

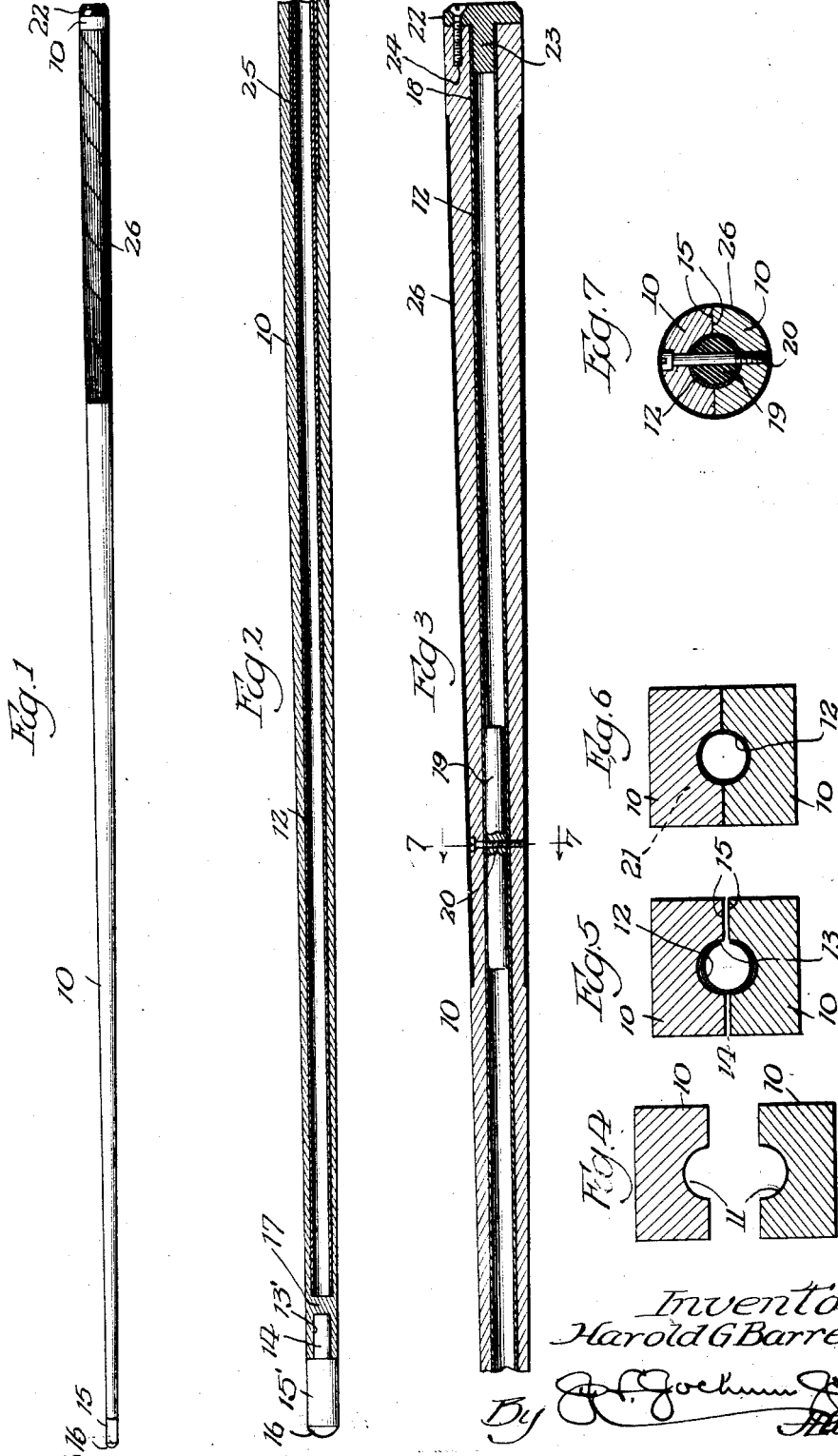
Feb. 19, 1929.

1,702,292

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BILLIARD CUE

Filed Sept. 3, 1925



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By *[Signature]*

UNITED STATES PATENT OFFICE.

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BILLIARD CUE.

