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(54) **Locking device with changeable combination of numerals for locking a connecting port on a computer**

Sperrvorrichtung mit einstellbarer Zahlenkombination zum sperren eines Anschlussports eines Computers

Dispositif de verrouillage avec combinaison modifiable à chiffres pour verrouiller un port de connexion sur un ordinateur

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Description

Field of the invention

[0001] The present invention relates to a locking device with changeable combination of numerals for locking a connecting port on a computer, and more particularly to a locking device that can be locked to a connecting port on a computer to hinder any unauthorized external storage device from connecting to the connecting port. Therefore, data stored on the computer are protected against unauthorized access.

Background of the invention

[0002] With the rapidly developed information technologies, computer has become one of many prerequisite electronic products in people's daily life. Computers are used in word processing, storage and processing of video files, audio files, multimedia files, and other important digital data, etc. In general, a computer is equipped with a hard disk drive, a compact disk drive, a floppy disk drive, etc. for reading and storing data. A computer can also be connected to various portable storage devices, such as portable hard disks, USB flash disks, etc., so that data in the computer can be stored on the portable storage device for use at different places.

[0003] A portable storage device generally has a universal serial bus (USB) plug as a transmission interface. In use, the USB plug can be directly plugged in a USB connector on a computer case to achieve the effect of Plug and Play for data transmission. Accordingly, with the USB interface, a user can conveniently use the portable storage device. However, due to the Plug and Play effect of the USB interface, even an unauthorized user can freely download all data stored in the computer with any portable storage device. Therefore, personal or private data stored in the computer are dangerously subject to stealing and illegally disclosure.

[0004] Locking devices known in the art are as follows:

US 2007 175248 discloses a locking according to the preamble of claim 1.

[0005] US 2007 277566 and WO 2008 021042 disclose locking devices for electronic devices, each comprising an enclosure having a plurality of windows, a locking unit arranged in the enclosure with a rod, a push member, a hooking member and a plurality of rotating discs. The rotating discs are fitted on and around the rod and each disc is provided, along an outer circumferential surface, with a plurality of sequentially arranged numeral areas, such that the numeral areas can be selectively exposed from one of the windows. When the locking device is locked, the locking unit controls the rod so that the hooking member is engaged with the connecting port of the electronic device and the electronic device is locked to the locking unit. On the other hand, when the

locking device is unlocked, the locking unit releases the rod to be axially movable and the hooking member is engaged from the electronic device.

[0006] A drawback of US 2007 277566 is the need to handle the locking device with two hands because the locking unit must be pushed with one hand so to make it slide with respect to the enclosure while holding the enclosure with the other hand. A drawback of WO 2008 021042 is the need to set the combination always from the same side of the enclosure.

[0007] US 6 796 152 discloses a locking device having an enclosure with a plurality of windows, a locking unit arranged in the enclosure with a rod, two screws able to be joined to the electronic device and a plurality of rotating discs. The rotating discs are fitted on and around the rod and each disc is provided along an outer circumferential surface with a plurality of sequentially arranged numeral areas such that the numeral areas can be selectively exposed from one of the windows. When the locking device is locked, the locking unit control the screws to be unmovable so that each screw is firmly engaged with the electronic device and the electronic device is locked to the locking unit. On the other hand, when the locking device is unlocked, the locking unit release each screw to be axially movable and the hooking member is engaged from the electronic device. This locking device is however only suitable with ports allowing a mating engagement of two screws on their sides.

[0008] US 6 523 373 discloses a locking device for electronic devices which comprise an enclosure, a locking unit arranged in the enclosure with a rod and a dial block, a hooking member connectable to the rod, a plurality of rotating discs and a metal fastening for fastening the electronic device to a fixed object. The rotating discs are fitted on and around the rod and each is provided along an outer circumferential surface with a plurality of sequentially arranged numeral areas such that the numeral areas can be selectively exposed by a user. When the locking device is locked, the locking unit controls the rod so that the dial block engages the hooking member so that the connecting port of the electronic device is locked to the locking unit. When the locking device is unlocked by manually acting on a slider, the locking unit releases the rod to be axially movable and the hooking member is disengaged from the electronic device. His device has the drawback of only having a single slider for unlocking it, thus being less comfortable to use.

[0009] US 2004 093916 discloses a locking device having an enclosure with a plurality of windows, a locking mechanism arranged in the enclosure, a housing connected to the locking mechanism with a cable and two screws able to be joined to the electronic device and a plurality of rotating discs. The housing has an aperture through which the cable runs so that the housing can be moved back and forth, guided along the cable. In a first position, the housing is away from the locking mechanism so that the heads of the screws are accessible by a user. In a second position, the housing is close to the locking

mechanism so that the heads of the screws are received within two cavities of the housing so to prevent access to the screws. This device requires two separate movements in order to unlock the electronic device, setting the rotating disks and sliding the cable. Moreover, this locking device is only suitable with ports allowing a mating engagement of two screws on their sides.

[0010] US 7 390 201 relates to a locking device having a plug for a connecting to a USB port of an electronic device and a housing. The plug has one or more apertures in a configuration that enables engagement with one or more latches. The locking device further comprises an elastic engagement member coupled to the plug and adapted to partially extend through the apertures of the plug and into the apertures of the USB port. The device is moveable from a first unlocking position to a second locking position but requires a separate blocking means in order to be kept in the second locking position.

Summary of the invention

[0011] A primary object of the present invention is to provide a locking device with changeable combination of numerals for locking a connecting port on a computer. The locking device can be locked to a connecting port on a computer to hinder any unauthorized external storage device from connecting to the connecting port. Moreover, the locking device is configured to allow a user to change the combination of numerals set for the locking device according to actual need. Therefore, data stored on the computer can be more effectively protected against unauthorized access.

[0012] To achieve the above and other objects, the locking device with changeable combination of numerals for locking a connecting port on a computer according to the present invention includes an enclosure, a locking unit, and at least one push button.

[0013] The enclosure has an insertion section formed at a first end thereof, the insertion section being provided with two corresponding holes corresponding to two retaining holes in the connecting port, and having a fixing seat received therein; a plurality of windows formed on at least one of an upper and a lower side of the enclosure; and a supporting plate located in the enclosure at a second end thereof opposite to the first end.

[0014] The locking unit is arranged in the enclosure and includes a rod, a push member, a hooking member, an elastic member, a plurality of sleeves, a plurality of rotating discs, and a push disc.

[0015] The rod has a line of teeth axially spaced on an outer circumferential surface thereof, and is movably connected at one of two ends to the supporting plate and fixedly connected at the other end to an end of the push member.

