

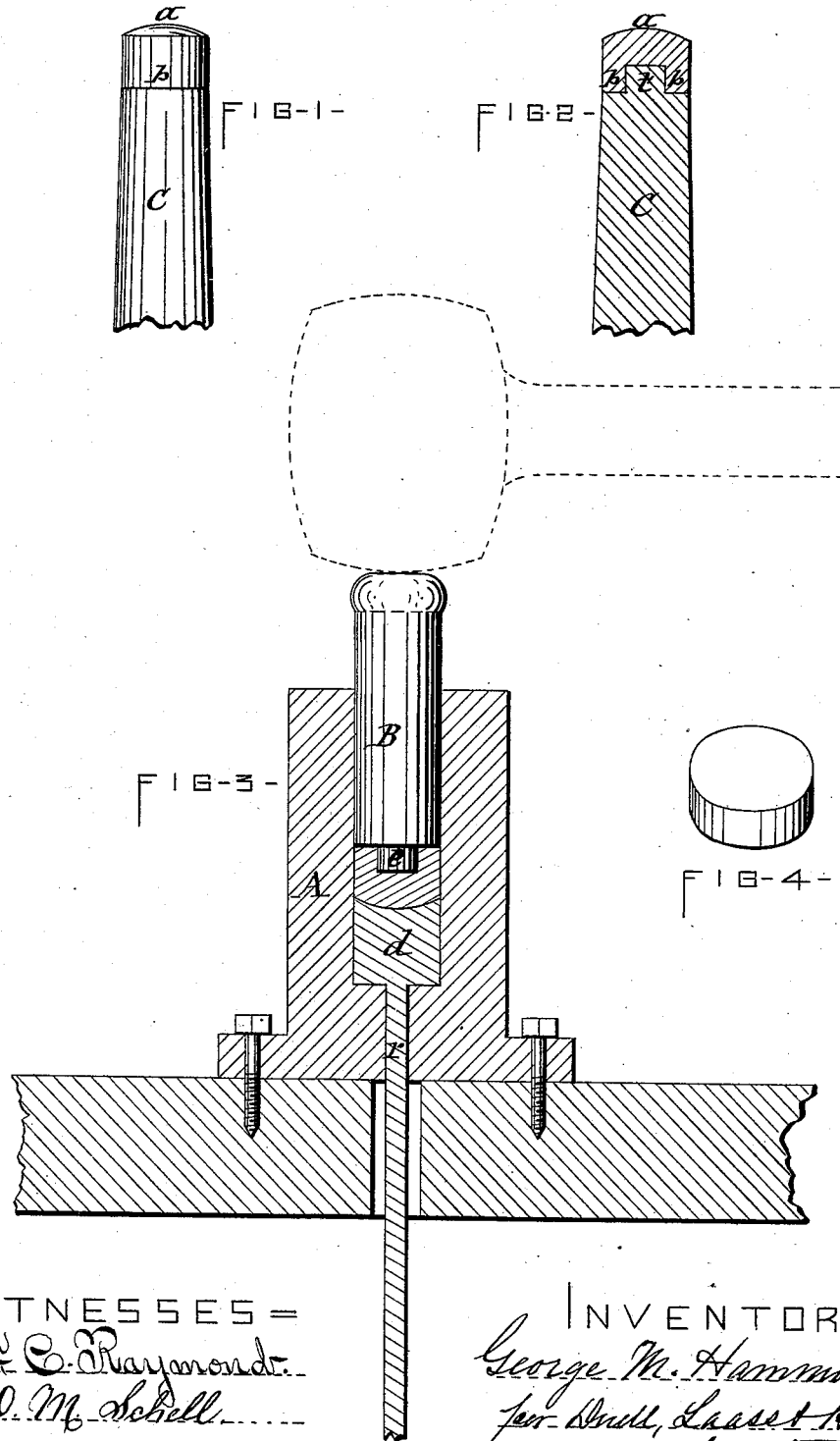
(No Model.)

G. M. HAMMOND.

BILLIARD CUE TIP.

No. 261,448.

Patented July 18, 1882.



WITNESSES =
C. Raymond.
D. M. Schell.

INVENTOR =
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his Atty

UNITED STATES PATENT OFFICE.

GEORGE M. HAMMOND, OF GEDDES, ASSIGNOR OF ONE-HALF TO T. WILLIAM MEACHEM, OF ONONDAGA VALLEY, NEW YORK.

BILLIARD-CUE TIP.

SPECIFICATION forming part of Letters Patent No. 261,448, dated July 18, 1882.

Application filed March 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. HAMMOND, of Geddes, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Billiard-Cue Tips, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to provide a billiard-cue tip which shall be simple and comparatively inexpensive in construction, readily and firmly secured to the cue, and more durable than other cue-tips hitherto used.

The invention consists essentially in making the tip proper integral or in one piece with a leather ferrule, which constitutes the sole means of attaching the tip to the cue, as hereinafter more fully explained, and set forth in the claim.

In the annexed drawings, Figure 1 is a side view of the tip end of a cue provided with my invention. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a vertical section of the tool adapted for forming my improved billiard-cue tip, and illustrating the *modus operandi* of the same; and Fig. 4 is a perspective view of a block or disk of leather or other suitable material from which the cue-tip is formed.

Similar letters of reference indicate corresponding parts.

a represents the tip proper, usually formed of leather, and having a convexed and buffed face by which it strikes the ball to be played. This main part *a* of the tip is provided with a tubular base, *b*, in the form of a leather ferrule, which is integral with or formed in one piece with the part *a*, the device thus consisting simply of a thimble-shaped single and solid block of leather or other suitable material. The cue *C*, to which said tip is to be applied, is to be provided with a tenon, *t*, on its end, as shown in Fig. 2 of the drawings, and the tip is secured thereon by applying to the tenon *t* and to the shoulder, at the base thereof, a thin coat of glue or cement and slipping the thimble-shaped tip onto the same, as shown.

If desired, the tenon and the interior of the

thimble-shaped tip may be screw-threaded, so as to allow the latter to be screwed onto the former.

The described billiard-cue tip I form of a block or disk of leather of the proper size and shape, as illustrated in Fig. 4 of the drawings, which block I introduce into a stout metallic cylinder, *A*, the bore of which is of the size of the diameter of a billiard-cue tip, as shown in Fig. 3 of the drawings. In the bottom of the interior of the cylinder *A* is seated a die, *d*, the top of which is concaved to correspond with the convexity required on the end of the cue-tip. This die *d* is adapted to slide the length of the cylinder, and is provided with a pendent push-rod, *r*, which protrudes through the bottom of the cylinder *A*, and by means of which rod the die *d* can be forced upward to the top of the cylinder. After the leather block from which the tip is to be formed is inserted in the cylinder *A* a plunger, *B*, is introduced in said cylinder, which plunger has in the center of its under side a tenon, *e*, of the size of the tenon *t* on the end of the cue. Then by applying on the outer end of the plunger *B* the requisite blow or pressure to embed the tenon of the plunger in the leather block and effectually compress the leather around said tenon, said leather block is converted into a hard and compact thimble-shaped billiard-cue tip, as shown in Figs. 1 and 2 of the drawings, the tip being forced out of the forming-cylinder *A* by means of the push-rod *r*.

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

In combination with a billiard-cue provided with the tenon *t*, the tip proper, *a*, and leather ferrule *b*, formed in one piece of leather, substantially as shown and described.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 7th day of March, 1882.

GEORGE M. HAMMOND. [L. S.]

Witnesses:

SAMUEL C. HAMMOND,
ALVAH SWEETLAND.