(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 876 782 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
11.11.1998 Bulletin 1998/46

(51) Int Cl.[6]: **A47B 97/08**

(21) Application number: **98303582.5**

(22) Date of filing: **07.05.1998**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **07.05.1997 GB 9709206**

(71) Applicant: **Watts, William James Holloway**
Woking, Surrey GU22 9AA (GB)

(72) Inventor: **Watts, William James Holloway**
Woking, Surrey GU22 9AA (GB)

(74) Representative: **Downing, Michael Philip et al**
Fry Heath & Spence,
The Old College,
53 High Street
Horley, Surrey RH6 7BN (GB)

(54) Artist's kit

(57) The Application describes an easel comprising a tray with a lid, the tray having a support arm hinged thereto at one end with the other end being hingedly connected to the lid. This allows the lid to provide a fully adjustable working surface. The tray can include serrations for accepting the edge of the lid, or struts to support it. The Application also provides an easel with four legs, a first two hinged to the tray and a second two hinged to the first two and releasably connectable to the tray.

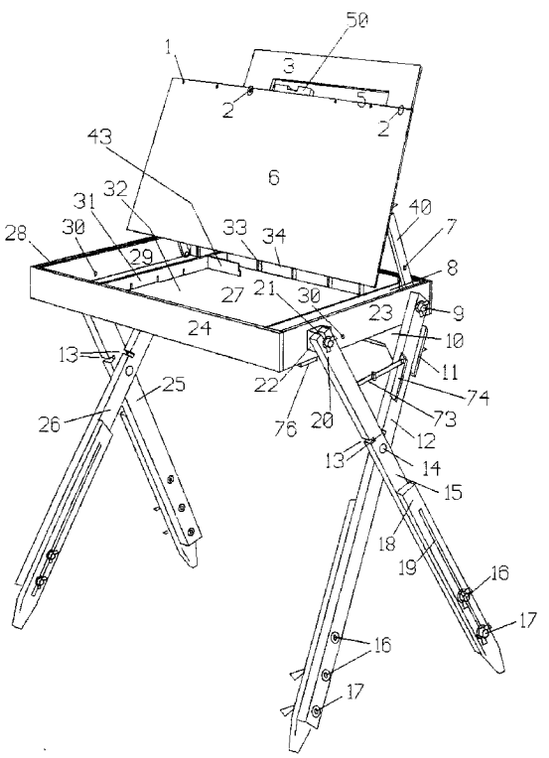

Fig 1

EP 0 876 782 A1

Description

This invention relates to graphic artist's kits. It seeks to provide a lightweight apparatus which provides all the common tools and materials required by an artist when painting or drawing away from the home base, essentially providing a portable artist's studio facility.

There have been many attempts at providing artists with portable painting and drawing facilities but none appears to provide for the entirety of reasonable requirements of the typical artist operating outside of a studio environment. Most earlier inventions or designs provided an adjustable easel which could be carried or wheeled but all stopped short of the universal provision of all the other, additional, facilities so useful in assisting outdoor painting and drawing.

Some existing designs provide crude storage space without consideration for convenience. Most designs are cumbersome, flimsy and difficult to carry comfortably while few appear to have considered convenience of use from the artist's viewpoint apart from simple easel adjustment. Even then, easels have generally been designed exclusively for oil painting in a near vertical plane whereas many water colour painters prefer a shallow slope to the horizontal which may be tilted occasionally at various angles (even upside down) to suit particular water-colour painting techniques in parts of the executed work. Persons engaged in drawing generally require a shallower slope but with a sturdy base to support the weight of hand and arm; hitherto, only desk easels met this requirement but are of little use in the field.

Nearly all painters need to be able both to sit or stand at their easel and when outdoors, work nearly always on uneven ground and need to be able to adjust easily the position, slope and orientation of the mounted work while having immediate access to all the vital tools and materials, for example palette, water and brushes. No example of the prior art has been found to address all, or even more than a few, of the essential practicalities of:

(i) getting the equipment together,
(ii) carrying to site,
(iii) adjusting for uneven ground,
(iv) ease of setting up the easel,
(v) instantaneous access to tools and materials in continual use,
(vi) the ability to close down the system rapidly in bad weather,
(vii) the safe storage of delicate art equipment when transported in a vehicle or carried over rough terrain and longer-term storage at the studio or home base for instant readiness when a painting or drawing opportunity suddenly arises.

The present invention therefore provides an easel as set out in Claim 1 or Claim 7.

Because of the plurality of configurations in which the apparatus may be set up by the user, some definitions of terms will be useful. To simplify the wording of the definitions themselves, the 'apparatus' is loosely defined here as comprising a storage box mounted on a trestle assembly of two pairs of legs and connected together in scissor-like configuration. Therefore in describing this invention, the following definitions are applied in consideration of the apparatus assembled and configured into its 'normal' working mode, that is fully assembled with legs in scissor mode and placed on the ground and with the largest plane of the storage box near to horizontal. The following definitions are applied to both the box and the elevation of the apparatus as a whole and are expressed in relation to the user when facing the box and ready to paint or draw:

top - the storage box major surface furthest from the ground
base - the storage box major surface closest to the ground
front - the storage box wall or elevation facing the user
rear - the storage box wall or elevation remote from the user
left - the storage box wall or elevation to the user's left
right - the storage box wall or elevation to the user's right.

With respect to the apparatus as a whole, which (in the described example) is symmetrical about the vertical plane passing through the storage box centre but asymmetric in some respects and to some extents about the lateral vertical plane passing through the box centre, some specific axes are defined as follows:

front-to-rear - a horizontal axis parallel to the horizontal centre line from the front of the apparatus to its rear
lateral - a horizontal axis line passing from left to right and parallel to the lateral centre line of the storage box.

With respect to their trestle assembly positions, the following definitions apply to the legs:

inner - the pair of legs which pivot inside the outer pair of legs and which are connected close to the rear of the storage box and which are linked together by the cross-bracket

outer - the pair of legs which pivot outside the inner pair of legs and which are connected close to the front of the storage box and which are not linked together.

N.B. In some parts of the descriptive text it is necessary to consider the legs in terms of left and right pairs, in which case a pair comprises one inside leg and one outside leg joined near to but above their mid-lengths at the scissor-like pivot point. However, to simplify the text, except as otherwise explained, the pivot is considered to be at the mid-length of each leg.

With respect to the whole, fully-connected apparatus, and throughout the text, the following definitions of commonly-used phrases apply:

scissor mode - the 'normal' mode of use: when the legs are clamped in their scissor-like disposition

scissor point - the pivot point close to but above the mid-length of each leg, about which the legs may rotate when released from the storage box.

flat mode - the 'carriage' mode: when the outer legs are released from the storage box front and rotated about the scissor points until all four legs are parallel to the storage box

flat mode clamp slot - a slot cut in the front face of each leg just above the scissor point, all aligned when in flat mode, to accommodate the front clamping connection of the storage box

leg-top hole - a hole at the top end of a leg through which it is connected to a matching hole in the storage box side wall

side-wall hole - a hole in the storage box side wall through which it is connected to a leg-top hole

lid/easel - the lid of the storage box which is used as an easel when pivotably adjusted and clamped

pivot arm outer end - the lid/easel end of the pivot arm, which is normally the frontmost and/or uppermost end

pivot arm inner end - the storage box rear connecting point end of the pivot arm, which is normally the rearmost and or lowermost end.

When considering examples other than that described herein, the above definitions will of course need suitable adaptation.

Specific embodiments of the invention are now described by way of example, referring to the orientations, elevations and views shown in the accompanying drawings, generally following the convention of the third angle projection method to show three-dimensional relationships:

Figure 1 Perspective view of whole apparatus in fully erected and open 'in use' mode with portrait mode extension fitted right-handedly;

Figure 2 Whole apparatus, folded in flat mode for 'carriage' (with shoulder strap attached) or for 'storage' mode:

(a) in rear elevation;
(b) in side elevation.

Figure 3 Trestle assembly with legs open in scissor mode and storage box erected but closed:

(a) in rear elevation;
(b) in side elevation;
(c) enlarged view of bracket fixing details.

Figure 4 Apparatus in 'transportation' mode, dismantled into main components (shown from left to right): right leg pair, left leg pair and cross-bracket (rear elevation) and storage box fastened and wing nuts tightened (plan view).

Figure 5 Storage box in plan view (lid/easel removed for clarity):

pivot arms and drawing rests (in their stowage positions);
distance blocks and connecting lanyards (in-use positions);
part leg attachment detail and steady stay arrangement;
partition panels, bottle, cup, sub-panel and option grooves;
pivot arm outer end wing nut clearance grooves; closure pads.

Figure 6 Side elevation of storage box with right side wall cut away to show lid/easel unit closure mechanism: the fitting of the mounting-flange front-end tenon under the closure pad and wet media retaining panel.

Figure 7 Lid/easel unit, various views, with media drawer, various views:

(a) media drawer in plan view, front and side elevations;
(b) lid/easel unit in plan view, front and side elevations, with media drawer inserted in mounting flange guide grooves (side elevation showing media drawer partially opened);
(c) expanded front elevation showing media drawer detent mechanism;
(d) front and side elevations showing media drawer placement in the context of the storage box.

Figure 8 Pivot arm, various views, showing inner connection to storage box at one end and lid/easel unit at the outer end:

(a) connection to lid/easel unit (rear elevation);
(b) connection to lid/easel unit and storage box (side elevation);
(c) connection lid/easel unit to box (underside view, base removed);
(d) various pivot arm positions in context of box (side elevation).

Figure 9 Lid/easel unit, side elevation showing respective easel tilt angles):

(a) drawing rest support struts with example lengths;
(b) rack panel with example cutouts
(c) alternative cutout locations

Figure 10 Diagrammatic side elevations of apparatus being used in:

(a) 'standing' mode with feet extended;
(b) 'sitting' mode with feet retracted.

