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[54] RIGHT-ANGLE MOUNTING BRACKET 16 Claims, 7 Drawing Figs.

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 24/16, 248/74 PB
 [51] Int. Cl. F161 3/04
 [50] Field of Search 248/361,
 70, 74 PB, 68, 69; 24/3 A, 129; 108/58, 55

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ABSTRACT: A bracket for mounting wire bundles held together by binder ties comprises an integrally constructed attachment plate and generally rectangular platform disposed substantially normal to each other, the platform having an upper surface for supporting a bundle in one of two different orientations and having an enclosed opening at the juncture of the platform and attachment plate for receiving and trapping a binder tie therein and a notch on the edge of the platform opposite the opening for orienting the binder tie in a first direction to hold a bundle in one orientation on the bracket, a pair of bars respectively disposed beneath the opposite side edges of the platform and connected thereto for respectively defining therewith a pair of passages which cooperate to receive and trap a binder tie therethrough and to orient the binder tie in a second direction to hold a bundle in the other orientation on the bracket.

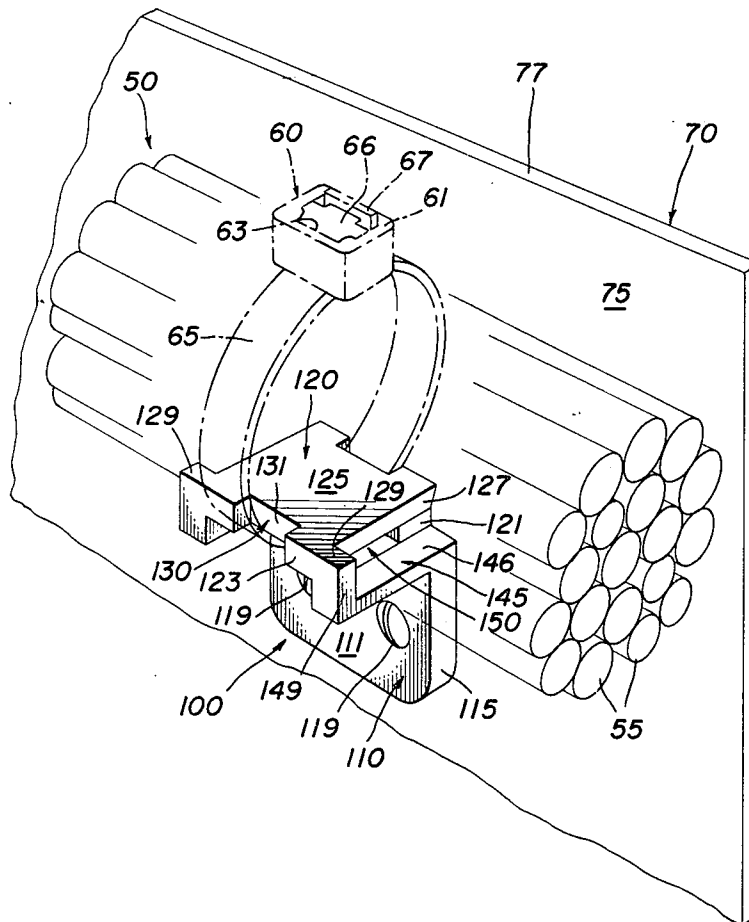


FIG. 1

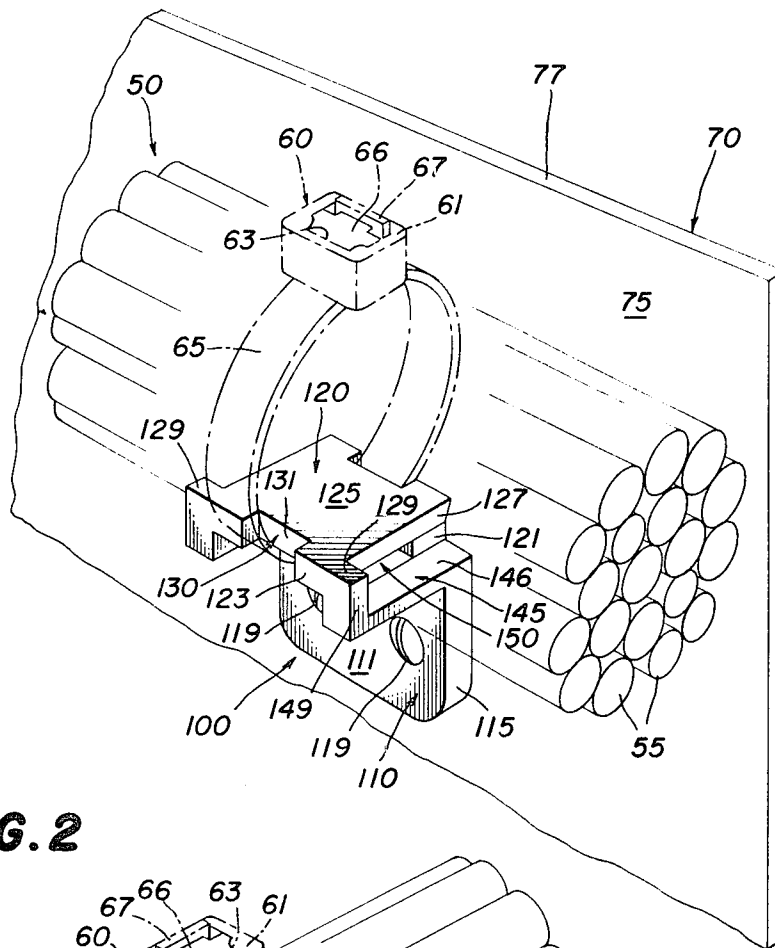
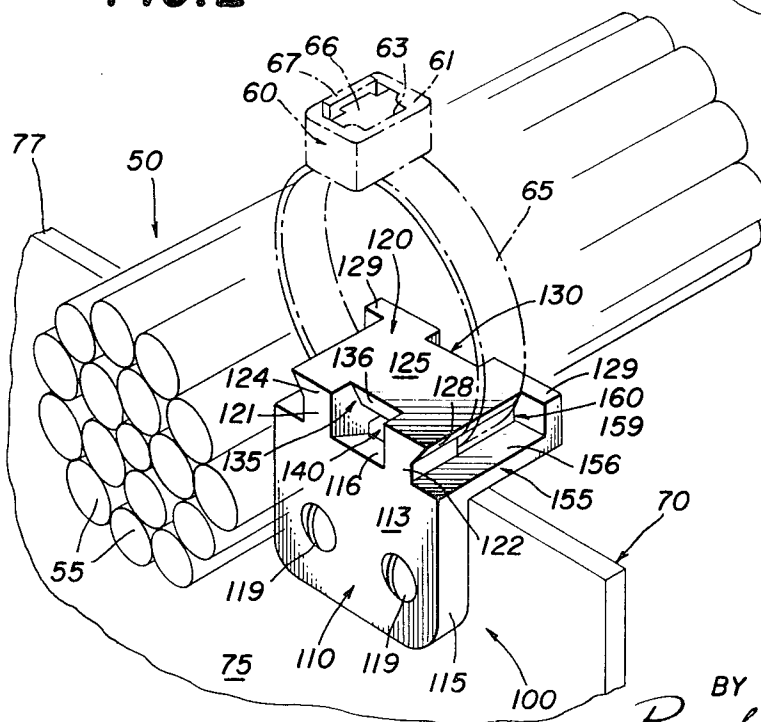


