IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application No:	**11/465,498**
Filing Date:	**August 18, 2006**
Applicant(s):	**Nichols et al.**
Confirmation No:	**1364**
Group Art Unit:	**3677**
Examiner:	**Emily M. Morgan**
Title:	**DOOR HINGE SYSTEM FOR AUTOMOTIVE VEHICLE**
Attorney Docket No:	**81143194 (36190-341)**
Customer No:	**28549**

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Commissioner for Patents
P. O. Box 1450
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APPEAL BRIEF

This brief is submitted in support of the Notice of Appeal of the Final Rejection filed December 12, 2008.

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I. Real Party in Interest

The real party in interest in this matter is Ford Global Technologies, LLC, which is a wholly owned subsidiary of Ford Motor Company, both of Dearborn, Michigan (hereinafter "Ford").

II. Related Appeals and Interferences

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 1-10 are pending in the application.

The rejection of Claims 1-10 is being appealed.

IV. Status of Amendments

No amendments were filed following the Final Rejection.

V. Summary of Claimed Subject Matter

Claims 1, 7 and 8 are the independent claims in this case. Claims 1, 7 and 8 are best understood with reference to Figures 3, 4, 5, and 6, and with the following citations to Appellants' specification.

Independent Claim 1

A door hinge system for an automotive vehicle, 10, includes a hinge body, 36, having a first portion, 36a, pivotably attached to a door, 22, (Para. 21; lines 1-2) and a second portion, 36b, pivotably attached to a vehicle body, 28 (Para. 21; lines 1-2). A central control link, 40, (Para. 21; lines 2-4) has a first link end, 40a, and a second link end, 40b, (Para. 22; lines 3-4), with central control link 40 being pivotably attached to hinge body 36 at a position, 44, mediate first and second link ends 40a and 40b (Para. 26; lines 2-5). A body link, 48, has a first end, 48a, pivotably attached to vehicle body 28, and a second end, 48b, pivotably attached to the first link

end 40a of central control link (Para. 22; lines 2-6). A door link, 52, has a first end, 52a, pivotably attached to door 22, and a second end, 52b, pivotably attached to second link end 40b of central control link 40 (Para. 22; lines 3-6).

Independent Claim 7

A door system for an automotive vehicle, 10, includes a door, 22, adapted for swinging about a generally vertical axis; an upper hinge body, 36, having a first end, 36a, pivotably attached to an upper portion of door 22, and a second end, 36b, adapted for pivotable attachment to an upper portion of vehicle body 28. (Para. 21; lines 1-2) An upper central control link, 40, has a first link end, 40a, and a second link end, 40b (Para. 21; lines 2-3). Central control link 40 is pivotably attached to upper hinge body 36 at a position, 44, mediate the first and second link ends (Para. 26; lines 2-5). A body link, 48, has a first end, 48a, adapted for pivotable attachment to vehicle body 28 (Para. 22; lines 3-6), and a second end, 48b, pivotably attached to first link end 40a of upper central control link 40 (Para. 22; lines 3-6). A door link, 52, has a first end, 52a, pivotably attached to door 22 and a second end, 52b, pivotably attached to the second link end 40b of said upper central control link 40 (Para. 22; lines 3-6). A lower hinge body, 36, has a first end, 36a, pivotably attached to a lower portion of door 22, and a second end, 36b, adapted for pivotable attachment to a lower portion of vehicle body 28; (Para. 21; lines 1-2). A lower central control link, 40, has a first link end, 40a, and a second link end, 40b (Para. 21; lines 2-3). Central control link 40 is pivotably attached to lower hinge body 36 at a position, 44, mediate the first and second link ends (Para. 26; lines 2-5). A body link, 48, has a first end, 48a, adapted for pivotable attachment to vehicle body 28 (Para. 22; lines 3-6), and a second end, 48b, pivotably attached to first link end 40a of lower central control link 40 (Para. 22; lines 3-6). A door link, 52, has a first end, 52a, pivotably attached to door 22 and a second end, 52b, pivotably attached to the second link end 40b of said lower central control link 40 (Para. 22; lines 3-6).

