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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL S. DEFRANKS and RAHUL KIRTIKAR

Appeal 2014-007808
Application 12/806,723
Technology Center 3600

Before JOHN C. KERINS, GEORGE R. HOSKINS, and LEE L. STEPINA,
Administrative Patent Judges.

STEPINA, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a decision rejecting claims 1–15. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

CLAIMED SUBJECT MATTER

The claims are directed to systems and methods for manufacturing springs with foam characteristics. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A cushion construction having a spring coil assembly and configured to mimic the compression characteristics of foam, comprising

a plurality of rows of a first set of encased springs, wherein each spring of the first set of springs is in a partially compressed state within an encasement, and

a plurality of rows of a second set of springs, wherein each row of the second set of springs is positioned between the rows of the first set of encased springs, such that the rows of the first set of springs and the rows of the second set of springs are arranged in alternating rows,

wherein each spring of the second set of springs is in [an] uncompressed state and has a free length less than an encased height of one or more springs in the first set of encased springs.

Appeal Br. 16 (Claims App.) (emphasis added).¹

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Grothaus	US 6,898,813 B2	May 31, 2005
Barber	US 6,966,091 B2	Nov. 22, 2005
DeFranks	US 2006/0075567 A1	Apr. 13, 2006

REJECTIONS

(I) Claims 1–6, 8, 9, 12, 13, and 15 are rejected under U.S.C. § 102(b) as anticipated by Barber.

¹ It appears that claim 8 (Appeal Br. 17 (Claims App.)), which depends from claim 1, recites a limitation that contradicts the requirement in claim 1 for the second set of springs to be in an uncompressed state.

(II) Claim 7 is rejected under 35 U.S.C. § 103(a) as unpatentable over Barber.

(III) Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Barber and Grothaus.

(IV) Claim 14 is rejected under 35 U.S.C. § 103(a) as unpatentable over Barber and DeFranks.

OPINION

Rejection (I)

The Examiner finds that Barber discloses all the features recited in claim 1, and, with respect to the second set of springs in an uncompressed state required by claim 1, refers to column 12, lines 35–47 of Barber. Final Act. 2–3. In this regard, the Examiner states, “[u]tilizing the disclosure of Barber and decreasing the pre-compression of one set of coil springs to zero is within the level of ordinary skill in the art[]. *Id.* at 3.

Appellants assert that Barber does not disclose a first set of springs in a compressed state and a second set of springs in an uncompressed state. *See* Appeal Br. 9–11. Specifically, Appellants contend “Barber discloses pre-compressing (i.e., pre-loading) each and every spring, which is not the same (as is required for a proper anticipation rejection) and is markedly different.” *Id.* at 9.

In response, the Examiner finds Barber discloses decreasing the pre-load of springs 104 and further finds “this [to be] a disclosure of decreasing the preloading to as near to no preloading as possible.” Ans. 4. The Examiner further finds that Appellants’ disclosed springs must bear some small amount of weight because they are encased, and, therefore, Appellants’ springs are preloaded to a small extent. *Id.* Therefore,

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according to the Examiner, “this inherent small amount of preloading falls within the range of Barber’s disclosure of decreasing the preloading of springs 104 as desired to adjust firmness.” *Id.*

We are persuaded by Appellants’ arguments. Claim 1 requires a set of springs in an uncompressed state. As noted by Appellants, Barber compresses all of its springs. *See, e.g.*, Barber, col. 9, ll. 45–47. Further, we do not agree that the mass of the encasement, which is described in Appellants’ Specification as *optional* and comprising *fabric* (Spec. 3, ll. 5–7, 20–23), provides pre-loading as that term would be understood in light of the Specification. In this regard, we note that the pre-loading described in the Specification relates to the comfort of a user of a mattress (*see, e.g.*, Spec. 2, l. 18–3, l. 9), and we find that the de minimis amount of weight added by the fabric encasement of the spring does not provide pre-loading in this context. Thus, we do not agree that Barber’s disclosure of decreasing the amount of preloading of a set of springs satisfies the requirement in claim 1 for a set of springs in an uncompressed state. In other words, the broadest reasonable interpretation of the term “uncompressed” as it is used in the claims excludes the pre-loading performed by Barber. Accordingly, we reverse the Examiner’s rejection of claim 1 and claims 2–6, 8, 9, 12, and 13 depending therefrom as anticipated by Barber.

Independent claim 15 recites similar features to those discussed above regarding claim 1 (Appeal Br. 18 (Claims App.)), and for the same reasons discussed above, we reverse the Examiner’s rejection of claim 15 as anticipated by Barber.

Rejection (II)

Claim 7 depends from claim 1 and recites specific ranges of spring rates for the first and second sets of springs. Appeal Br. 17 (Claims App.).

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The Examiner rejects claim 7 as unpatentable over Barber, relying on the doctrine of *design choice* for meeting the requirement in claim 7 for specific ranges of spring rates. Final Act. 5–6. As the Examiner does not address whether it would have been obvious to provide a set of springs in an uncompressed state as required by claim 1, we reverse the Examiner’s rejection of claim 7.

Rejections (III) and (IV)

The Examiner’s use of Grothaus and DeFranks does not remedy the deficiency discussed above in Rejection (I). *See* Final Act. 6–7. Accordingly, we reverse the Examiner’s rejection of claims 10 and 11 as unpatentable over Barber and Grothaus and the Examiner’s rejection of claim 14 as unpatentable over Barber and DeFranks.

DECISION

The Examiner’s rejection of claims 1–15 is reversed.

REVERSED