Dec. 16, 1952 W. M. EAKIN 2,622,123

PLURAL CABLE SUPPORT WITH CLAMP

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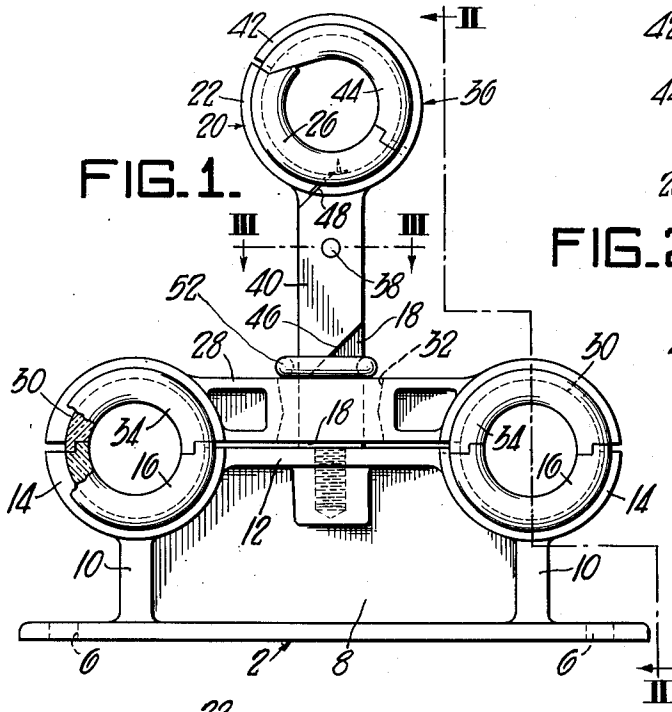


FIG. 1.

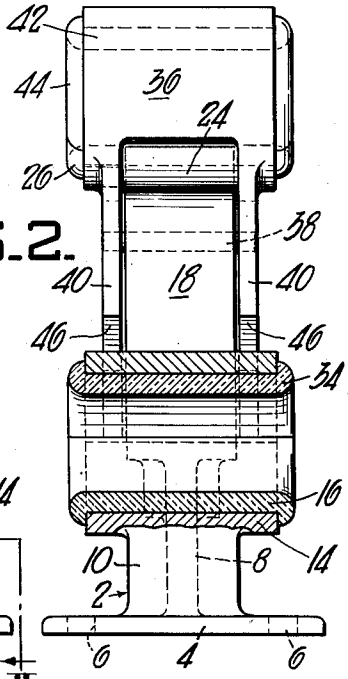


FIG. 2.

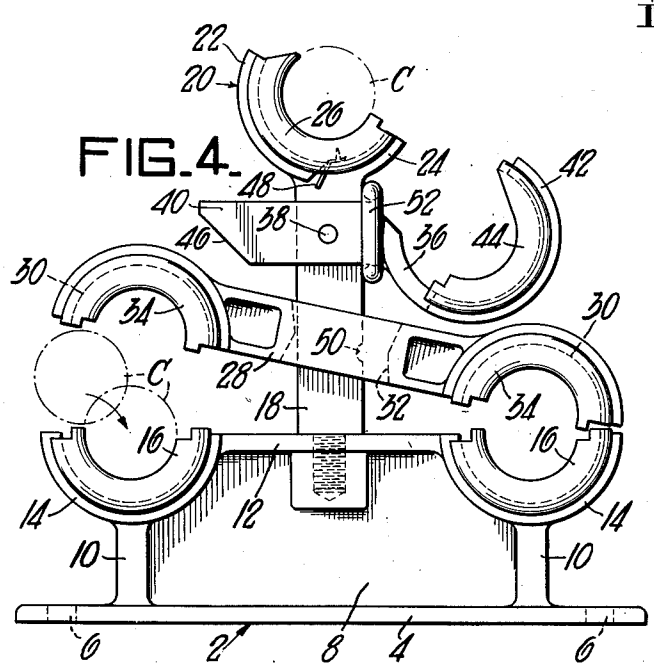


FIG. 4.

