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(54) **PRINTING DEVICE**

DRUCKVORRICHTUNG

DISPOSITIF D'IMPRESSION

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Description

Technical Field

[0001] The present invention relates to a printing apparatus.

Background Art

[0002] Patent Document 1 describes an ink jet printer that is intended to adjust the parallelism of a carriage shaft relative to a platen.

Citation List

Patent Literature

[0003] PTL 1: JP-A-11-208052 (Date of Publication of Unexamined Patent Application: August 3, 1999)

Summary of Invention

Technical Problem

[0004] Patent Document 1 describes a technique for adjusting the height of a carriage, and the carriage is usually fixed to the Y bar with high accuracy. Further, JP 2004-291396 A discloses a printing apparatus.

[0005] In contrast, the position of the platen is usually fixed with not very high accuracy.

[0006] The present invention was made in the light of the circumstances as described above, and it is an object of the present invention to provide a technique for fixing the mounting table for a recording medium such as a platen with high positional accuracy and with high workability.

Solution to Problem

[0007] A printing apparatus according to the present invention is characterized by including a mounting table on which a recording medium is placed, a support base for supporting the mounting table, a height adjustment mechanism for adjusting the height of the mounting table relative to the support base, and a position fixing mechanism for fixing the position of the mounting table relative to the support base at a height that is adjusted by the height adjusting mechanism, wherein a portion where the height adjustment mechanism is operated for adjustment and a portion where the position fixing mechanism is operated for fixing are on the same side as viewed from the mounting table.

[0008] According to the configuration described above, since a mechanism for adjusting the height of the mounting table such as a platen and a mechanism for fixing it relative to the support base are provided, it is possible to adjust the height of the mounting table and fix it with high accuracy.

[0009] Further, since the operation of height adjustment and position fixing can be performed from the same side as viewed from the mounting table such as a platen, it is possible to perform height adjustment and position fixing easily. For example, in the circumstances where the mechanism for height adjustment and the mechanism for position fixing are in different positions and one of them is hidden in the back of another member, it may be necessary to remove the other member in order to perform height adjustment and position fixing. In such a case, the operation for height adjustment and position fixing becomes very complicated. According to the configuration described above, since a portion where the height adjustment mechanism is operated and a portion where the position fixing mechanism is operated are on the same side as viewed from the mounting table, it suffices that work space is provided only in one direction of the mounting table in order to adjust the respective mechanisms. Therefore, it is possible to perform height adjustment and position fixing more easily.

[0010] In the printing apparatus according to the present invention, it is more desirable that the height adjustment mechanism and the position fixing mechanism are on the same straight line.

[0011] Since it is not necessary to provide, for each mechanism, space where each mechanism is provided, space is saved. Thus, for example, it is possible to improve flexibility of the placement of a cutter, a suction hole and the like in a printing apparatus with a cutter, a printing apparatus with a suction hole on a platen and the like. Therefore, the configuration described above is useful for a printer with a cutter and the like. Further, since adjustment and fixing can be performed with reference to the same straight line, the accuracy of height adjustment is improved.

[0012] In the printing apparatus according to the present invention, more preferably, the height adjustment mechanism is a height adjustment screw including a contact part which passes through a through hole for height adjustment screw provided in the mounting table so that a side wall of the screw is screwed to an inner wall of the through hole for height adjustment screw, and which is brought into contact with the support base, by turning the height adjustment screw, the protrusion height of the contact part protruding from the mounting table to the support base side is adjusted, so that the height of the mounting table relative to the support base is adjusted, and the position fixing mechanism is a position fixing screw which passes through a through hole for position fixing screw provided in the mounting table.

[0013] Since the height adjustment mechanism and the position fixing mechanism can be realized with a simple member, a screw, it is possible to simplify the configuration of the apparatus.

[0014] In the printing apparatus according to the present invention, more preferably, the through hole for height adjustment screw and the through hole for position fixing screw are the same through hole, an inner through

hole of which center axis is a straight line parallel to the depth direction of the through hole for position fixing screw is provided in the height adjustment screw, and the position fixing screw has a flange portion having a diameter larger than the diameter of the inner through hole, and an extended portion which passes through the inner through hole and is screwed to a female screw provided in the support base.

[0015] It is possible to perform height adjustment and position fixing with a simple configuration and with a high degree of accuracy.

Advantageous Effects of Invention

[0016] According to the present invention, there is an effect that the height of a mounting table such as a platen can be adjusted and fixed.

Brief Description of Drawings

[0017]

[Fig. 1] Fig. 1 is a side sectional view schematically showing a schematic configuration of a printing apparatus according to an embodiment of the present invention.

