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**Octrooi Centrum
Nederland**

11

2018713

12 B1 OCTROOI

21

Aanvraagnummer: **2018713**

51

Int. Cl.:

A61G 1/017 (2018.01) **A61G 5/00** (2018.01)

22

Aanvraag ingediend: **13 april 2017**

41

Aanvraag ingeschreven:
24 oktober 2018

73

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43

Aanvraag gepubliceerd:
-

72

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47

Octrooi verleend:
24 oktober 2018

45

Octrooischrift uitgegeven:
11 januari 2019

74

Gemachtigde:
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54

Device configured to transport a human body

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The present invention relates to a device, comprising:

- a main frame;
- supports;
- a transformation mechanism associated with the main frame and configured to convert the device between a planar support state and an angled support state, wherein supports enclose an angle to define a seat and backing support, and vice versa.

Device configured to transport a human body

The present invention relates to a device, in particular to a transport device that is configured to transport a human body, such as a patient.

5 Transport devices that are configured to transport a human body exist in various embodiments, including stretchers in various forms, wheel chairs, etc.

Ambulance personnel are exposed to various physically demanding situations during work. For example, raising a stretcher, carrying heavy equipment, riding with (heavy) patients on slopes and curbs, and evacuating patients on stairs impose a physical load for the
10 personnel.

Whereas prior art electric stretchers reduce the load of raising a stretcher with a human body on it, the heavy weight of around 70 kg and handling of the electric stretcher itself often results in paramedics leaving the electric stretcher in the ambulance and only carrying the items that they really need. The equipment, e.g. comprising a medicine bag, monitor, and oxygen
15 bottle, may however weigh more than 30 kg. Insufficient room for manoeuvring an (electric) stretcher due to tight turns, limited width of doors, and small elevators, is another reason why such stretchers are often left in the ambulance.

An object of the present invention is to provide a device, that is improved relative to the prior art and wherein at least one of the above stated problems is obviated.

20 Said object is achieved with the device according to the present invention, comprising:

- a main frame;
- supports;
- a transformation mechanism associated with the main frame and configured to
25 convert the device between a planar support state and an angled support state, wherein supports enclose an angle to define a seat and backing support, and vice versa.

The planar support state is configured to support a human body in a lying state or in a seating state, wherein the back is not supported. The angled support state, wherein supports enclose an angle to define a seat and backing support, is configured to support a human body in a
30 seating state, offering back support.

Consequently, the device according to the invention can be adapted to a specific situation. For people or patients that could be transported in a seating position, the angled support state can be used, offering improved maneuverability relative to a stretcher-like planar support state. Research has shown that many patients could be transported while sitting upright or under a
35 slight back angle.

Moreover, in the angled support state, the device may also be used as an equipment trolley, allowing ambulance personnel to comfortably and securely transport their heavy medical equipment towards an emergency. On the way back to the ambulance, the device may be used in its angled support state as either an equipment trolley or as a wheel chair for transporting a patient.

Preferred embodiments are the subject of the dependent claims.

In the following description preferred embodiments of the present invention are further elucidated with reference to the drawing, in which:

Figure 1 is a perspective view of a device according to the invention in a planar support state;

Figure 2 is a perspective view of the device of Figure 1 in an angled support state;

Figure 3 shows a top view of the device in a collapsed storing state;

Figure 4 shows a bottom plan view of the device in the collapsed storing state;

Figures 5-7 show successive states of extending the device from the collapsed storing state to operational planar support states;

Figures 8A – 8C show the device functioning as a scoop stretcher;

Figures 9A – 9D show successive states of converting the device from a planar support state to an angled support state; and

Figure 10 is a perspective detail view of the wheels of the device.

The device 1 is a transport device that is configured to transport a human body 2, such as a patient. Device 1 comprises a main frame 3 and supports 4. A transformation mechanism 5 that is associated with the main frame 3 is configured to convert the device 1 between a planar support state (Figure 1) and an angled support state (Figure 2), wherein supports 4 enclose an angle α to define a seat 6 and backing support 7, and vice versa.

The shown device 1 comprises four supports 4, allowing the human body 2 to be supported over substantially most of its surface (Figure 8C) in an essentially lying position of said body 2. At least two supports 4 are required to provide a seat 6 and backing support 7 in the angled support state.

The main frame 3 comprises two sub frames 8a, 8b that divide the main frame 3 in two complementary halves. This can be best seen in Figure 8A. The sub frames 8a, 8b are pivotably (Figure 8B) and/or releasably (Figure 8A) connected, allowing the device 1 to be used as a scoop stretcher. Scoop stretchers are most frequently used to lift injured people from the ground, either because of unconsciousness or in order to maintain stability in the case of trauma with suspected spinal cord injury. Scoop stretchers reduce the chance of undesirable movement of injured areas during transfer of a trauma patient, as they maintain the patient in a supine alignment

during transfer. The connection between the sub frames 8a, 8b preferably comprises a safety hinge 10.

One or more than one of the supports 4 comprises two support parts 9a, 9b, wherein the support parts 9a, 9b are each connected to one of the sub frames 8 of the main frame 3.

In order to allow the device 1 being used as a scoop stretcher, preferably all supports 4 comprise two support parts 9a, 9b, as shown in the figures.

In order to provide a stable support for the human body 2 in the angled support state, the supports are preferably reinforced. As a reinforcement, the device 1 preferably comprises a connection 11 configured to connect two support parts 9a, 9b of a support 4 in at least the angled support state. The connection 11 may comprise a flexible (Velcro[®]) band or a rigid link.

A further reinforcement may be formed by a supporting bracket 22, that extends from the main frame 3 inward, and is configured to support the supports that provide the seat support 6 in the angled support state. The supporting bracket 2 thus prevents sagging of the seat support 6 due to the weight of a human body sitting thereon.

As shown in Figures 3 and 4, supports 4 may also rest on the supporting bracket 22 in the planar support state. The supporting bracket 22 thus also reinforces the planar support state.

Finally, supporting bracket 22 may support equipment. For example, it may function as an attachment for an oxygen bottle holder.

A further reinforcement may be formed by one or more than one additional supporting bracket 24 that is configured to support the supports 4 that are designed to receive a head and shoulder area of a human body 2. In the angled support state, the additional supporting brackets 24 may also be used as a handle for pushing the device 1 as a wheelchair.

The supports 4 are pivotable relative to each other, allowing the device 1 to be converted between the planar support state and the angled support state, wherein the supports 4 enclose an angle α to define a seat 6 and backing support 7, and vice versa.

The supports 4 are also moveable relative to the main frame 3, allowing the supports 4 to move towards each other when the device 1 is converted from the planar support state towards the angled support state.

In the shown embodiment, especially in Figures 2 and 9B-9D, the supports 4 are arranged in a support frame 12 that is movably connected to the main frame 3. More in particular, the support frame 12 is slideable relative to the main frame 3, e.g. using sliders 13 of the transformation mechanism 5. The transformation mechanism 5 thus preferably comprises one or more than one slider 13 that slidably and pivotably connects the support frame 12 to the main frame 3.

The supports 4 are pivotable relative to each other around pivot axes 16, using support frame 12 (Figures 3 and 4). The support frame 12 and the supports 4 are pivotable relative to the main frame 12 around pivot axes 17 (Figures 3 and 4).