FIG. 2



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FIG. 3

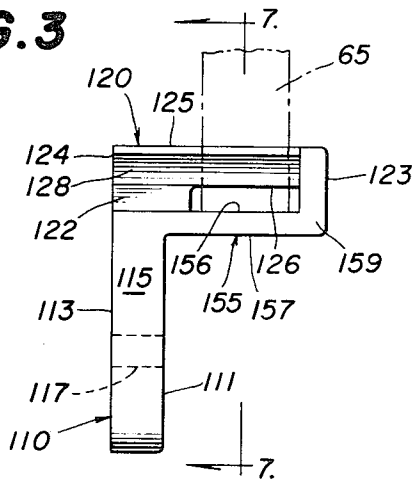


FIG. 4

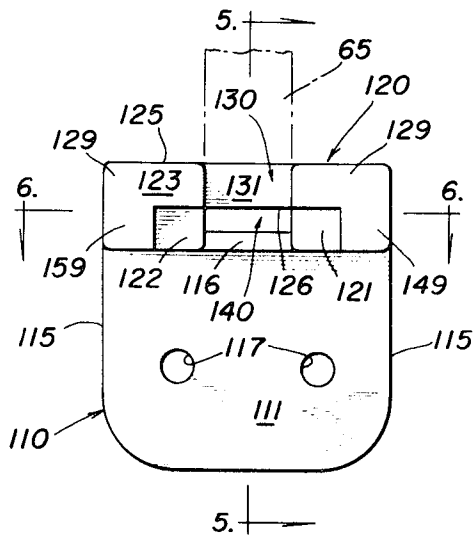


FIG. 5

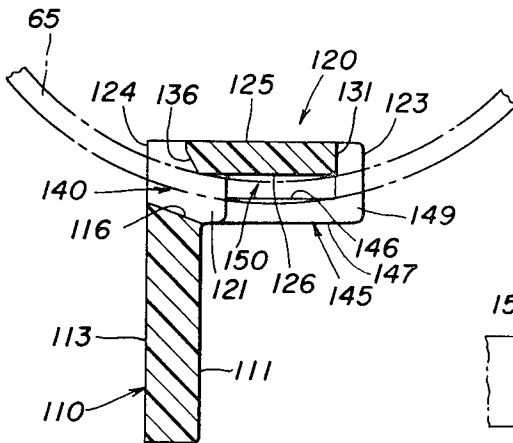


FIG. 6

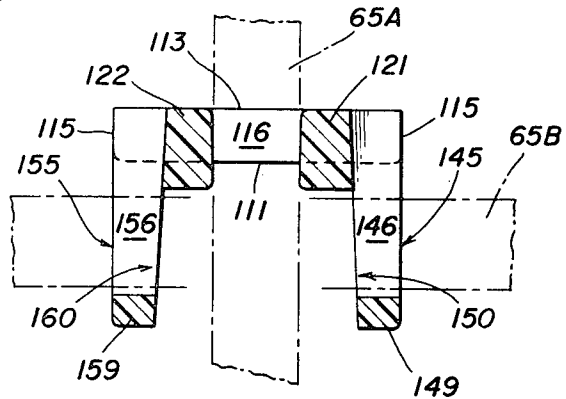
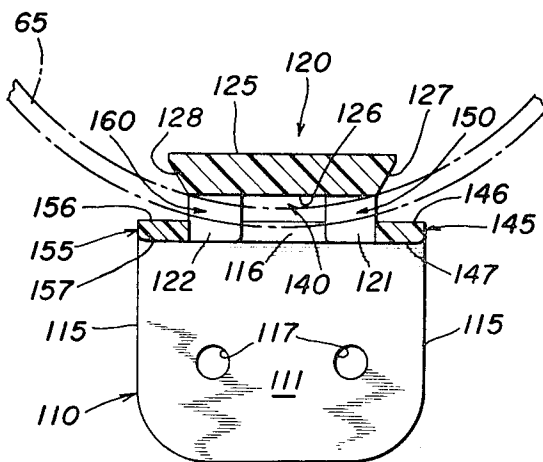


FIG. 7

RIGHT-ANGLE MOUNTING BRACKET

This invention relates to mounting brackets and, in particular, to a right-angle bracket for mounting a bundle of electrical wires or the like held together by a binder tie secured therearound.

It is an important object of this invention to provide a bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, the bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations, the platform having two passages respectively extending therethrough in different directions respectively corresponding to the two different orientations for accommodating a binder tie of an associated bundle therethrough, the passages enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, whereby a binder tie disposed in either of the two passages and secured around an associated bundle is enclosed and trapped in that passage and serves to hold the associated bundle in the corresponding orientation on the upper surface of the platform for positively securing the associated bundle to the bracket.

It is another object of this invention to provide a bracket of the type set forth, wherein each of said passages includes two openings, one of the openings being surrounded to define the passage for enclosing and trapping the associated binder tie therein, and the other of the openings cooperating with the one opening to orient the associated binder tie in a direction corresponding to one of the two orientations and to retain the binder tie in that direction.

It is another object of this invention to provide a bracket of the type set forth, and further including a bar spaced from the platform and having the ends thereof connected to the platform, the bar and the platform cooperating to define the second passage.

It is another object of this invention to provide a bracket of the type set forth, and further including a pair of spaced-apart bars respectively spaced from the platform and having the ends thereof connected to the platform, the bars respectively cooperating with the platform to define a pair of surrounded second openings for receiving a binder tie of the associated bundle therethrough, the second openings cooperating with each other to define the second passage and to orient the associated binder tie in the second direction.

Another object of this invention is to provide a bracket of the type set forth, wherein one of the two first openings is surrounded to define the first passage and the other of the two first openings comprises a notch along the periphery of the platform cooperating with the first opening to orient the associated binder tie in the first direction.

Still another object of this invention is to provide a bracket of the type set forth and further including an attachment member for mounting on a support, the platform being connected to the attachment member and disposed at an angle thereto, the platform having the first surrounded opening therein at the juncture of the platform and the attachment member.

