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(54) **Tool holding device**

Werkzeughaltevorrichtung

Dispositif de manipulation d'outil

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(73) Proprietor: **Everpads Co., Ltd.**
Taichung (TW)

(72) Inventor: **Chiang, Chun-Li**
Taichung (TW)

(74) Representative: **Becker Kurig Straus**
Patentanwälte
Bavariastrasse 7
80336 München (DE)

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Description

BACKGROUND

Field of Invention

[0001] The present invention relates to a holding device, and more particularly a tool holding device for a road planer.

Description of Related Art

[0002] A cutter holder and a tool holding device for the road planer are shown in EP 1761682 and US 2006/0119165. The cutter holder and the tool holding device respectively include a base and a block wherein the base is welded on the peripheral surface of the working member (ex. roller) and the block is secured on the base through a fastening member to receive a tool, like a chisel. The tool received in the block is located along a tangent of the roller to dig into the earth for planning, excavating or milling operation.

[0003] Refer to another tool holding device disclosed in DE 20 2007 000 372 showing a tool holding device as in the preamble of claims 1 or 6. When the road planer works, the tool bit is forced to drill and excavate as the roller rotates such that the processed material (such as concrete and asphalt) coated on the road surface can be removed. In addition, the tough processed material shortens the lifetime of the tool and results in frequent replacements of the tool. However, the counterforce resulting from the operation is stressed on both the base and the block such that extensive replacement and large costs arise because of the inferior tightness between the base and the block.

[0004] Therefore, raising the connection strength of the tool holding device to overcome the tough processed material is important. Because the counterforce resulting from the operation of the road planer is stressed on both the base and the block, the block may wear out or even break after a long operation period. As a result, reinforcing the connection strength between the base and the block of the tool holding device, extending the use period, and reducing cost is the aim of the present invention.

SUMMARY

[0005] It is therefore an aspect to provide a tool holding device to enhance the counterforce bearing of the shoulder wall and the counteracting wall by clamping the block within the receiving portion with a non-obtuse angle.

[0006] It is therefore another aspect to provide a tool holding device to reinforce the connection strength between the base and the block through the protrusion embedded within the track in the form of a dovetail, and the retaining portion of the block obstructed against the surface of the base.

[0007] It is therefore another aspect to provide a tool

holding device wherein the groove conducts the fragments during the operation to prevent them from getting stuck and deteriorating the performance of the chisel.

[0008] In accordance with an embodiment of the present invention, the tool holding device includes a base, a block and a fastening member wherein the bottom of the base is welded on a peripheral surface of the roller. The base includes a receiving portion defined between a shoulder wall and a counteracting wall, a surface defined adjacent to the shoulder wall perpendicularly and away from the counteracting wall, a penetrated hole defined on the counteracting wall along an axis, and a positioning hole communicating with the penetrated hole. The shoulder wall and the counteracting wall define an angle less than or equal to 90 degrees.

[0009] The block is detachably set on the base, and includes a holding portion held in the receiving portion, a handle extended outward from the holding portion and received in the penetrated hole, and a holding hole defined through the holding portion and the handle along the axis for holding the chisel. The handle is perpendicular to the counteracting wall of the base, and the angle between the shoulder wall and the counteracting wall is non-obtuse such that the counterforce bearing for the base and block are both enhanced. The fastening member is fixed in the positioning hole and against the handle to secure the block.

[0010] The block further includes a retaining portion protruding from the holding portion outward along a radial direction of the holding hole and against the surface of the base. The base includes a track formed on the shoulder wall, and the block includes a corresponding protrusion movably received in the track. In addition, the base includes a groove formed on a junction between the counteracting wall and the shoulder wall and communicating with the opposite flanks of the base to provide the fragments conduction.

[0011] As a result, the tool holding device of the present invention has greater mechanical strength wherein the connection strength between the base and the block is also enhanced. Accordingly, the replacement times are decreased and the material cost is also reduced.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The accompanying drawings are included to provide a further understanding of the invention, and are incorporated in and constitute a part of this specification. The drawings illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention. In the drawings,

Figure 1 is an exploded view of a first embodiment of the tool holding device in accordance with the present invention;

Figure 2 is a perspective view of the tool holding device in accordance with Figure 1;

Figure 3 is a sectional view of the tool holding device

in accordance with Figure 2;

Figure 4 is a partial sectional view of the tool holding device in accordance with Figure 2;

Figure 5 is an operating schematic view of the tool holding device in accordance with the present invention;

Figure 6 is an exploded view of a second embodiment of the tool holding device in accordance with the present invention; and

Figure 7 is a sectional view of the tool holding device of the second embodiment welded on the roller.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0013] Reference will now be made in detail to the present preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers are used in the drawings and the description to refer to the same or like parts.

[0014] While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the figures, in which like reference numerals are carried forward.

[0015] Refer to Figure 1 and Figure 2. Figure 1 illustrates an exploded view of a first embodiment of the tool holding device in accordance with the present invention; Figure 2 illustrates a perspective view of the tool holding device in accordance with Figure 1.

[0016] The tool holding device includes a base 100, a block 200 and a fastening member 300. The tool holding device is fixed on a roller 510 of a road planer 500 to receive a chisel 400 to dig and mill the road surface (shown in Figure 5).

[0017] Refer to Figure 1, Figure 3 and Figure 5. Figure 3 illustrates a sectional view of the tool holding device in accordance with Figure 2; Figure 5 illustrates an operating schematic view of the tool holding device of the first embodiment.

[0018] The bottom of the base 100 is welded on a peripheral surface 511 of the roller 510 in accordance with the curve of the roller 510. The base 100 includes a receiving portion 130, a groove 140, a surface 150, a track 160, a penetrated hole 170 and a positioning hole 180. The receiving portion 130 is defined between a shoulder wall 110 and a countering wall 120. The groove 140 is formed on a junction between the shoulder wall 110 and the countering wall 120, and communicating with the opposite flanks 101 of the base 100. The surface 150 is defined adjacent to the shoulder wall 110 perpendicularly and away from the countering wall 120. The track 160 is formed on the shoulder wall 110 in a dovetail formation. The penetrated hole 170 is defined on the countering wall 120 along an axis X, and the positioning hole 180 communicates with the penetrated hole 170. In addition,

the shoulder wall 110 and the countering wall 120 define an angle θ less than or equal to 90 degrees. In this embodiment, the angle θ is designed in 90 degrees for illustration only.

