

No. 788,069.

PATENTED APR. 25, 1905.

E. L. ROBINSON.
BILLIARD CUE TIP.
APPLICATION FILED MAY 18, 1904.

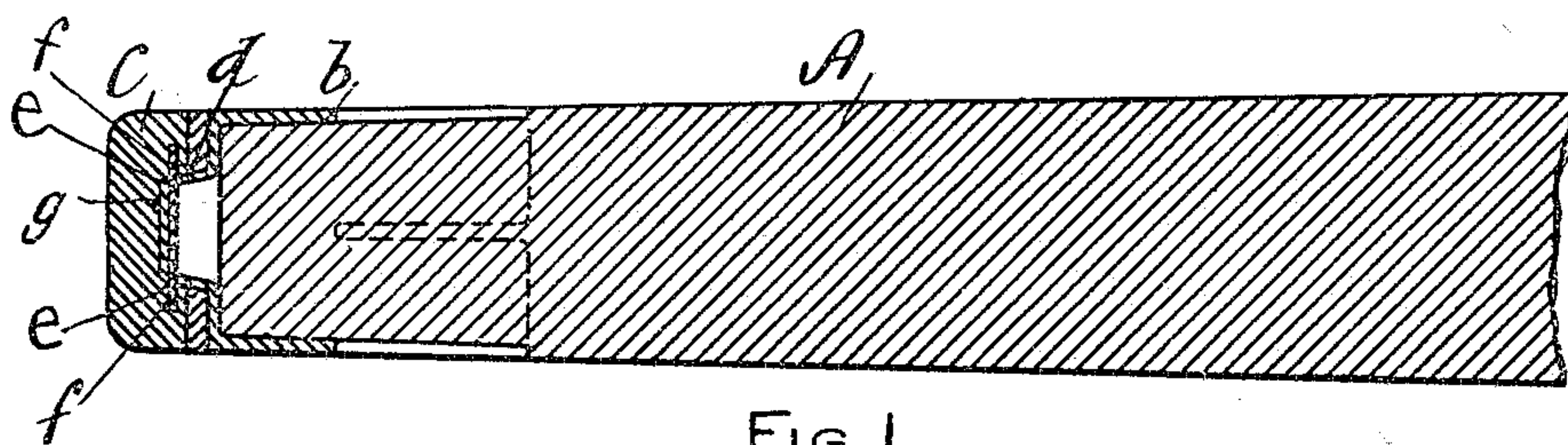


