No. 861,100. PATENTED JULY 23, 1907.

C. E. EVELETH.

ELECTRIC CONDUCTOR.

APPLICATION FILED JULY 28, 1905.

Fig. 1.

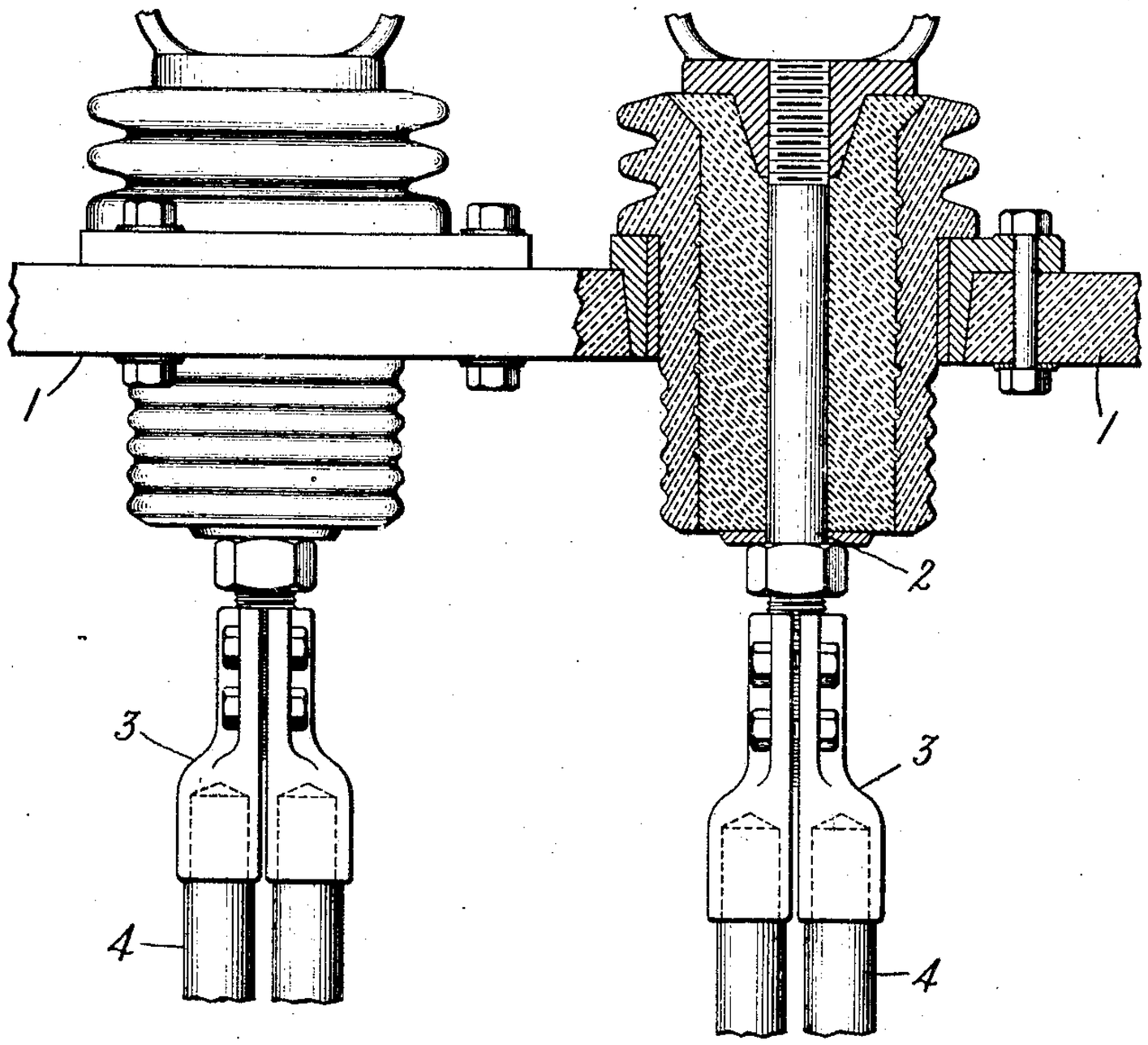
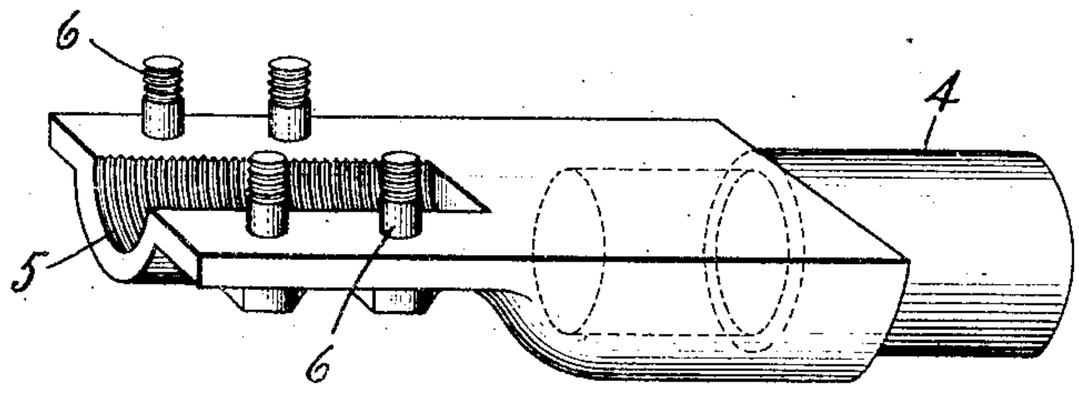


