



(12) **United States Design Patent**
Beer et al.

(10) **Patent No.:** **US D899,593 S**
(45) **Date of Patent:** **** Oct. 20, 2020**

(54) **INTRAVAGINAL DEVICE**
(71) Applicant: **Renovia Inc.**, Boston, MA (US)
(72) Inventors: **Marc D. Beer**, Sudbury, MA (US);
Jose Bohorquez, Boston, MA (US);
Samantha J. Pulliam, Boston, MA
(US); **Jessica L. McKinney**, Boston,
MA (US); **Jaime Andres Echeverry**,
Boston, MA (US)

6,039,701 A 3/2000 Sliwa et al.
6,056,699 A 5/2000 Sohn et al.
6,086,549 A 7/2000 Neese et al.
6,264,582 B1 7/2001 Remes
(Continued)

FOREIGN PATENT DOCUMENTS

CA 2625428 A1 7/2007
CN 204839545 U 12/2015
(Continued)

(73) Assignee: **Renovia Inc.**, Boston, MA (US)
(**) Term: **15 Years**

OTHER PUBLICATIONS

Rosenblatt et al., "Evaluation of an accelerometer-based digital health system for the treatment of female urinary incontinence: A pilot study," *NeuroUrol Urodyn.* 38(7): 1944-1952 (2019).
(Continued)

(21) Appl. No.: **29/687,474**
(22) Filed: **Apr. 12, 2019**
(51) **LOC (12) Cl.** **24-02**
(52) **U.S. Cl.**
USPC **D24/141**
(58) **Field of Classification Search**
USPC D24/135, 140-141; 128/884-885;
600/29-30
CPC A61F 2/005; A61F 2/0027; A61F 2/0031;
A61F 2/0009; A61F 2/0036; A61F 2/0045
See application file for complete search history.

Primary Examiner — Wan Laymon
(74) *Attorney, Agent, or Firm* — Clark & Elbing LLP

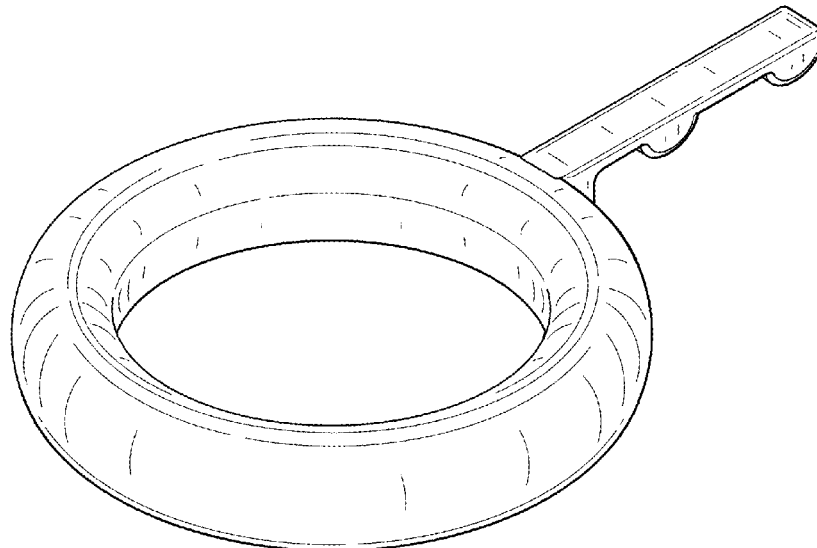
(57) **CLAIM**
The ornamental design for an intravaginal device, substantially as shown and described.

DESCRIPTION

FIG. 1 is a front and left side perspective view of an intravaginal device embodying the claimed design.
FIG. 2 is a top view of the intravaginal device of FIG. 1.
FIG. 3 is a bottom view of the intravaginal device of FIG. 1.
FIG. 4 is a right side view of the intravaginal device of FIG. 1.
FIG. 5 is a left side view of the intravaginal device of FIG. 1.
FIG. 6 is a rear view of the intravaginal device of FIG. 1; and,
FIG. 7 is a front view of the intravaginal device of FIG. 1.