Fig. 1

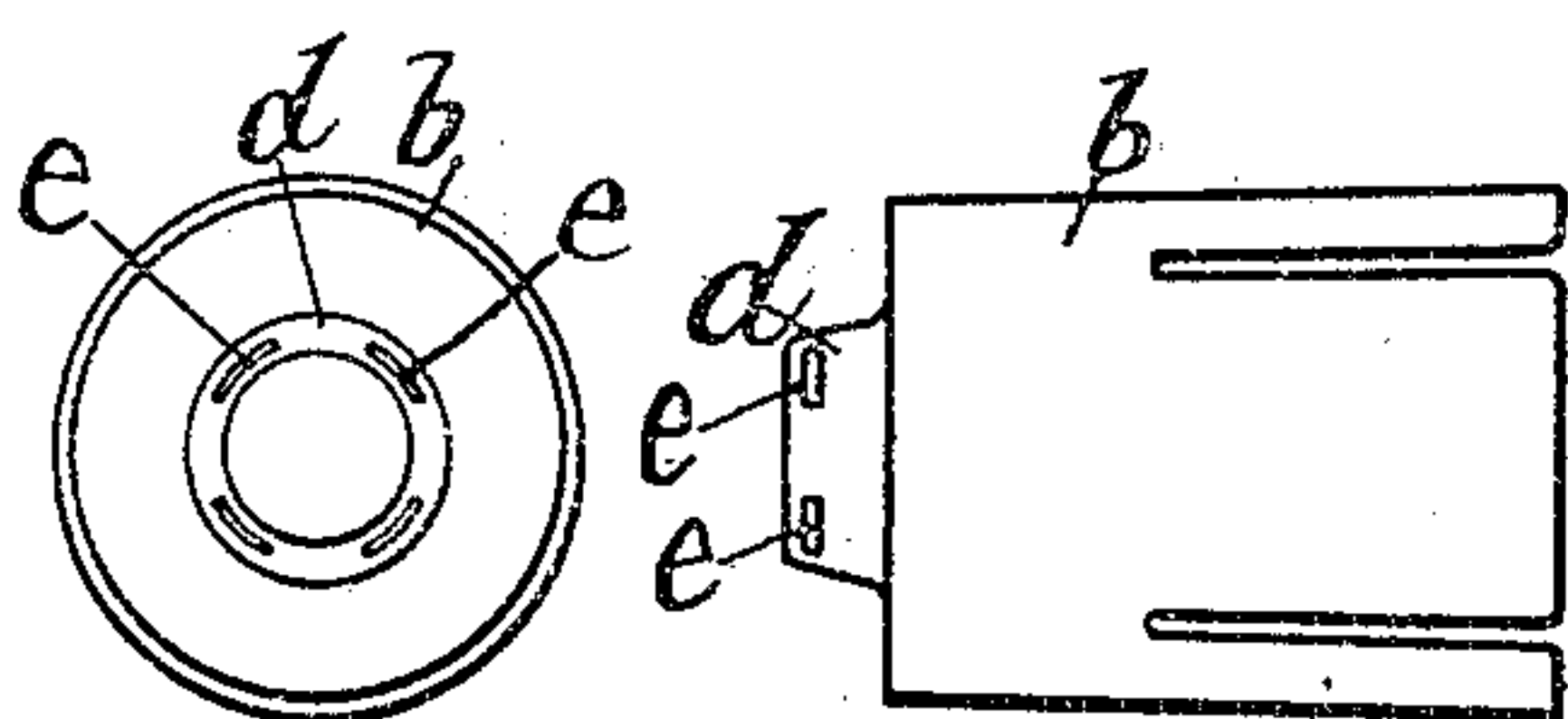


Fig. 3

Fig. 2



Fig. 4



Fig. 5

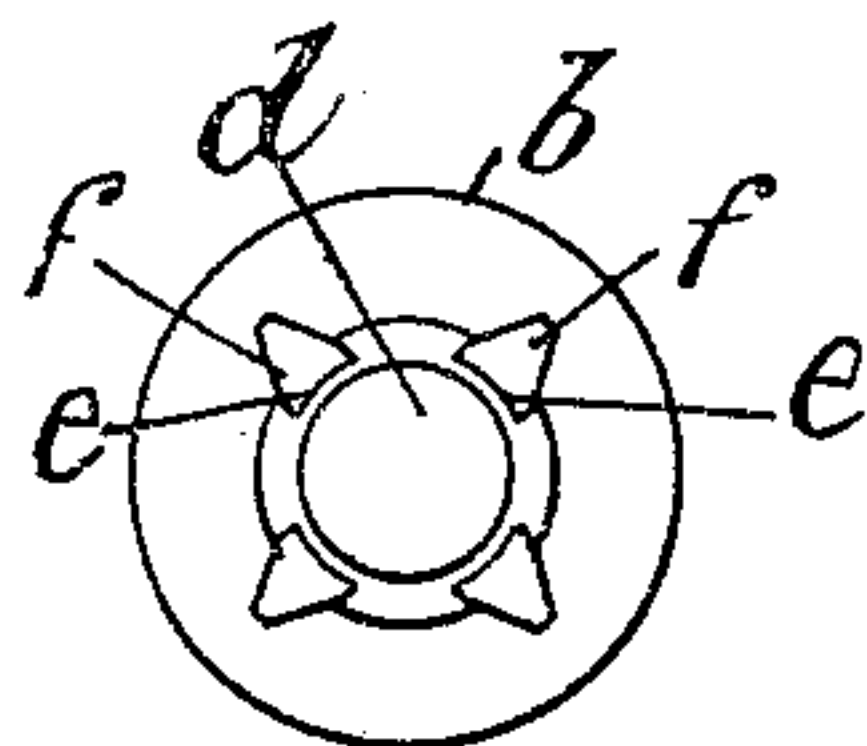


Fig. 6

