F. E. SCHINKE.

CIRCUIT CLOSER.

APPLICATION FILED JAN. 22, 1914.

1,151,828. Patented Aug. 31, 1915.

Fig. 1.

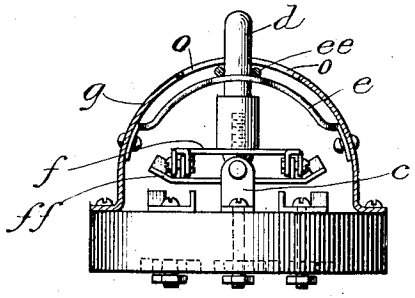


Fig. 2.

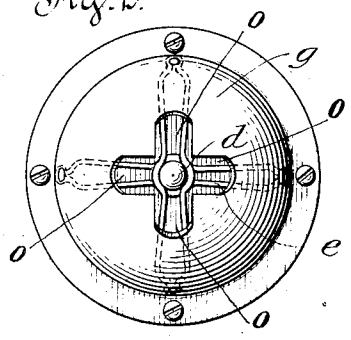


Fig. 3.

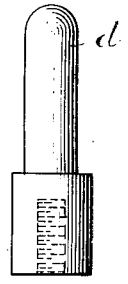


Fig. 4.

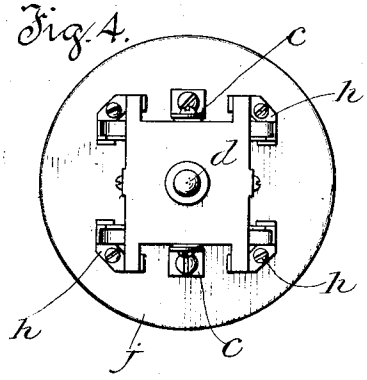


Fig. 5.

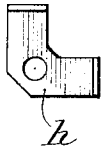


Fig. 6.

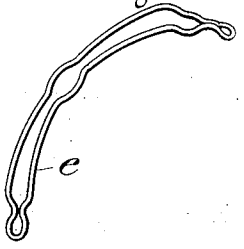


Fig. 7.

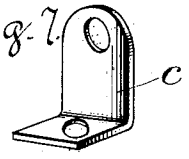


Fig. 8.

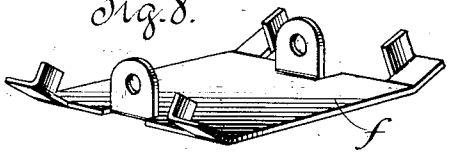


Fig. 9.

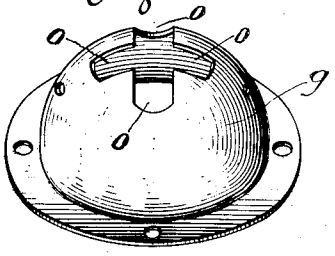
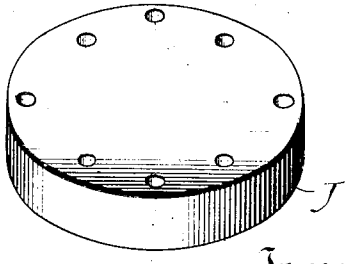


Fig. 10.



Witnesses

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CIRCUIT-CLOSER.

1,151,828. Specification of Letters Patent. Patented Aug. 31, 1915.

Application filed January 22, 1914. Serial No. 813,757.

To all whom it may concern:

Be it known that I, FRANKLIN E. SCHINKE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Circuit-Closer, of which the following is a specification.

My invention relates to a circuit closer for a signal for automobiles such as where the hand is to be thrown out to give the direction in which a car is to go and for closing other circuits, and the objects of my improvements are, first, to provide a circuit closer that will operate to all four sides at 90 degrees apart and give a fine alinement and the lighting of two lamps at a time. I attain these objects by the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a vertical sectional view of the cover and entire circuit closer; Fig. 2, a top view of the circuit closer, Fig. 3, a side elevation of the lever *d* after removal; Fig. 4, a plan view of the circuit closer after removal of the cover; Fig. 5, a plan view of one of the four corner contact plates *h*, of which there are four and all alike, Figs. 6, 7, 8, 9, and 10, are detailed views in perspective of the separate parts of circuit closer, Fig. 6, is a perspective view of one of the springs *e*, Fig. 7, is a perspective view of one of the angle plates *c*, Fig. 8, is a perspective view of one of the rocker contact plates *f*, Fig. 9, is a perspective of cover *g*, Fig. 10, a perspective of bottom disk *j*.

