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(54) **Device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture**

Vorrichtung zur Kopplung der Fussleiste eines Möbelstücks am Fuss dieses Möbelstücks

Dispositif pour coupler la plinthe d'une pièce de mobilier au pied de cette pièce de mobilier

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(56) References cited:
EP-A- 0 682 895 DE-U- 9 000 702
GB-A- 1 461 033

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Description

[0001] The present invention relates to a device for coupling the baseboard of a piece of furniture to the foot of the piece of furniture, particularly but not exclusively useful for kitchen furniture.

[0002] It is known that many kinds of furniture, such as for example units of modular kitchens, are closed at the front and in a lower region by baseboards made of extruded plastics or based on wood and aluminum, which are clad on the exposed surface and are frontally coupled to the supporting feet.

[0003] Various coupling devices are currently available to fix these baseboards.

[0004] A first device comprises a slider to be inserted in a longitudinal guide formed in the baseboard and one or more curved metal or plastic wings that protrude from the slider and are suitable to couple to the leg by surrounding it.

[0005] It is therefore necessary to first position and fix the coupling element to the baseboard at the intended positions of the feet, move the baseboard toward the legs, and apply a suitable pressure in order to deform the coupling elements and produce the coupling.

[0006] This operation is made difficult by the fact that the coupling elements are not visible to the operator and therefore a preliminary accurate operation for positioning the coupling elements exactly at the feet is necessary, and this operation increases in difficulty as the dimensions of the furniture to be closed increases.

[0007] Further, the structure of the guide on which the slider is inserted is particularly weak, and therefore while removing the baseboard from the piece of furniture, for example to clean the covered region, the structure may break irreparably.

[0008] A second known device for fixing the baseboard to the corresponding piece of furniture consists of a plurality of plates that are fixed by elastic deformation to the feet of the piece of furniture to which the baseboard is to be engaged.

[0009] Each one of said plates protrudes at right angles from each foot and has, on the protruding end, a hook-shaped tab that is suitable to grip a protrusion that is provided within a longitudinal channel formed in the baseboard.

[0010] This device also, although being commercially available for some time and being appreciated for its qualities, has drawbacks.

[0011] The plates, during the insertion of the baseboard, may in fact fail to engage the protrusion provided on the baseboard because they are arranged at an incorrect height.

[0012] Moreover, said device may not adapt in an optimum manner to any variations in the level of the floor.

[0013] Moreover, the operations for removing the baseboard from the piece of furniture for cleaning are not always easy.

[0014] European Patent No. 0 682 895 discloses a

plinth cover holder in which a first body, fixed to the stem of the foot of a piece of furniture, is connected by a T-guide element to a second element fixed to the baseboard of the piece of furniture. The second body comprises one retaining tongue/retaining projection, in the form of a resilient arm, that can be fixed to retaining means which are disposed at the periphery of a base portion which is fixed on the underside of the article of furniture.

[0015] The aim of the present invention is to provide a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture that solves the above-mentioned problems of known types of coupling device; in particular, an important object of the invention is to provide an engagement device that is easy to use and does not require accurate preliminary assembly operations.

[0016] Within this aim, an object of the present invention is to provide a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture that allows to couple the baseboard without particular attention to the position of the feet.

[0017] Another object of the present invention is to provide a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture that adapts in an optimum manner to any variations in the level of the floor.

[0018] Another object of the present invention is to provide a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture that allows easy separation of the baseboard for any cleaning operations.

[0019] Another object of the present invention is to provide a device for coupling the baseboard of a piece of furniture to the foot of the piece of furniture that can be manufactured with known systems and technologies.

[0020] This aim and these and other objects that will become better apparent hereinafter are achieved by a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture, having the features of appended claim 1.

[0021] Further characteristics and advantages of the invention will become better apparent from the following detailed description of a preferred but not exclusive embodiment thereof, illustrated by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a perspective view of the device according to the invention;

Figure 2 is a perspective view of a first detail of the device according to the invention;

Figure 3 is a perspective view of a second detail of the device according to the invention;

Figure 4 is a side view of the device according to the invention.

[0022] With reference to the figures, a device for coupling the baseboard of a piece of furniture to the foot of

said piece of furniture is generally designated by the reference numeral 10.

[0023] The device 10 comprises fixing means that are suitable to associate a baseboard 11 with a foot 12 of the piece of furniture by means of an elastic coupling that can be removed after fitting or installation.

