April 30, 1963 A. C. GILBERT 3,087,164

SAFETY HELMET

Filed July 30, 1959 3 Sheets-Sheet 1

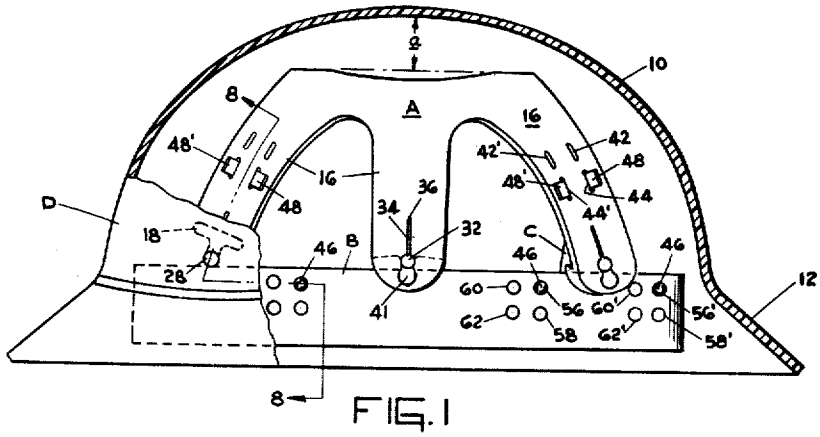


FIG. 1

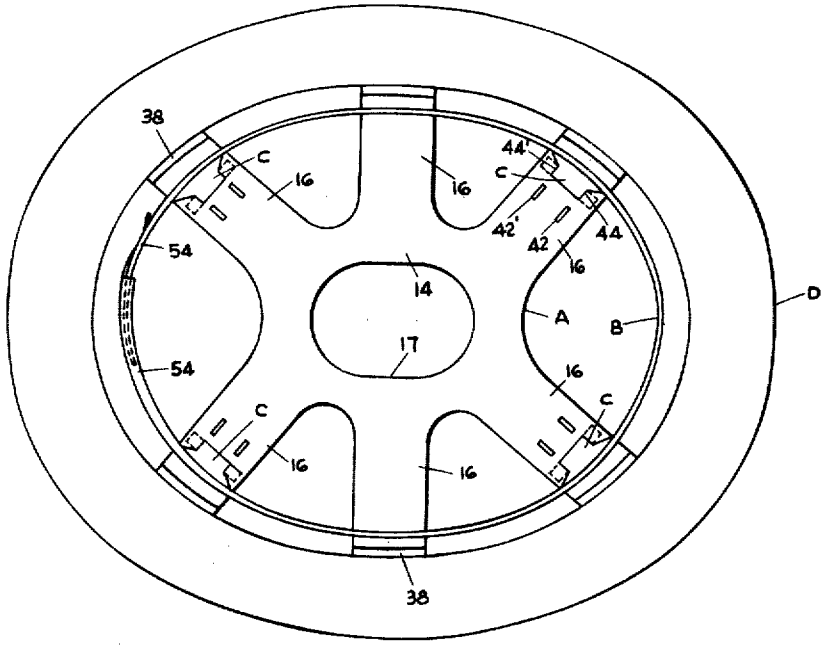


FIG. 2

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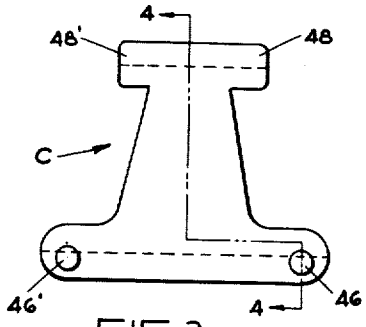


