



US00D966529S

(12) **United States Design Patent** (10) **Patent No.:** **US D966,529 S**
Lakkireddy et al. (45) **Date of Patent:** **** Oct. 11, 2022**

(54) **COMPRESSION APPARATUS**

- (71) Applicants: **Dhanunjaya Lakkireddy**, Leawood, KS (US); **Srijoy Mahapatra**, Edina, MN (US)
- (72) Inventors: **Dhanunjaya Lakkireddy**, Leawood, KS (US); **Srijoy Mahapatra**, Edina, MN (US)
- (73) Assignee: **L&M Innovations LLC**, Leawood, KS (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/707,724**
- (22) Filed: **Sep. 30, 2019**
- (51) **LOC (13) Cl.** **24-04**
- (52) **U.S. Cl.**
USPC **D24/190**
- (58) **Field of Classification Search**
USPC D24/188-190, 145, 191, 192, 200, 211, D24/212, 213, 214, 215, 107, 143, D24/164-169, 206, 184; D29/121.1, 10, D29/11, 101.5, 122, 100, 101, 102; D2/828-830
CPC A45F 3/04; A45F 3/14; A45F 5/00; A45F 2003/045
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- D323,909 S * 2/1992 Dewall D29/101.1
- D334,063 S * 3/1993 DeWall D24/190
- 5,235,975 A 8/1993 Gang et al.
- D351,051 S * 10/1994 Pearson D29/101.1
- D367,711 S * 3/1996 Simmons D24/206
- D374,313 S * 10/1996 Munoz D24/190
- D376,403 S * 12/1996 Kato D2/627
- D392,425 S * 3/1998 Sturms D29/101.3

(Continued)

FOREIGN PATENT DOCUMENTS

- CN 202051904 U 11/2011
 - CN 202722580 U 2/2013
- (Continued)

OTHER PUBLICATIONS

International Search Report issued in application No. PCT/US2016/056813 dated Jan. 26, 2017.
(Continued)

Primary Examiner — T Chase Nelson
Assistant Examiner — Kelly L Gross
(74) *Attorney, Agent, or Firm* — Knobbe Martens Olson & Bear, LLP

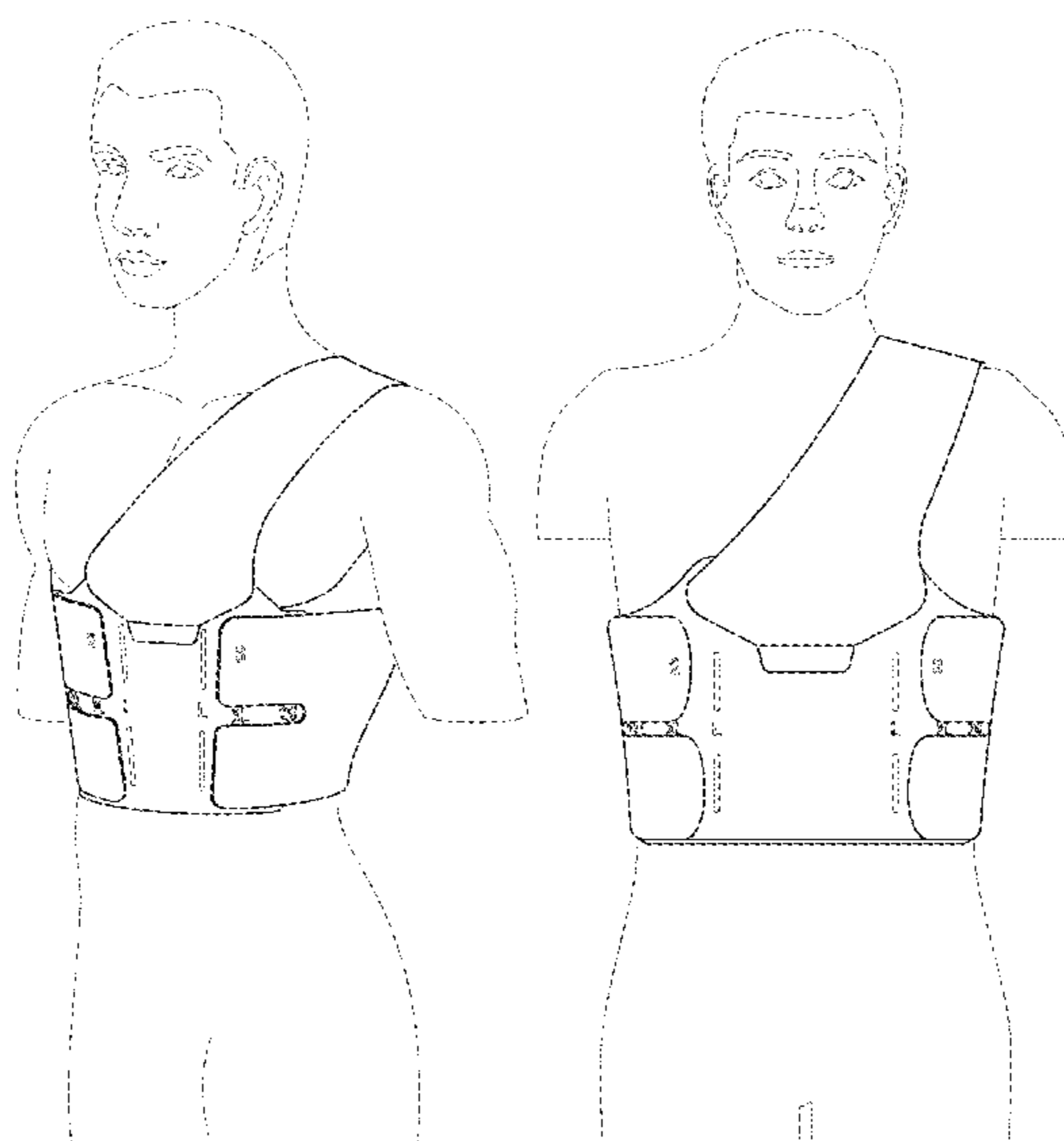
(57) **CLAIM**

The ornamental design for a compression apparatus, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an embodiment of the compression apparatus shown in a configuration as worn by a patient;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a right side view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a front view of the embodiment of FIG. 1 shown in a first flat, detached configuration;
FIG. 8 is a front view of the embodiment of FIG. 1 shown in a second flat, detached configuration; and,
FIG. 9 is a front view of the embodiment of FIG. 1 shown in a flat, attached configuration.
The broken lines in the drawing views are included for the purpose of illustrating portions of the compression apparatus that form no part of the claimed design.

