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Inventor(s)

Pierce; Richard Chad

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### Multi-legged-stand Attachment for Supporting a Firearm

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#### Abstract

There is provided a multi-legged-stand attachment **10** for supporting a firearm. The multi-legged-stand attachment **10** has at least one leg connector **14** for engaging with a leg of a multi-legged stand below a canopy thereof, an attachment body **12** engaged with the at least one leg connector and a firearm support **16** positioned on the attachment body **12** and which is configured to support a firearm to thereby convert the multi-legged stand into a below-canopy firearm stabiliser.

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**Inventors:** Pierce; Richard Chad (Cimarron, NM)

**Applicant:** Pierce; Richard Chad (Cimarron, NM)

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## **Background/Summary**

CROSS REFERENCE TO RELATED APPLICATIONS [0001] The present application claims the benefit of U.S. Provisional Patent Application No. 63/555,903 filed on Feb. 21, 2024 and British Patent Application No. 2405138.5 filed on Apr. 11, 2024, the contents of which are incorporated herein by reference in their entirety.

### **FIELD OF THE INVENTION**

[0002] The present invention relates to a multi-legged-stand attachment for supporting a firearm. The invention further relates to a method for reconfiguring a multi-legged stand to support a firearm.

### **BACKGROUND OF THE INVENTION**

[0003] Firearms are widely used globally in recreation, law enforcement and military scenarios and many appropriate attachments, paraphernalia and firearm aids have been developed to maximise the comfort, efficiency, and safety to the user.

[0004] In the field of firearms, to improve accuracy and stability of use, various firearm stands and supports can be employed. Bipods are commonly attached to the stock, rail, or barrel of a firearm, which allows a user to lie prone and aim whilst resting their firearm on the ground. Tripods or quadpods are used when the user wants to aim the firearm from an elevated position. The tripod or quadpod stands on the ground, and the firearm is supported on top of the canopy. Depending on the height of the tripod or quadpod, the user can then aim from a seated or standing position.

[0005] Typically, when hunting or trekking, it is preferred that as little luggage as possible be carried. As such, it is undesirable to carry both a bipod and a tripod or quadpod in order to adapt between firing positions.

[0006] It is an object of the present invention to reduce or substantially obviate the aforementioned problems.

### **BRIEF SUMMARY OF THE INVENTION**

[0007] According to a first aspect of the invention, there is provided a multi-legged-stand attachment for supporting a firearm, the multi-legged-stand attachment comprising: at least one leg connector for in-use engaging with a leg of a multi-legged stand below a canopy thereof; an attachment body engaged with the at least one leg connector; and a firearm support positioned on the attachment body and which is configured to support a firearm to thereby convert the multi-legged stand into a below-canopy firearm stabiliser.

[0008] The advantage of this is that the multi-legged-stand attachment can be retrofitted to existing multi-legged stands, such as tripods and quadpods, through the legs of said multi-legged stands, or on the outside of the legs, granting the user the features of a bipod arrangement. Furthermore, the multi-legged-stand attachment is designed so as to convert the multi-legged stand into an arrangement that is below the canopy, which alters the centre of gravity and distributes the weight of the bulky firearm. Not only is this advantageous in terms of stability enhancement, but also allows expansion of potential user configurations and positions of existing multi-legged stand arrangements.

[0009] Preferably, there is provided a multi-legged-stand attachment, wherein a plurality of leg connectors is provided.

[0010] This is advantageous as it increases the flexibility, versatility, and modularity of the multi-legged-stand attachment. By providing a number of disparate leg connectors, there is flexibility to use different arrangements, and allows the user to attach multiple leg connectors in different positions, orientations, angles, and directions to provide universal support for an array of firearms. This allows universal retrofitting of any existing tripod, quadpod and any other multi-legged stand to be converted into a below-canopy firearm stabiliser.

[0011] Optionally, there is provided a multi-legged-stand attachment, wherein only one leg connector is provided.

[0012] Beneficially, this provides the user with the most flexibility in terms of reduced footprint. The ability to convert a bulky multi-legged stand with a single leg connector allows the user to carry minimal equipment in order to convert said multi-legged stand into a below-canopy firearm stabiliser. Furthermore, the single leg connector allows a greater degree of flexibility by permitting attachment to only one leg of a multi-legged stand, permitting a greater arc of motion to the firearm, and allowing the stand to be positioned in atypical supporting positions, whilst the firearm is still useable.

[0013] Optionally, there is provided a multi-legged-stand attachment, wherein the at least one leg connector has at least one clasp, wherein the at least one clasp has an adjustable internal clasping dimension, and a plurality of clasps is provided.