[0016] The push member is provided at another end opposite to the rod with an engaging portion.

[0017] The hooking member is movably connected to the push member by engaging with the engaging portion.

The hooking member has a first end in the form of a cross plate confined in the enclosure, and an opposite second end in the form of two hooking arms detachably extended into the holes on the insertion section of the enclosure and the retaining holes in the connecting port.

[0018] The elastic member is located between the push member and the fixing seat.

[0019] The sleeves are mounted on and around the rod between the supporting plate and the push member, and each are provided with an axially extended slot corresponding to the teeth, two diametrically opposite and externally projected wing portions located at two sides of the slot, and an annular groove formed in and around an end of each sleeve to communicate with the axial slot.

[0020] The rotating discs are fitted on and around the sleeves, and each are provided along an outer circumferential surface with a plurality of sequentially arranged numeral areas, such that the numeral areas on the same one rotating disc can be selectively exposed from one of the windows on the enclosure corresponding to that rotating disc by turning the rotating disc; and the rotating discs each are provided on an inner circumferential surface with a toothed portion for detachably engaging with the wing portions on a corresponding sleeve.

[0021] The push disc is mounted on the rod at the end connected to the supporting plate.

[0022] The at least one push button is movably arranged on at least one of two lateral sides of the enclosure to interfere with at least one side of the push member.

Brief description of the drawings

[0023] The structure and the technical means adopted by the present invention to achieve the above and other objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein:

[0024] Fig. 1 is an exploded perspective view of a locking device with changeable combination of numerals for locking a connecting port on a computer according to the present invention;

[0025] Fig. 2 is a partially assembled perspective view of Fig. 1;

[0026] Fig. 3 is a fully assembled perspective view of Fig. 1;

[0027] Fig. 4 is a sectional view taken along line A-A of Fig. 3;

[0028] Fig. 5 is a perspective view showing the use of the locking device of the present invention to lock a connecting port provided on a computer;

[0029] Fig. 6 is a sectional view showing the locking device of the present invention having been locked to the connecting port; and

[0030] Fig. 7 is a sectional view showing the locking device of the present invention being separated from the connecting port to unlock the latter.

Detailed description of the preferred embodiments

[0031] Please refer to Figs. 1, 2, and 3 that are fully exploded, partially assembled, and fully assembled perspective views, respectively, of a locking device with changeable combination of numerals for locking a connecting port on a computer according to the present invention, and to Fig. 4 that is a sectional view taken along line (A) - (A) of Fig. 3. As shown, the locking device with changeable combination of numerals according to the present invention includes an enclosure (1), a locking unit (2), and at least one push button (3).

[0032] The enclosure (1) is composed of an upper cover (11) and a lower cover (12). A first end of the enclosure (1) forms an insertion section (13) having two corresponding holes (131) provided thereon. The insertion section (13) can be configured as a USB plug. A fixing seat (14) is located in the insertion section (13) of the enclosure (1). A plurality of windows (15) are formed on at least one of an upper and a lower side of the enclosure (1). And, a supporting plate (16) is located at and in a second end of the enclosure (1) opposite to the first end.

[0033] The locking unit (2) is arranged in the enclosure (1), and includes a rod (21) movably connected at one of two ends to the supporting plate (16) and having a line of teeth (211) axially spaced on and along an outer circumferential surface thereof; a push member (22) located at the other end of the rod (21) and having an engaging portion (221); a hooking member (23) movably connected to the engaging portion (221); an elastic member (24) located between the push member (22) and the fixing seat (14); a plurality of sleeves (25) mounted on and around the rod (21) between the supporting plate (16) and the push member (22), a plurality of rotating discs (26) sequentially fitted on and around the sleeves (25), and a push disc (27) mounted on the rod (21) at the end connected to the supporting plate (16). An inclined shoulder portion (222) is formed on at least one lateral side of the push member (22). The hooking member (23) has a first end in the form of a cross plate (231) confined in the enclosure (1), and an opposite second end in the form of two hooking arms (232) detachably extended into the holes (131) on the insertion section (13). The sleeves (25) each are provided with an axially extended slot (251) corresponding to the teeth (211), two diametrically opposite and externally projected wing portions (252) located at two sides of the slot (251), and an annular groove (253) formed in and around an end of each sleeve (25) to communicate with the axial slot (251). The rotating discs (26) each are provided along an outer circumferential surface with a plurality of sequentially arranged numeral areas (261), such that the numeral areas (261) on the same one rotating disc (26) can be selectively exposed from one of the windows (15) corresponding to that rotating disc (26) by turning the rotating disc (26). The rotating discs (26) each are also provided on an inner circumferential surface with a toothed portion (262), which is able to detachably engage with the wing portions

(252) on one corresponding sleeve (25).

[0034] The push button (3) is movably arranged on at least one lateral side of the enclosure (1). A first end of the push button (3) is a push section (31) outward protruded from the enclosure (1), and an opposite second end of the push button (3) is a driving head (32) interfering with the inclined shoulder portion (222) of the push member (22).

[0035] Fig. 5 is a perspective view showing the use of the locking device of the present invention to lock a connecting port (41) on a computer case of a computer (4), and Figs. 6 and 7 are sectional views showing the locking device of the present invention locked to and detached from the connecting port (41), respectively. To use the locking device of the present invention to lock the connecting port (41), which can be a USB connecting port, the insertion section (13) of the enclosure (1) is directly inserted into the USB connecting port (41) on the computer case of the computer (4). At this point, the hooking arms (232) on the hooking member (23) of the locking unit (2) are elastically compressed downward by an inner wall surface of the USB connecting port (41). When the insertion section (13) has been moved further into the USB connecting port (41) with the hooking arms (232) aligned with two retaining holes (411) formed on the inner wall surface of the USB connecting port (41), the hooking arms (232) are no longer compressed by the inner wall surface of the USB connecting port (41) and automatically spring out of the holes (131) into the retaining holes (411). When the locking device is in a locked state, the teeth (211) on the rod (21) are separately located in the annular grooves (253) in the sleeves (25) to dislocate from the axial slots (251) on the sleeves (25), and the driving head (32) of the push button (3) pushed against the inclined shoulder portion (222) of the push member (22) could not drive the rod (21) forward. Accordingly, with the hooking arms (232) of the locking unit (2) extended into and held to the retaining holes (411), the insertion section (13) of the enclosure (1) is locked to the USB connecting port (41) on the computer (4), preventing any other external storage device from being plugged in the USB connecting port (41) to access data stored in the computer (4) without authorization.

