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(54) **SUPPORT BRACKET**

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CONSOLE DE SUPPORT

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Description

[0001] This invention relates to a support bracket and in particular to a bracket which is adapted to permit ready connection of an article to a vertical member.

[0002] The bracket may be associated with a storage bin, an instrument receiving rack or any other article which is desired to be readily located into a position and be removable therefrom, but when in the position, is positively located and will carry the weight of the article and its contents.

[0003] There are often applications where articles need to be removably connected to a member, and in the past this has normally been done by providing a clamp or clamping surfaces which are brought into connection with the member, often by means of threaded clamping members which pass through a screw thread or the like and can be brought into contact with the support member.

[0004] The object of the invention is to provide a means whereby an article can be readily connected to a support member with a minimum of delay and which, at the same time, can carry a reasonably substantial weight, yet when it is to be removed can again be removed very rapidly.

[0005] The invention in its broadest sense includes a support bracket including a body, a bracket assembly associated with one side thereof and pivotally moveable from a position where it is spaced from the body to one where it is received in a recess in the body, the bracket assembly having a portion which is that which is pivotally connected to the body and a pair of arm members, at least one of which is pivotally connected to the portion, the pivotal connection of the arm member having its axis substantially at right angles to the pivotal connection of the bracket assembly to the body, the arm member(s) being able to adopt a position where they extend outwardly from the body of the bracket when the bracket assembly is rotated out of the recess but when the bracket assembly enters the recess, the arm member(s) are constrained to move inwardly by the sides of the recess and if they are extending about a member at the time can take a position where the support bracket is held relative to the member.

[0006] It is preferred that there are a pair of arm members and it may be that these have along their outer edges, an inwardly directed portion. The inwardly directed portion may be provided with a rubber grip member or the like.

[0007] In order that the invention may be more readily understood, we shall describe, in relation to the accompanying drawings, one embodiment of the bracket of this invention.

[0008] In these drawings:

Fig 1 is a perspective view of the support bracket of the invention;

Fig 2 is a rear elevation of the bracket in its operative

condition;

Fig 3 is a plan view of the bracket in the position as shown in Fig 2;

Fig 4 is a view similar to Fig 3 but one in which the bracket is ready for connection;

Fig 5 is a view along line 5-5 of Fig 3; and

Fig 6 is a view along line 6-6 of Fig 4 showing the pivotal connection of the bracket assembly.

[0009] In this embodiment the support bracket 10 has a body in the form of a tray 11 and this tray has a rear wall 12 extending upwardly from the base 13 thereof and side walls 14 leaving the tray open to the front.

[0010] It is preferred that the assembly be a one piece moulding but it could be formed in other ways.

[0011] The tray 11 could be used for holding articles of any required type and specifically may be useful for holding a piece of apparatus which, at different times, may be required to be used in different positions.

[0012] One specific application for the invention is for locating medical equipment adjacent a patient when the particular equipment is required at various heights or angles.

[0013] The bracket assembly of the invention uses a recess 20 formed in the back of the rear wall 12 and this, as illustrated, is a substantially rectangular recess extending from close to the top of the body to the lower surface thereof.

[0014] At its upper end 21 the recess 20 may have a pair of side walls 22, which could be in the form of a fillet between the surface of the rear wall and an extension at the upper end thereof, the particular formation is not of importance other than to connect a pivot 30 as will be described.

[0015] The bracket assembly 40 itself has a body 41 which may be generally rectangular in form having a width slightly less than the width of the recess 20 and formed at its upper end with an aperture therethrough to receive a pivot member 30. Alternatively, the pivot member may be integral with the body 41.

[0016] The pivot member may be a metal rod or the like which can extend through and beyond the body member and when located for use extends from each side of the body member through the apertures 25 in the fillets or in the side wall of the recess.

[0017] The pivot member may be a press fit into the aperture or may be provided with grub screws or other connecting means, whereby, once located, the pivot member can be prevented from moving axially, and the bracket is thus held in position.

[0018] The sides of the body member each has a cut out portion 45 to each of which there is connected a clamp arm 46.

