

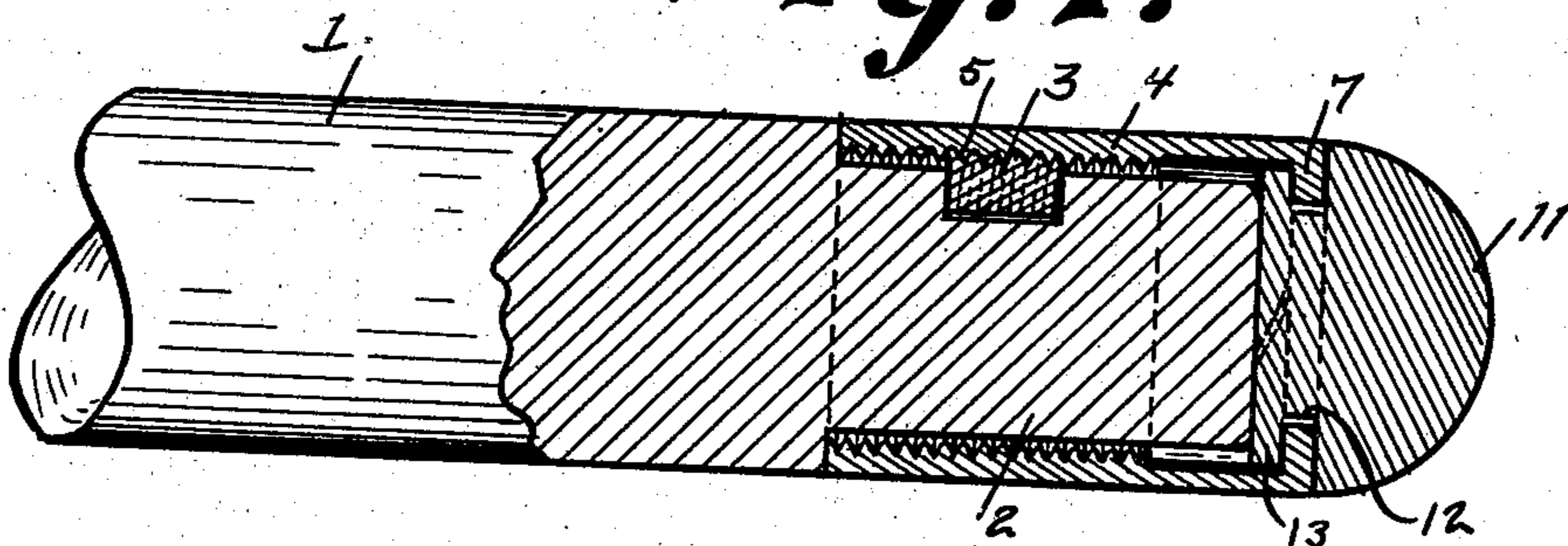
No. 894,434.

PATENTED JULY 28, 1908.

