CLAIMS:

1. An accommodating intra-ocular lens (10) comprising a first non-deformable optical element (32) which is sealed around its perimeter to a second deformable optical element (30), said first non-deformable optical element (32) and said second deformable optical element (30) each having central transparent optical regions and a first haptic region (22) and a second haptic region (20) associated with respective ones of said first non-deformable optical element (32) and said second deformable optical element (30) and each sealingly connected to the other at said perimeter, wherein said first non-deformable optical element (32) has a first contact surface (35) comprising a convex contact region which contacts a second contact surface (33) of said second deformable optical element (30), wherein a sealed air-filled compartment (18) is defined between said first non-deformable optical element (32) and said second deformable optical element (30) at a location between said central transparent optical regions and said first haptic region (22) and said second haptic region (20), said air-filled compartment (18) comprising an optical region portion (17) and a haptic region portion (28), wherein in a resting state for focussing an eye upon near objects said optical region portion (17) forms an air interface between peripheral portions of said central transparent optical regions of said first non-deformable optical element (32) and said second deformable optical element (30) and wherein in a non-resting state for focussing an eye upon distant objects air is displaced outwardly from said optical region portion (17) to said haptic region portion (28) to remove said air interface and enable inner surfaces of said central transparent optical regions to contact each other to form a solid optical lens element, wherein in the non-resting state compression of said first contact surface (35) of said first non-deformable optical element (32) against said second contact surface (33) of said second deformable optical element (30) alters the curvature of said second deformable optical element (30), wherein said intra-ocular lens (10) is adjustable from said resting state to said non-resting state when sufficient opposing force is delivered to said peripheral portions of said central transparent optical regions and wherein said intra-ocular lens (10) is adjustable from said non-resting state to said resting state when said opposing forces are reduced.

2. The intra-ocular lens of claim 1, wherein, when said intra-ocular lens (10) is implanted in said eye, said intra-ocular lens is coupled to the ciliary muscle/suspensory ligament/zonule/lens

capsule complex of said eye and said opposing forces are exerted by zonular tension caused by ciliary muscle action.

3. The intra-ocular lens of claim 2, wherein the elasticity of said second deformable optical element (30) causes said intra-ocular lens (10) to move to said resting state when said opposing forces are reduced by a reduction in ciliary muscle tension.

4. The intra-ocular lens of any of claims 1 to 3, wherein said air-filled compartment (18) comprises at least one channel communicating between said optical region portion (17) and said haptic region portion (28).

5. The intra-ocular lens of claim 1, wherein said first contact surface (35) of said first non-deformable optical element (32) which contacts said second contact surface (33) of said second deformable optical element (30) is an apex of said convex contact region.

6. The intra-ocular lens of claim 4, wherein said at least one channel communicating between said optical region portion (17) and said haptic region portion (28) of said air-filled compartment (18) comprises a circular channel (12) formed in a surface of said second deformable optical element (30) interconnecting with a plurality of radial channels (14) formed in said surface of said second deformable optical element (30).

7. The intra-ocular lens of claim 4, wherein said at least one channel communicating between said optical region portion (17) and said haptic region portion (28) comprises a circular channel formed in a surface of said first non-deformable optical element (32) interconnecting with a plurality of radial channels formed in said surface of said first non-deformable optical element (32).

8. The intra-ocular lens of claim 1, wherein said first contact surface (35) comprising said convex contact region of said first non-deformable optical element (32) and said second contact surface (33) of said second deformable optical element (30) are constructed with short radii of curvature.

9. The intra-ocular lens of any one of claims 1 to 8 for providing an accommodating intra-ocular lens (10) for replacement in the lens capsule of an eye, wherein, in use, the intra-ocular lens (10) is provided in combination with an intra-ocular structure for transferring ciliary muscle tension to said intra-ocular lens.