[0014] This is advantageous because it allows the leg connectors to be retrofitted to any existing multi-legged stands without the need for a series of different connectors. The adjustable nature of the clasp also allows the leg connectors to attach to the multi-legged stands with a close fit to increase stability and reduce sway and shooting inaccuracies. Furthermore, stability can be easily increased through addition of more than one clasp by using a plurality of clasps.

[0015] Optionally, the at least one clasp has a strap and a complementary strap connector.

[0016] The benefit of this is to allow an easily adjustable, flexible means of attaching the multi-legged-stand attachment to a multi-legged stand leg of any size and shape, allowing there to be a tight fit which is not difficult to employ. Adjustable straps are user friendly in that they do not require considerable dexterity and effort to use and can provide a strong interference fit with relative ease.

[0017] In one embodiment, the at least one leg connector comprises a hook.

[0018] The provision of a hook allows for easy engagement of the attachment without needing to engage fixings onto the legs of the multi-legged stand.

[0019] Preferably, the attachment body is formed as a linear body.

[0020] This is beneficial as it reduces the cost and time associated with the manufacturing process, allowing the units to be sold at a cheaper overall cost. Furthermore, in some scenarios, a linear attachment body may be able to withstand increased stress compared to other shapes and may be easier to connect to the tripod or quadpod.

[0021] Optionally, the attachment body is formed as a non-linear body.

[0022] This is advantageous as it provides greater space to accommodate firearms of larger size and additional attachments, whilst still permitting them to remain below the canopy but in a condition that is still moveable and comfortable for the user. This also allows the user to mount the firearm on the multi-legged-stand attachment without moving it too far down the multi-legged stand.

[0023] Preferably, the at least one leg connector is angled or substantially angled relative to the firearm support.

[0024] Beneficially, this allows the leg connectors to fit against the angular convergent condition of the legs of a multi-legged stand. The angular nature of the leg connectors allows for increased stability and support and rapid attachment to an existing arrangement of multi-legged stands.

[0025] Preferably the attachment body comprises first and second body portions, moveably engaged with one another, to permit adjustment of a length of the attachment body.

[0026] This is advantageous as it permits greater adjustability to the multi-legged-stand attachment. When a user wishes to have more space in the gaps between the multi-legged stand legs, for example, to accommodate a larger, wider, or bulkier firearm, then they can do this without having to move the multi-legged-stand attachment further down the multi-legged stand legs. Furthermore, it allows the user to have the multi-legged-stand attachment at any position on the multi-legged stand without having to increase or reduce the span of the legs.

[0027] Optionally, the attachment body has a rectilinear or substantially rectilinear cross-section.

[0028] This is beneficial as it provides a body that has multiple flat surface planes that can be used to support a firearm as a brace in the absence of an alternative firearm support that might connect to the firearm rail.

[0029] Optionally, the attachment body may be foldable to allow it to remain attached to the multi-legged stand if the multi-legged stand is folded.

[0030] By not allowing folding, the attachment can be left in place on the multi-legged stand, even if it is collapsed for transport. This reduces the time spent removing and reattaching the attachment to the multi-legged stand.

[0031] Preferably, the firearm support comprises a brace for resting a firearm on.

[0032] This is advantageous as it permits a firearm to be readily rested upon the firearm support without the need for releasable engagement with said firearm support. The firearm support can thus provide rapid additional stability to a firearm without the need to attach something more semi-permanent. This gives the user flexibility to mount their firearm quickly in a situation that demands it.

[0033] Optionally, the firearm support protrudes outwardly from the attachment body.

[0034] This is beneficial as it provides an additional outward surface on which to mount the firearm. Depending on the orientation of the multi-legged-stand attachment, this would allow the firearm to be more stable, more directly below the canopy and at a stronger centre of gravity, or inversely, would allow the firearm to protrude further outwardly from the attachment body to allow the firearm to pivot in a greater arc of motion than would otherwise be possible if directly attached to the attachment body without any such protrusion.

[0035] Preferably, the firearm support is integrally formed as part of the attachment body, is releasably engageable with the attachment body, and is moveably engaged with the attachment body.

[0036] This is advantageous as it allows for increased ease of manufacture and versatility for the user. In terms of manufacturing, the firearm support can be integrally formed as part of the overall shape of the attachment body, reducing cost and increasing ease of manufacture, such as by using a single mould. Conversely, costs may also be reduced by increasing the modularity of the components. If the firearm support is manufactured as a separate component, it increases user versatility by enabling them to add it separately, reducing overall footprint of the multi-legged-stand attachment, which is beneficial for use in the field. This may be particularly useful if a user wishes to employ a firearm that has multiple attachments such as laser sights and other barrel attachments. Different sizes, shapes and other customisations of firearm support could then be made available to account for this difference in typical barrel and/or gun body size.

