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(54) **NETS FOR LACROSSE HEADS**

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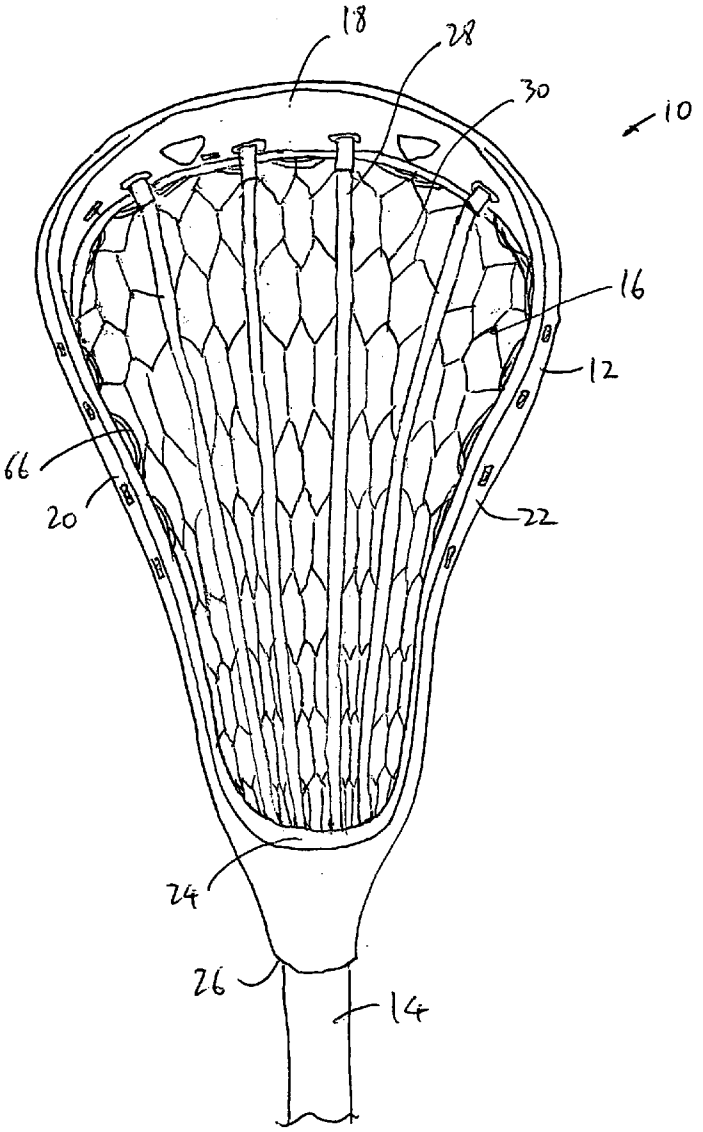
(57) **ABSTRACT**

A net for use with a lacrosse head frame includes a first member, a second member, and a third member, wherein the first member is connected to the second member to form a net portion, and the second member is connected to the third member to form a composite member. A net for use with a lacrosse head frame includes a net portion, and a plurality of thongs, wherein the net portion and the plurality of thongs comprise a same material. A net for use with a lacrosse head frame includes a net portion, and a thong next to the net portion, wherein the thong includes one or more strands knitted to form an elongate member.



