C. B. MILLS.

CABLE TAP.

APPLICATION FILED SEPT. 24, 1913. RENEWED FEB. 13, 1915.

1,144,224. Patented June 22, 1915.

Fig. 1.

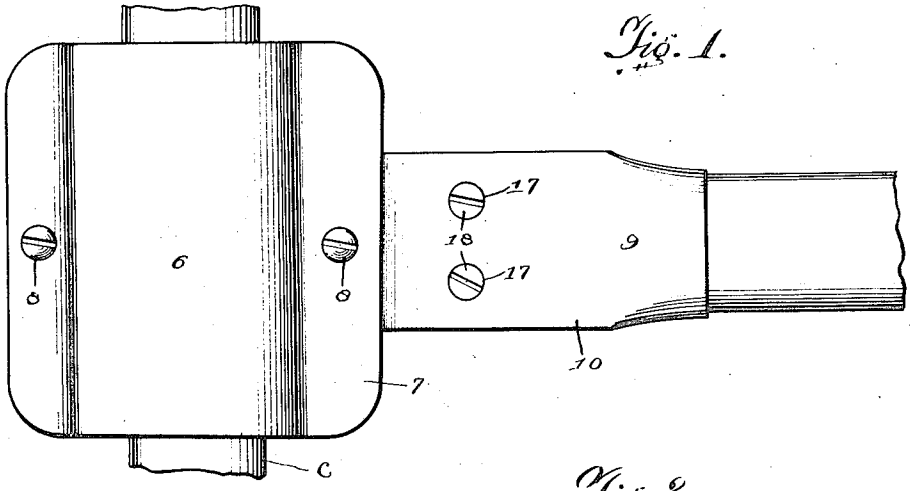


Fig. 2.

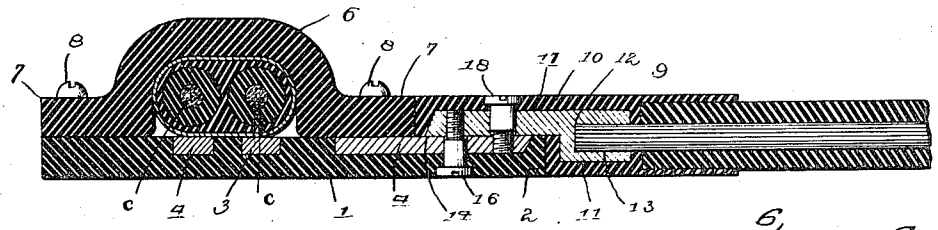


Fig. 3.

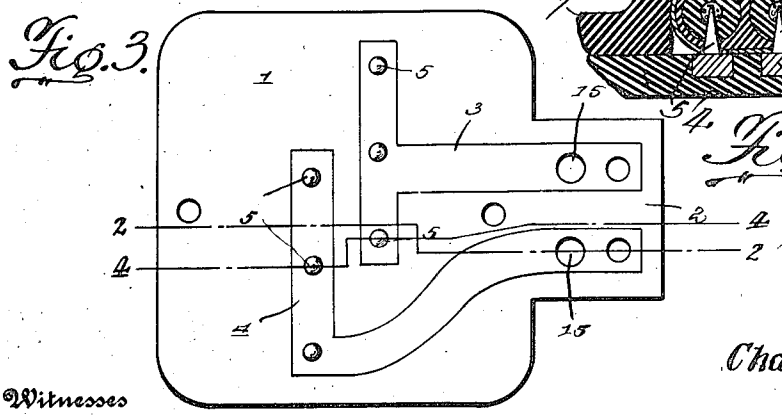
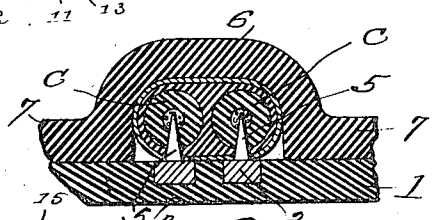


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CABLE-TAP.

1,144,224. Specification of Letters Patent. Patented June 22, 1915.

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To all whom it may concern:

Be it known that I, CHARLES B. MILLS, a subject of the King of Great Britain, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Cable-Taps, of which the following is a specification.

This invention relates to improvements in cable taps and has particular application to a portable tap whereby a branch cable may be secured to and electrically connected with the main cable in order that power may be taken from the latter at any desired point.

In carrying out the present invention, it is my purpose to provide a cable tap which will be constructed in such manner that mutilation of the cable, in the application of the tap thereto, is avoided thereby prolonging the life of the cable and preventing short circuiting.

It is also my purpose to provide a device of the class described which will embrace the desired features of simplicity, efficiency and durability, one which may be readily and conveniently applied to the cable and one which may be manufactured and installed at a minimum expense.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claims.

