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(54) **MAGNETIC KNIFE HOLDER**

MAGNETISCHER MESSERHALTER

PORTE-COUTEAUX MAGNETIQUE

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Description

Technical Field

[0001] The present invention relates to a magnetic knife stand and more particularly pertains to a magnetic knife stand for storing knives.

Background Art

[0002] Different kinds of knives are kept in most kitchens for preparing various dishes. Usually the knives are placed together in a knife rack or a knife stand for convenient use. The existing knife racks mainly use magnets to attract the knife blades. However, there exists a common problem that the magnetic force is likely to be too strong to make it so difficult to remove the relatively small-sized knives from the knife racks, while it is insufficient to attract and hold the relatively large-sized knives securely onto the knife racks and causes accidents easily. For the sake of safety, many kitchens use knife stands instead of knife racks. The existing knife stands comprise slits pointing substantially downwards. Knifes are inserted into the slits and stored therein for future use. The slits can be of different shapes and dimensions to match with knives of different shapes and dimensions. Knife stands can therefore be used to store the knives securely. It has the advantages of making the knives to be stored tidily and conveniently for future use. Accidents can be avoided as the cutting edges of the knives are not exposed.

[0003] However, the existing knife stands are mostly configured with the cutting edges of the knives being inserted downward. When the knife is being inserted, owing to the force of gravity the cutting edge of the knife will easily come in contact with or even rub against the bottom of the slit. The cutting edge therefore becomes blunt easily and has to be sharpened frequently, which is quite troublesome. The bottom of the knife stand also wears out, thereby shortening the lifespan of the knife stand.

[0004] DE29807116U1 discloses a kind of knife rack comprising multiple modules each containing at least one vertical back element (a) and a vertical carrier element (b); a magnet (M) is disposed at the back of a respective back element (a). However, this kind of knife rack only uses the magnet (M) to hold a knife vertically to prevent the knife from falling off; the magnet (M) is not used for preventing the blade of the knife from contacting an inner side of a sheath. This kind of structure is disadvantageous in that, if the magnet (M) is not strong enough or if the magnet (M) fails to operate properly, the knife will easily fall off and thus causing accidents; also, since the blade of the knife is not fitted within a knife sheath, the blade may be exposed to an external environment for example when the knife is too long and thus hurting the users, or the blade may contact the spacer (D) for example when the blade is too broad and thus liable to frequent contact and rubbing against the spacer (D) and resulting in a blunt blade.

[0005] DE29806075U1 discloses a holding device (1) for holding various types of kitchenware. To hold an item, for example a knife, the item is inserted into a channel (3) through a slot (4) and it is secured in position by a magnet (10). This kind of holding device is not preferable because the wall (8) of the channel (3) is said to closely and snugly fit against the item being inserted. As a result, if a knife is inserted, the blade of the knife will contact and rub against the wall (8) of the channel (3) and thus damage the knife as well as the holding device (1).

[0006] JP2003164382A discloses a knife holder for vertical insertion of a knife. A magnet (8) is disposed to attract and hold the sides of the knife so that the knife will not drop down and rub against the bottom of the insertion portion (5/6/7). However, this kind of knife holder can only prevent the knife from dropping down and thus preventing the tip of the knife from contacting the insertion portion, but it is not able to prevent the cutting edge of the blade from contacting an inner side of the insertion portion (5/6/7). As a result, the knife may have a blunt blade due to frequent contact of the blade with an inner side of the insertion portion.

[0007] US2955239A discloses a magnetic holding device which can be used in a vertical knife rack. The knife being inserted into the vertical knife rack is held within a slot (117) by two magnets (110, 111) mutually attracting with each other. This kind of structure can hold the knife so that the knife will not fall off, but it cannot prevent the blade of the knife from contacting the inner side of the slot (117). As a result, the blade will become blunt when it contacts the inner side of the slot (117) frequently.

Disclosure of the Invention

[0008] In view of the aforesaid disadvantages now present in the prior art, the object of the present invention is to provide a magnetic knife stand which is safe, reliable, convenient for use and can effectively prevent the cutting edges of the knives from becoming blunt.