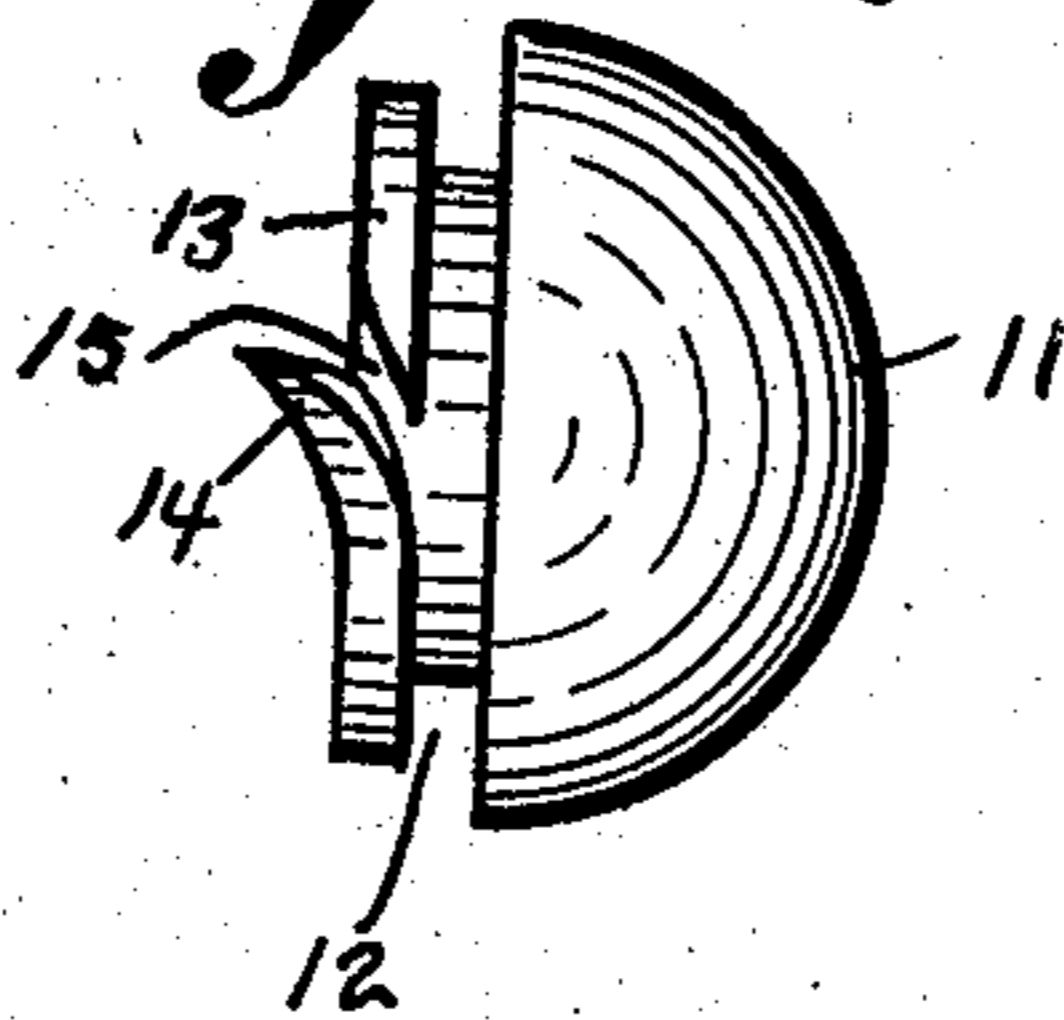
A. K. HANSON.  
BILLIARD CUE.

APPLICATION FILED JUNE 27, 1907.

