

(19)



(11)

EP 2 770 877 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

06.12.2017 Bulletin 2017/49

(51) Int Cl.:

A47B 88/467 ^(2017.01) **A47B 88/477** ^(2017.01)

(21) Application number: **13774152.6**

(86) International application number:

PCT/EP2013/070893

(22) Date of filing: **08.10.2013**

(87) International publication number:

WO 2014/056878 (17.04.2014 Gazette 2014/16)

(54) **PIECE OF FURNITURE WITH AT LEAST ONE DRAWER OR THE LIKE**

MÖBEL MIT WENIGSTENS EINER SCHUBLADE ODER DERGLEICHEN

MEUBLE AYANT AU MOINS UN TIROIR OU ANALOGUE

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

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(30) Priority: **12.10.2012 IT MI20121718**

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(43) Date of publication of application:

03.09.2014 Bulletin 2014/36

(56) References cited:

EP-A1- 2 353 448

WO-A2-2010/130803

DE-A1-102007 045 536

DE-U1-202009 002 715

FR-A1- 2 339 364

US-A1- 2006 082 266

US-B1- 8 282 177

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Description

BACKGROUND OF THE INVENTION

[0001] The invention concerns a piece of furniture provided with at least one drawer or the like, in which are provided closing means and locking means for the drawer itself against undesired opening, for example for use on vehicles and means of transport in general.

STATE OF THE ART

[0002] In the furnishing sector, the manufacture is known of pieces of furniture with drawers for use in the sphere of vehicles or the like, such as for example campers, caravans, boats and ships, where the furniture itself is subjected to movements and oscillations of such a size that undesired openings of the drawers are possible, with the risk of accidents to the occupants of the vehicles, or breakages of the drawers themselves with the objects contained in them falling.

[0003] In order to obviate this problem, various proposals have been made for the attachment of locking means suitably configured for releasably locking the drawers in the closing position.

[0004] In particular, in the field of pieces of furniture with drawers having pull-out guides provided with closing devices, currently called "self-closing" devices, configured, if fitted, for bringing the drawer towards a position of complete closure gently and without impacts by the use of deceleration devices, the application is known of separate locking devices having one or more hooking elements to anchor a part of the drawer, for example the front, to the body of the piece of furniture or to the fixed part of the pull-out guides; in this solution, the hooking elements are in general disengageable by means of the manual operation of a suitable control, for example a button or a knob, provided on the front of the drawer.

[0005] These separate locking devices, however, entail the need to carry out additional machining for fitting them to the piece of furniture and, because of the presence of the aforementioned disengagement controls, also imply aesthetic modifications to the front of the drawers.

[0006] There is also a different specific sphere of furniture having drawers without handles or similar gripping means, in which, for the purposes of opening the drawer, devices are provided, currently called of the "push" type, comprising at least one expeller and suitably configured releasable locking means; in this case, to open the drawer, the user must exert a brief thrust on the closed drawer to release the locking means and thus permit the expeller to generate a movement of the drawer in the opening direction by a first section sufficient for the user to grip the drawer and then open it completely.

[0007] To close the drawer again, on the other hand, the user must obligatorily push the drawer manually until it is brought into the complete closing position, in such a

way as to reload the expeller and recouple the locking means.

[0008] The "push" type locking means provided on these pieces of furniture, however, because of their specific configuration, are not suitable for use on furniture with drawers having pull-out guides with the above-mentioned "self-closing" type devices, unless more complex solutions are provided in which the expeller is reloaded during part of the opening or closing movement of the drawer, allowing the self-closing device the possibility of subsequently coming into operation.

[0009] There is therefore a need to have available a piece of furniture with at least one drawer or the like for use on vehicles and means of transport, in which pull-out guides of "self-closing" type are provided for drawers, which will permit the normal use of automatic opening and closing when the means of transport is stationary, and in which locking means are provided capable of resolving the above-mentioned disadvantages when the means of transport is in movement.

[0010] Patent application US 2006/0082266 A1 describes a self-closing device which comprises a stop for the sole purpose of preventing the guide recoiling when the drawer reaches the closing position.

OBJECT OF THE INVENTION

[0011] An object of the present invention is therefore to provide a piece of furniture with at least one drawer or the like for use on vehicles and means of transport, in which pull-out guides of "self-closing" type are provided for the drawers and wherein locking means are provided, suitable for this type of application and operable by choice or by necessity, which do not require additional machining to be carried out on the piece of furniture, having at the same time great constructional simplicity and reduced cost.

BRIEF DESCRIPTION OF THE INVENTION

[0012] The above object is achievable by means of a piece of furniture provided with at least one drawer or the like which can be pulled out with respect to the body of the piece of furniture, the piece of furniture comprising:

- a first and a second side walls,
- a first and a second pull-out guide for each drawer, each of said pull-out guides having a fixed guide part connected to a respective side wall of the piece of furniture and a movable guide part fixable to the drawer,
- a closing device for the drawer associated with each pull-out guide, each closing device comprising a base body connected to one of the fixed or movable parts of the guide, the base body having a sliding track for a slider operatively engageable with the other of said fixed or movable parts of the guide and stressed in the closing direction of the drawer by

elastic means,

characterised by comprising:

- stopping means conformed and arranged to stop the drawer in a first closing position in which the drawer is spaced apart at a preset distance from the body of the piece of furniture, said stopping means being elastically yielding and/or overcomable by pressure on the drawer in the closing direction up to a second closing position in which the drawer is more adjacent to the body of the piece of furniture, and
- locking means conformed and arranged to releasably lock the drawer in said second closing position, said locking means being releasable by pulling the drawer in its opening direction and being selectively operable by said pressure on the drawer in the closing direction which causes the movement of the drawer from said first to said second closing position.

[0013] Further characteristics of the present invention are further defined in the subsequent claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The characteristics and advantages of the present invention will become more evident from the following description of preferential but not exclusive embodiments of the piece of furniture with drawer or the like, with reference to the attached figures, in which:

Fig. 1 is a side view of the piece of furniture according to the present invention, with the drawer in the first closing position in which it is arranged a short distance away from the body of the piece of furniture; Fig. 2 is a side view of the piece of furniture of Fig. 1, with the drawer in the second closing position in which the drawer is more adjacent to the body of the piece of furniture;

Fig. 3 is a partial plan view of the piece of furniture of Fig. 1, which illustrates the stopping means and locking means according to a first embodiment of the invention;

Fig. 4 is a plan view of the closing device for the drawer provided with the stopping means and locking means of Fig. 3, at the first closing position of the drawer;

Fig. 4A is an enlarged partial view of the stopping means and locking means of Fig. 4;

Fig. 5 is a plan view of the closing device for the drawer provided with the stopping means and locking means of Fig. 3, at the second closing position of the drawer;

Fig. 5A is an enlarged partial view of the stopping means and locking means of Fig. 5;

Fig. 6 is a plan view of a variant of the closing device of Fig. 3, configured for mounting a separate body provided with the stopping means and locking means

according to the invention;

Fig. 7 is a perspective view of the separate body provided with the stopping means and locking means according to the invention, attachable to the device of Fig. 6;

Fig. 8 is a plan view of the closing device of Fig. 6 with the separate body attached, provided with the stopping means and locking means of Fig. 7;

Fig. 9 is a plan view of the closing device for the drawer provided with the stopping means and locking means according to a further embodiment of the invention, at the first closing position of the drawer; Fig. 9A is an enlarged partial view of the stopping means and locking means of Fig. 9;

Fig. 10 is a plan view of the closing device for the drawer provided with the stopping means and locking means of Fig. 9, at the second closing position of the drawer; and

Fig. 10A is an enlarged partial view of the stopping means and locking means of Fig. 10.