[0009] To attain this, the present invention generally comprises one or more inserting slits each receiving a blade of a knife; each of the inserting slits has a corresponding knife sheath removably connecting to a corresponding inserting slit of the inserting slits; the blade of the knife has a cutting edge, two side surfaces, and a back edge directly opposite to the cutting edge; one or more magnets is/are disposed respectively on an upper inner side of each of the inserting slits for attracting the back edge of the blade, a hole or a hollow is disposed on the upper inner side of each of the inserting slits, and a corresponding magnet/magnets of the magnets is/are placed inside the hole or hollow; when the knife is inserted into the corresponding knife sheath through the corresponding inserting slit of the inserting slits after use, the corresponding magnet/magnets of the magnets disposed on the upper inner side of the corresponding inserting slit attracts the knife, thereby keeping the back

edge of the knife in contact with the upper inner side of the corresponding inserting slit while being inserted so that the cutting edge of the knife is kept at a certain distance away from the bottom inner side of the corresponding inserting slit to avoid the cutting edge from rubbing against the bottom inner side of the corresponding inserting slit during the process of inserting the knife, and keeping the cutting edge of the knife in a position away from and having no contact with the bottom of the corresponding knife sheath after the knife is completely inserted into the corresponding knife sheath.

[0010] The one or more magnets disposed respectively on the upper inner side of each of the inserting slits is/are disposed near to a respective opening of each of the inserting slits.

[0011] The one or more magnets are disposed for each of the inserting slits, and the one or more magnets can each be in the shape of a bar or a granule, depending on the shape, dimension and weight of the knives to be attracted.

[0012] The one or more magnets can be respectively adhered to or respectively embedded into the upper inner side of each of the inserting slits.

[0013] A first projecting member or a first groove is provided at one end of the corresponding knife sheath which connects to a corresponding inserting slit of the inserting slits, and a second groove corresponding to the first projecting member or a second projecting member corresponding to the first groove is provided in acorresponding position of the corresponding inserting slit; the corresponding knife sheath can protect the corresponding cutting edge of the inserted knife and avoid accidents from happening.

[0014] The shape and dimension of the knife sheath correspond to the shape and dimension of the inserted knife.

[0015] To use the present invention, while a knife is inserting into the inserting slit of the knife stand after use, the magnet disposed on the upper inner side of the inserting slit has the property of attracting the knife, thereby keeping the upper surface of the knife (that is, the back of the blade) in contact with the upper inner side of the inserting slit while being inserted. During the process of inserting the knife, the cutting edge can be kept at a certain distance away from the bottom inner side of the inserting slit of the knife stand, thereby avoiding the cutting edge from rubbing against the bottom inner side. Further, after the knife is completely inserted into the inserting slit, the magnet can keep the cutting edge of the knife in a position of being away from and having no contact with the knife stand.

[0016] In comparison with the prior art, the present invention has the following advantages and effects:

First, since the magnet of the magnetic knife stand can keep the cutting edge of the knife away from the bottom inner side of the inserting slit during and after the process of inserting the knife into the knife stand, it can effectively prevent the cutting edge from becoming blunt, which is caused by its rubbing against the inserting slit. The frequency of sharpening the blade can then be reduced and the lifespan of the knife can be extended. Further, this magnetic knife stand is more effective in protecting the knife stand from being cut or worn out by the knives.

Secondly, this magnetic knife stand provides the inserting slits for placing the knives and magnets are disposed to attract the back of the blade. This is effective to store the knives securely in the knife stand. It is convenient for use. It is safer and more reliable when used with knife sheaths.

Brief Description of Drawings

[0017]

FIG. 1 shows the perspective view of the magnetic knife stand of the present invention.

FIG. 2 is the exploded view of the magnetic knife stand as in Fig 1.

FIG. 3 shows the cross-sectional view of the magnetic knife stand as in Fig 1.

FIG. 4 shows the enlarged view of the magnetic knife stand as in Fig 3.

FIG. 5 is the perspective view of Fig. 4.

