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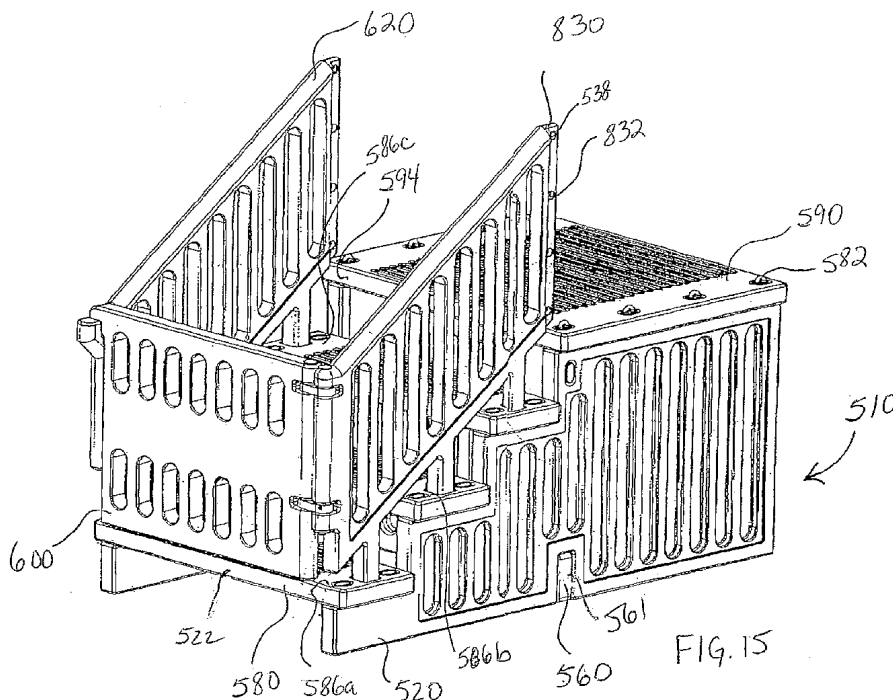
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(54) Title: PORTABLE, MODULAR STAIRWAY SYSTEM AND DEVICE



(57) Abstract: A portable, modular stairway system and device, wherein lightweight yet sturdy components provide a structurally sound modular stairway and landing structure, wherein interlocking components facilitate ease of assembly, and wherein disassembled components define a limited dimension and weight, thereby facilitating easy packaging, transport, and/or shipping.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: E04F 11/04(2006.01)

USPC: 52/182;182/115

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)
U.S. : 52/182, 183, 184; 182/115, 116, 113, 118

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/0040785 A1 (ROBINSON ET AL.) 04 March 2004 (04.03.2004), entire document	1-9, 21-32, and 38-40
X	US 6,102,156 A (LIPNIARSKI) 15 August 2000 (15.08.2000), entire document	10-18, 20, 33-37, and 41-46

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

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

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Date of mailing of the international search report

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Name and mailing address of the ISA/US

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INTERNATIONAL SEARCH REPORT

International application No.

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 19
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 19 was not searched because it is unclear whether claim 19 is a dependent claim dependent upon claim 14 or is an independent claim.

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
 2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
 3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

 4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-18 and 20-46
- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-9, 10-13, 20-37, 41-46 drawn to a stairway device and stairway system.

Group II, claim(s) 14-19, and 38-40 drawn to a method of assembling stairway.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In order for more than one species to be examined, the appropriate additional examination fees must be paid. The species are as follows:

SPECIES I – Fig. 1;
SPECIES II – Fig. 5;
SPECIES III – Fig. 6;
SPECIES IV – Fig. 9a;
SPECIES V – Figs. 10A/10B;
SPECIES VI – Figs. 11C/11D;
SPECIES VII – Figs. 12a/12b; and
SPECIES VIII – Fig. 15.

The claims are deemed to correspond to the species listed above in the following manner:

SPECIES I (i.e., Fig. 1) – claims This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-9, 10-13, 20-37, 41-46 drawn to a stairway device and stairway system.

Group II, claim(s) 14-19, and 38-40 drawn to a method of assembling stairway.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In order for more than one species to be examined, the appropriate additional examination fees must be paid. The species are as follows:

SPECIES I – Fig. 1;
SPECIES II – Fig. 5;
SPECIES III – Fig. 6;
SPECIES IV – Fig. 9a;
SPECIES V – Figs. 10A/10B;

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SPECIES VI – Figs. 11C/11D;
SPECIES VII – Figs. 12a/12b; and
SPECIES VIII – Fig. 15.

The claims appear to correspond to the species listed above in the following manner:

SPECIES I (i.e., Fig. 1) – claims 1, 8, 21, 22, and 38-40
SPECIES II (i.e., Fig. 5) – claims 1, 8, 21, 22, and 38-40
SPECIES III (i.e., Fig. 6) – claims 1, 8, 21, 22, and 38-40
SPECIES IV (i.e., Fig. 9a) – claims 1, 8, 21, 22, and 38-40
SPECIES V (i.e., Figs. 10A/10B) – claims 1, 8, 21, 22, and 38-40
SPECIES VI (i.e. Figs. 11C/11D) – claims 1, 8, 21, 22, and 38-40
SPECIES VII (i.e., Figs. 12a/12b) – claims 1, 8, 21, 22, and 38-40
SPECIES VIII (i.e., Fig. 15) – claims -1-23

The following claim(s) are generic: 1, 8, 21, and 22.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

GROUP I having claims drawn to a stairway device/system has the special technical feature of a plurality of risers and a plurality of treads, wherein the risers are intended to receive the treads.

GROUP II having claims drawn to a method of assembling a stairway device/system has the special technical feature of the steps of interlocking a pair of risers with three stair treads and a landing support member.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

SPECIES I (i.e., Fig. 1) has the special technical feature of being a stairway device/system having two landing risers (60, 60) each connected to railed risers (20, 20).

SPECIES II (i.e., Fig. 5) has the special technical feature of being a stairway device/system having two landing risers (60, 60) each connected to railed risers (20, 20), wherein each of the landing risers (60, 60) have more than one tab recess (62, 26) and each of the railed risers (20, 20) have more than one oversized tab structure to cooperatively interlock with the tab recesses (62, 62).

SPECIES III (i.e., Fig. 6) has the special technical feature of being a stairway device/system having two triangular-shaped bases (24, 24) each connected to rhombus-shaped rail structures (26, 26).

SPECIES IV (i.e., Fig. 9a) has the special technical feature of being a stairway device/system having an alternate safety net configuration wherein the rope of the safety net is tied around the top spindle.

SPECIES V (i.e., Fig. 10A/10B) has the special technical feature of being a stairway device/system having the railed riser have loops (172) through which the ropes of the alternate safety net are strung.

SPECIES VI (i.e., Figs. 11C/11D) has the special technical feature of being a stairway device/system having two landing risers each connected to railed risers by both interlocking tabs and recesses and elongated bolts through passages in the tabs.

SPECIES VII (i.e., Fig. 12a/12b) has the special technical feature of being a stairway device/system having honeycombed rail risers and landing risers.

SPECIES VIII (i.e., Fig. 15) has the special technical feature of being a portable, modular stairway system and device 510, comprising a pair of risers 520, a landing support 560, a plurality of treads 580, a gate 600, a pair of step railings 620, a plurality of hinge pins 640, a landing platform 660, a plurality of tubes 680, and a plurality of tube weldments 700, wherein

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each component 520, 560, 580, 600, 620, and 660 are of twin sheet thermoformed design, and wherein plurality of hinge pins 650, tubes 680, and tube weldments 700 are aluminum, formed by such methods as extrusion, tube welding, or forged (cast) aluminum.