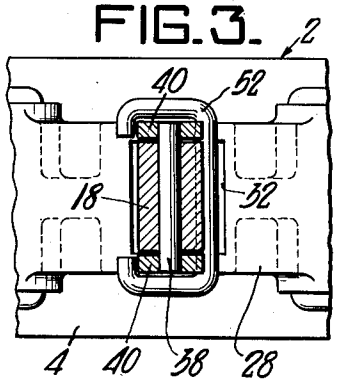


FIG. 3.

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PLURAL CABLE SUPPORT WITH CLAMP

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7 Claims. (Cl. 174—149)

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This invention relates to a cable support and more particularly to such a support for carrying a plurality of cables. It is often necessary to support cables in groups of three from structural parts of the inside of buildings. Several such devices are in present use, but they are not entirely satisfactory. For example, the parts of the cable support are normally made so that the wireman must handle loose parts while stringing the wires. Since the wireman is usually working in a difficult position high on the roof trusses and ordinarily wears gloves, it is extremely difficult for him to handle bolts, nuts and other loose parts. Another disadvantage is the difficulty of opening the support to receive the cables and then clamp them in place.

It is therefore an object of my invention to provide a cable support which does not have any loose parts and in which it is easy to assemble the cables.

Another object is to provide a cable support which is simple in construction.

These and other objects will be more apparent after referring to the following specification and attached drawings, in which:

Figure 1 is a side elevation, partly in section, showing the cable clamp in clamping position;

Figure 2 is a view taken on the line II—II of Figure 1;

Figure 3 is a view taken on the line III—III of Figure 1; and

Figure 4 is a view, similar to Figure 1, but showing the parts of the clamp in unclamped position.

Referring more particularly to the drawings, the reference numeral 2 indicates a base having a flat bottom portion 4 which rests against the structural part of the building to which it is to be fastened. Holes 6 are provided in the flat portion 4 for receiving bolts for attachment to the structure. Extending upwardly from the portion 4 is a central longitudinal rib 8 and two transverse ribs 10. The top portion of the base 2 consists of a flat horizontal portion 12 between two semi-circular grooved portions 14. A substantially semi-circular insulator 16 is provided in the grooves of each of the portions 14. Extending upwardly from the portion 12 and detachably attached thereto in any suitable manner is a post 18. The top of the post 18 has a substantially semi-circular grooved portion 20 therein which extends beyond both sides of the main portion of the post. The cord connecting the ends of the semi-circular groove 20 is arranged at an angle so that a long arcuate section 22 is provided on one side of the post and a short arcuate section 24 is provided on the other side. The axial length of the short section 24 is less than that of section 22. A substantially semi-circular insulator 26 is provided in the groove 20. Slidably mounted on the post 18 is a member 28 which has a pair of substantially semi-circular grooves 30 in the lower surface thereof opposing the semi-circular grooves 14 in the base member. A hole 32 is provided in the member 28 for receiving the post 18. A substantially semi-circular insulator 34 is received in each of the grooves 30. A clamping member 36 is supported on the post 18 for pivoted movement on the pivot pin 38. The member 36 is provided with a pair of legs 40 on its lower end, one on each side of the post 18. These legs extend upwardly on each side of the portion 24. A substantially semi-circular portion 42 extends from the upper portion of the legs 40. A substantially semi-circular insulator 44 is mounted in the semi-circular portion 42. The lower portions of the legs 40 are preferably cut off on a bevel as shown at 46. The length of the legs 40 below the pivot pin 38 is such that the legs will bear against the top of the member 28 when the member 28 is resting on top of the base 2. A leaf spring 48 may be provided on either side of the post 18 on the shoulder between the parts 22 and 24. A groove 50 may be provided in the post 18 for a purpose which will appear later. A substantially U-shaped locking bar 52 partially surrounds the post 18 and the lower part of the legs 40. It will be noted that the cooperating substantially semi-circular grooved portions do not completely surround the insulators in any case so that there will not be a continuous metallic ring around the cable. The insulators are preferably permanently attached to the supporting members either by cementing the insulators thereto or by the use of dove-tails, keys, screws, pins, rivets, or the like, or by permanently molding the insulators onto the supporting member.