According to the present invention there is provided an apparatus which may exist in a plurality of configurations, each suited to a particular purpose in connection with the use or carriage of the apparatus. The apparatus comprises an adjustable trestle assembly and a body in the form of a shallow storage box for holding loose tools and materials in convenient arrangement, with a pivotably openable lid, adjustable both for slope and position and intended for use as an artist's easel or craft person's work surface or lectern. The box is releasably and pivotably connected at its sides to the top of the trestle assembly, itself comprising two pairs of legs each fitted with slidably adjustable feet to rest the apparatus on potentially uneven ground, pivotably joined near their mid points in a scissor-like manner. The inner legs are rigidly and releasably linked together at their top ends and towards the rear face of the apparatus by a cross-connecting planar bracket at the rear of the apparatus, being held in fixed relation to each other by locating pins in the legs mating with close fitting holes in the bracket. The outer legs are not linked to each other and are each free to rotate about their near-mid-point pivots and can be releasably fixed in one of two positions according to the configuration currently adopted, except that the inner and outer legs of each pair may be assisted in being brought to, and held in, either of the said two positions by a pair of rigid, frictionally and rotatably mid-jointed arms, of thin-section, rotatably attached at their ends to their respective adjacent legs and linked at the centres.

The apparatus, in accordance with the example, may be made according to a stable, rigid and rugged design, using a plurality of materials but is preferably made of wood for its cheapness, lightness, strength, ease of working and when finely finished with a protective coating, for example, of clear varnish, for its aesthetic appeal to art lovers, and may be connected by means of suitable, releasable and clampable fixings, for example, international standard sized steel bolts, washers, square nuts, lock nuts and wing nuts, as appropriate, all of which are preferably zinc-galvanised for protection against corrosion in outdoor conditions.

The storage box (Figure 1) 27, in accordance with the invention, preferably comprising a shallow container formed of six orthogonally disposed surfaces, contains a base panel 32 to afford strength and rigidity to the lateral and front-to-rear dimensions of the box and together with the front 24, rear 34 and left 29 and right 23 side walls, provides for the apparatus a body of rigid and strong construction, of minimum weight, to the left and right side walls of which, are pivotably, clampably and releasably connected, the legs 12, 15, 25, 26 of the trestle assembly and of which box the dimensions are not limited to but are preferably adequate to meet the following requirements:

the box includes a shallow slidably mounted media drawer (Figure 7a) described more fully later, to provide storage

space for the artist's paper, thin board or other painting and or drawing media;
the box width should be sufficient to allow the media drawer to accommodate within it art media in sheet or adhesive pad or gummed block form in sizes up to and including the International Standards Organisation (ISO) A3 size and the nearest equivalent common British size 305mm x 406mm;
notwithstanding the previous requirement, the box width (Figure 3a) should additionally be sufficient to allow the apparatus as a whole to accommodate the width of most common types of foldable or other chairs between the inside pair of legs of the apparatus (Figure 10b) that an artist or crafts person may be expected to use;
the box height should be sufficient to contain within the space between the media drawer and the base panel, a plurality of items from among a wide range of typical proprietary painting boxes or artists' kits of materials or kits used by other practitioners of other crafts and to accommodate the user's choice of ancillary tools, equipment and supplies consistent with minimising bulk and weight, within a sensible range of box sizes convenient to users' individual choices, the box's height being preferably, near to 55mm;
the box may include, preferably as a standard provision of the invention a set of sealable, durable, preferably plastic, transparent bottles (Figure 5) 46 of rectangular cross-section, selected from among an array of suitable sizes created by an appropriate process, for example, by injection moulding, designed specifically to suit the cramped storage and generally rectangular nature of the cellular spaces created within the storage box by partitions 31, 43, 44 described later, and intended to contain various liquids required for the processes of painting, for example, water;
the box may include, preferably as a standard provision of the invention a set of plastic cups 45 of rectangular cross-section, made preferably of the same material and process, as the above requirement and of such dimensions as to fit the cellular spaces and preferably to fit around the sealing caps of the above bottles when the apparatus is in flat mode to save stowage space but each presenting an open side when placed base downwards to give open access to the liquids used commonly in painting, for example, water;
the box may include, preferably as a standard provision of the invention a set of pads 77 of plastic foam sheet material, preferably to be supplied with the apparatus in a variety of standard thicknesses and sizes, from which may be selected and cut by the user, suitable, preferably rectangular, block-type shapes which may be laid in between partitions or may be affixed with suitable adhesive to the underside of the media drawer base to trap loose items held in place between partition panels 31, as described later, by the compression of the shaped pads when trapped vertically between the items and the media drawer base when the lid/easel panel (Figure 1) 6 is in the closed position, to prevent damage to delicate items caused by movement during carriage, for example, to brush hairs, and to minimise annoying rattles when carried;
the box, as an integral part of the current invention, provides a mounting hole 30 on each side wall between the leg-top holes and towards the front, for the connection of part of another apparatus, namely a larger bolt-on vertical easel which is not a part of this invention but intended to be available to the user as an optional extra facility to clamp a larger or thick-framed canvas-mounting board for oil painting;
the box has preferably two closure pads (Figures 5, 6c) 35 comprising small, flat, wear-resistant blocks, for example, of hardwood, strongly connected to the inside face and outer ends of the front wall, symmetrically disposed about the front-to-rear axis and placed so as to engage precisely under the tenons (Figure 6c) 36 cut into the front ends 57 of the lid/easel mounting flanges 37 when the lid is in the closed position, for the purpose of holding the lid closed;
the box has preferably two carrying strap fixing devices (Figure 2a) 38, for example, screw eyes, for the purpose of connecting a proprietary adjustable shoulder strap 39 to assist the user in carrying the apparatus comfortably over moderate distances.

The storage box, in accordance with another aspect of the invention, has cut into the inside surfaces of its front and rear walls a plurality of narrow vertical grooves (Figures 1, 5) 33 placed preferably regularly and preferably symmetrically about the front-to-rear axis in which to accommodate vertically, a plurality of partition panels 31 whose characteristics, functionality and purpose are described as follows:

such panels' primary purpose being to organise a user's materials and tools in a convenient and readily accessible arrangement, preferably in which items are placed in a single layer to provide immediate access to all of them at once, according to the user's specific requirements, by effectively providing cells in which to maintain the items securely in their allocated positions should the apparatus to be knocked or tilted moderately and, with the box lid closed, to achieve the same end with box held at any angle;
which panels have the additional purpose of being to trap, laterally, plastic foam pads 77 to match those described already but placed loosely by the user to trap the loose items by the compression of the pads when trapped vertically between the items and the underside of the media drawer base with the lid/easel panel closed;
which panels have sufficient length to fit removably but securely within any opposed pairs of grooves 33 and are of a maximum height to fit between the box's base panel and the lowest surface of the media drawer;

which panels at least comprise two end panels (Figures 1, 5) 8 to demarcate the user's storage space from the space reserved for the mounting flanges, under which the panels must fit, and the pivot arms (Figure 5) 40, closure pads 35 and drawing rests 59 and which panels provide a mounting platform for the latter, all of which are fully described later;

which panels comprise an additional set of useful heights and forms to suit a large variety of configurations and sizes of division within the storage space to suit many types of users' specific individual needs, preferably comprising but not limited to options from the following:

a full set of full-height partitions to fill all available grooves;

a set of mixed full- and partial-height partitions to fill all available grooves to accommodate some wider and flatter objects securely;

including within the set of partitions at least one pair with a plurality of mutually opposed sets of vertical grooves (Figure 5) 42 to accommodate sub-partitions 43, 44 at right angles to the main partition panels, of a length to suit the standard intercostal distance between main partition grooves to provide:

a plurality of cells for small items;

a plurality of cells specifically to contain choices from among the aforementioned standard sizes of plastic bottles 46 and cups 45;

housing for a special type of sub-partition, namely a brush rack 44, having a series of square slots or triangular or similar cuts in its top edge to facilitate holding the shafts of brushes and or other long-bodied, small diameter tools to provide them with individual stowage positions and to hold them in place when compressed by foam pads.

The storage box, in accordance with another aspect of the invention, has as its top surface, fitted within a rebate (Figure 1) 28 in the top edges of the box's vertical walls, an openable panel 6, of a nature and thickness sufficient to provide adequate stiffness to prevent undue flexure while having a minimum weight and serving several roles, namely to provide:

a lid to close the container to prevent its contents falling out;

a platform, on the underside of which are fixed symmetrically about the front-to-rear axis a pair of mounting flanges (Figure 6b) 37 as described below;

within the design of the aforementioned mounting flanges, as described later, mutually opposed guides 47 between which is slidably accommodated the media drawer (Figures 7a, b);

on its underside, a recess for a dome-shaped detent device (Figure 7c) 48 to maintain the media drawer in its closed position when the panel is tilted substantially away from horizontal;

a mounting at its rear edge for a handle device (Figures 6b, 7b) 50 with which to open the lid/easel and attach part of a proprietary latching device (Figure 6b) 51, to maintain the storage box in the closed state when linked to a complementary part of the latching device 52 fixed to the rear wall of the box;

an easel (Figure 1) 6 to which art media may be attached around its periphery by means of proprietary spring clips or other such devices; as a mounting for a portrait-mode releasable extension panel (Figure 1) 3 as described later, defined as part of this invention to accommodate media or paper in portrait orientation, the lid/easel panel preferably has slotted fixing holes 1 drilled and cut regularly along its top edge for connection of the extension, the holes being so placed laterally that three pairs of holes match exactly the two fixing holes 2 provided in the extension to permit placement of the extension in left-side, central or right-side positions and the holes being so placed, close to the lid/easel panel's top edge as to provide automatic easy release in the event of a heavy blow to the extension panel to prevent serious damage to the lid/easel panel.

