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(54) **Workbench with pivotable support member**

Arbeitstisch mit schwenkbarem Trägerelement

Etabli avec élément support pivotant

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Description

[0001] The present invention relates to a workbench including: a first support member pivotally coupled to a second support member and wherein one of the first and second support members is formed with detent-engaging means: detent means mounted on the other of the first and second support members and co-operable with the detent-engaging means thereby to selectively permit or prevent relative pivotal movement between the first and second support members.

[0002] A device of the kind described above has been manufactured by the applicant for several years now. Such a device comprises a main frame in the form of two pairs of legs, each pair having mounted at its upper end a support member. The support members each carry a pair of jaws which extend laterally across the support members. The support members each have a threaded rod running therethrough which co-operates with correspondingly threaded rings formed on the undersurface of each side of each of the pair of jaws. In this way the user of the workbench can cause the pair of jaws to move together or to separate by rotation of each threaded rod.

[0003] The support member for each of the jaws comprises a pair of metallic arms. One of the support members has a hole punched through each of its metallic arms and the other of the support members has two holes punched therethrough. These holes are arranged so that when the first and second support members are moved in pivotal relationship with one another, the holes are aligned both when the support members lie in the same plane and when they lie in orthogonal planes. Furthermore, the support member which has only one hole punched through its metallic arms, also carries a manually operable drive pin which may be selectively pushed through this hole and which then also travels through whichever one of two holes carried by each metallic arm of the other support member with which it is aligned. This then serves to lock the support members in either the same or orthogonal planes. The drive pin itself is caused to be either driven through or retracted from these holes by way of a simple sprung cam mechanism. In this manner, the user manually rotates the cam mechanism thereby causing the drive pin to move.

[0004] A shortcoming of the above device is that the user needs to perform two separate operations in order to alter the pivotal relationship between the two support members. Firstly the drive pin needs to be withdrawn from its current hole, then the pivotal relationship between the support members must be changed and finally the drive pin must be driven through the other holes for locking the arrangement in its new state. Furthermore, it is advantageous to utilise an equally efficacious device which uses components of cheaper cost than that of a cam-driven drive pin.

[0005] It is thus an object of the present invention to at least alleviate the above-mentioned shortcomings by providing a workbench according to claim 1.

[0006] By utilising a channel so formed, the need for a separate can-driven drive pin is obviated and hence a cheaper, more simple to operate device is achieved than has hitherto been the case.

[0007] According to the present invention there is now provided a workbench including a first jaw member mounted on a first support member and a second jaw member mounted on a second support member wherein at least one jaw member is manually displaceable on its support member so as to cause the pair of jaws to move together or separate, the first support member pivotally coupled to the second support member and wherein one of the first and second support members is formed with a detent engaging means; detent means are mounted on the other of the first and second support members and co-operable with the detent engaging means thereby to selectively permit or prevent relative pivotal movement between the first and second support members; characterised by the detent engaging means comprising a channel formed in said one of the first and second support members, which channel defines first and second regions, one of which first and second regions allows the detent means limited arcuate movement therewithin and the other of the first and second regions restrains movement of the detent means; wherein one of the detent means and the detent engaging means is engaged with a biasing member to restrain the detent means in engagement with the other of the first and second regions, the biasing member further having an actuator associated therewith, whereby actuation of the actuator, against the action of said biasing member, effects relative displacement of the detent member out of engagement with said other of the first and second regions and into engagement with the said one of said first and second regions.

[0008] The first region of the channel may be substantially arcuate, thereby to cause the detent to follow an arcuate path in sympathy with the relative pivotal movement between the first and second support members. In this way the detent is always within the detent-engaging means itself and so there is no need for the operator of the workbench to have to align holes as is the case with the prior art.

[0009] Alternatively, the other of the first and second regions of the channel may define a stop for the detent means thereby to prevent relative pivotal movement between the first and second support members. In this way, the support members can readily be held in the desired relative orientation.

[0010] Preferably the stop is formed so as to extend radially outwards of the arcuate region of the channel. Alternatively the stop may be substantially linear.

[0011] Additionally, there may be two of the other of the first and second regions, the two of the other of the first and second regions flanking the one of said first and second regions. This allows for the detent means to be held in, for example, two positions at 90° separation.

[0012] In a preferred embodiment, the detent means is biased by way of a spring member. This allows for the detent to be automatically urged into its restrained position within the detent-engaging means.

[0013] The detent means may comprise a manually operable arm.

[0014] The channel may be formed as a recess within the one of the first and second support members. Alternatively, the channel may be formed as a hole within the one of the first and second support members. Said first and second jaws of the workbench may be supported between said pair of supports and said first and second support members respectively. The first and second support members may each be formed on respective legs of the workbench. Preferably the first and second support members each comprise a pair of supports.

[0015] The invention will now be described, by way of example only, and with reference to the accompanying drawings, of which:

Figure 1 shows an exploded view of part of a workbench in accordance with the present invention;
Figure 2 shows a perspective view from one side of the workbench of Figure 1;
Figure 3 shows a perspective view from below of the workbench shown in Figure 2;
Figure 4 shows a plan view from the underside of the workbench;
Figure 5 shows in detail the area of Figure 4 ringed "A";
Figure 6 shows a plan view from above of the workbench of the present invention;
Figure 7 shows a side view of part of a workbench with the support members lying in the same plane;
Figure 8 shows a side view of part of a workbench with the support members of Figure 7 moving in pivotal relationship with each other;
Figure 9 shows a side view of part of a workbench with the support members lying in orthogonal planes, and
Figure 10 shows an entire workbench in accordance with the present invention.

[0016] Referring firstly to Figures 1, 2 and 3 it can be seen that a part of a workbench in accordance with the present invention comprises a first support member, in this example a pair of bars (2), interconnected via a support bar (4). Each of the bars (2) of the pair are adapted to receive therewithin a threaded vice screw (6). At one end, the vice screw (6) is connected to an arm handle (8) so that a user of the workbench may rotate the vice screw (6). The remainder of the length of the bar (2) carries a thread and the rotation of the screw (6) via the handle (8) causes the thread to move a spigot-bearing ring (10) coupled to the screw (6) along the length thereof in known manner. The upper surface of the spigot-bearing ring (10) (the spigot itself) couples with the underside of a block (12). The upper surface of block (12) itself engages with a jaw (14). In this way, rotation of either of the arm handles (8) by the user causes that side of the jaw (14) to move, as is known in the art. It will also be seen that the two arm handles (8) as shown in the Figures can both be caused to rotate by coupling them together via a transmission belt (15). This is simply for ease of use as, if the jaw (14) is required to be moved backwards or forwards along the length of the thread of the vice screws (6) without any lateral or angular disposition, then this mechanism allows this to be achieved without the need for both arm handles (8) to be rotated. Each bar (2) of the pair is pivotally coupled to a second support member, in this example a pair of brackets (16). It can be seen from the example shown in the figures that each bar (20) of the pair couples pivotally with a respective bracket (16) of the pair of brackets (16).

[0017] Although not shown in the Figures for the sake of clarity, the brackets (16) themselves support a further jaw in addition to jaw (14). This pivotal relationship between the two pairs of support members - the bars (2) and the brackets (16) - thus allows these two jaws to be in any relative orientation between lying in the same plane to lying in orthogonal planes, as will be described below.

[0018] Referring now also to Figures 4, 5 and 6 it will be seen that the bars (2) of the pair are adapted to hold a detent means, in this example a spring-biased arm (18). The arm (18) is shaped so as to define two projecting ends (20) and a longitudinally extending operable surface (22). In its rest state, the arm (18) is biased in the direction of the arrow shown in Figure 5 by way of spring members, here coiled metal springs (24).

[0019] The projecting ends (20) of the arm (18) co-operate with a detent-engaging means, in this example shaped punched channel (26) shown in Figures 7, 8 and 9, formed in each bracket (16) of the pair of brackets. The co-operation between the arm (18) and the shaped channel (26) governs the relative pivotal movement between the bars (2) and the brackets (16) and will be described in detail below.