In order to allow paramedics to secure a human body to the device 1 in the planar support state, slots 21 that are configured for guiding a belt therethrough, are provided. The supports 4 that are configured to function as a footrest in the angled support state also support feet of a human body in the planar support state shown in Figures 3 and 4. These supports are provided with slots 21 in the support 4 itself. The other slots are formed between the supports 4 and the main frame 3. The sliders 13 and associated axes 17 may bound in longitudinal direction of said slots 21.

In the shown embodiment, the optional support frame 12 is also considered part of the transformation mechanism 5. The skilled person will however understand that it is conceivable that the supports 4 may be directly linked to each other and sliders 13 without a support frame 12.

In order to allow the device 1 to be used as a wheel chair in the angled support state (Figure 2), the device 1 further comprises wheels 14 that are associated with the transformation mechanism 5 to be exposed and operational in at least one of the planar support state and the angled support state. The wheels 14 are inoperative and in a storing position in the other of the planar support state and the angled support state. In the shown embodiment, the wheels 14 that are associated with the transformation mechanism 5 are exposed in the angled support state.

The wheels 14 that are associated with the transformation mechanism 5 are arranged on the support frame 12. The transformation mechanism 5 comprises a cam 19 that is arranged on the main frame 3. This cam 19 engages a cam follower 20, and forces the wheels 14 against a spring force of a (not shown) spring into the exposed and operational state (indicated with arrow R in Figure 10) when the device 1 is converted from the planar support state to the angled support state. The wheels 14 rotate relative to a rotation axis 18 (Figures 4 and 10).

The device 1 further comprises one or more than one wheel 15 that is associated with the main frame 3. In Figure 1, two wheels 15 are shown, which allow the device 1 to be pulled away in the planar support state (Figures 1, 6 and 7) by a single paramedic. The wheels 15 are preferably castor wheels, providing additional maneuverability to the device 1 when the device 1 functions as a wheel chair or equipment trolley in the angled support state thereof (Figures 2 and 9D).

The transformation mechanism 5 preferably further comprises a (not shown) lock that is configured to lock the supports 4 relative to the main frame 3 in at least one of the planar support state and the angled support state. Such a lock may be arranged in a slider 13, locking the slider 13 relative to the main frame 3, and thus locking the support frame 12 and supports 4 relative to the main frame 3. The weight of the human body may push the sliders 13 against an end stop 23

(Figure 9D), which may comprise the lock of the transformation mechanism 5. An alternative lock may lock the angle between adjacent supports 4.

Successive states of extending the device 1 from a collapsed storing state (Figure 5) to operational planar support states are shown in Figures 5-7. The main frame 3 is extendable and is extended in correspondence to the length of a patient 2. The main frame 3 is lockable in a plurality of extended positions. Figure 6 shows an intermediate extension for a small patient 2 and Figure 7 a full extension of the main frame 3 for supporting a large patient 2.

After adjusting the length of the device 1, it may be used as a scoop stretcher, shown in Figures 8A – 8C.

Alternatively, the device 1 may be converted from the planar support state of Figure 9A towards the angled support state of Figure 9D. Figures 9B and 9C show intermediate positions, wherein the sliders 13 of the transformation mechanism 5 slide along the main frame 3 and the support frame 12 gradually pivots the supports 4 relative towards each other until they end in the angled support state of Figure 9D, wherein two supports 4 enclose an angle α to define a seat 6 and backing support 7.

The above described embodiment is intended only to illustrate the invention and not to limit in any way the scope of the invention. Accordingly, it should be understood that where features mentioned in the appended claims are followed by reference signs, such signs are included solely for the purpose of enhancing the intelligibility of the claims and are in no way limiting on the scope of the claims. The scope of the invention is defined solely by the following claims.

Conclusies

1. Inrichting, omvattende:

- een hoofdframe;

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- steunen;

- een transformatiemechanisme, welke bij het hoofdframe hoort en is geconfigureerd om de inrichting te converteren tussen een vlakke steuntoestand en een hoekige steuntoestand, waarbij steunen een hoek insluiten om een zit- en rugondersteuning te definiëren en vice versa.

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2. Inrichting volgens conclusie 1, waarbij het hoofdframe twee deelframes omvat, welke het hoofdframe in twee complementaire helften verdelen.

3. Inrichting volgens conclusie 2, waarbij de deelframes kantelbaar en/of losmaakbaar met elkaar zijn verbonden.

15

4. Inrichting volgens een van de voorgaande conclusies, waarbij de steunen ten opzichte van elkaar kantelbaar zijn.

5. Inrichting volgens een van de voorgaande conclusies, waarbij de steunen ten opzichte van het hoofdframe beweegbaar zijn.

20

6. Inrichting volgens een van de conclusies 2-5, waarbij één of meer dan één van de steunen twee steundelen omvat, waarbij de steundelen elk zijn verbonden met één van de deelframes van het hoofdframe.

25

7. Inrichting volgens conclusie 6, welke een verbinding omvat die is geconfigureerd om twee steundelen van een steun te verbinden in ten minste de hoekige steuntoestand.

8. Inrichting volgens een van de voorgaande conclusies, waarbij de steunen zijn aangebracht in een steunframe, dat beweegbaar is verbonden met het hoofdframe.

30

9. Inrichting volgens conclusie 8, waarbij het steunframe schuifbaar is ten opzichte van het hoofdframe.

10. Inrichting volgens een van de voorgaande conclusies, welke verder wielen omvat die behoren bij transformatiemechanisme, welke blootgesteld en operationeel zijn in ten minste één van de vlakke steuntoestand en de hoekige steuntoestand.

5 11. Inrichting volgens conclusie 10, waarbij de wielen die behoren bij het transformatiemechanisme niet operationeel zijn en zich bevinden in een opbergpositie in de andere van de vlakke steuntoestand en de hoekige steuntoestand.

10 12. Inrichting volgens conclusie 10 of 11, waarbij de wielen die horen bij het transformatiemechanisme blootgesteld zijn in de hoekige steuntoestand.

