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(54) **ACCESSORY MOUNTS FOR ARCHERY BOWS AND RELATED APPARATUSES**

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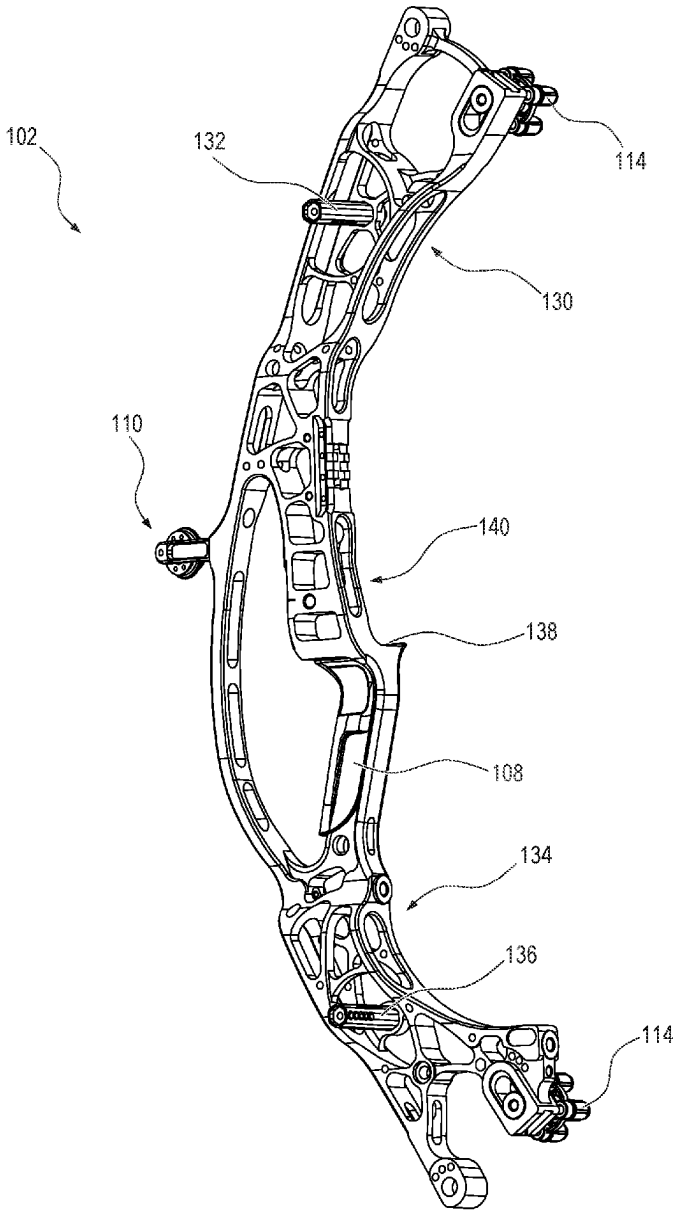
(57) **ABSTRACT**

An archery bow includes a riser, a limb, and a standoff. The riser has a first lateral side and a second lateral side. The first lateral side has a first set of braces defining a first plane. The second lateral side has a second set of braces defining a second plane. The limb extends from the riser. The standoff is couplable to an archery bow accessory. The standoff extends through the first plane and couples to the second lateral side.