[0020] Paying particular attention to the shape of the channel (26) and Figures 7, 8 and 9 for the present, it can be seen that it is formed in a generally arcuate shape being flanked by two end portions. The arcuate portion (28) subtends a right-angle and is so shaped to permit the projecting end (20) of arm (18) which co-operates with its respective channel (26) to travel therewithin. It will be understood that travel of the projecting end (20) within the arcuate portion (28) of the channel (26) is possible when the user of the workbench causes relative pivotal movement to occur between the pair of bars (2) and the pair of brackets (16). It will be apparent that the reason the arcuate portion (28) has been chosen to subtend a right-angle is to permit the jaws (14) (and the other jaw supported on the pair of brackets (16) but not shown) to lie either in the same or orthogonal planes.

[0021] The two end portions of the channel (26) which

flank the arcuate portion (28), in this example linear end stops (30) which are formed tangentially to the arcuate portion (28), serve both to restrict the travel of the projecting end (20) within the channel (26) and hence, therefore, to limit the extent of relative pivotal movement between the pair of bars (2) and the pair of brackets (16). As explained above, the spring (24) serves to urge the arm (18) in the direction of the arrow shown in Figure 5 and this translates, when viewing the relationship between the channel (26) and projecting end (20), into meaning that the arm (18) will be biased by the spring (24) so that the projecting ends (20) are urged into the end stops (30). Thus, when the projecting ends (20) are aligned with either end stop (30) (rather than arcuate portion (28)) then, in the absence of any user force against the arm (18) along the longitudinally extending surface (22) in the opposite direction to the arrow of Figure 5, the projecting ends (20) will be forced into and held within the end stops (30). In this manner, the pair of bars (2) and the pair of brackets (16) (and hence their respective jaws) can be locked into their relative pivotal positions, i.e. lying in the same plane, or lying in orthogonal planes.

[0022] Referring again to Figures 7, 8 and 9, the relationship between the arm (18) and the channel (26) and the manner in which they co-operate to enable working of the present invention will be described. In Figure 7, the pair of bars (2) and the pair of brackets (16) are lying in the same plane. Thus the jaw (14) carried by the pair of bars (2) and the jaw (not shown) carried by the pair of brackets (16) are also lying in the same place.

[0023] From Figures 5 and 7 it can be seen that the arm (18) is biased towards the right hand side of Figure 7 and because the pair of bars (2) and the pair of brackets (16) are lying in the same plane, then the projecting end (20) is aligned with the end stop (30) and is hence urged thereinto. Thus the pair of bars (2) and the pair of brackets are effectively locked into this position because whilst the projecting end (20) is constrained within the end stop (30), then no relative pivotal movement between the pair of bars (2) and the pair of brackets (16) is possible.

[0024] If, however, a user of the workbench applies a force to the arm (18) in the direction of the arrow A (Figure 7) of sufficient magnitude to overcome the biasing force applied to the arm (18) by the spring (24), then the arm (18) will move to the left and hence the projecting end (20) will move out of the end stop (30) and become aligned with the arcuate portion (28). This can now be seen from Figure 8.

[0025] In this position shown in Figure 8, the user may then effect relative pivotal movement between the pair of bars (2) and the pair of brackets (16) by moving the pair of bars (2) upwards in the direction of arrow B. This is only possible because the projecting end (20) of arm (18) is able to travel within the arcuate portion (28) of the channel (26). Indeed, this relative pivotal movement may occur freely between either end stop (30) so long as the projecting end (20) does not align with either end stop and also, in this event, so long as the force applied to the arm (18) does not cease to act against and overcome the force applied to the arm (18) by spring (24).

[0026] Referring now to Figure 9, it can be seen that when the pair of bars (2) and the pair of brackets are lying in orthogonal planes, i.e. when the projecting end (20) has travelled the length of the arcuate portion (28) from its position in Figure 7 (through 90°), then when the arm (18) is released (in the direction of arrow C) and the projecting end is aligned with the other end stop (30), the pair of bars (2) and the pair of brackets are automatically locked into this position. The process may now be reversed when the user requires the jaws or the bars (2) and brackets (16) to once more lie in the same plane.

[0027] By referring now to Figure 10, an entire workbench in accordance with the present invention is shown. In this Figure, the other jaw (115) of the pair (14, 115) is also shown whereas in all previous figures it was omitted for the sake of clarity. The workbench will not be described in any detail as it is of well-known construction to those skilled in the art. The pair of brackets (16) are themselves supported by a collapsible frame (32) which is coupled at its other end to a base support structure (34). Those skilled in the art will appreciate that the collapsible frame (32) permits the entire workbench to be folded for ease of storage when not in use.

[0028] It will be understood by those skilled in the art that the device described above provides a means by which relative pivotal movement between first and second members may be achieved easily and by which the members may be selectively locked in either of two predetermined positions.

[0029] Although in the above the channels (26) have been formed by punching a hole into the pair of brackets (16), these channels (26) could be equally well formed as recesses in the material of the brackets (16).

[0030] It will be appreciated by those skilled in the art that although in the above example the arm (18) is mounted on the bars (2) and the channel (26) is formed on or from the brackets (16), this is not necessary. They may each equally well be formed on the other of the bars (2) or brackets (16).

[0031] Although in the above example reference has been made to pairs of bars (2) and brackets (16), this is only by way of example. It will be understood that the invention is equally efficacious if a unitary member were to form either or both of these items.

Claims

1. A workbench including:

a first jaw member (14) mounted on a first support member (2) and a second jaw member (115) mounted on a second support member (16) wherein at least one jaw member (14, 115)

is manually displaceable on its support member so as to cause the pair of jaws (14, 115) to move together or separate,
said first support member (2) pivotally coupled to said second support member (16), and wherein one of the first and second support members (2, 16) is formed with detent engaging means (26);
detent means (20) mounted on the other of the first and second support members and co-operable with the detent-engaging means (26) thereby to selectively permit or prevent relative pivotable movement between the first and second support members (2, 16);

characterised by said detent engaging means (26) comprising a channel formed in said one of the first and second support members, which channel defines first and second regions (28, 30), one of which first and second regions (28) allows the detent means (20) limited arcuate movement therewithin and the other of the first and second regions (30) restrains movement of the detent means (20);

wherein one of said detent means and said detent-engaging means (20, 26) is engaged with a biasing member (24) to restrain said detent means (20) in engagement with said other of said first and second regions (30), said biasing member (24) further having an actuator (18) associated therewith, whereby actuation of said actuator (18), against the action of said biasing member, effects relative displacement of said detent member (20) out of engagement with said other (30) of said first and second regions and into engagement with the said one (28) of said first and second regions.

2. A workbench as claimed in claim 1 wherein said biasing member (24) resiliently biases said detent means (20) into restrained engagement with said other (30) of said first and second regions.

3. A workbench as claimed in either of the preceding claims wherein said actuator (18) is mounted on said first support member (2) and manually displaceable to enable a user to both operate said actuator and pivotally displace said first support member with one hand.

4. A workbench as claimed in any one of the preceding claims wherein said actuator (18) comprises a manually operable arm.

5. A workbench as claimed in any one of the preceding claims wherein the first region (26) of the channel is substantially arcuate, thereby to cause the detent to follow an arcuate path in sympathy with the relative pivotal movement between the first and second support members (2, 16).

6. A workbench as claimed in claim 5 wherein said arcuate portion (28) of said channel (26) subtends a right angle.

7. A workbench according to Claim 5 or Claim 6 wherein the other (30) of the first and second regions of the channel (26) defines a stop for the detent means (20) thereby to prevent relative pivotal movement between the first and second support members (2, 16).

8. A workbench as claimed in claim 7 wherein said stop (30) is formed so as to extend radially outwards of said arcuate region (28) of said channel (26).

9. A workbench according to Claim 7 or Claim 8 wherein the stop (30) is substantially linear.

10. A workbench according to any one of the preceding claims wherein there are two of the other (30) of the first and second regions, these two of the other (30) of the first and second regions flanking the one (28) of said first and second regions.

