

No. 682,677.

Patented Sept. 17, 1901.

E. FERCHLAND.

LEATHER PAD FASTENING FOR BILLIARD CUES.

(Application filed Mar. 2, 1901.)

(No Model.)

FIG. 8.

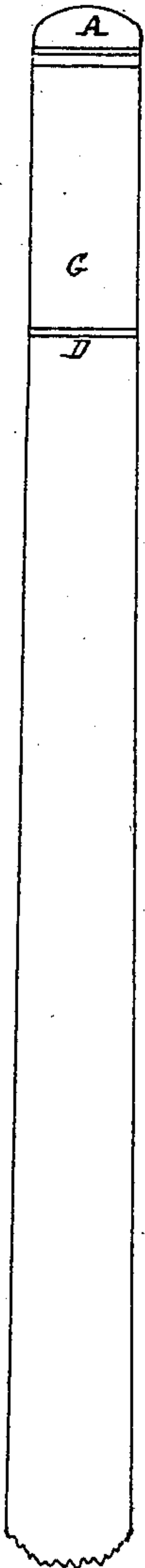


FIG. 7.

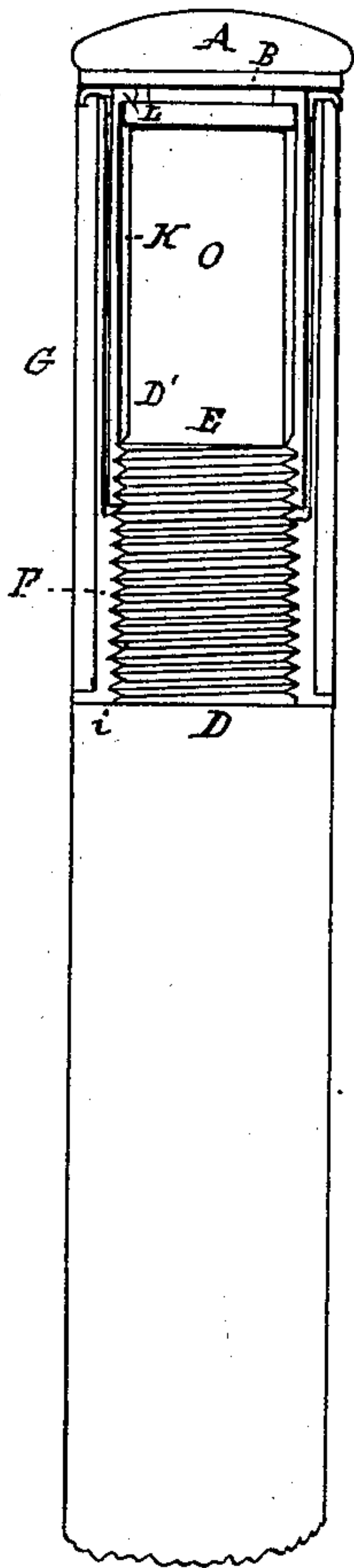


FIG. 1.

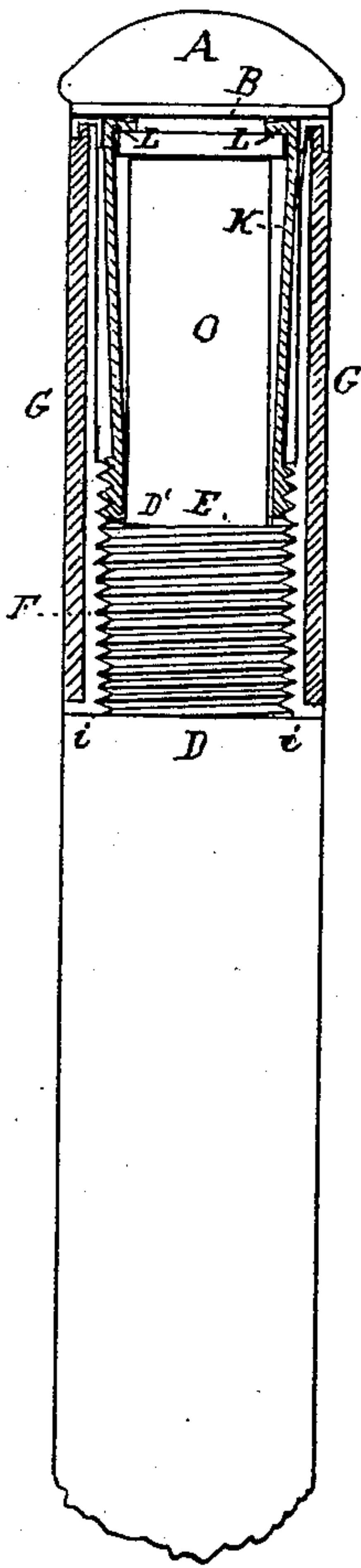


FIG. 2.

