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(54) **ADJUSTABLE WEIGHT CUE**

QUEUE MIT VERSTELLBAREM GEWICHT

QUEUE À POIDS RÉGLABLE

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Description

[0001] This application relates to cues for playing snooker, pool, billiards, bar billiards and the like.

[0002] It is known in the art to provide cues of different weight. In general this is done by providing differently weighted bolts in a cavity in the butt of the cue. It is also known to provide cues in which the weight of the cue is adjustable; an example of prior art having this feature is US2004/0142754 in which a cavity in the butt of the cue is internally threaded so that weights having a corresponding external thread can be screwed into the cavity to increase the weight of the cue. Similar cues are also discloses in the prior art document US 5267730.

[0003] It is an object of this invention to provide an improved cue, having adjustable weight.

[0004] According to the invention there is provided a cue or section of a cue according to claim 1.

[0005] An embodiment of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 shows a side view of the butt section of a cue according to the invention.
Figure 2 shows a partial cross section of the cue or the butt section of the cue according to the invention.
Figure 3 shows a partial cross section of the cue or butt section of the cue as shown in figure 2 in combination with one weight.
Figure 4 shows a partial cross section of the cue or butt section of the cue as shown in figure 2 in combination with two weights.
Figure 5 shows a partial cross section of the cue or butt section of the cue as shown in figure 2 in combination with three weights.
Figure 6 shows a partial cross section of the cue or butt section of the cue as shown in figure 2 in combination with four weights.
Figure 7 shows a cross section of part of a cue according to the invention partially assembled.

[0006] It is usual for a cue to be made either as one piece or more often in two pieces and sometimes three pieces. A two piece cue comprises separate shaft and butt sections which normally are approximately the same length and screw together and a three piece cue has separate shaft and butt sections of differing length and a further extension piece.

[0007] In general cues are between 1 and 3 metres long, usually approximately 1.2 to 1.44 metres tapering from approximately 1 cm in diameter at the front (shaft) to approximately 3cm in diameter at the rear (butt). It is usual for both sections to be wooden and for the butt section to contain a cylindrical metal weight, although those skilled in the art will readily see that the present invention could extend to cues fabricated from metal or any other suitable material, with or without a weight. The butt of a cue is often fitted with a rubber bumper or leather at the rear. The joint between the shaft and the butt of the cue is traditionally a brass or stainless steel piece attached to the front of the butt of the cue and comprising an axially extending rod which cooperates with a metal section at the rear of the shaft of the cue comprising an axially extending bore or vice versa. The threaded rod and bore making the joint are usually approximately 3 centimetres in length. The shaft of the cue culminates in a ferrule on which a leather nib (on a suitable mounting) is attached, usually by means of glue or threaded rod and correspondingly threaded bore.

[0008] For the purposes of this description a butt section of a cue will be described but those skilled in the art will understand that the invention could apply to a cue in which the butt and shaft are not separable.

[0009] Referring to figure 1 of the drawings, the butt section of the cue, 2, is made up of two tapered elongate members, a front member, 4 and a rear member, 6. Both members are circular in cross section. The rear section may contain a weight or may be of a suitably heavy material so that weights are not required. At the rear of the rear member is a substantially semi-spherical bumper, 8. At the front of the front member there is a mounting for a male joint member, 10, and a male joint member, comprising an axially extending threaded rod 12. Also shown on figure 1 are four annular weights, 18.

[0010] Preferably the total weight (with no annular weights attached) of a cue according to the invention, or a butt according to the invention together with a shaft, is between 0.4 and 0.6 kilograms. More preferably, the weight is between 0.45 and 0.50 kilograms and most preferably the weight is approximately 0.48 kilograms (approximately 17 ounces). Preferably each annular weight, 18, is between 10 and 50 grams, more preferably, each annular weight is between 25 and 35 grams and most preferably, the weight is approximately 28 grams (about one ounce). In this way, in a most preferable embodiment, by addition of four weights the total weight of the cue can be raised from approximately 0.48 kilograms (about 17 ounces) to about 0.60 kilograms (about 21 ounces). It will be obvious to the skilled reader that the weights suggested above are merely guidelines and altering the weight of any part of the apparatus would not remove the apparatus from the ambit of this invention.

[0011] Preferably, the joint between the front member, 4, and the rear member, 6, is in the rear three quarters of the butt of the cue. More preferably the joint is in the rear half of the butt of the cue and most preferably it is in the rear half of the butt of the cue and not in the rear third of the butt of the cue, as shown in figure 1.

