No. 684,114. Patented Oct. 8, 1901.

T. B. SHAFFER.

SWITCH FOR ELECTRIC CONDUCTORS.

(Application filed July 23, 1901.)

(No Model.)

Fig. 1.

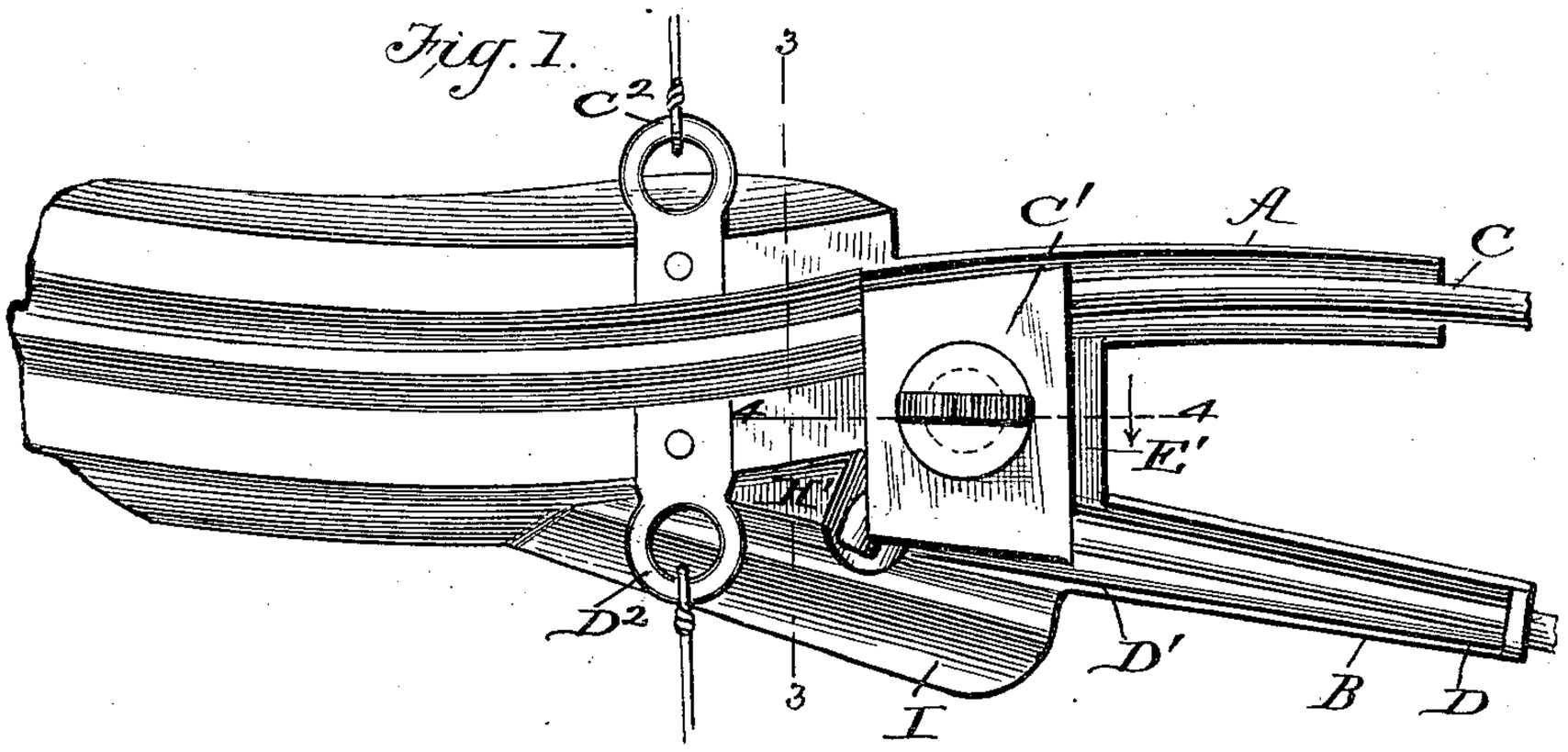


Fig. 2.

