

Oct. 8, 1946.

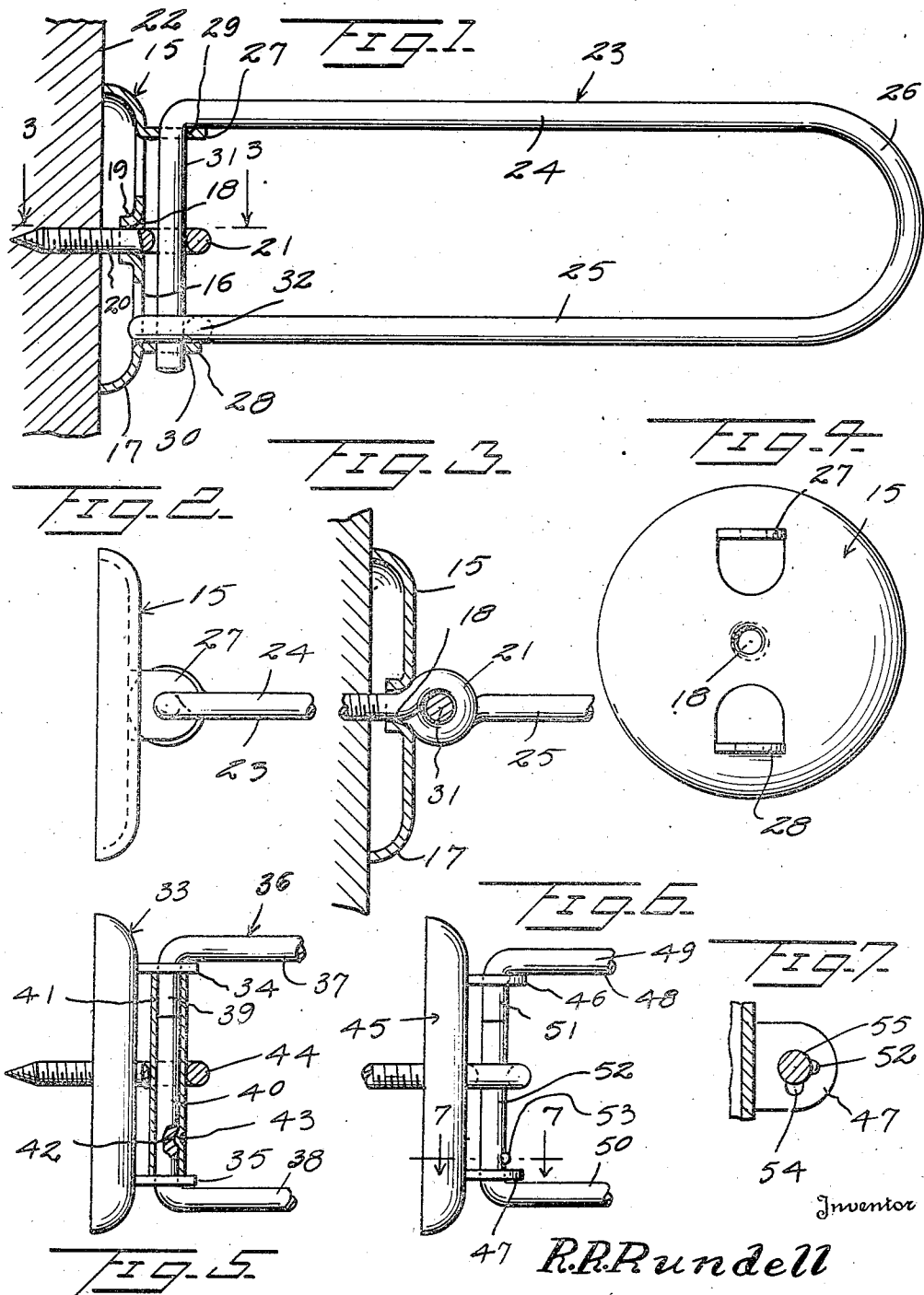
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2,409,152

SWINGING BRACKET

Filed June 13, 1944

4 Sheets-Sheet 1



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Fig. 8.

