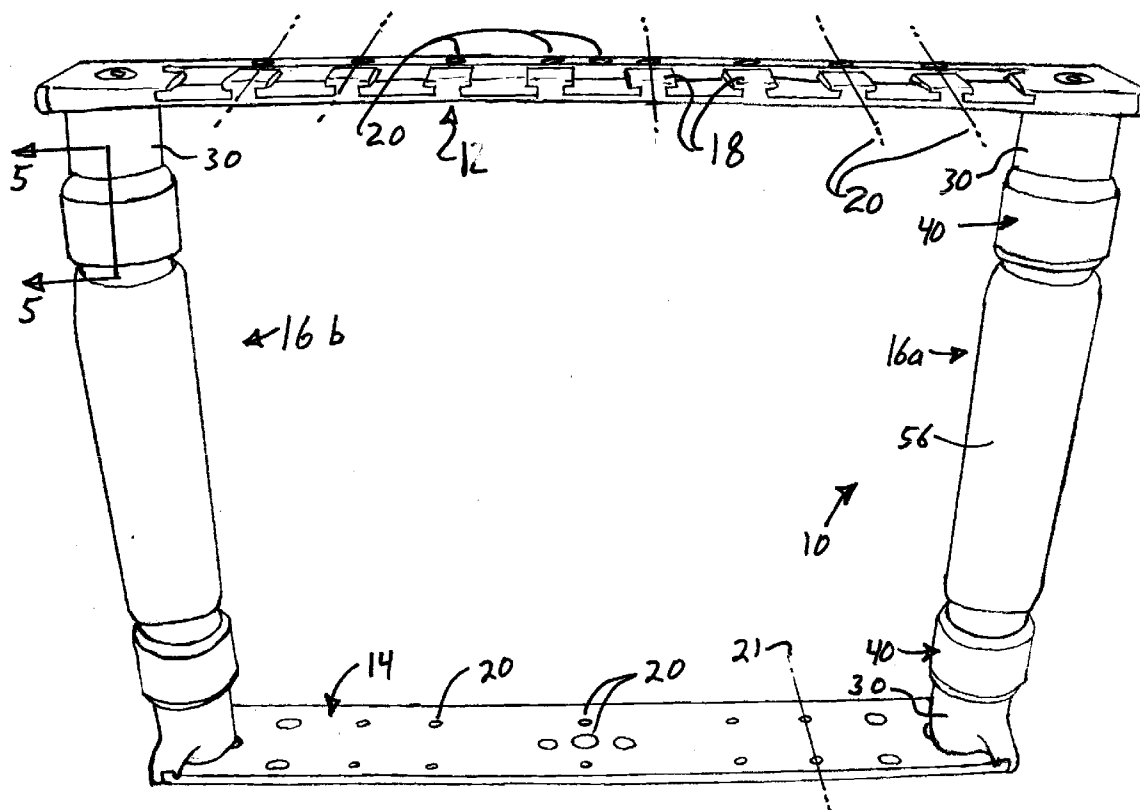


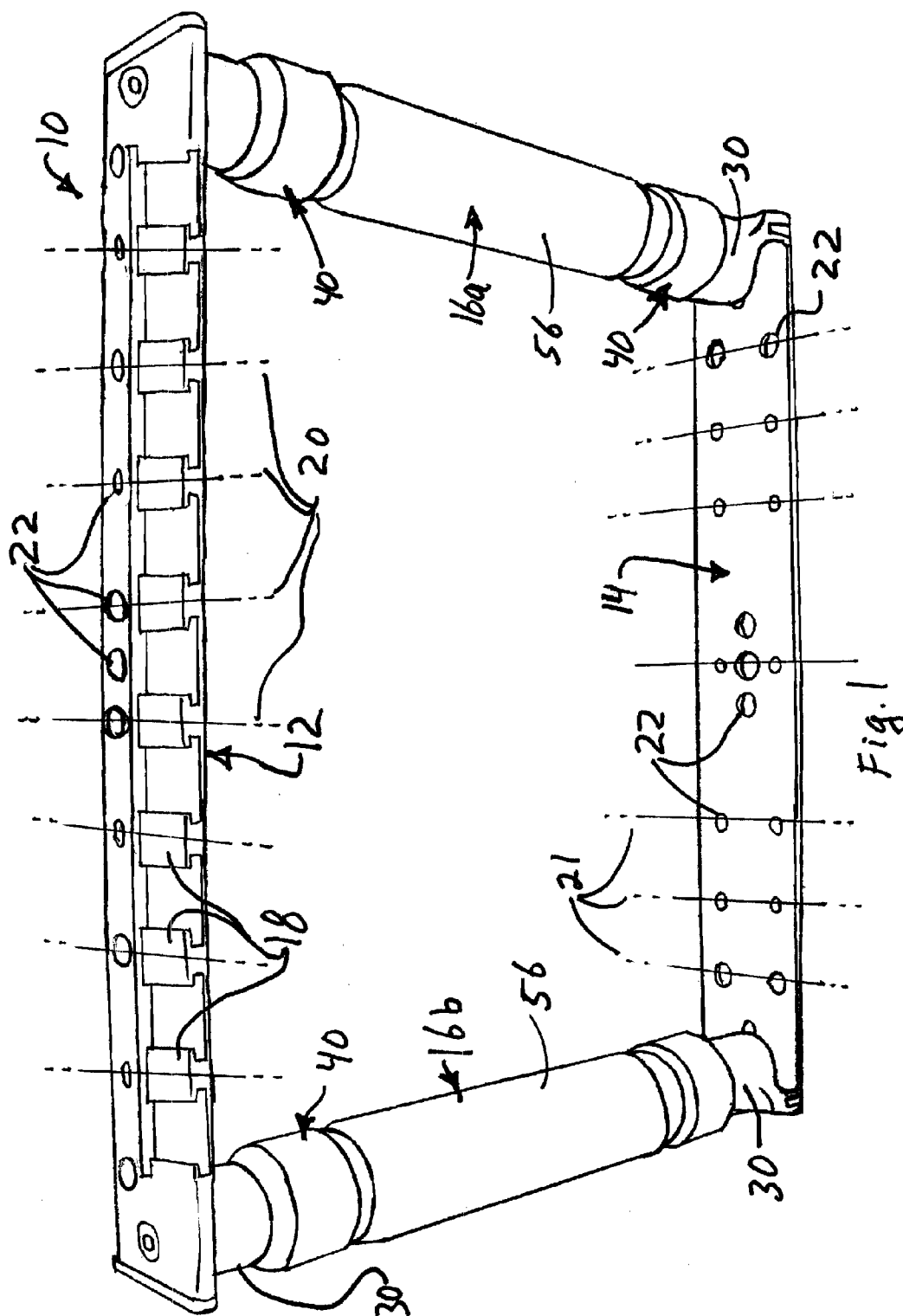


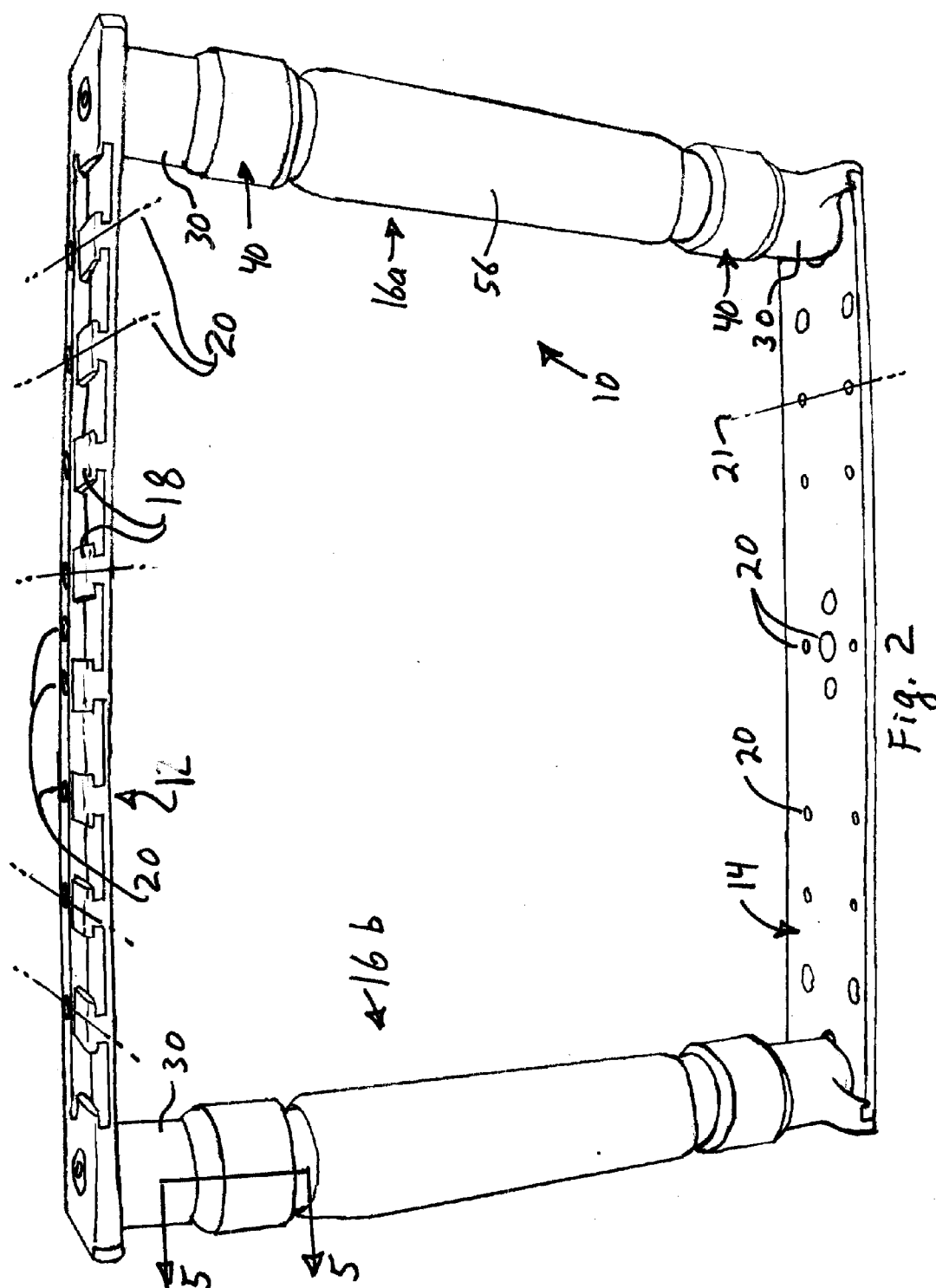
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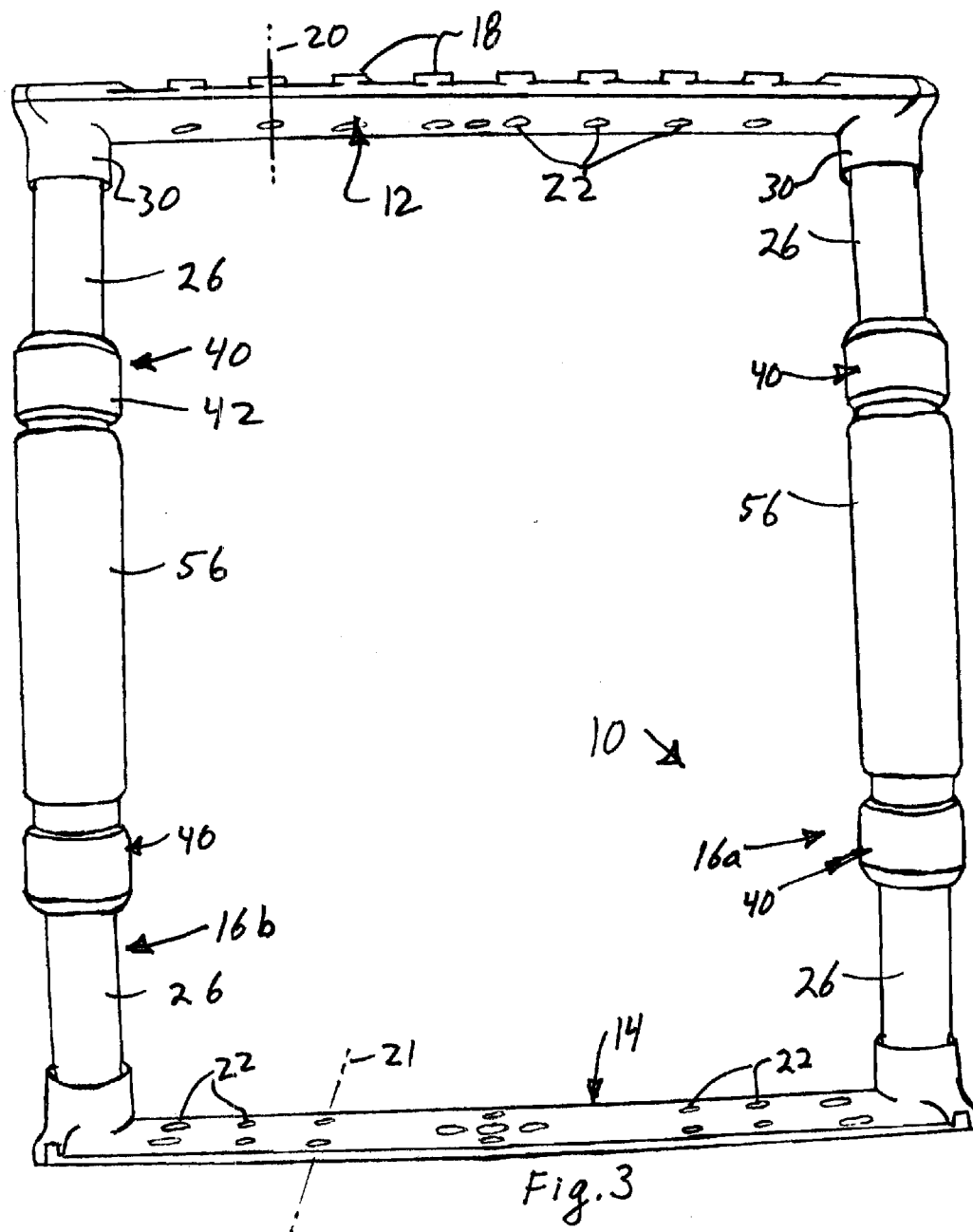
(19) **United States**(12) **Patent Application Publication**
Parker et al.(10) **Pub. No.: US 2012/0285909 A1**(43) **Pub. Date: Nov. 15, 2012**(54) **BRACKET FOR CAMERA AND ACCESSORIES**(52) **U.S. Cl. 211/49.1; 211/13.1**(75) **Inventors: Brenda Parker, Vista, CA (US);**