[0037] Furthermore, a modular firearm support would allow greater flexibility for use on alternative multi-legged-stand attachment arrangements or to permit attachment of more than one firearm support for multiple firearms on the same multi-legged-stand attachment. Furthermore, the moveable nature of the firearm support increases versatility as it allows the user to move their firearm along a horizontal axis along the attachment body. This provides a greater degree of flexibility, allowing the firearm to be repositioned differently depending on the needs of the user. It may be desirable for the user to use the firearm support positioned at an end of the attachment body so as to rest the shoulder stock of the gun against a back leg of a multi-legged stand. Moving the firearm support along the attachment body allows the horizontal position of the firearm to be adjusted, and the user can adjust the shooting angle without necessarily having to relocate the position of the multi-legged stand.

[0038] Optionally, the firearm support comprises a static portion, wherein the static portion further comprises a mounting body having a moveable portion engaged therewith, the moveable portion comprises a firearm-rail connector attached thereon, the firearm-rail connector is releasably engageable from the moveable portion, the movable portion is rotatable about an axis relative to the static portion of the firearm support and the mounting body is releasably engageable with the static

portion.

[0039] This is advantageous, as it provides a means to directly attach a firearm to the firearm support. The firearm-rail connector is the first interface between the firearm and the multi-legged-stand attachment by providing a releasably engageable connection. The firearm-rail connector is attached to the moveable body and said moveable portion is rotatable around an axis relative to the static portion of the firearm support. Such axial movement allows the firearm, when attached to the firearm-rail connector, to be moveable in different directions, permitting the user to discharge the firearm at a number of different angles of sight. Modularity of the components is advantageous for manufacture and reducing footprint of the overall multi-legged-stand attachment. Having a mounting body that is releasably engageable with the firearm support body allows for easier maintenance, cleaning and switching to different moveable bodies, such as those that have a different axis of rotation. Having the firearm-rail connector as being releasably engageable also aids in cleaning, maintenance, and the aforementioned benefits. However, it may also work to increase customisability, as some firearm-rail connectors may not be universal to all firearms. It may also be that some firearm-rail connectors require bespoke mating components that attach to the firearm rail and the corresponding firearm-rail connector. The ability to swap out different firearm-rail connectors increases the customisability and variety of firearms that can be engaged with the multi-legged-stand attachment.

[0040] Preferably, the at least one leg connector is rotatable and is releasably engageable from the attachment body.

[0041] Beneficially, this permits greater flexibility and versatility. A rotatable leg connector allows the multi-legged-stand attachment to be secured onto a multi-legged stand when the stand is placed in a various array of configurations. It may be that the user desires the stand to be atypical in setup because of a specific firearm, or surrounding environmental support, such as rocks or logs. A rotatable leg connector anticipates these possible configurations. Releasable engagement of the leg connectors with the attachment body is beneficial in that it increases the modularity of the associated constituent parts of the multi-legged-stand attachment. It also allows for different leg connectors to be attached that suit different firearms or scenarios, or connectors that have different supports, a different system of clasps or other affixing mechanisms. Overall, this feature works to increase the versatility and customisation for the user.

[0042] According to a second aspect of the invention, there is provided a method for reconfiguring a multi-legged stand to support a firearm, the method comprising the steps of: a. providing a multi-legged-stand attachment in accordance with the first aspect of the invention; and b. engaging the at least one leg connector with at least one leg of the multi-legged stand so that the firearm support is positioned to support a firearm below a canopy of the multi-legged stand.

[0043] This is advantageous as it provides a simple, but efficient way in which a firearm user, either a user can rapidly and simply retrofit an existing multi-legged stand such as a tripod or quadpod to have the features of a bipod with the increased stability of a tripod or quadpod arrangement.

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## Description

### BRIEF DESCRIPTION OF THE DRAWINGS

[0044] For a better understanding of the present invention, and to show more clearly how it may be carried into effect, reference will now be made by way of example only to the accompanying drawings, in which:

[0045] FIG. 1 shows a plan view from above of a first embodiment of a multi-legged-stand attachment for supporting a firearm, in accordance with the first aspect of the invention;

[0046] FIG. 2 shows a front view of the multi-legged-stand attachment of FIG. 1;

