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BILLIARD CUE HANDLE ASSEMBLY

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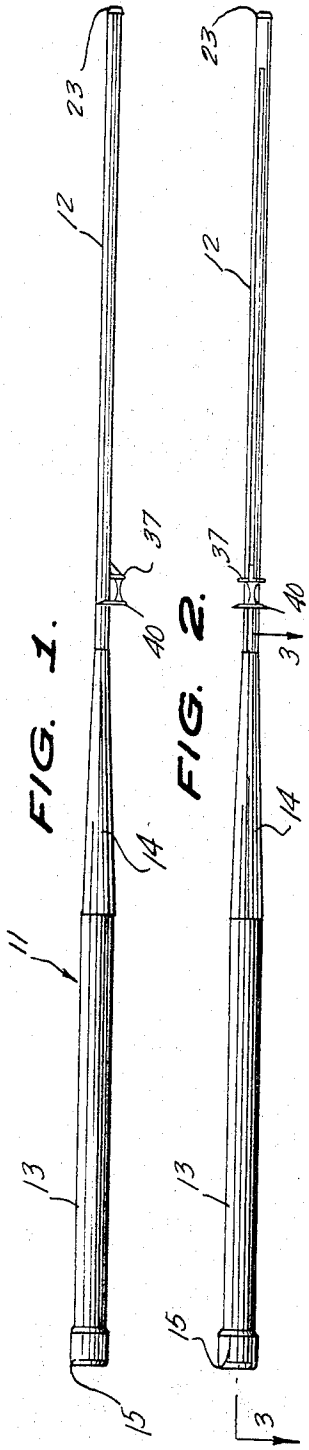


FIG. 1.

FIG. 2.

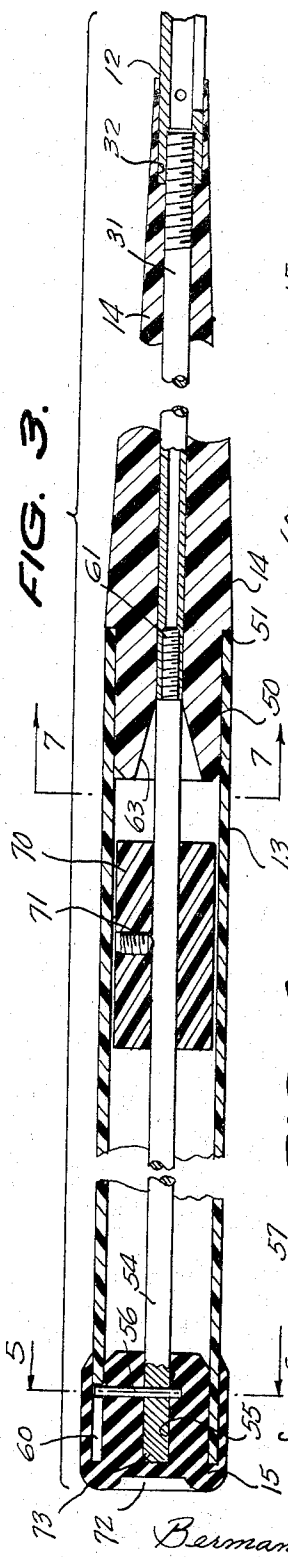


FIG. 3.

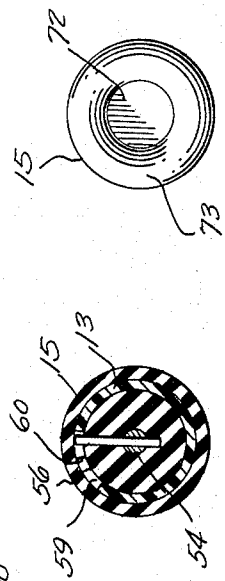


FIG. 4.

FIG. 5.

FIG. 6.



FIG. 7.

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BILLIARD CUE HANDLE ASSEMBLY

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This invention relates to billiard cues, and more particularly to improvements in handle assemblies for billiard cues.

A main object of the invention is to provide a novel and improved billiard cue construction which includes a handle containing adjustable weight means so that the billiard cue may be efficiently balanced for optimum use, the construction involving relatively simple components, being easy to assemble, and involving relatively few parts.

