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(11) **EP 1 066 931 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 158(3) EPC

(43) Date of publication:
10.01.2001 Bulletin 2001/02

(51) Int. Cl.⁷: **B26D 1/26**

(21) Application number: **99923612.8**

(86) International application number:
PCT/ES99/00175

(22) Date of filing: **10.06.1999**

(87) International publication number:
WO 99/64211 (16.12.1999 Gazette 1999/50)

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**

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(30) Priority: **10.06.1998 ES 9801217**

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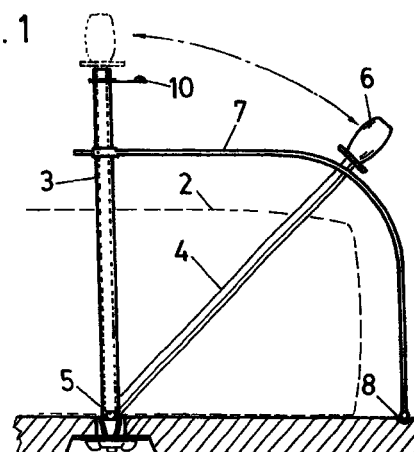
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(54) **CHEESE CUTTING DEVICE**

(57) The cheese cutting device includes a platform (1) with an axis (3) provided with an internal cutting blade (4) which is an axis (3) provided with an internal cutting blade (4) which is guided from its vertical position to the horizontal position during the cutting of the cheese (2); the platform (1) is provided with an extractable sector which comprises a punch (19) intended to perform the initial grooving of the central axis of the cheese, as well as an extractable sector (16) on which is situated the cut portion in order to make the next cut.

FIG. 1



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Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a cheese cutting device which allows to cut cheese cleanly and easily in order to obtain portions of the desired size..

[0002] The object of the invention is that the cheese cutting device incorporates a platform or base for the cheese with a central shaft as a reference for positioning the cheese, said central shaft provided with an inwardly cutting blade which swivels guided from its vertical position to a horizontal one during the cheese cutting operation.

[0003] A further object of the invention is that the cutting device is provided in its platform with a removable sector which includes a punch meant to carry out the initial perforation of the central axis of the cheese, as well as a removable sector in which the cut portion is placed for subsequent cutting.

BACKGROUND OF THE INVENTION

[0004] Containers are known which consist of a circular wooden board on which the cheese is placed and are provided with a convex glass cover with vertical sides which protects and conserves the cheese kept inside it.

[0005] This wooden board is used not only as a surface on which the cheese rests but also as a support surface for cutting the cheese, generally with a knife.

[0006] A cut performed with a knife is not always as perfectly vertical as desired, as this depends on the skill of the person performing the cut.

[0007] Likewise, in certain cases a substantial force must be applied on the knife to overcome the hardness of the cheese, which makes cutting the cheese somewhat uncomfortable.

[0008] The aforementioned problems make reasonable the development of a cutting device such as that disclosed by the invention hereunder described.

DESCRIPTION OF THE INVENTION

[0009] The cheese cutting device disclosed in this invention satisfies the above purposes to full satisfaction, for which it is provided with a platform or base in which rests the cheese, platform which most importantly comprises a central shaft with an inner vertical blade jointed on its bottom end which in its rotation defines the cut of the cheese placed on the board.

[0010] Based on this basic design of the cutting device the blade is made to swivel guided along its path by an arch which extends from the central shaft to the platform, which platform is provided with a circular groove in which the lower end of the arch is set in accordance with the cheese section to be cut.

[0011] Before the cheese is placed on the platform

a perforation must be made in its central axis of rotation to simplify insertion of the cheese on the central shaft which emerges from the platform.

[0012] In order to carry out said perforation a punch is required which initially is housed inside a sector of the platform.

[0013] The punch is therefore removed from the platform in order to perform said vertical perforation of the cheese.