DETAILED DESCRIPTION OF THE INVENTION

[0015] In figures 1 to 3, a piece of furniture is illustrated with drawer or the like according to a first embodiment of the present invention, comprehensively indicated with the reference number 10, which piece of furniture 10 features a body comprising a first and a second side walls, of which only one 11 is illustrated in the figure, the walls being arranged at the sides of the drawer 12 and provided respectively with a first and a second pull-out guides for the drawer 12 itself, of which only one 13 is visible in Fig. 3. For sake of clarity, the drawer 12 is illustrated in phantom with a dotted line, so as to make visible the guide 13 with the closing device and stopping means and locking means according to the invention, as explained below.

[0016] Each pull-out guide 13 features a fixed guide part 14 connected to the respective side wall 11 of the piece of furniture, a movable guide part 15 fixable to the drawer 12 and, if fitted, an intermediate part, not illustrated, in the case of guides allowing complete pulling-out, which extend according to a pull-out direction of the drawer. The piece of furniture 10 also comprises a closing device 16 for the drawer 12 attached to or associated with each pull-out guide 13; as better illustrated in Figures 4 and 5, each closing device 16 comprises in turn a base body 17 fixed or connected directly or indirectly to one of the fixed 14 or movable 15 parts of the guide 13, in the case illustrated to the fixed part 14, which base body 17 has a sliding track 18 for a slider 19 operatively engageable with the other of the fixed 14 or movable 15 parts of the guide 13, in the case illustrated with the movable part 15 by means of a pin 20 integral therewith.

[0017] The slider 19 is stressed in the closing direction of the drawer 12 by elastic means, in the form for example of a traction spring 21, as explained below.

[0018] The closing device 16 also features a fluid-type linear decelerator 22 fixed or connected directly or indi-

rectly to one of the fixed 14 or movable 15 parts of the guide 13, which is operable by the slider 19 or by an opposing element integral with the other part 14, 15 of the guide 13, as explained below.

[0019] Preferentially, the linear decelerator 22, for example of air or oil type, comprises a cylindrical body 23 fixed to an end of the base body 17 of the closing device 16, the cylindrical body 23 forming a chamber for a piston, not illustrated, whose rod is stressed or for example connected in articulated manner to the slider 19 of the closing device 16 to allow the slider 19 itself an oscillating movement with respect to the piston rod.

[0020] In fact, for the purposes of the selective engagement and disengagement of the slider 19 with the pin 20 which is integral with the movable part 15 of the guide 13, the sliding track 18 for the slider 19 features a first rectilinear section 18' which extends according to the longitudinal direction in which the drawer is pulled out, wherein the slider 19 is engaged with the pin 20 to bring the drawer 12 to closure, and a second transverse section 18'' which branches off from the first section 18' at a front end thereof facing towards the front 12' of the drawer 12, in which the slider 19 by means of an oscillation movement releases the pin 20 to permit the completion of the opening movement of the drawer by the user.

[0021] The spring 21 extends and is fixed in a preloaded traction condition between a part fixed to the piece of furniture, for example the rear end of the cylindrical body 23 of the decelerator, and the slider 19.

[0022] According to the present invention, the piece of furniture 10 comprises also stopping means 24' conformed and arranged to stop the drawer 12 in a first closing position, illustrated in figures 1, 4 and 4A, in which the drawer 12 is spaced apart at a preset distance from the body 11 of the piece of furniture, for example of 2-4 mm, said stopping means 24' being elastically yielding or overcomable by pressure on the drawer 12 in the closing direction up to a second closing position, illustrated in figures 2, 3, 5 and 5A, in which the drawer 12 is more adjacent to the body 11 of the piece of furniture.

[0023] Furthermore, the piece of furniture 10 according to the invention comprises locking means 24'' conformed and arranged for releasably locking the drawer 12 in the aforesaid second closing position, said locking means 24'' being releasable by means of traction on the drawer 12 in the opening direction thereof.

[0024] In the first preferential embodiment illustrated in figures 3 to 5A, the stopping means 24' and the locking means 24'' are conformed and arranged for stopping and respectively locking the slider 19, specifically a pin 19' which projects from the slider 19 itself, and consequently the drawer 12 which is integral with the slider 19 in the two above-mentioned closing positions.

[0025] In this embodiment, the stopping means 24' and the locking means 24'' are formed spaced apart in a longitudinal direction respectively on a front side and on a rear side of a first and a second protruding elements or teeth 24, which project, transversely opposed to each

other, from the opposite longitudinal edges of the sliding track 18 for the slider 19 at the rear end of the sliding track 18, in a position spaced apart from the rear end itself.

[0026] Preferentially each protruding element 24 has a triangular section having a first inclined front surface 24' and a second inclined rear surface 24'' converging towards each other, which form respectively the stopping means 24' and the locking means 24'' for the pin 19 and therefore for the drawer 12 which is integral therewith.

[0027] The operation of the piece of furniture 10 according to the invention is as follows: starting from the opening position of the drawer 12, a user who wants to close the drawer 12 must impose on the latter a movement in the closing direction; in this way, when the drawer 12 approaches the first closing position, for example at a distance of about 5 cm from said position, the pin 20 which is integral with the movable guide 15 on each side of the drawer 12 engages with the respective slider 19 causing it to oscillate as necessary to disengage it from the second transverse section 18'' of the sliding track 18.

[0028] At this point, the slider 19 is free to move longitudinally and therefore, under the traction action of the spring, brings the drawer 12 to the closing position with a movement suitably decelerated by the fluid decelerator 22 until it stops in the first closing position when the pin 19' integral with the slider 19 comes into contact with the stop surfaces 24' of the protruding elements 24 which project along the sliding track 18 for the slider 19 itself.

[0029] In this position, the drawer 12 can be easily opened again by the user and thus has an operation completely analogous to drawers equipped with conventional decelerated closing devices known from the state of the art.

[0030] In the event that there is a need to prevent accidental opening of the drawer 12 due to external actions, such as for example the forces which are generated during the movement of a vehicle or a means of transport on which the piece of furniture is mounted, according to the present invention, the user must exert a thrust or pressure on the front 12' of the drawer 12 in the closing direction in such a way as to cause an elastic yielding and therefore an overcoming of the projecting elements 24 forming the stop surfaces 24' by the pin 19' integral with the slider 19, until the drawer 12 is brought into the second closing position in which the drawer 12 is more adjacent to the body 11 of the piece of furniture.

[0031] In this position, in which the pin 19' is held by the locking surfaces 24'' provided at the rear to the projecting elements 24, the drawer 12 remains locked until the user exerts a traction action on the drawer 12 in the opening direction of the latter to release the pin 19' from the locking surfaces 24'' by means of elastic yielding of the projecting elements 24, in such a way as to bring the pin 19' again forward of the projecting elements 24 themselves and thus permit normal opening operation of the drawer 12.