[Fig. 2] Fig. 2 (a) is a side sectional view schematically showing a schematic configuration of an adjustment mechanism in the printing apparatus according to the embodiment of the present invention, Fig. 2 (b) is a side sectional view schematically showing a schematic configuration of a mounting table and a support base around the adjustment mechanism, and Fig. 2 (c) is a perspective view schematically showing a schematic configuration of the height adjustment mechanism.

[Fig. 3] Fig. 3 is a top view showing an example of the placement of the adjustment mechanism in the printing apparatus according to the embodiment of the present invention.

[Fig. 4] Fig. 4 is a side sectional view schematically showing a schematic configuration of an adjustment mechanism according to a variation of the present invention.

Description of Embodiments

[0018] Hereafter, an embodiment of the present invention will be described in detail with reference to the drawings.

(Overview of Printing Apparatus)

[0019] Fig. 1 is a side sectional view schematically showing a schematic configuration of a printing apparatus 100 according to an embodiment of the present invention. As shown in Fig. 1, the printing apparatus 100 is provided with a head 10, a carriage 20, a guide mechanism 30, a platen (mounting table) 40, a bracket (support base) 50 and a conveying roller 60, and is an ink jet recording apparatus for recording (printing) an image on a medium (recording medium) 1 such as paper and cloth.

[0020] The head 10 is a recording head for discharging ink to the medium 1. When the carriage 20 drives the head 10 and the conveying roller 60 conveys the medium 1, the head 10 and/or the medium 1 move relatively to the scanning direction and the sub scanning direction. Note that the guide mechanism 30 is a member for guiding the moving direction of the carriage 20.

[0021] Further, the platen 40 is a mounting table which is disposed immediately below the head 10 and on which the medium 1 is placed. That is, in a state where the medium 1 is placed on the platen 40, the printing apparatus 100 records (prints) an image on the medium (recording medium) 1 by discharging ink from the head 10 while relatively moving the head 10 and/or the medium 1.

[0022] In addition, the bracket 50 is fixed to the printing apparatus 100, and serves as a support base of the platen 40. And, the platen 40 is supported by the bracket 50, and is adjustable by an adjustment mechanism described later in a direction approaching to the head 10 and in a direction separating from the head 10. By constituting the platen 40 so as to be adjustable in a direction approaching to or separating from the head 10 in this manner, it is possible to adjust the distance between the head 10 and the medium 1, and improve the recording quality on the medium 1.

[0023] The adjustment mechanism includes a height adjustment mechanism for adjusting the height of the platen 40 relative to the bracket 50, and a position fixing mechanism for fixing the position of the platen 40 relative to the bracket 50 at a height that is adjusted by the height adjustment mechanism. The printing apparatus 100 is provided with the mechanism for adjusting the height of the platen 40 and the mechanism for fixing it relative to the bracket 50, thus, the height of the platen 40 can be adjusted and fixed.

[0024] Hereinafter, the configuration of the adjustment mechanism according to the present embodiment will be described with reference to the drawings. Fig. 2 (a) is a side sectional view schematically showing a schematic configuration of the adjustment mechanism in the printing apparatus 100. Further, Fig. 2 (b) is a side sectional view schematically showing a schematic configuration of the platen 40 and the bracket 50 around the adjustment mechanism. In addition, Fig. 2 (c) is a perspective view schematically showing a schematic configuration of the height adjustment mechanism.

[0025] As shown in Fig. 2 (a), in the present embodiment, the height adjustment mechanism is constituted by a height adjustment screw 41, and the position fixing mechanism is constituted by a position fixing screw 42.

[0026] The height adjustment screw 41 passes

through a through hole (through hole for height adjustment screw and through hole for position fixing screw) 43 provided in the platen 40, so that a side wall 41a of the screw is screwed to an inner wall 43a of the through hole 43. The axis of the height adjustment screw 41 is a straight line parallel to the depth direction of the through hole 43, and the height adjustment screw 41 moves in the depth direction of the through hole 43 relative to the platen 40 when the height adjustment screw 41 is turned about the axis. That is, an engaging groove 41c with which a screwdriver or the like is engaged is formed in the upper surface (the end opposite to the bracket 50) of the height adjustment screw 41, and when the height adjustment screw 41 is turned using a screwdriver or the like, the height adjustment screw 41 moves in the depth direction of the through hole 43. Then, the height adjustment screw 41 is protruded from the surface of the bracket 50 side of the platen 40, and a lower surface (contact part, the end of the bracket 50 side) 41b of the height adjustment screw 41 is brought into contact with the bracket 50, thus, the height of the platen 40 relative to the bracket 50 can be adjusted (distance D between the platen 40 and the bracket 50).