FIG. 3

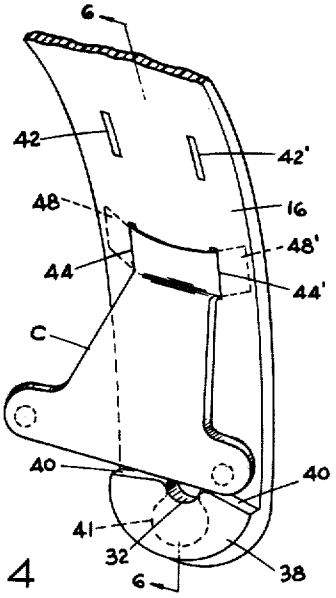


FIG. 5

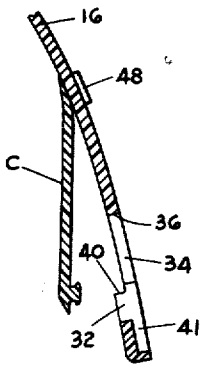


FIG. 6

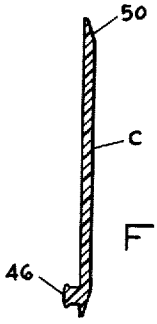


FIG. 4

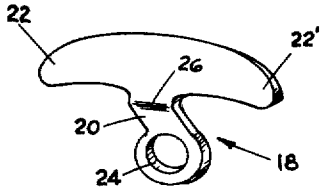


FIG. 7

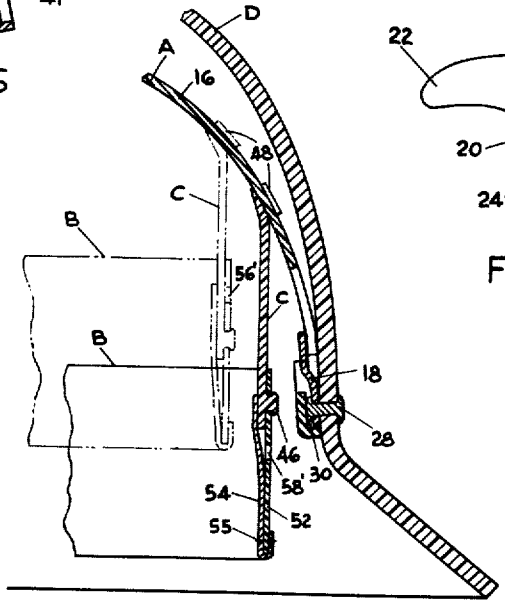


FIG. 8

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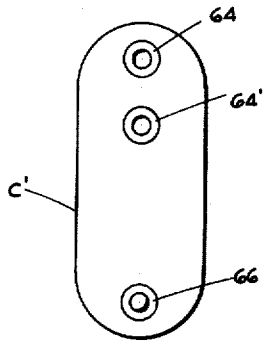


