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SUPPORTING MEANS FOR CABLES AND THE LIKE

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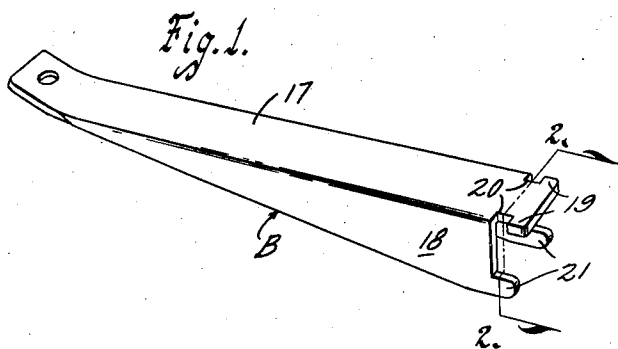
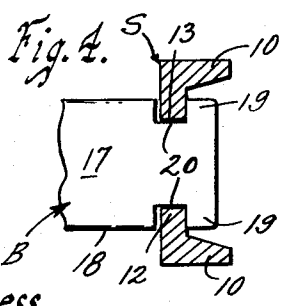
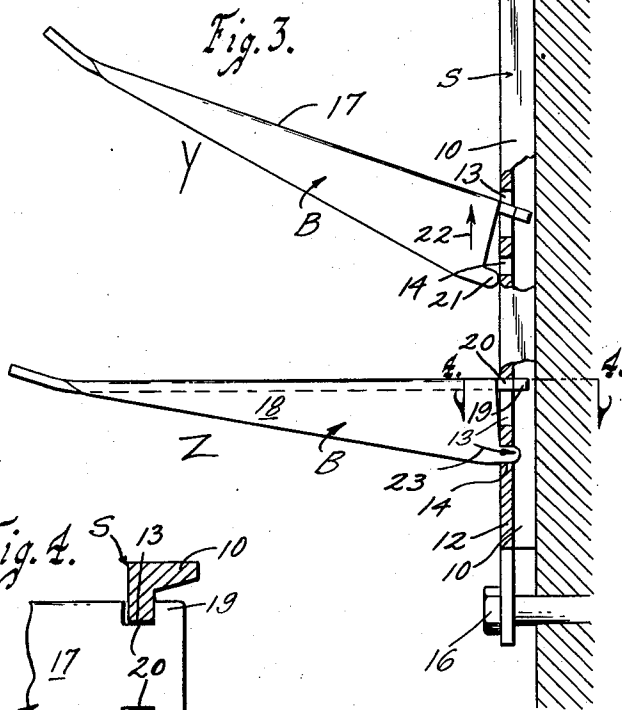
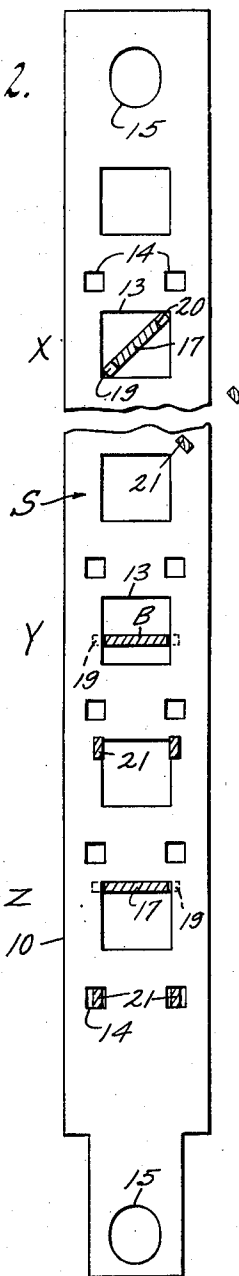


Fig. 2.



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SUPPORTING MEANS FOR CABLES AND THE LIKE

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3 Claims. (Cl. 248—73)

One object of my invention is to provide a supporting means for cables and the like which is simple, durable and comparatively inexpensive from a manufacturing standpoint.

A further object is to provide supporting means for cables, rods, shelves or the like which comprises a supporting bar and one or more supporting brackets, the brackets being mounted on the bar in a novel manner whereby they are readily attachable and detachable relative thereto and are positively held against accidental detachment after being attached to the supporting bar.

Another object is to provide a supporting bar having rectangular openings and supporting brackets having T-heads which can enter the rectangular openings when the heads are tipped to a diagonal position relative to the openings after which, when the supporting brackets are tipped to normal supporting position they are retained on the supporting bar against any accidental displacement therefrom.

Still another object is to provide means of coaction between the supporting bar and the supporting brackets whereby any rotation of the brackets relative to the bar after once being installed is entirely eliminated.

With the foregoing objects in view, my invention consists in the construction, arrangement and combination of the various parts of my supporting means for cables and the like, whereby the objects contemplated as well as others may be attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of the supporting bracket forming one of the elements of my invention.

Figure 2 is a front elevation of a supporting bar forming the other element thereof, three of the brackets being illustrated in section as on the line 2—2 of Figure 1 and adjusted to different positions relative to the supporting bar as assumed during the mounting of the supporting brackets on the supporting bar.