(56) **References Cited**
U.S. PATENT DOCUMENTS
2,830,582 A 4/1958 Ljung
4,669,478 A 6/1987 Robertson
5,328,077 A 7/1994 Lou
5,386,836 A * 2/1995 Biswas A61F 2/005
128/885
5,406,961 A 4/1995 Artal
5,562,717 A 10/1996 Tippey et al.
5,603,685 A 2/1997 Tutrone, Jr.
5,674,238 A 10/1997 Sample et al.
5,924,984 A 7/1999 Rao
6,001,060 A 12/1999 Churchill et al.
6,021,781 A 2/2000 Thompson et al.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,272,371 B1 8/2001 Shlomo
 D458,681 S * 6/2002 Sherlock D24/141
 6,413,206 B2 * 7/2002 Biswas A61F 2/005
 600/29
 6,432,037 B1 * 8/2002 Eini A61B 5/04882
 600/29
 6,511,427 B1 1/2003 Sliwa, Jr. et al.
 6,672,996 B2 1/2004 Ross et al.
 6,679,854 B2 1/2004 Honda et al.
 6,816,744 B2 11/2004 Garfield et al.
 7,079,882 B1 7/2006 Schmidt
 7,577,476 B2 8/2009 Hochman et al.
 7,608,037 B2 10/2009 Levy
 7,628,744 B2 12/2009 Hoffman et al.
 7,645,220 B2 1/2010 Hoffman et al.
 7,736,298 B2 * 6/2010 Guerquin A61F 2/005
 600/30
 7,837,682 B2 11/2010 Ostrovsky et al.
 7,955,241 B2 6/2011 Hoffman et al.
 7,957,794 B2 6/2011 Hochman et al.
 8,147,429 B2 4/2012 Mittal et al.
 8,360,954 B2 1/2013 Kim
 8,623,004 B2 1/2014 Johnson et al.
 8,715,204 B2 5/2014 Webster et al.
 8,728,140 B2 5/2014 Feemster et al.
 8,740,767 B2 * 6/2014 Rosen A61F 2/0031
 600/29
 8,805,472 B2 8/2014 Iglesias
 8,914,111 B2 12/2014 Haessler
 8,983,627 B2 3/2015 Pelger et al.
 9,155,885 B2 10/2015 Wei et al.
 9,248,285 B2 2/2016 Haessler
 9,381,351 B2 7/2016 Haessler
 9,656,067 B2 5/2017 Pelger et al.
 9,861,316 B2 1/2018 Egorov
 9,974,635 B2 * 5/2018 Rosen A61F 2/0031
 D832,437 S * 10/2018 Zeltwanger D24/141
 D845,478 S * 4/2019 Luke D24/141
 2001/0047132 A1 11/2001 Johnson et al.
 2002/0111586 A1 8/2002 Mosel et al.
 2003/0028180 A1 2/2003 Franco
 2004/0236223 A1 11/2004 Barnes et al.
 2004/0260207 A1 12/2004 Eini et al.
 2005/0148447 A1 7/2005 Nady
 2006/0036188 A1 2/2006 Hoffman et al.
 2006/0074289 A1 4/2006 Adler et al.
 2006/0084848 A1 4/2006 Mitchnick
 2007/0066880 A1 3/2007 Lee et al.
 2007/0232882 A1 10/2007 Glossop et al.
 2007/0255090 A1 11/2007 Addington et al.
 2007/0265675 A1 11/2007 Lund et al.
 2007/0270686 A1 11/2007 Ritter et al.
 2008/0077053 A1 3/2008 Epstein et al.
 2008/0139876 A1 6/2008 Kim
 2008/0146941 A1 6/2008 Dala-Krishna
 2008/0149109 A1 6/2008 Ziv
 2008/0154131 A1 6/2008 Lee et al.
 2008/0171950 A1 7/2008 Franco
 2009/0149740 A1 6/2009 Hoheisel
 2009/0270963 A1 10/2009 Pelger et al.
 2009/0306509 A1 12/2009 Pedersen et al.
 2010/0174218 A1 7/2010 Shim
 2010/0249576 A1 9/2010 Askarinya et al.
 2010/0262049 A1 10/2010 Novak et al.
 2011/0054357 A1 3/2011 Egorov et al.
 2011/0077500 A1 3/2011 Shakiba
 2011/0190580 A1 8/2011 Bennett et al.
 2011/0190595 A1 8/2011 Bennett et al.
 2011/0196263 A1 8/2011 Egorov et al.
 2012/0016258 A1 1/2012 Webster et al.
 2012/0265044 A1 10/2012 Broens

