41 (41'), the "opaque" region 41 (41') being desirably foraminated with apertures of diameter preferably less than substantially 0.005 inch and at least as great as the thickness of region 41 (41'), to permit "breathing" action of the corneal surface covered thereby. Desirably, the "opaque" region is so finished as to color and design as to create the appearance of a normal iris in the afflicted eye.

FIGS. 9 and 9A illustrate modification of the respective circular and elliptical embodiments of FIGS. 7 and 2, wherein the haptic 50 (50') is peripherally continuously a circle or an ellipse or oval. Slotting of elemental areas of haptics 50 (50') is again preferred, as described for FIG. 2. The floppy nature of the continous periphery of both haptics 50 (50') enables continuous intimate attraction to the cornea surface in the manner described for FIGS. 1 to 4, and the plurality of axially compliant radial leg elements 51 (52-53) is preferably at least three, being shown as four, for both FIGS. 9 and 9A.

FIGS. 10 and 10A are directed to an all-glass embodiment of the invention wherein the lens element 10 is an optically finished element, shown as plano-convex and with a cylindrical rim of thickness T_2 in the range 1 to 3 mils, preferably substantially 2 mils. The flat posterior side of lens element 10 is mounted, as by fusing or by a suitable cement, to the central region of a sheet glass haptic 60 of thickness in the range 0.5 to 1.5 mils, preferably 1 mil. Fenestration is provided in the haptic region external to lens element 10, in the manner discussed above for the forms of FIGS. 2 and 7, 9 and 9A, as the case may be. The glass haptic 60 is thus substantially as floppy as its plastic counterpart, but it has the advantage of being less susceptible to bacteria-growth phenomena, and therefore less likely or less often to require removal for cleaning and sterilization; its ultimately flexed curvature in adaptation to the cornea is suggested by dashed lines 60.

The described embodiments of the invention will be seen to achieve all stated objects. Importantly, the invention brings light weight and substantially reduced bulk and surface area to the contact-lens art, plus the inherent capability of providing optically finished glass lens elements, with astigmatic correction, if needed; further, photochromic glass at 10 provides a hitherto unavailable feature in a contact lens configuration. Fenestration areas are substantial, radially outside the supported lens element 10, being preferably at least four times the end area of the lens element, such area being taken as within effective perimeter limits of the geometric circular or oval (elliptical) contour to which the foot formations are tangent. Except for the "opaque" annulus 41 (41') of FIGS. 8 and 8A, all other haptic regions and materials are preferably clear and transparent, foot formations of such haptic regions being effectively invisible to the eye of an observer.

Not only does the invention bring above-noted benefits of optically finished glass to the contact-lens art, but an important safety factor is also provided. In embodiments involving plastic-sheet haptics, the plastic sheets of the haptic fully enclose and support the lens element in at least the region of its rim; in other words, it is at least the most delicate and fracturable part of the lens which is protected by such plastic-sheet enclosure. In glass-haptic situations as described in connection with FIGS. 10 and 10A, the haptic sheet 60, being bonded to lens element 10 over its full area, provides reinforcement to the otherwise more fracturable rim region of the lens element 10; in the event that lens element 10 is a meniscus lens, the haptic sheet 60 is preferably centrally open to the diameter D_2 (see FIG. 5), but there will be an annular overlap (D_1, minus D_2) within which sheet 60 and lens 10 are bonded, thus providing lens-rim reinforcement, in addition to the described support and positioning functions of the haptic.

It should be further observed that although curvatures and diopter ranges have been mentioned by way of illustration, these ranges are in no sense by way of limiting the invention. For example, the invention will be seen to have application to aphakic patients, i.e., to those whose cataracted natural lens has been surgically removed but for whom an external lens, rather than an implanted intraocular lens, has been prescribed. Such lenses may be of the structure, nature and combinations herein described, but with a stronger finished optical element 10, e.g., having power in the order of 10 or more diopters. When such stronger lenses are of glass, the thickness of the lens element 10 per se will still be very much less than for a conventional contact lens prescribed for the same situation.

While the invention has been described in detail for preferred forms shown, it will be understood that modifications may be made without departure from the claimed scope of the invention. For example, the technique of retaining an optical element by and between laminated plastic sheets which become the haptic lends itself to intraocular-lens application, so that for example, a configuration as in FIG. 7, and with three or more foot formations within an outer circular locus of 12 to 14-mm diameter may serve well for anterior-chamber implantation, relying upon the foot formations to develop stabilizing support at the scleral ridge (adjacent the base of the iris). Of course, in that event, the haptic sheets should provide a more stiff radial-support action, in that they stand without contact analogous to the described cornea-adherent extraocular applications herein; thus, for intraocular application the overall haptic thickness T_1 is preferably about 10 mils, and of course lens curvatures will be of shorter radius in view of the vitreous-humor environment in which such lenses must function.

What is claimed is:

1. A contact lens assembly adapted for self-adherent removable mounting to the cornea of an eye, comprising a circular lens element, and haptic means peripherally engaging and mounting said lens element, said haptic means being of sheet material including integrally formed axially compliant radially outward foot formations extending outward of said lens element at angularly spaced locations, said foot formations being substantially fenestrated and being of such compliant action as to bendably deform in continuous smooth conformance to the surface curvature of the cornea and to adhere thereto solely through contact with natural moisture of the surface of the cornea.

2. The lens assembly of claim 1, in which the locus of outer ends of said foot formations, in flattened state, is a generally circular perimeter of minimum diametral span which is at least no greater than the span of the substantially great-circle arc between conjunctiva limits of the eye.

3. The lens assembly of claim 1, in which the locus of outer ends of said foot formations, in flattened state, is a generally circular perimeter of minimum diametral span in the range 9 to 15 mm.

4. The lens assembly of claim 1, in which said haptic is of fenestrated sheet material, whereby the effective