[0024] Such fixing means comprise a first coupling body 13, which is fixed to the foot 12 to which a second coupling body 14, fixed to the baseboard 11, is detachably coupled.

[0025] The first body 13 comprises a first portion 15, which has a through hole 16 and an opening 17 that is arranged laterally to said hole and is narrower than the hole 16.

[0026] The opening allows to insert a stem 12a of the foot 12 by elastic deformation of the portion 15.

[0027] The first body 13 can slide vertically with friction on the stem 12a of the foot 12.

[0028] Advantageously, protruding circular ribs 12b can be provided on the stem 12a in order to increase the friction between the body 13 and said stem.

[0029] Two perpendicular faces 18 protrude from the portion 15, and a tab 19 with a cambered head for the detachable coupling of the second coupling body 14 is arranged centrally on each one of the faces.

[0030] The fact that two perpendicular faces 18 protrude from the portion 15 allows to fix portions (not shown in the figures) of the baseboard 11 at right angles to each other in order to allow to form the corner of the piece of furniture 11a.

[0031] The second coupling body 14 comprises a plate 20 from which a plurality of parallel ridges 21 protrude at right angles to the plate 20.

[0032] Said ridges have an enlarged upper profile 22.

[0033] The tab 19 can be inserted between the ridges 21 by elastic deformation of such ridges, and its cambered head is wider than the distance between the enlarged upper profiles 22 of two contiguous ridges 21.

[0034] In this manner, the detachable coupling between the second body 14 and the first body 13 is ensured.

[0035] A hammer-shaped protrusion 23 protrudes centrally on the opposite side with respect to the ridges 21 of the plate 20.

[0036] The protrusion 23 mates within a channel 24 that is shaped complementarily to said protrusion and is formed longitudinally in the baseboard 11.

[0037] The coupling between the second body 14 and the baseboard 11 occurs by inserting the protrusion 23 "head on" within the channel 24 and then turning the second body 14 through 90°, so as to abut with the hammer-like portions under the protrusion 23 on the corresponding complementarily shaped edges within the channel 24, which accordingly prevent the extraction of the second body 14.

[0038] The plate 20 has, on opposite sides, two eyes 25 for inserting elements for fixing to the baseboard 11 (not shown in the figures), such as for example self-

threading screws, if said baseboard is based on wooden material.

[0039] The operation of the invention is as follows.

[0040] A plurality of first bodies 13 is coupled by elastic deformation on the stems 12a of the feet of the piece of furniture 11a onto which the baseboard is to be fixed; all the bodies are arranged at the same height and so that one of the faces 18 is arranged parallel to the extension of said piece of furniture; the positioning of the first bodies 13 need not be precise, since the device is self-centering.

[0041] A number of second bodies 14 equal to the number of first bodies 13 is fixed, as explained, within the channel 24 of the baseboard, in positions that substantially correspond to the positions of the first bodies 13.

[0042] At this point, the baseboard is engaged with the feet by making the first bodies 13 match up with the second bodies 14, since the tab with cambered head 19 engages between the ridges 21.

[0043] The fact that there are a plurality of ridges 21 facilitates centering, since the tab 19 can fit between any pair of ridges 21.

[0044] After this insertion, since the first bodies can slide vertically, the baseboard is pushed toward the floor, so that the lower blade-trim (not shown in the figures) can produce a good seal on the floor.

[0045] In an alternative embodiment of the invention easily deducible for the skilled reader from the figures, the coupling between the first body and the second body is reversed.

[0046] In practice, on the faces 18 that protrude from the portion 15 for engaging the stem 12a of the foot 12, instead of the tab 19 with cambered head there are ridges 21, while the tab 19 is arranged on the part of the plate 20 where the ridges 21 were provided.

[0047] In practice it has been found that the invention thus described solves the problems highlighted in known types of coupling device for baseboards of pieces of furniture; in particular, the present invention provides an engagement element that is easy to use and does not require accurate preliminary assembly operations.

[0048] It should be noted in fact that having a plurality of possibilities of coupling seats that are mutually close and parallel allows one not to worry too much about height differences arising from the fixing of the various first bodies.

[0049] This also ensures easy adaptability to any variations in the level of the floor.

[0050] Finally, the present invention provides a device for coupling the baseboard of a piece of furniture to the foot of said piece of furniture that allows easy disengagement of the baseboard for any cleaning operations.

