

1 SPECTACLE ASSEMBLY FOR FACES WITHOUT A PROMINENT UPPER NASAL
2 SUPPORT
3

4 BACKGROUND OF THE INVENTION
5

6 Field of the Invention

7 This invention relates to a spectacle assembly for use by
8 individuals having a substantially flattened or less than
9 prominent upper nasal area located substantially at the
10 junction of the upper portion of the nose and the forehead, to
11 the extent that this upper nasal area is inadequate to
12 reliably and consistently support conventionally constructed
13 spectacle. Accordingly, the spectacle assembly of the present
14 invention includes a nose-bridge disposed in a predetermined
15 operative position relative to the optical centers of the
16 lenses so as to engage a sufficiently prominent nasal support
17 located along the length of a wearer's nose in spaced relation
18 to the substantially flattened upper nasal area. The optical
19 centers are thereby aligned with the visual axes and pupils of
20 the wearer.
21

22 DESCRIPTION OF THE RELATED ART

23 The use of spectacles to improve an individual's eyesight
24 is ubiquitous throughout the world, and even though most of
25 the world's population lacks a typical Western European facial

1 characteristic which includes an upper prominent nasal area
2 between the eyes to support the spectacles' nose-bridge, most
3 of the world's population has tolerated Western spectacles
4 which do not necessarily fit their faces. As conventionally
5 designed and structured, spectacles generally include a nose-
6 bridge which is disposed between two lenses. The lenses are
7 positioned in front of the individual's eyes in a manner which
8 is intended to align the visual axes of the eyes with the
9 optical centers of the lenses. For optimal fit and stability,
10 spectacles commonly rely on a nose-bridge that is supported by
11 the part of the nose known as the upper nasal prominence or
12 nasal root.

13 Currently, conventional spectacles are designed to align
14 the nose-bridge with the upper nasal prominence where the
15 upper portion of the nose meets the forehead. However,
16 conventional spectacles are typically designed for the facial
17 characteristics of an individual of Western European descent.
18 Whether a pair of spectacles fits an individual's face is
19 typically determined by a trial and error process in an
20 optical dispensary. During this process, an individual will
21 try on different spectacles and determine if the style is
22 appropriate for their face. A proper fit is assessed by having
23 the optical center of the lenses aligned with the center of
24 each pupil which can also be referred to as the central visual
25 axis of each eye. The appropriate fit of the spectacles to the

1 nose is determined by the nose-bridge resting and being
2 supported by an upper nasal prominence or nasal root of the
3 nose with additional stabilization coming from the stems and
4 nose pads arising from the nose-bridge with the nose pads
5 resting on either side of the nose. This type of fit permits
6 three-point stabilization.

7 However, in individuals with a less prominent or
8 flattened nasal root, as commonly found among infants,
9 children, and individuals of Eastern (Asian) and African
10 ancestry, the conventionally constructed spectacle often
11 results in a nose-bridge that is elevated off the nasal root
12 with the only stability coming from the nose pads arising from
13 the nose-bridge on either side of the nose. Moreover, the
14 nose pads often rest at an angle and are almost never in full
15 contact with the skin on the side of the nose. This is an
16 unstable situation and often results in slippage of the
17 spectacles until the nose-bridge comes to rest on a lower
18 portion of the nose that is more prominent. This slippage
19 results in a loss of alignment between the optical center of
20 the lenses and the eyes' visual axes. Also, the appearance is
21 not cosmetically appealing in that the spectacles do not
22 properly fit the contour of the individual's face.

23 Conventional spectacles, constructed in the manner
24 described above, are generally satisfactory for individuals of
25 "Western European" decent or Caucasian ethnicity, that is,

1 individuals with an elevated area along the upper portion of
2 their noses. The shape and dimension of this type of nose
3 includes a nasal root that can adequately support the nose-
4 bridge of a conventionally constructed pair of spectacles. By
5 way of example, an individual representing the aforementioned
6 typical Western facial characteristics is shown in the prior
7 art representation of Figure 1. More specifically, the
8 conventional spectacles on the represented individual include
9 a nose bridge resting on the individual's upper nasal
10 prominence or nasal root with two lenses attached to the nose-
11 bridge and centered on the eyes so that the spectacles "fit
12 the face". Moreover, the conventional spectacles, as
13 represented on this individual, demonstrate an alignment
14 between the optical centers of the lenses and the visual axes
15 of each eye as represented by the center of the pupils. Other
16 features associated with a correctly fitting pair of
17 conventional spectacles include correct temple positioning as
18 well as the correct dimensions of the lenses in relation to
19 the face and the eyes of the individual.

