

(No Model.)

H. W. COLLENDER.  
BILLIARD TABLE CUSHION.

No. 275,592.

Patented Apr. 10, 1883.

Fig. 1.

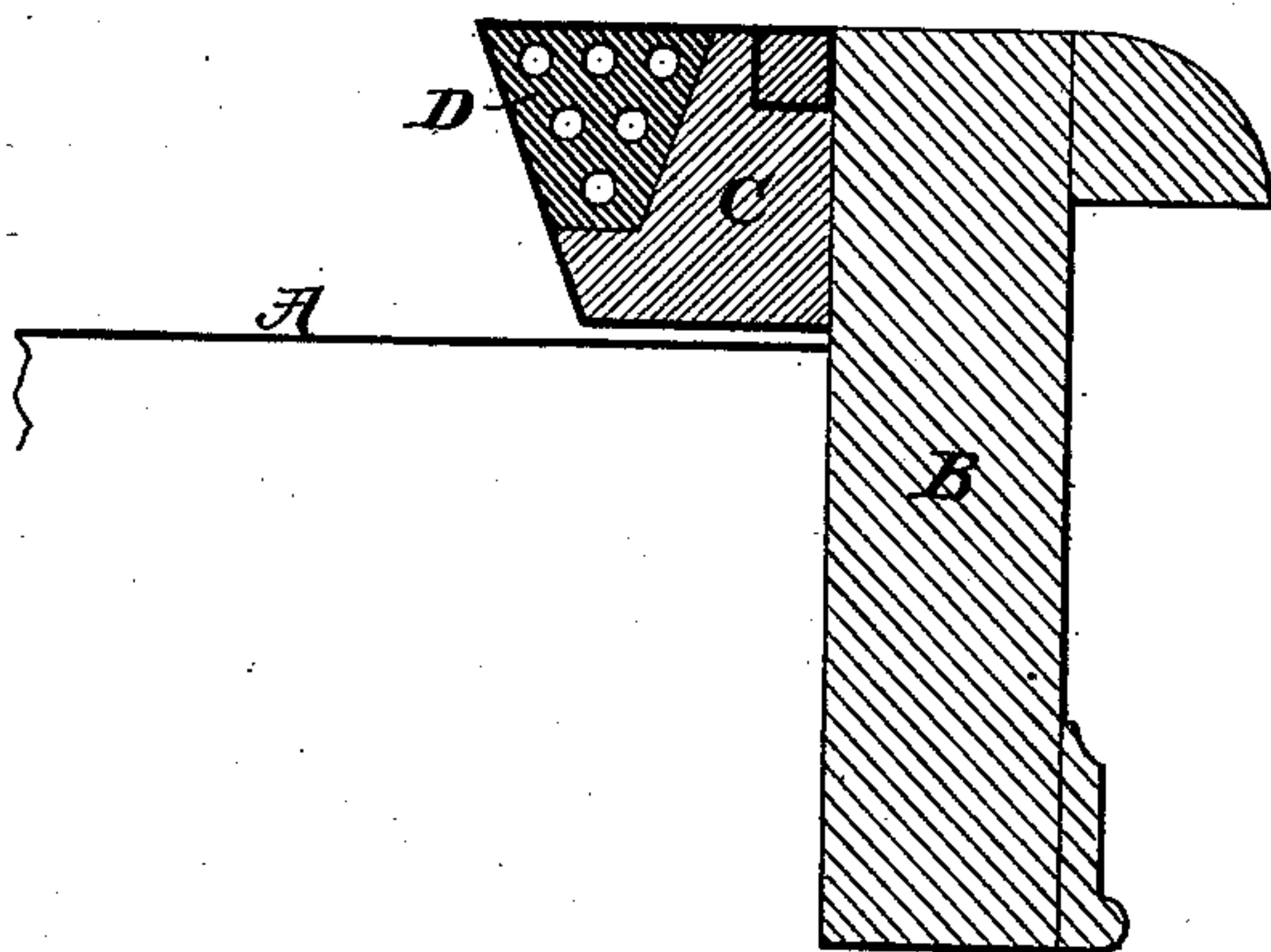


Fig. 5.

