

No. 803,420.

PATENTED OCT. 31, 1905.

H. J. KOEGEL.  
TIP HOLDER FOR BILLIARD CUES.  
APPLICATION FILED NOV. 26, 1904.

Fig. 1.

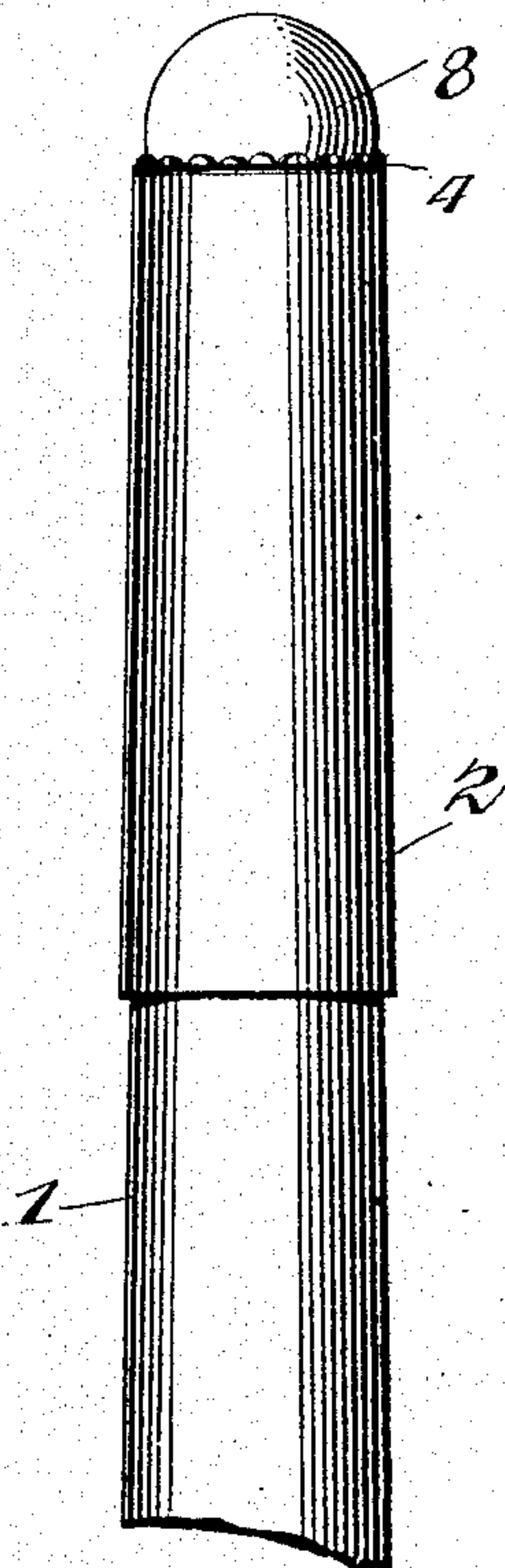


Fig. 2.