The mounting flanges (Figures 7b, 8) 37, in accordance with the invention, are fixed to the underside of the lid/easel, placed symmetrically about the front-to-rear axis at the maximum distance therefrom to accommodate the widest possible media drawer assembly (Figure 7a) 53 within the width available in the storage box while allowing sufficient room for the other items comprising the mountings of the lid/easel and in a proximity to the front edge of the lid/easel to provide a close fit against the inside surface of the front wall of the storage box when the lid is fully closed (Figure 6), and which flanges each have certain characteristics to serve several roles, as follows:

to attach pivotably one end (Figures 6b, 8c) 54 of each of a pair of double-ended pivot arms 40, the other ends of which are pivotably attached to the storage box side walls 23 and 29;

to accommodate preferably a pair of dowel pins (Figures 8b, c) 56 to simplify construction by locating the lid/easel panel in precise orientation and position with respect to the flanges;

to provide a tenon (Figure 6c) 36 at their front ends of just sufficient depth to hook under the closure pads 35 attached to the inside surface of the front wall (Figures 1, 6c) 24 and extending rearwards 57 sufficiently to clear the thickness of the closure pads;

to provide a recess (Figures 6b, 9a) 58 towards the rear end to form a resting point to locate the top end of one of a plurality of drawing rests (Figure 9a) 59. An alternative is a blind hold, which also prevents sideways movement;
to provide a recess on its lower surface containing within it a plastic foam pad (Figure 6) 78 to provide a stowage space 60 for trapping a distance block (Figure 5) 22, as described later, and to hold it firmly by the pressure applied through the pad when the storage box lid is closed; to provide a front-to-rear groove (Figures 6b, 7b) 47 longitudinally across its entire inside surface, of sufficient width and depth to accommodate slidably the edges of the media drawer described below;
to provide, as an integral part of the current invention, a hole (Figures 6b, 9) 61 near the rear end, passing laterally through the flange to match and align with a similar hole (Figures 1, 6c, 9a) 7 in the respective pivot arm when the arm and flange are parallel, for the purpose of connecting part of another apparatus, namely the aforementioned bolt-on vertical easel.

The media storage drawer (Figure 7a), in accordance with the invention, provides storage for paper, painting panels or other flat media and may be made from any suitable material by any suitable method but is preferably made of wood and comprises:

a thin, wide aspect, rectangular base panel 62 of sufficient dimensions to accommodate standard sized paper or other media and of a thickness to prevent undue flexing and to suit the width of the grooves 47 cut into the inside faces of the lid/easel mounting flanges;
a laterally disposed, rectangular cross-section bar 63 fixed to the top of the front edge of the media drawer panel projecting upwards to provide a wall of sufficient vertical height to accommodate a plurality of such media as may be reasonably required in a typical art session and to prevent the contents falling out when the lid/easel panel and its captive drawer are tilted towards the vertical and of a width not to exceed the distance between the inner edges of the closure pads 35;
two similar rearward walls 64 provided for the same purpose, symmetrically fixed about the front-to-rear axis of the drawer panel and to the top of the rear edge of the panel to provide two walls the same height as the front wall with sufficient gap 66 between them to accommodate the handle device 50 on the storage box lid/easel when the media drawer is in its fully closed position;
upon the top face of the front wall a pair of dome-shaped devices (Figure 7c) 49, disposed nearly symmetrically about the fore-and-aft vertical axis, for example round-headed wood screws to provide a detent mechanism in conjunction with the aforementioned pair of matching recessed blind holes 48 in the underside of the lid-easel panel when the media drawer is in its closed position, the upper surface of the dome being adjustable sufficiently into the matching recess to be releasable only by the flexure of the centre of the media drawer downwards and to a lesser extent the lid/easel panel upwards by the action of forcing the inclined edge of the dome against the edge of the shallow recess by forcibly pulling the drawer frontwards on the lid/easel panel;
a plurality of preferably three, preferably circular holes (Figure 7a) 67, in the base panel disposed symmetrically about its front-to-rear axis, of sufficient diameter to permit the entry of a adult's finger tip, cut through the panel near to its front edge while allowing, in the case of each hole, clearance for a finger tip to the rear of the front wall, for the purpose of opening the drawer when closed by inserting one finger in the centre hole or two fingers in the symmetrical outer pair of holes from underneath and pulling the drawer towards the front of the lid/easel panel.

The pivot arms (Figures 5, 6b, 8) 40, in accordance with the invention, comprise two bars of rectangular cross-section, each of which:

is pivotably and clampably supported at both ends (Figure 8) 54, 55 on bearings of sufficient dimensions, tensile strength and rigidity, for example, steel bolts of common standard dimensions to ensure that the lid/easel panel is held at the slope required by the user;
is of sufficient cross-sectional dimensions as to provide the strength to support the lid/easel panel together with any work medium that may be attached thereto upon the bearings in the storage box side walls in the panel's role as an easel;
is clampable with sufficient stiffness by means of the user's action of binding the outer and inner bearings at the side of the lid/easel and storage box with suitable manual clamping devices, for example, wing nuts and high friction washers assembled onto the pivot bearing bolts 54, 55 and by means of anti-rotation devices fitted under the heads of the bolts, for example, square nuts tightened to the heads;
is integrally linked with the pivotable mounting towards the rear of the storage box connecting it to the legs of the trestle assembly by reason of sharing the same bearing (Figure 5) 9, 55 and clamping device used by the aforementioned for the lower bearing of the pivot arm, achieved by extending the steel bolt right through the pivot arm lower end, through the box's respective rear end side wall hole and through the top of the respective inner leg 12,

26 except that for storage boxes of significantly greater wall heights than the preferred height of 55mm, the inner end pivot connection may be placed separately from the side-wall leg connection hole, provided that the required detailed amendments are made to the preferred design to accommodate differences in the geometry of the pivot arm and its mating components that would occur as a result;
contains, as an integral part of the current invention, a hole (Figures 1, 6b, 9) 7 near the inner end, passing laterally through the arm near to its centre-line to match and align with a similar hole (Figures 6b, 9) 61 in the respective mounting flange when the arm and flange are parallel, for the purpose of connecting part of another apparatus, namely the aforementioned bolt-on vertical easel.

The drawing rests (Figure 5, 9) 59, in accordance with the invention:

comprise a plurality of struts 59 of such different lengths when used in matched pairs at both sides of the storage box as to suit the purpose of supporting the lid/easel panel at a plurality of convenient slopes (Figure 9a) and with sufficient cross-sectional dimensions and stiffness to afford sufficient rigidity to support the weight of the user's hand and arm upon the lid/easel which is preferably sloping gently from the horizontal when the apparatus is used for drawing; are disposed in two sets, symmetrically (Figure 5) 59 about the front-to-rear axis and towards the rear of the storage box and near to the box's base panel (Figure 9a), being pivotably linked at their lower ends and pivotably joined thereby to the outside faces of the outermost pair of partition panels (Figure 5) 8, each set being linked by a common bearing 41, for example a steel bolt and separating washers for the purpose of each strut being able to be rotated individually and secured by a lock nut for the purpose of tightening the assembly during construction and maintenance sufficiently to cause the struts to stay, by friction, in the positions set by the user without regard to gravity;
are each capable of being rotated between the stowage position, namely flat against the base panel of the storage box, to the in-use position, namely at a near vertical angle from the base panel so that each free end may reside within the recess (Figure 9a) 58 at the rear end of the lower face of the respective lid/easel panel's mounting flange 37 so that the strut is aligned, when in use, nearly perpendicularly with the plane of the lid/easel panel.

The portrait-mode panel (Figure 1) 3, in accordance with the invention, is a loosely stowed device which may be connected to the top edge of the lid/easel for use as a vertical and flush-mounted extension to the lid/easel panel for the purpose of accommodating paper or other media when disposed on its surface in the vertical or 'portrait' orientation and comprises and is connected as follows:

it comprises a thin rigid panel 3, of the same character and thickness as the lid/easel panel 6 in being flat and thin and has a lateral dimension preferably slightly greater than the width of ISO A3 size media allowing a margin suitable for attaching the media to the panel with proprietary spring clips or other similar devices but being short enough to fit inside the front-to-rear internal dimension of the storage box;
it may be placed according to the user's requirement, centrally on the lid/easel panel or with either of its vertical edges flush with the respective vertical edge of the lid/easel panel to enable the artist to view the subject behind the easel either over its top edge or as closely as possible to either vertical edge of the lid/easel;
it has a cut out recess 5 to accommodate the lid/easel closure handle 50 of the lid/easel panel when placed at either of the two permitted extremes of placement or centrally;
it has two rectangular strap-joint panels permanently attached to the outer ends of its rear face, whose front faces are intended to fit flush against the rear face of the lid/easel panel and when they are attached via fixing holes to the lid/easel panel, the extension connection is in the form of a flush-fitting rear butt-strapped joint;
it has two fixing holes 2 in the strap panels, so placed as to mate with two of a plurality of the aforementioned fixing slots 1 drilled regularly along the top edge of the lid/easel panel and connection is achieved by suitably releasable means 2, for example, steel bolts, spring washers and wing nuts.

The storage box, in accordance with another aspect of the invention, may have fixed to its underside, near the front, a narrow-strip panel (Figures 1, 2) 76, to assist in the provision of a wet-media storage facility, comprising the features and having the functionality and purpose described below:

the facility comprises preferably, a thin, rigid panel (Figure 2a) 76, of narrow width, preferably of the same character and thickness as the storage box base panel 32 fixed at its ends to the bottom edges of the box side walls 23, 30 and placed near to and parallel to the front edge 24 of the box while being far enough from the edge to prevent the entrapment of debris and particles which could damage any enclosed still-wet art media;
the facility is provided by the strip panel by its near-enclosure of the front end of the shallow volumetric space formed beneath the underside of the box towards the rear end 34, within the inside surfaces of the lower edges

of the box walls 23, 24, 30, 34 and between the box's rebated base panel 32 and the cross-bracket 10 when the apparatus is in flat mode, effectively extending the area of the space so created towards the front of the box 24, enabling a few large sheets of media to be trapped between the box's base and the strip panel in conjunction with the cross-bracket;

the facility has the purpose of providing a wide area storage space for a small quantity of sheets of art media, which is uncluttered by other objects and is secure from damage or falling out but is well ventilated through being mostly open to the air and is therefore very suitable for the medium term storage of freshly painted art work when it is necessary to close up the apparatus for carriage elsewhere without damaging still-wet surfaces.

