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(54) **Work platform**

(57) Work platform (1) comprising a base (3), two lateral supports (12,13) with hinged parts (16,17) making it possible to put the work platform in a folded or unfolded position, a work floor (4) for carrying people which, in an unfolded position of the work platform (1), can be moved

up and down in relation to the base (3), whereby the work floor (4) can be moved along the lateral supports (12,13) by means of co-operating gear wheels (35) and a complementary toothing (34) provided on at least one of the lateral supports (12,13).

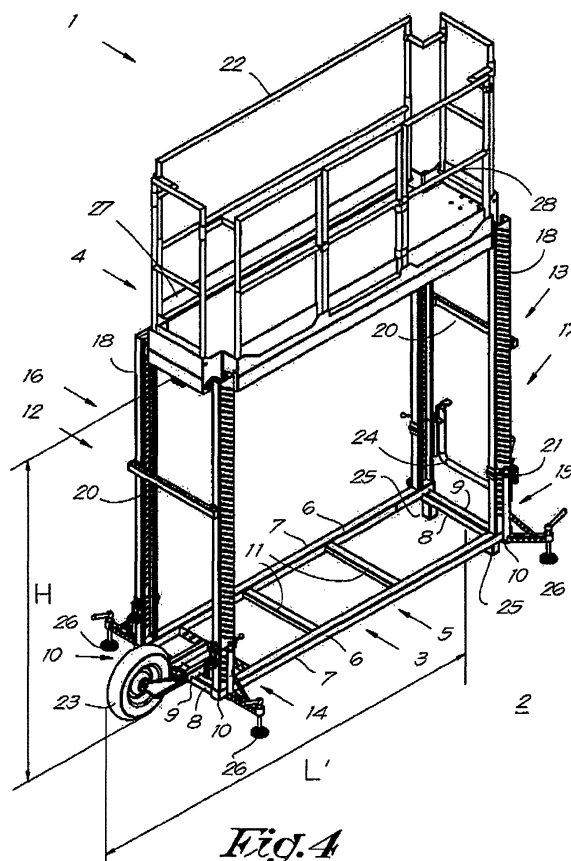


Fig. 4

Description

[0001] The present invention concerns a work platform.

[0002] In particular, the present invention concerns a work platform which is designed for carrying people while working on a certain height in relation to the ground, and whereby in particular the work platform is moveable and adjustable between a collapsed position in which elements of the work platform are put close together and one or several expanded positions, in which elements of the work platform are moved further away from one another.

[0003] Such a work platform according to the invention is typically designed for carrying out all kinds of works related to interior decoration, such as plastering, painting, carpentry work, electrical works and so on, but such a work platform according to the invention is moreover also specifically designed to perform work outdoors, such as in the garden, for example pruning hedges or trees and the like.

[0004] Numerous of such work platforms are already known, which have a number of major disadvantages however.

[0005] Thus, there are work platforms in the shape of what are called elevation workers, usually with a hydraulic or mechanical drive and carried out with a work floor for supporting persons, which is moveable in relation to a basis, for example by means of a scissor mechanism, a telescopic arm or a hinged arm.

[0006] A major disadvantage of these known work platforms however, is that they are very heavy, usually weighing more than 500 kg, and difficult to manoeuvre, whereby they often cannot be manually moved.

[0007] Another disadvantage of these known work platforms is that they are very expensive.

[0008] Transporting these work platforms from one site to another is also complicated and often requires large resources.

[0009] Another disadvantage of this type of known work platforms is that they require a lot of maintenance.

[0010] Also other work platforms are known in the shape of what are called rolling scaffolds.

[0011] A first disadvantage of these known rolling scaffolds is that they are difficult to move, as they are provided to that end with four small, identical wheels on their corners, typically having a diameter of some 125 mm to 200 mm, as a result of which such rolling scaffold is difficult to roll, especially on uneven terrain or on sites where waste material or the like often hampers the rolling of the wheels.

[0012] Yet another disadvantage of the known rolling scaffolds is that they are formed of several loose components which must be assembled before use, whereby out of convenience often not all components are mounted, or certain components are mounted incorrectly, which can lead to unsafe situations.

[0013] Another disadvantage of these rolling scaffolds

is that they must be climbed on, which, first of all, when repeatedly mounting the rolling scaffold soon becomes tiring, and whereby furthermore it is not easy to get material such as tools or materials to be installed or the like on the rolling scaffold.

[0014] Also, climbing on such a rolling scaffold entails an increased safety risk.

[0015] US 4,000,789 describes a lifting device whereby a base is provided with two folding legs, one on each crosscut end of the rectangular base, and further a platform which can be moved up and down between the folding legs by means of a cable and pulley system.

[0016] The platform is set in motion by rolling the cables on or off a drum which is driven by means of an electric motor.

[0017] It is clear that such a lifting mechanism is complex and also has disadvantages related to the foldability. When the lifting device is folded, the cables or cords moreover obtain an undesired degree of freedom, with all the ensuing risks.

[0018] Also, the present invention aims to remedy one or several of the aforesaid disadvantages of the known work platforms, and possibly also other disadvantages.

[0019] To this end, the invention concerns a work platform designed for carrying people while working on a certain height in relation to a basis, whereby the work platform is adjustable between a collapsed position in which elements of the work platform are put close together and one or several expanded positions in which elements of the work platform are moved further away from one another, whereby the work platform comprises at least the following elements:

- a base which is designed to rest on the ground;
- a first lateral support and a second lateral support provided on the base, whereby each lateral support comprises a fixed standing part, fixed standing parts respectively, in relation to the base on the one hand, and a hinged part, hinged parts respectively, which assume a predominantly vertical position when unfolded;
- a work floor for carrying people which, in an unfolded position of the work platform, can be moved up and down in relation to the base;

whereby the work floor can be moved along the lateral supports by means of gear wheels or the like provided on the work floor on the one hand, and a complementary toothing or rack or the like provided on at least one of the lateral supports on the other hand.

[0020] A first major advantage of such a work platform according to the invention consists in that the work floor can be moved up and down in a very simple and particularly safe manner.

[0021] Moreover, the construction offers the advantage that the work platform can be folded together in an extremely compact manner, whereby the risk of folding driving components incorrectly is prevented.

[0022] This strongly distinguishes a work platform according to the invention from the known elevation workers on the one hand, which are usually heavy and unwieldy, and as a result can rarely be used indoors and cannot be moved manually, and also from the known rolling scaffolds on the other hand, which are usually built from loose parts and can only be mounted by climbing along the side walls.

[0023] A work platform according to the invention has the advantages of an elevation worker, as well as of a known rolling scaffold, but not the disadvantages.

[0024] In order to better explain the characteristics of the invention, the following two preferred embodiments of a work platform according to the invention are described by way of example only without being limitative in any way, with reference to the accompanying figures, in which:

figure 1 shows a view in perspective of a work platform according to the invention in the collapsed position;

figure 2 shows a view in perspective of the work platform, as in figure 1, but whereby the work platform is unfolded into a position of use and with the work floor in the lowest position;

figure 3 shows a view in perspective of the work platform in the same position as in figure 2, but seen from a different point of view according to a direction indicated by arrow F3 in figure 1; and,

figures 4 and 5, analogous to figures 2 and 3, show a view in perspective of the work platform whereby the work floor is placed in the highest position for this embodiment;

figure 6 shows a view in perspective of an alternative and even more preferred work platform according to the invention in an unfolded position;

figure 7 shows in greater detail and to a larger scale, and with disassembled front components, the part as indicated by F7 in figure 6;

figure 8 shows a view of the work floor of the work platform according to a direction indicated by arrow F8 in figure 6, i.e. a bottom view in a condition of use;

figure 9 shows an elevation of the work floor of the work platform according to a direction indicated by arrow F9 in figure 6;

figure 10 shows an elevation of the work platform according to a direction indicated by arrow F10 in figure 6, but in another position of the work floor;

figure 11 shows the part indicated by F11 in figure 10 in more detail and to a larger scale;

figure 12, analogous to figure 6, shows a view in perspective of the work platform, but whereby the work floor is placed in a higher position;

figure 13 shows the part indicated by F13 in figure 12, in greater detail and to a larger scale and with disassembled front components.

[0025] The work platform 1 according to the invention,

represented in figures 1 to 5, is designed for carrying people while working on a certain height H in relation to the ground 2.