[0027] Further, an inner through hole 44 of which center axis is a straight line parallel to the depth direction of the through hole 43 is provided in the height adjustment screw 41. The position fixing screw 42 has a flange portion 42a having a diameter larger than the diameter of the inner through hole 44, and an extended portion 42b which passes through the inner through hole 44 and is screwed to a female screw 51 provided in the bracket 50. Thus, the inner through hole 44 serves as an opening hole allowing the position fixing screw 42 to pass through, so that the position fixing screw 42 is screwed to the bracket 50. Thus, it is possible to fix the position of the platen 40 relative to the bracket 50 at a height that is adjusted by the height adjustment screw 41. That is, an engaging groove with which a screwdriver or the like is engaged is formed in the upper surface (the end opposite to the bracket 50) of the flange portion 42a, and when the position fixing screw 42 is turned using a screwdriver or the like, the platen 40 is sandwiched between the lower surface (the end of the bracket 50 side) of the flange portion 42a of the position fixing screw 42 and the upper surface of the bracket 50 so as to fix the bracket 50 and the platen 40.

[0028] Note that the diameter of the flange portion 42a may not necessarily be larger than the through hole 43 as long as the diameter of the flange portion 42a is larger than the diameter of the inner through hole 44. Note that, in the case that the diameter of the flange portion 42a is smaller than the diameter of the through hole 43, when the lower surface of the flange portion 42a is brought into contact with the upper surface of the height adjustment screw 41, the platen 40 and the bracket 50 can be fixed.

[0029] For example, height adjustment and position fixing using the adjustment mechanism according to the present embodiment may be performed as follows. First,

the height adjustment screw 41 is inserted into the through hole 43 in the platen 40 in the state shown in Fig. 2 (b) in order to adjust the height of the platen 40 relative to the bracket 50. That is, the engaging groove 41c with which a Phillips head screwdriver or the like is engaged is formed in the upper surface of the height adjustment screw 41, and when the height adjustment screw 41 is turned using a screwdriver or the like, the protrusion height of the lower surface 41b of the height adjustment screw 41 protruding from the platen 40 through the bracket 50 side can be adjusted. Thus, the height of the platen 40 relative to the bracket 50 can be adjusted from the upper surface side of the platen 40 (opposite side of the bracket 50). Subsequently, the position fixing screw 42 is inserted into the inner through hole 44 in the height adjustment screw 41 and the female screw 51 in the bracket 50 in order to fix the position of the platen 40 relative to the bracket 50 at a height that is adjusted by the height adjustment screw 41. Note that fixing can be performed by turning the position fixing screw 42 using a screwdriver or the like from the upper surface side of the platen 40 and sandwiching the platen 40 between the lower surface of the flange portion 42a of the position fixing screw 42 and the upper surface of the bracket 50 to fix the platen 40 and the bracket 50.

[0030] Note that one or more adjustment mechanisms may be provided on the platen 40. Fig. 3 shows an example of the placement of the adjustment mechanism in the platen 40. Fig. 3 is a top view of the platen 40 as viewed from the opposite side of the bracket 50. As shown in Fig. 3, for example, a plurality of adjustment mechanisms may be provided on the outer edge of the platen 40.

(Effects of the Present Embodiment)

[0031] As described above, in the present embodiment, the operation of height adjustment and position fixing can be performed from the same side as viewed from the platen 40. Therefore, it is possible to perform height adjustment and position fixing easily. Such a configuration is highly advantageous compared to other configurations.

[0032] This is because, for example, if the mechanism for height adjustment and the mechanism for position fixing are in different positions, it is difficult in design to provide work space for both mechanisms, and one of them may be hidden in the back of another member. In such a case, it is necessary to remove the other member in order to perform height adjustment and position fixing, and the operation for height adjustment and position fixing becomes very complicated.

[0033] In contrast, according to the configuration of the present embodiment, since a portion where the height adjustment mechanism (height adjustment screw 41) is operated and a portion where the position fixing mechanism (position fixing screw 42) is operated are on the same side in the platen 40 (the opposite side to the bracket 50),

et 50 in the platen 40), it suffices that work space is provided only in one direction of the platen 40 in order to adjust the respective mechanisms. Therefore, it is possible to perform height adjustment and position fixing more easily.

[0034] Further, in the present embodiment, the position fixing screw 42 is adapted to be inserted into the height adjustment screw 41, so that the height adjustment mechanism (height adjustment screw 41) and the position fixing mechanism (position fixing screw 42) are on the same straight line.

[0035] With such a configuration, since it is not necessary to provide, for each mechanism, space where each mechanism is provided, space is saved. Further, since adjustment and fixing can be performed with reference to the same straight line, the accuracy of height adjustment is improved.