[0051] In practice, the materials employed, so long as they are compatible with the specific use, as well as the dimensions, may be any according to requirements and to the state of the art.

[0052] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A device (10) for coupling a baseboard (11) of a piece of furniture (11a) to a foot (12) of said piece of furniture (11a), comprising a first coupling body (13) that is fixable to said foot (12) and a second coupling body (14) fixable to said baseboard (11), **characterized in that** said first body (13) comprises at least one face (18) on which at least one tab (19) is arranged and **in that** said second coupling body (14) comprises a plate (20) from which a plurality of parallel ridges (21) protrude, said tab (19) being insertable between said ridges (21) by elastic deformation of said ridges (21) for detachably coupling said first body (13) to said second body (14).
2. The device (10) according to claim 1, **characterized in that** said first body (13) comprises a portion (15) provided with a through hole (16) and with a lateral opening (17) that is narrower than said hole (16), so as to allow insertion of a stem (12a) of said foot (12) by elastic deformation of said portion (15),
3. The device (10) according to claim 1, **characterized in that** said tab (19) has a cambered head.
4. The device (10) according to claim 1, **characterized in that** said plurality of parallel ridges (21) have an enlarged upper profile (22).
5. The device (10) according to claim 1, **characterized in that** said second coupling body (14) further comprises a contoured protrusion (23) protruding on the opposite side with respect to said ridges (21) of said plate (20) which protrusion is insertable and couplable within a complementarily shaped channel (24) formed longitudinally in said baseboard (11).
6. The device (10) according to claims 3 and 4, **characterized in that** said cambered head is wider than the distance between the enlarged upper profiles (22) of two continuous ridges (21).
7. The device (10) according to claim 1, **characterized in that** said plurality of parallel ridges (21) have a cambered upper profile.

8. The device (10) according to one or more of the preceding claims, **characterized in that** two mutually perpendicular faces (18) protrude from said portion (15) of said first body (13) in order to be able to fix perpendicular portions of said baseboard (11) on the corner of said piece of furniture (11a).
9. The device (10) according to one or more of the preceding claims, **characterized in that** said protrusion (23) is hammer-shaped.
10. The device (10) according to one or more of the preceding claims, **characterized in that** said plate (20) has, on mutually opposite sides, at least two eyes (25) for the insertion of elements for fixing to said baseboard (11), if said baseboard (11) is based on wooden material.
11. The device (10) according to one or more of the preceding claims, **characterized in that** said first body (13) is fitted on the stem (12a) of said foot (12) so as to be slidable thereon.

Patentansprüche

1. Vorrichtung (10) zur Kopplung der Fußleiste (11) eines Möbelstücks (11a) am Fuß (12) des genannten Möbelstücks (11a), umfassend einen an dem genannten Fuß (12) zu befestigenden ersten Kopplungskörper (13) und einen an der genannten Fußleiste (11) zu befestigenden zweiten Kopplungskörper (14), **dadurch gekennzeichnet, dass** der genannte erste Körper (13) mindestens eine Fläche (18) aufweist, auf der mindestens eine Aufhängung (19) angeordnet ist, und dadurch, dass der genannte zweite Kopplungskörper (14) eine Platte (20) aufweist, über die eine Vielzahl von parallelen Rippen (21) übersteht, wobei die genannte Aufhängung (19) durch elastische Verformung der genannten Rippen (21) zwischen die genannten Rippen (21) eingesetzt werden kann, um den genannten ersten Körper (13) mit dem genannten zweiten Körper (14) in trennbarer Weise zu koppeln.
2. Vorrichtung (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** der genannte erste Körper (13) einen Teil (15) aufweist, der eine durchgehende Bohrung (16) und eine seitliche Öffnung (17) aufweist, welche schmaler ist als die genannte Bohrung (16), so dass das Einschieben eines Schaftes (12a) des genannten Fußes (12) durch elastische Verformung des genannten Teils (15) ermöglicht wird.
3. Vorrichtung (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** die genannte Aufhängung ei-

nen gewölbten Kopf aufweist.