FIG. 9

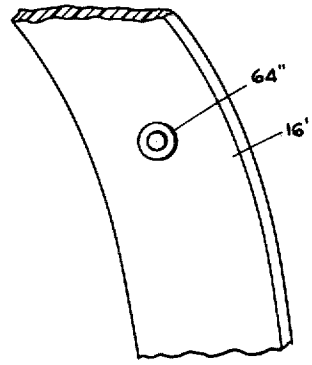


FIG. 10

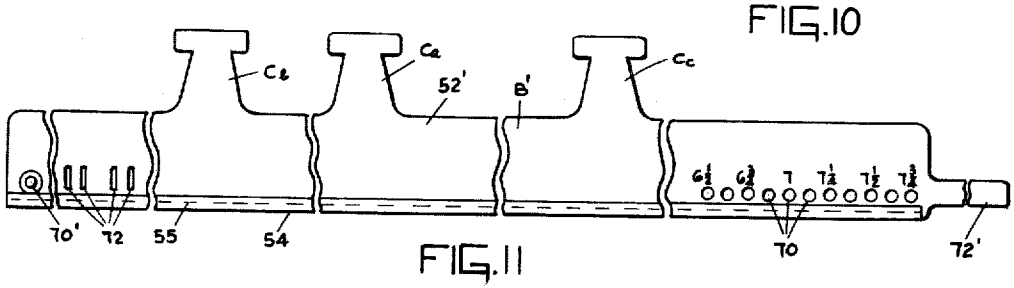


FIG. 11

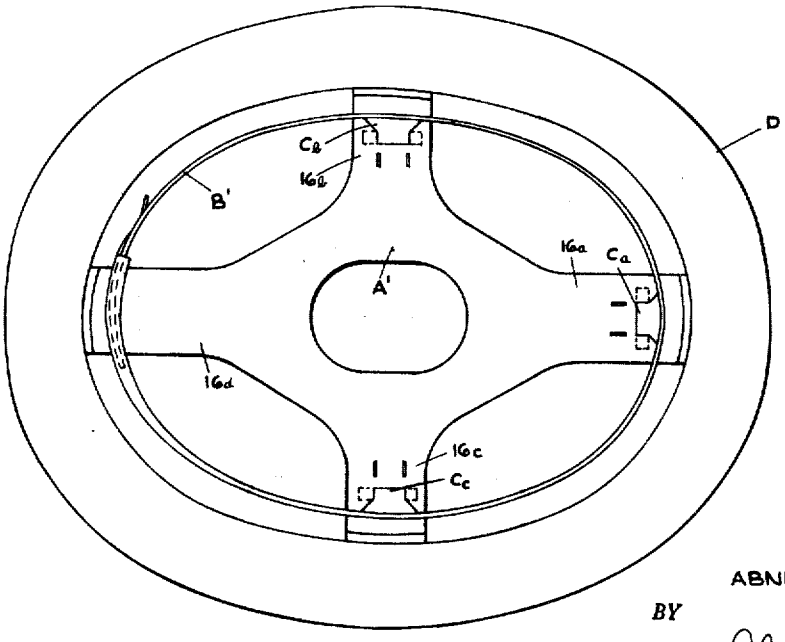


FIG. 12

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United States Patent Office 3,087,164 Patented Apr. 30, 1963

3,087,164

SAFETY HELMET

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Filed July 30, 1959, Ser. No. 830,501
9 Claims. (Cl. 2—3)

The invention relates to safety helmets, and is more particularly directed to improvements in a hammock for suspending or supporting a helmet upon a wearer's head, improvements in the components of the hammock, and in the several relationships of the components with one another.

An object of the invention is to provide a novel and improved hammock for a safety helmet of the type which furnishes a fixed and minimum clearance between the top of the hammock and the underside of the top of the shell within which the hammock is mounted.

Another object of the invention is to provide a safety helmet hammock, more particularly of the type which affords a fixed clearance between the hammock and the shell, which permits adjustment of the helmet to a secure, centralized and comfortable position upon the head of the individual wearer, the same hammock affording such desired characteristics for practically all sizes and shapes of heads.

A further object of the invention is to provide a hammock having a spider and headband support means wherein the headband support means and the spider are constructed and related to one another to furnish radial and vertical adjustability of the headband support means, and the headband.

Another object of the invention is to provide a hammock in which the headband support means and the headband are provided with cooperable means permitting the headband to be vertically adjusted with respect to the headband support means.

Still another object of the invention is to provide a novel and improved spider for a hammock of the type which furnishes a fixed and minimum clearance between the top of the hammock and the underside of the top of the shell within which the hammock is mounted.

Still a further object of the invention is to provide a novel and improved headband construction.

These, and other objects and advantages of the invention will be apparent from the following description.

A hammock or head-receiving cradle constructed in accordance with the invention generally comprises a spider, a headband, and intermediate headband support means connecting the headband to the spider. The headband support means may be in the form of means which are separate and apart of the components which it connects, or such means may be made as an integral part of the headband. The spider has peripherally spaced, downwardly extending leg members, and the hammock assembly is mounted within a hard, rigid shell by suitaby connecting the leg members at or near their lower ends to the inside of the shell. The headband support means is flexibly or hingedly connected to several of the spider's leg members so that the headband is provided with a measure of adjustability in a radial direction by virtue of the structural relationship of the parts. Moreover, the headband support means and the leg members of the spider are provided with cooperable means for separably connecting and adjustably relating both the vertical and radial positions of the headband support means, and the headband, with respect to the spider, or the planes provided by the shell's generally hemi-spherical inner surface and the peripheral edge of the shell's brim. Such vertical and radial adjustability permits the headband to be securely positioned upon the wearer's forehead, thereby preventing the helmet from falling off when the wearer bends over, enables the wearer to adjust the headband at a desired level with respect to the brim's edge to suit his personal taste and comfort, and allows the helmet to be centralized upon the head of the wearer. The headband is adjustable to size, and the same assembly of hammock components will securely and centrally fit upon and comfortably accommodate all sizes and shapes of heads.

In addition to the described radial and vertical adjustable relationship provided by the coacting headband support means and the spider, cooperable means may be provided by the headband suport means and the headband for an additional measure of headband adjustability in a vertical plane.

While the headband support means, and the headband, may be structurally related to various types of spiders to furnish adjustment in both the vertical and radial planes, it is preferred that the spider be formed to furnish a fixed and minimum clearance between the top of the hammock and the underside of the top of the shell. More particularly, it is preferred to use a spider having the structure to be subsequently described. Also, while known forms of headbands are suitable for the realization of various advantages of the invention, it is preferred that the hammock include a headband having the structure to be subsequently described.

