

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

Costco Wholesale Corporation  
Petitioner

v.

Robert Bosch LLC  
Patent Owner

U.S. Patent 8,099,823

**DECLARATION OF DANIEL H. KRUGER**


1. My name is Daniel H. Kruger. My business address is Demonstratives, now part of Engineering Systems, Inc., 2321 North Loop Drive, Suite 201, Ames, Iowa 50010 ("DI"). I was awarded a Ph.D. in Aerospace Engineering and Engineering Mechanics from Iowa State University in 1995. I was awarded a M.S. in Aerospace Engineering and Engineering Mechanics from Iowa State University in 1992. I was awarded a B.S. degree in Physics and Mathematics from Morningside College in 1989. My undergraduate and graduate education in Engineering Mechanics included training in the reading of two-dimensional engineering drawings, such as patent drawings, and in the use of computer-aided-

- design (“CAD”) technology to create three-dimensional representations of objects depicted in two-dimensional engineering drawings. I have personal knowledge of the matters stated in this declaration.
2. Annexed hereto as appendices are 7 computer files. These consist of 2 computer animations in the “mpeg” format and 5 files in the pdf format.
  3. I personally supervised the creation of the contents of these computer animations. They were created using SolidWorks, 3D Studio Max, and AVID. SolidWorks is a commercially available 3D CAD software program, 3D Studio Max is a commercially available 3D animation software program and AVID is a commercially available video and sound editing software program, all three of which are commonly used for scientific and engineering applications.
  4. I also personally supervised the creation of the contents of these pdf files. They were created using still images extracted from the same models used to create the computer animations. The still images were compiled with Microsoft PowerPoint and text was added alongside.
  5. In supervising the creation of the file that is Appendix A entitled “Appel\_Prohaska.mpeg” I studied the following documents: (a) U.S. Patent No. 3,192,551 to Appel (the “Appel Patent”), and (b) U.K. Patent No. G.B. 2,106,775 to Prohaska et al. (the “Prohaska Patent”).

6. The file that is Appendix A is entitled “Appel\_Prohaska.mpeg” includes true and accurate representations of a wiper assembly disclosed in Figure 5 of the Appel Patent and true and accurate representations of a wiper assembly disclosed in Figure 3 of the Prohaska Patent.
7. In supervising the creation of the file that is Appendix B entitled “Hoylerl\_Prohaska.mpeg” I studied the following documents: (a) German Patent No. D.E. 1,028,896 (the “Hoyler Patent”), and (b) U.K. Patent No. G.B. 2,106,775 to Prohaska et al. (the “Prohaska Patent”). The resultant form is called the “Hoyler-Prohaska model”.
8. The file that is Appendix B is entitled “Hoyler\_Prohaska.mpeg” includes true and accurate representations of a wiper assembly disclosed in Figure 1 of the Hoyler Patent and true and accurate representations of a wiper assembly disclosed in Figure 3 of the Prohaska Patent.
9. The remaining Appendices contain a set of pdf files that present claim language alongside highlighted elements of the Hoyler-Prohaska model. These were created with the same software as the animations and the text was added with Microsoft PowerPoint. The files are named according to the patent abbreviation and claim (e.g. 823\_Claim 01.pdf).

10. The appended pdf files are true and accurate representations of the Hoyler-Prohaska model and the text alongside is a true and accurate representation of the indicated claim language.

Dated: October 9, 2015

By:   
Daniel H. Kruger