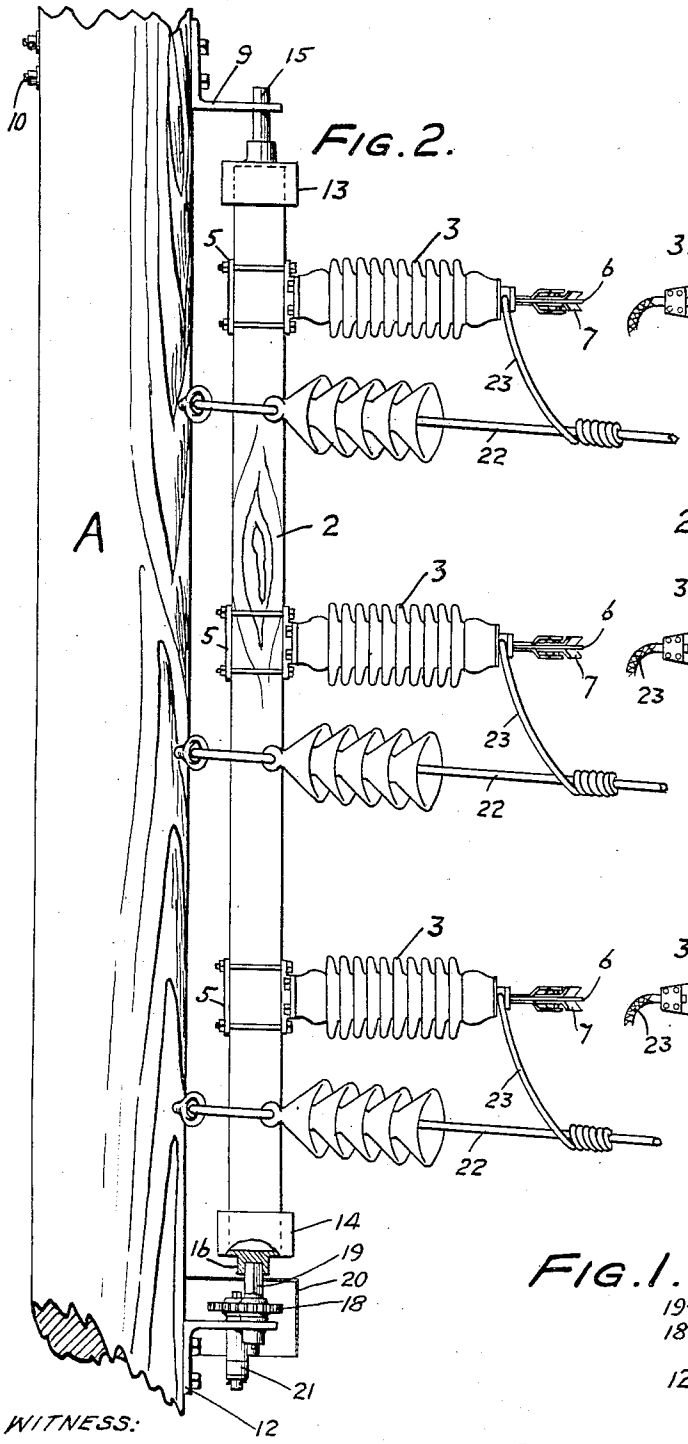
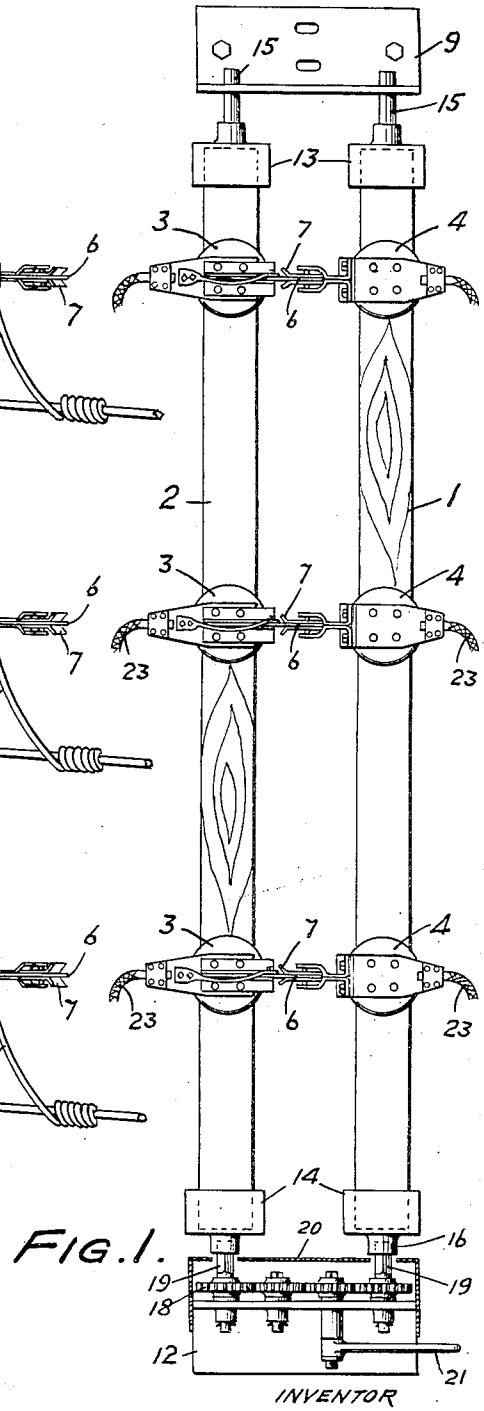
July 19, 1938. G. S. VAN ANTWERP 2,123,976