11. A workbench according to any one of the preceding claims wherein the detent means (20) is biased by way of a spring member (24).

12. A workbench according to any one of the preceding claims wherein the detent means (20) comprises a manually operable arm (18).

13. A workbench according to any one of the preceding claims wherein the channel (26) is formed as a recess within said one of the first and second support members (2, 16).

14. A workbench according to any one of Claims 1 - 12 wherein the channel (30) is formed as a hole within said one of the first and second support members.

15. A workbench according to any one of the preceding claims wherein the first and second support members (2, 16) each comprise a pair of supports.

16. A workbench according to Claim 15 wherein each of said supports of said first support member (2) is formed with a detent (20) or detent engaging means (26) and each of the supports of the second support member (16) is provided with the other of a detent (20) or detent engaging means (26).

17. A workbench as claimed in Claim 16 having an actuator (18) associated with each support of said first support member (16) and which is interconnected with each detent means (20) so that manual oper-

ation of the actuator (18) effects simultaneous displacement of both said detent means (18) associated with each of said pair of supports of said first or second support members.

18. A workbench as claimed in Claim 15 or Claim 16 or Claim 18 when appended to Claim 16 wherein said first and second jaws of the workbench are supported between said pair of supports of said first and second support members (2, 16) respectively.

19. A workbench according to any one of the preceding claims wherein the first and second support members (2, 16) each are formed on respective legs of the workbench.

Patentansprüche

1. Werkbank
mit einem auf einem ersten Stützelement (2) befestigten ersten Klemmelement (14) und einem auf einem zweiten Stützelement (16) befestigten zweiten Klemmelement (115), wobei zumindest ein Klemmelement (14, 115) von Hand auf seinem Stützelement verlagerbar ist, um das Paar von Klemmelementen (14, 115) zusammen zu bewegen oder zu trennen,
wobei das erste Stützelement (2) schwenkbar mit dem zweiten Stützelement (16) gekoppelt ist und wobei eines der ersten und zweiten Stützelemente (2, 16) mit einem Riegeleingriffsmittel (26) versehen ist, und
mit einem auf dem anderen der ersten und zweiten Stützelemente befestigten und mit dem Riegeleingriffsmittel (26) zusammenwirkbaren Riegelmittel (20), um wahlweise eine relative Schwenkbewegung zwischen dem ersten und zweiten Stützelement (2, 16) zu gestatten oder zu verhindern,
dadurch gekennzeichnet, dass das Riegeleingriffsmittel (26) einen in dem einen der ersten und zweiten Stützelemente ausgebildeten Kanal aufweist, der erste und zweite Abschnitte (28, 30) bildet, von denen einer eine begrenzte bogenförmige Bewegung des Riegelmittels (20) in ihm gestattet und der andere die Bewegung des Riegelmittels (20) verhindert,
wobei das eine von Riegelmittel und Riegeleingriffsmittel (20, 26) in Eingriff mit einem Vorspannelement (24) steht, um das Riegelmittel (20) in Eingriff mit dem anderen der ersten und zweiten Abschnitte (30) zu halten, wobei die Vorspannmittel (24) einen ihnen zugeordneten Betätiger (18) aufweisen, dessen Betätigung gegen die Wirkung des Vorspannelements eine relative Verlagerung des Riegelmittels (20) außer Eingriff mit dem anderen (30) der ersten und zweiten Abschnitte und in Eingriff mit dem einen (28) der ersten und zweiten Abschnitte bewirkt.

2. Werkbank nach Anspruch 1, bei der das Vorspannelement (24) das Riegelmittel (20) in festlegenden Eingriff mit dem anderen (30) der ersten und zweiten Abschnitte elastisch vorspannt.

3. Werkbank nach einem der vorhergehenden Ansprüche, bei der der Betätiger (18) am ersten Stützelement (2) befestigt und von Hand verlagerbar ist, um dem Benutzer sowohl die Betätigung des Betätigers als auch die verschwenkbare Verlagerung des ersten Stützelements mit einer Hand zu ermöglichen.

4. Werkbank nach einem der vorhergehenden Ansprüche, bei der der Betätiger (18) einen von Hand zu betätigenden Arm aufweist.

5. Werkbank nach einem der vorhergehenden Ansprüche, bei der der erste Abschnitt (26) des Kanals im Wesentlichen gekrümmt ist, um das Riegelmittel einer gekrümmten Bahn in Übereinstimmung mit der relativen Schwenkbewegung zwischen den ersten und zweiten Stützelementen (2, 16) folgen zu lassen.

6. Werkbank nach Anspruch 5, bei der der gekrümmte Abschnitt (28) des Kanals (26) einem rechten Winkel gegenüberliegt.

7. Werkbank nach Anspruch 5 oder 6, bei der der andere (30) der ersten und zweiten Abschnitte des Kanals (26) einen Anschlag für das Riegelmittel (20) bildet, um eine relative Verschwenkbewegung zwischen den ersten und zweiten Stützelementen (2, 16) zu verhindern.

8. Werkbank nach Anspruch 7, bei der der Anschlag so ausgebildet ist, dass er sich radial aus dem gekrümmten Abschnitt (28) des Kanals (26) erstreckt.

9. Werkbank nach Anspruch 7 oder 8, bei der der Anschlag (30) im Wesentlichen geradlinig ist.

10. Werkbank nach einem der vorhergehenden Ansprüche, bei der zwei andere (30) der ersten und zweiten Abschnitte vorhanden sind, die den einen (28) der ersten und zweiten Abschnitte flankieren.

11. Werkbank nach einem der vorhergehenden Ansprüche, bei der das Riegelmittel (20) durch ein Federelement (24) vorgespannt ist.

12. Werkbank nach einem der vorhergehenden Ansprüche, bei der das Riegelmittel (20) einen von Hand betätigbaren Arm (18) aufweist.

13. Werkbank nach einem der vorhergehenden Ansprüche, bei der der Kanal (26) als Aussparung in dem einen der ersten und zweiten Stützelemente (2, 16) ausgebildet ist.

14. Werkbank nach einem der Ansprüche 1 bis 12, bei der der Kanal (30) als Loch in dem einen der ersten und zweiten Stützelemente ausgebildet ist.

15. Werkbank nach einem der vorhergehenden Ansprüche, bei der jedes der ersten und zweiten Stützelemente (2, 16) ein Paar Stützen aufweist.

16. Werkbank nach Anspruch 15, bei der jede der Stützen des ersten Stützelements (2) mit einem Riegel (20) oder Riegeleingriffsmittel (26) und jede der Stützen des zweiten Stützelements (16) mit einem Riegeleingriffsmittel (26) oder einem Riegel (20) versehen ist.

17. Werkbank nach Anspruch 16 mit einem jeder Stütze des ersten Stützelements (16) zugeordneten Betätiger (18), der mit jedem Riegelmittel (20) verbunden ist, so dass eine Betätigung des Betätigers (18) von Hand eine gleichzeitige Verlagerung beider Riegelmittel (18) bewirkt, die jedem des Paars von Stützen des ersten oder zweiten Stützelements zugeordnet sind.

18. Werkbank nach Anspruch 15 oder 16 oder nach Anspruch 18, wenn auf Anspruch 16 rückbezogen, bei der die ersten und zweiten Klemmelemente der Werkbank jeweils zwischen dem Paar Stützen der ersten und zweiten Stützelemente (2, 16) gehalten sind.

19. Werkbank nach einem der vorhergehenden Ansprüche, bei der die ersten und zweiten Stützelemente (2, 16) jeweils auf entsprechenden Beinen der Werkbank vorgesehen sind.