The invention, both as to its organization and method of operation together with further objects and advantages thereof will best be understood by reference to the following specification taken in connection with the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of a vertical support surface having a right-angle mounting bracket according to the present invention attached thereto in the operative position supporting an associated bundle and binder tie;

FIG. 2 is a fragmentary perspective view similar to FIG. 1 but with the mounting bracket of this invention shown attached at the upper edge of the support surface;

FIG. 3 is a side-elevational view of a mounting bracket according to the present invention;

FIG. 4 is a front-elevational view of the mounting bracket as shown in FIG. 3;

FIG. 5 is a vertical-sectional view of the mounting bracket according to this invention taken in the direction of the arrows along the line 5—5 in FIG. 4;

FIG. 6 is a horizontal-sectional view of the mounting bracket according to this invention taken in the direction of the arrows along the line 6—6 in FIG. 4; and

FIG. 7 is a vertical-sectional view of the mounting bracket according to this invention taken in the direction of the arrows along the line 7—7 in FIG. 3.

Referring now to the drawings and in particular to FIGS. 1 and 2 thereof, there is shown a bundle, generally designated by the numeral 50, comprising a plurality of wires or strands or the like which may commonly be electrical wires for use in electric circuits, the individual wires being designated by the numeral 55. The plurality of wires 55 are held tightly together in a generally cylindrical bundle 50 in standard fashion by means of a binder tie, generally designated by the numeral 60. The binder tie 60 may take any of several well-known forms, but is preferably of the type disclosed in the U.S. Pat. No. 3,197,829 issued to Jack E. Caveney et al. on Aug. 3, 1965, and assigned to the assignee of the present invention, the disclosure of which patent is incorporated herein by reference. The Caveney et al. binder tie includes a generally rectangular head 61 having a slot or opening 63 extending therethrough and a strap 65 having a head end 66 and a tongue 67. When the strap 65 is fed downwardly tongue-first through the opening 63 in the head 61, the head end 66 of the strap 65 engages with the head 61 and does not pass therethrough. The strap 65 preferably has a plurality of teeth or serrations (not shown) formed along one surface thereof, the strap 65 being adapted for encirclement about the bundle 50 and insertion upwardly through the slot 63 in the head 61 with the teeth on the strap 65 engaging complementary teeth (not shown) on the head end 66 thereof for preventing retrograde motion of the strap 65 and securely holding the binder tie 60 locked about the bundle 50.

A substantially vertically arranged wall or panel 70 is shown, having a front surface 75 and an upper edge 77. In practice, the wall 70 may be a bulkhead, wall, or panel in a cabinet, room, aircraft or the like or wherever electrical wiring is likely to be installed. It is the object of this invention to provide a mounting bracket for mounting a bundle 50 held together by a binder tie 60 on the wall or panel 70. In particular, it is an object of this invention to provide a mounting bracket to support a bundle 50 on the wall 70 with the longitudinal axis of the cylindrical bundle 50 extending either normal to or parallel to the support surface 75.

Referring now also to FIGS. 3 through 7 of the drawings, there is shown a mounting bracket generally designated by the numeral 100, which includes a flat, generally rectangular attachment flange, generally designated by the numeral 110 connected at the upper end thereof to a generally rectangular platform 120 which is disposed substantially at right angles with the attachment flange 110. Preferably, the attachment flange 110 and the platform 120 are formed integrally with each other to provide a single-piece mounting bracket 100 which may be formed by molding or other suitable method. The attachment flange 110 is illustrated in FIGS. 3 and 4 and is generally in the form of a hexahedron with the lower corners thereof being rounded, the attachment flange 110 including a flat planar front surface 111, a flat planar rear surface 113 disposed substantially parallel to the front surface 111 and a peripheral side surface 115 interconnecting the front surface 111 and the rear surface 113 and disposed substantially normal thereto. A pair of holes 117 may be provided through the attachment flange 110 for receiving screws or rivets or other fastening means therethrough for attaching the attachment member 110 to the parallel support surface 75. Two of the openings or holes 117 have been shown in the drawings, but it will be recognized that any number of openings 117 may be provided and, in the alternative, either or both of the surfaces 111 and 113 may be provided with a suitable adhesive material such as epoxy cement for attaching the attachment flange 110 to the support surface 75.

The mounting platform 120 is disposed generally horizontally at the upper end of the attachment flange 110 as viewed in the drawings and is connected thereto by a pair of short, up-standing spaced-apart mounting posts 121 and 122, each being generally rectangular in cross section (see FIG. 6) and extending horizontally from the rear surface 113 of the attachment flange 110 to a point a short distance forwardly of the forward surface 111 thereof. The mounting posts 121 and 122 are respectively disposed a short distance inwardly from the opposite side edges of the attachment flange 110. The platform 120 is provided with a flat, planar top surface 125, a flat planar bottom surface 126 substantially parallel to the top surface 125, and four peripheral side surfaces 122, 123, 127 and 128 interconnecting the top and bottom surfaces 125 and 126. The rear surface 124 is in substantially vertical alignment with the rear surface 113 of the attachment flange 110 and the rear surfaces of the mounting posts 121 and 122. Extending laterally outwardly beyond the side surfaces 127 and 128 of the platform 120 at the front end thereof is a pair of short spurs or ears 129, the front surfaces of the spurs being coplanar with the front surface 123 of the platform 120. Each of the side surfaces 127 and 128 is slanted inwardly from the top surface 125 to the bottom surface 126 of the platform 120 as best illustrated in FIG. 7, for a purpose to be described more fully hereinafter.

