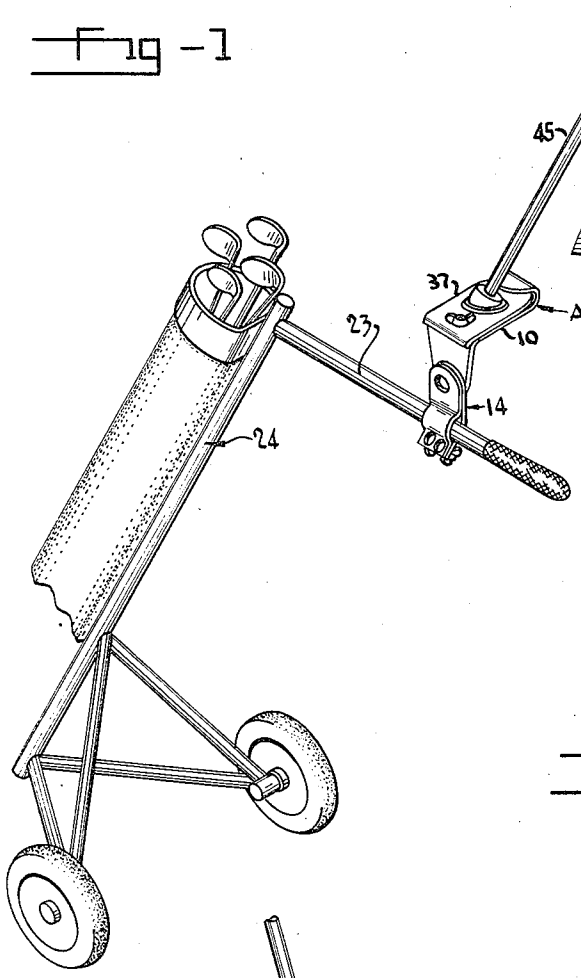
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ADJUSTABLE BRACKET FOR SUPPORTING UMBRELLA OR THE LIKE