[0019] In a particular embodiment the clamp arms 46 may be a metal extrusion, the body of the bracket also being of metal can have two integral members 47,48, the first 47 having along the inner edge thereof an aperture which can receive a pivot 49 which passes from

the top to the bottom of the body member and through this portion. At the outer end of this portion the second integral member 48 is a somewhat returned portion which may be formed to receive a rubber, synthetic rubber or plastics grip member 51, this member 48 being at an angle to the first member 47. This angle is preferably less than 90° but will be understood from the following description.

[0020] When the bracket assembly 40 is rotated about pivot 30 so that it leaves the recess 20 in the tray 11, the two arms 46 pivotally connected thereto are capable of moving outwardly and preferable are biased to move outwardly by a bias spring 50 associated with pivot 49.

[0021] In this position, illustrated in Fig 4 if the central portion of the body member 41 is abutted against a rod 55 or other form of support member, then the two arms can be located on opposite sides of the support member.

[0022] If then the article is moved so the body of the bracket assembly is caused to enter the recess 20, as this entry is effected so the arms 46 strike the side wall of the recess and are brought together. Providing the support is of the right size, the outer portions of the arms will draw the support inwardly against the body of the bracket and the members on these will closely abut the support and hold the article there against.

[0023] The inward movement of the arms can be completed before the body of the bracket abuts the base of the recess so the grip on the support occurs before the completion of the movement of the article relative to the bracket. Some degree of resilience is given by the grip members 51, which also provide a high friction engagement.

[0024] When the article is to be removed, it is only necessary that the tray 11 be rotated relative to the bracket until the arms of the bracket leave the recess 20, at which time they will be biased to come open and the article simply removed from the position.

[0025] It will be seen that the bracket of the invention permits ready attachment of the article, without the necessity of any tools or the like and once attached the article is very firmly associated with the support.

[0026] If the article carries something of a substantial weight, such as a piece of electronic equipment or the like, then it is unlikely to be accidentally displaced to permit the arms to come open because this would necessitate rotating the article and its contents but gives further support by an angle sufficiently great to permit the arms to rotate relative to their pivots, which may be of the order of 30-45°.

[0027] Whilst we have described herein one form of article and one form of bracket, it will be understood that the invention could be applied to any article which has a form of recess which is adapted to receive the bracket body and arms and this may not be integral with other parts of the article but could, for example, be attached thereto.

[0028] Also, depending on the type of support to which the device is to be connected so the actual shape

of the arms could be varied to give a good grip on the arm support.

5 Claims

1. A support bracket (10) including a body (11), a bracket assembly (40) associated with one side thereof and pivotally moveable from a position where it is spaced from the body (11) to one where it is received in a recess (20) in the body, the bracket assembly having a portion (41) which is pivotally connected to the body and a pair of arm members (46), at least one of which is pivotally connected to the portion (41), the pivotal connection (49) of the arm member having its axis (49) substantially at right angles to the pivotal connection (49) of the bracket assembly to the body, the arm member(s) being able to adopt a position where they extend outwardly from the body (11) of the bracket when the bracket assembly is rotated out of the recess (20) but when the bracket assembly enters the recess, the arm member(s) (46) are constrained to move inwardly by the sides of the recess (20) and if they are extending about a member at the time can take a position where the support bracket is held relative to the member.
2. A support bracket claimed in claim 1 wherein the arms are biased to move outwardly relative to the body portion when they are free from restraint.
3. A support bracket as claimed in claim 1 or claim 2 wherein the arm members have along their outer edges, an inwardly directed portion to assist holding the member.
4. A support bracket claimed in claim 3 wherein the inwardly directed portions are each provided with a rubber grip member or the like.
5. A support bracket claimed in any one of claims 1 to 4 wherein the body is adapted to receive an article.
6. A support bracket as claimed in claim 4 wherein the body is adapted to receive an instrument.
7. A support bracket as claimed in claim 4 wherein the body is a storage bin.

