June 9, 1964 D. W. SPRIGGLE 3,136,519

LOAD HANGING BRACKET

Filed May 14, 1962

Fig. 1

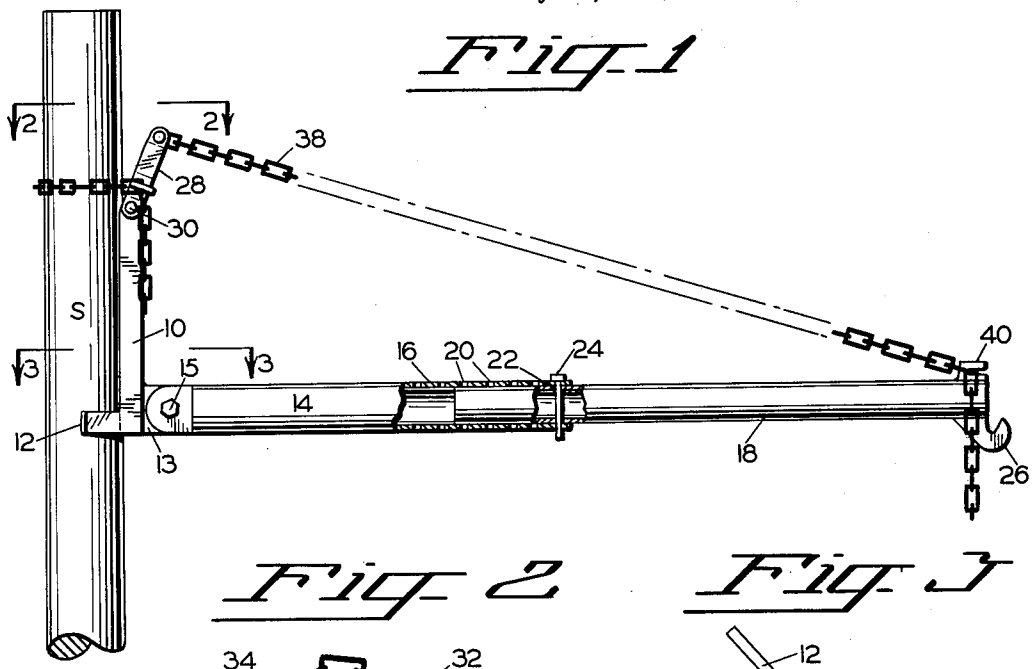


Fig. 2

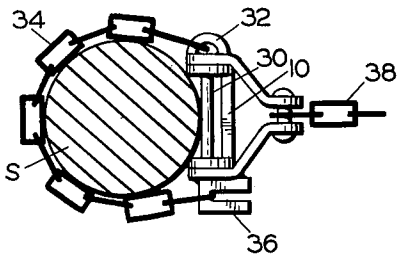
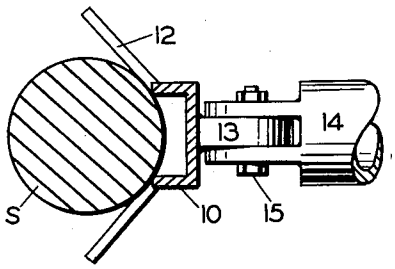