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The operation of the device is as follows: The support is first fastened to a part of the structure of the building preferably in upright position. When it is desired to place cables in the support, the parts thereof are arranged as shown in Figure 4. A cable C is then placed in the left hand insulator 16 as shown in Figure 4 and the member 28 is then rocked so that the right hand end will be raised and a cable C will be slipped therein. The member 28 is then lowered and a cable C placed in the groove 20. The clamping member 36 is then pivoted until the legs 40 are

in vertical position. Final closing of the member **36** is against the pressure of springs **48**. The locking bar **52** is then lowered into the groove **50**. The pressure of the spring **48** holds the locking bar **52** in the groove **50** and prevents it from accidentally being dislodged, but such arrangement of springs **48** and groove **50** may be omitted if desired, especially when the device rests on the bottom **4**. When the legs **40** are locked in vertical position it will be seen that the three cables are all clamped in position. In removing one or more of the cables the two parts of the top insulator are squeezed together, the locking bar **52** is raised above the pivot **38** and the clamping member **36** is then turned around the pivot to release the parts.

While one embodiment of my invention has been shown and described it is apparent that other adaptations and modifications may be made without departing from the scope of the following claims.

I claim:

1. A cable support comprising a base, said base having a substantially semi-circular groove in the upper surface thereof, a post attached to and extending upwardly from said base, a substantially semi-circular insulator in said groove, a member slidably mounted on said post, said member having a substantially semi-circular groove in its lower surface opposed to the groove in said base, a substantially semi-circular insulator in said last named groove, a clamping member pivotally mounted on said post, said clamping member having a pair of legs on its lower end one on each side of the post, said legs extending downwardly substantially to the top of said slidable member when in vertical position, and a U-shaped member partially surrounding said post and the lower part of said legs to hold said legs in vertical position and thereby lock the parts together, the open part of the U-shaped member being at least as wide as said post.

2. A cable support comprising a base, said base having a pair of substantially semi-circular grooves in the upper surface thereof, a post attached to and extending upwardly from the upper part of said base between said grooves, the top of said post having a substantially semi-circular groove therein, said last named groove extending beyond both sides of the main portion of the post with one side thereof being of less arcuate length than the other, a member slidably mounted on said post, said member having a pair of substantially semi-circular grooves in the lower surface thereof opposing the semi-circular grooves in said base, a clamping member pivotally mounted on said post, said clamping member having a pair of legs on its lower end one on each side of the post, said legs extending downwardly substantially to the top of said slidable member when in vertical position and extending upwardly on each side of the portion of the groove in said post having the less arcuate length, a substantially semi-circular portion extending from the upper portion of said legs facing the semi-circular groove in the post, and means holding said legs in alignment with said post to lock the parts together.

3. A cable support comprising a base, said base having a pair of substantially semi-circular grooves in the upper surface thereof, a substantially semi-circular insulator in each of said grooves, a post attached to and extending upwardly from the upper part of said base between said grooves, the top of said post having a substantially semi-circular groove therein, said last named groove extending beyond both sides of the main portion of the post with one side thereof being of less arcuate length than the other, a substantially semi-circular insulator in the last named groove, a member slidably mounted on said post, said member having a pair of substantially semi-circular grooves in the lower surface thereof opposing the semi-circular grooves in said base, a substantially semi-circular insulator in each of said last named grooves, a clamping member pivotally mounted on said post, said clamping member having a pair of legs on its lower end one on each side of the post, said legs extending downwardly substantially to the top of said slidable member when in vertical position and extending upwardly on each side of the portion of the groove in said post having the less arcuate length, a substantially semi-circular portion extending from the upper portion of said legs facing the semi-circular groove in the post, a substantially semi-circular insulator mounted in said last named semi-circular portion, and a U-shaped member partially surrounding said post and the lower part of said legs to lock the parts together.

