

PUBLIC VERSION

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571-272-7822

Paper 114  
Entered: September 30, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMERICAN NATIONAL MANUFACTURING INC,  
Petitioner,

v.

SLEEP NUMBER CORPORATION  
f/k/a SELECT COMFORT CORPORATION,  
Patent Owner.

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Case IPR2019-00500  
Patent 9,737,154 B2

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Before SCOTT A. DANIELS, FRANCES L. IPPOLITO, and  
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

DANIELS, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision

Determining Some Challenged Claims Unpatentable  
Granting-in-Part Patent Owner's Contingent Motion to Amend  
*35 U.S.C. § 318(a)*

ORDER

Denying Petitioner's Motion to Exclude  
Denying Patent Owner's Motion to Exclude  
Granting Petitioner's Motion to Seal  
Granting Patent Owner's Motions to Seal  
*37 C.F.R. §§ 42.14, 42.64(c)*

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## I. INTRODUCTION

### A. Background

American National Manufacturing, Inc. (“ANM” or “Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–22 of U.S. Patent No. 9,737,154 B2 (“the ’154 patent”). Paper 2 (“Pet.”). Sleep Number Corporation (“Sleep Number” or “Patent Owner”) filed a Preliminary Response.<sup>1</sup> Paper 6 (“Prelim. Resp.”). Pursuant to our Order entered March 26, 2019, we authorized ANM to file a Reply to the Preliminary Response (Paper 7) addressing issues relating to service of process raised in Sleep Number’s Preliminary Response. Paper 5. We instituted trial on all challenged claims. Paper 11 (“Inst. Dec.”).

Following institution, Sleep Number timely filed a Response (Paper 45, “PO Resp.”) as well as a Motion to Amend (Paper 42, “MTA”). ANM filed an Opposition the Motion to Amend (Paper 68, “Opp. MTA”), and a Reply (Paper 71, “Reply”). Sleep Number subsequently filed a Sur-Reply to the Response. Paper 86 (“Sur-Reply”). We issued Preliminary Guidance (Paper 77, “Prelim. Guidance”) based on Sleep Number’s Motion to Amend. Sleep Number filed a Reply in Support of Patent Owner’s Motion to Amend. Paper 81 (“PO Reply Opp. MTA”). ANM filed a Sur-Reply to Sleep Number’s Reply in Support of Patent Owner’s Motion to Amend. Paper 90 (“Sur-Reply MTA”).

ANM filed a Motion to Exclude some of Sleep Number’s evidence. Paper 95 (“Pet. Mot. Exclude”). Sleep Number filed an Opposition to

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<sup>1</sup> Articles of Amendment were recorded for the ’154 patent with the USPTO Assignments Recordation Branch on November 15, 2017, at Reel/Frame number 044456/0132, indicating a change of corporate name from Select Comfort Corporation to Sleep Number Corporation. Ex. 3001.

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ANM's Motion to Exclude (Paper 97, "PO Opp. Mot. Exclude"), and ANM filed a Reply in Support of its Motion to Exclude Evidence (Paper 102, "Pet. Reply Mot. Exclude"). Sleep Number also filed a Motion to Exclude some of ANM's evidence. Paper 94 ("PO Mot. Exclude"). ANM filed an Opposition to Sleep Number's Motion to Exclude (Paper 100, "Pet. Opp. Mot. Exclude"), and Sleep Number filed a Reply in Support of its Motion to Exclude Evidence (Paper 103, "PO Reply Mot. Exclude").

The Parties requested, and we conducted an Oral Hearing for IPR2019-00500 on May 20, 2020. Paper 96. The record includes a transcript of the Oral Hearing. Paper 104 ("Tr."). During the Oral Hearing, each party objected to some of the other party's demonstratives. Tr. 118–119, 129–130.

We have jurisdiction under 35 U.S.C. § 6(b) and issue this Final Written Decision pursuant to 35 U.S.C. § 318(a). Having reviewed the parties' arguments and supporting evidence, we find that ANM has demonstrated by a preponderance of the evidence that each of challenged claims 1–4, 7–14, and 16–22 of the '154 patent—is unpatentable. We further determine that ANM has not demonstrated by a preponderance of the evidence that challenged claims 5, 6, and 15 are unpatentable.

As to the proposed substitute claims in Sleep Number's Motion to Amend, however, ANM has not met the burden to show, by a preponderance of the evidence on this trial record, that some of those claims are unpatentable. Accordingly, for reasons given below, we conclude that some original claims (1–4, 7–14, and 16–22) are unpatentable and should be canceled. We do not determine that claims 5, 6, and 15 are unpatentable, and Patent Owner's Motion to Amend is granted-in-part as to substitute claims 23–25, 30–31, and 38–41.

