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(12) **United States Patent**  
**Allen, IV et al.**

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(54) **SURGICAL INSTRUMENTS WITH STRUCTURES TO PROVIDE ACCESS FOR CLEANING**

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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 72 days.

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(57) **ABSTRACT**

(65) **Prior Publication Data**

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A surgical instrument configured to facilitate access to interior components thereof for cleaning and refurbishment purposes. The instrument includes a housing assembly, an elongated shaft assembly and an end effector. The housing assembly includes an actuator, and the elongated shaft assembly includes an interior control member operatively coupled to the actuator. The elongated shaft assembly also includes outer cover including first and second cover members and a hinge coupling the first and second cover members to one another such that the outer cover may be selectively moved between a closed configuration wherein the interior control member is enclosed within the outer cover and an open configuration wherein the interior control member is exposed. The end effector is supported at a distal end of the elongated shaft assembly, and is operatively associated with the interior control member.

**Related U.S. Application Data**

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**A61B 17/28** (2006.01)  
**A61B 18/08** (2006.01)  
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(52) **U.S. Cl.**

CPC ..... **A61B 18/082** (2013.01); **A61B 18/1445** (2013.01)

(58) **Field of Classification Search**

CPC ..... A61B 18/1445; A61B 2019/0205; A61B 2019/0206

**10 Claims, 5 Drawing Sheets**