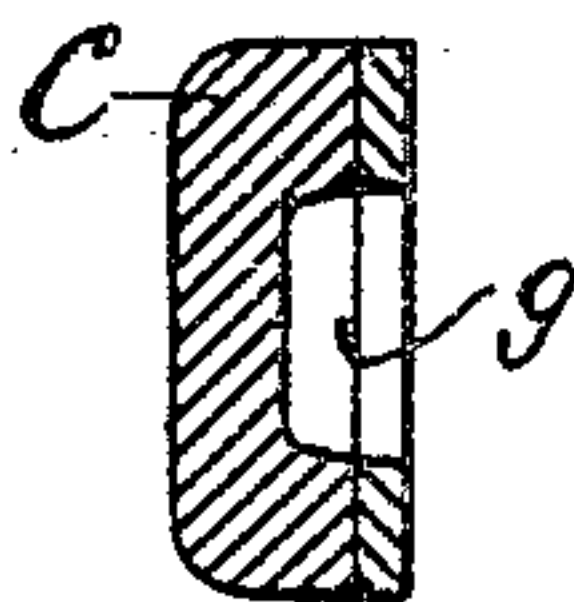


Fig. 7

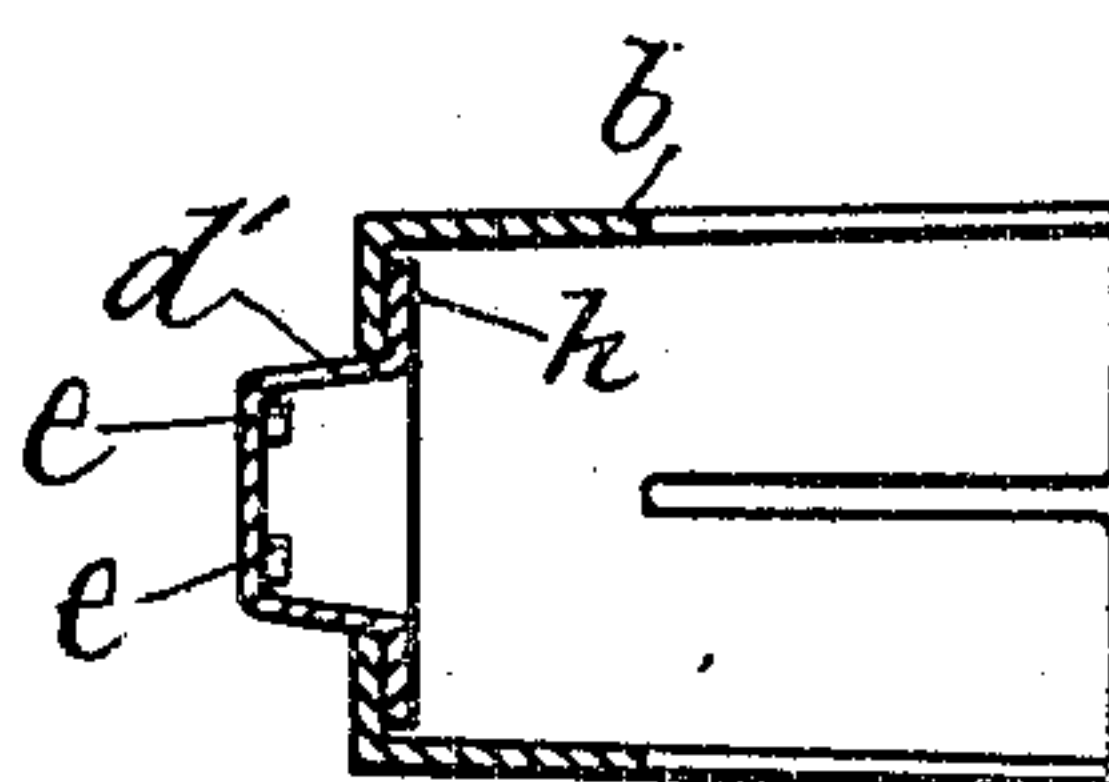


Fig. 8

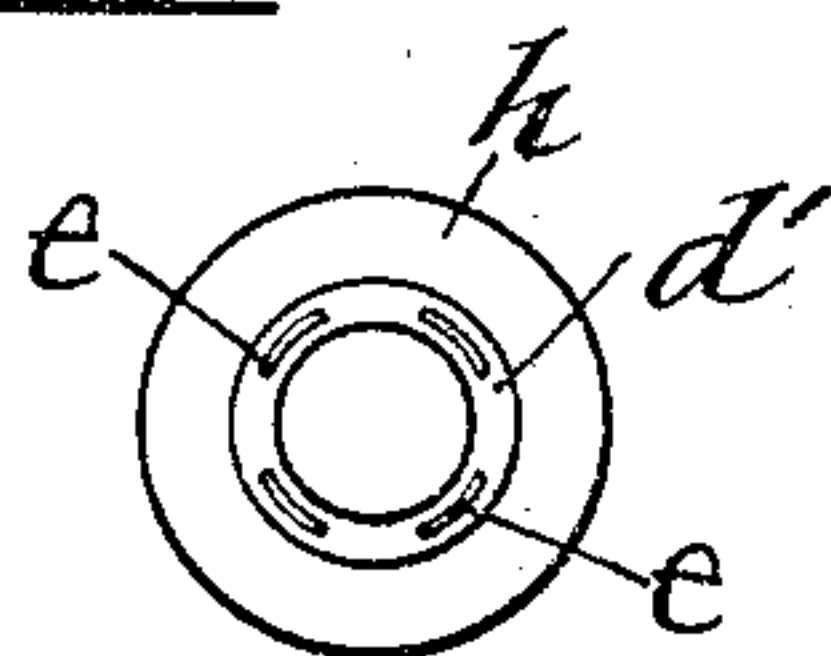


Fig. 10