Figure 3 is a side elevation of the supporting bar partly in section showing two of the brackets associated therewith, the lower one of them being mounted in final position on the supporting bar and the upper one being illustrated in an intermediate position assumed during the mounting operation; and

Figure 4 is an enlarged sectional view on the line 4—4 of Figure 3.

On the accompanying drawing I have used the reference character S to indicate generally a

supporting bar and B a bracket for supporting cables or the like. The supporting bar S is channel shaped as shown in Figure 4 having flanges 10 and a web 12.

The web 12 has a series of substantially rectangular openings 13 spaced longitudinally along the bar S. Below each opening 13 is a pair of relatively small openings 14 spaced laterally from each other. At the ends of the bar S I provide perforations 15 for the purpose of receiving lag screws or the like 16 to support the bar S on a wall or the like W.

Each supporting bracket B comprises a web 17 and a pair of flanges 18. At one end the web 17 has a T-head, the arms of which are indicated at 19 and these arms being formed by notching the web 17 as at 20. Below the T-head arms 19, the flanges 18 are provided with projecting fingers 21.

In Figure 2 I illustrate at X, Y and Z respectively, different successive positions assumed by the T-head arms 19 and the fingers 21 of the supporting bracket B as the supporting bracket is being mounted on the supporting bar S. The positions Y and Z are also illustrated in Figure 3. First of all the position X is assumed with the plane of the web 17 of the bracket B arranged diagonally relative to the rectangular opening 13. When in this position the bracket is tipped to an angle relative to the outer face of the supporting bar S as shown by the upper bracket in Figure 3. After the T-head is inserted into the opening 13, the bracket is rotated on its major axis to the position shown as Y. The T-head arms 19 are now behind the web 12 of the channel shaped supporting bar S thus retaining the bracket against disassociation from the bar. The bracket is then moved upwardly to the position shown as Z whereupon the fingers 21 may enter the openings 14. In Figure 3 the arrow 22 indicates the lifting movement of the bracket B after the position Y is assumed while an arrow 23 indicates the swinging movement imparted to the bracket to assume the position shown as Z.

From the foregoing it is obvious that the bracket can be readily mounted on the bar or demounted therefrom as desired. After once mounted in position, the bracket is retained against accidental displacement from the bar as it is necessary to tip the bracket upwardly and then axially rotate it to the diagonal position illustrated as X before the T-head can be removed from the rectangular opening in the supporting bar. When once the bracket is placed in position on the bar it is effectively retained in a position

extending at substantially right angles thereto and the T-head and fingers 21 of the bracket B are so associated with the bar S that the weight imposed on the bracket by the cables or other devices supported by the bracket is distributed between the T-head and the fingers. The T-head arms 19 engage the inner face of the web 12 of the supporting bar S thus resisting downward bending of the bracket while the weight of the bracket is supported by the fingers 21 in the openings 14.

Some changes may be made in the construction and arrangement of the parts of my supporting means for cables and the like without however departing from the real spirit and purpose of my invention. Accordingly I intend to cover by my claims, any modified forms of structure or use of mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. In a device of the class described, a channel shaped supporting bar, a substantially rectangular opening in the web thereof, the sides of said opening being parallel to the flanges of said supporting bar, a pair of relatively small openings in said web and spaced from said rectangular opening in a direction longitudinally of the supporting bar and a supporting bracket cooperating with said supporting bar and including a T-head insertible into said rectangular opening when the plane of the head is diagonal relative to the rectangular opening, the arms of said T-head assuming positions engaging the inside face of said web adjacent the sides of the rectangular opening when said supporting bracket is rotated to a position with the plane thereof at right angles to the longitudinal axis of said supporting bar, said supporting bracket including projections to extend into said relatively small openings when the bracket is in the last mentioned

position and thereby retain the supporting bracket against further rotation.

2. Supporting means comprising a supporting bar having a rectangular opening therein and a pair of other openings adjacent said rectangular opening and a supporting bracket having a T-head to enter said rectangular opening and a pair of fingers to enter said pair of other openings, the distance across said T-head being less than the diagonal diameter of said rectangular opening and greater than the diameter from side to side thereof whereby to retain said supporting bracket assembled relative to said supporting bar when said head is received in said rectangular opening with the plane thereof substantially parallel to one of the sides thereof, and the fingers are received in said relatively small openings.

3. In a device of the class described, a channel-shaped supporting bar, a substantially rectangular opening in the web thereof, the sides of said opening being parallel to the flanges of said supporting bar, a relatively small opening in said web spaced from said rectangular opening in a direction longitudinally of the supporting bar and a supporting bracket cooperating with said supporting bar and including a T-head insertable into said rectangular opening when the plane of the head is diagonal relative to the rectangular opening, the arms of said T-head assuming positions engaging the inside face of said web adjacent the sides of the rectangular opening when said supporting bracket is rotated to a position with the plane thereof at right angles to the longitudinal axis of said supporting bar, said supporting bracket including a projection to extend into said relatively small opening when the bracket is in the last-mentioned position and thereby retain the supporting bracket against further rotation.

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