Aug. 27, 1935. I. G. REYNOLDS 2,012,771

UNIVERSAL ELECTRIC CONNECTION

Filed Jan. 3, 1934

Fig-1-

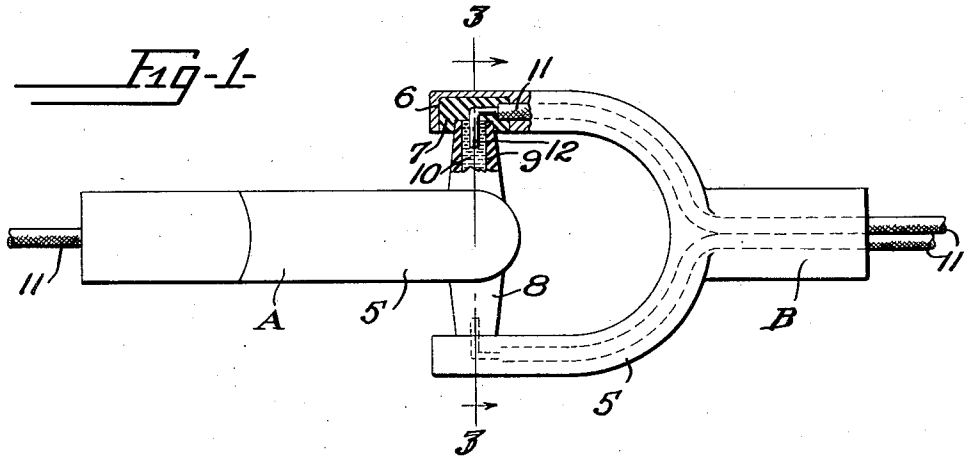


Fig-2-

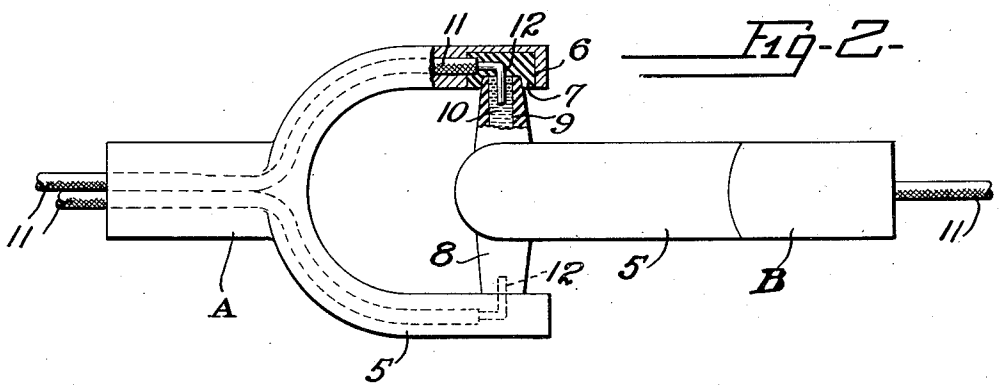
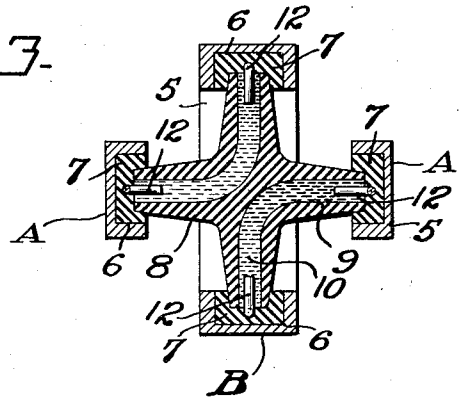


Fig-3-



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UNIVERSAL ELECTRIC CONNECTION

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2 Claims. (Cl. 173—324)

The invention relates to a universal joint and more particularly to a universal electric connection.

The primary object of the invention is the provision of a joint of this character, wherein the same is free for angular adjustment of its connecting parts in any direction and by which an electric current may flow without liability of the breaking of the electric circuit or current and without sparking or heating, the joint being constructed to carry the circuit wires and also mercury for the flow of current through the joint.

Another object of the invention is the provision of a device of this character wherein the same is designed to prevent wear and short-circuiting in wiring of an electric circuit and the device being universal in action without damage to the wiring and without liability of heating or sparking at the joint.

A further object of the invention is the provision of a device of this character which is extremely simple in its construction, thoroughly reliable and efficient in its purpose, strong, durable, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawing:—

Figure 1 is a plan view of a universal joint constructed in accordance with the invention, the same being partly in section.

Figure 2 is a side elevation thereof.

Figure 3 is a sectional view on the line 3—3 of Figure 1 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A and B designate generally the fork members respectively of a universal joint, the fork 5 of each having inherent inwardly contracting resiliency. These forks are disposed at right angles to each other and are formed with recesses bearing tips 6, the recesses being in the inner sides of their tines and have fitted therein insulating members 7, these forming fluid-tight closures for a double pivot 8 which is journaled in the members 7 of the two forks 5.

The double pivot 8 has formed therein the passages 9 in which is contained mercury 10, while trained through the tines of the forks are current wires 11 having their tips 12 extended into the mercury 10 for a distance so that an electric circuit will be completed through the wires 11 at the universal joint and this circuit maintained at all times irrespective of angular alteration of the fork members A and B under the operation of the joint in the use thereof, the lead wires 11 being housed in the said members A and B and the tines 5 thereof as is clearly illustrated in Figures 1 and 2 of the drawing.

What is claimed is:—

1. The combination of forked insulated connectors having electric current wires contained therein and carried through the forks of the same, a four-point insulated pivot connecting the forks for swingingly joining the connectors and separated mercurial bodies within the pivot and arranged with the ends of the current wires slightly extended thereinto to maintain a continuity of a circuit through the said wires.

2. The combination of forked insulated connectors having electric current wires contained therein and carried through the forks of the same, a four-point insulated pivot connecting the forks for swingingly joining the connectors, separated mercurial bodies within the pivot and arranged with the ends of the current wires slightly extended thereinto to maintain a continuity of a circuit through the said wires and insulated members carried by the forks and closing the four points of the pivot for retaining the mercurial bodies within said pivot and with the current wires seated therein.

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