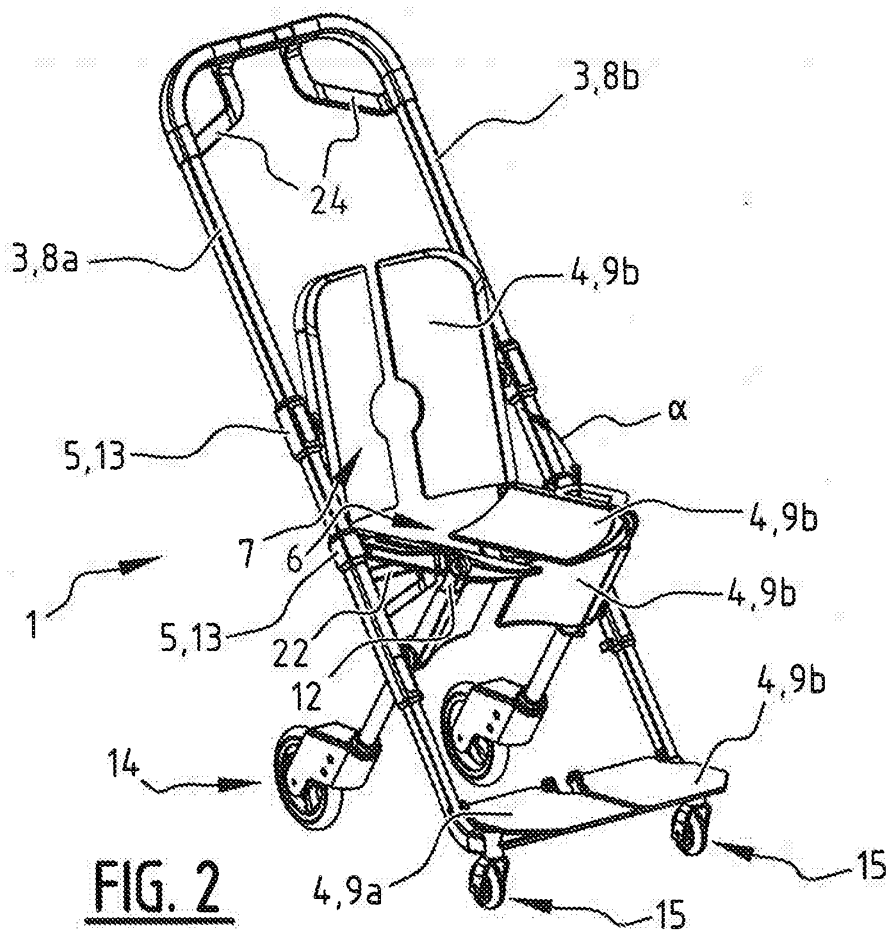
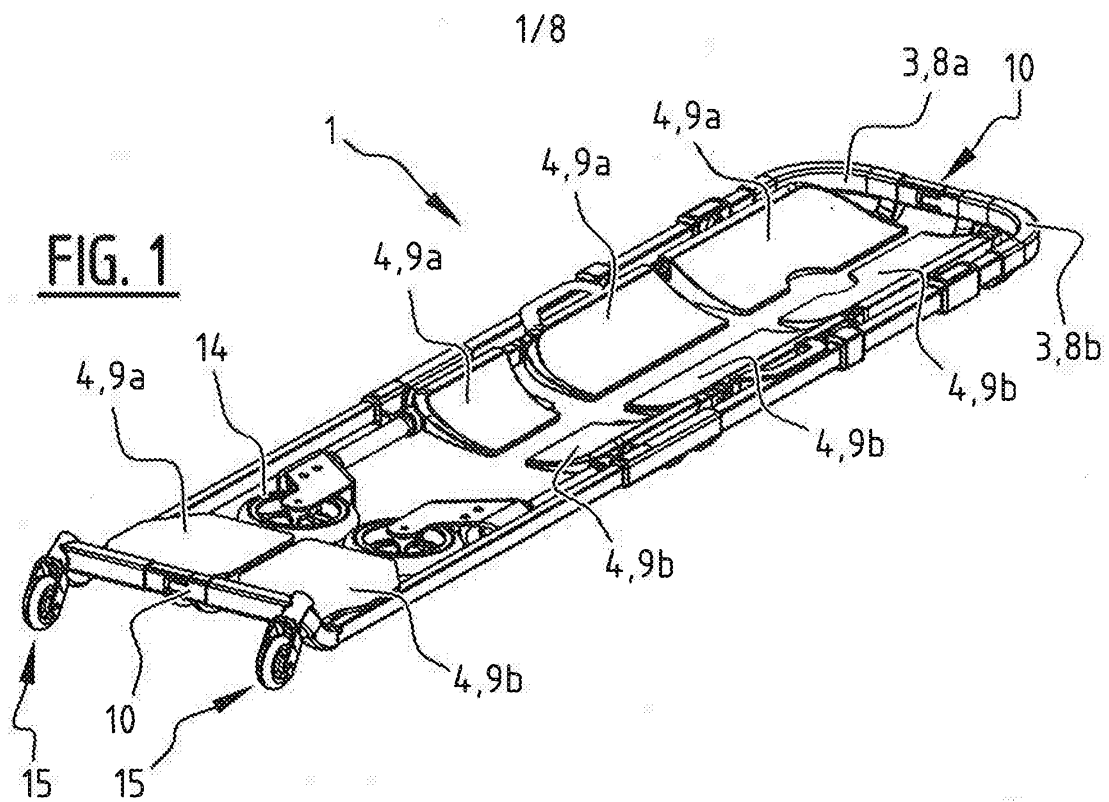
13. Inrichting volgens een van de conclusies 10-12, waarbij de wielen die horen bij het transformatiemechanisme op het hoofdframe zijn aangebracht.

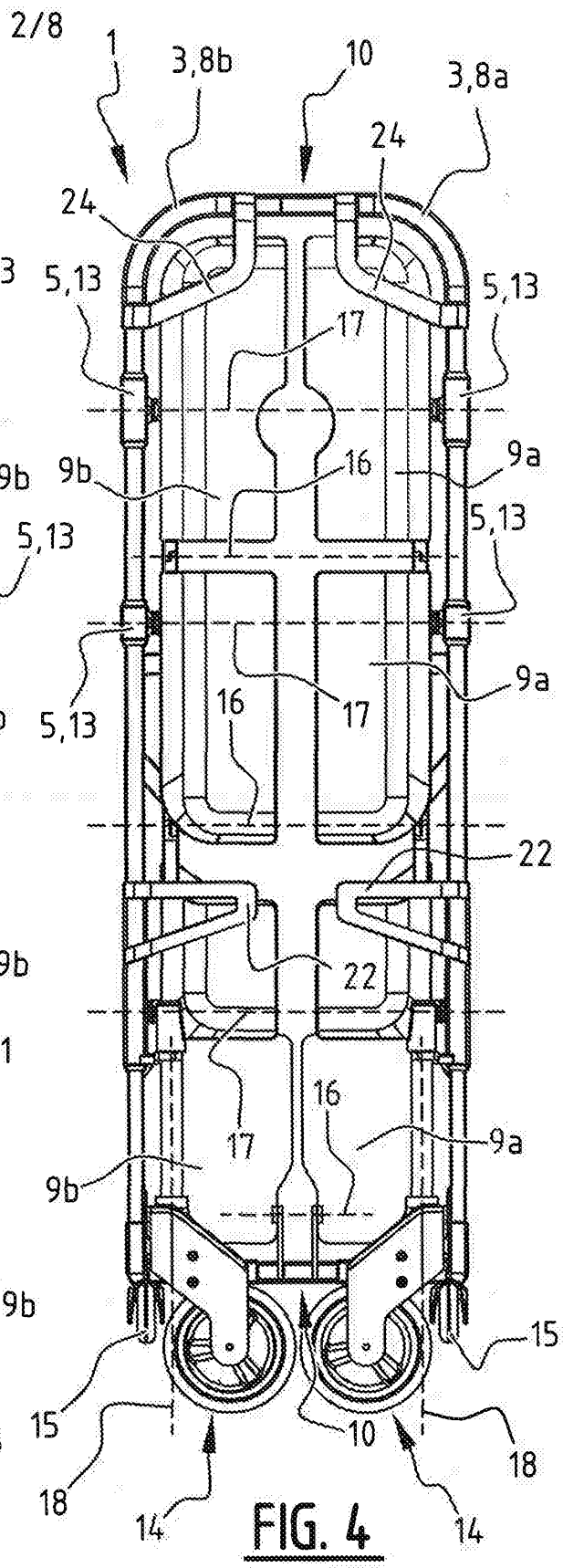
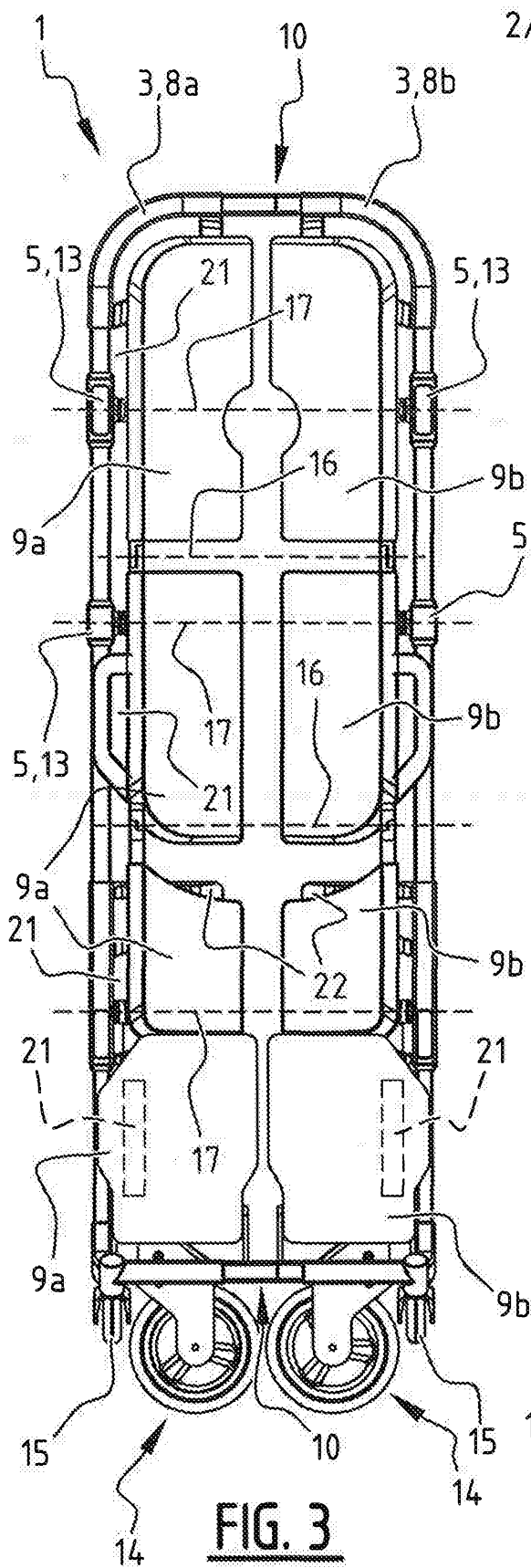
15 14. Inrichting volgens een van de voorgaande conclusies, welke verder één of meer dan één wiel omvat dat hoort bij het hoofdframe.

