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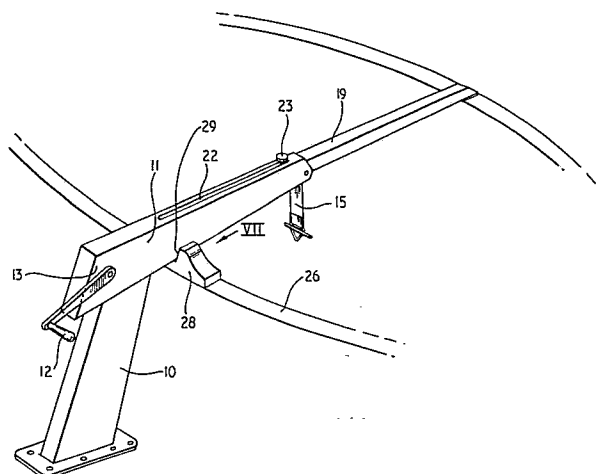
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⑤④ **Davits.**

⑤⑦ A davit comprises a support pillar (10) an arm (11) extending outwardly from the pillar (10) and means to suspend a dinghy from the arm (11). A crank handle (12) for raising and lowering the dinghy is mounted on a projection (13) such that when the crank handle is rotated it does not project substantially into the area bounded by the pillar (10) and the arm (11), thus enabling the widest possible dinghy to be accommodated without the handle (12) fouling on the dinghy. A gun-whale block (28) fixed to the dinghy gunwhale (26) to interengage with the arm (11) and restrict movement of the stowed dinghy in the direction of its fore and aft axis. Webbing (15) is preferably used to suspend the dinghy and the webbing may pass over a roller which also supports an extension member (19) of the arm (11).



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DAVITS

The invention relates to davits.

According to a first aspect of the invention, a davit comprises a support pillar, an arm extending
5 outwardly from the pillar, means to suspend a dinghy from the arm, and a crank handle for raising and lowering the dinghy, the crank handle being mounted on a projection extending inwardly from the pillar in the
10 opposite direction to the arm, so that when the crank handle is rotated it does not project substantially into the area bounded by the pillar and the arm, thus enabling the widest possible dinghy to be accommodated under the arm without the crank handle fouling on the dinghy.

According to a second aspect of the invention, a
15 davit comprises a support pillar, an arm extending outwardly from the pillar, means to suspend a dinghy from the arm, and at least one gunwhale block arranged for mounting on the gunwhale of a dinghy and having means to interengage with the arm to restrict movement of the
20 dinghy with respect to the arm.

Preferably the gunwhale block has a recess therein to receive the arm.

There may be means to lock the gunwhale block to the arm, e.g. a locking pin which can be passed through
25 the gunwhale block and the arm, to restrict more positively movement of the dinghy with respect to the arm.

According to a third aspect of the invention, a davit comprises an arm, a winch for use in raising and

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lowering a dinghy suspended beneath the arm, and the winch having a length of webbing wound therearound, the free end of the webbing being arranged for attachment to the dinghy.

5 Preferably the arm is hollow and the webbing extends from the winch along the inside of the arm to pass over a roller and then extend downwardly from the roller.

The roller preferably has an annular recess therein to receive and guide the webbing.

10 The free end of the webbing is preferably provided with stop means to prevent the free end of the webbing from being drawn into the arm.

The stop means may comprise a rod and the rod may be secured to or form part of a triangle or D-ring for attachment to the dinghy.

15 According to a fourth aspect of the invention, a davit comprises an arm, a winch for use in raising and lowering a dinghy suspended below the arm, the arm being hollow and having an extension member slidable into and out of the arm to vary the length of the arm, the winch having a
20 flexible suspension member which extends from the winch through the arm and then over a roller to extend downwardly for attachment to the dinghy, the roller also serving to support the slidable extension member.

25 Preferably the underside of the extension member has a groove or recess therein so that the extension member is supported by portions of the roller on each side of the suspension member, thus avoiding contact between the extension member and the suspension member and tending to reduce wear on the suspension member.

30 The suspension member preferably comprises a length of webbing.

By way of example, specific embodiments of the invention will now be described, with reference to the accompanying drawings, in which:-

Figure 1 is a side view of a first embodiment of davit according to the invention;

Figure 2 is a plan view of the davit shown in Figure 1;

5 Figure 3 is an end view of the davit shown in Figure 1;

Figure 4 is a view looking in the direction of arrow IV of Figure 1 illustrating how the davit engages with a dinghy.

