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F. J. JAROS ET AL

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SIGNALING SWITCH

Original Filed Sept. 14, 1928

Fig. 1.

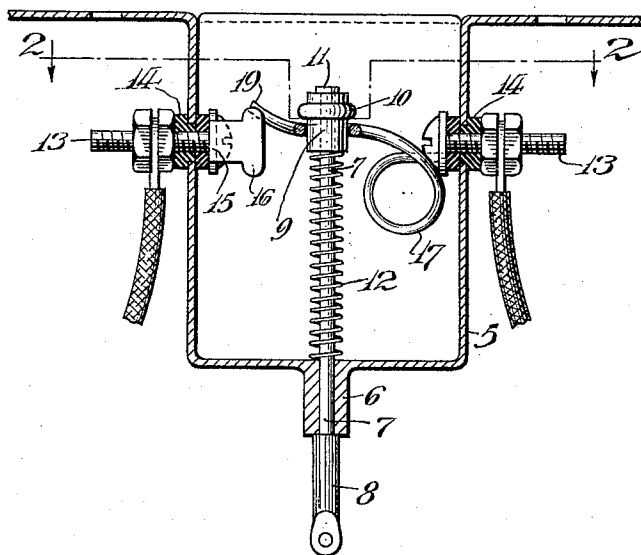


Fig. 2.

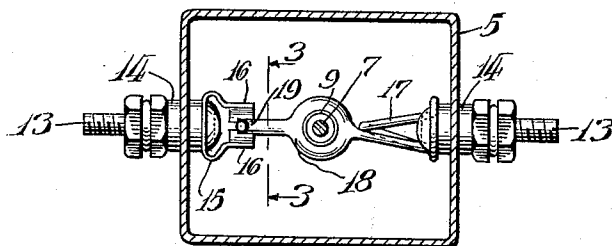
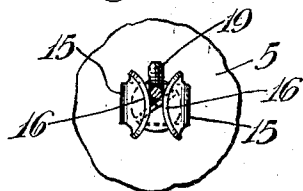


Fig. 3.



Witnesses:
Oscar Ruccick,
J. C. Appleton

Inventor:
Frank James Jaros,
Edward Thomas Jaros,
By Joshua R. H. F. O. W.
Their Attorney.

UNITED STATES PATENT OFFICE

FRANK JAMES JAROS AND EDWARD THOMAS JAROS, OF CHICAGO, ILLINOIS

SIGNALING SWITCH

Original application filed September 14, 1928, Serial No. 306,087. Divided and this application filed April 16, 1931. Serial No. 530,550.

The subject matter of this application was found in an application filed by us on September 14, 1928, Serial No. 306,087, for "signaling devices", and was divided out of that application.

This invention relates to signaling switches which may be used in various signaling devices of the general type disclosed in our application Serial No. 243,499, filed December 30, 1927, for "signaling devices for automobiles".

The object of the invention is to provide an improved signaling switch for use in connection with signaling mechanism. Another object is the provision of a signaling switch which is adapted to be connected to an accelerator rod or the like on an automobile, and is adapted to close and open a circuit during one continuous movement in one direction of the accelerator rod. Another object is the provision of a device which is simple in construction and operation, and is highly efficient for the purposes enumerated.

Other objects and advantages will appear more fully in the following specification when taken in connection with the accompanying drawing in which:

Fig. 1 is a view partly in section and partly in elevation showing one embodiment of our invention;

Fig. 2 is a sectional view taken substantially on the line 2—2 of Fig. 1; and

Fig. 3 is a detail view of the contact engaging jaws of our device, and is taken substantially on the line 3—3 of Fig. 2.

Referring now to the drawing, our device is provided with a casing 5 having an integrally formed depending tube 6, in which is inserted stem 7 having shoulder 8, and which may be provided at one of its ends with an insulating collar 9, which has an enlarged bead 10. Collar 9 is held on stem 7 by flattened portion 11. Intermediate the ends of stem 7 is provided a coil spring 12, which is adapted to impinge upon the base of collar 9 at one end of said spring, and upon the wall of casing 5 at its other end.