[0032] The elastic yielding of the projecting elements

24 is brought about principally by deformation or stretching of the longitudinal edges of the sliding track 18 by the slider 19; in order to facilitate such stretching, the sliding track 18 is prolonged rearwards of the projecting elements 24 for a certain section.

[0033] As an alternative to the triangular section, the projecting elements 24 can have any other shape, for example rounded, suitable for forming a front stop surface and a rear locking surface for the slider or a part thereof.

[0034] It cannot be excluded furthermore that the closing device 16 for the drawer 12 may have a different configuration or that it may be attached to the side wall 11 of the piece of furniture or to the drawer 12, together with or separately from the stopping means and the locking means according to the invention.

[0035] Furthermore, the stopping means and the locking means can alternatively be configured in the form of additional elements attachable to the piece of furniture, in particular between the side wall 11 of the piece of furniture and the drawer 12, providing for example a component integral with the drawer that is stoppable and lockable by stopping means and respectively by locking means integral with the side walls, without prejudice to the characteristics and modes of operation thereof.

[0036] In Figures 6 to 8 a variant of the closing device of Figures 3 and 4 is illustrated, in which the same reference numbers have been used to indicate similar or equivalent parts; in this variant, the stopping means and locking means are no longer formed in a single piece with the base body 17 as in the device of Figures 3 and 4, but are formed on a separate body 25, for example in the form of a flat fork, attachable to a base body 17 of the device suitably configured for mounting the separate body 25 itself.

[0037] In particular, with respect to the base body 17 of a closing device of known type, at a rear end of the sliding track 18 suitable fixing means must be provided, for example of snap-type comprising engagement housings 26 and/or teeth 27, couplable with complementary

[0038] This variant presents advantages in production and cost terms, because a single base body 17 is stamped to which may or may not be attached the separate body 25 having the stopping and locking means, depending on the type of use and operation required of the piece of furniture.

[0039] In Figures 9 to 10A a further embodiment of the closing device for the drawer is illustrated, provided with stopping means and locking means according to the invention, in which the same reference numbers have been used to indicate similar or equivalent parts.

[0040] In this embodiment, the stopping means are made up of an elastically yielding tooth 28 which projects into the sliding track 18 for the slider 19, formed from a strip 29 located on one side in proximity to the rear end of the track 18 itself.

[0041] This tooth 28, similarly to the stopping of the

previous embodiment, is conformed and arranged for stopping the pin 19' which is integral with the slider 19 and therefore the drawer 12 at the first closing position.

[0042] The locking means however in this case are of magnetic type and comprise for example a permanent magnet 30 arranged at the rear end of the sliding track 18 to lock the pin 19', suitably made of ferromagnetic material, of the slider 19 at the second closing position of the drawer 12 once the user, by exerting pressure on the front 12' of the drawer, has caused the elastic tooth 28 to be overcome by the pin 19' itself.

[0043] As regards the operation of the piece of furniture, please refer to what was said with reference to the first embodiment.

[0044] As is evident from the above, thanks to the suitable configuration and arrangement of the stopping means and locking means according to the present invention, suitable for being connected to pull-out guides of "self-closing" type for the drawers themselves, undesired openings of the drawers are avoided, for example in the case of use of the furniture on vehicles and means of transport, with a solution that is constructionally simple, inexpensive and easily-assembled, without requiring additional machining of the piece of furniture itself.

[0045] The piece of furniture with drawer according to the invention is however subject to modifications and variations falling within the scope of the

Claims

1. A piece of furniture (10) provided with at least one drawer (12) or the like which can be pulled out with respect to the body of the piece of furniture, the piece of furniture (10) comprising:

- a first and a second side walls (11),
- a first and a second pull-out guide (13) for each drawer (12), each of said pull-out guides (13) having a fixed guide part (14) connected to a respective side wall (11) of the piece of furniture and a movable guide part (15) fixable to the drawer (12),
- a closing device (16) for the drawer (12) associated with each pull-out guide (13), each closing device (16) comprising a base body (17) connected to one of the fixed (14) or movable (15) parts of the guide (13), the base body (17) having a sliding track (18) for a slider (19) operatively engageable with the other of said fixed (14) or movable (15) parts of the guide (13) and stressed in the closing direction of the drawer (12) by elastic means (21),
- stopping means (24', 28) conformed and arranged to stop the drawer (12) in a first closing position in which the drawer (12) is spaced apart at a preset distance from the body of the piece of furniture, said stopping means (24', 28) being

- elastically yielding and/or overcomable by pressure on the drawer (12) in the closing direction up to a second closing position in which the drawer (12) is more adjacent to the body of the piece of furniture, and
- locking means (24", 30) confirmed and arranged to releasably lock the drawer (12) in said second closing position, said locking means (24", 30) being releasable by pulling the drawer in its opening direction thereof and being selectively operable by said pressure on the drawer in the closing direction which causes the movement of the drawer from said first to said second closing position.
2. The piece of furniture (10) according to claim 1, **characterised in that** the stopping means (24', 28) and the locking means (24", 30) are conformed and arranged for stopping and respectively for locking a pin (19') which projects from the slider (19) of the closing device (16).
 3. The piece of furniture (10) according to claim 1 or 2, **characterised in that** the stopping means (24') and the locking means (24") are formed respectively on a front side and on a rear side of a first and a second protruding elements (24) which project, transversely opposed to each other, from opposite longitudinal edges of said sliding track (18) for the slider (19), said protruding elements (24) being located at the rear end of the sliding track (18), in a position spaced apart from the rear end itself.
 4. The piece of furniture (10) according to claim 3, **characterised in that** each of said protruding elements (24) has a triangular section having a first inclined front surface (24') and a second inclined rear surface (24") converging towards each other, which form respectively said stopping means (24') and said locking means (24^M) for the slider (19) of said closing device (16).
 5. The piece of furniture (10) according to claim 3 or 4, **characterised in that** said sliding track (18) is prolonged rearwards of the projecting elements (24).
 6. The piece of furniture (10) according to claim 1, **characterised in that** said closing device (16) for the drawer (12) is conformed to be attachable to the side wall (11) of the piece of furniture or to the drawer (12), together with or separately from said stopping means (24\ 28) and to said locking means (24", 30).
 7. The piece of furniture (10) according to claim 1, **characterised in that** said stopping means (24 % 28) and said locking means (24", 30) are configured in the form of additional elements attachable to the piece of furniture.
 8. The piece of furniture (10) according to any one of the preceding claims, **characterised in that** said stopping means (24') and said locking means (24") are formed in one piece with the base body (17) of said closing device (16).
 9. The piece of furniture (10) according to any one of the preceding claims from 1 to 7, **characterised in that** said stopping means (24') and said locking means (24") are formed on a separate body (25) attachable to a base body (17) of the closing device (16) configured for mounting the separate body (25) itself.
 10. The piece of furniture (10) according to claim 9, **characterised in that** said base body (17) of the closing device (16) at a rear end of the sliding track (18) comprises fixing means couplable with complementary fixing means and/or with a part of said separate body (25).
 11. The piece of furniture (10) according to claim 1, **characterised in that** said stopping means are made up of an elastically yielding element (28) conformed and arranged for stopping the drawer (12) at said first closing position and **in that** said locking means are of magnetic type.
 12. The piece of furniture (10) according to claim 11, **characterised in that** said locking means of magnetic type comprise a permanent magnet (30) arranged at the rear end of said sliding track (18) to lock a pin (19') of ferromagnetic material of the slider (19) at said second closing position of the drawer (12).
 13. The piece of furniture (10) according to any one of the preceding claims, **characterised in that** the closing device (16) also has a fluid-type linear decelerator (22) connected to one of the fixed (14) or movable (15) parts of the guide (13), the linear decelerator (22) being operable by said slider (19) or by an opposing element integral with the other (14, 15) of said parts of the guide (13).
 14. The piece of furniture (10) according to any one of the preceding claims from 1 to 5 or from 7 to 13, **characterised in that** the base body (17) of the closing device (16) is fixed to the fixed part (14) of the pull-out guide (13), said slider (19) being operatively engageable with the movable part (15) of the guide by means of a pin (20) integral therewith.
 15. The piece of furniture (10) according to claim 13 or 14, **characterised in that** said linear decelerator (22) is of air or oil type, comprising a cylindrical body (23) fixed to an end of the base body (17) of said closing device (16), the cylindrical body (23) forming

