



(11)

EP 3 298 998 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
28.03.2018 Bulletin 2018/13

(51) Int Cl.:
A61G 7/05 (2006.01) **B65H 19/22** (2006.01)
B65H 18/28 (2006.01)

(21) Application number: **17193069.6**

(22) Date of filing: **26.09.2017**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**
Designated Extension States:
BA ME
Designated Validation States:
MA MD

(71) Applicant: **Cartotecnica Santa Caterina S.R.L.**
55019 Villa Basilica (LU) (IT)

(72) Inventor: **BARTOLOMEI, ALESSANDRO**
51017 PESCIA (PT) (IT)

(74) Representative: **Scorza, Federica**
Studio Rubino Srl
Via L. della Valle, 84
88100 Catanzaro (IT)

(30) Priority: **26.09.2016 IT 201600096243 U**

(54) **ROLL OF MEDICAL SHEETS**

(57) Roll (100) of medical sheets comprising a central hole (101) that is always open, a cylindrical body constituted by a winding of medical sheets of paper material around the central hole (101) and devoid of the central core, comprising, at regular intervals along the winding, perforations (102) separating sheets having a fixed length.

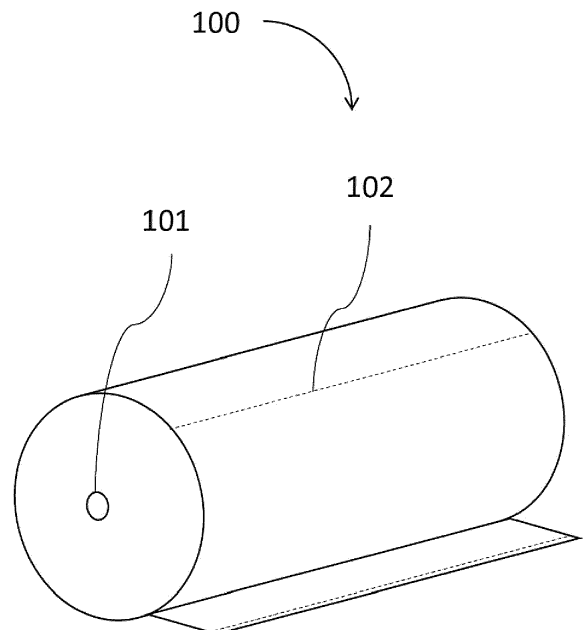


Fig. 1

EP 3 298 998 A1

Description

[0001] The present invention relates to a roll of medical sheets.

[0002] In particular, the invention relates to a roll of medical sheets, of the type of paper used in medical centers, aesthetic centers and hospitals for hygienic purposes.

[0003] As it is known, rolls of medical paper sheets are used, for example, during medical examinations, for hygienic reasons. These rolls are anchored to one end of the surgery table and are rolled out at every change of patient, so as to ensure an area of support that is always clean.

[0004] The rolls of medical sheets currently used have a rigid central core consisting essentially of a perforated cylinder, in which the support which coincides with the axis of rotation of the roll during use is placed.

[0005] The presence of such a rigid central core, usually made of cardboard or plastic material, greatly increases the volume and the weight of the medical sheets roll.

[0006] In fact, because of the particular use of such paper rolls, they exhibit considerable dimensions and a width variable typically between 30 and 70 cm, since they have to cover the surface of the bed used in clinics. To ensure a prolonged use of the same roll, the same must also contain many meters of sheets and, consequently, also the diameter of the roll is high. The central core, being compact and having to be sufficiently rigid material, has a high specific weight despite not being useful for the purposes of the roll length. Indeed, even if the central core has a specific weight and a proper volume, added to the weight and volume of medical sheets, is not a useful product with only a structural function.

[0007] The rolls of medical sheets currently known are, therefore, heavy and bulky.

[0008] Moreover, the presence of the central core leads to an increase of production costs of the roll itself.

[0009] Still, rolls of medical sheets known, due to the need for such rolls of presenting a rigid inner core, have complex production methods and high cost.

[0010] A further limitation of currently known medical sheets rolls is the high environmental impact and burden related to the disposal of the central cores, which are bulky and heavy, especially considering the consumption that is made of, for example, in clinics or hospitals.

[0011] Scope of the present invention is to provide a roll of medical sheets which is simple and economical to produce.

[0012] Still, a scope of the present invention is to provide a roll of medical sheets that is devoid of the central and resistant core, which present reduced weight for the same quantity of product, and, therefore, having characteristics such as to overcome the limits which still affect the rolls of medical sheets with reference to the prior art.

[0013] Finally, another scope of the present invention is to provide a roll of medical leaflets sheets with low

environmental impact.

