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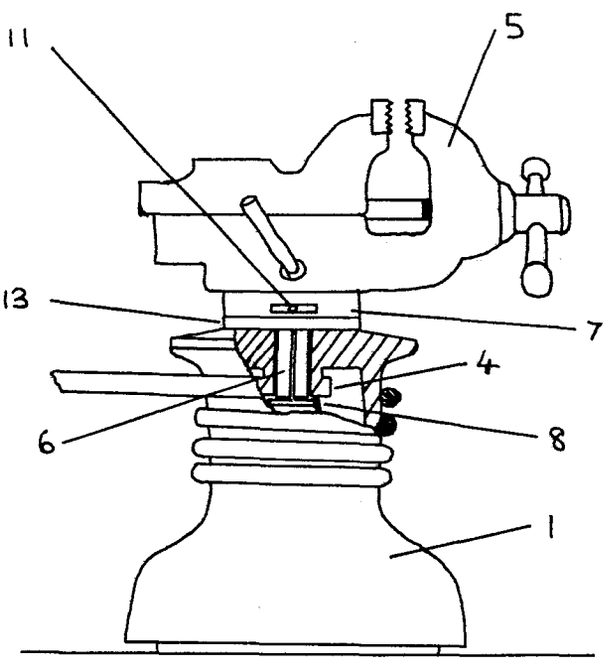
(54) Accessory for yachts.

(57) An accessory for a yacht has a supporting leg (6) which is adapted to locate and key with the socket (4) of a yacht winch. The accessory has a locking device (8) which releasably locks the leg (6) in the socket (4). Advantageously the accessory comprises a platform or other fixture point on which a selection of supplementary accessories can be mounted.



EP 0 112 413 A1

Accessory for Yachts

This invention relates to an accessory for yachts.

According to the invention an accessory for a yacht has a supporting leg which is adapted to locate in the handle receiving socket of a winch and be releasably locked to the winch.

Preferably the supporting leg keys with the handle receiving socket.

The majority of handle receiving sockets of winches are international size star sockets, and so a single size and design of supporting leg will be suitable for most yachts.

In its simplest form an accessory according to the invention comprises a platform or other fixture point to which other items may be bolted or otherwise secured as supplementary accessories.

One particular advantageous accessory or supplementary accessory in accordance with the invention is a vice which can be used for carrying out repairs and other work. Up to the present it has been a problem to find a suitable and stable mounting for a vice of the conventional type. By simply adapting a vice so that it can be mounted in the handle receiving socket of a winch this problem is overcome.

The invention will now be further explained by way of example with reference to the accompanying drawings in which:

Figure 1 shows a part-sectional side elevation of a winch with an accessory in the form of a vice mounted on it in accordance with the invention.

Figure 2 shows a view similar to Figure 1 but with a modified mounting arrangement for the vice,

Figures 3 and 4 show respectively a plan view from below and a sectional elevation of an accessory platform,

Figures 5 and 6 show sectional elevations of further accessories in accordance with the invention,

Figures 7 and 8 show a sectional plan view and a sectional elevational view of a further form of accessory platform,

Figure 9 shows a modification, and

Figure 10 shows a sectional elevation of a still further accessory according to the invention.

Referring to Figure 1, the winch 1 is provided with a winch-handle-receiving star socket 4 and a vice 5 has a downwardly extending leg 6 of square cross-section so that it locates in and keys with the star socket 4. The vice 5 is advantageously provided as a standard item which is simply bolted to a platform 7 from the underside of which leg 6 depends. Thus the platform 7 can be used as a universal platform for mounting a whole range of accessories.

A locking arrangement is provided which releasably locks the leg 6 in the socket 4. As shown most clearly in Figures 3 and 4, the leg 6 is provided with a square plate 8 at its lower end of the same cross-sectional area as the leg 6. As the leg 6 is inserted into the socket with the plate edges aligned with the sides of the leg 6, the plate 8 passes right through the socket 4. Then by rotating the plate 8 so that its edges are misaligned with the sides of the leg 6 it becomes trapped behind the star socket and cannot be pulled back through the socket. A clamping ring 13 as will be described in

more detail with reference to Figures 3 and 4 enables any slackness in the mounting of the platform 7 to be taken up.

