(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 095 738 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
02.05.2001 Bulletin 2001/18

(51) Int. Cl.[7]: **B25B 5/10**

(21) Application number: **00203445.2**

(22) Date of filing: **05.10.2000**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **26.10.1999 DK 37199**

(71) Applicant: **Bak, Niels Ejler**
7990 Oster-Assels (DK)

(72) Inventor: **Bak, Niels Ejler**
7990 Oster-Assels (DK)

(74) Representative: **Elmeros, Claus**
Patentgruppen ApS,
Arosgaarden,
Aaboulevarden 23, 5.
8000 Aarhus C (DK)

(54) A device for clamping an elongated member between two external members and a set of such devices

(57) When tiling a wall section of a kitchen, a bathroom or similar wet condition rooms, it is desirable for the rows of tiles to be horizontal. The invention relates to a device (1) for clamping an elongated member (9), such as a board or the like between two external members (10) by placing said device (1) at the end of the elongated member (9), said device (1) comprising a threaded rod (4) with a handle (2) at a first end and a contact member (3) at a second end, said rod (4) being adjustably fastened onto a contact plate (5) provided with an end flange (5a) for receipt of the end of the elongated member (9). Hereby, a hitherto unknown device is provided for temporary positioning of a reference board between two fixed members, e.g. for starting tiling of a wall in a bathroom or the like, or for other building purposes where an aligned reference or a supporting bar is advantageous in order to make sure the tiles, stucco or the like are aligned.

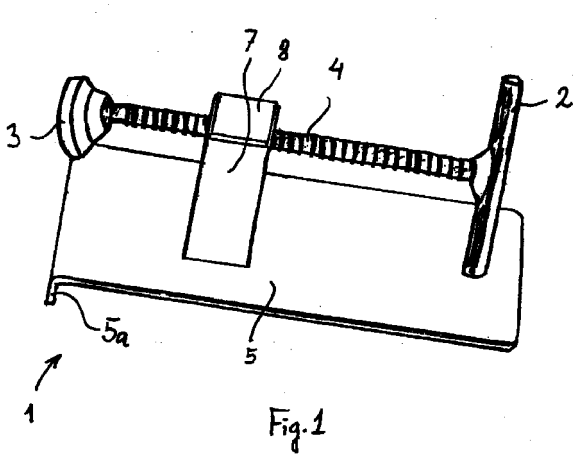


Fig.1

EP 1 095 738 A2

Description

[0001] The present invention relates to a device for clamping an elongated member, such as a board between two external members.

[0002] When tiling a wall section of a kitchen, a bathroom or similar wet condition rooms, it is desirable for the rows of tiles to be horizontal. In order to ensure this, an elongated wooden reference board is set up to provide a horizontal reference line when setting up the first row of tiles. The board is placed at a levelled position and secured to the wall by nailing or clamping it onto the wall by using wedges between the two associated other wall members on each side of the wall.

[0003] In particular, nailing the board to the wall is not attractive in wet room conditions, since this may damage the wall and water vapour may occur behind the tiles causing rapid deterioration of the wall.

[0004] Moreover, by both nailing and wedging it is troublesome and time-consuming to position the reference board correctly. Therefore, it is the object of the present invention to provide a better and faster way of mounting and levelling a reference board.

[0005] This object is achieved by providing a device for clamping an elongated member, such as a board or the like between two external members by placing said device at the end of the elongated member, said device comprising a threaded rod with a handle at a first end and a contact member at a second end, said rod being adjustably fastened to a contact plate provided with an end flange for receiving the end of the elongated member.

[0006] Hereby, a hitherto unknown device is provided for temporary positioning of a reference board between two fixed members, e.g. for starting tiling of a wall in a bathroom or the like, or for other building purposes where an aligned reference board or a supporting bar is advantageous in order to make sure the tiles, stucco or the like are aligned. The device for clamping may also be used for temporary retention of a window or door frame during mounting or for other purposes where an "expansion push" is needed.

[0007] By the invention, a device is achieved which is quick in use and which makes it possible to set up a reference board quickly whilst making it easy to adjust the board to a predetermined position, such as a horizontal or vertical position.

[0008] Preferably, the end flange is a bent end section of the contact plate. Hereby, a simple contact plate may be produced.

[0009] Preferably, the contact member is a contact shoe fitted to the end of the threaded rod by a pivotal joint connection so that the rod may be rotated relative to the contact shoe. Hereby, a screw device for clamping according to the invention, may be adjusted whilst in contact with an associated exterior member, since the rod may still be rotated even though the contact shoe is in contact with the side wall or the like.

[0010] Preferably, the end flange is provided with retention means, such as small spikes. Hereby, the device may be temporarily retained at the end of a board. By using small spikes, the devices may easily be removed again after use.