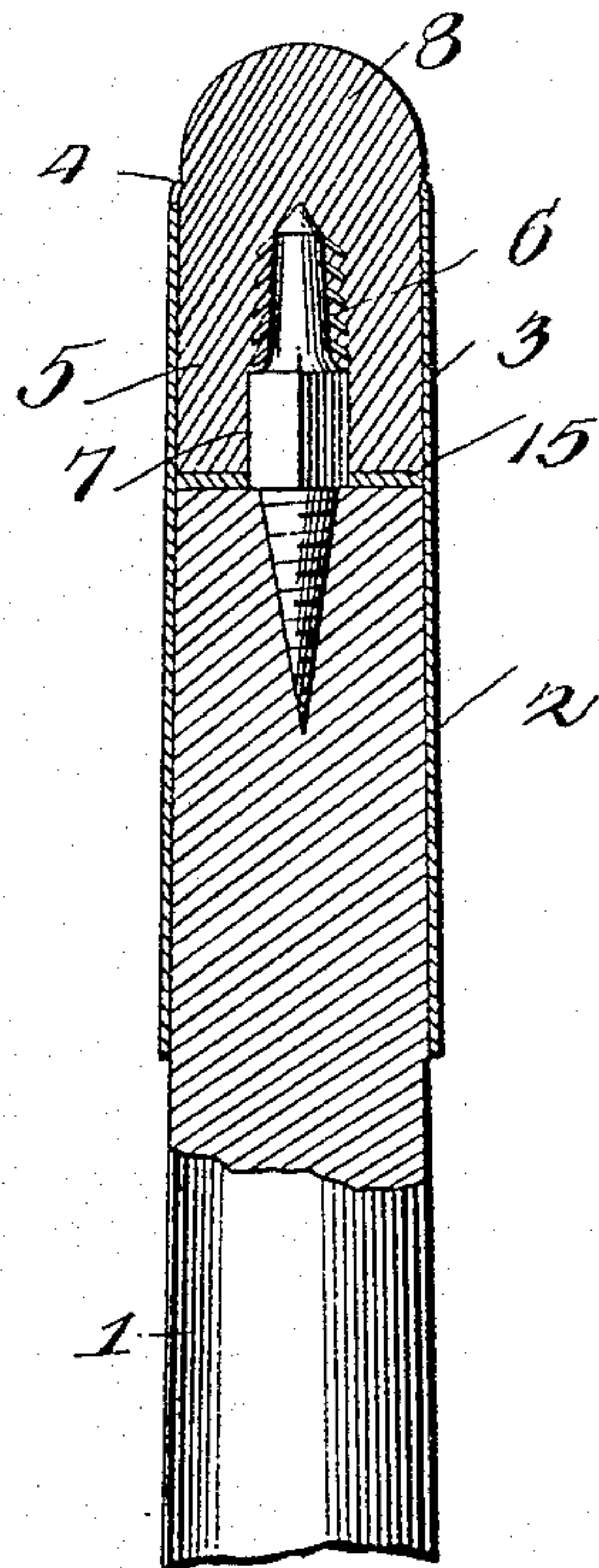


Fig. 3.

