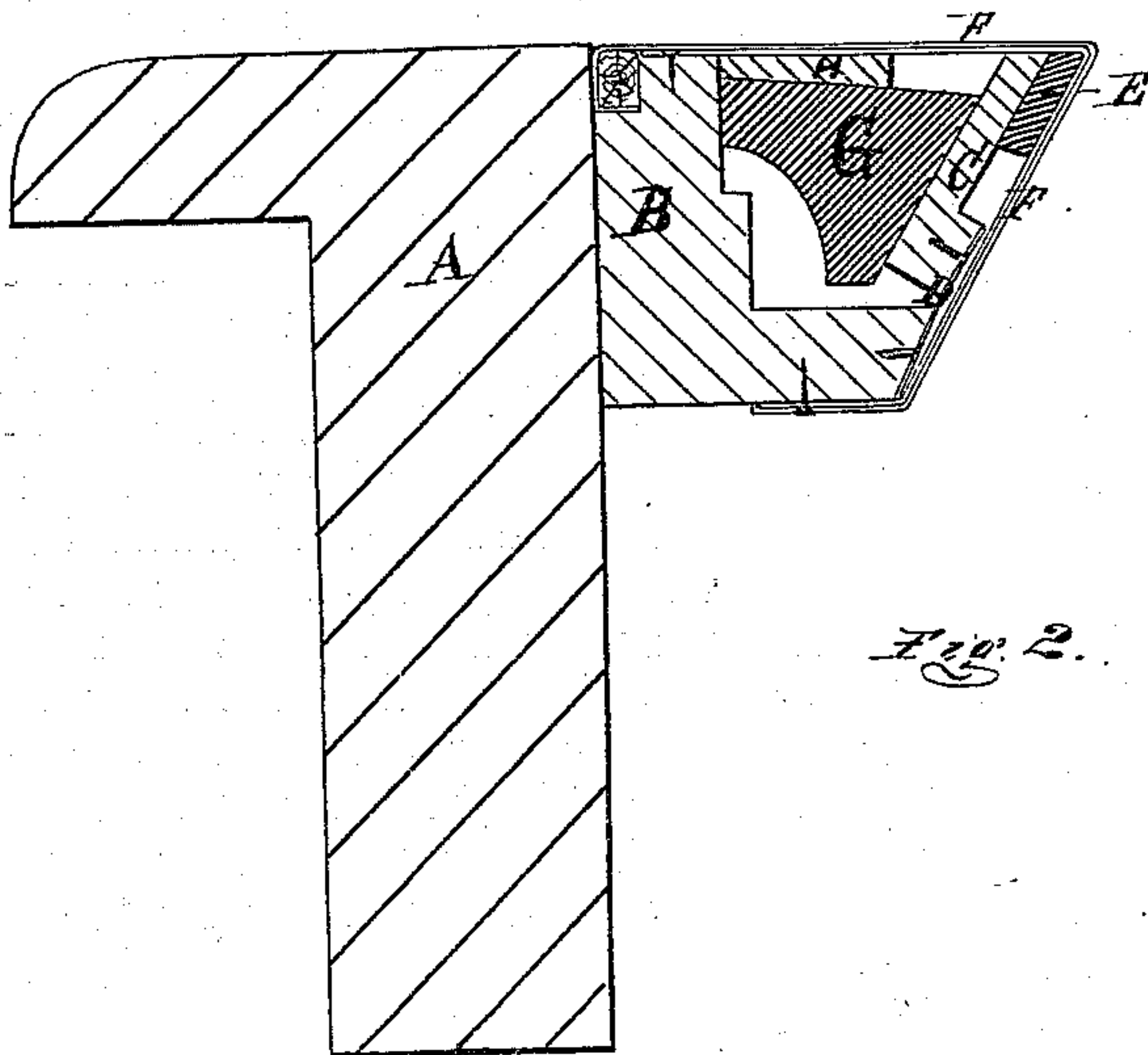
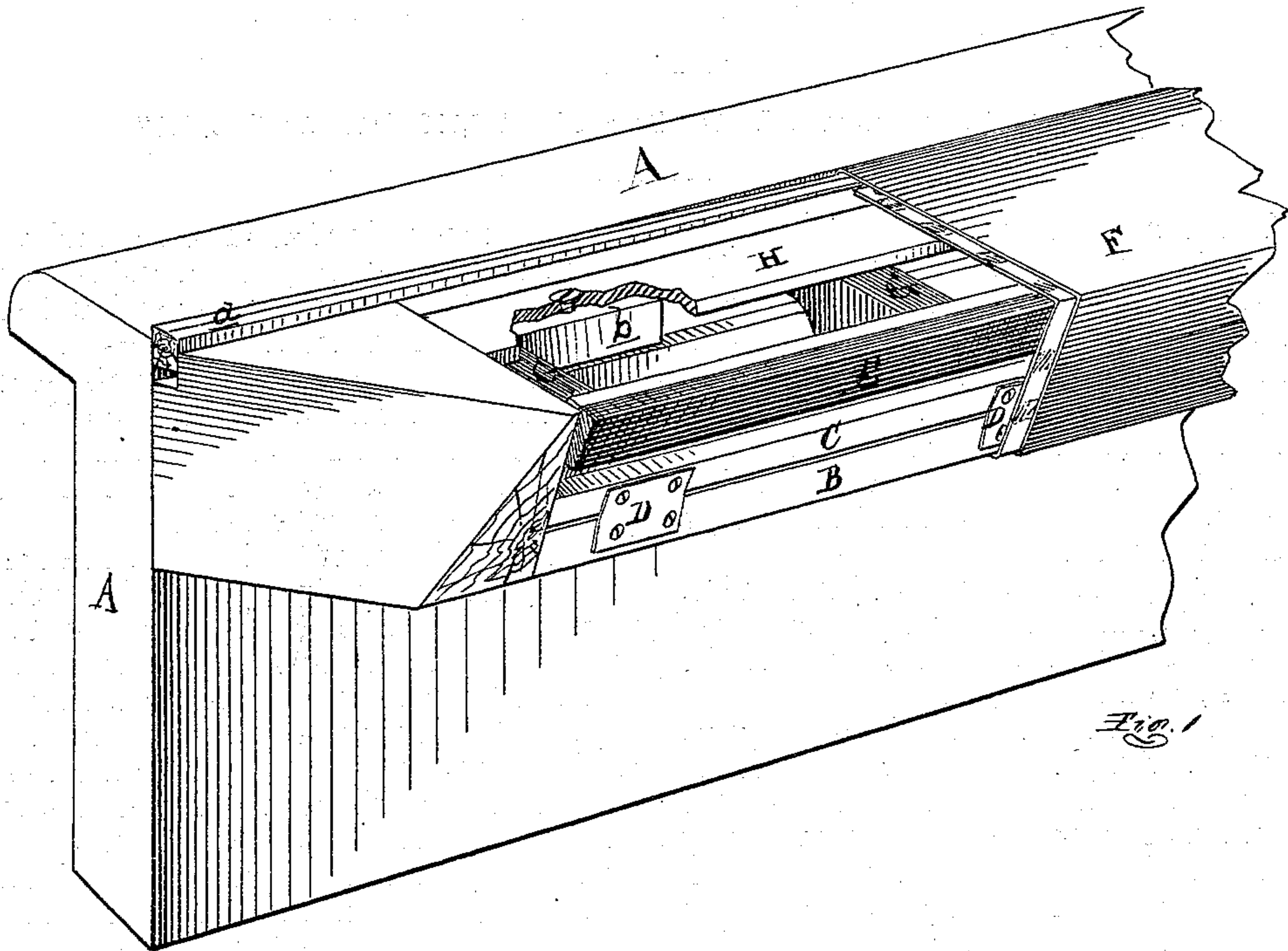