[0018] The present invention is further described in detail with the following embodiment and the accompanying drawings. FIGS. 1 and 2 illustrate an embodiment of this magnetic knife stand. It has an appearance of a human figure. Its appearance can be changed freely into any traditional knife stand or other appearance. As illustrated in FIGS. 1 and 2, this magnetic knife stand comprises a base 1 and a supporting stand 2. The supporting stand 2 is fixed firmly onto the base 1. As illustrated in FIG. 2, inserting slits 21 are disposed in various positions of the supporting stand 2. Magnets 5 are embedded into holes or hollows disposed on the upper inner side of the inserting slits 21 near to their openings. As illustrated in FIGS. 3 and 5, the shape of the magnets 5 is in bar form. The thickness of the magnets 5 shall not affect the insertion of knives 4. The inserting slits 21 have corresponding knife sheaths 3. One end of the knife sheaths 3 which connect to the inserting slits 21 comprises projecting members 31. The knife sheaths 3 are inserted into the supporting stand 2 by means of the projecting members 31 and connect to the inserting slits 21 correspondingly. The knife sheaths 3 can be removed conveniently when required (for example, when the knife stand has to be packed). While a knife 4 is inserting into the knife sheath 3 after use, the magnet 5 disposed on the upper inner side of the inserting slit 21 has the property of attracting the knife 4, thereby keeping the upper surface of the knife 4 (that is, the back of the blade) in contact with the upper inner side of the inserting slit 21 while being inserted. During the process of inserting, the cutting edge of the

knife 4 can be kept at a certain distance away from the bottom inner side of the inserting slit 21, thereby avoiding the cutting edge from rubbing against the bottom inner side. Further, after the knife 4 is completely inserted, the magnet 5 can keep the cutting edge of the knife 4 in a position of being away from and having no contact with the bottom of the knife sheath 3. As illustrated in FIGS. 1 and 3, after the blade 41 of the knife 4 is inserted into the knife sheath 3, its handle 42 is located outside the knife sheath 3 and the supporting stand 2.

Claims

1. A magnetic knife stand comprising one or more inserting slits (21) each suitable for receiving a blade (41) of a knife (4) having a cutting edge, two side surfaces, and a back edge directly opposite to the cutting edge; each of the inserting slits (21) has a corresponding knife sheath (3) removably connecting to a corresponding inserting slit of the inserting slits (21); one or more magnets (5) is/are disposed respectively on an upper inner side of each of the inserting slits (21) for attracting the back edge of the blade (41) of a knife inserted with the cutting edge facing downward, a hole or a hollow is disposed on the upper inner side of each of the inserting slits (21), and a corresponding magnet/magnets of the magnets (5) is/are placed inside the hole or hollow; when the knife (4) is inserted into the corresponding knife sheath (3) through the corresponding inserting slit of the inserting slits (21) after use, the corresponding magnet/magnets of the magnets (5) disposed on the upper inner side of the corresponding inserting slit attracts the knife (4), thereby keeping the back edge of the knife (4) in contact with the upper inner side of the corresponding inserting slit while being inserted so that the cutting edge of the knife (4) is kept at a certain distance away from the bottom inner side of the corresponding inserting slit to avoid the cutting edge from rubbing against the bottom inner side of the corresponding inserting slit during the process of inserting the knife (4), and keeping the cutting edge of the knife (4) in a position away from and having no contact with the bottom of the corresponding knife sheath (3) after the knife (4) is completely inserted into the corresponding knife sheath (3).

2. The magnetic knife stand as in Claim 1, wherein the one or more magnets (5) disposed respectively on the upper inner side of each of the inserting slits (21) is/are disposed near to a respective opening of each of the inserting slits (21).

3. The magnetic knife stand as in Claim 1, wherein the one or more magnets (5) is/are each in the shape of a bar or a granule.

4. The magnetic knife stand as in Claim 1, wherein the one or more magnets (5) is/are respectively adhered to or respectively embedded into the upper inner side of each of the inserting slits (21).

5. The magnetic knife stand as in Claim 1, wherein a first projecting member (31) or a first groove is provided at one end of the corresponding knife sheath (3) which connects to the corresponding inserting slit, and a second groove corresponding to the first projecting member (31) or a second projecting member corresponding to the first groove is provided in a corresponding position of the corresponding inserting slit.

