~~WHAT IS~~ CLAIM~~ED I~~S:

1. A valve for use with a system for delivering CPAP therapy, the valve comprising a base and a membrane, the membrane having a first end defining an inlet opening, the base having a second end defining an outlet opening, the first end of the membrane having at least one concave portion concave with respect to a center axis of a passageway defined through the valve and at least one convex portion convex with respect to the center axis of the passageway defined through the valve, the at least one concave portion comprises a lobe and the at least one convex portion comprises a bridging portion, a thickness of the membrane being relatively thicker in the lobe and relatively thinner in the bridging portion, and the first end of the membrane being configured to collapse inwardly to vary a flow path size in response to changes in pressure acting on the membrane.

2. The valve of Claim 1, wherein the at least one concave portion and the at least one convex portion are defined by an inflection on an outer surface of the membrane.

3. The valve of Claim 1, wherein the at least one concave portion and the at least one convex portion are defined by an inflection on an inner surface of the membrane.

~~4. The valve of Claim 1, wherein the at least one concave portion and the at least one convex portion are defined by a change in membrane thickness.~~

~~5. The valve of Claim 1, wherein the at least one concave portion and the at least one convex portion are defined by a change in membrane thickness and an inflection on at least one of an inner surface and an outer surface of the membrane.~~

~~6. The valve of Claim 1, wherein the at least one concave portion comprises a lobe and the at least one convex portion comprises a bridging portion.~~

4~~7~~. The valve of Claim ~~6~~3, wherein the valve comprises only two lobes and only two bridging portions.

~~8~~5. The valve of Claim ~~6~~1, wherein the valve comprises only three lobes and only three bridging portions.

~~9~~6. The valve of Claim ~~6~~1, wherein the valve comprises only four lobes and only four bridging portions.

~~10~~7. The valve of any of Claims 1 to 6, wherein the valve comprises a triangular base.

~~11~~8. The valve of any of Claims 1 to 6, wherein the valve comprises a circular base.

~~12~~9. The valve of any of Claims 1 to 8, further comprising a splint that extends into a mouth defined by the first end of the membrane.

~~13~~10. The valve of Claim ~~16~~9, wherein the splint extends from the first end of the membrane to the second end of the base.

~~14~~11. The valve of any of Claims 1 to 10, further comprising a bias material disposed at the second end of the base.

~~15~~12. The valve of Claim ~~14~~11, wherein the bias material comprises a plurality of bias flow holes.

~~16~~13. The valve of Claim ~~14~~11, wherein the bias material comprises a diffuser.

~~17~~14. A valve array comprising at least two of the valves of any of Claims 1-~~16~~13.

~~18~~15. The valve array of Claim ~~17~~14, wherein the at least two valves comprise two rows of valves.

~~19~~16. The valve array of Claim ~~18~~15, wherein the two rows of valves are nested together.