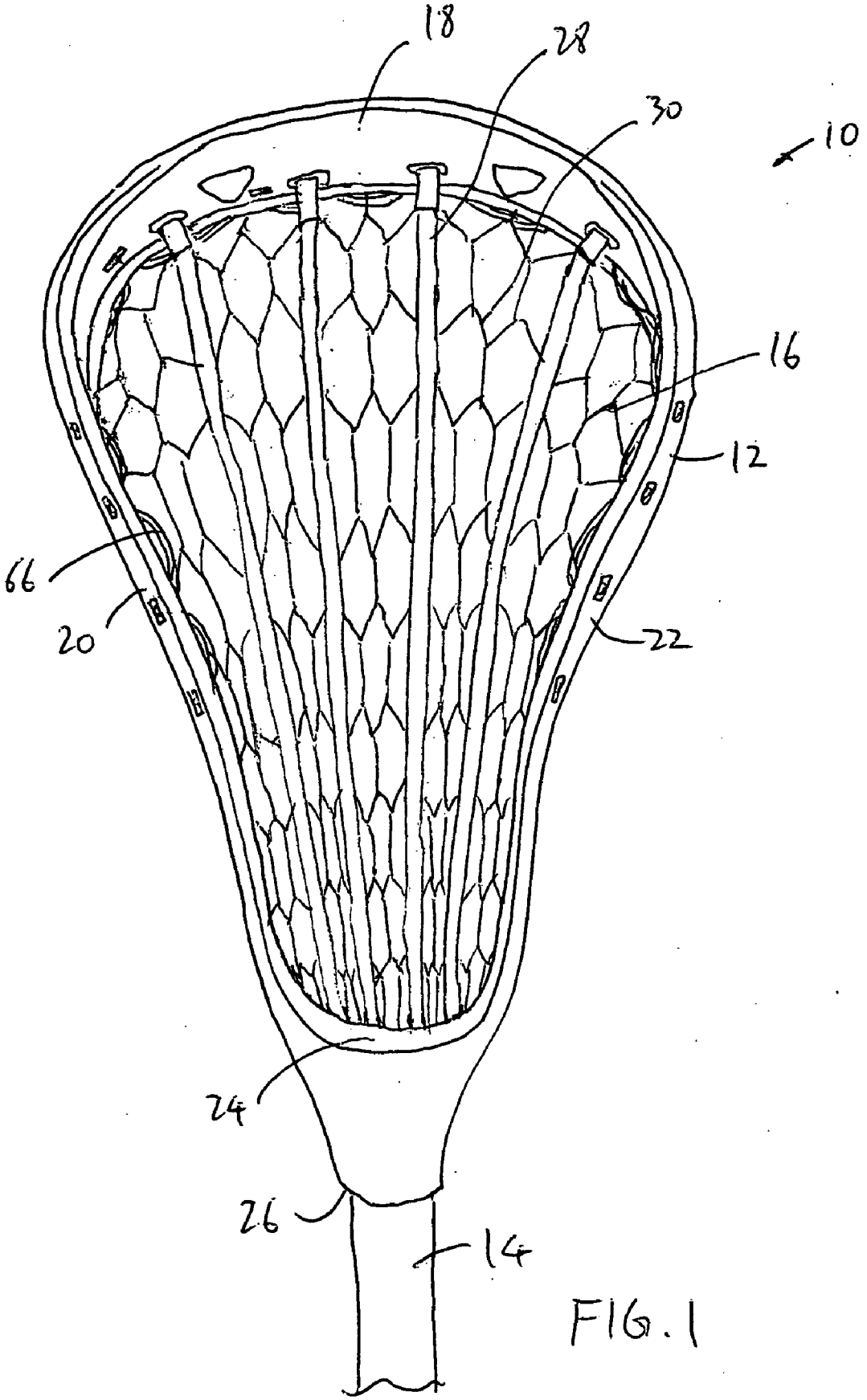



FIG. 1

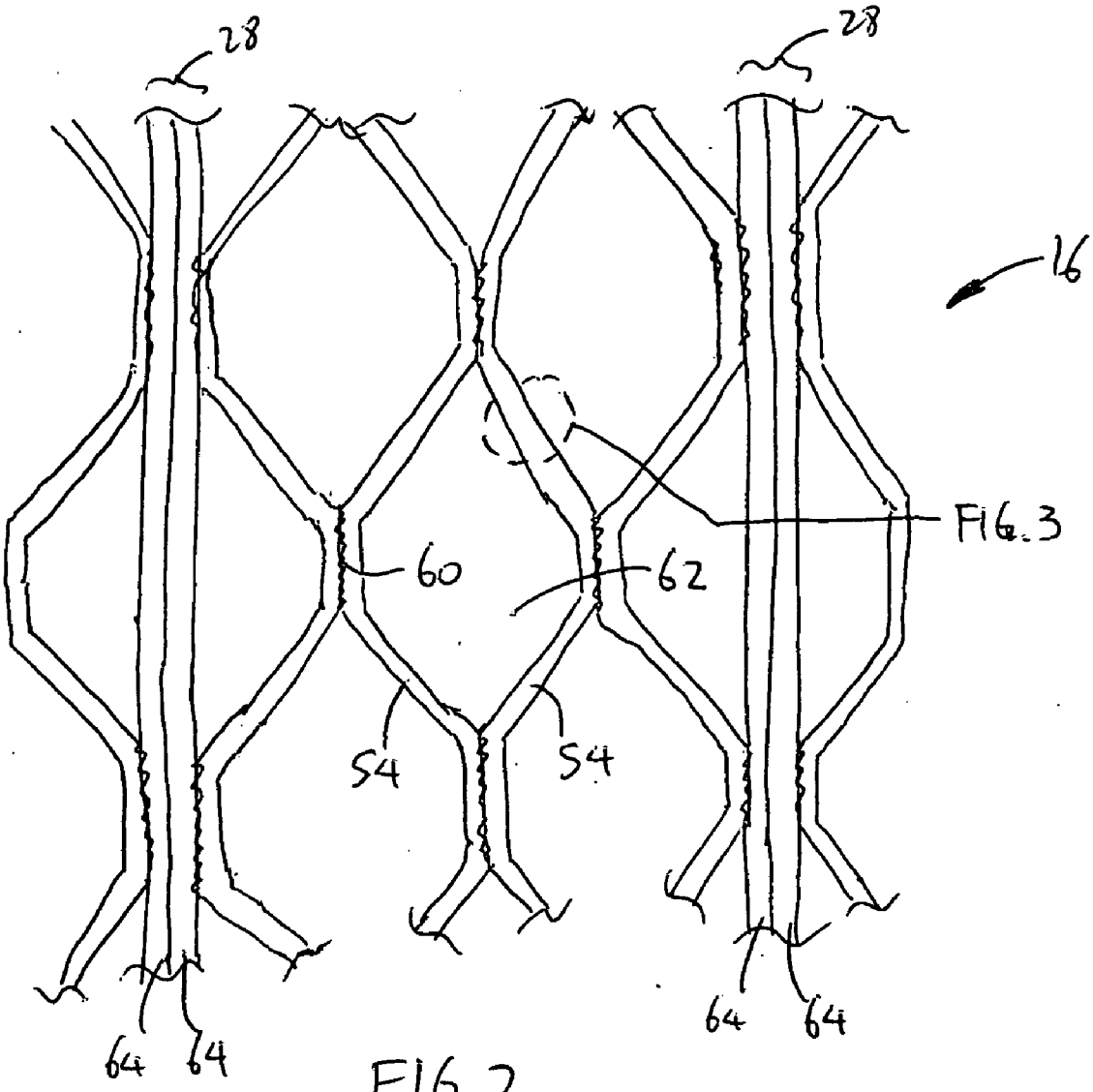



FIG. 2

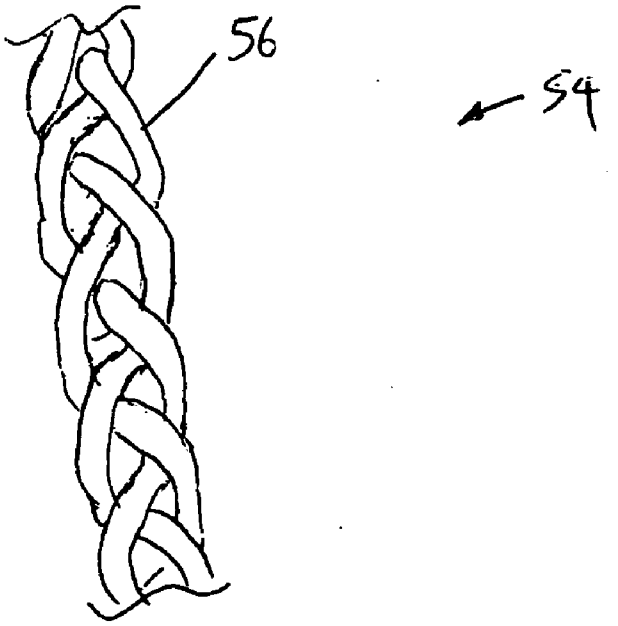



FIG. 3

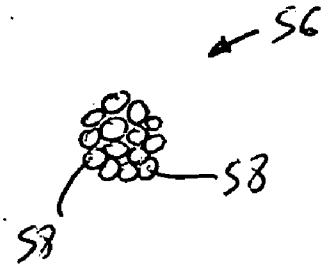



FIG. 4A

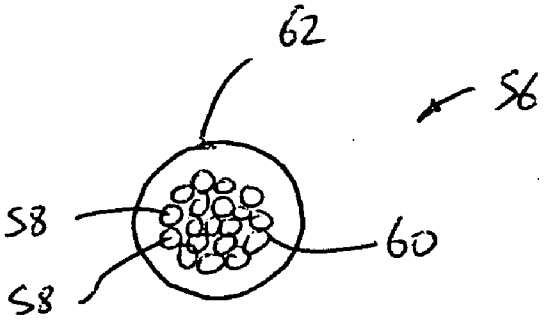
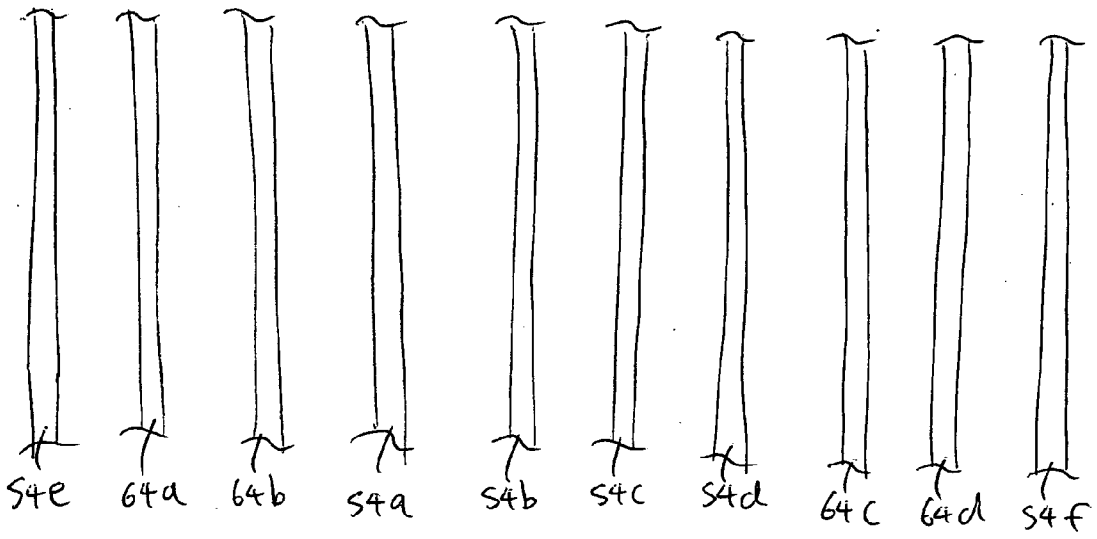



FIG. 4B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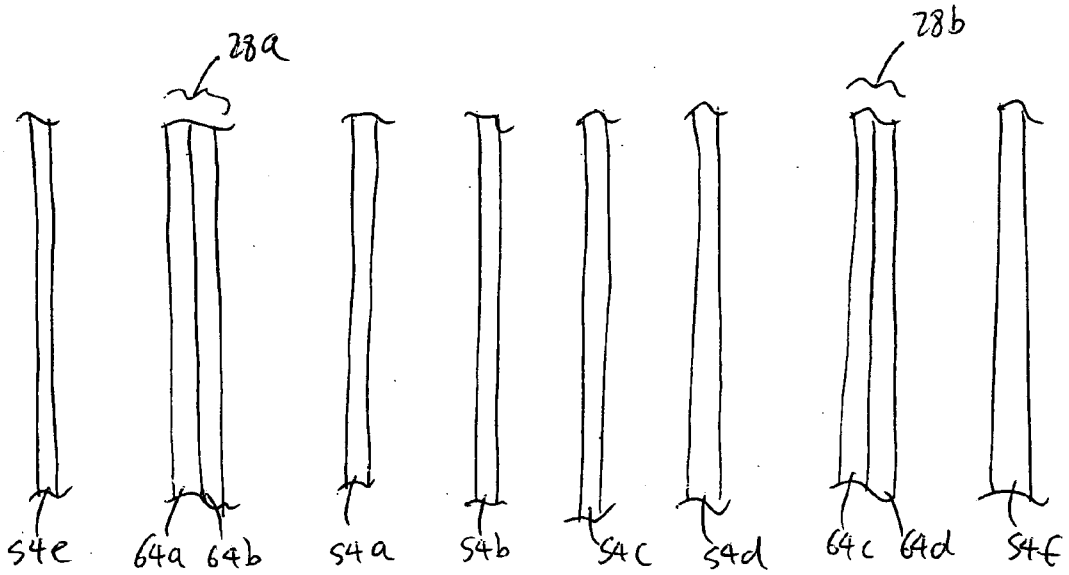
64a
64b
54a
54b
54c
54d
64c
64d
54f