Fig. 3



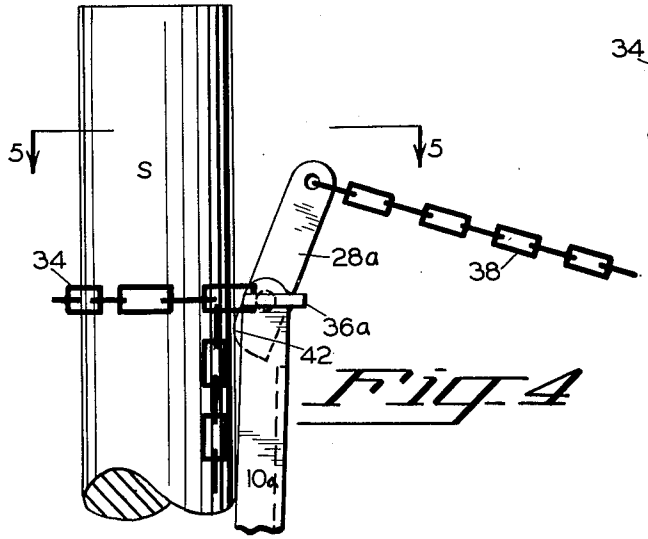


Fig. 4

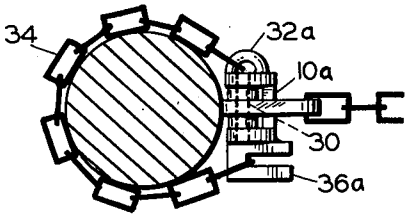


Fig. 5

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LOAD HANGING BRACKET

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This invention relates to new and useful load hanging brackets.

A primary object of the present invention is to provide a load hanging bracket adapted to support a load on an upstanding support and constructed so as to grip the support and hold itself in place without the use of fastening means or the like, and more specifically to support itself by the use of frictional grip means operative by a leverage resulting from the weight of the bracket and the load supported by the bracket.

A further object is to provide a load hanging bracket which is conveniently and rapidly mountable on an upright support.

Another object is to provide a load hanging bracket which is collapsible into a small unit for carrying or storage.

Still another object is to provide a bracket of the type described which is simple in construction and inexpensive to manufacture.

Briefly stated, the load hanging bracket of the present invention employs a body member which in the mounted position of the bracket is adapted to lie along an upright support. Secured to the body member at its bottom end and projecting in one direction are means anchoring the bracket against lateral displacement relative to the support, and projecting in the opposite direction is an elongated arm adapted to be engaged by the load at its outer end. Secured to the upper end of the body member are support connecting or tie means adapted to extend around the support and hold it up against the latter and means connecting the upper end of the body member and the forward end of the arm whereby the outer end weight of the bracket and the load tend to rotate the body away from the support and thus apply a frictional, pulling, gripping connection between the support connecting means and the support to maintain the base in a non-sliding position on the support. The parts are arranged such that the bracket is collapsible into a small unit.

The invention will be better understood and additional objects thereof will become more apparent from the accompanying specification and claim considered together with the accompanying drawings, wherein like numerals of reference indicate like parts and wherein:

FIG. 1 is a side elevational view of one form of the present load supporting bracket, a portion thereof being broken away;

FIG. 2 is an enlarged plan view of the bracket, taken on the line 2—2 of FIG. 1;

FIG. 3 is an enlarged sectional view, taken on the line 3—3 of FIG. 1;

FIG. 4 is a fragmentary elevational view of a modified form of load hanging bracket; and

FIG. 5 is a sectional view taken on the line 5—5 of FIG. 4.

Referring in particular to the drawings and first to FIGS. 1–3 which show a first form of the invention, there is employed an upright body or base member **10** which as apparent in FIGS. 2 and 3 may be channel-shaped in cross section. Secured to the lower end of base **10** are rearwardly extending, divergent arms **12**, such arms being adapted to project on opposite sides of a support S such as a post on which the bracket is to be mounted and prevent lateral displacement of the lower end of the body member **10**. Also secured to the body member **10** at its lower end but projecting in the opposite direction from arms **12** is an ear **13** pivotally supporting an elongated forwardly extending arm **14** by means of a pin **15**. Arm **14** is comprised of a first tubular portion **16** and a second portion **18** telescopically received in the portion **16**. Arm portion **16** has a plurality of longitudinally spaced apertures **20** and arm portion **18** has a pair of diametrically disposed apertures **22** adapted for registry with selected apertures **20** and the reception of a pin **24** to connect said arm portions in desired telescoped positions for length adjustment of the arm **14**.

The outer end of arm **14** is provided with a load hanging hook **26**.