2012/0265049 A1 10/2012 Iglesias
 2013/0053627 A1 2/2013 Bercovich et al.
 2013/0144191 A1 6/2013 Egorov et al.
 2013/0184567 A1 7/2013 Xie et al.
 2013/0192606 A1 8/2013 Ziv et al.
 2013/0237771 A1 9/2013 Runkewitz et al.
 2013/0324380 A1 12/2013 Horsley
 2014/0066813 A1 3/2014 Daly et al.
 2014/0073879 A1 3/2014 Cantor et al.
 2014/0088471 A1 3/2014 Leivseth et al.
 2014/0155225 A1 6/2014 Sedic
 2014/0213927 A1 7/2014 Webster et al.
 2014/0296705 A1 10/2014 Iglesias
 2014/0309550 A1 10/2014 Iglesias
 2015/0032030 A1 1/2015 Iglesias
 2015/0112230 A1 4/2015 Iglesias
 2015/0112231 A1 4/2015 Iglesias
 2015/0133832 A1 5/2015 Courtion et al.
 2015/0196802 A1 7/2015 Siegel
 2015/0282763 A1 10/2015 Rosenshein
 2016/0008664 A1 1/2016 Siegel
 2016/0074276 A1 3/2016 Scheuring et al.
 2016/0121105 A1 5/2016 Lee et al.
 2016/0346610 A1 12/2016 Iglesias et al.
 2017/0281072 A1 10/2017 Iglesias
 2017/0281299 A1 10/2017 Iglesias
 2017/0291012 A1 10/2017 Iglesias
 2017/0303843 A1 10/2017 Iglesias
 2017/0332959 A1 11/2017 Bartlett
 2018/0021121 A1 * 1/2018 Zeltwanger A61F 2/0036
 600/29
 2019/0133738 A1 * 5/2019 Rosen A61F 2/005
 2019/0160332 A1 5/2019 Beer et al.

FOREIGN PATENT DOCUMENTS

DE 10345282 B3 4/2005
 DE 202018103016 U1 6/2018
 EP 0268972 A2 6/1988
 EP 2689724 A1 1/2014
 GB 2492754 A 1/2013
 JP 2009-538176 A 11/2009
 JP 2011-183167 A 9/2011
 WO WO-96/05768 A1 2/1996
 WO WO-99/05963 A1 2/1999
 WO WO-00/09013 A1 2/2000
 WO WO-00/23030 A1 4/2000
 WO WO-01/37732 A1 5/2001
 WO WO-2006/107930 A2 10/2006
 WO WO-2007/136266 A1 11/2007
 WO WO-2010/131252 A2 11/2010
 WO WO-2011/050252 A1 4/2011
 WO WO-2011/121591 A2 10/2011
 WO WO-2011/159906 A2 12/2011
 WO WO-2012/079127 A1 6/2012
 WO WO-2012/138232 A1 10/2012
 WO WO-2013/082006 A1 6/2013
 WO WO-2013/116310 A1 8/2013
 WO WO-2015/103629 A1 7/2015
 WO WO-2016/026914 A2 2/2016
 WO WO-2016/042310 A1 3/2016
 WO WO-2016/067023 A1 5/2016
 WO WO-2018/023037 A1 2/2018
 WO WO-2019/084468 A1 5/2019
 WO WO-2019/084469 A1 5/2019

OTHER PUBLICATIONS

Rosenblatt et al., "Interactive Pelvic Floor Muscle Training for Female Urinary Incontinence," Renovia, Inc., retrieved Apr. 30, 2019 from <<https://renovaiinc.com/wp-content/uploads/2018/04/REN005.01-White-Paper-12Apr18-FINAL.pdf>> (2018) (6 pages).

