

(No Model.)

H. A. HARMER.
BILLIARD CUE TIP FASTENER.

No. 334,861.

Patented Jan. 26, 1886.

Fig. 1.

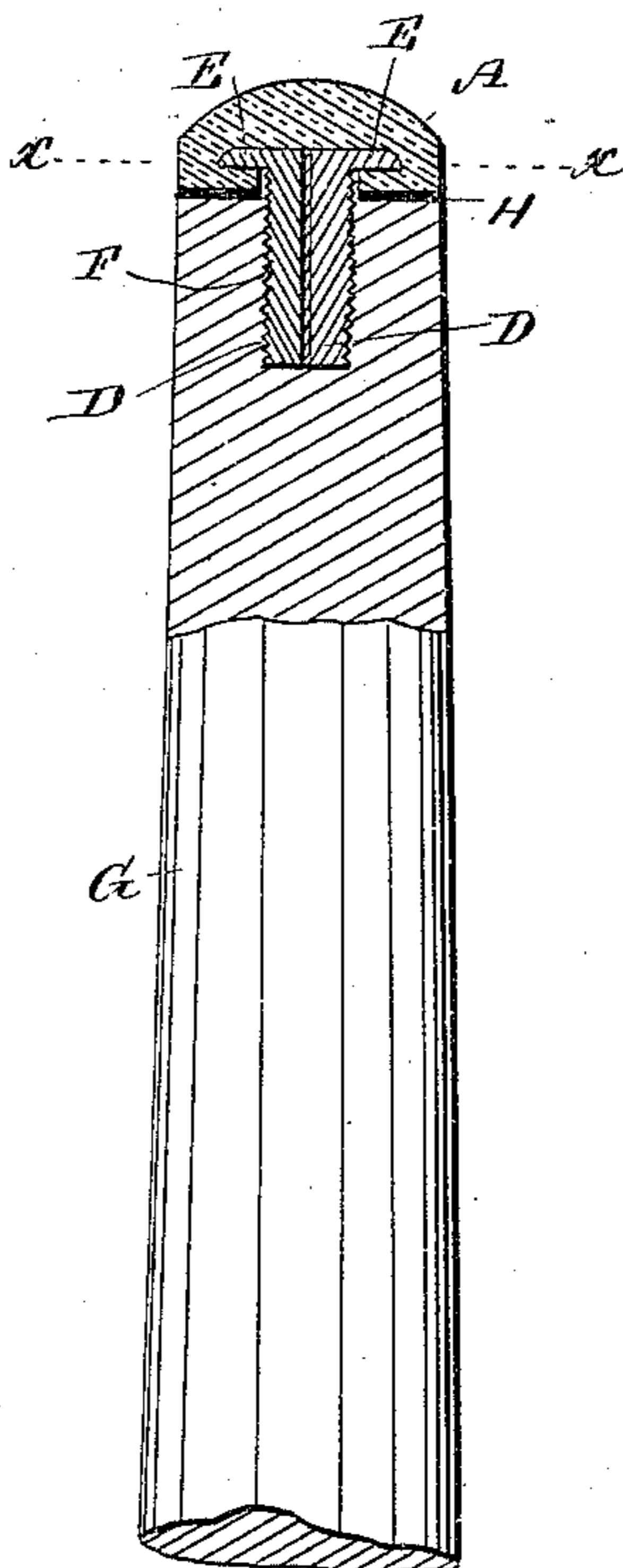


Fig. 2.