[0026] The work platform 1 is hereby built of several elements which can be put close together in a collapsed position on the one hand, as represented in figure 1, and which can be moved further away from one another in several expanded positions on the other hand, two of which are represented in figures 2 to 5.

[0027] In particular, the work platform 1 has a base 3 designed to rest on the ground 2, as well as a work floor 4 on which, in an expanded position of the work platform 1, a person can take place.

[0028] Moving certain elements of the work platform 1 close together and away from one another can be done in two fundamentally different ways, by folding up the work platform 1 into the collapsed position and by unfolding it into an expanded position of use on the one hand, and by moving the work floor 4 in the unfolded position of use up and down in relation to the base 3 on the other hand.

[0029] In the embodiment shown in the figures, the base 3 is a rectangular base 3 having a length L, typically 2 m, and a width B, typically 0,70 m, in the shape of a frame 5 which is built of a pair of longitudinal tubes 6, forming a pair of longitudinal side edges 7 of the base 3 and which are connected by means of a pair of outer transverse tubes 8, which outer transverse tubes 8 form a pair of crosscut edges 9 of the base 3, in particular on the far ends 10 of the longitudinal tubes 6, which far ends 10 also form the corners 10 of the rectangular base 3.

[0030] Where tubes are mentioned here and further down, it is clear that they can be for example steel and/or aluminium profiles.

[0031] The longitudinal tubes 6 are further connected to one another by means of intermediate transverse tubes 11.

[0032] The tubes of the frame 5 are preferably made of a light material and have a round or square section.

[0033] On each of the crosscut edges 9 is moreover provided a lateral support, more specifically a first lateral support 12 and a second lateral support 13, whereby each lateral support 12 or 13 has a fixed standing part on the one hand, fixed standing parts 14 and 15 respectively, and a hinged part on the other hand, hinged parts 16 and 17 respectively, which hinged parts 16 and 17 are rotatable around a shaft XX', YY' respectively, which is parallel to the crosscut edge 9 concerned.

[0034] Every hinged part 16 and 17 can hereby be rotated between a lowered position, whereby the hinged part 16 or 17 of the lateral support 12 or 13 concerned is provided parallel to the rectangular base 3, corresponding to the collapsed position as represented in figure 1, and a standing position, in which every hinged part 16 or 17 of the lateral support 12 or 13 concerned is transverse to the rectangular base 3 and situated in the plane of the adjacent fixed part 14 or 15, corresponding to the expanded position of use as represented in figures

2 to 5.

[0035] In the given embodiment, the lateral supports 12 and 13 are realised by fixing a hinged profile 18, i.e. two profile parts which are mutually hinge-mounted, with one of its far ends 19 on each corner 10 of the rectangular base 3, whereby a cross connection 20 is provided parallel to each crosscut edge 9 between the two adjacent profiles 18.

[0036] Every profile 18 is further provided with a hinge 21, whereby, in the embodiment of the figures, the hinge 21 of the profiles 18 which are part of the first lateral support 12 are situated at a distance C from the base 3 which is smaller than the distance D between a hinge 21 of the second lateral support 13 and the base 3.

[0037] More specifically, the difference between the distances C and D corresponds to the width E of a profile 18, such that the second lateral support 13 can be folded over the first lateral support 12.

[0038] On each crosscut edge 9, the parts of the adjacent profiles 18 between the base 3 and the hinges 21 concerned in the embodiment of the figures form an aforesaid fixed standing part 14 or 15 of the lateral support 12 or 13 on the side edge 9 concerned.

[0039] On the other hand, the remaining parts of the profiles 18 on a crosscut edge 9, together with the corresponding cross connection 20, form a hinged part 16 or 17 of the lateral support 12 or 13 concerned.

[0040] Further, the work floor 4 is surrounded by a railing 22, typically having a height of 110 cm, which is expandable and partially extendable, from a folded and retracted position in which parts of the railing 22 are provided against the work floor 4, as represented in figure 1, into an expanded and extended position of use, in which the parts of the railing 22 extend transversely to the work floor 4, as represented in figures 2 to 5.

[0041] Conversely, the railing 22 is of course also collapsible from the expanded position into the folded position.

[0042] Further, according to the invention, in the collapsed position, whereby also the railing 22 is put in the folded position, the work floor 4 is situated between the rectangular base 3 and the lowered hinge-mounted lateral supports 12 and 13.

[0043] Consequently, the distance C, or the height C of the standing fixed part 14 of the first lateral support 12, corresponds to the thickness of the work floor 4 including the railing 22 in the folded position, such that the work platform 1 can be made extremely compact in the collapsed position, typically having a height F of some 0.65 m.

[0044] The work floor 4 can be moved up and down in relation to the base 3 over or between the lateral supports 12 and 13 when they have been put in the expanded position of use.

[0045] In the embodiment of a work platform 1 according to the invention, the profiles 18 to this end have a C-shaped section with an internal toothing working in conjunction with gear wheels provided on the angles of the

work floor 4.

[0046] These gear wheels are directly or indirectly driven by electric driving means provided under the work floor 4 and which consist of an electric motor, powered by a preferably rechargeable battery power supply, for example of 24 V, and of which one or several drive shafts drive the gear wheels directly or via one or several reduction gear boxes.

[0047] Such a configuration with electrically driven gear wheels which engage into a C-profile 18 indeed allows for a precise setting of the working height H.

[0048] The work platform 1 according to the invention as represented in figures 1 to 5 further has a very interesting feature in that it is provided with only one wheel 23 to move the work platform 1, which wheel 23 is provided centrally on a crosscut edge 9 of the base 3 and protrudes outside the contours of the base 3 on a structure provided to that end.

[0049] The length L' of the work platform 1 with the wheel 23 included preferably amounts to no more than 2.5 m, however.

[0050] The wheel 23 has a rather large diameter, at least compared to the wheels which are common in the known rolling scaffolds, for example a diameter of some 400 mm, comparable to the diameter of the wheel of a barrow.

[0051] Such a wheel 23 with a large diameter is advantageous in that the work platform 1 can be easily wheeled over obstacles and is also easy to move.

[0052] The wheel 23 is also leak-proof, making it very suitable for use on building sites or in gardens and the like, and it is detachable from the base 3, for example to reduce the space occupied during the transport of the work platform 1.

[0053] On the crosscut edge 9 of the base 3 opposite the wheel 23 is provided a pull handle 24 to lift the work platform 1 on the crosscut edge 9 concerned so as to be able to reposition the work platform 1 with the wheel 23.

[0054] For this reason, among other things, the work platform 1 is made very light, and it has a weight of for example maximally 85 kg.

[0055] The work platform 1 is hereby moveable with the wheel 23, in an expanded position of the work platform 1, as well as in the collapsed position.

[0056] After the work platform 1 has been wheeled, the intention is to put it back down, whereby the work platform 1 rests on the wheel 23 on one crosscut edge 9 and rests on a pair of support feet 25 on the opposite crosscut edge 9, provided on this crosscut edge 9.

[0057] For a good support, the work platform 1 must be further stabilized thereafter by means of support legs 26 provided on each corner 10 of the rectangular base 3, whereby the support legs 26 are axially adjustable in a direction perpendicular to the plane of the rectangular base 3, preferably over some 30 cm.

[0058] Moreover, the support legs 26 can be rotated between a position close to the work platform 1, as represented in figure 1, and a position further away from the

work platform 1, as is the case in the other figures.

[0059] For safety reasons, the work floor 4 is provided with a plinth 27 of for example 10 or 15 cm high in the parts of the railing.

[0060] Furthermore, securing means can be provided, whereby the drive means are not activated as long as the railing 22 is not correctly expanded and a door 28 in the railing 22 is not correctly closed.

[0061] Another important aspect of a work platform 1 according to the invention as represented in figures 1 to 5 which promotes the safety, is that all its components are permanently connected to one another, more specifically in the collapsed position as well as in an expanded position and during a transition between these positions.

[0062] In this way, it is impossible to leave out or forget certain parts.

[0063] The construction of the work platform 1 as a whole automatically forces the user to a correct use.

[0064] Figures 6 to 13 represent an alternative and even more preferred embodiment of a work platform 1 according to the invention.

[0065] This embodiment mainly differs from the embodiment as represented in figures 1 to 5 and as discussed above in that the work platform 1 is made such that a higher working height can be reached on the one hand, and in that the wheel set and its positioning are different.