1 Claim, 9 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,843,008 A 12/1998 Gerhard
 6,155,996 A 12/2000 Van Brunt et al.
 D443,115 S * 5/2001 Brite D24/190
 D451,604 S * 12/2001 Kasabach D24/186
 D457,215 S * 5/2002 Khanamirian D21/805
 D457,273 S * 5/2002 Griffiths D29/101.3
 D482,499 S * 11/2003 Garrido D29/100
 D499,806 S * 12/2004 Machin D24/190
 D501,078 S * 1/2005 Cabana D29/101.3
 D501,582 S * 2/2005 Yang D29/101.3
 D504,727 S * 5/2005 Schirmacher D24/190
 D506,052 S * 6/2005 Willows D2/829
 D515,786 S * 2/2006 Williamson D2/830
 D516,777 S * 3/2006 Beck D2/829
 7,316,658 B2 1/2008 Gagne
 D571,016 S * 6/2008 Matthews D24/190
 D571,475 S * 6/2008 Estep D2/829
 D597,708 S * 8/2009 Basenberg, Jr. D29/101.4
 D600,859 S * 9/2009 Hill D29/101.1
 D604,380 S * 11/2009 Garcia D21/804
 D624,245 S * 9/2010 Willows D29/101.2
 D627,072 S * 11/2010 Kosh D24/190
 D631,231 S * 1/2011 Sagnip D2/829
 D636,964 S * 4/2011 Thomas D34/35
 D640,009 S * 6/2011 Richardson D29/101.4
 D640,381 S * 6/2011 Tweardy D24/190
 D640,417 S * 6/2011 Haynes D29/101.4
 D645,209 S * 9/2011 Lin D29/101.4
 D647,283 S * 10/2011 Sagnip D2/829
 D648,489 S * 11/2011 Stockard D29/100
 D658,300 S * 4/2012 Rhijn D24/190
 D658,301 S * 4/2012 Rhijn D24/190
 8,430,830 B1 4/2013 Ariza
 D699,364 S * 2/2014 Chiang D24/190
 D699,365 S * 2/2014 Pollack D24/190
 D699,418 S * 2/2014 Moreno D2/828
 D701,347 S * 3/2014 Jestin D29/101.2
 D704,849 S * 5/2014 Hunter D24/200
 D728,051 S * 4/2015 Rhind D21/805
 D739,086 S * 9/2015 Grove D29/101.4
 D749,230 S * 2/2016 Safko D24/190
 9,320,674 B2 * 4/2016 Fraser A61H 9/0078
 D760,440 S * 6/2016 Lifshitz D29/101.1
 9,398,972 B2 * 7/2016 Yip A61F 5/02
 9,402,430 B2 * 8/2016 Jensen A41D 1/22
 D767,824 S * 9/2016 Hilliard D29/100
 D769,392 S * 10/2016 Guo D21/805
 D776,287 S * 1/2017 Leonard D24/190
 D776,423 S * 1/2017 Zhou D3/216
 D778,532 S * 2/2017 Dorsey D2/624
 D779,738 S * 2/2017 Chow D29/101.4
 D784,545 S * 4/2017 Jangir D24/190
 D799,120 S * 10/2017 Kim D29/101.4
 D802,912 S * 11/2017 Brodin D3/213
 D803,957 S * 11/2017 Stocking, Sr. D21/683
 D806,343 S * 12/2017 Hobbins D34/28
 D807,519 S * 1/2018 Shin D24/190
 D808,594 S * 1/2018 Tien D29/101.4
 D809,746 S * 2/2018 Ye D2/829
 D810,951 S * 2/2018 Tooke D24/190
 9,883,703 B2 * 2/2018 Schultz A61F 5/026
 D811,726 S * 3/2018 Lambo D3/216
 D816,236 S * 4/2018 Diaz D24/206
 D818,132 S * 5/2018 Hille D24/190
 D818,597 S * 5/2018 Worstman D24/207
 D818,649 S * 5/2018 Ranade D29/101.4
 D820,991 S * 6/2018 Hylton D24/190
 D829,998 S * 10/2018 Groat D29/101.4
 D833,024 S * 11/2018 Chang D24/190
 D833,629 S * 11/2018 Chang D24/190
 D833,737 S * 11/2018 Ooi D3/218
 10,206,802 B2 * 2/2019 Burnett A61H 23/0263
 D842,400 S * 3/2019 Ross D21/683
 D844,288 S * 4/2019 Cluett D2/728
 D847,356 S * 4/2019 Chen D24/190