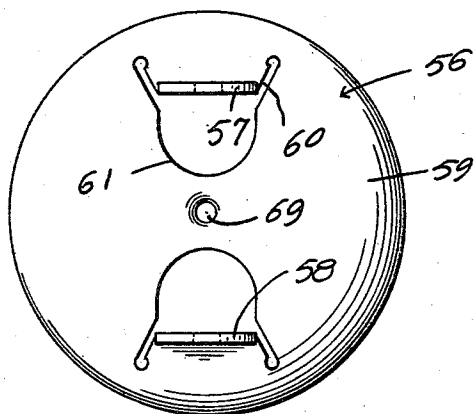


Fig. 9.

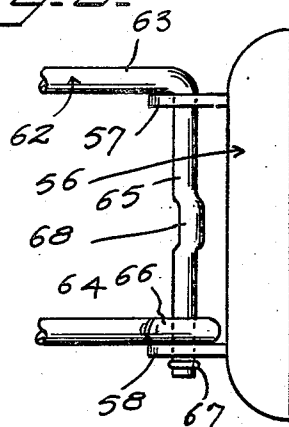


Fig. 10.

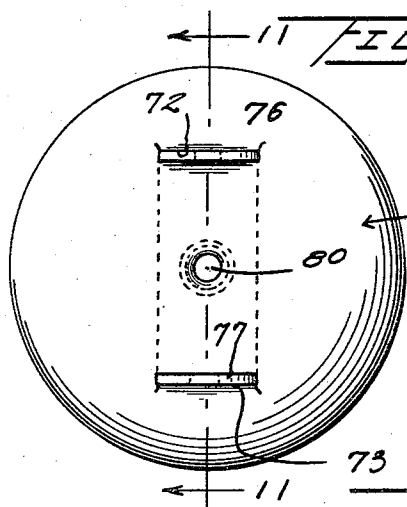


Fig. 11.

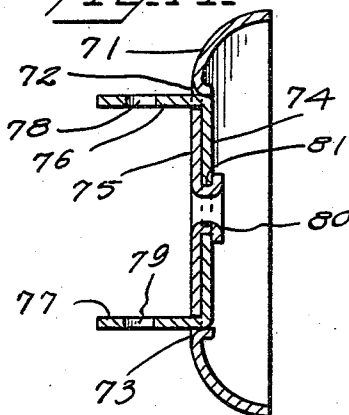


Fig. 12.

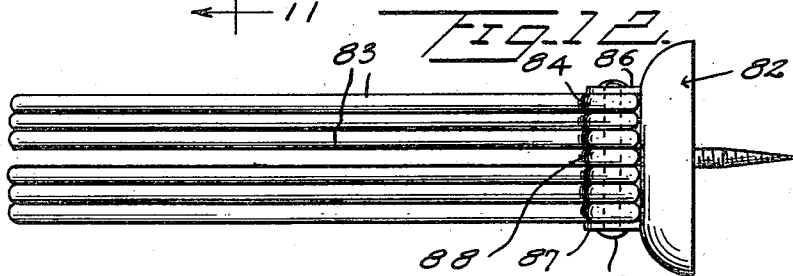
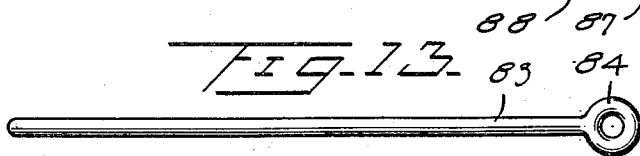


Fig. 13.



