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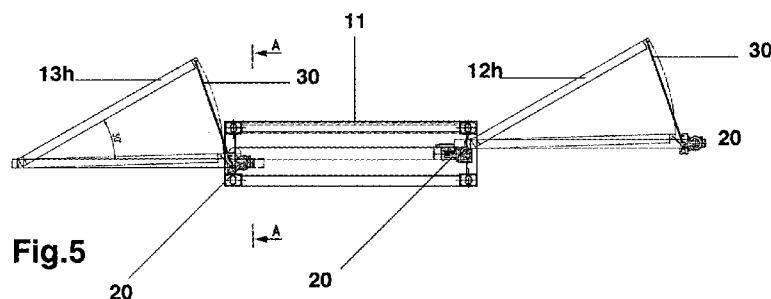
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(54) Title: ISO STANDARD CONTAINER TELESCOPIC FOR MOBILE SYSTEMS OF RENEWABLE ENERGY, HEAT EXCHANGERS AND AUDIOVISUAL



(57) Abstract: ISO standard container telescopic extensible manually and automatically to at least tripling the containment area of the side of the major surface, apt to contain mobile systems for the production of renewable energies such as solar, wind, heat exchangers and systems for audiovisual communication. The telescopic sections of the container have a means of inclination from the horizontal of +/- 30 degrees minimum to allow for optimum orientation of the telescopic panels. ISO standard container telescopic realized in a quarter or half the height of a normal ISO standard container to allow the stacking of at least four units in transport. ISO standard container provided with roller shutters for the upper central section, to protect its contents during transport. ISO standard container telescopic which can hold mobile systems for the production of renewable energy such as solar, wind, heat exchangers and systems for audiovisual communication, made of galvanized, stainless and passivated steel to avoid creating galvanic batteries.



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**ISO STANDARD CONTAINER TELESCOPIC FOR MOBILE SYSTEMS OF  
RENEWABLE ENERGY, HEAT EXCHANGERS AND AUDIOVISUAL**

[0001] The present invention relates to a container ISO standard telescopic extensible manually and automatically in such a way that at least triples the containment area of the side of the major surface of such container and apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication. In the present case the said telescopic container is made of a quarter of the height of a normal ISO standard container to allow the stacking of at least four units of said container, during the conventional transport by land and sea.

**FIELD OF APPLICATION**

[0002] Nowadays the realization of mobile systems for the production of renewable energy which for example solar energy and wind energy, heat exchangers and audiovisual systems is obtained by various methods of containment of such systems, which also differ much between them as they are produced by a variety of manufacturers with various types of assembly and dimensions. These mobile systems are primarily used for temporary and emergency situations, where it's needed speed of assembly and easiness of transport. In fact, the typical use of these systems is essentially in situations of disaster or mass communication, such as public events, concerts and the like.

[0003] Other needs commonly found in such situations of use as mentioned in the previous paragraph is that of maximizing returns for use

of such systems namely of the surface of useful work obtainable from these mobile systems of renewable energy such as solar and wind, heat exchangers and audiovisual systems. Common is undoubtedly so the need and demand from end-users to have such systems more efficient, of rapid deployment and transportable more evenly than is currently available.

[0004] Other common need in the use of such systems is that of the modularity of such and therefore the possibility to connect them together in a modular manner in a simple and universal way in both axes of deployment horizontal and vertical. In the present production of mobile systems of renewable energy which for example solar energy and wind energy, heat exchangers and audio-visual systems, are found and are used in fact the most different types and ergonomics of connection and installation of such mobile systems.

[0005] In the provision of mobile systems for the production of energy by solar panels connected by way of a matrix for example, are found the most disparate configurations and supply energies which differ from each other also in the method and type of connections which must be learned case by case of usage, respectively to the type of supplier or manufacturer.

[0006] Similarly to what described in the previous paragraph, in the provision of audiovisual mobile systems for example are once more found the most disparate configurations and assembly of panels and television monitors connected in a matrix, with different control systems, which differ from each other also in the method and type of connections which must be learned case by case, respectively to the type of supplier or manufacturer.

