J. HELSTROM.

FOOT PEDAL SWITCH.

APPLICATION FILED OCT. 24, 1911.

1,019,745.

Patented Mar. 5, 1912.

Fig. 1.

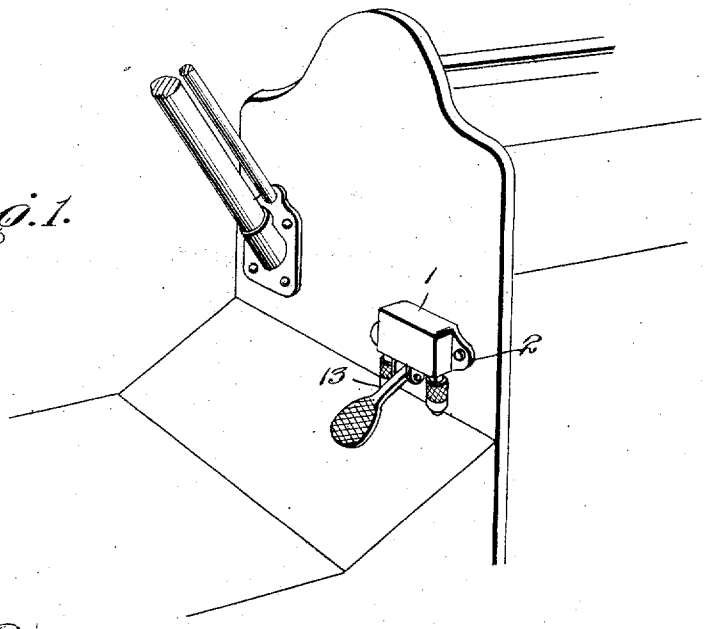


Fig. 2.

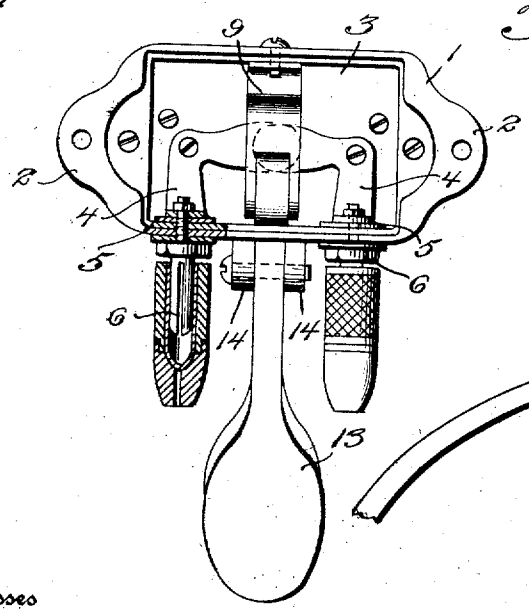
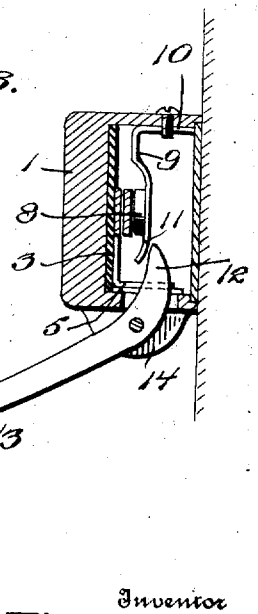


Fig. 3.



Witnesses

Edward P. Rea.

Joanna M. Fallin.

Inventor

John Helstrom

By A. H. Stacey Attorney

UNITED STATES PATENT OFFICE.

JOHN HELSTROM, OF MORRISTOWN, NEW JERSEY.

FOOT-PEDAL SWITCH.

1,019,745. Specification of Letters Patent. Patented Mar. 5, 1912.

Application filed October 24, 1911. Serial No. 656,546.

To all whom it may concern:

Be it known that I, JOHN HELSTROM, citizen of the United States, residing at Morristown, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Foot-Pedal Switches, of which the following is a specification.

This invention comprehends certain new and useful improvements in electric switches, and relates particularly to improved pedal-operated electric switches for use principally in connection with electrically actuated horns of automobiles and similar vehicles, although it is to be understood that the invention is applicable to other uses which will suggest themselves to those skilled in the art to which this invention appertains.