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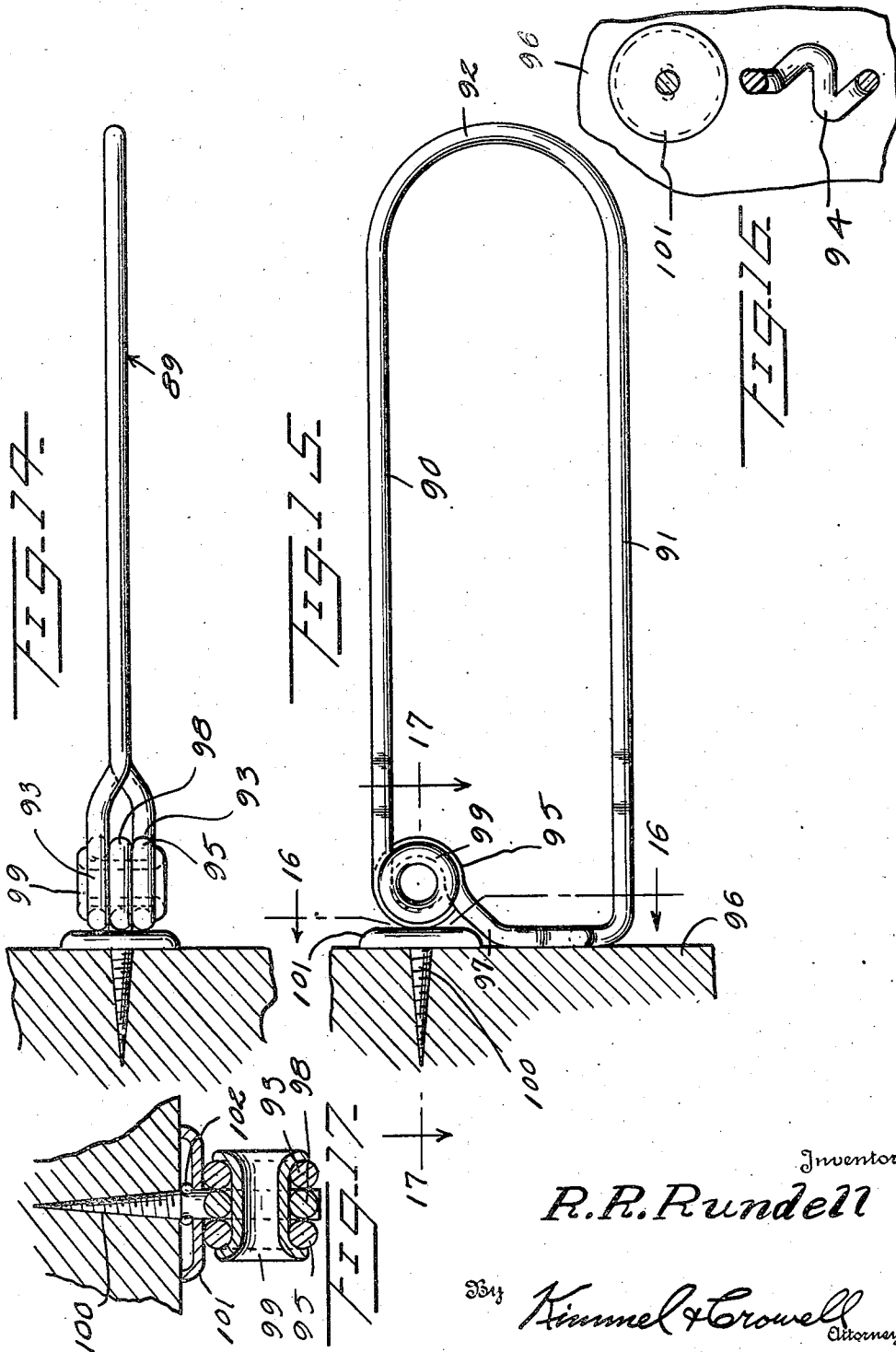
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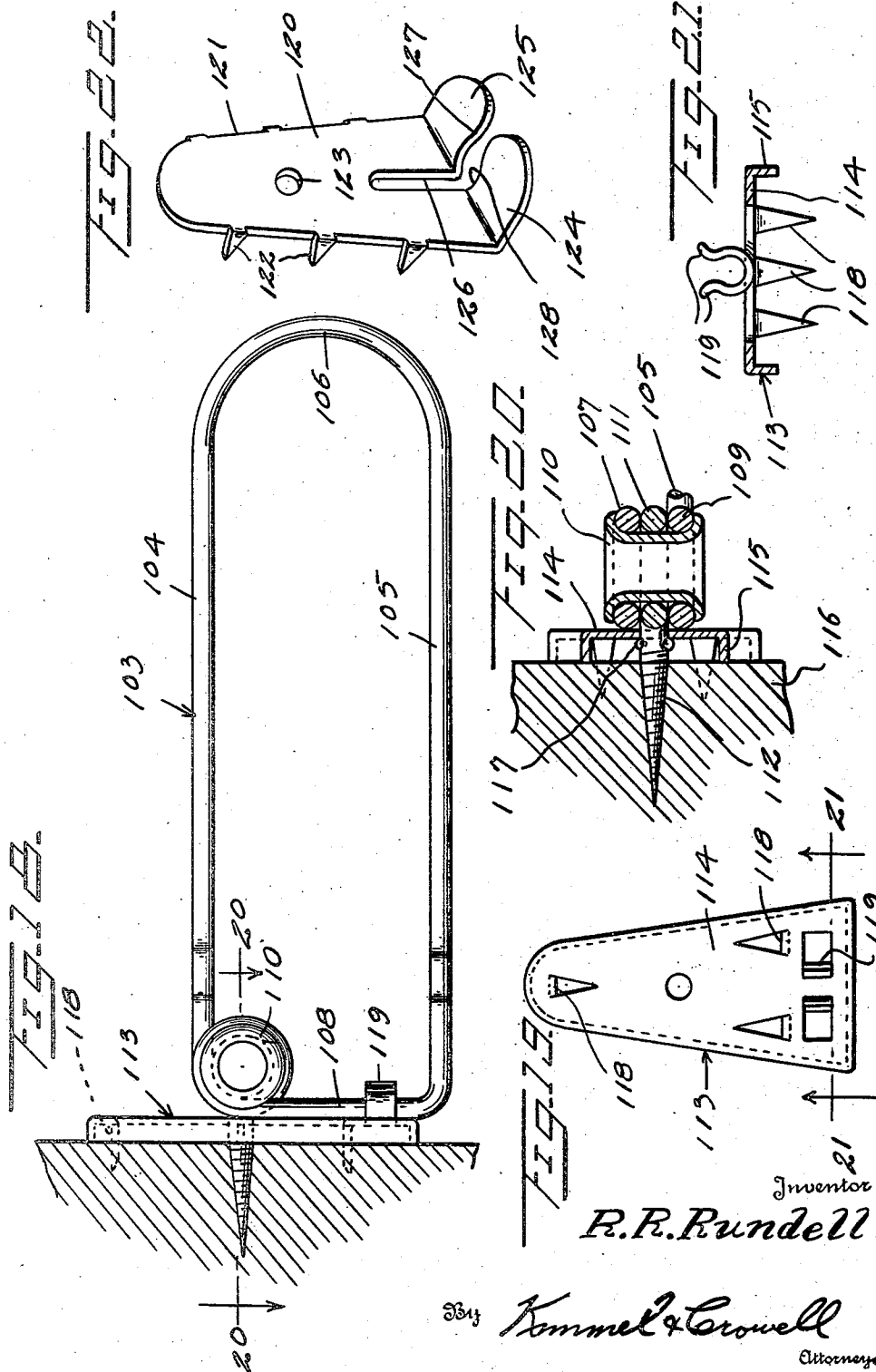
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UNITED STATES PATENT OFFICE