a chamber for a piston having a rod connected in articulated manner to said slider (19) of the closing device (16).

16. The piece of furniture (10) according to claim 14 or 15, **characterised in that** said sliding track (18) for the slider (19) features a first rectilinear section (18') which extends according to the longitudinal direction in which the drawer is pulled out and a second transverse section (18'') which branches off from the first section (18') at a front end thereof facing towards the front (12') of the drawer (12).

Patentansprüche

1. Ein Möbelstück (10), ausgestattet mit mindestens einer Schublade (12) oder dergleichen, die im Verhältnis zum Körper des Möbelstücks ausgezogen werden kann, wobei das Möbelstück (10) Folgendes umfasst:

- eine erste und eine zweite Seitenwand (11),
- eine erste und eine zweite Ausziehführung (13) für jede Schublade (12), wobei jede der Ausziehführungen (13) einen festen Führungsteil (14) hat, verbunden mit einer entsprechenden Seitenwand (11) des Möbelstücks, und einen beweglichen Führungsteil (15), der an der Schublade (12) befestigt werden kann,
- eine Schließvorrichtung (16) für die Schublade (12), verbunden mit jeder Ausziehführung (13), wobei jede Schließvorrichtung (16) einen Grundkörper (17) umfasst, verbunden entweder mit dem festen (14) oder mit dem beweglichen (15) Teil der Führung (13), wobei der Grundkörper (17) eine Gleitbahn (18) für einen Schieber (19) hat, die operativ mit dem anderen der festen (14) oder beweglichen (15) Teile der Führung (13) in Eingriff stehen kann und durch elastische Mittel (21) in die Schließrichtung der Schublade (12) gespannt ist,
- Anschlagmittel (24', 28'), geformt und angeordnet, um die Schublade (12) in einer ersten Schließposition anzuhalten, in welcher die Schublade (12) in einem voreingestellten Abstand vom Körper des Möbelstücks beabstandet ist, wobei die Anschlagmittel (24', 28') elastisch nachgebend sind und/oder überwunden werden können durch Druck auf die Schublade (12) in der Schließrichtung bis zu einer zweiten Schließposition, in welcher die Schublade (12) näher am Körper des Möbelstücks ist, und
- Verriegelungsmittel (24'', 30), angepasst und angeordnet, um die Schublade (12) in der zweiten Schließposition lösbar zu verriegeln, wobei die Verriegelungsmittel (24'', 30) lösbar sind durch Ziehen der Schublade in ihrer Öffnungs-

richtung, und wahlweise betätigt werden können durch den Druck auf die Schublade in der Schließrichtung, welche die Bewegung der Schublade aus der ersten in die zweite Schließposition veranlasst.

2. Das Möbelstück (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Anschlagmittel (24', 28) und die Verriegelungsmittel (24'', 30) angepasst und angeordnet sind zum Stoppen und entsprechenden Verriegeln eines Stiffs (19'), der aus dem Schieber (19) der Schließvorrichtung (16) herausragt.
3. Das Möbelstück (10) gemäß Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Anschlagmittel (24') und die Verriegelungsmittel (24'') auf einer Vorderseite beziehungsweise auf einer Rückseite eines ersten und eines zweiten vorstehenden Elements (24) geformt sind, die, einander quer gegenüberliegend, aus gegenüberliegenden Längskanten der Schiebebahn (18) für den Schieber (19) herausragen, wobei die vorstehenden Elemente (24) sich am hinteren Ende der Schiebebahn (18), in einer Position, die vom hinteren Ende selbst beabstandet ist, befinden.
4. Das Möbelstück (10) gemäß Anspruch 3, **dadurch gekennzeichnet, dass** jedes der vorstehenden Elemente (24) einen dreieckigen Querschnitt mit einer ersten schrägen vorderen Oberfläche (24') und einer zweiten schrägen hinteren Oberfläche (24'') hat, die zusammenlaufen und die die Anschlagmittel (24') beziehungsweise die Verriegelungsmittel (24'') für den Schieber (19) der Schließvorrichtung (16) bilden.
5. Das Möbelstück (10) gemäß Anspruch 3 oder 4, **dadurch gekennzeichnet, dass** die Schiebebahn (18) rückwärtig von den vorstehenden Elementen (24) verlängert ist.
6. Das Möbelstück (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Schließvorrichtung (16) für die Schublade (12) angepasst ist, um an der Seitenwand (11) des Möbelstücks oder an der Schublade (12) befestigt werden zu können, gemeinsam mit oder separat von den Anschlagmitteln (24', 28), und an den Verriegelungsmitteln (24'', 30).
7. Das Möbelstück (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Anschlagmittel (24', 28) und die Verriegelungsmittel (24'', 30) die Form zusätzlicher Elemente haben, die an dem Möbelstück befestigt werden können.
8. Das Möbelstück (10) gemäß einem beliebigen der obigen Ansprüche, **dadurch gekennzeichnet, dass** die Anschlagmittel (24') und die Verriegelungs-

mittel (24") einteilig mit dem Grundkörper (17) der Schließvorrichtung (16) geformt sind.