The storage box, in accordance with another aspect of the invention, may be equipped with a pair of lid/easel support rack panels (Figure 9b) 79 to provide rigid steps on which may be placed the front ends of the lid/easel's mounting flanges to provide a solid base on which the front of the panel may rest in a plurality of positions providing a plurality of primarily steep angles of tilt, at which the lid/easel may be used to mount heavy objects without any possibility of its slipping or moving, each racked panel comprising the features and having the functionality and purpose described below:

the support rack comprises preferably, a detached, rigid and slender block 79 of rectangular cross-section which is flat on all its surfaces except one of the long narrow edges, in which edge is cut a series of obliquely disposed right-angled notches;

the facility is provided by placing the panel in the storage box within the space outside the box's outer partition panel (Figure 5) 8, with its racked surface uppermost and the with its front end placed adjacent to the front panel of the box and engaging the lower edge of the front of the mounting flange (Figure 9b) 37 into one of the notches which, in concert with the action of the pivot arm 40 provides a solid foundation on which the lid/easel may rest and when not required may be laid flat in a non-obstructive position;

the facility has the purpose of providing a solid, steeply tilted platform on which a heavy object may be rested, for example, a book, at an angle most suited for reading, thereby complementing the drawing rest facility whose function is to provide a solid base at low angles of tilt.

The trestle assembly (Figures 3a,b) 68, in accordance with the invention, provides a firm and stable base on which to mount the storage box 27 and thereby provides the lid/easel panel with sufficient rigidity to withstand the normal pressures of painting and drawing and the stability to withstand normal wind pressure and moderate accidental knocks and to achieve these ends, comprises two pairs of straight legs pivotably joined at their scissor-points 14 in a scissor-like configuration to provide a front-to-rear ground level dimension exceeding the front-to-rear dimension of the box by an amount sufficient to provide adequate stability in that direction and to prevent unreasonable front-to-rear toppling of the apparatus and joined at the rear by a cross-connecting panel 10 of a width to suit the lateral dimension of the box and joined in a manner to provide lateral orthogonality, rigidity and stability, the whole trestle assembly comprising:

two pairs of legs of rectangular cross-section, each pair of legs and each individual leg 12, 15, 25, 26 being similar but unique in certain detail, with dimensions sufficient to provide rigidity while retaining lightness and of such a length, which, when the legs of each left and right pair are disposed in the aforementioned scissor mode by being contra-rotated about the scissor-point of each pair and connected to the storage box, are of sufficient length to raise, at their top ends, the base of the box to a height comfortably above the knee height of the average male adult when seated on a chair of standard height, facing and close to the front of the apparatus (Figure 10b);

a cross-bracket (Figure 3a, b) 10 comprising a flat panel of sufficient thickness to resist reasonable torsion about its ends and to resist reasonable flexure through its length and whose design features achieve a plurality of roles by the means described in the following:

the planes of the left and right pairs of legs are held parallel to each other when opened in the scissor position and both planes are held at right angles to the long axis of the cross-bracket by the use of dowel pins (Figure 3c) 69 in the legs engaging tight-fitting holes in the panel to resist rotation of the legs about the releasable clamping device 70 used to connect them to the bracket, for example a steel bolt, washer and wing nut;

the longest external dimension of the cross-bracket exceeds the width of the outside faces of the inner-leg pair by an amount sufficient to form a symmetrically disposed pair of end-stops 11 to prevent the rotation of the rear faces of the outer-leg 14, 25 pair about their scissor-points rearwards beyond the rear faces of the inner-leg pair when both are mounted in the trestle assembly and the outer-leg pair are released from the front connection points of the storage box;

the distance between centres of the cross-bracket fixing holes 70 is closely linked to the long dimension of the storage box 27 to ensure that the latter, with the use of separation washers fits between the inside faces of the inner pair of legs without distortion when the leg-top connecting devices (Figures 3a, b, c) 9, 20, for example steel

bolts, washers and wing nuts, are either loosened or tightened and to allow for a distortion free connection between the box and the outer pair of legs, with the distance blocks 22 properly interposed;
the modified rectangular shape of the cross-bracket is designed to minimise its weight and maximise the user's leg room by means of a deep cut out recess 71 of most of the lower edge of the bracket while retaining sufficient resistance to torsion and flexure and using gentle curves in the internal corners to eliminate weak points due to the discontinuity of strength prevalent in sharp corners;
the top horizontal edge of the cross-bracket is preferably in close contact 72 with the lower edge of the storage box rear wall when the box is horizontal and the inner legs are vertical, in order to facilitate the manual erection of the whole apparatus from the flat mode by supporting the box horizontally with one hand and opening the legs to the scissor mode with the other hand.

There may, in accordance with the invention, be provided an additional facility to assist the user in the manual process of reconfiguring the apparatus between scissor mode and flat mode and more especially in the reverse direction while the storage box is temporarily disconnected at its front end from the outer leg-top fixing holes, by fitting to each left- and right-leg pair independently, a steadying stay (Figures 1, 3b) 73, having the following functionality and characteristics:

to limit the possible range of pivotable travel of the top ends of each of the outer legs about the scissor points from the flat mode to the full extent of the scissor mode;
to hold with moderate firmness, each of the outer legs at any point within their range of movement, as limited by the above characteristic, but primarily at either of their two full extent positions, namely, flat mode or scissor mode;
the stay comprising an arm unit of two equi-length, narrow strips of stiff, thin material, for example, steel strip, compressibly, frictionally and pivotably jointed together to constitute the arm's elbow at its mid-point and pivotably attached at its outer ends, each to the adjacent legs of their respective left or right pair;
the stay having a very slim profile to enable it to fit easily within appropriate shallow rebates 74 in the facing surfaces of its pair of legs when in flat mode.

The inner and outer pairs of legs, in accordance with the invention, differ from each other in a number of respects but otherwise share common cross-sectional dimensions, the similarities and differences being as follows:

each leg is made in the form of a rectangular shaft, preferably of wood, to substantially the same cross-sectional dimensions, sufficient to provide adequate rigidity and strength to support the apparatus with adequate stability and firmness consistent with minimum weight;
in each leg, the front-to-rear cross-sectional dimension is larger than the lateral dimension to provide greater rigidity in the front-to-rear axis to compensate for the increased stresses in the front-to-rear vertical plane due to the triangular frame structure when the apparatus is in use, compared with the lateral vertical plane stresses, shared equally by all four legs;
in each leg, flat-mode clamp slots (Figures 1, 2b) 13 are cut to a depth sufficient to provide enough land for the washer and wing nut combination of the front leg-top connection with the legs clamped securely to the storage box side walls when in the flat mode, and of a slot width sufficient to accommodate the fixing bolt; in each leg, shallow rebates (Figures 1, 3b) 74 may be cut into the facing surfaces of each left and right pair of legs to accommodate the aforementioned steadying stays, should the option to fit them be exercised;
due to the requirement for the leg pairs to be configurable in both the flat mode and scissor mode (Figures 3a, b), the legs, when in the latter position are asymmetrically disposed about the vertical axis through the scissor-point 14, and the length of the inner legs exceeds the length of the outer legs by a small amount, for the following series of reasons:
with the apparatus in flat mode, the storage-box side-wall holes are required to be aligned with the flat-mode clamp slots (Figure 2b) 13 of both inner and outer pairs of legs;
the flat-mode clamp slots must accommodate the leg-top hole fixing bolt adequately, as described above, but not so deep as to reduce substantially, the longitudinal strength of the legs, in consequence of which the front side-wall holes 13 are placed vertically further from the base edge of the side walls than the rear side-wall holes 9;
when in the flat mode, for all four legs, the leg-top hole axes must be coincident with the rear side-wall holes, and the distance between the front (Figure 3b) 20 and rear 9 side-wall holes must equal the distance between the leg-top holes and the flat-mode clamp slots;
to avoid a substantial reduction of the longitudinal strength of each leg, the scissor-point axis hole 14 must not be located too close to the flat-mode clamp slot 13;
for both left and right leg-pairs, to provide a close approximation to an equilateral triangle 9, 13, 20 between the side-wall holes and the scissor points when in scissor mode and for the purpose of minimising joint stress and to

avoid an excessive angle between the legs, the scissor point 14 must be located nearer to the bottom of the leg than the flat-mode clamp slot 13;

to ensure that the major plane of the storage box is horizontal when the apparatus is mounted on flat and level ground and to accommodate the above design constraints, the length of the inner legs (Figures 3a, b) 12, 26 must exceed the length of the outer legs 15, 25 by a small amount, the precise size of which is determined as a detail of the example design; each leg is supplied with an adjustable foot unit (Figure 1) 18, slidably connected as described later, to maintain the storage box level upon uneven ground by altering the effective lengths of the legs appropriate to the terrain and to raise or lower the apparatus as a whole within design limits to suit the requirements of the user when standing or sitting (Figure 10);

except in respect of length, all the legs are preferably identical in detail, from and including the scissor point (Figures 1, 3a, b) 14 to their lower ends and comprise a plurality of fixing holes 16, 17 for connection to the adjustable foot units, each by means of a set of two fastenings, placed optimally to suit the height requirement, the fastenings, for example, comprising steel bolts and washers. The lower fastening 17 can be completed with a lock nut, tightened sufficiently to maintain a firm but slidable connection between the leg and the foot unit. However, a single wing nut will usually be more straightforward in practice. The upper fastening 16 is fitted with an ant-rotation device under the bolt head, for example, a square nut tightened close-up and completed with a wing nut to clamp the foot unit firmly in the desired position;

in all the legs, from and including the scissor point to their lower ends, all holes are preferably centred on the longitudinal centre-line of the outside and inside surfaces;

the legs of the inner pair are preferably identical to each other except that the machined details of each, namely drilled and counterbored holes, cut out notches and blind drilled holes are positioned in a mirror image of the details of the other;

the legs of the outer pair are preferably identical to each other except that the machined details of each, namely drilled and counterbored holes, cut out notches and blind drilled holes are positioned in a mirror image of the details of the other.