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SWINGING BRACKET

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Application June 13, 1944, Serial No. 540,079

4 Claims. (Cl. 248—289)

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This invention relates to a swinging bracket construction.

An object of this invention is to provide a utility bracket which can be readily mounted on a wall or other support and which includes a base and a swinging article supporting member carried by the base.

Another object of this invention is to provide a bracket of this kind which has a base formed out of stamped material and the swinging arm formed out of relatively heavy wire which is bent in a closed elongated loop and secured at one end of the loop to the base, the fastening means for holding the bracket on a wall or support being provided with an eye through which the inner end of the swinging arm is adapted to loosely engage.

A further object of this invention is to provide a bracket of this type which is so constructed that the base may be used for a plurality of supporting arms or rods so as to provide a clothes or towel rack for supporting the articles in spaced relation to each other.

With the foregoing objects and others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawings wherein are illustrated embodiments of the invention, but it is to be understood that changes, modifications and variations may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a detail side elevation partly in vertical section of a bracket constructed according to an embodiment of this invention,

Figure 2 is a fragmentary plan view of the bracket,

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a detail front elevation of the base,

Figure 5 is a fragmentary side elevation partly in vertical section of a modified form of this invention,

Figure 6 is a fragmentary side elevation of another modification of this invention,

Figure 7 is a fragmentary sectional view taken on the line 7—7 of Figure 6,

Figure 8 is a detail front elevation of another form of base,

Figure 9 is a fragmentary side elevation of a further modification of this invention,

Figure 10 is a front elevation of another form of base,

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Figure 11 is a sectional view taken on the line 11—11 of Figure 10,

Figure 12 is a detail side elevation of a further modification of this invention,

