

No. 629,217.

Patented July 18, 1899.

J. STENGER.
BILLIARD CUE TIP.

(Application filed Feb. 10, 1899.)

(No Model.)

Fig. 1.

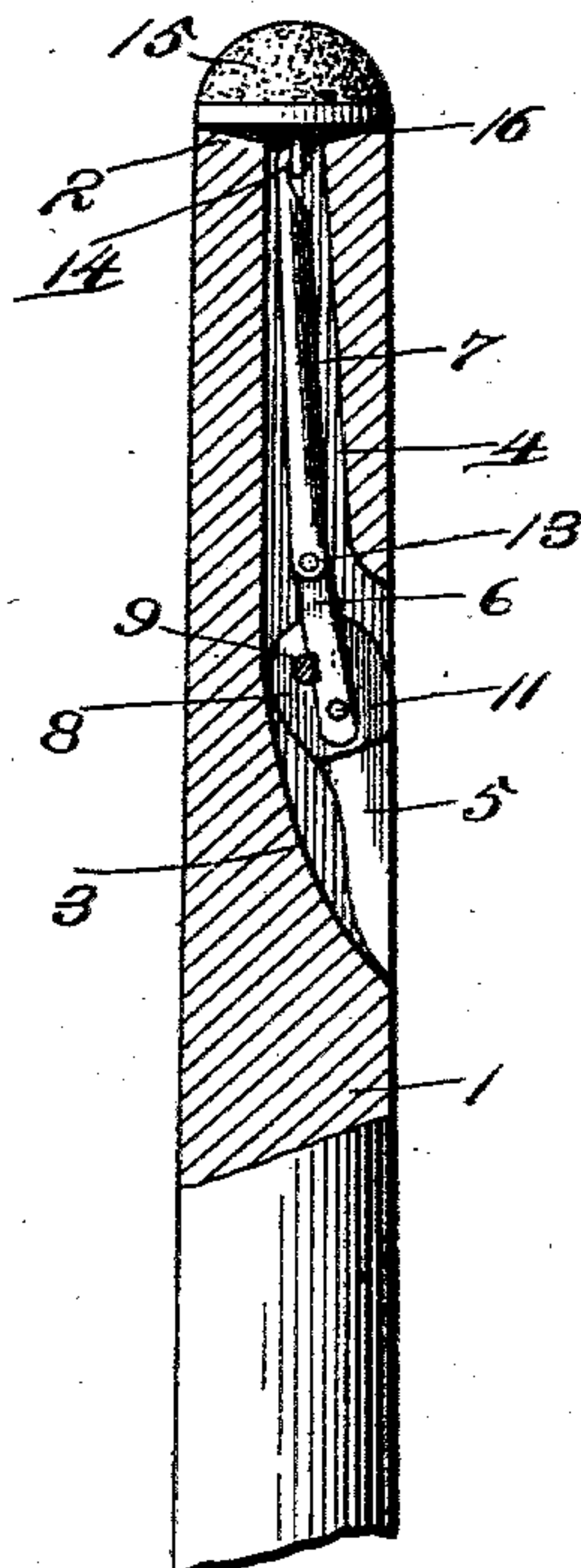


Fig. 2.