[0047] FIG. **3** shows a plan view from below of the multi-legged-stand attachment of FIG. **1**;  
[0048] FIG. **4** shows a side view of the multi-legged-stand attachment of FIG. **1**;  
[0049] FIG. **5** shows a front perspective view of the multi-legged-stand attachment of FIG. **1** engaged with left and right legs of a tripod to form a below-canopy firearm stabiliser;  
[0050] FIG. **6** shows a side perspective view of the below-canopy firearm stabiliser of FIG. **5** including a firearm;  
[0051] FIG. **7** shows a pictorial representation of a first use condition of the below-canopy firearm stabiliser of FIG. **5**;  
[0052] FIG. **8** shows a pictorial representation of a second use condition of the below-canopy firearm stabiliser of FIG. **5**;  
[0053] FIG. **9** shows a pictorial representation of a third use condition of the below-canopy firearm stabiliser of FIG. **5**;  
[0054] FIG. **10** shows a pictorial representation of a fourth use condition of the below-canopy firearm stabiliser of FIG. **5**;  
[0055] FIG. **11** shows a pictorial representation of a fifth use condition of the below-canopy firearm stabiliser of FIG. **5**;  
[0056] FIG. **12** shows a rear view of a second embodiment of a multi-legged-stand attachment for supporting a firearm, in accordance with the first aspect of the invention.  
[0057] FIG. **13** shows a top view of a third embodiment of a multi-legged-stand attachment for supporting a firearm, in accordance with the first aspect of the invention;  
[0058] FIG. **14** shows a side view of the multi-legged stand attachment of FIG. **13**;  
[0059] FIG. **15** shows a side perspective view of the multi-legged-stand attachment of FIG. **13** engaged with a single leg of a tripod and outwardly-facing to form a below-canopy firearm stabiliser;  
[0060] FIG. **16** shows a side perspective view of the below-canopy firearm stabiliser of FIG. **15**, with the multi-legged-stand attachment inwardly-facing, including a firearm;  
[0061] FIG. **17** shows a further embodiment of a multi-legged-stand attachment for supporting a firearm in accordance with the first aspect of the invention.

#### DETAILED DESCRIPTION

[0062] Referring firstly to FIGS. **1** to **4** there is indicated a multi-legged-stand attachment referenced globally at **10**, suitable for supporting a firearm. In this particular embodiment, the multi-legged-stand attachment **10** comprises an attachment body **12**, two leg connectors **14**, and a firearm support **16** with a static portion **18**, a mounting body **20** with a moveable portion **22** and a firearm-rail connector **24**.

[0063] The attachment body **12** is formed as solid metal bar, provided having a substantially cuboidal form that has a front surface, a back surface, a top surface and a bottom surface. The attachment body **12** has a fixed length. Whilst a solid metal bar is illustrated, the attachment body **12** could be hollow, and/or formed from a different construction material. The attachment body **12** may also be extendable through an inner extendable body protruding outwardly relative to the outer body for greater flexibility in attachment configurations.

[0064] At each end of the attachment body **12**, there is a structural element **26**. The structural element **26** at a left-hand end of the attachment body **12** is angled relative to the attachment body **12** and relative to an in-use vertical axis. The structural element **26** at a right-hand end of the attachment body **12** is positioned at the same relative angle as the structural element **26** at the left-hand end of the attachment body **12** but tilted in the opposite direction so that the axes of the two structural elements **26** are convergent in the vertical direction.

[0065] The structural elements **26** are here formed by providing separate components which are welded onto the attachment body **12** but could readily be envisioned as being integrally formed therewith. Alternatively, the structural elements **26** may be perpendicular to the attachment body **12** and/or could be moveably engaged therewith to alter the angle of engagement.

[0066] The structural elements **26** extend vertically beyond the top surface and the bottom surface of the attachment body **12**, thereby defining an elongate angular extent relative to a longitudinal direction of the attachment body **12**.

[0067] Each structural element **26** forms, along with at least one and preferably two clasps **28**, a leg connector **14** positioned at each end of the attachment body **12** respectively.

[0068] In the depicted embodiment, the clasps **28** are provided as resiliently flexible tightenable members having first and second clasp portions **28a**, **28b** which interconnect around a leg of a multi-legged stand to hold the leg connector **14** in place thereon. The first and second clasp portions **28a**, **28b** are fixedly connected to the structural element **26** and together form an internal diameter which is adjustably connectable to the said leg. The first clasp portion **28a** is provided having a more rigid body and a flexible strap **30**, and the second clasp portion **28b** has a relatively rigid body and a plurality of strap connectors **32**, here in the form of protruding ridges or hooks engageable with an aperture in the strap. The first and second clasp portions **28a**, **28b** may be pivotable or hinged to assist in the process of fitting different diameters of legs of a multi-legged stand.

[0069] The protruding ridges that act as strap connectors **32** are angled away from the strap **30** of the first clasp portion **28a**.

