

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEVEN PECK and MATTHEW S. MCMASTER

Appeal No. 99-0630
Application No. 08/633,400¹

ON BRIEF

Before CALVERT, FRANKFORT and BAHR, Administrative Patent Judges.

BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 3 through 6 and 16. Claims 7 through 15 are objected to as depending from a rejected base claim

¹ Application for patent filed April 16, 1996.

(see page 3 in the final rejection, Paper No. 7).² Claim 2 was canceled in Paper No. 6, filed April 28, 1997.

We REVERSE.

BACKGROUND

The appellants' invention relates to a motor vehicle folding passenger seat assembly having an integral child seat. As shown in Figure 1, the seat assembly includes a backrest portion (16) pivotally attached to a seat portion (14) by a hinge (24). As illustrated in Figure 5, the hinge (24) has a top bracket arm (26) attached to the backrest portion (16) and a bottom bracket arm (30) pivotally attached to the top bracket arm by a hinge pin (32) and fixedly attached to either the vehicle floor (10) or the seat portion (14). The seat assembly further includes a seat latch (36), shown in Figures 5 and 6, for selectively locking the backrest portion (16) of the seat assembly in a generally vertical use position or

² Claims 7 through 15 are included in the appendix to the appellants' brief, but they are not involved in this appeal.

releasing the backrest portion to permit pivotal movement to a generally horizontal folded position. As shown in Figure 5, when the backrest portion is in the vertical position, a latch finger (46) of the seat latch (36) is contained within a catch (48), thereby preventing pivotal movement of the backrest portion. When a latch cable (40) is tensioned by actuation of a seat release lever (38), the seat latch (36) is

rotated so that the finger (46) is released from the catch (48), thereby freeing the backrest portion for pivotal movement to the folded position.

As illustrated in Figure 1, the child seat includes a bottom cushion (62) pivotally mounted to the backrest portion (16) on a support bar (74) via a pin (75) for movement between a stowed position and a deployed position and an interlock (66) for permitting movement of the bottom cushion from the stowed position to the deployed position only when the backrest portion (16) is in the vertical use position. The interlock, which is best seen in Figure 4, includes a retractable throw bolt (68) connected to a motion transmitting

child cable (92) via a bell crank (78). The bell crank (78) is biased in a clockwise orientation as shown in Figure 4, such that the end thereof which connects with an interlock cable (84) is in the lower position. With the bell crank in this position, the throw bolt (68) is biased in the extended position, where it abuts an edge (72) of a support bar (74), thereby preventing pivotal movement of the bottom cushion (62) of the child seat about the pin (75) out of the stowed position (see Figures 3 and 4). As seen in Figures 4 and 5, the other end of the interlock cable (84) is connected to

a control plate (86) pivotally mounted on the hinge pin (32). As shown in Figure 5, if the backrest portion (16) is not in the vertical locked position with the latch finger (46) contained in the catch (48), an interlock tab (54) of the seat latch blocks downward movement of the control plate (86). This, in turn, tensions the interlock cable (84) and prevents upward movement of the bell crank (78), thereby preventing retraction of the throw bolt (68). Accordingly, movement of

the bottom cushion of the child seat is prevented if the backrest portion is not locked in the vertical position.

Even if the backrest portion is in the vertical locked position, the bottom cushion (62) of the child seat cannot be moved out of the stowed position without actuation of a footrest actuator (90) to retract the throw bolt (68). When a child cable (92), shown in Figure 4, is tensioned by actuation of the footrest actuator (90), shown in Figure 2, the bell crank (78) is moved upwardly and counter-clockwise to a position which tensions the interlock cable (84) and retracts the throw bolt (68), thereby permitting pivotal movement of the bottom cushion out of the stowed position. However, as mentioned above, if the backrest portion is not locked in the vertical position, the bell

crank (78) cannot be moved upwardly and the throw bolt (68) cannot be retracted, even if the footrest actuator (90) is actuated.

Further, whenever the throw bolt (68) is retracted, which occurs any time the footrest actuator (90) is actuated or the bottom cushion is in the deployed position, the interlock

cable (84) is tensioned so as to move the control plate (86) downward into a position wherein it interferes with the interlock tab (54) of the seat latch (36) (see Figures 4 and 5). Accordingly, the interlock arrangement prevents movement of the backrest portion (16) from the locked vertical position if the bottom cushion of the child seat is in the deployed position or if the footrest actuator (90) is being actuated for subsequent deployment of the child seat.

As a result of the arrangement discussed above, the backrest portion of the appellants' seat assembly cannot be moved out of the vertical position if the child seat is deployed and the child seat cannot be deployed if the backrest portion of the seat assembly is not locked in the vertical position. Further, even if the backrest portion is locked in the vertical position, the bottom cushion of the child seat is unyieldingly locked in the stowed position until the footrest actuator is actuated.

A further understanding of the invention can be derived from a reading of exemplary claim 1, which reads as follows:

1. A folding passenger seat assembly with integral child restraint for a motor vehicle, said assembly comprising: a seat portion; a backrest portion; a hinge for arcuately moving

said backrest portion relative to said seat portion between a generally vertical use position and a generally horizontal folded position; a seat latch for selectively locking said backrest portion in said vertical use position; a child seat integrally recessed within said backrest portion for securing a child therein, said child seat including a bottom cushion pivotally moveable between a stowed position and a deployed position; an interlock for permitting movement of said bottom cushion from said stowed position only when said backrest portion is in said vertical use position; said interlock including a manual lock for constantly and unyieldingly locking said bottom cushion in said stowed position when said backrest portion is in said vertical use position until deliberately released therefrom, said manual lock including a remote child actuator for deliberately releasing said manual lock while said bottom cushion remains in said stowed position to allow subsequent movement of said bottom cushion toward said deployed position.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Osenkowski et al. (Osenkowski) 5,383,707 Jan. 24,
1995

The following rejections are before us for review.