[0014] The punch consists of the elongated body of the punch itself and ends at the bottom in a quasi rhomboid point and in its top is provided with a handle and a protective cap placed immediately below said handle. Likewise, the punch is provided with a support plate which may move with respect to the body of the punch, plate which acts as a resting surface for the punch on the cheese in order to simplify proper placing of the punch during its downwards motion and subsequent perforation.

[0015] Likewise, on the support plate is provided a guide bushing on which fits the punch protective cap during the downwards motion of the punch, thus preventing undesirable displacement of the punch body from the vertical.

[0016] The aforementioned platform sector which houses the punch initially can be removed from the rest of the platform and in this situation can provide a support base for the cheese during perforation of its central axis, while said platform incorporates an opening to allow the point of the punch to pass when perforating the cheese.

[0017] The platform also includes a further removable sector on which the already cut portion of cheese is placed for subsequent handling.

[0018] The central shaft of the platform is inserted on its lower conical shaped end in a cap located in the centre of the platform, with a threaded lug projecting from the lower end of the central shaft which passes through a lower flat base, also provided with a lower wing nut which fits on said lug in order to set the vertical position of the central shaft.

[0019] As described, the central shaft is provided with a folding blade which in its cutting motion swivels about a lower pin which crosses the central shaft.

[0020] The central shaft has a cylindrical shape with an open rectangular recess in which the blade is housed, and is further provided with a quasi-circular safety ring which locks the blade in its resting position, so that when the opening of said ring matches the rectangular recess of the central shaft it is possible to swivel the blade along its cutting path as guided by the arch described above.

[0021] The blade is provided at its upper end with a handle and a finger guard which simplify handling of the blade during operation.

DESCRIPTION OF THE DRAWINGS

[0022] Further characteristics of the present invention will become apparent in view of the accompanying drawings where, for purposes of illustration only and in no way meant to define the limits of the invention, the following is shown:

Figure 1 shows a side view of the cheese cutting device with the cheese placed on the central shaft along the vertical blade position and ready for cutting.

Figure 2 shows a plan view of the central shaft of the device with the safety ring in its open position allowing free passage of the blade and the guide arch of the blade.

Figure 3 shows a plan view of the platform of the cheese cutting device, with a removable sector of the platform itself and a removable sector which houses the punch used to perforate the central axis of the cheese.

Figure 4 shows a side view of the punch with its characteristic constituent elements.

Figure 5 shows a view of the removable sector which houses the punch with the punch inside it.

Figure 6 shows an enlargement of the coupling means of the central shaft on the platform or base.

PREFERRED EMBODIMENT OF THE INVENTION

[0023] In view of the figures an example of an embodiment of the cheese cutting device is described, relying on a base platform (1) on which rests cheese (2), the main features of which are a central shaft (3) on which cheese (2) is inserted, once it is perforated along its central line, and a vertical blade (4), jointed to a lower lug (5) which passes through the base of the central shaft, and which is provided at its top with a handle (6) to simplify handling and controlled turning of blade (4) inside an arch (7) which extends from central shaft (3) to the position of a circular groove (8) made in platform (1).

[0024] Central shaft (3) is circular in shape with a rectangular recess (9) along its entire vertical length, in which is housed vertical blade (4) and is also provided with a safety ring (10) in its upper end which surrounds central shaft (3) preventing blade (4) from falling, and which is provided with an opening (11) which when placed opposite rectangular recess (9) allows blade (4) to move, in order to cut cheese (2).

[0025] Central shaft (3) rests on a lower socket (12) inserted at the middle of platform (1) and is further provided with a lower threaded lug (13) which extends beyond socket (12) and a small plate (14) which rests

against the lower face of platform (1), with a wing nut (15) inserted on threaded lug (13) to ensure the vertical position of central shaft (3).

[0026] Platform (1) is provided with a removable sector (16) for subsequent treatment of the cut portion of cheese, and with a removable sector (17) provided with an inner recess (18) meant to house a punch (19) used to perforate cheese (2) in its centre.