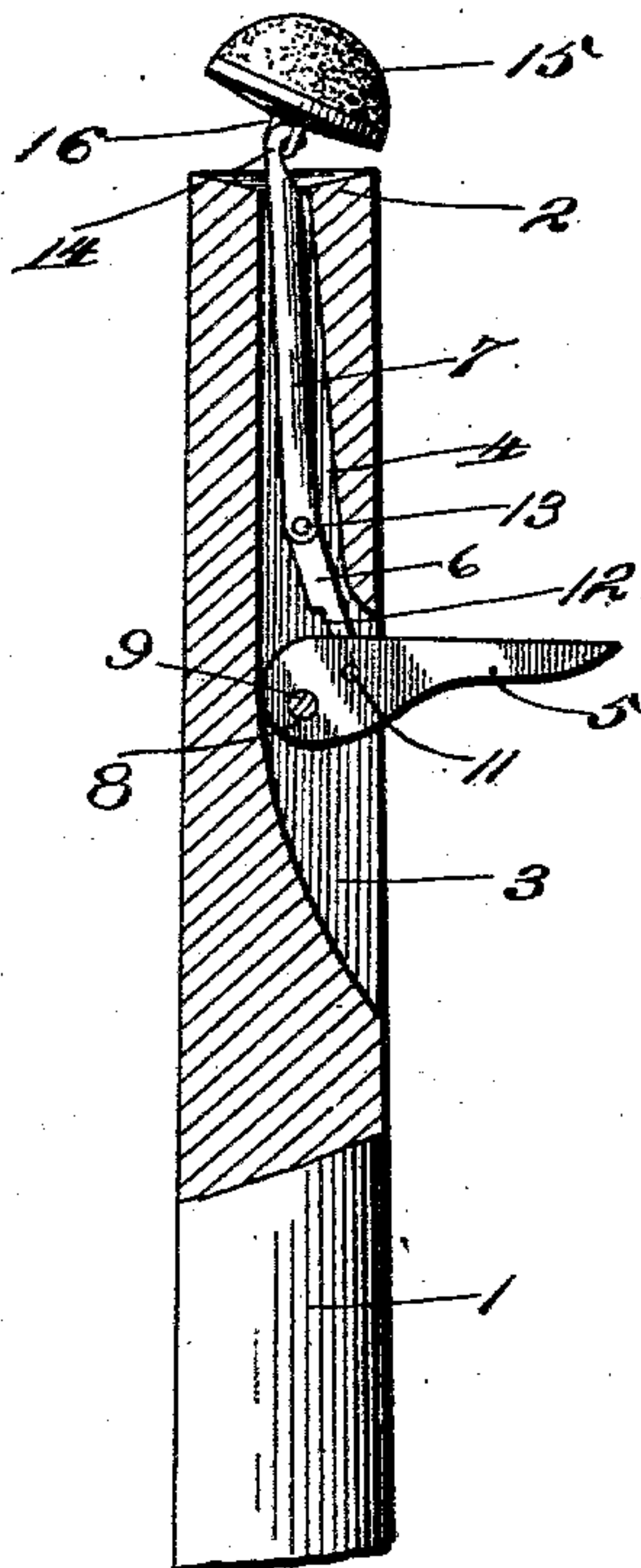


Fig. 3.

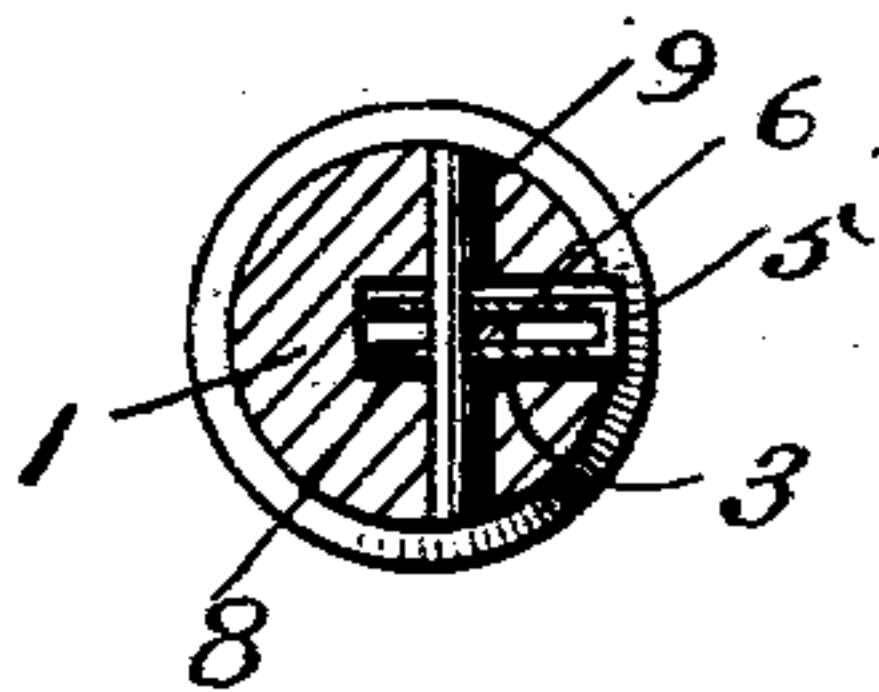


Fig. 4.

