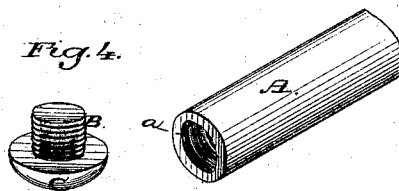
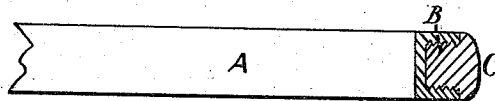
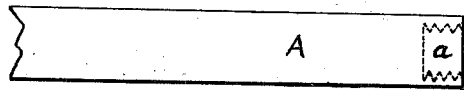


W. HILL.
BILLIARD-CUE.

No. 192,044.

Patented June 12, 1877.



Witnesses:
H. E. Metcalf,
Franklin J. Rollins.

Inventor:
Warren Hill,
By C. A. Shaw,
Atty.

UNITED STATES PATENT OFFICE.

WARREN HILL, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BILLIARD-CUES.

Specification forming part of Letters Patent No. **192,044**, dated June 12, 1877; application filed August 8, 1874.

To all whom it may concern:

Be it known that I, WARREN HILL, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Billiard-Cues, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view of the tip; Fig. 2, a view of the cue with tip removed; and Fig. 3, a sectional view of the cue with the tip inserted.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates more especially to that class of billiard-cues which have adjustable or changeable tips; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more perfect article of this character is produced than is now in common use.

It is well known to all billiard-players that ordinary leathern tips are very liable to become accidentally detached or broken from the cues in playing, frequently causing annoying and expensive delays in making repairs.

I am aware that tips have been used which could be attached to the cue, as occasion required, without being glued on in the usual manner, and I do not, therefore, claim the same

broadly; but great difficulty has heretofore been experienced in maintaining the proper elasticity of the tip in cues of that character.

My invention is designed to obviate the difficulties and objections which exist in this respect, and to that end I make use of a tip composed entirely of leather, and provided with a leathern shank or projection, exteriorly threaded for screwing into a correspondingly-threaded socket in the end of the cue.

In the drawing, A is the cue, C the tip, B the threaded shank or projection forming a part of the tip, and *a* the threaded socket in the end of the cue. The tip and its stud or shank are homogeneous, being composed entirely of one piece of leather, or of pieces of leather cemented together in such a manner as to be substantially inseparable.

By this form of construction it will be seen that a tip may be attached or detached with the greatest facility, the proper elasticity being at the same time secured to produce the best results.

Having thus described my invention, what I claim is—

The cue-tip C, provided with the threaded shank B, the tip and its shank being composed of leather in one piece, in combination with the threaded socket *a* for attaching the tip, substantially as specified.

WARREN HILL.

Witnesses:

H. E. METCALF,
C. A. SHAW.