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Fig -1



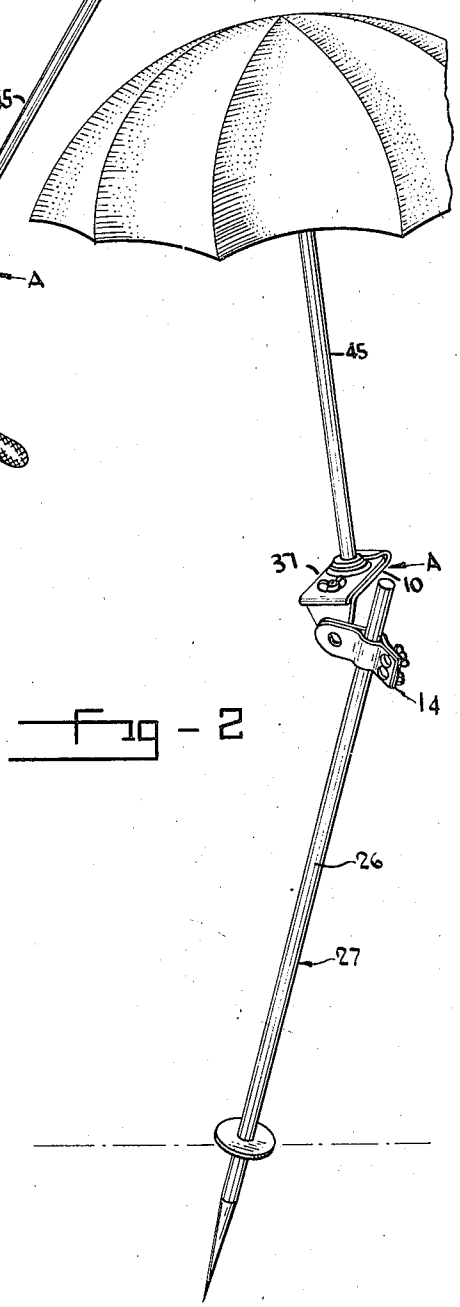


Fig - 2

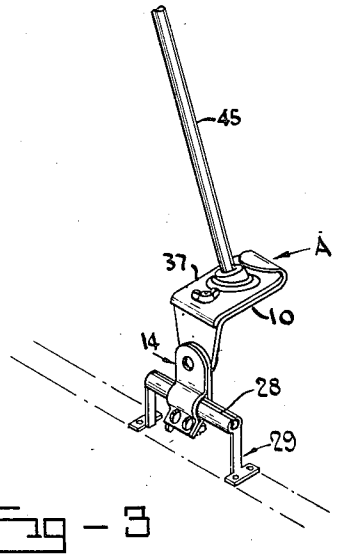


Fig - 3

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Fig - 4

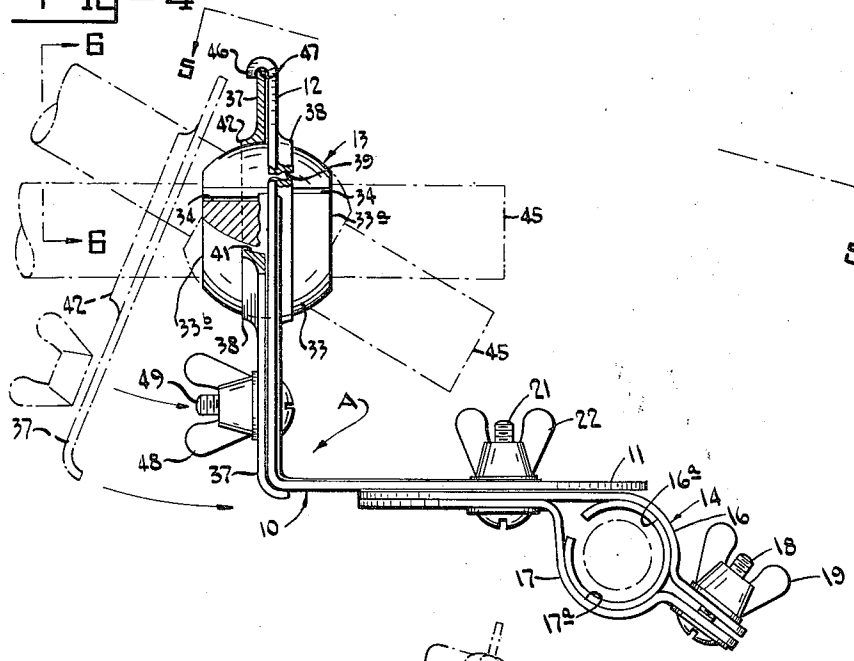


Fig - 5

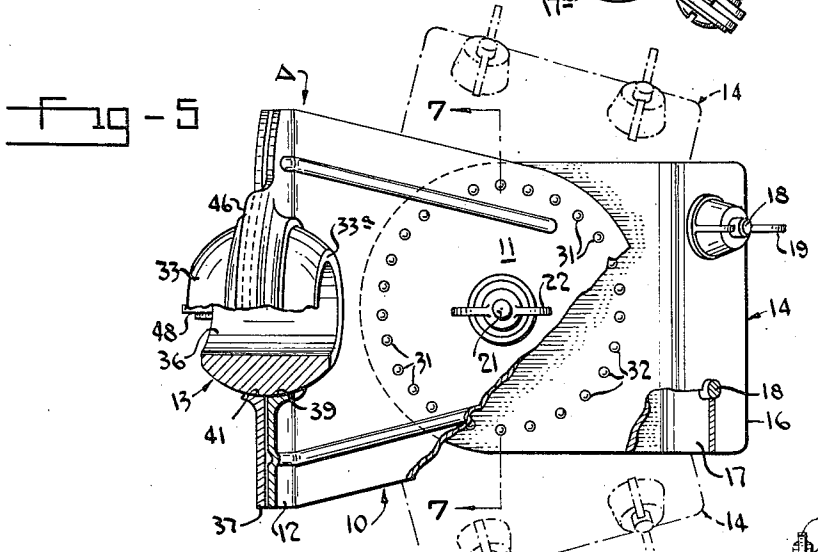


Fig - 6

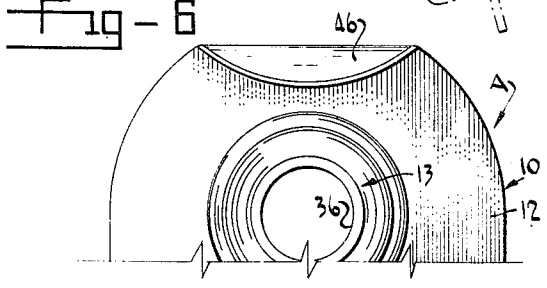
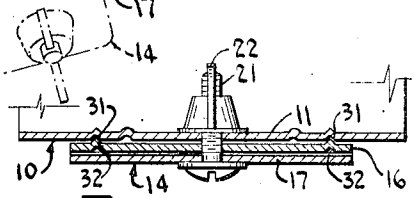


Fig - 7



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ADJUSTABLE BRACKET FOR SUPPORTING UMBRELLA OR THE LIKE

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Application September 20, 1954, Serial No. 456,988

1 Claim. (Cl. 248—41)

This invention relates to a new and improved adjustable bracket for supporting articles such as umbrellas, parasols, and the like.

The principal object of the present invention is to provide a novel, adjustable bracket assembly for supporting articles such as umbrellas and parasols to various types of primary supports, such as, for example, golf bag carts, earth driven stakes or posts, and/or numerous other types and kinds of structures adjacent which a user requires or desires overhead protection from the sun or from inclement weather.