Figure 13 is a detail plan view of one of the supporting rods or arms embodied in the structure shown in Figure 12,

Figure 14 is a plan view of another form of this invention,

Figure 15 is a detail side elevation of the device shown in Figure 14,

Figure 16 is a sectional view taken on the line 16—16 of Figure 15,

Figure 17 is a fragmentary sectional view taken on the line 17—17 of Figure 15,

Figure 18 is a detail side elevation of another form of this invention,

Figure 19 is a detail front elevation of the base plate used with the device shown in Figure 18,

Figure 20 is a fragmentary sectional view taken on the line 20—20 of Figure 18,

Figure 21 is a sectional view taken on the line 21—21 of Figure 19, and

Figure 22 is a perspective view of another form of base plate used with the device shown in Figure 18.

Referring to the drawings, and first to Figures 1 to 4 inclusive, the numeral 15 designates generally a base member which is formed of a flat outer wall 16 and a cup-shaped marginal flange 17. The outer wall 16 in the axial center thereof is provided with an opening 18, and the material of the wall 16 is pressed inwardly, as indicated at 19, to form a guide or boss through which the shank 20 of an eye screw 21 is adapted to engage. The screw 21 is adapted to be threaded into a vertical support 22 so as to tightly hold the base 15 on the vertical side of the support 22.

A swinging bracket arm 23 is pivotally carried by the base 15 and includes upper and lower parallel members 24 and 25 which are connected together at their outer ends by an arcuate connecting member 26. The base 15 at points diametrically opposed to each other is provided with a pair of outstanding lugs 27 and 28. The lugs 27 and 28 are struck outwardly from the wall 16 and these lugs are formed with aligned openings 29 and 30 through which a vertical shaft 31 formed integral with the upper arm 24 is adapted to loosely engage. The shaft 31 projects below the lower lug 28 as shown in Figure 1, and the inner end of the lower arm 25 is provided with an integral eye 32 through which the shaft 31 passes. The eye 32 rests on the upper side of the

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lug 28, the latter forming a support for the inner end of the lower arm 25.

Referring now to Figure 5, there is disclosed a base 33 which is similar in every detail to the base 15 and is formed with a pair of outwardly extending parallel lugs 34 and 35 and a looped bracket member 36 is adapted to swingingly engage the lugs 34 and 35. The bracket member 36 is formed with upper and lower parallel arms 37 and 38, respectively, and the arm 37 is formed with a downwardly extending shaft 39 rotatably engaging through the lug 34. The lower arm 38 is provided with an upwardly extending shaft 40 rotatably engaging through the lower lug 35 and axially aligning with the shaft 39.

A sleeve 41 encompasses the two shafts 39 and 40 and is positioned between the confronting faces of the lugs 34 and 35. The sleeve 41 is secured to the lower shaft member 40 by providing a recess 42 in the shaft 40 and forming a detent 43 in the sleeve 41 which engages in the recess 42. In this manner the sleeve 41 will rotate with bracket member 36. An eye screw 44 has the eye thereof engaging about the sleeve 41 and is extended through the base member 33, similar to the construction shown in Figure 1.

Referring now to Figures 6 and 7, there is disclosed a further form of this invention embodying a base member 45 similar to the base member 15 with the exceptions to be hereinafter noted. The base member 45 is provided with a pair of outwardly projecting parallel lugs 46 and 47 which are struck outwardly from the body of the base. A swinging bracket member 48 which is formed of upper and lower parallel arms 49 and 50 connected together at their outer ends, as shown in Figure 1, is adapted to swingingly engage the lugs 46 and 47. The upper arm 49 is provided with a right angular downwardly extending shaft 51 engaging through the lug 46 and the lower arm 50 is provided with an upwardly extending right angular arm 52 engaging through the lug 47.

The shaft members 51 and 52 are in alignment and in order to provide a means whereby the bracket member 50 may be detached from the base 45, I have provided a lug 53 which is pressed from the shaft 52 by pinching the shaft at its point. The lug 53 is disposed on the upper side of the lug 47 and the latter lug is formed with an opening or recess 54 communicating with the shaft opening 55 so that the lug 53 may be extended through the lug 47 from below by aligning lug 53 with recess 54. The bracket member 48 is of resilient wire of fairly heavy construction and the open ends of the wire forming the bracket may be spread apart for positioning the shaft members 51 and 52 in the lugs 46 and 47.