4. Vorrichtung (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** die genannte Vielzahl von parallelen Rippen (21) ein erweitertes oberes Profil (22) aufweist. 5
5. Vorrichtung (10) nach Anspruch 1, **dadurch gekennzeichnet, dass** der genannte zweite Kopp-
lungskörper (14) des weiteren einen konturierten
Überstand (23) aufweist, der auf der entgegenge-
setzten Seite relativ zu den genannten Rippen (21)
der genannten Platte (20) übersteht, wobei dieser
Überstand innerhalb eines komplementär ausge-
formten, längs in der genannten Fußleiste (11) aus-
geformten Kanals (24) einsetzbar und koppelbar
ist. 10 15
6. Vorrichtung (10) nach den Ansprüchen 3 und 4, **dadurch gekennzeichnet, dass** der genannte ge-
wölbte Kopf breiter ist als die Distanz zwischen den
erweiterten oberen Profilen (22) von zwei durchge-
henden Rippen (21). 20
7. Vorrichtung (10) nach Anspruch 1, **dadurch ge-
kennzeichnet, dass** die genannte Vielzahl von par-
allelen Rippen (21) jeweils ein gewölbtes oberes
Profil aufweist. 25
8. Vorrichtung (10) nach einem der vorstehenden An-
sprüche, **dadurch gekennzeichnet, dass** zwei zu-
einander rechtwinkelige Flächen (18) über den ge-
nannten Teil (15) des genannten ersten Körpers
(13) überstehen, um rechtwinkelige Teile der ge-
nannten Fußleiste (11) an der Ecke des genannten
Möbelstücks (11a) befestigen zu können. 30 35
9. Vorrichtung (10) nach einem der vorstehenden An-
sprüche, **dadurch gekennzeichnet, dass** der ge-
nannte Überstand (23) hammerförmig ist. 40
10. Vorrichtung (10) nach einem der vorstehenden An-
sprüche, **dadurch gekennzeichnet, dass** die ge-
nannte Platte (20) auf einander gegenüberliegen-
den Seiten mindestens zwei Augen (25) für das Ein-
setzen von Elementen zur Fixierung der genannten
Fußleiste (11) aufweist, wenn die genannte Fußlei-
ste (11) auf einem nelzartigen Material basiert. 45
11. Vorrichtung (10) nach einem der vorstehenden An-
sprüche, **dadurch gekennzeichnet, dass** der ge-
nannte erste Körper (13) auf dem Schaft (12a) des
genannten Fußes (12) in der Weise angeordnet ist,
dass er darauf zu gleiten vermag. 50

Revendications

1. Dispositif (10). pour accoupler une plinthe (11) d'un
meuble (11a) à un pied (12) dudit meuble (11a),
comprenant un premier corps d'accouplement (13)
qui peut être fixé audit pied (12) et un deuxième
corps d'accouplement (14) qui peut être fixé à ladite
plinthe (11), **caractérisé en ce que** :

ledit premier corps (13) comprend au moins
une face (18) sur laquelle est disposée au
moins une patte (19), et **en ce que** ledit deuxiè-
me corps d'accouplement (14) comprend une
plaque (20) à partir de laquelle font saillie une
pluralité de nervures parallèles (21), ladite pat-
te (19) pouvant être insérée entre lesdites ner-
vures (21) par déformation élastique desdites
nervures (21) pour accoupler de façon déta-
chable ledit premier corps (13) audit deuxième
corps (14).
2. Dispositif (10) selon la revendication 1, **caractérisé
en ce que** ledit premier corps (13) comprend une
partie (15) munie d'un trou traversant (16) et d'une
ouverture latérale (17) qui est plus étroite que ledit
trou (16), de façon à permettre l'insertion d'une tige
(12a) dudit pied (12) par déformation élastique de
ladite partie (15) .
3. Dispositif (10) selon la revendication 1, **caractérisé
en ce que** ladite patte (19) comporte une tête incur-
vée.
4. Dispositif (10) selon la revendication 1, **caractérisé
en ce que** ladite pluralité de nervures parallèles
(21) ont un profil supérieur agrandi (22).
5. Dispositif (10) selon la revendication 1, **caractérisé
en ce que** ledit deuxième corps d'accouplement
(14) comprend de plus une saillie profilée (23) fai-
sant saillie sur le côté opposé vis-à-vis desdites ner-
vures (21) de ladite plaque (20), laquelle saillie peut
être insérée à l'intérieur d'un canal de forme com-
plémentaire (24) formé longitudinalement dans la-
dite base (11) et peut être accouplée avec celui-ci.
6. Dispositif (10) selon les revendications 3 et 4, **ca-
ractérisé en ce que** ladite tête incurvée est plus
large que la distance entre les profils supérieurs
agrandis (22) de deux nervures continues (21).
7. Dispositif (10) selon la revendication 1, **caractérisé
en ce que** ladite pluralité de nervures parallèles
(21) ont un profil supérieur incurvé.
8. Dispositif (10) selon l'une ou plusieurs des revendi-
cations précédentes, **caractérisé en ce que** deux
faces mutuellement perpendiculaires (18) font

