used to form practically any variation of ion concentration at the substrate, and particularly to form progressive zonal lens having the optical characteristics of FIGS. **6**A and **6**B. Similar results can be achieved by using masks of varied density. The vision corrective effect would correspond to that produced by the posterior surface undulations in the lens of FIG. **4**.

FIGS. **8**A, **8**B and **8**C show, respectively, a corneal inlay lens, a corneal onlay lens, and an intraocular lens, each incorporating the concepts of the present invention. In the corneal inlay lens **80** of FIG. **8**A, and in the corneal onlay lens **82** of FIG. **8**B, the illustrated progressive zonal variations are accomplished with the variable refractive index of lens material **84**, as described in conjunction with FIG. **7**.

In the intraocular lens **86** of FIG. **8**C, the posterior surface **88** is shown as an undulating surface having progressive zonal variations comparable to those in FIG. **4**.

Any of the three lens implants of FIGS. **8**A, **8**B or **8**C could use either the surface variations or the refractive index variations, and also could use either the anterior or posterior surface as the multifocal surface.

The implanted lenses of FIGS. **8**A, **8**B and **8**C are subject to the same problems as are the contact lenses, e.g., pupil size variations and decentration problems. The pupil size problems are essentially the same. The decentration problems are less pronounced with implanted lenses, but are nevertheless significant because operational procedures do not insure centration, and, in the case of intraocular lenses, postoperative movement can be quite noticeable.

From the foregoing description, it will be apparent that the apparatus and methods disclosed in this application will provide the significant functional benefits summarized in the introductory portion of the specification.

The following claims are intended not only to cover the specific embodiments disclosed, but also to cover the inventive concepts explained herein with the maximum breadth and comprehensiveness permitted by the prior art.

What is claimed is:

1. A method of vision correction comprising shaping first, second and third regions of a surface to provide the first region with a first vision correction power, the second region with a second vision correction power which is different from the first vision correction power to enhance vision at first and second different distances, respectively, and the third region between said first and second regions to provide progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers.

2. A method of vision correction as defined in claim **1** wherein the step of shaping is carried out to provide the first region with a near vision correction power and the second region with a far vision correction power.

3. A method of vision correction as defined in claim **1** wherein the step of shaping includes shaping a fourth region of the surface to provide progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers, said second region being between the third region and the fourth region.

4. A method of vision correction comprising:

shaping first and second annular regions of a surface to provide the first region with a first vision correction power and the second region with a second vision correction power which is different from the first vision correction power to enhance vision at first and second different distances, respectively; and

shaping a third annular region of the surface between said first and second regions to provide progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers, said second annular region circumscribing the first annular region.

5. A method of vision correction as defined in claim **4** including shaping a fourth annular region of the surface to provide progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers, said fourth annular region circumscribing the second annular region.

6. A method of vision correction as defined in claim **4** including shaping a central region of the surface to provide a vision correction power intermediate the first and second vision correction powers, said first annular region circumscribing the central region.

7. A multifocal surface with a first region having a configuration which provides a first vision correction power, a second region having a configuration which provides a second vision correction power which is different from the first vision correction power to enhance vision at first and second different distances, respectively, and a third region between the first and second regions having a configuration which provides progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers.

8. A multifocal surface as defined in claim **7** wherein the first and second distances are near and far, respectively.

9. A multifocal surface as defined in claim **7** wherein the first, second and third regions are annular and the second region circumscribes the first region.

10. A multifocal surface as defined in claim **7** which has a fourth region with a surface configuration to provide progressive vision correction powers which include progressive vision correction powers which are between the first and second vision correction powers, said second region being between the third region and the fourth region.

11. A multifocal surface as defined in claim **10** wherein each of said first, second, third and fourth regions of the surface is annular with the third region circumscribing the first region, the second region circumscribing the third region and the fourth region circumscribing the second region.

12. A multifocal surface as defined in claim **11** wherein the progressive vision correction powers include progressive vision correction powers which increase in a radial direction across one of the third and fourth regions and decrease in said radial direction across the other of the third and fourth regions.

13. A multifocal surface as defined in claim **12** wherein the anterior surface has a central region circumscribed by the first region which provides a vision correction power intermediate the first and second vision correction powers.

14. A multifocal surface having progressive vision correction powers in first and second at least partially annular regions, said second region at least partially circumscribing the first region, the progressive vision correction powers of one of said first and second regions including progressive vision correction powers which increase in a radial outward direction and the progressive vision correction powers of the other of said first and second regions including progressive vision correction powers which decrease in a radial outward direction.

15. A multifocal surface as defined in claim **14** wherein said first region is substantially completely annular.

16. A multifocal surface as defined in claim **15** wherein said second region substantially completely circumscribes the first region.