[0007] Common to all uses of mobile systems of renewable energy which, for example, solar and wind power, heat exchangers and audio-visual systems, is also the problem of non-compatibility between all the systems offered by various manufacturers, something that makes somewhat problematic the proper choice of the system to be adopted, for example, for the Civil Protection and other services of public emergence of a State or Nation.

[0008] Currently there is recourse to solutions in the field, sometime original, but not exhaustive and economic for the purpose of convenience of transport and speed of implementation of such mobile systems. This is because, whilst in the production of systems for fixed installation of renewable energy which for example solar energy and wind energy, heat exchangers and audiovisual systems, the user does not have the necessity of portability, flexibility and adaptability's usage of such systems.

[0009] What one can say is that nowadays, in the field of mobile systems of renewable energy which for example solar energy and wind energy, heat exchangers and audiovisual systems, solutions are not found which permit a telescopic system with measures of containers ISO standard and its submultiples, by means of which enable the deployment and propagation of the surface of such mobile systems in a stackable manner, extensible and self-contained in the container itself with the said measures ISO standard and its submultiples.

#### STATE OF THE ART

[0010] As part of the devices, of the mobile systems of renewable energy which, for example, solar and wind power, heat exchangers and audio-visual

systems, was conducted a search, which, although not extensive and not exhaustive, allowed to identify at least the following prior documents:

D1 CN 2900224 (Y) LIU JIFENG YANG

D2 CN 201256369 (Y) YONGJI CAI

D3 US 2008264467 (A1) DOKO GILBERT

D4 CN 101873088 (A) JINJIN XIAO

D5 JP 2001035503 (A) NAGAO TAKEO

D6 CN 201332367 (Y) XINYU WANG

[0011] D1 represents an utility model that provides a moveable layered and shrinkable multilayer solar panel device for vehicle arranged on the vehicle roof with 2 to 5 layers. Wherein, the top layer is fixed and other layers are moveable and shrinkable. A control system arranged in vehicles realizes automatic shrinkage. In detail, the control system drives gears through a motor and racks on side wall of all shrinkable layers to realize expansion or shrinkage. All shrinkable layers are supported by rolling bearings in the device to ensure lower friction factor, easy move and less power consumption. Moreover, all shrinkable layers can extend or shrink around with controllable shrinkage. As for complete expansion, the device has the largest radiating area and the photovoltaic power achieves 175 percent to 400 percent of that generated by single-layer panel.

[0012] D2 represents an utility model that relates to a telescopic solar cell panel comprising a solar cell panel body and brackets, wherein the brackets are at least divided into two layers, a sliding rail and a sliding support are respectively arranged on each layer of the brackets, the solar cell panel body is fixedly arranged on the sliding support, and the sliding

support extends and spreads through the control of a motor for increasing the work area of the solar cell panel. When the telescopic solar cell panel is in work, the panel of the movable layer of the solar cell panel is unfolded back and forth or left and right, thereby increasing the work area and improving the generating power.

[0013] D3 represents a transportable system for producing solar electricity, consisting of solar cells that are mounted in rectangular frames, a current transformer and a control device. The aim of the invention is to provide an efficient, mobile system for generating solar electricity, which can be rapidly erected and dismantled and is easy to transport. To achieve this the solar modules of said system are interconnected by articulations and can be placed in a cradle, which protects them during transport and at least partially surrounds them in a folded state; the solar modules are connected to and held by a support that is mounted on the cradle, in such a way that said modules can be deployed and folded away; and said modules lie on the support in the deployed state and are additionally supported by telescopic legs that can be extended outside the cradle. The erection and dismantling of said system for generating solar electricity can be carried out rapidly and easily and the system can be placed in its cradle to protect it against damage during transport. The system can be erected easily by deploying the frames containing solar modules and can be transported by folding said frames. It does not require new cable connections at each new location, the cabling is carried out when the system is produced and is not touched again. The system can also be configured in such a way that the box containing the electrics and battery

can be detached from and re-attached to the solar module unit, if electric energy is required only for a short period of time at another location.