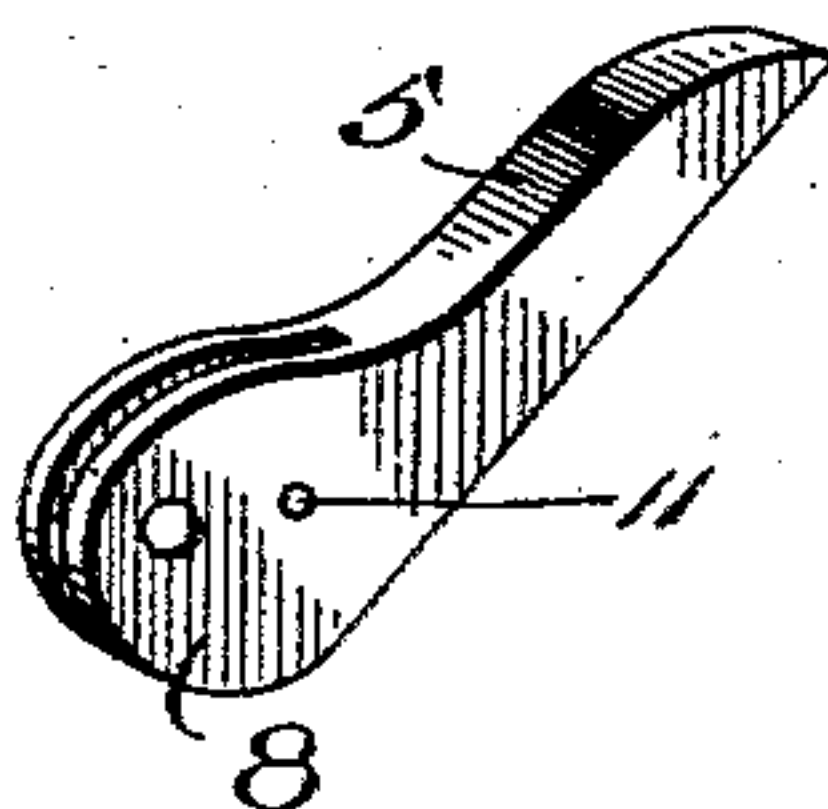


Fig. 5.



Witnesses

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J. Stenger. Inventors

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UNITED STATES PATENT OFFICE.

JULIUS STENGER, OF SAYVILLE, NEW YORK, ASSIGNOR OF ONE-HALF TO
HENRY ROHM, OF SAME PLACE.

BILLIARD-CUE TIP.

SPECIFICATION forming part of Letters Patent No. 629,217, dated July 18, 1899.

Application filed February 10, 1899. Serial No. 705,186. (No model.)

To all whom it may concern:

Be it known that I, JULIUS STENGER, a citizen of the United States, residing at Sayville, in the county of Suffolk and State of New York, have invented a new and useful Billiard-Cue Tip, of which the following is a specification—

This invention relates to billiard-cue tips, and has for its objects to provide means whereby a constant tension or strain may be placed upon the tip to hold the same in place and also to permit of a new tip being substituted for an old or worn-out one.

With these objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a longitudinal sectional view of the tip end of a cue having the improvements applied thereto. Fig. 2 is a similar view showing the tip released. Fig. 3 is a transverse sectional view of Fig. 1, taken through the pivot of the thumb-lever. Fig. 4 is a detail perspective view of the thumb-lever. Fig. 5 is a detail perspective view of the pivot-pin for the lever.

Corresponding parts are designated by like reference characters in all the figures of the drawings.

Referring to the accompanying drawings, 1 designates an ordinary billiard-cue, the tip end thereof being dished or concaved, as at 2. A suitable distance in rear of the dished end a recess 3 is provided, opening outward through one side of the cue, and a bore 4, formed centrally and longitudinally of the cue, forms a passage communicating from the dished end into the recess 3.