[0011] It is, of course, possible to use one device at the end of the board. However, in order to provide an extra possibility of adjustment, the invention also relates to a set of devices of the above-mentioned kind, comprising two devices for mounting at each end of an elongated member, such as a board so that the contact members of each device for clamping are brought into contact with a first and second external member on each side of the elongated member for retention of the board in a predetermined position between these external members.

[0012] The invention will be described in more detail below with reference to the accompanying drawings, in which

Fig. 1 is a perspective view of a device for clamping according to a first embodiment of the invention,

fig. 2 is a side view of a second embodiment of a device according to the invention, and

fig. 3 is a principle view of a set of devices according to the invention in use.

[0013] Figures 1 and 2 show two embodiments of a device 1 for clamping according to the invention. The device 1 comprises a support plate 5 provided with an abutment flange 5a for receipt of the end of a board or the like at a first end. The flange 5a is provided by bending the end section of the support plate 5. The flange 5a and the support plate form a receiving section for the end of a reference board or the like. The flange may be provided with retention means 6, such as spikes for obtaining a firm grip on the board 9 (see fig. 2).

[0014] On the support plate 5, a distance piece 7 carrying a nut member 8 is protruding in the opposite direction of the abutment flange 5a. A threaded rod 4 extends through the nut member 8 and engages the inside threading of the nut 8. The threaded rod 4 is preferably provided with a trapeze-threading. The rod 4 is provided with a handle 2 at the opposite end of the flange end and a pivotal contacting shoe 3 on the flange end of the device. The handle 2 may be provided in different shapes depending on the type of use, the size of the device, etc. The contact shoe 3 is connected to the threaded rod 4 via a universal joint, so that it may be freely rotatable and may pivot relative to the rod 4.

[0015] The contact shoe extends beyond the end flange 5a for engagement with an exterior member 10, such a wall, see fig. 3. Hereby, the board 9 placed in the receiving section of the support plate 5, i.e. abutting the support plate 5 and the end flange 5a, may be clamped between two wall members 10 and thereby retained. As shown in fig. 3, one device according to the invention

may preferably be used. However, if found appropriate two devices may also be used in order to gain an extra possibility for adjustment.

[0016] By extending the distance between the receiving surface at the end flange 5a and the contact shoe 3, a clamping effect may be obtained simply by expanding the device in the direction of the threaded rod 4. The rod 4 may preferably be provided with a self-locking thread in order to prevent the treaded connection (and thereby the clamping effect of the device) from slipping during use.

[0017] By the present invention, the term board could be any kind elongated member. For the purpose of tiling or the like, where a reference board is to be used, the elongated member preferably has a straight edge in its longitudinal direction.

[0018] By the invention, it is realised that many variations of the device are possible without departing from the scope of the invention, such as defined in the claims.

Claims

1. A device (1) for clamping an elongated member (9) between two external members (10) by placing said device (1) at the end of said elongated member (9), said device (1) comprising a threaded rod (4) with a handle (2) at a first end and a contact member (3) at a second end, said rod (4) being adjustably fastened to a contact plate (5) provided with an end flange (5a) for receiving the end of the elongated member (9).

2. A device for clamping according to claim 1, wherein the end flange (5a) is a bent end section of the contact plate (5).

3. A device for clamping according to claim 1 or 2, wherein the contact member is a contact shoe (3) fitted to the end of the threaded rod (4) by a pivotal joint connection so that the rod (4) may be rotated relative to the contact shoe (3).

4. A device for clamping according to claim 1 to 3, wherein the end flange (5a) is provided with retention means, such as spikes (6).

5. A set of devices according to any of the previous claims comprising two clamping devices (1) for mounting onto each end of an elongated member (9) so that the contact members (3) of each device for clamping (1) are brought into contact with a first and second external member (10) at each side of the board (9) for retention of the board (10) in a predetermined position between these external members (10).