20 However, most individuals throughout the world do not
21 have the demonstrated "Western" facial characteristics of the
22 individual as represented in Figure 1. In addition, as
23 represented in Figures 2A and 2B, many, if not most, infants,
24 toddlers, and children do not have a prominent nasal root, but
25 rather, it appears flattened. Among adults of Asian and

1 African descent, these individuals lack a sufficiently
2 prominent nasal root capable of supporting a pair of
3 conventional spectacles. As such, noses on almost all children
4 and many non-Western adults will not provide adequate support
5 for conventionally designed and constructed spectacles of the
6 general type represented in Figure 1. As a result, these
7 individuals find it difficult to maintain the appropriate
8 alignment of conventional spectacles on their faces due to
9 slippage down the nose. The alignment between the optical
10 centers of the lenses and the individual's visual axes is lost
11 resulting in blurred vision and constant repositioning.

12 Further by way of example, Figures 3A, 3B and 3C show a
13 conventional pair of "Western" spectacles being worn by a
14 young individual not having an upper nasal prominence capable
15 of supporting a conventional nose-bridge. Therefore, when
16 conventionally structured spectacles are worn by such an
17 individual, it is evident that the nose-bridge rises above
18 and/or outwardly from the nasal root. Accordingly the nose-
19 bridge itself is not directly engaged or supported by the
20 nose. The conventional spectacles are held in position only
21 by the nose pads at the end of the stems arising from the
22 nose-bridge as represented in these Figures. Often times, to
23 minimize slippage, the stems arising from the nose-bridge have
24 to be squeezed together to accentuate the tightness of the
25 nose pads to the nose. This frequently causes discomfort and

1 indentation marks on the skin evident once the spectacles are
2 removed. Due to the conventional positioning of the nose-
3 bridge, the optical centers of this individual's lenses are
4 not aligned in relation to the center of the corresponding
5 pupils. The visual axes are in the upper portion of the lenses
6 while the optical centers of the lenses are below the pupils.
7 Therefore, in this common example, it is apparent that
8 conventionally designed and structured spectacles, which
9 include a fixed nose-bridge that needs to be supported by the
10 wearer's nose, are not designed to be worn by children or
11 infants with a flattened upper nasal prominence or nasal root
12 and by most individuals of non-Western descent.

13 Accordingly, there is a need for a new and improved
14 spectacle design and construction that can be worn by
15 individuals with non-Western facial characteristics. Such a
16 preferred and proposed pair of spectacles would minimize
17 slippage and improve the alignment of the optical center of
18 each lens with the corresponding visual axis of each eye.
19 Moreover, such a proposed spectacle assembly, in order to
20 overcome many of the above noted disadvantages and problems
21 should include a properly positioned nose-bridge
22 interconnecting the two lenses and positioned on the portion
23 of the nose that could provide adequate support while
24 disposing the lenses sufficiently forward so as not to
25 interfere with the eyelashes of the wearer. In addition, the

1 nose-bridge should be attached at an appropriate position on
2 the lenses so that the optical centers of each lens is aligned
3 and maintained with the center of the corresponding pupil and
4 the visual axis of each eye.

5 Moreover, the problems and disadvantages of conventional
6 eyewear design would be substantially overcome by locating the
7 nose-bridge of the proposed spectacles on a lower portion of
8 the nose and attaching the nose-bridge to the corresponding
9 lower portion of the lenses. Moreover, the improved nose-
10 bridge should be attached from behind on the lenses or on the
11 back side thereof, rather than the front side of the lenses as
12 is common in conventional "Western" style spectacles, of the
13 type represented in Fig. 3 A-C. By attaching the nose-bridge
14 assembly to the back of the lenses, the nose pad assembly
15 could be extended laterally and engage the skin on either side
16 of the nose without interfering with the lenses. Therefore,
17 the spectacle assembly would be fully supported by the nose-
18 bridge resting on the nose and the nose pads would be fully
19 aligned with and resting on the skin on either side of the
20 nose so that a three-point stabilization would be possible. A
21 slippage of the spectacles down the nose would thereby be
22 eliminated or significantly restricted.

23 Therefore, the disposition and structuring of the nose-
24 bridge and nose pad assembly of these improved spectacles will
25 effectively accommodate the different facial characteristics

1 of many individuals and different lens shapes, while
2 maintaining the correct optical positioning of the spectacles
3 in relation to the eyes.

4
5 SUMMARY OF THE INVENTION

6 The present invention is directed to a spectacle assembly
7 of the type which may be comfortably and effectively worn by
8 individuals having different facial characteristics such as,
9 but not limited to, individuals having a less prominent upper
10 nasal support. More specifically, many individuals of
11 different ethnic backgrounds may not have a sufficiently
12 prominent area at the upper end of their noses to effectively
13 support and/or maintain spectacles in their intended alignment
14 with the visual axes of the wearer. By way of example only,
15 individuals of Eastern Asian decent frequently do not have a
16 sufficiently prominent upper nasal support which is adequate
17 to support and maintain a pair of conventional spectacles at
18 their desired position to optimize vision. The resulting
19 misalignment of the optical centers of the lenses with the
20 visual axes of the eyes causes blurred vision. Accordingly,
21 the spectacle assembly of the present invention is structured
22 to accommodate individuals having a less prominent upper nasal
23 support or nasal root.

