

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

AMERICAN NATIONAL MANUFACTURING INC.  
Petitioner

v.

SELECT COMFORT CORPORATION  
Patent Owner

---

Case No. IPR2019-00514

Patent No. 5,904,172

---

**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 5,904,172**

## Table of Contents

|      |   |    |
|------|---|----|
| I.   | MANDATORY NOTICES (37 CFR § 42.8) .....   | 1  |
| A.   | Real Party-In-Interest (§ 42.8(b)(1)) .....                                     | 1  |
| B.   | Related Matters (§42.8(b)(2)) .....   | 1  |
| C.   | Lead and Back-Up Counsel (§ 42.8(b)(3)) .....                                   | 3  |
| D.   | Service Information (§ 42.8(b)(4)).....   | 3  |
| II.  | INTRODUCTION .....  | 4  |
| III. | <i>Inter Partes</i> Review Requirements (37 CFR § 42.100 <i>et seq.</i> ).....  | 4  |
| A.   | <i>Inter Partes</i> Review Fee (§ 42.103(a)).....                               | 4  |
| B.   | Grounds for Standing (§ 42.104(a)) .....  | 5  |
| C.   | Identification of Challenge (§ 42.104(b)(1)-(2)).....                           | 5  |
| D.   | Summary of the Challenged Patent and the Level of Skill in the<br>Art .....     | 6  |
| 1.   | Description of Gifft.....   | 6  |
| 2.   | Level of Skill of a POSITA.....   | 8  |
| 3.   | Gifft's Claims .....  | 8  |
| 4.   | Gifft's Prosecution History .....   | 9  |
| E.   | Claim Construction (§ 42.104(b)(3)).....  | 10 |
| 1.   | “pressure monitor means” .....  | 10 |
| a.   | “pressure monitor means” (“PMM1”).....  | 11 |
| b.   | “pressure monitor means” of claims 2, 6<br>(“PMM2”) .....                       | 12 |
| c.   | “pressure monitor means” of claims 12, 16<br>(“PMM3”) .....                     | 12 |
| F.   | Specific Challenges (§ 42.104(b)(4)) .....                                      | 13 |
| 1.   | Ground 1: Unpatentability of claims 2, 12, 22 as<br>anticipated by Shafer ..... | 13 |
| a.   | Overview of Shafer (Ex-1007) .....  | 13 |
| b.   | Limitation 2.a.1 .....  | 14 |

Petition for *Inter Partes* Review of U.S. Patent No. 5,904,172

|    |   |    |
|----|---|----|
| c. | Limitation 2.a.2.....   | 15 |
| d. | Limitation 2.a.3.....   | 16 |
| e. | Limitation 2.a.4.....   | 17 |
| f. | Limitation 2.b.1 .....  | 17 |
| g. | Limitation 2.b.2 .....  | 18 |
| h. | Limitation 2.c.....   | 20 |
| i. | Limitations 12.a.1 – 12.a.4.....  | 23 |
| j. | Limitations 12.b.1 – 12.b.2 .....   | 24 |
| k. | Limitation 12.c.....  | 24 |
| l. | Limitation 12.d .....   | 25 |
| m. | Limitation 22.a.....  | 26 |
| n. | Limitation 22.b .....   | 27 |
| 2. | Ground 2: Unpatentability of claims 6, 16, 20, 24 as<br>obvious in view of Shafer, Grant, and knowledge of a<br>POSITA..... | 28 |
| a. | Overview of Grant (Ex-1008) .....   | 28 |
| b. | Motivation to Combine Shafer and Grant .....  | 28 |
| c. | Limitations 6.a.1 – 6.a.4.....  | 29 |
| d. | Limitation 6.b.1 .....  | 29 |
| e. | Limitation 6.b.2 .....  | 29 |
| f. | Limitation 6.b.3 .....  | 30 |
| g. | Limitation 6.c.....   | 31 |
| h. | Limitations 16.a.1 – 16.a.4.....  | 32 |
| i. | Limitations 16.b.1 – 16.b.3 .....   | 32 |
| j. | Limitation 16.c.....  | 32 |
| k. | Limitation 16.d .....   | 32 |
| l. | Limitations 20.a.1 – 20.a.4.....  | 32 |
| m. | Limitations 20.b.1 – 20.b.3 .....   | 33 |
| n. | Limitation 20.c.....  | 33 |
| o. | Limitation 20.d.1 .....   | 34 |