[0070] The strap **30** is here formed so as to extend from an inner surface of the first clasp portion **28a** and extends a length that can, when in use, engage with a top protruding ridge of the second clasp portion **28b**. There are a series of complementary apertures within the strap **30** that fit the protruding ridges or hooks of the strap connector **32**. The angled position of the protruding ridges of the strap connector **32** allows the complementary apertures to engage with the protruding ridges through an interference fit. The inner surface of one or both of the first and second clasp portions **28a**, **28b** may have at least one grip member **34** thereon to improve a grip on the leg of the multi-legged stand.

[0071] The clasps **28** are preferably formed from a resiliently flexible material such as rubber or an elastomeric material. Alternatively, the clasps **28** could be formed as pre-stressed clips, clamps, which may be formed from metal for instance, buckles, hook and loop fasteners, combinations thereof, or any other appropriate securing means for holding the leg connector **14** in place.

[0072] In this depicted embodiment, the firearm support **16** has a static portion **18** which is integrally formed with the attachment body **12**, and to which the mounting body **20** is connected, however the firearm support **16** may also be moveably engaged with the attachment body **12** if provided on a rail or other such moveable means. The mounting body **20** is provided so as to be pivotable relative to the attachment body **12**. This allows for alteration of the pitch of a firearm attached thereto, for instance, and/or may permit cant of the firearm attached thereto. This may be achieved by relative pivoting of the mounting body **20** relative to the static portion **18**. Here a ball-and-socket connection is provided.

[0073] The mounting body **20** is cylindrical or substantially cylindrical with a base that is affixed to the firearm support **16**. The base of the mounting body **20** has a receiver portion in the form of a bore socket. The bore socket receives a ball stud which is attached to a mounting spigot in the form of the firearm-rail connector **24**. The ball stud is receivable within the bore socket so as to form a spheroid joint that permits the firearm-rail connector **24** to pivot around an axis, relative to the attachment body **12**. The ball and socket connection is thereby defined as the moveable portion **22**. The axial movement can be secured and released through the action of a locking nut **36** located on the mounting body **20**. It may be envisioned that the firearm support **16** can comprise either an integrally-formed mounting body **20** and firearm-rail connector **24**, and/or the mounting body **20** and/or the firearm-rail connector **24** are releasably engageable with the static portion **18** of the firearm support **16**.

[0074] The static portion **18** protrudes outwardly and downwardly from the front face of the attachment body **12**.

[0075] The firearm-rail connector **24** is formed as a platform engageable with a rail of a firearm. The firearm-rail connector **24** here comprises a tightening screw **38** for attaching to a firearm rail. [0076] In this particular embodiment, the length of the structural elements **26** is 3 $\frac{5}{8}$  inches or 9.2075 cm, whilst the width is 1 inch or 2.54 cm. The structural elements **26** also have a side member for affixing the clasps, which is at least 2 inches or 5.08 cm across and 1 inch or 2.54 cm in length. The width of the clasps is  $\frac{7}{8}$  inches or 2.2225 cm. The static portion **18** has a width of 2 inches or 5.08 cm and protrudes outwardly at a length of 3 inches or 7.62 cm. The length of the top perimeter of the linear attachment body **12** is 12 $\frac{3}{8}$  inches or 31.4325 cm and the length of the bottom perimeter of the linear attachment body **12** is 13 $\frac{1}{8}$  inches or 33.3375 cm.

[0077] The length of space between the bottom of each opposite structural element **26** is 14 inches or 35.56 cm, whilst the length of space between the top of each opposite structural element **26** is 11 $\frac{1}{2}$  inches or 29.21 cm.

[0078] FIG. **5** shows the multi-legged-stand attachment **10** connected to a tripod **40**, thereby forming a below-canopy firearm stabiliser **48**. In this particular example, the multi-legged-stand attachment is shown engaged to two legs **42** of the tripod through engagement of the two clasps of the left-hand leg connector **14** and the two clasps of the right-hand leg connector **14**. In this arrangement, the attachment body **12** has been mounted so that the firearm support **16** projects underneath a canopy **44** of the tripod **40**.

[0079] It can be clearly seen from FIG. **5** that the angle of the leg connectors **14** is matched to a splay angle of the legs **42** of the tripod **40**. The leg connectors **14** are here engaged with the legs **42** of the tripod **40** just above a first telescoping joint **46** thereof, so that telescopic extension of the legs **42** of the tripod **40** occurs below the level of the multi-legged stand attachment **10**. It may be possible that the attachment body **12** is foldable so that it collapses in conjunction with the folding of the tripod **40**. To alter a height of the firearm support **16**, the user needs merely to extend or retract the tripod legs **42**.

[0080] Referring to FIG. **6**, there is shown an embodiment of an in-use arrangement of the multi-legged-stand attachment **10** supporting a firearm **50**. In this particular example, legs **42** of the tripod **40** have been telescopically extended, and therefore the multi-legged stand attachment **10** is higher off the ground than in FIG. **5**. The firearm **50** may be further supported through engagement with the multi-legged-stand attachment **10** as this allows the shoulder support of said firearm **50** to brace against the back leg **42**.