D850,021 S * 5/2019 Yun D30/152
 D850,623 S * 6/2019 Marogil D24/169
 D851,263 S * 6/2019 Thompson D24/190
 D853,106 S * 7/2019 Pinnick D3/217
 D855,893 S * 8/2019 Bookris D29/101.4
 D856,591 S * 8/2019 Davies D29/101.1
 D858,780 S * 9/2019 Sikandar D24/190
 D860,466 S * 9/2019 Chiang D24/190
 D866,167 S * 11/2019 Chudy D3/217
 D866,866 S * 11/2019 Dickens D29/101.4
 D866,876 S * 11/2019 Smith D30/145
 D867,721 S * 11/2019 Xu D2/702
 D870,904 S * 12/2019 Bobey D24/200
 D874,733 S * 2/2020 Thatcher D29/101.4
 D875,260 S * 2/2020 Rokitta D24/190
 D878,610 S * 3/2020 Boston D24/190
 D879,981 S * 3/2020 Wennen D24/200
 D880,073 S * 3/2020 Groat D29/101.4
 D880,701 S * 4/2020 Oz D24/167
 D881,404 S * 4/2020 Wang D24/190
 D882,804 S * 4/2020 Matsuura D24/190
 D883,577 S * 5/2020 Neal D29/101.4
 D884,198 S * 5/2020 Mei D24/190
 D884,199 S * 5/2020 Mei D24/190
 D884,200 S * 5/2020 Mei D24/190
 D888,260 S * 6/2020 Park D24/190
 D888,977 S * 6/2020 Pankaj D24/206
 D889,779 S * 7/2020 Green D2/829
 D890,937 S * 7/2020 Radcliffe D24/190
 10,722,244 B2 7/2020 Lakkireddy et al.
 D895,128 S * 9/2020 Khubani D24/190
 10,786,384 B2 * 9/2020 Nakamitsu A61F 5/40
 D899,028 S * 10/2020 Thatcher D2/750
 D901,021 S * 11/2020 Szollar D24/190
 D905,929 S * 12/2020 Liang D2/702
 D906,630 S * 1/2021 Lin D2/701
 10,898,365 B2 * 1/2021 Ingimundarson A61F 5/028
 D911,532 S * 2/2021 Wang D24/190
 D912,259 S * 3/2021 Bobey D24/200
 D913,629 S * 3/2021 Liang D2/702
 D913,630 S * 3/2021 Mei D2/702
 D917,054 S * 4/2021 Woo D24/190
 D917,709 S * 4/2021 Perraudau D24/190
 D920,523 S * 5/2021 Lin D24/190
 D922,688 S * 6/2021 Forell D29/101.3
 11,026,824 B2 * 6/2021 Burnett A61H 23/0263
 2005/0182344 A1 8/2005 Dixon
 2008/0132820 A1 6/2008 Buckman et al.
 2008/0319473 A1 12/2008 Rosenbaum
 2010/0228171 A1 9/2010 Waldrige
 2012/0232578 A1 9/2012 Altobelli et al.
 2013/0085427 A1 4/2013 Malhi
 2013/0110019 A1 5/2013 Hopman et al.
 2014/0107546 A1 4/2014 Falconio-West et al.
 2015/0073317 A1 3/2015 Cox
 2015/0085425 A1 3/2015 Xiao et al.
 2015/0305958 A1 10/2015 Hoff
 2016/0095755 A1 4/2016 Joyner
 2020/0405321 A1 12/2020 Lakkireddy et al.
 2022/0125438 A1 4/2022 Lakkireddy et al.

FOREIGN PATENT DOCUMENTS

GB 2329590 A 3/1999
 WO WO 2016/001802 A1 1/2016
 WO WO 2017/066430 4/2017

OTHER PUBLICATIONS

Martin-Casanas et al., "Cardiac Device Infections is Associated with Pocket Hematoma and Diabetes Mellitus: The Role of the Cardiovascular Nurse", International Journal of Cardiology, 171:e5-e7 (2014).
 Mott et al., "The Bulk Modulus and Poisson's Ration of 'incompressible' materials", Journal of Sound and Vibration, 312:571-575 (2008).
 Supplemental European Search Report for EP application No. 16856179 dated May 31, 2019.

(56)

References Cited

OTHER PUBLICATIONS

Warfield et al., "Elastic Constants of Bulk Polymers", Naval Ordnance Laboratory, White Oak, Silver Spring Maryland, Apr. 12, 1972.