[0019] The block 200 is detachably set on the base 100, and includes a holding portion 210, a handle 220, a retaining portion 230, a protrusion 240 and a holding hole 250. The holding portion 210 is held in the receiving portion 130. The handle 220 is extended outward from the holding portion 210 and received in the penetrated hole 170. The retaining portion 230 is protruded from the holding portion 210 outward along a radial direction of the holding hole 250 and against the surface 150 of the base 100. The protrusion 240 is formed on the holding portion 210 and adjacent to the retaining portion 230 laterally. The holding hole 250 is defined through the holding portion 210 and the handle 220 along the axis X for holding the chisel 400.

[0020] Refer to Figure 4. Figure 4 illustrates a partial sectional view to show the connection between the protrusion 240 of the block 200 and the track 160 of the base 100. The protrusion 240 of the block 200 is movably received in the track 160 of the base 100 in the form of dovetail. Therefore, the block 200 is firmly secured on the base 100 along the axis X because of the connection between the protrusion 240 and the track 160 and the obstruction effect provided by the retaining portion 230. Moreover, the processed material (such as concrete and asphalt) can be prevented from entering the space between the base 100 and the block 200 during the operation.

[0021] The handle 220 of the block 200 further includes an indentation 221 communicating with the positioning hole 180 and holding part of the fastening member 300. In this embodiment, the positioning hole 180 is a threaded hole, and the fastening member 300 is a screw, such as a hex socket cap screw.

[0022] In the above mentioned tool holding device of the first embodiment, the receiving portion 130 has a non-obtuse angle (less than or equal to 90 degrees) defined by the shoulder wall 110 and the countering wall 120 whereby the counterforce resulting from the operation (refer to Figure 5) is stressed on the countering wall 120 directly and also on the shoulder wall 110 because of the oblique between the chisel 400 and the base 100. The non-obtuse angle provides a clamp connection between the base 100 and the block 200, and the holding portion 210 is firmly held in the receiving portion 130 to enhance the mechanical strength of the tool holding device.

[0023] The retaining portion 230 with a fan-shaped formation of the block 200 is obstructed against the surface 150 of the base 100 to provide the block 200 a greater stability. In addition, the dovetailed protrusion 240 is embedded within the track 160 of the base 100 such that the block 200 is firmly connected with the base 100. Therefore, the bearing of the block 200 is raised to prevent breaking or cracking, and the use period is extended and the cost is accordingly reduced. The groove 140 is

formed on the junction between the shoulder wall 110 and the countering wall 120 to conduct and prevent fragmented processed material from getting stuck and deteriorating the performance of the chisel 400. The oblique surface 150 is used to prevent the ejected processed material from entering the track 160 and scraping the base 100.

[0024] Refer to Figure 6 and Figure 7. Figure 6 illustrates an exploded view of a second embodiment of the tool holding device in accordance with the present invention; Figure 7 illustrates a sectional view of the tool holding device of the second embodiment welded on the roller.

[0025] The tool holding device of the second embodiment includes a base 600, a block 700, a sleeve 800, and a fastening member 900. The tool holding device is fixed on a roller 510 of a road planer 500 to receive a chisel 400 to dig and mill the road surface.

[0026] The bottom of the base 600 is welded on a peripheral surface 511 of the roller 510 in accordance with the curve of the roller 510. The base 600 includes a receiving portion 630, a groove 640, a surface 650, a track 660, a penetrated hole 670 and a positioning hole 680. The receiving portion 630 is defined between a shoulder wall 610 and a countering wall 620. The groove 640 is formed on a junction between the shoulder wall 610 and the countering wall 620, and communicating with the opposite flanks 601 of the base 600. The surface 650 is defined adjacent to the shoulder wall 610 perpendicularly and away from the countering wall 620. The track 660 is formed on the shoulder wall 610 in a dovetail formation. The penetrated hole 670 is defined on the countering wall 620 along an axis X, and the positioning hole 680 communicates with the penetrated hole 670. In addition, the shoulder wall 610 and the countering wall 620 define an angle θ less than or equal to 90 degrees. In this embodiment, the angle θ is designed in 90 degrees for illustration only.

[0027] The block 700 is detachably set on the base 600, and includes a holding portion 710, a retaining portion 720, a protrusion 730 and a holding hole 740. The holding portion 710 is held in the receiving portion 630. The retaining portion 720 is protruded from the holding portion 710 outward along a radial direction of the holding hole 740 and against the surface 650 of the base 600. The protrusion 730 is formed on the holding portion 710 and adjacent to the retaining portion 720 laterally. The holding hole 740 is defined through the holding portion 710 along the axis X. The protrusion 730 of the block 700 is movably received in the track 660 of the base 600 in the form of dovetail. Therefore, the block 700 is firmly secured on the base 600 along the axis X because of the connection between the protrusion 730 and the track 660 and the obstruction provided by the retaining portion 720.

[0028] The sleeve 800 is used to hold the chisel 400 and includes a tube 810, a restraining portion 820, and an axial hole 830. The tube 810 is received in the holding hole 740 of the block 700 and the penetrated hole 670

of the base 600. The restraining portion 820 is formed on a front end of the tube 810. The axial hole 830 is defined through the tube 810 and the restraining portion 820 along the axis X. The restraining portion 820 is restrained against an outer surface 701 of the block 700. The tube 810 of the sleeve 800 includes an indentation 811 communicating with the positioning hole 680 of the base 600.

[0029] The fastening member 900 is fixed in the positioning hole 680 and against the tube 810 of the sleeve 800 to secure the sleeve 800 wherein part of the fastening member 900 is held in the indentation 811. In this embodiment, the positioning hole 680 is a threaded hole, and the fastening member 900 is a screw.

[0030] Therefore, the tool holding device of the second embodiment has greater connection and mechanical strength, and the same fragment conduction and hard-wearing effect as the first embodiment. The difference between the first embodiment and the second embodiment is that the sleeve 800 received in the holding hole 740 of the block 700 is replaceable, and the restraining portion 820 of the sleeve 800 can prevent the processed material from scraping the block 700 during operation to extend the lifetime of the block 700. Consequently, the abrasion area is mostly generated on the sleeve 800 after a long operation period, and only the sleeve 800 is needed to be replaced for reusing the tool holding device. As a result, the material cost resulting from the replacement in the second embodiment is less than the material cost resulting from the replacement in the first embodiment because the replaceable sleeve 800 has a lower cost than the block 200.