* cited by examiner

FIG. 1

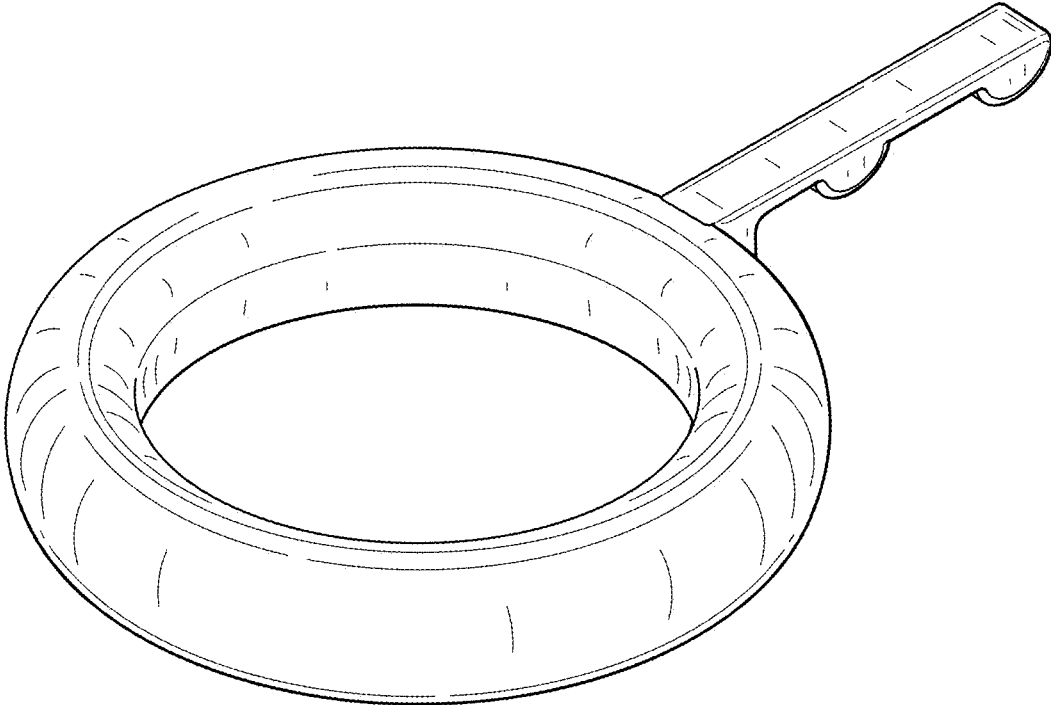


FIG. 2

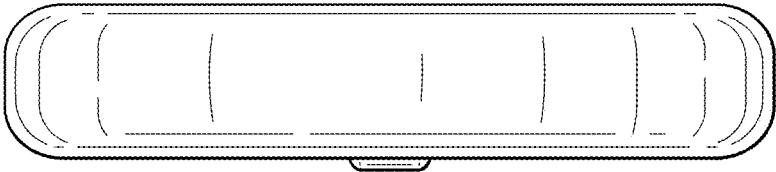


FIG. 3

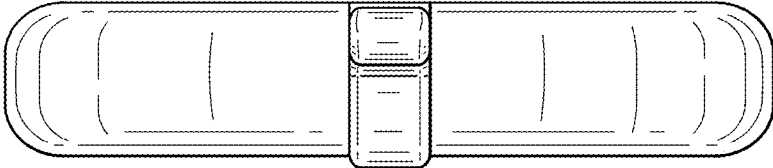


