H. W. Collender.

Billiard Table Cushions.

No 19,074. Patented Jan. 12. 1858.

Fig. 1.

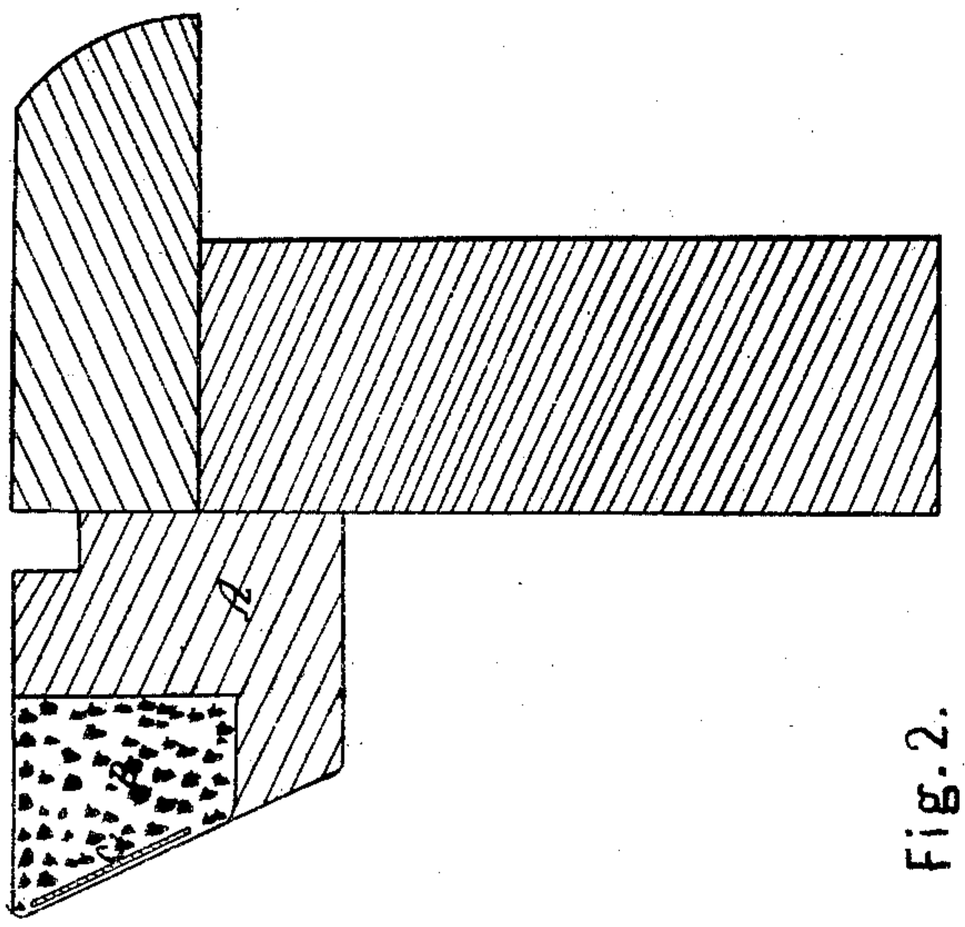


Fig. 2.