Each of the inner pair of legs (Figure 3) 12, 26, in accordance with the invention, in addition to the aforementioned scissor point hole and foot connecting holes, have the following additional features:

each contains near its top end, a set of preferably three holes 69, 70 placed preferably equidistantly through the vertical centre-line of the rear face, of which the centre hole passes right through and is provided to accommodate the clamping device 70, preferably a steel bolt, anti-rotation device, washer and wing nut, and of which the outer holes 69 are blind to accommodate dowel pins to locate and fix the cross-bracket longitudinal axis at a right angle to the longitudinal axis of the leg;

each contains near its top end, centred asymmetrically about the vertical centre-line of the outside face and towards the front face of the leg, a leg-top hole 9 to accommodate the leg top clamping device, preferably a steel bolt with anti-rotation device under the head, mounted with the head inside the storage box and the shank passed through the side-wall hole with the elements separated by washers and the shank passing through the leg-top hole and terminated by a wing nut, and which leg-top hole is, on the outside face, counterbored to a depth sufficient to accommodate the body of the wing nut and of a diameter sufficient to accommodate the wings of the wing nut, in order to permit the outer leg (Figure 2b) 25 which also contains a slot 21 as described below, to be placed flat against the inner leg 26 without interference from projections on the inner leg.

Each of the outer pair of legs (Figures 1, 2) 15, 25, in accordance with the invention, in addition to the aforementioned scissor point hole and foot connecting holes, and having a similar leg-top clamping device similarly arranged to that of the inner legs, contains near its top end, centred asymmetrically about the vertical centre-line of the inside face and towards the front face of the leg, a slot 21 incorporating the leg-top hole 20 and cut right through the thinner cross-sectional dimension to accommodate the shaft of the leg-top clamping device by lowering it from above, when the apparatus is first placed into scissor mode and, the slot extending sufficiently from the top end on the inside face to accommodate the wings of the inside leg clamping wing nut, when the apparatus is in flat mode and being so placed manually in that position by slightly flexing the leg-top outward to clear the wings of the wing nuts securing the inside legs.

The foot units (Figures 1, 3a, b) 18, in accordance with the invention, each have the characteristics described below, that is, the foot unit:

is made from a shaft preferably of wood of rectangular cross-section of sufficient dimensions to provide sufficient rigidity to resist reasonable bending stresses;

has sufficient length to provide a sufficient degree of slidable adjustment to meet a major design aim of the invention,

namely to provide a sufficient range of heights to which the apparatus may be raised to accommodate a user in both standing and sitting mode (Figure 10);
has within it a longitudinal slot (Figures 1, 3b) 19 of sufficient width to accommodate the shafts of the leg-to-foot connecting device 16, 17, preferably steel bolts, washers and lock or wing nuts, as described above, and of sufficient length to accommodate the aforementioned intended range of slidable adjustment;
has a tapering profile at its lower end to provide a satisfactory interface with the ground.

The distance blocks (Figures 1, 5) 22, in accordance with the invention, each have the characteristics described below, that is, the distance block:

is made preferably from wood, in the form of a square shaped block flattened in one dimension to be of the same thickness as the inner legs and of sufficient side length as to provide a solid landing for the outer leg 15, 25 when the latter is clamped securely to the storage box in scissor mode but not too large to fit the aforementioned stowage recess (Fig. 6c) 60 in the mounting flange;
has a central hole about which it can rotate when unclamped, of the same diameter as the outer leg's leg-top hole drilled through the shortest dimension to accommodate the shaft of the leg-top fixing device;
has a slot (Figure 5) 80 of the same width as, and cut parallel to, the central hole axis, right through from one of the square sides of the block to the centre, to permit the block to be slotted over the bolt until their axes are coincident, without the need to remove the fixing bolt's wing nut or washers;
has a lanyard 75 made of strong, thin, flexible and wear-resistant material, for example, nylon cord, suitably attached, for example, by being passed through a small radially disposed hole in the block and knotted at its end, and whose other end is attached to a suitable mounting inside the storage box near to the aforementioned stowage area reserved in the recessed underside view, (Figure 8c) 60 for the purpose of preventing the loss of the block when dismantling the apparatus from scissor mode to flat mode.

The apparatus in general, in accordance with the invention, has a plurality of modes of use and is adaptable in its physical configurations for the purpose of maximising its suitability for a plurality of uses and external conditions by slackening and or releasing its various clamps and manipulating its various component parts in a plurality of ways and re-tightening the clamps to suit the intended mode of use among which are described but not limited to, the following:

in general it is preferably for use as an easel to facilitate the work of persons engaged in painting and or drawing, both indoors and or outdoors and in storing, carrying or transporting outdoors to and from the subject of their art, the accoutrements commonly pertaining to the practice of their art in the short term while outdoors and for storing such in the long term while indoors;
in its 'in-use' mode (Figure 10), it is intended to be used for its primary purpose of facilitating the activity of painting or drawing or other artistic pursuit and in which the trestle assembly is connected to the storage box in its opened state in scissor mode and in which the storage box base panel is approximately horizontal and the lid/easel is elevated and inclined to the user's requirement, providing ready access to the tools and materials;
in its 'flat mode' (Figure 2) the trestle assembly is in its closed state causing both pairs of legs to be parallel to each other and in which the storage box, in its closed state, pivoted about the axis of the rear bolted connection until its major plane surfaces are parallel to the legs, in which position the box's front connection bolts are clampably engaged in slots in the front faces of all four legs, when they are all aligned together in the same plane, causing the whole apparatus to be rigid as a single unit for ease of carriage, preferably between the user's arm and body and supported partly by the strap 39 in suspension from the user's shoulder and partly by the user's fingers wrapped around the 'front' edge of the box when the latter is facing downwards and as an additional purpose of the flat mode configuration, is intended for the compact storage of the apparatus and or its contents, either in the long term or during transportation;
in its 'dismantled mode' (Figure 4) it is partially dismantled to allow its major component sub-assemblies, preferably split into the elements shown in Figure 4, to be more compactly stowed in a carrying container, for example a rucksack, intended for easier human transportation of the apparatus over rugged terrain and long distances.

The present invention is intended to embrace many alternative uses beyond its preferred purpose as an artist's facility, for example, as a personal work table or reading lectern for elderly or disabled people or sick people engaged in therapeutic activity or for children or any other persons who desire or need to perform a set of tasks or crafts which require a matching set of facilities, specifically geared to themselves and or their tasks and in which circumstances it may be advantageous for individuals' sets of equipment and tools to be kept in personalised storage boxes, separate from those of others and ready for attachment to a smaller quantity of trestle assemblies and thus be available for immediate use and without the complexities of reloading the same box with different individuals' accoutrements.

Claims

1. An easel comprising a tray with a lid, the tray having a support arm hinged thereto at one end with the other end being hingedly connected to the lid.

2. An easel according to Claim 1 in which the lid can be closed thereby to cover the top of the tray.

3. An easel according to Claim 2 in which, when closed, a portion of the lid projects beneath an overhang formed on a wall of the tray thereby to retain the lid in the closed position.

4. An easel according to any preceding Claim in which the tray includes serrations for accepting a portion of the tray thereby to support it in position.

5. An easel according to any preceding Claim including a recess on the underside of the tray and a directionally adjustable strut on the tray, the strut being locatable in the recess thereby to support the tray.

6. An easel according to Claim 5 comprising a plurality of struts of different lengths.

7. An easel according to any preceding claim having four legs, comprising a first two being hinged to the side of the tray and second two being hinged to the first two at a point along the lengths thereof and releasably connectable at one end to the tray.

8. An easel comprising a tray with a lid that can be opened thereby to provide a working surface, together with four legs comprising a first two being hinged to the side of the tray and second two being hinged to the first two at a point along the lengths thereof and releasably connectable at one end to the tray.

9. An easel according to Claim 8 in which the lid can be closed thereby to cover the top of the tray.

10. An easel according to Claim 9 in which, when closed, a portion of the lid projects beneath an overhang formed on a wall of the tray thereby to retain the lid in the closed position.