Referring now to Figure 8, there is disclosed a modified form of base 56 which is of dish or cup-shaped construction and which has compressed outwardly therefrom a pair of outwardly extending parallel lugs or bearings 57 and 58. The body 59 of the base 56 is formed with a pair of inwardly convergent slots 60 communicating with the opening 61 formed by striking the lugs 57 and 58 from the base so as to provide a resiliency for the lugs 57 and 58.

In Figure 9 there is disclosed a bracket construction which embodies the base 56 and wherein a looped swinging supporting member 62 is pivotally engaged with the lugs 57 and 58. The supporting member 62 includes upper and lower parallel arms 63 and 64, respectively, and the arm 63 at its inner end is bent downwardly so

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as to form a shaft 65 loosely engaging through the lugs 57 and 58. The lower arm 64 is formed with an eye 66 through which the shaft 65 engages and the eye 66 bears against the upper side of the lower lug 58.

A split locking ring or other fastening member 67 is mounted on the lower projecting end of the shaft 65 so as to lock shaft 65 to the eye 66 and also to prevent removal of shaft 65 from lug 58. The shaft 65 is offset laterally as indicated at 68 so that a screw or other fastening member may be extended through the central opening 69 which is formed in the center of the base 56.

Referring now to Figures 10 and 11, there is disclosed a further form of base 70. The base 70 is formed of two parts and includes a cup-shaped body 71 which is provided with a pair of parallel slots 72 and 73. An elongated flat bar is adapted to be secured in the slots 72 and 73 and comprises an inner part 74 engaging on the inner side of the wall 75 of the base 70 and is provided with a pair of right angularly disposed arms 76 and 77 projecting outwardly through the slots 72 and 73.

The arms 76 and 77 are provided with aligned openings 78 and 79, respectively, for receiving the shaft of a bracket arm similar to the arm 23 or arms 36 and 48. The inner part 74 which constitutes the bight of a U-shaped member including the arms 76 and 77 and the part 74 is firmly secured to the wall 75 by forming a grommet or hollow rivet from the central portion of the wall 75. The bight 74 is provided with an opening 81 through which the grommet 80 engages and the inner end of the grommet is crimped or upset so as to firmly hold the U-shaped member on the base 70.

Referring now to Figures 12 and 13, there is disclosed a utility bracket embodying a base 82 similar in detail to the base 70. The base 82 has extending therefrom a plurality of swinging rods 83 which are disposed in superposed relation and provided with an eye 84 at the inner ends thereof. A vertical shaft 85 is extended through the upper and lower arms 86 and 87 carried by the base 82 and through the eyes 84. An eye screw 88 is extended through the center of the base 82 and the eye thereof engages about the shaft 85. The eye of the screw 88 also divides the supporting arms 83 into an upper and lower series of supporting bars or arms.

In mounting the bracket construction hereinbefore described, it is only necessary to drill a small hole in the wall 22 for receiving the shank 20 of the eye screw. The entire bracket may then be rotated to drill the eye screw into the small opening in the wall 22. If it is desired that the bracket member 23 be friction tight, the entire structure may be turned so that the eye 21 will pull inwardly on the shaft 31. The bracket is mounted with the arms 24 and 25 in superposed relation so that these arms may be used separately for supporting articles or an article may be draped over the upper arm 24.

Referring now to Figures 14 and 17, inclusive, the numeral 89 designates generally a pivoted supporting member which is formed of upper and lower parallel sides 90 and 91, respectively, which are connected together at their outer ends by an arcuate connecting member 92. The end of the upper side or member 90 is provided with an eye 93 which is laterally offset from the longitudinal axis of the member 90, as shown in Figure 14.

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The lower member 91 is provided adjacent the inner end thereof with a laterally offset portion 93 and the inner end of this offset portion 93 is bent upwardly and is provided with a Z-shaped bend 94 terminating at its upper end in an eye 95. The bend 94 is provided so as to form a relatively large base whereby the bend 94 may contact the outer side of a wall or support 96 without biting into the surface of the support.

The eye 95 is offset outwardly from the bend 94 by means of an extension 97 so that the eye 95 will axially align with eye 93. An eye screw 98 is interposed between the two eyes 93 and 95 and a grommet or pivot member 99 is extended through the eyes 93 and 95 and through the eye of the eye screw 98.

