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EXAMINER

POLITO, NICHOLAS F

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/951,501	Applicant(s) DELVAUX ET AL.	
	Examiner Nicholas Polito	Art Unit 4184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/29/2008 and 5/15/2008</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, drawn to a mattress assembly, classified in class 5, subclass 731.
 - II. Claims 20-22, drawn to a method for operating a control system for a mattress assembly, classified in class 331, subclass 64 or class 700, subclass, 80.
 - III. Claims 23-29, drawn to a method of retro-fitting an evacuation assembly to a known mattress, classified in class 53, subclass 524.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process such as performing CPR on the mattress without initiating an alarm.
3. Inventions II and III are directed to related processes. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as

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claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed have a materially different mode of operation as invention III does not necessitate the operation of a control system in order to provide a mattress with an evacuation assembly. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

4. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process such as the mattress of invention I can be made without a necessity of retro-fitting an evacuation assembly to a known mattress. Furthermore, the mattress of invention I can be transported on the floor without using the bed of invention III to transport the mattress on. Also, the mattress assembly of invention I can be used in a materially different process such as the mattress of invention I can be operated without a plurality of tubes within the enclosure.

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of

an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

6. During a telephone conversation with Daniel Jones on December 9, 2008 a provisional election was made without traverse to prosecute the invention of group I, claims 1-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Cotner et al. (US Patent No. 5,243,723).

9. Re claim 1, Cotner teaches in Figures 1 and 2 a mattress assembly (10) comprising: a lower portion for the support of a patient's legs (30); an upper portion for the support of the patient's torso (32,34), the upper portion including an enclosure defining an interior space and a compressible material (air) within the interior space (col. 4, line 58 – col. 5, line 28) and an evacuation assembly including a vacuum pump (42) communicating with the interior space and operable to evacuate the interior space and compress the compressible material such that the upper portion of the mattress supporting the patient's torso is lowered with respect to the lower portion of the mattress supporting the patient's legs, and such that the upper portion of the mattress becomes stiffer to facilitate CPR on the patient (col. 6, lines 17-28).

10. Re claim 18, Cotner teaches in Figures 1 and 2 the mattress assembly (10) of claim 1, wherein the evacuation assembly includes a T- shaped joint (45) communicating between the vacuum pump (42) and the interior space (30,32,34); wherein the T- shaped joint facilitates communicating an airflow source in addition to the vacuum pump with the interior space (T-shaped joint communicates with other cells

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which act as a forced air airflow source); and wherein the airflow source provide at least one of atmospheric air and forced air to the interior space to assist at least one of evacuation and inflation of the compressible material (air).

11. Re claim 19, Cotner teaches in Figures 1 and 2 the mattress assembly (10) of claim 1, wherein the lower portion (30) includes a fluid bladder fluidly connected to the enclosure (32,34); and wherein evacuated fluid from the enclosure is used to inflate the fluid bladder to raise the patient's legs (col. 5, lines 29-38).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented 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 art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2-9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotner et al. (US Patent No. 5,243,723) in view of Maier et al. (6,223,369).

14. Re claim 2, Cotner teaches the mattress assembly of claim 1. Cotner does not teach wherein the compressible material includes at least one foam structure. Maier teaches in Figure 1 wherein the compressible material includes at least one foam structure (24; col. 5, lines 30-32). (For purposes of interpretation of claim 2, the enclosure defining an interior space and a compressible material within the interior space of claim 1 will be interpreted as all components within the cover (12, Figure 1) of Maier.) In view of Maier, it would be obvious to a person of ordinary skill in the art to combine the inflatable mattress assembly of Cotner with the foam construction of Maier

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to effectively redistribute and equalize pressure forces at the interactions between the patient and the support surface (col. 1, lines 18-36).

15. Re claim 3, Cotner also teaches in Figure 1 the mattress assembly, wherein the evacuation assembly includes a plurality of tubes (44,46,49) communicating with the vacuum pump (42) such that air is evacuated from the interior space (30,32,34) through the plurality of tubes under the influence of the vacuum pump. (Maier teaches in Figure 2 the mattress assembly of claim 2, wherein the evacuation assembly includes a plurality of tubes (36, 38, 40, 42) within the at least one foam structure (14 (Fig. 1), 24) the plurality of tubes communicating with the vacuum pump (118, Fig. 4) such that air is evacuated from the interior space through the plurality of tubes under the influence of the vacuum pump.)

16. Re claim 4, Cotner also teaches in column 2, line 62 to column 3, line 2 the evacuation assembly further including a manifold communicating between the vacuum pump and the plurality of tubes to distribute suction evenly to the plurality of tubes. (Maier teaches in column 12 lines 47 to 61 the mattress assembly of claim 3, wherein the evacuation assembly further includes a manifold communicating between the vacuum pump and the plurality of tubes to distribute suction from the vacuum pump substantially evenly to the plurality of tubes (36, 38, 40, 42).

17. Re claim 5, Maier teaches in Figure 2 the mattress assembly of claim 3, wherein the at least one foam structure (24) includes open channels (88, 90, 92, 94) in which the plurality of tubes are received.