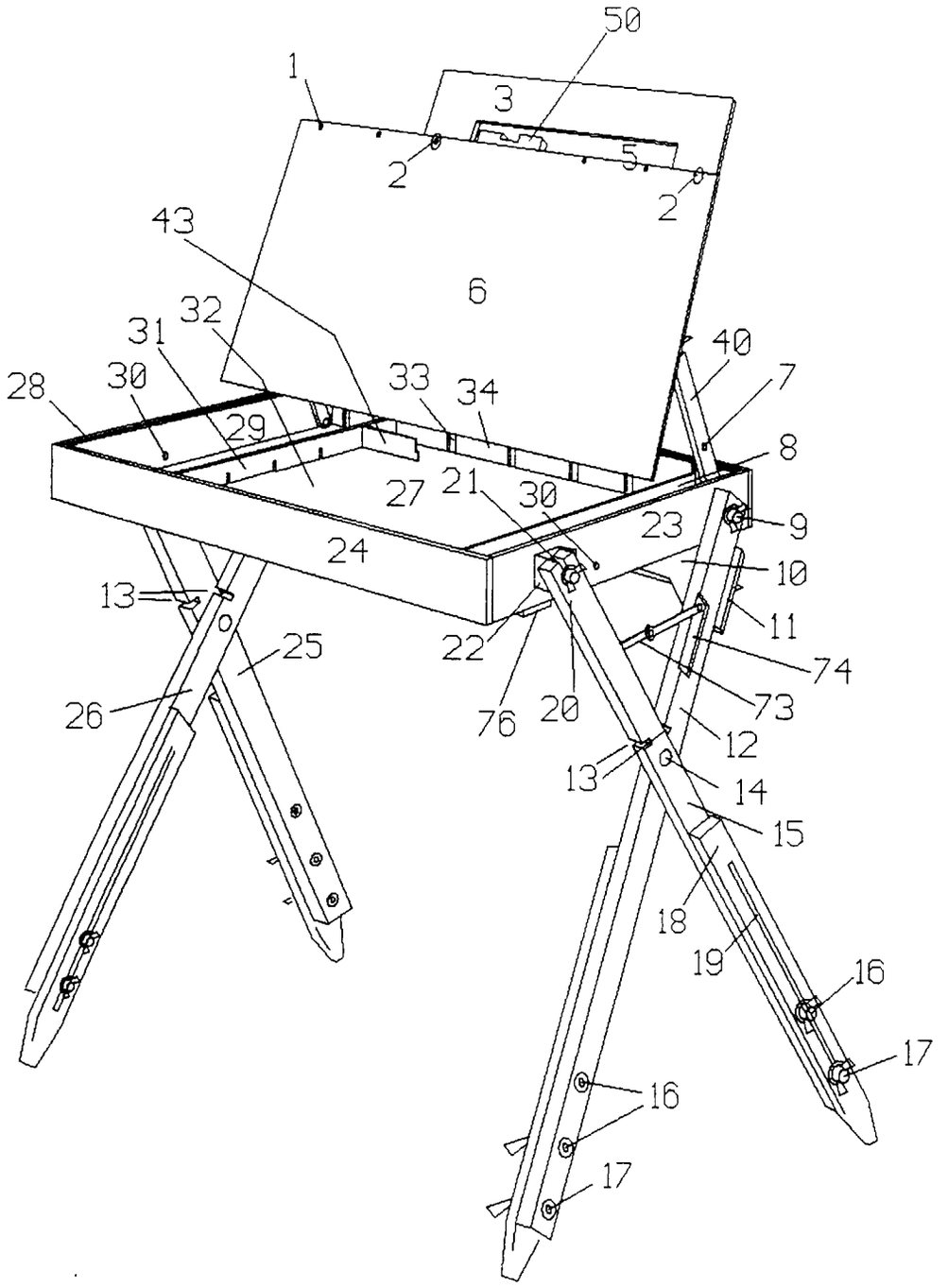
50
1
3
2
5
2
43
6
32
31
40
28
30
33
34
7
29
8
27
21
30
23
9
24
10
13
11
22
74
25
73
26
76
20
12
13
14
15
18
19
16
17
16
17

Fig 1

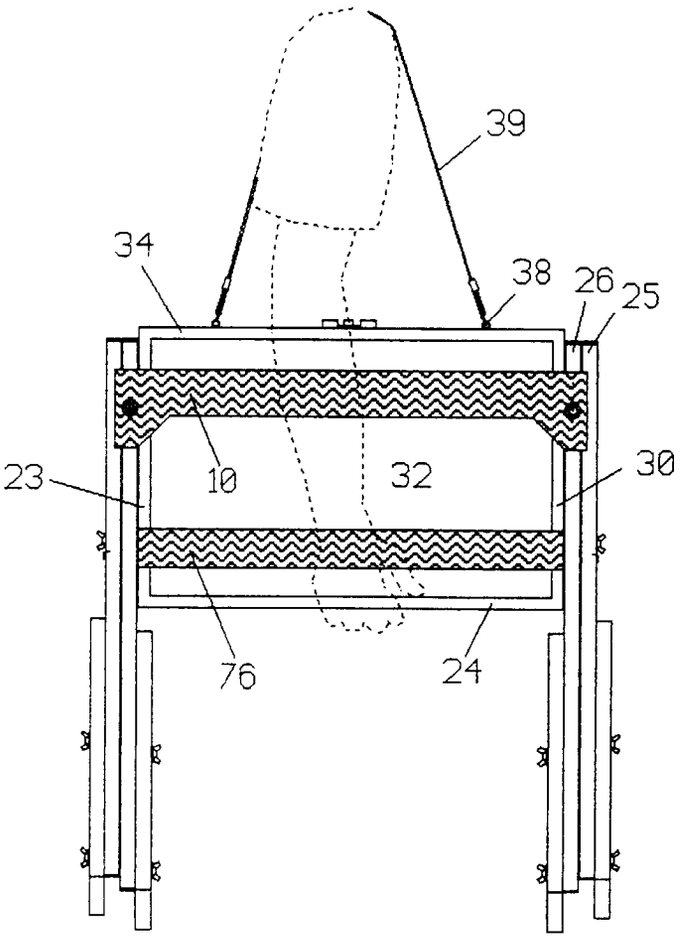

Fig 2a

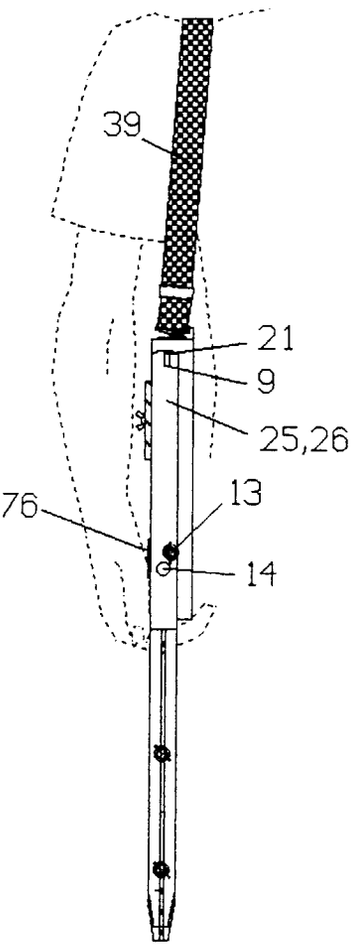

Fig 2b

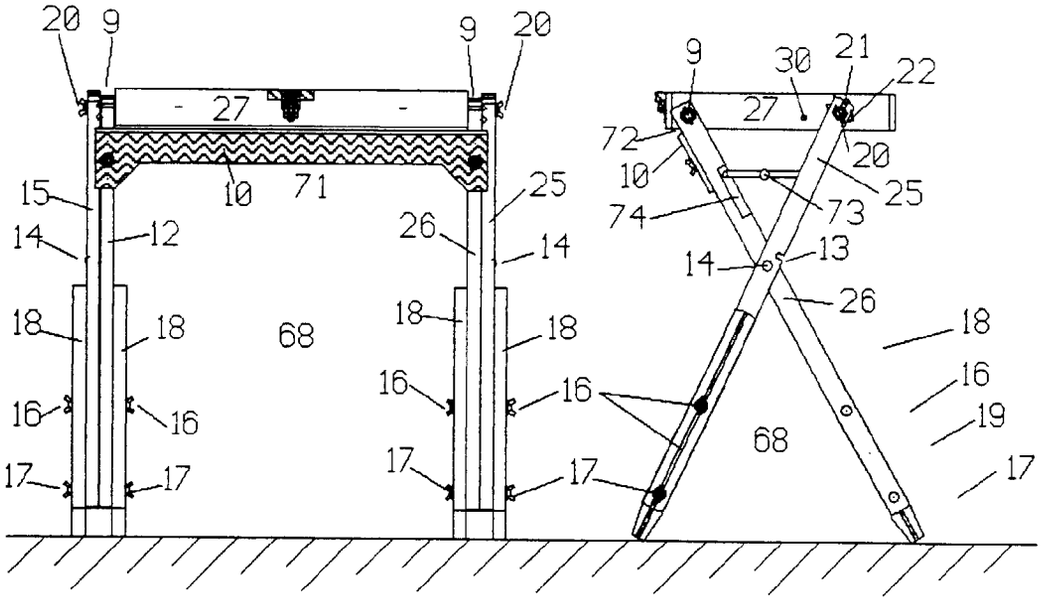

Fig 3a

Fig 3b

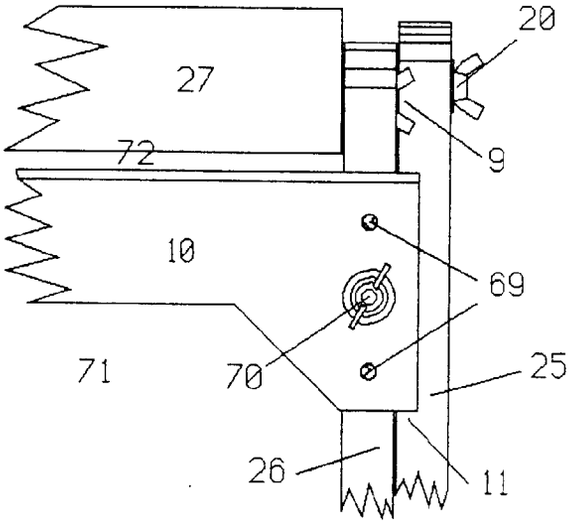

Fig 3c
(enlarged)