Application filed September 3, 1925. Serial No. 54,232.

This invention relates to improvements in cues particularly adapted for playing billiards or pool, and one of the objects of the same is to improve and simplify the construction of cues of this character and to provide an improved cue having a hollow metallic reinforcing core extending throughout the length of the cue, whereby all cues may be manufactured of the same size and initial weight, thereby obviating the necessity of the manufacture of a variety of cues of different sizes, weights and balance, the desired weight in the present construction of cue being obtained by the insertion or addition of a proper weight, and the desired balance and point of balance being obtained by locating the weight at a predetermined position with respect to the length of the cue, the weight when positioned being secured against movement with respect to the cue.

A further object is to provide an improved cue of this character constructed of a plurality of longitudinal sections and a hollow resilient metallic reinforcing core, the sections of the cue being secured together in a manner to place the core under tension, the cue being tapered and the core being of substantially uniform diameter throughout its length, the stress exerted by the normal tendency of the core to expand within the cue body or casing causing the core to frictionally bind upon the casing wall to maintain the core against rattling and at the same time the core will maintain the cue against warping or becoming distorted.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and as shown in the accompanying drawing illustrating the invention and in which drawing,

Figure 1, is an elevation of a cue constructed in accordance with the principles of this invention.

Figure 2, is an enlarged longitudinal sectional view of the shaft end of the cue with the tip in elevation.

Figure 3, is an enlarged longitudinal view of the butt end of the cue.

Figure 4, is a transverse sectional view of the members from which the cue body is constructed and showing the members separated.

Figure 5, is a view similar to Figure 4 showing the cue sections and the core in a partially assembled position.

Figure 6 is a view similar to Figure 5 with the parts in an assembled position and before the cue body is shaped.

Figure 7, is a detail sectional view on line 7-7 Figure 3.

In carrying out the present invention the cue body is preferably formed of wood and of two sections 10, although any number of longitudinal sections may be employed, each of a length substantially equal to the length of the cue, and each being provided with a longitudinal groove 11 opening through one of the lateral faces of the sections.

A hollow resilient reinforcing core 12 constructed of any suitable material such as metal, of the desired gage, and of uniform diameter is split lengthwise as at 13 and the normal tendency of the edges of the split portions is to separate.

The core is of a configuration that it will fit within the grooves 11 of the sections 10 when the latter are placed in the position shown in Figure 5 and the normal expanded diameter of the core is such that the members 10 when first assembled will be separated as at 14.

A suitable adhesive material, such as glue or the like (not indicated) may be applied to the adjacent faces of the members 10.

Lateral pressure is then exerted upon the members or sections 10 to force them together and the faces 15 into engagement, and the pressure is maintained until the sections 10 adhere. As this pressure is exerted upon the sections 10 the core 12 will be compressed and the core will be maintained under tension.

The core is free from the members 10 and being placed under tension the natural tendency of the core is to expand and the friction between the parts will hold the core in position and will also maintain the core from rattling within the cue.

The core 12 terminates short of the tip end of the shaft and opening through the end of the shaft is a socket 13' into which a reduced extremity 14 of a tip socket 15' projects for holding a tip 16.

This construction will provide a wall or abutment between the end of the core 12 and the tip 16 so that the impact imparted to the cue when the ball is struck with the tip 16 will be exerted upon the body of the cue and not upon the metallic core 12 thereby

obviating the producing of a metallic sound.

The other end of the core terminates adjacent the extremity of the butt 18 and opens therethrough.

5 Within the core is a weight 19 which may be of any desired weight according to the weight that it is desired to give to the cue and the weight is of a diameter to fit snugly within the core.

10 The weight is inserted through the end of the core and may be moved to any point lengthwise of the core to localize or obtain the desired balance in the cue. Any suitable fastening means may be provided for securing the weight in its adjusted position such as a screw 20 which passes transversely through the cue casing and into the weight.

15 Before the weight is inserted the members 10 may be shaped in any suitable manner to produce the desired size and contour of the cue and as indicated by the dotted line 21 in Figure 6.

