

T. J. COPE.
ELEVATING JACK FOR MULTIPLE WIRES AND CABLES.
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1,002,647.

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Fig. 1.

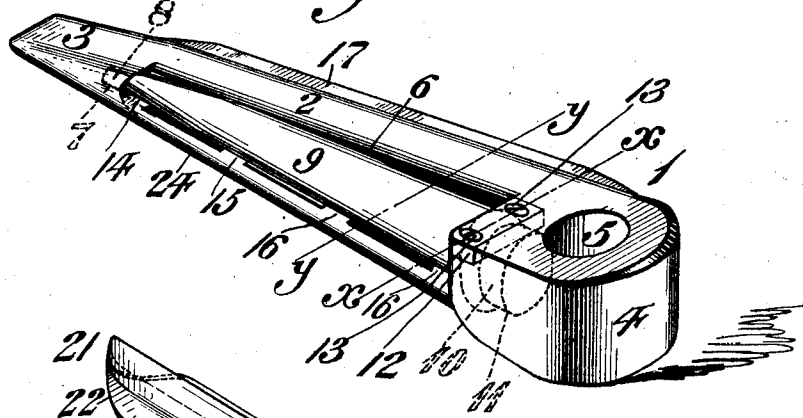


Fig. 5.

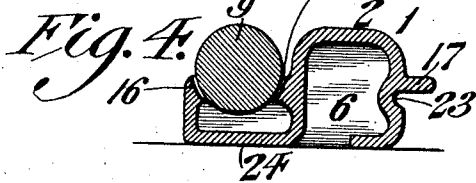
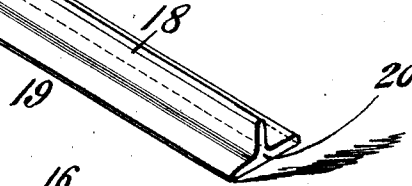


Fig. 2.

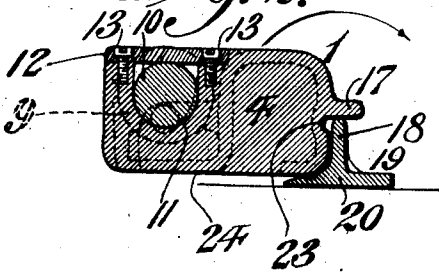
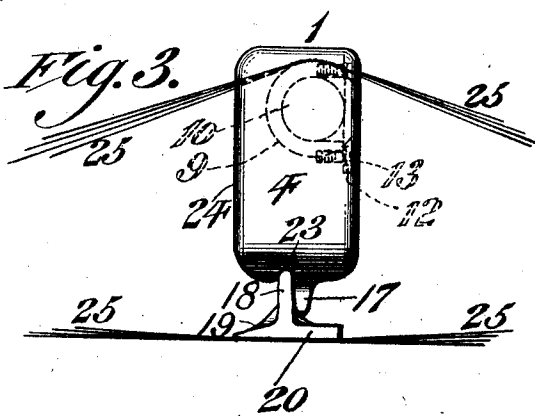


Fig. 3.



WITNESSES

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ELEVATING-JACK FOR MULTIPLE WIRES AND CABLES.

1,002,647.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS J. COPE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Elevating-Jack for Multiple Wires and Cables, of which the following is a specification.

My invention is adapted to provide means for reaching or having access to a broken or impaired wire or cable in a switch board or other similar device carrying a multiple of wires or cables. To this end, I employ an implement which I denominate a jack, the same being adapted to separate opposite sets of contact wires or cables, so as to uncover or otherwise practically expose the broken or impaired wire or cable, said implement consisting of a wedge shaped body and a roller thereon, the same being adapted to be inserted between said rows or sets and permit said body and its roller to contact with the latter when in turning the body the outer set of wires or cables are raised and so separated from the adjacent ones, when the broken or impaired wires or cables are accessible.

It consists further of a fulcrum member on which the jack may be supported and turned when in position.