In a greater detail, reference is made to the drawings illustrating a preferred embodiment of the invention, in which:

FIG. 1 is a side elevational view, partly broken away and in section, showing a safety helmet including a hammock made in accordance with the invention;

FIG. 2 is a plan view of the bottom side of the safety helmet shown in FIG. 1;

FIG. 3 is a view of the outer or shell-side of a headband support member particularly adapted for cooperation with the preferred and illustrated embodiments of the spider and headband components;

FIG. 4 is a vertical cross-sectional view taken approximately in the plane of line 4—4 of FIG. 3;

FIG. 5 is a partial, perspective view showing the relationship of the headband support member shown in FIGS. 3 and 4 with respect to a leg member of the spider;

FIG. 6 is a vertical cross-sectional view taken approximately in the plane of line 6—6 of FIG. 5;

FIG. 7 is a perspective view of a hanger particularly suitable for the detachable connection of the spider, and the hammock, to the shell of the helmet;

FIG. 8 is a vertical cross-sectional view taken approximately in the plane of line 8—8 of FIG. 1, this view further showing the extremes of vertical and radial adjustment permitted by the hammock construction of the invention;

FIG. 9 is a view similar to FIG. 3, but showing another form of headband support means;

FIG. 10 is a partial perspective view of a spider leg member adapted for cooperation with the headband support means as shown in FIG. 9;

FIG. 11 is a plan view showing the outer side of a headband having headband support means integrally formed therewith; and

FIG. 12 is a view similar to FIG. 2, but showing the unitary headband and headband support means of FIG. 11 connected to an appropriate spider and mounted within a shell.

As shown in FIGS. 1 and 2, the preferred form of hammock comprises a spider A and a headband B connected to the spider by intermediate headband support means in the form of a plurality of individual or separate head-

band support members C. The assembly of the hammock components is suspended or mounted within a hard, rigid, impact-resistant shell D. The shell may be of any suitable material, such as a molded plastic, which may be reinforced with suitable fibers, or a light metal, for example, aluminum. The shell has a domed crown **10**, and may have an integrally formed brim **12**.

The spider A is formed of a plastic composition as a unitary or single piece. Plastic material is used which furnishes high tensile strength for the thickness and/or cross-section thereof. Suitable materials are polytheylene, vinyl chloride polymers, or co-polymers of vinyl chloride and vinyl acetate suitably compounded with fillers or other modifying agents to furnish the desired stiffness and strength

The unitary, plastic spider is preferably formed by molding and comprises a central web **14** and a plurality of integrally formed, radially extending leg members **16**. Preferably, the web is provided with a central opening **17** for increased ventilation, whereby the web **14** is substantially annular in outline. As shown in FIG. 1, when the spider is mounted within and connected to the shell D, the web is located at the top, and the leg members extend downwardly of the web and are peripherally spaced from one another. The leg members, which are of equal length, are of such length that they are directly connected at their lower ends to the shell, a fixed clearance *a* is provided between the uppermost portion of the hammock, or outer side of the web **14**, and the underside of the top of the shell's crown. Like the shell, the spider is dome-shaped in outline. The outwardly curved or bowed leg members are located upon an increasing diameter lengthwise of the leg members in a downward direction, with the spider having its largest diameter where the leg members are secured to the shell on a suitable circumference thereof As illustrated, the spider is made with six (6) leg members, and such number is preferred. It will be understood, however, that any suitable number of leg members may be provided.

Although the spider may be permanently connected to the shell, it is preferred to provide the shell and the leg members with cooperable means for directly and detachably connecting the spider to the shell, thereby permitting easy replacement of a hammock. Preferably, as shown in FIGS. 1, 2, and 8, and more particularly in FIG. 7, the shell is provided with a plurality of circumferentially spaced connecter clips or hangers **18**, one for each leg member **16**. The hangers are substantially in the form of squat T. Each hanger comprises a shank **20** having laterally extending ears or tabs **22**, **22'** at the upper end thereof. The hanger's shank is provided with an opening **24** at its lower end. The shank is bent out of its normal plane at **26** so that the ears **22** lie in a plane which is offset from the area of the shank at the opening **24**, where the shank abuts the inner face of the shell when the hanger is secured thereto.

As shown in FIG. 8, the hangers are each secured to the shell by a headed rivet **28**, which extends through an opening of the shell's wall and through the aperture **24** in the hanger. The rivet's inner end **30** is headed over to secure the hanger to the shell. The described offsetting of the hanger's eared portions allows space between the hanger and the shell wall for the thickness of a leg member **16**. The hangers and the rivets may be made of metal. When it is desired that the helmets be used by electrical workers, the hangers and rivets may be covered with a coating of insulating material, and of course, an electrically non-conductive shell of hard plastic material is used.