10 Figure 5 is a perspective view to a larger scale of an end view of the davit of Figure 1, partially cut away;

Figure 6 is a perspective view of an alternative embodiment of davit;

15 Figure 7 is a view looking in the direction of arrow VII showing the davit of Figure 6 engages with the dinghy;

Figure 8 is a view similar to Figure 7, but showing part of yet another embodiment of davit according to the invention; and

20 Figure 9 is a perspective view of an alternative embodiment of gunwhale block.

The davit shown in Figures 1 to 5 comprises a support pillar 10 from the top of which extends a hollow arm 11. The arm has a open end as best shown in Figure 5.

25 Mounted within the arm 11 is a winch. The details of the winch do not form part of the invention and will not be described further. However the winch is controlled by a crank handle 12 and as seen in Figure 1, this crank handle is mounted on an inward projection 13 so that the arc of travel 14 of the crank handle does not pass within the area
30 bounded by the pillar 10 and the arm 11. This means that the widest possible dinghy can be accommodated underneath the arm 11, without the handle 12 fouling on the dinghy.

Wound around the winch is a length of webbing 15 which extends from the winch inside the hollow arm 11, and as best seen in Figure 5, passes over a roller 16 and then extends downwardly for attachment to a dinghy. To assist attachment a triangle 17 is provided, secured to the free end of the webbing, and welded to the triangle 17 is an elongate rod 18 which is long enough to prevent the free end of the webbing from being withdrawn inside the arm of the davit.

To enable the length of the arm to be varied to stabilise different widths of dinghy, the arm is provided with a slidable extension member 19 which can be slid into and out of the arm 11, without altering the position of the point from which the webbing hangs downwardly. The extension member is generally of box section, but the underside of the extension member is cut away so that the extension member does not contact the webbing 15 and cause wear of the webbing.

The roller 16 is provided with an annular recess 20 which receives and guides the webbing 15. Thus the extension member 19 is supported on the portions 21 of the roller which lie on each side of the recess 20.

The inner end of the extension member 19 is supported and guided by a screw-threaded stud which projects upwardly through a slot 22 in the arm 11, as shown in Figure 2. A locking knob 23 is screwed on to the threaded stud. In order to slide the extension member in or out the knob 23 is slackened, and the extension member can then be moved to the desired position. It can then be locked in this position by tightening the knob 23.

To utilise the davit, the arm is adjusted to a length to suit the width of the dinghy, the free end of the webbing 15 is attached to the dinghy, and the handle 12 is then rotated to operate the winch and draw the dinghy tight up against the underside of the davit and its extending arm.

The davits will of course normally be used in pairs, as with conventional davits. Thus the dinghy will be hardened up against four points. One gunwhale will harden up against the arms 11 of the two davits and the opposite gunwhale will harden up against the two extension members 19.

Normally the davits will be mounted at the stern of a vessel so that the dinghy's longitudinal axis will extend transversely across the rear of the vessel. Although there is substantially no tendency for the dinghy to move about in the direction of the longitudinal axis of the vessel, there is a tendency for the dinghy to move transversely of the vessel, i.e. in the direction of the longitudinal axis of the dinghy, as the vessel rolls, thus causing chafing or other damage to the dinghy. To reduce this tendency the underside of the davit is provided with ribbed rubber matting at two locations 24 and 25, as shown in Figure 1. Similar pieces of mating rubber matting can be secured to the gunwhales of any dinghy belonging to a user of the davits, so that as shown in Figure 4, as a dinghy gunwhale 26 approaches the arm 11, its matting 27 will mate with the matting 24 on the arm 11.

The davit shown in Figures 6 and 7 is substantially identical to that shown in Figures 1 and 5, and has similar reference numerals, but instead of being provided with rubber matting, it is provided in combination with a gunwhale block 28. The block is secured to the gunwhale 26 of a dinghy and has a recess 29 shaped to receive the arm 11 and thus restrict movement of the dinghy. The use of a gunwhale block is more suitable than rubber matting when a heavier dinghy is being used.