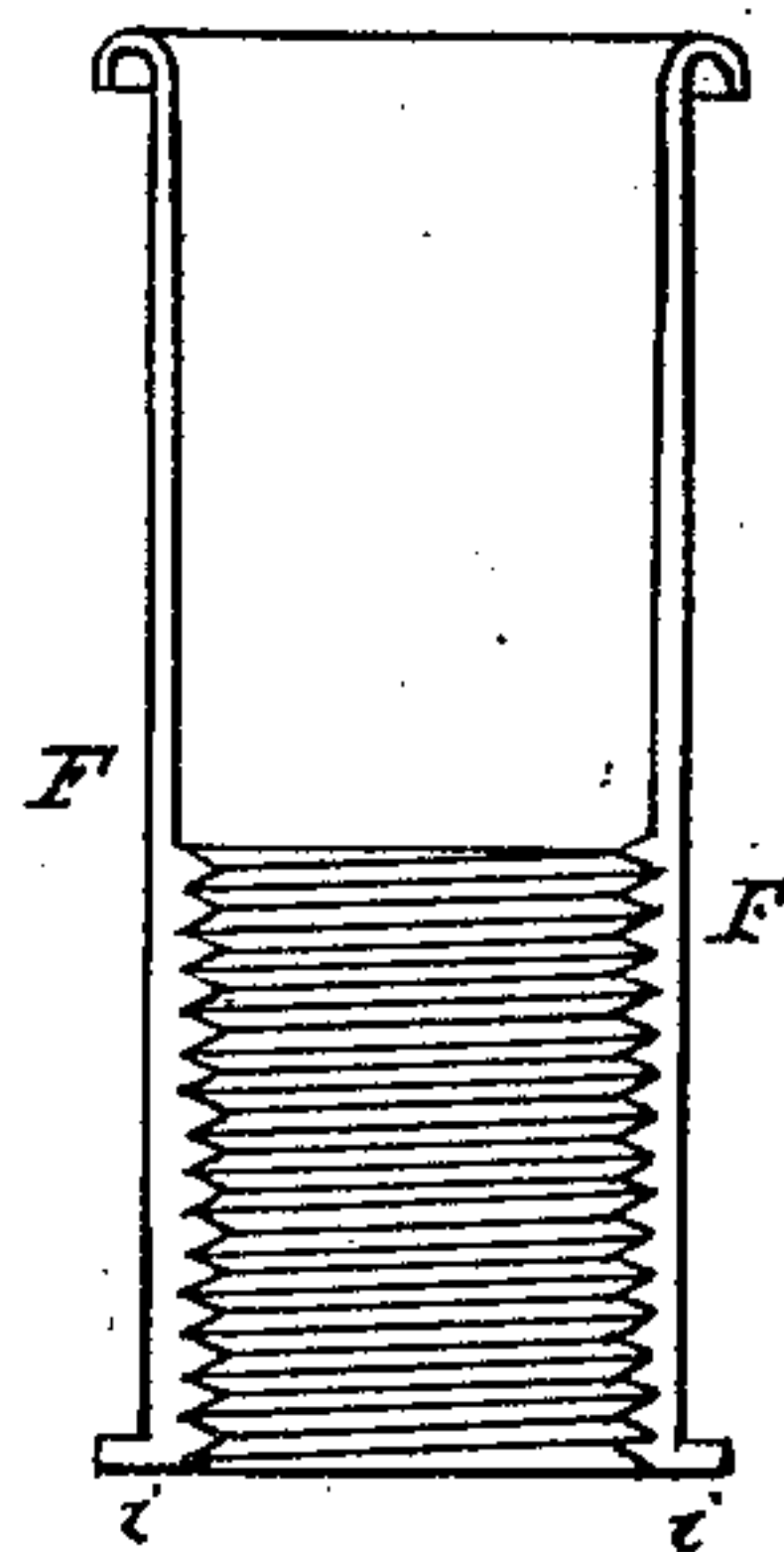


FIG. 3.