[0066] These and other differences will be further discussed in detail.

[0067] Figure 6 represents a work platform 1 with a base 3 which is designed to rest on the ground 2, as well as a work floor 4 on which, in an expanded or unfolded position of the work platform 1 as represented in figure 6, a person can take place.

[0068] In conformity with the embodiment according to figures 1 to 5, also in this embodiment the lateral supports 12 and 13 are realised by providing a hinged profile 18 at each corner 10 of the rectangular base 3.

[0069] Each hinged profile 18 is built of two profile parts which are mutually hinge-mounted by means of hinges 21, and whereby one far end 19 of each hinged profile 18 is each time fixed to the base 3.

[0070] Other than in the embodiment as represented in figures 1 to 5, each hinged profile 18 is provided with an attachable extension profile 18B here.

[0071] Parallel to each crosscut edge 9, four cross connections 20A to 20D are provided between the two adjacent profiles 18 with extension profiles 18B, more specifically two cross connections 20A and 20B between the two adjacent hinged profiles 18, and two cross connections 20C and 20D between the two adjacent attachable extension profiles 18B.

[0072] On each crosscut edge 9, the parts of the adjacent profiles 18 between the base 3 and the hinges 21 concerned form an aforesaid fixed standing part 14 or 15 of the lateral support 12 or 13 on the side edge 9 concerned.

[0073] On the other hand, the remaining parts of the

profiles 18 on a crosscut edge 9, together with the corresponding cross connections 20A and 20B, form a hinged part 16 or 17 of the lateral support 12 or 13 concerned.

[0074] The attachable extension profiles 18B on a crosscut edge 9, together with the corresponding cross connections 20C and 20D, make the lateral support 12 or 13 complete and allow for a higher work height of for example 3 meters.

[0075] Each set of two attachable extension profiles 18B, mutually connected by means of the cross connections 20C and 20D, is further also named lateral support extension 12B and 13B.

[0076] The two lateral support extensions 12B and 13B, when they are put on top of the lateral supports 12 and 13, are mutually connected by means of a rod element 29 which is preferably directed slantingly in relation to the work floor 4.

[0077] To this end, the rod element 29 and at least two attachable extension profiles 18B are provided with appropriate coupling means 30, at an appropriate height difference.

[0078] The attachable extension profiles 18B are further substantially in accordance with the profiles 18, at least especially regarding the characteristics related to the capacity of the work floor 4 to move up and down in relation to the base 3 over or between the lateral supports 12 and 13, at least when they are put in the unfolded position of the work platform 1 for use.

[0079] As stated earlier and as shown here in figure 7, the profiles 18 and also the attachable extension profiles 18B have a C-shaped section.

[0080] These profiles 18 and 18B with C-shaped sections are characterised by a connecting wall 31, two side walls 32A and 32B oriented substantially transversely thereto which are each provided, at a distance from the connecting wall 31, with legs 33A and 33B directed towards each other.

[0081] One of the legs 33A or 33B directed towards one another is provided with a toothing 34 or tooth-shaped cut-out 34 on its free edge, which toothing 34 can work in conjunction with gear wheels 35 provided on the angles of the work floor 4.

[0082] As is represented in more detail in figure 7, such a gear wheel 35 is provided on a shaft 36, and on either side of the gear wheel 35 is provided a round disk 37A and 37B whose diameter is larger than the largest diameter of the gear wheel 35 concerned.

[0083] Moreover, the shaft 36 goes further than the outermost disk 37B.

[0084] On the thus protruding part of the shaft 36 is provided a sliding block 38, for example made of an appropriate plastic, whose dimensions and placement in relation to the gear wheel 35 are appropriate to ensure some further positioning.

[0085] Preferably, the width of the sliding block 38, apart from a tolerance, corresponds to the internal distance between the opposite side walls 32A and 32B.

[0086] The connecting wall 31 is provided with cut-outs 39 here, more specifically in order to restrict the weight.

[0087] It is clear, however, that the shape of the profiles 18 and 18B may differ from the shape as discussed, which offers major advantages as far as stiffness and safety are concerned, however.

[0088] Figure 8 shows an elevation of the work floor 4 of the work platform 1 according to a direction indicated by arrow F8 in figure 6, i.e. a bottom view in a condition of use.

[0089] As stated earlier, the gear wheels 35 are driven here by electric drive means provided under the work floor 4 and which consist of an electric motor 40, powered by a preferably rechargeable battery power supply which is not represented, for example of 24 V.

[0090] The motor shaft of the electric motor 40 is coupled to a first transmission 41 which is provided with two output shafts 42A and 42B.

[0091] Each of the shafts 42A and 42B extends into a second transmission 43A and 43B, each provided near the crosscut side of the work floor 4 which leans against the lateral support 12 or 13.

[0092] Each second transmission 43A and 43B is provided with two output shafts 36 on which are provided a gear wheel 35, two surrounding disks 37 and a sliding block 38.

[0093] It is clear that the above discussion of the characteristics as represented in figures 7 and 8 also relates to the embodiment of the work platform 1 as represented in figures 1 to 5.

[0094] Figures 9 and 10 show an elevation of the work platform according to a direction indicated by arrow F9, by arrow F10 respectively in figure 6.

[0095] As is apparent, the work platform 1 according to the present embodiment, as represented in figures 6 to 13, are provided with four little casters 44, one in each angle.

[0096] Optionally, the two casters 44 provided on the crosscut edge 9 of the base 3, away from the pull handle 24, are replaced by two larger wheels 45 which are represented here as well for clarity's sake, but whereby it is clear that if they are provided, the nearby casters 44 can be omitted.

[0097] These two larger wheels 45 are situated slightly inward and more to the centre point of the work platform 1 when compared with the two small casters 44 which they replace.

[0098] The function and the characteristics of the larger wheels 45 correspond to the wheel 23 as provided in the embodiment according to figures 1 to 5.

[0099] Compared to the embodiment according to figures 1 to 5, the two smaller casters 44 provided on the side of the pull handle 24 take the place and function of the support feet 25, with the difference that movability is also offered without lifting the handle 24, for example on a flat and/or hard basis.

[0100] On an uneven terrain, the pull handle 24 can then be used to move the work platform 1.

[0101] Both types of wheels 44 and 45 have a broad support and will not necessarily serve as a support when setting up the work platform 1.

[0102] Once set up, the work platform 1 preferably mainly rests on the provided swivelling support legs 26.

[0103] With traditional scaffolds, at first sight similar laterally protruding points of support are merely used to stabilize the scaffold against tipping.

[0104] Figure 11 shows the part indicated by F11 in figure 10 in greater detail and to a larger scale.

[0105] The detail view illustrates how a hinged profile 18 consists of two profile parts which are mutually hinge-mounted, more specifically by means of the hinge 21.

[0106] When expanded, the standing position is secured by means of locking and tensioning means 46, in this case a straining clamp 46.

[0107] It is clear that the above discussion of the characteristics as represented in figure 11 also relates to the embodiment of the work platform 1 as represented in figures 1 to 5.

[0108] Figure 12, analogous to figure 6, shows a view in perspective of the work platform 1, but the work floor 4 is put in a higher position here.

[0109] With reference to figure 13, in which the part indicated by F13 in figure 12 is represented in more detail and to a larger scale, and with disassembled front parts, it should be noted that it provides for a mechanical protection to prevent the work floor 4 from slipping out of the profiles 18.

[0110] Indeed, by providing the possibility to apply attachable extension profiles 18B on the profiles 18, they are provided with open far ends 47 in the present embodiment.

[0111] Should the user forget to put closing parts, provided to that end but not represented, on the open far ends of the profiles 18, i.e. when the attachable extension profiles 18B are not used, there is a danger that the work floor 4 would slid out of the profiles 18.

[0112] By providing the profiles 18 with a recess 48 near the free far ends 47, more specifically in the side walls 32A here, however, and by also providing the sliding blocks 38 with a spring cam 49 resilient towards the side wall 32A concerned, said skidding can be mechanically prevented.

[0113] When the attachable extension profiles 18B are provided on the profiles 18, these recesses 48 are sealed, thus preventing the cam 49 from being moved outward.

[0114] The shape of the cam 49 is such that blocking during upward movement and automatic withdrawal during downward movement is obtained.

[0115] To that end, the cam 49 is provided with an overall rounded contact surface 50, and with an angular cut-out 51 on the top side.