FIG. 5A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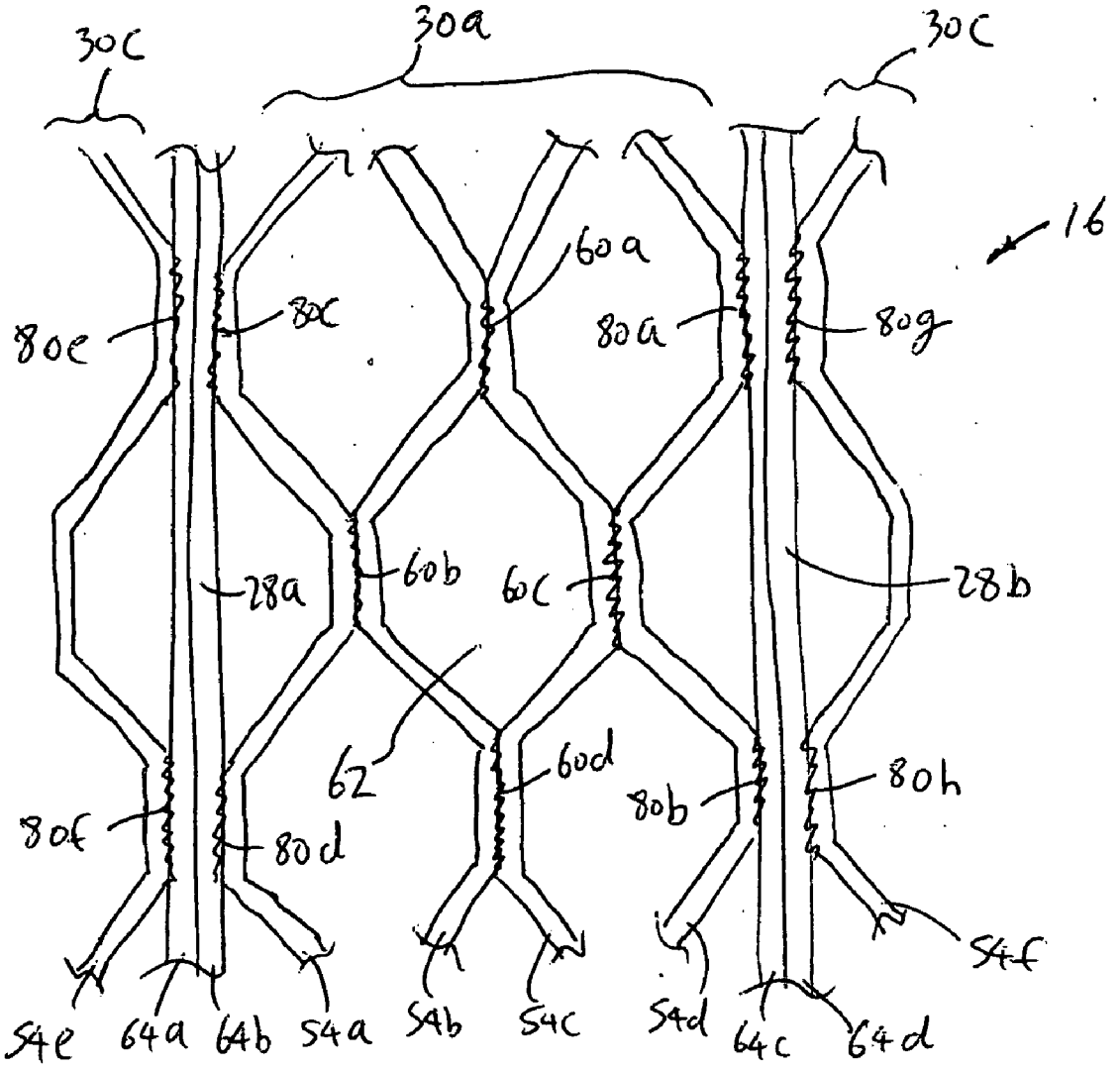
28b
54e
64a
64b
54a
54b
54c
54d
64c
64d
54f

FIG. 5B


30c
30a
30c
16
60a
80e
80c
80a
80g
28a
60b
60c
28b
62
60d
80f
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54e
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64b
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54b
54c
54d
64c
64d
54f