[0036] In particular, such a configuration is advantageous when the printing apparatus 100 is provided with a member (e.g., a cutter, a heater and a suction fan) to be provided in the vicinity of the platen 40. That is, when a special structure such as a cutter groove, heater wire and a hole for suction fan is required to be provided in the platen 40, it is undesirable to provide many structures for height adjustment and position fixing on the platen 40. This is because the flexibility of the placement of the member is significantly limited. Therefore, as in the present embodiment, it is preferred that the height adjustment mechanism (height adjustment screw 41) and the position fixing mechanism (position fixing screw 42) are placed on the same straight line for space saving.

(Variation)

[0037] Note that, in the present embodiment, although both of a portion where the height adjustment screw 41 is operated for adjustment and a portion where the position fixing screw 42 is operated for fixing are on the side opposite to the bracket 50 as viewed from the platen 40, the present invention is not limited thereto. For example, both of a portion where the height adjustment screw 41 is operated for adjustment and a portion where the position fixing screw 42 is operated for fixing may be on the bracket 50 side as viewed from the platen 40.

[0038] Further, the height adjustment mechanism and the position fixing mechanism may not be placed on the same straight line. For example, a configuration is possible in which a through hole for height adjustment screw and a through hole for position fixing screw are provided in different positions on the platen 40, the height adjustment screw 41 is inserted into the through hole for height adjustment screw, the position fixing screw 42 is inserted into the through hole for position fixing screw, and portions where respective screws are operated are on the same side as viewed from the platen 40.

[0039] Even in a configuration described above, as long as a portion where the height adjustment screw 41 is operated for adjustment and a portion where the posi-

tion fixing screw 42 is operated for fixing are on the same side as viewed from the platen 40, it suffices that work space is provided only in one direction of the platen 40 in order to adjust the respective mechanisms, thus, it is possible to perform height adjustment and position fixing easily as in the present embodiment.

[0040] In addition, in the present embodiment, although each of the height adjustment mechanism and the position fixing mechanism is constituted by a screw, the present invention is not limited thereto. For example, a configuration shown in Fig. 4 is possible. That is, as shown in Fig. 4, as the position fixing mechanism, instead of the position fixing screw 42, a nut 45 which is screwed to a male screw 52 extending from the bracket 50 may be provided.

<Supplementary Information>

[0041] As described above, a printing apparatus 100 according to one embodiment of the present invention includes the platen 40 on which the medium 1 is placed, the bracket 50 for supporting the platen 40, the height adjustment screw 41 for adjusting the height of the platen 40 relative to the bracket 50, and the position fixing screw 42 for fixing the position of the platen 40 relative to the bracket 50 at a height that is adjusted by the height adjustment screw 41, wherein a portion where the height adjustment screw 41 is operated for adjustment and a portion where the position fixing screw 42 is operated for fixing are formed on the same side as viewed from the platen 40.

[0042] According to the configuration described above, since a mechanism for adjusting the height of the platen 40 and a mechanism for fixing it relative to the bracket 50 are provided, it is possible to adjust the height of the platen 40 and fix it with high accuracy.

[0043] Further, since the operation of height adjustment and position fixing can be performed from the same side as viewed from the platen 40, it is possible to perform height adjustment and position fixing easily. For example, in the circumstances where the mechanism for height adjustment and the mechanism for position fixing are in different positions and one of them is hidden in the back of another member, it may be necessary to remove the other member in order to perform height adjustment and position fixing. In such a case, the operation for height adjustment and position fixing becomes very complicated. According to the configuration described above, since a portion where the height adjustment screw 41 is operated and a portion where the position fixing screw 42 is operated are on the same side as viewed from the platen 40, it suffices that work space is provided only in one direction of the platen 40 in order to adjust the respective mechanisms. Therefore, it is possible to perform height adjustment and position fixing more easily.

[0044] In addition, in the present embodiment, the height adjustment screw 41 and the position fixing screw 42 are formed on the same straight line.

[0045] Since it is not necessary to provide, for each mechanism, space where each mechanism is provided, space is saved. Further, since adjustment and fixing can be performed with reference to the same straight line, the accuracy of height adjustment is improved.

[0046] Further, in the present embodiment, the height adjustment screw 41 includes the lower surface 41b which passes through a through hole (e. g., through hole 43) for height adjustment screw provided in the platen 40 so that the side wall of the screw is screwed to the inner wall of the through hole for height adjustment screw, and is brought into contact with the bracket 50, by turning the height adjustment screw 41, the protrusion height of the lower surface 41b of the height adjustment screw 41 protruding from the platen 40 through the bracket 50 side is adjusted, so that the height of the platen 40 relative to the bracket 50 is adjusted, and the position fixing screw 42 is formed to pass through a through hole (e. g., through hole 43) for position fixing screw provided in the platen 40.