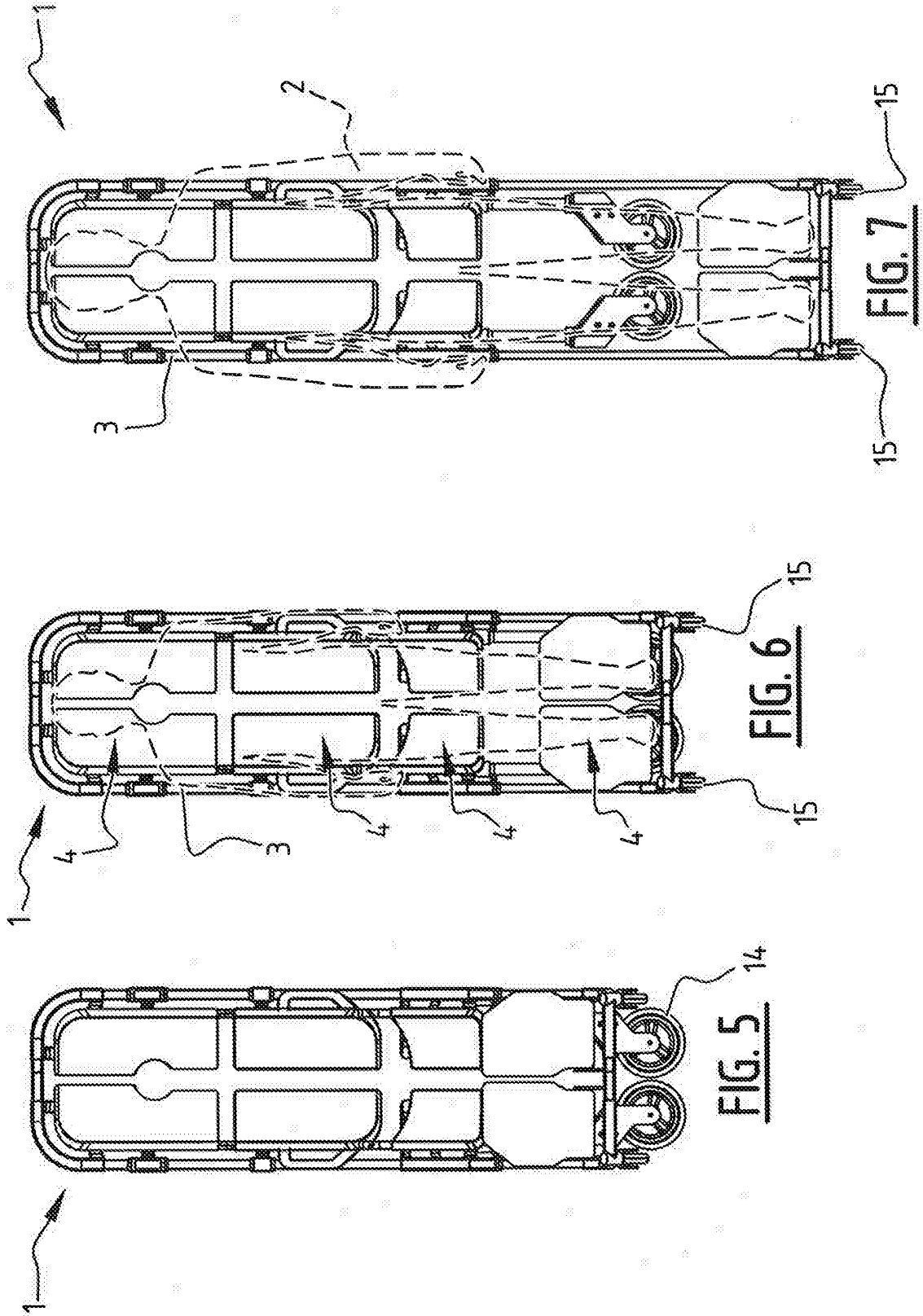
20 15. Inrichting volgens een willekeurige van de voorgaande conclusies, waarbij het transformatiemechanisme één of meer dan één schuiver omvat, die op schuivende wijze het steunframe met het hoofdframe verbindt.