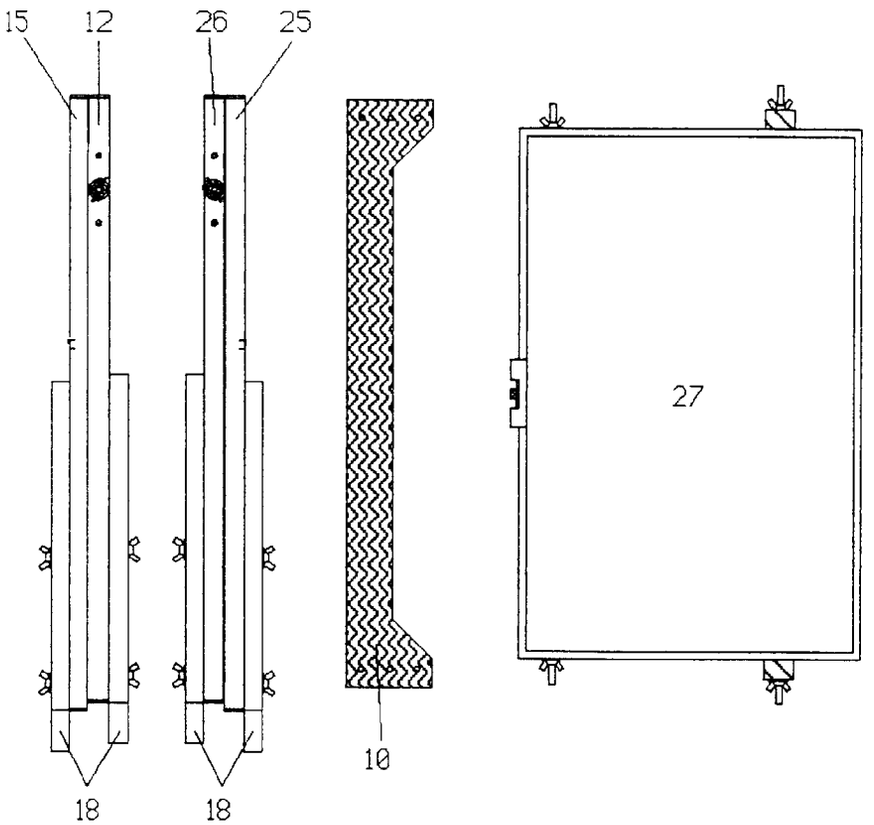

Fig 4

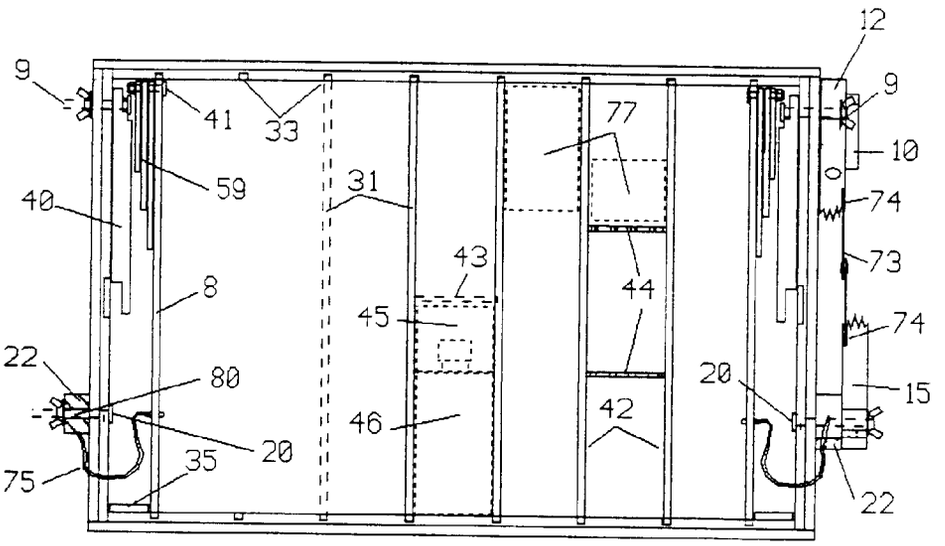
12
9
9
41
33
77
10
59
31
74
40
43
73
44
8
45
74
22
80
20
15
46
42
20
35
75
22

Fig 5

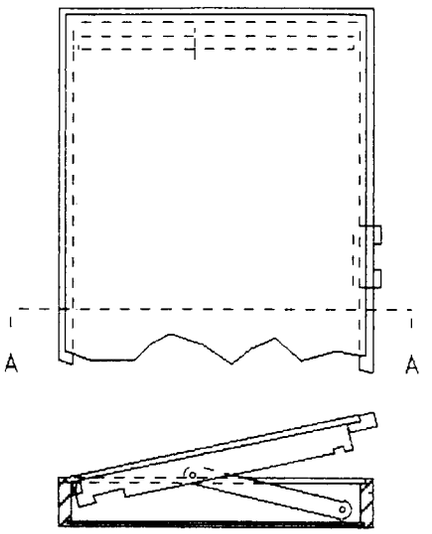

Fig 6a
(Context)

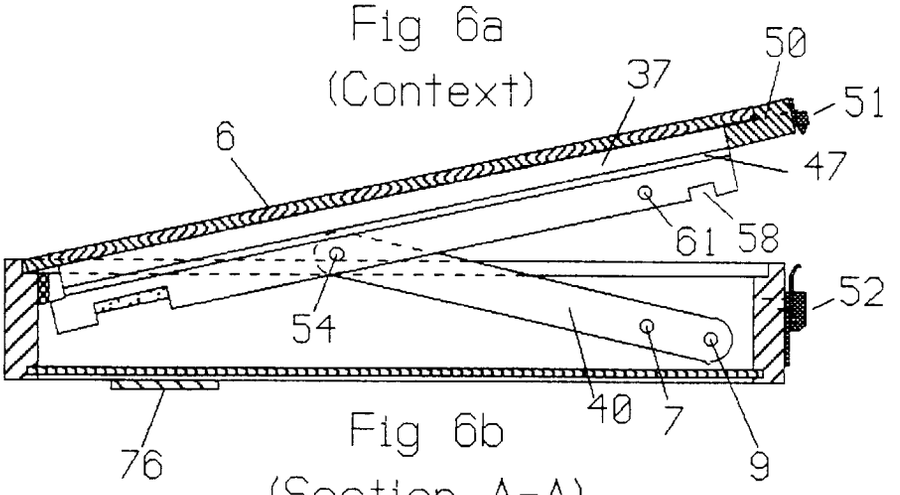

Fig 6b
(Section A-A)

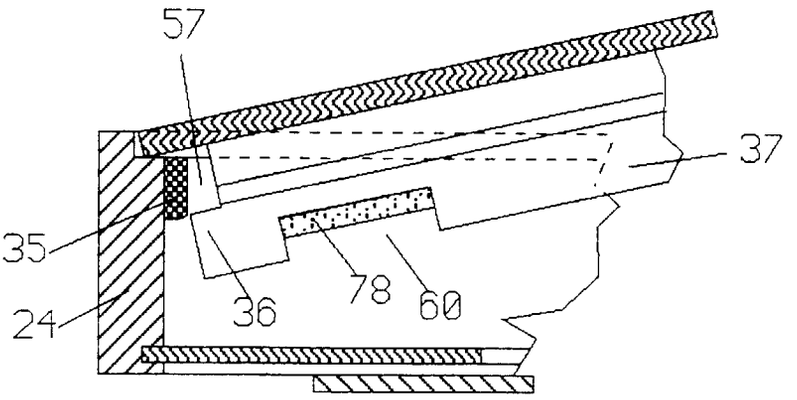

Fig 6c
(Expanded Detail)

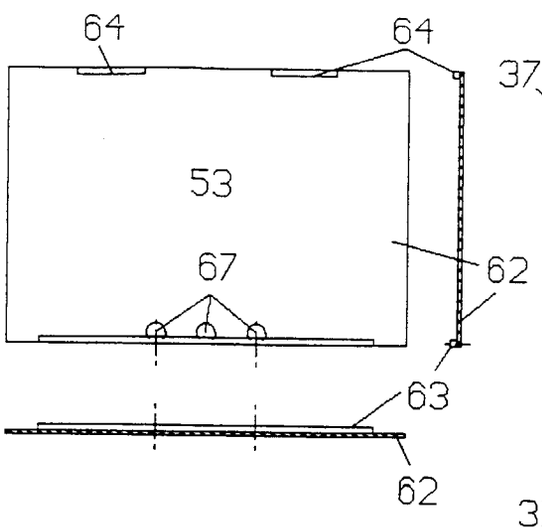

Fig 7a

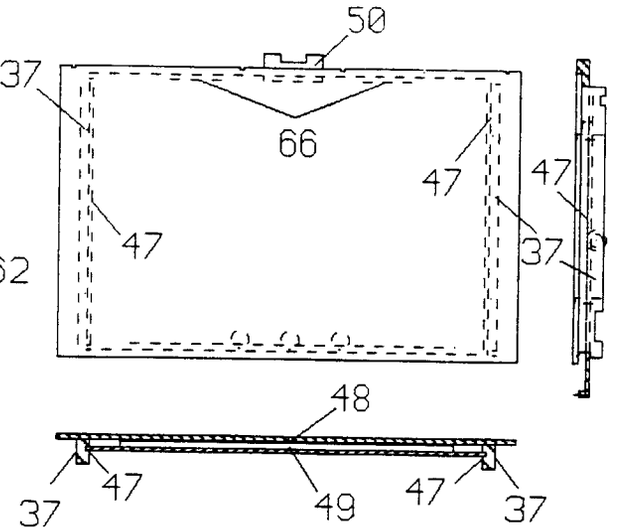

Fig 7b

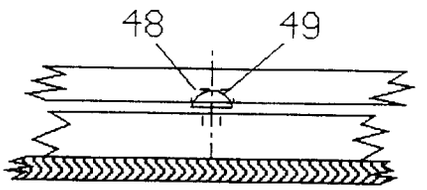

Fig 7c
(Expanded Detail)

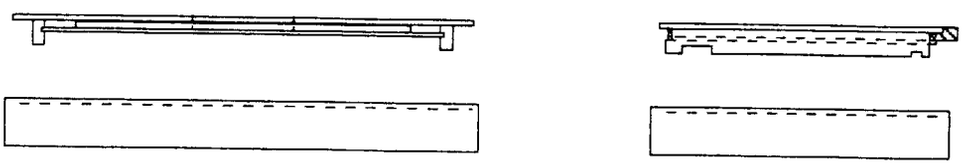

Fig 7d
(Context)