FIG. 5C

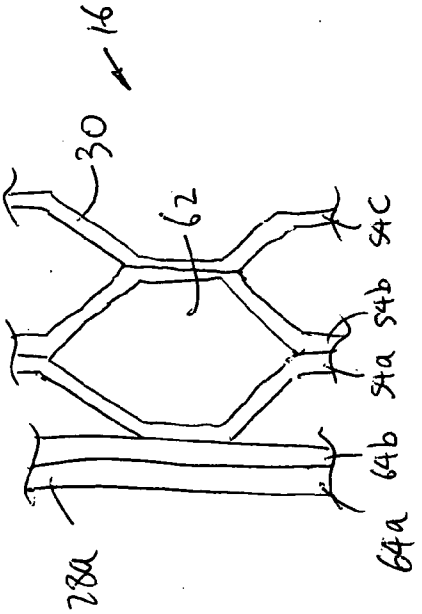


FIG. 6

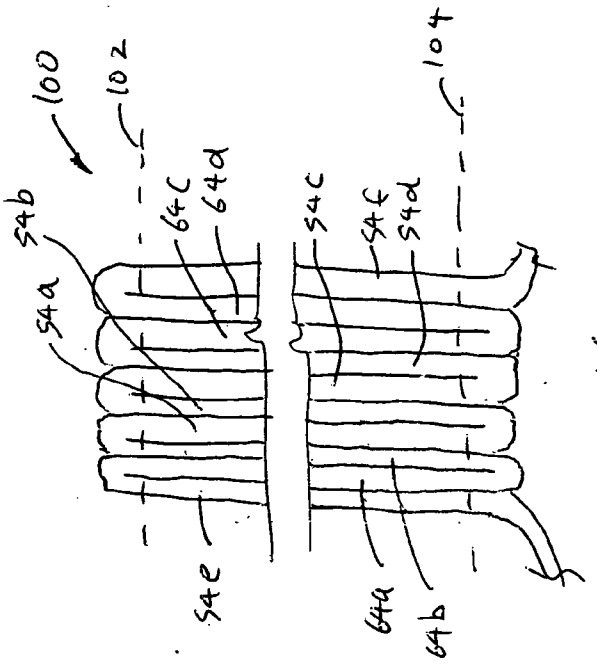


FIG. 9

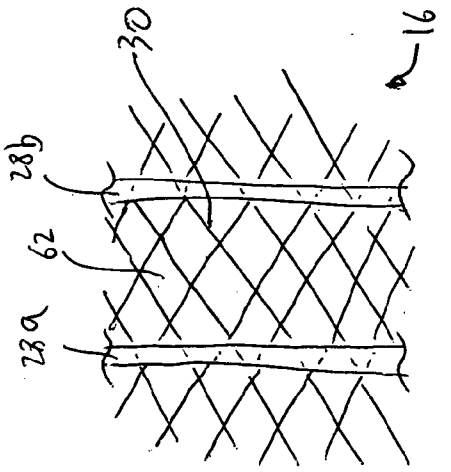


FIG. 8

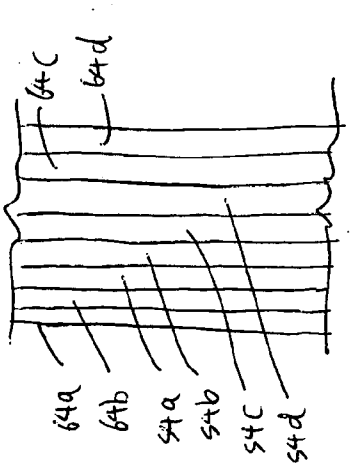


FIG. 7A

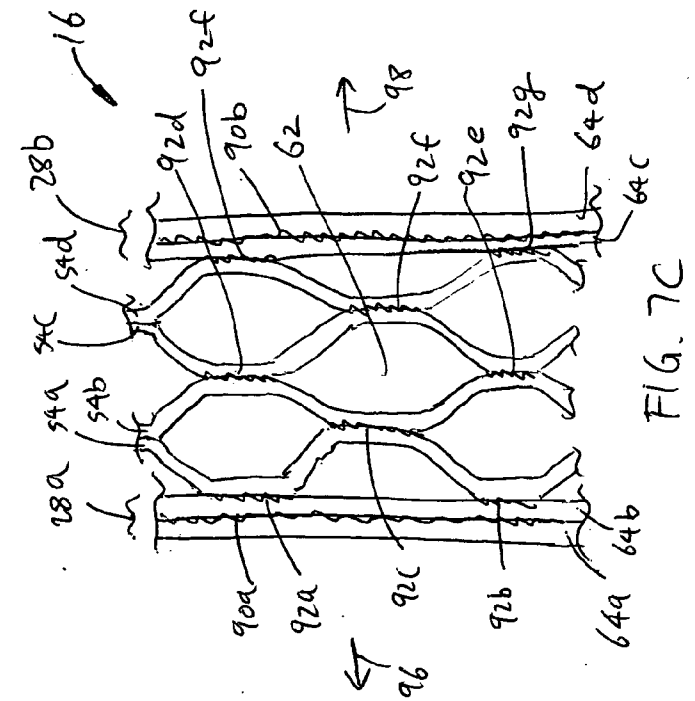


FIG. 7C

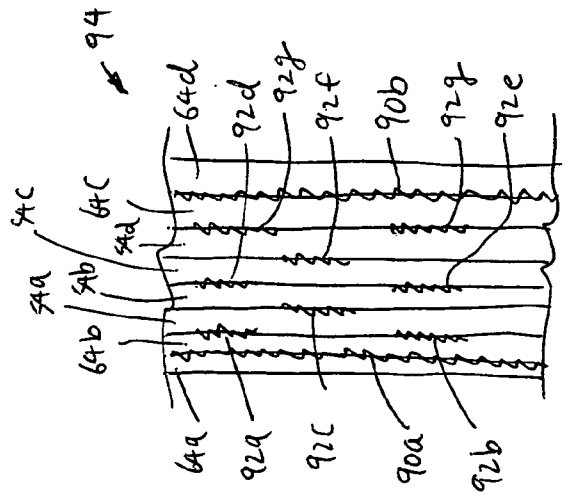


FIG. 7B

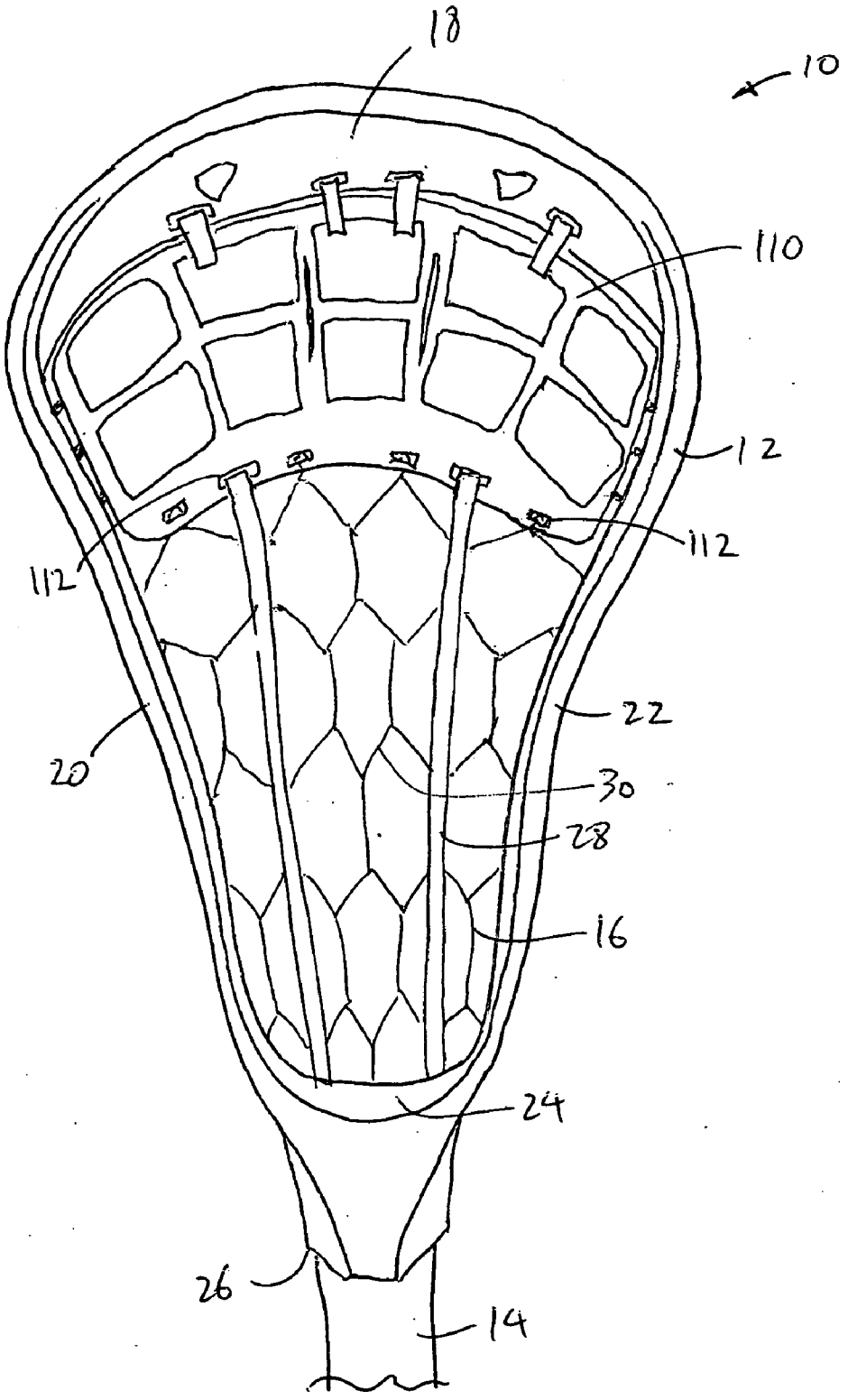


FIG. 10

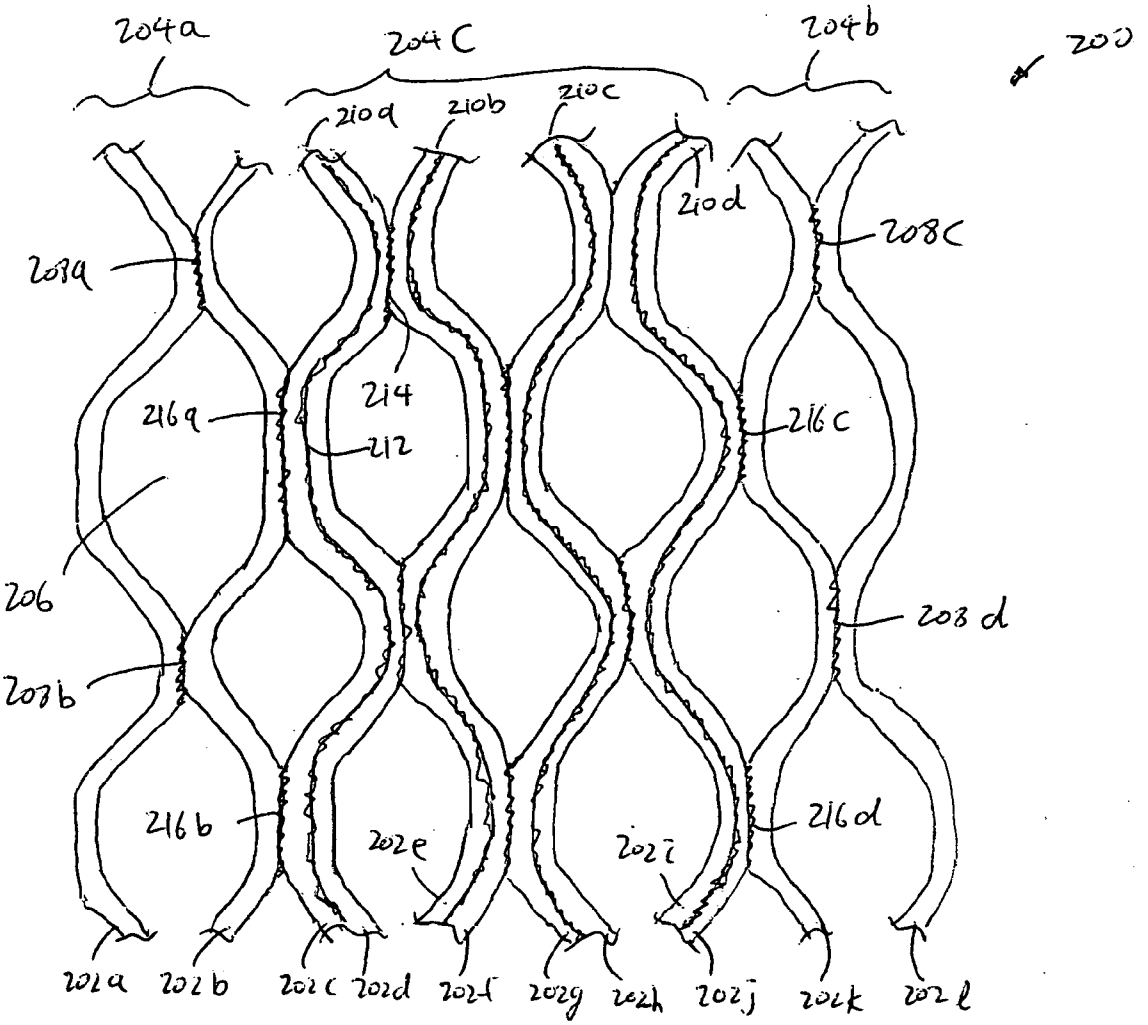
204a
204C
204b
200
210a
210b
210c
210d
208a
208C
214
216a
212
216C
206
203d
203b
216b
202e
202i
216d
202a
202b
202c
202d
202f
202g
202h
202j
202k
202l

FIG.11

# NETS FOR LACROSSE HEADS

## FIELD OF INVENTION

[0001] This invention relates to lacrosse equipment, and more specifically, to nets for lacrosse heads.

## BACKGROUND

[0002] A lacrosse head generally includes a lacrosse head frame and a net connected to a perimeter of the head frame to thereby form a pocket into which the ball is received and from which the ball is thrown. Typically, the lacrosse head frame includes a series of holes along its periphery, and a string passing through the holes is used to connect the net to the lacrosse head frame.

[0003] Sometimes, a lacrosse head further includes four or more adjustable leather thongs that extend between the scoop (top) and the base of the lacrosse head frame. The thongs are usually stiffer than the net, thereby allowing a player to better control and throw a ball. Existing leather thongs of lacrosse head are not water-resistant, and therefore, may retain moisture when come in contact with fluid, such as rain, or a wet ball. As a result, the lacrosse head may become heavier, and the leather thongs may also become damaged due to moisture. In addition, the leather thongs can stretch and shrink unevenly when they dry after being exposed to moisture. As a result, the leather thongs may need to be adjusted periodically to maintain a desired length of the thongs. Existing thongs of lacrosse head can also stretch due to repeated use of the lacrosse head. As such, the thongs may also need to be adjusted periodically in order to maintain a desired shape of the net to which the thongs are attached.

## SUMMARY

[0004] In accordance with some embodiments, a net for use with a lacrosse head frame includes a first member, a second member, and a third member, wherein the first member is connected to the second member to form a net portion, and the second member is connected to the third member to form a composite member.

[0005] In accordance with other embodiments, a net for use with a lacrosse head frame includes a first member, a second member, and a third member, wherein the first member is connected to the second member, the second member is connected to the third member, and a spacing between successive connection between the first and second members is greater than a spacing between successive connection between the second and third members.

[0006] In accordance with other embodiments, a net for use with a lacrosse head frame includes a net portion, and a plurality of thongs, wherein the net portion and the plurality of thongs comprise a same material.

[0007] In accordance with other embodiments, a net for use with a lacrosse head frame includes a net portion, and a thong next to the net portion, wherein the thong includes one or more strands knitted to form an elongate member.

[0008] In accordance with other embodiments, a lacrosse stick includes a lacrosse head frame, and a net portion secured to the lacrosse head frame, the net portion having a first member, a second member, and a third member, wherein the first member is connected to the second member, the second member is connected to the third member, and a spacing between successive connection between the first and second members is greater than a spacing between successive connection between the second and third members.