Steve P. Ouk, Vista, CA (US)(57) **ABSTRACT**(73) **Assignee: M. Klemme Technology, Corp.,**
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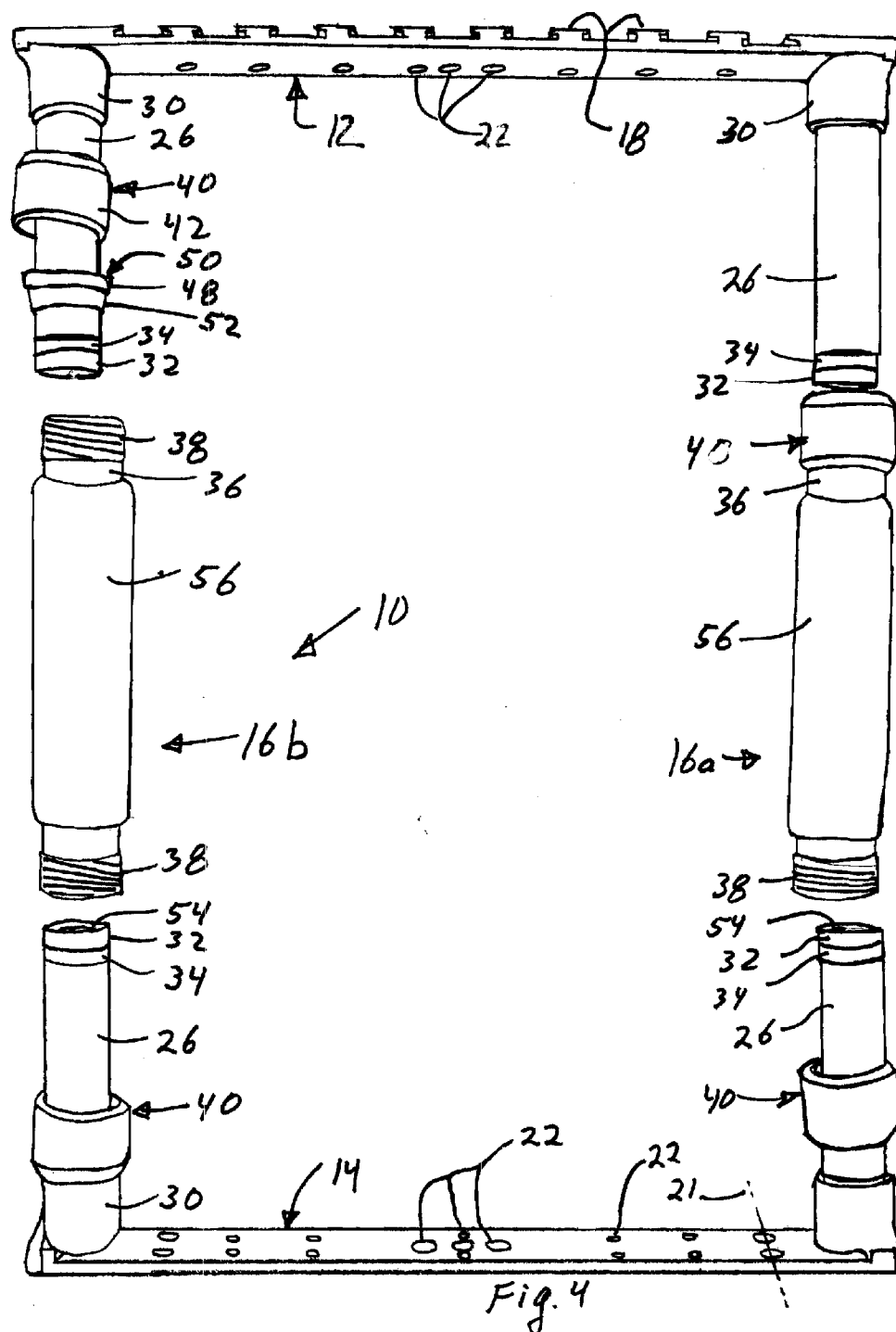
A camera mounting bracket for holding accessories is provided having a hand held, rectangular frame with a top and bottom having ends that are joined by two opposing sides. The top has a plurality of mounting shoes the top and bottom have threaded holes for mounting photographic or audio accessories. Both sides have a length adjustment mechanism to vary the length of the sides. Both sides have a locking mechanism to releasably lock the sides at a predetermined length, which length is substantially the same. The sides each have a handle and telescope within the handle, with the locking mechanism located at the end of the handle nearest the top so it can be actuated by a user's thumb.

