UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte PAUL JOHN GRIFFITHS

Appeal No. 2006-0177
Application No. 09/525,741

ON BRIEF

Before FRANKFORT, CRAWFORD, 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 1-6, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to an air suspension and, more particularly, to an air cell for an air spring which minimizes the possibility of air cell inversion (see page 1 of the present specification). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The Applied Prior Art

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

Bates	3,913,940	Oct. 21, 1975
Koschinat et al. (Koschinat)	4,890,823	Jan. 2, 1990
Smith	5,234,203	Aug. 10, 1993

The Rejections

Claims 1-4 stand rejected under 35 U.S.C. ' 102(b) as being anticipated by Bates.

Claims 1-4 stand alternatively rejected under 35 U.S.C. ' 103 as being unpatentable over Bates in view of Koschinat.

Claims 5 and 6 stand rejected under 35 U.S.C. ' 103 as being unpatentable over Bates in view of Koschinat and Smith.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (mailed September 8, 2004) for the examiner's complete reasoning in support of the rejections and to the brief (filed July 7, 2004)[1] and reply brief (filed November 15, 2004) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner.[2] For the reasons which follow, none of the examiner's rejections is sustained.

We turn first to the rejection of independent claims 1 and 4 as being anticipated by Bates. Claim 1 recites, *inter alia*, a deformable air cell having a first end attached to a piston and a second end attached to a chassis component, said second end having a greater diameter than said first end. Claim 4 calls for an air spring having a "frustro-conical" [*sic*] air cell.

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[1] Documents accompanying a petition for withdrawal of abandonment (see petition decision mailed August 2, 2004) indicate the brief was originally filed in the USPTO on February 7, 2002.

[2] The evidence submitted with appellant's reply brief as Exhiibit A has not been entered and considered by the examiner (see communication mailed April 7, 2005) and thus has not been considered by this panel in reaching our decision.

Bates discloses a vehicle suspension including a pair of main springs 11 comprising "frustoconical rubber springs" having metal end plates bonded to the rubber, the main springs being mounted between Y-shaped frame 5 and the vehicle body 1. The forward end of the frame 5 is attached to one end of an air spring 12. The air spring 12 acts vertically between the end 8 of the frame 5 and a cross member 13 attached to the frame of the vehicle body 1. According to Bates (column 2, lines 31-34), "[in] operation deflection of the suspension due to vehicle weight (i.e. the static defection) causes deflection of the main springs 11 together with compression of the air spring 12."

In rejecting claims 1 and 4, the examiner takes the position that the main springs 11 of Bates' suspension are air cells, as called for in the claims. Appellant argues that, while Bates' air spring 12, which neither is frustoconical nor has ends of different diameters, is an air cell, Bates' frustoconical main springs 11 are simply rubber springs and are not air cells. Thus, according to appellant, Bates lacks an air cell having a second end having a greater diameter than said first end, as called for in claim 1, and a frustoconical air cell, as called for in claim 4.

We agree with appellant. While appellant's specification (page 3) points out that "the term air spring as used herein is not intended to be construed narrowly and should be taken to include bellows, air bags, and so forth," one of ordinary skill in the art would not have considered the rubber spring 11 of Bates to fall within the scope of "air spring"

in this context. We, like appellant (reply brief, pages 2-3), note that, in describing the operation of the suspension, Bates distinguishes between the operation of the main springs 11, which are deflected, and the air spring 12, which is compressed. Bates provides no indication that the main springs 11 comprise a deformable or compressible air cell, as does the air spring 12. We thus conclude, as appellant urges, that Bates fails to disclose an air cell which is frustoconical, as called for in claim 4, or has two different end diameters, as called for in claim 1. It follows that the rejection of claims 1 and 4, as well as claims 2 and 3 which depend from claim 1, as being anticipated[3] by Bates cannot be sustained.

[3] To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

The examiner also rejects claims 1-4 under the alternative theory that, assuming that the main springs 11 of Bates are not deemed to be "deformable" air cells, it would have been obvious "*to modify the air suspension system of Bates to include* a deformable air cell having a first end attached to a piston and a second end for attachment to a chassis component, the second end having a greater diameter than the first end and is tapered between the first end and the second end and is of frustro-conical [*sic*] configuration, the piston moving to deform the deformable air cell, *as taught by Koschinat et al.*, to absorb effective pressure and tensile forces which occur during

compression and rebound of the of the [*sic*] air suspension axles of the vehicle" (answer, pages 6 and 7-8).

As argued on page 6 of the brief, even assuming that Koschinat's air spring bellows 24 is deemed to be frustoconical and to have first and second ends of different diameters, as called for in claims 4 and 1, respectively, Koschinat provides no motivation or suggestion to make the modification proposed by the examiner. In particular, inasmuch as Bates' main spring 11 is not an air spring[4] but rather a rubber spring bonded to a metal mount which is deflected upon deflection of the vehicle suspension, one of ordinary skill in the art would have found no suggestion to modify it so as to include an air spring bellows mounted to a plunger piston as taught by Koschinat. In light of the above, we cannot sustain the examiner's rejection of claims 1-4 under 35 U.S.C. ' 103 as being unpatentable over Bates in view of Koschinat.

We find nothing in the examiner's additional application of Smith in rejecting claims 5 and 6, which also require a frusto-conical air cell, that makes up for the deficiencies of Bates or Bates in view of Koschinat as explained above. It thus follows that the rejection of claims 5 and 6 as being unpatentable over Bates in view of Koschinat and Smith also cannot be sustained.

[4] Bates clearly distinguishes main springs 11 from air spring 12 in terms of their structure and their operation.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-6 is REVERSED.

REVERSED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
MURRIEL E. CRAWFORD Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JENNIFER D. BAHR Administrative Patent Judge	)	

JDB/vsh

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