[0031] As embodied and broadly described herein, the tool holding device of these embodiments in accordance with the present invention have greater mechanical strength wherein the connection strength between the base and the block is also enhanced. The retaining portion of the block and the restraining portion of the sleeve can prevent the block from being rubbed by the processed material during the operation. The groove of the base provides a fragment conduction effect.

[0032] Although the present invention has been described in considerable detail with reference to certain preferred embodiments thereof, other embodiments are possible. Therefore, the scope of the appended claims should not be limited to the description of the preferred embodiments contained herein.

[0033] It will be apparent to those skilled in the art that various modifications and variations can be made to the structure of the present invention without departing from the scope of the invention which is defined only by the appended claims.

Claims

1. A tool holding device fastened on a roller of a road planer, comprising a base (100) fastened on a pe-

- ripheral surface of the roller, and comprising a receiving portion defined between a countering wall (120) and a shoulder wall (110), a surface (150) defined adjacent and perpendicularly to the shoulder wall (110), and the surface (150) being away from the countering wall (120), the shoulder wall (110) and the countering wall (120) defining an angle less than or equal to 90 degrees, a penetrated hole (170) defined on the countering wall (120) along an axis (X), and a positioning hole (250) communicating with the penetrated hole (170), the device further comprising a block (200) detachably set on the base (100), and comprising a holding portion (210) held in the receiving portion, and a handle (220) extended outward from the holding portion (210) and received in the penetrated hole (170), and the device also comprising a fastening member (300) fixed in the positioning hole (180) and against the handle to secure the holding portion (210), the device **characterized by** the block (200) comprising a holding hole (250) defined through the holding portion (210) and the handle (220) along the axis (X) for holding a chisel (400) in the holding hole (250).
2. The tool holding device of claim 1, wherein the block (200) comprises a retaining portion (230) protruded from the holding portion (210) outward along a radial direction of the holding hole (250) and against the surface (150) of the base (100).
 3. The tool holding device of claim 1, wherein the base (100) comprises a track (160) formed on the shoulder wall (110), and the block (200) comprises a protrusion (240) movably received in the track (160) of the base (100).
 4. The tool holding device of claim 1, wherein the base (100) comprises a groove (140) formed on a junction between the countering wall (120) and the shoulder wall (110), and communicating with opposite flanks (101) of the base (100).
 5. The tool holding device of claim 1, wherein the handle (220) of the block (200) comprises an indentation (221) communicating with the positioning hole (180) and holding part of the fastening member (300).
 6. A tool holding device fastened on a roller of a road planer, comprising a base (600) fastened on a peripheral surface of the roller, and comprising a receiving portion defined between a countering wall (620) and a shoulder wall (610), a surface (650) defined adjacent and perpendicularly to a shoulder wall (610), and the surface (650) being away from a countering wall (620), a penetrated hole (670) defined on the countering wall (620) along an axis (X), and a positioning hole (680) communicating with the penetrated hole (670) wherein the countering wall (620) and the shoulder wall (610) define an angle less than or equal to 90 degrees, comprising a block detachably set on the base (600), and a holding portion (710) held in the receiving portion, the device **characterized by** further comprising:
 - a holding hole (740) defined through the holding portion (710) along the axis (X);
 - a sleeve (800) comprising a tube (810) received in the holding hole (740) of the block (700) and the penetrated hole (670) of the base (600), a restraining portion (820) formed on a front end of the tube (810), and an axial hole (830) defined through the tube (810) and the restraining portion (820) for holding a chisel (400) in the axial hole (830) wherein the restraining portion (820) is restrained against an outer surface (701) of the block (700); and
 - a fastening member (900) fixed in the positioning hole (680) and against the tube (810) of the sleeve (800) to secure the sleeve (800).
 7. The tool holding device of claim 6, wherein the block (700) comprises a retaining portion (720) protruded from the holding portion (710) outward along a radial direction of the holding hole (740) and against the surface (650) of the base (600).
 8. The tool holding device of claim 6, wherein the base (600) comprises a track (660) formed on the shoulder wall (610), and the block (700) comprises a protrusion (730) movably received in the track (660) of the base (600).
 9. The tool holding device of claim 6, wherein the base (600) comprises a groove (640) formed on a junction between the countering wall (620) and the shoulder wall (610), and communicating with opposite flanks (601) of the base (600).
 10. The tool holding device of claim 6, wherein the tube (810) of the sleeve (800) comprises an indentation (811) communicating with the positioning hole (680) and holding part of the fastening member (900).

Patentansprüche

1. Werkzeughaltevorrichtung, befestigt an einer Walze einer Straßenfräse, umfassend:
 - eine Basis (100), die an einer äußeren Fläche der Walze befestigt ist, und einen Aufnahmeabschnitt umfasst, der definiert ist zwischen einer Gegenwand (120) und einer Schulterwand (110), und einer Oberfläche (150), die neben und senkrecht zur Schulterwand (110) definiert ist, und wobei die Oberflä-

che (150) von der Gegenwand (120) getrennt ist, wobei die Schulterwand (110) und die Gegenwand (120) einen Winkel kleiner oder gleich 90 Grad definieren, wobei ein Durchgangsloch (170) in der Gegenwand (120) entlang einer Achse (X) definiert ist, und ein Positionierungsloch (180) mit dem Durchgangsloch (170) verbunden ist, wobei die Vorrichtung weiter umfasst:

einen Block (200), der abnehmbar an der Basis (100) sitzt, und einen Halteabschnitt (210) umfasst, der in dem Aufnahmeabschnitt gehalten wird, und einen Griff (220), der sich vom Halteabschnitt (210) nach Außen erstreckt und im Durchgangsloch (170) aufgenommen ist, und wobei die Vorrichtung ebenfalls ein Befestigungselement (300) umfasst, das in dem Positionierungsloch (180) und gegenüber dem Griff befestigt ist, um den Halteabschnitt (210) zu sichern, wobei die Vorrichtung **dadurch gekennzeichnet ist, dass** der Block (200) ein Halteloch (250) umfasst, das durch den Halteabschnitt (210) und den Griff (220) entlang der Achse (X) definiert ist, um einen Meißel (400) in dem Halteloch (250) zu halten.