In the embodiment shown in Figure 8, an alternative form of gunwhale block 31 is provided. This gunwhale block comprises a chock which engages with only one side of the arm 11. Since however the davits are used in pairs, a chock 31 of one davit will prevent movement of the dinghy

in the port direction with respect to the carrying vessel, and a similar chock 31 engaging with the second davit of the pair will prevent movement in the starboard direction with respect to the carrying vessel. Thus the combined effect of the chocks is similar to the effect produced by the gunwhale block 28.

Figure 9 shows yet another embodiment of gunwhale block 28. The block is made from Neoprene and is similar to the block 28 of Figures 6 and 7, having a recess 29, but in addition a locking pin 32 is provided, which can be passed through holes 33 and 34 in the block. A corresponding hole is provided in the associated davit arm so that to further secure the dinghy against movement, the pin 32 can be passed through one of the holes 33 or 34, then through the hole in the davit arm, then through the other of the holes 33 or 34.

The invention is not restricted to the details of the foregoing embodiments. For instance the triangle 17 may be replaced by a D-ring.

The webbing 15 may be replaced by a cable, rope or other flexible suspension member, although webbing is preferred since it can be cheaper, takes up less room between the arm 11 and the extension member 19, tends to wind more neatly on to the winch, and has a lack of springiness which tends to avoid jamming in the winch drum area, even when the webbing is unloaded.

The gunwhale blocks need not necessarily be manufactured from Neoprene. They may for example be made of other synthetic material, or from metal or timber (e.g. hardwood).

The davit may be provided with other forms of extendable arm. There may for example be an extension arm pivotally mounted for movement between an extended position in which it projects outwardly to form an extension, and a stowed position in which it projects inboard. The position of the pivot may be adjustable along the davit to

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permit adjustment of the extent to which the arm projects outboard in use. The pivot may for example comprise a pivot pin which can be fitted into any one of a plurality of holes. Alternatively the arm may
5 comprise or be attached to a channel or saddle which can be fitted over the davit and be locked in any one of a number of positions by means of a pin.

The term dinghy used herein is intended to include all forms of yacht tender, including inflatable
10 craft, speedboats, and the like. .

CLAIMS

1. A davit comprising a support pillar, an arm extending outwardly from the pillar, means to suspend a dinghy from the arm, and a crank handle for raising and lowering the dinghy, characterised in that the crank handle (12) is mounted on a projection (13) extending inwardly from the pillar (10) in the opposite direction to the arm (11), so that when the crank handle is rotated it does not project substantially into the area bounded by the pillar (10) and the arm (11), thus enabling the widest possible dinghy to be accommodated under the arm (11) without the crank handle (12) fouling on the dinghy.
2. A davit comprising a support pillar, an arm extending outwardly from the pillar, and means to suspend a dinghy from the arm, characterised in that at least one gunwhale block (28) is provided for mounting on the gunwhale (26) of a dinghy and having means (29) to interengage with the arm (11) to restrict movement of the dinghy with respect to the arm (11).
3. A davit as claimed in Claim 2, in which the gunwhale block (28) has a recess (29) therein to receive the arm (11).
4. A davit as claimed in Claim 2 or Claim 3, in which means (32) are provided to lock the gunwhale block (28) to the arm (11).
5. A davit as claimed in Claim 4, in which the locking means (32) comprise a locking pin (32) which can be passed through the gunwhale block (28) and the arm (11).