Independent Claim 8

An automotive vehicle, 10, includes a body having a passenger compartment with a door opening (Para. 18; lines 1-5). A door, 22, is sized to fit the door opening; a hinge body, 36, has a first end, 36a, pivotably attached to door 22, and a second end, 36b, pivotably attached to body 14, 28 (Para. 21; lines 1-2), such that door 22 may be rotated about a plurality of generally vertical axes. A central control link, 40, (Para. 21; lines 2-4) has a first link end, 40a, and a second link end, 40b, (Para. 22; lines 3-4), with central control link 40 being pivotably attached to hinge body 36 at a position, 44, mediate first and second link ends 40a and 40b (Para. 26; lines 2-5). A body link, 48, has a first end, 48a, pivotably attached to vehicle body 28, and a second end, 48b, pivotably attached to the first link end 40a of central control link (Para. 22; lines 2-6). A door link, 52, has a first end, 52a, pivotably attached to door 22, and a second end, 52b, pivotably attached to second link end 40b of central control link 40 (Para. 22; lines 3-6).

VI. Grounds of Rejection to be Reviewed on Appeal

1. The rejection of Claims 1-10 under 35 U.S.C. §103(a) as being unpatentable over Russke (US 5,833,300) in view of Siladke et al. (US 5,491,875).

VII. Arguments

The rejection of Claims 1-10 under 35 U.S.C. §103(a) as being unpatentable over Russke (US 5,833,300) in view of Siladke et al. (US 5,491,875)

The Examiner asserts that Russke discloses a hinge system having a hinge body, 20, having a first portion, 21, attached at point D, and a second portion, 19, attached to vehicle body at point B, and a central control link, 16, having a first link end and a second link end (Figure 9), with central control link 16 being pivotably attached to hinge body 20 and to a body link, 23, having a first end pivotably attached to vehicle body 29 at point B', and a second end pivotably

attached to the first link end of central control link 16 at point A', and a door link 24 having a first end pivotably attached at point D' and a second end pivotably attached to the second link end of central control link 16 at point C'. The Examiner admits that Russke does not disclose using the hinge mechanism on the door of a vehicle, but for this, the Examiner looks to Siladke, which the Examiner asserts, discloses a hinge mechanism having a hinged body 52 with a central control link, a body link 30, and a door link 60, citing Siladke at Figure 4. As set forth above in the Claim summary, a door hinge system includes a hinge body, 36, having a first portion, 36a, pivotably attached to a door, 22, and a second portion, 36b, pivotably attached to body 28. A central control link, 40, has a first link end, 40a, and a second link end, 40b. Central control link 40 is pivotably attached to hinge body 36 at a position mediate first and second link ends 40a and 40b. This limitation is found in each of Claims 1, 7 and 8.

Applicants' claimed device also includes a body link, 48, having a first end, 48a, pivotably attached to vehicle body 28, and a second end, 48b, pivotably attached to first link end 40a of central control link 40. Finally, a door link, 52, has a first end, 52a, pivotably attached to door 22, and a second end, 52b, pivotably attached to second link end 40b of central control link 40.

In contrast with Applicants' claimed device, Russke discloses a hinge in which the central control link, which the Examiner defines as item 16, is not pivotably attached at a position mediate its first and second ends to a hinge body. Rather, Russke's control link 16 is attached at one end to hinge body 20. Then, Russke uses a link, 24, from one end of his control link 16, and a second link, 23, which is attached to the middle of Russke's link 16.

The Examiner apparently understands that Russke's kinematics are substantially different from the claimed structure; hence, the incorporation of Siladke in the rejection. The Examiner's

reliance on Siladke is not well-placed, because Siladke does not disclose body links and door links as set forth in Applicants' specification, because the cited "body link 30" the Examiner relies upon in Siladke is not pivoted at both ends; rather, it is noted from Siladke at Figure 3 that structure 30 is rigidly attached to the vehicle body at one end, whereas Siladke's "door link 60" is rigidly attached to a door at one end.

According to the lexicography of this case -- which follows the usual convention in automotive engineering -- neither of Siladke's links 32 or 60 may comprise a body link or door link as defined in Applicants' drawings, claims and specification, because the essence of a link, insofar as this case is concerned, is that both ends of the member must be pivotably attached to another structure. As a result, Applicants respectfully submit that neither Russke, nor Siladke, whether taken singly, or in combination with each other, either teach or suggest Applicants' claimed invention, because it would destroy the function of the Russke hinge, whatever it may be, to provide links which are not moveable at one end, as taught by Siladke. And, the Examiner has not indicated how the two references could be combined to overcome this functional problem. It seems clear, therefore, that teachings of Siladke and Russke are both incompatible and insufficient to support a prima facie case of obviousness, and this deficiency cannot be avoided by describing the combination of Siladke and Russke as a "mere rearrangement of parts", absent a description of a new structure which would demonstrably operate as claimed.