2. Werkzeughaltevorrichtung gemäß Anspruch 1, wobei der Block (200) einen Rückhalteabschnitt (230) umfasst, der von dem Halteabschnitt (210) nach Außen entlang einer radialen Richtung des Haltelochs (250) und gegenüber der Oberfläche (150) der Basis (100) hervorsteht.
3. Werkzeughaltevorrichtung gemäß Anspruch 1, wobei die Basis (100) eine Führung (160) aufweist, die an der Schulterwand (110) gebildet ist, und wobei der Block (200) einen Vorsprung (240) umfasst, der beweglich in der Führung (160) der Basis (100) aufgenommen ist.
4. Werkzeughaltevorrichtung gemäß Anspruch 1, wobei die Basis (100) eine Vertiefung (140) umfasst, die an einer Verbindung zwischen der Gegenwand (120) und der Schulterwand (110) gebildet ist, und mit gegenüberliegenden Flanken (101) der Basis (100) verbunden ist.
5. Werkzeughaltevorrichtung gemäß Anspruch 1, wobei der Griff (220) des Blocks (200) eine Einbuchtung (221) umfasst, die mit dem Positionierungsloch (180) in Kontakt steht und einen Teil des Befestigungselements (300) hält.
6. Werkzeughaltevorrichtung befestigt an einer Walze

einer Straßenfräse, umfassend:

eine Basis (600), die an einer äußeren Fläche der Walze befestigt ist, und einen Aufnahmeabschnitt umfasst, der definiert ist zwischen einer Gegenwand (620) und einer Schulterwand (610) und einer Oberfläche (650), die neben und senkrecht zu einer Schulterwand (610) definiert ist, und wobei die Oberfläche (650) von der Gegenwand (620) getrennt ist, wobei ein Durchgangsloch (670) in der Gegenwand (620) entlang einer Achse (X) definiert ist, und wobei ein Positionierungsloch (680) mit dem Durchgangsloch (670) verbunden ist, wobei die Gegenwand (620) und die Schulterwand (610) einen Winkel kleiner oder gleich 90 Grad definieren, umfassend:

einen Block, der abnehmbar an der Basis (600) sitzt, und einen Halteabschnitt (710), der in dem Aufnahmeabschnitt gehalten wird, wobei die Vorrichtung **dadurch gekennzeichnet ist, dass** sie weiter umfasst:

ein Halteloch (740), das durch den Halteabschnitt (710) entlang der Achse (X) definiert ist; eine Hülse (800), die eine Rohr (810) umfasst, das in dem Halteloch (740) des Blocks (700) und dem Durchgangsloch (670) der Basis (600) aufgenommen ist, einen Abgrenzungsabschnitt (820), der am vorderen Ende des Rohr (810) gebildet ist, ein axiales Loch (830), das durch das Rohr (810) und den Einspannabschnitt (820) definiert ist, um einen Meißel (400) in dem axialen Loch (830) zu halten, wobei der Einspannabschnitt (820) gegen eine Außenfläche (701) des Blocks (700) eingespannt ist; und ein Befestigungselement (900), das in dem Positionierungsloch (680) und gegenüber dem Rohr (810) der Hülse (800) befestigt ist, um die Hülse (800) zu sichern.

7. Werkzeughaltevorrichtung gemäß Anspruch 6, wobei der Block (700) einen Rückhalteabschnitt (720) umfasst, der von dem Halteabschnitt (710) nach Außen entlang einer radialen Richtung des Haltelochs (740) und gegenüber der Oberfläche (650) der Basis (600) hervorsteht.
8. Werkzeughaltevorrichtung gemäß Anspruch 6, wobei die Basis (600) eine Führung (660) aufweist, die in der Schulterwand (610) gebildet ist und der Block (700) einen Vorsprung (730) umfasst, der beweglich in der Führung (660) der Basis (600) aufgenommen ist.

9. Werkzeughaltevorrichtung gemäß Anspruch 6, wobei die Basis (600) eine Vertiefung (640) umfasst, die an einer Verbindung zwischen der Gegenwand (620) und der Schulterwand (610) gebildet ist, und mit gegenüberliegenden Flanken (601) der Basis (600) verbunden ist.
10. Werkzeughaltevorrichtung gemäß Anspruch 6, wobei das Rohr (810) der Hülse (800) eine Einbuchtung (811) umfasst, die mit dem Positionierungsloch (680) verbunden ist und einen Teil des Befestigungselements (900) hält.

Revendications

1. Dispositif porte-outils attaché sur un rouleau d'un engin de nivelage de route, comprenant une base (100) attachée sur une surface périphérique du rouleau, et comprenant une partie de réception définie entre une contre-cloison (120) et une paroi d'épaulement (110), une surface (150) définie adjacente et perpendiculairement à la paroi d'épaulement (110), et la surface (150) étant à l'écart de la contre-cloison (120), la paroi d'épaulement (110) et la contre-cloison (120) définissant un angle inférieur ou égal à 90 degrés, un trou pénétrant (170) défini sur la contre-cloison (120) le long d'un axe (X), et un trou de positionnement (250) communiquant avec le trou pénétrant (170), le dispositif comprenant en outre un bloc (200) disposé de manière amovible sur la base (100), et comprenant une partie de maintien (210) maintenue dans la partie de réception, et une poignée (220) s'étendant vers l'extérieur à partir de la partie de maintien (210) et reçue dans le trou pénétrant (170), le dispositif comprenant également un élément de fixation (300) fixé dans le trou de positionnement (180) et contre la poignée pour sécuriser la partie de maintien (210), le dispositif étant **caractérisé par le fait que** :

le bloc (200) comprend un trou de maintien (250) défini à travers la partie de maintien (210) et la poignée (220) le long de l'axe (X) pour maintenir un burin (400) dans le trou de maintien (250).

2. Dispositif porte-outils selon la revendication 1, dans lequel le bloc (200) comprend une partie de rétention (230) faisant saillie de la partie de maintien (210) vers l'extérieur dans une direction radiale du trou de maintien (250) et contre la surface (150) de la base (100).
3. Dispositif porte-outils selon la revendication 1, dans lequel la base (100) comprend un rail (160) formé sur la paroi d'épaulement (110) et le bloc (200) comprend une protubérance (240) reçue de manière mobile dans le rail (160) de la base (100).

4. Dispositif porte-outils selon la revendication 1, dans lequel la base (100) comprend une rainure (140) formée à une jonction entre la contre-cloison (120) et la paroi d'épaulement (110), et communiquant avec des flancs opposés (101) de la base (100).

