 6 is connected to adjust the conductors 2 and 3 and take up any slack in the trolley wires.

The principal object of my invention as stated above is to provide a device whereby the slack within the trolley wires may be quickly and readily taken up without the necessity of going to the end of the wire.

It will be readily apparent that my device may be quickly and readily applied by cutting the wire and having each end thereof engaged within the openings 11 formed in the ends of the splicer and the bolt 6 adjusted so as to bring the two sections of the splicer together and take up the slack within the wire.

It will be apparent that I have provided a simple and durable splicer which will not interfere with the trolley wheel in passing thereover and which at the same time is extremely simple in construction and can be manufactured at a comparatively low cost.

While I have shown and described the preferred form of my invention, it will be ob-

vious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from the scope of the appended claim.

What I claim is:—

A wire splicer including longitudinally movable sections, a lug formed at the inner end of one of said sections, a second lug formed upon the other of said sections and arranged adjacent the inner end thereof whereby to provide a space between said lugs, a bolt arranged within said lugs, a nut mounted upon the bolt and arranged within the space between the lugs and adapted to engage one of the lugs to retain the bolt against movement with respect to the lug, and an adjusting nut mounted upon the other end of the bolt whereby the other of said lugs is movable with respect to the bolt to adjust the two sections longitudinally, and means for securing loose wire ends to each end of the splicer.

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

JOSEPH O. MULLIGAN.

Witnesses:

THOMAS J. HARPER,

DANA WEBB.

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