Upon the walls of casing 5 may be mounted binding post 13 and insulated from casing 5 by means of insulation 14. To one of said

binding posts is secured a U-shaped member 15 formed into a pair of resilient jaws 16. As is illustrated more clearly in Fig. 3, jaws 16 are arcuate in shape, and are adapted to receive a blade or rod between them; since jaws 16 are in an oppositely disposed relation, the rod may be inserted between them with equal facility from the upper and lower ends of jaw 16.

To the other binding post 13 may be secured a coiled resilient contact member 17 having formed intermediate its ends a ring 18, which slidably engages collar 9, and is limited from any further upward movement on collar 9 by bead 10. At the free end of member 17 is provided a rod-like extension 19.

In operation, stem 7 may be connected to the accelerator stem of an automobile, and by appropriate electrical connections, binding posts 13 may be secured to a wire leading to a signaling device. When the accelerator rod is depressed, stem 7 will be pulled outwardly through depending tube 6, and when this is done, contact member 17 will be drawn downwardly by bead 10 on collar 9, and will pull rod-like extension 19 into engagement by jaws 16.

When further pressure is applied to the accelerator, extension 19 will be drawn free of engagement by jaws 16. It is of course understood to those in the art that when properly electrically connected, the initial depression of the accelerator will close a circuit by bringing extension 19 into engagement by jaws 16, and that when extension 19 is drawn entirely free in a continuous downward movement of stem 7, the circuit will be broken. When the tension on stem 7 is released, coil spring 12 by impinging upon the base of collar 9, will force the stem upwardly, and the tension of coiled contact member 17 will cause extension 19 to slide upwardly through jaws 16, and out of contact with said jaws.

It is of course understood that certain variations may be made without departing from the scope of our invention, and hence we do not wish to be limited to the precise de-

tails herein set forth and shown in the accompanying drawing.

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

1. In a signaling switch a casing having a tubular projection, a rod slidably mounted in said tubular projection and extending within said casing, a pair of binding posts mounted respectively on opposite sides of said casing, a resilient element supported by one of said binding posts and provided intermediate its ends with means for engaging said rod, a pair of jaws supported by the other of said binding posts, said jaws being adapted to engage clampingly said resilient element when it is drawn between said jaws, and means for maintaining normally said resilient element out of engagement by said jaws.

2. In a signaling switch a casing having a projection, a member slidable within said projection, binding posts mounted within said casing, a member mounted on one of said binding posts and engageable with the aforesaid slidable member, and means for clampingly engaging said member supported by the other of said binding posts, said switch being adapted to close and open a circuit during one continuous rectilinear movement of said slidable member.

3. In a device of the character described, a casing having an integrally formed tubular projection, a rod slidably mounted in said tubular projection and provided at one of its ends with a collar having an enlarged bead portion, binding posts mounted on the walls of said casing, a resilient contact member mounted on one of said binding posts and provided intermediate its ends with a ring adapted to engage said collar, said resilient contact member also being provided with a rod-like extension, and a U-shaped member providing a pair of jaws mounted on one of said binding posts, said jaws being adapted to engage clampingly the extension of said resilient contact member.

4. A device of the character described comprising a casing having a wall adapted to receive a slidable rod, a rod extending through said wall, a collar having an enlarged bead mounted on said rod, a resilient contact member having a ring intermediate its ends, said ring being adapted to embrace said collar, means for supporting said contact member, and means for engaging the free end of said contact member, said device being adapted to close a circuit when said contact member is brought into engagement by said engaging means.

5. In a device of the character described, a casing having an integrally formed tubular projection, a rod slidably mounted in said tubular projection and extending within said casing, a coil spring mounted on said rod intermediate its ends, a collar provided with an

enlarged bead secured to said rod, binding posts secured to the walls of said casing, a resilient contact element having a ring intermediate its ends and secured to one of said binding posts, said ring being adapted to embrace said collar and impinge upon said bead when said rod is withdrawn partially from said casing, and a pair of jaws secured to one of said binding posts, said jaws being adapted to engage clampingly said resilient contact member when said rod is withdrawn partially from said casing.

6. In a signaling switch, a casing having an aperture therein, a member slidable through said aperture, binding posts within said casing, a spring member mounted on one of said binding posts and slidably engaging said slidable member, and means for clampingly engaging said spring member supported by the other of said binding posts.

In testimony whereof we have signed our names to this specification.

FRANK JAMES JAROS.

EDWARD THOMAS JAROS.