[0014] D4 represents a solar electricity generating vehicle. The solar electricity generating vehicle comprises a vehicle body (1) and a shelter (2), and is characterized in that: the vehicle body (1) comprises two functional parts, namely a front cabin (3) and a chassis (4), wherein the front cabin (3) is an operating control room; an electric controller, an inverter (5), a battery rack (6) and a solar component module (7) are arranged in the shelter (2); a storage battery or a storage battery pack is arranged in the battery rack (6); the shelter (2) is arranged on the chassis (4) to form a fixed cabin body; the outer surface of the shelter (2) is provided with a solar panel group (8); and the solar panel group (8) is connected with the framework of the shelter (2) by a detachable fixing part and is unfolded by a telescopic supporter (9) to form a telescopic unfolded shelter structure. The solar electricity generating vehicle can receive a large area of solar energy and provide electricity in the open air or in the suburb.

[0015] D5 represents a mobile power source vehicle, on which solar battery panels serving as power sources for a water electrolysis vessel are mounted, in such a manner as to sufficiently receive sunlight even in a narrow space. A power generator, which uses electric power generated by solar battery panels 17-19 as power sources for a water electrolysis vessel, is arranged inside a container 11 mounted in a loading space in a self-advancing vehicle. The container 11 is configured, such that outer wall panels 12-14 are fixed to a structure for fixing panels constituted by combining frame members with each other. The panel fixing structure is

configured, in such a manner that the two outer wall panels 12, 14 constituting side walls of the container 11 are opened like wings. Consequently, some or all of the outer wall panels can be readily exposed to sunlight. Solar battery panels 17-19 are disposed at light receiving surfaces on which sunlight of the outer wall panels 12-14 impinges, respectively.

[0016] D6 Represents a solar energy movable power station, which comprises a container and a solar panel rack movably mounted on the container. A plurality of solar batteries are mounted on the solar panel rack; a storage battery, a monitoring computer, a DC distribution box, an AC distribution box and a diesel generator are fixedly arranged inside the container; the solar batteries are connected in series with the DC distribution box, a solar energy well pattern inverter, and the AC distribution box connected onto a power using load; and the storage battery is connected in series with a two-way inverter and the AC distribution box connected onto the power using load; and the diesel generator is connected onto the power using load. The power station has small volume, can generate electricity by utilizing solar energy after simple installation, and can be transported and moved conveniently when not in use.

[0017] Ultimately, it is reasonable to assume known:

- a) a moveable layered and shrinkable multilayer solar panel device for vehicle arranged on the vehicle roof with 2 to 5 layers. Wherein, the top layer is fixed and other layers are moveable and shrinkable. A control system arranged in vehicles realizes

automatic shrinkage. In detail, the control system drives gears through a motor and racks on side wall of all shrinkable layers to realize expansion or shrinkage. All shrinkable layers are supported by rolling bearings in the device to ensure lower friction factor, easy move and less power consumption. Moreover, all shrinkable layers can extend or shrink around with controllable shrinkage. As for complete expansion, the device has the largest radiating area and the photovoltaic power achieves 175 percent to 400 percent of that generated by single-layer panel;

- b) a telescopic solar cell panel comprising a solar cell panel body and brackets, wherein the brackets are at least divided into two layers, a sliding rail and a sliding support are respectively arranged on each layer of the brackets, the solar cell panel body is fixedly arranged on the sliding support, and the sliding support extends and spreads through the control of a motor for increasing the work area of the solar cell panel. When the telescopic solar cell panel is in work, the panel of the movable layer of the solar cell panel is unfolded back and forth or left and right, thereby increasing the work area and improving the generating power;
- c) a transportable system for producing solar electricity, consisting of solar cells that are mounted in rectangular frames, a current transformer and a control device. The aim of the invention is to provide an efficient, mobile system for

generating solar electricity, which can be rapidly erected and dismantled and is easy to transport. To achieve this the solar modules of said system are interconnected by articulations and can be placed in a cradle, which protects them during transport and at least partially surrounds them in a folded state; the solar modules are connected to and held by a support that is mounted on the cradle, in such a way that said modules can be deployed and folded away; and said modules lie on the support in the deployed state and are additionally supported by telescopic legs that can be extended outside the cradle. The erection and dismantling of said system for generating solar electricity can be carried out rapidly and easily and the system can be placed in its cradle to protect it against damage during transport. The system can be erected easily by deploying the frames containing solar modules and can be transported by folding said frames. It does not require new cable connections at each new location, the cabling is carried out when the system is produced and is not touched again. The system can also be configured in such a way that the box containing the electrics and battery can be detached from and re-attached to the solar module unit, if electric energy is required only for a short period of time at another location;

