

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte LEUNG C. CHOW, DAVID A. FOOT  
and CHRISTOPHER N. WOOD

---

Appeal No. 2006-0486  
Application No. 10/300,916

---

HEARD: February 7, 2006

---

Before GARRIS, MCQUADE and BAHR, Administrative Patent Judges.  
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is decision on an appeal which involves claims 1-3, 6, 10, 11 and 18-30.

The subject matter on appeal relates to an aircraft noise reduction apparatus including at least one noise-reducing attachment for an aircraft landing gear shaped for positioning on the landing gear in a spaced apart relationship with the landing gear to deflect air away from the noise inducing components of the landing gear and to permit the deflection, lateral

articulation movement and stowage of the landing gear with the attachment installed. This appealed subject matter is adequately represented by independent claim 1 which reads as follows:

1. Aircraft noise reduction apparatus including at least one noise-reducing attachment for landing gear of the aircraft shaped for positioning on the landing gear in a spaced apart relationship with the landing gear to deflect air away from noise inducing components of the landing gear and to permit deflection, lateral articulation movement and stowage of the landing gear with the attachment installed.

The references set forth below are relied upon by the examiner as evidence of obviousness:

Williams	1,531,588	Mar. 31, 1925
Cussons	2,652,214	Sep. 15, 1953
Hartley	5,104,063	Apr. 14, 1992
Derrien (Derrin '481)	5,269,481	Dec. 14, 1993
Derrien et al. (Derrien '030)	5,478,030	Dec. 26, 1995
Holloway	6,131,852	Oct. 17, 2000
Blackburn and General Aircraft (Blackburn) (Great Britain Pat. Specification)	745,965	Mar. 07, 1956
Thorpe et al. (Thorpe) (Eur. Pat. Application)	EP 0 846 540 A2	Jun. 10, 1998

Under 35 U.S.C. § 103(a):

Claims 1-3 and 22-25 are rejected over Derrien '030 in view of Williams and Thorpe;

Claims 1, 6 and 26 are rejected over Derrien '030 in view of Thorpe and Cussons;

Claims 1 and 11 are rejected over Derrien '481 in view of Thorpe and Hartley;

Claims 1, 2, 10 and 18-21 are rejected over Derrien '481 in view of Thorpe and Blackburn; and

Claims 27-30 are rejected over Holloway in view of Derrien '481, Thorpe and Blackburn.

Rather than reiterate the respective positions advocated by the appellants and the examiner concerning the above noted rejections, we refer to the brief and reply brief as well as to the answer and to the final office action mailed January 30, 2004 (which is alluded to on page 3 of the answer) for a complete exposition thereof.

#### OPINION

For the reasons set forth below, we cannot sustain any of the rejections advanced by the examiner in this appeal.

Concerning the § 103 rejection of claims 1-3 and 22-25, the examiner's obviousness position is expressed on pages 2 and 3 of the final office action in the following manner:

Derrien et al. [i.e., Derrien '030] teaches an aircraft landing gear that retracts laterally but is silent on the use of an aircraft noise reduction apparatus to deflect air away from noise inducing components of the landing gear. However, Williams teaches a cover or noise reduction apparatus 9 positioned in a spaced apart relationship with the landing gear and is connected to the leg 4, 5, and 3 (but not completely surrounding the noise inducing parts such as elements 1 and 5) and inherently reduces noise is well known in the art. Further, to provide

proof that casings reduce noise when placed in fronts [sic] of noise producing parts, Thorpe . . . teaches a cover or noise reduction apparatus 1 attached to the landing gear to reduce noise is well known in the art (see column 1, first four paragraphs).

It would have been obvious to one skilled in the art at the time the invention was made to have used a noise reduction apparatus in a spaced relationship on the landing gear in Derrien et al.'s [i.e. Derrien '030] system as taught by Williams and further supported by Thorpe . . . to reduce noise. Please note that during the design stage, it is [sic, would have been] obvious to one skilled in the art at the time the invention was made to have made the noise reduction apparatus accommodate the landing gear when the landing is in the stowage position so that it can be used repeatedly.

This rejection is deficient in a number of respects.

First, the disclosure of Derrien '030 contains nothing which indicates that the landing gear thereof includes any noise inducing components for which a noise reducing apparatus would be desirable. Second, contrary to the examiner's above "findings," Williams contains no express teaching that stream-lined housing 9 (which the examiner refers to as a cover) constitutes a "noise reduction apparatus" (id.).<sup>1</sup> The rejection still would be

---

<sup>1</sup> This erroneous finding has been made with respect to a number of references. As correctly pointed out by the appellants, only Thorpe contains any express teaching of a landing gear attachment which reduces noise. The appellants also have correctly explained that the examiner has misconstrued the Blackburn reference as being non-specific with respect to whether its landing gear is fixed or retractable whereas, in fact, the landing gear is expressly disclosed as being fixed.

deficit even if the landing gear components of Derrien '030 were assumed to have a noise problem which would have been recognized by those skilled in the art and even if the Williams stream-lined housing were assumed to possess a noise reducing capability which would have been recognized by those skilled in art.