[0027] Punch (19) is provided with a handle (20) and a protective cap (21) immediately beneath, from which extends an elongated body (22) of the punch, ending at the bottom in a quasi-rhomboid shaped point (23). Furthermore, the punch is provided with a support plate (24) which may move with respect to the body of the punch and is meant to rest on the cheese while cutting cheese (2), as well as incorporating on said support plate (24) a guide bushing (25) on which fits protective cap (21) of punch (19) during downwards motion of punch body (22).

[0028] This description is not extended further in the understanding that any expert in the field would be capable of comprehending the scope of the invention and the advantages derived thereof.

[0029] The materials, shape size and arrangement of the elements are subject to variation provided the essence of the invention remains unaltered.

[0030] The terms employed in this memory shall be understood in a non-limiting and wide sense.

Claims

1. Cheese cutting device incorporating a platform (1) on which rests cheese (2), essentially characterised in being provided with a central shaft (3) on which cheese (2) is inserted, once it is perforated along its central line, and a vertical blade (4), jointed to a lower lug (5) which passes through the base of the central shaft, and which is provided at its top with a handle (6) to simplify handling and controlled turning of blade (4) inside an arch (7) which extends from central shaft (3) to the position of a circular groove (8) made in platform (1).
2. Cheese cutting device as in claim 1 characterised in that central shaft (3) is circular in shape, having a rectangular recess (9) along its entire vertical length, in which is housed vertical blade (4) and is provided with a safety ring (10) in its upper end which surrounds central shaft (3) preventing blade (4) from falling and is provided with an opening (11) which, when placed opposite rectangular recess (9), allows blade (4) to move in order to cut cheese (2).
3. Cheese cutting device as in previous claims characterised in that central shaft (3) rests on a lower socket (12) inserted at the middle of platform (1) and is further provided with a lower threaded lug

(13) which extends beyond socket (12) and a small plate (14) which rests against the lower face of platform (1), with a wing nut (15) inserted on threaded lug (13) to ensure the vertical position of central shaft (3).

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4. Cheese cutting device as in claim 1 characterised in that platform (1) is provided with a removable sector (16) for subsequent treatment of the cut portion of cheese, and with a removable sector (17) provided with an inner recess (18) meant to house a punch (19) used to perforate cheese (2) in its centre.

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5. Cheese cutting device as in claim 4 characterised in that punch (19) is provided with a handle (20) and a protective cap (21) immediately beneath it, from which extends an elongated body (22) of the punch, ending at the bottom in a quasi-rhomboid shaped point (23). Furthermore, the punch is provided with a support plate (24) which may move with respect to the body of the punch and is meant to rest on the cheese while cutting cheese (2), as well as incorporating on said support plate (24) a guide bushing (25) on which fits protective cap (21) of punch (19) during downwards motion of punch body (22).