A further object of the invention is to provide an improved billiard cue handle assembly which involves inexpensive components, which is durable in construction, which is comfortable to hold, and which provides improved precision in use of the associated billiard cue.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawing, wherein:

FIGURE 1 is a side elevational view of an improved billiard cue embodying the structural features of the present invention.

FIGURE 2 is a bottom plan view of the billiard cue of FIGURE 1.

FIGURE 3 is an enlarged fragmentary longitudinal cross-sectional view taken substantially on the line 3—3 of FIGURE 2.

FIGURE 4 is a fragmentary elevational view of portions of the handle assembly employed in FIGURES 1 to 3, with the parts shown in separated positions.

FIGURE 5 is a transverse vertical cross-sectional view taken substantially on the line 5—5 of FIGURE 3.

FIGURE 6 is an enlarged rear end elevational view of the billiard cue of FIGURES 1 and 2, showing the handle butt member.

FIGURE 7 is a transverse vertical cross-sectional view taken substantially on the line 7—7 of FIGURE 3.

Referring to the drawing, **11** generally designates an improved billiard cue embodying the features of the present invention, the billiard cue comprising an elongated tubular slotted stem member **12**, a hollow tubular handle member **13**, and a tapered mid-section **14** secured between the handle member **13** and the stem member **12**. The handle member **13** is provided with the rubber butt member **15** and the stem member **12** is provided with the relatively soft deformable cue tip **23** which may be of leather, or the like. The stem member **12** is provided with a pivoted support and guide leg **37** which may be swung outwardly to an operating position for pivotally and slidably-supporting the cue on a billiard table or for providing a support for the cue under other conditions. When not in use, the leg **37** may be swung inwardly to an inoperative position, such as that shown in FIGURES 1 and 2, the leg being provided with a U-shaped base **40** whose side legs clampingly-engage with the stem member **12** to yieldably clamp the leg **37** in said inoperative position.

Molded in the mid-section **14** is the axially-extending tubular core member **31** which is threadedly-engaged in the inner end portion of the stem member **12** in the manner illustrated in FIGURE 3, the reduced end portion of mid-section **14** being formed with an annular seat or recess **32** which receives a substantial length of the stem member **12**, as shown, the stem member being locked in the recess **32** by the threaded engagement thereof with the end of tubular core **31**.

The larger end of the tapered mid-section **14** is formed with an annnular seat **50** which receives the right-end portion of the tubular handle member **13**, as viewed in FIGURE 3, the wall thickness of the tubular handle member **13** being such that its outside surface is substantially flush with the outside surface of the mid-section **14** adjacent to the annular shoulder **51** defined by seat **50**.

The butt member **15** is formed of rubber, or similar resiliently deformable material, and axially-secured thereto is a metal rod element **54**, the end of the rod element **54** being vulcanized in an axial bore or recess **55** formed in the butt member **15** and being further secured therein by a radially-extending locking pin **56** which projects into an annular recess **57** provided in the butt member **15**, said recess **57** surrounding and being coaxial with the bore **55** and opening at one side of the butt member, namely, at the right side thereof, as viewed in FIGURE 4. The recess **57** is of a diameter and width to receive the end portion of handle member **13**, which is made of suitable rigid plastic material, or of similar tubular rigid material, the left-end portion of handle member **13** being formed with a T-shaped slot **58** having the transversely-extending head portion **59** and a longitudinally-extending stem portion **60**. When the butt member **15** is engaged around the end of the handle member **13** with the left end of the handle member substantially fully received in the recess **57**, as viewed in FIGURE 3, the outwardly-projecting end portion of the pin **56** is engageable in the straight slot portion **60** as the butt member **15** is moved to the right relative to the handle member **13**, as viewed in FIGURE 7, the pin **56** finally reaching the transverse slot portion **59**. The pin **56** may be moved into either of the end portions of the transverse slot element **59** by rotating butt **15** relative to hollow tubular handle portion **13**.