saillie à partir de ladite partie (15) dudit premier corps (13) afin de permettre de fixer des parties perpendiculaires de ladite plinthe (11) sur le coin dudit meuble (11a).

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9. Dispositif (10) selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ladite saillie (23) est en forme de marteau.

10. Dispositif (10) selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ladite plaque (20) comporte, sur des côtés mutuellement opposés, au moins deux oeillets (25) pour l'insertion d'éléments pour la fixation à ladite plinthe (11), si ladite plinthe (11) est à plinthe de matériau en bois.

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11. Dispositif (10) selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ledit premier corps (13) est disposé sur la tige (12a) dudit pied (12) de façon à pouvoir coulisser sur celle-ci.

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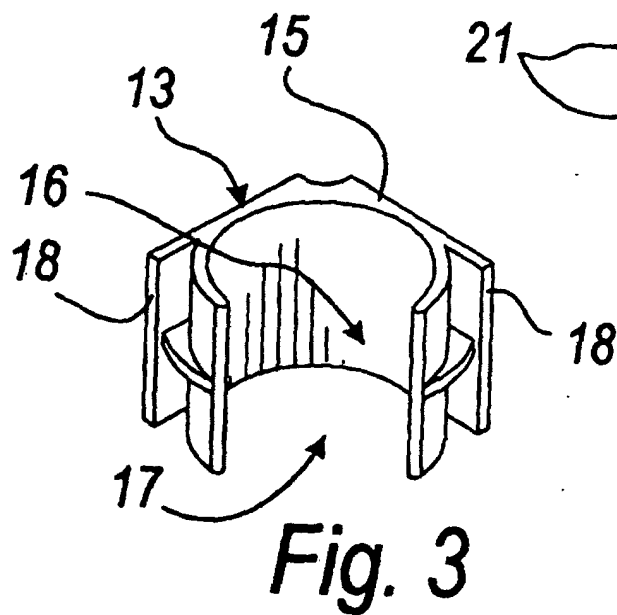
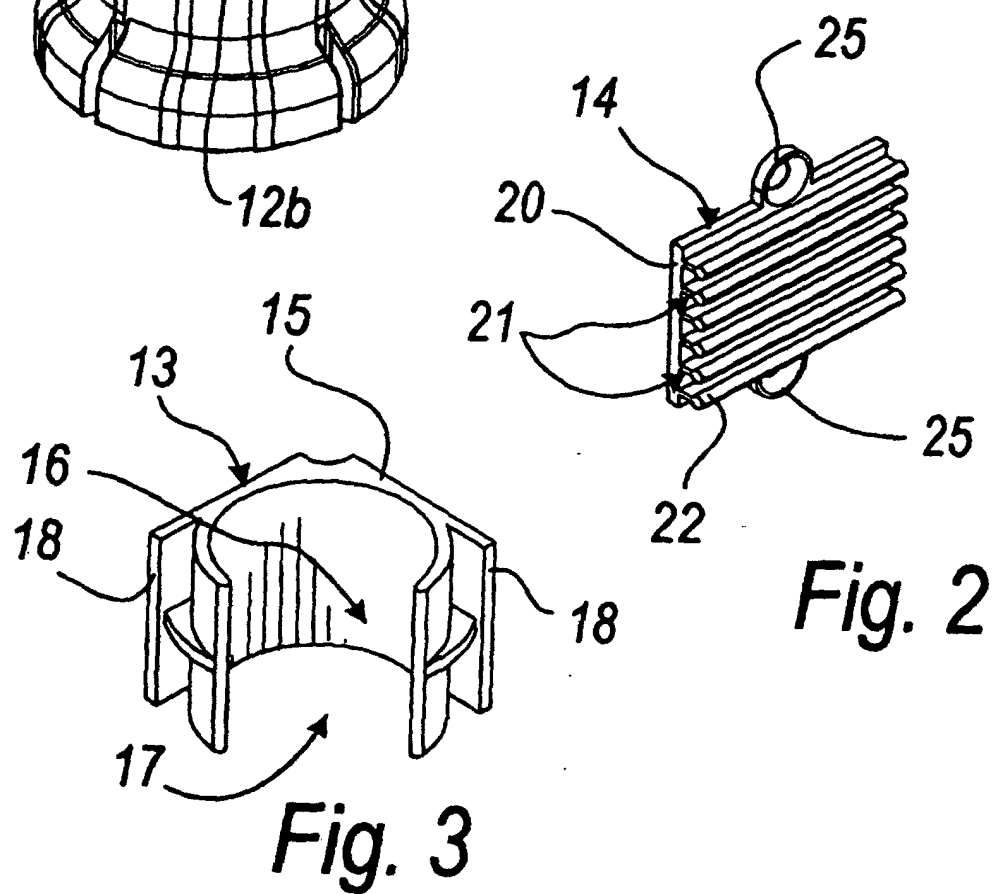
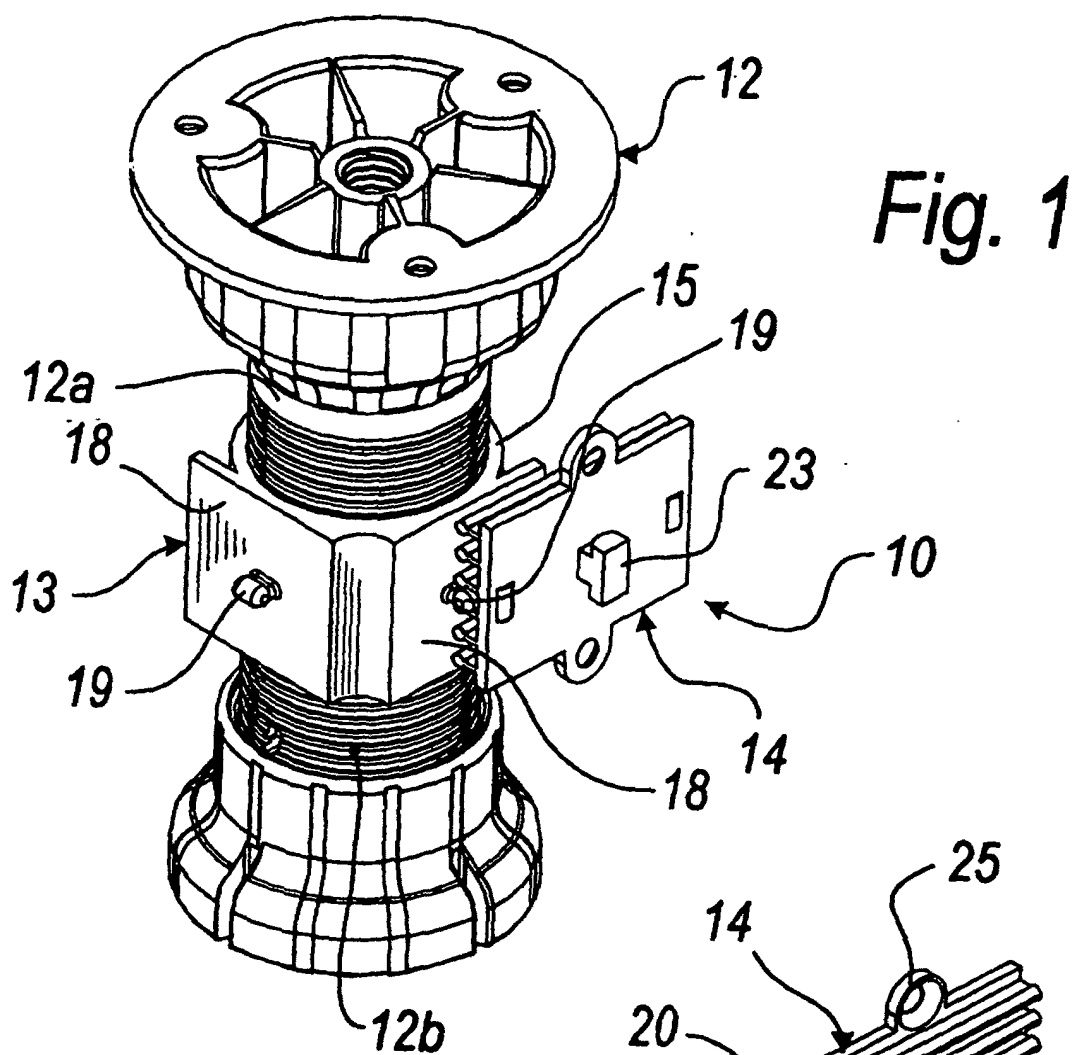
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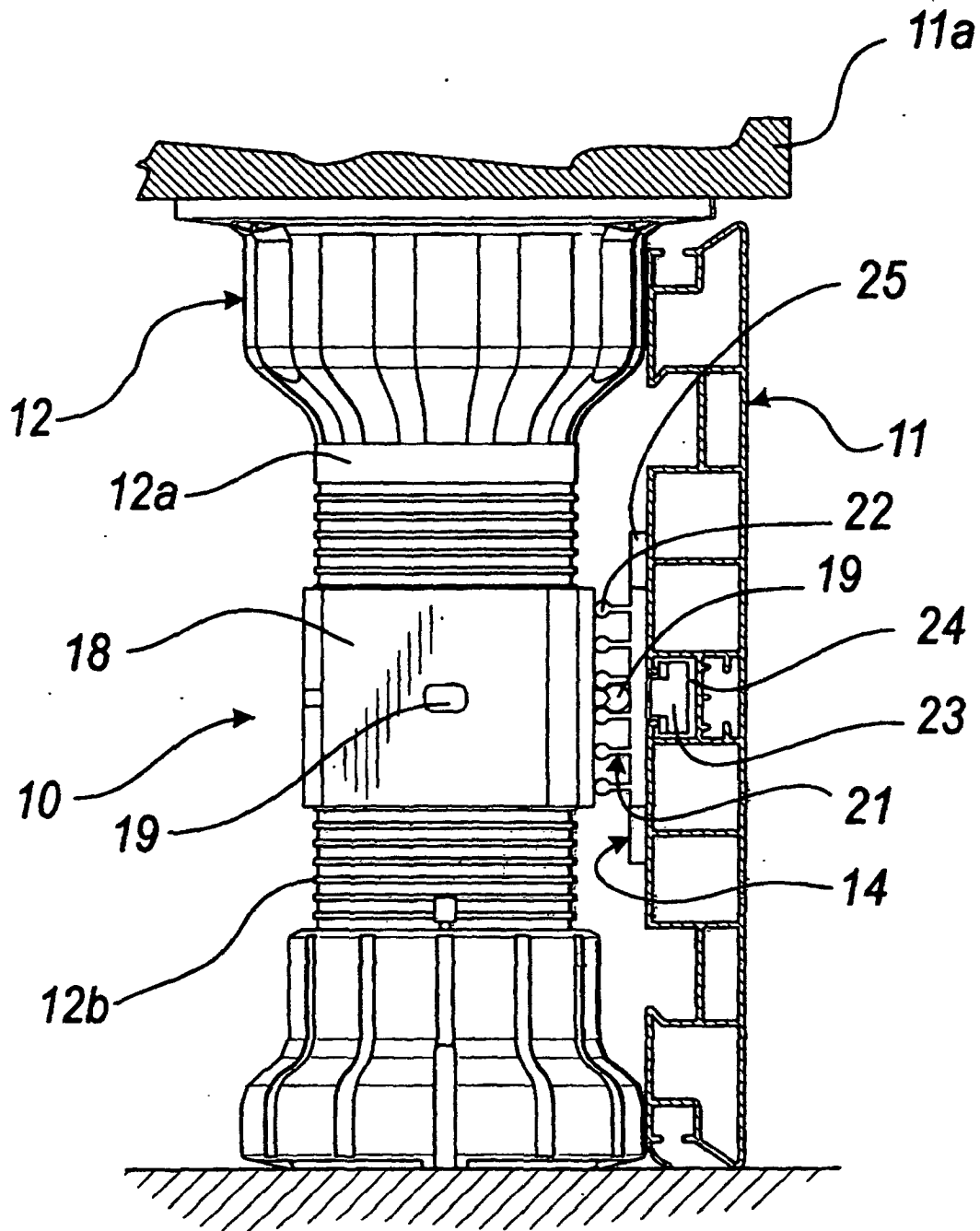


Fig. 4