[0009] Other aspects and features of the invention will be evident from reading the following description of the embodiments.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The drawings illustrate the design and utility of embodiments, in which similar elements are referred to by common reference numerals. In order to better appreciate how advantages and objects of the embodiments are obtained, a more particular description of the embodiments will be illustrated in the accompanying drawings.

[0011] **FIG. 1** illustrates a front view of a lacrosse stick having a lacrosse head frame and a lacrosse net in accordance with some embodiments;

[0012] **FIG. 2** illustrates a front view of a portion of the net of **FIG. 1** in accordance with some embodiments;

[0013] **FIG. 3** illustrates a member of the net of **FIG. 2** in accordance with some embodiments;

[0014] **FIG. 4A** illustrates a cross-sectional view of a strand of the member of **FIG. 3** in accordance with some embodiments;

[0015] **FIG. 4B** illustrates a cross-sectional view of a strand of the member of **FIG. 3** in accordance with other embodiments;

[0016] **FIG. 5A-5C** illustrate a method of constructing at least a portion of the net of **FIG. 2** in accordance with some embodiments;

[0017] **FIG. 6** illustrates a front view of an edge portion of the net of **FIG. 1** in accordance with some embodiments;

[0018] **FIGS. 7A-7C** illustrate a method of constructing at least a portion of the net of **FIG. 2** in accordance with other embodiments;

[0019] **FIG. 8** illustrates a front view of a portion of the net of **FIG. 1** in accordance with other embodiments;

[0020] **FIG. 9** illustrates a member that is bent to form a plurality of components for a net in accordance with some embodiments;

[0021] **FIG. 10** illustrates a variation of the lacrosse head frame of **FIG. 1**, particularly showing the lacrosse head frame having a pocket member; and

[0022] **FIG. 11** illustrates a net in accordance with other embodiments.

## DETAILED DESCRIPTION OF THE EMBODIMENTS

[0023] Various embodiments are described hereinafter with reference to the figures. It should be noted that the figures are not drawn to scale and elements of similar structures or functions are represented by like reference numerals throughout the figures. It should also be noted that the figures are only intended to facilitate the description of specific embodiments. They are not intended as an exhaus-

tive description of the invention or as a limitation on the scope of the invention. In addition, an aspect described in conjunction with a particular embodiment is not necessarily limited to that embodiment and can be practiced in any other embodiments.

[0024] **FIG. 1** illustrates a lacrosse stick **10** in accordance with some embodiments. The lacrosse stick **10** includes a head frame **12**, a shaft **14** connected to the head frame **12**, and a net **16**. The head frame **12** includes a top portion (scoop) **18**, side walls **20**, **22**, a bottom portion (ball stop) **24**, which are integrally formed together (e.g., by a traditional molding technique). In the illustrated embodiments, the head frame **12** also includes a socket **26**, which allows the shaft **14** to be fitted therein. It should be noted that the head frame **12** should not be limited to the shape and configuration illustrated in the figure, and that the head frame **12** can have other shapes and configurations in other embodiments. For example, in other embodiments, the head frame **12** can further include a pocket member (**FIG. 10**) that is secured to the top portion **18** of the head frame **12**. Lacrosse heads having pocket members have been described in U.S. Pat. No. 6,506,132. Also, in other embodiments, the head frame **12** can further include one or more inserts (not shown) that are secured to the perimeter of the head frame **12**.

