



(11) **EP 1 832 834 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
04.03.2009 Bulletin 2009/10

(51) Int Cl.:
F41B 15/02 ^(2006.01) **F41C 33/02** ^(2006.01)
A45F 5/02 ^(2006.01)

(21) Application number: **07466005.1**

(22) Date of filing: **06.03.2007**

(54) **Baton holder**

Schlagstockhalter

Porte-matraque

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE
SI SK TR**

(30) Priority: **09.03.2006 CZ 200617503 U**
06.09.2006 CZ 20060552

(43) Date of publication of application:
12.09.2007 Bulletin 2007/37

(73) Proprietors:
• **Kostal, Bretislav**
106 00 Praha 10 (CZ)
• **Kupa, Vladimir**
150 00 Praha 5 (CZ)

(72) Inventors:
• **Kostal, Bretislav**
106 00 Praha 10 (CZ)
• **Kupa, Vladimir**
150 00 Praha 5 (CZ)

(74) Representative: **Rezac, Petr**
Jihozápadní-III 1145/4
141 00 Praha 4 (CZ)

(56) References cited:
WO-A-03/094661 **US-A- 6 059 157**
US-B1- 6 497 349

EP 1 832 834 B1

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

Field of the invention

[0001] The invention relates to a baton holder consisting of a belt attachment means and clasp means for fixing the baton in the holder.

[0002] The holder is designed for holding the baton on a belt of law enforcement personnel, police officers etc.

Description of the prior art

[0003] Batons represent one of conventionally used devices of the law enforcement personnel. In the recent time, the preferred types of batons are expandable batons having a handle adapted for receiving a telescopic shaft, whereby the dimensions of the handle and the shaft are substantially standardized. Nevertheless, baton holders may occur in various types and with variety of functions. The holders are secured to the belt of the using person by means of a clip or a loop forming a part of the holder or mounted on the holder and optionally releasable therefrom.

[0004] The US pat. 5,263,619 discloses a baton holder consisting of a cylindrical housing provided at its lower end with a shoulder for engaging a baton handle while enabling a telescopic shaft to extend out of the holder. The upper end of the housing carries a cover flap provided with release securing means such as a snap fastener. With the exception of the cover flap, performing a partially fixing function the position of the baton in the housing is not firmly fixed. Before using the baton first the cover flap is to be released so that the action of the officer is delayed, what may cause that he can be exposed to a sudden unauthorized action of an attacker.

[0005] The US pat. 6,059,157, which forms a basis for the preamble of independent claim 1, is concentrated inter alia to the fixing of a baton in a housing without the necessity to use an upper cover. The housing has on its portion adjacent to the belt a dual wall defining a cavity in which a resilient friction shoe is located. The shoe protrudes in the opened position of the holder into the inner cylindrical space of the housing. Upon insertion of the baton into the housing, the shoe is pressed into the cavity and by means of another manually operated means such as a cinch bar is pressed towards the baton handle and thus secures the position of the baton in the housing of the holder. The mere insertion of the baton into the holder interior passage does not provide sufficient grip of the baton by the holder and therefore additional hand operated means shall be used to this effect. Moreover, the baton holder shows a number of components and is thus susceptible to higher manufacturing costs and rather complicated operating. A front side longitudinal slit of the holder housing enables the withdrawal of a telescopic baton in both the axial and radial direction if the baton is in its extended configuration. Nevertheless, upon spreading the slit considerable resistance of the resilient

sidewall is to be overcome.

[0006] A rather simple holster structure provides a solution according to the US pat. application 2003/0087702 A1. The holster is designed for binding it to a user's limb by means of a scabbard fixed to the rear side of the holder and the baton is held in the holder by flaps extending from the holder rear side. However, such a simply design may not ensure that the baton is firmly clasped in the holster and stowing of an baton with its shaft expanded is practically excluded.

Summary of the invention

[0007] The primary object of the invention is to provide a baton holder of a simple structure but reliable in function and adapted for attachment to a user's belt which where the baton is safely held in the holder in both the retracted and expanded configuration. Another object of the invention is to offer a holder including minimum number of construction parts and enabling quick and comfort operation.