Revendications

1. Etabli comprenant :

un premier élément de mâchoire (14) monté sur un premier élément de support (2) et un deuxième élément de mâchoire (115) monté sur un deuxième élément de support (16), dans lequel au moins un élément de mâchoire (14, 115) peut être déplacé manuellement sur son élément de support de manière à provoquer le rapprochement ou la séparation des deux mâchoires (14, 115) ;
ledit premier élément de support (2) couplé de manière pivotante audit deuxième élément de support (16), et dans lequel l'un des premier et deuxième éléments de support (2, 16) comporte des moyens de mise en prise de cliquet (26) ;
des moyens formant cliquet (20) montés sur l'autre des premier et deuxième éléments de support et pouvant être actionnés conjointement avec les moyens de mise en prise de cliquet (26) pour permettre ou empêcher de manière sélective, de ce fait, un mouvement de pivotement relatif entre les premier et deuxième éléments de support (2, 16) ;

caractérisé en ce que lesdits moyens de mise en prise de cliquet (26) comprennent un canal formé dans ledit un des premier et deuxième éléments de support, lequel canal défini des première et deuxième régions (28, 30), l'une des première et deuxième régions (28) permettant un mouvement en forme d'arc limité des moyens formant cliquet (20) à l'intérieur de celle-ci et l'autre des première et deuxième régions (30) limitant un mouvement des moyens formant cliquet (20) ;

dans lequel l'un desdits moyens formant cliquet et desdits moyens de mise en prise de cliquet (20, 26) est en prise avec un élément de sollicitation (24) pour contraindre lesdits moyens formant cliquet (20) en prise avec ladite autre desdites première et deuxième régions (30), ledit élément de sollicitation (24) ayant en outre un actionneur (18) associé à celui-ci, moyennant quoi l'actionnement dudit actionneur (18), contre l'action dudit élément de sollicitation, réalise un déplacement relatif dudit élément de cliquet (20) hors de mise en prise avec ladite autre (30) desdites première et deuxième régions et en prise avec ladite une (28) desdites première et deuxième régions.

2. Établi selon la revendication 1, dans lequel ledit élément de sollicitation (24) sollicite de manière élastique lesdits moyens formant cliquet (20) en prise limitée avec ladite autre (30) desdites première et deuxième régions.

3. Établi selon l'une ou l'autre des revendications précédentes, dans lequel ledit actionneur (18) est monté sur ledit premier élément de support (2) et peut être déplacé manuellement pour permettre à un utilisateur à la fois d'actionner ledit actionneur et de déplacer de manière pivotante ledit premier élément de support d'une main.

4. Établi selon l'une quelconque des revendications précédentes, dans lequel ledit actionneur (18) comprend un bras pouvant être actionné manuellement.

5. Établi selon l'une quelconque des revendications précédentes, dans lequel la première région (26) du canal est sensiblement en forme d'arc, de manière à amener le cliquet à suivre un trajet en forme d'arc

en accord avec le mouvement de pivotement relatif entre les premier et deuxième éléments de support (2, 16).

6. Établi selon la revendication 5, dans lequel ladite partie en forme d'arc (28) dudit canal (26) sous-tend un angle droit.

7. Établi selon la revendication 5 ou la revendication 6, dans lequel l'autre (30) des première et deuxième régions du canal (26) définit une butée pour les moyens formant cliquet (20) pour empêcher de ce fait un mouvement de pivotement relatif entre les premier et deuxième éléments de support (2, 16).

8. Établi selon la revendication 7, dans lequel ladite butée (30) est formée de manière à s'étendre radialement vers l'extérieur de ladite région en forme d'arc (28) dudit canal (26).

9. Établi selon la revendication 7 ou la revendication 8, dans lequel la butée (30) est sensiblement linéaire.

10. Établi selon l'une quelconque des revendications précédentes, dans lequel il existe deux de l'autre (30) des première et deuxième régions, ces deux de l'autre (30) des première et deuxième régions encadrant l'une (28) desdites première et deuxième régions.

11. Établi selon l'une quelconque des revendications précédentes, dans lequel les moyens formant cliquet (20) sont sollicités à l'aide d'un élément de ressort (24).

12. Établi selon l'une quelconque des revendications précédentes, dans lequel les moyens formant cliquet (20) comprennent un bras pouvant être actionné manuellement (18).

13. Établi selon l'une quelconque des revendications précédentes, dans lequel le canal (26) est réalisé sous la forme d'un renfoncement dans ledit un des premier et deuxième éléments de support (2, 16).

14. ÉLabli selon l'une quelconque des revendications 1 à 12, dans lequel le canal (30) est réalisé sous la forme d'un trou dans ledit un des premier et deuxième éléments de support.

15. Établi selon l'une quelconque des revendications précédentes, dans lequel les premier et deuxième éléments de support (2, 16) comprennent chacun deux supports.

16. Établi selon la revendication 15, dans lequel chacun desdits supports dudit premier élément de support (2) comporte un cliquet (20) ou des moyens de mise en prise de cliquet (26) et chacun des supports du deuxième élément de support (16) est pourvu de l'autre d'un cliquet (20) ou de moyens de mise en prise de cliquet (26).

17. Etabli selon la revendication 16, comportant un actionneur (18) associé à chaque support dudit premier élément de support (16) et qui est relié à chaque moyen formant cliquet (20) de sorte qu'un actionnement manuel de l'actionneur (18) réalise un déplacement simultané desdits deux moyens formant cliquet (18) associés à chacun desdits deux supports dudit premier ou deuxième élément de support.

18. Établi selon la revendication 15 ou la revendication 16 ou la revendication 18, lorsqu'elle est ajoutée à la revendication 16, dans lequel lesdites première et deuxième mâchoires de l'établi sont respectivement supportées entre lesdits deux supports desdits premier et deuxième éléments de support (2, 16).

19. Établi selon l'une quelconque des revendications précédentes, dans lequel les premier et deuxième éléments de support (2, 16) sont formés chacun sur des pieds respectifs de l'établi.

