

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* JEFFREY LLOYD

---

Appeal 2007-1218  
Application 10/850,258  
Technology Center 3600

---

Decided: June 29, 2007

---

Before WILLIAM F. PATE III, HUBERT C. LORIN and  
JENNIFER D. BAHR, *Administrative Patent Judges*.

WILLIAM F. PATE III, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 1-13, 19-21, 23 and 24. These are the only claims remaining in the application.

We have jurisdiction under 35 U.S.C. § 134.

Appellant claims a strut assembly for an automobile suspension which has a normal shock absorber combined with an air spring.

Claims 1 and 7, reproduced below, are further illustrative of the claimed subject matter.

1. An air spring assembly comprising:

an air spring piston supported by a shock body; and

a flexible member having a first portion mounted to the shock body at an attachment interface wherein said air spring piston is deformed against said first portion to form said attachment interface.

7. A strut assembly comprising:

a shock absorber including an outer cylinder; and

an air spring including an air spring piston mounted to said outer cylinder and a flexible member defining a sealed fluid cavity between said flexible member and said outer cylinder wherein said flexible member is positioned between said air spring piston and said outer cylinder at a sealed interface.

The references of record relied upon by the examiner as evidence of anticipation and obviousness are:

McGavern	U.S. 2,933,308	Apr. 19, 1960
Pees	U.S. 4,921,226	May 01, 1990
Gubitz	U.S. 5,518,225	May 21, 1996
Weitzenhof	WO 02/40888 A1	May 23, 2002

Claims 1-5, 19 and 20 stand rejected under 35 U.S.C. § 102 as being anticipated by Weitzenhof.

Claim 6 stands rejected under 35 U.S.C. § 103 as unpatentable over Weitzenhof in view of McGavern

Claims 7-10, 13, 21, 23 and 24 stand rejected under 35 U.S.C. § 102 as being anticipated by Pees.

Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pees in view of Gubitz.

## ISSUES

The issues raised for our consideration are whether the examiner, by preponderance of evidence, has established that the claimed invention lacks novelty or is obvious under §§ 102 and 103.

## FINDINGS OF FACT

Weitzenhof discloses an air spring for a motor vehicle. Weitzenhof is concerned with the problem of high frequency vibrations and provides a blocking mass on the air spring to damp out such vibrations. The examiner refers us to the embodiment found in Figure 16. The Figure 16 embodiment discloses two air springs joined at the center by a blocking mass 48, 34, 85. Weitzenhof also discloses two pistons 10, that change the shape of the air spring in response to loading and unloading due to vehicle bumps. In the rejection, the Examiner refers to the blocking mass or a portion of the blocking mass as the piston. We cannot agree with the Examiner's interpretation of the reference. We are in agreement with Appellant that

Weitzenhof discloses pistons 10 and these are the members that function as a piston. We recognize that a piston for an air spring is normally a surface that intrudes onto the air spring volume by longitudinal movement. The blocking masses of Weitzenhof do not perform this function. Accordingly, Weitzenhof does not anticipate claims 1-5, 19 and 20.

On the other hand, Pees shows an air spring--strut combination with an outer cylinder 16 having two reduced diameter portions 30 and 32. A piston lining 90 is slip--fitted over the reduced diameter portions of the outer cylinder 16. A resilient sleeve or flexible member 70 with liner 80 forms a lobe 84 that rides on the surface of the piston lining and a reentrant portion of the resilient sleeve curves back around and is clamped to the reduced diameter portion 32 of the outer cylinder 16. The metallic clamp or band 82 fastens the flexible member in this location underneath the smaller profiled end of the piston 90. The other end of the resilient sleeve 70 is secured by a retaining member 92.

Accordingly, it can be seen that Pees provides a shock absorber with an outer cylinder wherein an air spring piston 90 is mounted to the outer cylinder and a flexible member defines a sealed fluid cavity, rolling lobe 84. Note further that the flexible member 70 is clamped between the outer cylinder, that is, the reduced diameter portion 32 and the air spring piston 90 at its sealed interface. It is our finding that Pees clearly anticipates claims 7 and 8. With respect to claim 9, we note that the flexible member of Pees is composed of a sleeve 70 and liner 80 and the piston 90 engages two sides of the outer sleeve 70 at the sealed interface. As to claims 10 and 23, we agree with the Examiner that the limitation to a crimped attachment is in

the nature of a product-by-process limitation and the clamp band 82 is patentably indistinguishable from a crimped attachment interface. As to claim 21, we agree that Pees discloses the claimed retaining member.