[0081] Various in-use conditions of the multi-legged stand attachment **10** are shown in FIGS. **7** to **11**. FIG. **7** specifically shows the arrangement of FIG. **5**, wherein the multi-legged-stand attachment **10** of the below-canopy firearm stabiliser **48** is engaged with a multi-legged stand, specifically a tripod **40**. The multi-legged-stand attachment **10** can allow a firearm **50** to be supported whilst a user **52** is in a prone position, whilst allowing the back leg **42** of the tripod **40** to increase the overall stability of the firearm **50**. This position is useful for shooting from a concealed position.

[0082] FIG. **8** shows a similar arrangement wherein the multi-legged-stand attachment **10** of the below-canopy firearm stabiliser **48** is positioned closer to the canopy **44** of the tripod **40**, allowing the user **52** to support a firearm **50** in a perched or sat profile whilst the angle of the firearm **50** remains central. This position may be useful for uneven or rocky terrain.

[0083] FIG. **9** shows the multi-legged-stand attachment **10** of the below-canopy firearm stabiliser **48** being positioned at a position very close to the canopy **44**, with the front two legs **42** of the tripod **40** splayed outwardly, leaving a wide distance therebetween, permitting the user to raise their firearm **50** in an upward direction whilst in a kneeling or crouched position. This position may be useful for shooting at elevated targets.

[0084] FIG. **10** shows the multi-legged-stand attachment **10** of the below-canopy firearm stabiliser **48** being engaged to a tripod **40** at a position close to the canopy **44**, demonstrating the high arc of motion that is performable when in use at this angle, permitting the user **52** to position the firearm



**50** pointing at the ground level whilst stood or crouched. This position may be useful when shooting from an elevated position, such as a mountain-side.

[0085] FIG. **11** shows the multi-legged-stand attachment **10** of the below-canopy firearm stabiliser **48** being engaged to a multi-legged-stand **10** at a position close to the canopy **44** with the legs of the tripod **40** splayed outwardly, leaving a wide distance therebetween, demonstrating the high arc of motion that is performable when in use at this angle, permitting the user to position the firearm **50** pointing at the sky whilst sat. This may be useful for shooting birds.

[0086] FIG. **12** shows an alternative embodiment of the multi-legged-stand attachment **10'** depicted in FIGS. **1** to **4** and is referenced globally at **10'**. Rather than a linear attachment body, the attachment body **12'** is angled, so as to have a centre portion **12a'** and left and right portions **12b'**, **12c'**. The left and right portions **12b'**, **12c'** are angled relative to the centre portion **12a'**. This angle is approximately 25°, and preferably in a range between 0° and 50°. Each left and right structural element **26'** of the leg connectors **14'** is perpendicular to the left portion **12b'** and the right portion **12c'**, respectively and attached thereto. The width of the structural member **26'** in this particular embodiment is 1 inch or 2.54 cm across. The left and right portions **12b'**, **12c'** are each 5½ inches or 13.0175 cm in length. The centre portion **12a'** is 3½ inches or 7.9375 cm. The width of the left and right portions **12b'**, **12c'** are 1 inch or 2.54 cm across. The static portion of the firearm support **16'** is 1½ inches or 13.0175 cm in width and protrudes outwardly at 3 inches or 7.62 cm in length. The structural elements **26'** also have a side member which is at least 2" or 5.08 cm across and 1 inch or 2.54 cm in length.

[0087] The length between the bottom of the two structural elements **26'** is 13¾ inches or 35.2425 cm, whilst the length between the top of the two structural elements **26'** is 11½ inches or 29.5275 cm. As in the first embodiment, each leg connector **14'** has a pair of clasps **28'**.

[0088] FIGS. **13** and **14** show an alternative embodiment of the multi-legged-stand attachment referenced globally at **10''**. Identical or similar reference numerals are used to refer to identical or similar components, and further detailed description is omitted for brevity.

[0089] The multi-legged stand **10''** has a single leg connector **14''**. There is a static portion **18''**, that is fused directly to a structural element **26''** that acts as an attachment body **12''**. The mounting body **20''** of the firearm support **16''** is attached thereon to the static portion **18''**, with the moveable portion **22''** releasably engaged therewith.

[0090] The leg connector **14''** here has a single clasp **28''**, thereby providing a single point of contact when installed.