* cited by examiner

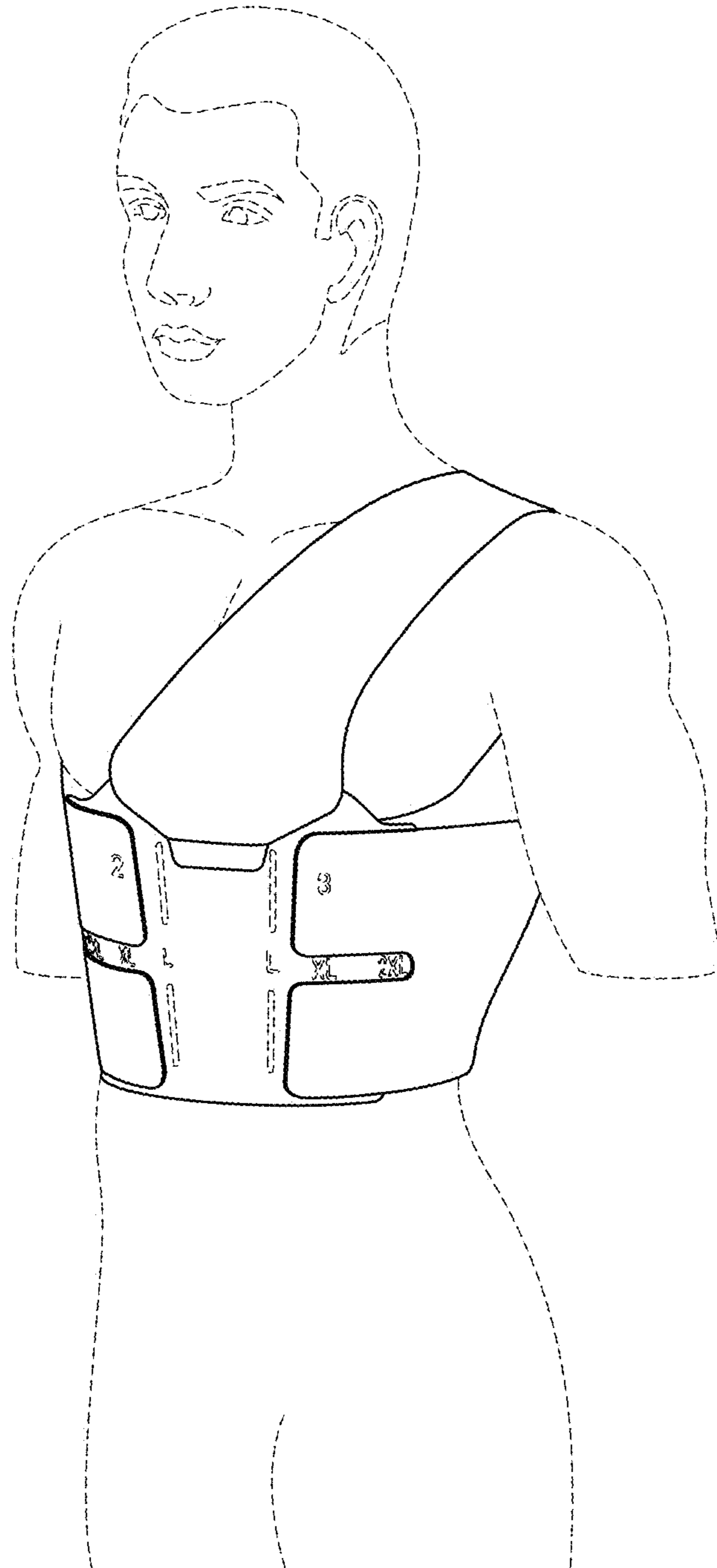


FIG. 1

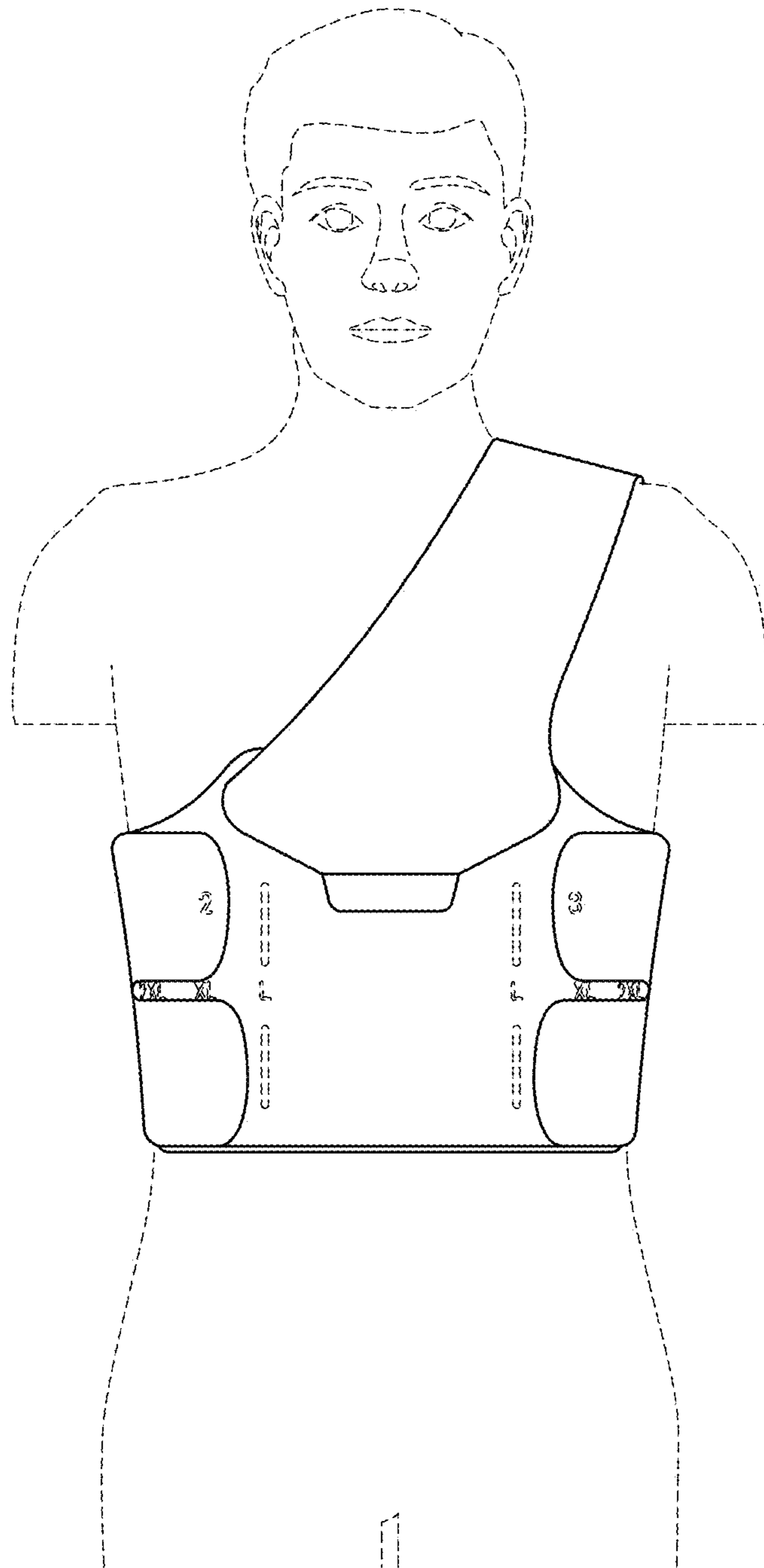