The eye screw 98 has mounted on the shank 100 thereof a cup-shaped washer or plate 101. The washer 101 is held against inward movement on the shank 100 by means of a pair of detents or lugs 102 which are pressed from the shank 100 and prevent removal of the washer 101 prior to insertion of the shank 100 into the support 96.

Referring now to Figures 18 to 21, there is disclosed another form of this invention embodying a pivoted supporting member 103 formed of parallel upper and lower bars 104 and 105 connected together at their outer ends by an arcuate connecting member 106. The bar 104 is provided at its inner end with an eye 107 and the bar 105 is provided at its inner end with a right angular extension 108 which terminates at its upper end in an eye 109. A grommet 110 secures the eyes 107 and 109 together and also engages through the eyes of an eye screw 111, the latter being interposed between the eyes 107 and 109.

The eye screw 111 has the shank 112 thereof engaging through a base plate, generally designated at 113. The plate 113 comprises an outer substantially triangular wall 114 which is formed within wardly extending flanges 115 so as to offset the outer wall 114 from the outer surface of a supporting member 116. The base member 113 is held in assembled relation with respect to the supporting member 103 by providing a pair of lugs or detents 117 which are struck from the shank 112 on the inner side of the wall 114, as shown in Figure 20.

In order to provide a means whereby the base 113 will be held against turning movement with respect to the support 116, I have provided a plurality of inwardly projecting triangular tangs 118 which are struck from the outer wall 114. The supporting member 103 is adapted to be clamped in its operative position by means of a pair of resilient clips 119 which are struck from the body of the wall 114 adjacent one end thereof. The clips or clamping members 119 are adapted to engage the right angular extension 108, as shown more clearly in Figure 18.

Referring now to Figure 22, there is disclosed a modified form of base for the support 103. This base includes a flat plate 120 which is provided on the outer divergent edges 121 thereof with a plurality of tangs 122. The tangs 122 are

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of triangular configuration with the apex thereof innermost so that they will readily project into the support with which the base is engaged. The base plate 120 is formed with a central opening 123 through which the shank of the eye screw is adapted to engage and the plate 120 is also formed with a pair of outwardly extending right angularly disposed clamping members 124 and 125.

The clamping members 124 and 125 are bent from the lower edge of the plate 120, the latter being formed with an elongated slot 126 so as to space the confronting edges of the clamping members 124 and 125 apart. These clamping members 124 and 125 have inwardly bulging outer portions 127 which are spaced apart a distance less than the diameter of the extension 108 so that in order to position the extension 108 in the inner clamping portion 128, it is necessary to forcibly spread the clamping members 124 and 125 apart. The splitting of the lower end of the plate 120 will provide for the necessary resiliency so that the clamping member 124 and 125 can readily be forced apart to admit the extension 108 in the inner clamping portion 128.

What I claim is:

1. A swinging bracket comprising a base formed with an opening, a pair of ears extending from said base, an article supporting bracket including a pair of parallel arms, an integral connecting member connecting the outer ends of said arms together, a stub shaft integral with the inner end of one of said arms and pivotally engaging through one of said ears, a second stub shaft integral with the inner end of the other of said arms and pivotally engaging through the other of said ears and aligning with said first stub shaft, a sleeve telescoping said shafts between said ears, means fixedly securing said sleeve to at least one stub shaft, and an eye screw having the shank thereof extended through said opening and the eye thereof engaging about said sleeve.

2. A swinging bracket comprising a base formed with an opening, a pair of ears extending from said base, an article supporting bracket carried by said ears, said bracket including a pair of elongated parallel arms, an integral connecting member connecting the outer ends of said arms together, means at the inner end of said arms engaging said ears for pivotally securing said arms on said ears, and an eye screw having the shank thereof extended through the opening in said base, the eye of said eye screw engaging at least a portion of said means whereby tightening of said shank in a support will cause said eye to bind said means to thereby frictionally hold said arms against swinging movement.

3. A swinging bracket as set forth in claim 1 wherein one of said stub shafts has a recess therein and said sleeve is formed with a detent engaging in said recess to hold said sleeve against rotation relative to said stub shafts.

4. A swinging bracket as set forth in claim 1 wherein one of said stub shafts is shorter than the other stub shaft.

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