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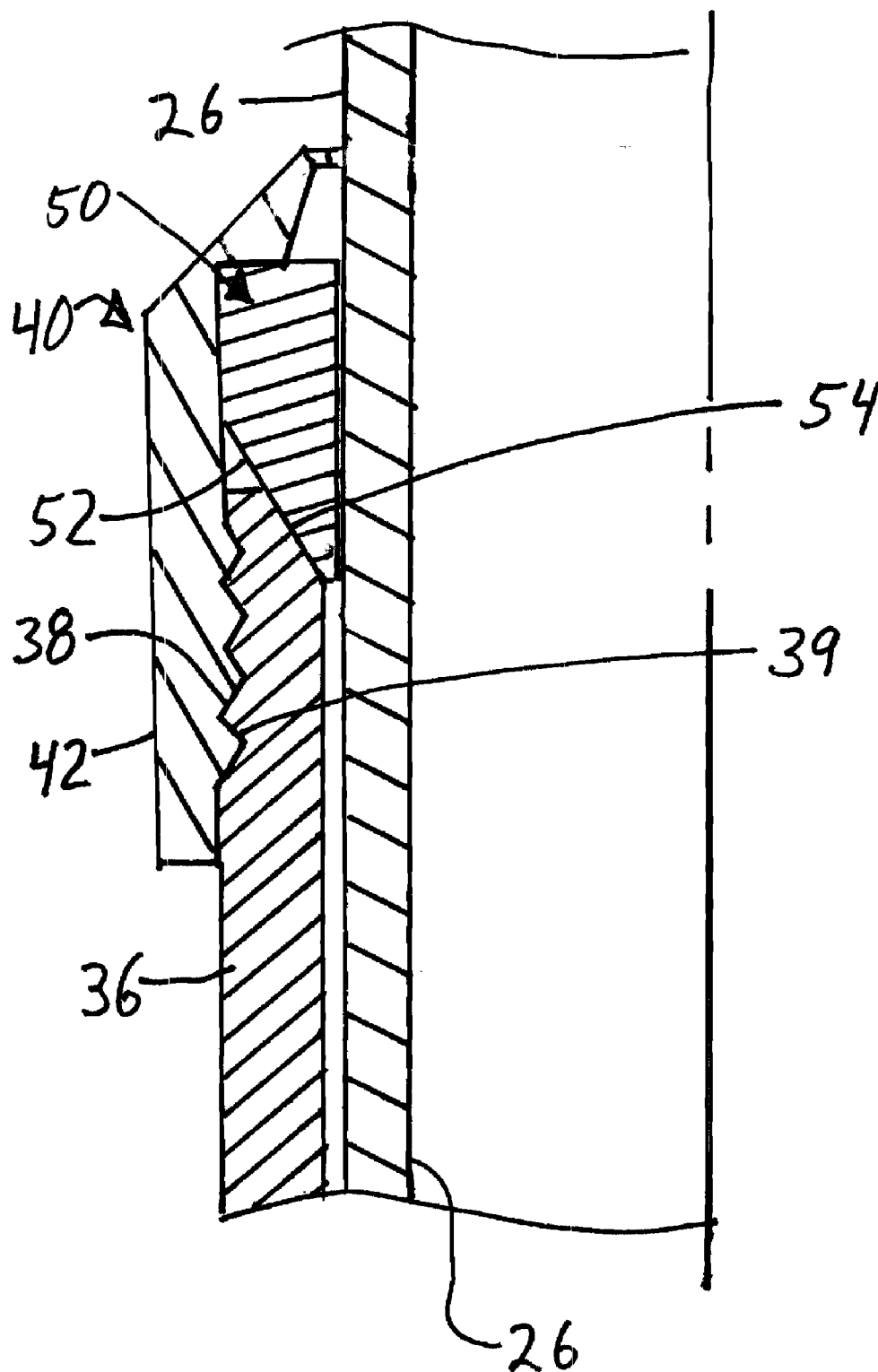


Fig. 5

BRACKET FOR CAMERA AND ACCESSORIES

BACKGROUND

[0001] Cameras are sold with one hot shoe or mounting bracket, which is typically used for an electronic flash. But photographers and cinema photographers often need additional mounting locations for additional photographic or audio accessories, including electronic triggers and slave units, umbrellas, additional flash units, displays, iris rods, hand grips, clamps, accessory brackets, shutter cable releases, microphones, audio sensors, and a variety of other audio and visual accessories. These accessories are typically configured to slidably connect to mounting shoes or threadingly fasten to threaded fasteners of predetermined diameters, or to connect to various brackets and mounts. A number of brackets exist which typically mount to the bottom of the camera and extend up one side of the camera to allow additional accessories to be mounted or positioned thereon. A recently introduced accessory frame from K-Tek of Klemme Technology Corp. in Vista, Calif., has a rectangular frame with a plurality of accessory shoe plates on three sides of the frame to mount various flash and other accessories, and is sold under the trademark "Norbert." The frame has a plurality of threaded holes in the fourth side to mount cameras, tripods, etc. But there nonetheless remains a need for a more user-friendly frame that can accommodate a variety of cameras and accessory equipment.