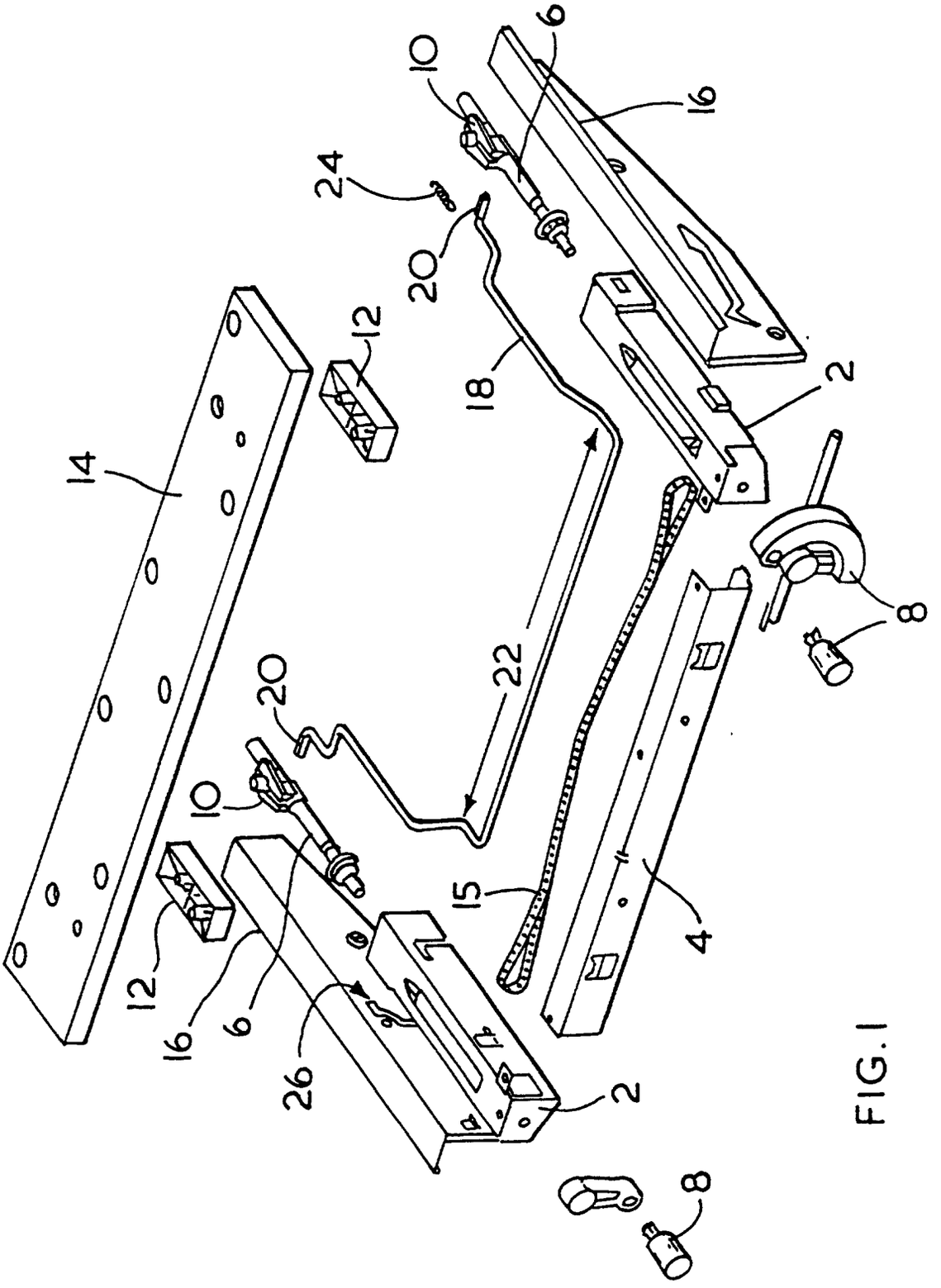


FIG. 1

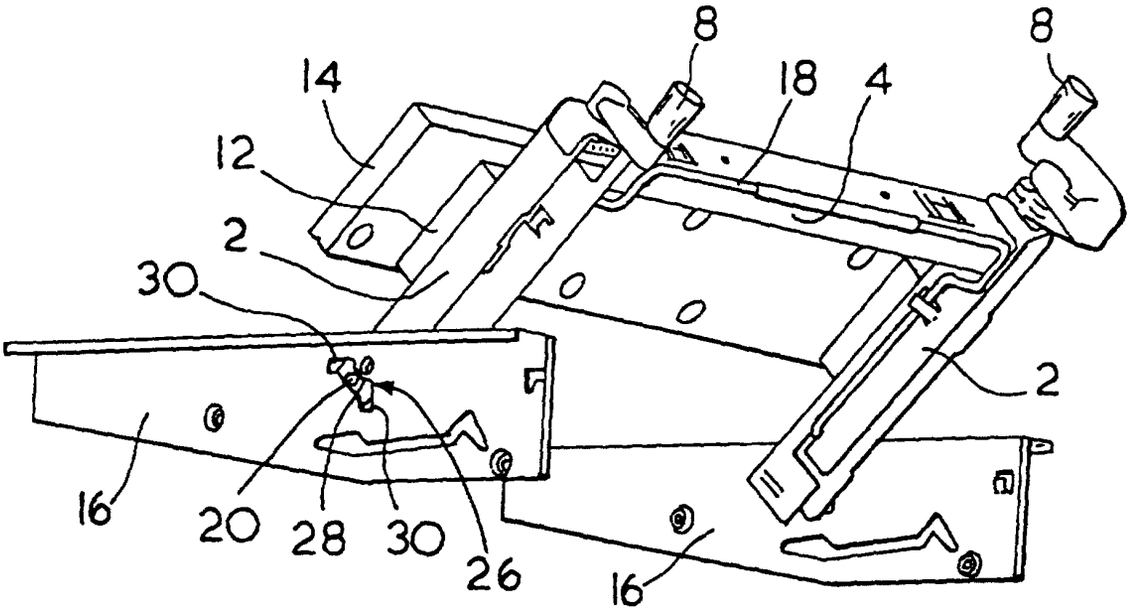


FIG. 2

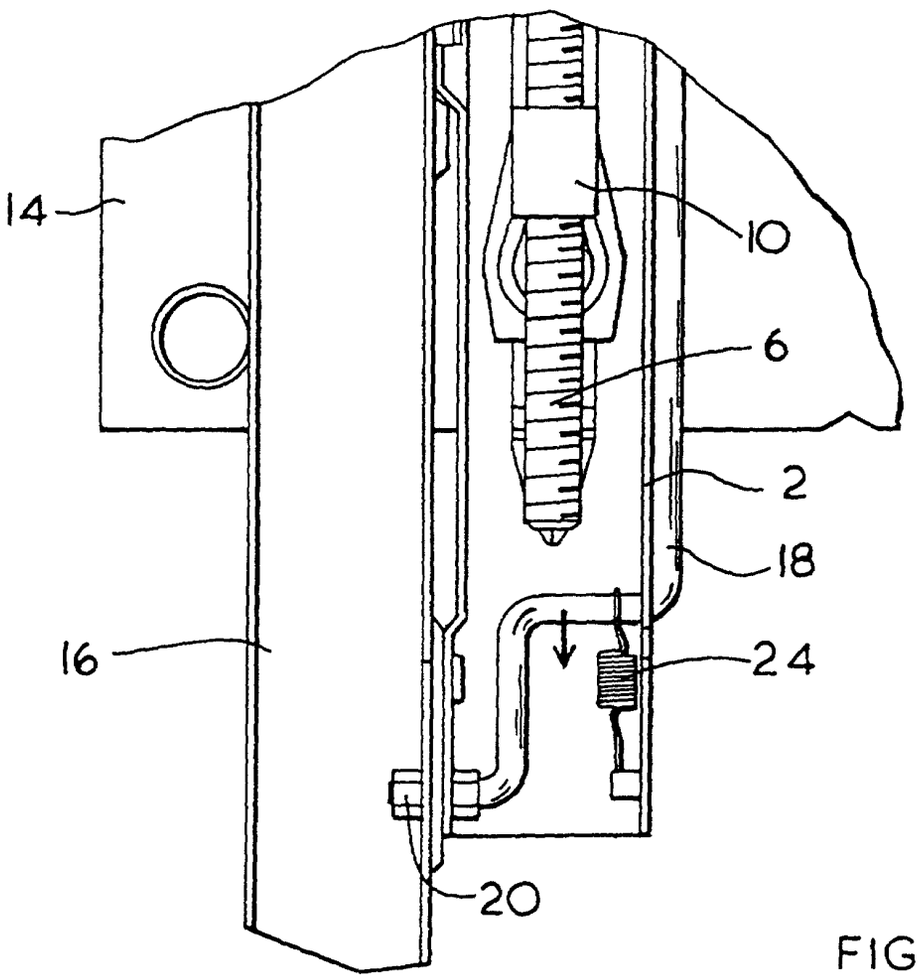