As shown in FIGS. 1, 5, 6 and 8, the leg members **16** are provided with cooperable means for directly and detachably connecting the spider to the shell. Each leg member is provided with a buttonhole form of opening near its lower end, the opening extending centrally and lengthwise of the leg member. Such form of opening comprises a circular aperture or eye **32** at the lower end in communication with an upwardly extending slot **34**. The overall length of the eye and the communicating slot is slightly greater than the width of the hanger **18** at its laterally extending eared portions **22**, **22'**. To connect a leg member to a hanger, the leg member is twisted to orient its opening to extend parallel to and lengthwise of the hanger's eared portions The leg member is then passed over the edge of one ear through the eye **32**, and after the upper end of the slot, designated **36**, is passed over the other ear, the leg member may then be straightened out to the position shown in FIGS. 1 and 8 to securely and detachably connect the leg member to the shell. To disconnect a leg member from the shell, the leg member is twisted to align the slot **34** into parallelism with the direction of lateral extension of the ears, whereupon the leg member then may be lifted over and away from the hanger.

To provide increased strength at the spider's connection to the shell, the leg members are each molded to provide a reinforced section of material at the point of greatest stress when a blow or impact is imparted to the top of the shell, causing tension to be applied to the leg members. As shown in FIG. 5, the lower end of the leg member, on the inner side thereof, is provided with a heavy or thickened portion **38**. (For the purpose of orientation, reference to an "outer side" of a leg member, headband support member or the headband, indicates that side of the component which faces the shell; correspondingly, "inner side" refers to the component's opposite side or the side facing the wearer's head.) The thickened portion extends across the width of the leg member, with the upper portion thereof providing a shoulder **40** on each side of the eye **32** for engagement with the laterally extending ears **22**, **22'** of the hanger. Also, as shown in FIGS. 6 and 8, each leg member is molded on its outer side to provide a centrally relieved portion **41** to receive and accommodate the thickness of the hanger's shank **20** and the headed end **30** of the rivet.

It will be observed that the leg members of the integrally formed, unitary spider possess continuity and uniformity of section, unbroken by any intervening means tending to initiate tearing of the material and to reduce the spider's tensile strength above the leg member's direct connection to the shell. The centrally located buttonhole form of opening for detachably connecting a leg member to the shell does not diminish the strength afforded by the otherwise uniform and continuous section of material. Similarly, such continuity and strength of the leg members is not diminished with the preferred form of means, to be subsequently described, for separably connecting the headband support means to the spider.

As shown in FIG. 2, with a spider having six leg members, it is preferred to provide cooperating headband support means in the form of respective members C for four of the six leg members, two at the front of the hammock assembly and helmet and two at the rear. It will be understood, however, that two or more headband support members may be connected to a corresponding number of leg members. A leg member and cooperating headband support member are each provided with mating means for their separable connection. In order to adjustably relate the vertical position of the headband support means with respect to the spider, one of a pair of cooperating leg and headband support members is provided with a second separable connecting means spaced lengthwise from such member's first-mentioned separable connecting means for mating connection with the sepabale connecting means of the other member of the pair. It will be understood that additional measures of vertical adjustability may be obtained by the provision of more than two spaced separable connecting means upon one of the members.

It is preferred that the plurality of longitudinally spaced separable connecting means be located upon the spider, instead of the headband support members, in order to ob-

tain adjustability of position of the headband support members in a radial direction, as well as in a vertical direction. The leg members, in addition to extending in a vertical plane, are outwardly curved or bowed, circumscribing diameters of increasing magnitude as their lower ends are approached. As a result, connecting the headband support members to the inner side of the leg members at different points along the lengths of the leg members affords both vertical and radial adjustment of the headband support members. Any mating separable connecting means, such as snap fasteners or the like, may be used. It is preferred however, to take advantage of the character of material used for both the spider and the headband support means, the latter, as will be subsequently explained, being also of plastic material, and to make the mating separable connecting means for these two components as integral parts thereof, thereby eliminating the expense of purchasing fastener units and the cost of attaching such units to the components. As shown in FIGS. 1 and 5, each leg member **16** is provided with two pairs of slots **42**, **42'** and **44**, **44'**. The slots of a pair are laterally spaced from one another, and one pair of slots is spaced from the other pair lengthwise of the leg member.

