

The apparatus described herein is extremely versatile in positioning the spinner assembly and contact lens blank in relation to the rotating bowl and chamois skin. In actual operation of the apparatus the free wheeling spinner is caused to rotate when the lens is pressed against the spinning chamois skin at an angle, thereby converting the single vision lens blank into a multifocal contact lens.

While this invention has been disclosed primarily with respect to contact lenses and their manufacture, it should be understood that it is not limited thereto but can be used to produce similar multifocal lenses for other uses such as in cameras, flashlights, search lights or other applications in which a lens having a circumferential area of one diopter surrounding a central area having a lower diopter is suitable.

I claim:

1. An apparatus for grinding multifocal lenses from single vision lenses comprising:

- (a) a base;
- (b) a horizontal sleeve parallel to and supported above said base;
- (c) a horizontal traversing member slidable within said sleeve;
- (d) a cylindrical vertical sleeve connected on one end of said horizontal traversing member;
- (e) a vertical supporting shaft slidable within said cylindrical vertical sleeve;
- (f) hinge means mounted on the lower end of said vertical supporting shaft, said hinge means having a lower movable element;
- (g) a spinner assembly connected to the lower movable element of said hinge assembly;
- (h) a rotatable bowl mounted within said base directly below said spinner assembly;
- (i) a flexible member stretched across the mouth of said rotatable bowl; and
- (j) motor means to rotate said rotatable bowl.

2. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein there horizontal sleeve has a horizontal slot and said horizontal traversing member has locking means communicating with said slot to lock said traversing member in a fixed position within said horizontal sleeve.

3. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein there is connected between said horizontal sleeve and said horizontal traversing member means to cause horizontal movement of said horizontal traversing member relative to and within said sleeve.

4. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein the means to cause horizontal movement of said horizontal traversing member relative to and within said sleeve is a sprocket and rack assembly.

5. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein there is connected between said vertical sleeve and said vertical

supporting shaft means to cause vertical movement of said vertical shaft relative to and within said vertical sleeve.

6. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein the means to cause vertical movement of said vertical shaft relative to and within said vertical sleeve is a sprocket and rack assembly.

7. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein the hinge assembly comprises:

- (a) an upper vertical supporting shaft having a bore in its lower extremity; and
- (b) a pivot pin extending horizontally through said bore having a clamping member fixedly attached to an unthreaded end thereof and a wing nut threadedly attached to the opposite end of said pivot pin.

8. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 7 wherein angular indicating means is connected for relative angular movement between said vertical supporting shaft and said lower rotatable clamping member.

9. An apparatus for grinding multifocal lenses from single vision lenses as claim in claim 8 wherein said angular indicating means comprises:

- (a) a dial graduated in degrees fastened to said vertical supporting shaft; and
- (b) a pointer fastened to said lower rotatable clamping member and extending over the face of said dial.

10. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 9 wherein said dial is calibrated in millimeters.

11. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein the spinner assembly comprises:

- (a) a shaft connected to the bottom of said lower clamped member of said hinge assembly;
- (b) a cylindrical tube closed at its bottom and enclosing said shaft, and spinning about said shaft;
- (c) bearing means within said closed end tube allowing smooth rotation of said tube about said shaft; and
- (d) means within said closed end tube holding said tube on said shaft.

12. An apparatus for grinding multifocal lenses from single vision lenses as claimed in claim 1 wherein said flexible member is a chamois skin coated with a grinding compound.

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