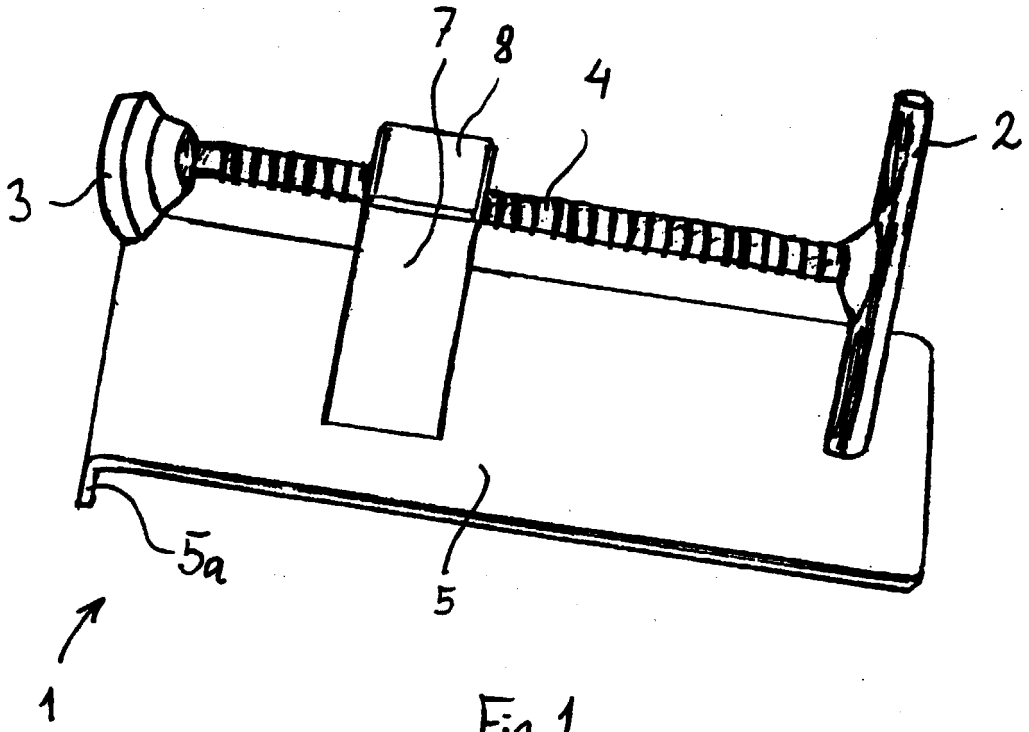


Fig. 1

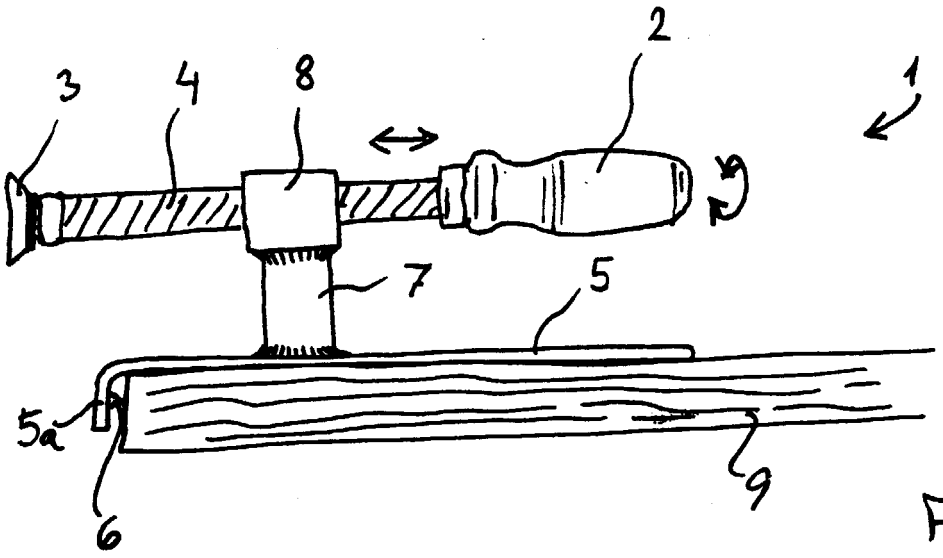


Fig. 2

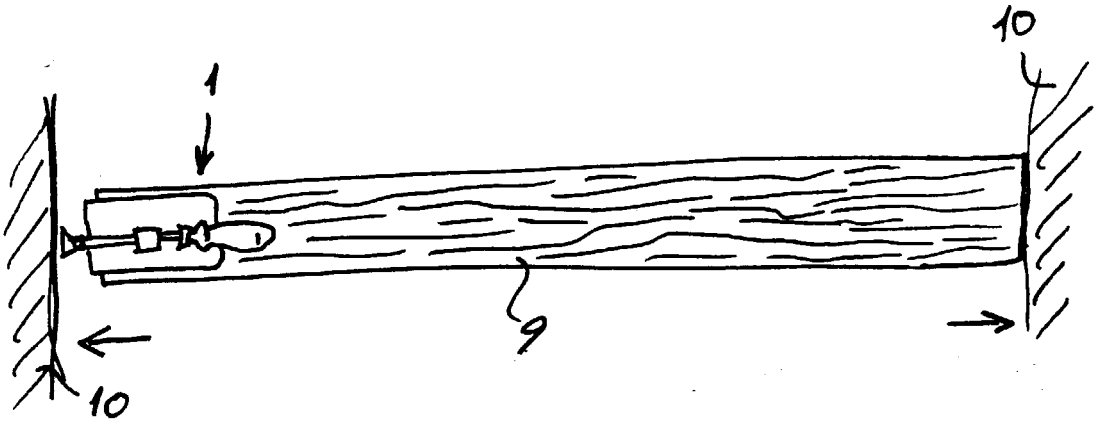


Fig. 3