



(43) International Publication Date
28 August 2014 (28.08.2014)

- (51) International Patent Classification:
A47C 1/14 (2006.01) A47C 7/62 (2006.01)
A47C 3/04 (2006.01)
- (21) International Application Number:
PCT/HR2014/000008
- (22) International Filing Date:
14 February 2014 (14.02.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
P20130137A 19 February 2013 (19.02.2013) HR
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- (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,

DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

(54) Title: BEECH LOUNGE CHAIR WITH SAFETY COMPARTMENT

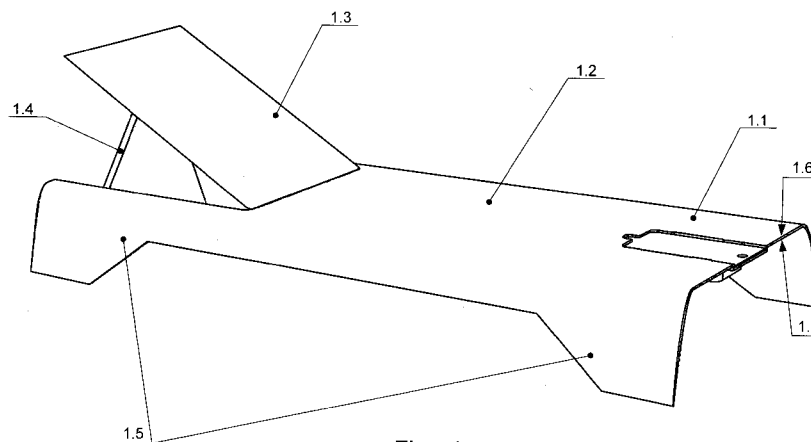


Fig. 1

(57) Abstract: The beech lounge chair with safety compartment, made of any material such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, in which case it can be manufactured by injection moulding technology, is designed as an integral panel of certain dimensions and corresponding limited thickness, with an upper (1.6) and a lower (1.7) surface, wherein the panel is designed to comprise a lower (1.1), a central (1.2) and an upper (1.3) section with the backrest and its support (1.4) and a base (1.5) as the bearing structure of the chair panel.



BEECH LOUNGE CHAIR WITH SAFETY COMPARTMENT

DESCRIPTION OF THE INVENTION

1. Technical field

The present invention refers to the design of a beech lounge chair made of any material, such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, designed as an integral panel with one or more recesses of equal or different volumes arranged in any place(s), intended for installation of safety compartments for the storage of handy things commonly used on the beach, wherein any of such compartment may be either lockable or not.

The present invention refers to the technical field classified as A47C1/14, A47C7/62, and A47C7/72 of the International Patent Classification

2. Technical problem

The technical problem solved with the present invention originates from an attempt to design a beech lounge chair made of any material, such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, designed as an integral panel with one or more recesses of equal or different volumes, of equal or different dimensions, intended for installation of safety compartments for the storage of handy things commonly used on the beach, wherein any of such compartments may be either lockable or not.

3. State of the art

There is a vast variety of concepts and designs of the beech lounge chairs, distinguished primarily by the materials used for each component of the lounge chairs as well as by the bearing structure design.

Besides, different designs are also a reflexion of the lounge chair suitability for a specific intended use. For example, the Patents US5720061, US2002/0095723, US4921301 and US5400449 relate to maternity lounge chairs specifically designed for pregnant women.

On the other hand, the Patents US6402231, US5121961 and US4484781 relate to portable beech lounge chair solutions particularly suitable for folding. The Patent US5950259 presents a solution of a beech lounge chair designed to facilitate the reading by the user in the face down prone position.

Patent literature also includes several beech lounge chair designs comprising a section for a compartment for the storage of handy things commonly used on the beach. So the Patent US5395157 relates to a beech lounge chair comprising a magazine storage recess incorporated below the middle section of the beech lounge chair while the Patent US2005/0264049 presents a solution of the beech lounge chair made of fabric with a rectangular opening with a recessed cavity sewn to the seams of the said opening to form a pocket and with a fabric flap sewn to the upper horizontal edge of the cavity opening. The solution offered in the Patent US4971390 relates to a safety locker drawer slidably attached to a support structure of the chair while the technical solution of the Patent GB2442703 comprises an integrally moulded recess for supporting a sliding drawer attached to a support structure of the chair.