[0091] The length of the static portion **18''** to the end of the structural member **26''** is 3¼ inches or 8.255 cm. The width of the static portion is 2 inches or 5.08 cm, whilst the height of the support element from the static portion is 1¼ inches or 3.175 cm. The width of the structural member is ½ inch or 1.27 cm and the length of the side of the structural member is 2 inches or 5.08 cm. The top of the structural member conforms to the same perimeter as the static portion, and is thus, 2 inches across in width.

[0092] FIG. **14** specifically shows this alternative embodiment on a side view, with the mounting body **20''**, moveable portion **22''** and firearm-rail connector **24''** more visible.

[0093] FIGS. **15** and **16** show an in-use arrangement of the alternative embodiment of FIGS. **13** and **14** using a single connector **14''** connected to a single leg **42''** of a tripod **40''**, forming a below-canopy firearm stabiliser **48''**. FIG. **15** specifically shows the alternative embodiment without any attached firearm, whilst FIG. **16** shows the alternative embodiment below-canopy firearm stabiliser of FIG. **15** with a firearm **50''** engaged therewith. The firearm is attached to the firearm support **16''**.

[0094] As can be clearly seen, the firearm support **16''** in FIG. **15** is in-use forward-facing, thus appearing to be protruding outwards away from a centre of a void space formed therebetween the three legs **42''** of the tripod **40''**. However, as the leg connector **14''** is moveable about the legs **42''**, this can allow the firearm **50''** to be attached to the leg **42''** outwardly or inwardly-facing, as is

depicted in FIG. 16. In FIG. 16, the leg connector 14" is inwardly-facing so that the firearm support 16" is below the canopy 44", such that the firearm 50" is positioned between the legs 42".

[0095] FIG. 17 shows an alternative embodiment of a multi-legged-stand attachment 110 for supporting a firearm. Identical or similar features will be described using identical or similar reference numerals, and further detailed description is omitted for brevity.

[0096] The multi-legged-stand attachment 110 comprises the attachment body 112, formed here from a carbon fiber composite and which is formed as a static shaped bar. There are two leg connectors 114 having the form of hooks which can be hooked around legs of a tripod, for instance. The hooks may have a throated portion 156 to allow for push-fit connection of the multi-legged-stand attachment 110 to the multi-legged stand.

[0097] The firearm support 116 is here shown only as a receiving aperture for a dedicated mount to be connected to. However, the attachment body 112 may have supplementary receivers 152 or connection portions via which one or more additional supports 154 can be connected, such as that shown in FIG. 17.

[0098] Minor and/or major deviations from any of the dimensions listed do not negate the overall inventive properties of the invention as described, these are just potential metrics of specific exemplary embodiments.

[0099] What would not constitute a tightenable member is something that is not actively tightenable to fit the leg of a multi-legged stand, for example, pre-stressed clip that fits around only a single or a series of leg perimeters.

[0100] Whilst the preferred embodiment of the structural element, attachment body and firearm support of the multi-legged-stand attachment are constructed of a metal or metal alloy, it may also be envisaged that a resiliently flexible material may be used such as a polymer or resinous compound.

[0101] A firearm support as detailed herein is used for supporting a firearm for an in-use condition by engagement with a firearm. Alternatively, the firearm support may be a brace that supports the stock, rail or barrel of the firearm without any connection.

[0102] The structural elements may be shaped as such to fit the converging shape of the legs of a multi-legged stand in-use, but such structural elements may also be provided as perpendicular elements that relative to the attachment body.

[0103] The attachment body could comprise first and second body portions moveably engaged with one another to permit adjustment of a length of the attachment body. For instance, the length of the attachment body could be alterable telescopically.

[0104] The structural elements and/or leg connectors as a whole may also be pivotable. These structural elements terminate at each end of the attachment body in the current depicted embodiments. However, it may be envisaged that the structural elements connect to a hinged or other means to make them independently pivotable, relative to the attachment body.

[0105] Providing a plurality of clasps such as at least one clasp or more than two clasps may be necessary depending on the arrangements. If a smaller structural member is provided, then only one clasp may be affixed, whereas if a longer structural member is provided, more than one clasp may be affixed. The number of clasps may be contingent on the weight of the gun, and how much additional stability is required. These clasps may be removable themselves and swapped with different types of clasps that are of a different size, have different grip members, or are made of a different material.

[0106] It may be envisaged that the leg connectors are not provided as pairs, with one at each end of the attachment body. Instead, only one connector may be required, forming a cantilevered structure. Said cantilevered structure may provide greater flexibility to the user by only necessitating one connection point. It may be that the multi-legged-stand attachment is also provided with more than two leg connectors, particularly if engaged to fit tripod arrangements, it may be that a third leg connector is used for additional support and stability.

[0107] It is appreciated that the attachment body may be formed as a body that has either a rectilinear, cuboidal shape, or a non-rectilinear or substantially non-rectilinear profile such as a cylinder or other polyhedric shape.