FIG. 4

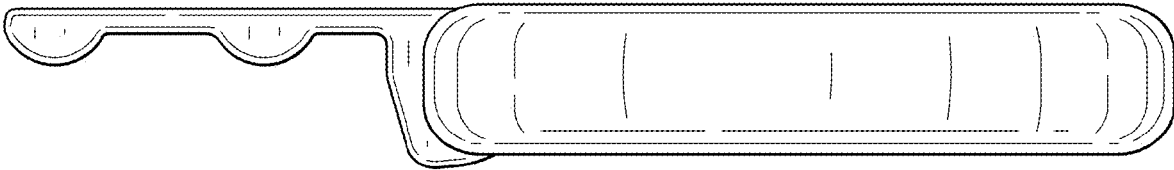


FIG. 5

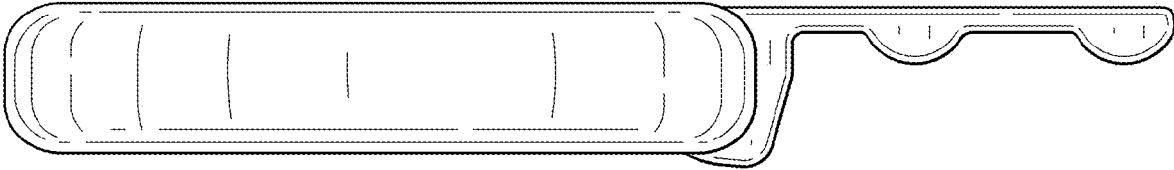


FIG. 6

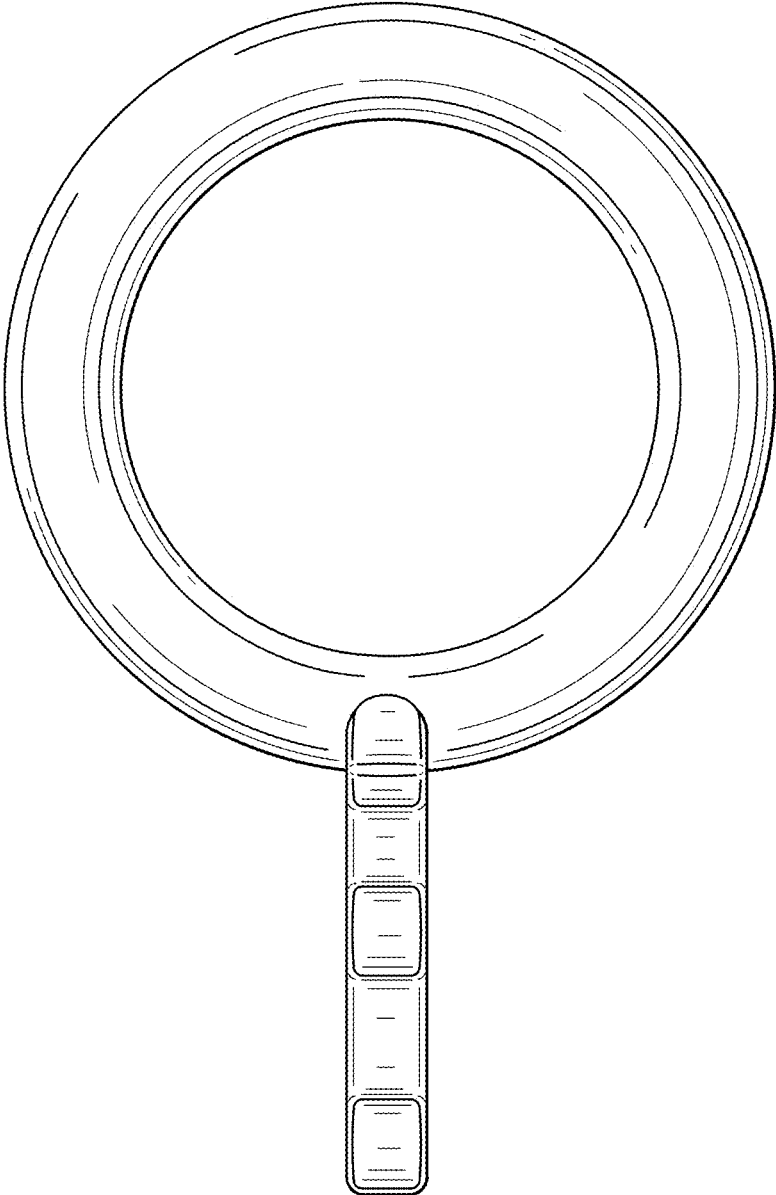


FIG. 7