POLE SWITCH

Filed Sept. 22, 1937 2 Sheets-Sheet 1





WITNESS:

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INVENTOR

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POLE SWITCH

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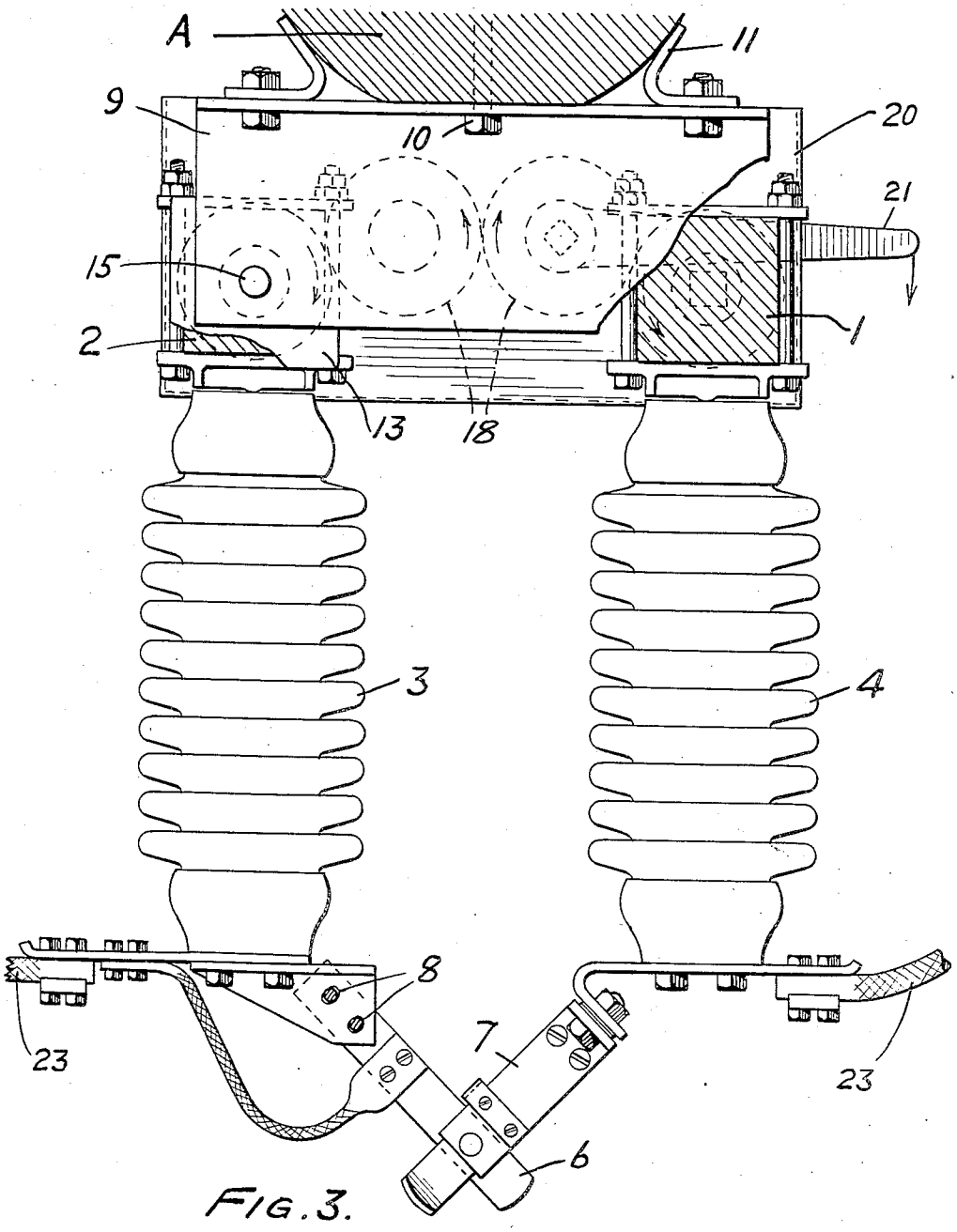


FIG. 3.