[0047] Since the height adjustment screw 41 and the position fixing screw 42 can be realized with a simple member, a screw, it is possible to simplify the configuration of the apparatus.

[0048] Further, in the present embodiment, the through hole for height adjustment screw and the through hole for position fixing screw are the same through hole (through hole 43), the inner through hole 44 of which center axis is a straight line parallel to the depth direction of the through hole 43 is provided in the height adjustment screw 41, and the position fixing screw 42 has the flange portion 42a having a diameter larger than the diameter of the inner through hole 44, and the extended portion 42b which passes through the inner through hole 44 and is screwed to the female screw 51 provided in the bracket 50.

[0049] Therefore, it is possible to perform height adjustment and position fixing with a simple configuration and with a high degree of accuracy.

[0050] The present invention is not limited to each embodiment described above, various modifications may be made within the scope of the claims, and embodiments obtained by combining technical means disclosed in respective different embodiments are also included in the technical scope of the present invention.

Industrial Applicability

[0051] The present invention may be utilized in the manufacturing field of a printing apparatus.

Reference Signs List

[0052]

- 1: Medium (Recording medium)
- 10: Head
- 20: Carriage
- 30: Guide mechanism

- 40: Platen (Mounting table)
- 41: Height adjustment screw (Height adjustment mechanism)
- 41a: Side wall
- 41b: Lower surface (Contact part)
- 41c: Engaging groove
- 42: Position fixing screw (Position fixing mechanism)
- 42a: Flange portion
- 42b: Extended portion
- 43: Through hole (Through hole for height adjustment screw, Through hole for position fixing)
- 43a: Inner wall
- 44: Inner through hole
- 45: Nut (Position fixing mechanism)
- 50: Bracket (Support base)
- 51: Female screw
- 52: Male screw
- 60: Conveying roller
- 100: Printing apparatus

Claims

1. A printing apparatus, comprising:

a mounting table on which a recording medium is placed;
 a support base (50) for supporting the mounting table;
 a height adjustment mechanism (41) for adjusting the height of the mounting table (40) relative to the support base; and
 a position fixing mechanism (42) for fixing the position of the mounting table relative to the support base at a height that is adjusted by the height adjusting mechanism,
 wherein a portion where the height adjustment mechanism is operated for adjustment and a portion where the position fixing mechanism is operated for fixing are on the same side as viewed from the mounting table, **characterized in that:**

the height adjustment mechanism is a height adjustment screw (41) including a contact part which passes through a through hole for height adjustment screw provided in the mounting table so that a side wall of the screw is screwed to an inner wall (43a) of the through hole for height adjustment screw, and which is brought into contact with the support base;
 by turning the height adjustment screw, the protrusion height of the contact part protruding from the mounting table to the support base side is adjusted, so that the height of the mounting table relative to the support base is adjusted; and

the position fixing mechanism is a position fixing screw (42) which passes through a through hole for position fixing screw provided in the mounting table.

2. The printing apparatus according to claim 1, **characterized in that** the height adjustment mechanism and the position fixing mechanism are on the same straight line.
3. The printing apparatus according to claim 1 or 2, **characterized in that**, the through hole for height adjustment screw and the through hole for position fixing screw are the same through hole, an inner through hole of which center axis is a straight line parallel to the depth direction of the through hole for position fixing screw is provided in the height adjustment screw, and the position fixing screw has a flange portion having a diameter larger than the diameter of the inner through hole, and an extended portion which passes through the inner through hole and is screwed to a female screw provided in the support base.

Patentansprüche

1. Druckvorrichtung, umfassend:

einen Montagetisch, auf dem ein Aufzeichnungsmedium platziert wird;
eine Stütz- bzw. Trägerbasis (50) zum Stützen bzw. Tragen des Montagetischs;
einen Höheneinstellmechanismus (41) zum Einstellen der Höhe des Montagetischs (40) relativ zu der Trägerbasis; und
einen Positionsfixiermechanismus (42) zum Fixieren der Position des Montagetischs relativ zu der Trägerbasis auf einer Höhe, die von dem Höheneinstellmechanismus eingestellt wird, wobei ein Abschnitt, wo der Höheneinstellmechanismus zum Einstellen betätigt wird, und ein Abschnitt, wo der Positionsfixiermechanismus zum Fixieren betätigt wird, von dem Montagetisch aus betrachtet auf der gleichen Seite sind, **dadurch gekennzeichnet, dass:**