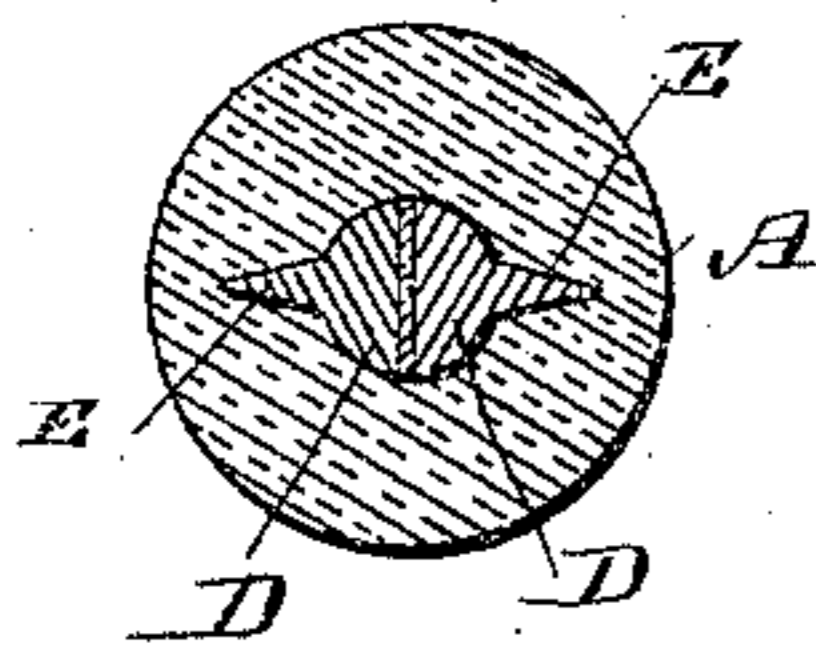


Fig. 3.

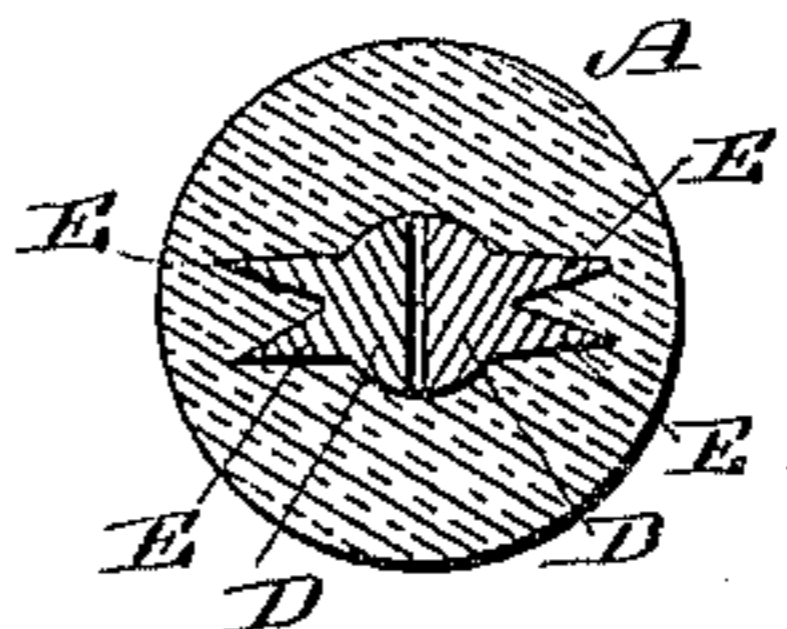


Fig. 4.

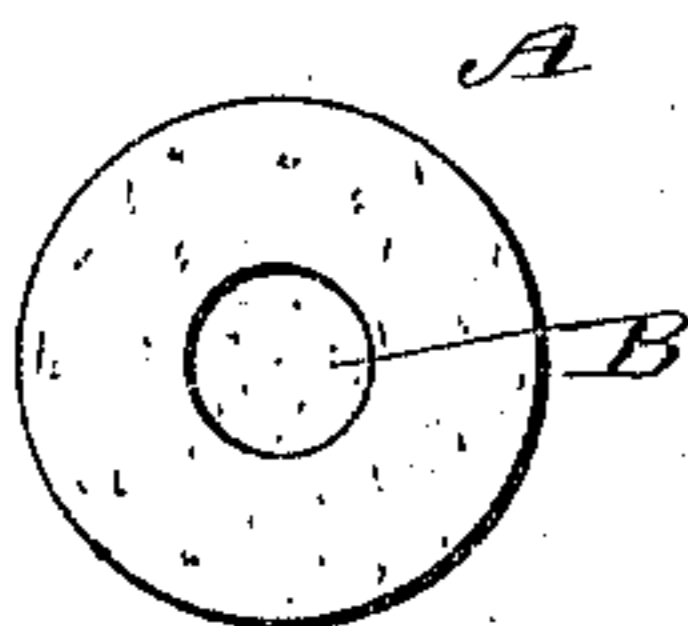


Fig. 5.