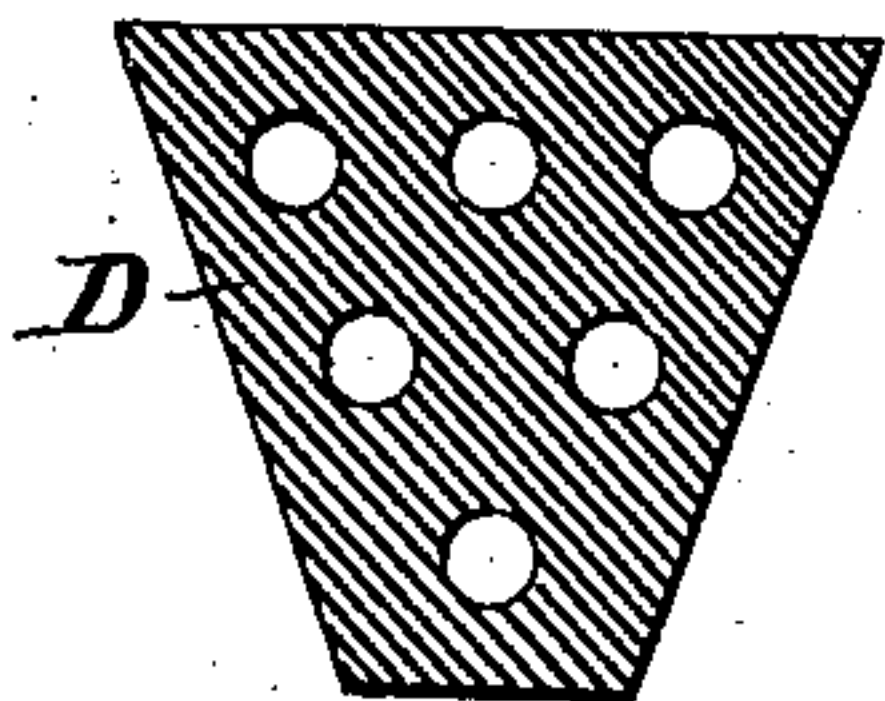


Fig. 3.

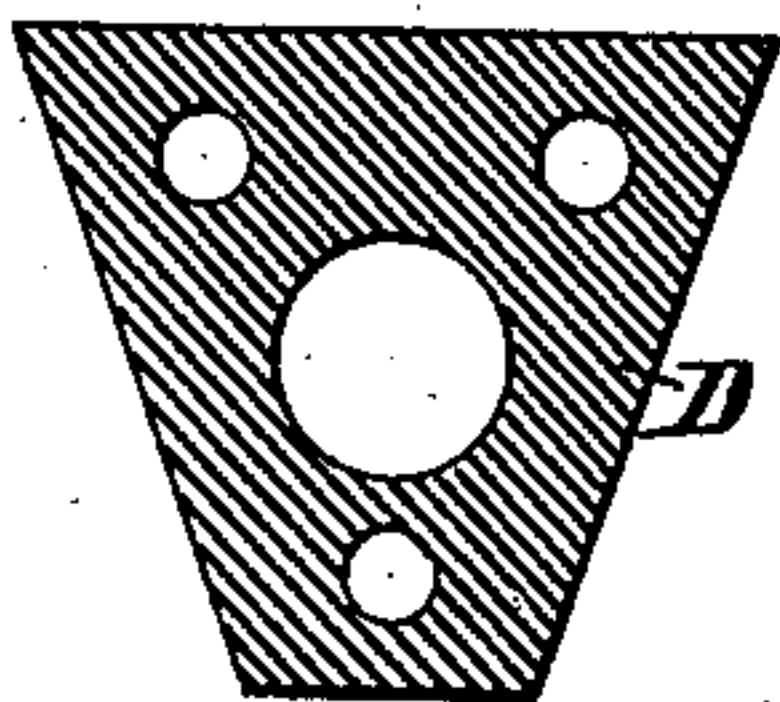


Fig. 4.

