

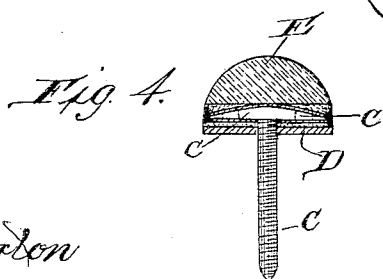
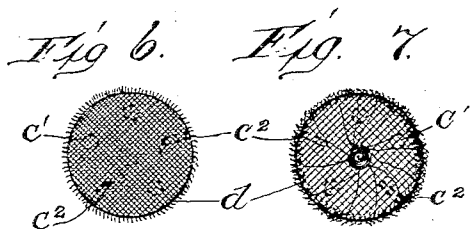
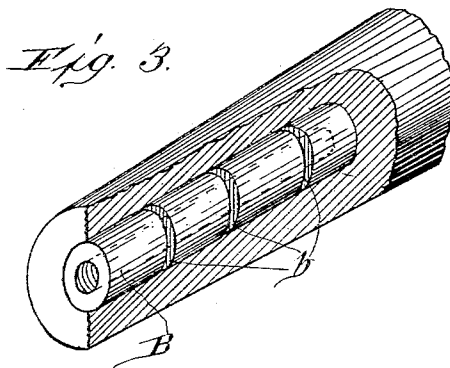
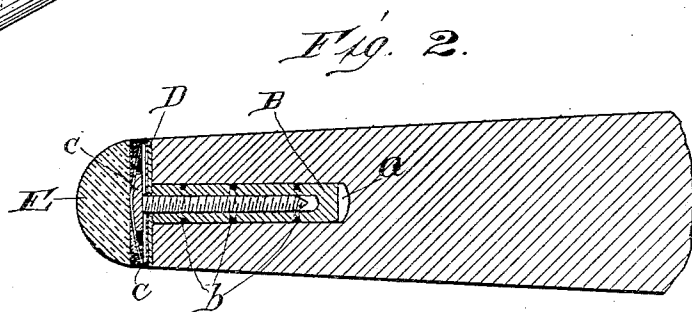
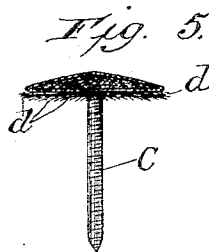
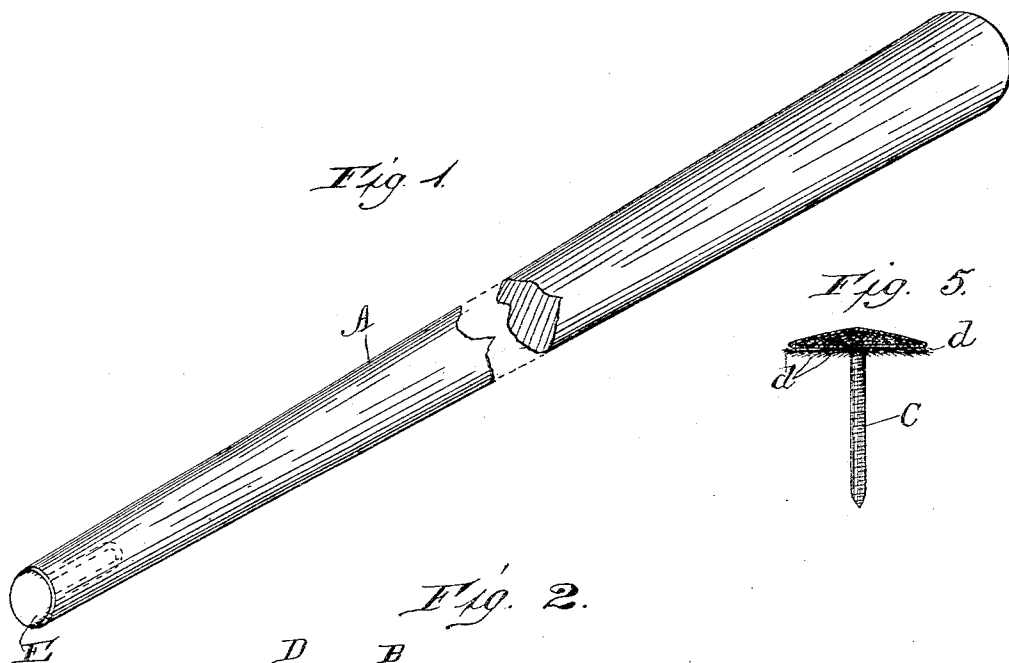
(No Model.)

N. BOSMANN.

METHOD OF SECURING TIPS TO BILLIARD CUES.

No. 504,663.

Patented Sept. 5, 1893.



Witnesses.

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UNITED STATES PATENT OFFICE.

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METHOD OF SECURING TIPS TO BILLIARD-CUES.

SPECIFICATION forming part of Letters Patent No. 504,663, dated September 5, 1893.