Among the objects of the invention are to provide a foot pedal switch which will be durable in construction, simple, efficient in operation, and not liable to get out of order, and one wherein the pedal will be at all times insulated from the switch blades, whereby metal may be used for the formation of the pedal, without any liability of short-circuiting the device through the pedal and some portion of the automobile, as, for instance, the foot board or some metallic element carried thereby.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view showing the application of my improved electric switch; Fig. 2 is an inner face view thereof, and Fig. 3 is a transverse sectional view of the device.

Corresponding and like parts are designated by the same characters of reference throughout the several views.

My improved foot-operated electric switch includes a casing 1 which may be of any desired shape and size and constructed of any substance or material, said casing being provided at its ends with apertured ears designed to receive fastening devices, whereby it may be secured to the dash board of an automobile, for instance, slightly above the floor boards. The casing 1 contains a face plate 3 of fiber or other insulating material, and switch blades 4 are secured to said base plate, said switch blades in the present instance being of angular form, as shown, and having angular extremities 5 insulated in any desired way from the bottom of the casing and connected in any desired way to the binding posts 6. The other ends of the switch blades 4 extend in overlapping relation to each other, as shown, being normally spaced from each other, the switch blades, or at least the outermost one of them, being constructed of spring material, whereby a circuit through the blades will be automatically opened after pressure upon the outermost blade end has been relieved.

In order to press the outermost blade end into contact with the overlapped end of the other blade so as to close the circuit, I have provided in the present embodiment of the invention a pad 8 of fiber or similar insulating substance, said pad being connected in any desired way to a spring actuated arm 9, the latter being formed with an angular upper end 10 by which it is secured to and suspended from the top of the casing 1. The lower free end of the actuating arm 9 is preferably curved outwardly, as indicated at 11, and is designed to engage the nose 12 of a foot pedal 13, said pedal being mounted intermediate of its ends between lugs 14 that are formed on the bottom of the casing, as shown. As the actuating arm 9 is composed of spring material, the end which is engaged by the nose 12 of the pedal 13 will yield after the actuating arm has been pressed inwardly far enough to effect the engagement of the overlapping ends of the switch blades; consequently, all liability of mashing the blades will be prevented.

From the foregoing description in connection with the accompanying drawing, the operation of my improved pedal actuated electric switch will be apparent. In the practical use of the device, when the pedal is depressed by the foot of the driver or other occupant of the car, the actuating arm 9 will be moved outwardly so as to press the pad 8 against the outermost overlapping end of one of the switch blades 4, said end being pressed against the overlapping end and the switch blades being brought into contact with each other to close the circuit and thereby sound the horn.

While the accompanying drawing illustrates what I believe to be the preferred embodiment of my invention, it is to be understood that the invention is not limited thereto but that various changes may be made in the construction, arrangements and proportions of the parts without departing from the scope of the invention as defined in the appended claims.

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

1. A switch of the character described, including a casing, switch blades mounted therein and providing overlapping ends normally spaced from each other, a spring actuated arm secured in the casing and extending across the overlapping ends of the switch blades, an insulating pad carried by said arm and designed for engagement with the overlapping ends of the switch blades, and a pedal fulcrumed on the casing and formed with a nose projecting therein into engagement with said actuating arm, for the purpose specified.

2. An electric switch of the character described, including a casing, switch blades mounted therein, and formed with overlapping ends normally spaced from each other, an actuating arm secured at one end of the casing and extending across the switch blades, a pad of insulating material carried by the said actuating arm and designed to press one switch blade against the other, and a pedal fulcrumed on the casing and projecting therein into engagement with the free end of the actuating arm, for the purpose specified.

3. An electrical switch of the character described, including switch blades formed with overlapping ends normally spaced from each other, an actuating member extending across the switch blades behind the same and resiliently held out of engagement with the switch blades, a pad of insulating material carried by said member and disposed between the actuating member and the adjacent switch blade, and a pivotally supported pedal having a nose projecting in a position behind said member and engaging therewith, for the purpose specified.

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

JOHN HELSTROM. [L. S.]

Witnesses:
ANDREW BOHM,
CHRISTIAN THOMPSON.