5. Dispositif porte-outils selon la revendication 1, dans lequel la poignée (220) du bloc (200) comprend une indentation (221) communiquant avec le trou de positionnement (180) et la partie de maintien de l'élément de fixation (300).

6. Dispositif porte-outils attaché sur un rouleau d'un engin de nivelage de route, comprenant une base (600) attachée sur une surface périphérique du rouleau, et comprenant une partie de réception définie entre une contre-cloison (620) et une paroi d'épaulement (610), une surface (650) définie adjacente et perpendiculairement à la paroi d'épaulement (610), et la surface (650) étant à l'écart de la contre-cloison (620), un trou pénétrant (670) défini sur la contre-cloison (620) le long d'un axe (X), et un trou de positionnement (680) communiquant avec le trou pénétrant (670) dans lequel la contre-cloison (620) et la paroi d'épaulement (610) définissent un angle inférieur ou égal à 90 degrés, comprenant un bloc disposé de manière détachable sur la base (600), et une partie de maintien (710) maintenue dans la partie de réception, le dispositif étant **caractérisé en ce qu'il** comprend en outre :

un trou de maintien (740) défini à travers la partie de maintien (710) le long de l'axe (X) ;

une douille (800) comprenant un tube (810) reçu dans le trou de maintien (740) du bloc (700) et le trou pénétrant (670) de la base (600), une partie de restreinte (820) formée à une extrémité frontale du tube (810), et un trou axial (830) défini à travers le tube (810) et la partie de restreinte (820) pour maintenir un burin (400) dans le trou axial (830) dans lequel la partie de restreinte (820) est restreinte contre une surface extérieure (701) du bloc (700) ; et

un élément de fixation (900) fixé dans le trou de positionnement (680) et contre le tube (810) de la douille (800) pour sécuriser la douille (800).

7. Dispositif porte-outils selon la revendication 6, dans lequel le bloc (700) comprend une partie de rétention (720) faisant saillie de la partie de maintien (710) vers l'extérieur dans une direction radiale du trou de maintien (740) et contre la surface (650) de la base (600) .

8. Dispositif porte-outils selon la revendication 6, dans lequel la base (600) comprend un rail (660) formé sur la paroi d'épaulement (610), et le bloc (700) comprend une protubérance (730) reçue de manière mo-

bile dans le rail (660) de la base (600).

9. Dispositif porte-outils selon la revendication 6, dans lequel la base (600) comprend une rainure (640) formée à une jonction entre la contre-cloison (620) et la paroi d'épaulement (610), et communiquant avec des flancs opposés (601) de la base (600). 5
10. Dispositif porte-outils selon la revendication 6, dans lequel le tube (810) de la douille (800) comprend une indentation (811) communiquant avec le trou de positionnement (680) et la partie de maintien de l'élément de fixation (900). 10

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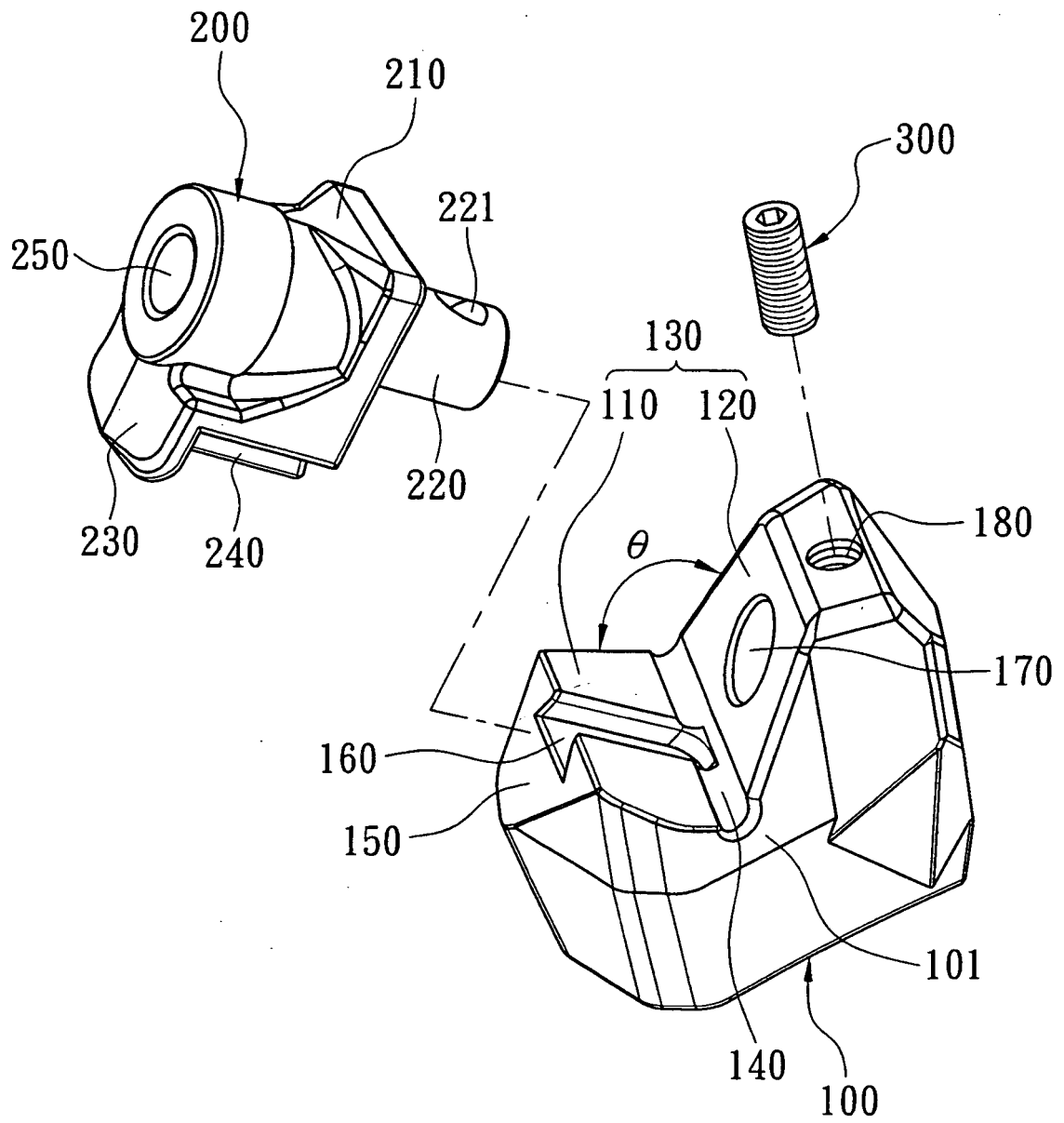