[0108] The multi-legged-stand attachment is configured to attach to a number of multi-legged stands, particularly tripods and quadpods. The multi-legged-stand attachment may be configured differently so as to attach to a tripod and/or a quadpod.

[0109] In the embodiment whereby a single leg connector is provided, the attachment body is thereby formed of a static portion combined with a structural element, thereby forming an attachment body without the necessity of employing an elongate member, body or other such structure.

[0110] Here provided is a multi-legged-stand attachment for attaching to a multi-legged stand such as a camera stand, or firearm stand. The multi-legged-stand attachment formed as having at least one leg connector, an attachment body and a firearm support so as to provide support for a firearm on an existing multi-legged stand to provide a below-canopy firearm stabiliser.

[0111] The words 'comprises/comprising' and the words 'having/including' when used herein with reference to the present invention are used to specify the presence of stated features, integers, steps, or components, but do not preclude the presence or addition of one or more other features, integers, steps, components, or groups thereof.

[0112] It is appreciated that certain features of the invention, which are, for clarity, described in the context of separate embodiments, may also be provided in combination in a single embodiment. Conversely, various features of the invention which are, for brevity, described in the context of a single embodiment, may also be provided separately or in any suitable sub-combination.

[0113] The embodiments described above are provided by way of example only, and various changes and modifications will be apparent to persons skilled in the art without departing from the scope of the present invention as defined by the appended claims.

## Claims

1. A multi-legged-stand attachment for supporting a firearm, the multi-legged-stand attachment comprising: at least one leg connector for in-use engaging with a leg of a multi-legged stand below a canopy thereof; an attachment body engaged with the at least one leg connector; and a firearm support positioned on the attachment body and which is configured to support a firearm to thereby convert the multi-legged stand into a below-canopy firearm stabiliser.
2. A multi-legged-stand attachment as claimed in claim 1, wherein a plurality of leg connectors is provided.
3. A multi-legged-stand attachment as claimed in claim 1, wherein only one leg connector is provided.
4. A multi-legged-stand attachment as claimed in claim 1, wherein the at least one leg connector has at least one clasp.
5. A multi-legged-stand attachment as claimed in claim 4 wherein a plurality of clasps is provided.
6. A multi-legged-stand attachment as claimed in claim 4, wherein the at least one clasp has a strap and a complementary strap connector.
7. A multi-legged-stand attachment as claimed in claim 1, wherein the at least one leg connector comprises a hook.
8. A multi-legged-stand attachment as claimed in claim 1, wherein the attachment body is formed as a linear body or as a non-linear body.
9. A multi-legged-stand attachment as claimed in claim 1 wherein the at least one leg connector is angled or substantially angled relative to the firearm support.
10. A multi-legged-stand attachment as claimed in claim 1, wherein the attachment body comprises first and second body portions moveably engaged with one another to permit adjustment of a length

of the attachment body.

- 11.** A multi-legged-stand attachment as claimed in claim 1, wherein the attachment body is foldable to allow it to remain attached to the multi-legged stand if the multi-legged stand is folded.
  - 12.** A multi-legged-stand attachment as claimed in claim 1, wherein the firearm support comprises a brace for resting a firearm on.
  - 13.** A multi-legged-stand attachment as claimed in claim 1, wherein the firearm support protrudes outwardly from the attachment body and/or is integrally formed as part of the attachment body or is releasably engageable with the attachment body.
  - 14.** A multi-legged-stand attachment as claimed in claim 1, wherein the firearm support is moveably engaged with the attachment body.
  - 15.** A multi-legged-stand attachment as claimed in claim 1, wherein the firearm support comprises a static portion, wherein the static portion further comprises a mounting body having a moveable portion engaged therewith.
  - 16.** A multi-legged-stand attachment as claimed in claim 15, wherein the moveable portion comprises a firearm-rail connector attached thereon which may be releasably engageable from the moveable portion.
  - 17.** A multi-legged-stand attachment as claimed in claim 15, wherein the movable portion is rotatable about an axis relative to the static portion of the firearm support.
  - 18.** A multi-legged-stand attachment as claimed in claim 1, wherein the at least one leg connector is rotatable.
  - 19.** A multi-legged-stand attachment as claimed in claim 1, wherein the at least one leg connector is releasably engageable from the attachment body.
  - 20.** A method for reconfiguring a multi-legged stand to support a firearm, the method comprising the steps of: a. providing a multi-legged-stand attachment as claimed in claim 1; and b. engaging the at least one leg connector with at least one leg of the multi-legged stand so that the firearm support is positioned to support a firearm below a canopy of the multi-legged stand.
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