4. A cable support comprising a base, said base having a pair of substantially semi-circular grooves in the upper surface thereof, a post attached to and extending upwardly from part of said base between said grooves, the top of said post having a substantially semi-circular groove therein, said last named groove extending beyond both sides of the main portion of the post with one side thereof being of less arcuate length than the other, a member slidably mounted on said post, said member having a pair of substantially semi-circular grooves in the lower surface thereof opposing the semi-circular grooves in said base, a clamping member pivotally mounted on said post, said clamping member having a pair of legs on its lower end one on each side of the post, said legs extending upwardly on each side of the portion of the groove in said post having the less arcuate length, a substantially semi-circular portion extending from the upper portion of said legs facing the semi-circular groove in the post, said lower portion of said legs being of such length as to bear on the top of said slidable member when it is resting on the top of said base and when the legs are in vertical position, and means for holding said legs in vertical position to lock the parts together.

5. A cable support comprising a base, said base having a pair of substantially semi-circular grooves in the upper surface thereof, a substantially semi-circular insulator in each of said grooves, a post attached to and extending upwardly from the upper part of said base between said grooves, the top of said post having a substantially semi-circular groove therein, said last named groove extending beyond both sides of the main portion of the post with one side thereof being of less arcuate length than the other, a substantially semi-circular insulator in the last named groove, a member slidably mounted on said post, said member having a pair of substantially semi-circular grooves in the lower surface thereof opposing the semi-circular grooves in said base, a substantially semi-circular insulator in each of said grooves in said member, a clamping member pivotally mounted on said post, said clamping member having a pair of legs on its lower end one on each side of the post, said legs extending upwardly on each

side of the portion of the groove in said post having the less arcuate length, a substantially semi-circular portion extending from the upper portion of said legs facing the semi-circular groove in the post, a substantially semi-circular insulator mounted in said last named semi-circular portion, said lower portion of said legs being of such length as to bear on the top of said slidable member when it is resting on the top of said base and when the legs are in vertical position, and means for holding said legs in vertical position to lock the parts together.

6. A cable support comprising a base, said base having a pair of substantially semi-circular grooves in the upper surface thereof, a post attached to and extending upwardly from the upper part of said base between said grooves, the top of said post having a substantially semi-circular groove therein with the chord connecting the ends of said groove being arranged at an angle to the horizontal, a member slidably mounted on said post, said member having a pair of substantially semi-circular grooves in the lower surface thereof opposing the semi-circular grooves in said base, a clamping member pivotally mounted on said post, said clamping member having a leg extending downwardly from its pivot, a substantially semi-circular portion extending from the upper portion of said clamping member having a substantially semi-circular groove therein complementary to the first named groove, the lower portion of said leg being of such length as to bear on the top of said slidable member when it is resting on the top of said base and when the leg is in a vertical position, and means for holding said leg in vertical position to lock the parts together.

7. A cable support comprising a base, said base having a substantially semi-circular groove in one surface thereof, a post attached to said base and extending at right angles to the said

surface, a member slidably mounted on said post, said member having a substantially semi-circular groove therein opposed to the groove in said base, a substantially semi-circular insulator in each of said grooves, a clamping member pivotally mounted on said post, the free end of said post having a substantially semi-circular groove therein with the chord connecting the ends of said groove being arranged at an angle to the said surface, a substantially semi-circular insulator in said last named groove, a substantially semi-circular portion extending from the outer portion of said clamping member said semi-circular portion having a substantially semi-circular groove therein complementary to the last named groove, a substantially semi-circular insulator in said last named groove, said clamping member having a leg extending inwardly toward said slidable member and being of such length as to bear on said slidable member when it is resting against said base and when the leg is in alignment with said post, and means for holding said leg in alignment with said post to lock the parts together.

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