[0008] Accordingly, a baton holder consisting of belt attachment means and clasp means for fixing the baton in the holder including a fastening strap comprises a belt attachment section having a trough-shaped first wall with longitudinal edges and a first bottom portion at its lower end and bearing a loop for receiving a belt on its rear side and a clasp section comprising a second wall including cylindrical surface and longitudinal edges and a second bottom portion at its lower end whereby the first and the second bottom portions are connected by a flexible joint. In the following, other possible embodiments of the holder are described in more details and underline the advantages of the invention.

[0009] The first bottom portion extends beyond the periphery of the first wall edges and the second bottom extends beyond the periphery of the second wall edges to form the joint. Thus, a gap between the edges of the first and the second walls enables a slight displacement of the second wall from and towards the first wall to enable easy stowing of the baton into the holder on one side and to enhance the clasp effect of the second wall on the stowed baton handle on the other side. Accordingly, the first wall is of a U-shape and the second wall of a semi-circular shape.

[0010] The clasp effect may be increased by a strap going round the belt attachment section and provided with release fastening means in the upper area of the second wall. The upper part of the second wall is provided with lugs and the upper part of the rear side of the first wall with a recess for supporting the strap. The lower part of the second wall has an opening for receiving the shaft of the baton in its expanded position. Moreover, the opening may extend partially into the second bottom portion. Transversal ribs are formed between the loop and the rear side of the first wall, which may be removed to adapt the internal space of the loop to the width of the user's belt.

Advantageously, the belt attachment section and the clasp section are formed as a single piece of plastic.

[0011] The general advantage of the baton holder according to the invention is that the baton may be inserted into the holder without the necessity to overcome substantial resistance and the baton is clasped in the holder by the effect of the thrust force of the second wall of the clasp section due to the flexible joint between the first and the second bottom portion. The more reliable fixing of the baton in the holder may be then secured by fastening the strap. In case of necessity, even the baton in the expanded configuration may be stowed in the holder by threading the shaft through the opening in the lower part of the second wall while the handle of the baton rests on the bottom portions. Similarly, the baton shaft may be treaded through the gap between the first and second wall so that the shaft takes a position parallel to the rear side of the attachment section.

[0012] Other principal features and advantages of the invention will become apparent to those skilled in the art upon review of the following drawings the detailed description and the appended claims.

Brief description of the drawings

[0013]

Fig. 1 - is a perspective view of a holder with a lower part of the baton inserted into the holder and a strap fastened;

Fig. 2 - is a front elevation view of the holder;

Fig. 3 - is a sectional plan view of the holder taken along the line A-A of Fig. 2;

Fig. 4 - is a side elevation view a holder;

Fig. 5 - is a perspective view of the holder with the opening in the front wall

Fig. 6 - is a front view of a holder with the opening in the front wall.

Description of the preferred embodiment

[0014] As shown in Fig. 1 to Fig 4, the baton holder according to the invention consists of three major parts: a rear belt attachment section 1, a front clasp section 2 and a fastening strap 3. The holder is designed to hold firmly a handle of a baton 4 including a telescopic baton as is illustrated by contouring lines in Fig. 1. According to the detailed drawing showing the belt attachment section 1 in Fig. 1 and Fig. 3 the belt attachment section 1 is U-shaped and consists of a first wall 11 having longitudinal edges and a first bottom portion 12 at its lower end. The clasp section 2 consists of a second wall 21 substantially semi-circular in shape and having longitudinal edges and second bottom 22 at its lower end situated opposite the longitudinal edges of the first wall 11 and the first bottom 12. The clasp section 2 is connected to the belt attachment section 1 by a flexible joint 102 disposed between the first bottom portion 12 and the

second bottom portion 22. The joint 102 extends through the whole diameter of the bottom portions 12 and 22 and is formed in such a manner that the first bottom portion 12 extends slightly beyond the line connecting the edges of the first wall 11 of the belt attachment section 1 and the second bottom portion 22 extends slightly beyond the line connecting the edges of the second wall 21 of the clasp section 2. Consequently, a gap 5 is defined between the longitudinal edges of the first wall 11 and the second wall 21 which enables the clasp section to be slightly bent outwardly or inwardly in relation to the belt attachment section if the material of the bottom portions 12, 22, for example a suitable plastic material, is enough flexible to enable such a motion. The rear side of the belt attachment section carries an elongated loop 13 for receiving the user's belt. Inside the loop, 13 thin ribs 14 are provided. The ribs 14 are thin enough to be easily removed by cutting them off in order to accommodate the cavity of the loop to the belt width. The rear side of the first wall 11 has a recess 15 in its upper part to receive a strap 3 and an orifice 16 for a rivet or a screw to fix the strap 13 to the belt attachment section 1.