[0014] According to the present invention, a roll of medical sheets is provided, as defined in claim 1.

[0015] For a better understanding of the present invention a preferred embodiment is now described, purely by way of non-limiting example, with reference to the alleged figures, in which:

- figure 1 shows a schematic three-dimensional view of a roll of medical sheets, according to the invention.

[0016] With reference to figure 1, a roll of medical sheets 100 is shown, according to the invention.

[0017] More specifically, the roll of medical sheets 100 is a cylindrical body devoid of the central core and comprises a winding of medical sheets of paper material around a central hole 101.

[0018] The roll of medical sheets according to the invention has variable dimensions and can present, at regular intervals along the winding, perforations 102 that allow the separation of sheets having a fixed length.

[0019] The roll of medical sheets according to the invention is produced by winding a plurality of medical sheets of paper material, around a central elastic core starting from a first winding, until it reaches the desired diameter and the subsequent removing at high speed of the elastic central core.

[0020] Preferably, the elastic central core has a tubular shape and is removed at the end of the formation of the roll 100.

[0021] The elastic core once extracted is continuously reused for the production of another roll.

[0022] According to an aspect of the invention, the first windings of paper material around the elastic core can be humidified, in order to facilitate the compaction, by means of nozzles placed on the special machine.

[0023] Advantageously according to the invention, the roll 100 of medical sheets has a central hole 101 that is always open, which ensures the practical application of the roll 100 to a support allowing its rotation about an axis passing through the hole 101.

[0024] Advantageously according to the invention, the roll of medical sheets reduces the environmental impact associated with the production and disposal of rolls of medical sheets with respect to the prior art, as it does not include the use of the core.

[0025] Therefore, the roll of medical sheets according to the invention allows and minimizes the weight and volume of the roll of medical sheets at the same time ensuring the mechanical strength and the application to supports for rotation and convenient and practical unwinding.

[0026] Another advantage of the roll of medical sheets according to the invention is to be economic and easy to use.

[0027] A further advantage of the roll of medical sheets according to the invention is to reduce the environmental impact associated with production and disposal of rolls

of medical sheets with reference to the prior art.

[0028] Finally, the roll of medical sheets according to the invention is low cost.

[0029] Finally it is clear that the roll of medical sheets here or described and illustrated may be subject to modifications and variations without thereby departing from the scope of the present invention, as defined in the appended claims.

10

Claims

1. Roll (100) of medical sheets comprising a central hole (101) that is always open, a cylindrical body constituted by a winding of medical sheets of paper material around the central hole (101) and devoid of the central core, **characterized in that** it comprises, at regular intervals along the winding, perforations (102) separating sheets having a fixed length.
2. Roll (100) of medical sheets according to claim 1 **characterized in** having width comprised in the range of 30 cm and 70 cm.
3. Method for manufacturing a roll (100) of medical sheets comprising the steps of:
 - providing at least a central elastic core having tubular shape;
 - wrapping a plurality of medical sheets around said at least one central elastic core starting from a first winding, until reaching a predetermined diameter;
 - high-speed removing the central elastic core.
 - continuously re-using the central elastic core removed for manufacturing another roll.
4. Method for manufacturing a roll (100) of medical sheets according to claim 3, **characterized in** comprising the step of humidifying the first windings of paper material around the elastic core.