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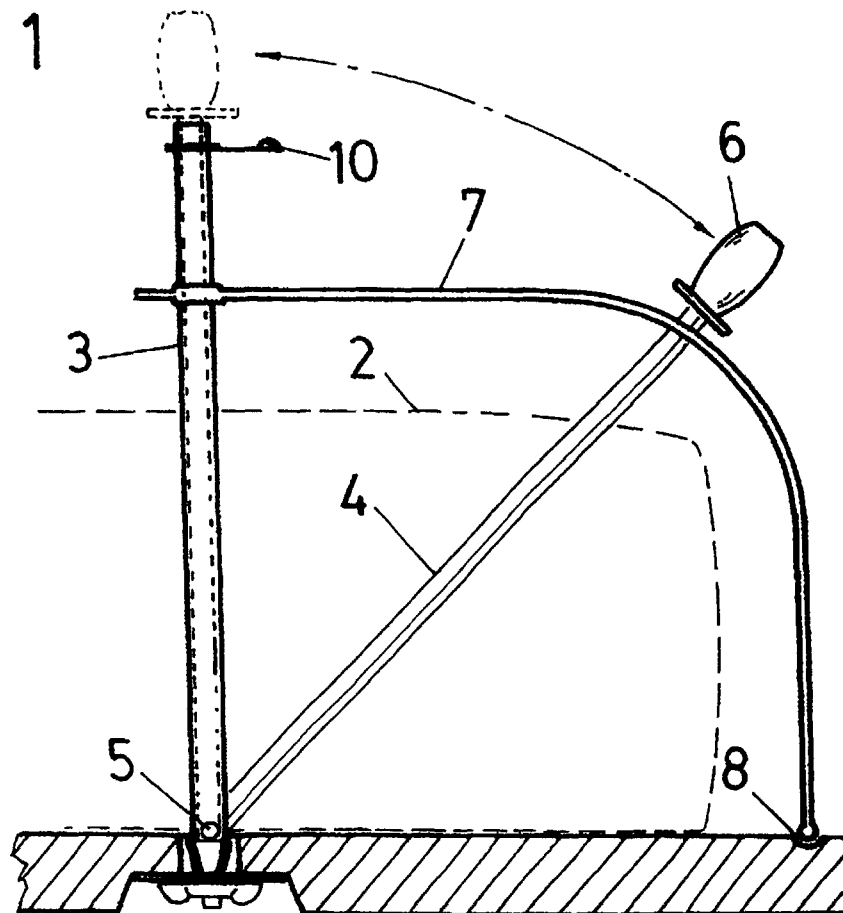
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FIG. 1