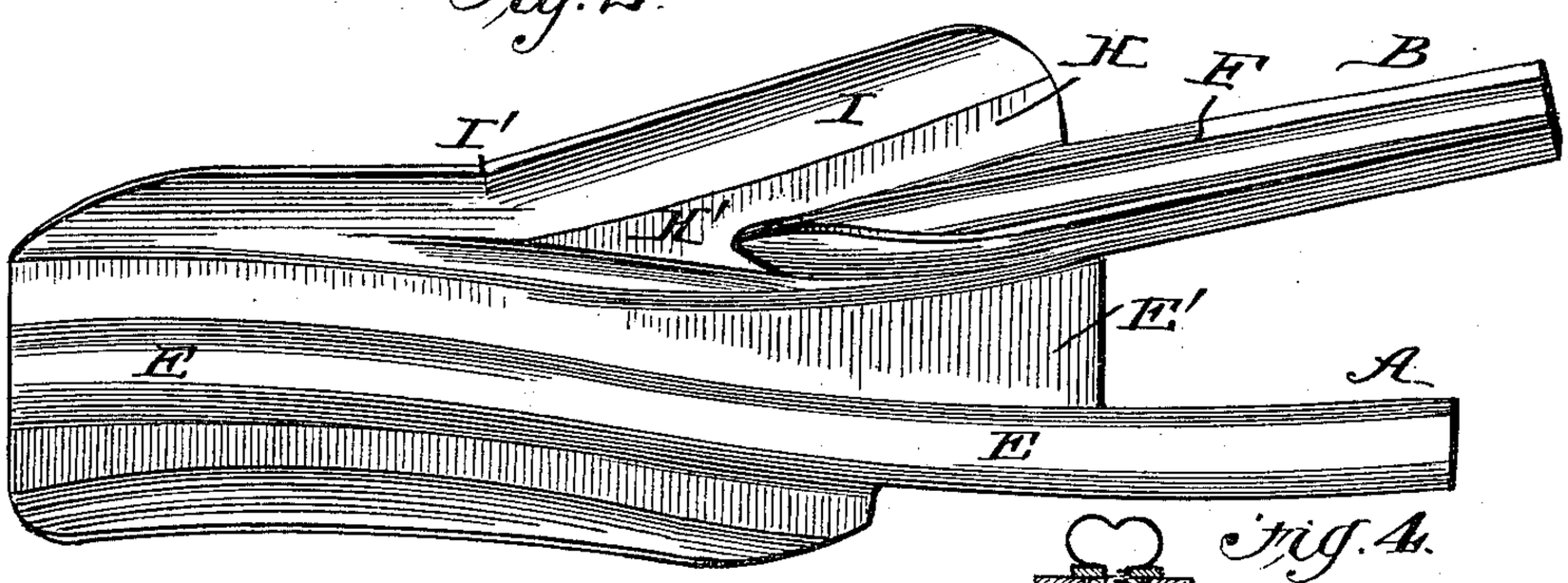


Fig. 3.

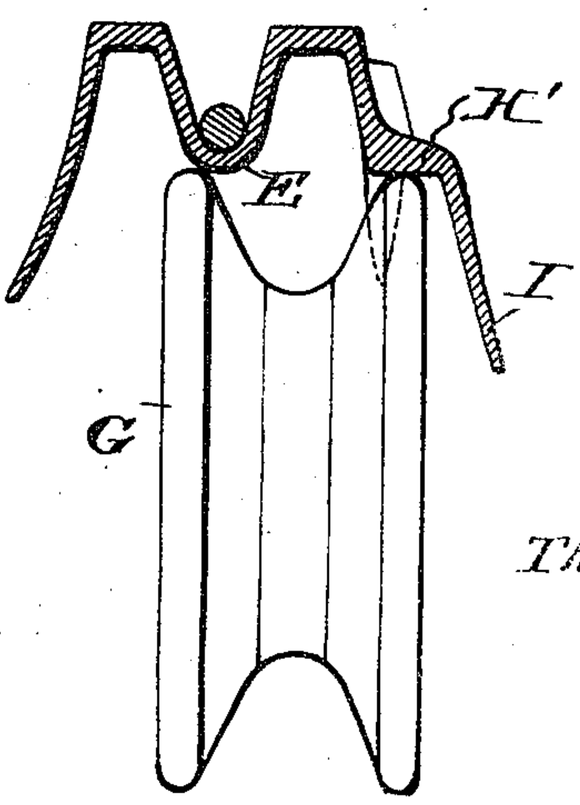
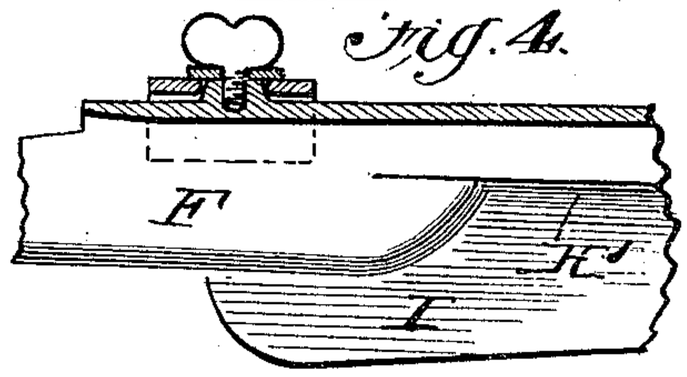


Fig. 4.



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SWITCH FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 684,114, dated October 8, 1901.

Application filed July 23, 1901. Serial No. 69,422. (No model.)