9. Das Möbelstück (10) gemäß einem beliebigen der obigen Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** die Anschlagmittel (24') und die Verriegelungsmittel (24") an einem separaten Körper (25) geformt sind, der an einem Grundkörper (17) der Schließvorrichtung (16) befestigt werden kann, ausgebildet zur Montage des separaten Körpers (25) selbst. 5
10. Das Möbelstück (10) gemäß Anspruch 9, **dadurch gekennzeichnet, dass** der Grundkörper (17) der Schließvorrichtung (16) an einem hinteren Ende der Schiebebahn (18) Befestigungsmittel umfasst, die mit komplementären Befestigungsmitteln und/oder mit einem Teil des separaten Körpers (25) gekoppelt werden können. 10
11. Das Möbelstück (10) gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Anschlagmittel aus einem elastisch nachgebenden Element (28) bestehen, das angepasst und angeordnet ist, um die Schublade (12) in der ersten Schließposition anzuhalten, und dadurch, dass die Verriegelungsmittel vom magnetischen Typ sind. 15
12. Das Möbelstück (10) gemäß Anspruch 11, **dadurch gekennzeichnet, dass** die Verriegelungsmittel vom magnetischen Typ einen Dauermagneten (30) umfassen, der am hinteren Ende der Gleitbahn (18) angeordnet ist, um einen Stift (19') aus ferromagnetischem Material des Schiebers (19) in der zweiten Schließposition der Schublade (12) zu blockieren. 20
13. Das Möbelstück (10) gemäß einem beliebigen der obigen Ansprüche, **dadurch gekennzeichnet, dass** die Schließvorrichtung (16) auch einen linearen Hemmungskörper (22) vom Fluidtyp hat, der mit einem der festen (14) oder beweglichen (15) Teile der Führung (13) verbunden ist, wobei der lineare Hemmungskörper (22) von dem Schieber (19) oder von einem gegenüberliegenden Element betätigt werden kann, das integral mit dem anderen (14, 15) Teil der Führung (13) ist. 25
14. Das Möbelstück (10) gemäß einem beliebigen der obigen Ansprüche 1 bis 5 oder 7 bis 13, **dadurch gekennzeichnet, dass** der Grundkörper (17) der Schließvorrichtung (16) am festen Teil (14) der ausziehbaren Führung (13) befestigt ist, wobei der Schieber (19) über einen Stift (20), der integral damit ist, operativ in Eingriff mit dem beweglichen Teil (15) der Führung stehen kann. 30
15. Das Möbelstück (10) gemäß Anspruch 13 oder 14, **dadurch gekennzeichnet, dass** der lineare Hem-

mungskörper (22) vom Luft- oder Öl-Typ ist und einen zylindrischen Körper (23) umfasst, der an einem Ende des Grundkörpers (17) der Schließvorrichtung (16) befestigt ist, wobei der zylindrische Körper (23) eine Kammer für einen Kolben bildet, der eine Stange hat, welche gelenkig mit dem Schieber (19) der Schließvorrichtung (16) verbunden ist.

16. Das Möbelstück (10) gemäß Anspruch 14 oder 15, **dadurch gekennzeichnet, dass** die Schiebebahn (18) für den Schieber (19) einen ersten geradlinigen Abschnitt (18') aufweist, der sich in der Längsrichtung erstreckt, in welcher die Schublade herausgezogen wird, und einen zweiten transversalen Abschnitt (18"), der vom ersten Abschnitt (18') an einem vorderen Ende desselben abzweigt, das der Vorderseite (12') der Schublade (12) zugewandt ist. 35

20 Revendications

1. Meuble (10) doté d'un tiroir (12) au moins ou similaire, qui peut être sorti du corps du meuble, le meuble (10) comprenant : 40
 - des première et seconde parois latérales (11) ;
 - des premier et second dispositifs de guidage de sortie (13) de chaque tiroir (12), chacun desdits dispositifs de guidage de sortie (13) présentant une partie guidage fixe (14) connectée à une paroi latérale respective (11) du meuble, et une partie guidage mobile (15) qui peut être fixée sur le tiroir (12) ;
 - un dispositif de fermeture (16) du tiroir (12) associé à chaque dispositif de guidage de sortie (13), chaque dispositif de fermeture (16) comprenant un corps de base (17) connecté à l'une des parties fixe (14) ou mobile (15) du dispositif de guidage (13), le corps de base (17) présentant une voie de coulissement (18) d'un dispositif de coulissement (19) qui peut venir en prise de manière opérationnelle avec l'autre desdites partie fixe (14) ou mobile (15) du dispositif de guidage (13), et soumis à une contrainte dans la direction de fermeture du tiroir (12) par des moyens élastiques (21) ;
 - des moyens d'arrêt (24', 28) adaptés et agencés de façon à arrêter le tiroir (12) dans une première position de fermeture dans laquelle le tiroir (12) est espacé du corps du meuble à une distance préréglée, lesdits moyens d'arrêt (24', 28) pouvant céder de manière élastique et / ou être surmontés en exerçant une pression sur le tiroir (12) dans la direction de fermeture jusqu'à une seconde position de fermeture dans laquelle le tiroir (12) est plus proche du corps du meuble ; et
 - des moyens de blocage (24", 30) adaptés et

agencés de façon à bloquer de manière libérable le tiroir (12) dans ladite seconde position de fermeture, lesdits moyens de blocage (24", 30) pouvant être libérés en tirant le tiroir dans sa direction d'ouverture, et étant opérationnels de manière sélective en exerçant ladite pression sur le tiroir dans la direction de fermeture, ce qui provoque le déplacement du tiroir à partir de ladite première position de fermeture vers ladite seconde position de fermeture.

2. Meuble (10) selon la revendication 1, **caractérisé en ce que** les moyens d'arrêt (24', 28) et les moyens de blocage (24", 30), sont adaptés et agencés de façon à arrêter et à bloquer respectivement une goupille (19') qui fait saillie à partir du dispositif de coulissement (19) du dispositif de fermeture (16).
3. Meuble (10) selon la revendication 1 ou la revendication 2, **caractérisé en ce que** les moyens d'arrêt (24') et le dispositif de blocage (24") sont adaptés de manière respective sur un côté avant et sur un côté arrière d'un premier et d'un second éléments qui font saillie (24) qui font saillie, en étant opposés de manière transversale l'un par rapport à l'autre, à partir des bords longitudinaux opposés de ladite voie de coulissement (18) du dispositif de coulissement (19), lesdits éléments qui font saillie (24) se situant au niveau de l'extrémité arrière de la voie de coulissement (18), dans une position espacée de l'extrémité arrière elle-même.
4. Meuble (10) selon la revendication 3, **caractérisé en ce que** chacun desdits éléments qui font saillie (24) présente une section triangulaire qui présente une première surface avant inclinée (24') et une seconde surface arrière inclinée (24") qui convergent l'une vers l'autre, qui constituent respectivement lesdits moyens d'arrêt (24') et lesdits moyens de blocage (24") du dispositif de coulissement (19) dudit dispositif de fermeture (16).
5. Meuble (10) selon la revendication 3 ou la revendication 4, **caractérisé en ce que** ladite voie de coulissement (18) est prolongée vers l'arrière des éléments qui font saillie (24).
6. Meuble (10) selon la revendication 1, **caractérisé en ce que** ledit dispositif de fermeture (16) du tiroir (12) est adapté de façon à pouvoir être fixé sur une paroi latérale (11) du meuble, ou sur le tiroir (12), avec lesdits, ou de manière indépendante desdits, moyens d'arrêt (24', 28) et moyens de blocage (24", 30).
7. Meuble (10) selon la revendication 1, **caractérisé en ce que** lesdits moyens d'arrêt (24', 28) et lesdits moyens de blocage (24", 30) sont configurés sous

la forme d'éléments supplémentaires qui peuvent être fixés sur le meuble.