In the platform construction shown in Figures 3 and 4, the platform 7 is formed by plate 12 having the integral leg 6. Plate 20 represents the general form of the bases of the various accessories that may be attached to plate 12. The plate 8 is rotatably keyed into the lower end of the leg 6. To effect this the plate 8 is provided with a cylindrical post 9 which locates in a bore in the leg 6 and which at its upper end has a pair of diametrically opposite lugs 10 which rotatably locate in an annular groove. Diametrically opposite longitudinal grooves are provided along the bore in the leg 6 along which the lugs can pass when the post 9 is pushed into the bore. It is arranged that the lugs 10 align with the grooves in the bore when the plate edges align with the sides of the leg. Hence when the edges of the plate 8 do not align with the sides of the leg the plate 8 is locked in the leg 6 by the lugs 10. The rotation of the plate is effected by a cranked wire 11 which passes down through the leg 6 and is secured to the plate 8. At its outer end the wire passes through the plate 12 and is movable through an angle defined by a slot in the plate 12 to effect rotation between aligned and misaligned positions of the plate 8 and leg 6.

To take up any slackness of the platform 7 a ring 13 is threadedly mounted on plate 12. Thus after the leg 6 has been locked in position in the winch, the ring 13 can be screwed downwardly hard on to the top of the winch.

It is customary in winches to have a ratchet mechanism which allows rotation of the winch handle in one direction relative to the winch barrel. Therefore if an accessory such as a vice is fitted to the winch it will rotate in one direction. In some circumstances this is acceptable, but advantageously a locking device is provided to prevent this rotation. Such a locking device may take the form of a grub screw which locates in the winch barrel and engages the pawl to lock it against the teeth of the ratchet wheel.

A similar locking device could be provided in relation to the ratchet mechanism which permits rotation of the winch barrel relative to its mounting base.

In some types of winch a hole aligning with the handle receiving socket of the winch extends downwards right through the winch including the base plate through which the winch is secured to a boat.

An arrangement for locating an accessory platform in this type of winch and for locking the accessory against rotation is shown in Figure 2. In Figure 2 the base plate 15 of the winch 1 is shown. For mounting the platform 7 carrying vice 5 an additional plate 16 is fitted below the base plate 15 and is secured to a boat by the same fixing means used for the plate 15. The plate 16 has an upstanding annular boss 18 which locates in the central hole in the base plate 15. The hole through the boss 18 is square and receives in a close fit the leg 6, which in this arrangement is sufficiently long to extend into the boss. Thus the leg 6 and hence the platform 7 and vice 5 is held against

rotation. To lock the leg 6 against being pulled upwardly out of the winch, a rotatable plate 8 identical to the plate 8 of Figures 3 and 4, locates in an undercut groove in the boss 18.

To facilitate the use of a standard length of leg 6 for several types and makes of winch a series of plates 16 having different height bosses can be provided. Further, several grooves at different heights can be provided in each boss.

As an alternative, to providing a separate boss-carrying plate 16, boss 18 can be incorporated in the base plate 15 of the winch or elsewhere within the winch.

In addition to mounting the accessories in the winch socket, a socket device may also be provided for locating the winch handle when not in use and into which the accessories therefore locate in the same or similar manner as in the winch.

Although only a vice is shown in Figures 1 and 2. The invention relates to a range of accessories including for example a search light, a general purpose anchorage point for fenders and safety harnesses, a table, a camera support, and various sail control devices.

In Figures 5 and 6 are shown by way of example two accessories for providing anchorage points for safety harnesses but due to their general construction can be readily adapted to other forms of accessory. As far as possible in Figures 5 and 6 the same reference numerals have been used in the previously described Figures to designate corresponding parts.

Referring to Figure 5, the equivalent 26 of the platform 12 is in the form of a ball which is screwed on to the leg 6.

The supplementary accessory in the general purpose anchorage point 25 threadedly engages in threaded bore 24 in the ball 26.

To vary the effective length of the leg 6 a collar 22 is provided which can slide up and down leg 6 to adjust it. It is locked in position by screw 23 engaging in groove 27. Thus the accessory can be locked in position either behind the standard star socket or in a boss as in Figure 2. In both cases the plate 8 is used for locking and the collar 22 is positioned to locate on top of the winch, the ring 13 providing final tight clamping as in the accessory of Figure 2.

The accessory of Figure 6 is somewhat similar to that of Figure 5 in that the equivalent of the platform 12 is generally of ball shape, the ball shape being completed by the clamping ring 13.

In both Figures 5 and 6 angular movement of the wire 11 is effected by a ring 21 to which the free end of the wire is attached and which is located on the ball 26 so that it can be moved around it.