FIG. 5

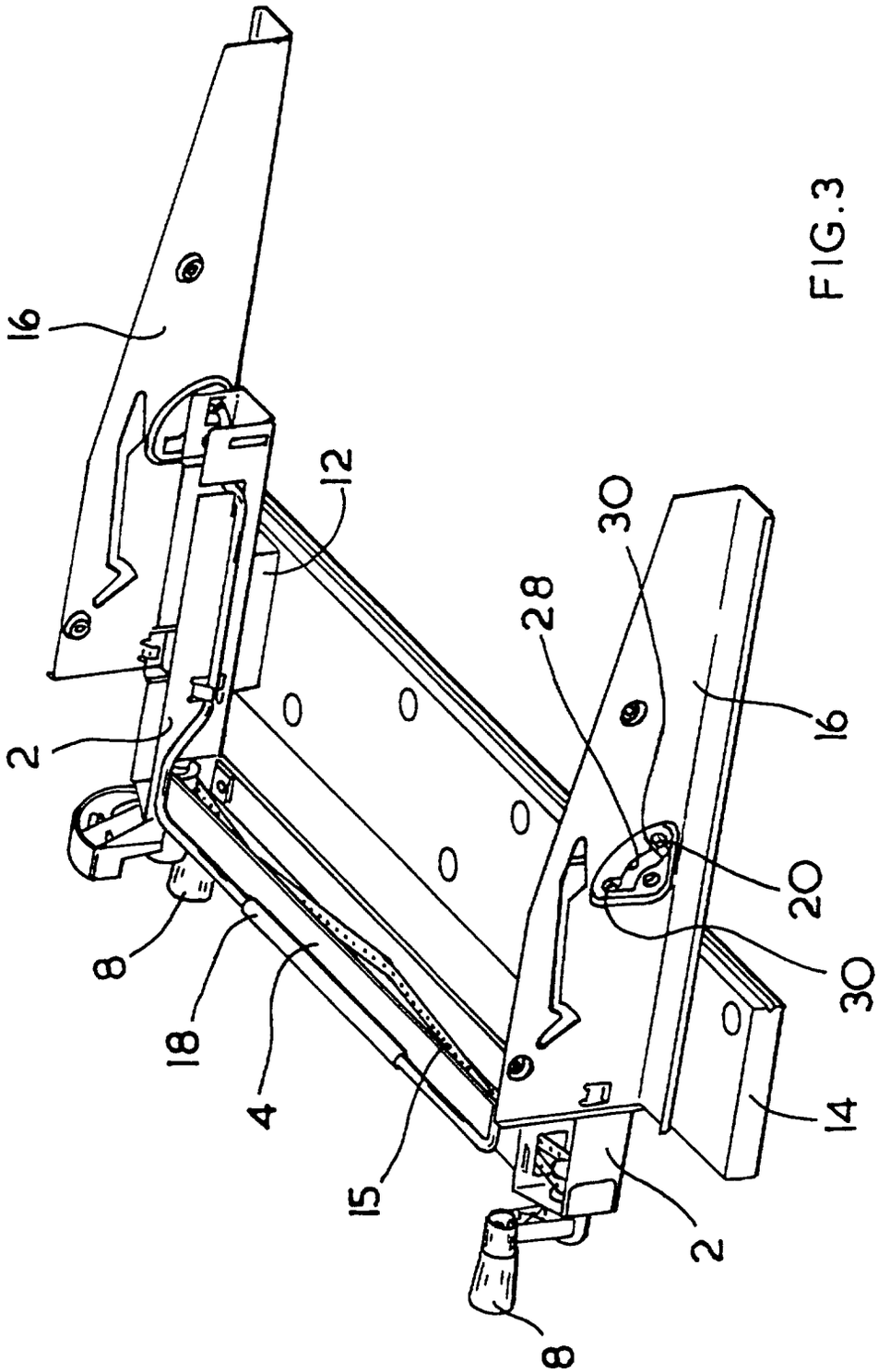


FIG.3

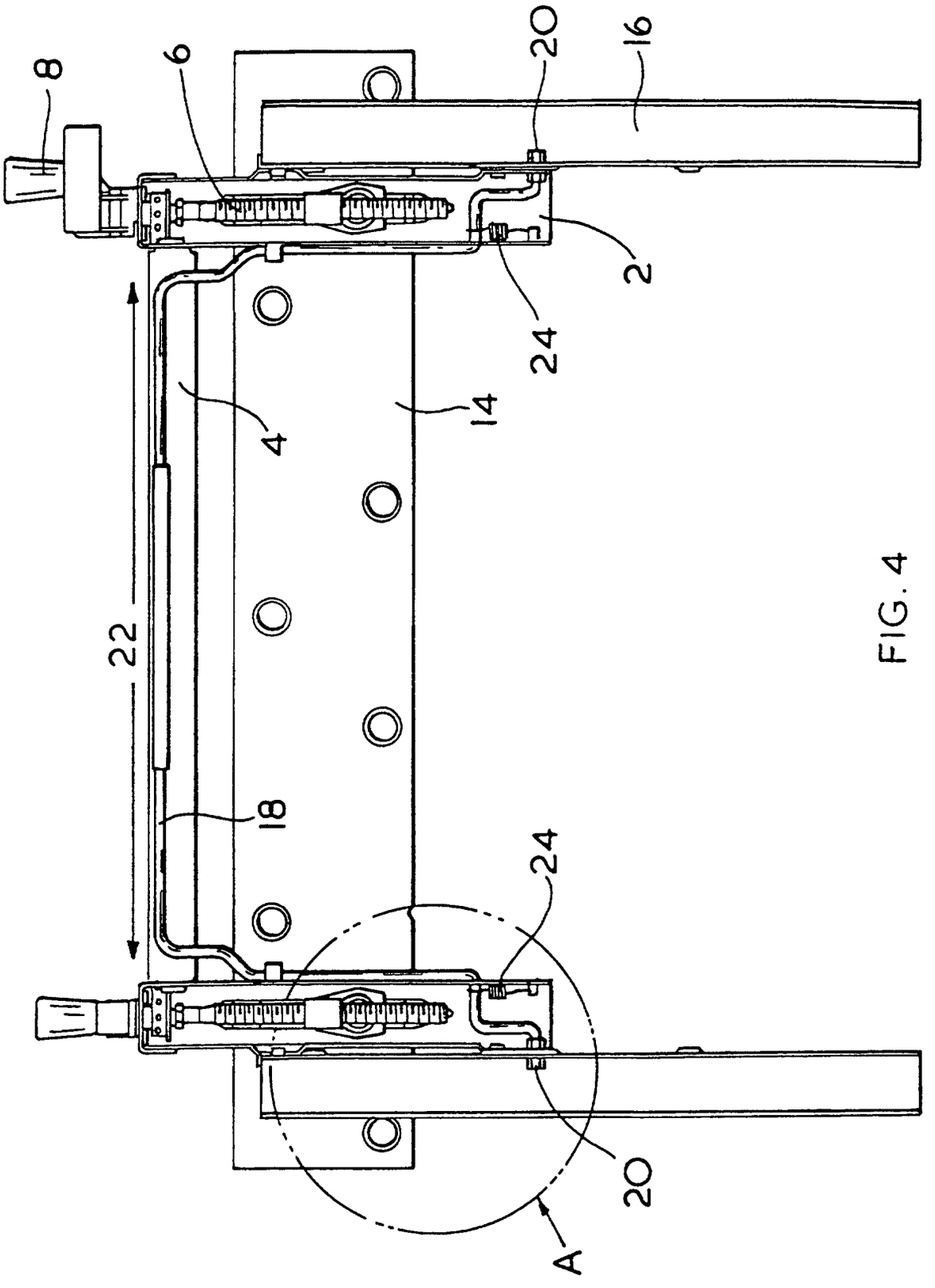


FIG. 4