WITNESS:
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Patented July 19, 1938 2,123,976

UNITED STATES PATENT OFFICE

2,123,976

POLE SWITCH

George S. Van Antwerp, Norristown, Pa.

Application September 22, 1937, Serial No. 165,027

3 Claims. (Cl. 200—6)

The principal object of the present invention is to provide a switch for use on poles such as are used in connection with alternating current transmission or distribution, and which shall be comparatively inexpensive in construction, convenient for repair and efficient in respect to protection, more particularly with regard to flashes of lightning.

Other objects of the invention will appear from the following description at the end of which the invention will be claimed.

Generally stated the invention comprises switch arms projecting respectively from a pair of wooden bars disposed parallel to a pole and mounted for turning movement about their own longer axis in fittings attached to the pole and in respect to which the wooden bars are turnable and readily detachable and attachable for renewal and repairs, there being provided at one of the fittings means for turning the wooden bars to open and close the switch.

The invention also comprises the improvements to be presently described and finally claimed.

In the following description reference will be made to the accompanying drawings forming part thereof and in which,

Figure 1 is a front view of a switch embodying features of the invention and showing the same in closed position.

Figure 2 is a side view of the same.

Figure 3 is a top or plan view drawn to an enlarged scale and showing the switch in closed position.

In the accompanying drawings 1 and 2 indicate wooden bars shown as duplicates of each other and of generally rectangular shape in cross section. 3 and 4 indicate switch arms projecting at right angles to the bars 1 and 2 respectively. As shown the switch arms are connected with the bars by means of bolts and plates 5. The arms 3 and 4 are of insulating material and they are provided respectively with the blades 6 and 7 of the switch. The blade 6 is shown as connected with the arm 3 by the fastenings 8 in such a way as to allow some freedom of motion which is desirable in the operation of engaging and disengaging the blades. 9 is a fitting shown as an angle iron and it is secured to the wooden pole A as by means of bolts 10 and braces 11. 12 is a fitting aligned with the fitting 9 and secured to the pole A in a similar manner. At the ends of the wooden bars 1 and 2 are mounted metallic caps 13 and 14. The caps 13 at the upper end of the bars are provided with pintles 15 and the caps 14 at the lower end of the bars are provided with squared sockets 16. The fitting 12 includes a train of gears, or the like of which the end gears are provided with squared studs 19. The train of gears 18 is shown as enclosed in a housing 20 and, as operated by a handle 21, the sockets 16 detachably engage the studs 19 and the pintles 15 turn in holes provided in the flange of the fitting 9. To repair the device or to renew its parts a wooden bar, for example the bar 1, may be lifted up to clear the stud 19 and then the pintle 15 can be withdrawn from the fitting 9. A wooden bar may then be mounted by a reversal of the described operation. The phase lines or wires 22 may be made fast to the pole A through the intervention of strain insulators and the blades of the switch are connected with the wires 22 by branches 23. The purpose is to refer the strain on the wires 22 to the pole A.

In use the wooden bars 1 and 2 are mounted parallel with the pole A and to open and close the switch use is made of the handle 21 which operates appropriate mechanism for turning the bars on their own axis thus moving the ends of the arms toward and away from each other and engaging or disengaging the switch blades.

It will of course be understood that the fitting 9 is substantially at the top of the pole and since it contains comparatively little metal there is present at the top of the pole very litle metal and this is of advantage in that lightning is not attracted to the pole. Furthermore the respective switch blades are well insulated from each other by the insulating arms 3 and 4 and by portions of the wooden bar which lie between the various arms of the switch. Again the wooden bars are descriptively made 8 or 9 feet long to operate to oppose the passage of lightning to the switch arms and to the lines for the reason that they are grounded and are of wood.

It will be obvious to those skilled in the art that modifications may be made in details of construction and arrangement without departing from the spirit of the invention which is not limited as to such matters or otherwise than the prior art and the appended claims may require.

I claim:

1. A pole switch comprising wooden bars adapted to be arranged parallel with and turnably secured to a pole and having insulating switch arms provided with blades, and means for turning the wooden bars to open and close the switch.

2. A pole switch comprising fittings adapted to be arranged in alignment one above the other

and secured to a pole, wooden bars detachably and turnably mounted in the fittings and arranged parallel to each other and to the pole, insulating arms projecting from the wooden bars and provided with switch blades arranged for cooperation with each other, and means for turning the wooden bars about their own axes to open and close the switch.

3. A pole switch comprising angle irons adapted for application to a pole one above the other with the upper-most one adjacent to the top of the pole, the horizontal flange of the top angle iron being provided with perforations and the flange of the bottom angle iron being provided with squared rotatable studs aligned with the perforations, wooden bars provided at their ends with pintles adapted to cooperate with the perforations and with squared sockets adapted to cooperate with the studs, insulated switch blades and spaced arms projecting from and at right angles to the wooden bars, and means carried by the lower angle iron for turning the squared studs to open and close the switch.

GEORGE S. VAN ANTWERP.