BRIEF SUMMARY

[0002] A frame is provided having an opposing top and bottom joined by two opposing sides. A plurality of accessory mounting shoes are provided on the top and threaded holes are provided on the bottom to mount other accessories, cameras and tripods. The sides are each extendable so the distance between the top and bottom sides can be adjusted. Preferably, but optionally, the sides form gripping handles each with a locking device to allow length adjustment in an unlocked position and to hold the length adjustment in a locked position. Preferably, a rotating collar locking device is provided on the top and bottom of each handle, adjacent the top and bottom sides so the length adjustment and lock can be actuated by a user's thumb. The top and bottom sides have legs extending toward each other and can form a handle. But advantageously the legs are enclosed at least partially, and preferably enclosed entirely within the handle when in the collapsed position, with the legs extending out of the handle in the extended position.

[0003] In more detail, a camera mounting bracket is provided that comprises a hand held frame having a top and bottom each of having opposing ends that are joined by two opposing sides. The top has at least one mounting shoe and at least one threaded hole suitable for mounting photographic or audio accessories. The bottom is configured to fasten to a camera. A length adjustment mechanism is provided in each of the two opposing sides to vary the length of the sides. A locking mechanism is connected to each of the two opposing sides to releasably lock the sides at a predetermined length, which length is substantially the same.

[0004] In further variations, the top has a leg extending from opposing ends of the top toward the bottom, with the legs extending along first and second axes, respectively. Likewise, the bottom has a leg extending from each opposing end

of the bottom toward the top, along the first and second axes, respectively. The legs that extend along the first axes are received in a first handle to form one of the sides of the frame. The legs extending along the second axes are received in a second handle to form the other of the sides of the frame. The relative movement of the legs and handles comprise the length adjust mechanism.

[0005] The sides may have a length with each leg being less than half that length, or about that length. The top preferably has a plurality of mounting shoes and holes, with the holes including a plurality of $\frac{1}{4} \times 20$ and $\frac{3}{8} \times 16$ threaded holes. The bottom also preferably has a plurality of threaded holes, including holes including a plurality of $\frac{1}{4} \times 20$ and $\frac{3}{8} \times 16$ threaded holes.

[0006] The locking mechanism advantageously comprises a locking nut encircling at least a portion of at least one leg. The locking nut rotatably engages the handle with the rotation of the locking nut moving a split collet encircling a portion of the leg in the handle. The collet has an inclined surface abutting an inclined surface on the handle to move the collet toward and away from the leg, so that rotation of the locking nut releasably fastens the collet and handle to the leg in the handle. Advantageously, each handle has a locking nut and collet at each opposing end of the handle, to releasably engage a leg extending from the top or bottom and into the handle. The frame may have a rectangular shape, with handles parallel to each other and the top and bottom parallel to each other.

[0007] In a further embodiment there is provided a hand held frame having an opposing top and bottom, each with a first and second leg extending from opposing ends of the top and bottom. Each leg extends along one of substantially parallel first or second axes. The top has at least one of a mounting shoe or a hole therein. The hole may include one of a $\frac{1}{4} \times 20$ threaded hole or a $\frac{3}{8} \times 16$ threaded hole. The bottom has at least one hole configured to fasten a camera to the frame and located so the camera can fit inside the frame. First and second handles are aligned along the first and second axes with each handle receiving one leg from the top and one leg from the bottom. Two releasable locking mechanisms are connected to each handle with each releasable locking mechanism releasably connecting one of the first and second legs to the handle.

[0008] In further variations of this further embodiment, the legs and handles are tubular, and each handle has two releasable locking mechanisms. Moreover, the locking mechanism may include a split collet encircling a portion of one of the legs. The collet has an inclined surface abutting a mating surface connected to the handle so that relative movement of the mating surfaces clamps or unclamps the collet and partially encircled leg. Each handle may have a locking mechanism on the end toward the top of the frame. The top of the frame may have a plurality of the threaded holes and a plurality of mounting shoes. The top and bottom are generally parallel. The frame may have a first compact position in which the legs have distal ends with the distal ends on the first axis adjacent each other and the distal ends on the second axis are also adjacent each other. The frame may have a second, expanded position in which one or both of the distal ends on each axis are nearer to the ends of the handle aligned with that axis.

[0009] There is also provided a still further embodiment of a camera mounting bracket, comprising a hand held frame having an opposing top and bottom. One of the top or bottom

has a first and second leg extending from opposing ends thereof toward the other of the bottom or top. Each leg extends along one of substantially parallel first or second axes. The top has at least one of a mounting shoe or a hole extending therethrough. The hole comprises one of a $\frac{1}{4} \times 20$ threaded hole or a $\frac{3}{8} \times 16$ threaded hole. The bottom has at least one hole configured to receive a camera mounting screw to secure a camera to the frame and located so the camera can fit inside the frame. The camera mounting bracket further has first and second handles aligned along the first and second axes with each handle receiving one leg. The bracket further includes a releasable locking mechanism connected to each handle. Each releasable locking mechanism releasably connects one of the first and second legs to the handle to allow a distance between the top and bottom to be adjusted by moving the legs relative to the handle and locked in position by the locking mechanism.

[0010] In further variations of this still further embodiment of the camera mounting bracket, both the top and bottom have first and second legs and the handles receive two legs and have two releasable locking mechanisms with each locking mechanism releasably engaging a different leg. The releasable locking mechanisms may be located at the end of the handle closest to the top. Each releasable locking mechanism may include a split-ring collet encircling a portion of the leg associated with the locking mechanism, with the collet contracting to lock the associated leg in position relative to the locking mechanism. The legs may be longer than the handle, or the legs may extend from both the top and bottom and be shorter in length than the handle. The top of the frame preferably has a plurality of the threaded holes and a plurality of mounting shoes, with the bottom also preferably having a plurality of $\frac{1}{4} \times 20$ and $\frac{3}{8} \times 16$ threaded holes.