8. Meuble (10) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** lesdits moyens d'arrêt (24') et lesdits moyens de blocage (24"), sont formés d'une seule pièce avec le corps de base (17) dudit dispositif de fermeture (16).
9. Meuble (10) selon l'une quelconque des revendications précédentes 1 à 7, **caractérisé en ce que** lesdits moyens d'arrêt (24') et lesdits moyens de blocage (24"), sont formés sur un corps séparé (25) qui peut être fixé sur le corps de base (17) du dispositif de fermeture (16), configuré pour le montage du corps séparé (25) lui-même.
10. Meuble (10) selon la revendication 9, **caractérisé en ce que** ledit corps de base (17) du dispositif de fermeture (16) comprend, au niveau d'une extrémité arrière de la voie de coulissement (18), des dispositifs de fixation qui peuvent être accouplés à des dispositifs de fixation complémentaires, et / ou à une partie dudit corps séparé (25).
11. Meuble (10) selon la revendication 1, **caractérisé en ce que** lesdits moyens d'arrêt se composent d'un élément qui peut céder de manière élastique (28), adapté et agencé de façon à arrêter le tiroir (12) au niveau de ladite première position de fermeture, et **en ce que** lesdits moyens de blocage sont de type magnétique.
12. Meuble (10) selon la revendication 11, **caractérisé en ce que** lesdits moyens de blocage de type magnétique, comprennent un aimant permanent (30) agencé au niveau de l'extrémité arrière de ladite voie de coulissement (18) de façon à bloquer une goupille (19') de matériau ferromagnétique du dispositif de coulissement (19) au niveau de ladite seconde position de fermeture du tiroir (12).
13. Meuble (10) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le dispositif de fermeture (16) présente également un dispositif de freinage linéaire du type à fluide (22) connecté à l'une des parties fixe (14) ou mobile (15) du dispositif de guidage (13), le dispositif de freinage linéaire (22) pouvant être actionné par ledit dispositif de coulissement (19), ou par un élément opposé formé d'une pièce avec l'autre (14, 15) desdites parties du dispositif de guidage (13).
14. Meuble (10) selon l'une quelconque des revendications précédentes 1 à 5 ou 7 à 13, **caractérisé en ce que** le corps de base (17) du dispositif de fermeture (16) est fixé sur la partie fixe (14) du dispositif de guidage de sortie (13), ledit dispositif de coulis-

sement (19) pouvant être mis en prise de manière opérationnelle avec la partie mobile (15) du dispositif de guidage au moyen d'une broche (20) formée d'une pièce avec celle-ci.

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15. Meuble (10) selon la revendication 13 ou la revendication 14, **caractérisé en ce que** ledit dispositif de freinage linéaire (22) est du type à air ou à huile, qui comprend un corps cylindrique (23) fixé sur une extrémité du corps de base (17) dudit dispositif de fermeture (16), le corps cylindrique (23) formant une chambre d'un piston qui présente une tige connectée de manière articulée audit dispositif de coulissement (19) du dispositif de fermeture (16).

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16. Meuble (10) selon la revendication 14 ou la revendication 15, **caractérisé en ce que** ladite voie de coulissement (18) du dispositif de coulissement (19) comprend une première section rectiligne (18') qui s'étend selon la direction longitudinale dans laquelle le tiroir est retiré, et une seconde section transversale (18'') qui bifurque à partir de la première section (18') au niveau d'une extrémité avant de celle-ci en faisant face vers l'avant (12') du tiroir (12).