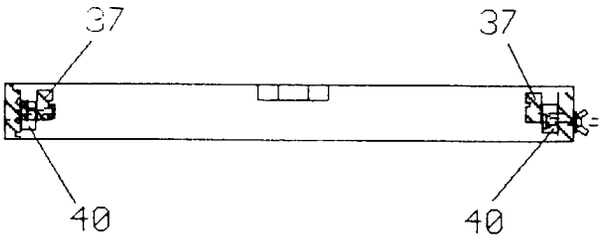

Fig 8a

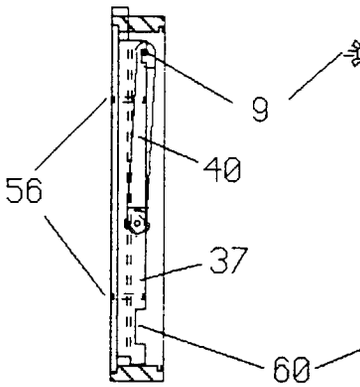

Fig 8b

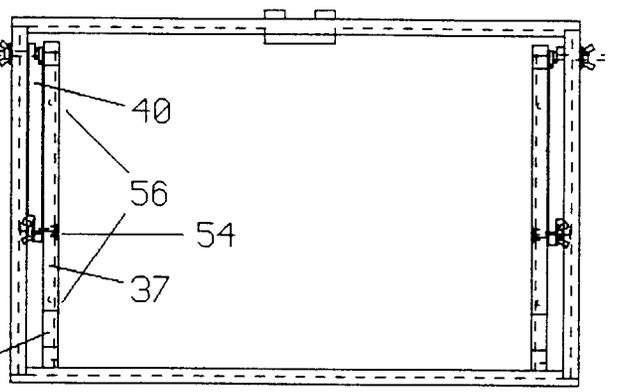

Fig 8c
(underside)

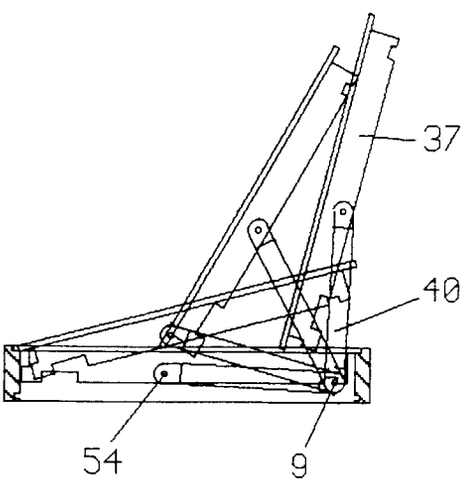

Fig 8d
(Context)

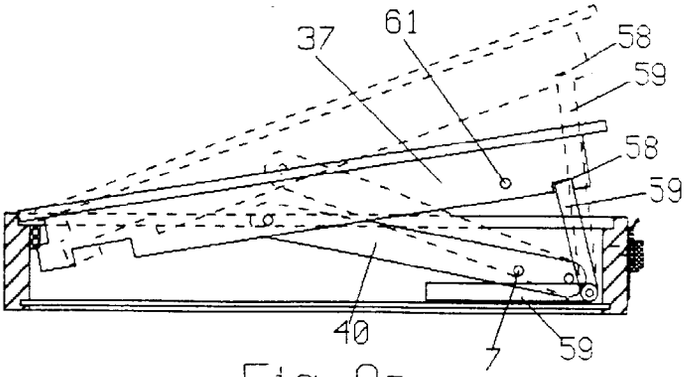

Fig 9a

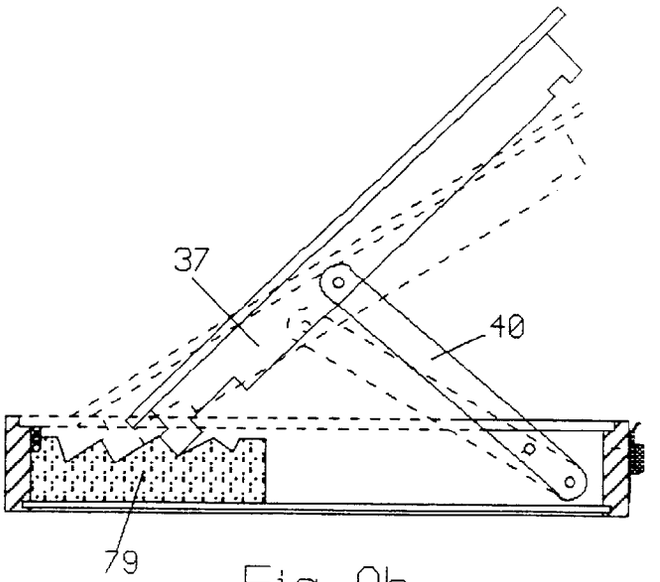

Fig 9b

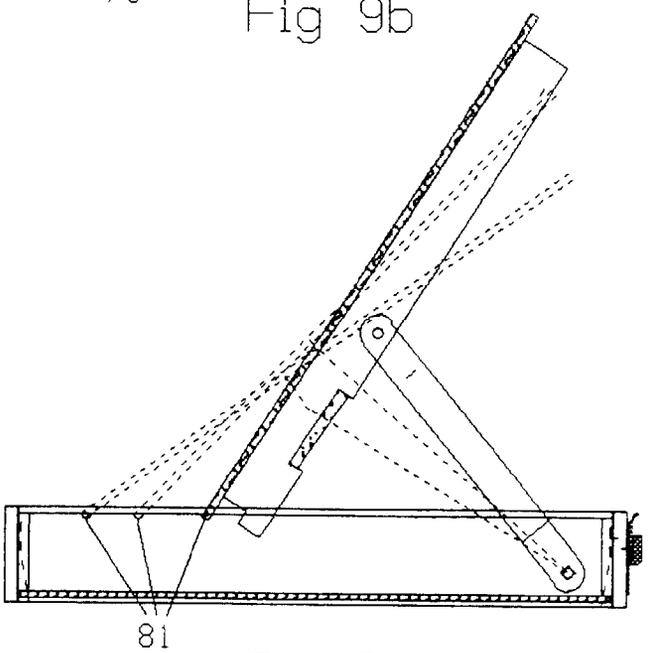

Fig 9c

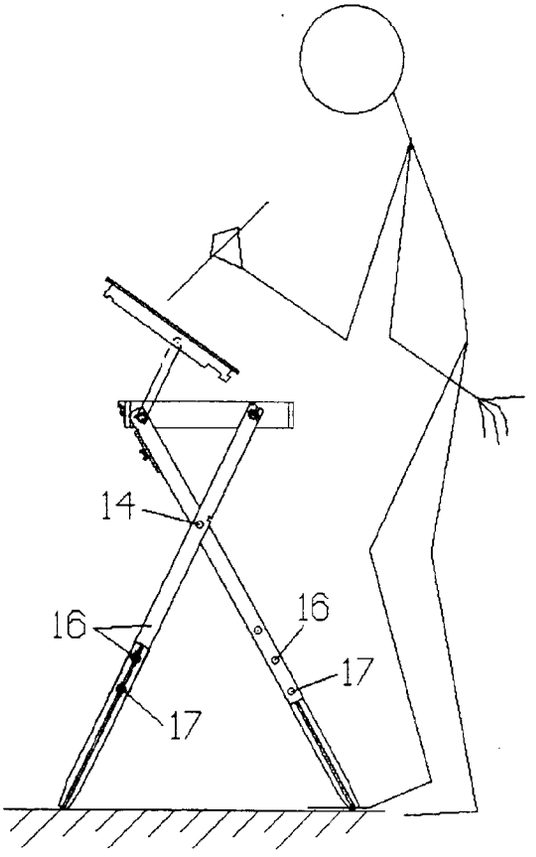

Fig 10a

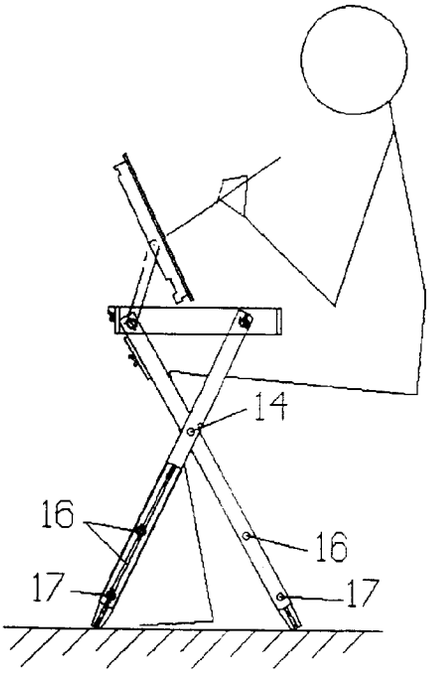

Fig 10b

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 30 3582

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X A	US 3 669 227 A (ALFORD) 13 June 1972 * abstract; figures 1-3 * * column 2, paragraph 1 * * column 2, line 55, paragraph 1 - line 61 * ---	1-4 7-9	A47B97/08
X	US 4 093 326 A (FORD) 6 June 1978 * abstract; figures 1,2,9 * ---	1,2	
A	US 2 586 524 A (DUSSARDIER) 19 February 1952 * claim 1; figures 1,2 * ---	2,4	
A	US 4 372 630 A (FUHRI) 8 February 1983 * column 6, line 52 - line 61; figures 1-3 * ---	5	
A	FR 2 352 519 A (SOCIÉTÉ ANONYME DES ANCIENS ÉTABLISSEMENTS J. M. PAILLARD) 23 December 1977 * claim 1; figures 1,2,6 * -----	2,7-9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6) A47B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	6 August 1998	Jones, C

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

EPO FORM 1503 03.82 (P04C01)