As can be readily appreciated the supplementary accessory 25 can take other forms. For example it could take the form of a camera mounting platform which screws into bore 24.

Referring now to Figures 7 and 8, these show an accessory platform somewhat similar to that shown in Figures 3 and 4 and the same reference numerals have been used to designate corresponding parts.

The main difference between the platform of Figures 7 and 8 and that of Figures 3 and 4 is in the locking arrangement. A square plate 8 is again provided but in the platform of

Figures 7 and 8 it is integral with the lower end of a cylindrical post 31 which extends upwardly through the leg 6 into a central recess in the plate 12. The wire 11 of the Figures 3 and 4 platform is replaced by a threaded pin 33 which threadedly engages in a threaded bore in the upper end of the post 31. At one end the pin 33 has a head 34 for effecting angular movement of the pin 33 to rotate the post 31 and hence the plate 8. The pin 33 extends through the post 31 and at its inner end abuts against a spring 35. Thus the resistance to movement of the head 34 can be adjusted by adjusting the distance the pin 33 is screwed through the post 31. The recess in the plate 12 is covered by a plate 36 which forms the top plate to which the bases of other accessories are secured.

The use of the spring loaded pin 33 instead of the wire 11 has several advantages, namely:

1. it can be screwed in and out to adjust return tension of spring 35 as mentioned above.
2. it can be screwed in so that the head 34 is hard up against the ring 12 to lock it in a set position.
3. it can be unscrewed and removed to allow fitting of a different dimensioned post as shown at 38 in Figure 9. This allows for different spacings of the locking plate 8 from the plate 12 to compensate for different positions of the star socket in relation to the top surface of a winch.
4. if the platform becomes jammed in the winch, removal of the pin 33 allows removal of the platform 12 and integral

leg 6.

In the platform shown in Figures 7 and 8 the ring 13 is provided with an inlaid friction ring 39. Thus when the ring 13 is screwed hard down on to the top of the winch the ring 39 acts as a clutch to lock the platform against rotation. Thus the provision of a locking device for the winch barrel, such as a grub screw described above may be obviated.

Figure 9 shows an alternative form of post 38 to that shown in Figures 7 and 8.

As an alternative to providing a set of different posts 31 (Figure 8), 38 (Figure 9), a series of vertically spaced threaded bores can be provided in the post 31, 38. In this case the central recessing in the plate 12 could be made deeper to accommodate a longer length of the post 31, 38. Also to provide space for the bores they could be arranged around the axis of the post 31 at 90^{o} to each other.

In an alternative construction to that shown in Figures 7 and 8, the locking of the accessory to the fixture point can be achieved by an arrangement in which the locking movement of the post 31 in the leg 6 simultaneously effects locking of the supplementary accessory.

Figure 10 shows an accessory corresponding to that of Figure 6 but with the locking arrangement of Figures 7 and 8.

CLAIMS

1. An accessory for a yacht, comprising a device having a supporting leg which is adapted to locate in the handle receiving socket of a winch and be releasably locked to the winch.

2. An accessory according to Claim 1 and comprising a platform or other fixture point to which supplementary accessories can be attached.

3. An accessory according to Claims 1 or 2, wherein said leg is provided with a locking device which can be displaced from a first position in which it does not extend beyond the cross-section of the leg and so permits insertion of the leg into said socket, to a second position in which it projects laterally from said cross-section to effect locking of said leg in said socket and wherein said locking device is operable by a pin which extends through and threadedly engages a post integral with said locking device and extending along the inside of the leg, said pin extending at one end through a slot whose ends define the limits of angular displacement of said locking device and so define said first and second positions.

4. An accessory according to Claim 3 wherein said pin at its other end abuts against a spring whereby the amount said pin is screwed through said post adjusts the resistance to angular displacement of said pin.

5. An accessory according to any preceding Claim and further comprising a plate adapted to be fixedly mounted

beneath the winch and to which said leg is adapted to be releasably locked.

6. An accessory according to Claim 5, wherein said plate has an upstanding boss with one or more internal grooves adapted to receive said locking device when in said second position.

7. An accessory according to any preceding Claim, and having a threaded ring which after said accessory has been locked to a winch can be screwed down on to the winch to take up any slackness in the mounting.

8. An accessory according to Claim 7 wherein said ring has a friction clutch member for engaging the top of a winch barrel when said ring is screwed on to it, whereby to prevent roation of the accessory relatively to the winch barrel.

9. An accessory according to any preceding Claim and comprising a device into which a supplementary accessory can be mounted.