Mounted within the recess and the passage 4 are the operating parts of the device, comprising a thumb-lever 5 and the links 6 and 7, respectively, forming a flexible fastening for the tip. The lever is provided with a cam-head 8, which is arranged within the recess 3 and mounted eccentrically upon a pivot-pin 9, which extends transversely across the recess. This pivot-pin is provided with a notch 10 intermediate of its ends. As illustrated in

Fig. 4, the cam-head of the thumb-lever is bifurcated longitudinally, and the shorter link 6 is pivoted between the two parts of the head just above the pivot-pin 9, as at 11. In the lower edge of link 6, intermediate of its ends, a notch 12 is provided. The longer link 7 has its inner end bifurcated, and the outer end of link 6 is arranged in the bifurcation, the two links being connected by a suitable pivot-pin 13. An upwardly-disposed hook 14 is provided at the outer free end of the link 7, which is adapted to extend out beyond the dished end of the cue when the tip is released, as indicated in Fig. 2. The tip 15 is provided with an eye 16, which is adapted to be engaged by the hook 14.

In the operation of the device the lever is thrown upward, as in Fig. 2, which extends the hooked end of link 7 beyond the end of the cue to facilitate the engagement of the eye 16 of the tip therewith. The lever is then forced downward upon its pivot until it is seated in the recess 3 flush with the outer face of the cue. This operation draws the links inward by reason of their connection with the lever, and the tip 15 is drawn firmly into the dished end of the cue. The link 6, being pivoted to the cam-head above the pivot-pin 9 thereof, is drawn over and beyond the pin, and as the lever is depressed the link is also depressed until its notch 12 engages the notched portion of the pin 9. In this position the strain on the links is sustained by the pin 9 and not by the lever, whereby the latter is prevented from being drawn upward by the strain. This interlocking engagement between the link and the pivot-pin therefore locks the device against accidental loosening of the tip. Before fitting the tip to the cue the dished end thereof should be provided with glue, which will prevent the tip from turning. Two links are used instead of one in order that the hooked end may have a greater amount of lateral movement to facilitate the engagement of the tip therewith.

The under side of the lever is preferably beveled or tapered toward the free end thereof, and the bottom of the recess 3 is inclined rearwardly and upwardly, so that the lever

may fit flush against the same when in locked position, the recess being longer than the lever to facilitate the engagement of some pointed implement with the free end of the lever to release the same.

By reason of the construction and arrangement herein described the tip is placed under a constant unvarying strain or tension which holds the tip firmly in place and precludes the possibility of the same becoming accidentally loosened and at the same time permits of the ready removal of a worn tip and the substitution of a new one.

The operating parts of the device are inclosed within the body of the cue and the lever is flush with the outer face thereof and presents no projections whereby the parts might be accidentally loosened.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed is—

1. The combination with a billiard-cue provided with a recess and a longitudinal bore communicating from the recess to the tip end of the cue, of a cam-lever arranged within the recess, a pivot-pin for the lever, a linked fastening connected at one end to the lever and arranged within the longitudinal bore, and an independent removable tip connected to the opposite end of the fastening, the latter having an interlocking engagement with the pivot-pin of the lever, substantially as shown and described.

2. The combination with a billiard-cue, having a recess formed therein and a longitudinal bore communicating from the recess to the tip end of the cue, of a cam-lever mounted within the recess, a transverse pivot-pin for the lever, a linked fastening having a notch formed in its under edge, the fastening being arranged within the bore and connected at one end to the lever, and an independent removable tip connected to the opposite end of the fastening, the notch of the latter being adapted to engage the pivot-pin and lock the device, substantially as shown and described.

3. The combination with a billiard-cue, having a recess formed therein, and a longitudinal bore communicating from the recess to the tip end of the cue, of a lever having a cam-head which is bifurcated longitudinally and mounted within the recess, a transverse pivot-pin having a notch formed in its upper side, a linked fastening, having a hook at the end of one of the links and a notch formed in the under side of the other link, the latter being pivoted in the bifurcation of the head and above the pivot-pin, and an independent removable tip having an eye adapted to engage the hook of the linked fastening, the notch of the latter being adapted to engage the notched portion of the pivot-pin and lock the device, substantially as shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JULIUS STENGER.

Witnesses:

FRANK E. FREAR,
ELLSWORTH CRUM.