J. MAGONO

POOL OR BILLIARD CUE

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Inventor:
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by and for Allen
his Attorney.
To all whom it may concern:

Be it known that I, JOHN MAGONO, a subject of the King of Italy, and a resident of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Pool or Billiard Cues, of which the following is a specification.

This invention relates to pool or billiard cues and has for one of its objects the production of a cue, the tip of which is of such construction and arrangement, as to impart the least shock on striking the ball to a resilient means to thereby relieve the end of the cue adjacent the top, from the tendency to split which is common in cues at present in use.

Another object of the invention is to so arrange the cue at the end thereof that a tip may be positively secured thereto in a removable manner without the use of adhesives.

A further object of the invention is to construct a cue having the above qualities while retaining all the qualities of ball control afforded by the cue now commonly used.

A still further object of the invention is to produce a cue that may be used continually for long periods of time by the same player without causing weariness from its use as is common to the present day cue.

It is a further object of the invention to produce a cue having all the above qualities to accomplish which, but few parts of simple, but durable structure have been used.

Cues as heretofore made, wherein the tip was usually glued to the end of the cue and wherein the cue was not in condition for use for several days during the glue drying process, received the heavy shock of ball impact at the smallest part thereof, least able to stand the strain. It frequently happened that the impact would cause the cut to split and become useless.

Furthermore, continued use of such a cue for long periods caused a weariness difficult to account for excepting that it was due to the transmission of the unrelieved shock of impact from the cue to the hand of the player.

It is also a fact that the process of tipping the old form of cue required one or more days in which to allow the adhesive to set during which time the cue could not be used, which in some instances resulted in a shortage of cues or the necessity of keeping extra ones on hand for emergency.

The present invention enables an inexperienced person to retip a cue very rapidly and consequently the cue is not out of commission for that reason many minutes at a time, thereby making a saving as to the number of cues necessary to carry on hand for emergency cases.

The present construction also insures a cue that it is a pleasure to use, and that does not impart to the player a feeling of weariness due to the shock of impact being imparted to the hand of the player which is detrimental to the nerves.

Ball control, through the manipulation of the cue is an essential feature of the game, and for best results it is necessary that the tip be quite firmly backed, but not necessarily solidly backed as at present.

The present arrangement has been found to give excellent results in ball control due to the fact that while the tip is quite firmly backed or supported against impact it is not backed wholly by an anvil like surface, but a portion of it has a solid foundation, while another portion is in close, and preferably in slight compressing contact with a comparatively strong spring.

This novel arrangement of combined solid and resilient backing or foundation, enables the cue to perform its usual function with the best of ball control results, with a feeling of comfort to the player that is absent in the usual cue.

The invention further consists in certain novel features of construction and arrangement of parts which will be fully understood from a description of the drawings and the claim hereinafter given.

Of the drawings:

Figure 1 represents in side elevation a portion of a cue showing the tip receiving end.

Figure 2 a section on the line 2—2 greatly enlarged.

Figure 3 a section on the line 3—3 Figure 2.

Figure 4 a view similar to a portion of Figure 2 to be described.

Like characters represent like parts throughout the several figures of the drawings.

The cue 10, a portion of which is herein shown, is generally made of hard and comparatively heavy wood, some kinds of which are more susceptible to splitting than others but all kinds known to be used have been
known to split, when tipped as at present, under heavy ball impact such as would occur when the action of breaking the balls happens in the game of pool.

The end 11 of the cue 10 is reduced in diameter to form a shoulder 12 and a ferrule 13 is secured thereto by adhesive or other means. Prior to attaching the ferrule a hole is made in the end 11 into which is screwed a stud 14 having a collar 15 adapted to bear against the extreme end of the cue.

At its free end the said stud is screw threaded at 16 to receive a tip 17 which has a ball contact surface 18 and a reduced portion 19 to snugly fit into the open end of said ferrule 13 with the shoulder 20 of said tip bearing against the end of the ferrule 13 which forms a solid backing for that portion of the tip.

The fit of the portion 19 in the ferrule is such as to aid in retaining the tip in position in conjunction with the screw threaded end 16 of the stud 14 into which the tip is screwed.

Prior to attaching the tip a strong spring 21 is placed in the ferrule as seen in Figure 2 the terminals of which are arranged to present approximately continuous bearing surfaces 22 and 23 for the collar 15 and tip 17.

For the best results the tip when screwed in place should have close contact with the spring 21 and in fact it is preferable to so crowd the tip in place, that the tendency would be to compress the spring, if it were a light one, but in the present instance the tendency is to compress the material of the tip against the spring which might yield slightly but it is not intended that it shall at this time to any noticeable extent. In fact it is the desire and intention to so closely associate that portion of the tip and spring that at the time of shock, due to ball impact, that portion of the tip will be in condition to instantly transmit at least a portion of the shock to the spring.

It will be understood that it is not the intention to so arrange the spring that it will absorb all the shock at each impact, as such arrangement has been found to be detrimental to ball control, but rather that the shock is divided in such manner that even in light impact it is partially absorbed by the spring and noticeable to the player and yet not detrimental to the control of the ball.

Figure 4 of the drawing shows a part of the cue in section with the hatching omitted to better explain the condition just mentioned.

Forcing the tip 17 onto the screw thread 16 compresses the material 30 (preferably leather) surrounding the stud so that a tendency to compress the spring 21 is always present so that when ball impact takes place that portion will be further forced against the spring which will yield slightly, the amount depending upon the force of impact, but in any case not sufficiently to upset accurate ball control but just enough to prevent splitting of the cue end and result in a pleasurable cue to use.

When ball impact takes place a portion of the shock thereof will follow approximately the direction of the arrows shown in Figure 4.

From the foregoing it will be seen that it is not the intention to simply provide a cue tip with a spring backing but rather to provide a backing or foundation, for the tip that is partially solid and unyielding and partially yielding, which combination in practice has produced the results desired, and which so far as is known is new in the art.

The construction and arrangement herein shown is the preferred form but it is obvious that slight changes therein might be made without departing from the spirit and scope of the invention.

Having described the invention I claim:

In a cue of the class described, a shaft; a ferrule at the end thereof adapted to support a tip, said ferrule also forming a chamber at the end of said shaft; a shoulder, portions of which are normally under slight compression and adapted to be supported by said ferrule and having an extension adapted to enter said chamber and occupy a portion thereof; a stud having screw threaded ends one of which engages the end of said shaft, the other engaging the said tip, said stud having a collar thereon contacting with the end of said shaft; and a spring in said chamber and interposed between said collar and said tip and normally under slight compression, whereby shock imparted to said tip by ball impact will be transmitted to and absorbed by said spring.

Signed by me at Boston, Mass., this 11th day of September, 1922.

JOHN MAGONO.