24 Therefore, for purposes of describing the various
25 preferred embodiments of the spectacle assembly of the present

1 invention, the term "prominent nasal support" will be used to
2 describe the location along the length of an individual's nose
3 that is sufficient to adequately engage and effectively
4 support the nose bridge and/or the nose pad assembly of the
5 spectacles. Such effective support will assure substantial
6 alignment of the optical centers of the lenses of the
7 spectacles with the pupils or visual axes of the individual's
8 eyes. Further, by way of example and for purposes of clarity,
9 an individual of Western or Caucasian descent may commonly
10 have a sufficiently prominent nasal root located substantially
11 at the junction between an upper end of an individual's nose
12 and the forehead, as briefly described above. As such,
13 conventionally structured spectacles have a nose-bridge
14 attached at an upper portion of the lenses, wherein a
15 preferred, three-point stabilization of the spectacles on an
16 individual is possible only when the nose-bridge and the two
17 nose-pads are disposed to engage and be supported on the
18 prominent nasal root at the junction of the upper nose and
19 forehead. In contrast, individuals of many other ethnic
20 backgrounds commonly have less prominent nasal roots at the
21 junction between upper nose and forehead. As a result, the
22 nose-bridge of conventional spectacles is not adequately
23 supported at this junction. The stability of these
24 conventional spectacles is thereby diminished and frequent
25 slippage of the spectacles results is repetitive optical

1 misalignment.

2 Therefore, the spectacle assembly of the present
3 invention includes a pair of lens and a nose-bridge disposed
4 between and in interconnecting relation to the lens pair. In
5 addition, a nose pad assembly, including a pair of nose pads,
6 may be considered a part of the nose-bridge or otherwise be
7 appropriately connected to the nose-bridge of the spectacles,
8 wherein both the nose-bridge and the nose pad assembly are
9 disposed in a predetermined operative position. As described
10 in greater detail hereinafter, such predetermined operative
11 positioning facilitates disposition and supported engagement
12 of the nose-bridge and nose pad assembly on a "prominent nasal
13 support" of an individual which is spaced from the nasal root
14 or upper nasal portion of the individual's nose, at the
15 junction thereof with the forehead, as set forth above.
16 Moreover, the predetermined operative position of the nose-
17 bridge and the nose pad assembly on or relative to the
18 prominent nasal support depends on the facial characteristics
19 of the individual and will result in the intended alignment of
20 the optical centers of the lenses with the visual axes of the
21 eyes and optimal vision will be achieved.

22 In the various preferred embodiments of the spectacle
23 assembly of the present invention, the operative position of
24 the nose-bridge and the nose pad assembly will be located
25 between the optical centers and a lower periphery of the lens

1 pair of the spectacle assembly, depending on the location of
2 the "prominent nasal support" of the wearer. At least some of
3 the preferred embodiments further define the predetermined
4 operative position of the nose-bridge and nose pad assembly to
5 be beneath or lower than the optical centers and toward the
6 lower peripheries of the lens pair of the spectacle assembly.
7 In such preferred locations of the predetermined operative
8 position, the nose-bridge and/or the nose pad assembly will be
9 disposed to engage and be supported along the length of the
10 nose by the "prominent nasal support" of the individual, which
11 may be located below and in spaced relation from the typical
12 nasal root or upper end of the nose at the junction with the
13 forehead of the individual.

14 Other structural features associated with the various
15 preferred embodiments of the spectacle assembly of the present
16 invention include the nose-bridge of the spectacles comprising
17 an elongated base having the opposite ends thereof connected
18 to the rear surface portions of each of the spaced apart
19 lenses of the lens pair. In addition the nose pad assembly is
20 connected to the nose-bridge and includes a pad support or pad
21 stem also having a generally elongated configuration connected
22 to an intermediate portion of the base of the nose-bridge.
23 Moreover, each end of the elongated pad stem is structured to
24 removably and/or fixedly secure a nose pad thereto.

25 Moreover, the nose-bridge and nose pad assembly will be

1 attached on the back-side of the lenses to permit full contact
2 of the nose-pads with the skin on either side of the nose.
3 This will provide additional stabilization to the spectacle
4 assembly. Further, the nose pad assembly, which is connected
5 to the nose-bridge, may include a hook-like component or other
6 connecting structure that permits the insertion of an
7 exchangeable nose pad. As such, the two nose pads extend
8 laterally and rearward of the nose-bridge and rearward of the
9 lens pair and towards the face of the individual. The
10 relative structuring and positioning of the nose pad assembly,
11 specifically including the two nose pads, and the nose-bridge
12 of the spectacle assembly allows for a wide variance in the
13 dimension and configuration of the lenses defining the lens
14 pair, as well as the spacing there between. As such, the
15 design and structuring of the various embodiments of the
16 spectacles of the present invention are capable of being
17 effectively adapted to accommodate the overall dimension and
18 shape of any individual's face, eyes, nose, etc.