Application filed January 23, 1893. Serial No. 459,480. (No model.)

To all whom it may concern:

Be it known that I, NICOLAS BOSMANN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Methods of Securing Tips to Billiard-Cues, of which the following is a specification.

This invention relates to improvements in the method of securing tips to billiard-cues, and consists in certain peculiarities of the construction of the various parts of the tip and of the cue, and in the novel manner of securing the same together, as will be hereinafter more fully set forth and specifically claimed.

The object of my invention is to provide a means for more securely attaching the tips to billiard-cues, which when so attached will be strong and durable, and will possess a greater degree of elasticity than tips generally in use, and also a tip which when worn and mutilated can be readily removed from the end of the cue, and substituted by a new one.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1, is a perspective view of a billiard-cue broken in two, with my tip secured thereto. Fig. 2, is a longitudinal sectional view of a portion of the tipped end of the cue showing the various parts of the tip, and the method of securing the same to the cue. Fig. 3, is a perspective view of a portion of the cue with a part thereof broken away, showing the receiving socket. Fig. 4, is a view partly in section of the tip detached. Fig. 5, is a view in side elevation of the securing-screw showing its head and covering. Fig. 6, is a top view thereof; and Fig. 7, is a bottom view of the same.

Similar letters refer to like parts throughout the different views of the drawings.

A, represents a billiard-cue, which is made of the ordinary size, and material, and is formed at its pointed end with a bore or opening *a*, which bore or opening may be cylindrical in form or otherwise if desired, and extends some distance longitudinally and centrally in the end of the cue, as is shown.

B, is the receiving socket, which is made of suitable material, size, and shape to be adapted to fit snugly within the bore *a*. This socket as is clearly shown in Figs. 2, and 3, is preferably of the form of a tube, with its outer end open, and its inner end closed, and is internally screw-threaded. The outer surface of the socket or tube B, is provided with a number of annular grooves *b*, for the purpose which will be presently explained. As shown in Figs. 2, and 3, this socket is counter-sunk in the smaller end of the cue, until their ends are flush. The annular flanges or grooves *b*, are placed in said socket, in order to receive glue or other adhesive substances, which when placed in the bore *a*, will cause the same to be securely and firmly held in place.

Within the hollow of the tube or socket B, is secured the screw C, which is provided with a head *c*, which head is somewhat smaller in circumference than the small end of the cue, and is provided with a number of perforations *c'*, or slots *c''*, for the reception of glue or other adhesive substance. This head may be covered with a piece of linen *d*, or other suitable material, having meshes or perforations in order to allow the glue or adhesive substance to pass through, and may be secured on the screw-head by wrapping the latter therein and confining or tying the same around the screw just below the head, thus allowing the edges of the piece of cloth *d*, or other material to fray or "frazzle," as is seen in Fig. 5. The screw whose head has been prepared as before set forth, is then passed through a washer D, made of leather or other suitable material, and of the exact size in circumference as the smaller end of the cue. A coating of glue or adhesive substance is then placed between the washer D, and the lower surface of the head *c*, when the two will be firmly united together, by reason of the selvage or frayed ends of the cloth *d*, and the openings *c'*, or *c''*, in the screw-head. A quantity of glue is then placed on the upper surface of the head *c*, and the tip E, is pressed thereon, as is clearly shown in the drawings. The layer of glue on the upper surface of the screw-head is somewhat thicker than the layer of the same material, between the washer D, and the lower surface of the screw-head. As shown in the drawings the screw-head is formed slightly

cone-shaped, and may be provided with perforations c' , or slots c^2 , or both if desired. However, the screw-head may be made in the form of a flat disk, and with or without one or both of the perforations or slots. It will also be seen by reference to Figs. 2, and 4, of the drawings that the screw-head is somewhat smaller in circumference than the smaller end of the cue-tip or washer, for the reason that the coatings of glue on the top and bottom of the screw-head will then become united around the periphery, and will be mingled with the meshes and selvage of the cloth, thus holding the parts firmly together.

15 The tip E, may be made of any suitable or ordinary material, of which such articles are now formed. When the parts are glued together as set forth, the screw C, is inserted within the socket B, and screwed down until the washer D, rests on the ends of the socket and cue. There being no glue or adhesive substance on the lower surface of the washer, it is evident that the screw-head and tip can be easily removed and a new one inserted.

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

1. The combination with a cue having a bore in its smaller end, of an internally screw-threaded and externally grooved socket or tube to fit in said bore, a screw to engage the socket and having a perforated head, the covering d , for said head, a washer and tip secured to the lower and upper surfaces respectively of the screw-head by means of an adhesive substance, substantially as described.

2. The combination with a cue having a bore in its smaller end of a socket having internal screw-threads, the screw C, having the head c , the covering d , for said head having the frayed ends, the washer D, and tip E, secured to the lower and upper surfaces respectively of the screw-head by means of an adhesive substance, substantially as described.

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Witnesses:

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