As to claim 11 rejected under § 103 based on the combined teachings of Pees and Gubitz, we note that the piston 90 of Pees has a first end near the attachment interface and a second end 91 of greater diameter. We further note that the greater diameter portion has a piston surface that is radially spaced apart from the surface of the outer cylinder and that this second end is of greater diameter than the first end. With respect to claims 23 and 24, we agree with the Examiner that these limitations are product-by-process limitations and as long as the piston 90 partly holds the flexible member 70 against the reduced diameter portion 32 of the outer cylinder, the claim does not patentably distinguish over the structure shown in Pees.

#### PRINCIPAL OF LAW

The prior art may anticipate a claimed invention, and thereby render it non-novel, either expressly or inherently. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). Express anticipation occurs when the prior art expressly discloses each limitation (i.e., each element) of a claim. *Id.* In addition, [i]t is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it. *Id.*

“A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

in the pertinent art.” *In re Kahn*, 441 F.3d 977, 985, 78 USPQ2d 1329, 1334-35 (Fed. Cir. 2006) citing 35 U.S.C. § 103(a) (2000); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14, 148 USPQ 459, 467 (1966). “The ultimate determination of whether an invention would have been obvious is a legal conclusion based on underlying findings of fact.” *Id.* (citing *In re Dembicza*k, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999)).

“In assessing whether subject matter would have been non-obvious under § 103, the Board follows the guidance of the Supreme Court in *Graham v. John Deere Co.* 383 U.S. at 17, 148 USPQ at 467. The Board determines ‘the scope and content of the prior art,’ ascertains ‘the differences between the prior art and the claims at issue,’ and resolves ‘the level of ordinary skill in the pertinent art.’” *Id.* (citing *Dann v. Johnston*, 425 U.S. 219, 226, 189 USPQ 257, 261 (1976)) (quoting *Graham*, 383 U.S. at 17, 148 USPQ at 467). “Against this background, the Board determines whether the subject matter would have been obvious to a person of ordinary skill in the art at the time of the asserted invention.” *Id.* (citing *Graham*, 383 U.S. at 17, 148 USPQ 467). In making this determination, the Board can assess evidence related to secondary indicia of non-obviousness like “commercial success, long felt but unsolved needs, failure of others, etc.” *Id.*, 383 at 17-18, 148 USPQ at 1335; accord *In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1455-56 (Fed. Cir. 1998). “We have explained that to reject claims in an application under section 103, an examiner must show an unrebutted prima facie case of obviousness. ‘On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of

*prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”” *Id.* (citing *Rouffet*, 149 F.3d at 1355, 47 USPQ2d at 1455).

It is well settled that “anticipation is the epitome of obviousness.”” *In re McDaniel*, 293 F3d. 1379, 1385, 63USPQ2d 1462, 1466-67 (Fed. Cir. 2002)(quoting *Connell v. Sears Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983)); *In re Fracalossi*, 681 F.2d 792, 794, 215 USPQ 569, 571(CCPA 1982).

## ANALYSIS

As noted above, we do not agree with the Examiner that the blocking mass can be considered a piston in the disclosure of Weitzenhof. Therefore, we have reversed the rejections of claims 1-5, 19 and 20 under § 102 and also the rejection of claims 6 under § 103.

Furthermore, as our findings of fact demonstrate, Pees fully anticipates the structure claimed in claims 7-10, 21, 23 and 24. We therefore affirm the anticipation rejection of these claims, as well as claim 13, which Appellant has grouped with claims 7 and 8 (Appeal Br. 12). By our analysis, Pees also anticipates the structure in claims 11 and 12. Therefore, anticipation being the epitome of obviousness, we affirm the obviousness rejection of claims 11 and 12.

Appeal 2007-1218  
Application 10/850,258

## CONCLUSION

The rejections of claims 1-6, 19 and 20 have been reversed. The rejections of claims 7-13, 21, 23 and 24 have been affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a) (1) (iv).

## AFFIRMED-IN-PART

vsh

CARLSON, GASKEY & OLDS, P.C.  
400 WEST MAPLE ROAD  
SUITE 350  
BIRMINGHAM MI 48009