der Höheneinstellmechanismus eine Höheneinstellschraube (41) ist, die einen Kontaktteil enthält, der durch ein Durchgangsloch für Höheneinstellschraube verläuft, das in dem Montagetisch bereitgestellt ist, so dass eine Seitenwand der Schraube an eine Innenwand (43a) des Durchgangslochs für Höheneinstellschraube geschraubt wird bzw. ist, und der mit der Trägerbasis in Kontakt gebracht wird;

durch Drehen der Höheneinstellschraube die Vorsprungshöhe des Kontaktteils eingestellt wird, der von dem Montagetisch zu der Seite der Trägerbasis vorspringt, so dass die Höhe des Montagetischs relativ zu der Trägerbasis eingestellt wird; und der Positionsfixiermechanismus eine Positionsfixierschraube (42) ist, die durch ein Durchgangsloch für Positionsfixierschraube verläuft, das in dem Montagetisch bereitgestellt ist.

2. Durchvorrichtung nach Anspruch 1, **dadurch gekennzeichnet, dass** der Höheneinstellmechanismus und der Positionsfixiermechanismus auf der gleichen geraden Linie sind.
3. Druckvorrichtung nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** das Durchgangsloch für Höheneinstellschraube und das Durchgangsloch für Positionsfixierschraube dasselbe Durchgangsloch sind, ein inneres Durchgangsloch, dessen Mittelachse eine gerade Linie parallel zu der Tiefenrichtung des Durchgangslochs für Positionsfixierschraube ist, in der Höheneinstellschraube bereitgestellt ist, und die Positionsfixierschraube einen Flanschabschnitt mit einem Durchmesser aufweist, der größer ist als der Durchmesser des inneren Durchgangslochs, und ein verlängerter bzw. erweiterter Abschnitt davon verläuft durch das innere Durchgangsloch und ist an eine Schraubenmutter bzw. Schraube mit Innengewinde geschraubt, die in der Trägerbasis bereitgestellt ist.

Revendications

1. Dispositif d'impression, comprenant :

une table de montage sur laquelle un support d'enregistrement est placé ;
une base de support (50) destinée à supporter la table de montage ;
un mécanisme de réglage de hauteur (41) destiné à régler la hauteur de la table de montage (40) par rapport à la base de support ; et
un mécanisme de fixation de position (42) destiné à fixer la position de la table de montage par rapport à la base de support à une hauteur qui est réglée par le mécanisme de réglage de hauteur,
dans lequel une partie à laquelle le mécanisme de réglage de hauteur est activé afin d'assurer le réglage et une partie à laquelle le mécanisme de fixation de position est activé afin d'assurer la fixation sont situés du même côté tel que vu depuis la table de montage, **caractérisé en ce**

que :

le mécanisme de réglage de hauteur est une vis de réglage de hauteur (41) comportant une partie de contact qui passe à travers un orifice traversant pour vis de réglage de hauteur formé sur la table de montage de telle sorte qu'une paroi latérale de la vis est vissée sur une paroi interne (43a) de l'orifice traversant pour vis de réglage de hauteur, et qui est amenée en contact avec la base de support ;
 en tournant la vis de réglage de hauteur, la hauteur en saillie de la partie de contact s'étendant à partir de la table de montage vers le côté de base de support est réglée, de telle sorte que la hauteur de la table de montage par rapport à la base de support est réglée ; et
 le mécanisme de fixation de position est une vis de fixation de position (42) qui passe à travers un orifice traversant pour vis de fixation de position formé sur la table de montage.

2. Dispositif d'impression selon la revendication 1, **caractérisé en ce que** le mécanisme de réglage de hauteur et le mécanisme de fixation de position sont agencés en ligne droite.

3. Dispositif d'impression selon la revendication 1 ou 2, **caractérisé en ce que**,

l'orifice traversant pour vis de réglage de hauteur et l'orifice traversant pour vis de fixation de position sont le même orifice traversant,
 un orifice traversant interne dont l'axe central est une ligne droite parallèle à la direction de la profondeur de l'orifice traversant pour vis de fixation de position est formé sur la vis de réglage de hauteur, et la vis de fixation de position comporte une partie de collerette présentant un diamètre supérieur au diamètre de l'orifice traversant interne et une partie étendue qui passe à travers l'orifice traversant interne et est vissée sur un filetage femelle agencé sur la base de support.