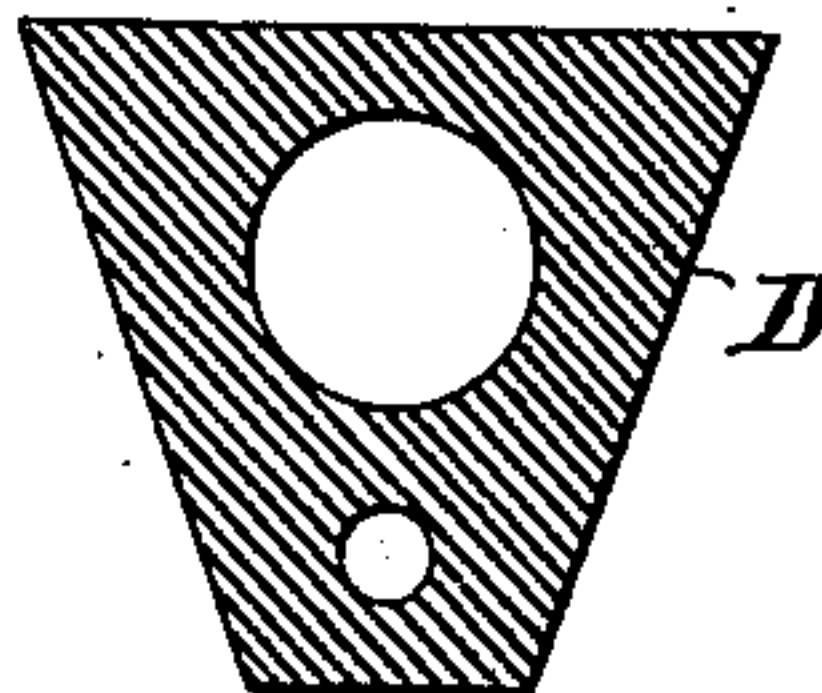
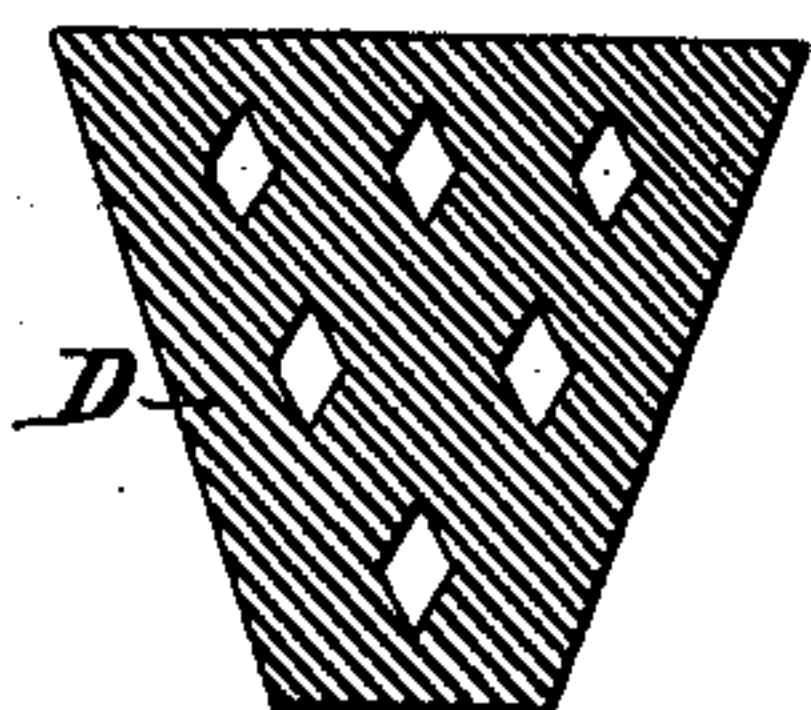


Fig. 2.



Attest:

*Geo. H. Graham*

*Jacob Felbel*

Inventor,

*H. W. Colender*

By.

*J. N. Mc Intire*

*Atty.*



# UNITED STATES PATENT OFFICE.

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

## BILLIARD-TABLE CUSHION.

SPECIFICATION forming part of Letters Patent No. 275,592, dated April 10, 1883.

Application filed December 29, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HUGH W. COLLENDER, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Billiard-Table Cushions; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to an improvement in billiard cushion-strips such as are usually made of vulcanized rubber, and has for its main object to render the cushion-strip highly elastic, without any impairment of its qualities of durability, and a capacity to deflect the billiard-ball correctly.

Previous to my invention rubber billiard cushion-strips have been molded in a solid mass, either with or without some face-hardening material incorporated within the molded mass or applied exteriorly to the face of the strip, except in a few instances where such cushion-strips have been molded with one or more small holes running longitudinally of the strips and having placed therein one or more metallic wires or strips to act in conjunction with the rubber mass. It is necessary, in order to get the proper resisting capacity to the impact of the ball, and also to render the cushion-strip capable of repelling or throwing off with sufficient force the ball with which it is struck, to have such cushion-strips sufficiently heavy or large in cross-section to answer these purposes; and as these functions of the cushion-strip are performed mostly by the upper portion of its body it has been found necessary to have the upper part of the cushion-strip thicker than the lower part; and hence such cushion-strips are usually made of a shape in cross-section which is nearly or quite triangular, and, when used, are placed on the cushion-rail with the pointed portion or smallest thickness of the body downward. Now I have found that not only is it unnecessary to have such body portion of the cushion composed of a solid mass of rubber, but that if the strip of rubber be cast or molded with one or more longitudinal holes or cavities it will have an improved mode of operation over a solid strip of the same size, and as a strip of a given size in cross-section, when cast or molded with one or more longitudinal holes or cavities, will cost

less to manufacture than a solid strip, it follows that by making a cushion-strip with such holes or cavities not only is a more desirable device provided, but also one that will cost less to manufacture. My invention consists in a billiard cushion-strip having one or more longitudinal holes or perforations in it, as will be hereinafter more fully set forth.