This is because nothing in these references or the Thorpe reference would have suggested that a housing of the type taught by Williams for a fixed landing gear could be successfully combined with a retractable landing gear of the type taught by Derrien '030 in such a manner as to effect noise reduction while permitting landing gear retraction. There is simply no evidentiary support for the examiner's conclusion that an artisan would have found it obvious to somehow modify Williams' housing in such a manner as to be applicable to the retractable landing gear of Derrien '030 while performing a noise reducing function. Indeed, the examiner does not even hypothesize with any reasonable specificity precisely how the Williams housing would be modified or precisely where it would be placed on the Derrien '030 landing gear.

Under these circumstances, it is apparent that the examiner has failed to establish a prima facie case of obviousness. We hereby reverse, therefore, the examiner's § 103 rejection of

claims 1-3 and 22-25 as being unpatentable over Derrein '030 in view of Williams and Thorpe.

The other § 103 rejections formulated by the examiner are correspondingly deficient. In each of these rejections, the primary reference (i.e., Derrein '481 or Holloway) contains no disclosure that the retractable landing gear thereof possesses any noise problem of any kind. Even assuming a noise problem existed and would have been perceived by those skilled in the art, the rejection still would be improper for reasons analogous to those discussed above. That is, the examiner has provided inadequate evidentiary support for his obviousness conclusion vis-à-vis combining the applied references in the manner proposed. We hereby reverse, therefore, each of the other § 103 rejections which the examiner has formulated and advanced on this appeal.

REMAND

We remand this application to the examiner for the purpose of reopening prosecution in order to address and resolve on the written record certain issues relating to patentability of the appealed claims.<sup>2</sup>

---

<sup>2</sup> These issues were discussed to some extent by appellants' attorney during the oral hearing of February 7, 2006. Nevertheless, a remand is appropriate so that the issues identified hereinafter may be fully addressed on the written record.

First, the examiner must give the appealed claims their broadest reasonable interpretation consistent with the specification. In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Concerning this matter, we emphasize that, in making a patentability determination, analysis must begin with the question, "What is the invention claimed?" since "[c]laim interpretation . . . will normally control the remainder of the decisional process." Panduit v. Dennison, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir.), cert. denied, 481 U.S. 1052 (1987).

Neither the answer nor the final office action contains any express claim interpretation by the examiner. Nevertheless, based on the § 103 rejections discussed above, the examiner seems to have implicitly interpreted the appealed claims as including a retractable landing gear. However, this interpretation is inconsistent with the fact that each of the six independent claims on appeal is directed to a noise reduction apparatus rather than such an apparatus in combination with a retractable landing gear. If the appealed claims are not directed to the combination of a noise reduction apparatus with a retractable landing gear, it is necessary to assess what, if any, limiting effect is provided by such claim language as the claim 1

recitation of a noise-reducing attachment "in a spaced apart relationship with the landing gear."

Resolution of this claim interpretation issue is pivotal to a determination of whether the appealed claims are patentable. For example, if the appealed claims are directed to a noise reduction apparatus by itself with no requirement that the apparatus be in combination with a retractable landing gear or be in a spaced apart relationship with the landing gear, it is questionable whether such claims would be distinguishable from Thorpe. This is because the fairing/debris protector 1 of Thorpe is disclosed as possessing a wind noise reducing capability (e.g., see lines 17-20 in column 1 and lines 14-17 in column 2). It is true that fairing 1 is attached in such a manner as to snugly fit against the surface of the strut 2 (e.g., see lines 5-6 in column 4). Nevertheless, this disclosure may or may not be relevant to the question of claim novelty and nonobviousness depending upon what, if any, limiting effect is achieved by the "in a spaced apart relationship" recitation of the independent claims.

Even if the appealed claims are interpreted to require some type of "spaced apart relationship" with a retractable landing gear, the claims still may not be patentable over the prior art

of record. This because Cussons discloses a retractable landing gear having a casing 33 in a spaced apart relationship therewith (e.g., see Figure 1). As properly indicated by the appellants, this reference contains no express disclosure that casing 33 performs a noise-reducing function of the type required by the appealed claims. The question which remains, however, is whether this functional limitation of the appealed claims is inherently satisfied by patentee's casing. See In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

It is, of course, the examiner's initial burden of establishing a reasonable basis for an inherency determination. Id. Also see Ex parte Levy, 17 USPQ2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990). In this case, a reasonable basis for an inherency determination might be provided by the fact that patentee's casing 33 and the appellants' claimed noise-reducing attachment both possess the aforementioned "spaced apart relationship" and both possess certain structural similarities (e.g., compare casing 33 as illustrated in Figure 1 of Cussons with fairing attachment 93 as illustrated in Figure 2 of appellants' drawing).

In light of the foregoing, the examiner must respond to this remand by addressing and resolving on the written record the

issue of what is the invention claimed by the appellants (Panduit v. Dennison, 810 F.2d at 1567, 1 USPQ2d at 1597) and the issue of whether the invention defined by the appealed claims patentably distinguishes from the Thorpe and Cussons references of record.

SUMMARY

The decision of the examiner is hereby reversed.

This application is hereby remanded to the examiner.

REVERSED/REMANDED

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOHN P. MCQUADE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

BRG/sld

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD  
11<sup>TH</sup> FLOOR  
ARLINGTON, VA 22203