10. An accessory according to any preceding Claim in combination with a winch, wherein said winch has a device for locking the pawls of the ratchet mechanisms between the socket and the barrel and between the barrel and the base of the winch.

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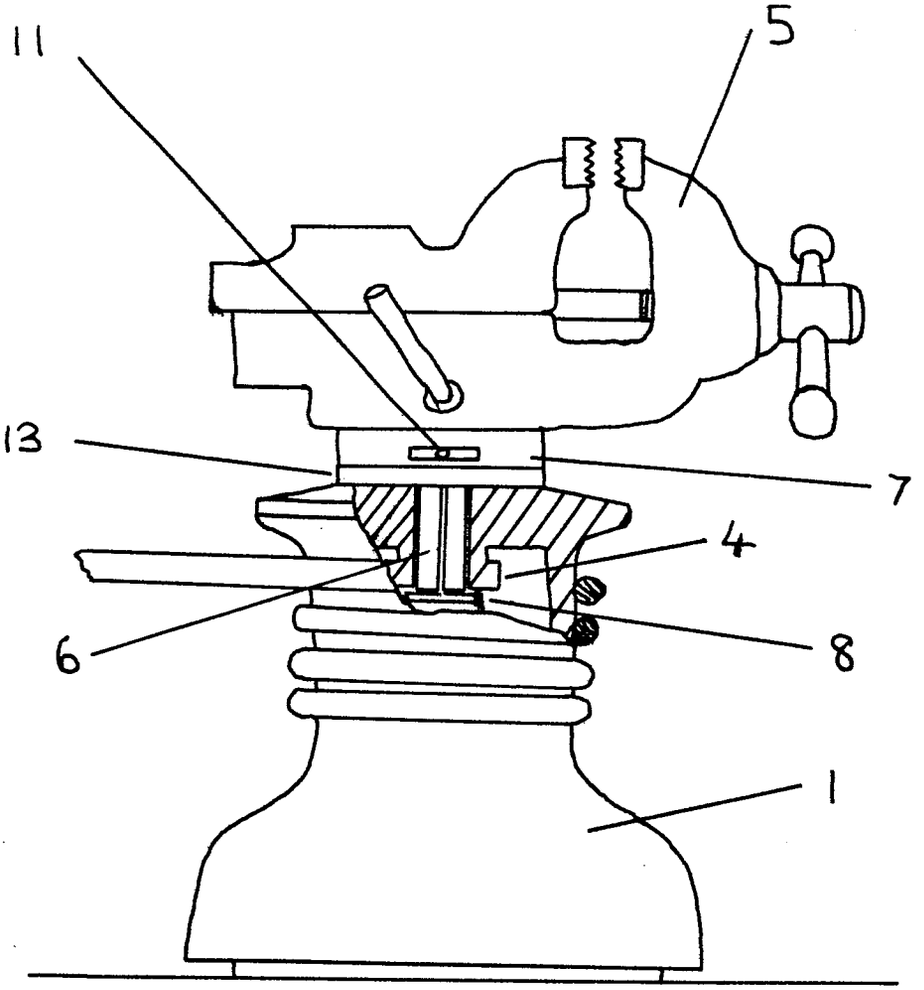


FIG. 1.