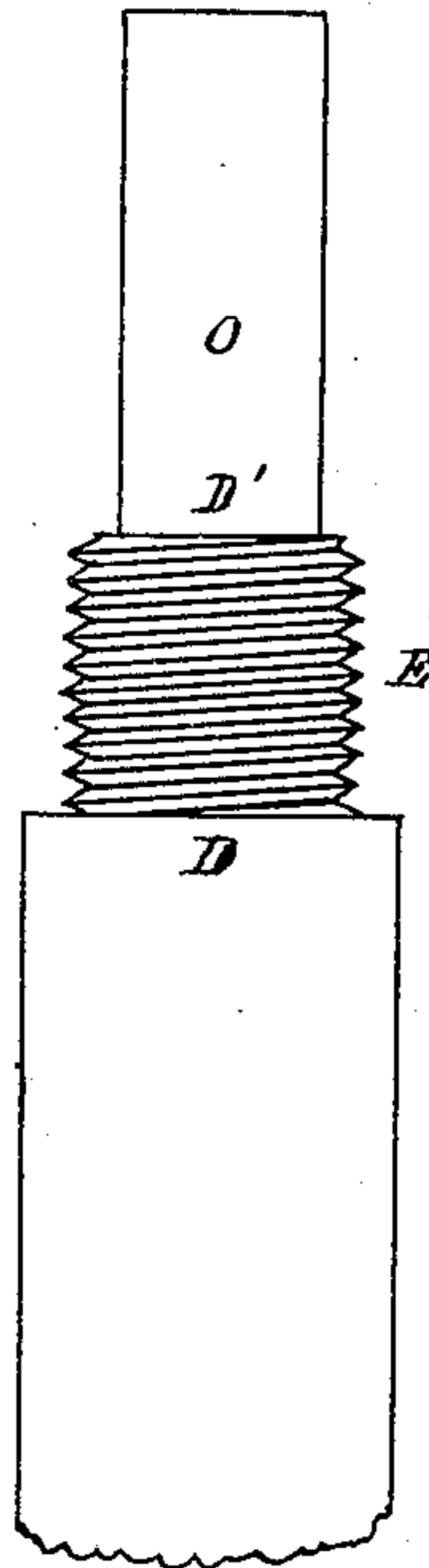


FIG. 5.

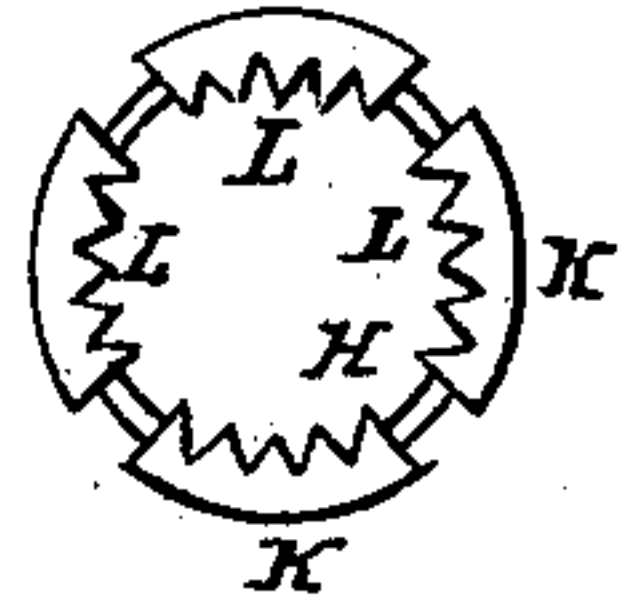


FIG. 4.