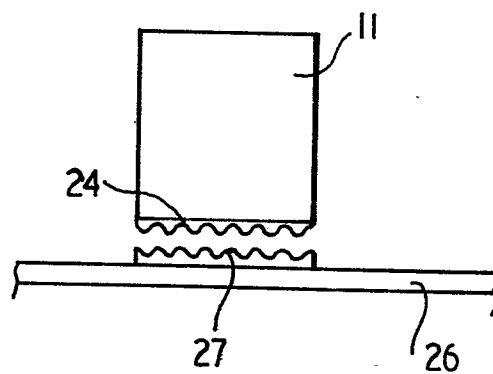
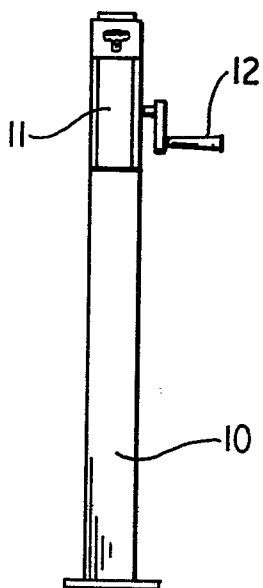
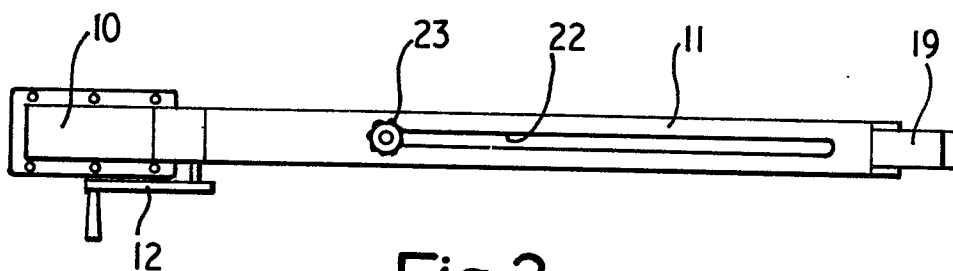
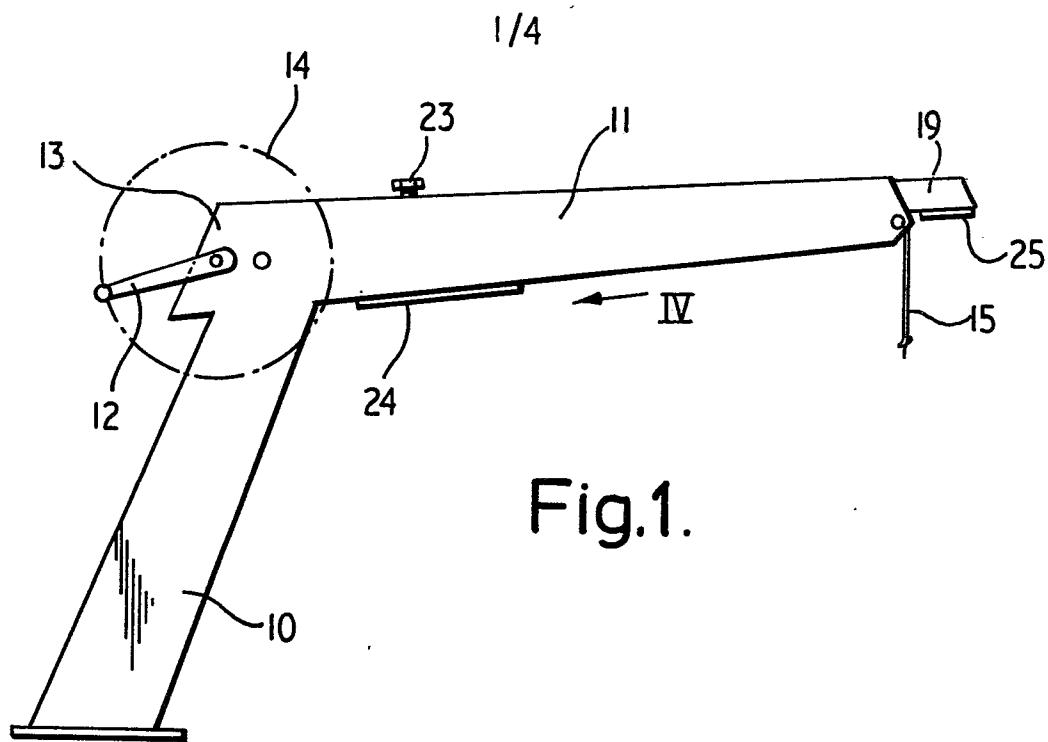
6. A davit comprising an arm, and a winch for use in raising and lowering a dinghy suspended beneath the arm, characterised in that the winch has a length of webbing (15) wound therearound, the free end of the webbing (15) being arranged for attachment to the dinghy.
7. A davit as claimed in Claim 6, in which the arm (11) is hollow and the webbing (15) extends from the winch along the inside of the arm to pass over a roller (16) and then extend downwardly from the roller.
8. A davit as claimed in Claim 7, in which the roller (16) has an annular recess (20) therein to receive and guide the webbing.
9. A davit as claimed in Claim 7 or Claim 8, in which the free end of the webbing (15) is provided with stop means (18) to prevent the free end of the webbing from being drawn into the arm.
10. A davit as claimed in Claim 9, in which the stop means comprises a rod (18).
11. A davit as claimed in Claim 10, in which the rod (18) is secured to or forms part of a triangle or D-ring for attachment to the dinghy.
12. A davit comprising an arm, and a winch for use in raising and lowering a dinghy suspended below the arm, the arm being hollow and having an extension member slidable into and out of the arm to vary the length of the arm, and the winch having a flexible suspension member which extends from the winch through the arm, characterised in that the flexible suspension member (15) extends over