Figure 1

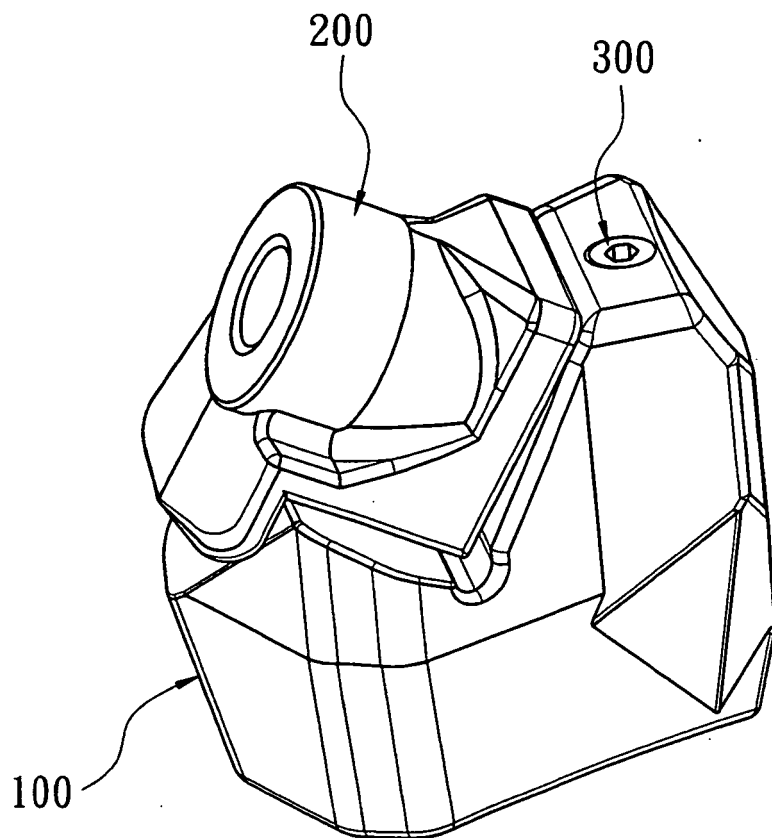
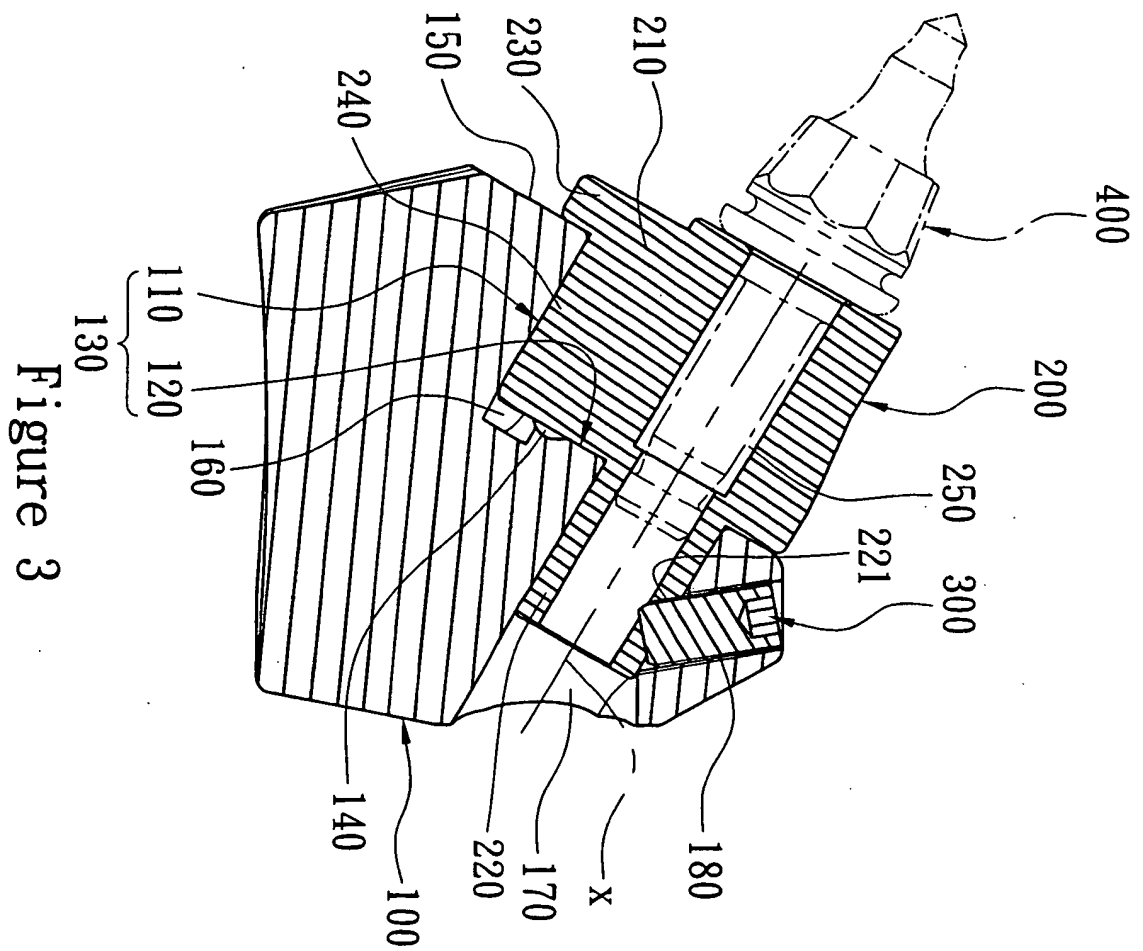