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18. Re claim 6, Maier teaches in Figure 2 the mattress assembly of claim 5, wherein the open channels open downwardly (88, 90, 92, 94). (The channels are interpreted as opening downward in view of the z-axis (positive being up the page)

19. Re claim 7, Maier teaches in Figure 2 the mattress assembly of claim 5, wherein the open channels (72, 76) open upwardly. (The at least one foam structure for interpretation of claim 7 is bolster 68. The channels are interpreted as opening upward in view of the x-axis (positive being right across the page, y-axis positive being into the page))

20. Re claim 8, Maier teaches in Figure 2 the mattress assembly of claim 7, wherein the at least one foam structure includes a first foam structure (68) defining the upwardly-opening channels (72, 76) and a second foam structure (24) extending across the open channels.

21. Re claim 9, Maier teaches in column 8 lines 2 to 8 the mattress assembly of claim 8, wherein the second foam structure (24) has greater compressibility than the first foam structure (68).

22. Re claim 11, Maier teaches in Figure 1 the mattress assembly of claim 1, wherein the mattress includes outer surfaces defining a mattress envelope (12); and wherein substantially the entire evacuation assembly is contained within the mattress envelope.

23. Re claim 12, Maier teaches in Figures 1 and 4 the mattress assembly of claim 1, further comprising: a mattress frame (14) extending around the upper and lower portions; wherein an outer surface of the mattress frame defines a mattress envelope

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(12); and wherein the mattress frame includes a cut out (62) in which the vacuum pump (118) is received.

24. Re claim 13, Maier teaches in Figure 1 the mattress of claim 12, wherein the mattress frame (14) resists deflection during evacuation of the interior space to resist a patient rolling off the mattress (col. 8, lines 52-57).

25. Re claim 14, Maier teaches in Figure 2 the mattress assembly of claim 12, wherein the evacuation assembly includes a connecting conduit (58, 64) communicating between the vacuum pump (118) and the interior space (36, 38, 40, 42); wherein the mattress frame includes a perimeter channel (14); and wherein the connecting conduit is received in the perimeter channel (col. 6, lines 48-61). (The perimeter channel is formed as the space between the air cylinders and the perimeter bolster.)

26. Re claim 15, Maier teaches in Figure 2 the mattress assembly of claim 14, wherein the cut out (62) is in an end portion of the mattress frame (18); wherein the perimeter channel extends along the end portion of the mattress frame, around a corner of the mattress frame, and along a side portion of the mattress frame; and wherein the connecting conduit is substantially L-shaped to follow the perimeter channel around the corner of the mattress frame.

27. Re claim 16, Maier teaches in Figure 8 the mattress assembly of claim 12, wherein the evacuation assembly includes a transportable power source within the mattress frame and within the mattress envelop (col. 12, line 62 – col. 13, line 3), the transportable power source being movable with the mattress assembly and providing power to the vacuum pump.

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28. Re claim 17, Cotner teaches in column 6 lines 17 to 28 the mattress assembly of claim 1, further comprising a controller (72) initiating operation of the vacuum pump in response to detecting conditions consistent with cardiac arrest in the patient. Cotner does not teach a control system including a monitor to generate a signal. Maier teaches in column 12 lines 47 to 60 a control system (174) including a monitor to generate a signal. In view of Maier, it would be obvious to a person having ordinary skill in the art at the time of invention to combine the controller of Cotner with the feedback sensors of Maier in order to arrange an automatic response system for patient care which could dramatically reduce response time.

29. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cotner et al. (US Patent No. 5,243,723) in view of Maier et al. (US Patent No. 6,223,369) as applied to claim 8 above, and further in view of Martens et al. (US PG-Pub. 2004/0074008).

30. Re claim 10, Cotner in view of Maier teaches the mattress assembly of claim 8. Cotner in view of Maier does not teach wherein the second foam structure includes a memory foam. Martens teaches in paragraph 18 wherein the foam structure includes a memory foam. In view of Martens, it would be obvious to a person having ordinary skill in the art to combine the second foam structure of Cotner in view of Maier with the memory foam of Martens as memory foam conforms to the head and neck shape due to a combination of weight distribution and the increase in temperature associated with body contact. As the position of the head and neck changes, the viscoelastic foam adjusts to the resulting shape. It is thought that the combined effects of the contoured

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ridges and the shape-conforming properties of the viscoelastic foam would provide good support for the head and neck, thus maintaining neck-spine alignment. It is hoped that this would decrease neck discomfort and allow a more comfortable and restful sleep (¶18).

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Takeuchi (US Patent No. 4,622,706) teaches a mattress comprising air and foam components.

b. Giori et al. (US Patent No. 6,922,863) teaches modulating air volume in the foam cores of the cushioning support devices to alter firmness of the support.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Polito whose telephone number is (571) 270-5923. The examiner can normally be reached on Monday-Thursday 7:30-5:00, Alternating Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on (571) 272-2000. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Polito/
Examiner, Art Unit 4184

/Jared J. Fureman/
Supervisory Patent Examiner, Art
Unit 4184

12/11/2008