[0025] The net **16** includes a plurality of thongs **28** and a plurality of net portions **30** connected to the thongs **28**. As used in this specification, the term "thong" refers to a component of the net **16** that is stiffer than the net portion **30**, or that has a cross-sectional dimension that is larger than a member forming the net portion **30**. In the illustrated embodiments, the net **16** has four thongs **28**. In other embodiments, the net **16** can have less than four thongs **28** or more than four thongs **28**. Also, in other embodiments, instead of, or in addition to, having thongs **28** that extend between the top portion **18** and the bottom portion **24** of the lacrosse head frame **12**, the net **16** can have thongs **28** that extend between the side walls **20**, **22** of the lacrosse head frame **12**.

[0026] **FIG. 2** illustrates a portion of the net **16** of **FIG. 1** in accordance with some embodiments. The net portion **30** of the net **16** includes a plurality of elongate members **54** that are connected to each other to form the net portion **30**. As shown in **FIGS. 3 and 4**A, each of the members **54** includes a strand **56** that is made from one or more filaments **58**. The strand **56** is knitted to form the member **54**. In other embodiments, instead of knitting one strand **56** to form the member **54**, a plurality of strands **56** can be used (e.g., knitted or interwoven) to form the member **54**. In the illustrated embodiments, the filaments **58** are made from a synthetic material, such as Nylon, a polymer, synthetic guts, polyester, aramide, polyethylene, and the like.

[0027] The strand **56** is not limited to the above described configurations, and can have other configurations in other embodiments. For example, in other embodiments, each of the strands **56** includes a core **60** and an outer layer **62** surrounding the core **60** (**FIG. 4B**). The core **60** is made from one or more filaments **58**. The outer layer **62** is made from a polyurethane elastomer. Using such material for the outer layer **62** is advantageous in that it provides water-resistance for the strand **56** (which in turn, prevents the net **16** from stretching or shrinking), and allows the strand **56** to better resist abrasion due to normal use of the net **16**. Constructing the outer layer **62** using a polyurethane elastomer also provides more rigidity for the strand **56**, thereby allowing the net **16** formed therefrom to have a better shape-retention characteristic. The increased hardness of the net **16** also allows a player to better control a lacrosse ball while running and throwing the ball. Furthermore, the outer layer **62** provides higher frictional contact with a lacrosse ball (when compared with traditional lacrosse nets). Such feature allows the net **16** to provide more spinning power as the net **16** is used to throw a lacrosse ball. In other embodiments, the outer layer **62** can be made from other materials, such as polyester, vinyl, polyvinylidene fluoride, polypropylene, EVA, ionomer, thermoplastic urethane, polyamide, etc. It should be noted that the material(s) used to construct the outer layer **62** should not be limited to the examples mentioned previously, and that other materials may also be used to construct the outer layer **62** in other embodiments. In addition, the material(s) used to construct the outer layer **62** needs not have any or all of the advantageous/characteristics discussed previously. In the illustrated embodiments, the outer layer **62** has a cross-sectional thickness that is between 0.005 inch and 0.01 inch. In other embodiments, the outer layer **62** can have other cross-sectional thicknesses (e.g., less than 0.005 inch or more than 0.01 inch).

[0028] It should be noted that the strands **56** of the net **16** should not be limited to the configuration illustrated previously, and that the strands **56** can have different configurations in other embodiments. For example, in alternative embodiments, instead of having the core **60** and the outer layer **62**, the strand **56** can further include an intermediate layer (not shown) disposed between the core **60** and the outer layer **62**. Any of the materials discussed with reference to the outer layer **62** can also be used to construct the intermediate layer. In other embodiments, instead of having a single intermediate layer, the strand **56** can include a plurality of intermediate layers disposed between the core **60** and the outer layer **62**. Sporting nets having outer layers and intermediate layer(s) have been described in U.S. patent application Ser. No. _____, entitled "Nets for sporting equipment."

[0029] In the illustrated embodiments, the members **54** are tied together (e.g. via a stitch or a strand) at junction regions **60** to thereby allow a plurality of openings **62** be formed for the net **16**. In other embodiments, instead of connecting the members **54** after they are formed, the members **54** may be formed by the strands **56** in such a manner that allows the members **54** to be "connected" as they are formed. For example, the net portion **30** may be formed by knitting strand(s) **56** to form a net pattern having the openings **62**. It should be noted that the configuration of the net portion **30** should not be limited to that shown in the figure, and that the net portion **30** can have other configurations in other embodiments. For example, in other embodiments, the woven pattern of the strand **56** can be different from that shown in **FIG. 3**. In addition, in other embodiments, instead of connecting adjacent members **54** to form the net portion **30**, members **54** can be crisscrossed and be connected (e.g., via a stitch or an adhesive) at intersection points to form the net portion **30**. Further, in other embodiments, instead of the hexagonal shape shown in the figure, the net openings **62** can have different shapes. For examples, the net openings **62** can each have a rectangular shape, a pentagon shape, a diamond shape, a triangular shape, an oval shape, or a customized shape.

[0030] Returning to **FIG. 2**, each of the thongs **28** of the net **16** is formed by connecting two members **64** together in a side-by-side configuration. Alternatively, more than two members **64** can be used to form each of the thongs **28**. Connecting a plurality of members **64** in a side-by-side configuration to form the thong **28** is advantageous in that it provides more contact surface area between the thong **28** and a lacrosse ball, thereby allowing the net **16** to more efficiently spin the ball as the ball is thrown from the net **16**. Alternatively, instead of a side-by-side configuration, the members **64** can be connected in other configurations, such as in a top-and-bottom configuration. Also, in the illustrated embodiments, the members **64** are made from the same material as that of member **54**, and have the same configuration as that of members **54**. Such has the benefit of reducing manufacturing costs associated with using different materials to construct the thongs **28** and the net portion **30**. In some embodiments, the thongs **28** are made from strands having the same configuration as the strands **56** used to make the net portion **30**. For example, the strands of the thongs **28** can include the outer layers **62**, which provide water-resistance and abrasion-resistance for the thongs **28**. Alternatively, the members **64** can be made from a different material, and/or can have a different configuration, than that of members **54**. For example, in other embodiments, the members **64** can be made from a relatively stiffer material than that of the members **54**. Also, in other embodiments, the number of strands **56** making up the member **64** can be different from that of the member **54**. In further embodiments, the members **64** can have a knitted or woven pattern that is different from that of the members **54**. In yet further embodiments, the members **64** can have a non-knitted configuration.

[0031] **FIGS. 5A-5C** illustrate a method of constructing the net **16** of **FIG. 1** in accordance with some embodiments. First, a plurality of elongate members **54**, **64** are provided. As shown in **FIG. 5A**, six elongate members **54***a*-**54***f* and four elongate members **64***a*-**64***d* are provided. In other embodiments, the numbers of the members **54** being provided can be different from six, and the numbers of the members **64** being provided can be different from four.

[0032] Next, the members **64***a*, **64***b* are connected to each other to form a first thong **28***a*, and the members **64***c*, **64***d* are connected to each other to form a second thong **28***b* (**FIG. 5B**). In the illustrated embodiments, the members **64** (e.g., **64***a*, **64***b*) are connected using one or more stitches. Alternatively, the members **64** can be connected using an adhesive, or the like. The members **64** can be secured to each other at intermittent points/region along the length of one of the members **64**, or alternatively, be secured to each other continuously along a majority of the length of the members **64**. Also, instead of securing the members **64** in a side-by-side manner as that shown in the figure, in other embodiments, the members **64***a*, **64***b* can be secured to each other, and the members **64***c*, **64***d* can be secured to each other in other configurations, such as a top-and-bottom configuration. In addition, in other embodiments, instead of using two adjacent members **64** to form each thong **28**, more than two adjacent members **64** can be used to form each thong **28**. For example, one or more additional members **64** can be provided (e.g., placed between the members **54***a*, **54***e*), and are secured together with the members **64***a*, **64***b* to form the thong **28***a*. Although only two thongs **28***a*, **28***b* are shown in the figure, in other embodiments, the net **16** can include one or more additional thongs formed by additional members **64**. For example, the net **16** can include four thongs **28**, such as those shown in **FIG. 1**.

