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MICHAEL BEST & FRIEDRICH LLP
100 E WISCONSIN AVENUE
Suite 3300
MILWAUKEE, WI 53202

EXAMINER	
POLITO, NICHOLAS F	
ART UNIT	PAPER NUMBER
3673	
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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.	Applicant(s)	
	11/951,501	DELVAUX ET AL.	
	Examiner	Art Unit	
	Nicholas Polito	3673	

-- 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 *3/25/09*.

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4a) Of the above claim(s) *20-29* is/are withdrawn from consideration.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:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ 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) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/25/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/25/2009 regarding Claim Rejections under 35 U.S.C. 102(b) and 103(a) on page 6 have been fully considered but they are not persuasive.

2. In response to the argument that Cotner et al. does not disclose a vacuum pump. Cotner et al. teaches in column 5, lines 19 to 37, the pressure generator (42) is a vacuum pump. More specifically, lines 29 to 32 disclose "the first pressurizable cells are pressurized to about 1 psi., and then depressurized to about 0 psi., by a synchronous valve in the fluid pressure generator". As best understood in the art a pump or "pressure generator" which causes depressurization is a vacuum pump. Furthermore, column 3 lines 40-56 show that the pressure generator is responsible for the rapid release of air from the cells to permit CPR.

Claim Rejections - 35 USC § 102

3. 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.

4. 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).

5. 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).

6. 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 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).

7. 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

8. 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 negatived by the manner in which the invention was made.

9. 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).

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

11. 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.)

12. 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).

13. 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.

14. 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)

15. 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))

16. 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.

17. 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).

18. 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.

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

20. 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).

21. 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.)

22. 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.

23. 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.

24. 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.

25. 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).

26. 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 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

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pete Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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 3673

3/31/2009

/Peter M. Cuomo/
Supervisory Patent Examiner, Art Unit 3673