The front surface 123 of the platform 120 has a generally rectangular recess formed therein substantially centrally thereof to define a front notch 130 shaped and dimensioned to accommodate a binder tie strap therein, the rear wall 131 of the notch 130 being substantially normal to the top and bottom surfaces 125 and 126 of the platform 120. Similarly, the portion of the rear surface 124 of the platform 120 disposed between the mounting posts 121 and 122 is recessed to form a generally rectangular notch 135 therein of a width and depth substantially equal to the width and depth of the notch 130, the forward wall 136 of the notch 135 sloping downwardly and forwardly from the top surface 125 to the bottom surface 126 of the platform 120 for a purpose to be described more fully hereinafter. In like manner, the portion 116 of the peripheral surface 115 of the attachment flange 110 which extends between the mounting posts 121 and 122 slopes downwardly and forwardly from the rear surface 113 to the front surface 111 of the attachment flange 110. The notch 135 in the platform 120 communicates with the space between the mounting posts 121 and 122 and cooperates therewith to define a first slot or opening, generally designated by the numeral 140, extending through the bracket 100 at the juncture of the platform 120 with the attachment flange 110. The slot or opening 140 is surrounded by the surfaces 116 and 136 and the mounting posts 121 and 122 to define a passage which extends downwardly and forwardly from the upper side of the platform 120 and the rear side of the attachment flange 110 to the underside of the platform 120 and the forward side of attachment flange 110, and is dimensioned to accommodate a binder tie strap therethrough as is best illustrated in FIGS. 4, 5 and 7.

A guide member or bar 145, which may be of any desired shape but is preferably generally rectangular in cross section, is integral at one end thereof with the upper end of the attachment flange 110 and with the outer side surface of the mounting post 121 adjacent to the side surface 127 of the platform 120 and extends forwardly substantially parallel to the side surface 127 to a point adjacent to the front surface 123 of the platform 120. The bar 145 has a flat planar upper surface 146 disposed a short distance below and substantially parallel to the bottom surface 126 of the platform 120, the inner side edge of the upper surface 146 being substantially in vertical alignment with the bottom edge of the side surface 127 of the platform 120 as best illustrated in FIG. 7 of the drawings. The bar 145 has a flat planar lower surface 147 disposed a slight distance below the upper surface 146 and substantially parallel thereto, the upper and lower surfaces 146 and 147 being joined at the forward ends thereof by a short, vertically extending flange 149, the upper end of the flange 149 being in-

tegral with the adjacent one of the spurs 129 on the platform 120. The bar 145 cooperates with the side surface 127 of the platform 120, the flange 149 and the mounting post 121 to define a surrounded slot or opening, generally designated by the numeral 150, which communicates with the underside of the platform 120 and is dimensioned to accommodate a binder tie strap therethrough.

Another guide member or bar 155, generally rectangular in cross section, and substantially identical to the bar 145 is integral with the upper end of the attachment flange 110 and with the outer side surface of the mounting post 122 adjacent to the side surface 128 of the platform 120 and extends forwardly substantially parallel to the side surface 128 to a point adjacent to the front surface 123 of the platform 120. The bar 155 has a flat planar upper surface 156 disposed a short distance below and substantially parallel to the bottom surface 126 of the platform 120, the inner side edge of the upper surface 146 being substantially in vertical alignment with the bottom edge of the side surface 128 of the platform 120 as best illustrated in FIG. 7 of the drawings. The bar 155 has a flat planar lower surface 157 disposed a slight distance below the upper surface 156 and substantially parallel thereto, the upper and lower surfaces 156 and 157 being joined at the forward ends thereof by a short, vertically extending flange 159, the upper end of the flange 159 being integral with the adjacent one of the spurs 129 on the platform 120. The bar 155 cooperates with the side edge 128 of the platform 120, the flange 159 and the mounting post 122 to define a surrounded slot or opening, generally designated by the numeral 160, which communicates with the underside of the platform 120 and of a shape and dimensions substantially identical to the shape and dimensions of the passage 150, the slots 150 and 160 cooperating to define a passage through the bracket 100 extending beneath the platform 120.

