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Meurrens

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(54) **EYEGLASS CLEANING APPARATUS**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,775,778 A * 1/1957 Mattson G02C 13/006
15/214
3,249,550 A * 5/1966 Metters 510/163

(Continued)

FOREIGN PATENT DOCUMENTS

CA 2120127 A1 4/1993
CA 2611821 A1 8/2008

(Continued)

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(57) **ABSTRACT**

An eyeglass cleaning apparatus employing a non-liquid cleaning composition is described. In one embodiment, the apparatus comprises a hand-held cleaning instrument and a housing for receiving the cleaning instrument. The cleaning instrument includes at least one cleaning surface containing the cleaning composition and the housing includes at least one replenishment pad which may also contain the cleaning composition. The instrument is movable between a stowed position at least partially inserted within the housing and a deployed position at least partially withdrawn from the housing. The cleaning surface contacts the replenishment surface when the cleaning instrument is moved between the deployed and stowed positions to reorient the cleaning composition particles on the surface of the cleaning surface and hence replenish the cleaning capacity of the cleaning instrument. In one embodiment the cleaning instrument may comprise a pair of cleaning surfaces each mounted on a respective arm. The arms may be operatively coupled together, for example in a tweezer-like fashion at one end thereof. In this embodiment the cleaning instrument may be manually used to enable simultaneous cleaning of inner and outer surfaces of an eyeglass lens. In one particular embodiment of the invention the cleaning composition is a combination of carbon black and a hemihydrate of calcium sulfate.

40 Claims, 11 Drawing Sheets