[0015] The clasp section 2 further bears on its second wall 21 elongated lugs 23 for receiving the strap 3 threaded through the loop 13 at the area of the recess 15 of the loop 13. In the embodiment shown in Fig. 5 the strap 13 has a snap fastener 31 situated in the area of the front side of the second wall 21. The strap may be of various shape and may be made of fabric comprising elastic fibers to make it resilient. The strap 13 may include other release fastening means such as Velcro coupling, clasp, ski boot clip etc. The belt attachment section 1 and the clasp section 2 may be integrated into one piece for example made by injection molding from plastics, such as a high-pressure polyethylene.

[0016] According to another embodiment of the invention shown in Fig. 5 and Fig. 6 the lower part of the wall 21 of the clasp section 2 is provided with an opening 24 for a baton shaft. The opening extends partially into the second bottom portion 22. In this configuration, the first bottom portion 12 need not extend substantially beyond the periphery of the first wall 11 of the belt attachment section 1 and the second bottom portion 22 beyond the second wall 21 of the clasp section and the gap 5 may be thus eliminated to a minimum.

[0017] Before putting the baton holder into operation the cavity of the loop 13 should be accommodated to the user's belt width, if necessary or appropriate, by cutting off one or more of the ribs 14. By the strap unfastened the baton handle 48 is then pushed into the holder by a little pressing on the top of the handle to overcome the urging forces of the flexible joint 102 till the end of the handle abuts the common bottom portions 12, 22 and the first wall 11 slightly spreads apart from the second wall 21. In an emergency, the user may stow the baton in the holder in its extended configuration either by pushing the baton shaft through the gap 5 or through the opening 24 shown in Fig. 5. and Fig. 6, if available. The baton

is thus fixed in the holder by the spring effect of the joint 102. By pulling the strap and pressing the fastener 31 the semi-circular wall 21 of the clasp section is urged towards the baton handle 4 that is then still more safely fixed between the U-shaped first wall 11 and the semi-circular second wall 21.

Industrial applicability

[0018] The baton holder according to the invention represents an indispensable accessory of a baton as a conventional equipment of the law enforcement personnel using standard as well as non-standard sized batons, more specifically telescopic expandable batons.

Claims

1. A baton holder consisting of belt attachment means and clasp means for fixing the baton in the holder including a fastening strap (3) **characterized in that** it comprises a belt attachment section (1) having a trough-shaped first wall (11) with longitudinal edges and a first bottom portion (12) at its lower end and bearing a loop (13) for receiving a belt on its rear side and a clasp section (2) comprising a second wall (21) including cylindrical surface and longitudinal edges and a second bottom portion (22) at its lower end whereby the first and the second bottom portions (12, 22) are connected by a flexible joint (102).
2. The baton holder of claim 1 **characterized in that** the first bottom portion (12) extends beyond the periphery of the edges of the first wall (11) and the second bottom (22) extends beyond the periphery of the edges of the second wall (21) to form the joint (102).
3. The baton holder of claim 1 or 2 **characterized in that** the first wall (11) is of a U-shape and the second wall (21) of a semi-circular shape.
4. The baton holder according to any of claims 1 to 3 **characterized in that** the clasp means include a strap (3) going round the belt attachment section (1) and provided with release fastening means (31) in the area of the second wall (21).
5. The baton holder according to any of claim 1 to 4 wherein the upper part of the second wall (22) includes lugs (23) and the upper part of the rear side of the first wall (11) includes a recess (15) for supporting the strap (3).
6. The baton holder according to any of claim 1 to 5 **characterized in that** the lower part of the second wall (21) has an opening (24) for receiving an ex-

panded shaft of the baton.