Figure 2



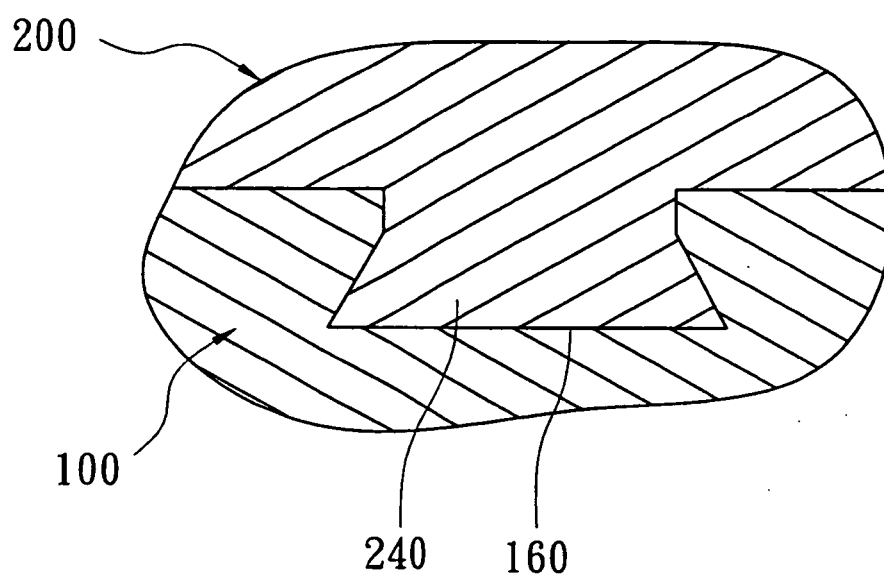


Figure 4

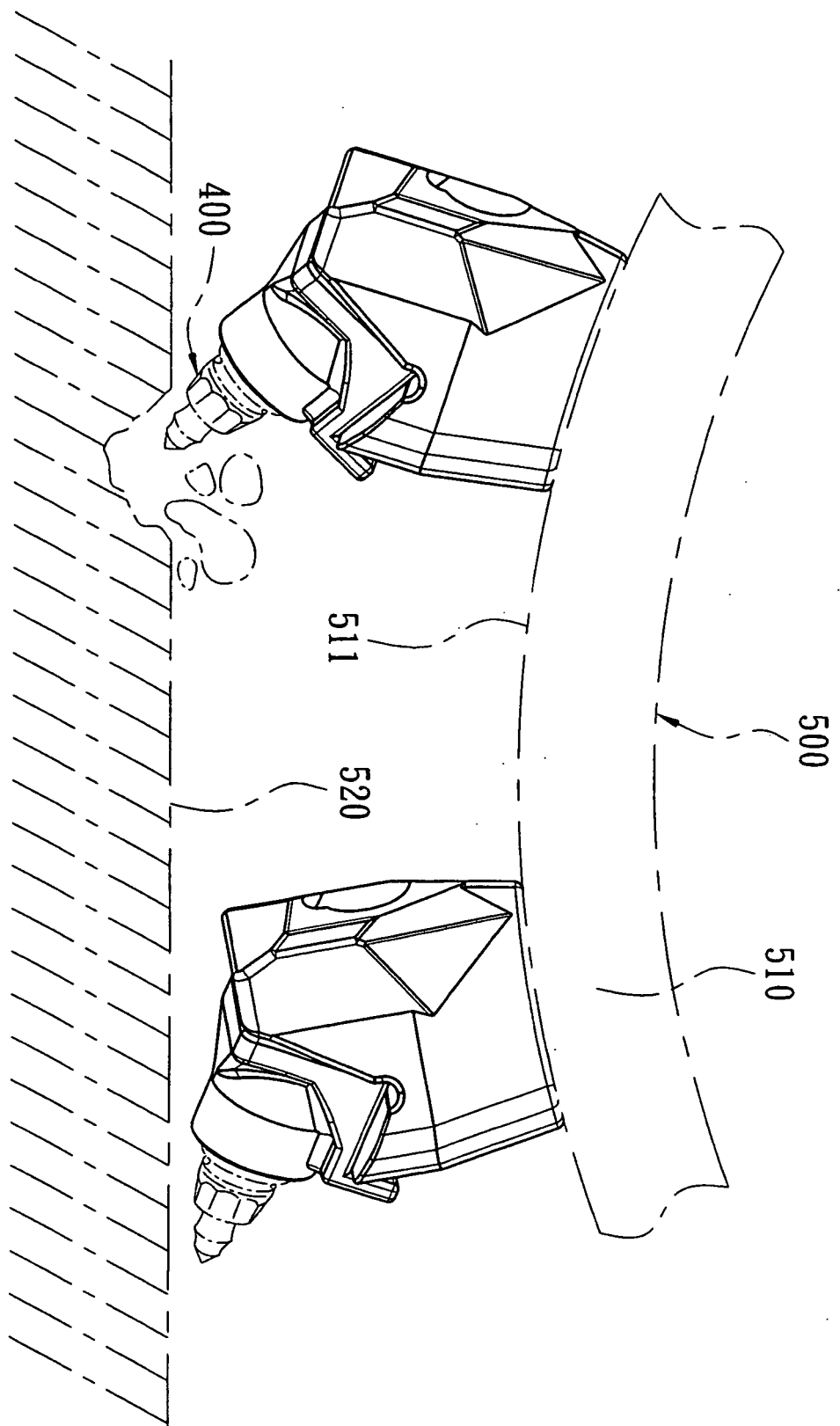


Figure 5

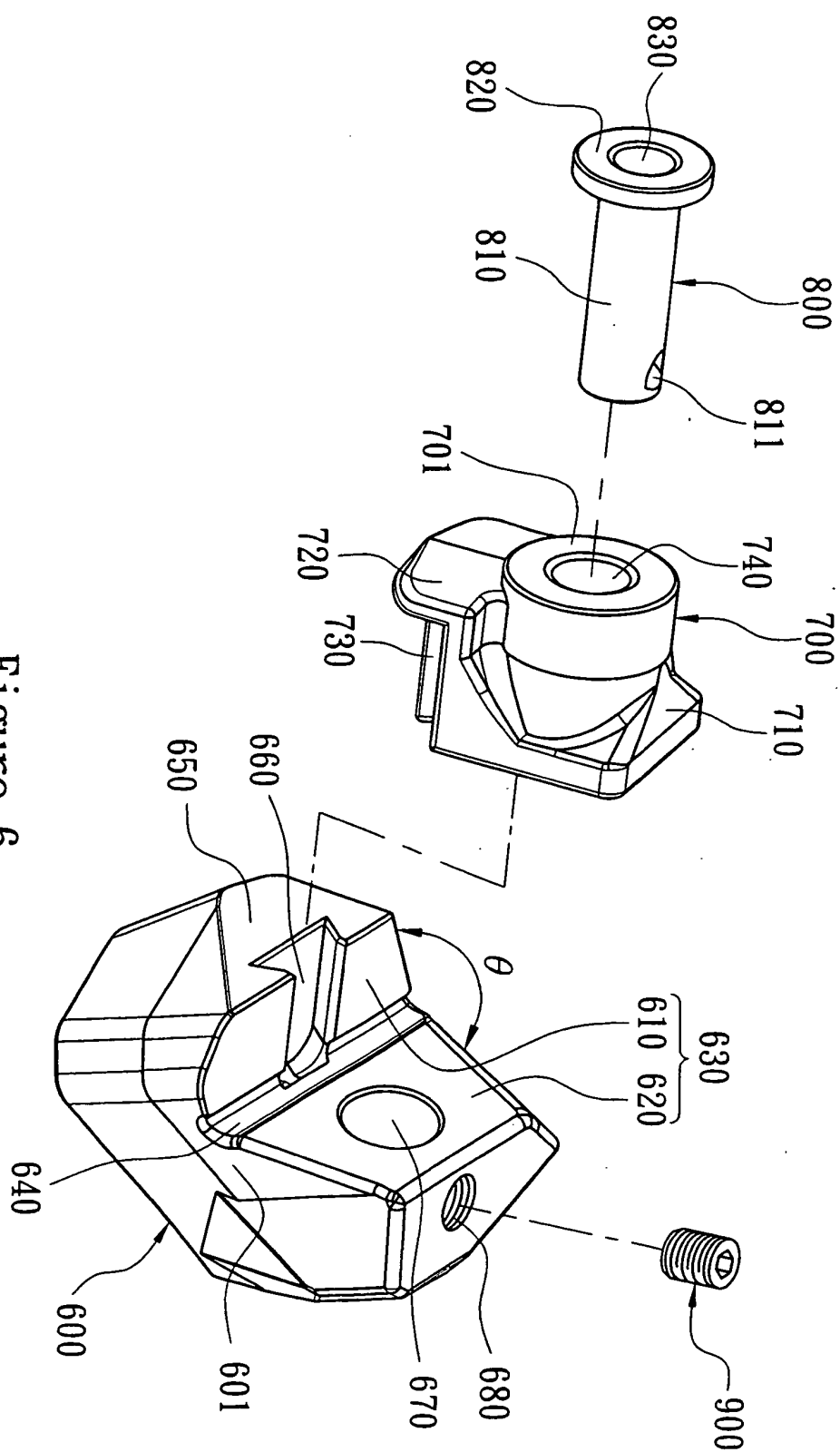