None of the state-of-the-art technical solutions for a beech lounge chair have been designed as an integral panel made of any, including plastic material, with one or more recesses of equal or different volumes, of equal or different dimensions, intended for installation of safety compartments for the storage of handy things commonly used on the beach, wherein any of such compartments may be either lockable or not.

Such panels, designed as an integral part of the chair, enable the stacking of the chairs one upon another in layers, whereby the space required for transport is reduced to minimum.

4. The essence of the invention

The essence of the present invention, as a solution of the above mentioned technical problem, is that the beech lounge chair is made of any material such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, in which case they can be manufactured by injection moulding machines, designed as an integral panel with one or more recesses of equal or different volumes, of equal or

different dimensions, intended for installation of safety compartments for the storage of handy things commonly used on the beach, wherein any of such compartments may be either lockable or not.

The recesses in the chair panel are made to allow the stacking of the chairs one upon another in layers, whereby the space required for transport is reduced to minimum.

The beech lounge chair, made of any, including plastic material, in which case they can be manufactured by injection moulding technology, is designed as an integral panel of specific dimensions and corresponding limited thickness, with an upper (16) and a lower (17) surface, comprising a lower (1.1), a central (1.2) and an upper section with a backrest with its support (1.4) and a base (1.5) as a bearing structure of the panel, i.e. the chair, wherein at any place in the panel and at any distance from the edge (2.1) of the chair panel or the edge (2.2) of the backrest panel section, the panel is not flat but at such places, in the direction of the lower surface (1.6), recesses (2.3) are provided of certain volumes of equal or different dimensions, intended for the installation of safety compartments, either lockable or not.

The integral panel, including a lower (1.1), a central (1.2) and an upper (1.3) section with the backrest and its support (1.4) and the base (1.5) as the bearing structure of the panel, i.e. the chair as well as the recesses (2.3) of certain volumes of equal or different dimensions, are designed so that the lower (1.7) surface of any panel leans against the upper (1.6) surface of any other panel beneath, wherein the upper (1.6) surface of any other panel also leans against the lower (1.7) surface of any other panel above it, whereby the panels and thus the chairs as a whole, can be stacked one upon another (3.1) so that each panel, i.e. chair, fits well to the adjacent stacked panels, i.e. chairs.

The use of one or more recesses (2.3), as the case may be, made in the chair panel for the installation of safety compartments may be achieved in a number of ways.

5. Short description of the drawings

Figure 1: Beech lounge chair design according to the present invention

Position 1.1: Lower section of the chair panel;

Position 1.2: Central section of the chair panel;

- Position 1.3: Upper section of the chair with the backrest;
- Position 1.4: Backrest support;
- Position 1.5: Bearing components of the chair panel base;
- Position 1.6: Upper panel surface;
- Position 1.7: Lower panel surface;

Figure 2: Beech lounge chair with recess for safety compartment

- Position 2.1: Chair panel edge;
- Position 2.2: Backrest section edge;
- Position 2.3: Recess in the chair panel;

Figure 3: Stacked beech lounge chairs

- Position 3.1: Several chairs stacked one upon another;

Figure 4: Cross section of stacked chairs

- Position 4.1: Cross section of stacked chairs;

Figure 5: Design of the safety compartment in the chair panel recess

- Position 5.1: Several chairs stacked one upon another;

6. Method for the realization of the invention

The beech lounge chairs with recesses for installation of safety compartments, made of any material, such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, are manufactured by commonly used and conventional technologies suitable for a specific material, so as to achieve an integral chair panel of specified dimensions and corresponding limited thickness. When plastic materials are used, it is possible to apply conventional injection moulding technology known in the field of plastic material processing, using injection moulding machines to achieve specific dimensions and technical parameters subject to the type of the plastic material.

The compartments, whether lockable or not, can be realised in a number of ways using one or more recesses (2.3) of a certain volume and dimensions.