To enable those skilled in the art to which my invention relates to make and use the same, I will now proceed to more fully explain it, referring by letters to the accompanying drawings, forming part of this specification, and in which I have illustrated (applied to the ordinary cushion-rail) a billiard cushion-strip made according to my improved plan, and have also illustrated several modifications of said plan of construction.

Figure 1 is a sectional elevation, showing a portion of the bed and the cushion-rail of a billiard-table provided with a rubber cushion-strip made according to my invention. Fig. 2 is a cross-section, on an enlarged scale, of a cushion-strip involving my invention in a modified form. Fig. 3 is a similar view, showing another modification of my invention. Fig. 4 is a similar view, showing still another modification; and in all these several figures the same part will be found designated by the same letters of reference.

D represents a vulcanized-rubber cushion-strip, applied to the face of the cushion-rail in about the usual manner; and A illustrates the plane or playing surface of the bed of the billiard-table. The cushion-strip D, instead of being made solid, is cast or molded with one or more holes running longitudinally of the strip and parallel to its face. In the strip shown at Fig. 1 there are a series of round holes running the entire length of the strip, arranged with their axes or center lines parallel with each other and with the face of the cushion, all as clearly shown in the drawings. In the strip shown at Fig. 2 the longitudinal holes or perforations are diamond shape, and are somewhat differently arranged or disposed in the body of the strip from what is shown at Fig. 1, while at Fig. 3 is shown a cushion-strip which has round perforations or holes of different sizes, and at Fig. 4 is shown another modification as to the relative sizes and disposition of the perforations of the strip. Fig. 5 is enlarged view of cushion seen



at Fig. 1. In any of the cases shown the operation and effect of the cushion-strip differ from those of strips as heretofore made, in the particular that by reason of having a portion  
5 of the stock omitted where the holes occur, the strip will yield bodily to a greater extent in the vicinity of where it may be struck by the ball, and will act to resume its normal condition more rapidly, and will hence repel the  
10 ball with greater force and rapidity, thus giving to the ball what is called more "legs." In other words, a cushion-strip having its body longitudinally perforated will make a "livelier" cushion than one of the same contour and  
15 extreme size in cross-section, but made in one solid mass.

Of course other modifications may be made of the invention set forth, the gist of which consists in having the cushion-strip longi-  
20 tudinally perforated by one or more holes, of one or another shape, which novel feature of construction should not, however, be confounded with that of a cushion-strip cast or molded with one or more longitudinal perfora-  
25 tions which are designed and adapted to be filled when the cushion shall be completed or made ready for use by the presence of one or more metallic wires or strips of the proper size and shape to fill said longitudinal hole or  
30 holes.

I am aware that prior to my invention billiard cushion-strips have been made with recesses in their rearmost sides, so that when placed against the wooden supporting-rail an  
35 apparent cavity would exist at the rearmost side of the cushion-strip; but my invention should not be confounded with any such construction, which does not in fact contain a cav-

ity or hole molded in the solid cushion-strip or running through the stock composing said  
40 strip.

I am also aware that holes have been formed running longitudinally through cushion-strips, which were of radically-different shape from the modern cushion-strip, such as shown and  
45 described in my application, and I do not therefore wish to be understood as claiming particularly every shape of cushion-strip having any sort of hole or holes arranged in any manner and running longitudinally of the strip; nor  
50 do I wish to be understood as claiming a perforated cushion-strip constructed and arranged so that the aperture running through the cushion-strip shall contain confined air, which has to be compressed to permit the face of the cushion to yield backward, as I am aware that this  
55 principle of construction is not new; but,

Having so fully described my improvement that those skilled in the art can make and use my invention, what I claim as new, and desire  
60 to secure by Letters Patent, is—

A rubber billiard cushion-strip which is substantially triangular in cross-section, and which is cast or molded with one or more open-ended  
65 holes or perforations running longitudinally through the strip and adapted to fit the yielding face of the strip, substantially in a manner and for the purpose hereinbefore specified.

In witness whereof I have hereunto set my hand and affixed my seal this 27th day of December, 1882.

HUGH W. COLLENDER. [L. S.]

In presence of—

M. H. SMITH,

A. M. AUSTIN.