[0012] Now referring to figures 2 to 7 which show a cross section of part of a cue or butt section of a cue, in the vicinity of the joint between the front member, 4, and the rear member, 6. It can be seen from the drawings that in this embodiment a rod, 16, extends from the rear member and the bore, 14, extends into the front member, 4. However the skilled reader will immediately understand that the members 4 and 6 could equally be config-

ured with the bore 14 extending into the rear member, 6, and the rod, 16, from the front member. The rod, 16, is preferably attached to the rear member, 6, via a ferrule (not shown) or it could be attached by glue or by using a longer rod and securing part of it in a bore in the rear member, 6, or any other suitable means. The corresponding bore, 14, in front member, 4, may be formed by drilling the material forming the front member, but more preferably, the front member will include a metal (or other suitably hard material) section containing a threaded bore.

[0013] From the drawings it will be clear that the length of the rod is substantially longer than the rod used to connect the butt to the shaft; in order to provide enough thread to lock the two members together, even with a series of weights separating them.

[0014] Although the rod, 16, is shown threaded along its full length in the drawings, it is envisaged that it would perform the same function even if only threaded at the tip. However in one embodiment of the invention the weights, 18, may be provided with threaded bores in order to secure them onto the rod, in which case the rod will be threaded along its full length. In a further embodiment only one of the weights, 18, is threaded and the remainder have a plain bore, the single threaded weight, 18, locking any others in place.

Claims

1. A cue (2) or section of a cue (2) having at least two sections, including;
   a first section (6) comprising an elongate body having an axially extending male joint member; in the form of a threaded rod (16); and
   a second section (4) comprising an elongate body having an axially extending female joint member in the form of a threaded bore (14), wherein
   the sections are capable of being joined by insertion of the male joint member into the female joint member;
   the male joint member is adapted to support at least one removable annular weight (18) having substantially the same diameter as the diameter of the portion of the sections at the joint; and
   the joint is in the rear quarter and not the rear sixth of the cue.

2. A cue or section of a cue according to claim 1 wherein the male joint member is at least 3 centimetres long.

3. A cue or section of a cue according to claim 1 wherein the male joint member is at least 4 centimetres long.

4. A cue or section of a cue according to claim 1 wherein the male joint member is at least 5 centimetres long.

5. A cue or section of a cue according to claim 1 wherein the male joint member is at least 10 centimetres long.

6. A cue or section of a cue according to any of the preceding claims in combination with at least one removable annular weight.

7. A cue or section of a cue according to any one of claims 1 to 5 in combination with a plurality of removable annular weights.

8. A cue or section of a cue according to claim 7 wherein said plurality of removable annular weights is four removable annular weights.

9. A cue or section of a cue according to any of the preceding claims wherein the male joint member is threaded only at its tip.

Patentansprüche

1. Billardstock (2) oder Sektion eines Billiardstocks (2) mit wenigstens zwei Sektionen, der/die Folgendes beinhaltet:

   eine erste Sektion (6), die einen länglichen Körper mit einem axial verlaufenden Steckverbindungselement umfasst, in Form eines Gewindestabs (16); und
   eine zweite Sektion (4), die einen länglichen Körper mit einem axial verlaufenden Aufnahmeverbindungselement in Form einer Gewindebohrung (14) umfasst; wobei
   die Sektionen durch Einführen des Steckverbindungselementes in das Aufnahmeverbindungselement zusammengefügt werden können;
   das Steckverbindungselement ist so gestaltet, dass es wenigstens ein entfernbares ringförmiges Gewicht (18) mit im Wesentlichen demselben Durchmesser hat wie der Durchmesser des Abschnitts der Sektionen an der Verbindungsstelle; und
   die Verbindungsstelle befindet sich im hinteren Viertel und nicht im hinteren Sechstel des Billiardstocks.

2. Billardstock oder Sektion eines Billiardstocks nach Anspruch 1, wobei das Steckverbindungselement eine Länge von wenigstens 3 Zentimetern hat.

3. Billardstock oder Sektion eines Billiardstocks nach Anspruch 1, wobei das Steckverbindungselement eine Länge von wenigstens 4 Zentimetern hat.

4. Billardstock oder Sektion eines Billiardstocks nach Anspruch 1, wobei das Steckverbindungselement eine Länge von wenigstens 5 Zentimetern hat.

5. Billardstock oder Sektion eines Billiardstocks nach Anspruch 1, wobei das Steckverbindungselement eine Länge von wenigstens 10 Zentimetern hat.

6. Billardstock oder Sektion eines Billiardstocks nach einem der vorherigen Ansprüche in Kombination mit wenigstens einem entfernbaren ringförmigen Gewicht.

7. Billardstock oder Sektion eines Billiardstocks nach einem der Ansprüche 1 bis 5 in Kombination mit mehreren entfernbaren ringförmigen Gewichten.

8. Billardstock oder Sektion eines Billiardstocks nach Anspruch 7, wobei die genannten mehreren entfernbaren ringförmigen Gewichte vier entfernbare ringförmige Gewichte sind.

9. Billardstock oder Sektion eines Billiardstocks nach Anspruch 1, wobei das Steckverbindungselement nur an seiner Spitze ein Gewinde aufweist.