Another principal object of the invention is to provide a supporting bracket having the wide adaptability above mentioned, and which is further constructed so as to provide maximum adjustability and flexibility whereby the umbrella or parasol supported thereby can be easily and rapidly moved and clamped in any desired adjusted position of use.

Numerous other objects and advantages of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

Fig. 1 is a perspective view of a bracket embodying the invention shown attached to the handle of a golf bag cart.

Fig. 2 is a perspective view of the present bracket supported to an earth driven stake or post.

Fig. 3 is a perspective view of the present bracket unit viewed from above showing said unit attached to a secondary bracket fixture.

Fig. 4 is a side elevational view of the bracket showing portions thereof broken away in section and showing portions thereof in exploded relationship is broken lines.

Fig. 5 is a perspective view viewed from above of the bracket showing in broken lines the adjustability of certain elements and showing other portions broken away in section.

Fig. 6 is a fragmentary front elevational view of the split ball type clamp assembly of the bracket.

Fig. 7 is a fragmentary sectional view taken on line 7—7 of Fig. 5.

Referring now more particularly to Figs. 4, 5 and 6, the bracket unit therein disclosed and indicated generally at A comprises an L-shaped body portion or section **10** which may be formed of sheet metal, such as heavy gauge stamped sheet aluminum, defining substantially perpendicularly disposed legs **11** and **12**. As will more fully hereinafter appear, leg **12** supports a split ball clamp assembly, indicated generally at **13**, whereas leg **11** provides a mounting for the ring clamp assembly, indicated generally at **14**.

The ring clamp assembly **14** comprises, more specifically, two sections of sheet metal or similar material **16** and **17** which in cross-section are shaped and proportioned to establish complementary arcuate clamping surfaces indicated at **16ª** and **17ª**, respectively. The outer

ends of sections **16** and **17** are formed with registering apertures through which a bolt or machine screw **18** may be projected and which latter element is adapted to threadedly receive a wing nut **19**. The inner ends of sections **16** and **17** and the outer end portion of leg **11** are formed with registering apertures through which a bolt or machine screw **21** can be projected for threadedly receiving wing nut **22**.

The bolt and wing nut assemblies **18—19** and **21—22** may be utilized and operated to releasably clamp the bracket structure to a primary support. More specifically, by loosening or removing either one or both of the wing nuts **19** and **22**, the arcuate clamping surfaces **16ª** and **17ª** of the ring clamp assembly **14** may be engaged and clamped to whatever primary supporting structure is handily available such as, for example, the handle **23** of a golf cart **24** (as shown in Fig. 1) or the shank **26** of an earth driven stake **24** (as shown in Fig. 2). In the event it is desired to support an umbrella or similar article in a location where no primary support exists to which the ring clamp assembly **14** can be conveniently mounted, a simple secondary bracket fixture, such as indicated at **28**, may be provided and which can be screwed or otherwise anchored to a given structure adjacent which it is desired to mount the bracket unit A. The fixture **28** may be formed as a handrail or grip having a cylindrical portion **29** to which the wing clamp **14** may be readily affixed. A fixture of the type indicated at **28** has been found to have particular utility in mounting the bracket unit A to wooden structures such as small boats, platforms, fences and the like, which may not otherwise provide a conveniently located fixture to which the ring clamp could be mounted.

It is appreciated that after the ring clamp **14** is initially clamped to a primary support of the character above mentioned, the entire bracket unit may be adjustably rotated about the axis of the arcuate clamping surfaces **16ª** and **17ª** to any desired angular position. This may be accomplished simply by unloosening either one of the wing nuts **19** or **22** to permit manual rotation of the bracket around said clamping axis, and then retightening the said wing nut after the bracket has been rotated to desired adjusted angular position.

Bolt and wing nut assembly **21—22** also establishes a second axis of rotation, disposed perpendicular to the ring clamp axis of rotation above mentioned and about which the bracket unit may also be angularly adjusted. More specifically, by loosening wing nut **22**, the L-shaped bracket body **10** can be angularly rotated about the axis of bolt **21**. To insure against accidental rotational movement between bracket **10** and ring clamp assembly **14** after these parts have been rotated into desired angularly adjusted position, the adjacent surfaces of ring clamp member **16** and leg **11** of the bracket member **10** may be formed with a plurality of complementary mutually engageable detents and bosses such as indicated at **31** and **32**, respectively. It will be appreciated that once the bracket has been rotated to any desired position with respect to the ring clamp assembly, the parts will remain securely locked in adjusted position by virtue of mutual engagement between said detents and bosses. Fig. 5 discloses in broken lines various positions of relative angular rotation between the ring clamp assembly and the bracket **10**.