*B. Additional Proceedings*

ANM states that the '154 patent is asserted by Sleep Number in Case No. 5:18-cv-0356-AB (SPx) and Case No. 5:18-cv-0357-AB (SPx) against ANM in the U.S. District Court for the Central District of California. Pet. 1. Sleep Number informs us that the district court cases are currently stayed. Papers 4, 2. ANM has also filed another petition contesting certain claims in related U.S. Patent No. 8,769,747 B2 (“the ’747 patent”) in IPR2019-00497. *Id.*

In addition, ANM has filed a petition contesting claims in U.S. Patent No. 5,904,172 (“Giff”) in IPR2019-00514. The ’172 patent is not related per se to the ’154 patent, and is in fact asserted as prior art and the primary obviousness reference in this proceeding. The ’172 patent is also incorporated by reference in the ’154 patent and in these ways bears on our considerations of obviousness and analyses of secondary considerations.

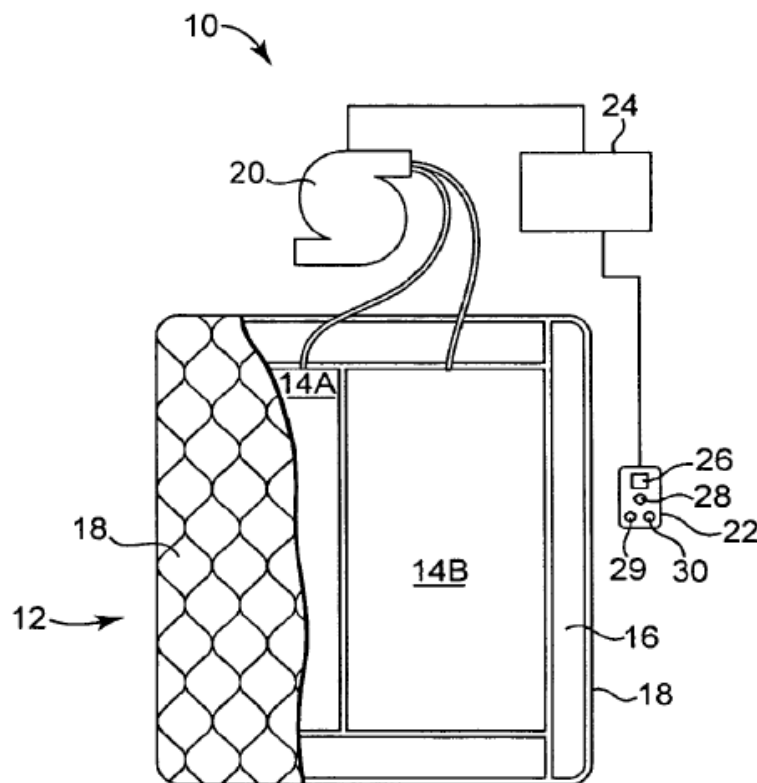
*C. Real Parties-in-Interest*

ANM Petitioner identifies the real parties-in-interest as itself, American National Manufacturing, Inc., as well as Number Bed Holdings, LLC; Sizewise Rentals, L.L.C.; Dires, LLC d/b/a Personal Comfort Bed; and Raye’s, Inc. d/b/a Sizewise Manufacturing. Paper 78, 2. Patent Owner identifies the real parties-in-interest as itself, Sleep Number Corporation, in addition to Select Comfort Retail Corporation; Select Comfort SC Corporation; Select Comfort Canada Holding Inc.; Select Comfort COSC Canada ULC; and Select Comfort Limited. Paper 79, 1.

*D. The ’154 Patent*

The ’154 patent (Ex. 1001), titled “System and Method for Improved Pressure Adjustment,” relates generally to improving the air pump system

response time and effectiveness of inflating and deflating air chambers, or bladders, of an air bed for example. Ex. 1001, code (54), Abstract. An advantage of electronically controlled inflatable air beds is that a user can “select a desired inflation setting for optimal comfort and [] change the inflation setting at any time, thereby providing changes in the firmness of the bed.” *Id.* at 1:25–27. The ’154 patent explains that a problem with air beds is “the amount of time and the number of adjustment iterations necessary to achieve a desired pressure in an air bladder,” as well as “accuracy of the actual bladder pressure.” *Id.* at 2:19–22. Figure 1 of the ’154 patent showing air bed system 10 is reproduced below.



**Fig. 1**

Figure 1 of the ’154 patent, above, illustrates air bed system 10 including bed 12 having separate air chambers 14A, 14B. *Id.* at 3:29–31. Pump 20 is

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