In the accompanying drawing; Figure 1 is a top plan view of a tap constructed in accordance with my present invention, the same being shown as applied to a cable. Fig. 2 is a cross sectional view on the line 2—2 of Fig. 3, the conducting strips and the yoke being shown in place. Fig. 3 is a top plan view of the base of the tap. Fig. 4 is a cross sectional view on the line 4—4 of Fig. 3, the conducting strips and the yoke being shown in place.

In the present instance, I have shown my improved cable tap as designed for making a T-connection. I wish it to be understood, however, that the tap is not confined to this particular type of connection as the same may be employed for making Y and other connections.

Referring now to the accompanying drawing in detail, C designates the main cable which, in the present instance, is of the duplex type embodying two parallel current carrying conductors *c*, *c* each wrapped with suitable insulation and disposed within a single casing so as to present, in effect, a single cable.

My improved tap comprises a base member 1 composed of suitable insulating material and, in the present instance, of substantially rectangular contour and having a block 2 extending outwardly from one edge thereof approximately centrally of such edge so as to present, in effect, a substantially T-shaped member. Embedded in the upper surface of the base 1 is a substantially T-shaped conducting strip 3 having the head thereof arranged parallel with one center line of the base 1 and the base extending at right angles to such center line and terminating in the block 2. A substantially L-shaped conducting strip 4 is also embedded in the base and has one limb thereof disposed in parallelism with the head of the T-shaped strip 3 and spaced apart therefrom and the remaining limb curved around one end of the head of the strip 3 and terminating parallel with the base of the T-shaped strip in the block 2. Extending upwardly from the parallel limbs of these conducting strips 3, 4 are prongs 5 adapted to penetrate the insulation on the cable and enter the conductors thereof so that an electrical connection between the conductors of the cable and the strips 3, 4 is established, the prongs upon the respective limb of one strip entering one of the conductors of the cable, while the prongs on the adjacent limb of the remaining strip enter the other conductor of the cable. Surrounding the cable C and holding the latter securely upon the base 1 is a substantially U-shaped yoke 6 having the free terminals thereof extended outwardly as at 7 and seated upon the base 1 at the opposite edges thereof and formed with apertures alining with openings in the base to receive securing screws or bolts 8 whereby the yoke is fastened to the base and the tap held to the cable.

The numeral 9 designates a cable terminal member composed of a block 10 of insulating material formed with parallel bores 11, 11 each adapted to receive a metallic plug 12 having one end formed with a socket 13 opening onto one edge of the block and designed to receive the adjacent end of the respective conductor of the cable. The ends of the conductors of the cable may be sweated

in the sockets 13 of the plugs 12. The opposite end of the block 10 is rabbeted as at 14 and the adjacent portions of the plugs 12, 12 are similarly formed and exposed so that when the rabbeted end of the block 10 is seated upon the block 2 on the base 1 a flush joint will be provided and the plugs 12, 12 contact with the ends of the conductor strips 3, 4. By means of this construction, it will be seen that when the block 10 is placed upon the block 2 and the prongs 5, 5 pass into the main cable, the branch cable connected to the block 10 will be electrically connected with the main cable thereby permitting power to be taken from the latter at any desired point.

In the present instance, the block 2 is formed with bolt holes 15 alining with similar holes formed in the respective ends of the strips 3 and 4 and with threaded apertures formed in the rabbeted ends of the plugs 12, 12 so as to receive the securing bolts 16, while the rabbeted portion of the block 10 is formed with bolt openings 17 alining with similar openings formed in the rabbeted ends of the plugs 12 and with threaded apertures formed in the adjacent ends of the strips 3, 4 so as to receive securing bolts 18, the bolts 16 and 18 serving to maintain the blocks 10 and 2 connected.

From the foregoing description taken in connection with the accompanying drawing, the construction and manner of employing my invention will be readily apparent. It will be seen that I have provided a cable tap whereby power may be taken from the main cable at any desired point, whereby the use of tape and analogous binding materials is avoided and whereby a good electrical contact between the main and branch cables is established.

I claim:

1. A cable tap comprising a base, conducting strips secured to the upper surface of said base and spaced apart, prongs upstanding from said strips, a yoke secured to the upper surface of the base and inclosing said prongs, a terminal member connected to said strips, said member comprising a block of insulating material formed with parallel bores, a metallic plug within each bore and having a socket formed in one end thereof, and means connecting said block with said base.

2. A cable tap comprising a base having a block projecting outwardly from one side thereof, conducting strips embedded in said base, prongs upstanding from said strips, a terminal member comprising a block having one end portion rabbeted to engage said first block and formed with parallel bores, metallic plugs within said bores and each having one end thereof formed with a socket and the opposite end lying within the rabbeted portion of said block and contacting with said strips, and means for securing said terminal member to said block.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES B. MILLS.

Witnesses:
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