[0036] When an authorized user of the computer (4) desires to use the USB connecting port (41), the user can turn the rotating discs (26) of the locking unit (2) via the windows (15), so that the toothed portions (262) in the rotating discs (26) cooperate with the wing portions (252) to rotate the sleeves (25), bringing the annular grooves (253) in an end of the sleeves (25) to rotate outside the teeth (211) of the rod (21) for a correct combination of numerals to show on the numeral areas (261) in the windows (15). Since the numeral areas (261) on each of the rotating discs (26) are initially set for a predetermined one of the numerals thereon to correspond to one tooth on the toothed portion (262) as well as to the axial slot (251) and the wing portions (252) on the corresponding sleeve (25), when the rotating discs (26)

are rotated for the predetermined numerals on the numeral areas (261) to show at the windows (15) in a correct combination, the axial slots (251) on the sleeves (25) would align with the teeth (211) on the rod (21), allowing the line of teeth (211) on the rod (21) to move through the axial slots (251). At this point, the user can easily push the push section (31) of the push button (3) inward. When doing this, the driving head (32) of the push button (3) interferes with and slides along the inclined shoulder portion (222) to drive the push member (22) forward. At this point, the push member (22) is moved toward the fixing seat (14) to compress the elastic member (24) and bring the rod (21) to move forward, so that the engaging portion (221) urges and biases the hooking arms (232) of the hooking member (23) downward, bringing the hooking arms (232) to retract from the retaining holes (411) of the USB connecting port (41) into the holes (131) of the insertion section (13) to unlock the locking device from the USB connecting port (41), permitting the user to remove the insertion section (13) of the enclosure (1) from the USB connection port (41).

[0037] When it is desired to change the combination of numerals set for the rotating discs (26) of the locking unit (2), first set the locking device to the unlocked state, and then use the push disc (27) at an end of the rod (21) to push against the sleeve (25) that is immediately adjacent to the push disc (27), so that all other sleeves (25) are sequentially moved forward for the wing portions (252) on each of the sleeves (25) to separate from the toothed portion (262) of a corresponding rotating disc (26). At this point, the user needs only to rotate the rotating discs (26) for a desired set of numerals on the numeral areas (261) to show at the windows (15), and then releases the push button (3), so that the elastic member (24) is elastically restored and pushes the rod (21) backward, bringing the wing portions (252) on the sleeves (25) to engage with the toothed portions (262) in the rotating discs (26) again. In this manner, a new combination of numerals is set for the locking unit (2).

[0038] In conclusion, in the locking device with changeable combination of numerals according to the present invention, by means of the locking unit, the insertion section of the enclosure can be locked to a connecting port on a computer to hinder any unauthorized external storage device from linking with the connecting port. Moreover, the locking device of the present invention allows a user to change the combination of numerals for the locking unit according to actual need. Therefore, the data stored in the computer are protected from unauthorized access. With the above arrangements, the locking device of the present invention effectively overcomes the safety problems in the conventional connecting port on the computer, and is therefore improved and practical for use to meet general users' requirements.

[0039] The present invention has been described with a preferred embodiment thereof and it is understood that many changes and modifications in the described embodiment can be carried out without departing from the

scope of the invention that is intended to be limited only by the appended claims.

5 Claims

1. A locking device with changeable combination of numerals for locking a connecting port on a computer, comprising:

an enclosure (1) having an insertion section (13) formed at a first end thereof, the insertion section (13) being provided with two corresponding holes (131) and having a fixing seat (14) received therein; a plurality of windows (15) formed on at least one of an upper and a lower side of the enclosure (1); and a supporting plate (16) located in the enclosure (1) at a second end thereof opposite to the first end;

a locking unit (2) arranged in the enclosure (1) and including a rod (21), a push member (22), a hooking member (23), an elastic member (24), a plurality of sleeves (25) a plurality of rotating discs (26) and a push disc (27);

the rod (21) having a line of teeth (211) axially spaced on an outer circumferential surface thereof, and being movably connected at one of two ends to the supporting plate (16) and fixedly connected at the other end to an end of the push member (22);

the push member (22) being provided at another end opposite to the rod (21) with an engaging portion (221);

the hooking member (23) being movably connected to the push member (22) by engaging with the engaging portion (221);

the elastic member (24) being located between the push member (22) and the fixing seat;

the sleeves (25) being mounted on and around the rod (21) between the supporting plate (16) and the push member (22), and each being provided with an axially extended slot (251) corresponding to the teeth (211), two diametrically opposite and externally projected wing portions (252) located at two sides of the slot (251), and an annular groove (253) formed in and around an end of each sleeve (25) to communicate with the axial slot (251);

the rotating discs (26) being fitted on and around the sleeves (25), and each being provided along an outer circumferential surface with a plurality of sequentially arranged numeral areas (261), such that the numeral areas (261) on the same one rotating disc (26) can be selectively exposed from one of the windows (15) on the enclosure (1) corresponding to that rotating disc (26) by turning the rotating disc (26); and the rotating discs (26) each being provided on an inner cir-

- cumferential surface with a toothed portion (262) for detachably engaging with the wing portions (252) on a corresponding sleeve (25); and the push disc (27) being mounted on the rod (21) at the end connected to the supporting plate (16); and
 at least one push button (3) being movably arranged on at least one of two lateral sides of the enclosure (1) to interfere with one side of the push member (22);
characterized in that said hooking member (23) having a first end in the form of a cross plate (231) confined in the enclosure (1), and an opposite second end in the form of two hooking arms (232) detachably extended into the holes (131) on the insertion section.
2. The locking device with changeable combination of numerals for locking a connecting port on a computer as claimed in claim 1, wherein the enclosure (1) is composed of an upper cover (11) and a lower cover (12).
 3. The locking device with changeable combination of numerals for locking a connecting port on a computer as claimed in claim 1, wherein the insertion section (13) is configured as a USB plug.
 4. The locking device with changeable combination of numerals for locking a connecting port on a computer as claimed in claim 1, wherein the push member (22) is formed on at least one side with an inclined shoulder portion (222), with which the push button (3) interferes.
 5. The locking device with changeable combination of numerals for locking a connecting port on a computer as claimed in claim 1, wherein the push button (3) has a push section outward protruded from the enclosure (1), and a driving head opposite to the push section (31) for interfering with one side of the push member (22).