Similar letters refer to similar parts throughout the several views.

The metal cover *g*, the metal angle plate *c*, and the round bottom disk *j*, constitute the frame work of the circuit closer. In the bottom disk *j*, are holes for the bolting of the cover *g*, the four corner contact plates *h*, and angle plates *c*, all of which are secured to bottom disk *j*, with bolts and nuts and check nuts underneath bottom disk *j*, on which all wiring is done underneath disk *j*. In angle plates *c*, are two holes. The lower hole is to secure the plate *c*, to bottom disk *j*, with bolt and two check nuts underneath disk *j*, the upper holes in angle plates *c*, are for the shoulder screws used as axes for rocker contact plate *f f*, to rock on. The two rocker contact plates *f*, and *f f*, are mounted to rock on axes at 90 degrees apart at right angles to one another, and the pivots of the plates *f*, and *f f*, are mounted on angle plate *c*, for plate *f f*, and the upper rocker contact plate *f*, is mounted in the ears *m*, of the lower rocker contact plate *f f*, the lower rocker contact plate *f f*, has 4 ears with holes for axes and upper rocker contact plate *f*, has but 2 holes and ears for axes. I prefer to carry out this feature of my invention in the manner shown in Fig. 1 where it will be seen that the manner in which the axes are located, the construction throughout of the rocker contact plates so they can be made of sheet metal and give a rigid construction, a fine alinement, and not too much friction.

The bottom disk *j*, is made of insulating material and has holes for the mounting of the several parts shown in the drawing. In the cover *g*, are four slots *o*, located on top and in the center at 90 degrees apart. The four slots *o*, are made larger than the diameter of the lever *d*, to prevent any friction on the lever *d* against the sides of slots in cover *g*, the slots *o*, in cover also act as stops when the lever *d* is thrown to any four sides and prevent any excessive jolt on the mechanism.

The lever *d*, is secured to the center of the upper rocker contact plate *f*, with a screw in the center of lever *d* underneath rocker contact plate *f*. The handle *d* or lever is made of fiber and is the operating lever and when the handle *d*, is moved one of the four directions to close the circuits it will upon releasing lever or handle *d* be held perpendicular by notches *l*, in springs *e*, and inoperative.

The springs *e*, are mounted on the cover *g*, at right angles to one another or 90 degrees apart with shoulder rivets for the pivots and the tension of the springs *e*, and the notches *l*, in springs *e*, normally holding said handle *d* in inoperative position as shown in Figs. 1 and 2. I prefer the springs being located as shown in Fig. 1, as very sensitive spring motions can be had by this construction.

The four corner contact plates *h*, secured to bottom disk *j*, are contacts for closing the circuits and are arranged as shown in Fig. 4, at 45° to the 90 degree center line with ears *m*, formed square with the 90 degree center line of the axes.

I claim;

1. A circuit closer comprising a pair of contact plates mounted for rocking movements in a plurality of directions, a handle

secured to one of the said plates for rocking one or both of said plates and contact means arranged to coöperate therewith substantially as described.

2. A circuit closer comprising a pair of contact plates mounted for rocking movements in a plurality of directions, a handle secured to one of the said plates for rocking one or both of said plates and spring means for normally holding said handle in inoperative position substantially as set forth.

3. A circuit closer comprising a pair of contact plates mounted for rocking movements in a plurality of directions, a handle secured to one of the said plates for rocking one or both of said plates and a pair of springs angularly arranged normally to maintain said handle in inoperative position substantially as described.

4. A circuit closer comprising a pair of contact plates mounted for rocking movements in a plurality of directions, a handle secured to one of the said plates for rocking one or both of said plates and spring means for normally maintaining said plates in inoperative position substantially as set forth.

FRANKLIN E. SCHINKE.

Witnesses:

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JOHN B. SCHMIDT.