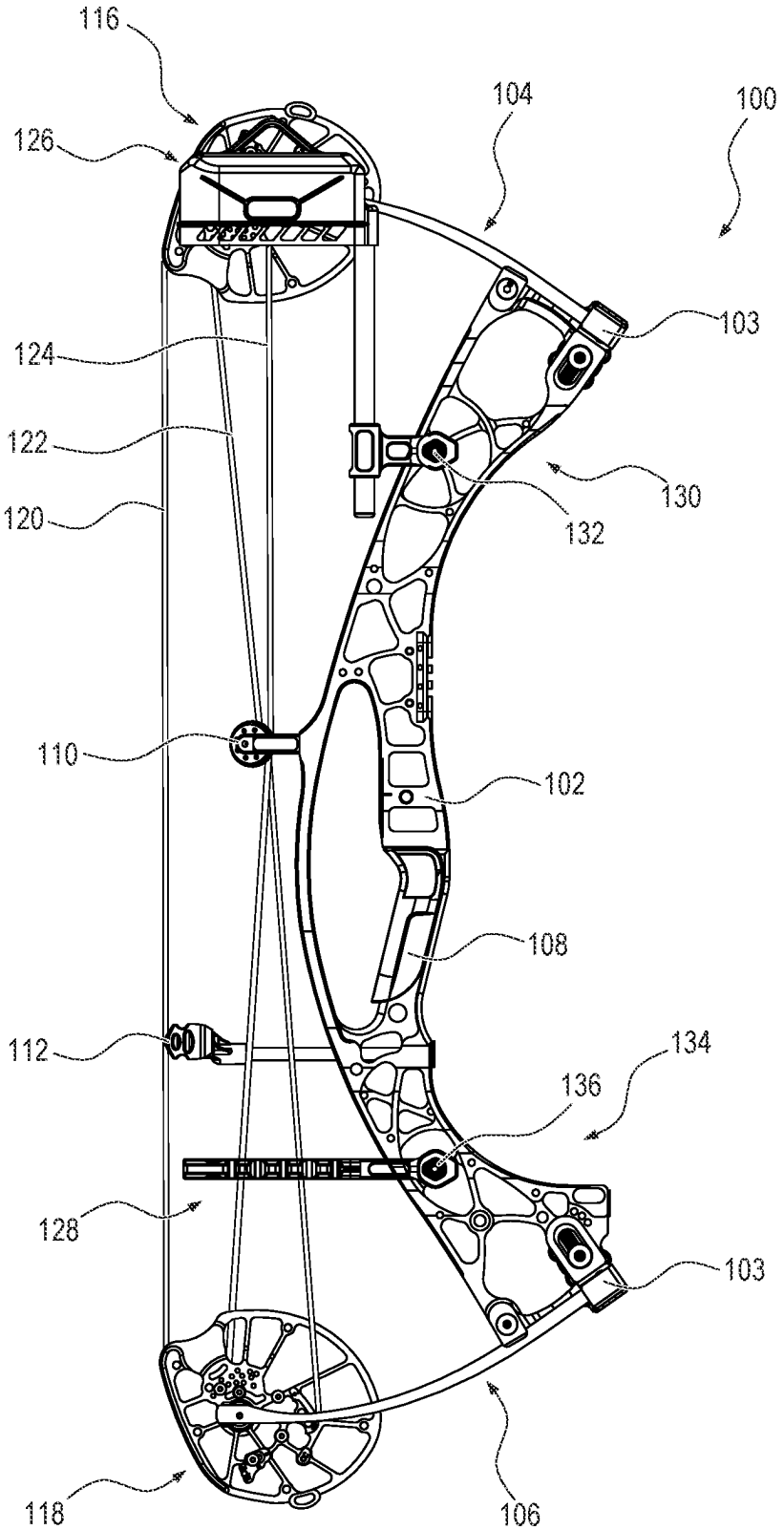

116
104
100
126
103
124
122
130
132
120
110
102
108
112
134
136
128
103
118
106

FIG. 1A

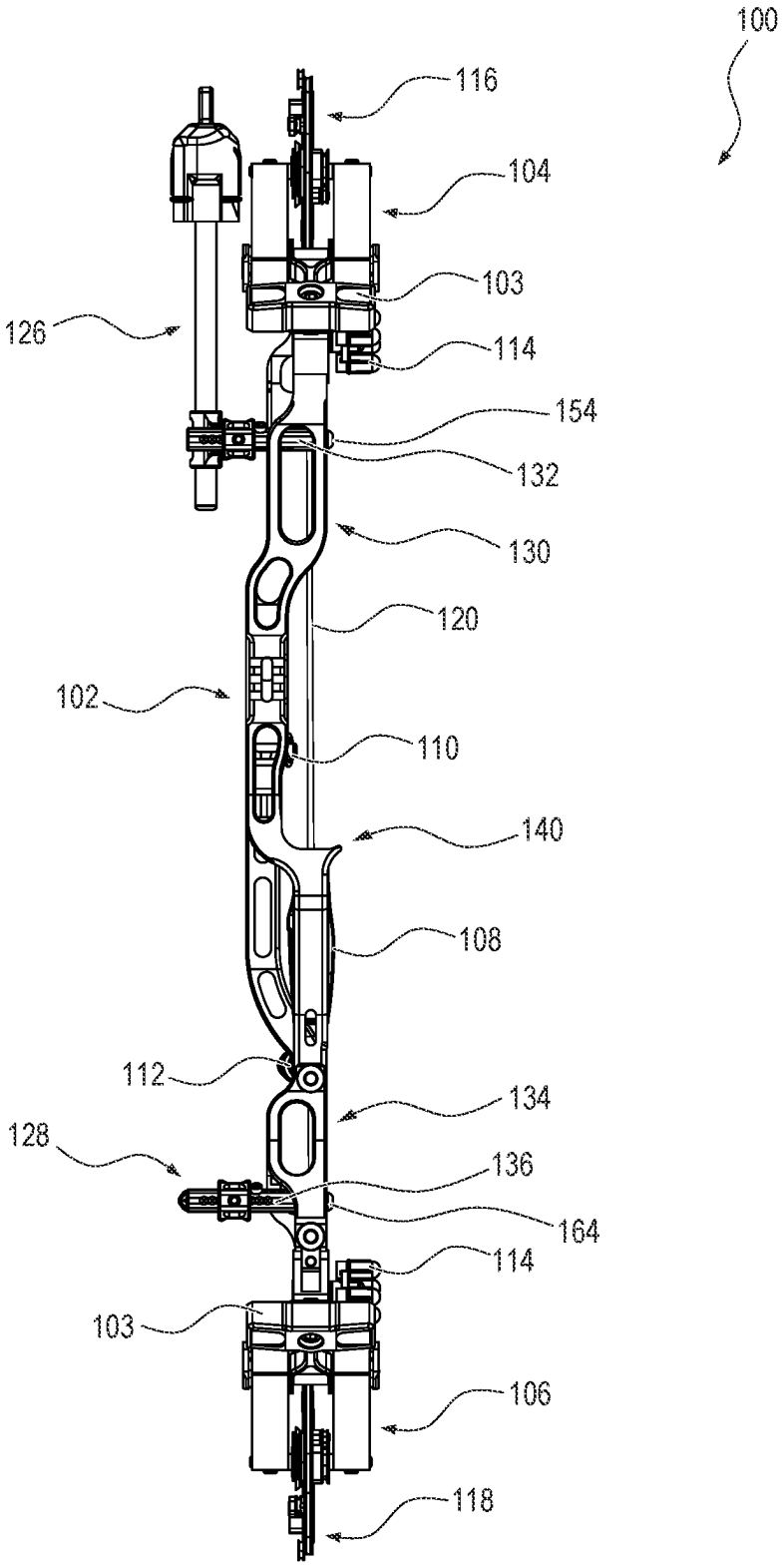

100
116
104
103
126
114
154
132
130
120
102
110
140
108
112
134
128
136
164
114
103
106
118