For the purpose of explaining my invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a perspective view of an elevating jack embodying my invention. Fig. 2 represents a transverse section on line $x-x$ Fig. 1. Fig. 3 represents a head view of the jack in operation. Fig. 4 represents a transverse section on line $y-y$ Fig. 1. Fig. 5 represents a perspective view of the fulcrum member to be employed with the wedge.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates a tapering or wedge-shaped body which consists of the shank 2, the front end 3 of which is pointed, and the rear end of which constitutes the head 4, the latter having therein an opening 5 for receiving, if desired, a rod or

the like, for conveniently rotating said body. A portion of the body is made hollow in the direction of the length thereof forming the chamber 6 for purposes of lightness. In the part 3 is a cylindrical shaped recess 7, which forms a bearing for the gudgeon 8 on one end of the tapering or conical roller 9, the latter extending parallel with the shank 2, and having a gudgeon 10 on its other end, the same having a bearing in the recess 11 in the head 4 of the body 1. Fitted to the head 4 over the gudgeon 10 is the plate 12, which is secured to said head by the screws 13, and while retaining said gudgeon and consequently the roller 9 in place, it may be removed for access to said gudgeon and admit of the displacement and restoration of the roller from and to its position. The side portion of the shank 2 occupied by the roller 9 is somewhat depressed or channeled to receive the same, and the base of said portion has concave beds 14, 15, and 16 thereon to permit the roller to rotate thereon and form bearings which additionally support the roller especially in its rotation. On the side of the shank 2 there is the rib 17 which projects laterally therefrom and extends in the longitudinal direction of the body. In said side and extending into the same adjacent to the base of said rib is the channel 23 for a purpose to be hereinafter described.

18 designates a web which rises from the base 20 forming together a foot plate or fulcrum 19 for the body 1, said fulcrum having a nose 21 which is rounded or turned up as at 22 so as to readily enter between cables or wires in inserting said fulcrum into its operative position, it being seen in Fig. 2 that the body 1 when also inserted into operative position has its underside or sole 24 parallel with the base 20 of the fulcrum 19 as seen in Fig. 2, such operative positions being between two rows or sets of wires or cables 25 where access is desired to a wire or cable in the adjacent rows or sets. Now as the rib 17 of the body rests upon the web 18 said body is rotated on the web say a quarter turn by a rod, bar, etc., in the opening 5 or the application of a suitable wrench, when the wall of the recess 23 rides over the top of said web and gradually seats itself therein, thus providing the fulcrum for the body. As said turning occurs, the roller 9 being eccentric to the longitudinal axis of the body rises and gently

but firmly presses against the outer or front rows or sets of wires or cables and so lifts the same as shown in Fig. 3, thus permitting access to the underneath rows or rear sets of the wires or cables where a broken one of the latter exists or where an examination may be desired.

It will be seen that as the fulcrum rests flat on the contiguous portions of the underneath row or rear lines or sets of wires or cables and has its support thereon, it removes the body 1 from said wires or cables and prevents twisting, distorting or otherwise injuring the latter, it being noticed also that as the web 18 enters the recess 23, and the rib 17 is parallel with said web, the body is prevented from shifting or slipping from the fulcrum.

When the work is accomplished, the body is turned in reverse direction when the outer or front rows or sets of wires or cables are released and so may lower to normal position. When but slight elevation of the rows or sets of wires or cables is desired, or light wires or cables are to be operated upon, the fulcrum member may be dispensed with, the body 1 with its appurtenances being sufficient for the purpose.

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

1. An elevating jack of the character stated composed of a wedge shaped body, and a conical roller mounted thereon on a side thereof and extending in the direction of the length of said body.

2. In an elevating jack of the character stated, a wedge shaped body having a point-

ed end and a head, and a tapering roller on said body intermediate of said end and head.

3. In an elevating jack of the character stated, a wedge shaped body, a channel in the face thereof in the longitudinal direction thereof, concave beds on said channel, and a longitudinally extending tapering roller adapted to occupy said channel and bear on said beds, and gudgeons for said roller mounted in the opposite portions of said body.

4. In an elevating jack of the character stated, a wedge shaped body, a longitudinally-extending tapering roller thereon, gudgeons on said roller having their bearings in opposite portions of said body and a plate on said body removably retaining the adjacent gudgeon of the roller in position on the body.

5. In an elevating jack of the character stated, a wedge-shaped body, a longitudinally-extending conical roller mounted thereon, a rib projecting outwardly from said body, and a recess in the body extending parallel with said rib and entering said body adjacent to the base of the latter.

6. In an elevating jack of the character stated, a wedge-shaped body and a conical roller thereon and a longitudinally extending fulcrum member having a laterally extending web on which said body may turn, said body having a channel which may be seated on said web.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."