

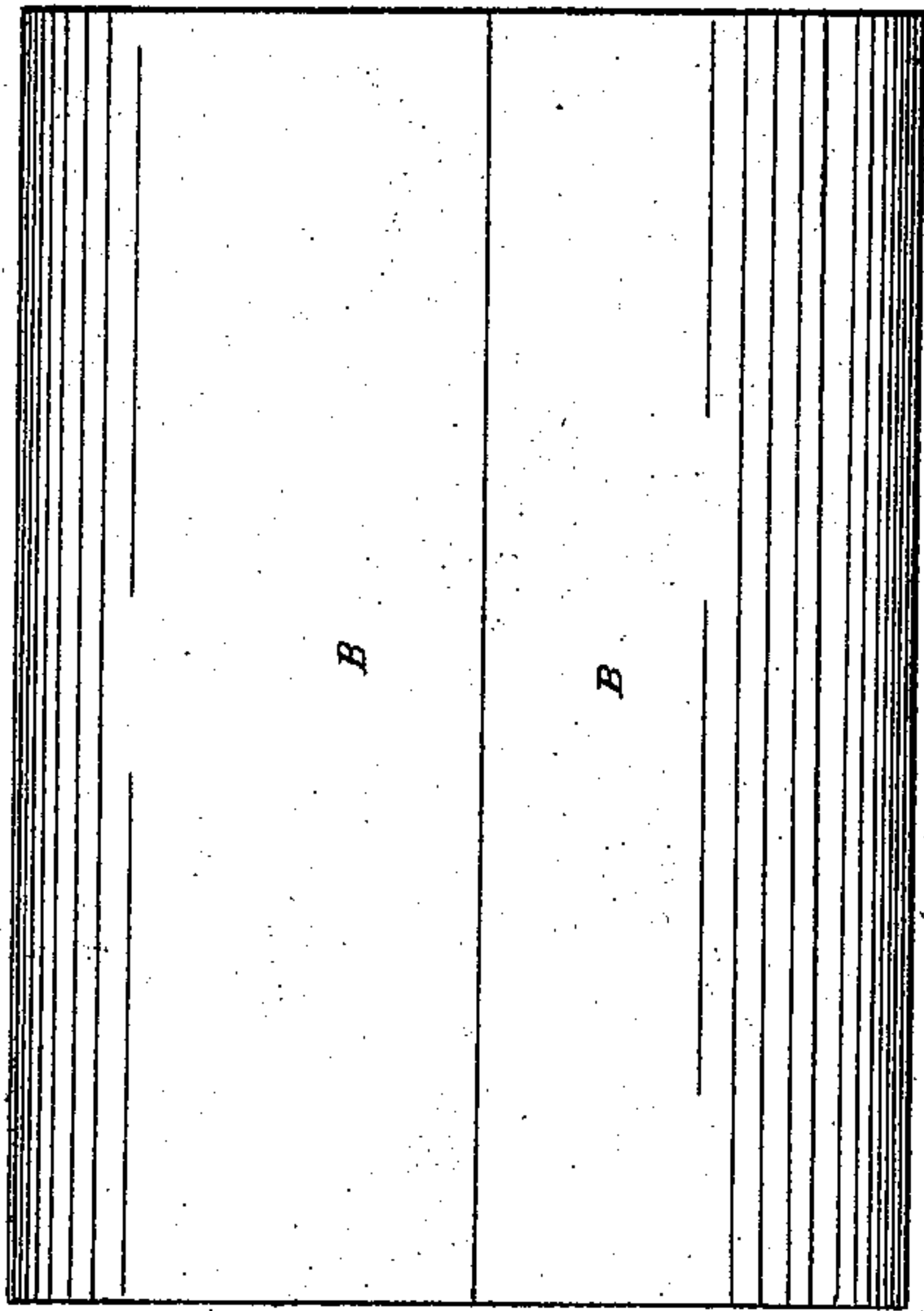
*J. Sycker,*

*Billiard Cushion,*

*N<sup>o</sup> 40,580.*

*Patented Nov. 10, 1863.*

*Fig. 2.*



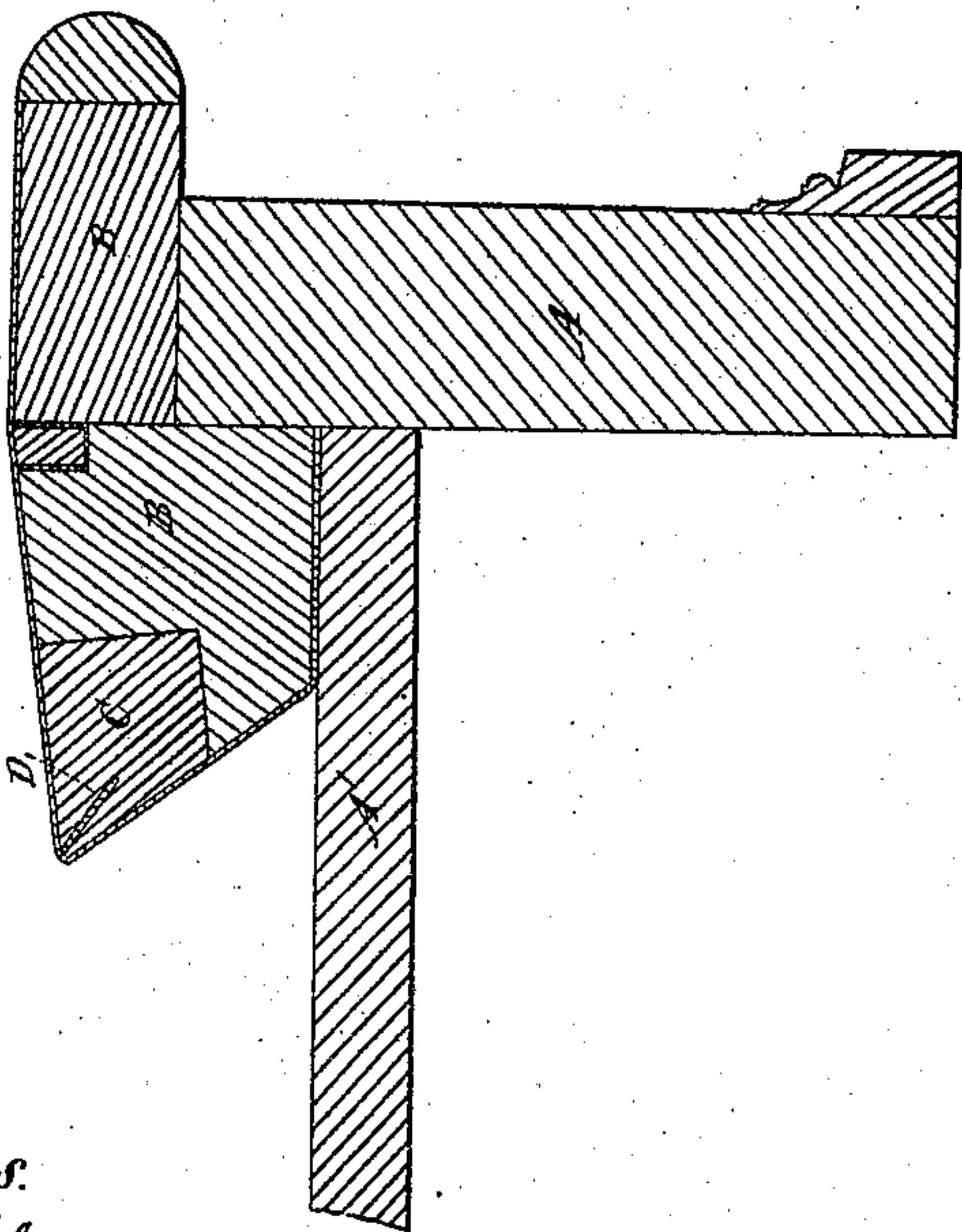
*Fig. 4.*



*Fig. 5.*



*Fig. 1.*



*Fig. 3.*



*Witnesses:  
Geo. Wallage  
E. B. Forbush*

*Inventor:  
J. Sycker*

# UNITED STATES PATENT OFFICE.

JOHN SYRCHER, OF BUFFALO, NEW YORK.