45

50

55

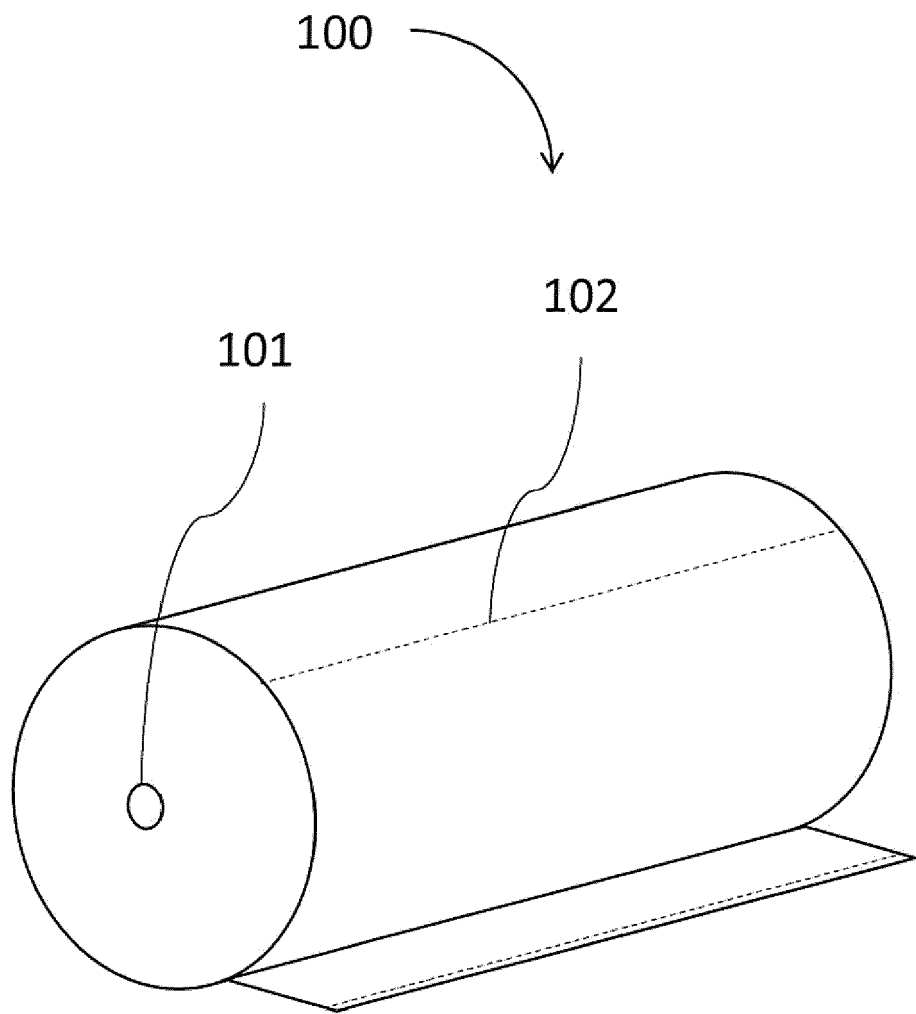


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
EP 17 19 3069

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 85/02526 A1 (KATILA MATTI) 20 June 1985 (1985-06-20)	1,2	INV. A61G7/05 B65H19/22 B65H18/28
Y	* page 6, lines 25-30 * -----	3,4	
X	DE 10 2006 058367 B3 (GOCKEL BOEHNER DORIS [DE]) 10 April 2008 (2008-04-10) * paragraphs [0017], [0022], [0036] *	1,2	
Y	EP 2 711 320 A1 (PAPER CONVERTING MACHINE CO [IT]) 26 March 2014 (2014-03-26) * paragraphs [0032], [0051], [0084] *	3	
Y	US 2011/079671 A1 (WOJCIK STEVEN JAMES [US] ET AL) 7 April 2011 (2011-04-07) * paragraphs [0020] - [0022], [0042], [0046], [0065], [0068], [0069]; claims 11,19 *	4	
A	GB 2 416 719 A (WICKS CLAIRE [GB]) 8 February 2006 (2006-02-08) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
A	GB 2 479 786 A (ESSENTIAL SUPPLY PRODUCTS LTD [GB]) 26 October 2011 (2011-10-26) * page 2, line 17 - page 3, line 4 *	2	A61G B65H
A	JP H01 214590 A (OJI PAPER CO) 28 August 1989 (1989-08-28) * abstract *	3	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 20 February 2018	Examiner Pussemier, Bart
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 19 3069

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-02-2018

10

15

20

25

30

35

40

45

50

55

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 8502526 A1	20-06-1985	EP 0165243 A1 FI 840479 A NO 844851 A WO 8502526 A1	27-12-1985 10-06-1985 10-06-1985 20-06-1985
DE 102006058367 B3	10-04-2008	DE 102006058367 B3 EP 1929985 A2	10-04-2008 11-06-2008
EP 2711320 A1	26-03-2014	EP 2711320 A1 US 2014084102 A1 US 2016137449 A1 US 2016214820 A1	26-03-2014 27-03-2014 19-05-2016 28-07-2016
US 2011079671 A1	07-04-2011	AU 2010304761 A1 CA 2776477 A1 EP 2485973 A2 ES 2632458 T3 IL 218549 A JP 6096511 B2 JP 2013506518 A KR 20120086694 A US 2011079671 A1 US 2013327876 A1 WO 2011042818 A2 ZA 201202143 B	05-04-2012 14-04-2011 15-08-2012 13-09-2017 31-01-2017 15-03-2017 28-02-2013 03-08-2012 07-04-2011 12-12-2013 14-04-2011 29-05-2013
GB 2416719 A	08-02-2006	NONE	
GB 2479786 A	26-10-2011	NONE	
JP H01214590 A	28-08-1989	JP H0759461 B2 JP H01214590 A	28-06-1995 28-08-1989

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82