The rod element **54** is provided with a reduced threaded end portion **61** which is threadedly-engageable inside the left end of tubular core member **31**, as viewed in FIGURE 3. The left end of mid-section **14** is provided with a conical recess **63** to facilitate the engagement of the threaded portion **61** with core **31**. Thus, in connecting the butt portion **15** to the remainder of the assembly, the rod **54** is inserted through the tubular handle member **13**, with the handle member **13** engaged in the seat **50**, the reduced threaded rod end **61** being guided through the tapered recess **63** into engagement with the internal threads provided inside the left-end portion of tubular core **31**, as viewed in FIGURE 3. As the reduced threaded portion **61** engages with the internal threads in core **31**, the pin **56** engages in the straight slot portion **60**, holding the butt member **15** against rotation relative to the tubular hollow handle **13**. Thus, the butt member **15** and the handle **13** are rotated as a unit relative to the mid-section **14**, until the threaded rod portion **61** has advanced sufficiently in the core **31** to bring the pin **56** into the transverse-slot portion **59**. This fully seats the left end of hollow handle sleeve **13** in the annular recess **57** of the butt member **15** and also fully seats the right end of hollow handle sleeve **13** against the abutment shoulder **51** of mid-section **14**, as viewed in FIGURE 3. Butt member **15** may then be rotated slightly relative to hollow handle portion **13** to move pin **56** laterally into locking position in either end of the transverse-slot portion **59**.

Designated at **70** is a sleeve member of relatively heavy material, such as lead, or the like, which is mounted on the metal rod **54** and which is normally slidable thereon. The member **70** serves as a balancing weight which may be adjustably-positioned at any desired location in the handle member **13** along rod element **54** and may be locked in said position by the provision of a set screw **71** which is threadedly-engaged radially through the intermediate portion of the weighted sleeve member **70**. The weight member **70** may be adjusted on the rod **54** and locked in adjusted position thereon by means of set screw

71 prior to the assembly of the handle portion of the billiard cue, as above-described.

The rubber butt member **15** is provided with the outwardly-facing central exterior recess **72** which thereby defines an annular cushioning rib **73** extending around the rear end of the butt member. The cushioning rib **73** serves as a cushioning means which prevents loosening of the parts of the billiard cue when the billiard cue is set down on the floor in upright position, as when it is being placed in a storage rack, or in the event it is dropped so that it engages the floor with considerable impact.

As will be readily understood, if it should be desired to disassamble the handle, for example, for re-adjusting the position of the weight member **70**, the parts may be disengaged by following a procedure reverse to that above-described. Thus, butt member **15** is rotated slightly with respect to handle member **13** to center pin **56** in the transverse-slot portion **59**. Thereafter, the butt member is pulled slightly and the handle and butt member are rotated as a unit relative to the mid-section **14** to unthread member **61** from tubular core **31**. The pin **56** then travels through the straight portion **60** of the T-shaped slot **58** until the rod member **54** is disengaged from core **31**, after which rod **54** and weight **70** may be withdrawn from the tubular handle member **13**.

While a specific embodiment of an improved billiard cue handle structure has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A billiard cue comprising an elongated stem member provided at one end with a cue tip, a tapered mid-section threadedly-secured to the other end of said stem member, a hollow tubular handle mounted on said mid-section, said handle being formed with an end slot, a butt member engageable on said handle, rod means secured to said butt member and threadedly-engaging said mid-section, and radial pin means on said butt member received in said end slot.

2. The billiard cue of claim **1**, and wherein said butt member is formed with an annular groove receiving the end of the handle, said radial pin means projecting into said annular groove.

3. The billiard cue of claim **1**, and a weighted sleeve adjustably-mounted on said rod means inside said hollow tubular handle.

4. The billiard cue of claim **1**, and wherein said mid-section is provided with a tubular metal core, one end of said core threadedly-engaging inside the stem member and the other end of the core threadedly-receiving said rod means.

5. A billiard cue of claim **1**, and wherein said end slot is substantially T-shaped.

6. The billiard cue of claim **1**, and wherein said stem member is of tubular relatively stiff metal.

References Cited

UNITED STATES PATENTS

529,731	11/1894	Gschwendtner	273—68
574,693	1/1897	Webster	273—68
1,062,816	5/1913	Burwell	273—69
1,705,353	3/1929	Barrett	273—68

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