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(54) Title: ATTACHMENT OF A BRIDGE AND TEMPLE HINGE TO THE LENS OF RIMLESS GLASSES

(57) Abstract

Attachment of a bridge (18) and temple hinge (32) to the lens (12) of eye glasses. The attachment is accomplished by providing a pair of apertures (30) of a selected configuration in each lens adjacent to the outer and inner surface of the lens, a bushing (24) conforming to the lens apertures with a tapered aperture through the center thereof from front to back and tapering the distal ends of the bridge and temple hinges. This combination when in place in the lenses apertures provides a friction lock between the lens and the bridge and temple hinge. The taper can be in the range of 1 to 45 degrees. In

another embodiment the lens can also have a tapered aperture either convergent from the front to the back of the lens or divergent from the front to the back of the lens. Ideally a taper of 4.5 degrees in the bushing is preferable with less taper in the lens apertures when tapered lens apertures are utilized. The taper can take the form of a frusto conic section, a cylinder, a rectangular or triangular in cross section. The distal ends of the bridge and temple hinge can be inserted either from the front of the lens toward the back or from the back toward the front. The distal ends of the temple hinge can be inserted directly into the aperture within the bushing for attachment or can additionally be bent formed to provide a bias between the outer surface of the lens adjacent the aperture for non rotational support. In some applications a notch is provided at the outer lens surface and the bent formed portion of the temple hinge is nested therein for additional mechanical support and to increase the resistance of relative rotation of the bridge or temple hinge.