19 Therefore, the structural and operative versatility of
20 the various components of the spectacle assembly of the
21 present invention, including one or more preferred embodiments
22 thereof, facilitate considerable variance in the size,
23 configuration and overall design features of the lens pair,
24 the nose-bridge, nose pad assembly and temples associated
25 therewith. However, a common feature in the versatile

1 structuring and design of the various embodiments of the
2 spectacle assembly of the present invention is the ability to
3 accurately position and maintain the lens pair and more
4 specifically the optical centers thereof in aligned relation
5 with the visual axis or pupils of the eyes of the individual.
6 This intended and correct optical positioning is accomplished
7 even when the facial characteristics of the individual is such
8 that the prominent nasal support sufficient to support the
9 spectacles, is disposed along the length of the individual's
10 nose and spaced from the upper end of the individuals' nose at
11 the junction thereof with the forehead. Accordingly, the
12 spectacle assembly of the present invention comprises a true
13 universal design that can fit many individuals, of various
14 ages, having different facial characteristics.

15 These and other objects, features and advantages of the
16 present invention will become clearer when the drawings as
17 well as the detailed description are taken into consideration.

18 19 BRIEF DESCRIPTION OF THE DRAWINGS

20 For a fuller understanding of the nature of the present
21 invention, reference should be had to the following detailed
22 description taken in connection with the accompanying drawings
23 in which:

24 Figure 1 is a front view of an individual wearing
25 conventionally structured spectacles, wherein the represented

1 individual has Western facial characteristics.

2 Figures 2A and 2B are front and side views respectively
3 of an individual having different facial characteristics than
4 the individual of Figure 1, wherein schematic representations
5 and descriptive text associated therewith further indicate the
6 absence of a sufficient nasal support for conventional
7 spectacles at or adjacent the upper end of the individual's
8 nose and substantially at the junction of the upper end and
9 the forehead .

10 Figures 3A, 3B and 3C comprise front, lower perspective
11 view; a front view and a side view, respectively of an
12 individual absent a sufficient nasal support at the bridge of
13 the individual's nose and wearing conventional spectacles and
14 further including schematic representations and descriptive
15 text emphasizing problems and disadvantages recognized in the
16 prior art.

17 Figures 4A and 4B are a front view in partial schematic
18 form with descriptive text indicating proper structuring,
19 design and location of the improved eyeglass assembly of the
20 present invention.

21 Figure 4c and 4D are side views of the embodiment of
22 Figures 4A and 4B with additional schematic representations
23 and descriptive text.

24 Figure 5 is a front perspective view of at least one
25 preferred embodiment of the eyeglass assembly of the present

1 invention.

2 Figure 6 is a top perspective view of the eyeglass
3 assembly of the embodiment of Figure 5.

4 Figure 7 is a perspective view of a nose-bridge assembly
5 and nose pad assembly associated with the embodiments of
6 Figures 4-6 in an at least partially assembled form.

7 Figure 8 is a perspective view of the embodiment of
8 Figure 7 in an assembled form.

9 Figure 9 is a rear perspective view of the embodiment of
10 Figure 8.

11 Figure 10 is a side view of the embodiment of the
12 embodiment of Figures 8 and 9.

13 Figure 11 is a front view of an individual absent a
14 prominent nasal support located at the nasal root of the nose
15 and wearing at least one preferred embodiment of the eyeglass
16 assembly of the present invention.

17 Figure 12 is an upper perspective view of the embodiment
18 of Figure 11.

19 Figure 13 is a side perspective view of the embodiment of
20 Figures 11 and 12.

21 Figure 14 is a lower perspective view of an individual
22 absent a prominent nasal support located at the nasal root of
23 the nose and wearing at least one preferred embodiment of the
24 spectacle assembly of the present invention.

25 Figure 15 is a lower perspective view of the individual

1 represented in Figure 14 and being absent a sufficiently
2 prominent nasal support located at the nasal root and wearing
3 conventional, prior art spectacle having a nose-bridge
4 disposed and structured for support at the nasal root, where
5 the upper end of the nose meets the forehead.

6 Like reference numerals refer to like parts throughout
7 the several views of the drawings.

8
9 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

10 The present invention is directed to a spectacle assembly
11 structured for use by individuals of different facial
12 characteristics such as, but not limited to, individual's
13 having an insufficient nasal support for conventional
14 spectacles at or adjacent to a junction of the upper end of
15 the individual's nose and the individual's forehead.