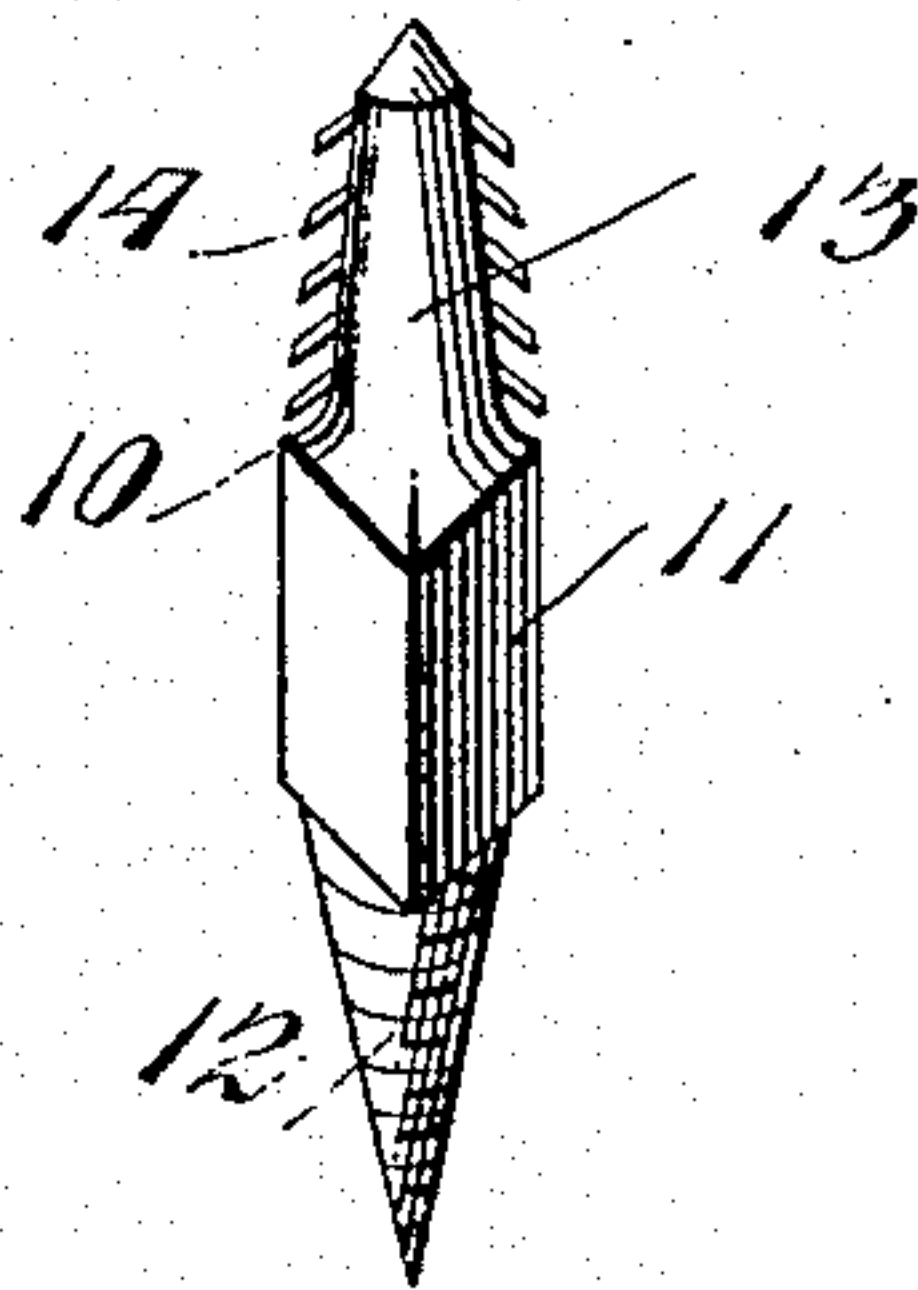


Fig. 4.

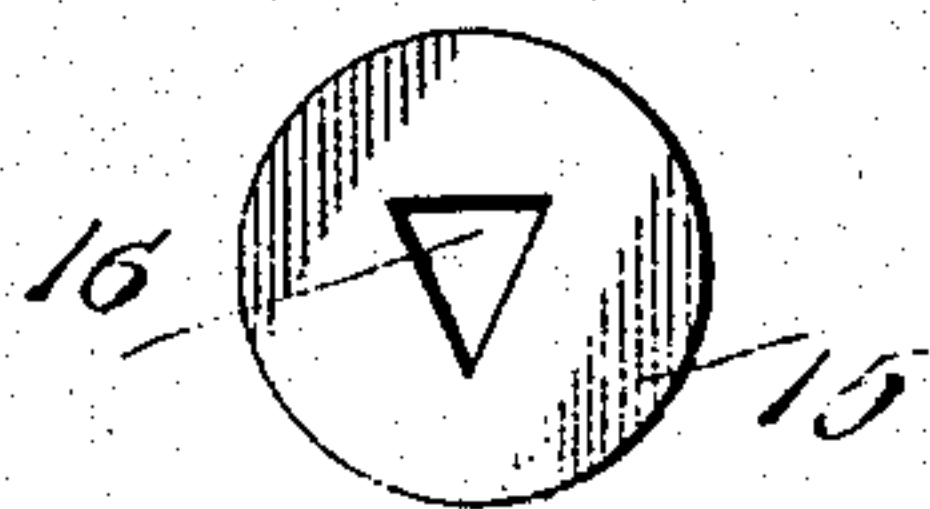
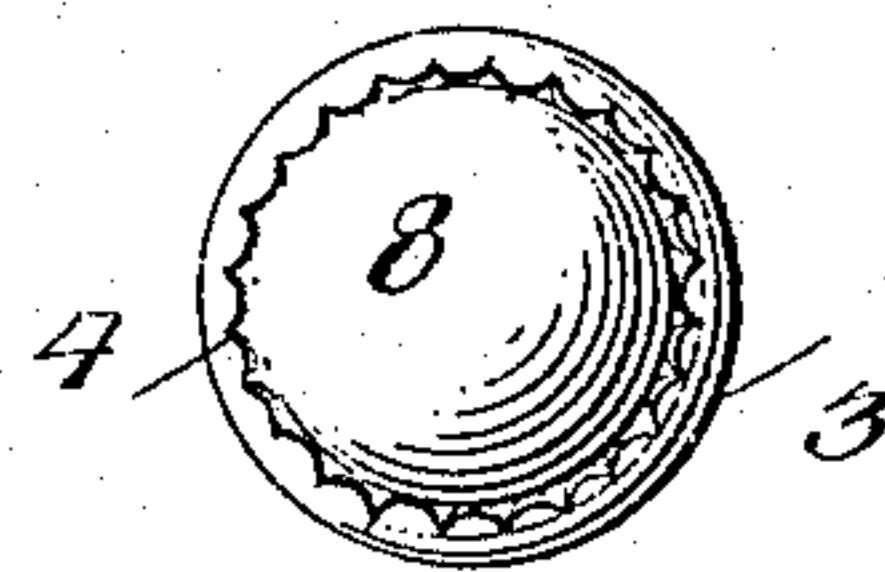