- d) a solar electricity generating vehicle. The solar electricity generating vehicle comprises a vehicle body (1) and a shelter (2), and is characterized in that: the vehicle body (1) comprises

two functional parts, namely a front cabin (3) and a chassis (4), wherein the front cabin (3) is an operating control room; an electric controller, an inverter (5), a battery rack (6) and a solar component module (7) are arranged in the shelter (2); a storage battery or a storage battery pack is arranged in the battery rack (6); the shelter (2) is arranged on the chassis (4) to form a fixed cabin body; the outer surface of the shelter (2) is provided with a solar panel group (8); and the solar panel group (8) is connected with the framework of the shelter (2) by a detachable fixing part and is unfolded by a telescopic supporter (9) to form a telescopic unfolded shelter structure. The solar electricity generating vehicle can receive a large area of solar energy and provide electricity in the open air or in the suburb;

- e) a mobile power source vehicle, on which solar battery panels serving as power sources for a water electrolysis vessel are mounted, in such a manner as to sufficiently receive sunlight even in a narrow space. A power generator, which uses electric power generated by solar battery panels 17-19 as power sources for a water electrolysis vessel, is arranged inside a container 11 mounted in a loading space in a self-advancing vehicle. The container 11 is configured, such that outer wall panels 12-14 are fixed to a structure for fixing panels constituted by combining frame members with each other. The panel fixing structure is configured, in such a manner that the

two outer wall panels 12, 14 constituting side walls of the container 11 are opened like wings. Consequently, some or all of the outer wall panels can be readily exposed to sunlight. Solar battery panels 17-19 are disposed at light receiving surfaces on which sunlight of the outer wall panels 12-14 impinges, respectively;

- f) a solar energy movable power station, which comprises a container and a solar panel rack movably mounted on the container. A plurality of solar batteries are mounted on the solar panel rack; a storage battery, a monitoring computer, a DC distribution box, an AC distribution box and a diesel generator are fixedly arranged inside the container; the solar batteries are connected in series with the DC distribution box, a solar energy well pattern inverter, and the AC distribution box connected onto a power using load; and the storage battery is connected in series with a two-way inverter and the AC distribution box connected onto the power using load; and the diesel generator is connected onto the power using load. The power station has small volume, can generate electricity by utilizing solar energy after simple installation, and can be transported and moved conveniently when not in use.

#### **DRAWBACKS**

[0018] Having said all this and from what of public domain, it should be noted, therefore, that the type of construction commonly used in the production of mobile energy sources such as solar and wind power, heat

exchangers and audio-visual systems, is mainly the production of such with various expedients but, with overall dimensions and efficiencies very different from each other and obviously that cannot be coupled, since of features and connections radically different. Another fundamental problem that makes it problematic the mobility and transport of such systems is represented by the overall dimensions absolutely not convenient and desirable, as much instead those of the standard ISO container, commonly and widely used in the transportation by land and sea.

[0019] According to what has been described it is clear, therefore, that is becoming consistent the recourse to solutions in the field, sometime original but, not exhaustive and optimal, this because it still does not arise the objective of sizing these mobile systems of renewable energy such as for example the solar energy and wind energy, heat exchangers and audiovisual systems, in a standard ISO format manner, thereby making it possible to optimize the load to be transported, nor that to maximize in a telescopic manner the energy production surface at least tripling the containment area of the side of the major surface of such standard ISO container.

[0020] None of the solutions used from the prior art or in the public domain more so considers the need to provide telescopic panels that at least triple the containment area of the side of the major surface of a container ISO standard of a quarter or half-height, and that, such telescopic panels have a possibility of inclination with respect to the horizontal of + / - 30 degrees minimum, especially to allow optimum orientation of such telescopic panels, as instead occurs by means of the present invention.