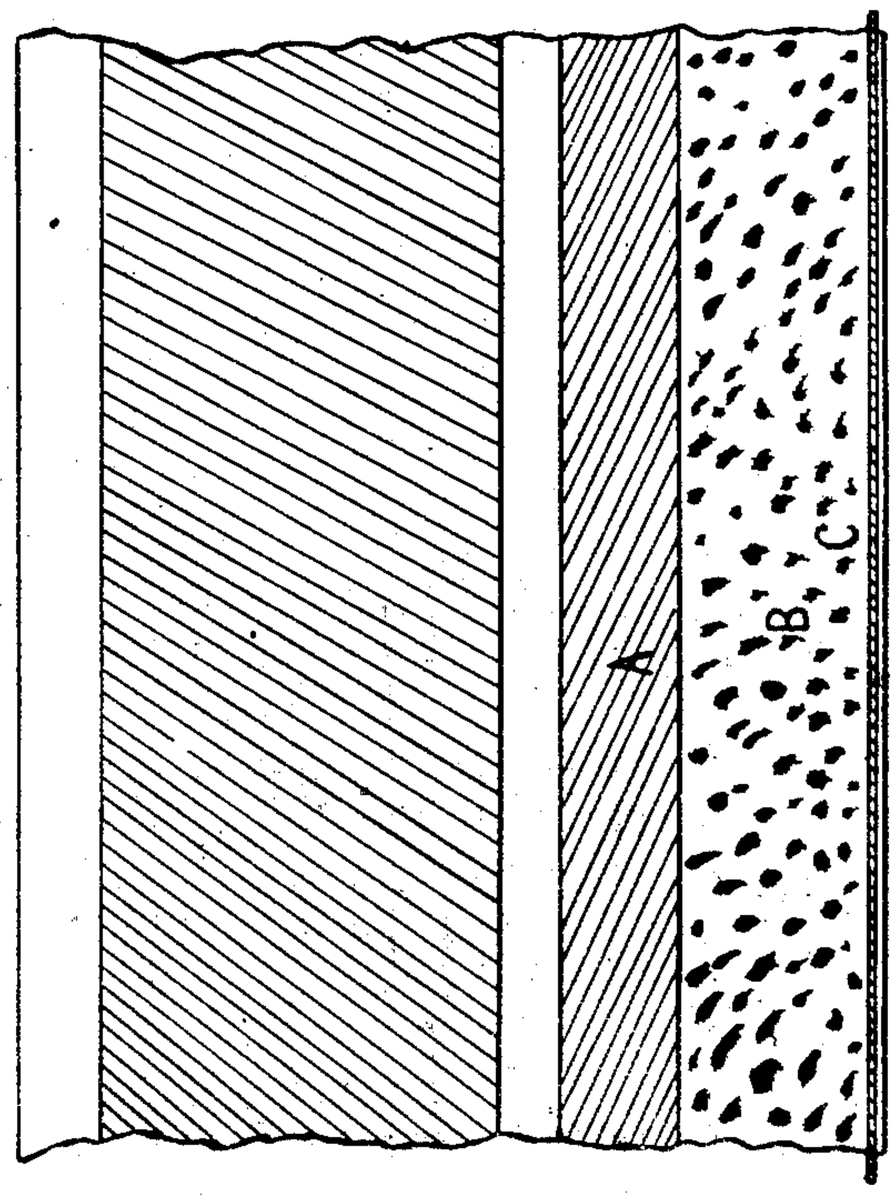


Fig. 3.

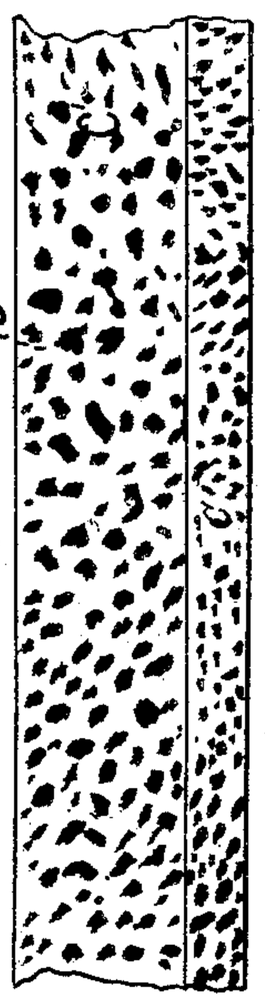


Fig. 4.

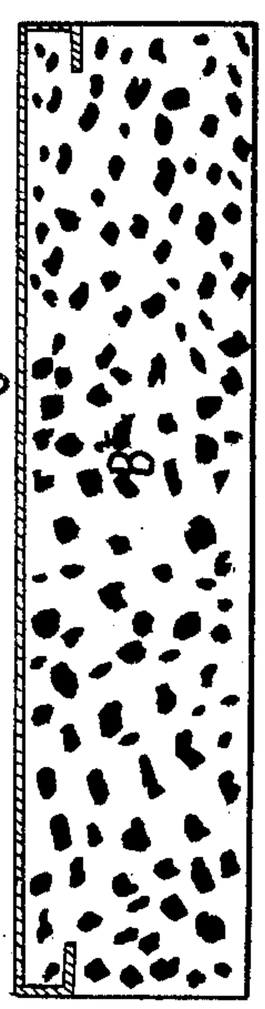
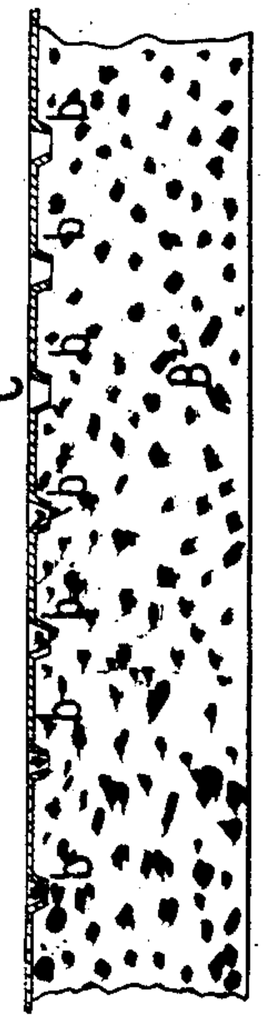


Fig. 5.