Fig. 5.



Witnesses  
Frank W. Hough

C. C. Hines.

Inventor  
Henry J. Koegel,

By Victor J. Evans  
Attorney



## UNITED STATES PATENT OFFICE.

HENRY J. KOEGEL, OF NEWARK, NEW JERSEY.

## TIP-HOLDER FOR BILLIARD-CUES.

No. 803,420.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed November 26, 1904. Serial No. 234,397.

*To all whom it may concern:*

Be it known that I, HENRY J. KOEGEL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Tip-Holders for Billiard-Cues, of which the following is a specification.

This invention relates to means for securing tips to billiard-cues and the like, the object of the invention being to provide a tip and means for securing the same to a cue or other article whereby the tip when worn or mutilated may be quickly and conveniently removed and replaced without the use of tools and secured upon the cue in such manner as to prevent it from working loose and adapt it to withstand the shocks incident to the game in which it is used without liability of displacement.

With this and other objects in view the invention consists of the features of construction, combination, and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is an elevational view of the outer or striking end of a cue, showing a tip secured thereon in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail view of the tip-securing device. Fig. 4 is a similar view of the wear-plate or washer. Fig. 5 is a plan view showing the tip applied.

Referring now more particularly to the drawings, the numeral 1 represents a cue or other article upon which a tip is to be secured, upon the outer end of which is mounted a tubular shell or sleeve 2, which is flared or tapered to conform to the shape of the cue and extends beyond the end of the cue to form a receiving chamber or socket 3. The outer end of the wall of the socket forming the outer extremity of the sleeve 2 is provided with a series of bendable teeth 4, which are designed to engage the tip and hold it from outward movement.

In the socket 3 is fitted a tip 5, which may be made of rubber, leather, or any other suitable material and is formed with a central socket opening through its base or inner end and extending outwardly to a point just beyond the transverse center of the tip, said socket having an inner tapering portion 6 and an outer enlarged polygonal portion 7. The tip is of such length that when fitted in the socket it will project a sufficient distance

beyond the same to form a striking-head 8, which is curved or rounded or made of any other suitable form to subserve the purpose for which it is designed. After the tip is inserted the teeth 4 are bent inwardly to engage the same at the base of the head 8 to prevent the tip from working loose in chalking the head 8 or bending or yielding when coming in contact with the surface. The tip is secured to the cue and within the socket 3 by means of a securing device 10, comprising a head or body portion 11 of polygonal form, the said body portion being shown in the present instance of triangular form in cross-section to correspond to the contour of the portion 7 of the socket of the tip within which it fits. From the base of this body portion 11 extends a screw-shank 12, which is adapted to be screwed into the end of the tip to hold said securing device in position thereon, as shown in Fig. 2. From the outer or upper end of the portion 11 extends a tapered stem 13, which conforms to the shape of the inner portion 6 of the socket in the tip 5 and is provided with a series of outwardly-projecting spurs 14, disposed upon diametrically opposite sides thereof and projecting at an inward angle or toward the body portion 11 to act as a detent to prevent the tip from having longitudinal outward movement and from being thereby withdrawn from the socket 3.