FIG. 1B

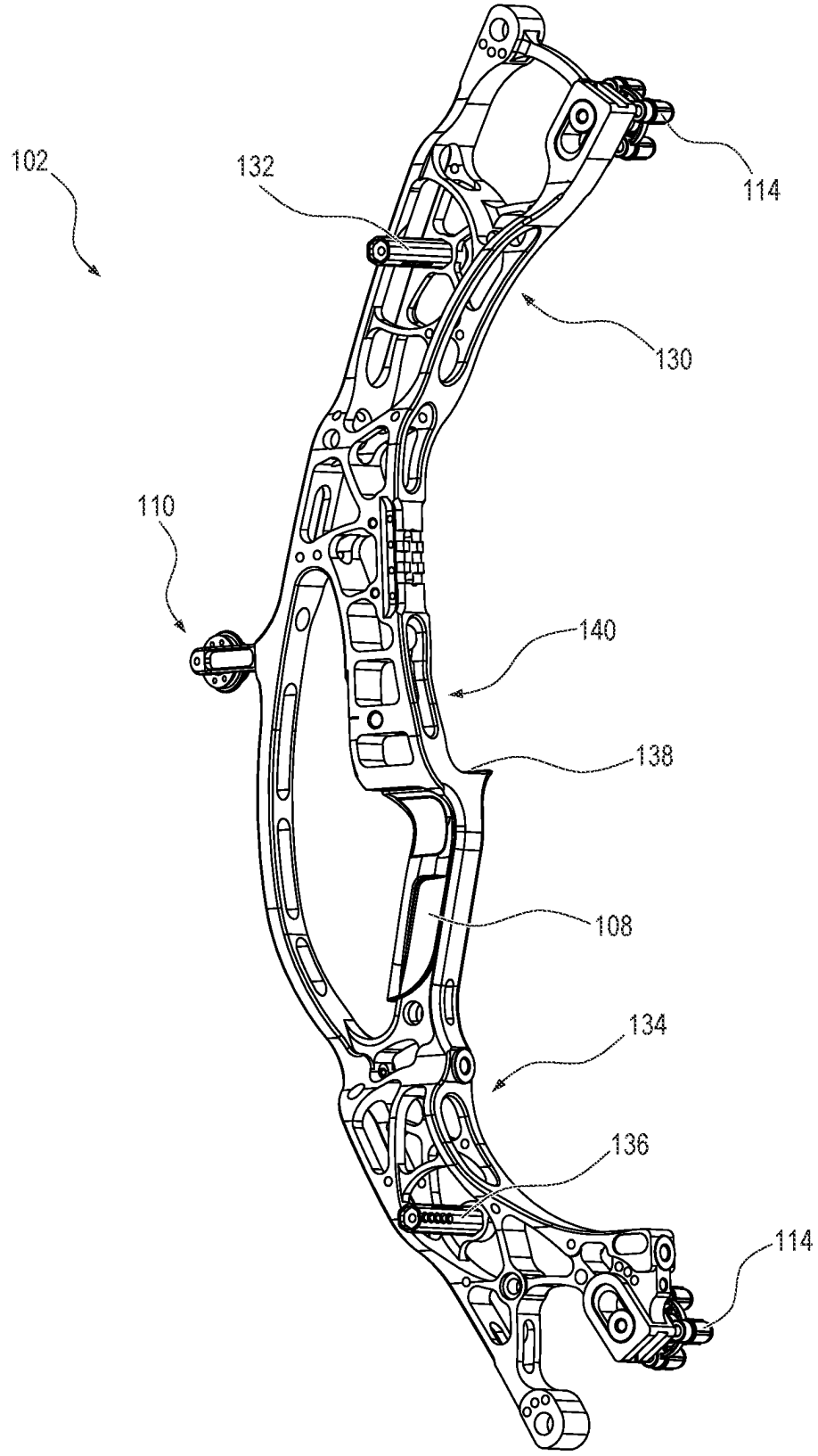


FIG. 1C

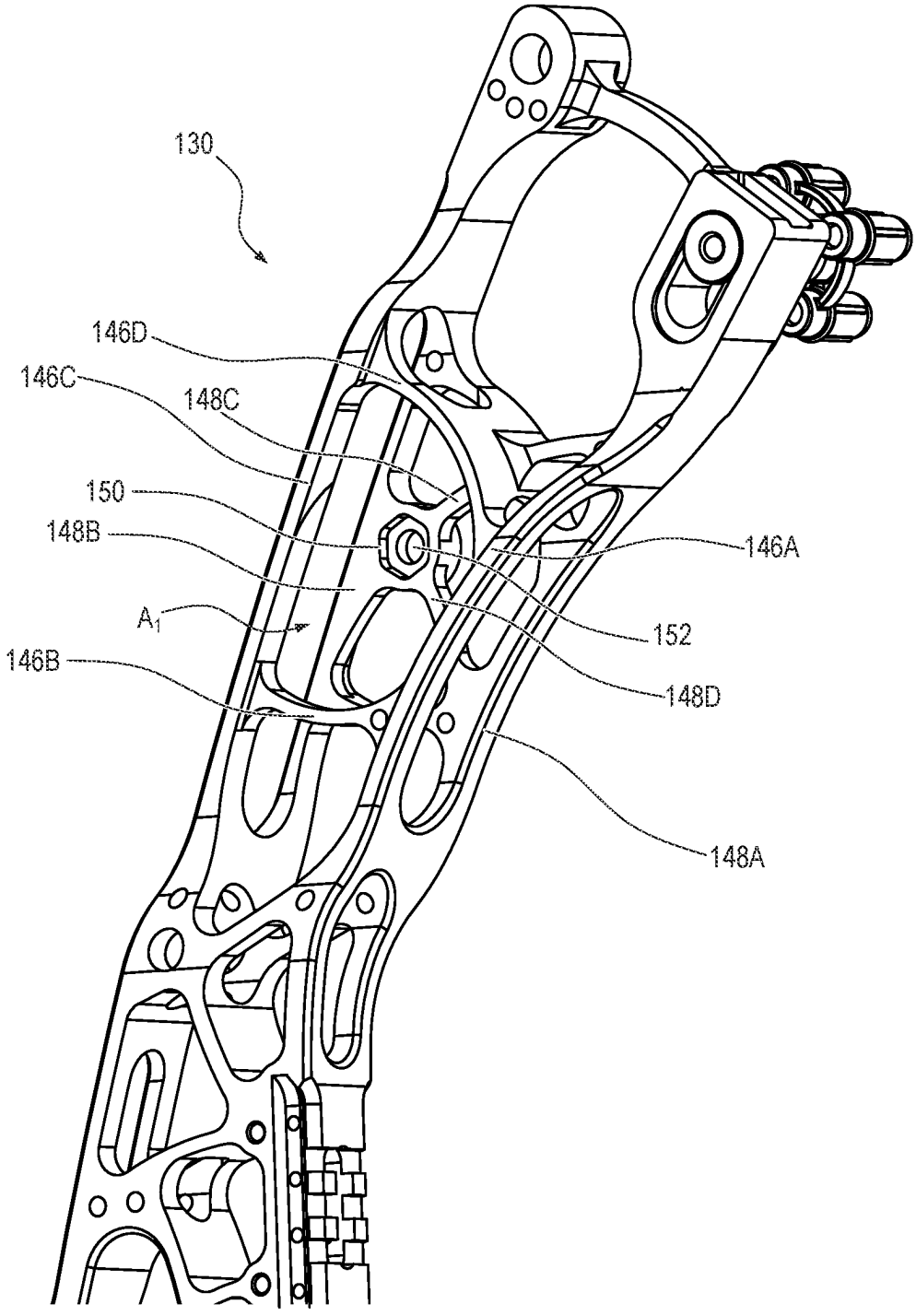


FIG. 1D

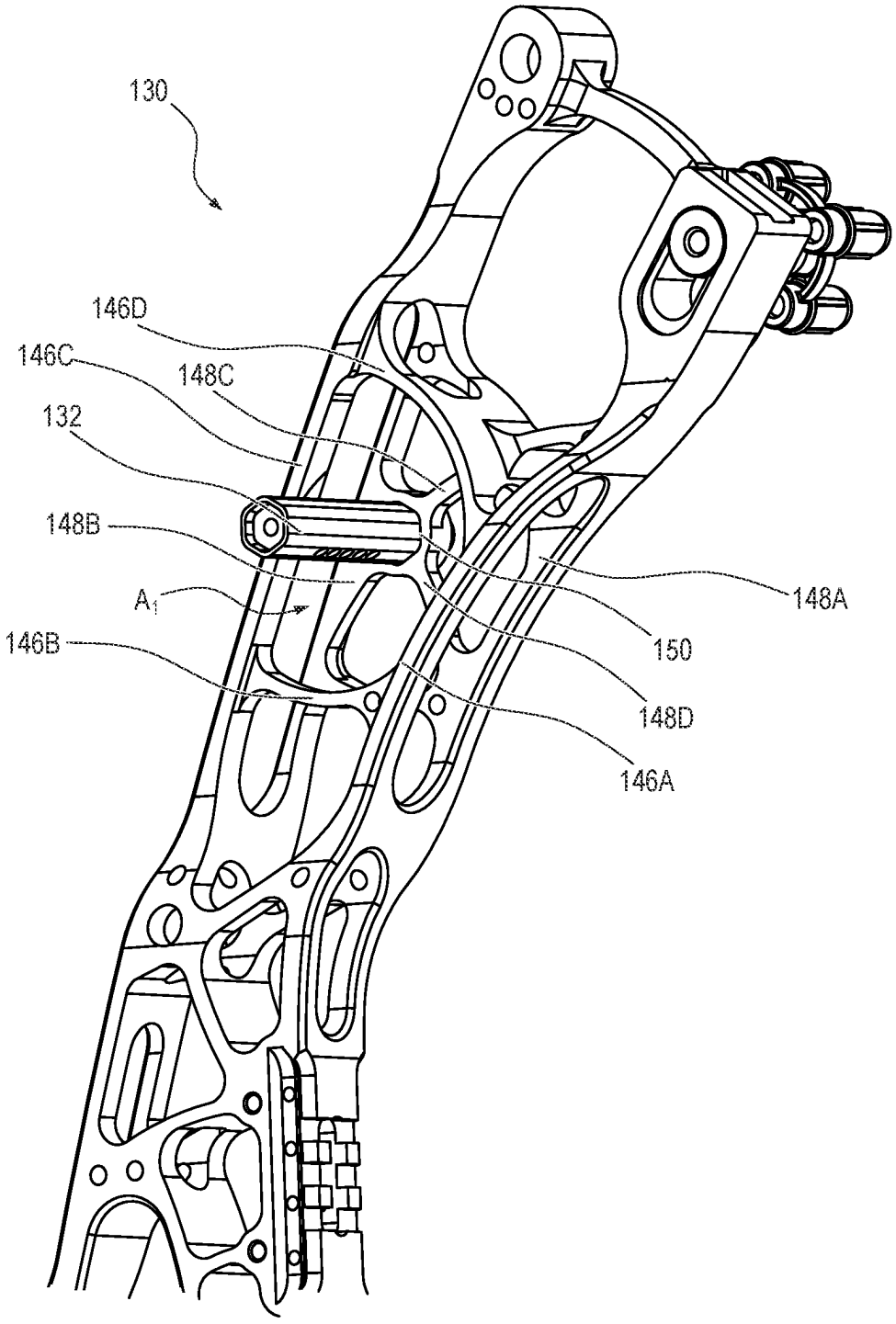


FIG. 1E

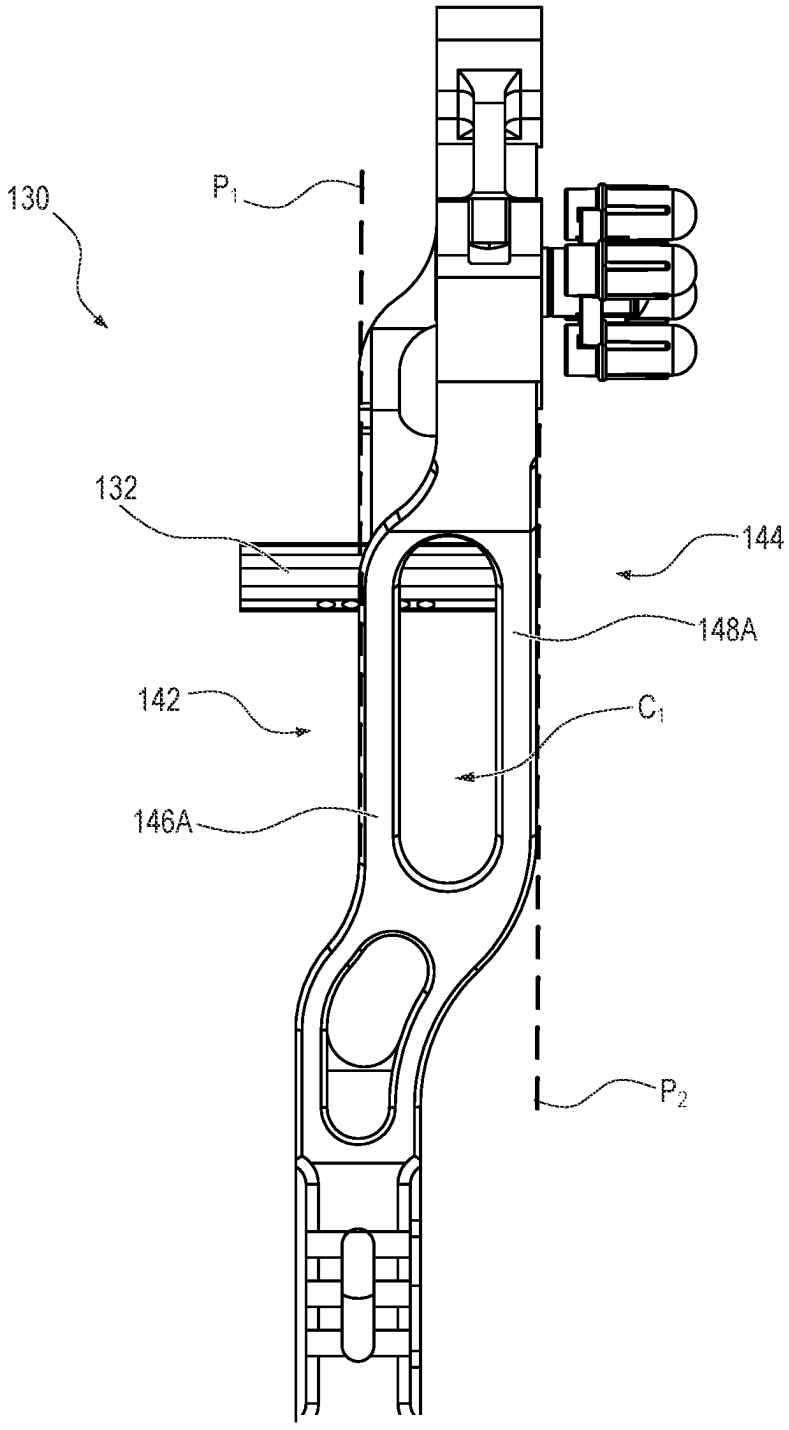


FIG. 1F

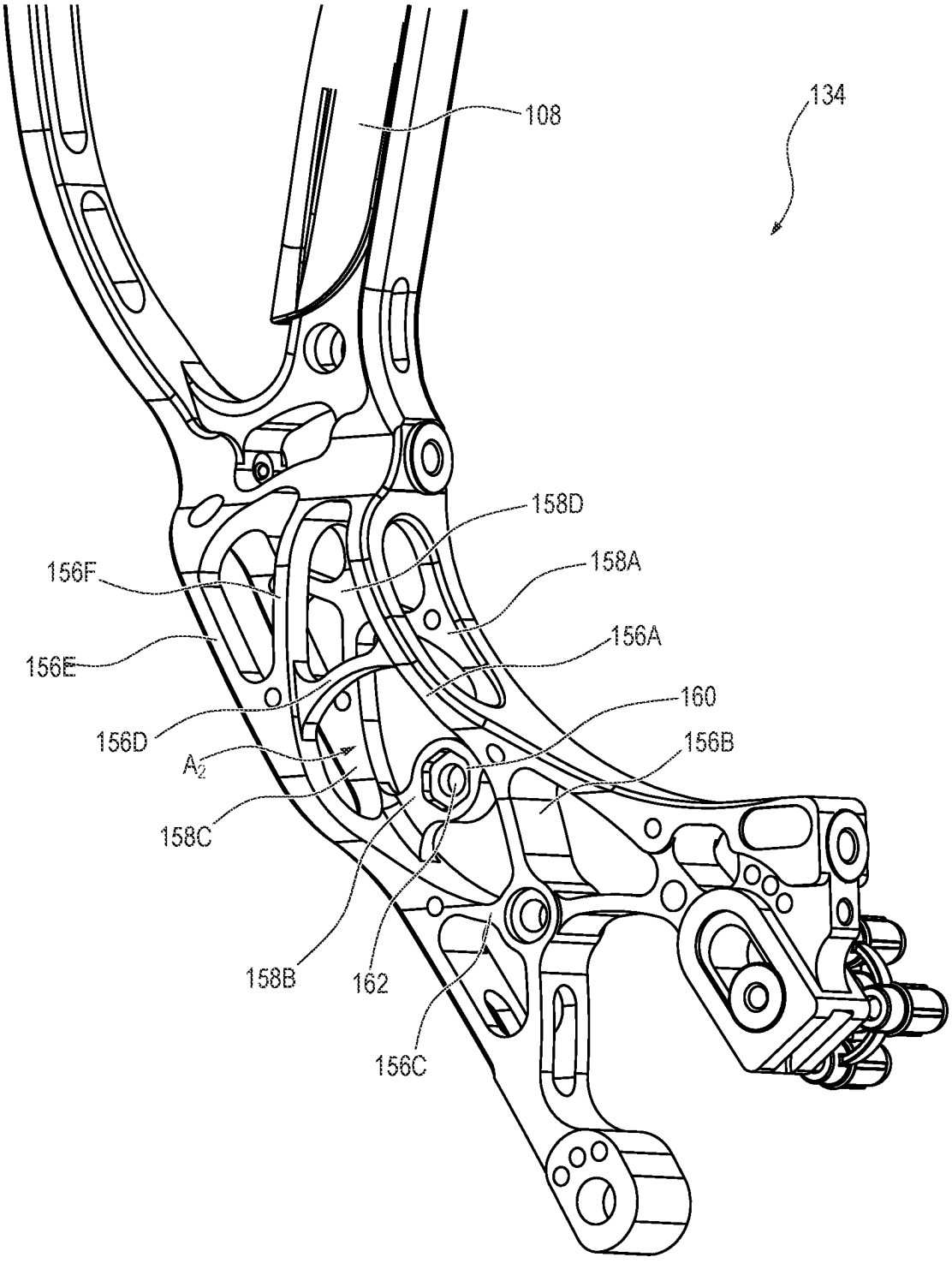

108
134
158D
156F
158A
156E
156A
160
156D
156B
A_2
158C
158B
162
156C

FIG. 1G

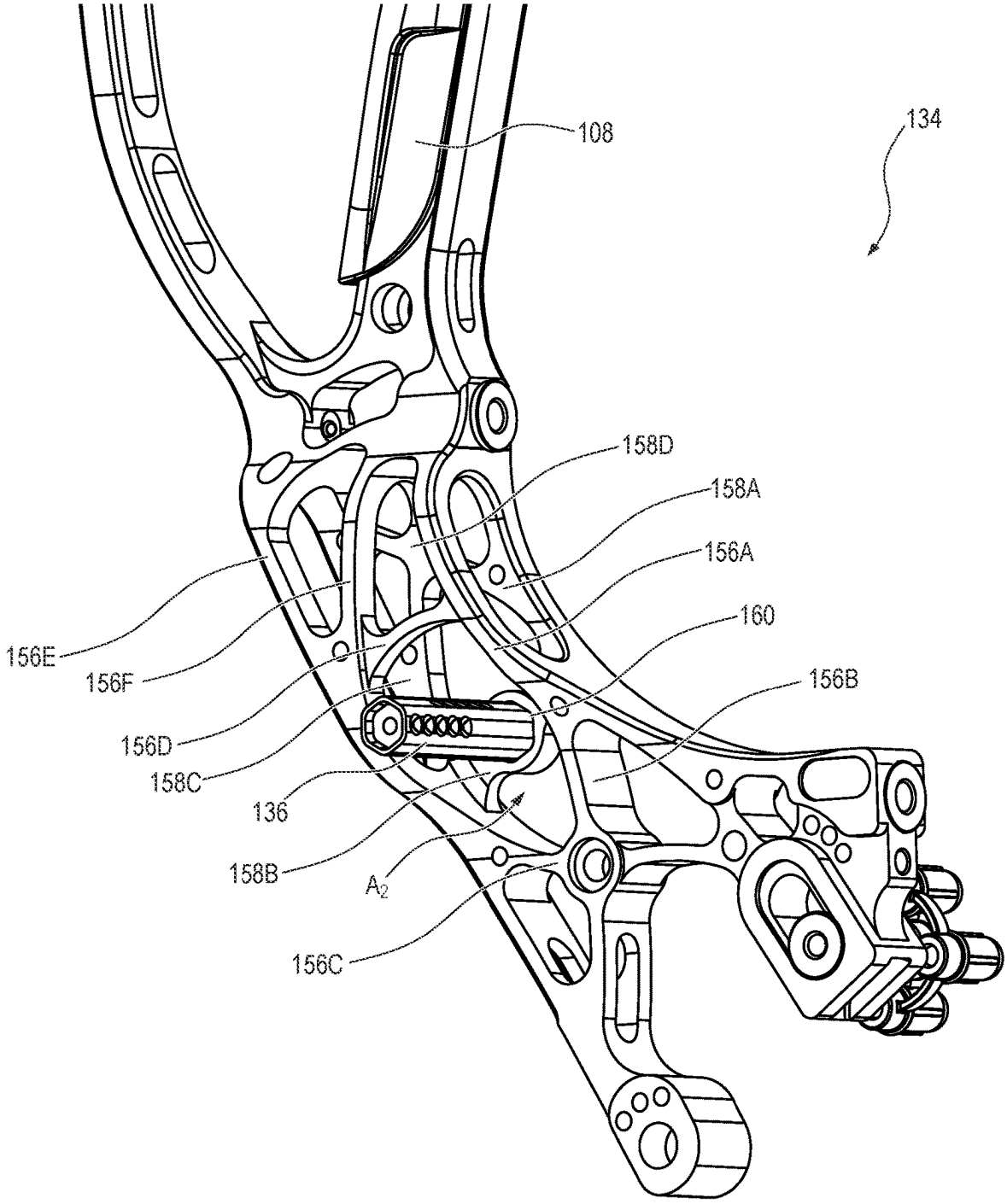

108
134
158D
158A
156A
160
156E
156F
156B
156D
158C
136
158B
A_2
156C

FIG. 1H

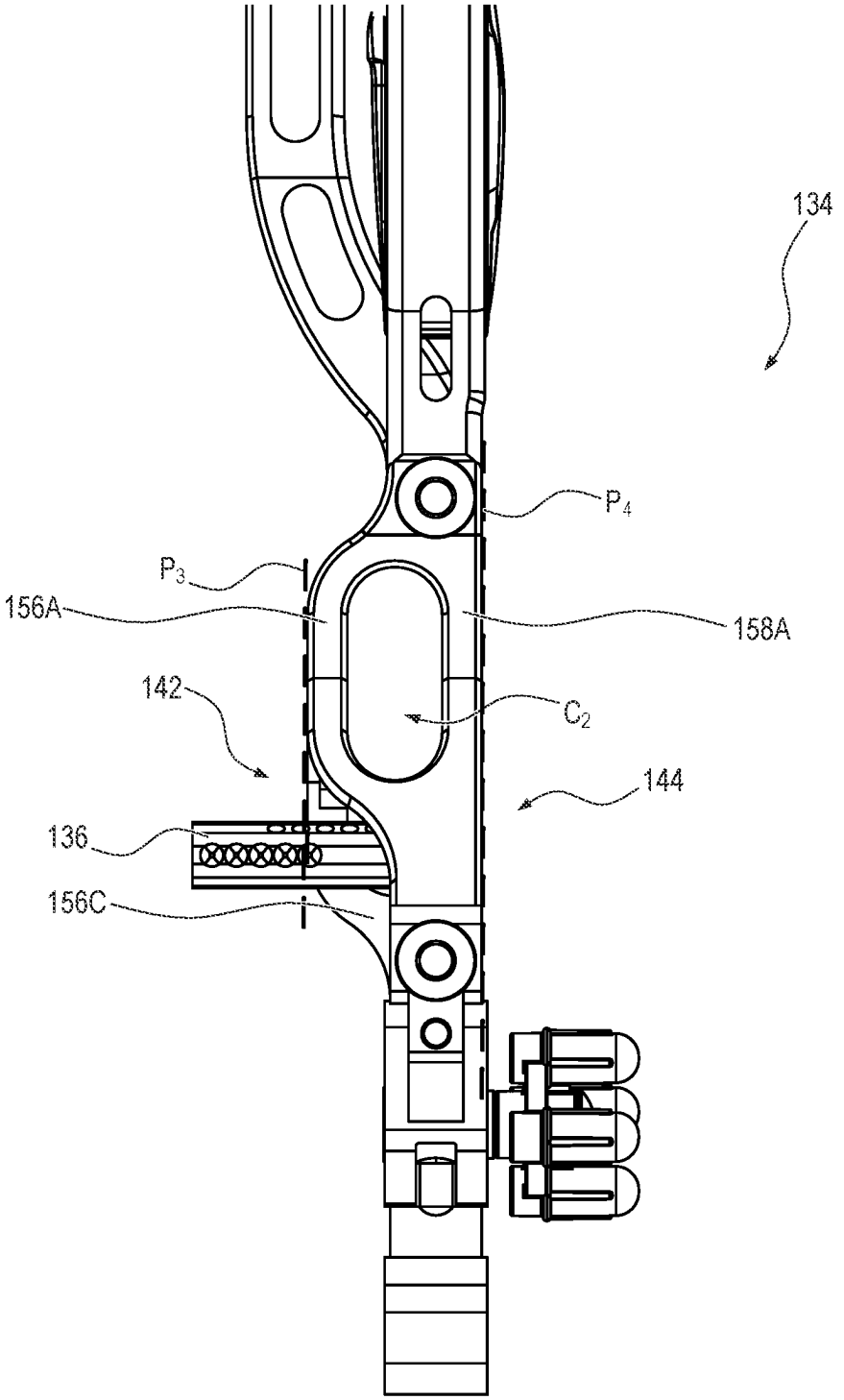


FIG. 1I

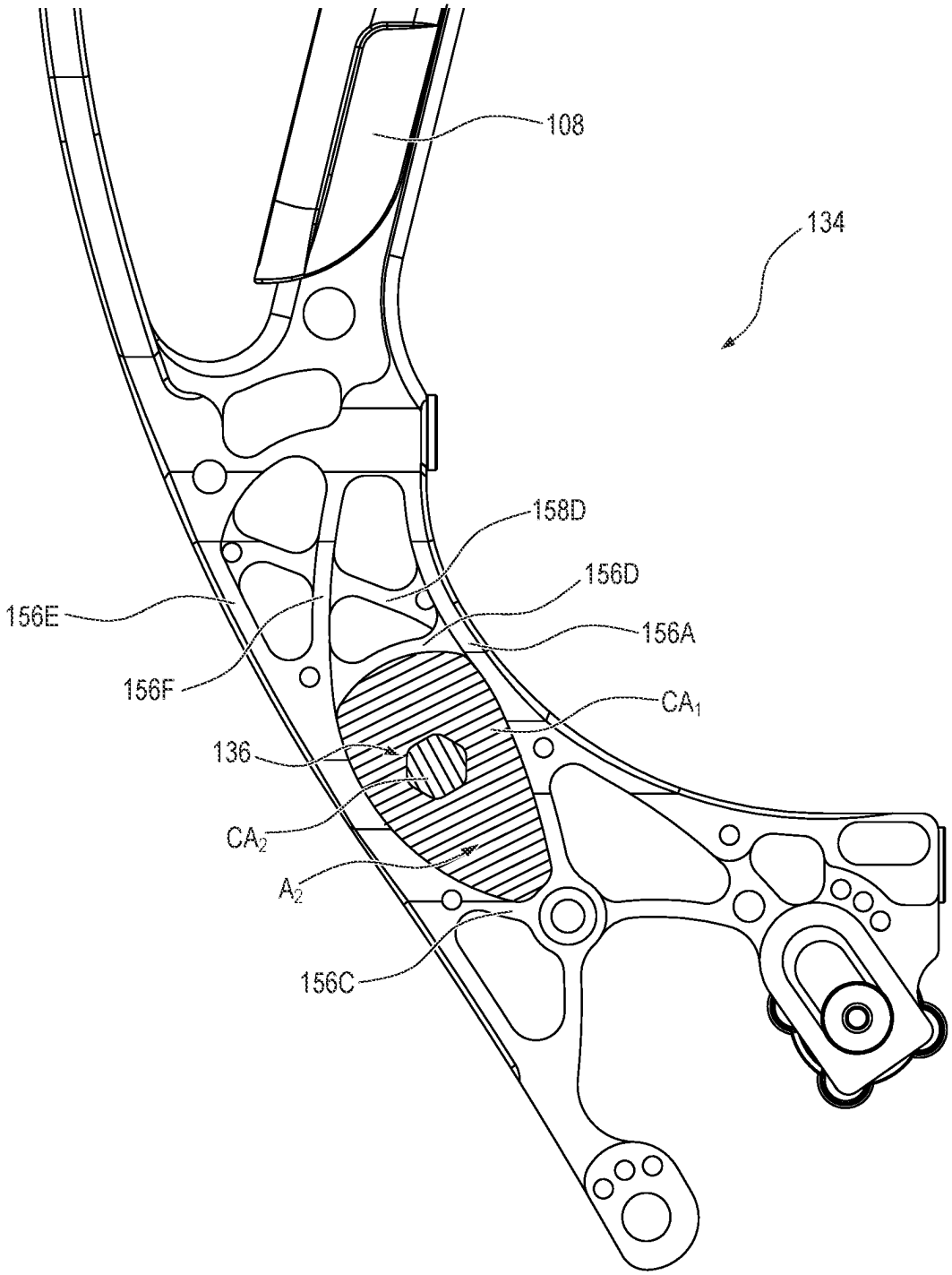


FIG. 1J

ACCESSORY MOUNTS FOR ARCHERY BOWS AND RELATED APPARATUSES

TECHNICAL FIELD

[0001] The present disclosure generally relates to archery equipment and specifically relates to features for mounting accessories on archery equipment.

BACKGROUND

[0002] Archery equipment, such as recurve bows, crossbows, and compound bows, are regularly used to launch arrows and other projectiles down range at one or more targets. One or more archery accessories coupled to the riser of an archery bow can increase the user experience of the archer. For example, archery accessories can provide additional utility, accuracy, and comfort. Archery accessories can be improved to advantageously impact an archer's shooting experience, performance, and overall satisfaction with the archery equipment.