FIG. 2

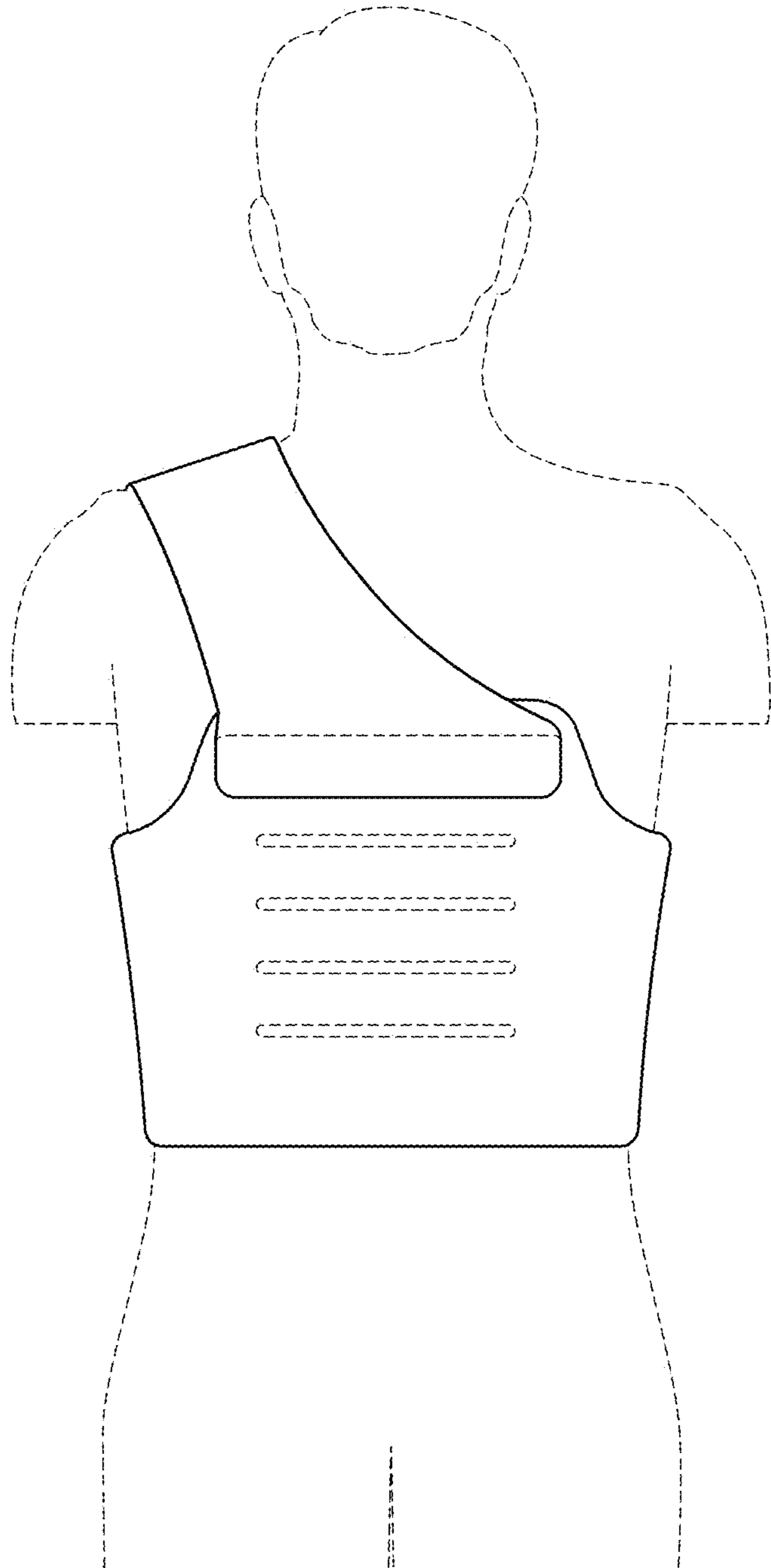


FIG. 3