[0021] None of the solutions used from the prior art or in the public domain considers more so for the purpose described in the previous paragraph, a solution specifically designed of a container ISO standard telescopic extensible manually and automatically in such a way that at least triple the containment area of the side of the major surface of such container apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication realized in such a way as not to create so-called galvanic batteries for the inexperience of combining diverse metals such as steel and aluminum for example, as instead it does not occur by means of the present invention in which are employed materials such as galvanized steel, stainless steel and passivated steel.

[0022] Furthermore, all known solutions, used for the construction of mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, can also be found via a check in the web, in fact, they employ conventionally coated or plastic powder coated steel, coatings these which when undergo wear of the assembly and disassembly of such mobile systems, detaches from the steel and progressively allows the formation of galvanic battery which systematically corrode the steel of such systems and form salts of erosion.

[0023] None of the solutions used by the prior art or in the public domain considers in the specifically studied solution of a container ISO standard telescopic extensible manually and automatically in such a way that at least triples the containment area of the side of the major surface of the container and apt to contain mobile systems for the production of

renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, the provision of a system for the upper central section, by metal roller shutters which serve to protect the contents of the same during transport.

[0024] From all the above, there is a need for companies, particularly of the sector, to identify alternative solutions. One purpose of the present invention is also to obviate to the described drawbacks.

#### **BRIEF DESCRIPTION OF THE INVENTION**

[0025] This and other aims are achieved with the present invention according to the characteristics of the included claims solving the mentioned problems through the development of a standard ISO container telescopic extensible manually and automatically in such a way to at least tripling the containment area of the side of major surface of the container and apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication. The telescopic sections of said container at least triple the containment area of the side of the major surface of such container ISO standard of a quarter or half height and such telescopic panels have a possibility of inclination with respect to the horizontal of  $+ / - 30$  degrees minimum, to allow for optimum orientation of such telescopic panels. The development of the present invention of such telescopic container is made in a quarter or half the height of a normal standard container ISO to allow the stacking of at least four units of the said container, during the conventional transport by land and sea. Such container ISO standard

telescopic apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, is realized in such a way as not to create the so-called galvanic batteries, thanks to the use of materials such as galvanized steel, stainless steel and passivated steel. Such container ISO standard is also provided with a system for the upper central section, with metal roller shutters which serve to protect the contents of the same during transport.

#### **AIMS AND ADVANTAGES**

[0026] In this way, through the considerable creative contribution whose effect has allowed to achieve a considerable technical progress, are achieved some aims and advantages.

[0027] The first aim of the object of the present invention was to enable the realization of a container ISO standard telescopic extensible manually and automatically in such a way to at least tripling the containment area of the side of the major surface of such container and apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication.

[0028] A second aim of the present invention for the realization of a container ISO standard telescopic extensible manually and automatically provided with telescopic panels self-contained and having a possibility of inclination with respect to the horizontal of + / - 30 degrees minimum, to allow an optimal orientation of such telescopic panels.

[0029] A third aim of the present invention for the realization of a container ISO standard telescopic extensible manually and automatically is

the development of such telescopic container made in a quarter or half the height of a normal container ISO standard to allow the stacking of at least four units of the said container during conventional transport by land and by sea.

**[0030]** A fourth aim of the method of the present invention for the realization of a container ISO standard telescopic apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, is the realization of a self-contained surface locking system for the upper middle section, by slat blinds that serve to protect the contents of the same during transportation by land and sea.

**[0031]** A fifth aim of the method of the present invention for the realization of a container ISO standard telescopic apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, is the realization in such a way that do not create the so-called galvanic batteries, thanks to the use of materials such as galvanized steel, stainless steel and passivated steel.

**[0032]** These and other advantages will appear from the following detailed description of preferred embodiments with the aid of the enclosed schematic drawings, whose details of execution are not to be considered limitative but only illustrative.

#### **CONTENT OF THE DRAWINGS**

Fig 1 illustrates the container ISO standard telescopic object of the present invention with the telescopic sections open.

Fig 2 shows the container ISO standard telescopic object of the present invention with the telescopic sections closed for transport.