SUMMARY

[0003] One aspect of the present disclosure relates to an archery bow including a riser, a limb, and a standoff. The riser has a first lateral side and a second lateral side. The first lateral side has a first set of braces defining a first plane. The second lateral side has a second set of braces defining a second plane. The limb extends from the riser. The standoff is couplable to an archery bow accessory. The standoff extends through the first plane and couples to the second lateral side.

[0004] In some examples, the first set of braces and the second set of braces can define a tunnel cavity between the first lateral side and the second lateral side. The standoff can be disposed within the tunnel cavity. The standoff can have a length that is greater than a width of the tunnel cavity. In some examples, the first set of braces can define an aperture. The standoff can be free-floating within the aperture. In some examples, the standoff can be a first standoff and the archery bow can further include a second standoff. The first lateral side can include a third set of braces defining a third plane. The second lateral side can include a fourth set of braces defining a fourth plane. The second standoff can extend through the third plane and couple to the second lateral side.

[0005] In some examples, the first plane can extend parallel to the second plane. In some examples, the riser can include a standoff engagement feature defined by the second set of braces. The standoff engagement feature can face the first plane. The standoff engagement feature can be configured to receive a proximal end of the standoff. The standoff engagement feature can define a through-hole. The standoff can be configured to couple to the riser by engaging a fastener disposed within the through-hole.

[0006] Another aspect of the present disclosure relates to an archery bow riser including a first lateral side, a second lateral side, and a standoff engagement feature. The first lateral side has a first set of braces defining a first plane. The second lateral side has a second set of braces defining a second plane. The standoff engagement feature is defined by the second set of braces. The standoff engagement feature faces the first plane.