16 As represented in the accompanying drawings and with
17 primary reference to Figures 4A through 4D, a schematic
18 presentation of at least one embodiment of the spectacle
19 assembly of the present invention is presented along with
20 descriptive text in a superimposed relation to the face and
21 eyes of a wearing individual. Certain dimensions and
22 structural features are represented by the descriptive text
23 that may assist in the assembly of the spectacle of the
24 present invention and the fitting thereof to the face of an
25 individual having an insufficient upper nasal support area to

1 accommodate conventionally structured spectacles, of the type
2 described in the prior art representation of Figure 1.
3 Accordingly, pertinent features include the interpupillary
4 distance, the vertical distance between the visual axes, the
5 position of the nose-bridge of the spectacles on the nose, and
6 the width of the nose-bridge. Figures 4C and 4D are side views
7 of Figures 4A and 4B with the placement of the nose-bridge on
8 the nose at an appropriate "prominent nasal support" position
9 so that the nose can support the nose-bridge and at a position
10 so that the plane of the lenses is moved far enough away from
11 the eyes so as to not interfere with the eyelashes. This view
12 also allows for placement of the temples from the top of the
13 ears to their point of interconnection with the lenses.

14 With concurrent reference to Figures 5 and 6, the
15 spectacle assembly 10 of the present invention includes a lens
16 pair 12 wherein each lens is disposed in overlying relation to
17 a corresponding eye of the individual. Under ideal
18 conditions, the dimension, configuration and overall structure
19 of the lens pair 12 as well as the additional components of
20 the spectacle assembly 10 serve to align the optical centers
21 of the lens pair with the pupils and/or visual axis of the
22 individual. Accordingly, the inter-pupillary distance
23 corresponds to the location of the optical centers of the lens
24 pair 12 which in turn is at least partially dependent on the
25 position, shape and dimension of the lens pair 12. Also, the

1 lens width and the bridge width are cooperatively dimensioned
2 to correspond the optical centers of the lens pair 12 to the
3 correct interpupillary distance, in light of the total width
4 of the spectacles, as determined between the outer ends of the
5 lens pair 12. Therefore, a nose-bridge 14 and an accompanying
6 nose pad assembly 16, to be described in greater detail
7 hereinafter, is disposed in a predetermined operative position
8 relative to the lens pair 12 and more specifically relative to
9 the optical centers thereof. As such the nose-bridge 14 and/or
10 nose pad assembly 16 engages the nose of the individual at a
11 sufficiently prominent nasal support area to support the
12 spectacle assembly 10 by supporting engagement with the nose-
13 bridge 14 and nose pad assembly 16. As set forth above, this
14 "prominent nasal support" defines a portion of the wearer's
15 nose disposed along the length thereof that is sufficiently
16 prominent or otherwise configured, relative to the
17 individual's face, to engage and consistently support the nose
18 pad assembly 16 and/or nose-bridge 14. The prominent nasal
19 support is thereby sufficiently prominent to support the
20 spectacle assembly in a manner which assures substantial
21 alignment between the optical centers of the individual lenses
22 of the lens pair 12 and the pupils or visual axes of the
23 individual.

24 More specific reference is made to Figures 5 and 6, while
25 taking into consideration the schematic representations of the

1 preferred embodiments of the spectacle assembly 10 as
2 represented in Figures 4A through 4D. Accordingly, the
3 spectacle assembly 10 includes the lens pair 12 and the nose-
4 bridge generally indicated as 14. The nose pad assembly 16 is
5 connected to the nose-bridge 14 as will be explained in
6 greater detail with reference to Figures 7-10. In addition,
7 at least one embodiment of the spectacle assembly 10 may also
8 include temple members 18 each having one end secured to an
9 outer portion of a different one of the lenses of the lens
10 pair 12. Each of the temples 18 include a generally elongated
11 configuration and may have the distal ends thereof
12 specifically shaped to engage the ears or other portions of
13 the individual's head. When provided, the temples 18 further
14 facilitate maintenance of the spectacle assembly 10 in the
15 preferred, accurate position, which is again primarily
16 determined by substantial alignment between the optical
17 centers of the lens pair 12 and the pupils or visual axes of
18 the individual, as represented in Figures 4A through 4D.