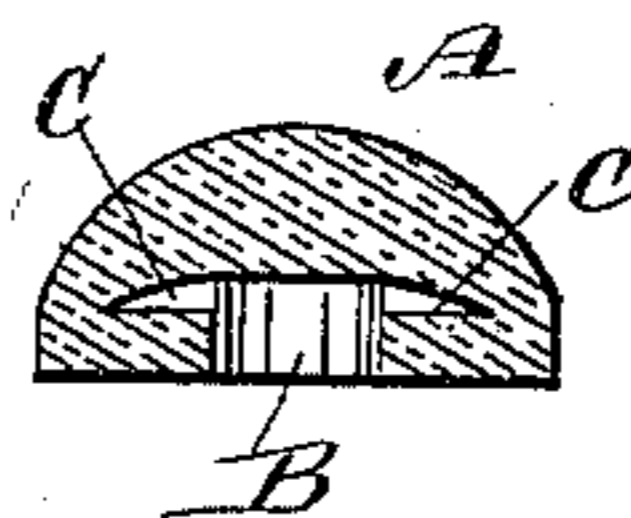
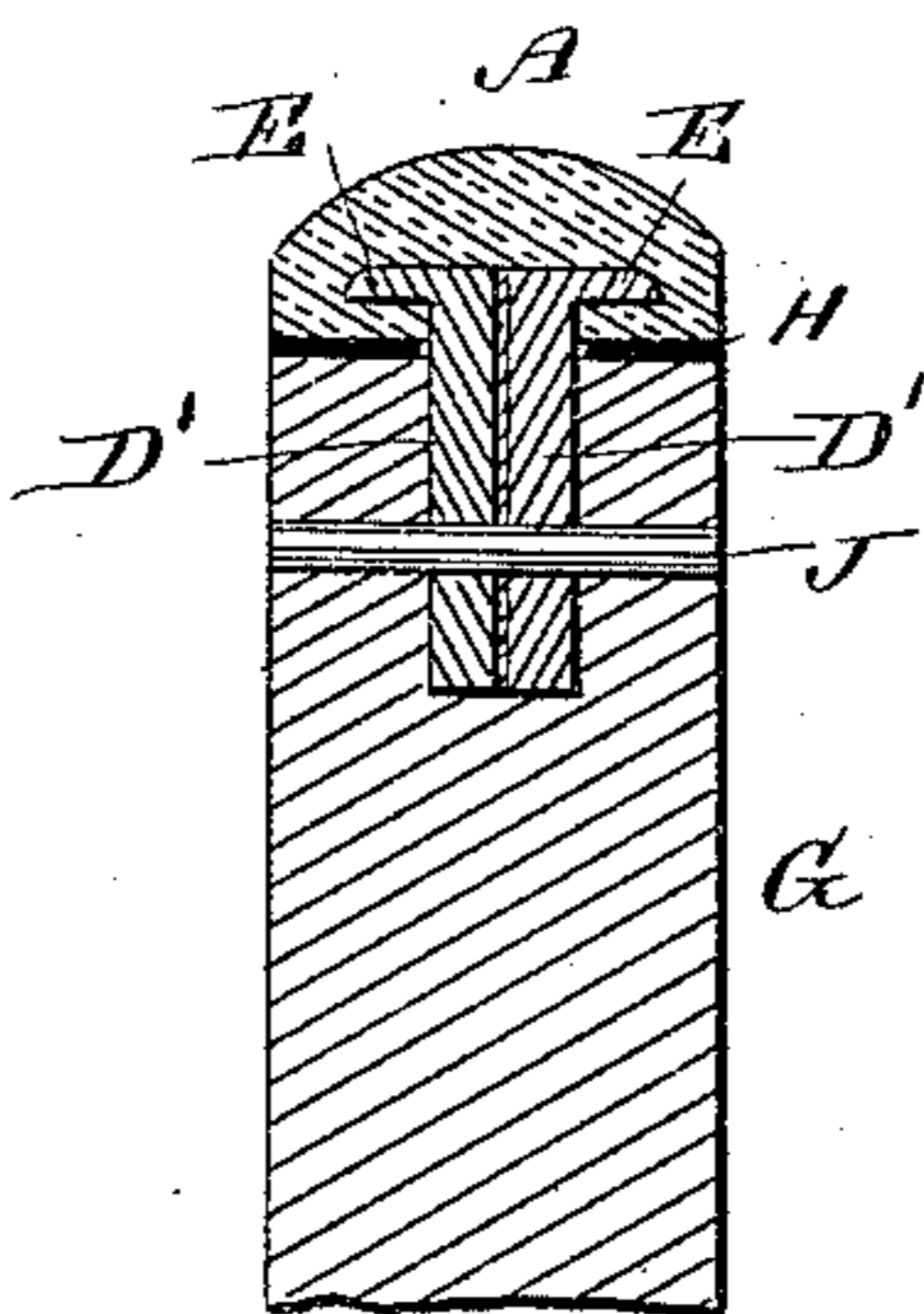