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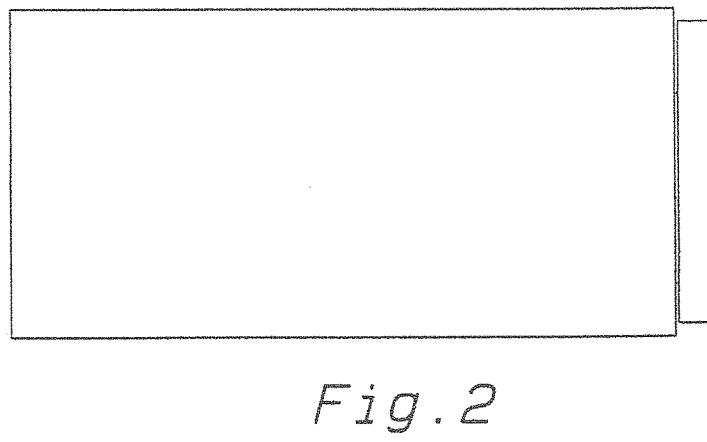
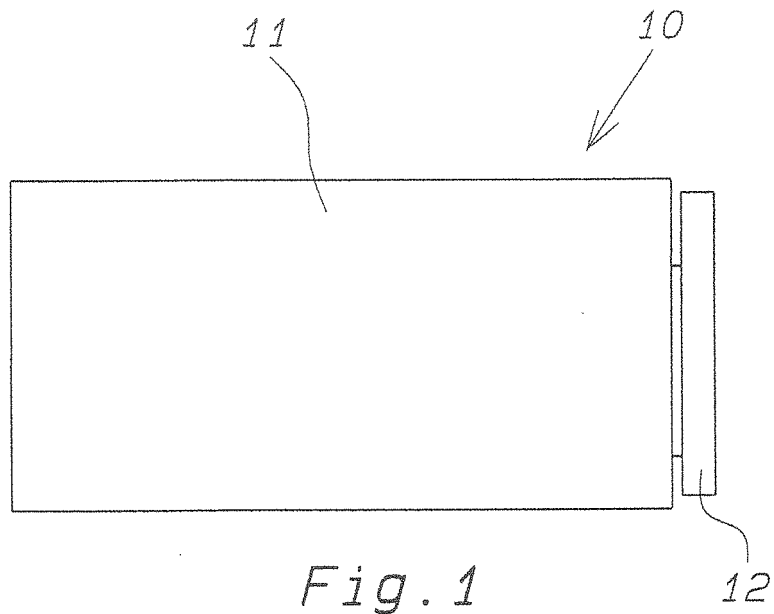
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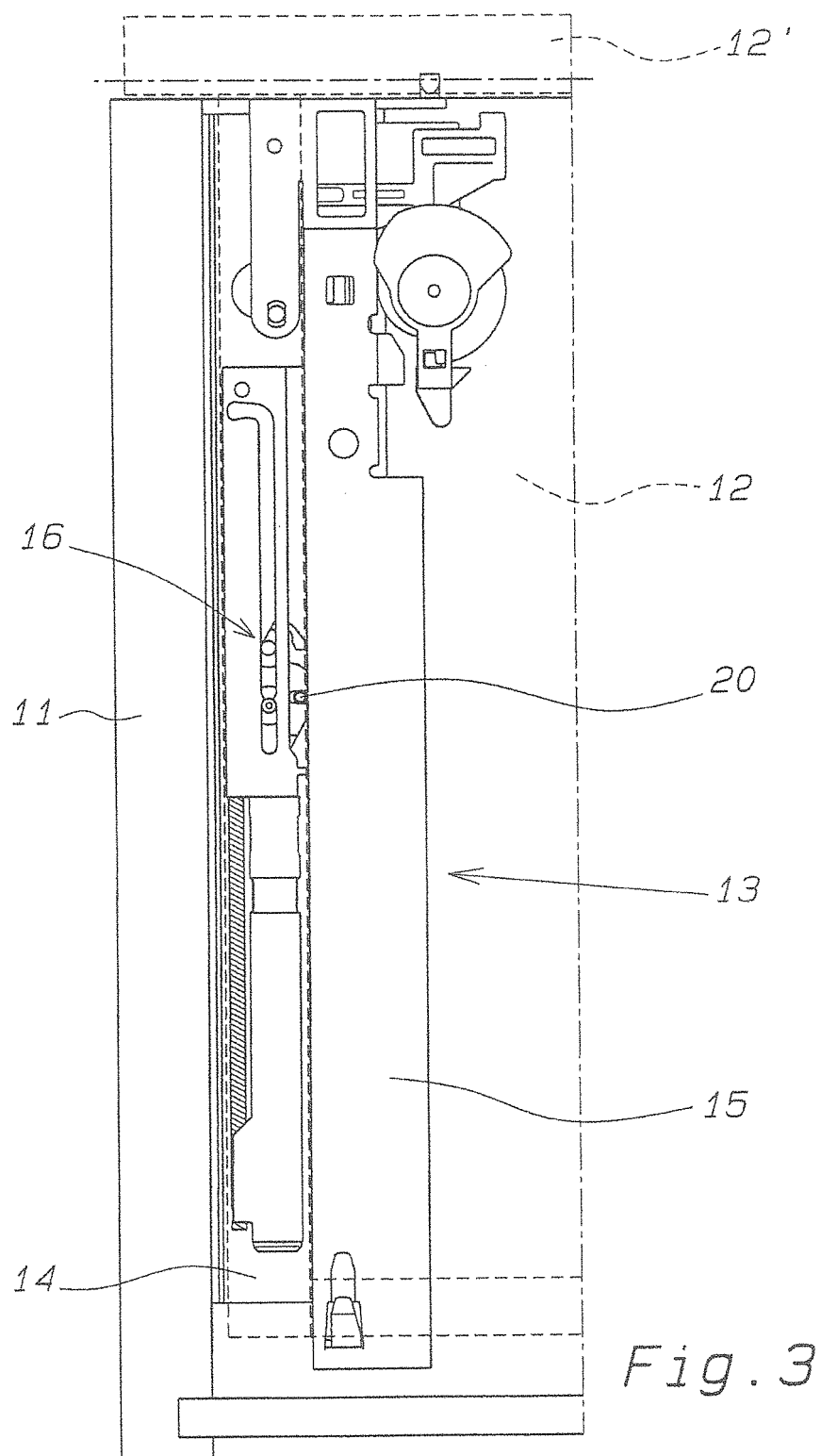
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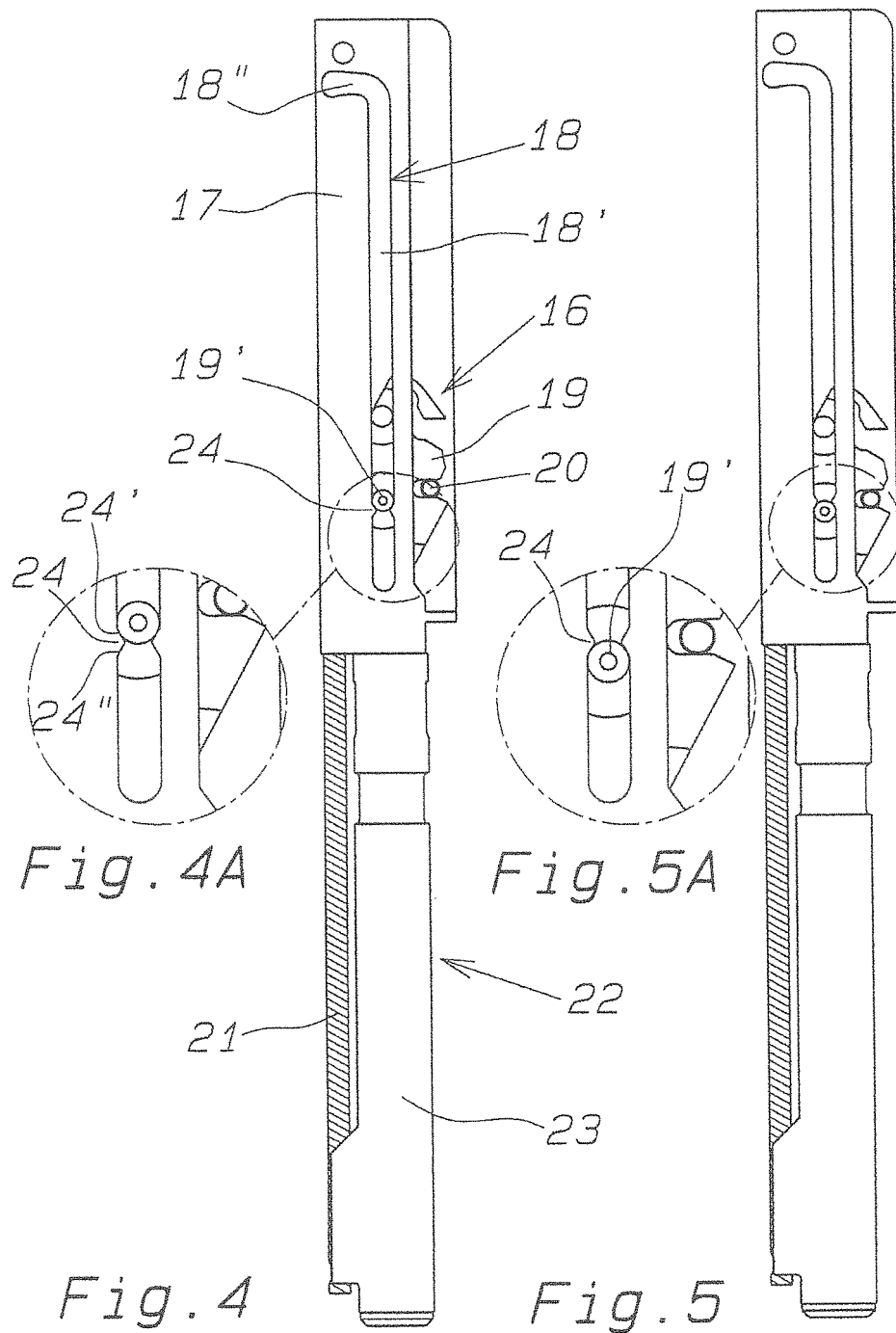