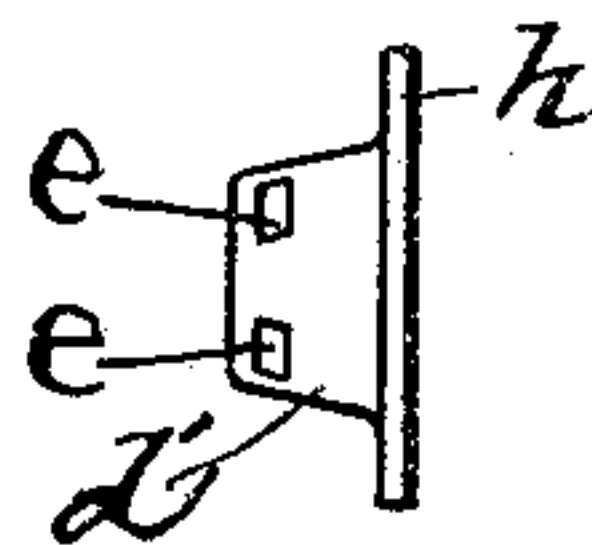


Fig. 9

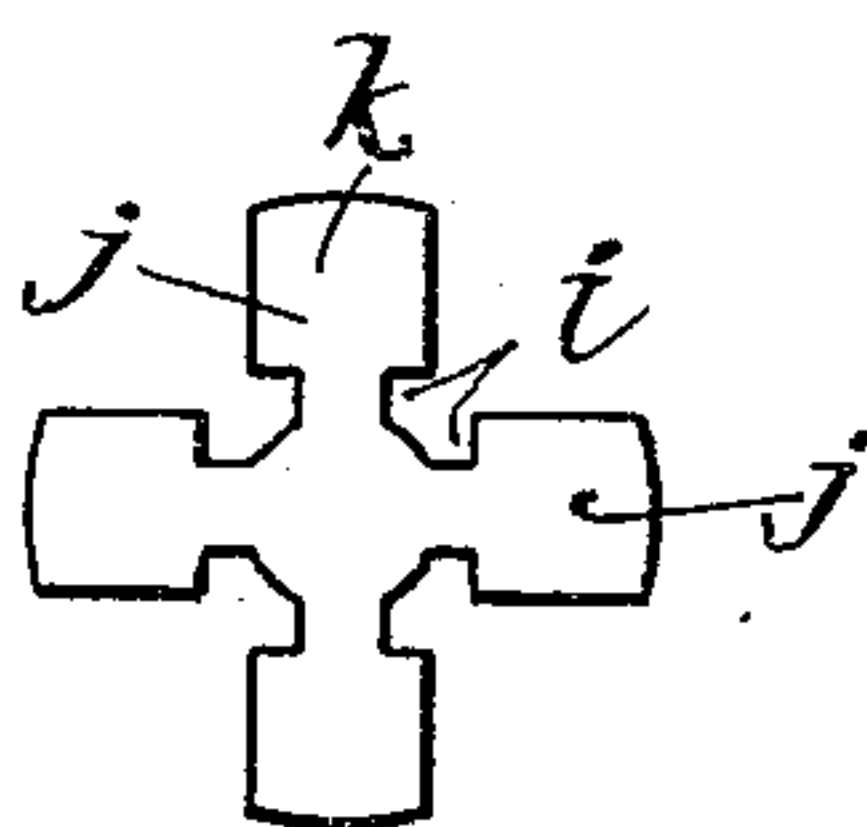


Fig. 11

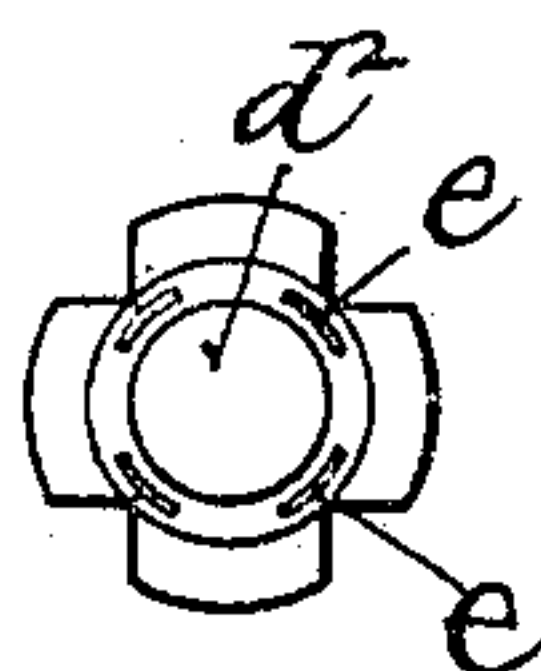


Fig. 13

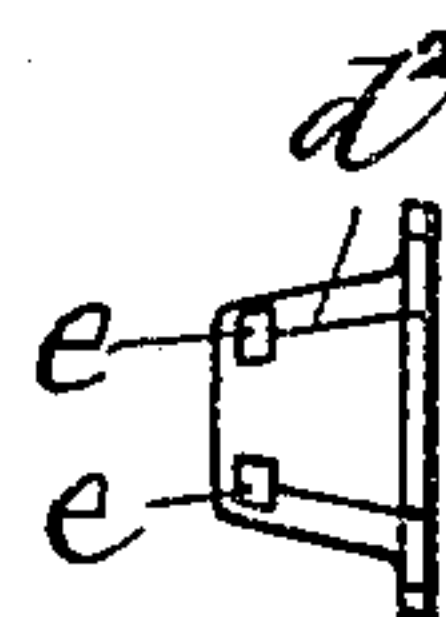


Fig. 12

WITNESSES

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EDWIN L. ROBINSON, OF NORTH ATTLEBORO, MASSACHUSETTS.