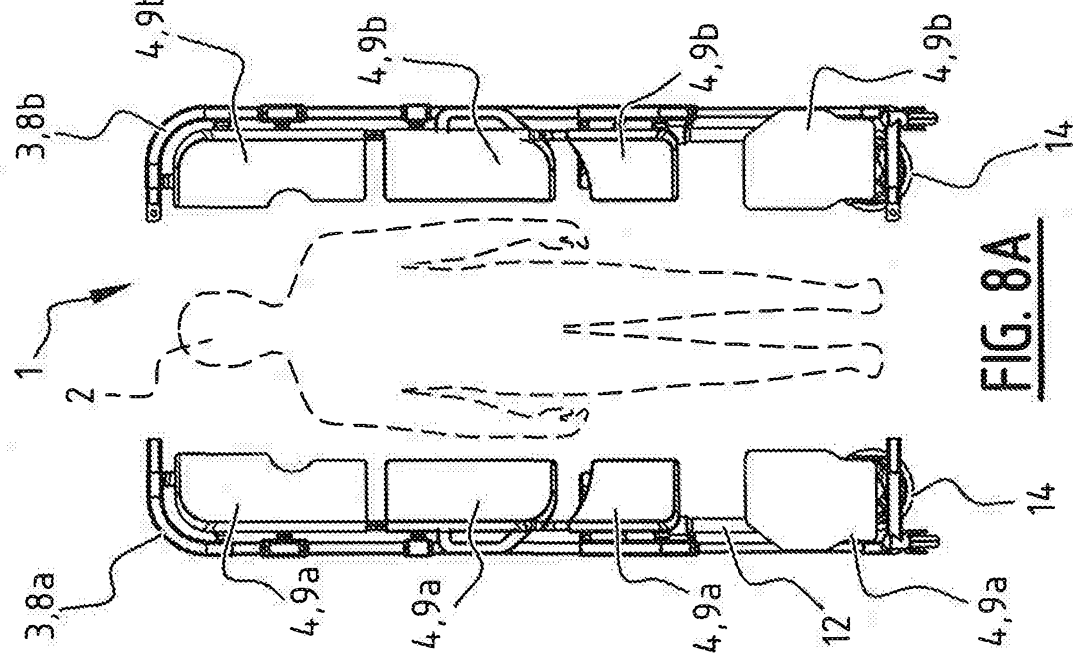
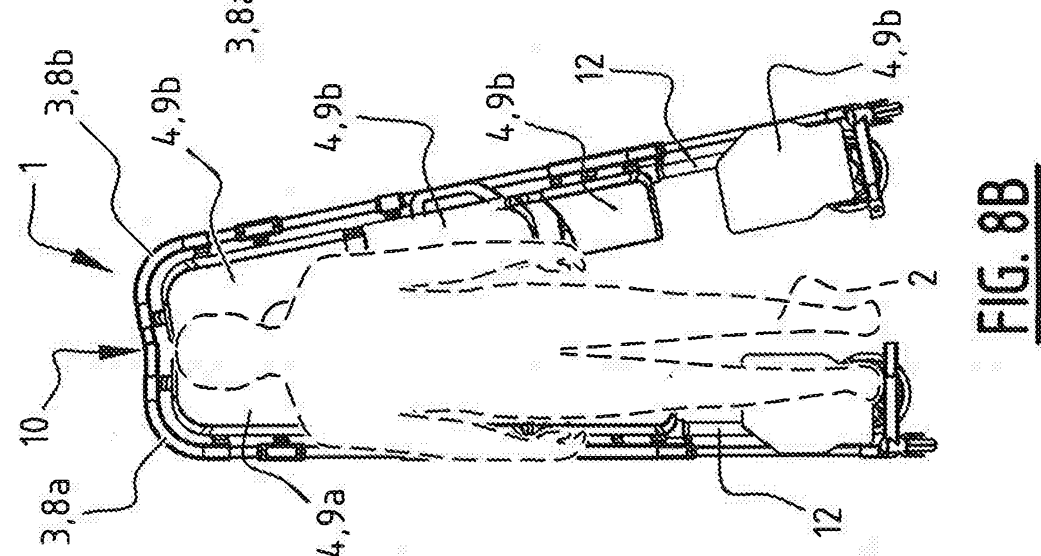
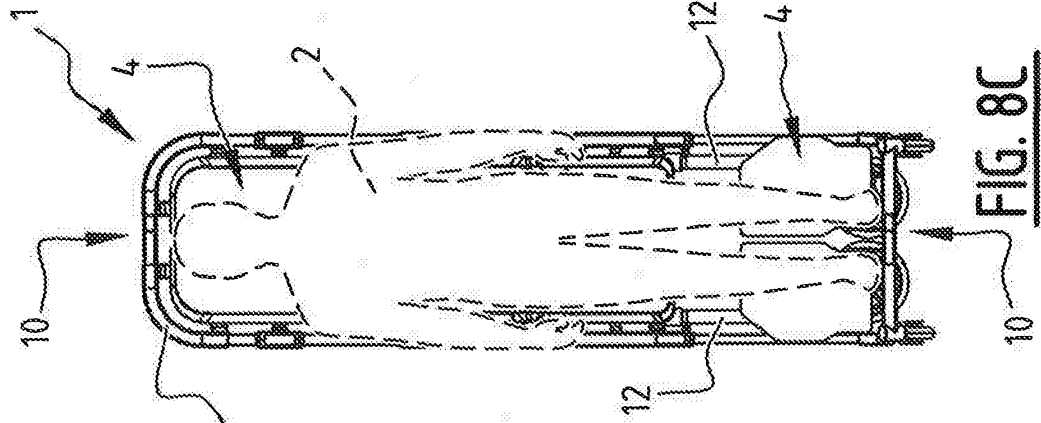
25 16. Inrichting volgens een van de voorgaande conclusies, waarbij het transformatiemechanisme een vergrendeling omvat, welke is geconfigureerd om de steunen ten opzichte van het hoofdframe te vergrendelen in ten minste één van de vlakke steuntoestand en de hoekige steuntoestand.

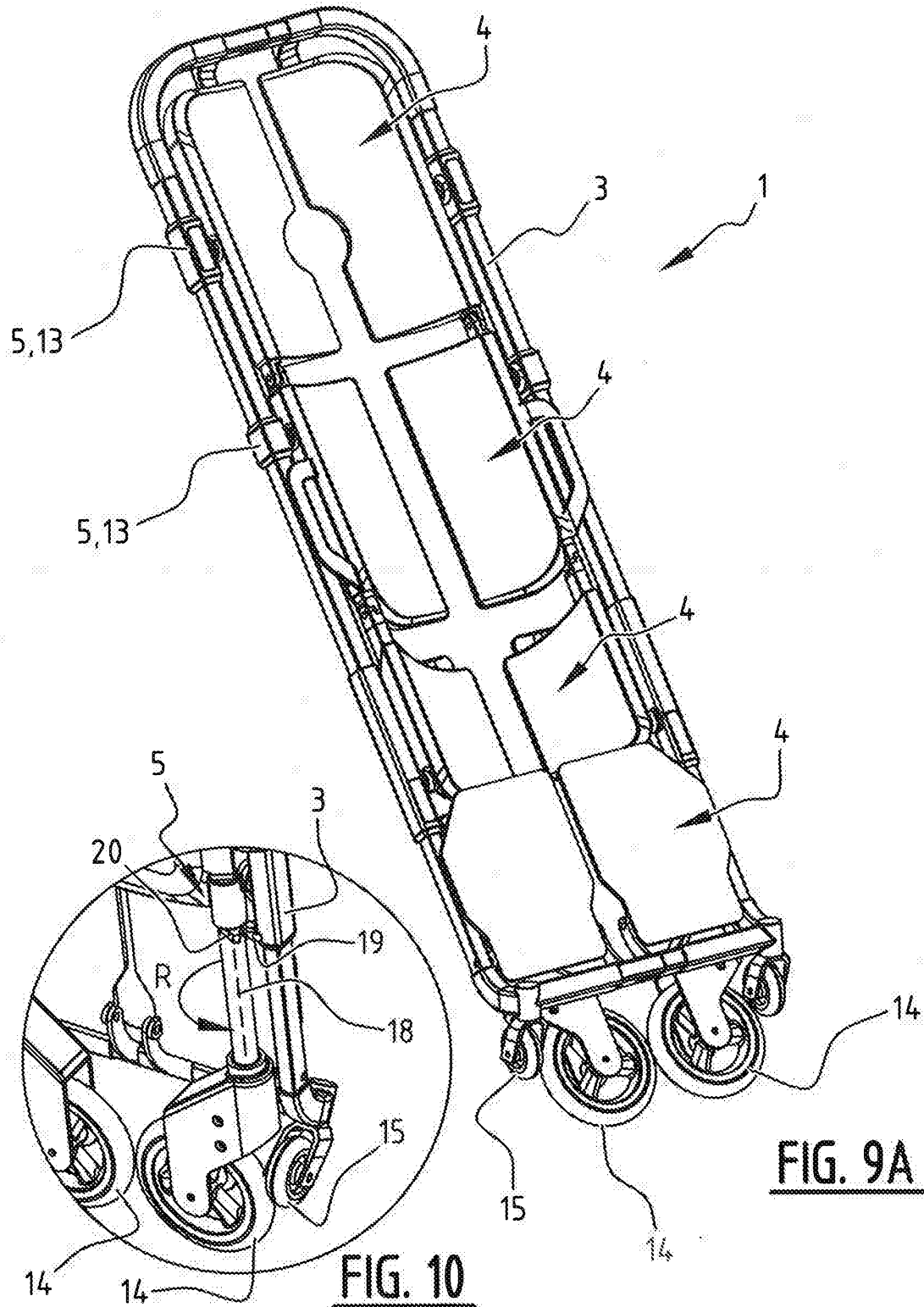
30 17. Inrichting volgens een van de conclusies 10-16, waarbij het transformatiemechanisme een nok omvat, welke de wielen in de blootgestelde en operationele toestand dwingt wanneer de inrichting van de vlakke steuntoestand naar de hoekige steuntoestand wordt geconverteerd.