VIII. Conclusion

For the foregoing reasons, Appellants respectfully request that the Board direct the Examiner in charge of this examination to withdraw the rejections and to issue Claims 1-10 remaining in this case.

Please charge any fees required in the filing of this appeal to deposit account 06-1510.

Date: 2/11/09

Respectfully submitted,

Jerome R. Drouillard (Registration No. 28,008)
Dickinson Wright PLLC
38525 Woodward Avenue, Suite 2000
Bloomfield Hills, MI 48304-2970
734-623-1698

IX. Claims Appendix

1. **(Previously Presented)** A door hinge system for an automotive vehicle, comprising:

a hinge body having a first portion pivotably attached to a door, and a second portion pivotably attached to a vehicle body;

a central control link having a first link end and a second link end, with said central control link being pivotably attached to said hinge body at a position mediate said furst and second link ends;

a body link having a first end pivotably attached to said vehicle body, and a second end pivotably attached to the first link end of said central control link; and

a door link having a first end pivotably attached to said door, and a second end pivotably attached to the second link end of said central control link.

2. **(Original)** A door hinge system according to Claim 1, wherein said hinge body comprises a rigid, C-shaped member having a first end pivotably attached to said door and a second end pivotably attached to said vehicle body.

3. **(Original)** A door hinge system according to Claim 1, wherein said second portion of said hinge body is pivotably attached to a C pillar portion of a vehicle body.

4. **(Original)** A door hinge system according to Claim 1, wherein said central control link is attached to said hinge body at a location offset laterally from a line connecting the pivot points at which said hinge body is attached to said door and said vehicle body.

5. **(Original)** A door hinge system according to Claim 1, wherein said hinge body is attached to said door and to said vehicle body for rotation about generally vertical axes.

6. **(Original)** A door hinge system according to Claim 1, wherein said central control link is attached to said hinge body at a location offset longitudinally from the center of a line which is parallel to a line connecting the pivot points at which said hinge body is attached to said door and said vehicle body.

7. **(Original)** A door system for an automotive vehicle, comprising:

a door adapted for swinging about a generally vertical axis;

an upper hinge body having a first end pivotably attached to an upper portion of said door, and a second end adapted for pivotable attachment to an upper portion of a vehicle body;

and upper central control link having a first link end and a second link end, with said central control link being pivotably attached to said upper hinge body at a position mediate said first and second link ends;

a body link having a first end adapted for pivotable attachment to said vehicle body, and a second end pivotably attached to the first link end of said upper central control link;

a door link having a first end pivotably attached to said door and a second end pivotably attached to the second link end of said upper central control link;

a lower hinge body having a first end pivotably attached to a lower portion of said door, and a second end adapted for pivotable attachment to a lower portion of a vehicle body;

a lower central control link having a first link end and a second link end, with said central control link being pivotably attached to said lower hinge body at a position mediate said first and second link ends;

a body link having a first end adapted for pivotable attachment to said vehicle body, and a second end pivotably attached to the first link end of said lower central control link;

a door link having a first end pivotably attached to said door and a second end pivotably attached to the second link end of said lower central control link.

8. **(Original)** An automotive vehicle, comprising:

a body having a passenger compartment with a door opening;

a door sized to fit said door opening;

a hinge body having a first end pivotably attached to said door, and a second end pivotably attached to said body, such that said door may be rotated about a plurality of generally vertical axes;

a central control link having a first link end and a second link end, with said central control link being pivotably attached to said hinge body at a position mediate said first and second link ends;

a body link having a first end pivotably attached to said vehicle body, and a second end pivotably attached to the first link end of said central control link; and

a door link having a first end pivotably attached to said door, and a second end pivotably attached to the second link end of said central control link.

9. **(Original)** An automotive vehicle according to Claim 8, wherein said second end of said hinge body is attached to a C pillar of said body.

10. **(Original)** An automotive vehicle according to Claim 8, wherein said hinge body comprises a C-shaped member.

X. Evidence Appendix

None.

XI. Related Proceedings Appendix

None.