[0011] Each of these embodiments provides a camera mounting bracket configured to mount a camera so it will fit inside the frame, and the frame has adjustable length sides to accommodate different camera sizes, or to position accessories fastened to the top of the frame.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] These and other features and advantages of the various embodiments disclosed herein will be better understood with respect to the following description and drawings, in which like numbers refer to like parts throughout, and in which:

[0013] FIG. 1 is a top perspective view of the adjustable camera frame of this invention showing mounting holes and shoe mounts;

[0014] FIG. 2 is a further top perspective view of the adjustable frame of FIG. 1 in a retracted configuration;

[0015] FIG. 3 is a perspective view of the frame of FIG. 1 in an extended configuration;

[0016] FIG. 4 is an exploded perspective view of adjustable frame of FIG. 3; and

[0017] FIG. 5 is a sectional view taken along section 5-5 of FIG. 2.

DETAILED DESCRIPTION

[0018] Referring to FIGS. 1-5, a frame 10 is provided having a top 12 and bottom 14 on opposing sides of the frame. Two opposing and adjustable length sides 16a, 16b join the top 12 and bottom 14. Preferably, but optionally, the frame 10 is rectangular in shape with straight and parallel top 12 and

bottom 14, and parallel handles 16a, 16b. One or both of the top 12 and bottom 14 could be curved or have a different shape. The top 12 and bottom 14 are each advantageously made of a strip having a generally rectangular cross section to form a wider surface on the exterior and interior facing sides of the top 12.

[0019] At least one, and preferably a plurality of mounting shoes 18 are formed or provided on the top 12, preferably on the outer facing surface of the top 12. Preferably the mounting shoes 18 are equally spaced along a length of the top 12, and located toward one edge of the top 18. The mounting shoes 18 have centerline 20 along which photographic accessories may optionally slide to mount and dismount the accessories. Optionally, a plurality of threaded holes 22 are also provided in the top 12, and preferably the holes extend along the opposing edge of the top 12 from the mounting shoes 18. The holes 22 are preferably of different sizes, and more preferably alternate between two or more sizes commonly used with photography accessories, with at least one hole size advantageously being $\frac{1}{4}$ inch. The holes 22 are advantageously aligned with a center line 20 so the centerline 20 passes through the center of the holes 22. The top surface of the mounting shoes 18 advantageously are substantially in the same plane as the outward facing surface of the top 12 in which the holes 22 are formed. The mounting shoes 18 may thus be recessed into the top 12 of frame 10. But the holes 22 and mounting shoes 18 could be formed on the inner facing surface of the top 12, or have other relative locations and orientations. The mounting shoes are advantageously formed along a back edge of the top 12 of frame 10, with the holes 22 formed along the rear or back edge. As used herein, the front refers to the direction in which the camera lens is directed.

[0020] The bottom 14 of frame 10 may have mounting shoes 18 and holes 22 formed therein, but advantageously the bottom 14 has only holes 22. The bottom 14 advantageously has a generally rectangular cross-section with threaded holes 22 extending therethrough along an axis extending toward and preferably intersecting top 12. The holes 22 in the bottom 14 may have various locations, but preferably occur in pairs adjacent opposing edges of the bottom 14. Thus, one series of holes extend along a front edge of the bottom 14 and a mating series of holes 22 extend along a rear edge of the bottom 14 of frame 10. Optionally, but preferably, at the middle of the bottom 14 and centered between opposing edges is a mounting hole 22 configured to mount a camera. Advantageously, additional camera mounting holes 22 are adjacent that center mounting hole 22, and also centered between the edges of the bottom 12, so that a camera can be mounted at the center, middle of the bottom 14 or slightly offset therefrom. A preferred camera mounting pattern has three larger diameter holes 22 along a longitudinal axis of bottom 14, with smaller diameter holes 22 along an axis perpendicular thereto. The mounting holes 22 are configured and located so the bracket 10 can be mounted to a tripod. Further, the bracket 10, and especially the bottom 14 is configured so that a bracket to hold iris rods can be mounted to the bottom 14, or elsewhere on the bracket 10 as desired by the user. Likewise, the bottom 14 and holes 22 are located and configured so that a universal camera quick release can be releasably fastened to the bottom 14.

[0021] The sides 16a, 16b are preferably constructed the same, but could have a different configuration, including at least one hand grip with a built-in shutter release cables adapted to be connected to the actuation button or mechanism of a camera or video camera. The sides 16 are of adjustable

length. Referring to FIGS. 3-4, at least one, and preferably both of the top 12 and bottom 14 have a leg 26 extending therefrom connected to the other of the bottom and top. Advantageously, a leg 26 extends from opposing ends of top 12 and from opposing ends of bottom 12, and extends toward the other of the bottom or top. Advantageously, the legs 26 extend perpendicular to the bottom 12 and top 14, preferably from the wider side of the generally rectangular cross-section on the top and bottom.

[0022] A separate mounting cup 30 is fastened at each, opposing end of top 12 and bottom 14, on the facing sides of the top and bottom. A threaded fastener can extend through the respective top 12 or bottom 14 and into the closed end of the mounting cup 30 to secure the mounting cup to the top or bottom to which the mounting cup 30 is fastened. Other permanent and/or releasable fastening means could be used, including rivets, melting, welding, adhesives or threads. Legs 26 may be fastened to mounting cup 20, including the fastening means discussed immediately above.

[0023] The distal ends of legs 26 have a low friction surface provided by plastic sliders 32. Teflon, nylon or other plastic or elastomeric materials may be used. Any material is suitable that reduces sliding between the distal end of leg 26 and the mating part(s). Advantageously, the slider 32 encircles the distal end of the leg 26 and sets in a recess formed in that distal end. A strip of Teflon tape is believed suitable. The slider 32 may be referred to herein as an encircling portion as it encircles part of the leg 26. Another encircling strip of tape 34 is provided adjacent the slider 32, and is also referred to as an encircling portion.