[0116] It is clear that each individual characteristic of each of the embodiments can be combined with one or several of the other characteristics of the other embodiment.

[0117] Note that when speaking of a work platform for

carrying people, naturally also a single person can be meant and/or material and the like.

[0118] The invention is by no means restricted to the embodiments of a work platform 1 according to the invention described by way of example and represented in the accompanying drawings; on the contrary, such a work platform 1 according to the invention can be made in all sorts of ways while still remaining within the scope of the invention.

Claims

1. Work platform (1) designed for carrying people while working on a certain height (H) in relation to the ground (2), whereby the work platform (1) is adjustable between a collapsed or folded position in which elements of the work platform (1) are put close together and one or several expanded or unfolded positions, in which elements of the work platform (1) are moved further away from one another, whereby the work platform (1) comprises at least the following elements:

- a base (3) which is designed to rest on the ground (2);
 - a first lateral support (12) and a second lateral support (13) provided on the base (3), whereby each lateral support (12,13) comprises a fixed standing part, fixed standing parts (14,15) respectively, in relation to the base (3) on the one hand, and a hinged part, hinged parts (16,17) respectively, which take up a predominantly vertical position when unfolded;
 - a work floor (4) for carrying people which, in an unfolded position of the work platform (1), can be moved up and down in relation to the base (3);
- characterised in that** the work floor (4) can be moved along the lateral supports (12,13) by means of gear wheels (35) or the like provided on the work floor (4) on the one hand, and a complementary toothing (34) or rack or the like provided on at least one of the lateral supports (12,13) on the other hand.

2. Work platform (1) according to claim 1, **characterised in that** an electric motor (40) is connected to the work floor (4), preferably at the bottom, which together with the work floor (4) is subjected to the upward and downward movements.
3. Work platform (1) according to claim 1 or 2, **characterised in that** one or several gear boxes or transmissions (41, 43A, 43B) are connected to the work floor (4), preferably at the bottom, which together with the work floor (4) is subjected to the upward and downward movements.

4. Work platform (1) according to claim 3, **characterised in that** the electric motor (40) and a first transmission (41) coupled thereto is provided centrally at the bottom of the work floor (4), which first transmission (41) is provided with two output shafts (42A, 42B), whereby each of the shafts (42A,42B) extend into a second transmission (43A,43B), each provided near an opposite side of the work floor (4), whereby each second transmission (43A,43B) is provided with two output shafts (36) on which is provided a gear wheel (35), such that four synchronously driven gear wheels (35) are provided for which can work in conjunction with an accompanying complementary toothing (34) or rack or the like, which consequently are provided in duplicate on each of the lateral supports (12,13).

5. Work platform (1) according to claim 4, **characterised in that** a shaft (36), on either side of a gear wheel (35), is provided with a disk (37A,37B) whose diameter is larger than the largest diameter of the gear wheel (35) concerned.

6. Work platform (1) according to claim 4 or 5, **characterised in that** a shaft (36), on its free end moved away from the second transmission (43A,43B), is provided with a sliding block (38).

7. Work platform (1) according to one or several of the preceding claims, **characterised in that** the first and second lateral supports (12,13) are each provided with a lateral support extension (12B,13B) when the lateral supports (12,13) are in an unfolded position, which lateral support extensions (12B,13B) are provided with a complementary toothing (34) or rack or the like on the gear wheels (35) or the like, in line with and executed as a shift of the complementary toothing (34) or rack provided on the first and second lateral supports (12,13).

8. Work platform (1) according to one or several of the preceding claims, **characterised in that** a lateral support (12,13) and if necessary a lateral support extension (12B,13B) comprises two profiles (18,18B) which are mutually connected or can be connected by means of one or several cross connections (20A,20D), whereby each of the profiles (18,18B) has a C-shaped section, in particular comprises a connecting wall (31), two side walls (32A, 32B) mainly oriented perpendicular thereto, each provided at a distance from the connecting wall (31) with legs (33A,33B) directed towards one another, whereby at least one leg (33A,33B) is provided with a toothing (34) or tooth-shaped cut-out (34) on its free edge which serves as a rack and can co-operate with gear wheels (35) provided on the work floor (4).

9. Work platform (1) according to claim 8, **character-**

ised in that the sliding block (38) is provided in the interior space defined by the connecting wall (31), the two side walls (32A,32B) directed mainly perpendicular thereto and the legs (33A,33B) directed towards each other, and **in that** the dimensions of the sliding block (38) and/or the placing of the sliding block (38) in relation to the gear wheel (35) are suitable to ensure a further positioning, for example as the width of the sliding block (38), apart from a tolerance, corresponds to the internal distance between the opposite side walls (32A) and (32B).

10. Work platform (1) according to one or several of claims 8 to 9, **characterised in that** the profiles (18) are provided with a recess (48) near their free far ends (47), for example in the side walls (32A), and **in that** the sliding blocks (38) are provided with a spring cam (49) which is resilient towards the side wall (32A) concerned.
11. Work platform (1) according to claim 10, **characterised in that** the cam (49) is provided with an overall rounded contact surface (50) directed towards the side wall (32A), but which contact surface (50) is provided with an angular cut-out (51) on the top side.
12. Work platform (1) according to one or several of the preceding claims, **characterised in that** the base (3) is predominantly made rectangular, with a pair of longitudinal side edges (7) and a pair of crosscut edges (9), and **in that** on each of the crosscut edges (9) is provided a lateral support (12,13) with a fixed standing part (14,15) and a hinged part (16,17) which can rotate around a shaft (XX',YY') which is parallel to the crosscut edge (9) concerned between a lowered position, whereby the hinged part (16,17) of the lateral support (12,13) is provided parallel to the rectangular base (3), corresponding to the collapsed position, and a standing position in which the hinged part (16,17) of the lateral support (12,13) is perpendicular to the rectangular base (3) and is situated in the plane of the adjacent fixed standing part (14,15), corresponding to the expanded position of use, **in that** in the collapsed position the work floor (4) is situated between the rectangular base (3) and the folded hinge-mounted lateral supports (12,13), whereby the shaft (XX') of the first lateral support 12 is situated at a distance (C) from the base (3) which is smaller than the distance (D) between the shaft (YY') of the second lateral support (13) and the base (3), more specifically such that the difference between the distances (C) and (D) mainly corresponds to the width (E) of a profile (18).
13. Work platform (1) according to claim 12, **characterised in that** the distance (C), or the height (C) of the standing fixed part (14) of the first lateral support (12) mainly corresponds to the overall thickness of the

work floor (4) in the folded position.

14. Work platform (1) according to one of the preceding claims, **characterised in that** the work platform (1) is provided with four small casters (44), one in each angle, or with two larger wheels (45) provided near the crosscut edge (9) of the base (3) away from a pull handle (24), and with two small casters (44) near the opposite crosscut edge (9).