## BILLIARD-CUSHION.

Specification forming part of Letters Patent No. 40,580, dated November 10, 1863.

*To all whom it may concern:*

Be it known that I, JOHN SYRCHER, of the city of Buffalo and State of New York, have invented a new and Improved Billiard-Cushion; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being made to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse section. Fig. 2 is a top plan view of cushion-rail. Fig. 3 represents a horn, from which strips are cut spirally to be inserted into the rubber pad. Fig. 4 is a plan of the horn strip. Fig. 5 is a transverse section thereof.

The nature of this invention relates to the application and use of thin strips of horn in connection with hard or soft rubber compound, to form an improved billiard cushion.

Letters of like name and kind refer to like parts in each of the figures.

A represents a section of a billiard-table. A' is the bed. B is the cushion-rail of ordinary construction. C represents the india-rubber pad prepared and inserted in the rail in a common manner. D represents a strip of horn which is inserted into the rubber pad, as shown in Fig. 1. A long slit is cut in the rubber of sufficient depth to take in the strip of horn, which is then made fast therein by rubber cement. The horn is cut spirally into strips so that strips of sufficient length may be obtained to extend the full length of the rubber pad or the entire length of the cushion between the pockets. When these strips are cut from the horn, they are steamed and pressed and then planed or worked off from the outside to the proper thickness. The upper edge of the strip is beveled off, so as to give an easy and increasing spring to the strip.

Horn as a material is much better than whalebone, leather, or rawhide—it is tough and elastic, and retains its spring-power. By reason of cutting the horn spirally I am enabled to get strips of equal length with the rubber pads between the pockets, with the "grain" running crosswise of the strips, so that when the billiard-ball strikes the cushion the spring action of the horn will be with the grain. When whalebone strips are used, the

grain runs lengthwise with the strip. Consequently, whatever spring there is when the ball strikes the cushion must be crosswise of the grain. This has a tendency to split the whalebone, and also gives an imperfect spring. Whalebone cannot be cut spirally so as to bring the grain crosswise of the strip, and consequently the proper spring action cannot be obtained from that material. Neither leather nor rawhide possesses sufficient elasticity for the purpose, and metal strips, as commonly prepared and used, do not afford the requisite spring, for the reason that the spring action is lengthwise of the strip, whereas the spring should be crosswise in order to insure the proper action upon the ball.

By the application and use of horn, as aforesaid, I am enabled to overcome all of the objections to which whalebone, leather, rawhide, or single strips of metal and such like material are subject, and obtain a strip which has its principal spring action crosswise of the strip, and at the same time lengthwise with the grain of the material. These strips of horn may be used as a facing to the rubber pads, or they may be inserted into the pads, as shown in Fig. 1. I prefer to insert them as shown in Fig. 1.

The strips of horn may be slitted and used to advantage when hard rubber is used for the pad.

When soft rubber is used for the pad, I prefer to use the horn in the single strip, as described. Caoutchouc or india-rubber vulcanized and prepared in any well-known manner, or any equivalent material may be used for the pads in connection with the horn strips.

The cushion is covered with cloth in a usual manner.

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

The application and use of a strip of horn, in connection with an india-rubber pad, for the purpose of making an improved billiard-cushion, substantially as herein described.

J. SYRCHER.

Witnesses:

GEO. W. WALLACE,  
E. B. FORBUSH.