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES E. EVELETH, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ELECTRIC CONDUCTOR.

No. 861,100. Specification of Letters Patent. Patented July 23, 1907.

Application filed July 28, 1905. Serial No. 271,706.

To all whom it may concern:

Be it known that I, CHARLES E. EVELETH, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Electric Conductors, of which the following is a specification.

My present invention comprises improvements in electric conductors and particularly in means for connecting a plurality of current carrying cables or conductors to a single conducting body.

In carrying out my invention I connect each of the cables or conductors to a terminal member and then clamp the terminal members about the conducting body. By this arrangement I facilitate the mechanical connections of the parts, equalize the conductivities of the connections between the cable or conductors and the conducting body, and by subdividing the connections reduce the eddy current losses in them and their consequent heating.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of my invention, however, reference may be had to the accompanying drawings and descriptive matter in which I have illustrated and described one of the embodiments of my invention.

Of the drawings, Figure 1 is an elevation partly in section showing my invention applied to the connections between pairs of cables or conductors and corresponding switch terminals; Fig. 2 is a perspective view of one of the terminal members which I employ.

Referring to the drawings, I designates a base or support in which is mounted a pair of similar suitable insulated oil switch terminals 2. Each terminal 2 is provided at its lower end with a threaded portion about which is clamped a pair of similar terminal members 3. Each terminal member 3 is provided with a socket into which is secured in any suitable manner; as by soldering, one end of a conductor 4 usually in the form of an insulated cable. As shown, the adjacent surfaces of the terminals 3 are plane with the exception that a threaded recess 5 is formed at one end of each member. The recesses 5 in the different members unite to form a threaded socket in which the terminal 2 is received. Bolts 6 for clamping the terminal members about the threaded portion of the terminal conductor 2 pass through flange like extensions of the terminals adjacent the recessed portions. The recesses 5 which are practically semi-cylindrical are shaped to fit snugly about the threaded portion of the conductor 2. It will be observed, however, that when the terminals are clamped together the adjacent surfaces do not come in contact.

In practice I ordinarily prefer to form the terminal members 3 which engage a single terminal 2 out of a single casting in which a threaded hole or socket is first formed to receive the threaded terminal 2, after which the members are separated by a saw or in any other suitable manner so that the walls of the threaded socket or hole forms the walls of the recesses 5 in the different members. By proceeding in this fashion the threaded recesses 5 in the separate members are readily and accurately formed.

With the massive conductors necessitated by the large current carrying capacity of the apparatus with which my invention is ordinarily employed, it is difficult to manipulate the cables and terminals. By my arrangement, however, it is possible to obtain the large contact surfaces and consequent good electrical connections characteristic of threaded joints without the necessity of screwing the connections from the cables onto the switch terminals. A certain longitudinal adjustment of the terminal members with respect to the corresponding switch terminal is obtainable with my invention, as a good connection is secured regardless of whether or not the end of the switch terminals goes clear to the bottom of the recesses in the terminal members.

By sub-dividing the terminal members 3 as shown, the flow of eddy currents in the somewhat massive terminal portions is much reduced. The reduction of the heating produced by such eddy currents is of considerable importance. As the parts are symmetrical and each terminal member engages the switch terminal 2 in the same manner, the conductivity of the connections between each cable 4 and the corresponding switch terminal 2 is made equal to that of the connection between the other cable and the switch terminal, thus equalizing the flow of current in the two cables or conductors 4.

What I claim as new and desire to secure by Letters Patent of the United States, is:

1. In combination, a conducting body, a pair of conductors, a terminal member secured to each of said conductors, each of said members having a recess into which said conducting body extends, and means for clamping the terminal members together in parallelism about said conducting body.

2. In combination, a conducting body having a threaded portion, a pair of conductors, a terminal member secured to each of said conductors, each of said terminal members having a threaded recess formed in it, and means for securing the terminal members together with the threaded portion of the conducting body between, and in engagement with the recessed portions of, said terminals.

In witness whereof, I have hereunto set my hand this 30th day of June, 1905.

CHARLES E. EVELETH.

Witnesses:
BENJAMIN B. HULL,
HELEN ORFORD.