The slots or openings 150 and 160 are substantially in horizontal alignment with each other in a direction substantially parallel to the front and rear surfaces 111 and 113 of the attachment flange 110. Similarly, the notches 130 and 135 are in horizontal alignment with each other in a direction substantially normal to the front and rear surfaces 111 and 113 of the attachment flange 110. Thus, the passage defined by the slot 140 communicates beneath the platform 120 with the passage defined by the slots 150 and 160, the two passages being disposed substantially normal to each other.

In operation, the mounting bracket 100 may be attached to a support surface in any one of several configurations, two of which are respectively illustrated in FIGS. 1 and 2 of the drawings. In FIG. 1, the mounting bracket 100 is shown attached to a flat vertical wall 70 by means of screws or rivets 119, the rear surface 113 of the attachment flange 110 abutting against the surface 75 of the wall 70 and the platform 120 extending outwardly from the surface 75. In this configuration, a bundle 50 may be supported on the bracket 100 in an orientation with the longitudinal axis of the bundle 50 substantially parallel to the support surface 75 and the attachment flange 110 as illustrated.

When the mounting bracket 100 is securely affixed to the support surface 75 as shown in FIG. 1, the portion of the bundle 50 to be supported is placed upon the upper surface 125 of the platform 120 with the longitudinal axis of the bundle 50 being disposed parallel to the support surface 75 and the attachment flange 110. A binder tie 60 is then looped around the portion of the bundle 50 overlying the platform 120. In particular, with the head 61 of the binder tie positioned atop the bundle 50, the strap 65 is fed downwardly between the bundle 50 and the surface 75, then through the slot 140, beneath the lower surface 126 of the platform 120, upwardly through the notch 130 in the forward surface of the platform 120 and thence back up around the front of the bundle 50, and through the opening 63 in the head 61 of the binder tie 60 to be securely engaged with the head end 66 thereof in the usual manner. When the binder tie 60 is tightened about the bundle 50, the strap 65 will be pulled up into firm engagement

with the surfaces 131 and 136 of the notches 130 and 135, respectively, whereby the strap 65 is firmly seated in the notches 130 and 135 (See FIGS. 1 and 5). Thus, the notches 130 and 135 serve to effectively orient the strap 65 in the desired direction and serve to retain the strap 65 in this orientation and prevent it from slipping sidewise along the front and rear surfaces 123 and 124 of the platform 120. In addition, the slot 140 is completely enclosed by the attachment flange 110, the platform 120, and the mounting posts 121 and 122, whereby, once the binder tie 60 is latched about the bundle 50, the strap 65 is captured or trapped in the passage defined by the slot 140. Thus, the binder tie 60 cannot be removed from the mounting bracket 100 regardless of how loosely the binder tie may be fastened as long as it remains in its engaged condition, whereby the bundle 50 is positively held in position on the platform 120 of the mounting bracket 100.

In FIG. 2 another arrangement is shown wherein the mounting bracket 100 is affixed at the upper edge 77 of a panel 70, with the front surface 111 of the attachment flange 110 abutting against one surface 75 of the panel 70 and with the mounting platform 120 overlying the upper edge 77 of the panel 70 and projecting toward the opposite surface thereof. In this configuration, a bundle 50 may be supported on the mounting bracket 100 in an orientation substantially normal to the support panel 70 and the attachment flange 110 as illustrated.

When the mounting bracket 100 is secured to the wall or panel 70 in the configuration shown in FIG. 2, the portion of the bundle 50 to be supported is positioned upon the upper surface 125 of the platform 120, with the longitudinal axis of the bundle 50 being oriented substantially normal to the panel 70 and the attachment flange 110 as shown in FIG. 2. With the bundle 50 so positioned, a binder tie 60 is secured thereabout. More particularly, with the head 61 of the binder tie 60 positioned atop the bundle 50, the strap 65 is extended downwardly around one side of the bundle 50, through the adjacent one of the slots 150 and 160, beneath the lower surface 126 of the platform 120, through the other one of the slots 150 and 160, and thence upwardly around the other side of the bundle 50 and through the opening 63 in the head 61 for engagement with the head end 66 in the usual manner. When the binder tie 60 is tightened about the bundle 50, the strap 65 is pulled into firm engagement with the side surfaces 127 and 128 of the platform 120. As illustrated in FIG. 2, the slots 150 and 160 are preferably dimensioned complementary to each other and are positioned substantially in horizontal alignment with each other in a direction substantially parallel to the attachment flange 110. The slot 150 is surrounded by the platform 120, the mounting post 121, the arm 145, the flange 149 and the adjacent spur 129. Similarly, the slot 160 is surrounded by the platform 120, the mounting post 122, the arm 155, the flange 159 and the spur 129. Thus, when the binder tie 60 is in its tightened condition about the bundle 50, the strap 65 is oriented in the passage defined by the slots 150 and 160 in a predetermined direction and is prevented thereby from sliding forwardly or rearwardly of the platform 120, thus, retaining the strap 65 in the predetermined orientation. In addition, the strap 65 is captured or trapped in the passage defined by the slots 150 and 160 for effectively preventing removal of the binder tie 60 from the mounting bracket 100 when the binder tie 60 is in the engaged condition thereof, whereby the bundle 50 is positively held in position on the platform 120.