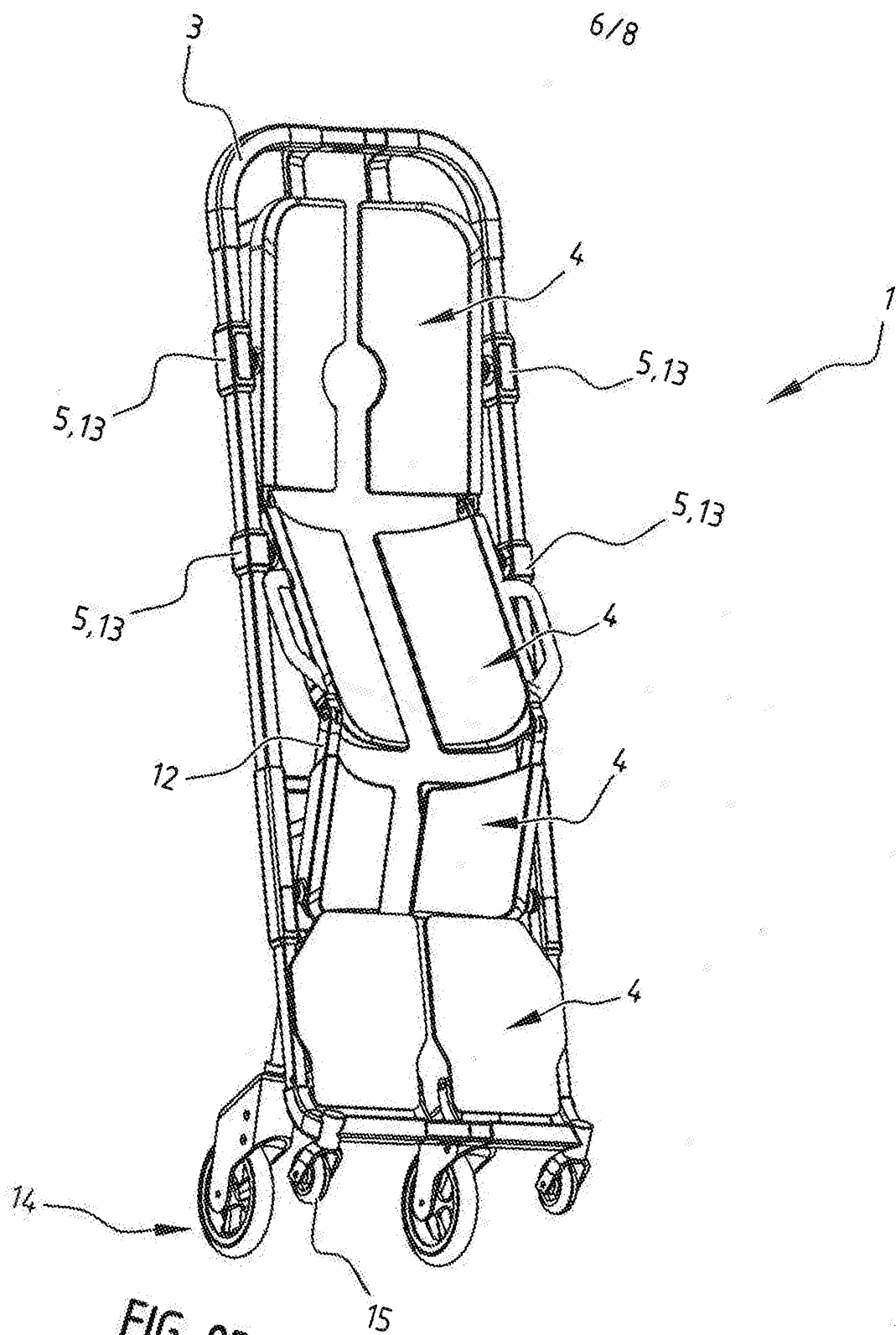












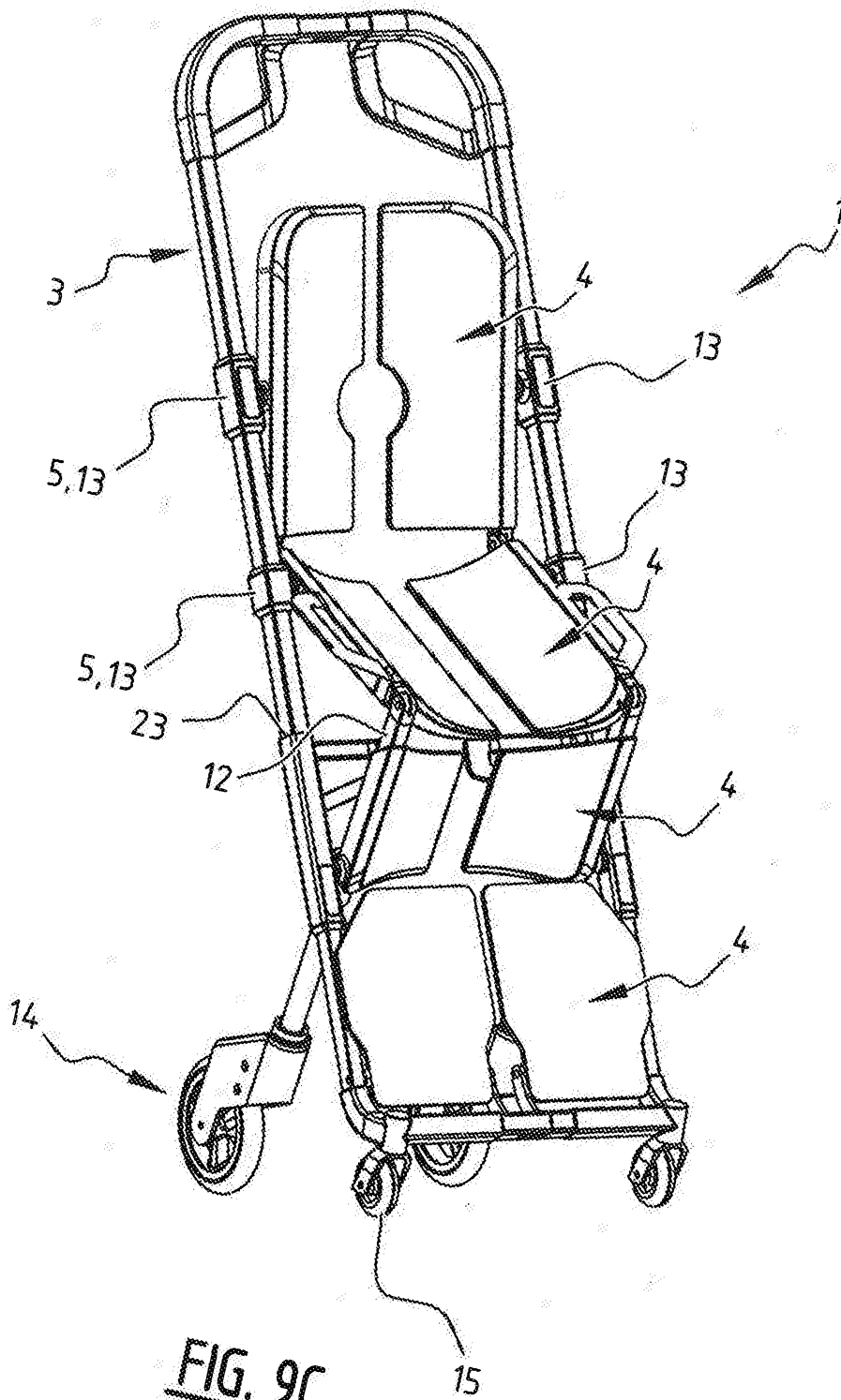
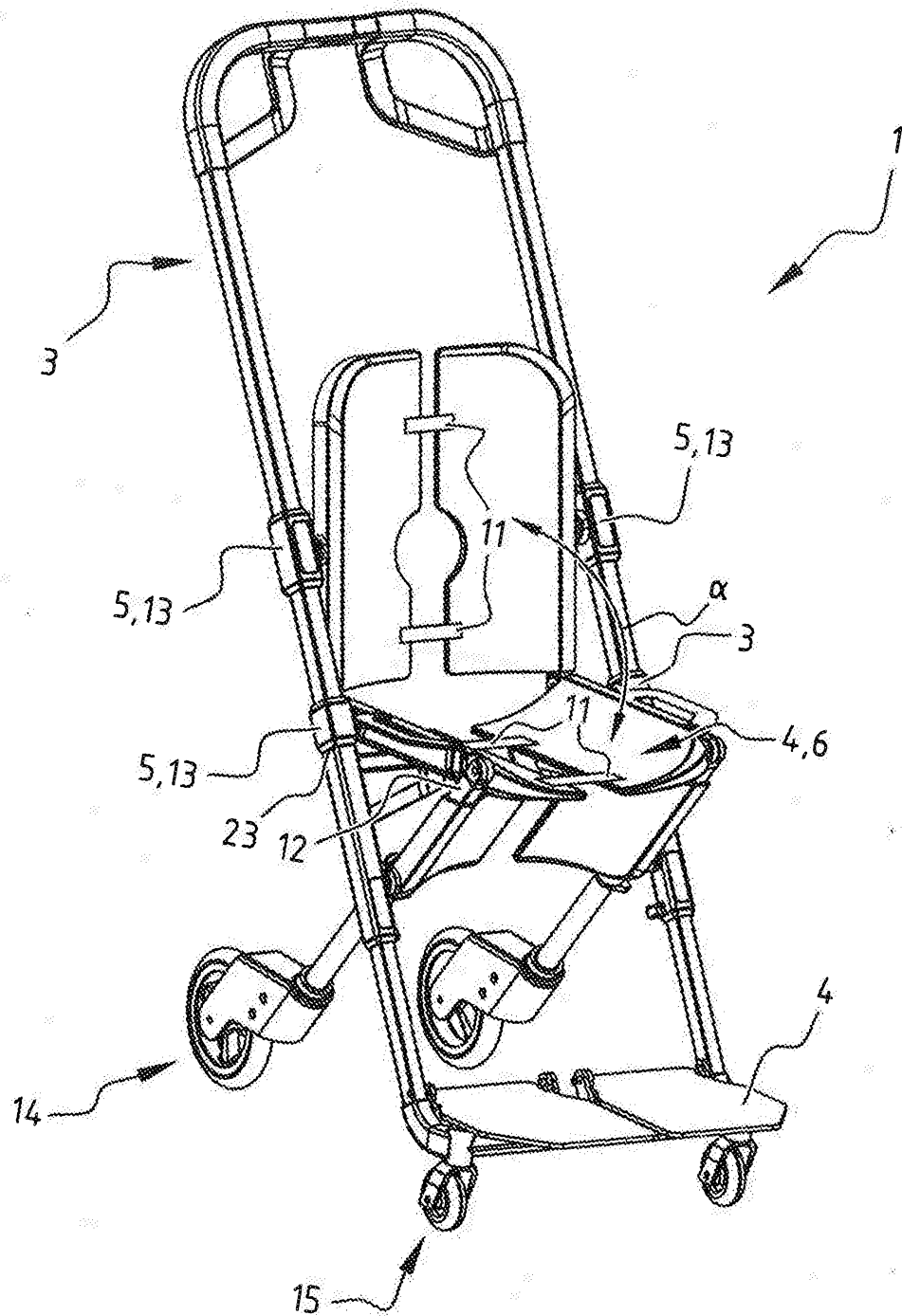


FIG. 9C

**FIG. 9D**

Abstract

The present invention relates to a device, comprising:

- a main frame;

- supports;

- a transformation mechanism associated with the main frame and configured to

convert the device between a planar support state and an angled support state, wherein supports enclose an angle to define a seat and backing support, and vice versa.

SAMENWERKINGSVERDRAG (PCT)

RAPPORT BETREFFENDE NIEUWHEIDSONDERZOEK VAN INTERNATIONAAL TYPE

IDENTIFICATIE VAN DE NATIONALE AANVRAGE	KENMERK VAN DE AANVRAGER OF VAN DE GEMACHTIGDE
	2N/2UY76/1
Nederlands aanvraag nr.	Indieningsdatum
2018713	13-04-2017
	Ingeroepen voorrangsdatum
Aanvrager (Naam)	
Retter Helfer Medical B.V.	
Datum van het verzoek voor een onderzoek van internationaal type	Door de instantie voor Internationaal Onderzoek aan het verzoek voor een onderzoek van internationaal type toegekend nr.
22-07-2017	SN69360
I. CLASSIFICATIE VAN HET ONDERWERP (bij toepassing van verschillende classificaties, alle classificatiesymbolen opgeven)	
Volgens de internationale classificatie (IPC)	
A61G1/017;A61G5/00	
II. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK	
Onderzochte minimumdocumentatie	
Classificatiesysteem	Classificatiesymbolen
IPC	A61G
Onderzochte andere documentatie dan de minimum documentatie, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen	
III.	☐ GEEN ONDERZOEK MOGELIJK VOOR BEPAALDE CONCLUSIES (opmerkingen op aanvullingsblad)
IV.	☐ GEBREK AAN EENHEID VAN UITVINDING (opmerkingen op aanvullingsblad)

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2018713

A. CLASSIFICATIE VAN HET ONDERWERP
INV. A61G1/017 A61G5/00
ADD.

Volgens de internationale Classificatie van octrooien (IPC) of zowel volgens de nationale classificatie als volgens de IPC.