The headband support members C are preferably molded of a plastic composition. The composition may be the same as one of the compositions as above described for the unitary spider. A thickness of material is used which furnishes sufficient stiffness so that the headband, to which such members are connected or related, will come away from the forehead easily when the helmet is removed. A polyethylene composition having a thickness of approximately 0.060 inch is particularly suitable for this purpose. The configuration of a headband support member is best shown in FIG. 3. The upper end of the headband support member is provided with a pair of integrally formed, laterally extending tabs **48**, **48'**. The tabs are dimensioned to be extended through a leg member's slots **42**, **42'** or **44**, **44'** with a slight amount of clearance. The reduced width of the headband support member at the juncture with the tabs furnishes a hinged connection of the member to the spider, allowing the member to rotate to some extent on an arc having its center at the area of connection. In order to furnish a smooth, apparently unbroken surface to the wearer's head, the top edge of the headband support member may be feathered or beveled at **50**. The lower end of each headband support member is provided, on the outer side thereof, with means for separably connecting the headband support member to the headband B, such means preferably being in the form of a pair of laterally spaced connector elements to add strength to the connection. While halves of snap fasteners or the like may be used, it is preferred to take advantage of the plastic character of the component, and to mold a pair of buttons **46**, **46'** integrally therewith.

As shown in FIG. 8, the headband B comprises a base strip **52** of plastic material upon the inner side of which is disposed a sweatband **54**. The plastic strip may be of any suitable composition, such as one of the compositions above referred to for the spider. Polyethylene of substantially the same thickness as the headband support members is particularly suitable. The base strip is flexible or pliable in a lengthwise direction to permit comfortable accommodation to the forehead of the wearer. On the other hand, the relatively small dimension of the strip in the direction of its height, provides substantial stiffness or rigidity in such direction. The sweatband **54** may be of any suitable, flexible and perspiration-absorbing material, such as leather or a foamed synthetic resin. The sweatband is secured to the lower edge of the base strip, as by sewing at **55**. As shown, the lower edge of the sweatband may be folded over onto the outer side of the base strip along the lower edge thereof, and the sewing extended through the three plies to furnish a smooth, reinforced lower edge. The upper edges of the sweatband and base strip are left unconnected so that the headband support members may be positioned between them, and permit the sweatband to furnish a smooth surface to the forehead. The headband is made sufficiently long to accommodate the largest head size, and the ends of the band are formed in any suitable manner to permit the circumferential length of the band to be adjusted and secured to the desired head size.

As shown in FIGS. 1 and 8, to separably and adjustably connect the headband B to the plurality of headband support members C, the base strip **52** of the headband is provided with corresponding pairs of vertically spaced apertures **56**, **56'** and **58**, **58'** to selectively receive the buttons **46**, **46'** of each headband support member. The position of the headband in a vertical plane is raised or lowered, depending upon which pair of the vertically spaced apertures receive the buttons. To assist in aligning the connection of the headband with the headband support members, regardless of the size to which the band is extended or shortened, the headband may be provided with additional pairs of vertically spaced apertures **60**, **60'** and **62**, **62'**, which are offset laterally from the apertures **56**, **56'** and **58**, **58'**, respectively.

FIG. 8, together with FIGS. 1 and 5, illustrate the extremes of radial and vertical adjustability which may be obtained with the described hammock assembly. The solid-line showing represents the lowermost position of the headband in a vertical plane and its outermost position radially, apart from the degree the headband may move radially due to the hinged connection of the headband support members with the spider's leg members. In such position, the headband support members' tabs **48**, **48'** are disposed within the spider's lowermost slots **44**, **44'**, and the buttons **46**, **46'** are positioned within the uppermost headband apertures **56**, **56'** or **60**, **60'**. With the headband support members thus connected to the leg members, the vertical position of the headband may be raised to an intermediate position by removing the buttons **46**, **46'** from the apertures at the upper level of the headband, and inserting them into the apertures **58**, **58'** or **62**, **62'** at the lower level. When the headband support member tabs **48**, **48'** are extended through the uppermost slots **42**, **42'**, and the buttons **46**, **46'** are inserted in the lower level headband apertures **58**, **58'** or **62**, **62'**, the headband assumes its uppermost position in a vertical plane, and its innermost position in a radial plane, as shown by the dot-dash-line showing. The headband may be relocated in another intermediate and fourth position by inserting the buttons **46**, **46'** into the apertures **56**, **56'** or **60**, **60'**.