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY A. HARMER, OF EAST NEWARK, ASSIGNOR TO HIMSELF, AND JOHN GEARY AND CHARLES H. PRICE, BOTH OF NEWARK, NEW JERSEY.

BILLIARD-CUE-TIP FASTENER.

SPECIFICATION forming part of Letters Patent No. 334,861, dated January 26, 1886.

Application filed March 5, 1885. Serial No. 158,259. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. HARMER, of East Newark, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Billiard-Cue-Tip Fasteners, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved fastener for holding the tips firmly and securely on the ends of billiard-cues.

The invention consists in the combination, with a cue-tip, of two half screws or pins having prongs passed into the tip, the half pins or screws being secured in the end of the cue, and thus holding the tip on the end of the cue.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 shows part of a billiard-cue having its tip secured by means of my improved fastener, parts being in section. Fig. 2 is a sectional plan view of the same on the line x , Fig. 1, Fig. 3 is a sectional plan view of a modification. Fig. 4 is a plan view of the under side of the tip. Fig. 5 is a cross-sectional view of the same. Fig. 6 is a cross-sectional view of the end, showing a modified method of holding the fastening device on the cue.

The cue-tip A is provided with a circular aperture, B, extending upward from the bottom at the middle, and from the said aperture recesses C extend toward the edges. Two half screws, D, are each provided at the upper ends with one or two prongs, E, projecting from the threaded face. The prong or prongs E of one half-screw are passed into the recesses C, and then the prongs E of the other half-screw are forced into the other recesses, and the straight adjacent surfaces of the half-screws are soldered together to form a screw,

which is screwed into a screw-aperture, F, in the end of the cue G, whereby the tip is held securely on the cue. A rubber or leather ring, H, is placed between the end of the cue and the under side of the tip, and is cemented to both by means of rubber cement, thus assisting in holding the tip on the end of the cue.

In place of providing the half-screws, two half-pins, D', may be used, as shown in Fig. 6, and held in place on the cue by means of a pin, J, passed through the half-pins and the cue.

I am aware that a billiard-cue-tip fastener has been formed of the headed bolt fitted in the end of a cue-tip and having a screw-threaded portion passing through a nut fixed in the cue; also that the end of a cue has been provided with an internally-threaded socket, with which screw-threads the threaded portions of two half-screws engaged. The outer ends of these half-screws were recessed to receive and clamp the tip; and I do not claim such constructions as of my invention.

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

1. The combination, with the cue G, of the tip A, having an aperture, B, and recesses C, and a longitudinally-divided holder having a prong on the upper end of each section thereof and constructed to enter the recesses C, substantially as set forth.

2. The combination, with the cue G, of the tip A, having recesses, and the longitudinally-divided holder, the sections of which are soldered together and each provided at its upper end with a prong engaging the recesses in the tip, substantially as and for the purpose set forth.

HENRY A. HARMER.

Witnesses:

W. E. MOORE,
E. P. JOHNSON.