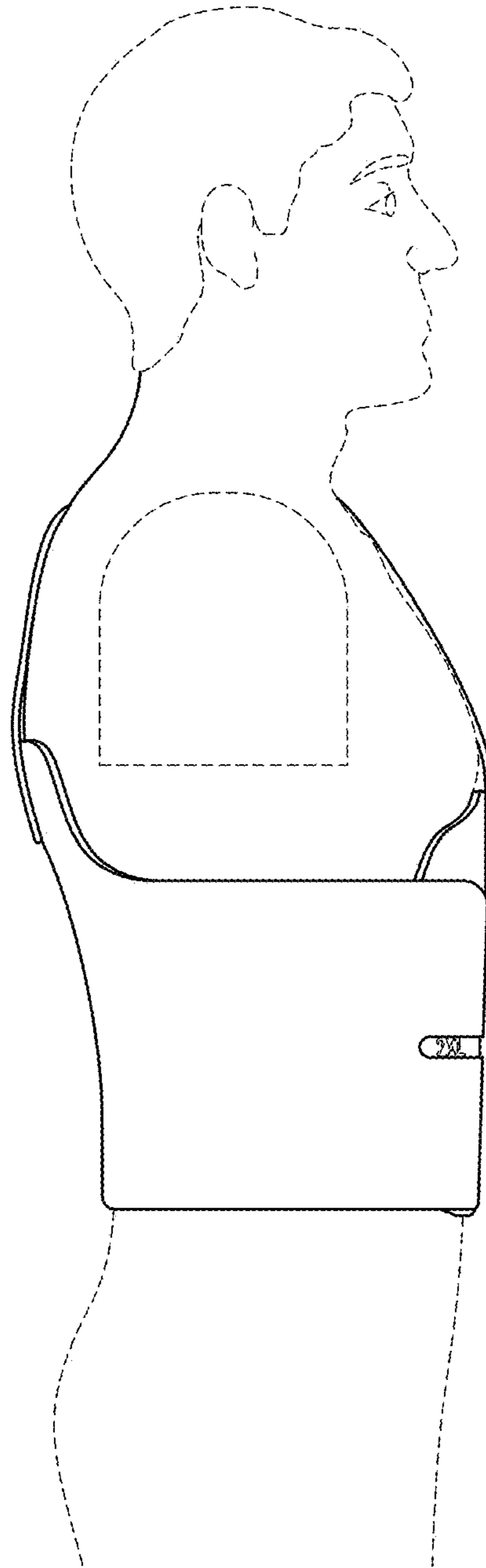


FIG. 4

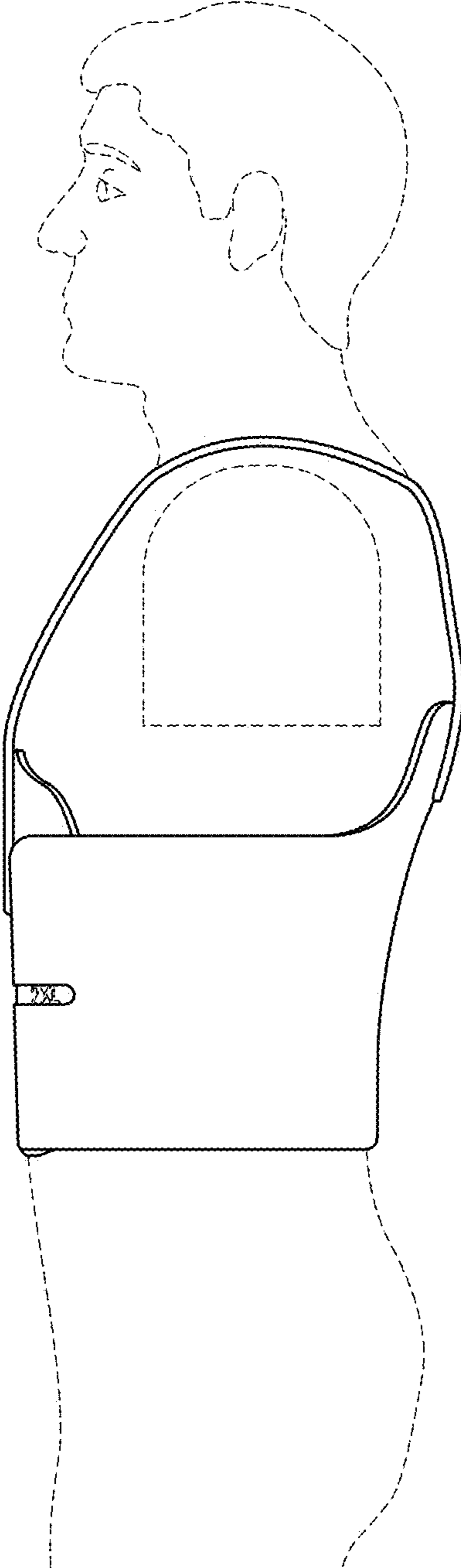


FIG. 5