Fig 3 illustrates the container ISO standard telescopic object of the present invention in cross-section AA with the telescopic sections in the lowered and raised position.

Fig 4 shows the container ISO standard telescopic object of the present invention in cross-section AA with the telescopic sections retracted and the shutter roll protection is highlighted.

Fig 5 illustrates the container ISO standard telescopic object of the present invention in section A with the telescopic sections open and inclined at + / - 30° degrees in the working position.

#### **PRATICAL EMBODIMENT OF THE INVENTION**

[0033] The object of the present invention concerns the realization of a container ISO standard telescopic (10), extensible manually and automatically in such a way to at least tripling the containment area of the side of the major surface of such a container apt to contain mobile systems for the production of renewable energy such as solar and wind, heat exchangers and systems for audiovisual communication. In the present case this container ISO standard telescopic (10) is made equal to a quarter or half the height of a normal container ISO standard to allow the stacking of at least four units of the same container ISO standard telescopic (10), during conventional transport by land and sea. In Fig 1, 2, 3, 4, and 5 are illustrated in detail the constituent parts of the assembly and the solutions of the present invention.

[0034] Always the said container ISO standard telescopic (10) represented in the exemplifying drawings in Fig 1, 2, 3, 4, and 5, is constituted by a structure-supporting frame and surface of top panel (11) on which surface is formed the containment housing, as shown in an exemplifying way from the drawings, for solar panels (11a), supported by a series of horizontal longerons (50) and vertical (60) connected to each other in a matrix way. These solar panels are also housed therein protected by a safety glass cover (11b). Inside said container ISO standard telescopic (10) are housed two other frames or support structures by telescopic panel (12 - 13) which are also supported by a series of horizontal longerons (50) and vertical longerons (60) connected to each other in a matrix way. Also said solar panels telescopic (12a - 13a) housed therein, are also protected by safety glass covers (12b - 13b).

[0035] Moreover, the said container ISO standard telescopic (10) represented in the exemplifying drawings in Fig 1, 2, 3, 4, and 5, allows the extraction of the two other supporting structures or frames by telescopic panel (12 - 13) accommodated internally and in layers in the said container ISO standard telescopic (10), either manually that in automatic manner, via a system of servo motors with gear motor (20) operating conveyor chains (70) for the handling of such telescopic panels (12 - 13) .

[0036] Moreover, the said container ISO standard telescopic (10) represented in the exemplifying drawings in Fig 1, 2, 3, 4, and 5, is provided with other servo motors with gear motor (20) and related leverages (30) embedded in the telescopic panels (12 - 13) to allow the inclination with respect to the horizontal of + / - 30 degrees minimum, so

as to allow for optimum orientation of such inclined telescopic panels (12h - 13h).

[0037] Again, the said containers ISO standard telescopic (10) represented in the exemplifying drawings in Fig 1, 2, 3, 4, and 5, is provided with a self-contained system of surface closing by roller shutters (40) for the surface of the top panel (11), which serves to protect the contents of the same during transportation by land and sea.

[0038] Again, the said containers ISO standard telescopic (10) represented in the exemplifying drawings in Fig 1, 2, 3, 4, and 5, apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, is realized in such a way as not to create the so-called galvanic batteries, thanks to the use of materials such as galvanized steel, stainless steel and passivated steel.

[0039] In Fig 1, 2, 3, 4, and 5, are illustrated and represent the various views, respectively, on the axes A and A-A of the present invention, for an application capable of producing energy from solar panels, purely by way of example.

**Legend**

**Fig. 1, 2, 3, 4, e 5**

(10) Container ISO standard telescopic

(11) Top Panel

(11a) Solar Panels

(11b) Safety Glass Cover

(12) Telescopic Panel

- (12a) Solar Panels Telescopic
- (12b) Safety Glass Cover
- (12h) Inclined Telescopic Panel
- (13) Telescopic Panel
- (13a) Solar Panels Telescopic
- (13b) Safety Glass Cover
- (13h) Inclined Telescopic Panel
- (20) Servo motors with gear motor
- (30) Leverages
- (40) Closing surface by roller shutters
- (50) Horizontal longerons
- (60) Vertical longerons
- (70) Conveyor Chains