In applying the tip and securing device the latter is first attached to the cue by inserting its screw-shank 12 within the same, a wrench or other suitable tool being applied to the body portion 11 to enable this operation to be conveniently carried out. The sleeve 2 is then applied to the cue and the tip 5 inserted within the socket of the sleeve. When the tip is forced inwardly, the tapered and polygonal portions 6 and 7, respectively, of the securing device receive the tapered stem 13 and polygonal body portion 11 of the securing device, and the spurs 14 sink into or penetrate the body of the tip on opposite sides of the socket portion 6, and thus securely hold the tip against outward movement under ordinary conditions of service. When the tip is so applied, the polygonal portion 11 will also hold it against rotation, while the teeth 4 will retain the outer end of the body portion of the tip, allowing the head 8 to have free movement without affecting the body of the tip and causing the latter to work loose from its fastening.

In practice it is preferred to employ in connection with the securing device a wear-plate



or washer 15, which is applied between the outer end of the cue and the base or inner end of the tip and is formed with an opening 16, corresponding to the shape of the body portion 11 of the securing device to form a seat for the inner end thereof, thus preventing said washer from having rotary movement. The function of this washer is to form a firm backing for the body of the tip and at the same time to provide a wear member which will prevent the base of the tip from wearing away when the tip is primarily placed upon the securing device and the latter screwed into the outer end of the cue.

It will be understood that the tip may be applied in the manner above set forth or may be initially attached to the securing device and then applied simultaneously with the latter to the cue, in which event the tip itself will form a finger-piece whereby the shank 12 may be inserted into the cue. When the parts are so applied, the tip may be readily removed when worn out or enlarged by simply bending back the teeth 4 and sliding off the sleeve 2 and then turning the tip reversely to the direction by which it has been previously applied to unscrew the shank 12 from the cue. When the securing device is intended to be used as a permanent fixture of the cue, the tip may be applied in the manner first described and may be removed upon the bending back of the teeth 4 by first sliding off the sleeve 2 and then forcibly tearing or cutting away the body of the tip from the securing device. In some cases the construction may be such that the action of the sleeve in being withdrawn will forcibly remove the tip from the securing device.

It will be observed that the body portion 11 of the securing device serves two functions when said device is applied prior to the application of the tip—namely, that of a head to receive a wrench to enable said securing device to be screwed into the cue and that of a detent to prevent the tip when applied from turning thereon.

The invention may be used for securing tips to the legs of chairs and to other objects where the use of a flexible tip or contact-piece of this character may be advantageously employed.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus fully described my invention, what I claim as new is—

1. A tip-securing device comprising a po-

lygonal body portion, an attaching device projecting from one side thereof, and a reduced tip-retainer projecting from the other side thereof, said retainer being provided with opposite sets of teeth or spurs projecting outwardly and rearwardly toward said body portion.

2. A tip-securing device having an angular body portion, and an attaching device projecting from one end thereof, and a tip-retainer projecting from the opposite end thereof and provided with outwardly and rearwardly projecting spurs.

3. A tip-securing device comprising an angular body portion, a screw-shank projecting from one end of said body portion, and a tapered stem projecting from the other end of said body portion and provided with outwardly and rearwardly extending spurs.

4. A tip-securing device comprising an angular body portion, a screw-shank projecting from one end of said body portion, and a tapered stem projecting from the other end of the body portion and provided with opposite longitudinal rows of outwardly and rearwardly projecting spurs.

5. The combination of a cue, a socket applied thereto, a tip inserted in said socket, and a securing device attached to the cue and provided with a retaining portion projecting into the tip, said retaining portion having an angular member and a tapered member, said tapered member being reduced with respect to the angular member and provided with oppositely-projecting series of teeth projecting rearwardly and embedded in the tip to hold from outward displacement.

6. The combination of a cue, a socket applied thereto, a tip inserted in said socket, a washer interposed between said tip and into the cue and having a triangular opening, and a securing device comprising a triangular body seated at one end in said triangular opening and provided with a screw-shank engaging the tip, said triangular body being fitted within a socket within the tip and formed at its opposite or outer end with a reduced stem having radial prongs or teeth embedded in the tip and holding the same from outward displacement.

7. A tip-securing device provided with outwardly and rearwardly projecting oppositely-arranged penetrating pins or spurs.

8. A tip-securing device provided with a tapered tip-retainer having opposite longitudinal rows of outwardly and rearwardly directed spurs.

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

HENRY J. KOEGE

Witnesses:

LEO HAUSER,

JACQUES WILLER.