[0033] Next, the members **54** are used to form a plurality of net portions **30**. In particular, the four members **54***a*-**54***d* between the members **64***b*, **64***c* are connected to each other at points/regions **60***a*-**60***d* to form a first net portion **30***a*, which is then secured to the thongs **28***a*, **28***b* at points/regions **80***a*-**80***d*. A second net portion **30***b* is formed by connecting the member **54***e* to the member **64***a* at points/regions **80***e*, **80***f* along the member **64***a*. Also, a third net portion **30***c* is formed by connecting the member **54***f* to the member **64***d* at points/regions **80***g*, **80***h* along the member **64***d*. In other embodiments, instead of using four members **54** to form the first net region **30***a*, a different number of members **54** can be used. For example, in other embodiments, two members **54** can be placed between the members **64***b*, **64***c* to form the first net region **30***a*. Also, in other embodiments, one or more additional members **54** can be secured to the member **54***e* to create a larger second net portion **30***b*. Similarly, in other embodiments, one or more additional members **54** can be secured to the member **54***f* to create a larger third net portion **30***c*. As shown in the figure, securing the thongs **28** and the net portions **30** in a side-by-side configuration is advantageous in that the surfaces of the respective thongs **28** can be used for contacting a ball without being interrupted by the net portions **30**.

[0034] In the above embodiments, each of the thongs **28***a*, **28***b* is located between net portions **30**. In alternative embodiments, either or both of the thongs **28***a*, **28***b* can be used to form edge(s) of the net **16** (**FIG. 6**). For example, in some embodiments, the member **54***e* is not provided, and the net **16** does not include the net portion **30***b*. In such cases, the first thong **28***a* forms part of an edge of the net **16**. Similarly, in other embodiments, the member **54***f* is not provided, and the net **16** does not include the net portion **30***c*. In such cases, the second thong **28***b* forms part of an edge of the net **16**. In some embodiments, the net **16** only includes thong(s) at edge(s) of the net **16**, and does not include thongs located at intermediate positions within the net **16**.

[0035] It should be noted that the order in constructing the net **16** should not be limited to the example discussed previously. For example, in other embodiments, the thongs **28** can be constructed after the net portions **30** is formed. In other embodiments, the thongs **28** and the net portions **30** can be constructed simultaneously. Also, in other embodiments, the net **16** can be formed by connecting the members **54**, **64** sequentially. For example, in some embodiments, the members **54**, **64** are connected in the order shown in **FIG. 5A**. In such cases, the members **54***e* and **64***a* is connected first to form a composite structure, and then the member **64***b* is connected to the composite structure. In a similar manner, the remaining members **54***a*-**54***d*, **64***c*, **64***d*, and **54***f* are sequentially added to the composite structure in the order shown in **FIG. 5A** until the net **16** is formed. In further embodiments, instead of forming the first net portion **30***a* before it is connected to the members **64***b*, **64***c*, the member **54***a* can first be connected to the member **64***b*, and the member **54***d* can first be connected to the member **64***c*. In such cases, the members **54***b*, **54***c* can then be inserted between the members **54***a*, **54***d* to form the first net portion **30***a*.

[0036] **FIGS. 7A-7C** illustrate a method of constructing the net **16** in accordance with other embodiments. As shown in **FIG. 7A**, the elongate members **64***a*-**64***d* and the elongate members **54***a*-**54***d* are positioned in a side-by-side configuration. Next, as shown in **FIG. 7B**, a first connection **90***a* is used to secure the members **64***a*, **64***b* to each other, and a second connection **90***b* is used to secure the members **64***c*, **64***d* to each other. Also, a plurality of connections **92** are made to secure the members **54** to each other, and to secure members **54***a*, **54***d* to members **64***b*, **64***c*, respectively. The connections **90**, **92** can be implemented using a stitch, an adhesive, and the like. The connected members **64***a-d*, **54***a-d* form an un-stretched net structure **94**.

[0037] Next, the un-stretched net structure **94** is stretched in the directions shown by arrows **96**, **98** to form the net **16** (**FIG. 7C**). In the illustrated embodiments, a spacing between successive connecting points between the member **64***b* and the member **54***a* is more than a spacing between successive connecting points between the member **64***b* and the member **64***a*. Such configuration allows the members **64***a*, **64***b* to form the first thong **28***a*, and allows the members **64***b* and **54***a* to form a net portion. Similarly, a spacing between successive connecting points between the member **64***c* and the member **54***d* is more than a spacing between successive connecting points between the member **64***c* and the member **64***d*. Such configuration allows the members **64***c*, **64***d* to form the second thong **28***b*, and allows the members **64***c* and **54***d* to form a net portion.

[0038] It should be noted that the method of constructing the net **16** should not be limited to the examples illustrated previously, and that other techniques can be used to construct the net **16** in other embodiments. For example, in other embodiments, instead of having net portion(s) **30** located between the thongs **28** in a side-by-side manner, the net portion **30** can be located between portions of a thong **28** in a top-and-bottom manner. **FIG. 8** illustrates a portion of the net **16** of **FIG. 1** constructed in accordance with other embodiments. As shown in the figure, the net portion **30** is first constructed as a single unit, and then at least a portion of each of the thongs **28***a*, **28***b* is placed over the net portion **30** and is secured to the net portion **30** (e.g., via a stitch, an adhesive, etc.). For example, the thong **28***a* can have a front portion and a back portion. In such cases, the net portion **30** is placed between the front and back portions of the thong **28***a*. Alternatively, the complete thong **28***a* can be secured to a surface (e.g., a front surface against which a ball is to be received, or a rear surface) of the net portion **30**. Securing the thongs **28** on a front surface of the net portion **30** is advantageous in that the surfaces of the respective thongs **28** can be used for contacting a ball without being interrupted by the net portion **30**.

[0039] After the net **16** has been constructed, the net **16** can be secured to the lacrosse head frame **12** via a string **66** (shown in **FIG. 1**). In other embodiments, connectors such as snaps, buttons, clips, or other connection devices known in the art of lacrosse head construction, may be used to secure the net **16** to the lacrosse head frame **12**. In further embodiments, the net **16** can be secured directly to the head frame **12** (e.g., by tying the members **54**, some of the strands **56** of the members **54**, the thongs **28**, or some of the members **64** of the thongs **28**, directly to the head frame **12**).

[0040] In the above embodiments, the members **54***a*-**54***f* and the members **64***a*-**64***d* are illustrated as separate components. However, in other embodiments, one or more of the members **54** can be a single component, and one or more of the members **64** can be a single component. **FIG. 9** illustrates a member **100** that is used to form the members **54***a-d* and the members **64***a-d*. The member **100** is bent in a S-configuration such that portions (segments) of the member **100** is adjacent other portions of the member **100** in a side-by-side configuration. After the member **100** is bent, the connections **90**, **92** can then be applied to the bent member **100** in a similar fashion as that shown in **FIG. 7B**, thereby creating the net structure **94**. In some embodiments, the member **100** is bent to provide all of the members **54**, **64** before the connections **90**, **92** are made. Alternatively, the connections **90** or **92** are made after each portion of the member **100** has been bent. For example, the member **100** can first be bent to place members **64***a*, **64***b* in a side-by-side manner, and then the connection **90***a* is made to connect the members **64***a*, **64***b*. After that, the member **100** is bent again to place the member **54***a* next to the member **64***b*, and the connection **92***a*, **92***b* are made to connect the members **64***b*, **54***a*. The process continues until all portions of the member **100** are desirably connected. In some embodiments, after the net **16** is formed, a first cut **102**, and a second cut **104** can be made to separate the member **100** into individual components. In other embodiments, some or all of the members **54**, **64** can be left connected to each other at the ends of the net **16**.

[0041] In the above embodiments, the net **16** is sized to span between the top portion **18** and the bottom portion **24** of the lacrosse head frame **12**. However, the scope of the invention should not be so limited. In other embodiments, the lacrosse head frame **12** can further include a pocket member **110** that is secured to the top portion **18** of the lacrosse head frame **12** (**FIG. 10**). The pocket member **110** has a partial outline shape that conforms to the inside of head frame scoop **18** and the portions of the sidewalls **20** and **22** proximate the scoop **18**. The pocket member **110** may be permanently or removably secured to the lacrosse head frame **12**. In such cases, the net **16** is sized to span between the pocket member **110** and the base portion **24** of the lacrosse head frame **12**. In the illustrated embodiments, the pocket member **110** includes a plurality of holes **112** for allowing the net **16** to be connected to the pocket member **110**. For example, portion(s) of the net **16** may be tied directly to the holes **112**. Alternatively, portion(s) of the net **16** may be secured to the holes **112** indirectly using a string/lace or connector(s). In some embodiments, the thongs of the net **16** can be sized to span between the top portion **18** and the bottom portion **24** of the lacrosse head frame **12**, while the net portion of the net **16** is sized to span between the pocket member **110** and the bottom portion **24**. In such cases, the thongs extends pass the pocket member **110** (either through a front side of the pocket member **110** to which a ball makes contact, or an opposite side of the pocket member **110**) to reach the top portion **18**.