## CLAIMS

- 1) Development of an ISO standard container telescopic extendable manually and automatically containing mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, **characterized in that** is realized in such a way so as to at least triplicate the containment area of the side of larger surface of said container. In this case the present telescopic container is made in a quarter or half the height of a normal ISO standard container so as to allow the stacking of at least four units of said container, during conventional transport by land and by sea.
- 2) Development of an ISO standard container telescopic extendable manually and automatically apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, according to claim 1, **characterized in that** is equipped with telescopic panels self-contained and having a facility of inclination with respect to the horizontal of + / - 30 degrees minimum, so as to allow the orientation of said telescopic panels.
- 3) Development of an ISO standard container telescopic extendable manually and automatically apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, according to claims 1 and 2, **characterized in that** the development of this

telescopic container is made in a quarter or half the height of a normal ISO standard container to allow the stacking of at least four units of said container, during the conventional transport by land and sea.

- 4) Development of an ISO standard container telescopic extendable manually and automatically apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, according to previous claims, **characterized in that** it is equipped with a self-contained system of superficial closing for the central upper section, via slat blinds which serve to protect the contents of the same during transportation by land and sea.
- 5) Development of an ISO standard container telescopic extendable manually and automatically apt to contain mobile systems for the production of renewable energies such as solar and wind, heat exchangers and systems for audiovisual communication, according to the previous claims, **characterized in that** it is made in such a way as not to create so-called galvanic batteries, thanks to the use of materials such as galvanized steel, stainless steel and passivated steel.