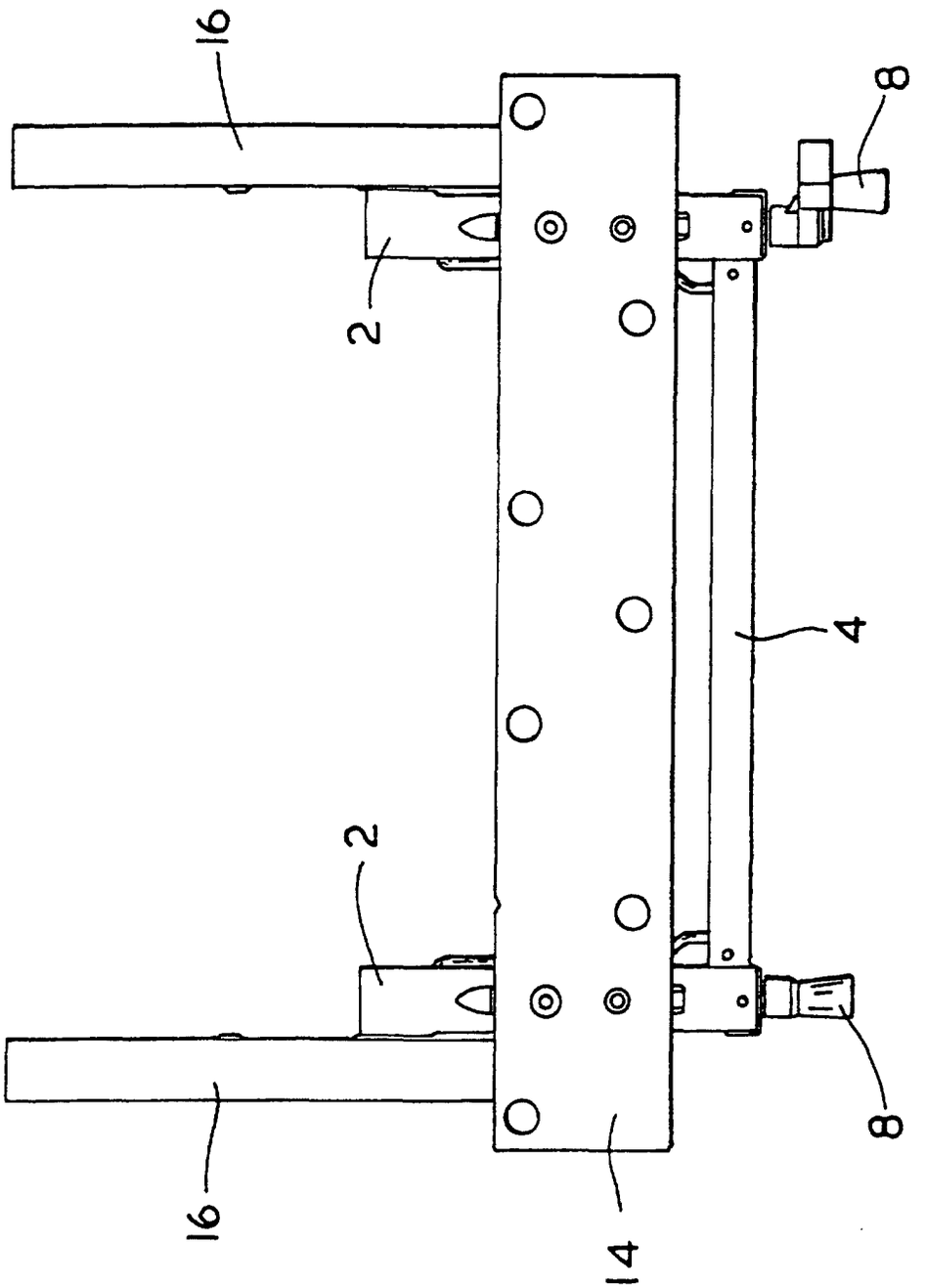


FIG. 6

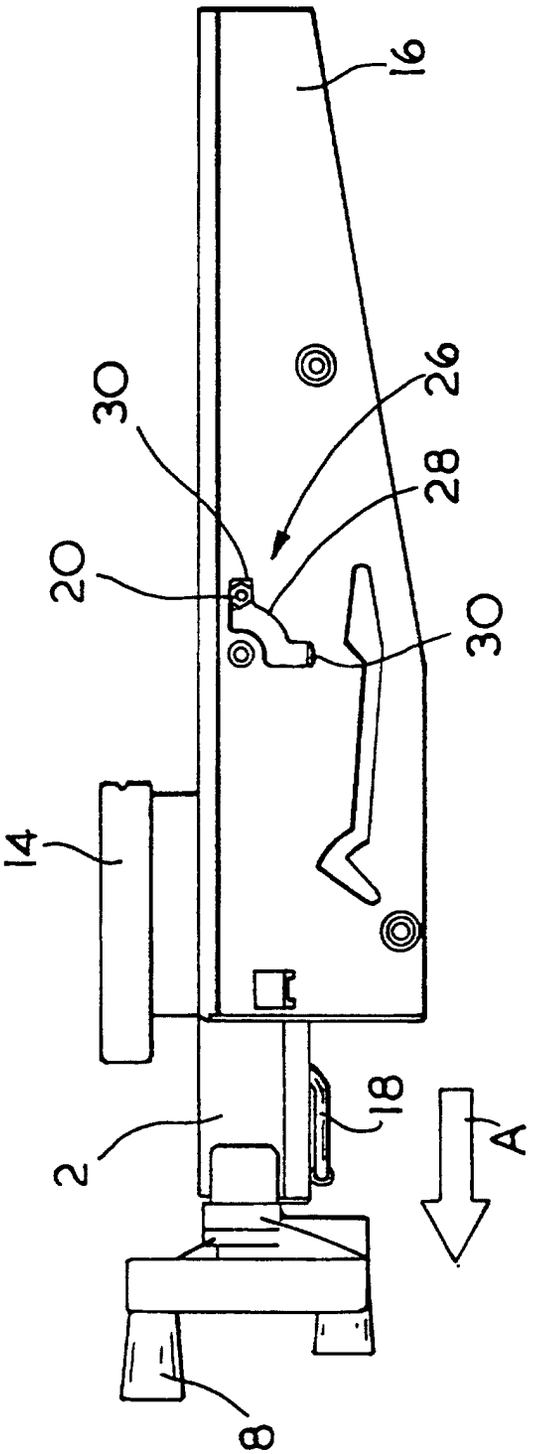


FIG. 7

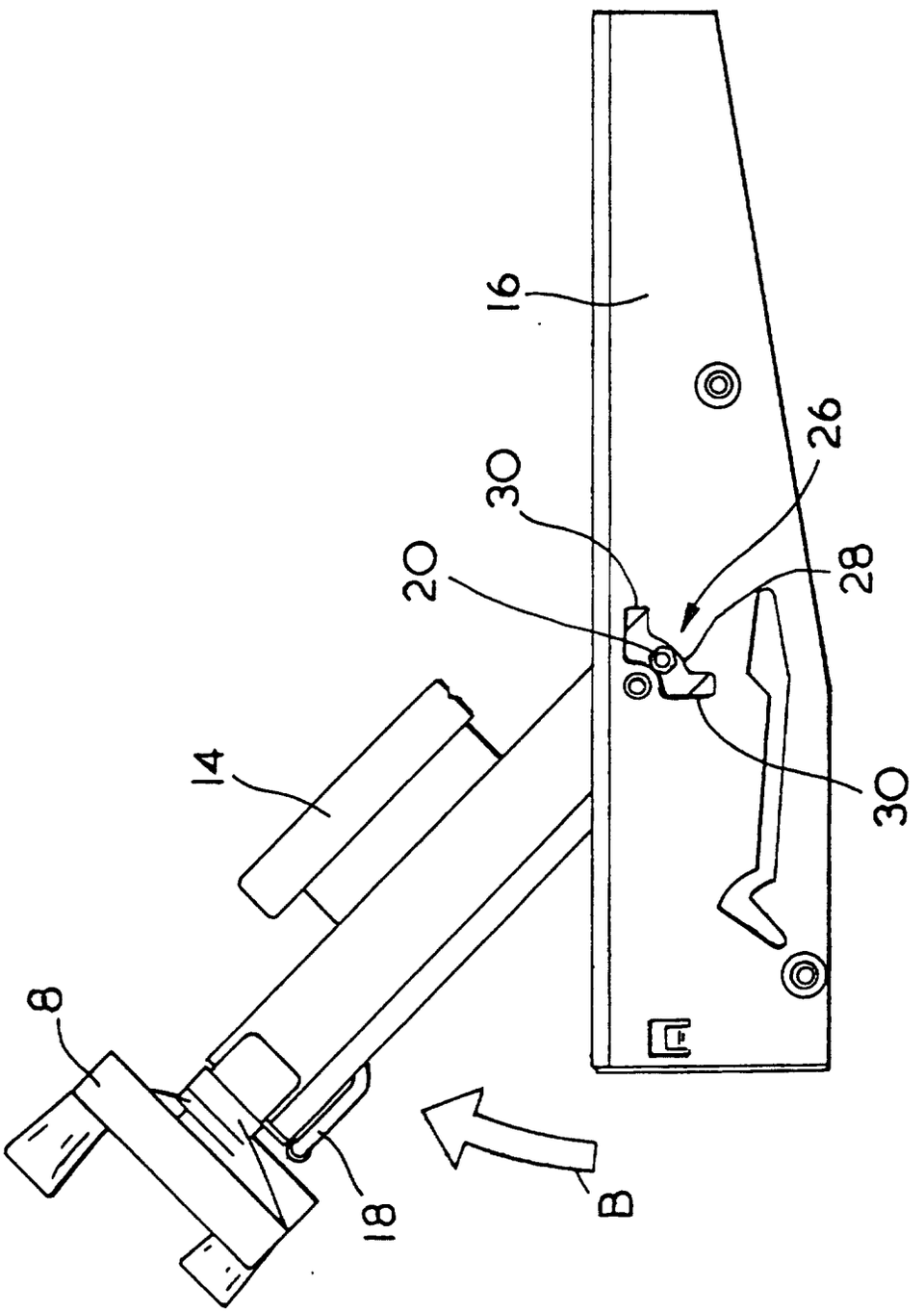