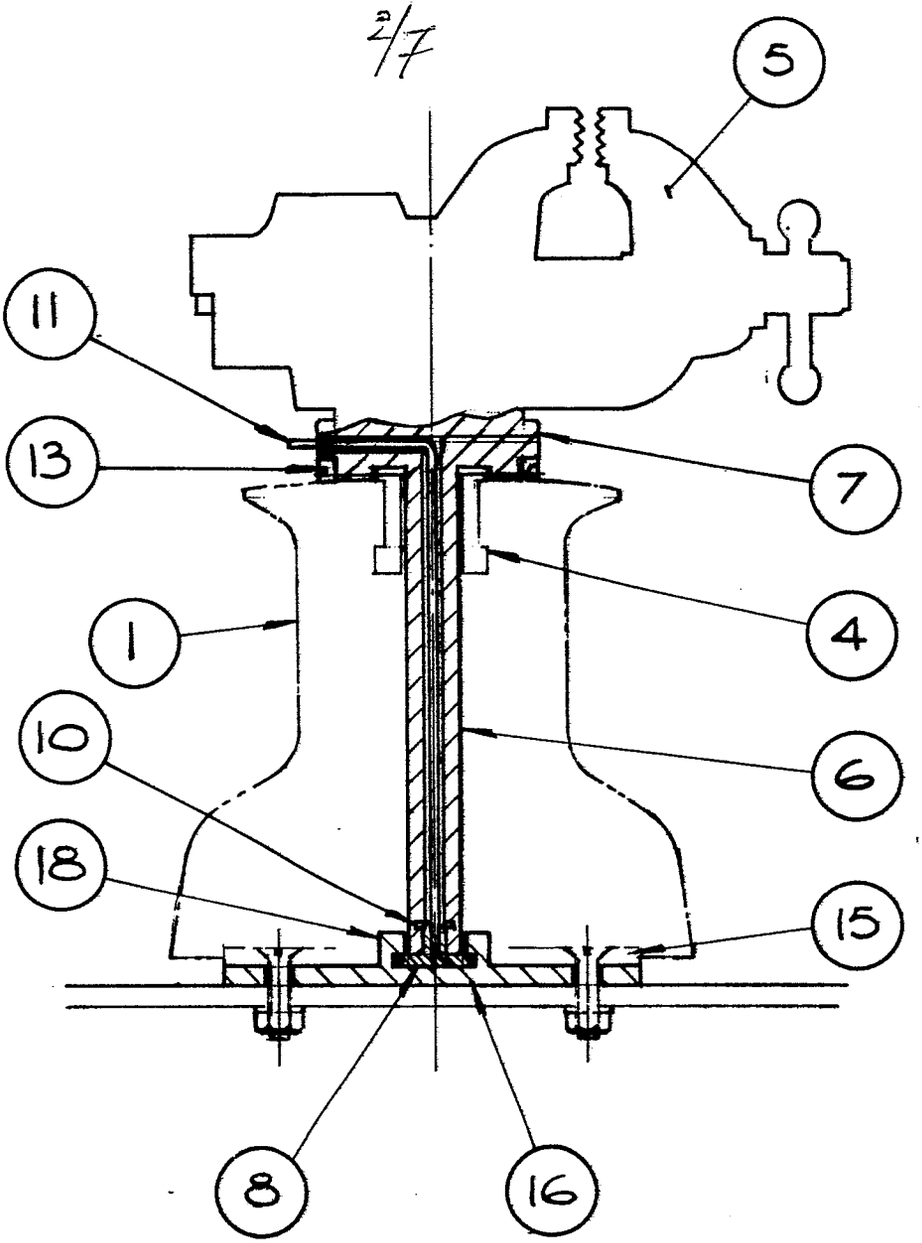


FIG. 2.