19 With primary reference to Figures 7-10, structural and
20 operative features of the nose-bridge 14 and the nose pad
21 assembly 16 are represented in detail. More specifically, the
22 nose-bridge 14 includes an elongated base 20 and two
23 oppositely disposed ends 22 and 22'. Further, the nose pad
24 assembly 16 includes an elongated central portion or pad
25 support 24 having its opposite ends 26 and 26' structured to

1 support and be connected to nose pads 28 and 28',
2 respectively. As such, the nose pad support 24 of the nose
3 pad assembly 16 is connected intermediate the opposite ends 22
4 and 22' of the base 20 of the nose-bridge 14. In addition, the
5 opposite ends 26 and 26' and the nose pads 28 and 28' are
6 spaced from the corresponding portions of the base 20
7 including the corresponding ends 22 and 22'. Accordingly, the
8 connected nose pads 28 and 28' are disposed behind the
9 corresponding ends 22 and 22' and towards the face of the
10 wearer. Each of the ends 26 and 26' of the pad support 24 is
11 configured to define a mounting member for the fixed or
12 removable connection of corresponding ones of the nose pads 28
13 and 28' to the pad support 24. As clearly represented in
14 Figures 7-10 and additionally evident in the embodiments of
15 Figures 11 through 14, the opposite ends 22 and 22' of the
16 base 20 of the nose-bridge 14 include outwardly projecting
17 connecting members or fingers 32 which are structured and
18 disposed to fixedly attach the opposite ends 22 and 22' to a
19 rear surface or rear portion of corresponding ones of the two
20 lenses of the lens pair 12.

21 In establishing an interconnection of the base 20 of the
22 nose-bridge 14 to the rear surfaces or corresponding rear
23 portions of the lens pair 12, the nose pad assembly 16 extends
24 further rearwardly from the base 20, towards the face of the
25 individual on which the spectacle assembly 10 is mounted.

1 Therefore, each of the nose pads 28 and 28' are disposed
2 rearwardly of the base 20 in non-engaging, unattached relation
3 to either of the lenses of the lens pair 12. This facilitates
4 the positioning of the nose pads 28 and 28' on either side of
5 the nose and behind a corresponding one of the lenses of the
6 lens pair 12, no matter where the nose-bridge 14 is positioned
7 when adequately supported on an appropriate prominent nasal
8 support on the nose of the individual. Also, the size,
9 configuration and disposition of the lens pair 12 and the
10 spacing between the lenses defining the lens pair 12 can be
11 made to physically and aesthetically adapt to the overall
12 physical characteristics of the face of the individual and to
13 the location and dimension of the prominent nasal support on
14 which the nose pads 28 and 28' are supported and engage. In
15 turn, an almost infinite variety of shapes and sizes of lens
16 pairs 12 may be utilized to better serve the needs and desires
17 of the individual thereby adding aesthetic versatility and
18 decorative variance to the various embodiments of the
19 spectacle assembly 10 of the present invention.

20 As set forth above and as clearly demonstrated in Figures
21 11-15, the latter Figure being a prior art representation of
22 an individual wearing conventional spectacles, one feature of
23 the present invention is the accurate placement and
24 maintenance of the spectacle assembly 10 on an individual
25 having a less than prominent or adequate upper nasal root

1 located at the junction of the nose with the forehead.
2 Therefore, the nose-bridge 14 of the spectacle assembly 10 and
3 the connected nose pad assembly 16 are connected to the lens
4 pair 12 in a predetermined operative position based on the
5 facial dimensions and/or characteristics of the wearer. This
6 predetermined operative position assures that the optical
7 centers of the lens pair 12 are substantially aligned with the
8 pupils or visual axes of the individual when the nose-bridge
9 14 and nose pad assembly 16 are disposed in engaged,
10 supporting relation to a sufficiently prominent nasal support
11 along the length of the nose, as represented in Figures 11 -
12 14.

13 With specific reference to Figures 11-14, the nose pad
14 assembly 16 is in its operative position relative to the
15 optical centers of the lens pair 12 by being disposed at or
16 between the optical centers and a lower periphery 40 of the
17 lens pair 12. In Figure 11, while the "optical centers" are
18 not specifically designated by a reference numeral, it should
19 be clearly apparent that the pupils or visual axes of the
20 individual are substantially aligned with the center of each
21 lens defining the lens pair 12. Therefore, in the
22 embodiment(s) represented in Figures 11-14, it is apparent
23 that the disposition of the nose-bridge 14, nose pad assembly
24 16 and nose pads 28 and 28' are disposed preferably beneath
25 the optical centers of the lens pair 12 and most preferably

1 between the optical centers and the lower periphery 40 of the
2 lens pair 12. As also clearly represented, at least one
3 preferred embodiment of the present invention comprises the
4 nose-bridge 14 substantially aligned with the lower periphery
5 40 of the lens pair 12. The predetermined operative
6 positioning of the nose-bridge 14 and nose pad assembly 16 are
7 measured or otherwise determined such that the nose pad 28 and
8 28' will engage and be supported on opposite sides of the nose
9 at the sufficiently prominent nasal support area of the
10 represented individual. As again emphasized, this prominent
11 nasal support area of the represented individual is disposed
12 in spaced relation to the nasal root or upper nasal portion of
13 the individual's nose. As demonstrated and described in detail
14 above, the upper nasal portion of the represented individual's
15 nose is absent any sufficiently prominent area which is
16 capable of effectively supporting the nose-bridge 14 and/or
17 nose pad assembly 16.

