

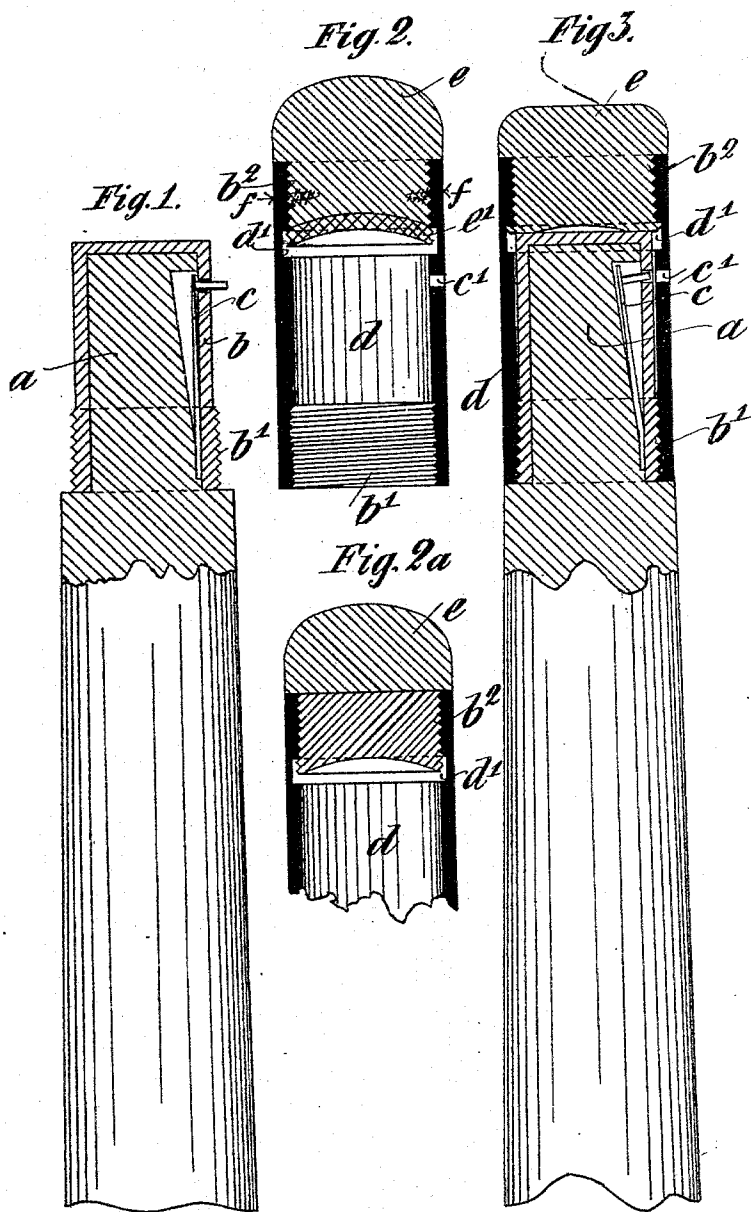
(No Model.)

E. L. MARUGG.

FASTENING FOR LEATHER OR RUBBER TIPS ON BILLIARD CUES.

No. 515,477.

Patented Feb. 27, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

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FASTENING FOR LEATHER OR RUBBER TIPS ON BILLIARD-CUES.

SPECIFICATION forming part of Letters Patent No. 515,477, dated February 27, 1894.

Application filed October 25, 1893. Serial No. 489,119. (No model.)

To all whom it may concern:

Be it known that I, ERICH LUDWIG MARUGG, a citizen of Switzerland, and a resident of Auerbach, in the Vogtlandt, Kingdom of Saxony, German Empire, have invented a certain new and Improved Fastening for Leather or Rubber Tips on Billiard-Cues, of which the following is a full, clear, and exact description.

10 The object of the present invention is to provide a device for affixing the rubber or leather tips to billiard cues in such manner that the same may be easily and conveniently detached when worn, while at the same
15 time an unintentional detachment of the same, and the inconvenience caused by having to mend the cues are effectually avoided.

The device consists of a cap attached to the end of the cue and having a lower external thread onto which a sleeve is screwed, said sleeve carrying in its upward end the rubber, leather or combined rubber and leather tip. The cap is further provided with a spring pin adapted to engage in a suitable
25 orifice in the sleeve when the latter has been screwed into position and thus securely lock the same. And in order to render my present specification more easily intelligible, reference is had to the accompanying drawings
30 in which similar letters denote similar parts throughout the several views.

Figure 1 is a vertical section at the top of a cue with the sleeve removed; Fig. 2 a similar section of the sleeve and tip; Fig. 2^a a
35 part section of the sleeve, with a modified form of tip, and Fig. 3 a vertical section showing cap and sleeve in position on the cue, with the locking pin about to engage in the orifice of the sleeve.

40 The cap or ferrule *b* is fitted to the top *a* of the cue, and provided with an internal spring *c* soldered or otherwise attached to it, said spring *c* carrying at its upper end a pin projecting through the cap (Fig. 1). The cap has further a lower external thread *b'* onto which the internal thread of the sleeve *d* is screwed. The sleeve *d* has an upper internal thread *b²* cut in the opposite direction

to *b'* and serving for the reception of the rubber or leather tip *e* which is hollowed out at its lower end. Said sleeve has further an internal circular groove *d'* below the upper thread *b²* and also an orifice *c'* in its side, into which the pin of the spring *c* engages.

In order to affix the tip to the cue the sleeve *d* is passed over the cap *b*, the spring *c* being pressed back into a groove cut in the top of the cue (Fig. 1); the said sleeve is then screwed tightly down onto the cap *b* so that the lower surface of the rubber or leather tip
60 is compressed and flattened into the circular groove *d'*. When this has taken place the pin of the spring *c* will engage in the orifice *c'* of the sleeve *d*, which has come into position before it, and thus the parts are locked
65 firmly into position.

The tips may be entirely of leather (Fig. 2) or of leather and rubber (Fig. 2^a) or entirely of rubber (Fig. 3). In the first case the lower part *e'* of the tip should be of a somewhat
70 softer nature to allow of its being compressed into the groove *d'*. If leather tips are employed the same may be held in position in the sleeve by means of screws *f f* (Fig. 2) inserted through the sleeve and penetrating
75 the leather. It is obvious that on screwing the sleeve onto the cue the tip on contacting with the top of the cap will not tend to loosen, since the threads *b'* and *b²* are right and left handed. Rubber tips are advantageous, since
80 they require no chalking.

I claim as my invention—

1. The combination of a cap affixed to the end of the cue, said cap being provided with external thread and internal spring *c* with
85 projecting pin, a sleeve *d* having lower internal thread to engage the thread of cap and upper internal reverse thread, a tip *e* secured in said upper thread and orifice *c'* in the side of said sleeve substantially as described. 90

2. The combination of a cap affixed to the end of the cue, said cap being provided with external thread and internal spring *c* with projecting pin, a sleeve *d* having lower internal thread and upper internal reverse thread
95 and circular internal groove below same, a

rubber tip *e* secured in said upper thread and orifice *c'* for the purpose substantially as described.

5 3. The combination of a cap affixed to the end of the cue, said cap being provided with external thread and internal spring *c* with projecting pin, a sleeve *d* having lower internal thread and upper internal reverse thread and circular internal groove below same, a

combined rubber and leather tip *e* secured in said upper thread, and orifice *c'* substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ERICH LUD. MARUGG.

Witnesses:

J. F. MONAGHAN,

O. PAUL.