Patentansprüche

1. Sperrvorrichtung mit änderbarer Zahlenkombination zum Sperren eines Anschlussports an einem Computer, umfassend:

ein Gehäuse (1), das einen Einsteckabschnitt (13) aufweist, der an einem ersten Ende desselben ausgebildet ist, wobei der Einsteckabschnitt (13) mit zwei übereinstimmenden Löchern (131) versehen ist und einen Befestigungssitz (14) darin aufgenommen aufweist; eine Vielzahl von Fenstern (15), die auf mindestens einer von einer oberen und einer unteren Seite des Gehäuses (1) ausgebildet sind; und eine Lagerplatte (16), die sich in dem Gehäuse (1) an einem zweiten Ende desselben befindet, das dem ersten Ende entgegengesetzt ist;

eine Sperreinheit (2), die in dem Gehäuse (1) angeordnet ist und einen Stab (21), ein Schubglied (22), ein Einhakglied (23), ein elastisches Glied (24), eine Vielzahl von Hülzen (25), eine Vielzahl von Drehscheiben (26) und eine Schubscheibe (27) umfasst;
 wobei der Stab (21) eine Reihe von axial beabstandeten Zähnen (211) auf einer äußeren Umfangsfläche desselben aufweist und an einem von zwei Enden beweglich mit der Lagerplatte (16) verbunden ist und an dem anderen Ende starr mit einem Ende des Schubglieds (22) verbunden ist;
 wobei das Schubglied (22) an einem dem Stab (21) entgegengesetzten anderen Ende mit einem Eingriffsabschnitt (221) versehen ist;
 wobei das Einhakglied (23) durch Eingriff mit dem Eingriffsabschnitt (221) beweglich mit dem Schubglied (22) verbunden ist;
 wobei sich das elastische Glied (24) zwischen dem Schubglied (22) und dem Befestigungssitz befindet;
 wobei die Hülzen (25) auf und um den Stab (21) zwischen der Lagerplatte (16) und dem Schubglied (22) montiert sind und jede in Übereinstimmung mit den Zähnen (211) mit einem sich axial erstreckenden Schlitz (251) versehen ist, wobei sich zwei diametral entgegengesetzte und nach außen vorstehende Flügelabschnitte (252) auf zwei Seiten des Schlitzes (251) befinden und eine ringförmige Nut (253) in einem und um ein Ende von jeder Hülse (25) für die Verbindung mit dem axialen Schlitz (251) ausgebildet ist;
 wobei die Drehscheiben (26) auf und um die Hülzen (25) montiert und jeweils entlang einer äußeren Umfangsfläche derart mit einer Vielzahl von aufeinanderfolgend angeordneten Ziffernbereichen (261) versehen sind, dass die Ziffernbereiche (261) auf ein und derselben Drehscheibe (26) selektiv von einem der Fenster (15), das dieser Drehscheibe (26) entspricht, im Gehäuse (1) durch Drehen der Drehscheibe (26) freigelegt werden kann; und wobei die Drehscheiben (26) jeweils mit einer inneren Umfangsfläche mit einem gezahnten Abschnitt (262) versehen sind, um lösbar mit den Flügelabschnitten (252) auf einer entsprechenden Hülse (25) in Eingriff zu kommen;
 und wobei die Schubscheibe (27) an dem mit der Lagerplatte (16) verbundenen Ende auf den Stab (21) montiert ist; und
 mindestens einen Druckknopf (3), der beweglich auf mindestens einer von zwei lateralen Seiten des Gehäuses (1) angeordnet ist, um an eine

Seite des Schubglieds (22) anzugreifen;
dadurch gekennzeichnet, dass das Einhak-
 glied (23) ein erstes Ende in der Form einer
 Querplatte (231), die in das Gehäuse (1) einge-
 schlossen ist, und ein entgegengesetztes zwei-
 tes Ende in der Form von zwei Hakenarmen
 (232) aufweist, die sich lösbar in die Löcher
 (131) im Einsteckabschnitt erstrecken.

2. Sperrvorrichtung mit änderbarer Zahlenkombination
 zum Sperren eines Anschlussports an einem Com-
 puter nach Anspruch 1, bei der das Gehäuse (1) aus
 einer oberen Abdeckung (11) und einer unteren Ab-
 deckung (12) besteht. 5
3. Sperrvorrichtung mit änderbarer Zahlenkombination
 zum Sperren eines Anschlussports an einem Com-
 puter nach Anspruch 1, bei welcher der Einsteckab-
 schnitt (13) wie ein USB-Stecker ausgestaltet ist. 10
4. Sperrvorrichtung mit änderbarer Zahlenkombination
 zum Sperren eines Anschlussports an einem Com-
 puter nach Anspruch 1, bei der das Schubglied (22)
 auf mindestens einer Seite mit einem schrägen
 Schulterabschnitt (222) ausgebildet ist, an dem der
 Druckknopf (3) angreift. 15
5. Speuvorrichtung mit änderbarer Zahlenkombination
 zum Sperren eines Anschlussports an einem Com-
 puter nach Anspruch 1, bei welcher der Druckknopf
 (3) einen aus dem Gehäuse (1) herausragenden
 Drückabschnitt und einen dem Drückabschnitt (31)
 entgegengesetzten Steuerkopf zum Angreifen an ei-
 ner Seite des Schubglieds (22) aufweist. 20

Revendications

1. Dispositif de verrouillage avec combinaison modifia-
 ble de chiffres pour verrouiller un port de connexion
 sur un ordinateur, comprenant : 25
- un boîtier (1) ayant une section d'insertion (13)
 formée à une première extrémité de celui-ci, la
 section d'insertion (13) étant pourvue de deux
 trous correspondants (131) et ayant un siège de
 fixation (14) reçu dans ceux-ci ; une pluralité de
 fenêtres (15) formées sur au moins un côté su-
 périeur et un côté inférieur du boîtier (1) ; et une
 plaque de support (16) située dans le boîtier (1)
 à une deuxième extrémité de celui-ci opposée
 à la première extrémité ; 30
- une unité de verrouillage (2) disposée dans le
 boîtier (1) et comprenant une tige (21), un élé-
 ment de poussée (22), un élément d'accrochage
 (23), un élément élastique (24), une pluralité de
 manchons (25), une pluralité de disques rotatifs
 (26) et un disque de poussée (27) ; 35

