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Watola et al.

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(54) **HYBRID SEE THROUGH AUGMENTED REALITY SYSTEMS AND METHODS FOR LOW VISION USERS**

(58) **Field of Classification Search**

CPC G02B 27/0172; G02B 2027/0138; G02B 2027/0147; G02B 2027/0178; G06T 5/002

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See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

(63) Continuation of application No. 17/057,181, filed as application No. PCT/US2019/034443 on May 29, 2019, now Pat. No. 11,187,906.

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(51) **Int. Cl.**

G02B 27/01 (2006.01)

G06T 5/00 (2006.01)

(57) **ABSTRACT**

Provided herein are augmented reality visual aid systems, software, and methods which enhance vision, to simulate natural vision, by utilizing hybrid see through occlusion enabled hardware, and software through image manipulation, reprocessing, blending, for presentation and display to the eyes thus enabling a range of tasks previously lost or impacted.

(52) **U.S. Cl.**

CPC **G02B 27/0172** (2013.01); **G06T 5/002** (2013.01); **G02B 2027/0138** (2013.01); **G02B 2027/0147** (2013.01); **G02B 2027/0178** (2013.01)

24 Claims, 13 Drawing Sheets

