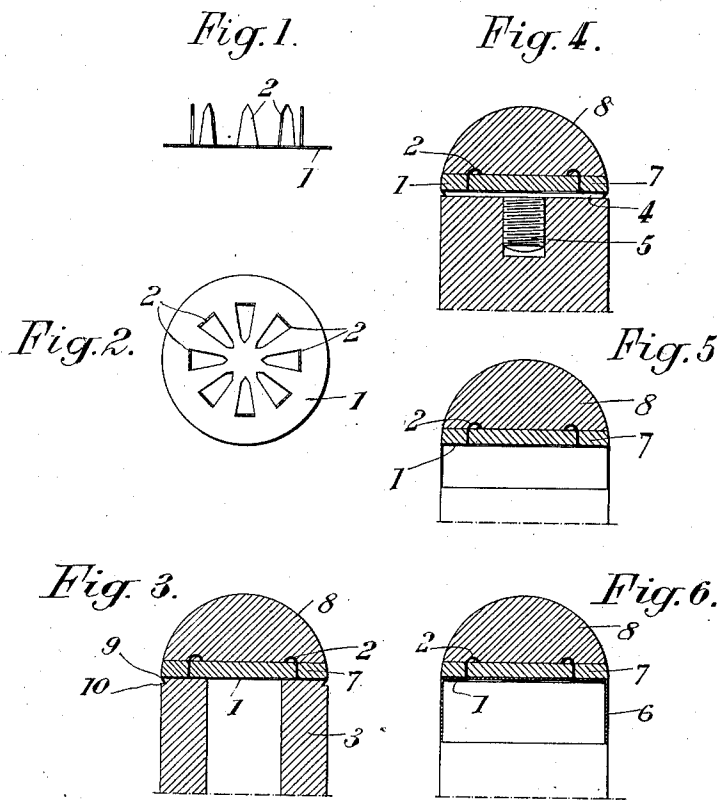


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 DEVICE FOR FIXING CAPS TO BILLIARD CUES.
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1,038,310.

Patented Sept. 10, 1912.



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THÉODORE DETROYES, OF VILLENEUVE-SUR-YONNE, FRANCE.

DEVICE FOR FIXING CAPS TO BILLIARD-CUES.

1,038,310.

Specification of Letters Patent. Patented Sept. 10, 1912.

Application filed June 19, 1911. Serial No. 634,185.

To all whom it may concern:

Be it known that I, THÉODORE DETROYES, a citizen of the French Republic, and resident of Villeneuve-sur-Yonne, France, have
5 invented certain new and useful Improvements in Devices for Fixing Caps to Billiard-Cues, of which the following is a specification.

The present invention relates to improvements in billiard-cue caps and the object of my invention is more especially to provide improved means for fixing said caps to the top of billiard cues and consists essentially in fixing to the upper end of the cue a small
15 disk of metal or any other suitable material, said disk being provided with a plurality of pointed projections extending upward in such a manner as to penetrate into the material of the cap, securely fixing said cap to
20 the disk by means of the curved projections.

In the accompanying drawings forming a part of this specification: Figure 1 is a side view of the improved disk. Fig. 2 is a top view of the same. Figs. 3 to 6 are longitudinal sectional views through the axis of
25 billiard cues provided with my improved disks.

Figs. 1 and 2 show the flat metallic disks 1 in the material of which are formed a circular range of pointed projections 2 made
30 by punching and bending. This flat metallic disk may be fixed to the upper end of the cue in any appropriate manner: Fig. 3 shows the edge of the disk bent downward
35 and stamped around the edge of a collar 3 made of ivory or any other suitable material and surrounding the top of the cue.

In Fig. 4 the edge of the punched disk 1 is stamped all around of a cylindrical piece
40 4 fixed to a bolt 5 which is screwed into the upper end of the cue.

Fig. 5 shows a disk 1 provided with a large flange which is fixed by flanging to the top of the cue, said flange may be inwardly
45 smooth or threaded.

Fig. 6 shows another disposition in which the disk 1 is fixed to the cue by a cap 6, the bottom of which is perforated with holes
50 corresponding to the projections 2 of disk 1 and the cylindrical part of which is engaged against the upper end of the cue.

All these connecting means are indicated as examples and it is to be understood that I do not limit myself to the special examples shown in the drawings. The cap of the cue
55 generally comprises a piece of hard leather 7, and a piece of soft leather 8 fixed together by gluing them. According to my improvement, the piece 7 may first be fixed to disk 1 by engaging the projection 2 into the
60 leather and by bending said projections as shown in the drawings after which the leather piece 8 is stuck or glued on top of leather piece 7 and projections. This may
65 also be done by first sticking together pieces 7 and 8, or the cap may be made of one single piece. In this last case it is convenient to provide the ends of the projection with
70 beveled outer edges, or to bend slightly the ends of projections inside and to provide the cap with converging splits to receive the
projections so as to cause said projections to be forcibly bent when penetrating into the leather.

Whatever may be the mode of fixation, the
75 cap is firmly and durably fixed to the cue so much the more as the strokes received by the cap when playing will always have tendency to clenching the projections. The fixation of the punched disk provided with cap
80 is obviously made concentrically with respect to the cue-axis and may be effected by any body. On the other hand, any disconnection is rendered impossible. The improved device is thus advantageous in all
85 respects.

Having now fully described my said invention, what I claim and desire to secure by Letters Patent, is:

1. The combination with a cue, a sheet
90 metal cap provided with a flange to form a cup and fitting on the end of the cue, a plurality of projections struck from the face of the cap and having their ends bent, an intermediate layer of leather seated on the
95 cap and held in position by the projections and a cushioned tip secured to the intermediate layer of leather and having its outer end surface rounded.

2. The combination with a cue, a sheet
100 metal cap secured to the end of the cue, outwardly projecting lugs struck from the sur-

face of the cap and having their ends bent
over, an intermediate layer of leather glued
on the face of the cap and also secured there-
to by the projections, a cushion tip seated on
5 the intermediate tip, the bent over ends of
the projections being embedded in the cush-
ion tip and clenching the same.

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

THÉODORE DETROYES.

Witnesses:

GASTON PETION,
H. C. COXE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."