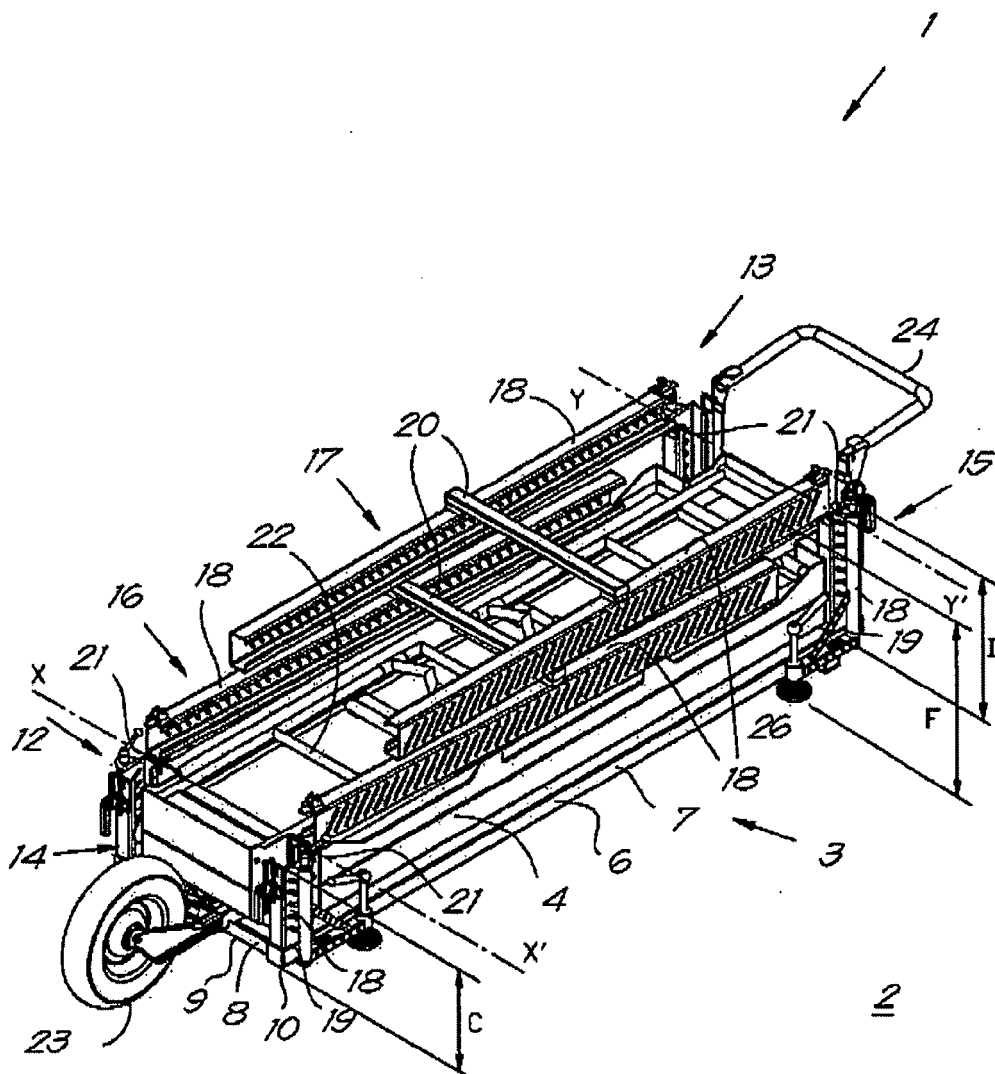


Fig. 1

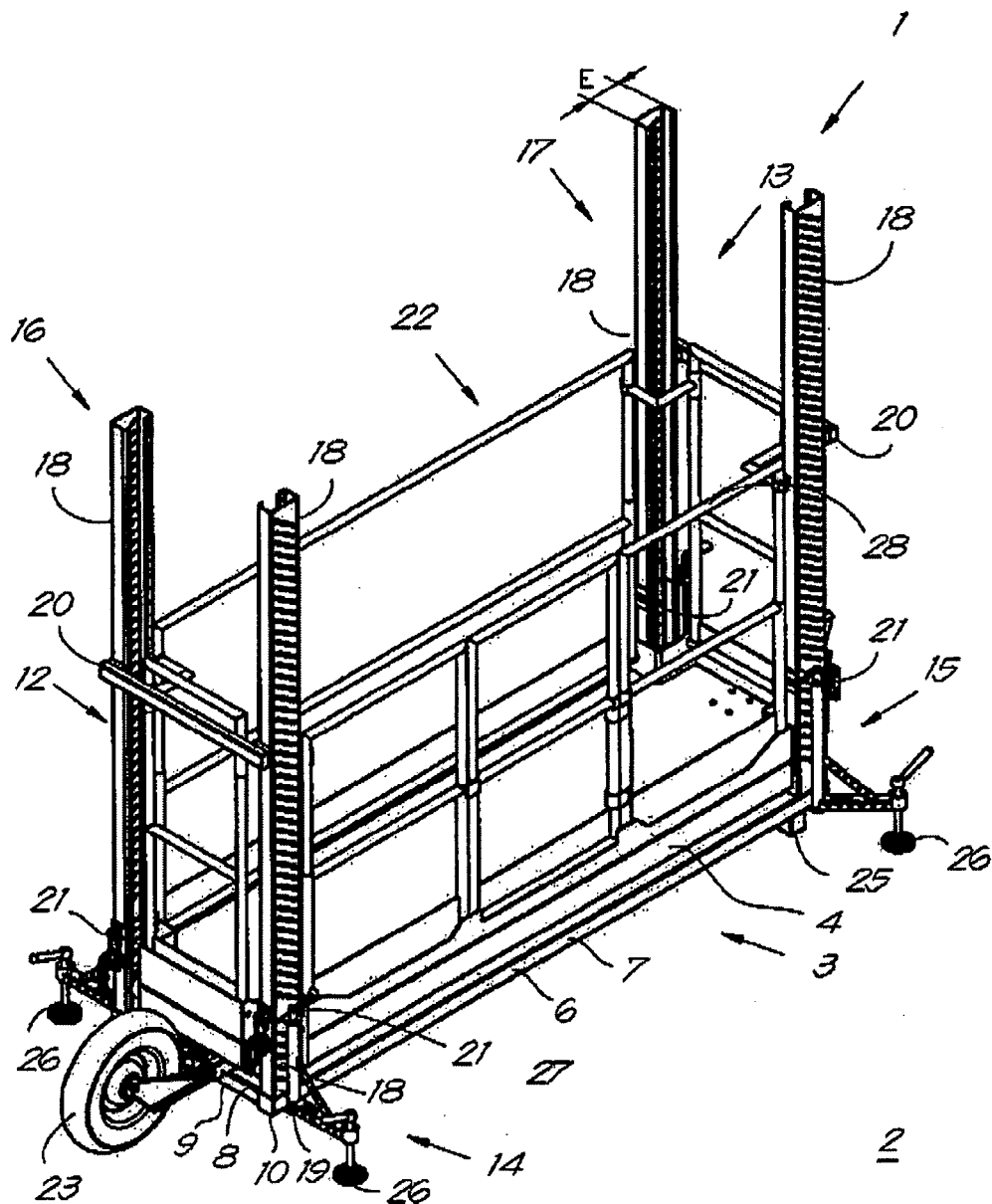


Fig. 2