la tige (21) ayant une ligne de dents (211) es-
 pacées axialement sur une surface circonféren-
 tielle extérieure de celle-ci et étant connecté de
 manière mobile à une de deux extrémités à la
 plaque de support (16) et
 connectée de manière fixe à l'autre extrémité à
 une extrémité de l'élément de poussée (22) ;
 l'élément de poussée (22) étant pourvu d'une
 portion d'engagement (221) à une autre extré-
 mité opposée à la tige (21) ;
 l'élément d'accrochage (23) étant connecté de
 manière mobile à l'élément de poussée (22) par
 engagement avec la portion d'engagement
 (221) ;
 l'élément élastique (24) étant positionné entre
 l'élément de poussée (22) et le siège de fixation ;
 les manchons (25) étant montés sur et autour
 de la tige (21) entre la plaque de support (16) et
 l'élément de poussée (22) et étant pourvus cha-
 cun d'une fente s'étendant axialement (251) cor-
 respondant aux dents (211), deux portions d'aile
 faisant saillie extérieurement et diamétralement
 opposées (252) situées sur les deux côtés de la
 fente (251), et une rainure annulaire (253) for-
 mée dans et autour d'une extrémité de chaque
 manchon (25) pour communiquer avec la fente
 axiale (251) ;
 les disques rotatifs (26) étant montés sur et
 autour des manchons (25) et étant munis cha-
 cun le long d'une surface circonférentielle exté-
 rieure d'une pluralité de zones de chiffres agen-
 cées séquentiellement (261), de manière que
 les zones de chiffres (261) sur le même disque
 rotatif (26) puissent être exposées sélective-
 ment à partir d'une des fenêtres (15) sur le boî-
 tier (1) correspondant à ce disque rotatif (26) en
 faisant tourner le disque rotatif (26) ; et les dis-
 ques rotatifs (26) étant dotés chacun sur une
 surface circonférentielle intérieure d'une portion
 dentée (262) pour engager de manière amovible
 les portions d'aile (252) sur un manchon corres-
 pondant (25) ; et
 le disque de poussée (27) étant monté sur la
 tige (21) à l'extrémité connectée à la plaque de
 support (16) ; et
 au moins un bouton poussoir (3) étant agencé
 de manière mobile sur au moins un de deux cô-
 tés latéraux du boîtier (1) pour interférer avec
 un côté de l'élément de poussée (22) ;
caractérisé en ce que ledit élément d'accro-
 chage (23) a une première extrémité sous la for-
 me d'une plaque transversale (231) logée dans
 le boîtier (1) et une deuxième extrémité opposée
 sous la forme de deux bras d'accrochage (232)
 s'étendant de manière amovible dans les trous
 (131) sur la section d'insertion.

2. Dispositif de verrouillage avec combinaison modifia-

ble de chiffres pour verrouiller un port de connexion sur un ordinateur selon la revendication 1, dans lequel le boîtier (1) est composé d'un couvercle supérieur (11) et d'un couvercle inférieur (12).

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3. Dispositif de verrouillage avec combinaison modifiable de chiffres pour verrouiller un port de connexion sur un ordinateur selon la revendication 1, dans lequel la section d'insertion (13) est configurée comme une fiche USB.

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4. Dispositif de verrouillage avec combinaison modifiable de chiffres pour verrouiller un port de connexion sur un ordinateur selon la revendication 1, dans lequel l'élément de poussée (22) est formé sur au moins un côté avec une portion d'épaulement inclinée (222), avec laquelle le bouton poussoir (3) interfère.

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5. Dispositif de verrouillage avec combinaison modifiable de chiffres pour verrouiller un port de connexion sur un ordinateur selon la revendication 1, dans lequel le bouton poussoir (3) a une section de poussée faisant saillie vers l'extérieur à partir du boîtier (1), et une tête de commande opposée à la section de poussée (31) pour interférer avec un côté de l'élément de poussée (22).

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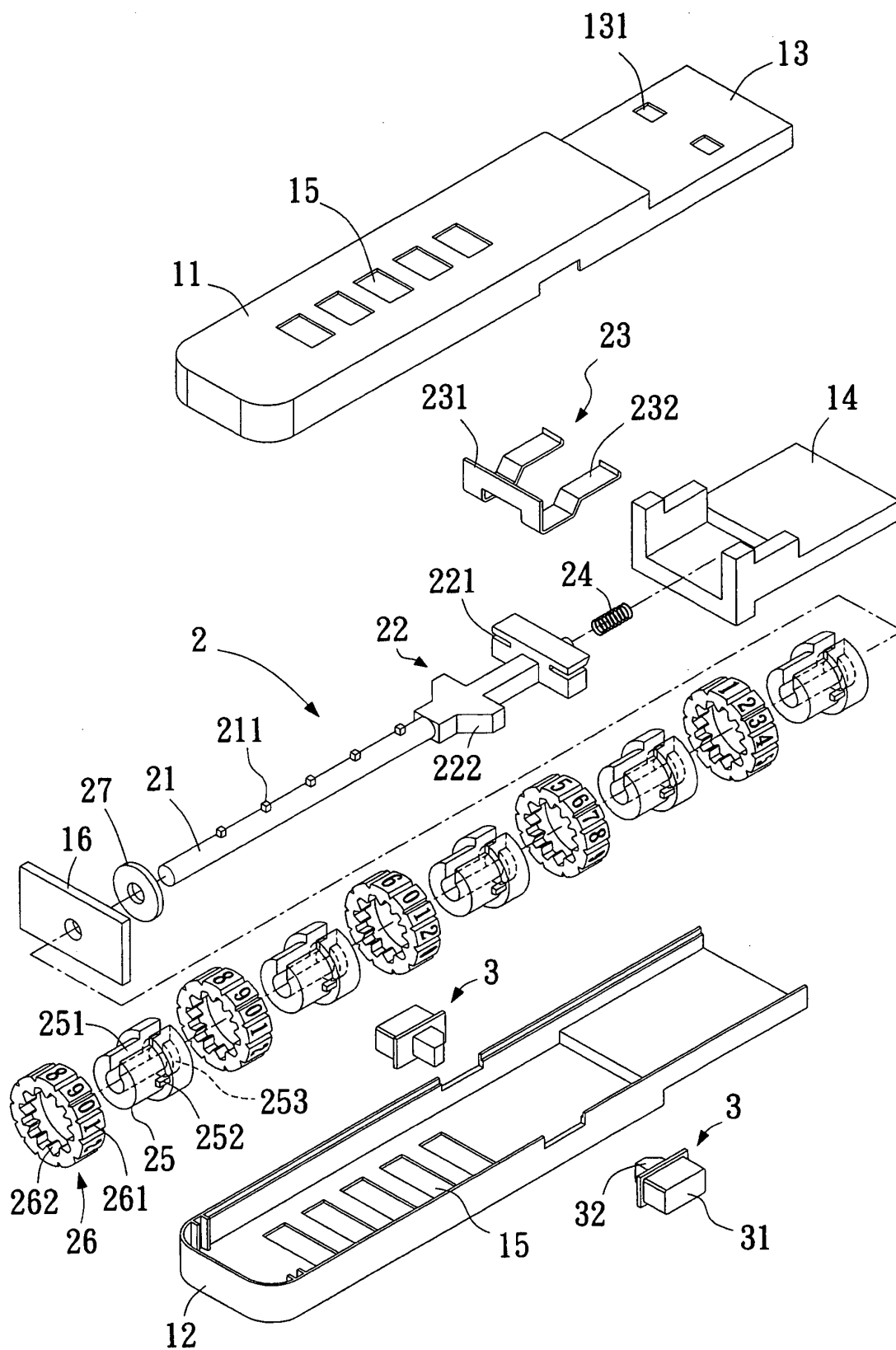