Revendications

1. Queue (2) ou section d'une queue (2), possédant au moins deux sections, comprenant :

   une première section (6) comprenant un corps allongé possédant un élément de raccord mâle s'étendant axialement de la forme d'une tige filetée (16), et
   une deuxième section (4) comprenant un corps allongé possédant un élément de raccord femelle s'étendant axialement de la forme d'un orifice fileté (14), où
   les sections sont aptes à être raccordées par insertion de l'élément de raccord mâle dans l'élément de raccord femelle,
   l'élément de raccord mâle est adapté de façon à recevoir au moins un poids annulaire amovible (18) possédant sensiblement le même diamètre que le diamètre de la partie des sections au raccord, et
   le raccord se situe dans le quart arrière et non dans le sixième arrière de la queue.

2. Queue ou section d'une queue selon la Revendication 1 où l'élément de raccord mâle a une longueur d'au moins 3 centimètres.

3. Queue ou section d'une queue selon la Revendication 1 où l'élément de raccord mâle a une longueur d'au moins 4 centimètres.

4. Queue ou section d'une queue selon la Revendication 1 où l'élément de raccord mâle a une longueur d'au moins 5 centimètres.

5. Queue ou section d'une queue selon la Revendication 1 où l'élément de raccord mâle a une longueur d'au moins 10 centimètres.

6. Queue ou section d'une queue selon l'une quelconque des Revendications précédentes en combinaison avec au moins un poids annulaire amovible.

7. Queue ou section d'une queue selon l'une quelconque des Revendications 1 à 5 en combinaison avec une pluralité de poids annulaires amovibles.

8. Queue ou section d'une queue selon la Revendication 7 où ladite pluralité de poids annulaires amovibles est de quatre poids annulaires amovibles.

9. Queue ou section d'une queue selon l'une quelconque des Revendications précédentes où l'élément de raccord mâle est fileté uniquement à son extrémité.