To all whom it may concern:

Be it known that I, THEODORE B. SHAFFER, a citizen of the United States, residing at Westmoor, in the county of Luzerne and State of Pennsylvania, have made certain new and useful Improvements in Switches for Electric Conductors, of which the following is a specification.

My invention is an improvement in switches for suspended electric conductors, such as are used on electric railways, and has for an object to provide a simple and novel construction by which to insure the proper passage of the trolley from the siding onto the main line; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view, and Fig. 2 a bottom plan view, of a switch embodying my invention. Fig. 3 is a cross-sectional view on about line 3 3 of Fig. 1, and Fig. 4 is a detail longitudinal section on about line 4 4 of Fig. 1.

In the construction shown and as preferred the switch is in the form of a casting, of suitable metal, having in its upper side grooves A and B for the main wire C and the siding-wire D, means being provided at C′ and D′ for clamping the wires and at C^2 and D^2 for the connection of suitable brace-wires, as will be understood from Figs. 1 and 3.

On its under side the switch is provided with the rib E, coinciding with the main wire and forming the main-line rib, and with the rib F, which coincides with the siding-wire and constitutes the siding-rib, as will be understood from Fig. 2 of the drawings. The main-line rib E extends throughout the length of the switch, while the siding-rib F terminates at its inner end at a point about opposite the middle of the main-line rib, so the trolley G (shown in Fig. 3) can pass from the siding-rib onto the main-line rib, as desired.

To insure the proper delivery of the trolley from the siding-rib to the main-line rib, I prefer to form the base-wall H of the siding-rib in approximately the plane of the lower edge of the main-line rib, as shown in Fig. 3, and to extend the base-wall H at H′ beyond the extremity of the siding-rib F and alongside the main-line rib, as best shown in Fig. 2.

It will be understood that while it is preferred to arrange the base-wall H and its extension H′ in approximately the plane of the lower edge of the rib E, I do not intend by such definition of the construction to be limited to terminating said wall in line with the lower edge of the rib E, as the wall H and its extension H′ might project slightly below the rib E without departing from some of the principles of my invention.

It will noticed that the flange I extends on the outer side of the wall H H′ and depends, as shown in Fig. 3, and slopes gradually toward its inner end I′, where it lies opposite the rib E and the groove E′ on the inner side of the rib E, as best shown in Fig. 2.

By the construction shown it will be noticed that a trolley riding in on the siding-rib F will be supported after it has passed beyond the inner end of said rib by the wall H′, which is so related to the rib B that the extension H′ will support the trolley-wheel by engagement with the outer flange thereof (see Fig. 3) until the inner flange of said trolley-wheel is projected to overlap the main-line rib E, as is also shown in Fig. 3. It will be noticed, therefore, that when the trolley G is advanced from the position shown in Fig. 3 toward the end of the switch shown at the left in Fig. 2 the trolley will ride off the extension H′ beyond the end of the siding-rib F and will pass upon the rib E, being directed thereto by the flange I and the extension H′ of the base-wall H, as before described. It will be noticed that the construction is simple, easily applied, and insures a desired certainty of operation sought for in switches of this character.

It will be understood that in practice the switches will be made in rights and lefts, so that the trolley may be switched in from either side, the principle of the construction being the same in both instances.

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

1. A switch for electric conductors substantially as herein described, comprising the

main-line rib, the siding-rib leading inward toward the main-line rib and terminating at its inner end opposite said rib, the base-wall of the groove on the outer side of the siding-rib being extended beyond the inner extremity of the said siding and alongside the main-line rib and lying in a plane approximately with that of the lower edge of the main-line rib, and the guard-flange extending along the outer side of the said base-wall extension, substantially as and for the purposes set forth.

2. A switch for electric conductors, comprising the main-line rib, the siding-rib having the base-wall of its groove on the side opposite the main rib arranged approximately in the plane of the lower edge of the main-line rib, said base-wall being extended beyond the inner extremity of the siding-rib and alongside the main-line rib and adapted to operate, substantially as and for the purposes set forth.

3. A switch for electric conductors, comprising the main-line rib, the siding-rib, and a trolley-supporting wall or surface extending beyond the inner extremity of the siding-rib and adapted to support the trolley after it has passed beyond said rib, and cause it to overlap the main-line rib before its delivery thereto, substantially as set forth.

4. A switch for electric conductors, comprising the main-line rib, the siding-rib terminating at its inner end opposite the main-line rib, and a trolley-supporting surface H′ extending beyond the inner extremity of the siding-rib, substantially as set forth.

5. A switch for electric conductors, composed of the casting having the depending main-line rib, the depending siding-rib terminating at its inner end opposite the main-line rib, the base-wall of the groove on the side of the siding-rib opposite the main-line rib, being extended beyond the inner end of the siding-rib and arranged in a plane approximately with that of the lower edge of the main-line rib, and the guard-flange on the outer side of said base-wall and extending alongside the extension of such wall, substantially as and for the purposes set forth.

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