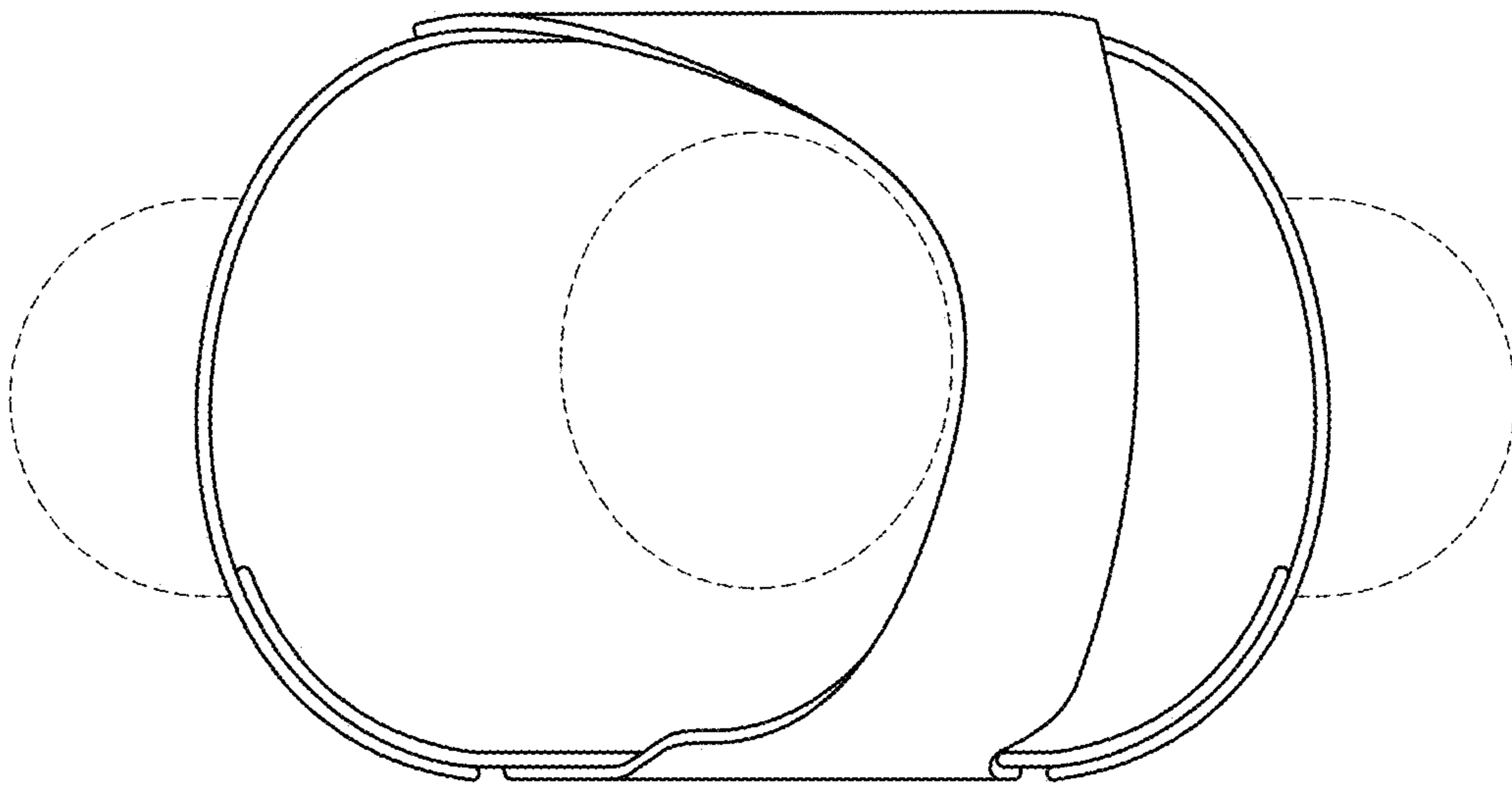


FIG. 6

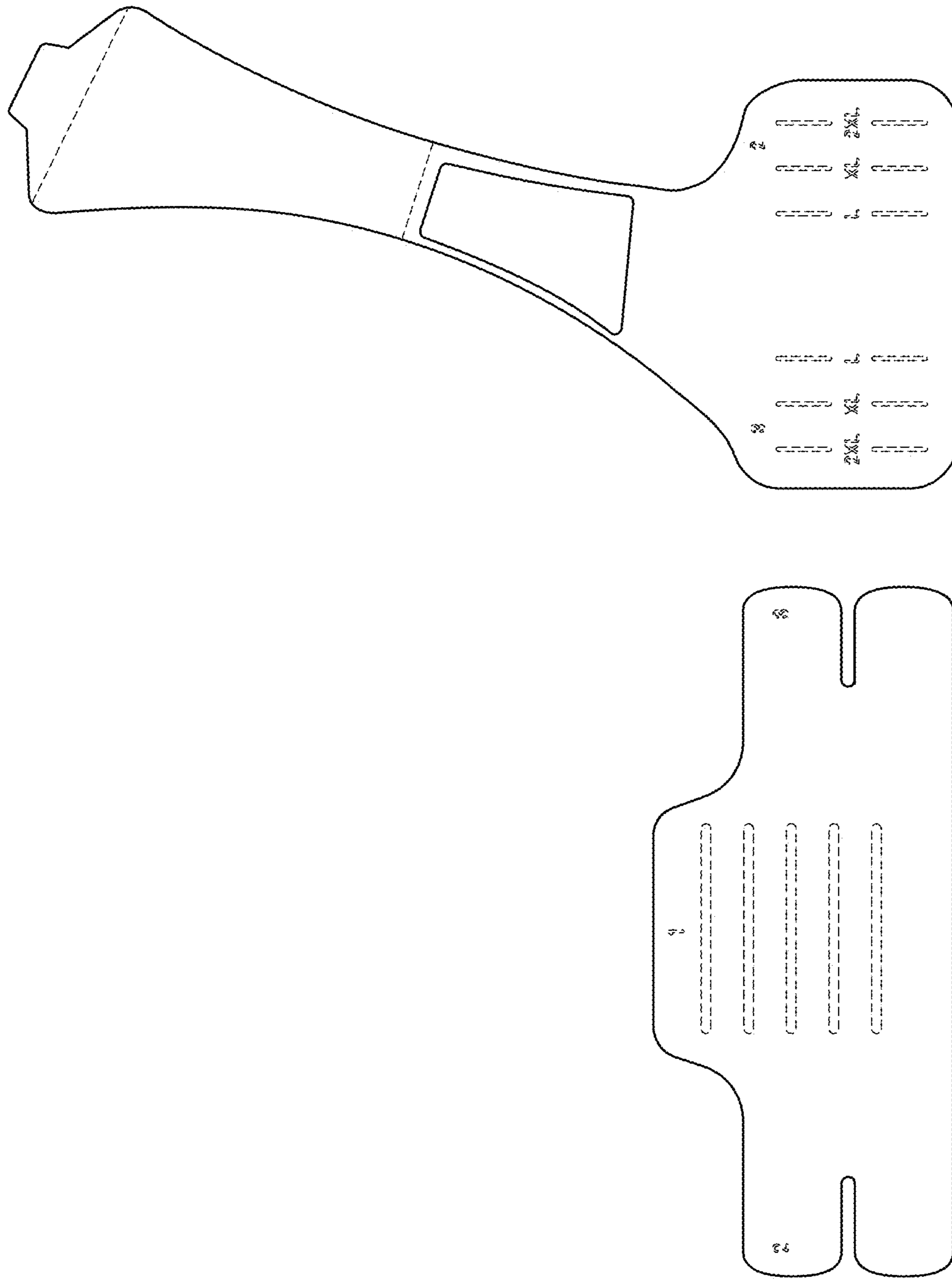


FIG. 7