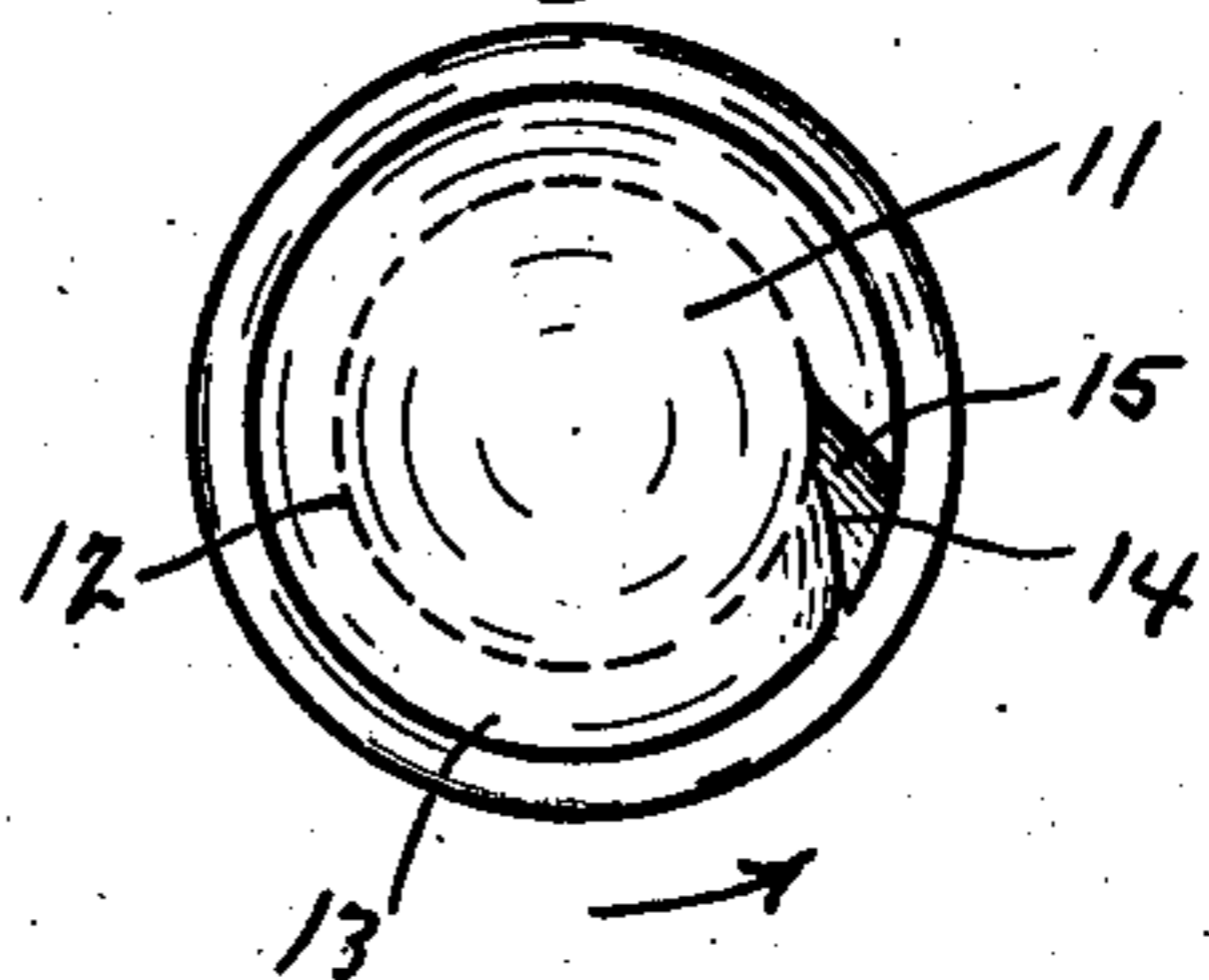
Fig. 1.