B. ONDERZOCHETE GEBIEDEN VAN DE TECHNIEK

Onderzochte minimum documentatie (classificatie gevolgd door classificatiesymbolen)

A61G

Onderzochte andere documentatie dan de minimum documentatie, voor dergelijke documenten, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen

Tijdens het onderzoek geraadpleegde elektronische gegevensbestanden (naam van de gegevensbestanden en, waar uitvoerbaar, gebruikte trefwoorden)

EPO-Internal, WPI Data

C. VAN BELANG GEACHTE DOCUMENTEN

Categorie	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
X	US 3 921 231 A (BOURGRAF ELROY E ET AL) 25 november 1975 (1975-11-25) * figuren 1,3,7,8 *	1-4,6,7, 10,14
X	WO 2015/140767 A1 (RESQDEVICES PTY LTD [AU]) 24 september 2015 (2015-09-24) * figuren 1,3,7,9,16 *	1-7,10, 14,16
X	US 3 116 492 A (CHRISTENSEN OLE B) 7 januari 1964 (1964-01-07) * figuren 1-2 *	1-3,6, 10,13, 14,16
X	DE 33 20 866 A1 (UTILA GERAETEBAU [DE]) 13 december 1984 (1984-12-13) * figuren 1-3,5 *	1,5,8,9, 14-17
	-/--	



Verdere documenten worden vermeld in het vervolg van vak C.



Leden van dezelfde octrooifamilie zijn vermeld in een bijlage

* Speciale categorieën van aangehaalde documenten

A niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft

D in de octrooiaanvraag vermeld

E eerdere octrooi(aanvraag), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven

L om andere redenen vermelde literatuur

O niet-schriftelijke stand van de techniek

P tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur

T na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvraag, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding

X de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur

Y de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht

Z lid van dezelfde octrooifamilie of overeenkomstige octrooipublicatie

Datum waarop het onderzoek naar de stand van de techniek van internationaal type werd voltooid

11 december 2017

Verzenddatum van het rapport van het onderzoek naar de stand van de techniek van internationaal type

Naam en adres van de instantie

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040
Fax: (+31-70) 340-3016

De bevoegde ambtenaar

Kroeders, Marleen

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek
NL 2018713

C. (Vervolg). VAN BELANG GEACHTE DOCUMENTEN

Categorie *	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
X	US 2015/320627 A1 (TSUKADA SHOHEI [JP] ET AL) 12 november 2015 (2015-11-12) * figuren 1a-b, 4, 6, 7 *	1-3, 5
X	US 2007/182220 A1 (WALKINSHAW NATHAN R [US] ET AL) 9 augustus 2007 (2007-08-09) * figuren 4-5 *	1, 10-17
X	US 8 104 121 B2 (BOURGRAF ELROY EDWIN [US]; POLLOCK IRVIN [US]; FERNO WASHINGTON [US]) 31 januari 2012 (2012-01-31) * figuren 2-3 *	1, 10-14, 16, 17
X	GB 2 360 255 A (HEALEY DAVID [GB]; HILL PETER [GB]) 19 september 2001 (2001-09-19) * figuren 1-2 *	1, 10-13

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Informatie over leden van dezelfde octrooifamilie

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2018713

In het rapport genoemd octrooigeschrift	Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
US 3921231	A	25-11-1975	DE 2519461 A1 13-11-1975
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			WO 2007089827 A2 09-08-2007
			ZA 200806939 B 25-01-2012
GB 2360255	A	19-09-2001	GEEN

WRITTEN OPINION

File No. SN69360	Filing date (day/month/year) 13.04.2017	Priority date (day/month/year)	Application No. NL2018713
International Patent Classification (IPC) INV. A61G1/017 A61G5/00			
Applicant Rettter Helfer Medical B.V.			

This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the application
- ☐ Box No. VIII Certain observations on the application

Examiner Kroeders, Marleen

WRITTEN OPINION

Application number

NL2018713

Box No. I Basis of this opinion

1. This opinion has been established on the basis of the latest set of claims filed before the start of the search.
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the application as filed.
 - ☐ filed together with the application in electronic form.
 - ☐ furnished subsequently for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes: Claims	
	No: Claims	1-17
Inventive step	Yes: Claims	
	No: Claims	1-17
Industrial applicability	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

- D1 US 3 921 231 A (BOURGRAF ELROY E ET AL) 25 november 1975 (1975-11-25)
- D2 WO 2015/140767 A1 (RESQDEVICES PTY LTD [AU]) 24 september 2015 (2015-09-24)
- D3 US 3 116 492 A (CHRISTENSEN OLE B) 7 januari 1964 (1964-01-07)
- D4 DE 33 20 866 A1 (UTILA GERAETEBAU [DE]) 13 december 1984 (1984-12-13)
- D5 US 2015/320627 A1 (TSUKADA SHOHEI [JP] ET AL) 12 november 2015 (2015-11-12)
- D6 US 2007/182220 A1 (WALKINSHAW NATHAN R [US] ET AL) 9 augustus 2007 (2007-08-09)
- D7 US 8 104 121 B2 (BOURGRAF ELROY EDWIN [US]; POLLOCK IRVIN [US]; FERNO WASHINGTON [US]) 31 januari 2012 (2012-01-31)
- D8 GB 2 360 255 A (HEALEY DAVID [GB]; HILL PETER [GB]) 19 september 2001 (2001-09-19)

The present application does not meet the criteria of patentability, because the subject-matter of claim 1 is not new.

Document D1 discloses (see figures 1, 3, 6, 7, 8)

Inrichting, omvattende:

- een hoofdframe (8,9,15,16);
- steunen (20-25);
- een transformatiemechanisme, welke bij het hoofdframe hoort en is geconfigureerd om de inrichting te converteren tussen een vlakke steuntoestand (figure 2) en een hoekige steuntoestand (figure 6), waarbij steunen een hoek insluiten om een zit- en rugondersteuning te definiëren en vice versa.

The subject-matter of claim 1 is therefore not new.

The same objection additionally holds true in view of documents D2-D8 (see the corresponding passages cited in the search report).

Dependent claims 2-17 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of respect of novelty and/or inventive step, see documents D1-D8 and corresponding passages cited in the search report. The reasons therefore are the following:

The application contains three different directions of invention, which are all disclosed in prior art documents:

- a) the two halves (D1, D2, D3, and even D5)
- b) the sliding frames (D4, D6]
- c) the arrangement of wheels (D5, D6, D7 and D8)

The disclosure of the prior art documents is such that even an explicitly claimed combination of the above concepts would not involve an inventive step.