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Figure 1

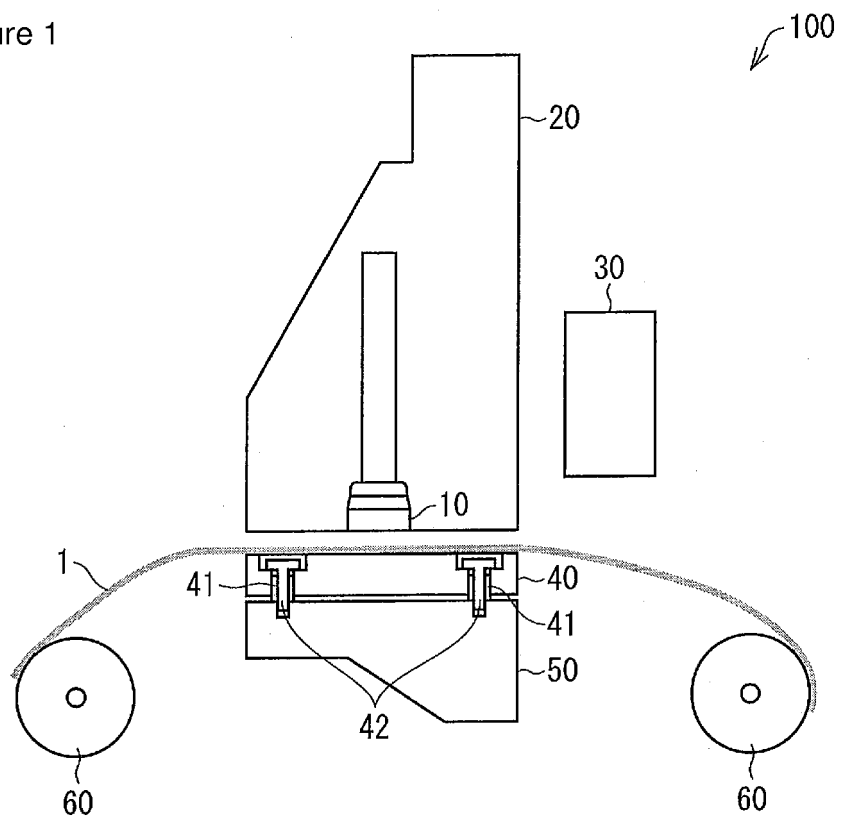


Figure 2

Figure 2A

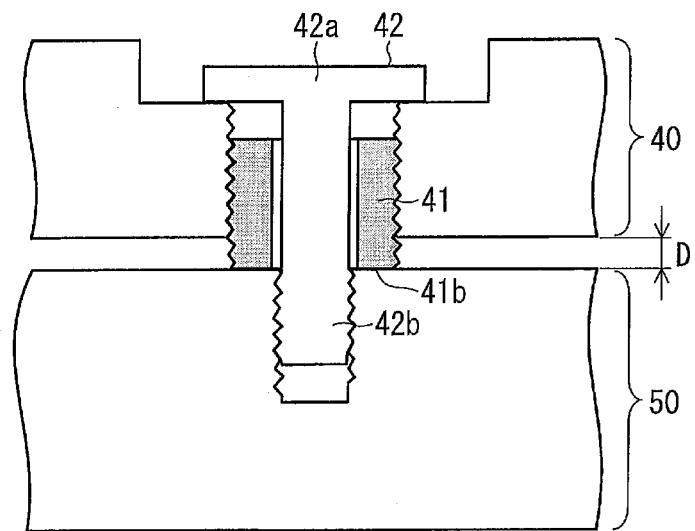


Figure 2B

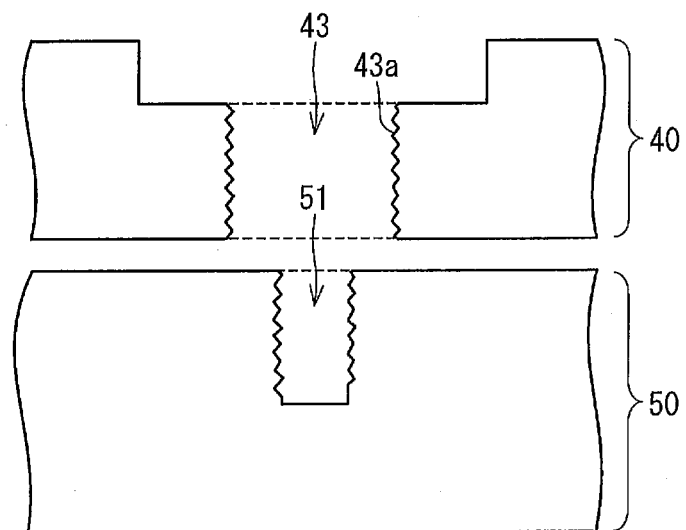


Figure 2C