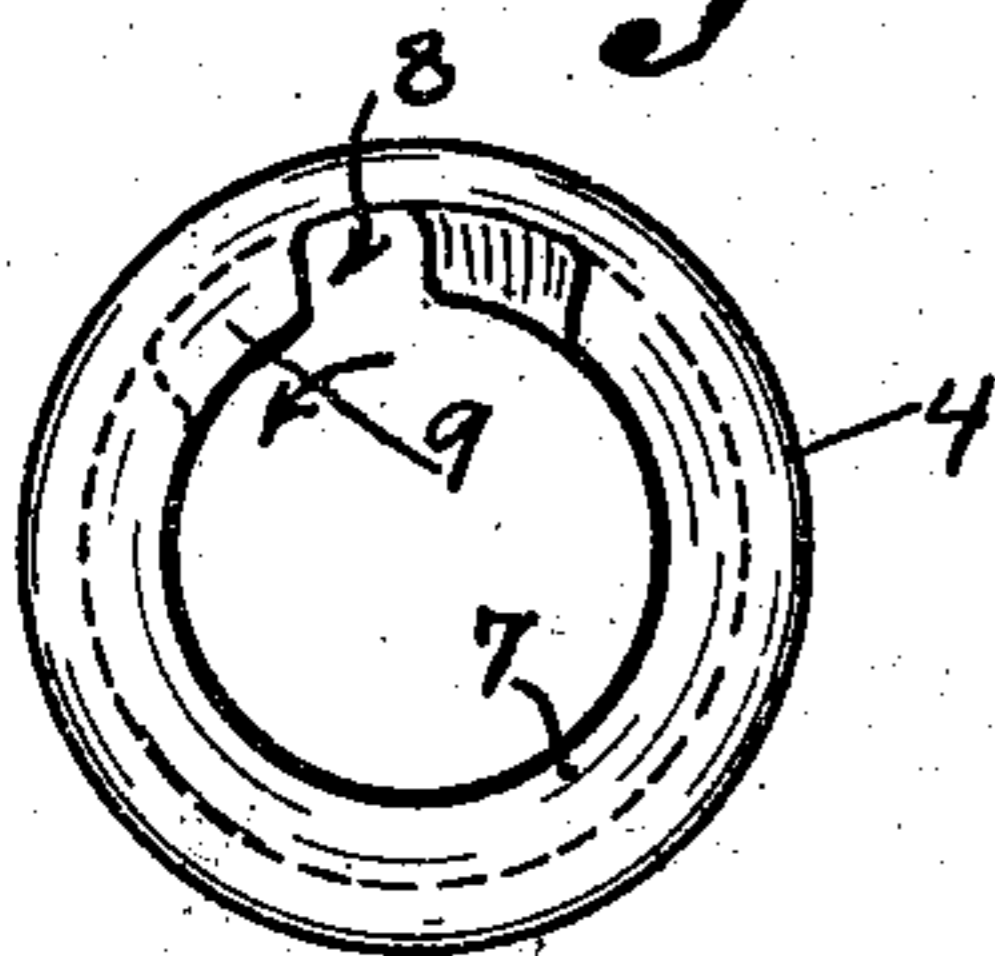
**Fig. 2.**



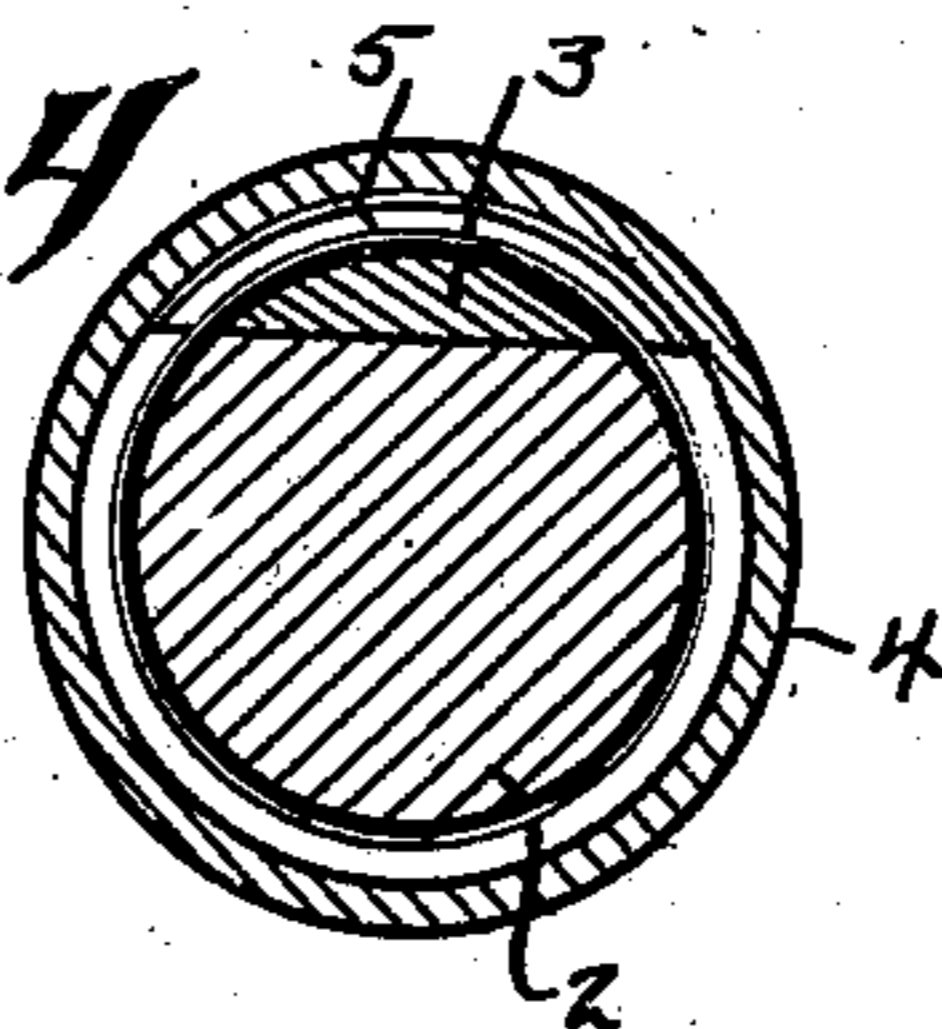
*Fig. 6.*



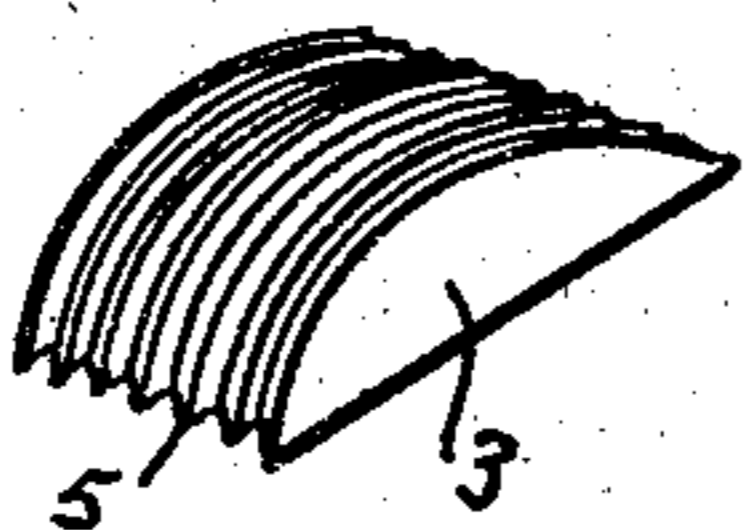
*Fig. 5.*



**Fig. 4**



*Fig. 5.*



**WITNESSES:**

O. P. Erwin  
M. M. Schutz

**INVENTOR**

INVENTOR  
Adolf H. Hanson  
BY  
Erwin E. Wheeler  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

ADOLF K. HANSON, OF MILWAUKEE, WISCONSIN.

## BILLIARD-CUE.

No. 894,434.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed June 27, 1907. Serial No. 380,993.

*To all whom it may concern:*

Be it known that I, ADOLF K. HANSON, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Billiard-Cues, of which the following is a specification.

My invention relates to improvements in billiard cues.

The object of my invention is to provide a cue with a removable tip of such construction that the same will be held in position with absolute rigidity when in use, the tip, however, being easily removable when it is desired to replace it with a new one.

A further object of my invention is to reduce the cost of construction of a cue of the described class.

In the following description reference is had to the accompanying drawings in which,

Figure 1 is a longitudinal sectional view of my invention drawn to a plane cutting the screw segment in the handle. Fig. 2 is a detail side view of the tip. Fig. 3 is an end view of the tip engaging ferrule. Fig. 4 is a cross sectional view of the handle drawn through the screw segment. Fig. 5 is a perspective view of the screw segment. Fig. 6 is an end view of the tip.

Like parts are identified by the same reference characters throughout the several views.

The handle 1 is provided with a reduced cylindrical end portion 2 which is provided with a segmental notch adapted to receive a screw segment 3.