BILLIARD-CUE TIP.

SPECIFICATION forming part of Letters Patent No. 788,069, dated April 25, 1905.

Application filed May 18, 1904. Serial No. 208,603.

To all whom it may concern:

Be it known that I, EDWIN L. ROBINSON, a citizen of the United States, residing at North Attleboro, in the State of Massachusetts, have
5 invented a new and useful Improvement in Billiard-Cue Tips, of which the following is a specification.

My invention relates to the improved construction of the means employed for attaching
10 ing the leather tip to the ferrule, as hereinafter set forth.

In the accompanying drawings, Figure 1 represents a longitudinal section of the end of a billiard-cue provided with my improved
15 cue-tip. Fig. 2 represents a side view of the ferrule provided at its end with an integral perforated cap. Fig. 3 represents an end view of the ferrule and its perforated cap. Fig. 4 represents a plan view of the blank
20 from which the attaching-prongs are formed. Fig. 5 represents the prongs of the blank when closed for insertion into the cavity of the perforated cap of the ferrule. Fig. 6 represents an end view of the hollow cap, showing
25 ing the projecting outwardly-spread prongs. Fig. 7 represents an axial section of the recessed leather tip. Fig. 8 represents an axial section of a ferrule provided with a separately-formed perforated cap. Fig. 9 represents a
30 side view of the separately-formed cap. Fig. 10 represents a forward view of the same. Fig. 11 represents a plan view of a sheet-metal blank from which the perforated cap may be formed. Fig. 12 represents a side view of the
35 cap formed of the blank shown in Fig. 11. Fig. 13 represents an end view of the same.

In the drawings, A represents the wooden handle of a billiard-cue; B, the metallic ferrule secured to the forward end of the handle;
40 C, the ordinary leather tip, provided at its base with the central recess *g*. The closed end of the ferrule B is provided with the integral hollow cap *d*, having in its periphery at the end of the cap the perforations *e e*, which are
45 adapted to receive the prongs *f f*, by means of which the leather tip *c* is attached to the

ferrule. The attaching-prongs are formed from a sheet-metal blank *a*, cut out as shown in Fig. 4 and folded together as shown in Fig. 5 for insertion into the cavity of the
50 perforated cap *d* of the ferrule. The cap *d* is adapted to enter the recess *g* of the leather tip, and when the attaching-prongs, folded as shown in Fig. 5, are inserted into the cavity of the cap *d* and forced forward by means of
55 a suitable plunger the prongs *f f* will be forced outward through the perforations *e e* and into the leather tip to firmly hold the same to the end of the ferrule.

Instead of forming the cap *d* integral with
60 the ferrule it may be formed separately, as shown in Fig. 8, and in this case the flange *h* of the cap *d'* serves to secure the cap to the perforated end of the ferrule, and a separately-formed cap *d''* may be readily con-
65 structed of the sheet-metal blank *k*, (shown in plan view in Fig. 11,) the notches *i i* serving to form the required perforations *e e* to receive the attaching-prongs upon the folding together of the arms *j j*, as shown in Figs. 12
70 and 13.

I claim as my invention—

1. In a billiard-cue tip the combination of the recessed leather tip and the ferrule provided at its end with the hollow perforated
75 cap extending into the recess of the leather tip, with the spreading prongs held within the hollow cap of the ferrule, and extending through the perforations of the cap outwardly into the leather tip, substantially as described.
80

2. In a billiard-cue tip the combination of the recessed leather tip and the hollow perforated cap, extending into the recess of the said tip, and provided at its base with the holding-flange, with the spreading prongs held
85 within the hollow cap, and extending through the perforations of the cap outwardly into the leather tip, substantially as described.

EDWIN L. ROBINSON.

Witnesses:

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