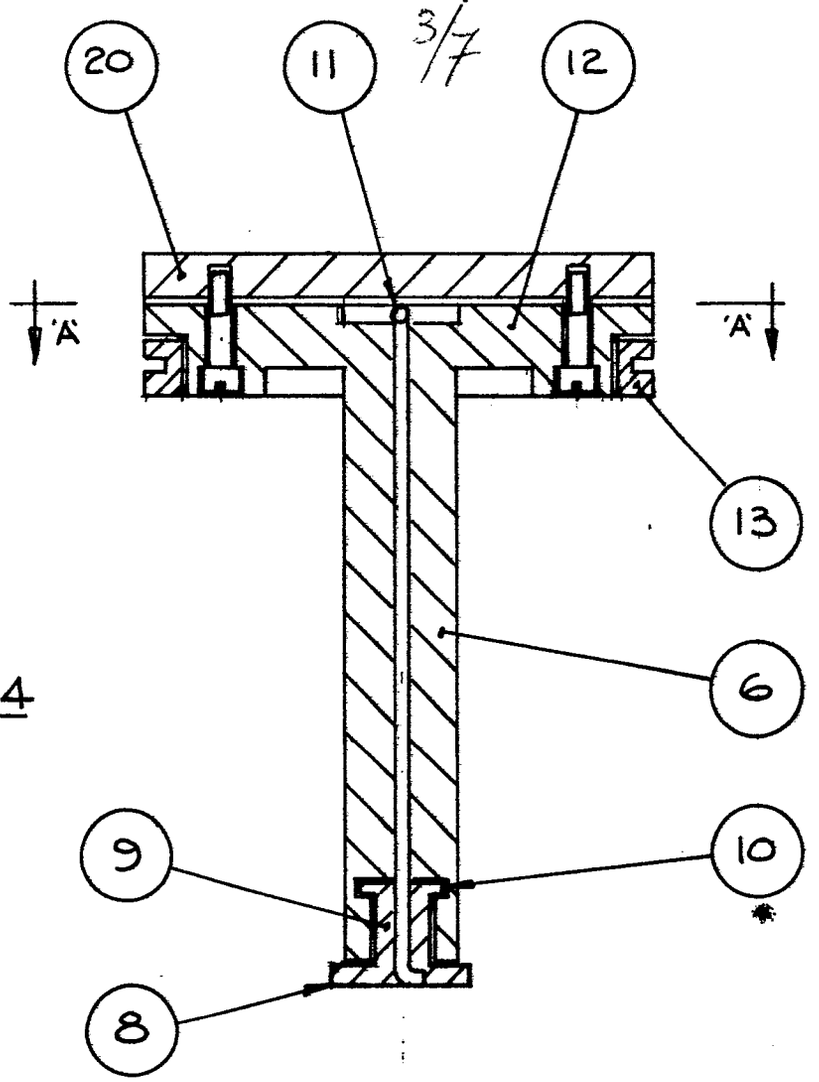
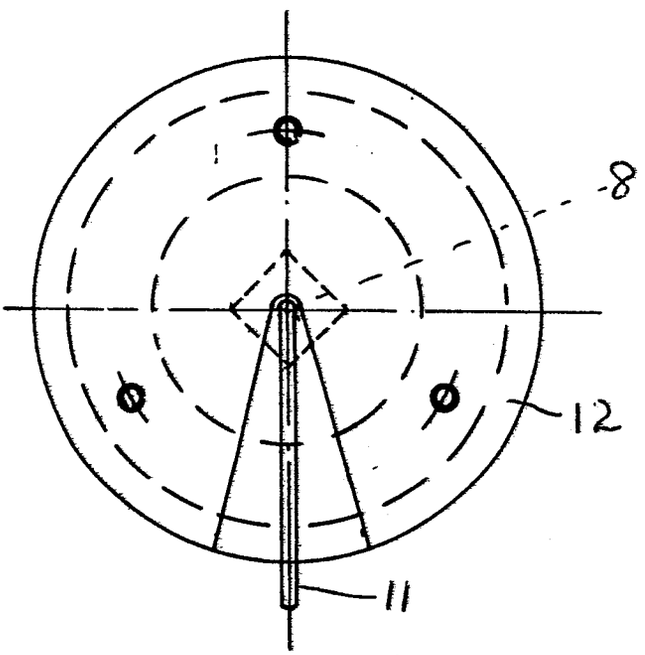


FIG. 4



SECTION 'A'-'A'