[0007] In some examples, the standoff engagement feature can have a recessed portion configured to receive an archery accessory. In some examples, the standoff engagement feature can define a through-hole. In some examples, the first set of braces and the second set of braces can define a tunnel cavity between the first lateral side and the second lateral side. The tunnel cavity can be configured to receive a standoff.

[0008] In some examples, the standoff engagement feature can be a first standoff engagement feature. The first lateral side can include a third set of braces defining a third plane. The second lateral side can include a fourth set of braces defining a fourth plane. The archery bow riser can further include a second standoff engagement feature defined by the fourth set of braces. The second standoff engagement feature can face the third plane. In some examples, the second lateral side can define an arrow shelf. The arrow shelf can be disposed between the first standoff engagement feature and the second standoff engagement feature. In some examples, the second plane can intersect the arrow shelf.

[0009] Yet another aspect of the present disclosure includes an archery bow. The archery bow includes a limb, a bowstring, a riser, and a standoff. The riser has a first lateral side, a second lateral side, and a standoff engagement feature. The first lateral side has a first set of braces defining an aperture. The second lateral side has a second set of braces. The standoff engagement feature is coupled to one or more braces of the second set of braces. The standoff is configured to be coupled to the standoff engagement feature. The aperture has a first cross-sectional area through a cross-section. The standoff has a second cross-sectional area through the cross-section. The first cross-sectional area is at least three times larger than the second cross-sectional area.

[0010] In some examples, the cross-section can extend parallel to the first lateral side.

[0011] The above summary of the present invention is not intended to describe each embodiment or every implementation of the present invention. The Figures and the detailed description that follow more particularly exemplify one or more preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The accompanying drawings and figures illustrate a number of exemplary embodiments and are part of the specification. Together with the present description, these drawings demonstrate and explain various principles of this disclosure. A further understanding of the nature and advantages of the present invention may be realized by reference to the following drawings. In the appended figures, similar components or features may have the same reference label.

[0013] FIG. **1**A is a side view of an archery bow, according to some embodiments.

[0014] FIG. **1**B is a front view of the archery bow, according to some embodiments.

[0015] FIG. **1**C is a perspective side view of a riser of an archery bow, according to some embodiments.

[0016] FIG. **1**D is a detailed perspective side view of an upper portion of the riser without a standoff, according to some embodiments.

[0017] FIG. **1**E is a detailed perspective side view of the upper portion of the riser with a standoff, according to some embodiments.

[0018] FIG. **1**F is a detailed front view of the upper portion of the riser with the standoff, according to some embodiments.

[0019] FIG. **1**G is a detailed perspective side view of a lower portion of the riser without a standoff, according to some embodiments.

[0020] FIG. **1**H is a detailed perspective side view of the lower portion of the riser with a standoff, according to some embodiments.

[0021] FIG. **1**I is a detailed front view of the lower portion of the riser with the standoff, according to some embodiments.

[0022] FIG. **1**J is a cross-sectional view of the lower portion of the riser shown taken through an aperture, according to some embodiments.

[0023] While the embodiments described herein are susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. However, the exemplary embodiments described herein are not intended to be limited to the particular forms disclosed. Rather, the instant disclosure covers all modifications, equivalents, and alternatives falling within the scope of the appended claims.

DETAILED DESCRIPTION

[0024] In some examples, an archery bow (e.g., compound, recurve, cross, etc.) can balance within the hand of an archer when used to launch projectiles. The balance of the archery bow can correlate with a center of mass defined by the archery bow and accessories affixed to the archery bow. For example, an archery bow having a center of mass located nearer a centerline of the riser can advantageously balance while launching projectiles by providing a more accurate and repeatable shot experience. In some examples, an archery bow having a center of mass located relatively further from a centerline of the riser can be unbalanced while launching projectiles and provide a less accurate and less repeatable shot experience. As such, archery accessories (e.g., quivers, stabilizers, rests, sights, etc.) affixed to the archery bow can undesirably move the center of mass of the archery bow further from the centerline. While a lateral or side stabilizer including weights can be coupled to some archery bows to return the center of mass back toward the centerline of the riser, side stabilizers with weight can also undesirably increase the overall weight of the archery bow.

[0025] According to one aspect of the present disclosure, the archery bow includes a riser, a limb, and a standoff. The riser has a first lateral side and a second lateral side. The first lateral side has a first set of braces defining a first plane. The second lateral side has a second set of braces defining a second plane. The limb extends from the riser. The standoff is couplable to an archery bow accessory. The standoff extends through the first plane and couples to the second lateral side. For example, the standoff can be coupled to a standoff engagement feature formed or defined by the second lateral side. The standoff engagement feature can face or open toward the first lateral side such that the standoff is disposable within a tunnel cavity defined by the first and second sets of braces. In some examples, the first lateral side having a first set of braces can define an aperture which reduces the mass associated with the first lateral side. Meaning, the aperture reduces or limits the number and size of braces on the first lateral side. Conversely, the second set of braces on the second lateral side defines or forms the standoff engagement feature. As such, the second set of braces may have an increased mass relative to the reduced mass of the first set of braces. This disparity in mass between the first set of braces and the second set of braces can beneficially shift a center of mass of the riser away from the first lateral side of the riser and thereby generate advantageous balancing characteristics of the archery bow.

[0026] The present description provides examples, and is not limiting of the scope, applicability, or configuration set forth in the claims. Thus, it will be understood that changes may be made in the function and arrangement of the standoffs and standoff engagement features discussed without departing from the spirit and scope of the disclosure, and various embodiments may omit, substitute, or add other features or subcomponents as appropriate. For instance, features described with respect to certain embodiments may be combined in other embodiments. The specific examples shown in the figures and described herein should not, therefore, be considered to limit the breadth of possible embodiments and combinations of possible embodiments contemplated by the present disclosure.

[0027] Referring now to the figures in detail, FIG. **1**A and FIG. **1**B show a compound archery bow **100**. The archery bow **100** is at a rest position (e.g., a brace state or brace position). The archery bow **100** can comprise a riser **102** from which one or more upper limbs **104** and one or more lower limbs **106** extend. For example, the upper limbs **104** can be affixed to the riser **102** by one or more limb pockets **103**. The archery bow **100** can include a handle portion or grip **108**, a roller guard or cable guard **110**, a string-stop damper **112**, dampers **114**, and other components.

[0028] The upper limbs **104** may be connected to an upper cam assembly **116**, and the lower limbs **106** may be connected to a lower cam assembly **118**. A bowstring **120** (i.e., draw string) may extend across the length of the archery bow **100** between the upper cam assembly **116** and the lower cam assembly **118**. The terminal ends of the bowstring **120** may be attached to and held entrained to the cam assemblies **116**, **118**, at least in the brace position, and the limbs **104**, **106** may be flexed to store energy and retain tension in the bowstring **120**. A first cable **122** and a second cable **124** may also be attached to and extend between the upper cam assembly **116** and the lower cam assembly **118**. Collectively, the first cable **122** and the second cable **124** may be referred to herein as the cables of the archery bow **100**. The first and second cables **122**, **124** may retain tension in the limbs **104**, **106** and cam assemblies **116**, **118** and may be controlled to adjust tension in the bowstring **120**.

[0029] The figures illustrate example archery apparatuses that may be used in conjunction with the principles and teachings of the present disclosure. Thus, while the archery bows described herein are compound bows, it will be understood by those having ordinary skill in the art that the components of the archery bow, accessories, and related methods and apparatuses included in embodiments of the present disclosure may be applied to components and apparatuses in compound bows, recurve bows, crossbows, their accessories, and other equipment related to archery. Similarly, archery equipment applying the teachings of the present disclosure does not need to implement all of the features of the present disclosure. For example, in some embodiments, the archery bow may not comprise a cable guard **110** or a string-stop damper **112**, so features associated with those accessories may be omitted from the archery bow **100**.

[0030] When shooting an arrow, the tail end of the arrow may be nocked with the bowstring **120** at a nocking point

(not shown) while the archery bow **100** is in the brace position shown in FIG. **1**A. The bowstring **120** may be drawn rearward to a full draw position, thereby partially unraveling the bowstring **120** from the outer grooves of the cam assemblies **116**, **118**. The archer may grasp the grip **108** of the riser **102** and draw back the bowstring **120** (e.g., by using a D-loop, not shown). As the limbs **104**, **106** flex inward and the cables **122**, **124** wind around the cam assemblies **116**, **118**, the cables **122**, **124** may slide along or may be in rolling contact with portions of the cable guard **110**, which may comprise at least one roller or other smooth support in contact with the cables **122**, **124** where they contact the cable guard **110**.