[0024] Opposing legs 26 on different ones of top 12 and bottom 14 fit inside a handle 36 having external threads 38 on opposing ends of the handle. The legs 26 also each pass through a tubular locking collar 40 having an opening through which one of the legs 26 extends and a skirt 42 with internal threads 39 (FIG. 5) to mate with threads 38. The locking collar 40 has an internal recess 46 configured to receive a mating protrusion, flange or collar 48 extending outward from collet 50 which encircles the leg 26. The collet 50 is preferably split so it does not completely and continuously encircle the leg 26 and can thus move toward and away from the encircled leg. The collet 50 has an inclined surface 52 (FIGS. 4-5) located to abut a mating inclined surface 54 (FIGS. 4-5) on the adjacent distal end of the handle 36. Thus, as the locking collar 40 rotates, the engaged threads 38, 44 cause the inclined surfaces 52, 54 to move in opposing directions, forcing collet 40 inward against the leg 26 to lock the leg in position. Similar locking collars 40 are advantageously located at each connection of the handle 36 with a leg 26, with legs 26 similarly constructed. Advantageously, a softer gripping surface 56 is provided around the exterior of the handle 36.

[0025] The encircling portions 32, 34 are advantageously wide enough in a direction along the length of leg 26 to provide some stability against wobbling as the legs 26 on top 12 or bottom 16 extend unequal distances into or out of the handles 36, and are slippery enough to help reduce binding when one leg 26 is extends unequal distances into or out of the handles 36. For legs 26 about three inches long and about 5/8 inch in diameter, canting of about 3/8 of an inch is believed achievable without binding. The sides 16 are thus adjustable in length, such that top and bottoms 12, 14 remain substantially parallel.

[0026] In use, a camera is mounted to the bottom side 14 of frame 10, preferably at the middle of the side 14. The camera is directly mounted to the side 12 or a releasable camera mount is mounted to the bottom 12 of frame 14 and the camera mounted in turn to the mount. One or more accessories may be fastened to the frame 10 using the shoe mounts 18 or the holes 22. If the user wants more distance between the top and bottom sides 12, 14 of frame 10, the locking collars 40 on the two opposing sides 16 can be loosened, legs 26 extended to lengthen sides 16, and the collar 40 tightened. The locking collars 40 adjacent top 12 are advantageously located so a person gripping handle 26 by hand can rotate collars 40 with the user's thumbs.

[0027] One or both of the encircling strips 32, 34 extend outward from the leg 26 to which they are fastened to engage an inward projecting rib or portion of collet 50, to keep the sides 16 from completely separating. Because the collet 50 is split, pulling firmly in opposing directions on handle 36 and leg 26 or its attached top 12 or bottom 14 can cause the collet 50 to expand and slide over the encircling strips 32, 34 and separate the leg 26 from the 36 handle to which the leg was connected. For assembly, the collet 50 is fit into the locking nut so the collet flange 48 fits into the recess 46 in the locking nut, and as needed the slit in the collet can be spread apart to ease the collet over the encircling strips 32, 34.

[0028] The handle 36 is shown as receiving two legs from each of the top 12 and bottom 14. Each handle 36 could receive a single, longer leg in which case the leg would be connected to either the top 12 or the bottom 14. It is believed preferable, however, to have four legs 26, with distal ends of two axially aligned and opposing legs being adjacent each other when fully extending inside handle 36. When the distal ends of legs 26 are adjacent each other in handle 36 and then extended to their greatest distance without disengaging from locking nut 40, the length of side 16 can be about doubled. If one leg 26 nests inside the other leg within the handle 36, then the length of side 16 can be increased about three times the smallest length.

[0029] The frame 10 is shown with the frame being planar and passing through the longitudinal centerline of the top 12, bottom 14 and the two sides 16. The legs 26 and sides 16 could be inclined relative to the top and bottom 12, 14, so that the top 12 can extend forward or rearward of the bottom frame 14 along the optical axis of a camera mounted to the frame 10. Instead of mounting cups 30 being perpendicular to the wider surfaces of the top and bottom frames 12, 14, the cups 30 could be inclined at the desired angle. Relatively small angles are preferred, preferably less than 30 degrees and more preferably from 5-15 degrees.

[0030] Various length adjust and locking mechanisms can be used, including those shown and described in U.S. Pat. Nos. 2,354,966, 2,284,114, 3,516,343, 3,601,028, 3,820,801, 4,086,718, 4,932,622, 5,492,430, 5,649,780, 6,594,371, and Publication 2008/0253600, the complete contents of which are incorporated herein by reference. The rotating nut 40 and each of the above incorporated by reference locking mechanisms comprises a mechanism for releasably adjusting the length of leg 26 or side 16, and also comprises a mechanism for releasably locking the leg 26 or side 16 in position relative to handle 36 and/or relative to one or both of top and bottom sides 12, 14.

[0031] The top and bottom 12, 14 are advantageously made of plastic, a high density elastomer or metal, and preferably made of aluminum. A metal strap about 0.2 inch by 1.5 inches

in cross section, and about 11 inches long, with nine shoe mounts **18** cut into the surface and holes **20** tapped in the metal is believed suitable. $\frac{1}{4}\times 20$ and $\frac{3}{8}\times 16$ threaded holes **22** are preferred. The sides **16** are preferably made of plastic, a high density elastomer, metal or composite, such as graphite epoxy composite. Graphite epoxy tubes about 0.7 inches in diameter are believed suitable. The centerlines of sides **16** are advantageously spaced about 10.5 inches apart. The hand grip **56** can be made of a foamed elastomer. The shoe mounts **18** are standard camera mounting shoes about 0.45 inches wide and about 0.7 or more inches long.

[0032] The frame **10** is hand held, weighing less than about 10 pounds with no accessories or attachments, and advantageously weighs only a few pounds, and preferably weighs less than two pounds.

[0033] As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which may be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any appropriately detailed structure.

[0034] The above description is given by way of example, and not limitation. Given the above disclosure, one skilled in the art could devise variations that are within the scope and spirit of the invention disclosed herein, including various ways of extending the sides **16** and releasably locking them at the desired length. Further, the various features of the embodiments disclosed herein can be used alone, or in varying combinations with each other and are not intended to be limited to the specific combination described herein. Thus, the scope of the claims is not to be limited by the illustrated embodiments.