Instead of the headband support members having the construction as above described, they may be made as shown in FIG. 9. In this form of the invention, the headband support members C' may each be provided with a pair of longitudinally spaced female halves **64**, **64'** of snap fasteners on the outer side thereof for selective and separable connection with the male half **64''** of the fastener, secured to have the projecting portion thereof extend from the inner face of a leg member **16'** (FIG. 10). Near the lower end of the headband support member, and also on the outer side thereof, the male half **66** of a snap fastener may be secured to the member for separable connection to the female half (not shown) of the fastener secured to the base strip of the headband. Pairs of vertically spaced, mating fastener elements may be provided on the headband for its further adjustment in a vertical plane. While this arrangement does not possess many of the advantages of the embodiment of the invention illustrated in FIGS. 1 to 8, the hinged connection of the headband support members to the spider provides a measure of radial adjustability, and a measure of vertical adjustability equal to that afforded by the structure of FIGS. 1 to 8 is obtained.

Instead of providing headband support means in the form of individual or separate parts as previously described, it is within the scope of the invention to provide the headband support means as an integral part of the headband. As shown in FIG. 11, the headband B' which, as hereinbefore described, includes a base strip of plastic material, here designated **52'**, is provided with a plurality of integrally formed, headband support portions or members C*a*, C*b*, C*c* spaced lengthwise of the strip and extending from the upper edge thereof. The integral headband support members may be provided with the integral, laterally extending tabs at their upper ends to separably and adjustably connect the headband to a spider having mating, vertically spaced slots formed in the leg members, as previously described. The base strip, the outer side of which is visible in FIG. 11, is provided with a suitable sweatband **54'**, the main portion of which lies on its opposite or inner side. For adjusting the headband to size, the base strip is provided with a series of longitudinally spaced apertures **70** near one end thereof to selectively receive a male element **70'** located near the opposite end of the band. To assist in maintaining the band to adjusted size, longitudinally spaced slots **72** are formed in the base strip near one end thereof to receive a tab **72'** extending longitudinally from the opposite end of the band.

With the unitary headband and headband support means as shown in FIG. 11, a spider A' is provided having four symmetrically arranged leg members **16***a*, **16***b*, **16***c* and **16***d* adapted for connection to the shell. As shown in FIG. 12, the headband is separably and adjustably connected to the spider by its headband support members C*a*, C*b* and C*c* respectively engaging the front and side leg members **16***a*, **16***b* and **16***c*. The headband is not attached to the rear leg member **16***d*, thereby permitting the headband to be adjusted to size. The spacing between the headband support members is, of course, made to coincide with the location and spacing of the arcuately positioned leg members **16***a*, **16***b* and **16***c*. Although this form of the invention does not permit the added vertical adjustment between the headband and the headband support means, as previously described, an adequate degree of adjustment in a vertical plane, as well as full adjustment in a radial plane, are afforded by the separable and selective connection of the integrally related and combined headband and headband support means to different points along the lengths of the spider's leg members.

It is believed that the advantages of the invention will be apparent from the foregoing detailed description of several preferred embodiments thereof. The hammock components are related to one another to allow a helmet to be positioned securely, centrally and comfortably upon the head of the wearer for any head size and shape. The spider, with its direct connection to the shell, and its structure, providing a fixed clearance between the top of the hammock and the underside of the crown of the shell, affords substantially improved resistance to impact imparted to the helmet for the maximum protection of the wearer. There are no strings which may become untied to vitiate the desired fixed clearance. The wide range of adjustability afforded by the hammock to suit the wearer does not affect or change the fixed and safe clearance between the hammock and the shell. The adjustments to securely and comfortably position the helmet centrally on the head to suit the personal taste of the wearer, may be made easily and simply. For the high measure of protection obtained, together with the wide range of adjustability afforded, the hammock is made with a minimum of comparatively simply fabricated parts.

It will be apparent that the several preferred embodiments of the invention as above specifically described may be variously changed or modified without departing from the spirit and scope of the invention as sought to be defined in the following claims.

I claim:

1. In a hammock for a safety helmet including a shell, a spider comprising peripherally spaced, downwardly extending leg members adapted for connection at their lower ends to a shell, a headband, headband support means including a plurality of depending arm members secured at their upper ends to the inner side of said leg members at an intermediate portion thereof and carrying said headband at the lower depending ends thereof, and separable connection means provided by several of the leg members and the headband support means forming spaced separable connections, each of which is effective to positively secure said leg members and said headband support means for separably connecting and adjustably relating to one of a plurality of selected fixed relationships the vertical position of the headband support means with respect to the leg members.