7. The baton holder of claim 6 **characterized in that** the opening (24) extends partially into the second bottom portion (22).
8. The baton holder according to any of claims 1 to 7 **characterized in that** transversal ribs (14) are formed between the loop (13) and the rear side of the first wall (11).
9. The baton holder according to any of claims 1-3 and 5-8 **characterized in that** the belt attachment section (1) and the clasp section (2) are formed as a single piece of plastic.

Patentansprüche

1. Schlagstockhalter bestehend aus Mitteln für Befestigung an einem Gürtel und aus ein Schnallenband (3) aufweisenden Klemmungsmitteln für Umklammerung eines Schlagstocks im Halter, **gekennzeichnet** sich durch einen Gürtel-Befestigungsteil (1) mit einer längliche Kanten aufweisenden trogförmigen ersten Wand (11), welche auf ihrer hinteren Seite eine Öse (13) für Aufnahme eines Gürtels und auf ihrem unteren Ende einen ersten Bodenteil (12) trägt und aus einem Klemmungsteil (2) mit einer eine zylinderförmige Oberfläche und längliche Kanten aufweisenden zweiten Wand (21), welche auf ihrem unteren Ende einen zweiten Bodenteil (22) aufweist, wobei der erste Bodenteil und der zweite Bodenteil (12, 22) mit einem flexiblen Gelenksstück (102) verbunden sind.
2. Schlagstockhalter nach Anspruch 1, **dadurch gekennzeichnet, dass** zum Ausbilden des Gelenksstücks (102) der erste Bodenteil (12) über den Umfang der Kanten der ersten Wand (11) und der zweite Bodenteil (22) über den Umfang der Kanten der zweiten Wand (21) hinausragt.
3. Schlagstockhalter nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die erste Wand (11) U-förmig und die zweite Wand (21) halbkreisförmig ausgebildet ist.
4. Schlagstockhalter nach einem der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** die Klemmungsmittel ein den Gürtel-Befestigungsteil (11) umfassendes und im Bereich der zweiten Wand (21) mit Verschlussmitteln (31) versehenes Band (3) enthalten.
5. Schlagstockhalter nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** der obere Teil der zweiten Wand (22) mit zwei Augen (23) und der

obere Teil der Hinterseite der ersten Wand (11) mit einer Ausnehmung (15) für das Abstützen des Bandes (3) versehen ist.

6. Schlagstockhalter nach einem der Ansprüche 1 bis 5, **dadurch gekennzeichnet, dass** der untere Teil der zweiten Wand (21) eine Öffnung (24) für Aufnahme des ausgezogenen Schafts des Schlagstocks aufweist. 5
7. Schlagstockhalter nach Anspruch 6, **dadurch gekennzeichnet, dass** die Öffnung (24) teilweise in den zweiten Bodenteil (22) ausläuft. 10
8. Schlagstockhalter nach einem der Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** zwischen der Öse (13) und der Hinterseite der ersten Wand (11) quer angeordnete Rippen vorgesehen sind. 15
9. Schlagstockhalter nach einem der Ansprüche 1 bis 3 und 5 bis 8, **dadurch gekennzeichnet, dass** der Gürtel-Befestigungsteil (1) und der Klemmungsteil (2) aus einem einzigen Stück der Plastmasse geformt sind. 20

Revendications

1. Un porte-matraque se composant de moyens pour l'accrochage à une ceinture et de moyens pour le serrage une matraque dans le porte-matraque avec une manchette de fixation (3), **caractérisé en ce qu'il** comprend une partie de suspension (1), ayant la forme d'une goulotte et se composant d'une première paroi (11) avec des arêtes longitudinales et un premier fond (12) à son extrémité inférieure, et ci-après une partie de serrage (2) comprenant une deuxième paroi (21) avec une surface cylindrique, des arêtes longitudinales et un deuxième fond (22) à son extrémité inférieure, les deux fonds (12, 22) étant liés l'un à l'autre par un joint flexible (102). 30
2. Un porte-matraque selon la revendication 1, **caractérisé en ce que** le premier fond (12) déborde le contour des arêtes de la première paroi (11) de la partie de suspension (1) et le deuxième fond (22) déborde le contour des arêtes de la deuxième paroi (21) afin de créer le joint (102). 35
3. Un porte-matraque selon la revendication 1 ou 2, **caractérisé en ce que** la première paroi (11) a la forme de la lettre U et la deuxième paroi (21) est d'une forme demi-circulaire. 40
4. Un porte-matraque selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** les moyens de serrage comprennent la manchette (3) entourant la partie de suspension (1) et munie de 45

moyens d'agrafage (31) à l'endroit de la deuxième paroi (21).

