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ARCH TYPE ELECTRICAL ROAD SWITCH

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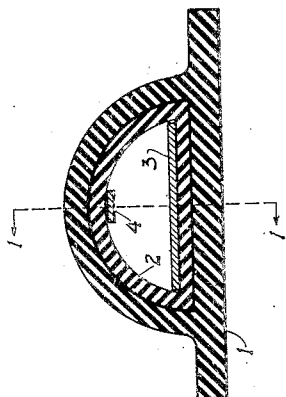


Fig. 2

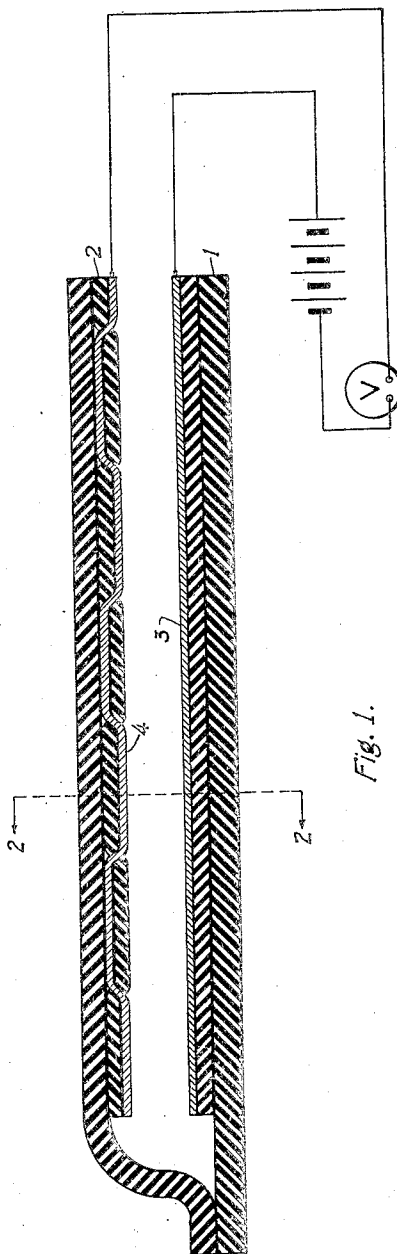


Fig. 1.

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UNITED STATES PATENT OFFICE

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ARCH TYPE ELECTRICAL ROAD SWITCH

Oldric J. La Bell, Washington, D. C.; dedicated to
the free use of the People of the United States
of America

Application May 2, 1938, Serial No. 205,441

2 Claims. (Cl. 200—86)

(Granted under the act of March 3, 1883, as
amended April 30, 1928; 370 O. G. 757)

This application is made under the act of March 3, 1883, as amended by the act of April 30, 1928, and the invention herein described, if patented, may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment to me of any royalty thereon.

I hereby dedicate the invention herein described to the free use of the People of the United States of America to take effect on the granting of a patent to me.

The invention relates to road switches and is more particularly concerned with a road switch of the arch type which is actuated by vehicles passing thereover.

One of the objects of this invention is the provision of a switch of the type mentioned which is so constructed that replacements of parts ordinarily worn more quickly can be made without the necessity of replacing other parts.

Another object of this invention is the provision of a switch of the type mentioned in which the contact is broken by the action of a resilient arch alone rather than by combination of arch effect with other means, or solely by means other than the arch effect.

A further object of this invention is the provision of such a switch that is waterproof thus obviating short circuits due to moisture, rain, etc.

The following description, considered together with the accompanying drawing, will disclose this invention more fully, its construction and operation of parts, and further objects and advantages thereof will be apparent.

In the drawing:

Figure 1 is an elevational cross-section view showing a fragmentary portion of an illustrative form of this invention longitudinally.

Figure 2 is an end cross-sectional view of the form shown in Figure 1 at a point indicated by the line 2—2.

Referring with more particularity to the drawings in which like numerals designate like parts, an outer flanged casing 1, of rubber or other resilient electrical non-conductor material, preferably tough and impervious, is adapted to be disposed transversely across a highway surface, and has a hollow arch section into which is removably fitted, telescopically, an inner arch casing 2, also hollow. A metal electrical conductor 3, such as spring steel, is secured on the base of the in-

terior of the inner arch 2. Another electrical conductor 4 is carried on the top of said inner arch 2, and is held in place by lacing it through holes punched along the crown of the arch at intervals of any convenient distance, such as one inch.

Each conductor may then be attached to a lead cable and inserted into any electrical circuit. The ends of the outer casing 1 are then vulcanized to make it water tight.

When this device is disposed across a highway, vehicles passing over it deflect the resilient arch thereby bringing into contact the two conductor strips 3 and 4, which contact completes an electrical circuit. The circuit may be used for operating various instruments such as traffic counters, chronographs, bells, traffic lights, etc. When the vehicles clear the device the arch returns to its original position, carrying with it the upper conductor strip 3, thus breaking the contact. Should the outer casing become worn or punctured, it may be replaced with a new casing, while the inner casing 2, and its conductors, are utilizable again in the new casing.

Any convenient means may be used to attach the device to the highway surface, such as steel pins inserted through grommets at intervals in the flange of the outer casing 1, or the ends of the device may be attached to steel pins driven into earth shoulders of a highway. For temporary placement, rubber cement may be used.

Having thus described my invention, what I claim is:

1. An electrical road switch comprising a longitudinal, hollow, resilient outer casing; a longitudinal, hollow, resilient inner casing removably fitted within said outer casing; an electrical conductor secured on the base of the interior of said inner casing; and another electrical conductor longitudinally woven in the crown of said inner casing.

2. An electrical road switch comprising a longitudinal, hollow, resilient outer casing hermetically sealed; a longitudinal, hollow, resilient inner casing removably fitted within said outer casing; an electrical conductor secured on the base of the interior of said inner casing; and another electrical conductor longitudinally woven in the crown of said inner casing.

OLDRIC J. LA BELL.