What is claimed is:

1. A camera mounting bracket, comprising:
 - a hand held frame having a top and bottom each having opposing ends that are joined by two opposing sides, the top having at least one mounting shoe and at least one threaded hole suitable for mounting photographic or audio accessories; the bottom configured to fasten to a camera;
 - a length adjustment mechanism in each of the two opposing sides is provided to vary the length of the sides;
 - a locking mechanism on each of the two opposing sides to releasably lock the sides at a predetermined length, which length is substantially the same.
2. The camera mounting bracket of claim 1, wherein the top has a leg extending from each opposing end of the top toward the bottom along first and second axes, respectively, and the bottom has a leg extending from each opposing end of the bottom toward the top, along the first and second axes, respectively, with the leg extending along the first axes received in a first handle to form one of the sides and the legs extending along the second axes received in a second handle to form the other of the sides, the relative movement of the legs and handles comprising the length adjust mechanism.
3. The camera mounting bracket of claim 2, wherein the sides have a length and each leg is less than half that length.
4. The camera mounting bracket of claim 2, wherein the sides have a length and each leg is less than that length.

5. The camera mounting bracket of claim 1, wherein the top has a plurality of mounting shoes and holes, with the holes including a plurality of $\frac{1}{4}\times 20$ and $\frac{3}{8}\times 16$ threaded holes.

6. The camera mounting bracket camera frame of claim 2, wherein the top has a plurality of mounting shoes and threaded holes, and wherein the bottom has a plurality of holes, including holes including a plurality of $\frac{1}{4}\times 20$ and $\frac{3}{8}\times 16$ threaded holes.

7. The camera mounting bracket of claim 2, wherein the locking mechanism comprises a locking nut encircling at least a portion of at least one leg, the locking nut rotatably engaging the handle, the rotation of the locking nut moving a split collet encircling a portion of the at least one leg and having an inclined surface abutting an inclined surface on the handle to move the collet toward and away from the leg, so that rotation of the locking nut releasably fastens the collet and handle to the at least one leg.

8. The camera mounting bracket of claim 7, wherein each handle has a locking nut and collet at each opposing end of the handle.

9. The camera mounting bracket of claim 8, wherein the frame has a rectangular shape, with handles parallel to each other and the top and bottom parallel to each other.

10. A camera mounting bracket, comprising:

a hand held frame having an opposing top and bottom each with a first and second leg extending from opposing ends of the top and bottom, with each leg extending along one of substantially parallel first or second axes, the top having at least one of a mounting shoe connected thereto or a hole therein, the hole comprising one of a $\frac{1}{4}\times 20$ threaded hole or a $\frac{3}{8}\times 16$ threaded hole, the bottom having at least one hole configured to fasten a camera to the frame and located so the camera can fit inside the frame.

first and second handles aligned along the first and second axes with each handle receiving one leg from the top and one leg from the bottom; and

two releasable locking mechanisms connected to each handle, each releasable locking mechanism releasably connecting one of the first and second legs to the handle.

11. The camera mounting bracket of claim 10, wherein the legs and handles are tubular, and each handle has two releasable locking mechanisms.

12. The camera mounting bracket of claim 10, wherein the locking mechanism includes a split collet encircling a portion of one of the legs and having an inclined surface abutting a mating surface connected to the handle so that relative movement of the mating surfaces clamps or unclamps the collet and partially encircled leg.

13. The camera mounting bracket of claim 11, wherein the locking mechanism includes a split collet encircling a portion of one of the legs and having an inclined surface abutting a mating surface connected to the handle so that relative movement of the mating surfaces clamps or unclamps the collet and partially encircled leg.

14. The camera mounting bracket of claim 11, wherein each handle has a locking mechanism on an end toward the top of the frame, and the top of the frame has a plurality of the threaded holes and a plurality of mounting shoes.

15. The camera mounting bracket of claim 14, wherein the top and bottom are generally parallel.

16. The camera mounting bracket of claim 11, the frame having a first compact position in which the legs have distal

ends with the distal ends on the first axis adjacent each other and the distal ends on the second axis are also adjacent each other.

17. A camera mounting bracket, comprising a hand held frame having an opposing top and bottom, one of the top or bottom having a first and second leg extending from opposing ends thereof toward the other of the bottom or top, with each leg extending along one of substantially parallel first or second axes, the top having at least one of a mounting shoe connected thereto or a hole therein, the hole comprising one of a $\frac{1}{4} \times 20$ threaded hole or a $\frac{3}{8} \times 16$ threaded hole, the bottom having at least one hole configured to receive a camera mounting screw to secure a camera to the frame and located so the camera can fit inside the frame;

first and second handles aligned along the first and second axes with each handle receiving one leg; and

a releasable locking mechanism connected to each handle, each releasable locking mechanism releasably connecting one of the first and second legs to the handle to allow a distance between the top and bottom to be adjusted by moving the legs relative to the handle and locked in position by the locking mechanism.

18. The camera mounting bracket of claim **17**, wherein both the top and bottom have first and second legs and the handles receive two legs and have two releasable locking mechanisms with each locking mechanism releasably engaging a different leg.

19. The camera mounting bracket of claim **17**, wherein the releasable locking mechanisms are located at the end of the handle closest to the top.

20. The camera mounting bracket of claim **18**, wherein each releasable locking mechanism includes a split-ring collet encircling a portion of the leg associated with the locking mechanism and which contracts to lock the associated leg in position relative to the locking mechanism.

21. The camera mounting bracket of claim **17**, wherein the legs are longer than the handle.

22. The camera mounting bracket of claim **17**, wherein the top of the frame has a plurality of the threaded holes and a plurality of mounting shoes and the bottom has a plurality of $\frac{1}{4} \times 20$ and $\frac{3}{8} \times 16$ threaded holes.

23. The camera mounting bracket of claim **17**, wherein a distal end of at least one leg has a material attached thereto to facilitate sliding of the leg within the handle.

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