Paper No. 8

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPH THOMAS DALUM

Appeal No. 2001-2393
Application 09/197,878

ON BRIEF

Before STAAB, MCQUADE and NASE, Administrative Patent Judges.

MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Joseph Thomas Dalum appeals from the final rejection of claims 1 through 10, all of the claims pending in the application.

THE INVENTION

The invention relates to "automotive passenger restraint systems, and more particularly to a control method that differentiates deployment events from non-deployment events" (specification, page 1). Representative claim 1 reads as follows:

1. In a vehicular supplemental restraint system having a sensor providing a vehicle acceleration signal, a restraint device and a controller for deploying the restraint device for vehicle occupant protection in a crash event when a filtered version of the acceleration signal exceeds a deployment threshold, the improvement wherein the controller:

initializes the deployment threshold at a default level prior to the crash event;

determines an event progression signal during the crash event based on the acceleration signal to detect predefined progression levels of the crash event;

determines a slope of the filtered acceleration signal;

periodically adjusts the deployment threshold based on the determined slope, provided that the filtered acceleration signal is within an adjustment range specified for the detected progression level of the crash event.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Dalum et al. (Dalum)	5,964,817	Oct. 12, 1999 (filed Nov. 09, 1998)
Wessels et al. (Wessels)	5,969,599	Oct. 19,

1999
(filed Nov. 09,

1998)

Foo et al. (Foo) 6,036,225 Mar. 14, 2000
(filed Jul. 01, 1998)

THE REJECTIONS

Claims 1 through 10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by each of Wessels, Dalum and Foo.

Attention is directed to the appellant's brief (Paper No. 6) and to the examiner's answer (Paper No. 7) for the respective positions of the appellant and the examiner with regard to the merits of these rejections.[1]

DISCUSSION

Anticipation is established only when a single prior art reference discloses, expressly or under principles of

[1] In the final rejection (Paper No. 4), the examiner also rejected claims 1 through 10 under the judicially created doctrine of obviousness-type double patenting over the claims in the Wessels patent. Upon reconsideration (see page 9 in the answer), the examiner has withdrawn this rejection.

inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

As framed by the appellant, the dispositive issues in the appeal are whether each of Wessels, Dalum and Foo meet the limitations in independent claims 1 and 6 relating to the slope of the filtered acceleration signal. As indicated above, claim 1 requires the controller recited therein to function to determine the slope of the filtered acceleration signal and to periodically adjust the deployment threshold based on the determined slope provided that the filtered acceleration signal is within an adjustment range specified for the detected progression level of the crash event. Method claim 6 correspondingly requires the steps of determining the slope of the filtered acceleration signal and periodically adjusting the deployment threshold based on the determined slope provided that the filtered acceleration signal is within an adjustment range specified for the detected progression level of the crash event.

Wessels and Dalum disclose vehicular restraint systems and methods having much in common with the system and method

recited in appealed claims 1 and 6, respectively. Both references make use of a filtered acceleration signal to produce a velocity change signal,)V, which triggers deployment of a restraint device when it exceeds a deployment threshold. Both references also periodically adjust the deployment threshold based on a so-called soft impact index which is a measure of crash severity. This soft impact index is "based on the difference between a first signal, referred to herein as the))V signal, and a second signal, referred to herein as the))V_{slope} signal. The))V signal

represents the cumulative change in the filtered acceleration ()V) signal over a pre-defined window, and the))V_{slope} signal represents the current slope of the))V signal" (Wessels at column 4, lines 10 through 16; and Dalum at column 2, lines 44 through 50).

The "response to argument" comments bridging pages 7 and 8 in the answer set forth the examiner's reasons as to why

Wessels and Dalum respond to the foregoing claim limitations.[2] Although these comments inaccurately represent the scope of claim 1 and the content of the appellant's argument, they do illuminate the examiner's position with respect to the "slope" limitations: "in the applied [Wessels and Dalum] patents . . . the slope of the filtered acceleration is))V" (answer, page 7). As pointed out above, however, the "))V" signal disclosed by Wessels and Dalum denotes or represents the cumulative change in the filtered acceleration signal)V, not its slope or rate of change. Thus, the examiner's position that Wessels and Dalum are anticipatory

with respect to the subject matter recited in claims 1 and 6 rests on an unsound finding which is clearly at odds with the actual teachings of these references.

Foo also discloses a vehicular restraint system and method having some similarity to the system and method recited

[2] Contrary to prescribed USPTO practice (see MPEP 1208), the explanations of the rejections on pages 3 through 7 in the answer fail to specify how each of the limitations in the appealed claims is met by the applied references.

in appealed claims 1 and 6, respectively. In response to the appellant's ostensibly accurate observation that Foo does not teach determining the slope of a filtered acceleration signal and periodically adjusting the deployment threshold based on the determined slope, the examiner states that

> Displacement, Velocity and Acceleration are related with respect to time, wherein velocity is a change in displacement with respect to time and acceleration is a change is [sic: in] velocity with respect to time. Thus, one who comes with an invention that uses acceleration instead of velocity as may have [been] claimed in another patent infringes that patent if the mere difference is in the use of the velocity as opposed to the acceleration without any modification in the process [answer, pages 8 and 9].

Be this as it may, it does not cogently explain how or why Foo meets the claim limitations at issue.

In light of the foregoing, the examiner's determination that each of the applied references meets all of the limitations in claims 1 and 6 is not well taken. Accordingly, we shall not

sustain the standing 35 U.S.C. § 102(e) rejection of claims 1 and 6, and of dependent claims 2 through 5 and 7 through 10,

as being anticipated by each of Wessels, Dalum and Foo.

SUMMARY

The decision of the examiner to reject claims 1 through 10 is reversed.

REVERSED

LAWRENCE J. STAAB Administrative Patent Judge	)	
JOHN P. MCQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

ljs/vsh

JIMMY L. FUNKE
DELCO ELECTRONICS CORPORATION
P.O. BOX 9005
ERC BUILDING MAIL STOP D32
KOKOMO, IN 46904