18 The prior art representation of Figure 15 further
19 demonstrates the absence of any significant upper nasal
20 support area adjacent or in alignment with the root of the
21 nose of the represented individual, wherein such an individual
22 is represented as wearing conventionally structured
23 spectacles. As such, the bridge 50 of the conventional
24 spectacles extends upward and outward in non-supported
25 relation on the upper nasal area of the nose of the

1 individual. Moreover, the nose pad assembly 52 of the
2 conventional spectacles is disposed above the optical centers
3 of the respective lenses of the conventional spectacles,
4 thereby facilitating misalignment between the pupils of the
5 individual and the optical centers. Also, because of the
6 connection and/or disposition of the nose pad assembly 52
7 relative to the lenses of the conventional spectacles, the
8 nose pads cannot be extended laterally because the nose-pad
9 assembly 52 would collide with the lenses. . As a result, the
10 nose pads of conventional spectacles typically have to be
11 squeezed together in an effort to minimize slippage. This is
12 uncomfortable for the individual, leaving marks on the skin
13 around the nose, and it does not adequately prevent slippage.
14 Accordingly, the use of the conventional spectacles by the
15 represented individual would result in misalignment between
16 the pupils of the individual and the optical centers of the
17 lenses, because of poor positioning of the nose-pads along the
18 nose and slippage of the nose-bridge 14 down the nose.

19 It is recognized that the precise location of the nose-
20 bridge 14 and nose pad assembly 16 may vary when they are in
21 the preferred operative position, dependent on the size, shape
22 and other physical characteristics of an individual's face.
23 Accordingly, the various preferred embodiments of the
24 spectacle assembly 10 of the present invention overcomes such
25 physical variances by locating the predetermined operative

1 position of the nose-bridge 14 and/or nose pad assembly 16
2 along the interior or nasal peripheries and between the
3 optical centers and the lower peripheral portions 40 of the
4 lens pair 12.

5 It is further emphasized the term "optical center(s)" as
6 used herein is not necessarily describing the true geometric
7 center of the lens or lens pair. It is recognized that the
8 optical center of any lens may deviate from the geometrical
9 center thereof based on a variety of factors including, but
10 not limited to, the size, shape placement of the lens as well
11 as any additional optical features associated therewith, such
12 as bifocal lenses, etc.

13 Since many modifications, variations and changes in
14 detail can be made to the described preferred embodiment of
15 the invention, it is intended that all matters in the
16 foregoing description and shown in the accompanying drawings
17 be interpreted as illustrative and not in a limiting sense.
18 Thus, the scope of the invention should be determined by the
19 appended claims and their legal equivalents.

20 Now that the invention has been described,

1 What is claimed is:

2 1. A spectacle assembly structured for use by individuals
3 having different facial characteristics, said spectacle assembly
4 comprising:

5 a pair of lenses,

6 a nose-bridge extending between and in interconnecting
7 relation to said lens pair,

8 a nose pad assembly connected to said nose-bridge and
9 disposable in supported relation to a prominent nasal
10 support on the individual's nose,

11 said nose-bridge connected to said lens pair at a
12 predetermined operative position relative to optical
13 centers of said lens pair,

14 said predetermined operative position sufficient to
15 substantially align said optical centers with the pupils
16 and visual axes of the individual, and

17 said predetermined operative position of said nose-
18 bridge disposed to confront the prominent nasal support in
19 spaced relation from the nasal root and along a length of
20 the individual's nose.

21 2. A spectacle assembly as recited in claim 1 wherein said
22 predetermined operative position of said nose-bridge is disposed
23 between said optical centers and said lower peripheries of said

1 lens pair.

2 3. A spectacle assembly as recited in claim 2 wherein said
3 predetermined operative position of said nose-bridge is at least
4 partially dependent on an aligned, confronting engagement of
5 said nose pad assembly with the prominent nasal support.

6 4. A spectacle assembly as recited in claim 1 wherein said
7 predetermined operative position of said nose-bridge is disposed
8 substantially at said optical centers or said lower peripheries
9 of said lens pair.

10 5. A spectacle assembly as recited in claim 1 wherein said
11 predetermined operative position of said nose-bridge is disposed
12 beneath of said optical centers of the lens pair.

13 6. A spectacle assembly as recited in claim 5 wherein said
14 nose pad assembly is disposed beneath said optical centers of
15 said lens pair when in confronting engagement with the prominent
16 nasal support.

17 7. A spectacle assembly as recited in claim 5 wherein said
18 predetermined operative position of the nose-bridge is at least
19 partially dependent on a configuration of said lens pair and
20 said optical centers of said lens pair being in substantial
21 alignment with the pupils and visual axes of the individual.