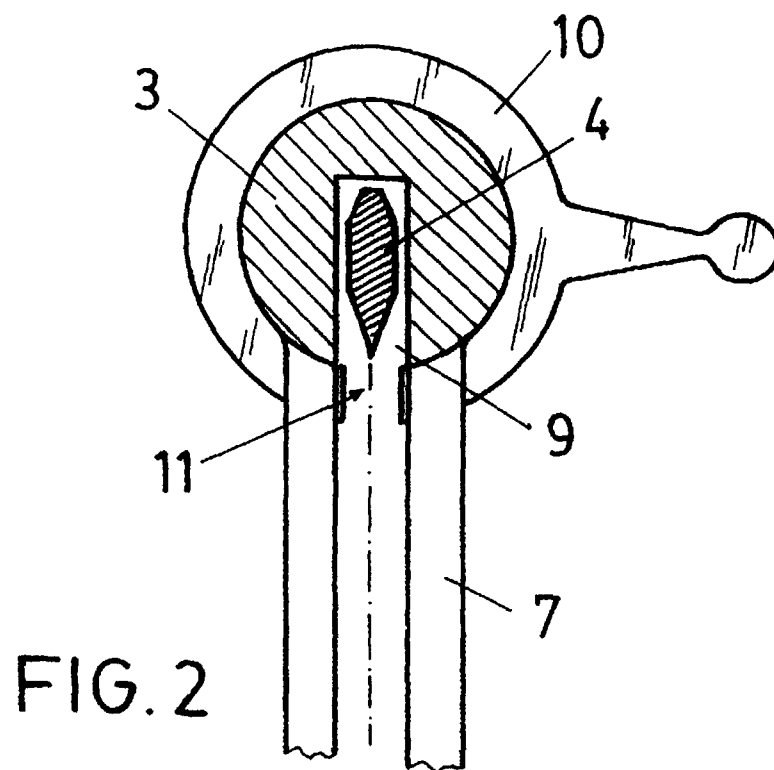
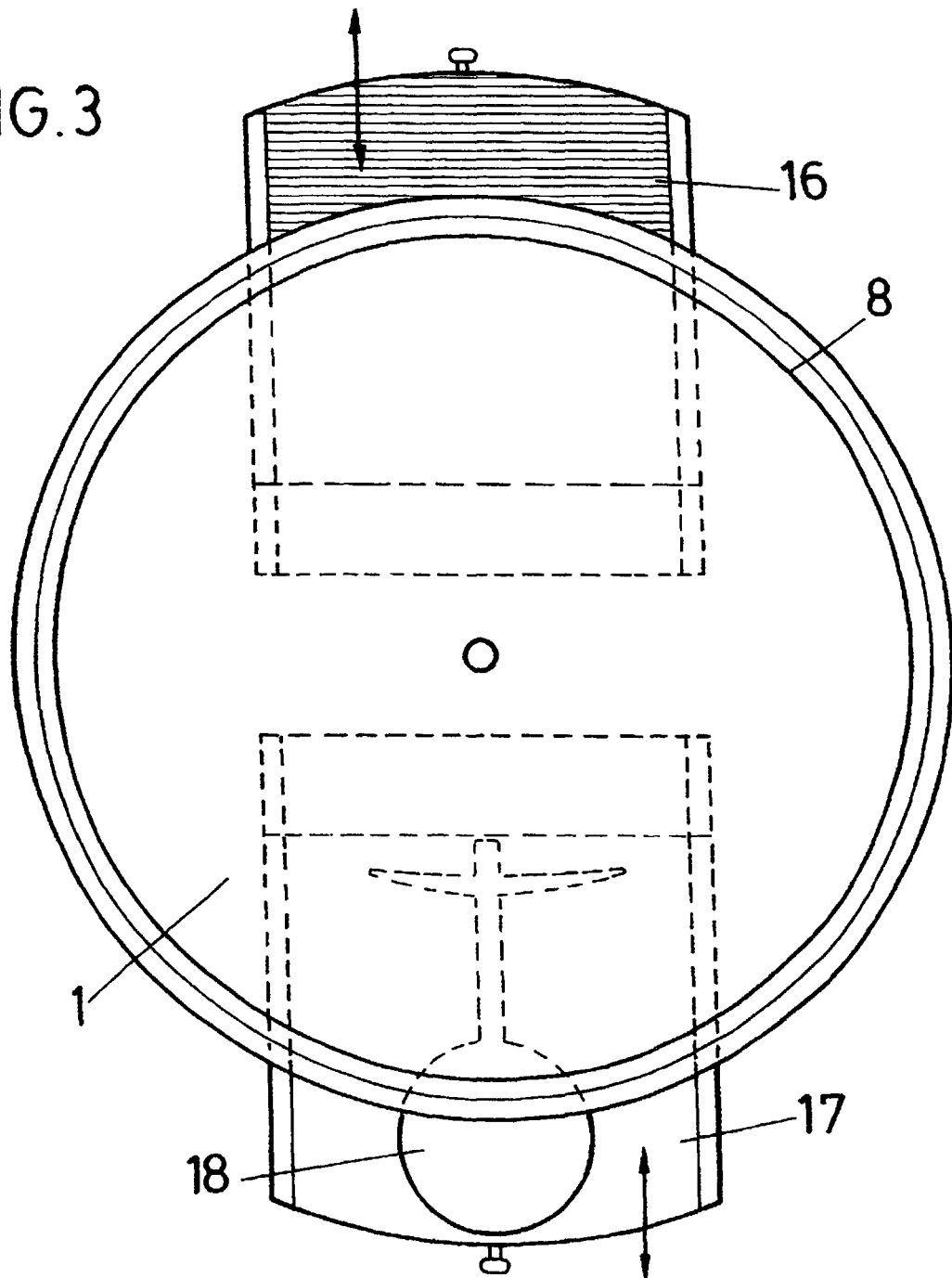