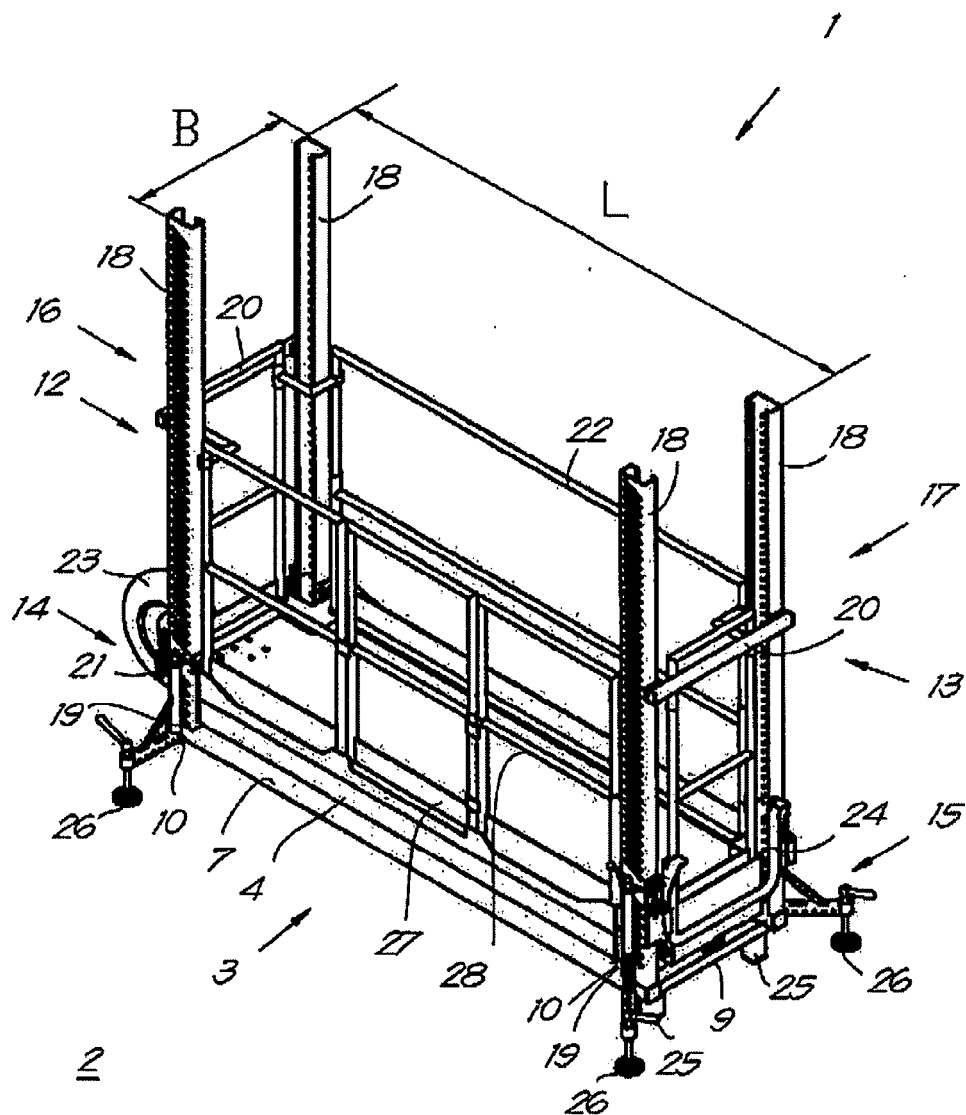
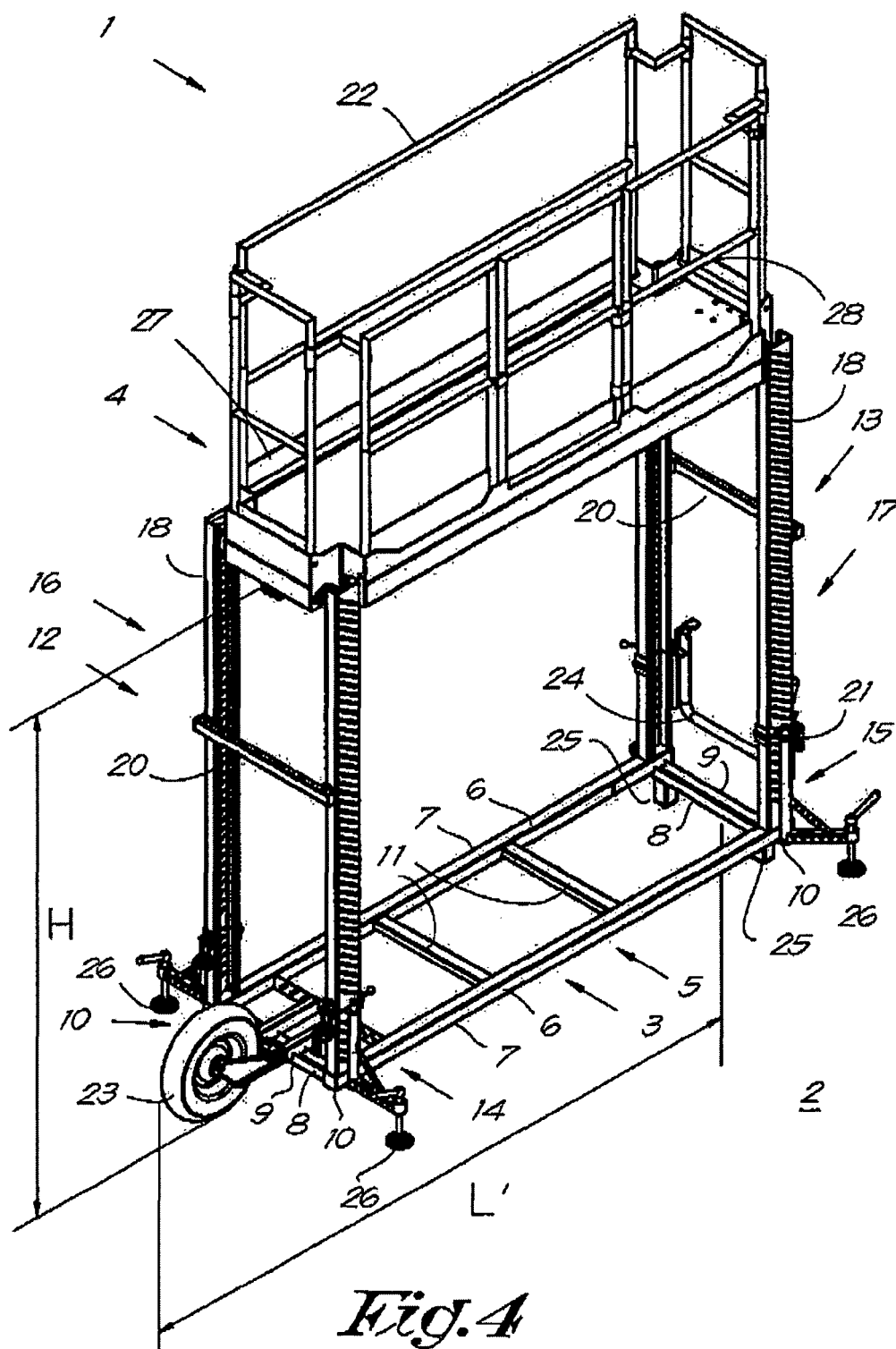
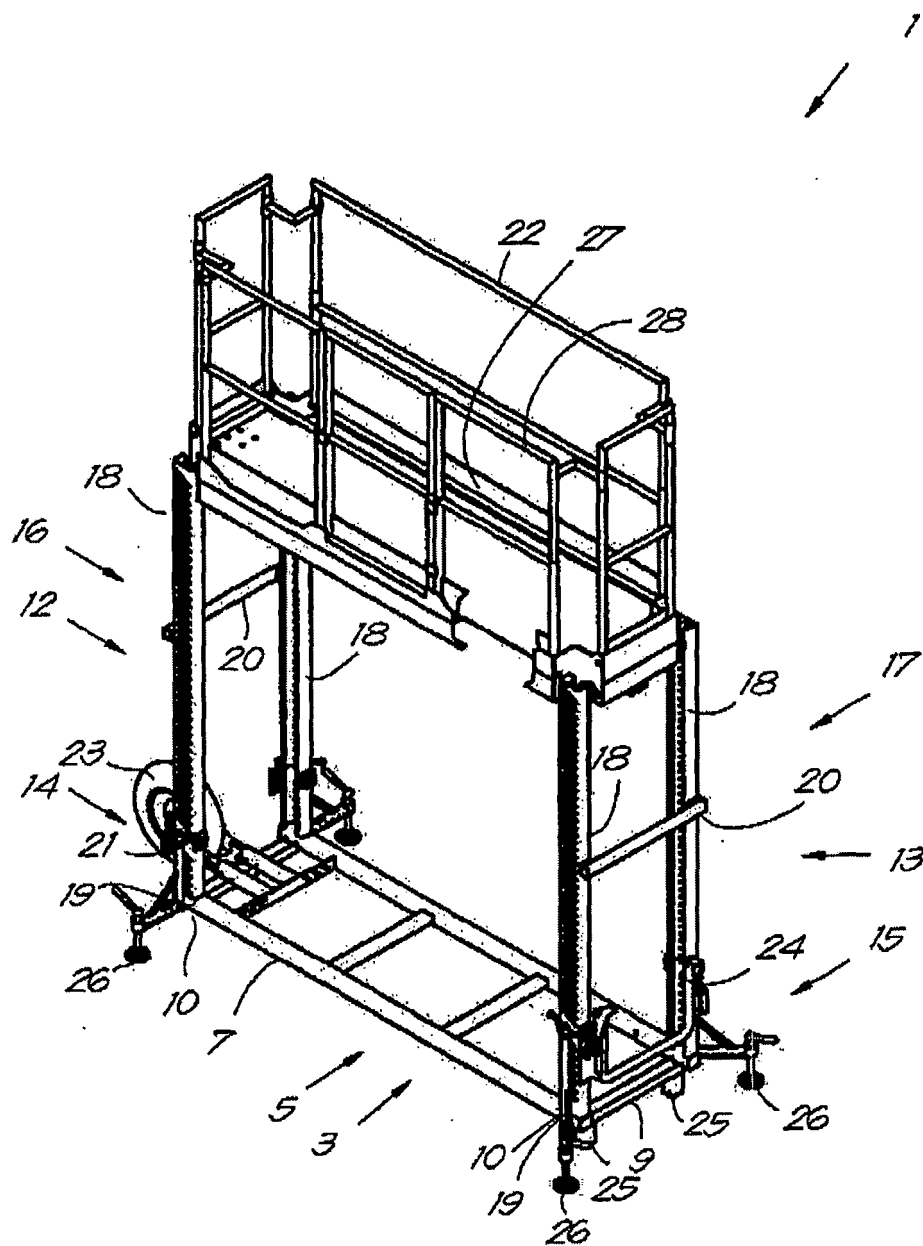