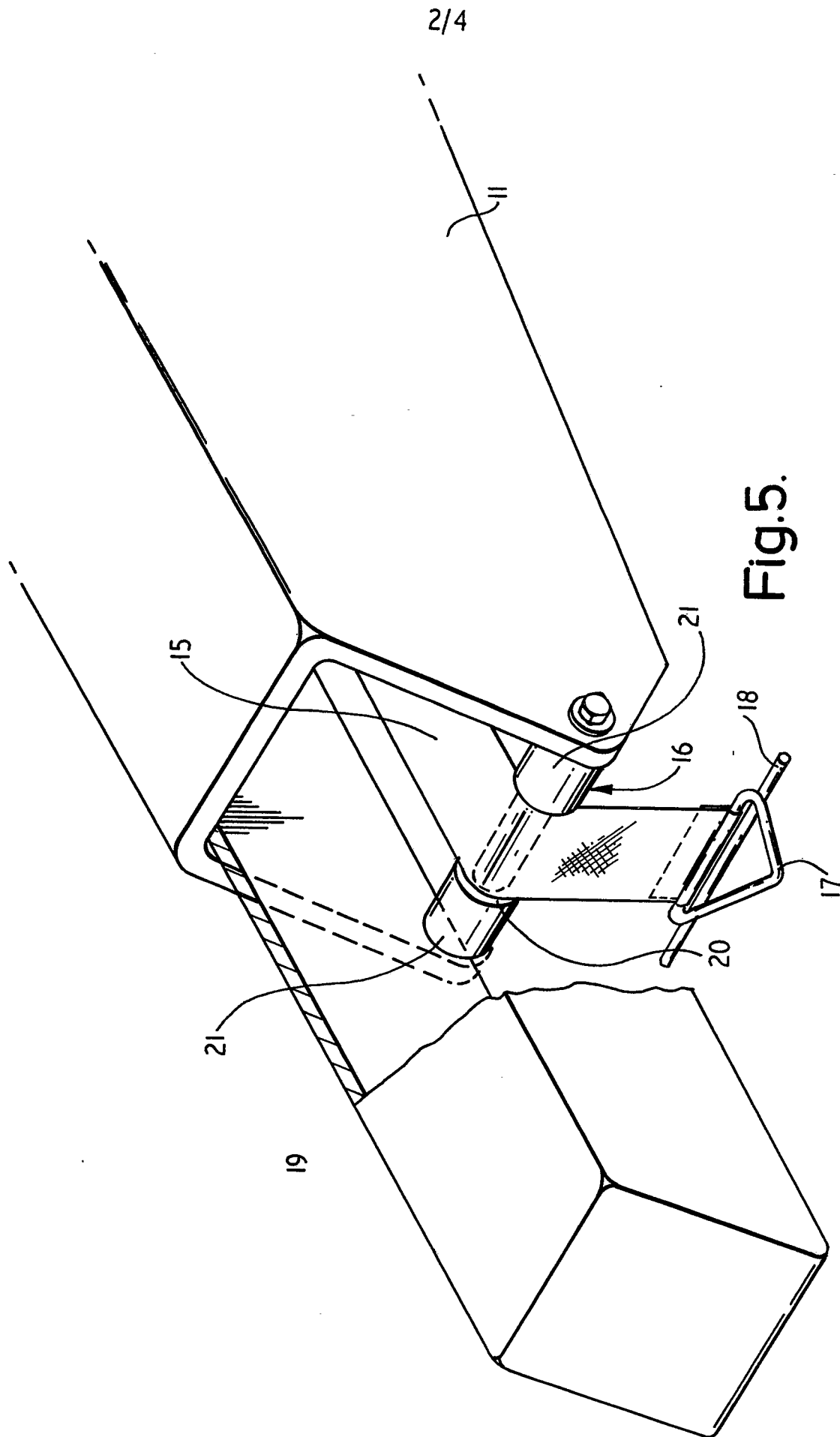
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a roller (16) before it extends downwardly for attachment to the dinghy, the roller (16) also serving to support the slidable extension member (19).

