the step of suturing the optical lens **90** to Bowman's membrane with a biodegradable suturing material in the form of a running "shoe lace" stitching which passes through the outer edge of the optical lens **90** and Bowman's membrane **40**.

FIG. **13** illustrates in a front view, after completion of locating the lens on the cornea of the eye and before beginning the healing process, the relationship of the eye **90** to the cornea wherein the lens **90**, of FIGS. **11** and **12**, is sutured to Bowman's membrane through openings **92** and **94** of the lens **90**.

FIG. **14** illustrates a possible lens configuration for an artificial lens **110** having an optical portion **112** configured for placement over the pupillary zone of the eye and on the central anterior surface of Bowman's membrane of the cornea having corneal epithelium thereof removed. The optical portion terminates in end tabs **114** and is formed such that the optical portion is dimensioned to substantially cover the total anterior surface of the pupillary zone of an eye. The entire lens **110** including the optical portion **112** and tabs **114** is formed of a collagen-hydrogel for promoting epithelial cell growth.

FIG. **15** is a representation of a circular shaped artificial lens **120** formed of the collagen-hydrogel for promoting epithelial cell growth and having implanted therein a ring **122** of material having different optical properties than that of the collagen-hydrogel for promoting epithelial cell growth used in the lens **120**. The ring **122** functions to focus at the center thereof while the outer edge of the ring **122** passes light to the retina. This results in a differential passage of an image to the retina. The lens **120** is of a size and shape to be implanted on the cornea using the teachings of this invention.

FIG. **16** is a representation of a circular shaped optical portion **124** of an artificial lens formed from the collagen-hydrogel for promoting epithelial cell growth disclosed herein having tabs **126** extending therefrom which may be used by a surgeion in implanting the artificial lens in the eye using the teachings of this invention. The optical portion **124** and the tabs **126** are formed of the collagen-hydrogel.

FIG. **17** is a representation of a circular shaped artificial lens having an optical portion **130** formed from the collagen-hydrogel for promoting epithelial cell growth disclosed herein and two aligned circular support members **132** extending in opposite directions from the optical portion **130** which may be used by a surgeon in implanting the artificial lens in the eye using the teachings of this invention. The optical portion **130** and the tabs **132** are formed of the collagen-hydrogel.

FIG. **18** is a representation of a circular shaped artificial lens formed from the collagen-hydrogel for promoting epithelial cell growth disclosed herein wherein the optical portion **140** has three circular tabs or support members **142** having apertures formed therein spaced equidistantly around the periphery of an optical lens portion **140**. The support members **142** may be used by a surgeon in implanting the artificial lens in the eye using the teachings of this invention. The optical portion **130** and the tabs **132** are formed of the collagen-hydrogel.

It is envisioned that the collagen-hydrogel of the present invention, and artificial lens formed from the collagen-hydrogel, can be used for epicorneal, corneal or transcorneal lenses which are capable of promoting and supporting epithelial cell growth during the healing period. During the healing process, a bandage contact lens may be placed on the eye until the anterior surface of the lens is covered by corneal epithelium.

The collagen-hydrogel biomedical material disclosed herein has, in its preferred embodiment, application in the artificial lens field because of the properties of the collagen-hydrogel promoting the growth of epithelial cells. It is envisioned that such collagen-hydrogel could be used as substrata for support of growth of other cells in the human body wherein the hydrogel could be formed of any one of a number of monomers of the hydrophilic class of polymers, and that other so formed hydrogels when used in a collagen-hydrogel with appropriate macromolecules as described herein could be used to enable the growth of other classes of human tissue other than epithelial cells.

What is claimed is:

1. A method for locating on the cornea an optical lens having a preselected geometric shape and power, said optical lens comprising an optical portion having an outer edge, a posterior surface and an anterior surface, said optical lens being formed of a hydrogel polymer formed by the free radical polymerization of a hydrophilic monomer solution gelled and crosslinked to form a three dimensional polymeric meshwork for anchoring collagen; and a stock solution of collagen added to and interdisposed within said polymeric meshwork forming a collagen-hydrogel for promoting epithelial cell growth comprising the steps of:

removing from Bowman's membrane over the pupillary zone of the eye a portion of corneal epithelium on an area slightly greater than the generalized shape of said optical lens;

forming on Bowman's membrane a "v" shaped annular groove having a diameter substantially equal to the maximum geometrical dimensions of said optical lens and defining therearound a peripheral edge and medial edge and having a preselected depth which is less than the thickness of the corneal stroma;

dissecting the peripheral edge of said groove forming a wing of corneal tissue having a preselected length;

placing the posterior surface of said optical lens on the anterior surface of Bowman's membrane and positioning the outer edge of said optical lens under said corneal wing, whereby the corneal wing lies flush with and in contact with the anterior surface of said lens; and

affixing the optical lens to the Bowman's membrane over the pupillary zone of the eye to maintain the same on the cornea with the posterior surface in contact with Bowman's membrane and the corneal wing overlying the edge of said optical lens enabling corneal epithelium to touch and interact with said optical lens formed of a stock solution of collagen added to a hydrogel polymer for promoting epithelial cell growth and adherence to said optical lens and to respond to the epithelial cells growth promoting constituent in said optical lens formed of a stock solution of collagen added to a hydrogel polymer over a healing period wherein epithelial cells grow in from the edge of said optical lens and over the same enabling the epithelial cells to adhere to and implant said optical lens in the cornea under a new growth of corneal epithelium formed from several layers of epithelial cells adhering to the optical lens.