Fig.3





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Fig. 5

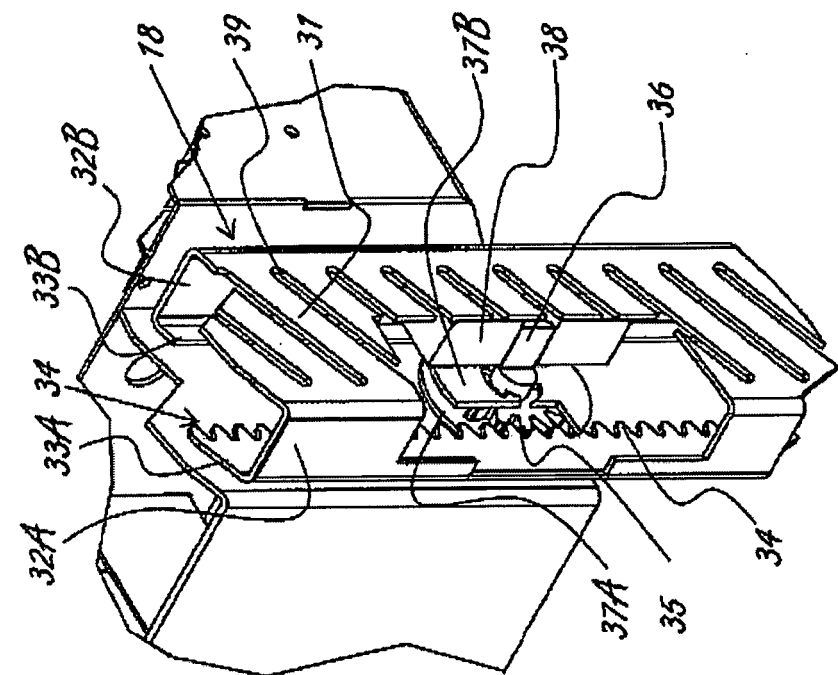


Fig 7

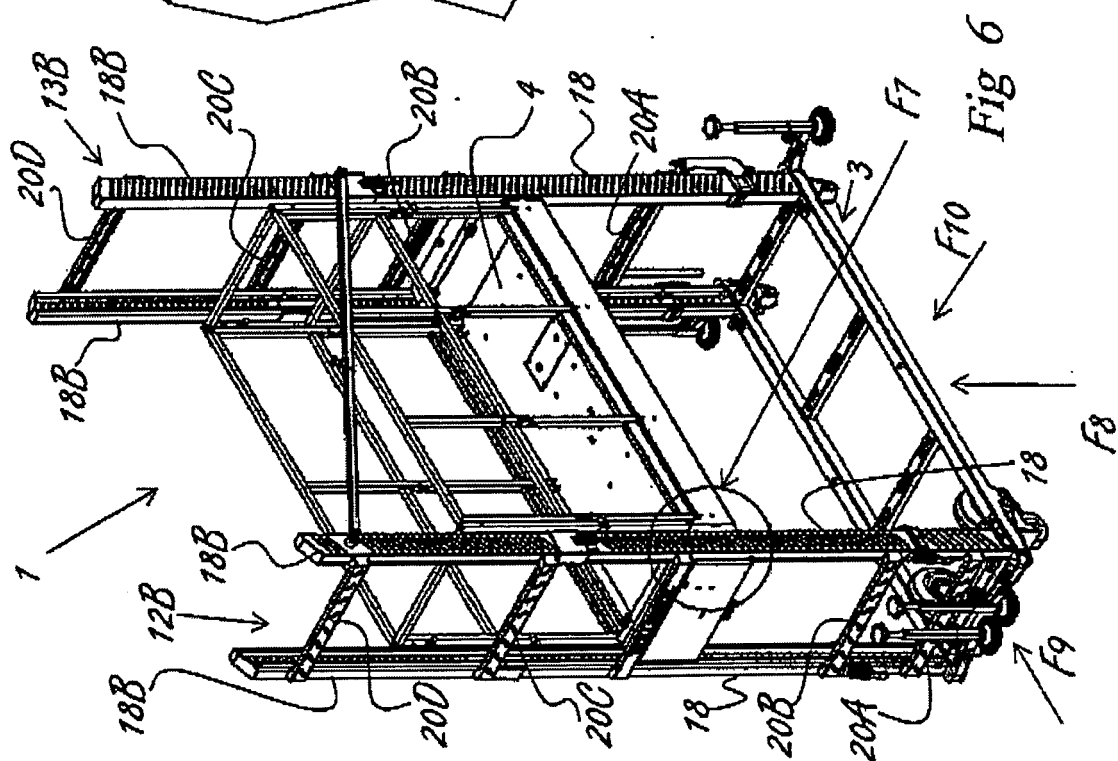


Fig 6

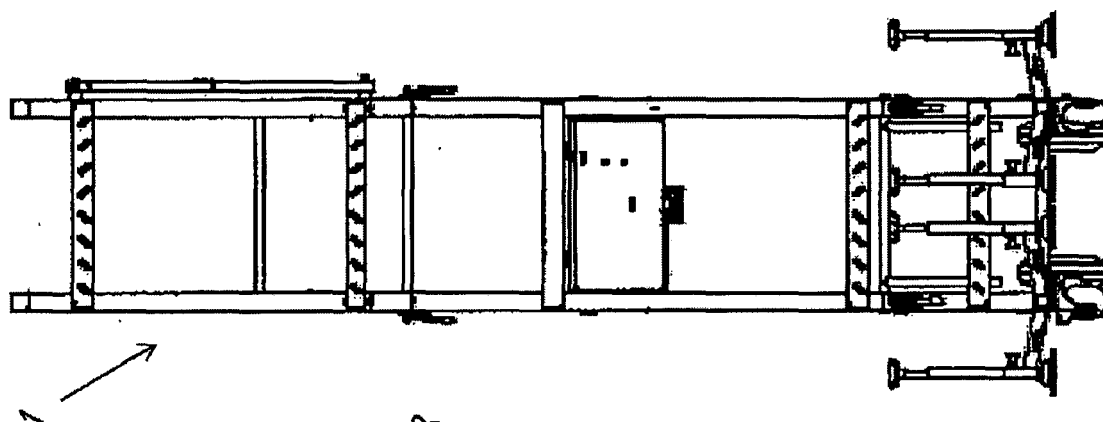


Fig 9

1

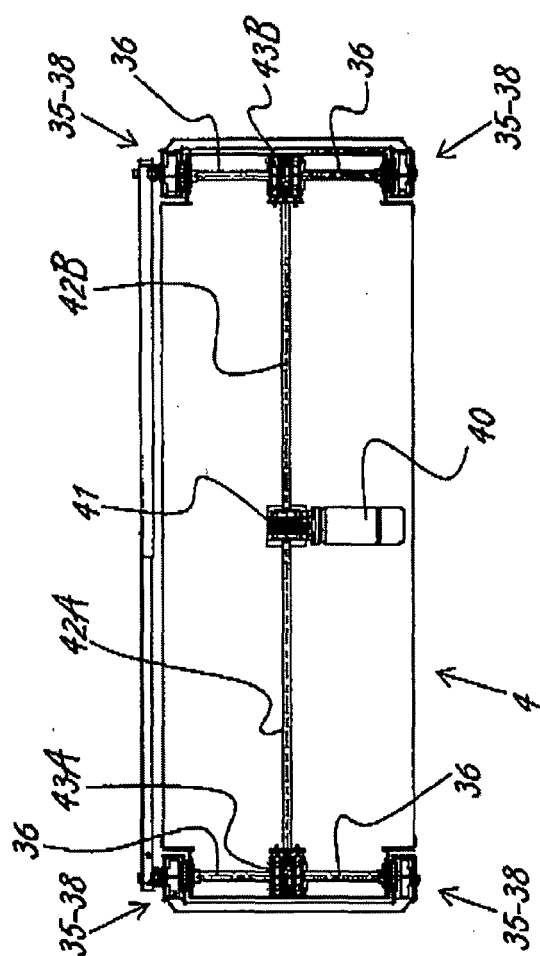
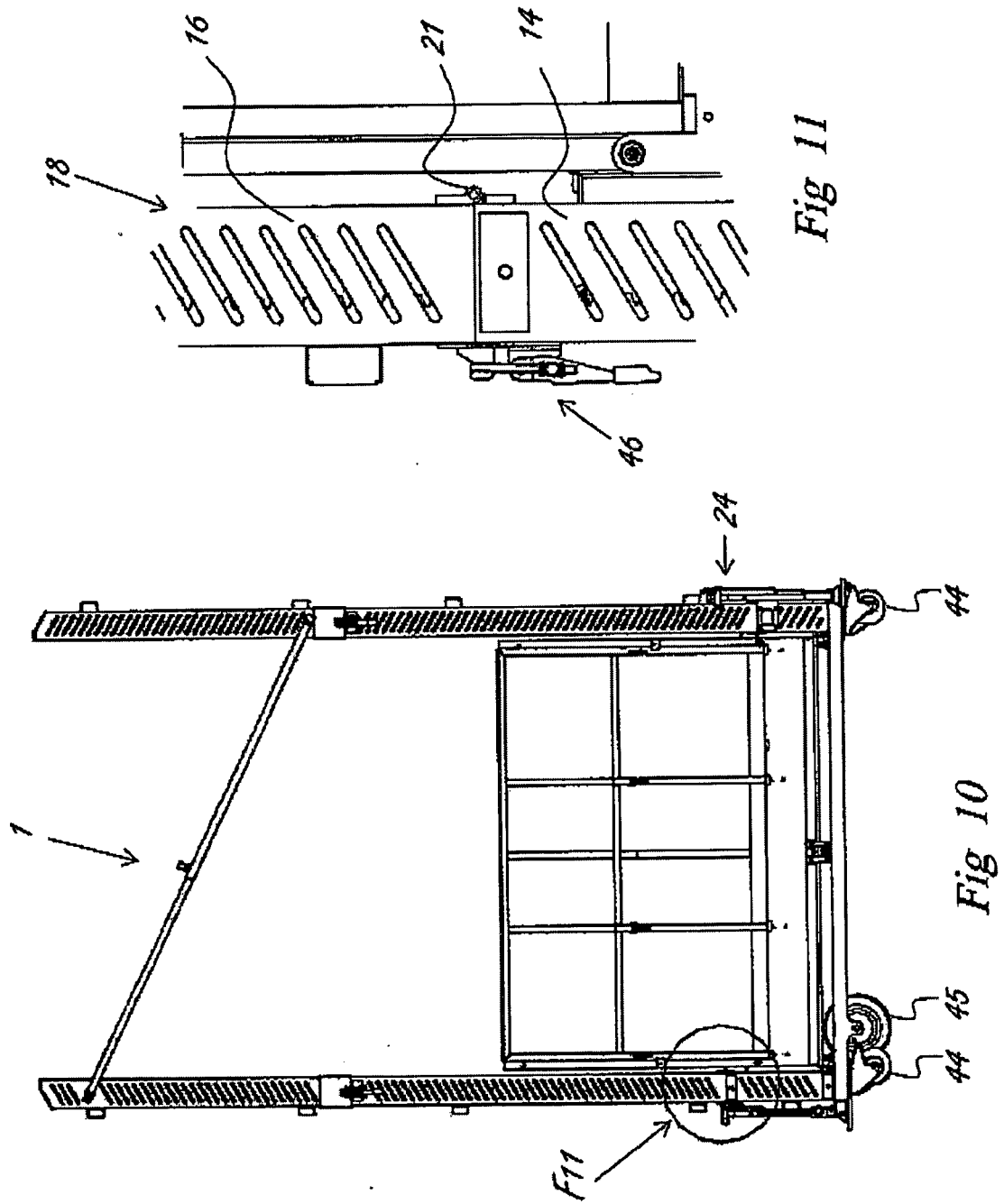


Fig 8



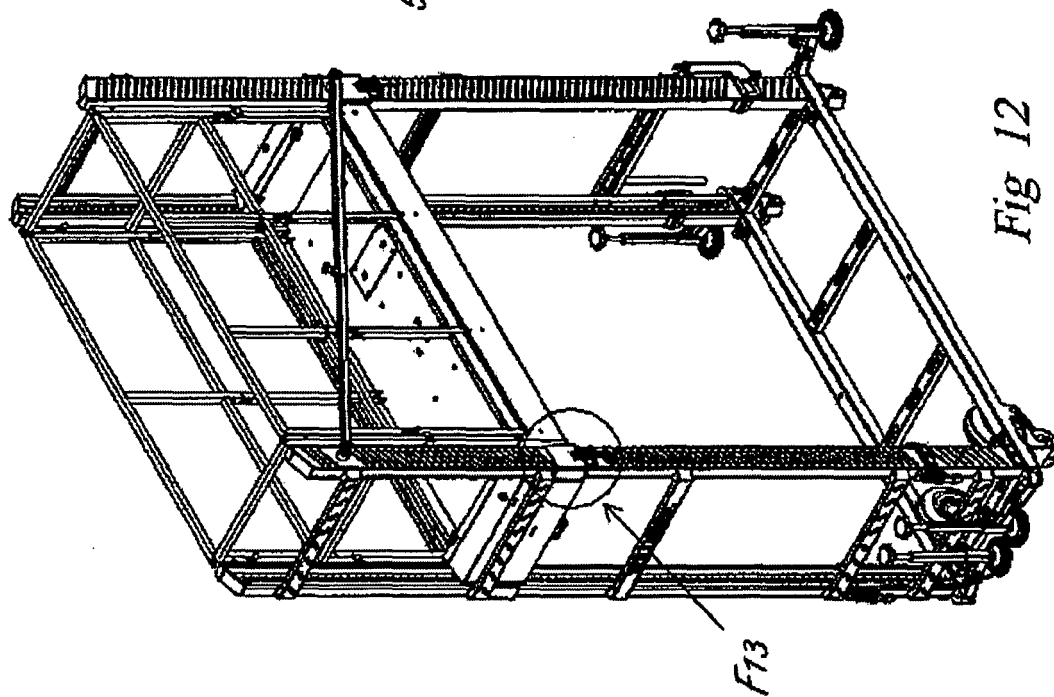


Fig 12