[0042] In the above embodiments, the thong **28** is described as a composite member formed by two or more members **64**. Alternatively, instead of a thong, the composite member formed by the members **64** can be used to form a net portion. **FIG. 11** illustrates a portion of a net **200** in accordance with other embodiments. The net **200** includes a plurality of elongate members **202***a*-**202***l* that are connected in a side-by-side configuration, and a plurality of openings **206**. Each of the members **202** can be, for example, the

member **54** as described previously. In the illustrated embodiments, the members **202** have the same configuration (e.g., size, member composition, etc.). Alternatively, different group of the members **202** can have different configurations. For example, in some embodiments, the members **202***a*, **202***b*, **202***k*, and **202***l* have a first configuration, and the members **202***c*-**202***j* have a second configuration that is different from the first configuration.

[**0043**] In the illustrated embodiments, the members **202***a*, **202***b* are connected at regions **208***a*, **208***b* to form a first net portion **204***a*, and the members **202***k*, **202***l* are connected at regions **208***c*, **208***d* to form a second net portion **204***b*. The members **202***c*-**202***j* are connected to form a third net portion **204***c*. However, unlike the first and the second net portions **204***a*, **204***b*, the third net portion **204***c* is formed by composite members **210***a*-**210***d* that are themselves formed by the members **202***c*-**202***j*. In the illustrated embodiments, each of the composite members **210** is formed by connecting two members **202** via one or more connections **212**. For example, stitch(es), an adhesive, and the like can be used to connect the pair of members **202** for each composite member **210**, either continuously or intermittently along the length of the composite member **210**. In other embodiments, instead of using two members **202** to form each composite member **210**, more than two members **202** can be used to form each composite member **210**. After the composite members **210** are formed, the composite members **210** are then connected at regions **214** to form the third net portion **204***c*. The third net portion **204***c* is then secured to the first net portion **204***a* at regions **216***a* and **216***b*, and to the second net portion **204***b* at regions **216***c* and **216***d*. It should be noted that the order in constructing the net **200** should not be limited to the above example, and that any of the methods discussed previously can be similarly used to construct the net **200**. For example, in some embodiments, the members **202***a*-**202***l* are connected sequentially in the order shown in **FIG. 11** to form the net **200**.

[**0044**] Although the net **200** is described as having three net portions **204***a*-**204***c*, it should be noted that the term "net portion" should not be limited to such configuration. As used in this specification, the term "net portion" refers to any portion of a net, that may be formed using a single linear member or a plurality of linear members. For example, the net **200** of **FIG. 10** can be described as having a net portion that includes members **202***b*, **202***c*, or a net portion that includes members **202***b*-**202***d*, or a net portion that includes members **202***b*-**202***e*, etc.

[**0045**] As illustrated in the embodiments, constructing the net **200** using the composite members **210** is advantageous in that it allows the net **200** to have different portions with different characteristics. In the above embodiments, the third net portion **204***c* is relatively stiffer than the first and the second net portions **204***a*, **204***b* because the third net portion **204***c* is made from the composite members **210**.

[**0046**] In other embodiments, the net **200** can have other configurations. For example, in alternative embodiments, the first net portion **204***a* can have more or less than two members **202**. Also, in other embodiments, the third net portion **204***c* can have more or less than eight members **202**, and/or more or less than four composite members **210**. In further embodiments, the net **200** can further include one or more thongs (e.g., thongs **28**) secured between the net portions **204**.

[**0047**] In any of the embodiments described herein, different net portions of the net **16** or **200** can be made from different materials such that the net **16** or **200** can have different characteristics at different portions of the net **16** or **200**. For example, in some embodiments, the sides/perimeter of the net **16** or **200** can be made from a material that is softer or stiffer than the material of a mid-portion.

[**0048**] Although particular embodiments have been shown and described, it will be understood that it is not intended to limit the present inventions, and it will be obvious to those skilled in the art that various changes and modifications may be made. The specification and drawings are, accordingly, to be regarded in an illustrative rather than restrictive sense.

What is claimed:

**1**. A net for use with a lacrosse head frame, comprising:

a first member;

a second member; and

a third member;

wherein the first member is connected to the second member to form a net portion, and the second member is connected to the third member to form a composite member.

**2**. The net of claim 1, wherein the first, second, and third member are made from a same material.

**3**. The net of claim 1, wherein the first member is connected to the second member at intermittent points along respective lengths of the first and second members.

**4**. The net of claim 1, wherein the second member is connected to the third member in continuously along substantial portions of respective lengths of the second and the third members.

**5**. The net of claim 1, wherein a spacing between successive connection between the first and second members is greater than a spacing between successive connection between the second and third members.

**6**. The net of claim 1, wherein the first member and the second member comprise respective segments of a single linear member.

**7**. The net of claim 1, wherein the second member and the third member comprise respective segments of a single linear member.

**8**. The net of claim 1, wherein the first member includes a plurality of strands, one of the plurality of strands having a core and an outer layer.

**9**. The net of claim 1, wherein the composite member comprises a side of the net.

**10**. The net of claim 1, wherein the composite member extends between edges of the net.

**11**. The net of claim 1, wherein the composite member comprises a portion of a thong.

**12**. A net for use with a lacrosse head frame, comprising:

a first member;

a second member; and

a third member;

wherein the first member is connected to the second member, the second member is connected to the third member, and a spacing between successive connection between the first and second members is greater than a

spacing between successive connection between the second and third members.

**13**. The net of claim 12, wherein the first, second, and third member are made from a same material.

**14**. The net of claim 12, wherein the second member is connected to the third member continuously along substantial portions of respective lengths of the second and third members.

**15**. The net of claim 12, wherein the first member includes a plurality of strands, one of the plurality of strands having a core and an outer layer.

**16**. The net of claim 12, wherein the second and the third members together form a composite member that is a part of a net portion.

**17**. The net of claim 12, wherein the second and the third members together form a thong.

**18**. A net for use with a lacrosse head frame, comprising:

a net portion; and

a plurality of thongs;

wherein the net portion and the plurality of thongs comprise a same material.

**19**. The net of claim 18, wherein each of the plurality of thongs includes one or more strands knitted to form an elongate member.

**20**. The net of claim 18, wherein the net portion or the plurality of thongs include an outer layer.

**21**. The net of claim 18, wherein one of the plurality of thongs has a surface for contacting a ball, the surface being uninterrupted by the net portion.

**22**. A net for use with a lacrosse head frame, comprising:

a net portion; and

a thong next to the net portion;

wherein the thong includes one or more strands knitted to form an elongate member.

**23**. The net of claim 22, wherein the one or more strands is made from a material selected from the group consisting of Nylon, a polymer, synthetic guts, polyester, aramide, and polyethylene.

**24**. The net of claim 22, wherein the net portion or the thong include an outer layer.

**25**. The net of claim 22, wherein the thong has a surface for contacting a ball, the surface being uninterrupted by the net portion.

**26**. A lacrosse stick, comprising:

a lacrosse head frame; and

a net portion secured to the lacrosse head frame, the net portion having a first member, a second member, and a third member;

wherein the first member is connected to the second member, the second member is connected to the third member, and a spacing between successive connection between the first and second members is greater than a spacing between successive connection between the second and third members.

**27**. The lacrosse stick of claim 26, wherein the first, second, and third member have a same material.

**28**. The lacrosse stick of claim 26, wherein the second member is connected to the third member continuously along substantial portions of respective lengths of the second and third members.

**29**. The lacrosse stick of claim 26, wherein the first member includes a plurality of strands, one of the plurality of strands having a core and an outer layer.

**30**. The lacrosse stick of claim 26, wherein the net portion extends between a top portion and a bottom portion of the lacrosse head.

**31**. The lacrosse stick of claim 26, further comprising a pocket member secured to the lacrosse head frame, wherein the net portion extends between the pocket member and a bottom portion of the lacrosse head frame.

**32**. The lacrosse stick of claim 26, wherein the second and the third members together form a composite member that is a part of a net portion.

**33**. The lacrosse stick of claim 26, wherein the second and the third members together form a thong.

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