[0031] When the bowstring **120** is released, the potential/stored energy in the limbs **104**, **106** is released, and the bowstring **120** quickly accelerates back toward the brace position (shown in FIG. **1**A) as it applies a shooting force to an end of the projectile (e.g., an arrow). As the limbs **104**, **106** release their energy, the cam assemblies **116**, **118** are spread apart, and the terminal ends of the bowstring **120** wrap around the cam assemblies **116**, **118**, and the cables **122**, **124** unwind from the cam assemblies **116**, **118**. A portion of the bowstring **120** may contact the string-stop damper **112**, which can help dampen vibrations in the bowstring **120**, and the cables **122**, **124** may roll or slide against the cable guard **110** as the cam assemblies **116**, **118** move.

[0032] In some examples, the archery bow **100** can include one or more accessories. For example, the archery bow **100** can include a quiver (i.e., an arrow quiver hood **126** and an arrow gripper **128**) affixed to the riser **102**. The quiver can be removably coupled to the riser **102** and retain one or more arrows on the archery bow **100**. The arrow quiver hood **126** can be coupled to an upper portion **130** of the riser **102** by a first standoff **132**. Similarly, the arrow gripper **128** can be coupled to a lower portion **134** of the riser **102** by a second standoff **136**. A proximal end of the first standoff **132** can be retained within a first standoff engagement feature (see first standoff engagement feature **150** in FIG. **1**D) formed or defined within the upper portion **130** of the riser **102** such that the first standoff **132** is disposed within a cavity or volume at least partially defined by one or more braces of the riser **102**. A proximal end of the second standoff **136** can be retained within a second standoff engagement feature (see second standoff engagement feature **160** in FIG. **1**G) formed or defined within the lower portion **134** of the riser **102** such that the second standoff **136** is disposed within a cavity or volume at least partially defined by one or more braces of the riser **102**. The first and second standoff engagement features and their associated standoffs **132**, **136** will be described in further detail below with reference to FIGS. **1**C-**1**I.

[0033] FIG. **1**C shows the riser **102** having first and second standoffs **132**, **136** coupled to upper and lower portions **130**, **134** of the riser **102**, respectively. The riser **102** can include an arrow shelf **138** formed or defined by a mid-portion **140** of the riser **102** disposed between the upper portion **130** and the lower portion **134**. For example, FIG. **1**C shows a detailed view of the upper portion **130** of the riser **102** without the first standoff **132** coupled thereto. FIGS. **1**D-**1**F show detail views of the upper portion **130** of the riser **102**. In some examples, the upper portion **130** of the riser **102** can include a first lateral side **142** and a second lateral side **144** (see FIG. **1**F). The first lateral side **142** can include a first set of braces **146**A, **146**B, **146**C, **146**D at least partially defining an aperture A_1 within the first lateral side **142**. While a specific quantity and arrangement of braces **146**A-**146**D are shown in the figures, aspects of the present disclosure include any quantity and/or arrangement of braces. The second lateral side **144** can include a second set of braces **148**A, **148**B, **148**C, **148**D. While a specific quantity and arrangement of braces **148**A-**148**D are shown in the figures, aspects of the present disclosure include any quantity and/or arrangement of braces. In some examples, the first set of braces **146**A-**146**D and the second set of braces **148**A-**148**D can form or define a first tunnel cavity C_1 (see FIG. **1**F).

[0034] A first standoff engagement feature **150** can be at least partially defined or otherwise formed by one or more of the braces of the second set of braces **148**A-**148**D. For example, the first standoff engagement feature **150** can be a geometric shape recessed within the second set of braces **148**A-**148**D. The first standoff engagement feature **150** can face the first tunnel cavity C_1, for example, the first standoff engagement feature **150** can partially define the first tunnel cavity C_1. In other words, the first standoff engagement feature **150** can be formed on or defined on a surface of the second lateral side **144** of the riser **102** that faces the first lateral side **142** of the riser **102**. The first standoff engagement feature **150** can be accessible from the first lateral side **142** of the riser **102** to receive the first standoff **132**. For example, the first standoff **132** can be inserted into the first tunnel cavity C_1 and engage the first standoff engagement feature **150** from the first lateral side **142**. As shown in FIG. **1**E and FIG. **1**F, the first standoff **132** can extend through the aperture A_1 and be at least partially disposed within the first tunnel cavity C_1 while the first standoff **132** is coupled to the first standoff engagement feature **150**. In some examples, the first standoff **132** can free-float relative to the first lateral side **142** (i.e., extend through the aperture A_1 yet not contact any of the braces of the first set of braces **146**A-**146**D). While the first standoff engagement feature **150** is illustrated in the figures and described herein as a recessed engagement that receives a portion of the first standoff **132** (i.e., male-female coupling mechanism), other coupling mechanisms can be utilized.

[0035] In some examples, the first standoff engagement feature **150** can include a through-hole **152**. The through-hole **152** can enable a fastener **154** (see FIG. **1**B), such as a bolt, to extend into the first standoff engagement feature **150** and couple the first standoff **132** to the second lateral side **142** of the upper portion **130** of the riser **102**. For example, the first standoff **132** can include a threaded bore (not shown) configured to threadably engage the fastener **154** extending through the through-hole **152**.

[0036] FIG. **1**F shows a front view of the upper portion **130** of the riser **102**. The first lateral side **142** can define a first plane P_1 and the second lateral side **144** can define a second plane P_2. In some examples, the first plane P_1 can extend parallel to the second plane P_2. The first tunnel cavity C_1 can be disposed between the first plane P_1 and the second plane P_2. In some examples, the first standoff **132** can have a length greater than a width of the first tunnel cavity C_1 (i.e., a width or distance of the first tunnel cavity C_1 measured between the first plane P_1 and the second plane P_2). In some examples, the second plane P_2 can intersect the arrow shelf **138**.

[0037] The first standoff **132** can extend through the first plane P_1, through the first tunnel cavity C_1, and couple to the

second lateral side **144**. As such, the arrow quiver hood **126** can be disposed adjacent to the first lateral side **142** of the riser **102** yet coupled to the second lateral side **144** of the riser **102**, not the first lateral side **142**. Coupling the arrow quiver hood **126** to the second lateral side **144** of the riser **102** can position the mass of the arrow quiver hood **126** and first standoff **132** relatively closer to a centerline of the riser **102** (i.e., a plane that extends substantially equidistant between the first and second lateral surfaces **142**, **144** of the riser **102**) than an arrow quiver hood disposed adjacent to and coupled to the first lateral side **142** of the riser **102**. In other words, the respective masses of the arrow quiver hood **126** and the first standoff **132** may generate a relatively lesser moment on the archery bow **100** and thereby provide greater balance characteristics for the archery bow **100**. For example, aspects of the present disclosure may demand less lateral mass (e.g., a sidebar and weight) added to the archery bow **100** to balance the archery bow **100** while in use by an archer.

[0038] FIGS. **1**G-**1**I show detail views of the lower portion **134** of the riser **102**. For example, FIG. **1**G shows a detailed view of the lower portion **134** of the riser **102** without the second standoff **136** coupled thereto. In some examples, the lower portion **134** of the riser **102** can include the first lateral side **142** and the second lateral side **144** (see FIG. **1**I). The first lateral side **142** can include a third set of braces **156**A, **156**B, **156**C, **156**D, **156**E, **156**F at least partially defining an aperture A_2 within the first lateral side **142**. While a specific quantity and arrangement of braces **156**A-**156**F are shown in the figures, aspects of the present disclosure include any quantity and/or arrangement of braces. The second lateral side **144** can include a fourth set of braces **158**A, **158**B, **158**C, **158**D. While a specific quantity and arrangement of braces **158**A-**158**D are shown in the figures, aspects of the present disclosure include any quantity and/or arrangement of braces. In some examples, the third set of braces **156**A-**156**F and the fourth set of braces **158**A-**158**D can form or define a second tunnel cavity C_2 (see FIG. **1**I).

[0039] A second standoff engagement feature **160** can be at least partially defined or otherwise formed by one or more of the braces of the fourth set of braces **158**A-**158**D. For example, the second standoff engagement feature **160** can be a geometric shape recessed within the fourth set of braces **158**A-**158**D. The second standoff engagement feature **160** can face the second tunnel cavity C_2, for example, the second standoff engagement feature **160** can partially define the second tunnel cavity C_2. In other words, the second standoff engagement feature **160** can be formed on or defined on a surface of the second lateral side **144** of the riser **102** that faces the first lateral side **142** of the riser **102**. The second standoff engagement feature **160** can be accessible from the first lateral side **142** of the riser **102** to receive the second standoff **136**. For example, the second standoff **136** can be inserted into the second tunnel cavity C_2 and engage the second standoff engagement feature **160** from the first lateral side **142**. As shown in FIG. **1**H and FIG. **1**I, the second standoff **136** can extend through the aperture A_2 and be at least partially disposed within the second tunnel cavity C_2 while the second standoff **136** is coupled to the second standoff engagement feature **160**. In some examples, the second standoff **136** can free-float relative to the first lateral side **142** (i.e., extend through the aperture A_2 yet not contact any of the braces of the third set of braces **156**A-**156**F). While the second standoff engagement feature **160** is illustrated in the figures and described herein as a recessed engagement that receives a portion of the second standoff **136** (i.e., male-female coupling mechanism), other coupling mechanisms can be utilized.