Fig. 1

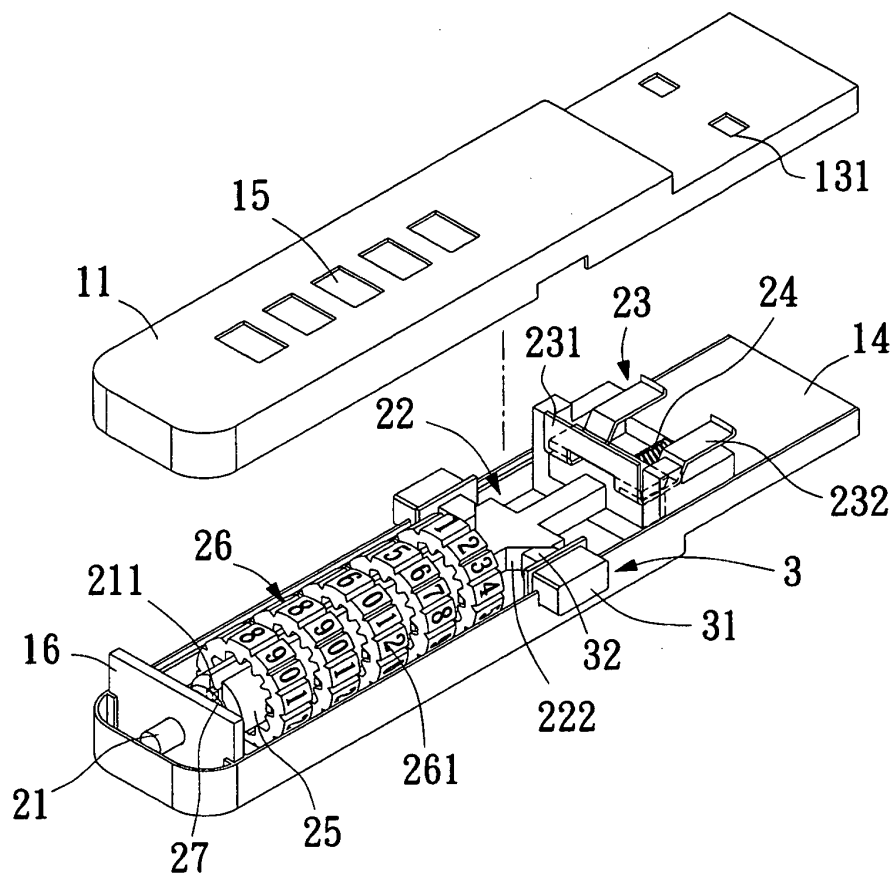


Fig. 2

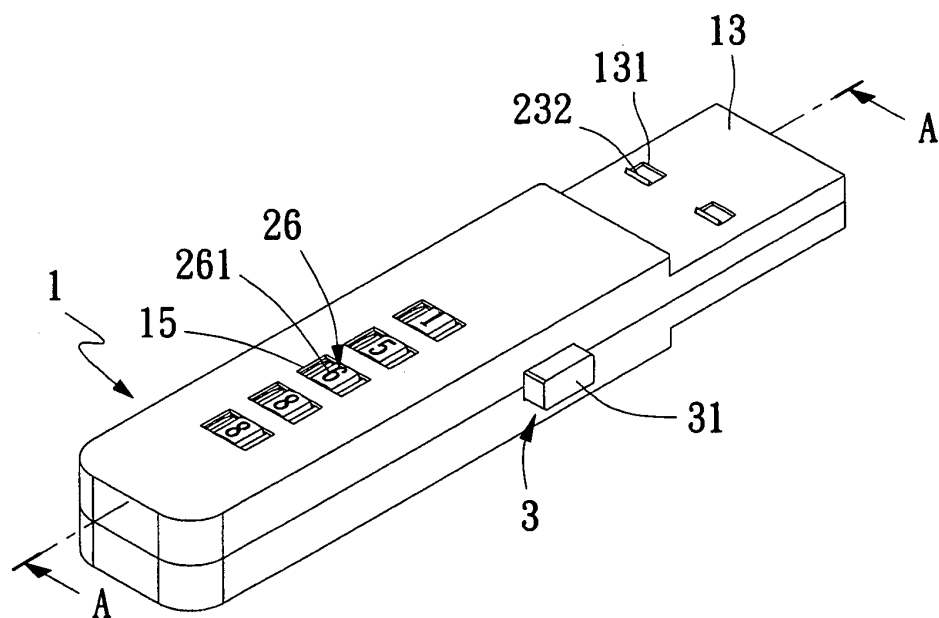
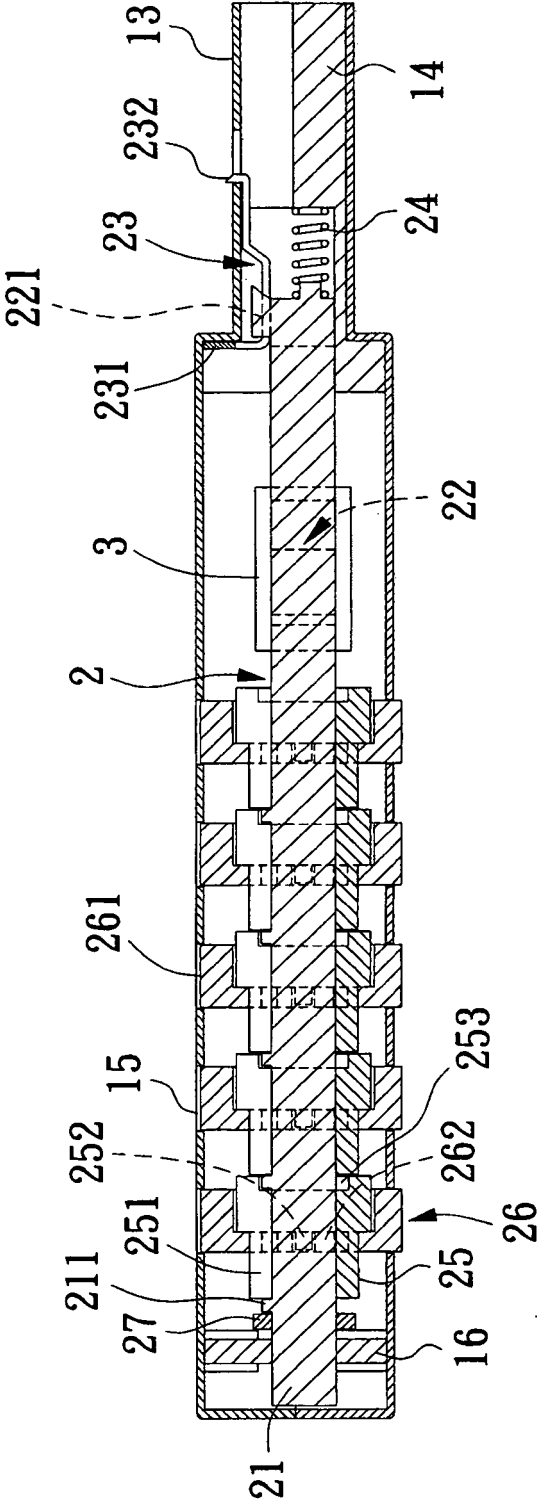