22 8. A spectacle assembly as recited in claim 5 wherein said
23 predetermined operative position of said nose-bridge is disposed

1 in substantial alignment with the lower peripheries of said lens
2 pair.

3 9. A spectacle assembly as recited in claim 1 further
4 comprising two temple pieces each interconnected to a different
5 lens of said lens pair and disposable in supported engagement
6 with the individual's head.

7 10. A spectacle assembly as recited in claim 1 wherein said
8 nose-bridge is connected to rear portions of said lens pair.

9 11. A spectacle assembly as recited in claim 10 wherein said
10 nose pad assembly is disposed rearwardly of said nose-bridge and
11 said lens pair.

12 12. A spectacle assembly as recited in claim 11 wherein said
13 nose pad assembly is disposed in non-engaging relation to said
14 lens pair.

15 13. A spectacle assembly as recited in claim 11 wherein said
16 nose pad assembly is disposed out of interruptive relation to
17 selective lateral placement of each lens of said pair relative
18 to one another.

19 14. A spectacle assembly as recited in claim 1 wherein said
20 nose pad assembly comprises two spaced apart nose pads
21 collectively disposed in said predetermined operative position;
22 said predetermined operative position at least partially defined
23 by engagement of said nose pads with opposite sides of the

1 prominent nasal support when the optical centers of said lens
2 pair are substantially aligned with the individual's pupils and
3 visual axes.

4 15. A spectacle assembly as recited in claim 14 wherein said
5 predetermined operative position further comprises disposition
6 of said nose pads between the optical centers and a lower
7 periphery of said lens pair.

8 16. A spectacle assembly as recited in claim 14 wherein said
9 predetermined operative position further comprises disposition
10 of said nose pads below the optical centers of said lens pair.

11 17. A spectacle assembly as recited in claim 14 wherein said
12 nose-bridge further comprises a base extending between and
13 connected to said lens pair; a pad support connected to said
14 base in supporting engagement with said nose pads.

15 18. A spectacle assembly as recited in claim 17 wherein said
16 pad support is disposed rearwardly of said base in non-engaging,
17 relation to said lens pair.

18 19. A spectacle assembly as recited in claim 17 wherein said
19 base comprises oppositely disposed ends each fixedly connected
20 to a rear surface of a different one of said lens pair.

21 20. A spectacle assembly as recited in claim 19 wherein said
22 pad support is connected to said base intermediate said opposite
23 ends of said base; said nose pads disposed in rearwardly spaced

1 relation to said base and corresponding ones of said lens pair.

2 21. A spectacle assembly as recited in claim 20 wherein said
3 predetermined operative position further comprises said nose
4 pads disposed between the optical centers and a lower periphery
5 of said lens pair.

6 22. A spectacle assembly as recited in claim 20 wherein said
7 predetermined operative position further comprises said nose
8 pads disposed below the optical centers of said lens pair.

9 23. A spectacle assembly structured for use by individuals
10 having different facial characteristics, said spectacle assembly
11 comprising:

12 a lens pair,

13 a nose-bridge disposed in interconnecting relation
14 between said lens pair,

15 a nose pad assembly including a pair of nose pads
16 disposable in an operative position,

17 said operative position at least partially defined by
18 said nose pads disposed in engaging relation with a
19 prominent nasal support of the individual, when the optical
20 centers of said lens pair are substantially aligned with
21 the individual's pupils and visual axes,

22 said operative position further defined by disposition
23 of said nose pads along a length of an individual's nose

1 between the optical centers of said lens pair and a lower
2 periphery of said lens pair,

3 wherein said nose-bridge is disposed and connected to
4 a rear portion of each lens of said lens pair, and

5 said nose pads disposed rearwardly of said nose-bridge
6 and corresponding lens of said lens pair.

7 24. A spectacle assembly as recited in claim 23 wherein said
8 predetermined operative position further comprises disposition
9 of said nose pads below the optical centers of said lens pair
10 relative to lower peripheries of said lens pair.

11 25. A spectacle assembly as recited in claim 23 wherein said
12 pad assembly is connected to said nose-bridge; said nose pads
13 disposed in rearwardly spaced relation to said nose-bridge and
14 corresponding lens of said lens pair.

15 26. A spectacle assembly as recited in claim 25 wherein said
16 nose-bridge comprises a base extending between and connected to
17 said lens pair; said nose pad assembly comprising a pad support
18 connected to said base in supporting engagement with said nose
19 pads, said pad support disposed rearwardly of said base in non-
20 engaging relation to said lens pair.

21 27. A spectacle assembly as recited in claim 26 wherein said
22 base comprises oppositely disposed ends each fixedly connected
23 to a rear surface of a different lens of said lens pair.

1 28. A spectacle assembly as recited in claim 23 wherein said
2 operative position is further defined by said nose-bridge
3 disposed between said optical centers and a lower periphery of
4 said lens pair.