It will be noted, that the sloping surfaces 116 and 136 surrounding the slot 140 and the sloping surfaces 127 and 128 adjacent to the slots 150 and 160, respectively, serve as guide surfaces to facilitate the insertion of the associated binder tie strap 65 into the slots 140, 150 and 160. Also, the sloping surfaces 127, 128 and 136 conform to the general configuration of the strap 65 in its tightened condition, thereby relieving some of the highly local stresses which would otherwise be presented by sharp edges of the slots 140, 150 and 160.

The mounting bracket 100 may be constructed of any suitable material but is preferably formed of nylon by a molding process. It will, of course, be recognized that the mounting bracket may be constructed in any desired size to accommodate different size bundles and different size binder ties. In addition, while only two mounted configurations of the bracket 100 have been illustrated in the drawings, it will be obvious that the bracket 100 lends itself to other configurations.

From the foregoing, it can be seen that there has been provided an improved mounting bracket for bundles held together by binder ties secured therearound, the mounting bracket being adapted for securing an associated bundle thereto in either of two different orientations by means of the associated binder tie and for capturing or trapping the binder tie for preventing the removal thereof from the bracket 100.

More particularly, there has been provided a right-angle mounting bracket capable of mounting in one of several different configurations on a support surface and including a generally rectangular platform having two passages extending therethrough in mutually perpendicular directions for receiving and trapping therein an associated binder tie.

In addition, there has been provided a mounting bracket of a simple and economical construction which may be easily manufactured in any desired size and which may be attached to a support surface by any suitable means.

While there has been described what at present is considered to be the preferred embodiment of the invention, it will be understood that various modifications may be made therein, and it is intended to cover in the appended claims all such modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations disposed substantially at right angles to each other, said platform having two intercommunicating passages respectively extending therethrough in different directions respectively disposed substantially normal to the two different orientations for accommodating a binder tie of an associated bundle therethrough, said passages enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, whereby a binder tie disposed in either of said two passages and secured around an associated bundle is enclosed and trapped in that passage and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

2. The bracket set forth in claim 1, wherein the upper surface of said platform is generally rectangular in shape.

3. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations, said platform having two first openings therein for receiving a binder tie of an associated bundle therethrough, one of said first openings being surrounded to define a first passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, the other of said first openings cooperating with said one first opening to orient the associated binder tie in a first direction corresponding to one of the two orientations and to retain the binder tie in the first direction, a guide member spaced from said platform and having the ends thereof connected to said platform, said guide member and said platform cooperating to define a second passage for accommodating a binder tie of an associated bundle therethrough, said second passage enclosing and trapping the associated binder tie therein and prevent-

ing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said platform having a second opening therein cooperating with said second passage to orient the associated binder tie in a second direction corresponding to the other of the two orientations and to retain the binder tie in the second direction, whereby a binder tie disposed in either of said first and second passages and oriented in the corresponding direction and secured around an associated bundle is enclosed and trapped in that passage and retained in that direction and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

4. The bracket set forth in claim 3, wherein said guide member is disposed beneath said platform adjacent to the periphery thereof.

5. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations, said platform having two first openings therein for receiving a binder tie of an associated bundle therethrough, one of said first openings being surrounded to define a first passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, the other of said first openings cooperating with said one first opening to orient the associated binder tie in a first direction corresponding to one of the two orientations and to retain the binder tie in the first direction, a pair of spaced-apart guide members respectively spaced from said platform and having the ends thereof connected to said platform, said guide members respectively cooperating with said platform to define a pair of surrounded second openings for receiving a binder tie of an associated bundle therethrough, said second openings cooperating to define a second passage enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said second openings cooperating with each other to orient the associated binder tie in a second direction corresponding to the other of the two orientations and to retain the binder tie in the second direction, whereby a binder tie disposed in either of said first and second passages and oriented in the corresponding direction and secured around an associated bundle is enclosed and trapped in that passage and retained in that direction and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

6. The bracket set forth in claim 5, wherein said platform and said upper surface thereof are generally rectangular in shape, said guide members being respectively spaced from opposite side edges of said platform.

7. The bracket set forth in claim 5, wherein said platform and said upper surface thereof are generally rectangular in shape, said guide members being respectively disposed beneath said platform adjacent to the opposite side edges thereof.

8. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations, said platform having a first opening therein for receiving a binder tie of an associated bundle therethrough, said first opening being surrounded to define a first passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said platform having a notch along the periphery thereof extending through the entire thickness thereof, said notch being spaced from said first opening and cooperating therewith to orient the

associated binder tie in a first direction corresponding to one of the two orientations and to retain the binder tie in the first direction, a pair of spaced-apart guide members respectively spaced from said platform and having the ends thereof connected to said platform, said guide members respectively cooperating with said platform to define a pair of surrounded second openings for receiving a binder tie of an associated bundle therethrough, said second openings cooperating to define a second passage enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said second openings cooperating with each other to orient the associated binder tie in a second direction corresponding to the other of the two orientations and to retain the binder tie in the second direction, whereby a binder tie disposed in either of said first and second passages and oriented in the corresponding direction and secured around an associated bundle is enclosed and trapped in that passage and retained in that direction and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

9. The bracket set forth in claim 8, wherein the upper surface of said platform is generally rectangular in shape, said first opening being disposed adjacent to a first edge of said upper surface, said notch being disposed adjacent to a second edge of said upper surface opposite to said first edge, and said second openings being respectively disposed adjacent to the other two edges of said upper surface.

10. The bracket set forth in claim 8, wherein said first and second passages communicate with the underside of said platform, whereby the associated binder tie passes beneath said platform when the binder tie is received in the operative position thereof in either of said first and second passages.

11. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising an attachment member for mounting on a support, a platform connected to said attachment member and disposed at an angle thereto and having an upper surface for supporting an associated bundle thereon in either of two different orientations, said platform having a first opening therein at the juncture of said platform and said attachment member for receiving a binder tie of an associated bundle therethrough, said first opening being surrounded to define a first passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said platform having a notch along the periphery thereof cooperating with said first opening to orient the associated binder tie in a first direction corresponding to one of the two orientations and to retain the binder tie in the first direction, a pair of spaced-apart guide members respectively spaced from said platform and having the ends thereof connected to said platform, said guide members respectively cooperating with said platform to define a pair of surrounded second openings for receiving a binder tie of an associated bundle therethrough, said second openings cooperating to define a second passage enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, said second openings cooperating with each other to orient the associated binder tie in a second direction corresponding to the other of the two orientations and to retain the binder tie in the second direction, whereby a binder tie disposed in either of said first and second passages and oriented in the corresponding direction and secured around an associated bundle is enclosed and trapped in that passage and retained in that direction and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

12. The bracket set forth in claim 11, wherein said first and second passages communicate with the underside of said plat-

form, whereby the associated binder tie passes beneath said platform when the binder tie is received in the operative position thereof in either of said first and second passages.

13. The bracket set forth in claim 11, wherein the edges of said platform adjacent to said guide members and said first opening are each slanted downwardly and inwardly toward the underside of said platform to facilitate the reception of the associated binder tie into said first and second passages.

14. The bracket set forth in claim 11, wherein said platform is disposed substantially normal to said attachment member.

15. The bracket set forth in claim 14, wherein said platform is disposed substantially normal to said attachment member and integral therewith, whereby said bracket has an integral single-piece construction.

16. A bracket for mounting a bundle of wires or the like held together by a binder tie secured therearound, said bracket comprising a platform for mounting on a support and having an upper surface for supporting an associated bundle thereon in either of two different orientations, said platform having a first opening therein for receiving a binder tie of an associated bundle therethrough, said first opening being surrounded to define a first passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle,

said platform having a notch along the periphery thereof extending through the entire thickness thereof, said notch being spaced from said first opening and cooperating therewith to orient the associated binder tie in a first direction corresponding to one of the two orientations and to retain the binder tie in the first direction, said platform having two second openings therein for receiving a binder tie of an associated bundle therethrough, one of said second openings being surrounded to define a second passage through said platform for enclosing and trapping the associated binder tie therein and preventing separation of the binder tie from said platform when the binder tie is secured about the associated bundle, the other of said second openings cooperating with said one second opening to orient the associated binder tie in a second direction corresponding to the other of the two orientations and to retain the binder tie in the second direction, whereby a binder tie disposed in either of said first and second passages and oriented in the corresponding direction and secured around an associated bundle is enclosed and trapped in that passage and retained in that direction and serves to hold the associated bundle in the corresponding orientation on the upper surface of said platform for positively securing the associated bundle to said bracket.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,632,070 Dated January 4, 1972

Inventor(s) Arlie J. Thayer

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 15, column 9, line 11, change "14" to --11--

Signed and sealed this 13th day of June 1972.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents