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(54) **A METHOD OF WORKING UPON A VEHICLE AND AN ASSOCIATED COLLAPSIBLE CANOPY OR SHELTER STRUCTURE FOR SAME**

VERFAHREN ZUM BEARBEITEN VON AUTOS UND DAFÜR ZUSAMMENLEGBARE
ÜBERDACHUNG ODER SCHUTZRAUMSTRUKTUR

PROCEDE DE TRAVAIL SUR UN VEHICULE ET STRUCTURE DE TYPE ABRI OU TENTE PLIABLE
ASSOCIEE DESTINEE A LA MISE EN OEUVRE DE CE PROCESSUS

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EP 1 456 486 B1

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Description

[0001] The present invention relates to a method of working upon a vehicle and an associated collapsible canopy or shelter structure.

[0002] Conventionally, where vehicle bodywork repairs such as dent repair, paintwork retouching or finishing are required for a vehicle, the vehicle is removed to a pre-existing vehicle repair body shop or paint spray shop. Similarly, for vehicle windscreen replacement or repair these are conventionally carried out in pre-existing workshops. In these instances the repair process benefits from shielding from the elements provided by such permanent structures.

[0003] UK Patent Number 921675 describes a collapsible canopy configured for transport on the roof of a vehicle, and is contained within a rigid roof structure. However, such roof structures are weighty and awkward to lift from the roof of a vehicle.

[0004] According to a first aspect, the present invention provides a method of working upon a vehicle according to claim 1.

[0005] According to a second aspect, the present invention provides a collapsible canopy structure according to claim 6.

[0006] Preferably the collapsible canopy structure is provided with extraction means for extraction of air/fumes and/or dust or the like from internally of the canopy structure to vent to externally of the canopy structure. Any fumes or dust present within the canopy structure can therefore be removed from the closed environment internally of the canopy structure. The extraction means preferably comprises an extraction unit and/or duct preferably mounted within the canopy structure, in the roof structure or in a side wall of the structure (integrally or otherwise). Beneficially the arrangement includes operational means for modifying and maintaining in a controlled manner the ambient environment internally of the erected canopy structure. In addition to the fumes/dust extraction arrangement (or as an alternative thereto) means is preferably provided for tailoring the ambient temperature and/or humidity of the air internally of the erected structure. Heater apparatus and/or humidifier apparatus may beneficially be provided for this purpose. Such a controlled environment is particularly beneficial in situations of extreme hot or cold external ambient environments. Humidity control is also highly beneficial for vehicle repairs such as windscreen (glazing panel) replacement where adhesive cure rates can be humidity and temperature dependent.

[0007] The collapsible canopy structure is preferably constructed of prefabricated panels (preferably of flexible conformable/pliable sheet or membrane material for example of plastics or the like) defining one or more side walls. The unit is preferably prefabricated or preconstructed to be reconfigurable on site between the erected configuration and the stowed configuration in a manner such that one or more side walls may be stowed by the

roof area structure preferably being folded against the roof area preferably being received within a receiving recess or cavity defined by the roof area structure. One or more side panels or side walls therefore preferably remain connected to the roof area (foldably hinged, pivotally or otherwise) in both the stowed and operational (erected) configurations.

[0008] Beneficially, the roof area structure comprises a relatively rigid structure having marginal wall portions and a spanning portion connecting the marginal wall portions. Preferably, the marginal wall portions of the roof area structure extend in a direction transverse to the spanning portion and are less extensive than the spanning portion, thereby defining an inverted shallow tray or the like having a marginal rim.

[0009] It is preferred that the roof area structure is formed of relatively rigid plastics material. Beneficially, the roof area structure includes securing means, for securing the roof area structure to a vehicle for transportation.

[0010] Advantageously, in the erected configuration, the one or more sidewalls extend outwardly and downwardly from the roof area structure. The arrangement is preferably such that the footprint area of the erected structure is substantially greater than the footprint area of the roof area structure.

[0011] Preferably one or more of the side walls comprises an entry/exit arrangement permitting entry or exit of a vehicle into the space below the canopy roof area structure. The entry or exit arrangement may comprise a flexible sheet or membrane, or alternatively a panel arranged to move bodily relative to the remainder of the structure between a closed position and an open position (for example, such as an up and over type door arrangement).

[0012] In a preferred embodiment, the entry/exit arrangement comprises a folding arrangement defining a sidewall extending downwardly and outwardly of the roof area structure in a closed configuration and, in an open configuration, an opening spaced inwardly of the closed configuration position of the entry/exit sidewall.

[0013] In a preferred embodiment, the arrangement includes opposed walls of the structure displaceable to permit drive through (in roll on-roll off fashion) of the target vehicle.

[0014] Beneficially, support means is provided to support the canopy structure in its operational position. In a preferred embodiment, the support means is arranged for supporting, in the erected configuration:

the roof area structure above ground level; and/or,

the one or more sidewalls.

[0015] The support means beneficially includes a support frame comprising a plurality of support struts. Beneficially, the support frame is arranged to set the roof area structure at a defined height when the canopy struc-

ture is in the erected configuration. Beneficially, a flexible (preferably pivotal) connection between one or more support struts of the support frame and the roof area structure is provided. In a preferred embodiment, the roof area structure rests on a vehicle roof following transportation. A support strut is manually connected to the roof area structure and pivoted to an upright position. In so doing, the roof structure is raised from its resting position on the vehicle roof.

[0016] Beneficially, the support frame includes primary struts supporting the roof area structure and spanning struts connectable with the primary struts, the spanning struts being secured with the (preferably flexible) sidewall panels of the structure. It is preferred that at least some of the spanning struts and associated secured sidewall panels are arranged to fold for stowing into a stowing compartment defined by the roof area structure. Preferably, the support means includes ground engaging rotary support means (such as wheels or castors) permitting the structure to be moved over ground in the erected configuration. This is an important aspect of the invention permitting the demounted and erected canopy structure to be manoeuvred to the required location for conducting vehicle repairs or the like.

[0017] The support means may comprise one or more substantially rigid wall panels or sidewalls. Opposed substantially rigid sidewalls or side panels may be provided. Additionally, or alternatively the structure may be partially supported by a support vehicle such as a van or the like. Where substantially rigid panels are used for one or more sidewalls or panels, it is preferred that they are of relatively lightweight material such as, for example, plastics or fibreboard construction.

[0018] Beneficially the canopy structure includes floor covering which may, for example, comprise a flexible ground sheet.

[0019] The invention will now be further described in specific embodiments by way of example only and with reference to the accompanying drawing in which:

Figure 1 is a first perspective side view of an exemplary embodiment of a structure according to the invention in an erected state;

Figure 2 is a perspective view of the structure corresponding to Figure 1 but not showing the flexible side wall covering;

Figure 3 is a schematic detail view of a part of the structure of Figures 1 and 2 in a partially collapsed/stowed state;

Figure 4 is a schematic perspective view of an alternative embodiment of a collapsible structure in accordance with the invention in an erected state; and

Figure 5 is a schematic end view of the canopy structure in its stowed collapsed state.

[0020] Referring initially to Figures 1, 2 and 3 of the drawings, there is shown a structure 1 for use as a collapsible/erectable structure for use as a canopy or shelter, particularly for use as a temporary erectable structure for conducting repairs or refurbishment to vehicles.

[0021] The structure comprises a roof area structure 2 formed of a substantially rigid plastics materials such as glass fibre reinforced plastics (grp) or the like. The roof area structure includes a roof spanning portion and marginal, downwardly extending end 6,7 and side wall portions 5 defining a receiving cavity or recess 30. The roof area structure 2 is shaped and dimensioned to fit on the roof of a transportation vehicle such as, for example, a transportation van (not shown). Cooperating fastening formations (not shown) may be provided on the roof of the van and the side of the roof area structure 2 to ensure secure fitment of the roof area structure 2 to the roof of the van or other vehicle.

[0022] The cavity or recess 30 defined by the roof area structure serves to stow other components of the canopy or shelter structure arrangement and will be described in detail hereinafter. When the structure has been carried in its stowed configuration to the required location for erection, the roof area structure is demounted from the roof of the transportation vehicle and the structure erected.

[0023] The structure according to the present invention facilitates rapid and convenient erection from a stowed configuration and is conveniently collapsible from the erected configuration for re-stowing and transportation.

[0024] In the erected configuration, the structure comprises a structural framework, comprising a pair of forward support struts 31,32 and a pair of rearward support struts 33,34. These are typically carried separately to the remainder of the stowed structure (for example, in the back of the transportation vehicle) and are thus demountable entirely from the roof area structure. The support struts include cylindrical connection lugs 35 for mating with corresponding bushed apertures 36 provided through the respective side walls 5 of the roof area structure 2. The ground engaging ends of the support struts 31,32,33,34 are provided with wheels 37 or rollers to enable movement of the structure when erected.

[0025] In order to demount the arrangement 1 from the roof of the transportation vehicle, the respective cylindrical lugs 35 of the supports 33,34 are inserted into the respective bushed apertures 36 provided proximate one end of the roof area 2, whilst the roof area structure 2 is resting on the vehicle roof.

[0026] As shown in Figure 3, following insertion of the lug 35 into bushed aperture 36 (arrow A) the support struts 33,34 are pivoted (arrow B) with the support roller 37 of the respective struts resting on the ground surface. The length of the pair of support struts 33,34 is such that in pivoting the strut (arrow B) to its full support position, perpendicular to the roof area structure, the roof area structure 2 is caused to physically lift upwardly (arrow C)

from the roof of the transportation vehicle. A corresponding procedure is effected at the other end of the roof area structure to ensure that the roof area structure is lifted fully clear of the roof of the support vehicle. Bracing struts 40,41 are then connected to a respective support bracket 45 carried by the struts 31, 32, 33, 34. The bracing struts 40, 41 are then located within in respective further apertures provided through the side walls of the roof area structure.

[0027] In the stowed configuration (Figure 3), upper and lower metallic cross members 47,48 of the framework are secured in respective clip elements 50 within the interior of the cavity or recess 30 of the roof area structure 2. The struts are effectively permanently connected to opposed respective portions of the flexible plastic side wall panel cover 55 which is folded and stowed within the cavity or recess 30 of the roof area structure 2. The stowed configuration of the struts and flexible sheet side walls is shown in Figure 3. In the erected configuration, the cross-members 47,48 are released from the clip elements 50 such that the side wall cover portion 55 hangs down from the roof area structure 2. Cross-member 47 is secured at opposed ends to brackets 45, cross-member 48 secures at its ends (via clamps-not shown) to support struts 31,32,33,34.

[0028] Opposed end walls of the shelter/canopy structure are defined by hoop frame elements 61,62 which support portions of the end wall panel, of the flexible sheet cover 55 of the structure. The elements 61,62 are pivotable (about the bracket connection to the wheel 37) from the canopy closed configuration shown in Figure 1, in the direction of arrows D and E respectively, with the inter-spanning portion of the flexible canopy sheet folding concertina-style, in order to open the end of the structure and thereby provide a vehicle entry/exit arrangement for the structure.

[0029] The arrangement as described forms an easily erectable/collapsible structure which may be arranged in a required location and operated to permit entry into the interior of the structure of a vehicle and subsequent closure of the exit/entry arrangement to enclose the vehicle for conducting operations on a vehicle such as body repairs, windscreen replacement and the like.

[0030] The cover 55 and the frame elements 47,48 and portions of the hoop frame elements 61, 62 all fold and clip into the roof area structure for storage and transportation.

[0031] Fume/air extraction apparatus 75 is provided to direct hazardous fumes or other evolved material from the interior of the structure to the exterior. The apparatus 75 preferably includes air conditioning means such as a heater/refrigeration plant and/or humidifier/de-humidifier to condition the quality of the environment internally of the erected structure.

[0032] Referring to Figure 4, the canopy arrangement 101 is shown in its erected configuration and comprises a relatively rigid fibre reinforced plastics roof 102 comprising spanning portion 103 and outwardly tapering roof

side walls 104,105,106 and 107. (Only side walls 105 and 106 of roof 102 are clearly visible in the drawing).

[0033] Connected to roof side walls 104,105 via a hinge line 109, are marginal portions 10 and 11 of relatively rigid fibre reinforced plastics. Marginal portions 110 and 111 are secured in their respective outwardly extending positions by means of tension lines 112, 113. Extending downwardly from marginal portion 110 (and connected at hinge line 122) is a relatively rigid side wall 114 for the canopy structure comprising a series of edge connected preformed plastics panels 114a to 114g. Side wall 114 rests on the ground (or a fabric ground sheet 115) providing support for the canopy roof 103 above the ground. The corresponding obverse side of the canopy (side of margin panel 111) can either be provided with corresponding side wall 114 or alternatively can be connected to the side of a van or other vehicle (or any other structure). The end 116 of the canopy is provided with an entry/exit opening permitting entry of a vehicle into the interior of the canopy structure. Entry/exit end 116 is closed when the vehicle is in the interior of the canopy structure typically by, for example, a fabric roller door 117. The opposed end 118 of the structure may be closed by a similar fabric roller door (or other openable closure panel) or alternatively may provide a relatively rigid end wall similar to side wall 114.

[0034] In its collapsed configuration (as shown in Figure 5), tension lines 112, 113 are disconnected and side wall (or walls) 114 and marginal portions 110,111 fold hingedly to be received within the interior of the space defined by the roof spanning portion 103 and the tapering roof side walls 104, 105, 106, 107. The now collapsed structure may be secured in its collapsible state and easily transported to a further location for re-erection. The canopy structure is provided with a fume extraction unit (such as unit 120) permitting fumes to be extracted from the interior of the structure when erected.

[0035] The arrangement according to the present invention provides a convenient and easily transportable structure for use as a mobile automotive repair or vehicle paint shop.

[0036] The arrangement enables the quality of the environment internally of the structure to be controlled and optimised dependent upon external ambient conditions and the vehicle repairs being conducted.

Claims

1. A method of working upon a vehicle, the method comprising:

i) transporting, via a transport vehicle, a collapsible canopy structure in a stowed configuration to a work location, the canopy structure comprising a rigid roof area structure and extending downwardly from the roof area structure, side walls including at least one sidewall permitting

entry of the target vehicle below the roof area structure; the canopy being collapsible from an erected configuration to a stowed condition for transportation;

ii) demounting the collapsible canopy structure from the transport vehicle and re-configuring the canopy structure to an erected configuration;

iii) moving a target vehicle from the exterior of the canopy structure to the interior of the canopy structure; and

iv) with the target vehicle in position in the controlled environment provided by the canopy structure, working upon the target vehicle; wherein:

the canopy is pivotally mounted to rotatable support means rotatably movable over the ground surface; and the step of demounting the collapsible canopy structure from the transport vehicle and re-configuring the canopy structure to an erected configuration comprising pivoting the support means to a perpendicular orientation relative to the roof area structure while in rolling engagement with the ground to cause the roof area structure to be lifted upwards away from the transport vehicle.

2. A method according to claim 1, wherein extraction means is provided which is operational to extract air and/or fumes and/or dust from the interior of the erected canopy and exhaust exterior to the canopy.

3. A method according to claim 1 or 2, wherein the canopy in the stowed configuration is mounted to the roof of the transportation vehicle, and one or more sidewalls are stowed within a receiving cavity defined by the roof area structure.

4. A method according to any preceding claim, wherein:

heating means is provided which is operated to modify the ambient temperature of the environment in the interior of the erected canopy structure.

5. A method according to any preceding claim, wherein:

humidity control means is provided which is operated to modify the ambient humidity of the environment in the interior of the erected canopy structure.

6. A collapsible canopy structure comprising:

a rigid roof area structure; side walls configured to extend downwardly from the roof structure in an erected configuration, including at least one

side wall permitting entry of vehicle below the roof area structure; the canopy structure being collapsible from the erected configuration, to a stowed condition for transportation in which one or more sidewalls are stowed within a receiving cavity defined by the roof area structure; and also comprising a plurality of support struts for supporting the roof area structure at a defined height above the ground in the erected configuration, **characterised in that** the support struts include a first end pivotally mounted to the roof area structure and a second ground engaging end having a rotatable element for rolling engagement with the ground, the struts being configured such that when pivoted to a substantially perpendicular orientation relative to the roof structure while rollingly engaged with the ground they cause the roof area structure to be lifted upwards.

7. A collapsible canopy structure according to claim 6, wherein the roof area structure is formed of relatively rigid plastics material.

8. A collapsible canopy structure according to claim 6 or 7, wherein the roof area structure includes securing means, for a securing the roof area structure to a vehicle for transportation.

9. A collapsible canopy structure according to any one or more of claims 6 to 8, wherein in the erected configuration, the one or more sidewalls extend outwardly and downwardly from the roof area structure.

10. A collapsible canopy structure according to any one of claims 6 to 9 wherein the entry/exit arrangement comprises a folding arrangement defining a sidewall extending downwardly and outwardly of the roof area structure in a closed configuration and, in an open configuration, an opening spaced inwardly of the closed configuration position of the entry/exit sidewall.

11. A collapsible canopy structure according to any one of claims 6 to 10, wherein the entry/exit arrangement comprises a panel arranged to move bodily relative to the remainder of the structure between a closed configuration and an open configuration.

12. A collapsible structure according to any of claims 6 to 11, including extraction means for extraction of air and/or fumes and/or dust from internally of the canopy structure to vent to externally of the canopy structure.

Patentansprüche

1. Verfahren zum Arbeiten an einem Fahrzeug, wobei das Verfahren Folgendes beinhaltet:

- i) Transportieren einer zusammenlegbaren Überdachungsstruktur in einer Verstauposition zu einem Arbeitsort, wobei die Überdachungsstruktur eine starre Dachbereichsstruktur und von der Dachbereichsstruktur abwärts verlaufende Seitenwände umfasst, einschließlich wenigstens einer Seitenwand, die die Einfahrt des Zielfahrzeugs unter die Dachbereichsstruktur erlaubt; wobei die Überdachung von einer errichteten Konfiguration in einen Verstauposition für den Transport zusammengelegt werden kann;
- ii) Abnehmen der zusammenlegbaren Überdachungsstruktur von dem Transportfahrzeug und Umkonfigurieren der Überdachungsstruktur in eine errichtete Konfiguration;
- iii) Bewegen eines Zielfahrzeugs von außerhalb der Überdachungsstruktur ins Innere der Überdachungsstruktur; und
- iv) Arbeiten an dem Zielfahrzeug, wenn das Zielfahrzeug in der durch die Überdachungsstruktur gegebenen kontrollierten Umgebung in Position ist; wobei:

die Überdachungsstruktur schwenkbar an drehbaren Tragmitteln montiert ist, die über die Bodenfläche gerollt werden können; und der Schritt des Abnehmens der zusammenlegbaren Überdachungsstruktur vom Transportfahrzeug und des Umkonfigurierens der Überdachungsstruktur in eine errichtete Konfiguration das Schwenken des Tragmittels in eine lotrechte Ausrichtung relativ zur Dachbereichsstruktur unter ständigem Rolleingriff mit dem Boden beinhaltet, um zu bewirken, dass die Dachbereichsstruktur vom Transportfahrzeug weg nach oben gehoben werden kann.

- 2. Verfahren nach Anspruch 1, wobei Abzugsmittel mit der Aufgabe vorgesehen sind, Luft und/oder Dämpfe und/oder Staub aus dem Innern der errichteten Überdachung abzusaugen und aus der Überdachung hinaus abzulassen.
- 3. Verfahren nach Anspruch 1 oder 2, wobei die Überdachung in der Verstauposition auf dem Dach des Transportfahrzeugs montiert ist und ein oder mehrere Seitenwände in einem durch die Dachbereichsstruktur definierten Aufnahmehohlraum verstaup werden.
- 4. Verfahren nach einem der vorherigen Ansprüche,

wobei ein Heizmittel vorgesehen ist, das zum Verändern der Umgebungstemperatur der Umgebung im Innern der errichteten Überdachungsstruktur betrieben wird.

- 5. Verfahren nach einem der vorherigen Ansprüche, wobei ein Feuchtigkeitsregelmittel vorgesehen ist, das zum Verändern der Umgebungsfeuchtigkeit der Umgebung im Innern der errichteten Überdachungsstruktur betrieben wird.
- 6. Zusammenlegbare Überdachungsstruktur, die Folgendes umfasst:

eine starre Dachbereichsstruktur; Seitenwände, die so konfiguriert sind, dass sie sich in einer errichteten Konfiguration von der Dachstruktur abwärts erstrecken, einschließlich wenigstens einer Seitenwand, die die Einfahrt eines Fahrzeugs unter die Dachbereichsstruktur erlaubt; wobei die Überdachungsstruktur von der errichteten Konfiguration in einen Verstauposition für den Transport zusammengelegt werden kann, in dem ein oder mehrere Seitenwände in einem durch die Dachbereichsstruktur definierten Aufnahmehohlraum verstaup werden; und die auch mehrere Stützstreben zum Abstützen der Dachbereichsstruktur in einer definierten Höhe über dem Boden in der errichteten Konfiguration umfasst, **dadurch gekennzeichnet, dass** die Stützstreben ein erstes Ende aufweisen, das schwenkbar an der Dachbereichsstruktur montiert ist, und ein zweites, Bodenangriffsende mit einem drehbaren Element für einen Rolleingriff mit dem Boden, wobei die Streben so konfiguriert sind, dass sie beim Schwenken in eine im Wesentlichen lotrechte Orientierung relativ zur Dachstruktur unter ständigem Rolleingriff mit dem Boden bewirken, dass die Dachbereichsstruktur hochgehoben wird.

- 7. Zusammenlegbare Überdachungsstruktur nach Anspruch 6, wobei die Dachbereichsstruktur aus einem relativ starren Plastikmaterial gebildet ist.
- 8. Zusammenlegbare Überdachungsstruktur nach Anspruch 6 oder 7, wobei die Dachbereichsstruktur Befestigungsmittel zum Befestigen der Dachbereichsstruktur an einem Fahrzeug für den Transport beinhaltet.
- 9. Zusammenlegbare Überdachungsstruktur nach einem oder mehreren der Ansprüche 6 bis 8, wobei die ein oder mehreren Seitenwände in der errichteten Konfiguration von der Dachbereichsstruktur nach außen und nach unten verlaufen.
- 10. Zusammenlegbare Überdachungsstruktur nach ei-

nem der Ansprüche 6 bis 9, wobei die Ein-/Ausgangsordnung eine Faltanordnung umfasst, die in einer geschlossenen Konfiguration eine von der Dachbereichsstruktur nach unten und außen verlaufende Seitenwand und in einer offenen Konfiguration eine Öffnung definiert, die von der Position in der geschlossenen Konfiguration der Ein-/Ausgangsseitenwand nach innen beabstandet ist.

11. Zusammenlegbare Überdachungsstruktur nach einem der Ansprüche 6 bis 10, wobei die Ein-/Ausgangsordnung ein Paneel umfasst, das so angeordnet ist, dass es sich körperlich relativ zum Rest der Struktur zwischen einer geschlossenen Konfiguration und einer offenen Konfiguration bewegt.
12. Zusammenlegbare Struktur nach einem der Ansprüche 6 bis 11 mit Abzugsmitteln zum Abziehen von Luft und/oder Dämpfen und/oder Staub aus dem Innern der Überdachungsstruktur zum Ablassen aus der Überdachungsstruktur hinaus.

Revendications

1. Procédé de travail sur un véhicule, le procédé comprenant :

- i) le transport par le biais d'un véhicule de transport d'une structure de tente pliable dans une configuration rentrée vers un emplacement de travail, la structure de tente comprenant une structure de zone de toit rigide et s'étendant vers le bas depuis la structure de zone de toit, des parois latérales incluant au moins une paroi latérale permettant l'entrée du véhicule cible en dessous de la structure de zone de toit ; la tente étant pliable depuis une configuration droite vers une condition rentrée pour le transport ;
- ii) le démontage de la structure de tente pliable du véhicule de transport et la reconfiguration de la structure de tente vers une configuration droite ;
- iii) le déplacement d'un véhicule cible de l'extérieur de la structure de tente vers l'intérieur de la structure de tente ; et
- iv) avec le véhicule cible en position dans l'environnement contrôlé pourvu par la structure de tente, le travail sur le véhicule cible ; dans lequel :

la tente est montée à pivotement sur des moyens de support rotatifs mobiles rotation sur la surface du sol ; et l'étape de démontage de la structure de tente pliable du véhicule de transport et de reconfiguration de la structure de tente vers une configuration droite comprenant le pivotement des

moyens de support vers une orientation perpendiculaire par rapport à la structure de zone de toit tout en étant en engagement de roulement avec le sol pour provoquer le soulèvement vers le haut de la structure de zone de toit à l'écart du véhicule de transport.

2. Procédé selon la revendication 1, dans lequel des moyens d'extraction, qui sont opérationnels pour extraire de l'air et/ou de la fumée et/ou de la poussière de l'intérieur de la tente droite et des gaz d'échappement à l'extérieur de la tente, sont prévus.
3. Procédé selon la revendication 1 ou 2, dans lequel la tente dans la configuration rentrée est montée sur le toit du véhicule de transport, et une ou plusieurs parois latérales sont rentrées au sein d'une cavité de réception définie par la structure de zone de toit.
4. Procédé selon l'une quelconque des revendications précédentes, dans lequel :

des moyens de chauffage, qui fonctionnent pour modifier la température ambiante de l'environnement à l'intérieur de la structure de tente droite, sont prévus.

5. Procédé selon l'une quelconque des revendications précédentes, dans lequel :

des moyens de contrôle de l'humidité, qui fonctionnent pour modifier l'humidité ambiante de l'environnement à l'intérieur de la structure de tente droite, sont prévus

6. Structure de tente pliable comprenant :

une structure de zone de toit rigide ; des parois latérales configurées pour s'étendre vers le bas depuis la structure de toit dans une configuration droite, incluant au moins une paroi latérale permettant l'entrée d'un véhicule en dessous de la structure de zone de toit ; la structure de tente étant pliable depuis la configuration droite vers une condition rentrée pour le transport dans laquelle une ou plusieurs parois latérales sont rentrées au sein d'une cavité de réception définie par la structure de zone de toit ; et comprenant également une pluralité de poteaux de support pour supporter la structure de zone de toit à une hauteur définie au-dessus du sol dans la configuration droite, **caractérisée en ce que** les poteaux de support incluent une première extrémité montée à pivotement sur la structure de zone de toit et une seconde extrémité engageant le sol ayant un élément rotatif pour un engagement de roulement avec le sol, les poteaux

étant configurés, de telle sorte que, lors de leur pivotement vers une orientation essentiellement perpendiculaire par rapport à la structure de toit tout en étant engagés à roulement avec le sol, ils provoquent le soulèvement vers le haut de la structure de zone de toit. 5

7. Structure de tente pliable selon la revendication 6, dans laquelle la structure de zone de toit est formée d'une matière plastique relativement rigide. 10
8. Structure de tente pliable selon la revendication 6 ou 7, dans laquelle la structure de zone de toit inclut des moyens de fixation pour la fixation de la structure de zone de toit à un véhicule pour le transport. 15
9. Structure de tente pliable selon l'une quelconque ou plusieurs des revendications 6 à 8, dans laquelle la ou les parois latérales s'étendent vers l'extérieur et vers le bas depuis la structure de zone de toit dans la configuration droite. 20
10. Structure de tente pliable selon l'une quelconque des revendications 6 à 9, dans laquelle l'agencement d'entrée/sortie comprend un agencement de pliage définissant une paroi latérale s'étendant vers le bas et vers l'extérieur de la structure de zone de toit dans une configuration fermée et, dans une configuration ouverte, une ouverture espacée vers l'intérieur de la position en configuration fermée de la paroi latérale d'entrée/sortie. 25 30
11. Structure de tente pliable selon l'une quelconque des revendications 6 à 10, dans laquelle l'agencement d'entrée/sortie comprend un panneau agencé pour se déplacer physiquement par rapport au reste de la structure entre une configuration fermée et une configuration ouverte. 35
12. Structure pliable selon l'une quelconque des revendications 6 à 11, incluant des moyens d'extraction pour extraire de l'air et/ou de la fumée et/ou de la poussière de l'intérieur de la structure de tente afin de purger vers l'extérieur de la structure de tente. 40 45

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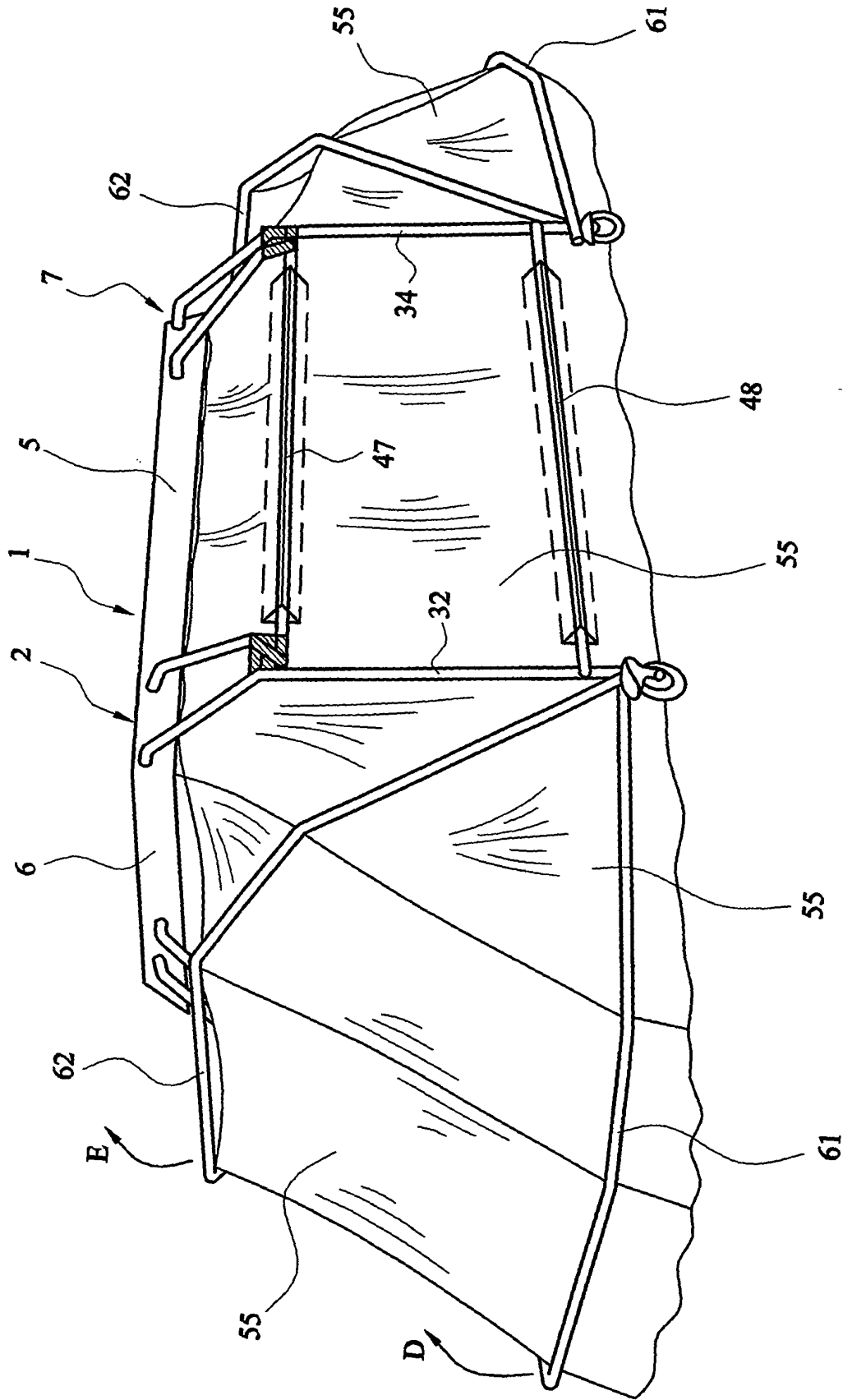


FIG. 1

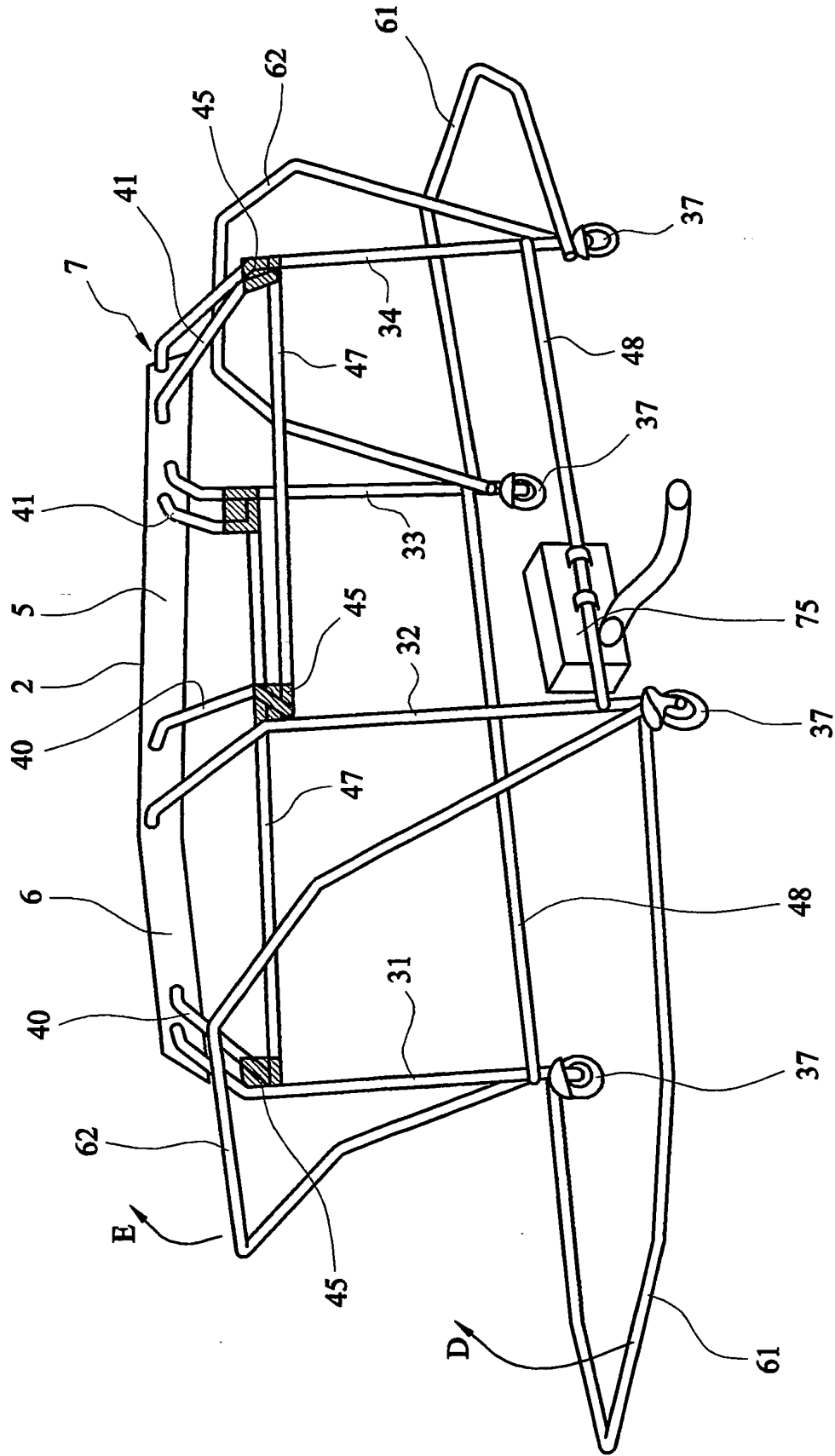


FIG. 2

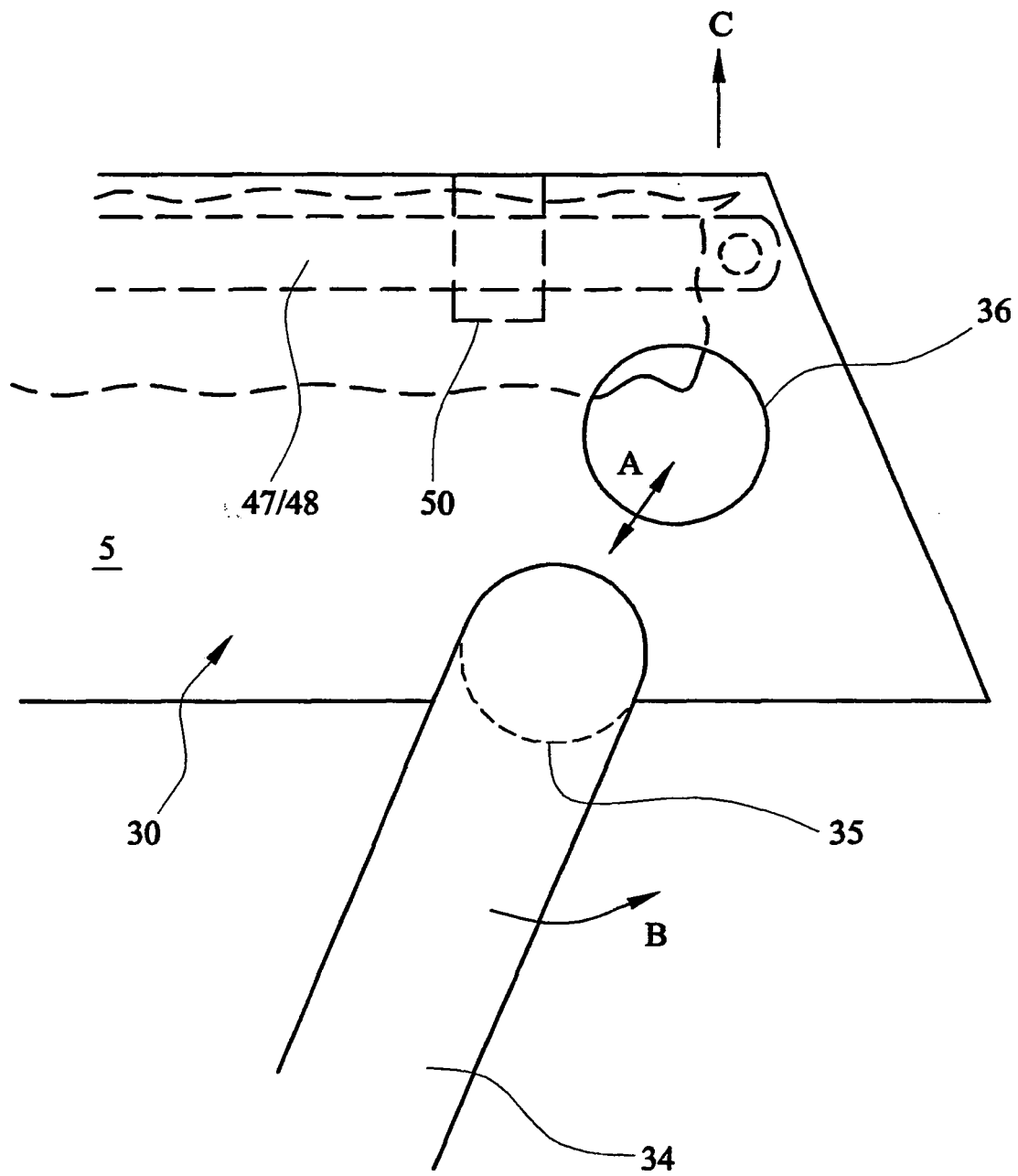


FIG. 3

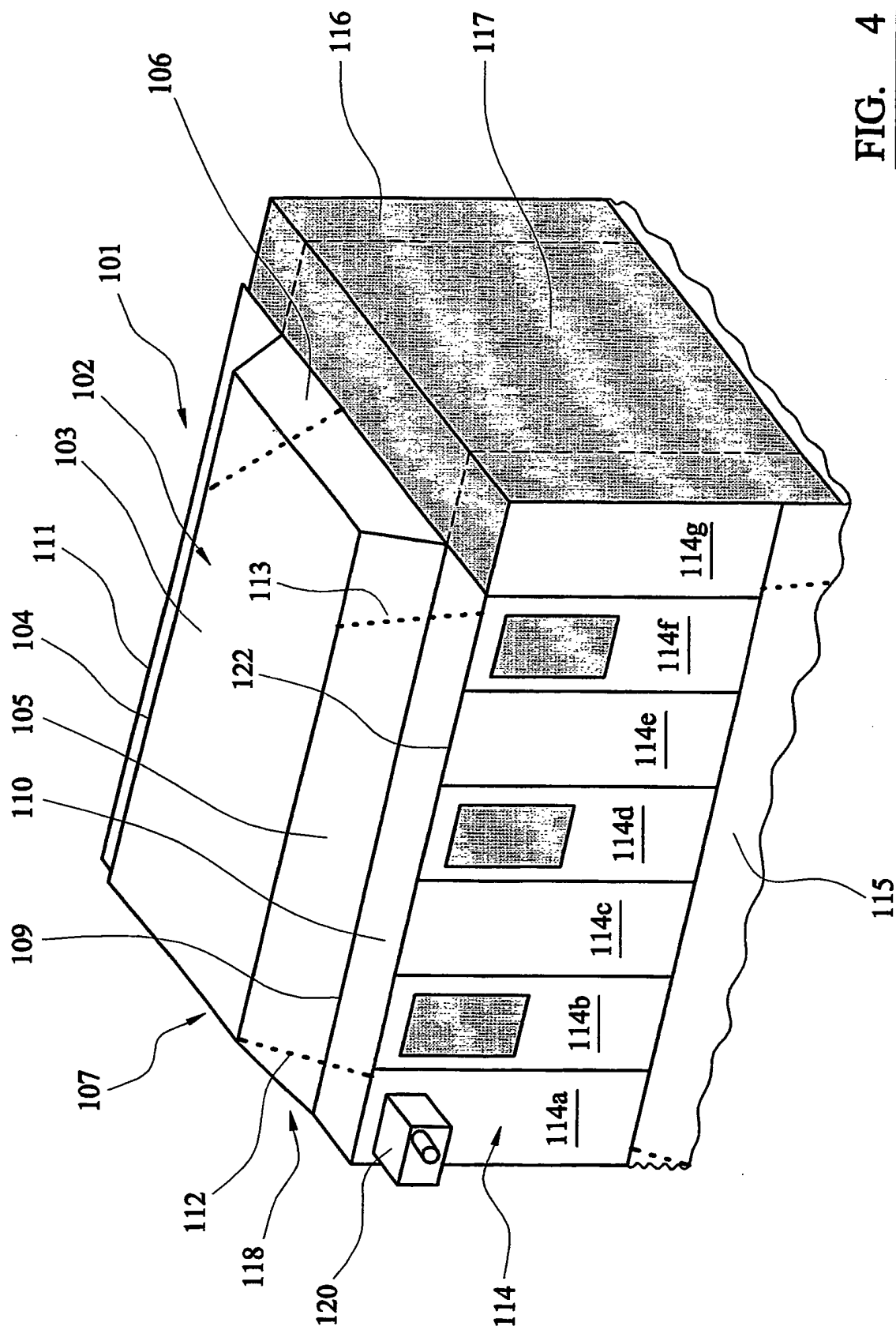


FIG. 4

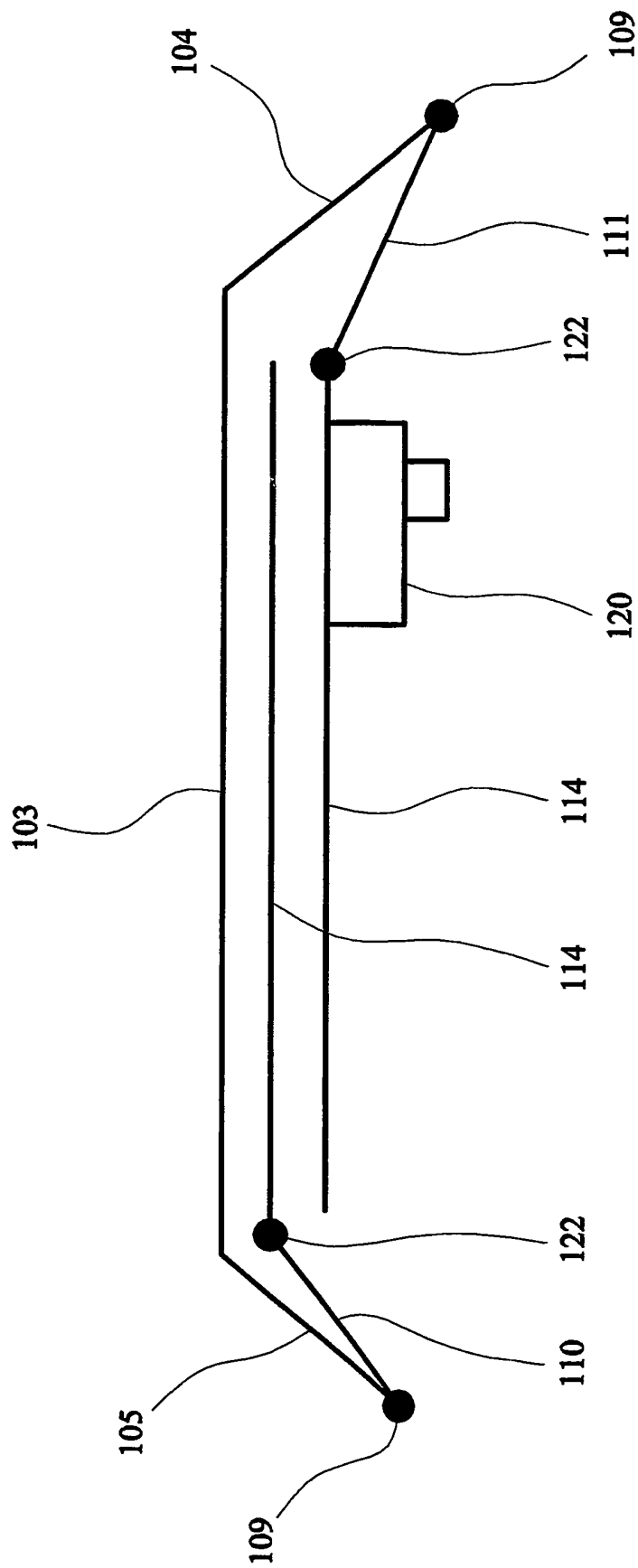


FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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