6. The magnetic knife stand as in Claim 1, wherein shape and dimension of the corresponding knife sheath (3) correspond to shape and dimension of the knife (4) to be inserted.

7. The magnetic knife stand as in Claim 1, wherein the upper inner side of each of the inserting slits (21) corresponds to a position of the back edge of the blade (41) when the blade (41) is inserted into the corresponding inserting slit of the inserting slits (21).

8. The magnetic knife stand as in Claim 1, wherein each of the inserting slits (21) further includes a lower portion associated with a position of the cutting edge of the blade (41), and two side portions associated with positions of the two side surfaces of the blade (41).

Patentansprüche

1. Ein magnetischer Messerstand, bestehend aus einem oder mehreren Einführschlitzen (21), die jeweils dafür geeignet sind, die Schneide (41) eines Messers (4) aufzunehmen, welches eine Klinge besitzt, zwei Seitenflächen und eine Hinterkante direkt gegenüber der Schneide;
jede der Einführschlitze (21) hat eine entsprechende Messerscheide (3), die mit dem entsprechenden Einführschlitz abnehmbar verbunden ist (21);
ein oder mehrere Magnete (5) ist/sind auf einer oberen Innenseite der einzelnen Einführschlitze (21) angebracht, um die hintere Kante der Schneide (41) eines Messers anzuziehen, welches mit der Schneide nach unten eingefügt wird, ein Loch oder eine Vertiefung ist auf der oberen Innenseite der einzelnen Einführschlitze (21) angeordnet und ein entsprechender Magnet/Magnete (5) ist/sind in dem Loch oder der Vertiefung platziert; Wenn das Messer (4) nach der Verwendung in die entsprechende Messerscheide (3) durch den entsprechenden Einführschlitz (21) eingeführt wird, zieht der entsprechende Magnet/Magnete (5), welcher an der oberen Innenseite des entsprechenden Einführschlitzes angeord-

net ist, das Messer (4) an, damit die hintere Kante des Messers (4) in Kontakt mit der oberen Innenseite des entsprechenden Einführschlitzes kommen kann, während es eingeführt wird, so dass die Schneide des Messers (4) in einem bestimmten Abstand zur unteren Innenseite des entsprechenden Einführschlitzes gehalten wird, um zu vermeiden, dass die Schneide gegen die untere Innenseite des entsprechenden Einführschlitzes während des Einführprozesses des Messers (4) reibt und die Schneide des Messers (4) in einer entfernten Position hält, so dass diese keinen Kontakt mit der Unterseite der entsprechenden Messerscheide (3) hat, nachdem das Messer (4) vollständig in die entsprechende Messerscheide (3) eingesetzt wurde.

2. Der magnetische Messerstand, wie in Anspruch Nr. 1 erwähnt, bei dem ein oder mehrere Magnete (5) an der oberen Innenseite der einzelnen Einführschlitze (21) angeordnet ist/sind, ist/sind auch jeweils in der Nähe einer jeden Einführöffnung (21) angebracht.

3. Bei dem magnetischen Messerstand, wie in Anspruch Nr. 1 erwähnt, ist/sind ein oder mehrere Magnete (5) jeweils in Form eines Balkens oder als Granulat angebracht.

4. Bei dem magnetischen Messerstand, wie in Anspruch Nr. 1 erwähnt, haftet/haften jeweils ein oder mehrere Magnete (5) bzw. ist/sind diese an der oberen Innenseite der einzelnen Einführschlitze (21) verankert.

5. Der magnetische Messerstand, wie in Anspruch Nr. 1 erwähnt, ist mit einem ersten hervorspringenden Teil (31) oder einer ersten Nut an einem Ende der entsprechenden Messerscheide (3) ausgestattet, die diese mit dem entsprechenden Einführschlitz verbindet, und einer zweiten Nut, die dem ersten hervorspringenden Teil (31) entspricht oder ein zweites hervorspringendes Teil entsprechend der ersten Nut wird in eine entsprechende Position des jeweiligen Einführschlitzes gebracht.