5. Un porte-matraque selon l'une quelconque des revendications 1 à 4, **caractérisé en ce que** des mailles (23) sont créées dans la partie supérieure de la deuxième paroi (21), et **en ce que** la partie arrière de la première paroi (11) possède des évadages (15) pour la manchette (3). 50
6. Un porte-matraque selon l'une quelconque des revendications 1 à 5, **caractérisé en ce qu'un** orifice (24) est créé dans la partie inférieure de la deuxième paroi (21) pour l'introduction d'une tige retirée de la matraque. 55
7. Un porte-matraque selon la revendication 6, **caractérisé en ce que** l'orifice (24) s'étend de manière partielle à la surface du deuxième fond (22).
8. Un porte-matraque selon l'une quelconque des revendications 1 à 7, **caractérisé en ce que** des nervures transversales (14) sont créées entre une filière (13) et la partie arrière de la première paroi (11).
9. Un porte-matraque selon l'une quelconque des revendications 1 à 3 et 5 à 8, **caractérisé en ce que** la parti de suspension (1) et la partie de serrage (2) sont produites en tant qu'une pièce de la matière plastique. 60

FIG. 4

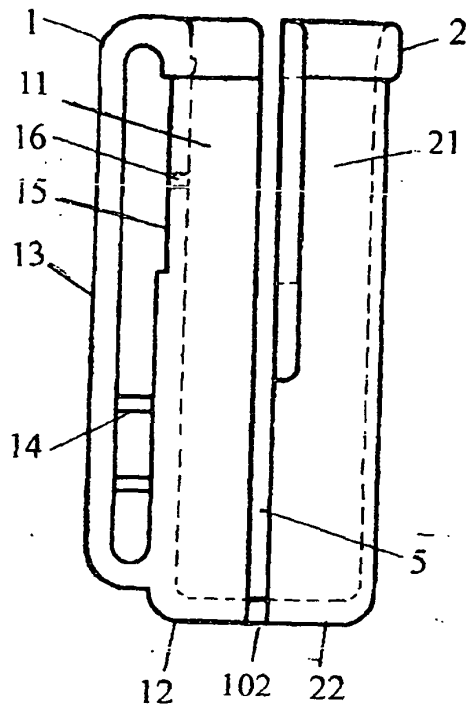


FIG. 2

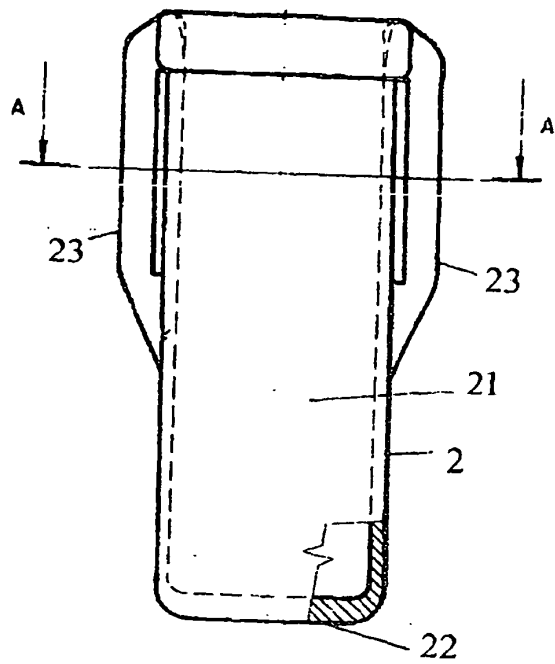


FIG. 1

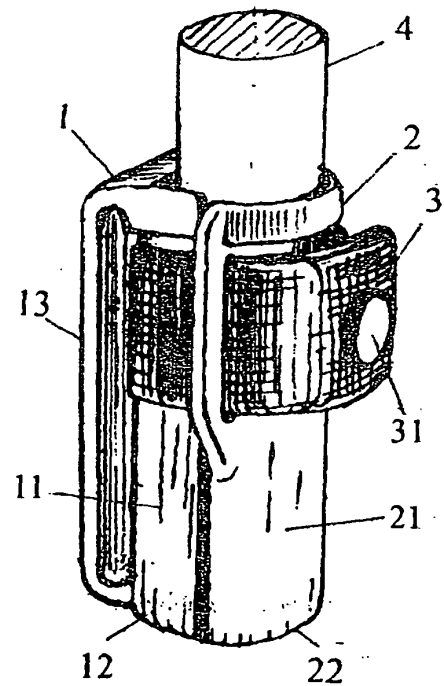


FIG. 3

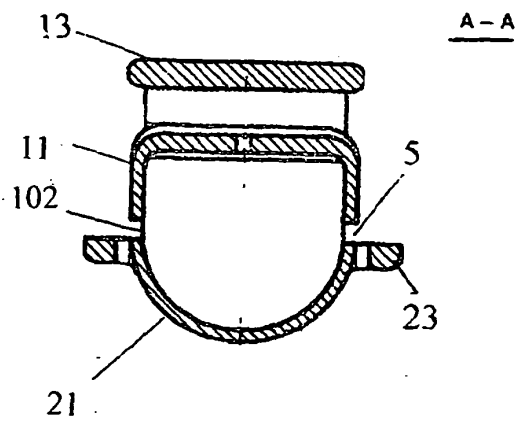


FIG. 6

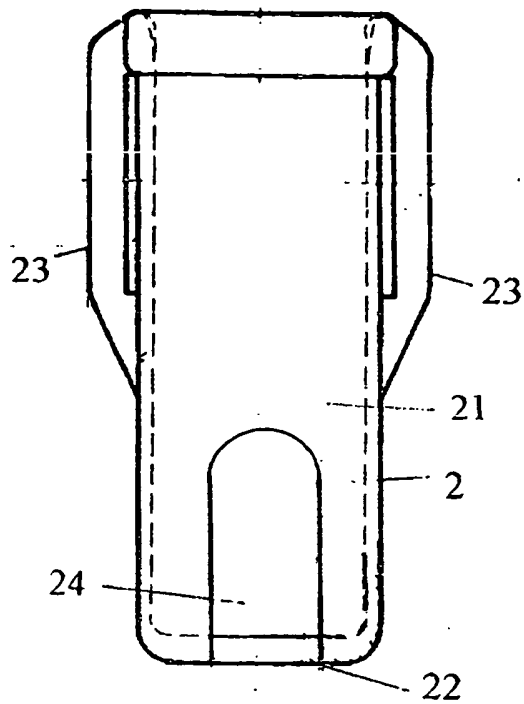
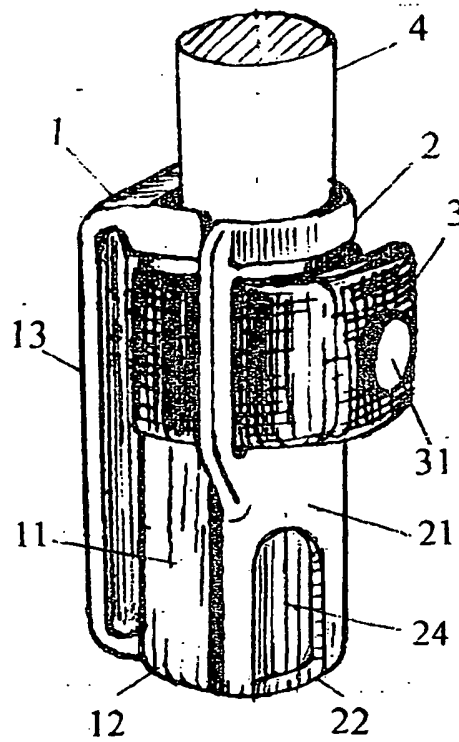


FIG. 5



REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- US 5263619 A [0004]
- US 6059157 A [0005]
- US 20030087702 A1 [0006]