UNITED STATES PATENT OFFICE.

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

CUSHION FOR BILLIARD-TABLES.

Specification forming part of Letters Patent No. 19,074, dated January 12, 1858; Reissued March 19, 1867, No. 2,511.

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 Improvement in Uniting Comparatively Hard Substances to Elastic Foundations of Billiard-Cushions; 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 part of this specification, in which—

Figure 1, is a transverse section of a billiard cushion constructed after my invention. Fig. 2, is a horizontal section of the same. Figs. 3, 4 and 5, represent several methods of uniting different comparatively hard substances to billiard cushions after my mode.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists in uniting the comparatively solid substances, which are employed at or near the front part of the billiard cushions, with the elastic foundation of said cushions by placing the comparatively solid substances in a mold, and allowing the melted rubber to flow against or around the same so that it shall surround the edges, back and end of the same, and thus securely confine it or causing plastic rubber by pressure or fluid rubber by flowing to simply come in contact with the back of the comparatively solid substance, and adhere to it by reason of said substance containing within itself a similar adhesive property to the rubber forming the foundation, or so that it shall adhere to the same by reason of its adhesive nature and of holdfasts or projections being formed on the back side or ends of the said hard substances.

This invention enables me to dispense with cement, nails, hinges or any cloth covering to retain the comparatively hard substances in proper position on the elastic foundation. It also enables me to overcome the disagreeable bang heard when the ball comes in contact with a steel strip fastened at its lower or upper edge. It likewise enables me, without trouble of cementing, to face the front of the steel with a transparent facing of rubber which will deaden the sound of the steel strip, and "grip" the ball sufficiently to give greater effect to "twisting shots" and also prevent the ball sliding off at an imperfect angle instead of a proper angle when played at a very obtuse angle against the cushion. And beside all these advantages of effect, it enables the manufacturer to save a great deal of time, labor and expense in adjusting and securing the harder substances to the softer ones; and of furnishing a cushion, which, by being properly colored and finished after any of the processes known in rubber manufacture, can be used without any woolen or cloth covering.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, Figs. 1 and 2, represents the cushion seat of a billiard table of usual construction. B, the elastic block of rubber forming the foundation of the cushion.

C, is a steel strip with the rubber molded around it completely after my mode; to wit; by placing the steel strip properly in a mold, and allowing the fluid rubber to flow around it. It is essential when the cushion is thus constructed that the rubber which covers the face of the steel strip should be nearly transparent, or so thin that the ball shall not have a chance to embed itself to an extent which will prevent its performing proper angles to fulfill the requirements of the game.

B′, in Fig. 3, represents the elastic block of rubber, and C′ a strip of rubber belting or other rubber of greater density, and less elasticity than the rubber block B. To thus form a cushion entirely of rubber, the belting or denser and less elastic rubber facing has to be placed in the mold, and the plastic rubber by pressure caused to unite with it or the elastic rubber allowed to flow against it so that the two shall unite by reason of similar adhesive properties common to both.

B^2, Figs. 4 and 5, represent an elastic block of rubber, and C^2, a steel strip on the extreme front face of the block.

To produce a cushion of this character, the strip is bent as shown in Fig. 4, or stamped out as in Fig. 5, so that holdfasts are formed on it. After being thus prepared, it is placed in the mold and the fluid rubber allowed to flow against and around its angles *a*, *a*, or against it and into its perforations *b*, *b*, as in Fig. 5.

It may be obvious that after the rubber has flowed into the perforations *b*, that owing to their conical form it will be impossible for the strip to come off. It may also be

seen that the face of the strip at the perforations, will be regular, owing to the perforations being filled in with rubber.

I have only described several applications of my mode of uniting the harder substances to the softer, not because I claim these several ways of employing it, but to show the advantages resulting from my invention.

I do not claim in this application the use of two rubbers of different densities as this is covered by a former patent of mine. Nor do I claim a steel strip, a whalebone strip or any other substances which are used with a view of producing a cushion which has an elastic foundation and a comparatively solid face, but

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

Uniting the parts employed in forming combination billiard cushions, by placing the harder, or more dense and less elastic substances in a mold, and allowing the melted rubber to flow against, around or into the harder or more dense and less elastic substances, or causing the plastic rubber by pressure to unite with the same, substantially as and for the purposes set forth.

H. W. COLLENDER.

Witnesses:
MICHL. PHELAN,
JOSEPH N. WHITE.

[FIRST PRINTED 1911.]