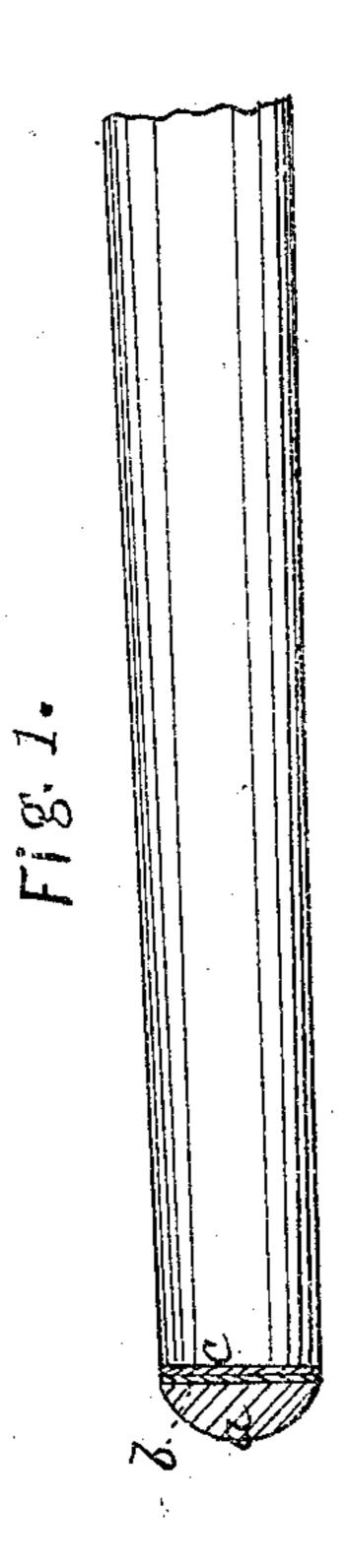
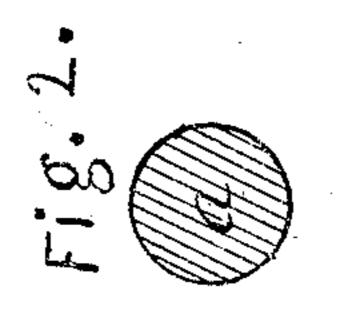
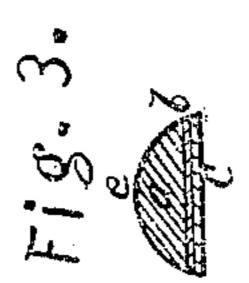
## H. M. Collender. Billiard Cue.

1622,491-

Patented Jan. 4.1859.







Witnesses:

T.C.O. Comor

inventor:

A. W. Collender

## UNITED STATES PATENT OFFICE.

H. W. COLLENDER, OF NEW YORK, N. Y.

Specification of Letters Patent No. 22,491, dated January 4, 1859.

To all whom it may concern:

Be it known that I, H. W. Collender, of the city, county, and State of New York, have invented a new and useful article of 5 manufacture—to wit, Self-Fastening Billiard-Cue Tips; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part 10 of this specification, in which—

Figure 1, is an elevation of a billiard-cue with one of my self fastening tips. Fig. 2, is an end view of the cue showing the cue tip. Fig. 3, is a section of the cue tip.

Similar letters of reference, in each of the several figures indicate corresponding parts. The nature of my invention consists in a

new article of manufacture, to wit; billiard cue tips or cue leather with their flat surface 20 coated with soluble gum or cement so that by the application of moisture they can always and immediately, be applied to the end of the cue in a permanent manner. This new manufacture avoids the trouble and expense experienced in the one method of attaching cue tips by screws, also the great inconvenience and annoyance of the other method of attaching by glue which has to be heated whenever it is necessary to attach 30 the cue tips or leathers.

In carrying out my invention, I prepare the cue tips in the ordinary manner, which is to firmly unite two leathers a, b, one stiffer and stronger than the other. The stiff compact leather is very thin while the light porous leather is quite thick, comparatively. The leather thus prepared is cut into cue tips of the usual shape. The flat surface of the cue tips is made square with the end of the cue, by rubbing the tips on a flat file or sand paper. Thus dressing the tips causes

the leather to be slightly roughened and thus prepares a foundation which insures a perfect adhesion of the soluble cement which I use for rendering the cue tip or cue leather 15

self fastening.

Any adhesive soluble cement may be used for coating the cue tips, but that which I find in practice to answer well for this purpose is made by mixing gum-arabic, gelatin 50 and isinglass, and dissolving the same. The proportions are as follows; 2 oz. gum-arabic to 2 oz. of gelatin and 2 oz. of isinglass.

The cement is applied to the cue tips or leathers with a small brush, or otherwise, in 55 a layer about as thick as represented at c, in the drawing, or in a layer sufficiently thick to insure its adhesion to the end of the cue when brought in contact with the same.

To apply the cue tips to the cue, after pur- 60 chasing them from the manufacturer, all that has to be done is to moisten the gum with the mouth or soften it with steam or hot water.

The utility of my new article of manu- 65 facture is considerable when we consider how rapidly cue tips wear out, resulting from the friction they encounter by contact with the billiard balls, and how often, consequently, they require to be removed in order 70 to apply new ones.

What I claim as my invention and desire to secure by Letters Patent, is—

The new article of manufacture herein named, to wit; a cue leather or cue tip coated 75 on its flat surface with a soluble gum or cement as described for the purpose set forth.

H. W. COLLENDER.

Witnesses:

PETER GAUGHRAN, T. C. O'CONNOR.