CLAIMS

1. The beech lounge chair with safety compartment, made of any material such as punch press perforated sheet metal, synthetic knitted fabric, including plastic material, in which case it can be manufactured by injection moulding technology, **characterised in that** the chair is designed as an integral panel of specified dimensions and corresponding limited thickness with an upper (1.6) and a lower (1.7) surface, wherein the panel is designed to comprise a lower (1.1), a central (1.2) and an upper (1.3) section with the backrest and its support (1.4) and a base (1.5) as a chair panel bearing structure.
2. The beech lounge chair with safety compartment according to claim 1, **characterised in that** in any place on the panel and at any distance from the chair panel edge (2.1) or the backrest panel edge (2.2), the panel is not flat but at such places, in the direction of the lower surface (1.6), recesses (2.3) of certain volumes and dimensions are provided, intended for the installation of safety compartments for the storage of handy things commonly used on the beach, wherein such compartments can be either lockable or not.
3. The beech lounge chair with safety compartment according to the preceding claims, **characterised in that** the recesses (2.3) of a certain volume and dimensions arranged in the integral panel, including its lower (1.1), central (1.2) and upper (1.3) part with backrest, as well as the base (1.5) as the bearing structure of the chair, are designed so that the lower (1.7) surface of any panel leans against the upper (1.6) surface of any other panel stacked beneath, wherein the upper (1.6) surface of any panel also leans against the lower (1.7) surface of any other panel stacked above it.
4. The beech lounge chair with safety compartment according to the preceding claims, **characterised in that** the panels and thus the chairs as a whole can be stacked one upon the other (3.1) in layers, fitting well to the adjacent stacked panels, i.e. chairs.
5. The beech lounge chair with safety compartment according to the preceding claims, **characterised in that** the safety compartments, either lockable or not, can be realised in a number of ways by using one or, as the case may be, more recesses (2.3) in the panel, of a certain volume and dimensions.

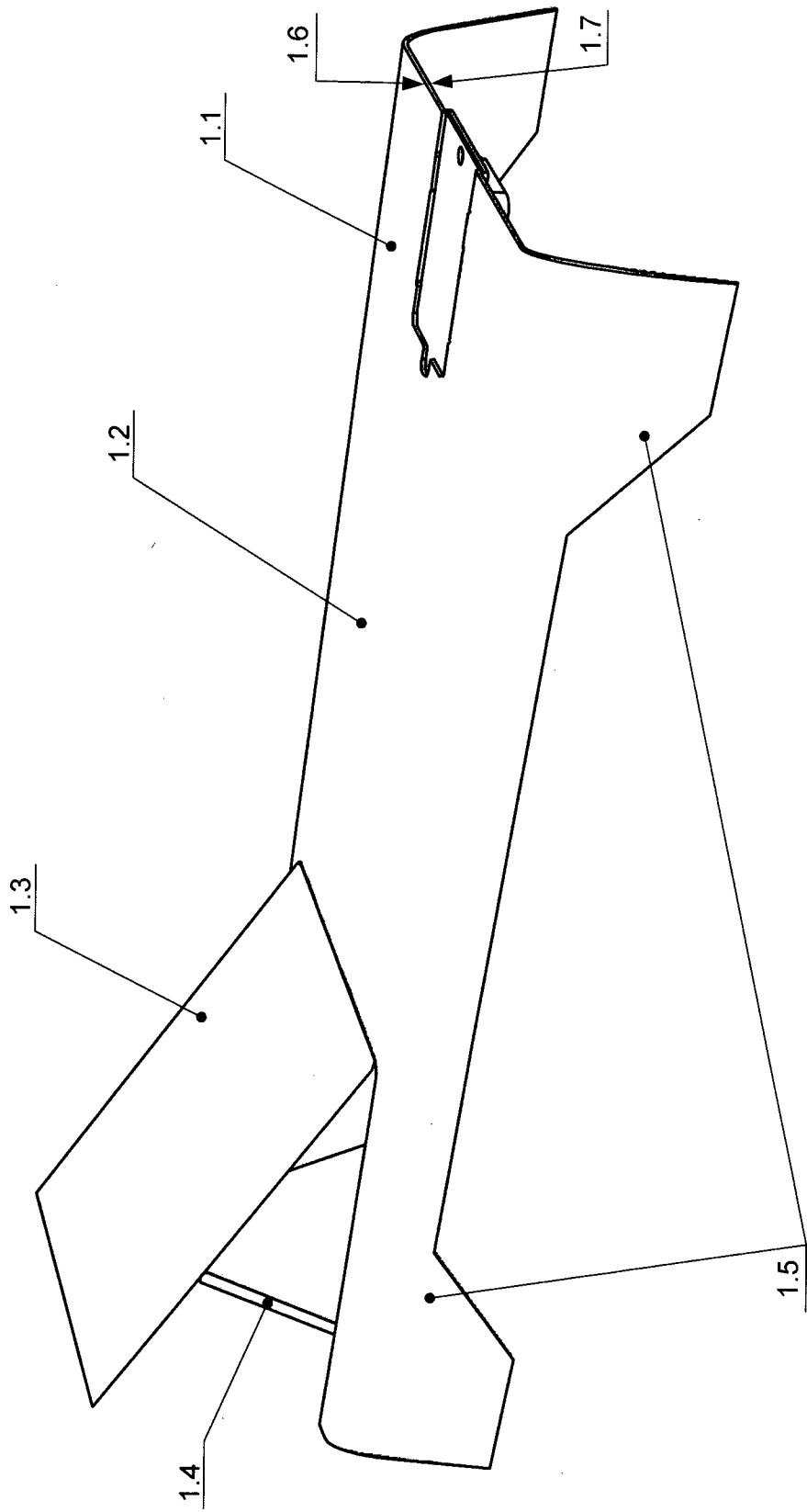


Fig. 1

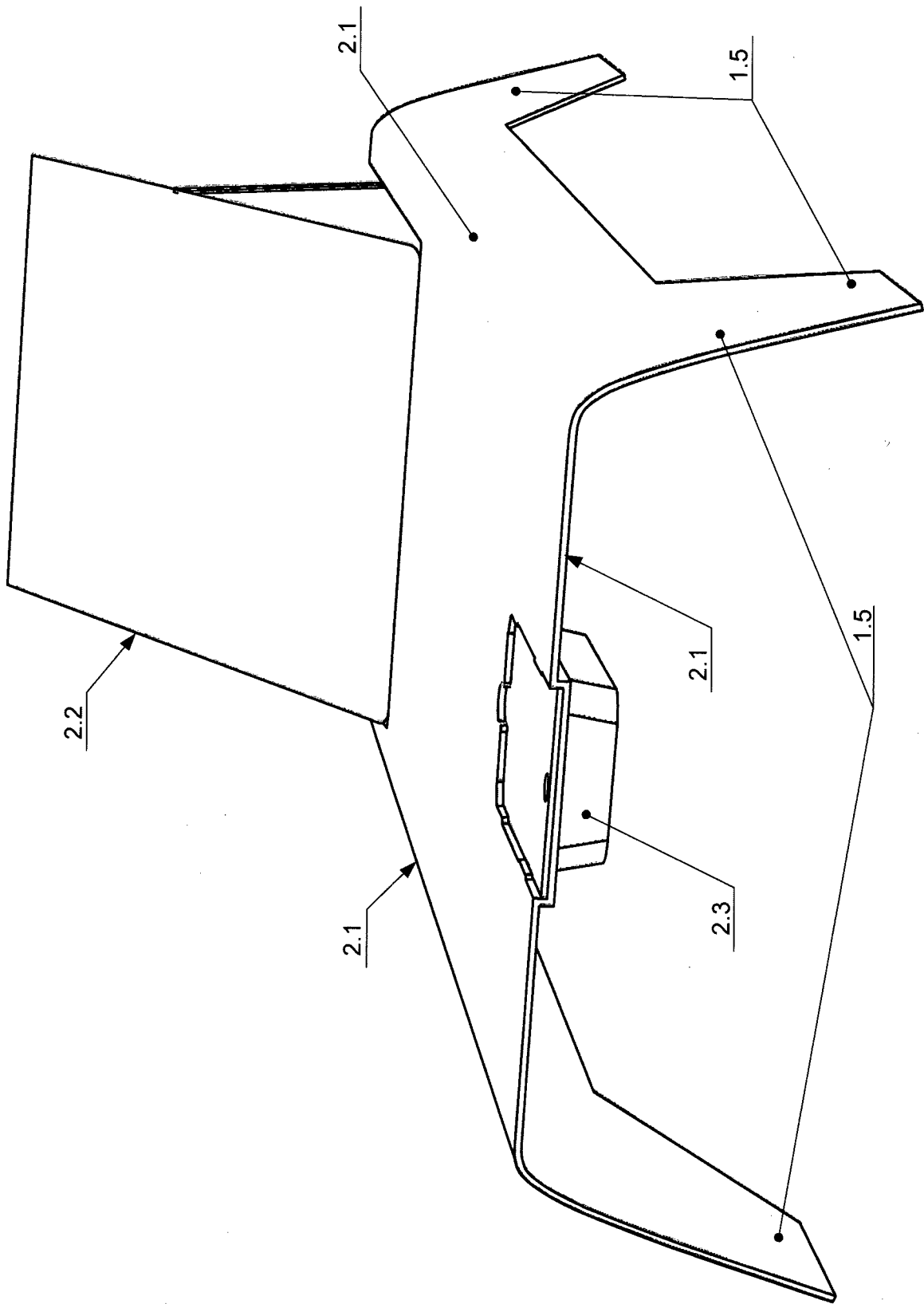


Fig. 2

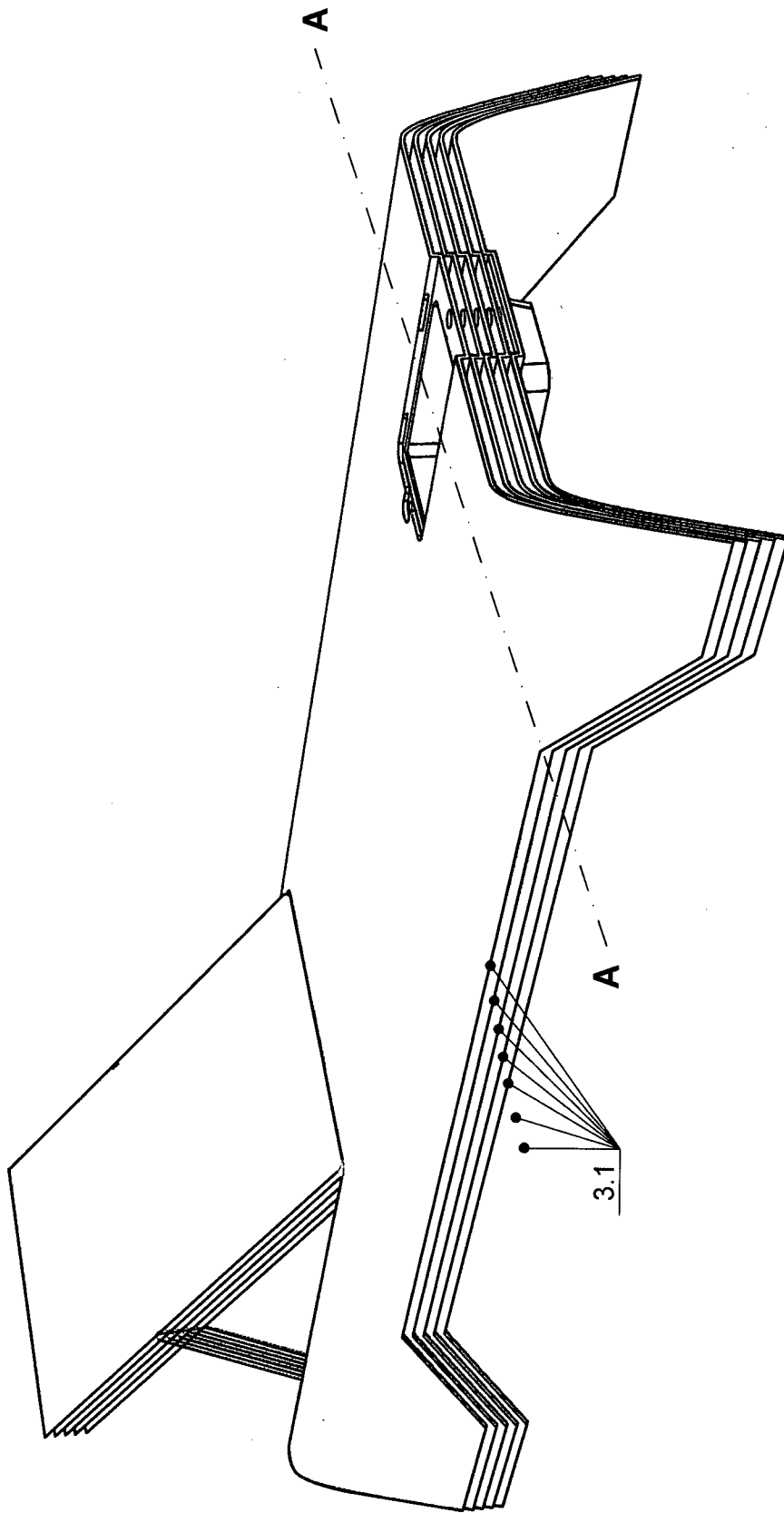


Fig. 3

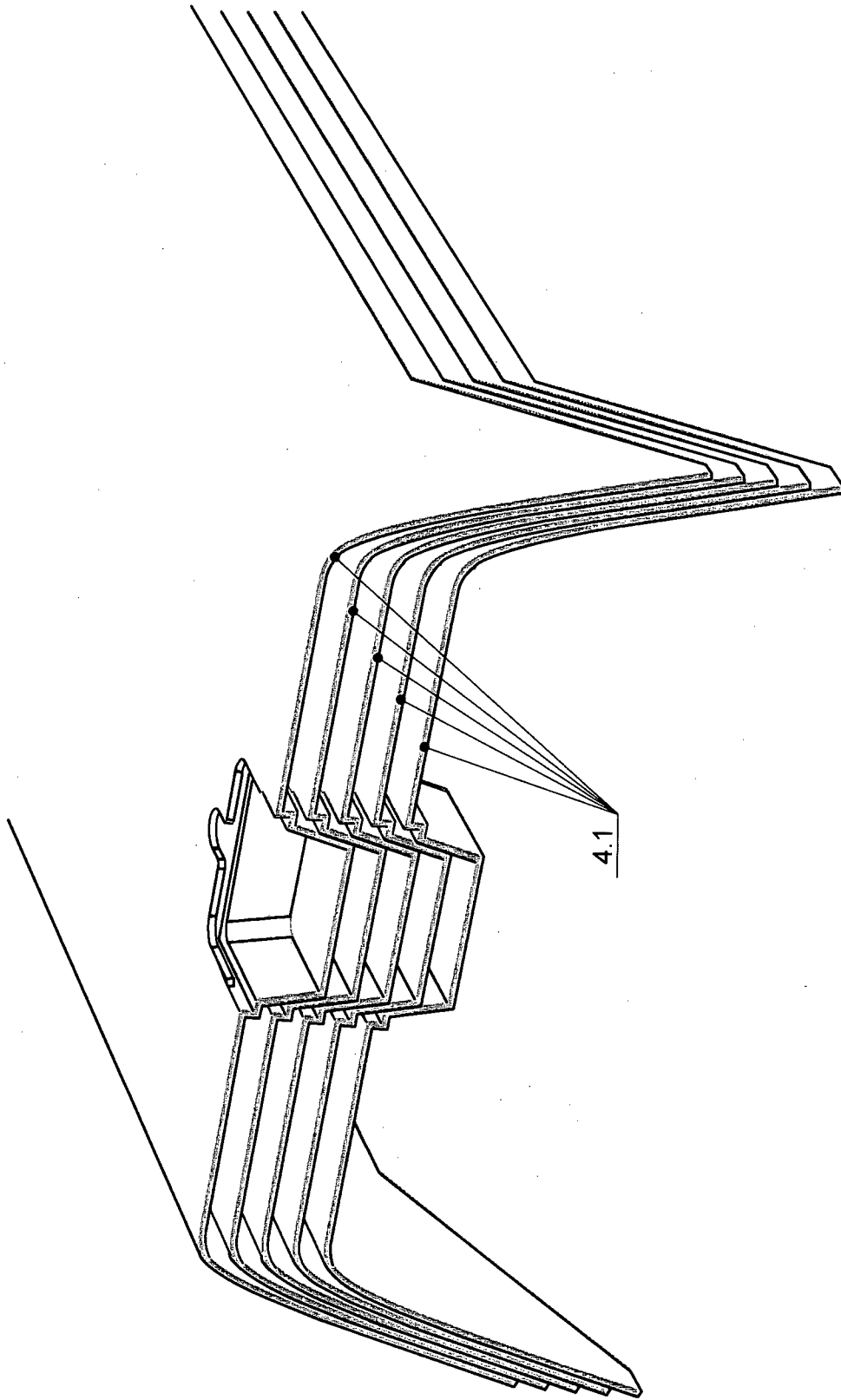


Fig. 4

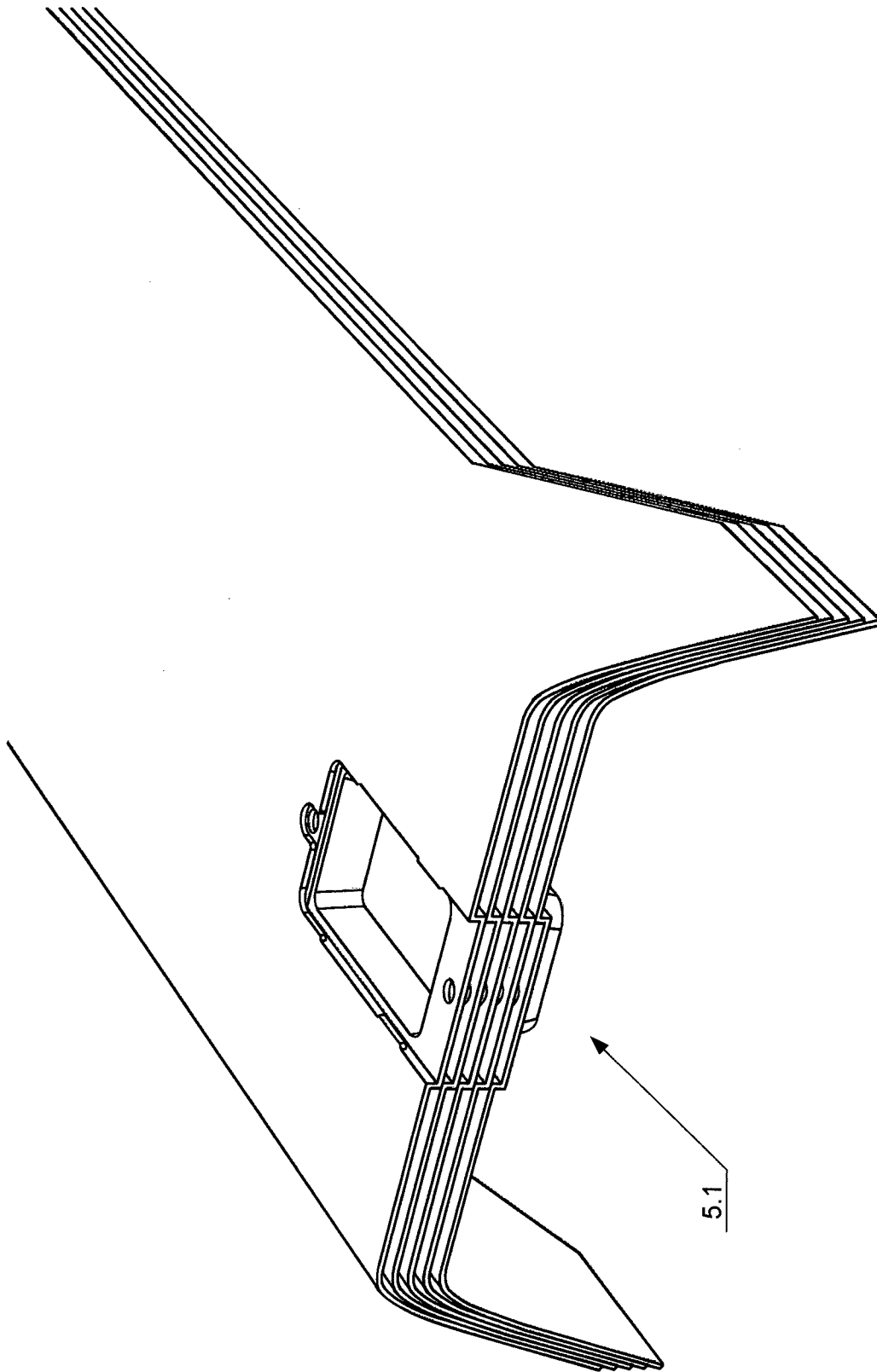


Fig. 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/HR2014/000008

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A47C1/14 A47C3/04 A47C7/62
 ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 A47C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/038938 A1 (FEINSTEIN JONATHAN JAY [US]) 18 February 2010 (2010-02-18)	1,2,5
Y	paragraphs [0007], [0021], [0023], [0027]; figures 1,2	3,4
Y	----- DE 10 2007 040999 A1 (PARTHY KAI [DE]) 5 March 2009 (2009-03-05) claims 5,9,10; figures 1,4	3,4
A	----- WO 2007/085673 A1 (SANCHEZ CASADEMUNT JAVIER [ES]) 2 August 2007 (2007-08-02) abstract; figures	1-5

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
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Date of the actual completion of the international search 15 May 2014	Date of mailing of the international search report 27/05/2014
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Amghar, Norddin
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/HR2014/000008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010038938 A1	18-02-2010	US 2010038938 A1 WO 2010056360 A2	18-02-2010 20-05-2010

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