20 A cap 22 is provided which abuts the end of the cue and is provided with a reduced portion 23 which telescopes into the end of the core 12 and a fastening device 24 such as a screw or the like may be provided for securing the cap 22 in position and which screw passes through the end of the cap and into the cue.

25 The core 12 may be constructed of a single element or if desired may be constructed of two sections the adjacent ends of which telescope with each other as at 25 and are fastened together in any suitable manner such as by welding, brazing or the like.

30 A covering 26 may also be provided for the portion of the butt end which is gripped by the user and the covering may be of any suitable material such as a phenolic condensation product known as "bakelite" or of a nitrocellulose product such as pyroxyline, or of any other suitable non-metallic composition.

35 With this improved construction there will be provided a wooden cue having a metallic reinforcing core which will maintain the cue shaft against warping or distortion. This will also render it possible for the manufacturer to construct all cues of the same initial size and weight and at the same time the additional weight and the desired balance may be obtained in the cue by the addition of a weight concealed in the cue, and the proper balance may be obtained by positioning the weight at any desired point lengthwise of the cue.

40 Furthermore the construction of the cue is such that the impact of the ball will be exerted upon the cue body or casing and not upon the metallic core, with the result that there will be no metallic sound and the core will be held against vibration and rattling within the body of the cue.

45 Obviously the weight may be placed into

the core before the latter is arranged between the cue sections 10 and in that event the friction caused by the core gripping the weight will assist in maintaining the weight in position with respect to the core.

70 While the preferred form of the invention has been herein shown and described, it is to be understood that various changes may be made in the details of construction and in the combination and arrangement of the several parts, within the scope of the claims, without departing from the spirit of this invention.

What is claimed as new is:

80 1. A billiard cue embodying a body portion formed of a plurality of longitudinal sections secured together, a hollow resilient longitudinally split metallic core within and reinforcing the cue and extending for substantially the entire length of the cue.

85 2. A billiard cue embodying a body portion formed of a plurality of longitudinal sections secured together, and a hollow tubular and resilient metallic reinforcing core therein and extending substantially the entire length of the cue, the said core being compressed and being constantly maintained under tension.

90 3. A billiard cue embodying a body portion formed of a plurality of longitudinal sections secured together with the proximate longitudinal faces of adjacent sections abutting, a hollow metallic reinforcing core therein and extending for substantially the length of the cue, a weight within and disconnected from the core for longitudinal movement with respect to the core, said weight substantially filling the adjacent portion of the core and means for securing the weight at a predetermined point lengthwise of the core.

95 4. A billiard cue embodying a body portion formed of a plurality of sections secured together with the proximate longitudinal faces of adjacent sections abutting, a hollow metallic reinforcing core therein and extending substantially the length of the cue, said core being of a substantially uniform diameter throughout substantially its length, a weight within the core and freely movable lengthwise thereof, said weight substantially filling the adjacent portion of the core and means for securing the weight in its adjusted position.

100 5. A billiard cue embodying a body portion formed of a plurality of sections secured together with the proximate longitudinal faces of adjacent sections abutting, a hollow metallic reinforcing core therein and extending substantially the length of the cue, said core being of a substantially uniform diameter throughout substantially its length, a weight within the core and freely movable lengthwise thereof, said weight substantially filling the adjacent portion of the core, means for securing the weight in its adjusted position, the said core opening through one end of the

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cue, and a cap secured to the end of the cue for closing the core.

5 6. The method of constructing a cue which consists in providing a plurality of longitudinal sections, then shaping certain of the faces of the sections to receive a core, then applying an adhesive composition to certain of the faces of the sections, then assembling the sections around a normally expanded hollow resilient metallic reinforcing core, then assembling the sections by forcing them together around and simultaneously contracting the metallic core.

10 7. The method of constructing a cue which consists in providing a plurality of longitudinal

sections, then shaping certain of the faces of the sections to receive a core, then applying an adhesive composition to certain of the adjacent faces of the sections, then assembling the sections around a normally expanded hollow metallic reinforcing core, then assembling the sections by forcing them together around and simultaneously contracting the metallic core, and then shaping the body of the cue.

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25 In testimony whereof I have signed my name to this specification, on this 31st day of August, A. D. 1925.

HAROLD G. BARRETT.