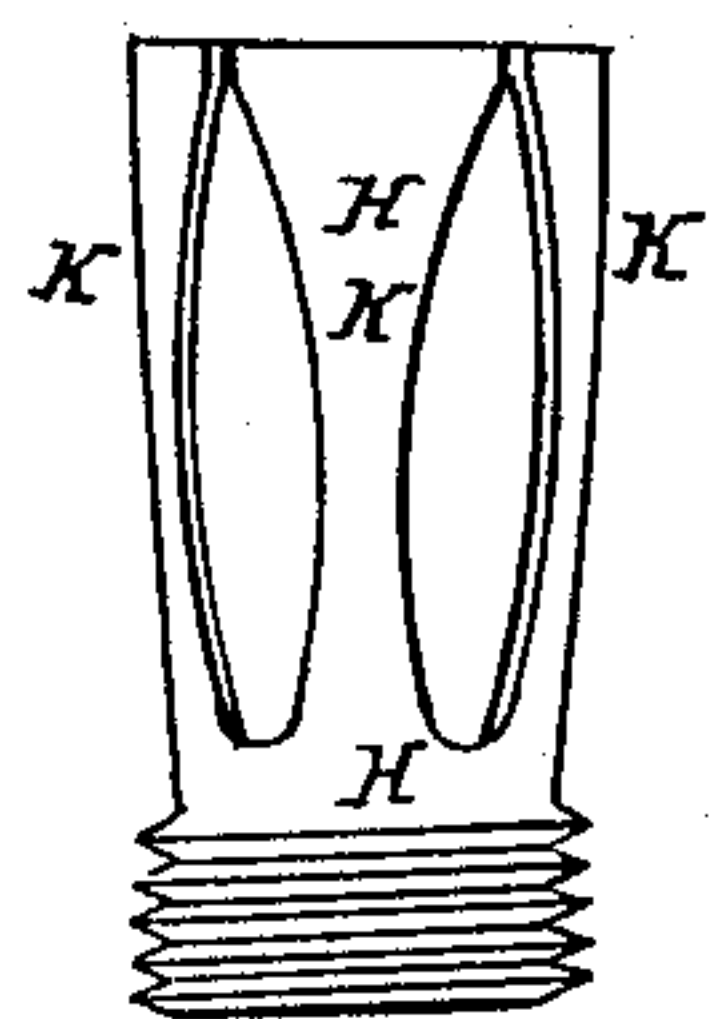
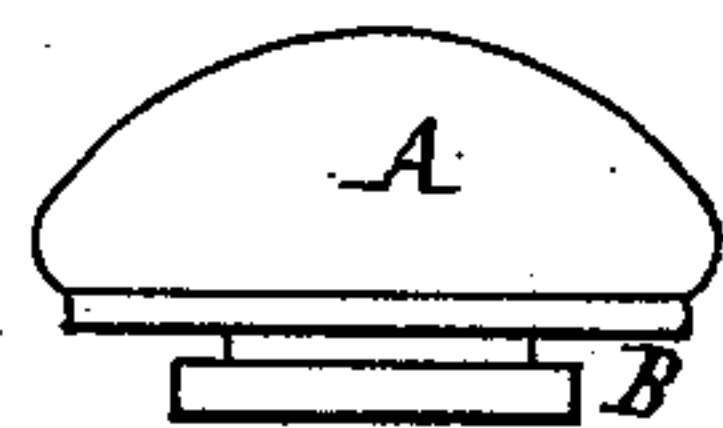


FIG. 6.



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LEATHER-PAD FASTENING FOR BILLIARD-CUES.

SPECIFICATION forming part of Letters Patent No. 682,677, dated September 17, 1901.

Application filed March 2, 1901. Serial No. 49,558. (No model.)

To all whom it may concern:

Be it known that I, ERNST FERCHLAND, a citizen of the United States, and a resident of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Leather-Pad Fastenings for Billiard-Cues, of which the following is a specification.

This invention relates to improvements in the means of fastening the leather pad or tip on the end of the billiard-cue with partly a similar construction as specified in my Patent No. 338,724, dated March 30, 1886; and it consists in a construction of certain parts more durable and solidly securing and holding down the leather pad upon the cue-rod and fastening it upon the cue-rod, as herein-after described, and pointed out in the appended claim.

Figure 1 in the drawings represents a vertical central section of the upper portion of a billiard-cue shown on an enlarged scale and showing its tip-fastening of a construction according to my invention herein described. Fig. 2 is a detail vertical central section on the same scale of the screw-ferrule for holding the tip-fastening to the cue-rod and carrying the outer celluloid ferrule for a suitable cover over the screw-ferrule. Fig. 3 is a detached vertical elevation on the same scale of the upper portion of the cue-rod, having the tip and its fastenings all removed from it. Fig. 4 is a detached side view of the expanding and spring sleeve on the same scale and showing the inward-projecting teeth to engage in the circular groove of the leather-pad tip of the cue. Fig. 5 represents a top view on the same scale of the same. Fig. 6 is a detached side view of the leather pad or tip on the same scale. Fig. 7 represents a vertical sectional elevation, on the same enlarged scale, of a modification of the complete top end and leather-pad fastening of the billiard-cue. Fig. 8 is a side elevation of the upper portion of the billiard-cue and its leather pad and fastening on regular working scale.

Referring to the drawings, the letter A designates the usual leather pad or tip, having the convex head with a circumferential neck or groove B below its head and the base of the tip which meets the top end of the cue-rod.