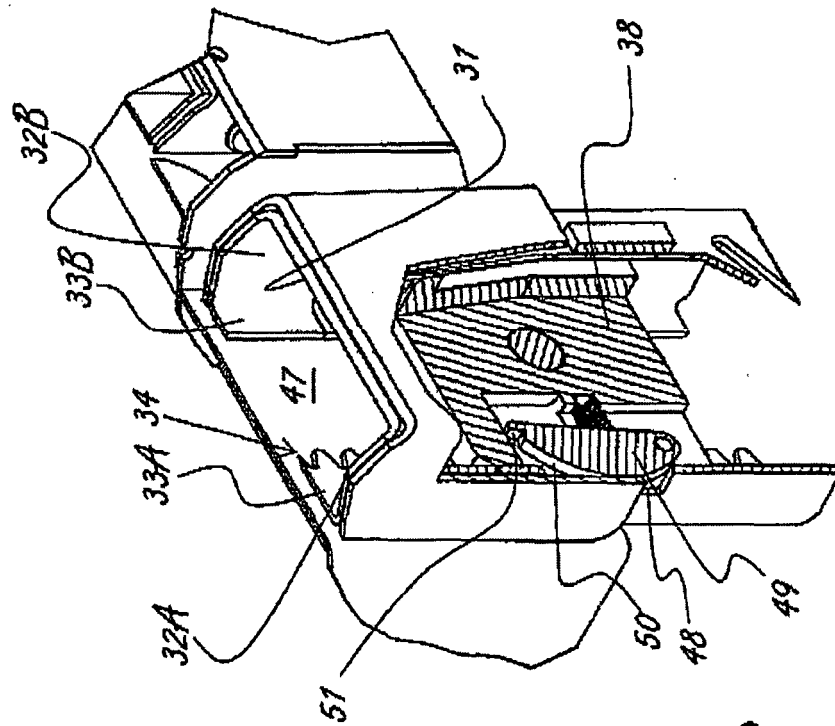


Fig 13



EUROPEAN SEARCH REPORT

Application Number
EP 13 44 7004

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 June 2013	Examiner Andlauer, Dominique
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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28-06-2013

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