6. Bei dem magnetischen Messerstand, wie in Anspruch Nr. 1 erwähnt, entsprechen die Form und Maße der entsprechenden Messerscheide (3) der jeweiligen Form und den Maßen des Messers (4), welches eingefügt werden soll.

7. Bei dem magnetischen Messerstand, wie in Anspruch Nr. 1 erwähnt, entspricht die obere Innenseite der einzelnen Einführschlitze (21) der Stellung der hinteren Kante der Schneide (41), wenn die Klinge (41) in den entsprechenden Einführschlitz (21) eingefügt wird.

8. Bei dem magnetischen Messerstand, wie in Anspruch Nr. 1 erwähnt, hat jeder der Einführschlitze (21) einem unteren Teil, der der Stellung der Schneidkante der Klinge (41) entspricht und zwei seitliche Abschnitte, die mit der Stellung der beiden Seitenflächen der Klinge (41) übereinstimmt.

Revendications

1. Un porte-couteau magnétique comprenant une ou plusieurs fentes d'insertion (21) adaptées chacune à recevoir la lame (41) d'un couteau (4) ayant un bord tranchant, deux surfaces latérales, et un bord arrière directement opposé au bord tranchant;
chacune des fentes d'insertion (21) dispose d'une gaine de couteau correspondante (3) se connectant de manière amovible à une fente correspondante des fentes d'insertion (21);
un ou plusieurs aimants (5) sont placés respectivement sur la face supérieure interne de chacune des fentes d'insertion (21) pour attirer le bord arrière de la lame (41) d'un couteau inséré avec le bord tranchant orienté vers le bas, un trou ou un creux est disposé sur la face supérieure interne de chacune des fentes d'insertion (21), et un/des aimant(s) correspondant (5) est/sont placé(s) à l'intérieur du trou ou du creux;
lorsque le couteau (4) est inséré dans la gaine de couteau correspondante (3) à travers la fente d'insertion correspondante des fentes d'insertion (21) après utilisation, l'aimant/les aimants correspondant (5) placés sur la face supérieure interne de la fente d'insertion correspondante attirent le couteau (4), ce qui maintient le bord arrière du couteau (4) en contact avec la face supérieure interne de la fente d'insertion correspondante tout en étant inséré de manière à ce que le tranchant du couteau (4) soit maintenu à une certaine distance de la face intérieur de fond de la fente d'insertion correspondante pour éviter que le tranchant ne se frotte contre la face intérieur de fond de la fente d'insertion correspondante pendant le processus de l'insertion du couteau (4), et en maintenant le tranchant du couteau (4) dans une position éloignée et n'ayant aucun contact avec le fond de la gaine de couteau correspondante (3) après que le couteau (4) soit complètement inséré dans la gaine de couteau correspondante (3).

2. Le porte-couteau magnétique selon la revendication 1, dans laquelle l'un ou plusieurs des aimants (5) placés respectivement sur la face supérieure interne de chacune des fentes d'insertion (21) est/sont disposés à proximité d'une ouverture respective de chacune des fentes d'insertion (21).

3. Le porte-couteau magnétique selon la revendication 1, dans laquelle l'un ou plusieurs des aimants (5)

est/sont chacun en forme d'une barre ou d'un granule.

4. Le porte-couteau magnétique selon la revendication 1, dans laquelle l'un ou plusieurs des aimants (5) est/sont respectivement adhérés ou respectivement intégrés dans la partie supérieure interne de chacune des fentes d'insertion (21).

5. Le porte-couteau magnétique selon la revendication 1, dans laquelle un premier élément saillant (31) ou une première rainure est prévue à une extrémité de la gaine de couteau correspondante (3) qui se connecte à la fente d'insertion correspondante, et une deuxième rainure correspondant au premier élément saillant (31) ou un deuxième élément saillant correspondant à la première rainure est prévu dans une position correspondante de la fente d'insertion correspondante.

6. Le porte-couteau magnétique selon la revendication 1, dans laquelle la forme et la dimension de la gaine de couteau correspondante (3) correspondent à la forme et à la dimension de la lame (4) à insérer.