A ferrule 4 is adapted to be adjusted to cover the part 2, as shown in Fig. 1, the ferrule being interiorly screw threaded and adapted to engage the threads 5 on the outer surface of the segment 3, which threads project beyond the periphery of the part 2. The outer end of the ferrule is provided with an inwardly projecting flange 7, having a notch 8, and one wall of the notch is beveled along the inner surface. The other wall of the notch is correspondingly beveled as indicated at 9 in Fig. 3.

The tip 11 is preferably formed of leather and near its inner end is provided with an annular channel 12. At one point the material of the part 13 is cut and bent inwardly in the form of a lip 14, leaving an angular channel 15 which leads to the channel 12. To insert the tip in the ferrule, the handle 1 is wholly or partially unscrewed from the ferrule 4. The tip is then adjusted with the

lip 14, entering the notch 8 in the ferrule flange 7, whereupon the tip is rotated in the direction indicated by the arrow in Fig. 3, and the lip 14 passes under the beveled surface 9, and moves around under the flange 7 until the part 13 of the tip has passed entirely within the flange 7 with the margins of said flange fitting in the channel 12. The handle is then screwed inwardly until the end of the part 2 engages against the end portion 13 of the tip and binds it rigidly between the part 2 and the ferrule flange 7, whereupon the tip will be rigidly secured in position. The channel 12 is preferably made rectangular in cross section and the flange 7 fits snugly therein.

To remove the tip, the handle 1 is partially unscrewed and the tip rotated until the lip 14 is opposite the notch 8, whereupon by pulling on the tip and rotating it in the opposite direction from that indicated by the arrow in Fig. 3 it may be removed and another tip substituted.

With the above described construction the exposed portion of the tip may be made substantially of the same diameter as the ferrule, since the tip is manipulated in position from the outer end of the ferrule by rotating it until the interlocking tip flange 13 passes underneath the ferrule flange.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is,

1. A billiard cue, comprising a handle, a ferrule having screw threaded engagement with one end thereon and provided with an inturned notched terminal flange encircling the inner end portion of the tip, a tip provided with an annular channel in which said flange engages and having an interlocking flange bearing on the inner face of the ferrule flange; said tip having an angular guide channel leading from its inner end to the flange receiving channel adapted to permit the manipulation of the tip into and out of position, and said handle end being adapted to bind the interlocking tip flange against the ferrule flange when the ferrule is screwed down into position of use.

2. A billiard cue comprising a handle, a ferrule, and a tip, detachable, one from the other,—said tip being provided with an annular channel near its inner end, and said ferrule having an inturned notched flange adapted to fit the channel, said tip also having its inner end cut away from the channel

inwardly along a diagonal line and the material bent inwardly to form a guide way and a lip adapted to engage in the notch in the ferrule flange and allow the tip to be manipulated into position by rotation, and means for pressing the handle forcibly against the inner surface of the tip when the ferrule flange is in said channel.

3. A billiard cue comprising a handle, a tip, having an annular channel therein and a connecting ferrule of substantially the same diameter as the tip, provided with a notched inturned flange adapted to fit the annular channel in the tip, the inner end of the tip being adapted to interlock with the ferrule flange and having an angular guide way adapted to receive the edge of the ferrule flange at said notch and allow the tip to be manipulated into position, said handle being

formed of wood and provided with a segmental notch in one side and provided with a metallic segmental member filling said notch, and said member and ferrule having mutually engaging screw threads whereby the handle may be forced against the inner end of the tip to bind it against the ferrule flange.

4. In a cue of the described class, the combination with a tip and tip engaging ferrule, of a handle provided with a segmental member embedded loosely therein on one side and having screw threaded engagement with the ferrule.

In testimony whereof I affix my signature in the presence of two witnesses.

ADOLF K. HANSON.

Witnesses:

LEVERETT C. WHEELER,  
O. R. ERWIN.