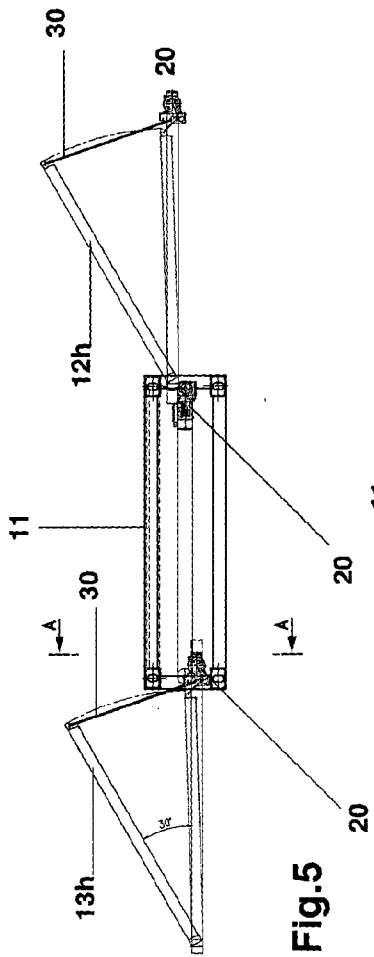


Fig.5

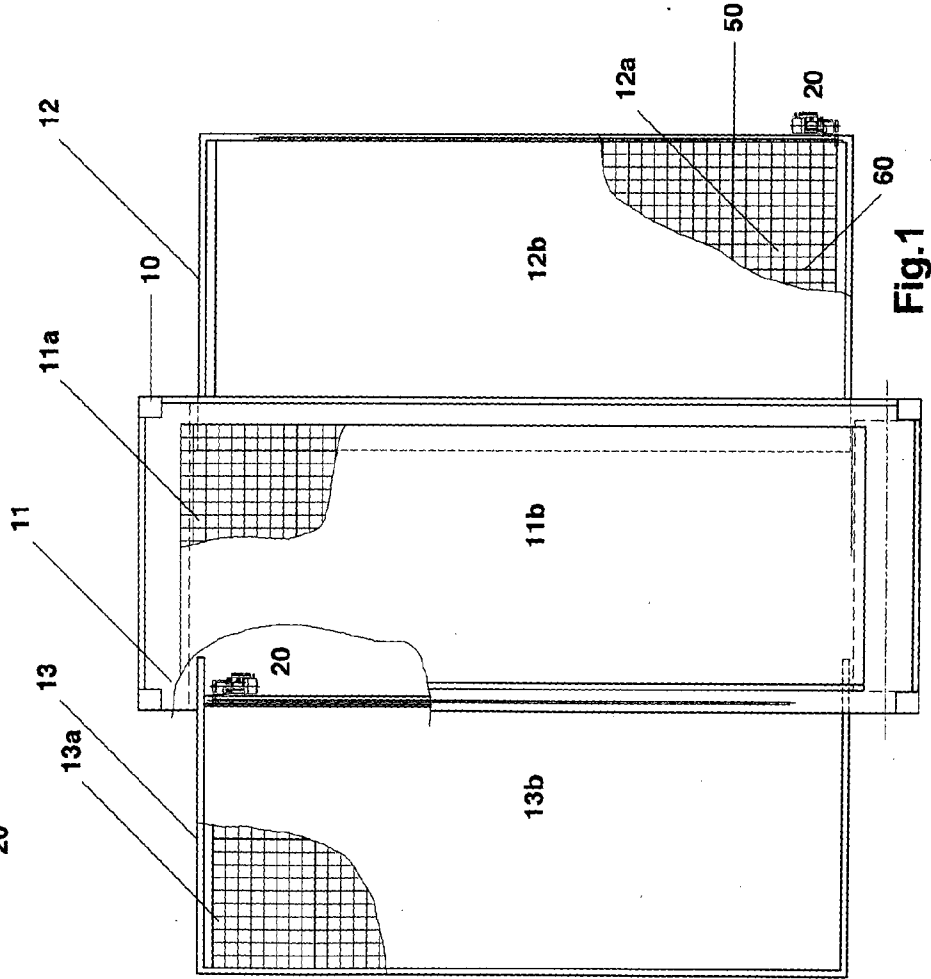


Fig.1

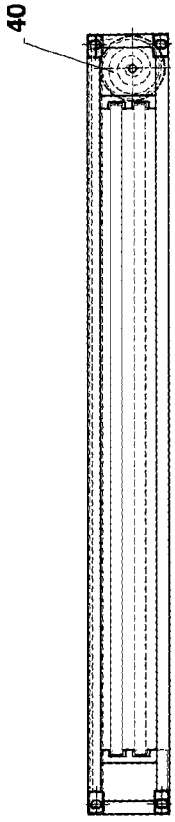


Fig.4

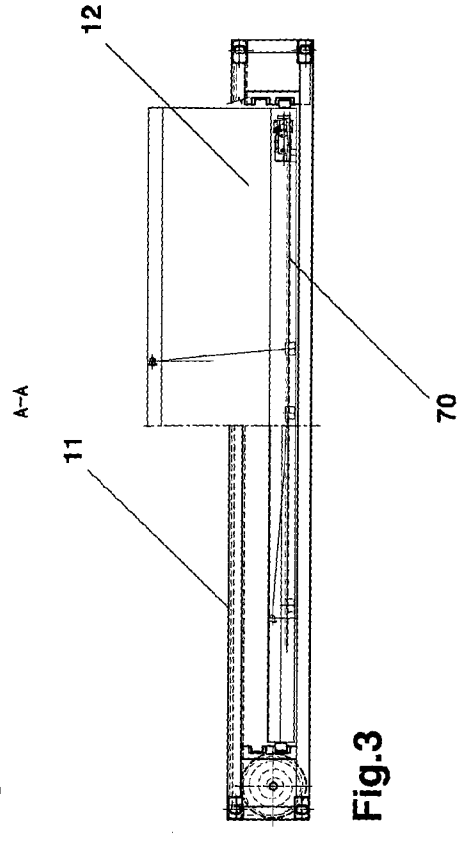


Fig.3



Fig.2

INTERNATIONAL SEARCH REPORT

International application No  
PCT/IB2013/000038

A. CLASSIFICATION OF SUBJECT MATTER  
INV. H01L31/045 G08B13/02 H01L31/042 H01L31/058 H01L31/04  
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)  
H01L G08B

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

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Further documents are listed in the continuation of Box C.  See patent family annex.

\* Special categories of cited documents :

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Date of the actual completion of the international search  20 September 2013	Date of mailing of the international search report  27/09/2013
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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  Ferro Pozo, José
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International application No  
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