

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIROSHI ISONO, YASUJI MIZUTANI, YUTAKA ONUMA,
HIROFUMI NITTA & MOTOSHI SUZUKI

Appeal No. 2003-0084
Application No. 09/233,583

ON BRIEF

Before FRANKFORT, MCQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 1 through 4 and 7 through 31 as amended subsequent to the final rejection in a paper filed May 24, 2001 (Paper No. 14). Claims 5 and 6, the only other claims remaining in the application, have been objected to by the examiner, but are indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 32 through 35 have been canceled.

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As noted on page 1 of the specification, appellants' invention relates to a braking system for an automotive vehicle, which is equipped with a vacuum booster, and more particularly to a vehicle braking system capable of preventing a reduction in braking effect due to reduction in the boosting function of the vacuum booster. Even more specifically, appellants' braking system includes a vacuum booster having a transition point at which a boosting ratio of the vacuum booster is reduced during an increase of the brake operating force before a boosting limit point at which the booster has become inoperable to perform its boosting function is reached, the transition point being kept unchanged irrespective of a change in the pressure in the negative-pressure chamber of the booster. The system further includes a pressure increasing device, including a second hydraulic pressure source, wherein the pressure increasing device initiates a pressure increasing operation when the brake operating force has increased to the transition point.

Independent claim 1 is representative of the subject matter on appeal and a copy of that claim can be found in the Appendix to appellants' brief.

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The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Prather	3,149,539	Sep. 22, 1964
Isakson et al. (Isakson)	5,709,438	Jan. 20, 1998
Pueschel et al. (Pueschel)	5,727,852	Mar. 17, 1998
Sawada	5,954,406	Sep. 21, 1999

Claims 1 through 4, 9 through 13 and 17 through 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pueschel in view of Sawada.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pueschel in view of Sawada as applied to claim 1 above, and further in view of Prather.

Claims 14 through 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pueschel in view of Sawada as applied to claim 1 above, and further in view of Isakson.

Rather than reiterate the examiner's commentary regarding the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding the rejections, we make reference to the examiner's answer (Paper No. 25, mailed February 26, 2002) for the reasoning in support of the

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rejections, and to appellants' brief (Paper No. 24, filed November 6, 2001) and reply brief (Paper No. 26, filed April 1, 2002) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

Having reviewed and evaluated the Pueschel and Sawada patents, we share appellants' assessment of the examiner's rejection of claims 1 through 4, 9 through 13 and 17 through 31 and agree with appellants that neither Pueschel nor Sawada discloses, teaches or suggests a vacuum booster having a transition point as claimed, and thus a braking system like that defined in the claims before us on appeal. In that regard, we share appellants' views as expressed on pages 5 through 11 of the brief and in the reply brief, which positions we adopt as our own.

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Simply stated, while Pueschel mentions a pressure increasing device or "hydraulic aggregate" that can work with a conventional vacuum booster and which initiates a pressure increasing operation when the brake operating force has increased to a pressure threshold value of 30 bar (col. 4, lines 4-9), we find no correlation between this value and any characteristic of the vacuum booster in Pueschel and no suggestion that such value is attained before the boosting limit point of the vacuum booster and at a point where the boosting ratio of the vacuum booster is reduced during an increase of the brake operating force. Like appellants, we find the examiner's conclusions about when the alleged transition point of 30 bars is reached, or whether it is affected or unaffected by a vacuum booster limit, to be wholly without foundation and based on pure speculation. As appellants have urged on page 3 of the reply brief, since Pueschel describes the vacuum booster and power brake unit therein as being "conventional," it is far more likely that boosting by the "hydraulic aggregate" would not occur until the boosting limit of the vacuum booster is reached, as in the prior art discussed by appellants on pages 1-4 of their specification, not before, as contended by the examiner.

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We also share appellants view that the examiner's reliance on Sawada fails to remedy the deficiencies of Pueschel and that the examiner's attempt to use the teachings of Sawada with those of Pueschel in the particular manner urged in the final rejection and answer represents a classic case of hindsight reconstruction wherein the examiner has clearly picked and chosen among isolated and disparate disclosures in the prior art in an attempt to deprecate appellants' claimed subject matter. Moreover, even if the Pueschel and Sawada patents were to be combined as proposed by the examiner, it does not appear that appellants' claimed braking system would be the result, since neither of the applied patents address a vacuum booster with a transition point as claimed by appellants and a pressure increasing device including a second hydraulic pressure source operable to initiate a pressure increasing operation when the brake operating force has increased to the transition point.

In light of the foregoing, the decision of the examiner to reject claims 1 through 4, 9 through 13 and 17 through 31 under 35 U.S.C. § 103(a) as being unpatentable over Pueschel in view of Sawada will not be sustained.

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We have also reviewed the additional patents to Prather and Isakson applied by the examiner against dependent claims 7, 8 and 14 through 16 on appeal under 35 U.S.C. § 103(a). However, we find nothing in these patents which overcomes the deficiencies in the basic combinations of Pueschel and Sawada noted above or which otherwise renders obvious the claimed subject matter. Thus, the examiner's rejections of dependent claims 7, 8 and 14 through 16 under 35 U.S.C. § 103(a) will likewise not be sustained.

Since each of the examiner's rejections of claims 1 through 4 and 7 through 31 on appeal under 35 U.S.C. § 103(a) have not been sustained, it follows that the decision of the examiner is reversed.

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REVERSED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. MCQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY V. NASE)	
Administrative Patent Judge)	

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