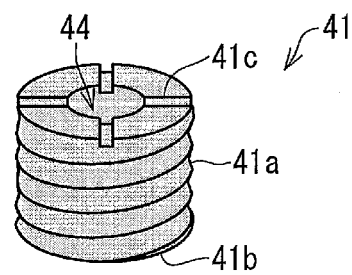


Figure 3

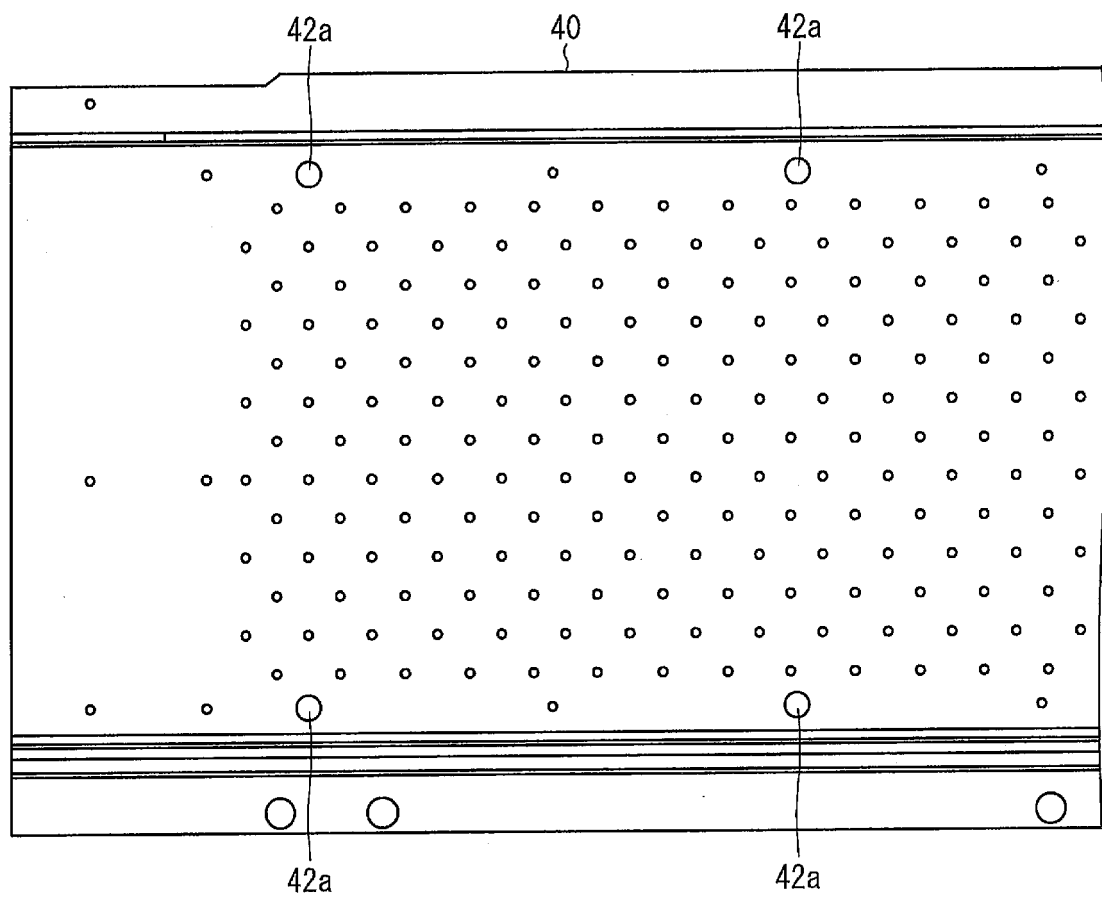
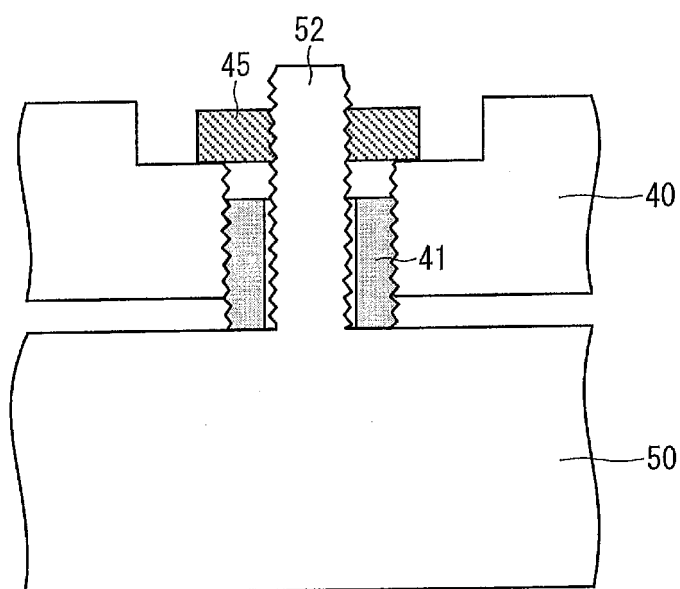


Figure 4



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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