C. COAN & A. R. BURDICK. Improvement in Billiard Cues. Patented Oct. 8, 1872. No. 132,054. Experis Coron Experis Coron Externis Ro Burdick

## United States Patent Office.

CYRUS COAN, OF CHICAGO, ILLINOIS, AND ALVIN\_R. BURDICK, OF RACINE, WISCONSIN.

## IMPROVEMENT IN BILLIARD-CUES.

Specification forming part of Letters Patent No. 132,054, dated October 8, 1872.

To all whom it may concern:

Be it known that we, Cyrus Coan, of Chicago, in the county of Cook and State of Illinois, and Alvin R. Burdick, of Racine, in the county of Racine and State of Wisconsin, have invented an Improved Billiard-Cue, of which the following is a specification:

The nature of the present invention consists in forming the cue of two or more pieces of material, put together so that the grain of the wood shall run from the periphery to an open center running the length of the cue; and tipping the cue with ivory, or similar material, first, to hold the several parts of wood together; second, to form a smooth neat finish at the point of contact with the leather tip, so that said leather will have always a suitable surface to fasten to, and so that the end of the cue cannot become slivery by use and wear the cloth of the table, as the whole is hereinafter fully shown and described.

In the drawing, Figure 1 is longitudinal elevation of our improved cue; Fig. 2, a longitudinal section of the same; Fig. 3, a transverse section thereof.

A represents the wooden part of the cue, which is composed of four sections of wood, D D D D, cut in such form that the grain of the wood will run from the periphery inwardly, as shown in Fig. 3. The pieces D have their inner angles cut off so as to form a square opening running the length of wood, by means of which the cue is both light and strong; and for all practical purposes it will remain straight and give the same force of

blow to the ball when held one side up as well as when held in any other position, there being, practically, no more spring in one direction than in another; hence great accuracy is attained by the use of this cue over those made in different forms. The opening through the cue allows air to come in contact with the inner portion of the wood, so that it swells and shrinks evenly, not injuring the gluejoints. To secure a smooth-ended cue, an ivory tip, B, or a tip of other suitable material, is fastened to the small end, holding the several parts D at that point firmly together, while at the same time a suitable foundation is provided to receive the leather tip C.

The cues to supply the trade are all to be made of one pattern, so that a person using any of our cues can always depend on driving balls to reach his chosen angles.

Having thus described our invention, what we claim, and desire to secure by Letters Patent is—

1. A billiard-cue, formed of the sections D D D, and provided with an open center, as and for the purpose set forth.

2. The billiard-cue A, formed of pieces D D D, provided with an open center, and provided with an ivory tip, B, substantially as described and shown.

CYRUS COAN. ALVIN R. BURDICK.

Witnesses:

G. L. CHAPIN, ELIZA J. CHAPIN.