FIG.3



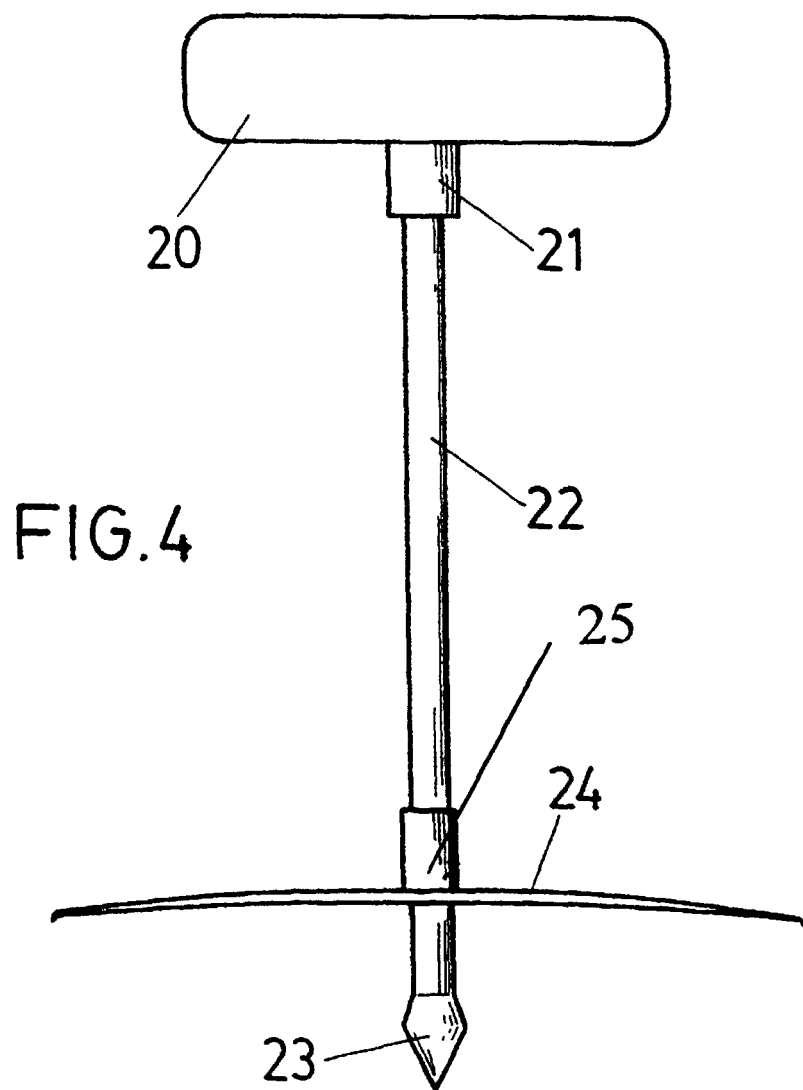


FIG. 5

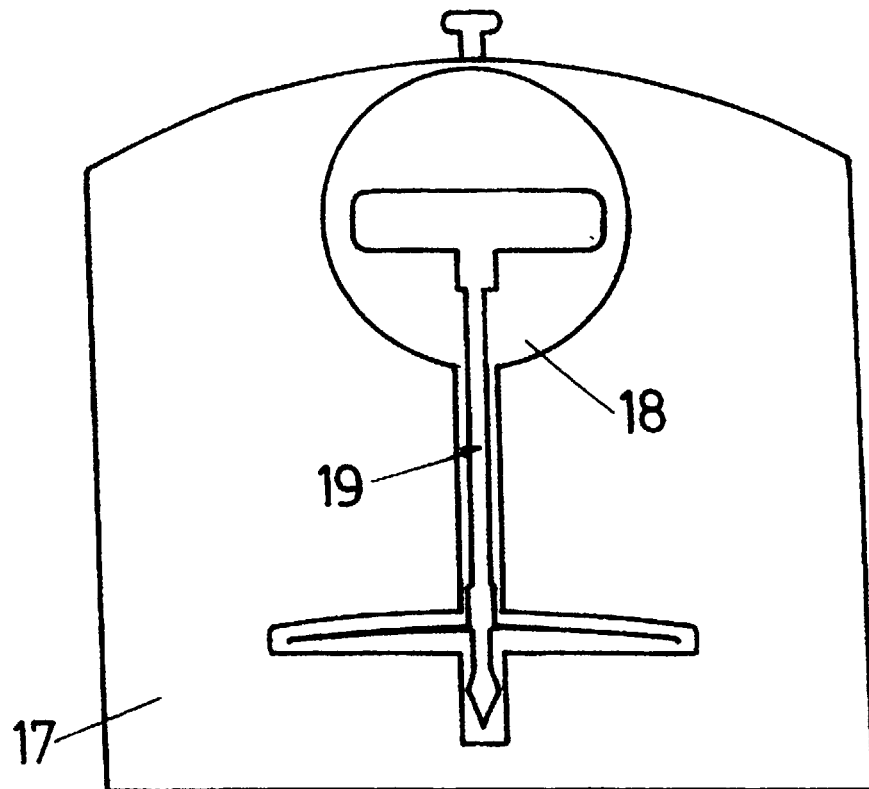
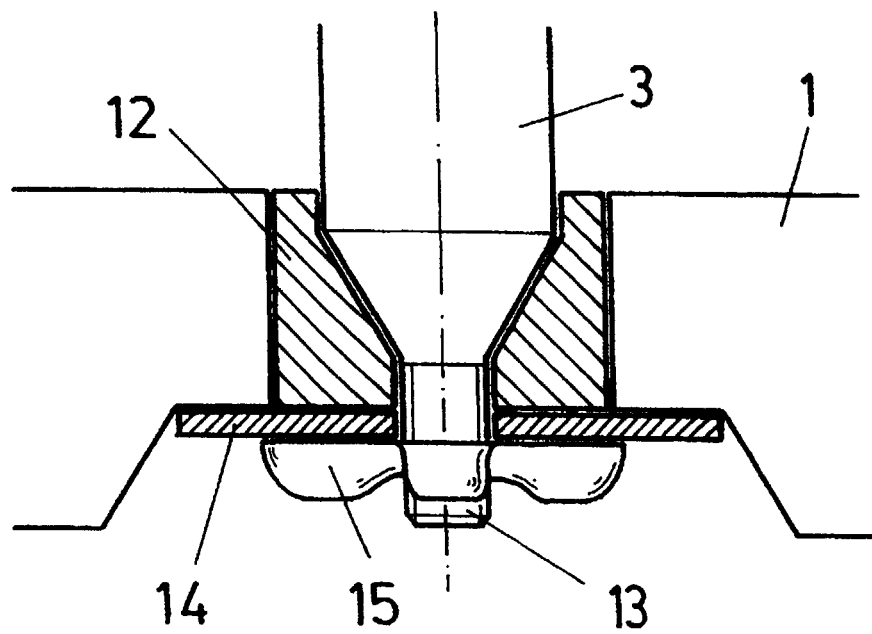


FIG. 6



INTERNATIONAL SEARCH REPORT

International applicati
PCT/ES 99/00175

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 :B26D1/26 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 6 :B26D Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPODOC, WPI, CIBEPAT		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ES 1016136 U (GALLARDO, J.) 01 November 1991 (01.11.91) The whole document	1-5
A	EP 0081466 A1 (CREVOISIER, N.) 15 June 1983 (15.06.83) The whole document	1-5
A	EP 0739692 A1 (ALPENLAND MASCHINENBAU HAUIN & CO. KG) 30 October 1996 (30.10.96), the whole document	1-5
A	WO 89/06183 A1 (NISSEN, R.) 13 July 1989 (13.07.89), the whole document	1-5
☐ Further documents are listed in the continuation of box C. ☐ Patent family members are listed in annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 29 August 1999 (29.08.99)		Date of mailing of the international search report 06 September 1999 (06.09.99)
Name and mailing address of the ISA/ S.P.T.O		Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT
 Information on patent family members

 International Application No
 PCT/ES 99/00175

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0081466 A	15.06.1983	AT 0017672 T CH 0635995 A	15.02.1986 13.05.1983
EP 0739692 A	30.10.1996	DE 19515203 A	31.10.1996
WO 8906183 A	13.07.1989	DK 0008688 A	09.07.1999

Form PCT/ISA/210 (patent family annex) (July 1992)