FIG. 8

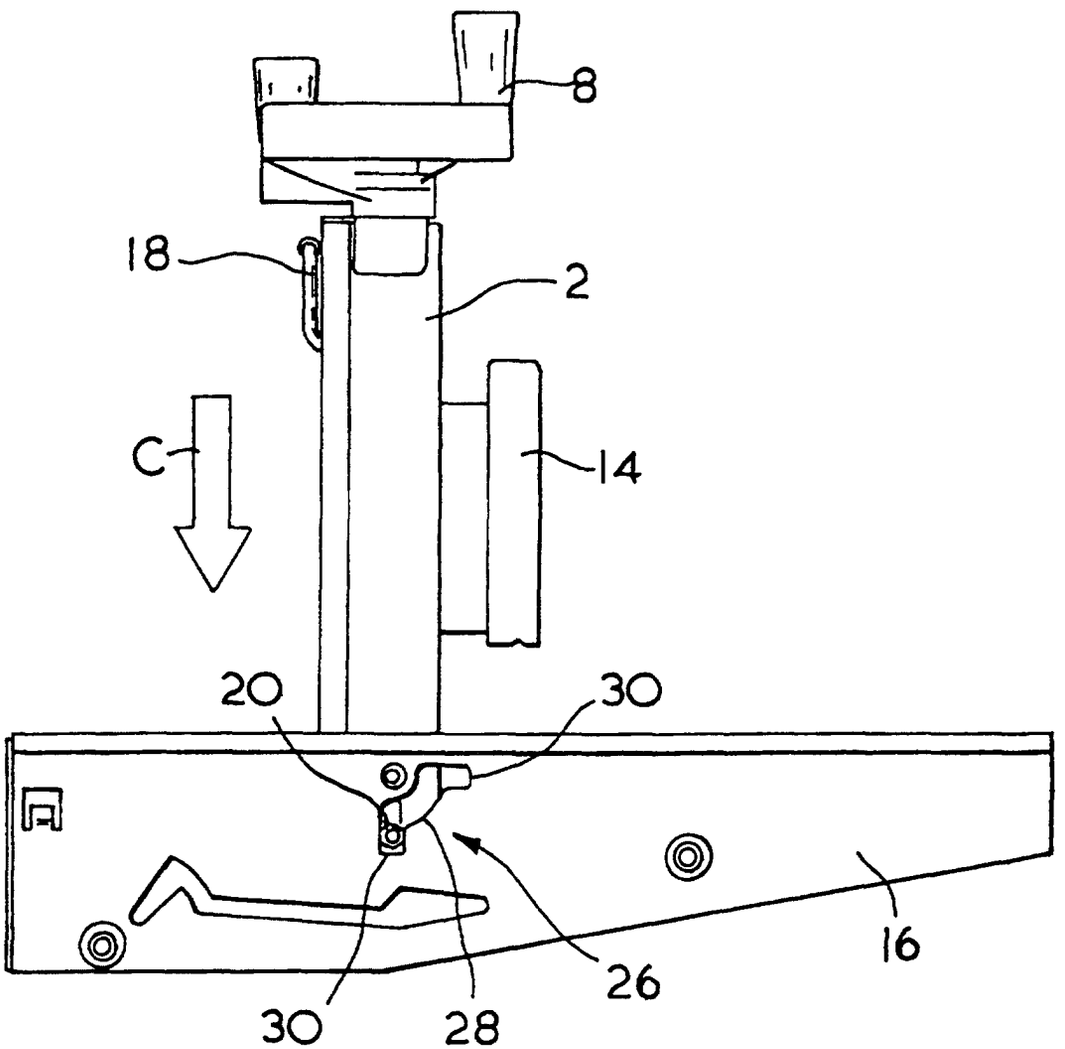


FIG. 9

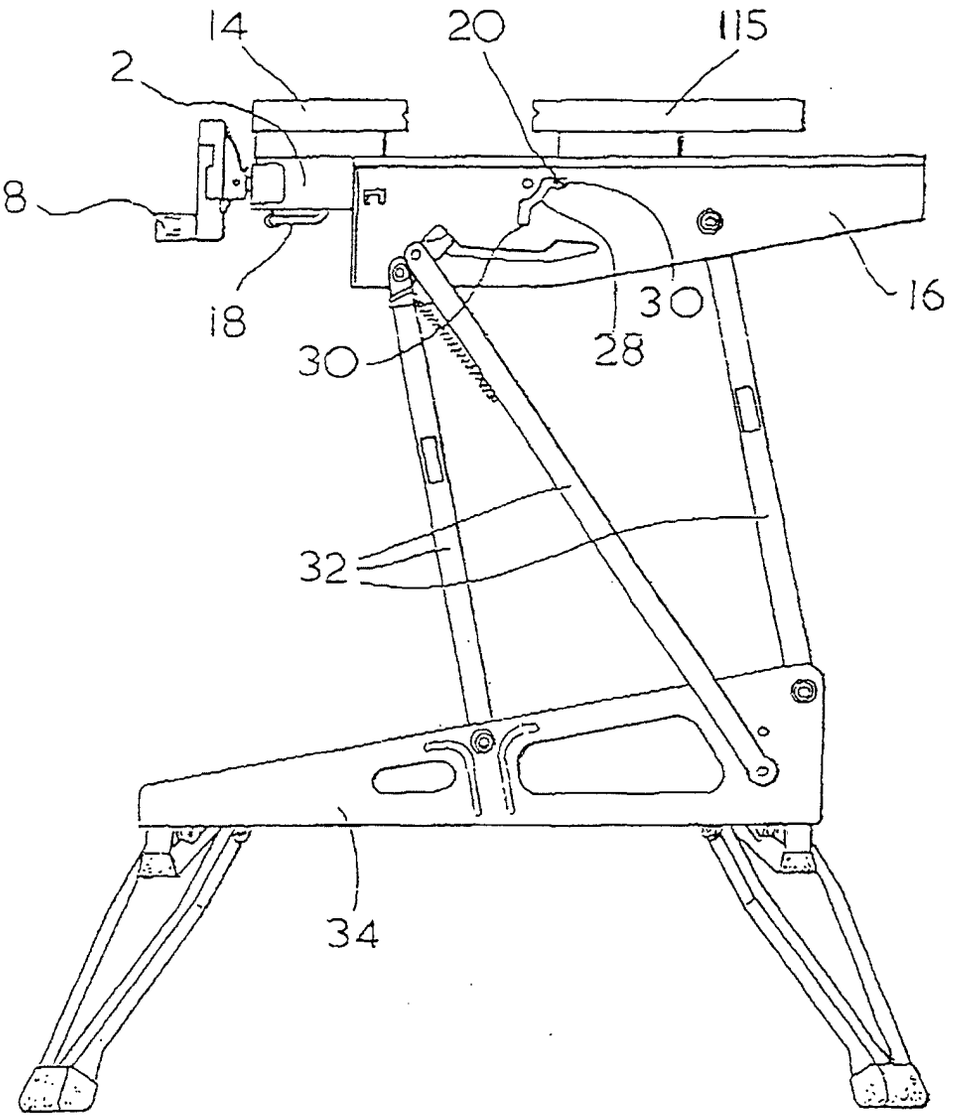


FIG.10