Patentansprüche

1. Traghalterung (10), enthaltend einen Körper (11), eine Halterungsanordnung (40), die dessen einer Seite zugeordnet ist und schwenkbar beweglich ist von einer Stellung, wo sie mit Abstand von dem Körper (11) angeordnet ist, zu einer, wo sie in einer Ver-

tiefung (20) in dem Körper aufgenommen ist, wobei die Halterungsanordnung einen Abschnitt (41), der mit dem Körper schwenkbar verbunden ist, sowie ein Paar von Armelementen (46), von denen zumindest eines mit dem Abschnitt (41) schwenkbar verbunden ist, aufweist, wobei eine Achse (49) der Schwenkverbindung (49) des Armelements im Wesentlichen rechtwinklig zu der Schwenkverbindung (49) der Halterungsanordnung an dem Körper ist, wobei das Armelement bzw. die Armelemente in der Lage ist bzw. sind, eine Stellung einzunehmen, wo sie von dem Körper (11) der Halterung nach außen vorstehen, wenn die Halterungsanordnung aus der Vertiefung (20) heraus gedreht ist, aber dann, wenn die Halterungsanordnung in die Vertiefung eintritt, das Armelement bzw. die Armelemente (46) durch die Seiten der Vertiefung (20) zur Einwärtsbewegung gezwungen ist bzw. sind, und dann, wenn sie sich um ein Element herum erstrecken, eine Stellung einnehmen können, wo die Traghalterung relativ zu dem Element gehalten wird.

2. Traghalterung nach Anspruch 1; worin die Arme vorgespannt sind, um sich relativ zu dem Körperabschnitt nach außen zu bewegen, wenn sie von dem Zwang befreit sind. 25
3. Traghalterung nach Anspruch 1 oder Anspruch 2, worin die Armelemente entlang ihren Außenrändern einen nach innen gerichteten Abschnitt aufweisen, um das Halten des Elements zu unterstützen. 30
4. Traghalterung nach Anspruch 3, worin die nach innen gerichteten Abschnitte jeweils mit einem Gummigriffelement oder dgl. versehen sind. 35
5. Traghalterung nach einem der Ansprüche 1 bis 4, worin der Körper dazu ausgelegt ist, einen Gegenstand aufzunehmen. 40
6. Traghalterung nach Anspruch 4, worin der Körper dazu ausgelegt ist, ein Instrument aufzunehmen. 45
7. Traghalterung nach Anspruch 4, worin der Körper ein Aufbewahrungsgefäß ist. 45

Revendications

1. Console de support (10) comprenant un corps (11), un ensemble à console (40) associé à l'un de ses côtés et mobile de façon pivotante depuis une position dans laquelle il est espacé du corps (11) vers une position dans laquelle il est reçu dans un évidement (20) du corps, l'ensemble à console ayant une partie (41) qui est reliée de façon pivotante au corps et deux éléments à bras (46) dont au moins

l'un est relié de façon pivotante à la partie (41), la liaison pivotante (49) de l'élément à bras ayant son axe (49) sensiblement à angle droit avec la liaison pivotante (49) de l'ensemble à console sur le corps, le ou les éléments à bras pouvant adopter une position dans laquelle ils s'étendent vers l'extérieur depuis le corps (11) de la console lorsque l'ensemble à console est tourné vers l'extérieur de l'évidement (20), mais lorsque l'ensemble à console pénètre dans l'évidement, le ou les éléments à bras (46) sont contraints de se déplacer vers l'intérieur par les côtés de l'évidement (20) et, s'ils s'étendent autour d'un élément à ce moment, peuvent prendre une position dans laquelle la console de support est maintenue par rapport à l'élément.

2. Console de support selon la revendication 1, dans laquelle les bras sont rappelés de façon à se déplacer vers l'extérieur par rapport à la partie de corps lorsqu'ils sont libérés de toute retenue.
3. Console de support selon la revendication 1 ou la revendication 2, dans laquelle les éléments à bras ont, le long de leurs bords extérieurs, une partie dirigée vers l'intérieur pour aider à maintenir l'élément.
4. Console de support selon la revendication 3, dans laquelle les parties dirigées vers l'intérieur sont pourvues chacune d'un élément de prise en caoutchouc ou analogue.
5. Console de support selon l'une quelconque des revendications 1 à 4, dans laquelle le corps est conçu pour recevoir un article.
6. Console de support selon la revendication 4, dans laquelle le corps est conçu pour recevoir un instrument.
7. Console de support selon la revendication 4, dans laquelle le corps est un bac de stockage.