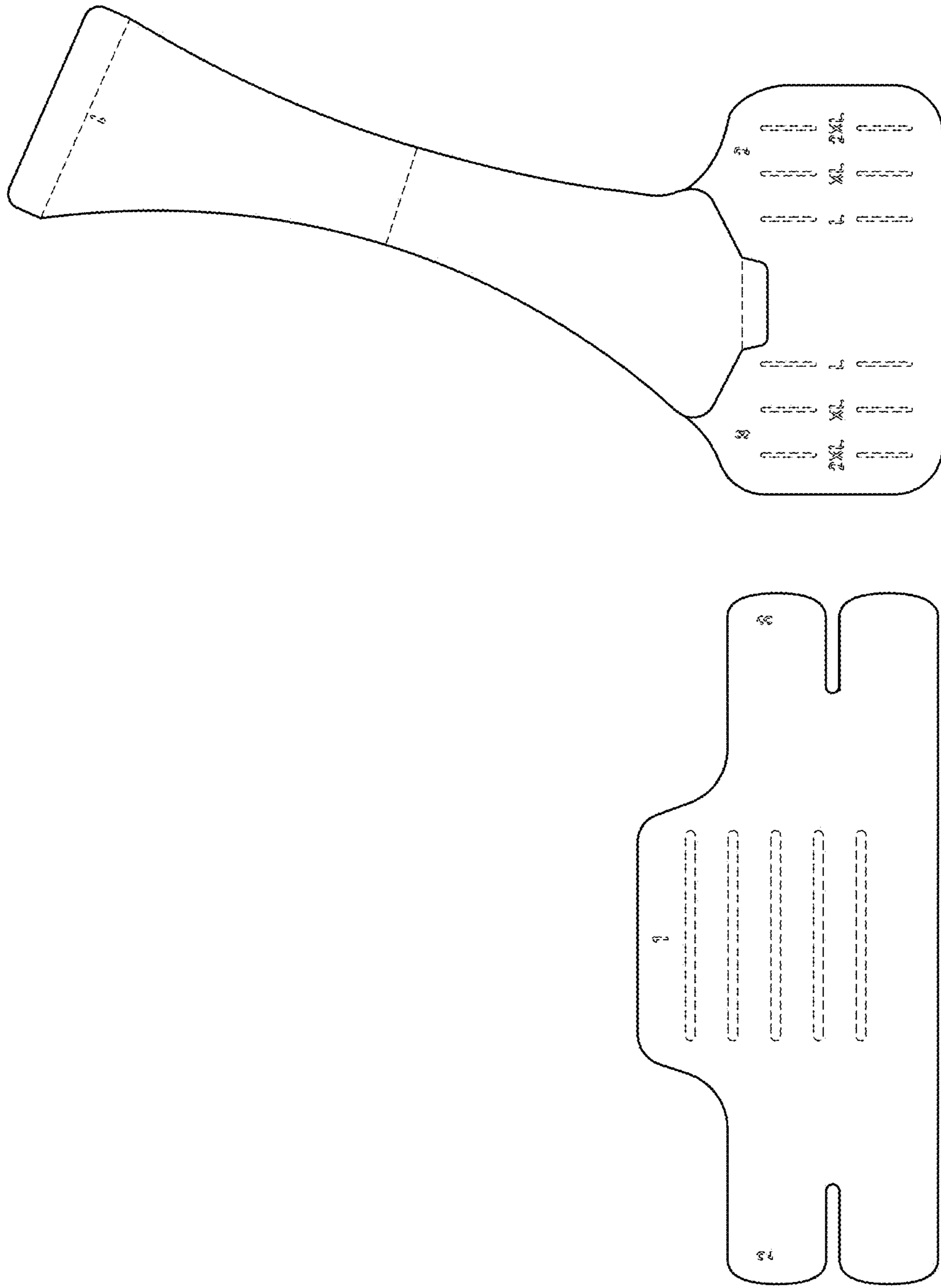


FIG. 8

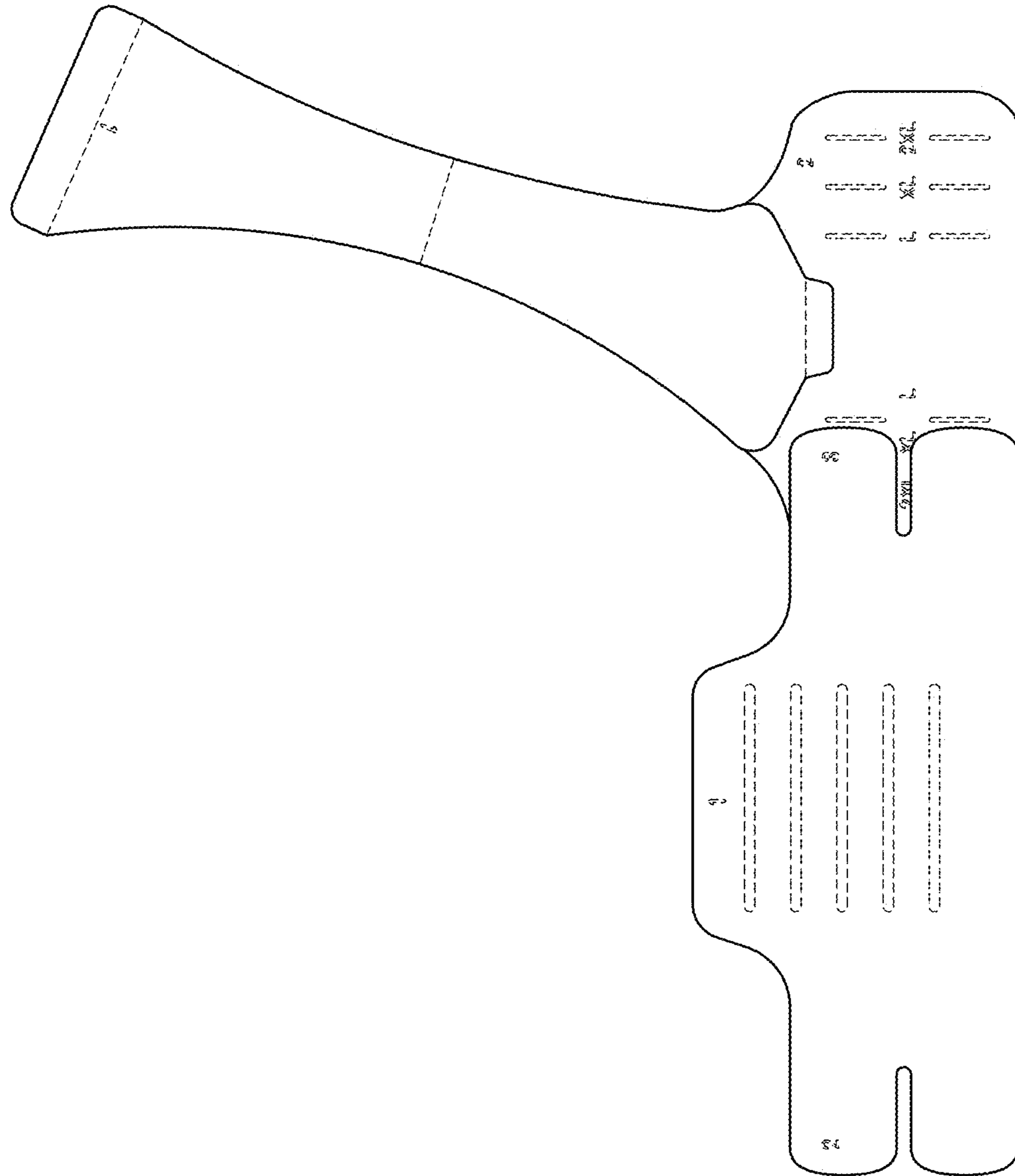


FIG. 9