7. Le porte-couteau magnétique selon la revendication 1, dans laquelle la face supérieure interne de chaque fente d'insertion (21) correspond à une position du bord arrière de la lame (41) lorsque la lame (41) est insérée dans la fente d'insertion correspondante des fentes d'insertion (21).

8. Le porte-couteau magnétique selon la revendication 1, dans laquelle chacune des fentes d'insertion (21) comprend en outre une partie inférieure associée à une position du bord tranchant de la lame (41), et deux portions latérales associées aux positions des deux surfaces latérales de la lame (41).

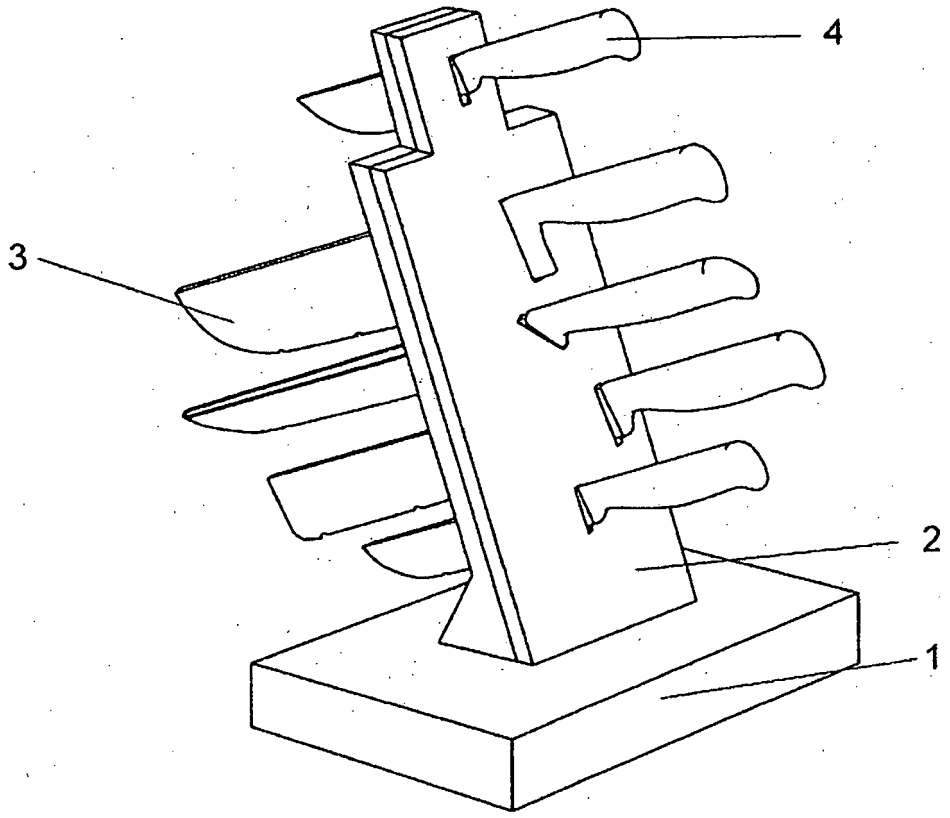