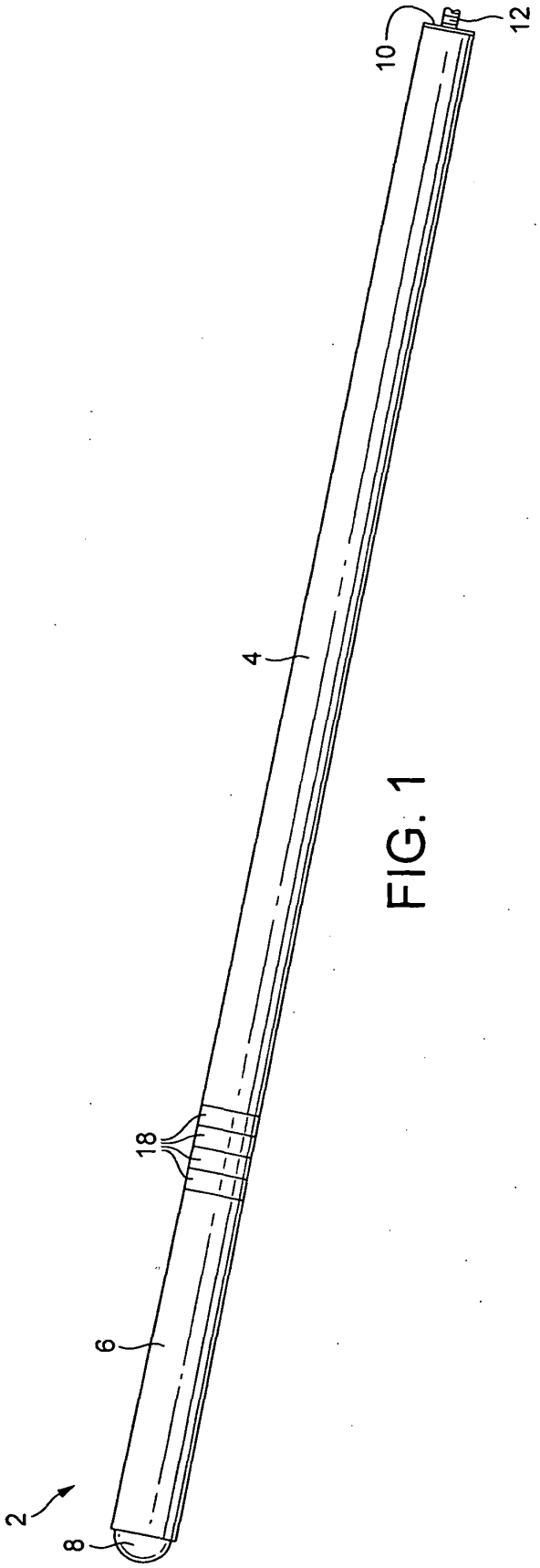


FIG. 1

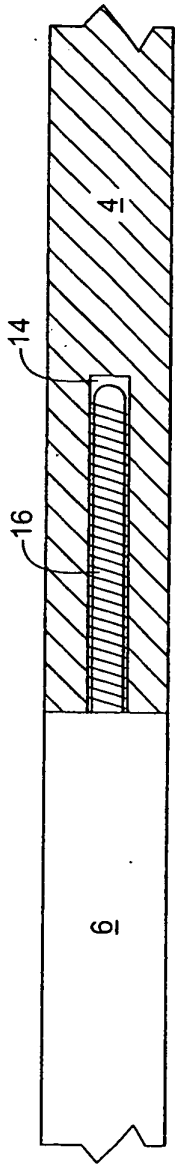


FIG. 2

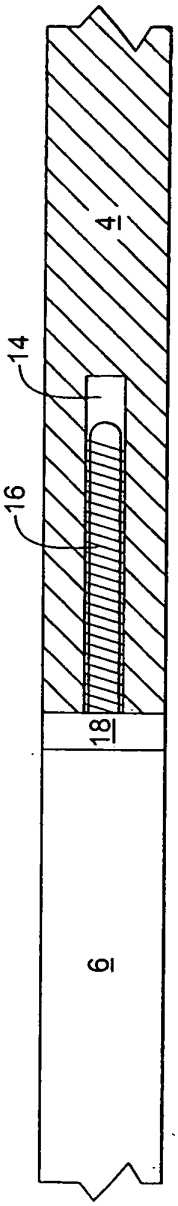


FIG. 3

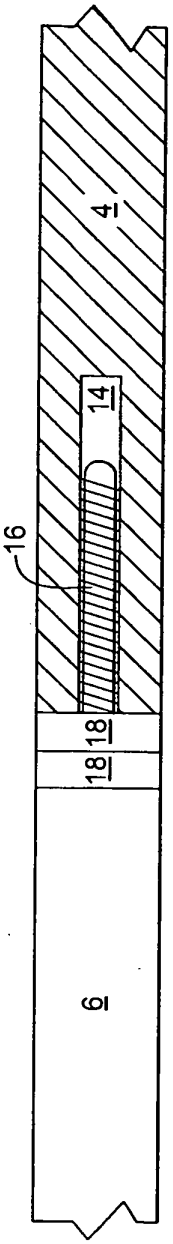


FIG. 4

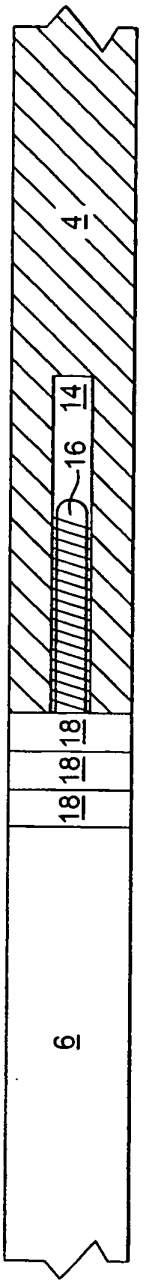


FIG. 5

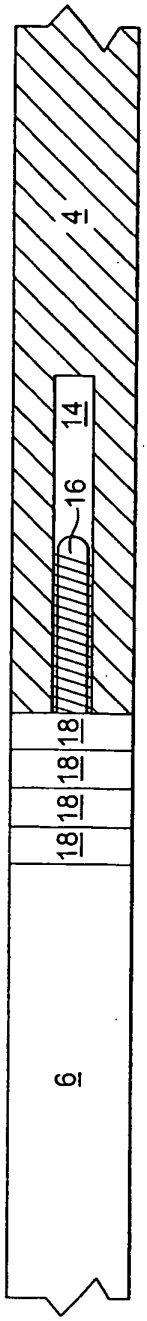


FIG. 6

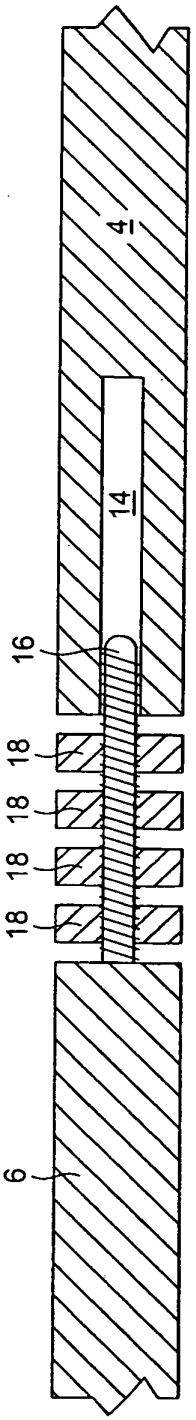


FIG. 7

REFERENCES CITED IN THE DESCRIPTION

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