Pivotally mounted on the upper end of body **10** is a bifurcated link **28**, the pivotal connection between the link and the body member being accomplished by a pin **30**. Secured to one side of the link **28** is an eye **32** in which is fastened the end link of a chain **34**. The opposite side of the link **28** has a hook **36** for detachable engagement of a link of the chain **34**, whereby the upper end of the body member is adapted to be held in upright position on the support by wrapping the chain around the support and attaching a suitable link thereof to hook **36**. The chain **34** may assume a length sufficient to accommodate various sized supports. It is to be understood that means other than a chain may be employed to hold the upper end of body **10** into the support, it being only necessary that such holding means have sufficient tensile strength to hold a heavy load and to accomplish a frictional grip on the support when tightly pulled thereagainst.

Secured to the upper end of link **28** is one end of a chain **38** adapted for detachable connection, by means of one of its links at its other end, to a hook **40** secured integrally to the arm **14** adjacent the outer end of the latter. Chain **38** is of a length to support the arm **14** in a horizontal position or in upwardly or downwardly inclined position as desired, such positions of the arm depending upon the link selected to engage the hook **40**.

Thus, in the mounted position of the present bracket on a support S, the chain **34** is wrapped around the support to hold the upper end of the body thereagainst, the lower end of the body being anchored against lateral shifting by divergent arms **12**. The weight of the outer end of the bracket will pull down with sufficient force on chain **38** to tighten chain **34** against the support and cause it to frictionally grip the support and prevent the bracket from sliding down, the lower end of the body being compressed inwardly against the support. The frictional gripping action of the chain **34** is greatly magnified when a load is hung from the end of the arm **14** to insure the anchoring of the bracket on the support. Thus, no positive connecting means such as nails, screws, bolts, etc. between the bracket and support are necessary.

The frictional gripping force of the chain is also magnified by the lever action of link **28** since as apparent in FIG. 1, the eye **32** and hook **36** holding the chain **34** are disposed below the center of said link.

In the modified form of the invention shown in FIGS. 4 and 5, link **28*a*** comprises a single lever bar and is pivotally mounted intermediate the legs of the channel shaped body member **10**, by the pivot pin **30**. In this embodiment, the chain **34** is connected at one of its ends to an eye **32*a*** on the base and detachably connected at its other end to a hook **36*a*** also on the body. The link **28*a*** is adapted to engage the support when pivoted forwardly, as shown in FIG. 4. The point of engagement of the lever with the support comprises its lower inner side edge **42**. Such engaging edge portion of the link **28*a*** is rounded.

By means of this structure, in addition to the pull on chain **34** to establish a frictional grip on the support to hold the bracket on the latter, the edge portion **42** also

engages the support and frictionally engages it to add to the gripping forces of the chain. The gripping forces of the link are also magnified by its lever action resulting from the short length of link portion on the lower end of its pivot as opposed to the longer end above the pivot.

Thus, according to the present invention there is provided a load hanging bracket which is adapted for engagement with various sized supports and when supporting a load will anchor itself against downward movement on the support without the use of positive connecting or fastening means. This facilitates convenient and rapid mounting of the bracket on a support and similar detachment therefrom. The bracket is particularly useful by hunters or the like wherein objects are to be temporarily supported above the ground.

The pivot connection 13 between the body member 10 and the arm 14 permits these two elements to be folded together in a compact unit for carrying and storage.

It is to be understood that the forms of my invention herein shown and described are to be taken as preferred examples of the same and that various other changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claim.

Having thus described my invention, I claim:

A load hanging bracket for mounting on an upright support comprising an elongated body member adapted to be disposed in upright position adjacent the support, a load supporting arm pivotally connected to the lower end of said body member and arranged to project outwardly angularly from said body member, said load supporting arm having an outer load supporting end for engaging a load to be supported thereon, a lever member extending upwardly from said body member and having upper and lower ends, pivot means pivotally connecting the lower end of said lever member to said body member, flexible tie means connected to said lever member intermediate the upper and lower ends of the latter and being adapted to be tied around the support for holding the upper end of the body member adjacent the support, and connecting means connected between the upper end of said lever member and the load supporting end of said load supporting arm whereby outward pulling forces on said connecting means from the weight of a load operates said lever to apply a magnified frictional grip of said tie means on the support.

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