2. A hammock for a safety helmet including a shell, the hammock comprising a spider having peripherally spaced leg members adapted for connection at their lower ends to a shell, a headband, headband support means including a plurality of depending arm members secured at their upper ends to the inner side of said leg members at an intermediate portion thereof and carrying said headband at the lower depending ends thereof, detachable and positive connection means provided by the headband support means and several of the leg members for separably and positively connecting and adjustably relating to one of a plurality of selected fixed relationships the vertical position of the headband support means with respect to the leg members, and means provided by the headband support means and the headband for separably connecting and adjustably relating to one of a plurality of selected fixed relationships the vertical position of the headband with respect to the headband support means.

3. A hammock for a safety helmet including a shell, the hammock comprising a unitary spider of plastic material having substantially tensile strength, said spider having a central web, peripherally spaced leg members extending outwardly and downwardly of the web and integral therewith, said leg members being of a length to provide, when connected at the lower ends thereof to a shell, a fixed clearance between the outer side of said web and the underside of the top of the shell's crown, each of several of the leg members being provided with a plurality of separable connecting means spaced lengthwise of the member in an intermediate outwardly and downwardly extending portion thereof, headband support members having mating means for separably and positively connecting said headband support members to a selected one of said separable connecting means of cooperating leg members and adjustably relating the vertical and radial position of the headband support members with respect to the leg members, a headband, and means provided by a downwardly projecting portion of the headband support members and the headband forming a plurality of vertically spaced positive connections for separably connecting and adjustably relating to one of a plurality of selected fixed relationships the vertical position of the headband with respect to the headband support members, said headband being positioned below said separable connecting means and depending from said outwardly and downwardly extending portion of said leg members on said headband supporting members.

4. An article as set forth in claim 3, wherein the headband support members are of plastic material and the mating means thereof are laterally extending, integrally formed tabs, and the plurality of separable connecting means spaced lengthwise of a leg member are pairs of laterally spaced slots formed in the leg member to receive the tabs.

5. A safety helmet comprising an outer substantially rigid shell having a head receiving opening therein, a hammock for supporting said shell in spaced relation to a

wearer's head made of substantially homogeneous flexible semi-rigid plastic material in the form of a spider adapted to rest upon the top of the head of the wearer and a plurality of peripherally spaced outwardly and downwardly extending leg members adapted for connection at their lower ends to the shell substantially around the periphery of said head receiving opening, a headband adapted to encircle a circumferential portion of a wearer's head disposed within said shell and spaced inwardly from said head receiving opening, a plurality of headband supporting arms carrying said headband at the lower ends thereof extending upwardly from said headband and detachably secured at their upper ends to corresponding ones of said outwardly and downwardly depending leg members at portions along the lengths thereof spaced inwardly and upwardly from their lower ends and means for alternatively, positively securing the upper ends of said depending arm members at separate fixed points along the lengths of the corresponding ones of said depending leg members to effect by the selective attachment of said depending arm members at said fixed points a desired variable adjustment of the vertical spacing between said headband and spider portion of said hammock.

6. A safety helmet in accordance with claim 5, wherein said headband supporting arms are detachably secured at their lower ends to said headband and wherein said headband and the lower end of said supporting means are provided with a plurality of vertically spaced detachable positive connection means for alternatively, positively securing said headband and headband supporting means in selected vertically spaced relationships.

7. A safety hemlet in accordance with claim 5, wherein said headband supporting arms are detachably secured at their lower ends to said headband and wherein said headband is expansible and contractible to accommodate variable circumferential dimensions of wearer's heads and said headband is provided with a plurality of circumferentially spaced detachable positive connection means and the lower end of said headband supporting arms are selectively secured thereto to accommodate the lateral adjustment of said headband.

8. A safety helmet in accordance with claim 5, wherein said headband supporting arms are detachably connected at their lower ends with said headband, wherein said headband and the lower end of said supporting means are provided with a plurality of vertically spaced detachable positive connection means for alternatively, positively securing said headband and headband supporting means in selected vertically spaced relationships and wherein said headband is expansible and contractible to accommodate variable circumferential dimensions of wearer's heads and said headband supporting arms and said headband are provided with a plurality of circumferentially spaced detachable positive connection means to accommodate the lateral adjustment of said headband.

9. A hammock for a safety helmet in accordance with claim 1 in which said headband includes a base strip of plastic material and said headband support members are formed integrally with said strip and spaced lengthwise thereof for alignment with said several of said leg members.

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