The top portion of the cue-rod, occupied by the tip-fastening, is formed with one shoulder D for the seat or base of the fastening and with a threaded shank E upward, and above the threaded shank E is a secondary shoulder D', made with a smooth shank O of less and of even diameter to the extreme top end, as shown in Figs. 1, 3, and 7.

Upon the threaded shank E is fitted with a proper threaded portion a tubular sleeve F, the outer periphery of which is covered with a smooth celluloid ferrule G, and the ends of the sleeve F are laid and turned over the ends of the ferrule G. Said bottom end of the sleeve F is laid over flat for a horizontal flange, and the shoulder on the cue-rod meets said flange with a broad and close joint to provide for greater durability. The top end of said sleeve may have also a flat bearing and may be a separate piece soldered thereto, as shown in Figs. 1 and 7; or it may be laid over with a convex shoulder meeting the leather pad, as shown in Fig. 2. The inner periphery of the sleeve F above its threaded portion is made of larger diameter to provide for more space for the parts employed inside of it.

To cover the sleeve F with celluloid, a ferrule of celluloid is placed over said sleeve, said ferrule being made shorter than the sleeve, which then projects on each end sufficiently to form a flange on the sleeve covering each end of the celluloid, and the sleeve for that purpose is placed and held in a chuck in the lathe, and the projecting end of the sleeve is turned or spun outward over the end of the celluloid ferrule. After one end is done the ferrule is turned end for end and secured in the lathe again, and the other end is also turned out and spun over it. The sleeve F is thereby completed to be placed upon the cue.

In the upper and enlarged inner periphery of the sleeve F is employed the expanding sleeve H, the bottom of which is tubular and provided with a screw-thread on its outer periphery meeting and fitted to screw into the threaded portion of the sleeve F. The upper and middle portions of the sleeve H are cut longitudinally to form several equal spring-plates K, with inward teeth L at right angles from the upper edges to engage in the groove

B of the pad or tip. By raising the sleeve H its spring-plates K are allowed to expand for removing the tip A, and by screwing the sleeve H down the spring-plates K contract into the groove B and draw down the tip. By means of the teeth L the groove B may be cut deeper by turning the sleeve H in the groove to allow the plates K to come to their proper seat.

To assemble the parts of the fastening, the spring-plates K of the sleeve H are first expanded and the bottom part below the groove of the leather tip is inserted between the plates K, and said bottom part is adjusted below the inward teeth L, which are now opposite the groove in the leather pad and are allowed to contract therein. The bottom end of the part H is now placed into the top of the sleeve F and is, with the pad, pressed down into the sleeve F. The teeth L are caused to grip into the bottom of the groove of the leather pad, and by turning the sleeve F with the pad upon the threaded portion of the cue the sleeve F enters over the threaded part of the cue and the bottom end of the sleeve H. Thereby the sleeve H meets the top end of the cue and the sleeve F meets the shoulder on the cue below its threaded portion, whereby the pad rests solidly upon the cue-top and the sleeve F upon the said shoulder.

Instead of providing the screw-thread on the outer periphery of the lower part of the sleeve H, as shown in Fig. 1, and engaging into the thread in the sleeve F the sleeve H may be threaded on its inner periphery and

engage in the thread on the shank E, as shown in Fig. 7.

By means of the celluloid ferrule G a smooth surface is provided over the upper end of the cue used to slide in the hand of the player to prevent undesired interruption while playing. By means of a screw-thread on the sleeve H, engaging the thread on the sleeve F, the sleeve H is more safely and solidly secured to bear upon the tip.

What I claim, and desire to secure by Letters Patent, is—

In billiard-cues with a leather-pad fastening the combination comprising with the grooved leather-pad shank, a cue with a threaded tenon having a shoulder on its lower end and the pad-seat on its top end an inner sleeve H over said tenon and over the grooved shank of the pad with a threaded bottom end and contracting grip-plates K over the grooved shank of the pad and an outer sleeve F with a shoulder and an opening contracting the plates K for supporting and gripping the pad and said sleeve with a threaded shank over the sleeve H and over the threaded tenon of the cue and its bottom end meeting the shoulder on the tenon of the cue, substantially as and for the purpose herein set forth.

Signed at Brooklyn, in the county of Kings and State of New York, this 1st day of March, A. D. 1901.

ERNST FERCHLAND.

Witnesses:

JOHN P. BEARDALL,
JOHN J. MCGAUGHIN.