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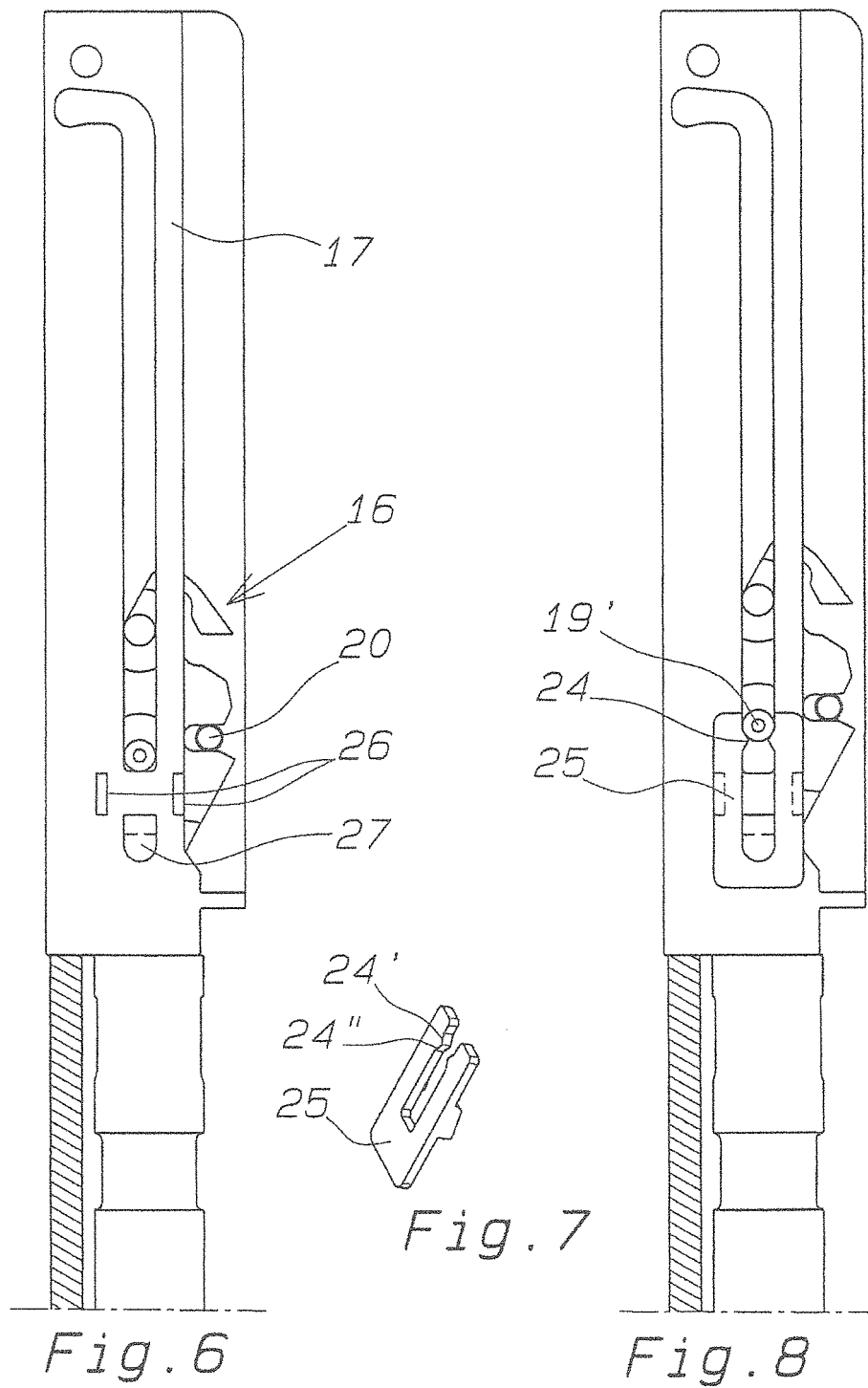
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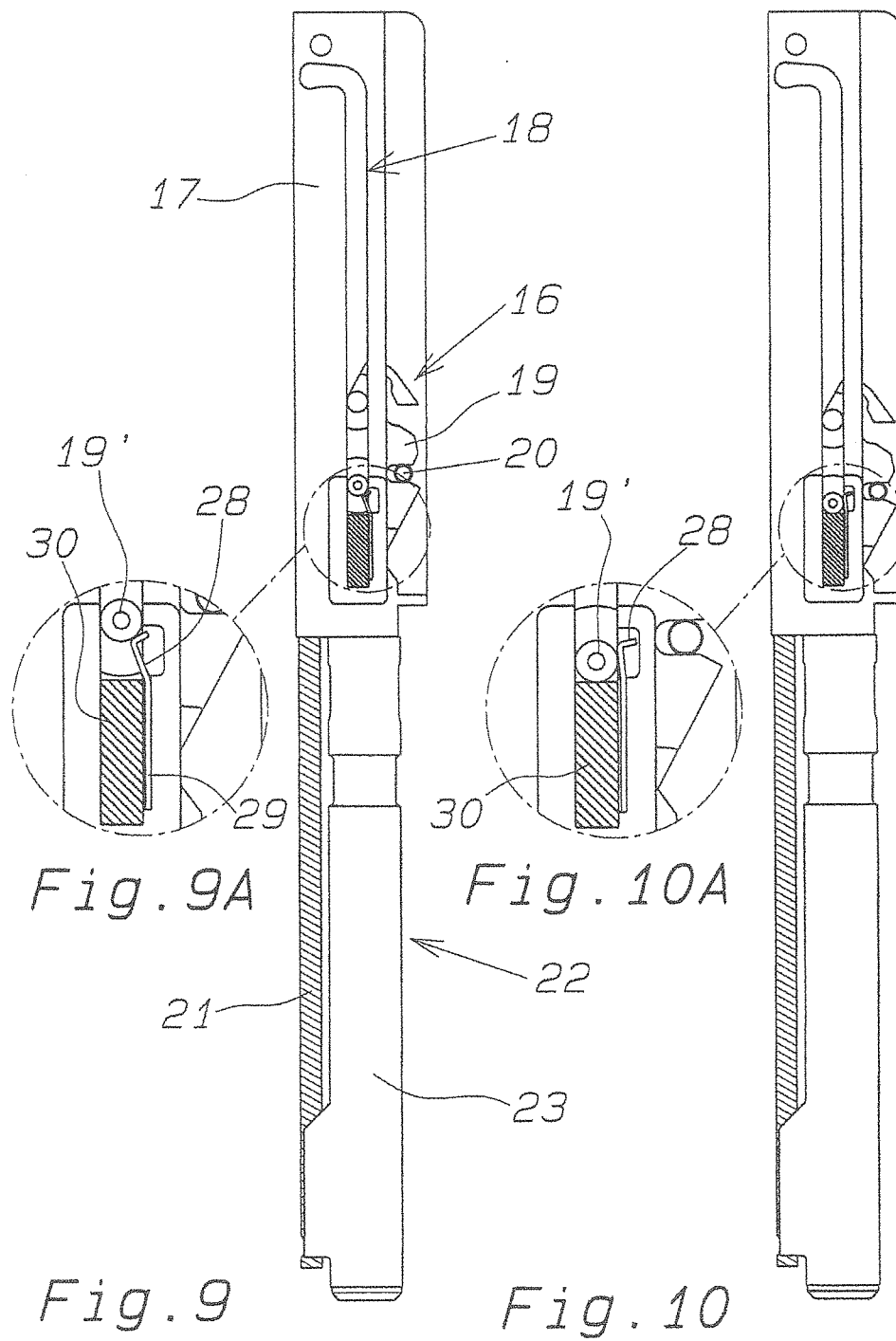
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Patent documents cited in the description

- US 20060082266 A1 [0010]