[0040] In some examples, the second standoff engagement feature **160** can include a through-hole **162**. The through-hole **162** can enable a fastener **164** (see FIG. **1**B), such as a bolt, to extend into the second standoff engagement feature **160** and couple the second standoff **136** to the second lateral side **142** of the lower portion **134** of the riser **102**. For example, the second standoff **136** can include a threaded bore (not shown) configured to threadably engage the fastener **164** extending through the through-hole **162**.

[0041] FIG. **1**I shows a front view of the lower portion **134** of the riser **102**. The first lateral side **142** can define a third plane P_3 and the second lateral side **144** can define a fourth plane P_4. In some examples, the third plane P_3 can extend parallel to the fourth plane P_4. The second tunnel cavity C_2 can be disposed between the third plane P_3 and the fourth plane P_4. In some examples, the second standoff **136** can have a length greater than a width of the second tunnel cavity C_2 (i.e., a width or distance of the tunnel cavity C_2 measured between the third plane P_3 and the fourth plane P_4). In some examples, the fourth plane P_4 can intersect the arrow shelf **138**. In some examples, the arrow shelf **138** can be disposed between the second plane P_2 and the fourth plane P_4. In some examples, the arrow shelf **138** can be disposed between the first and second standoff engagement features **150**, **160**.

[0042] In some examples, the aperture A_2 defined or formed by the third set of braces **156**A-**156**F of the first lateral side **142** can reduce the mass of the riser **102** associated with the first lateral side **142**. Meaning, the aperture A_2 can reduce or limit the number and size of braces **156**A-**156**F on the first lateral side **142**. Conversely, the fourth set of braces **158**A-**158**D on the second lateral side **144** define or form the second standoff engagement feature **160** and therefore increase the mass of the riser **102** associated with the second lateral side **144**. That is, the relative mass disparity can be formed between the third set of braces **156**A-**156**F and the fourth set of braces **158**A-**158**D (i.e., mass disparity between the first lateral side **142** and the second lateral side **146**). This disparity in mass between the third set of braces **156**A-**156**F and the fourth set of braces **158**A-**158**D can beneficially shift a center of mass of the riser **102** away from the first lateral side **142** and thereby generate advantageous balancing characteristics of the archery bow **100**.

[0043] While only the lower portion **134** of the riser **102** is described as having a mass disparity between the first and second lateral sides **142**, **144**, these aspects of the present disclosure are equally and independently applicable to the upper portion **130** of the riser **102**. That is, a relative mass disparity can be formed between the first set of braces **146**A-**146**D and the second set of braces **148**A-**148**D can beneficially shift a center of mass of the riser **102** away from the first lateral side **142** and thereby generate advantageous balancing characteristics of the archery bow **100**.

[0044] The second standoff **136** can extend through the third plane P_3, through the second tunnel cavity C_2, and couple to the second lateral side **144**. As such, the arrow gripper **128** can be disposed adjacent to the first lateral side **142** of the riser **102** yet coupled to the second lateral side **144** of the riser **102**, not the first lateral side **142**. Coupling the

arrow gripper **128** to the second lateral side **144** of the riser **102** can position the mass of the arrow gripper **128** and second standoff **136** relatively closer to a centerline of the riser **102** (i.e., a plane that extends equidistant between the first and second lateral surfaces **142**, **144** of the riser **102**) than an arrow gripper disposed adjacent to and coupled to the first lateral side **142** of the riser **102**. In other words, the respective masses of the arrow gripper **128** and the second standoff **136** may generate a relatively lesser moment on the archery bow **100** and thereby provide greater balance characteristics for the archery bow **100**. For example, aspects of the present disclosure may demand less lateral mass (e.g., a sidebar and weight) added to the archery bow **100** to balance the archery bow **100** while in use by an archer.

[0045] FIG. **1**J shows side view of the lower portion **134** of the riser **102** wherein the aperture A_2 is shown with a first cross-sectional area CA_1 and the second standoff **136** is shown with a second cross-sectional area CA_2. The first cross-sectional area CA_1 and the second cross-sectional area CA_2 can be taken through the same cross-section. For example, the cross-section can be defined by a portion of the first lateral side **142** that is adjacent to the aperture A_2 such that the cross-section is parallel to the aperture (i.e., parallel to the rim of the aperture A_2 formed or defined by the first set of braces **156**A-**156**F). In some examples, the first cross-sectional area CA_1 can be greater or larger than the second cross-sectional area CA_2. For example, the first cross-sectional area CA_1 can be at least three times greater than the second cross-sectional area CA_1.

[0046] In some examples, changes may be made in the function and arrangement of archery components or products discussed without departing from the spirit and scope of the disclosure, and various embodiments may omit, substitute, or add other components or accessories as appropriate. For instance, one or more portions incorporated into a particular component described with respect to certain embodiments may be combined in other embodiments.

[0047] Various aspects have been described herein with reference to certain specific embodiments and examples. However, they will be recognized by those skilled in the art that many variations are possible without departing from the scope and spirit of the inventions disclosed herein, in that those inventions set forth in the claims below are intended to cover all variations and modifications of the inventions disclosed without departing from the spirit of the inventions. The terms "including:" and "having" come as used in the specification and claims shall have the same meaning as the term "comprising."

What is claimed:

1. An archery bow, comprising:
- a riser having a first lateral side and a second lateral side, the first lateral side having a first set of braces defining a first plane, the second lateral side having a second set of braces defining a second plane;
- a limb extending from the riser; and
- a standoff couplable to an archery bow accessory, the standoff extending through the first plane and coupling to the second lateral side.

2. The archery bow of claim **1**, wherein the first set of braces and the second set of braces define a tunnel cavity between the first lateral side and the second lateral side.

3. The archery bow of claim **2**, wherein the standoff is disposed within the tunnel cavity.

4. The archery bow of claim **2**, wherein the standoff has a length that is greater than a width of the tunnel cavity.

5. The archery bow of claim **1**, wherein:
- the first set of braces define an aperture; and
- the standoff is free-floating within the aperture.

6. The archery bow of claim **1**, wherein:
- the standoff is a first standoff;
- the first lateral side includes a third set of braces defining a third plane;
- the second lateral side includes a fourth set of braces defining a fourth plane; and
- the archery bow further comprises a second standoff extending through the third plane and coupling to the second lateral side.

7. The archery bow of claim **1**, wherein the first plane extends parallel to the second plane.

8. The archery bow of claim **1**, wherein the riser includes a standoff engagement feature defined by the second set of braces, the standoff engagement feature facing the first plane, the standoff engagement feature configured to receive a proximal end of the standoff.

9. The archery bow of claim **8**, wherein the standoff engagement feature defines a through-hole.

10. The archery bow of claim **9**, wherein the standoff is configured to couple to the riser by engaging a fastener disposed within the through-hole.

11. An archery bow riser, comprising:
- a first lateral side, the first lateral side having a first set of braces defining a first plane;
- a second lateral side, the second lateral side having a second set of braces defining a second plane; and
- a standoff engagement feature defined by the second set of braces, the standoff engagement feature facing the first plane.

12. The archery bow riser of claim **11**, wherein the standoff engagement feature has a recessed portion configured to receive an archery accessory.

13. The archery bow riser of claim **11**, wherein the standoff engagement feature defines a through-hole.

14. The archery bow riser of claim **11**, wherein:
- the first set of braces and the second set of braces define a tunnel cavity between the first lateral side and the second lateral side; and
- the tunnel cavity is configured to receive a standoff.

15. The archery bow riser of claim **11**, wherein:
- the standoff engagement feature is a first standoff engagement feature;
- the first lateral side includes a third set of braces defining a third plane;
- the second lateral side includes a fourth set of braces defining a fourth plane;
- the archery bow riser further comprises a second standoff engagement feature defined by the fourth set of braces, the second standoff engagement feature facing the third plane.

16. The archery bow of claim **15**, wherein the second lateral side defines an arrow shelf.

17. The archery bow of claim **16**, wherein the arrow shelf is disposed between the first standoff engagement feature and the second standoff engagement feature.

18. The archery bow of claim **16**, wherein the second plane intersects the arrow shelf.

19. An archery bow, comprising:
a limb;
a bowstring;
a riser, comprising:
a first lateral side having a first set of braces defining an aperture;
a second lateral side having a second set of braces;
a standoff engagement feature coupled to one or more braces of the second set of braces; and
a standoff configured to be coupled to the standoff engagement feature, wherein:
the aperture has a first cross-sectional area through a cross-section;
the standoff has a second cross-sectional area through the cross-section; and
the first cross-sectional area is at least three times larger than the second cross-sectional area.

20. The archery bow of claim **19**, wherein the cross-section extends parallel to the aperture.

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