5 13. A davit as claimed in Claim 12, in which the underside of the extension member (19) has a groove or recess therein so that the extension member (19) is supported by portions of the roller (16) on each side of the suspension member (15), thus avoiding contact between the extension member (19) and the suspension member (15) and tending to reduce
10 wear on the suspension member (15).

14. A davit as claimed in Claim 13, in which the suspension member comprises a length of webbing (19).





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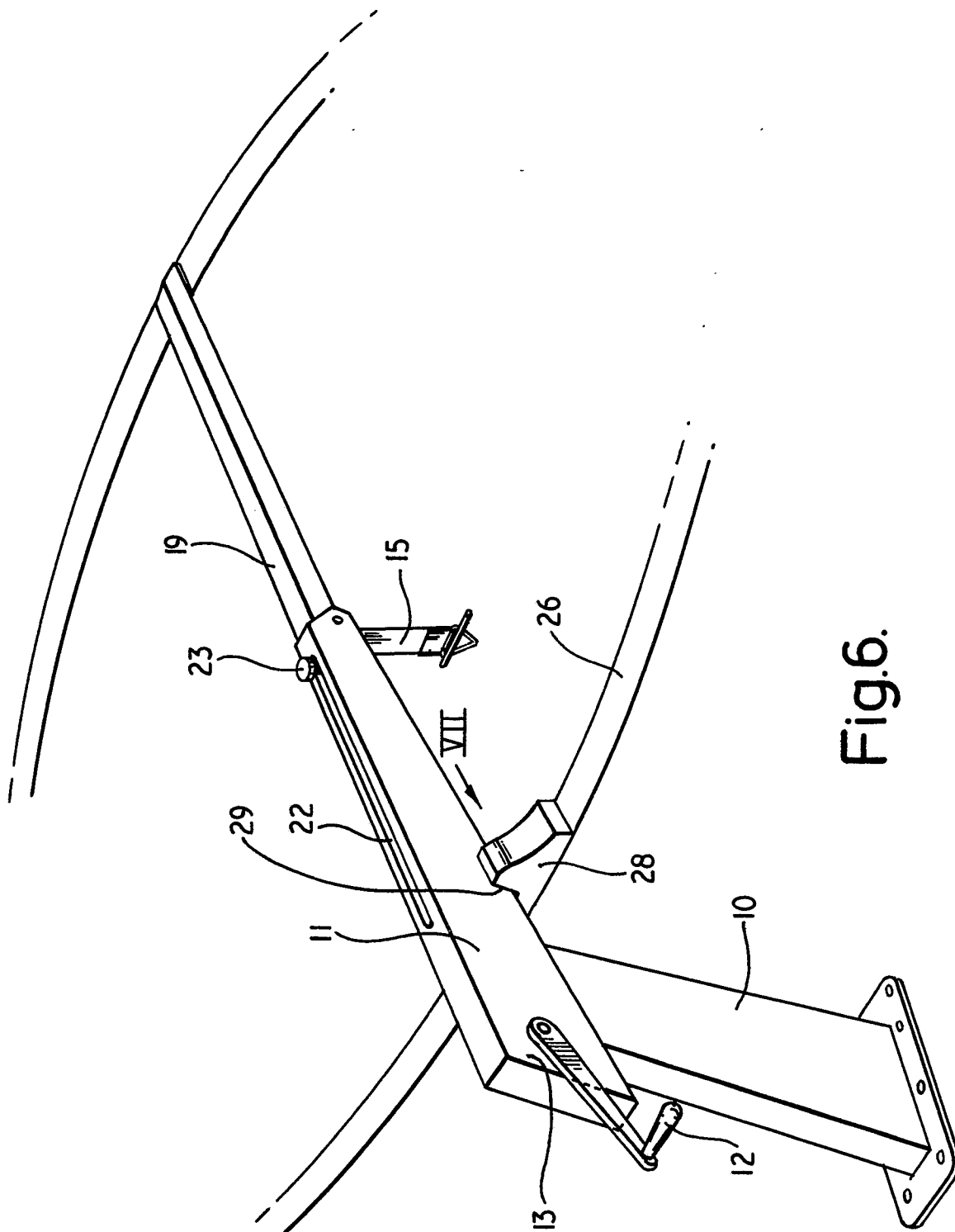


Fig. 6.