Claims 1, 3 through 6 and 16 stand rejected under 35
U.S.C. § 102(b) as being anticipated by Osenkowski.

The complete text of the examiner's rejections and response to the argument presented by the appellants appears in the answer (Paper No. 12, mailed March 31, 1998), while the

complete statement of the appellants' argument can be found in the brief (Paper No. 10, filed January 26, 1998).

OPINION

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

We cannot sustain the examiner's rejection of claims 1, 3 through 6 and 16 under 35 U.S.C. § 102(b) as being anticipated by Osenkowski.

Osenkowski discloses a vehicle seat assembly (8) having a child seat (26) integral with a fold down seat back (10) and an interlock which prevents the use of the child seat unless the fold down seat back is latched in a generally vertical position and likewise prevents unlatching the seat back when the child seat is deployed (see abstract). The seat back latch (23), best seen in Figure 3, includes a handle (60) which can be moved between a latched (solid line) position and a release (broken line) position. When the handle (60) is

moved to the release position, a cam (62) is rotated clockwise, removing a leg (72) thereof from a notch (74) in a latch plate (64) and freeing the latch plate (64) for rotation about its pivot. The latch plate (64) is thus caused to rotate clockwise by a spring (76), thereby freeing a second notch (66) of the latch plate from a striker (68) and unlatching the seat back. As the cam (62) rotates, the upper end (79) of a pull cable (80) moves upward, thereby tensioning the pull cable. (column 4, lines 29 through 48).

The interlock of Figures 7 and 8 is discussed by Osenkowski in column 6, lines 45 through 68 and column 7, lines 1 through 11. The interlock includes a cam (126) biased in the counter-clockwise direction by a coil torsion spring (130), a pawl (142) biased in the counter-clockwise direction by a coil torsion spring (148) and a sector (134) mounted to a pivot shaft (132). The child seat pan (28) is also mounted to the pivot shaft (132). As disclosed by Osenkowski in column 7, lines 4 through 11 and as seen in Figure 7, when the seat latch (23) is released, the pull cable (80) is tensioned and cam (126) is rotated in a clockwise direction wherein the distal end (152) of the cam engages a tooth (150) of the pawl

(142), thereby preventing the rotation of the pawl necessary to allow the other pawl tooth (146) to withdraw from a notch (140) in the sector (134). Accordingly, the sector (134) connected to the child seat pan (28) cannot be rotated and thus the child seat cannot be deployed when the latch (23) is released.

When the latch (23) is in the latched position, the child seat pan (28) must be rotated into the deployment position with sufficient force to overcome the force of the spring (148) so as to rotate the sector (134) counter-clockwise and the pawl (142) clockwise, thereby withdrawing the tooth (146) from the notch (140) (column 6, lines 55 through 60). When the child seat pan is in the deployed position shown in Figure 8, the pawl tooth (150) interferes with the path of travel of the distal end (152) of the cam (126), thereby preventing clockwise rotation of the cam in response to tension in the pull cable (80). Thus, when the child seat is deployed, the seat back cannot be unlatched.

The examiner submits that the pawl (142) is a manual lock "for constantly and unyieldingly locking the bottom cushion in

the stowed position when the backrest portion is in the vertical use position until deliberately released" (answer, page 3). The examiner further argues that:

[t]he interlock (120) includes a detent style lock (142) which is the pawl, which is yieldable via the torsion spring (148) out of engagement with the notch (140) by pulling on the bottom cushion (28). The lock (142) prevents actuation either the latch (23) or sector (134) [sic] when the seatback is in the stowed position or the child seat is in the youth position. Therefore, the pawl (142) does provide a manual lock which is controlled by a remote child actuator which releases the lock while the bottom cushion of the child seat remains in its upright stowed position [answer, pages 4 and 5].

We cannot agree with the examiner that the pawl (142) is "a manual lock for constantly and unyieldingly locking said bottom cushion in said stowed position when said backrest portion is in said vertical use position until deliberately released therefrom" (emphasis added) as required by claim 1. Specifically, as pointed out by the examiner, the pawl (142) is, in fact, yieldable by overcoming the force of the coil torsion spring (148) and, thus, is not capable of

"unyieldingly" locking the bottom cushion in the stowed position when the seat back is in the vertical position.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of 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 discussed above, Osenkowski lacks disclosure of a manual lock for "unyieldingly locking said bottom cushion in said stowed position when said backrest portion is in said vertical use position until deliberately released therefrom" as required by claim 1. Therefore, Osenkowski does not anticipate the invention recited in the appellants' claim 1.

Accordingly, we shall not sustain the standing rejection of independent claim 1, or of claims 3 through 6 and 16 which depend therefrom, under 35 U.S.C. § 102(b) as being anticipated by Osenkowski.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3 through 6 and 16 under 35 U.S.C. § 102(b) is REVERSED.

REVERSED

IAN A. CALVERT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JENNIFER BAHR)	
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