Figure 6

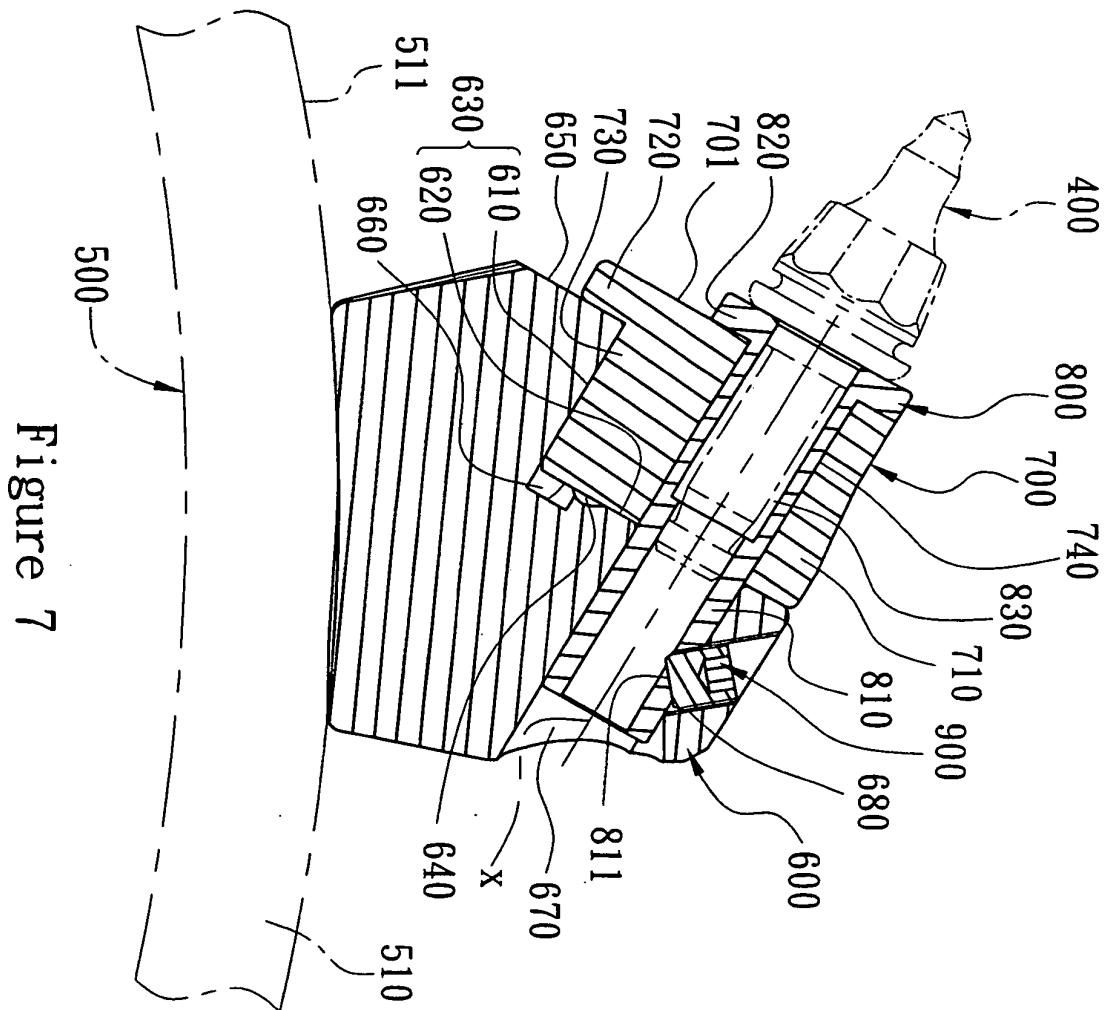


Figure 7

REFERENCES CITED IN THE DESCRIPTION

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