FIG. 3

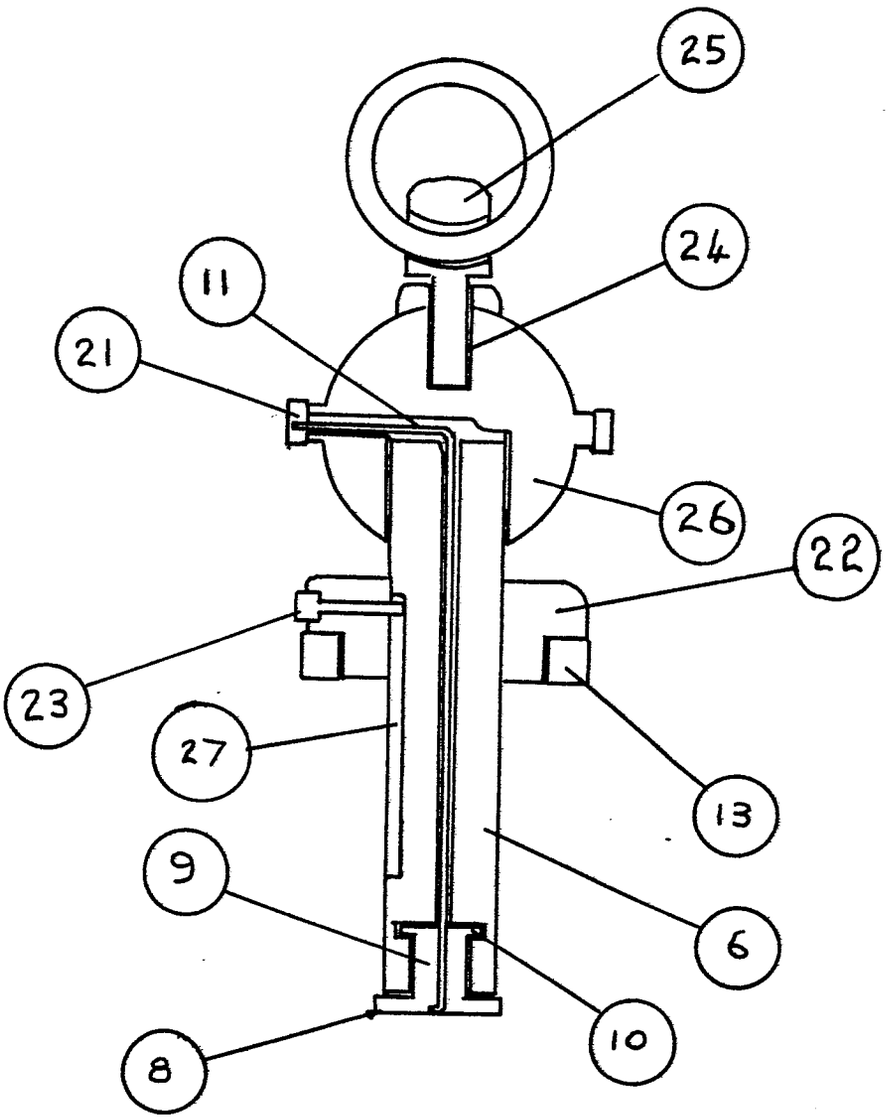


FIG. 5

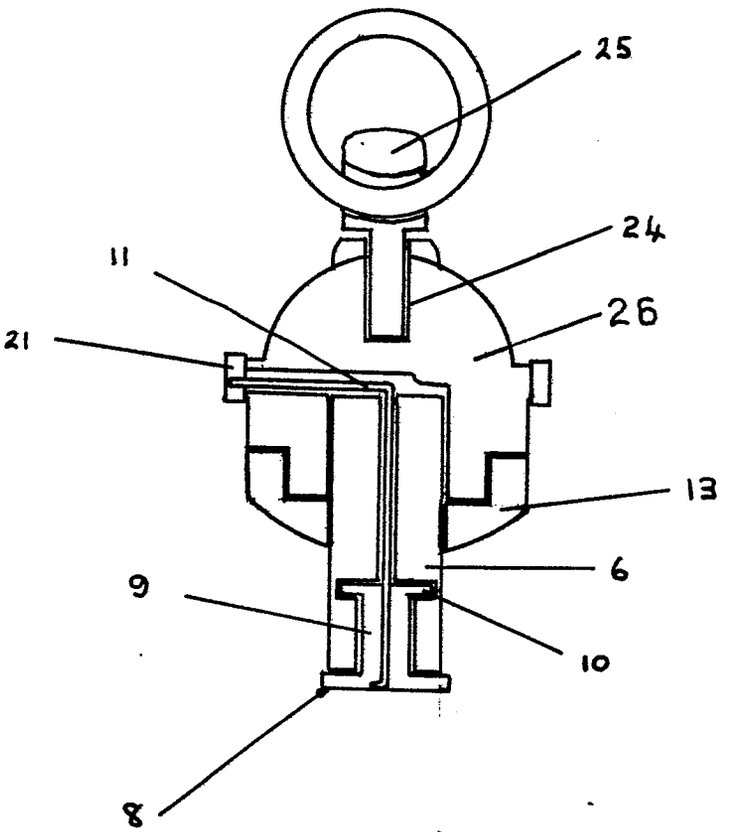


FIG. 6

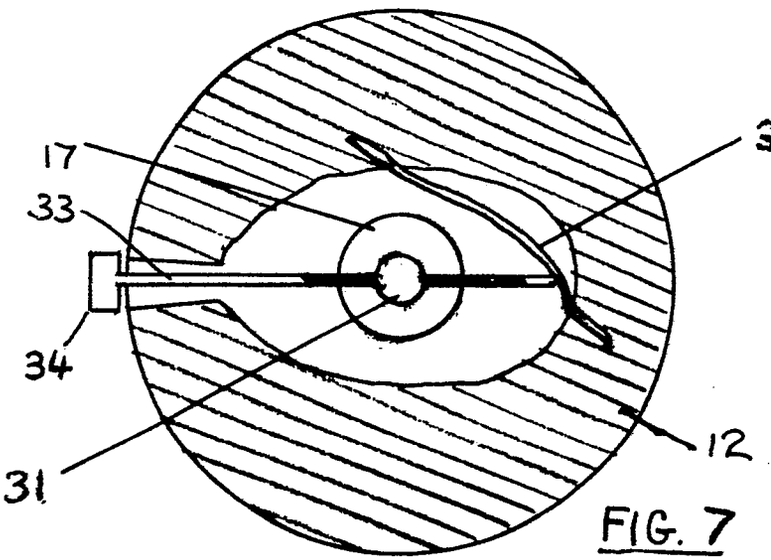


FIG. 7

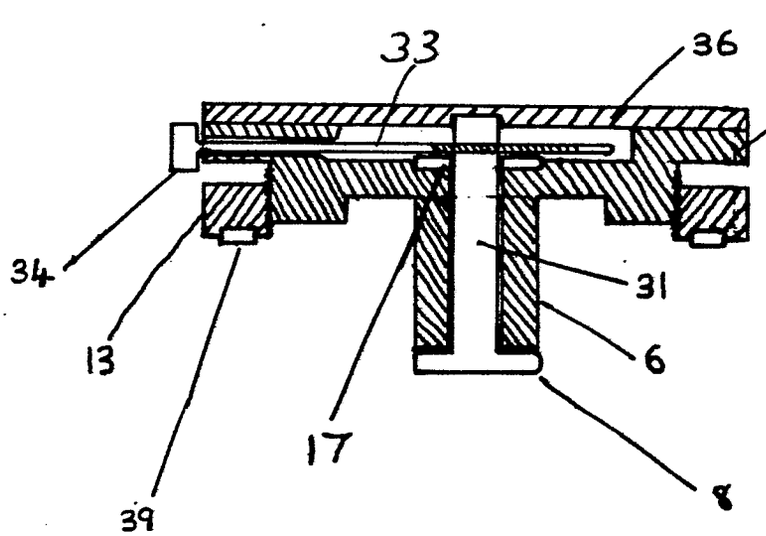


FIG. 8

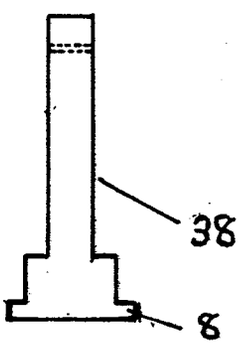


FIG. 9

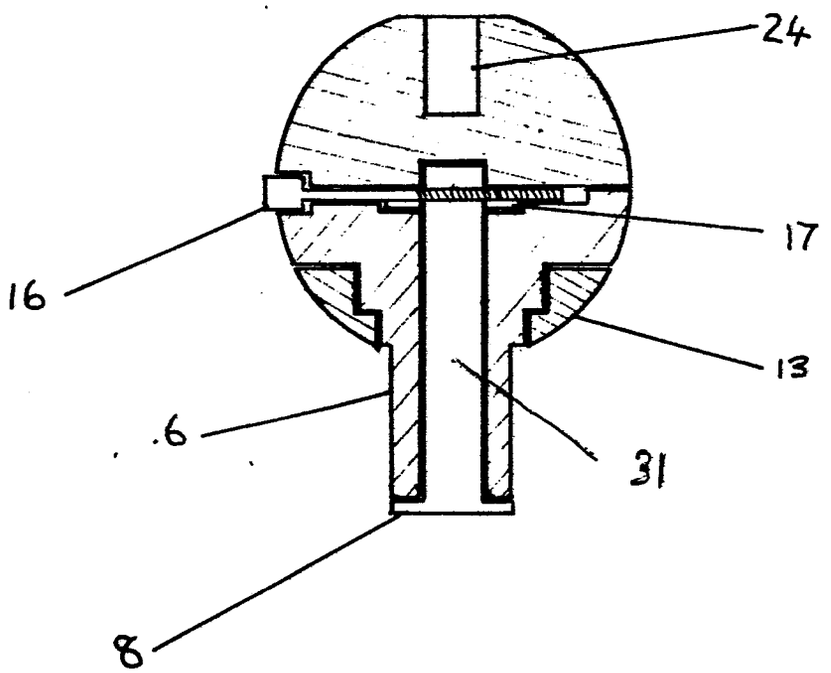


FIG. 10

European Patent Office

EUROPEAN SEARCH REPORT

Application number

EP 82 30 6818

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. ³)
X	US-A-4 358 281 (W.R. WOODWARD) * Whole document *	1,3	B 63 B 21/16 B 66 D 1/74
A	GB-A- 587 098 (E.G. JONES) * Page 2, lines 1-20; figures 1,2 *	1	

TECHNICAL FIELDS SEARCHED (Int. Cl. ³)

B 63 B
B 66 D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	16-08-1983	PRUSSEN J.R.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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