Fig. 3



A-A

Fig. 4

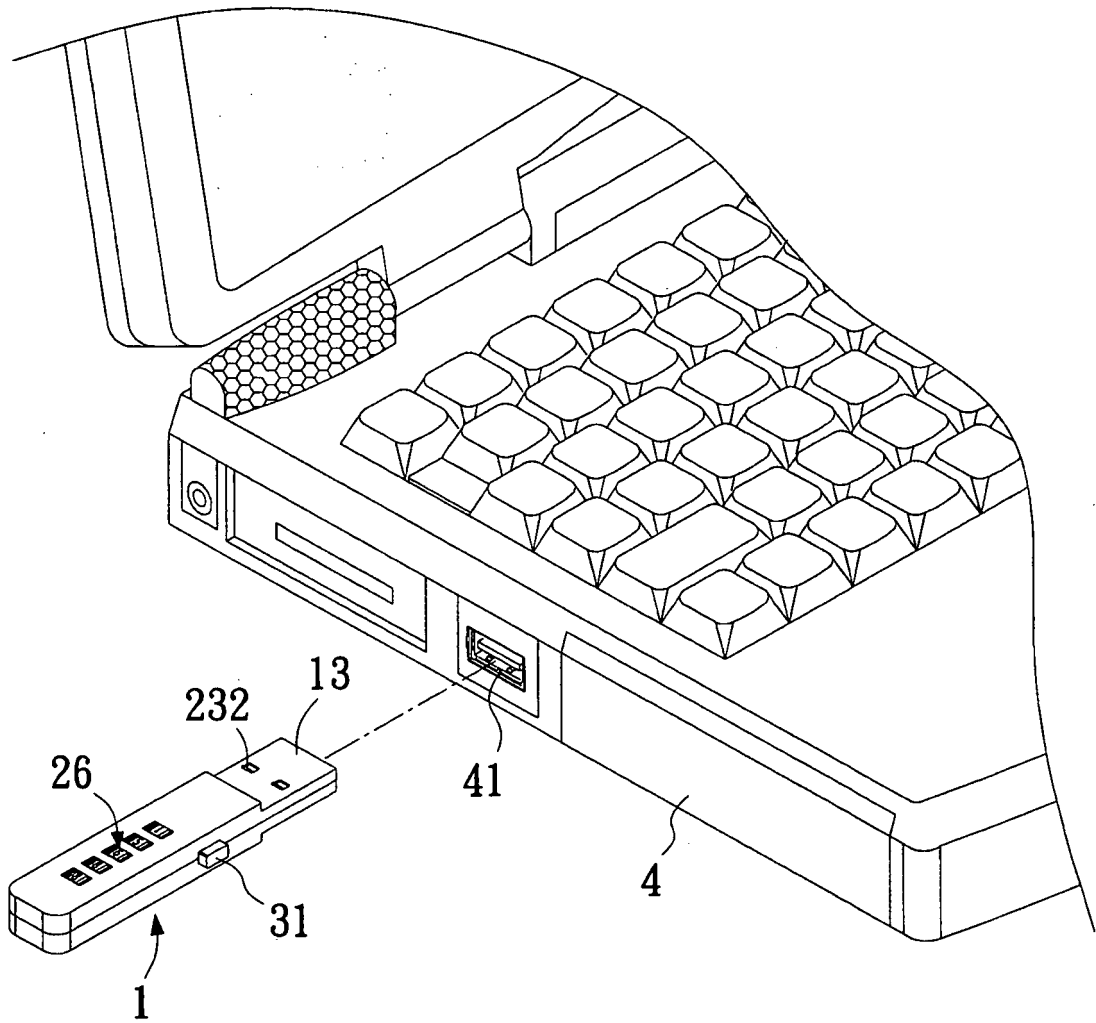


Fig. 5

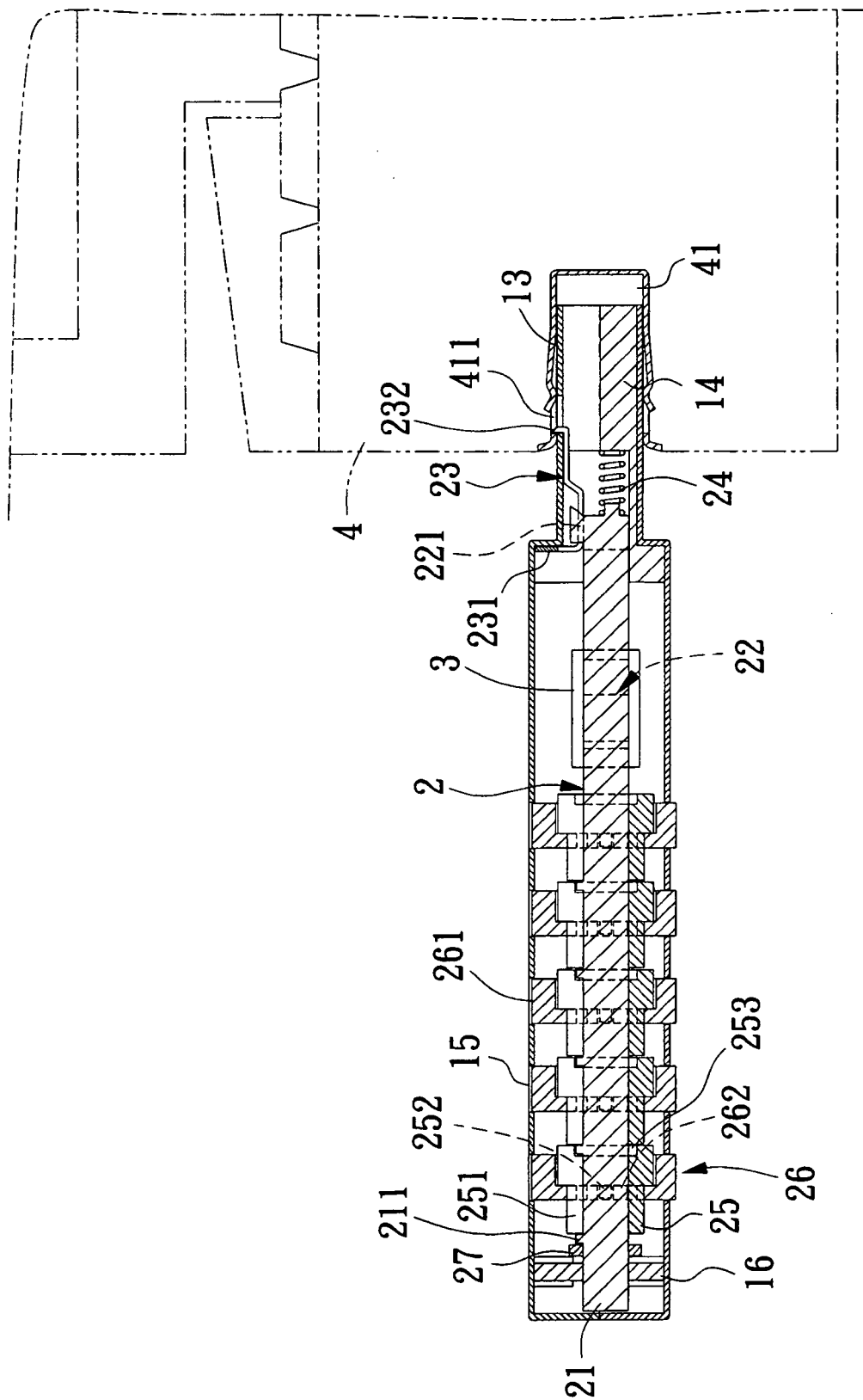


Fig. 6