Petition for *Inter Partes* Review of U.S. Patent No. 5,904,172

|    |   |    |
|----|---|----|
| p. | Limitation 20.d.2 .....   | 35 |
| q. | Claim 24 .....  | 36 |
| 3. | Ground 3: Unpatentability of claim 2 as obvious in view<br>of Shafer, Kashiwamura, and knowledge of a POSITA.....                 | 36 |
| a. | Overview of Kashiwamura (Ex-1009) .....   | 36 |
| b. | Motivation to combine Shafer and Kashiwamura.....   | 38 |
| c. | Claim 2 .....   | 39 |
| 4. | Ground 4: Unpatentability of claims 6, 20 as obvious in<br>view of Shafer, Grant, Kashiwamura, and knowledge of a<br>POSITA ..... | 41 |
| a. | Claim 6 .....   | 41 |
| b. | Claim 20 .....  | 41 |
| 5. | Ground 5: Unpatentability of claim 12 as obvious in view<br>of Shafer, Dye, and knowledge of a POSITA.....                        | 41 |
| a. | Overview of Dye (Ex-1010).....  | 41 |
| b. | Motivation to combine Shafer and Dye.....   | 43 |
| c. | Claim 12 .....  | 44 |
| 6. | Ground 6: Unpatentability of claim 16 as obvious in view<br>of Shafer, Grant, Dye, and knowledge of a POSITA .....                | 44 |
| a. | Claim 16 .....  | 44 |
| 7. | Ground 7: Unpatentability of claim 12 as obvious in view<br>of Shafer, Cammack, and knowledge of a POSITA .....                   | 45 |
| a. | Overview of Cammack (Ex-1011) .....   | 45 |
| b. | Motivation to Combine Shafer and Cammack.....   | 48 |
| c. | Claim 12 .....  | 50 |
| 8. | Ground 8: Unpatentability of claim 12 as obvious in view<br>of Shafer, Dye, Cammack, and knowledge of a POSITA .....              | 51 |
| a. | Claim 12 .....  | 51 |
| 9. | Ground 9: Unpatentability of claims 2, 22 as obvious in<br>view of Shafer, Cammack, and knowledge of a POSITA.....                | 51 |
| a. | Claim 2 .....   | 51 |

Petition for *Inter Partes* Review of U.S. Patent No. 5,904,172

|     |  |    |
|-----|--|----|
| b.  | Claim 22 .....   | 52 |
| 10. | Ground 10: Unpatentability of claims 2, 22 as obvious in view of Shafer, Kashiwamura, Cammack, and knowledge of a POSITA ..... | 52 |
| a.  | Claim 2 .....  | 52 |
| b.  | Claim 22 .....   | 53 |
| 11. | Ground 11: Unpatentability of claims 2, 6, 12, 16, 20, 24 as anticipated by Vrzalik .....                                      | 53 |
| a.  | Overview of Vrzalik (Ex-1012) .....  | 53 |
| b.  | Limitation 2.a.1.....  | 55 |
| c.  | Limitation 2.a.2.....  | 55 |
| d.  | Limitation 2.a.3.....  | 55 |
| e.  | Limitation 2.a.4.....  | 56 |
| f.  | Limitation 2.b.1 .....   | 56 |
| g.  | Limitation 2.b.2 .....   | 56 |
| h.  | Limitation 2.c.....  | 57 |
| i.  | Limitations 6.a.1 – 6.a.4.....   | 58 |
| j.  | Limitations 6.b.1 – 6.b.3 .....  | 58 |
| k.  | Limitation 6.c.....  | 58 |
| l.  | Limitations 12.a.1 – 12.a.4.....   | 59 |
| m.  | Limitations 12.b.1 – 12.b.2 .....  | 59 |
| n.  | Limitation 12.c.....   | 59 |
| o.  | Limitation 12.d .....  | 59 |
| p.  | Limitations 16.a.1 – 16.a.2.....   | 60 |
| q.  | Limitations 16.b.1 – 16.b.3 .....  | 60 |
| r.  | Limitation 16.c.....   | 61 |
| s.  | Limitation 16.d .....  | 61 |
| t.  | Limitations 20.a.1 – 20.a.4.....   | 61 |
| u.  | Limitations 20.b.1 – 20.b.3 .....  | 61 |
| v.  | Limitation 20.c.....   | 61 |

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

### E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.