FIG.1

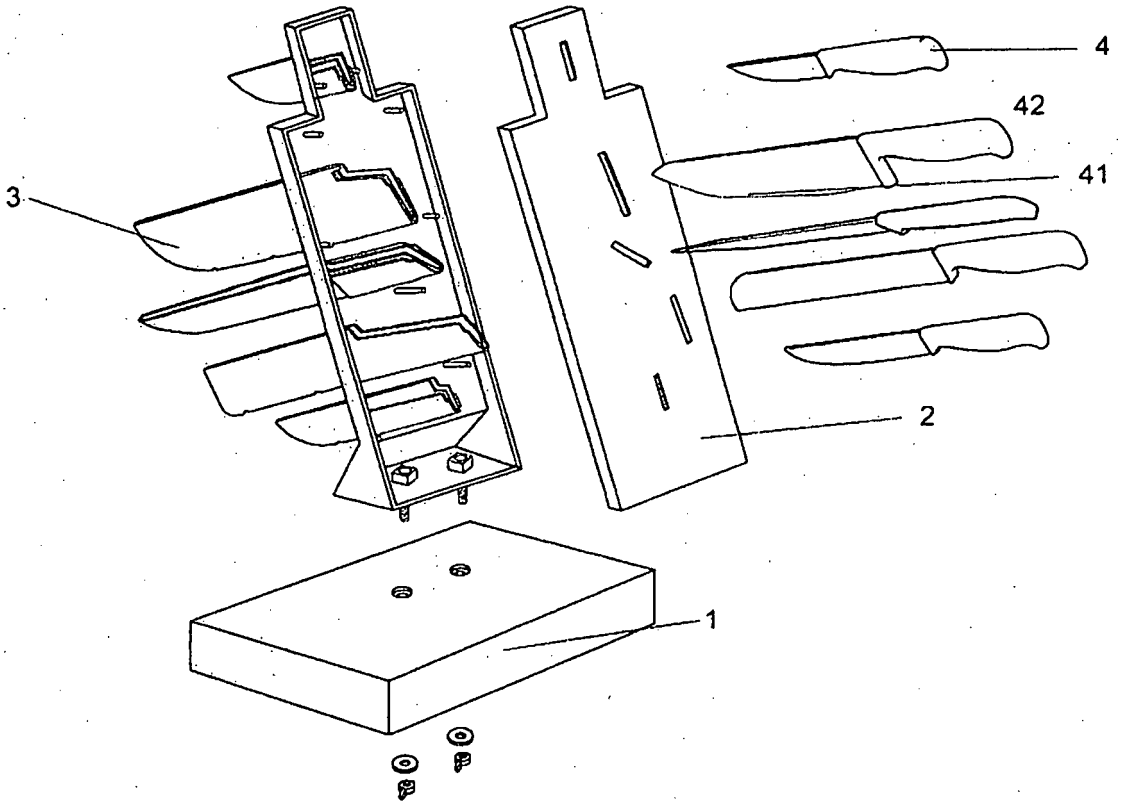


FIG.2

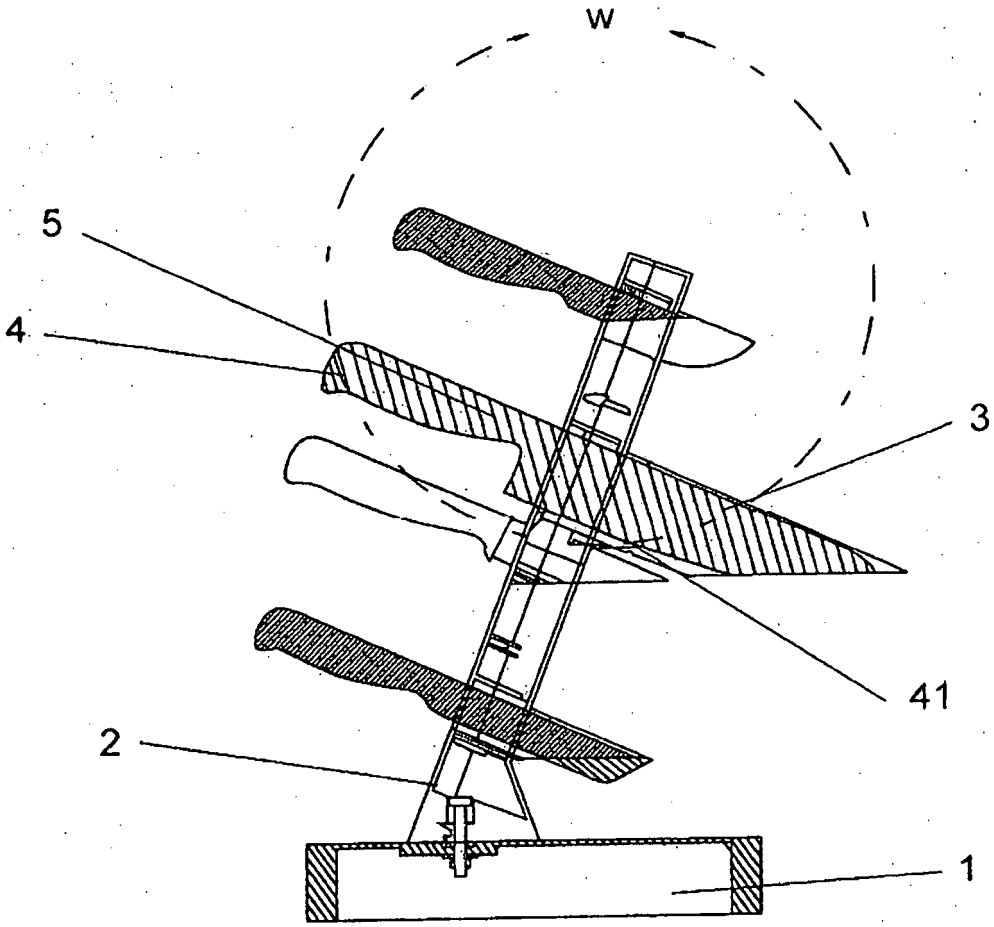


FIG.3

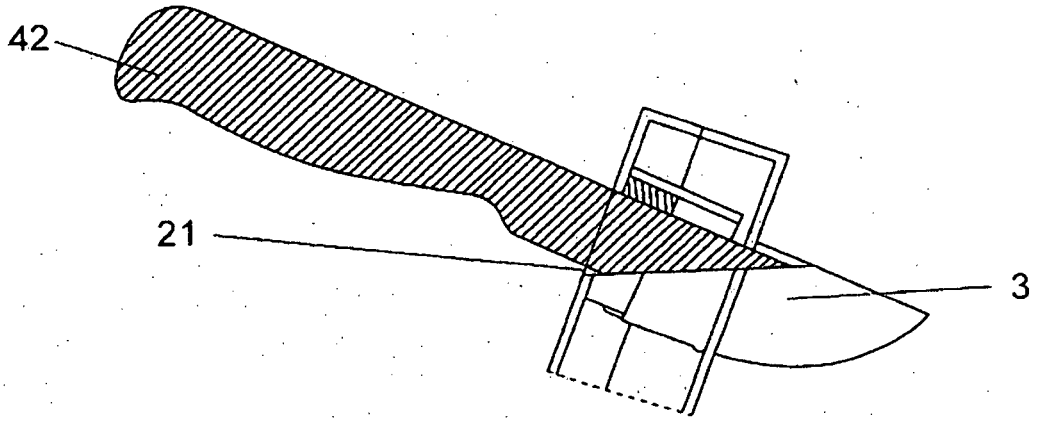


FIG.4

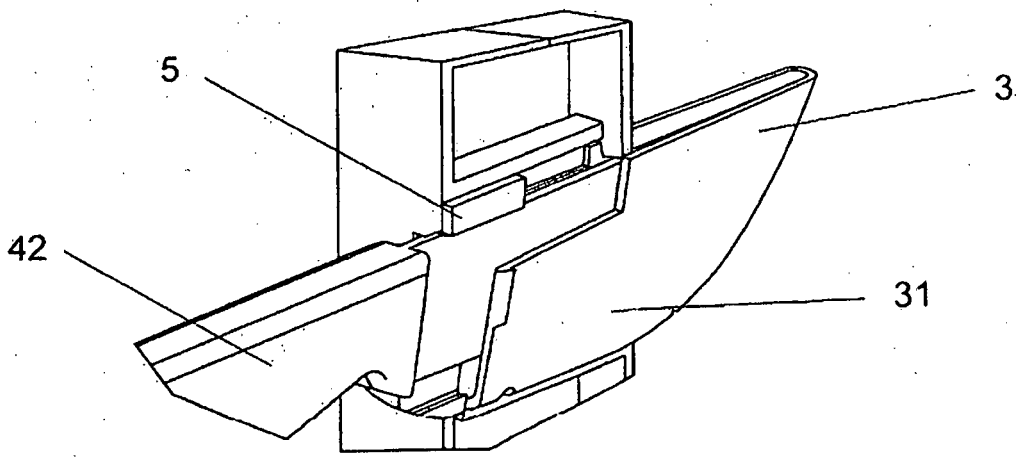


FIG.5

REFERENCES CITED IN THE DESCRIPTION

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