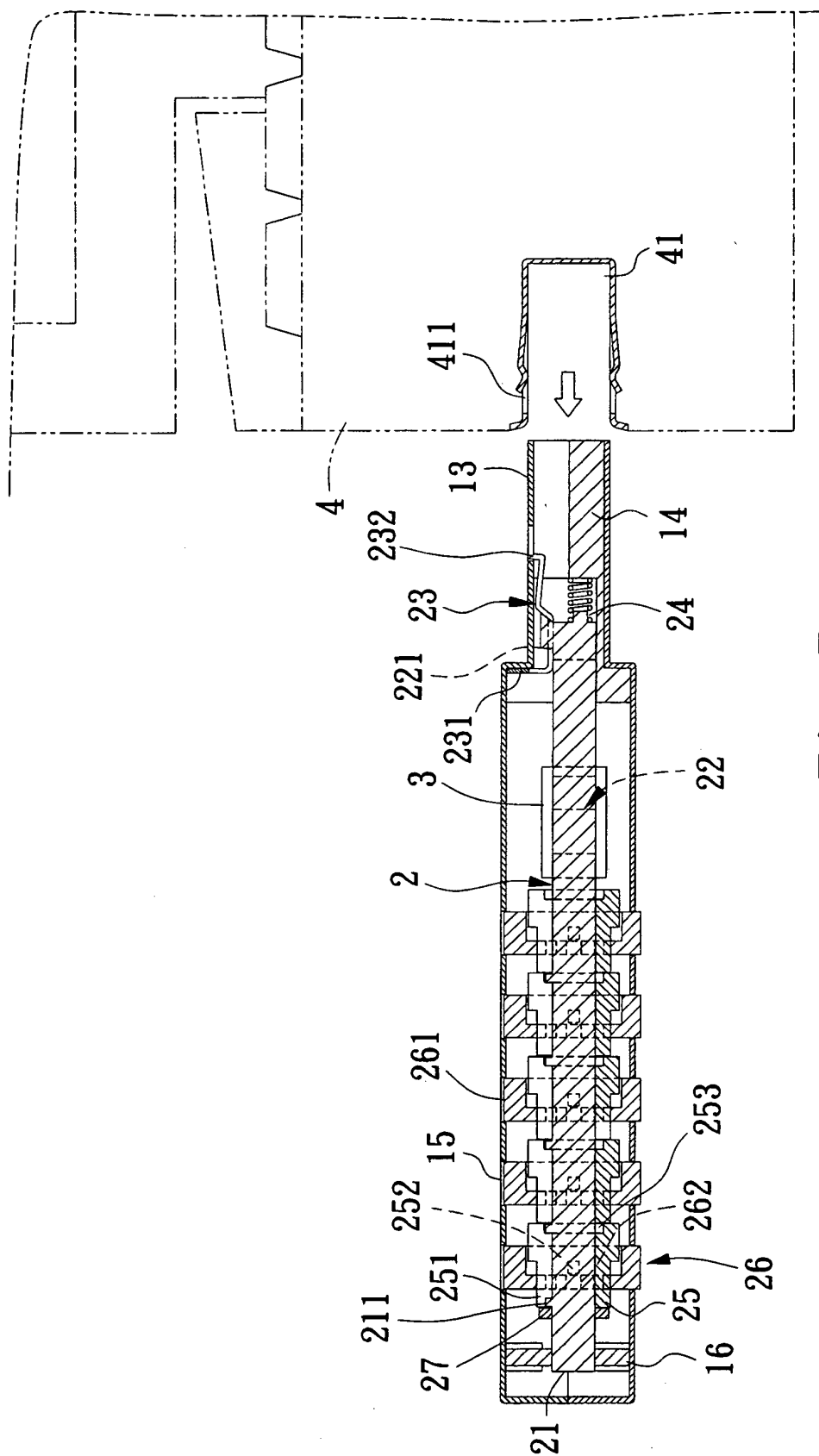


Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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