The split ball clamp assembly heretofore indicated generally at **13** is shown as comprising, more specifically, an oblate sphere **33** which is flattened or truncated at its opposite poles **33ª** and **33ᵇ**. The sphere is formed with a split or gap **34** extending parallel to a meridian line thereof. The sphere is also formed with an enlarged aperture **36** extending through its polar axis for receiving and

clamping the shank or handle portion of an umbrella, parasol or other article to be supported by the bracket.

Split ball **33** is mounted to the bracket unit **10** by complementary retaining apertures or sockets formed respectively in leg **12** of unit **10** and in clamping plate **37**. More specifically, leg **12** is formed with an enlarged socket or aperture having its periphery defined by an outwardly extending flange or shoulder **38**, the inner surface of which is contoured to the general shape and configuration of the curvature of the sphere **33**. The largest diameter of the flanged socket **38** is made slightly smaller than the equatorial diameter of the sphere **33** whereby when the sphere is nested within the socket aperture, the inner surface of flange **38** engages the sphere around a latitudinal parallel of the sphere adjacent its equator and located to the pole **33a** side of said equator.

Clamping plate **37** is formed with a similar ball receiving socket complementary in shape and size to aperture **39** formed in bracket leg **12**. More specifically, clamping plate **37** is formed with a flanged socket **42**, the inner annular surface of which is proportioned to engage the sphere adjacent its equator but toward the pole **33b** side thereof.

As shown in Fig. 4, the apertured clamping plate **37** in conjunction with the apertured bracket leg **12** functions to maintain the split ball socket **33** in an adjustably clamped position with reference to bracket member **10**. In this regard, the outer end extremities of bracket leg **12** terminates in a re-entrantly turned lip or flange **46** defining a clamping plate receiving recess **47**. The split ball **33** may be adjustably mounted to the bracket through the clamping action of the apertured plate **37** against one side of the ball and with the other side of the ball received within the flanged aperture **39** of the leg **12**. The clamping action of the plate is effected through tightening of a wing nut **48** threadedly mounted on machine screw **49** which, in turn, is adapted to project through suitable registering apertures formed in leg **12** and plate **37**. In this connection, when the parts are in their condition of assembly as shown in full lines in Fig. 4, tightening of wing nut **48** will have a tendency to forcefully move the complementary flanged apertures **39** and **41** relatively closer together, which said action in turn tends to squeeze and restrict the diameter of the split ball **33** and cause tight clamping engagement of the ball socket around the umbrella or parasol handle **45** inserted within aperture **36**.

It is also appreciated that by loosening wing nut **48**, the split ball socket can be revolved within its supporting assembly whereby the axis of aperture **36** can be angularly adjusted in any direction with respect to the plane of bracket leg **12**. Moreover, by temporarily loosening wing nut **48** and thereby relieving the clamping pressure of the split ball against the umbrella or similar article received within aperture **36**, the said handle or other article can be moved slidably in the direction of its longitudinal axis within said aperture, and this affords a further means for adjustably moving the parasol or umbrella to any desired adjusted position.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that numerous changes and modifications may be practiced within the spirit of the invention as limited only by the scope of the claim appended hereto.

I claim:

In an adjustable bracket unit for supporting an umbrella or similar object, the combination including a bracket body centrally deformed to define first and second perpendicularly disposed legs, a ring clamp assembly provided adjacent the outer end of said first leg for removably mounting said bracket unit to a primary support, said assembly including first and second clamping sections centrally deformed with complementary arcuate clamping surfaces, screw means for adjustably tightening and untightening said clamping surfaces relatively toward and away from a primary support positioned between said surfaces to be clamped thereby, and defining a first axis of rotation about which said unit can be rotated to adjusted position relative to said primary support, said ring clamp assembly offset from and pivotally secured to said first leg providing a second axis of rotation substantially perpendicularly disposed to said first axis of rotation about which said unit can be rotated unimpeded by said ring clamp assembly, a split ball clamp comprising a sphere formed with an aperture extending in the direction of its polar axis to slidably receive an article to be clamped, said split ball formed with a single slot through the body of the sphere along a meridian line thereof, a first ball receiving socket formed through said second leg proportioned to receive and engage the body of said sphere adjacent its equator to a first side of said equator, a clamping plate formed with a second ball receiving socket proportioned to receive and engage the body of said sphere adjacent its equator and to the second side of said equator, said slotted sphere formed of a resilient material normally biasing said second leg and clamping plate apart, said second leg terminating in a re-entrantly turned lip defining a channel recess removably and hingedly receiving a first end of said clamping plate, a single actuating screw means adjacent the second end of said clamping plate for forcefully moving said plate toward or away from said second leg to selectively vary the clamping pressure of said ball receiving sockets against the body of said sphere causing clamping and unclamping of said split ball relative to said article to permit said article to be slidably and adjustably positioned within said split ball.

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