JOHN WAGNER.

Improvement in Billiard-Cushions.

No. 126,113.

Patented April 23, 1872.



ATTEST:

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H. S. Sprague

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN WAGNER, OF DETROIT, MICHIGAN.

IMPROVEMENT IN BILLIARD-CUSHIONS.

Specification forming part of Letters Patent No. 126,113, dated April 23, 1872.

To all whom it may concern:

Be it known that I, JOHN WAGNER, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Billiard-Cushions; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of one end of a billiard-table rail fitted with my improved cushion; and Fig. 2 is a cross-section of the same on the line *xx* in Fig. 1.

Like letters refer to like parts in each figure.

The nature of my invention relates to an improved billiard-cushion which shall be more certain and true in its action and cost very much less than the rubber cushions now in use. The invention consists in a light wooden strip faced with thin rubber along its upper edge and secured at intervals along its lower edge by thin steel plates to the ledge of the inner rail, said plates forming a flexible connection; and behind the said wooden strip there are placed at intervals light rubber springs of suitable section to be inserted between it and the face of the inner rail; and in the arrangement of the various parts.

In the drawing, A represents end of a main rail of a billiard-table, to the inner upper edge of which there is secured an inner rail, B, L-shaped in cross-section. C is a light strip of wood, which is secured at intervals to the inner edge of the rail B by thin steel plates D, securely fastened to both by wood-screws, forming a flexible connection for said strip. The edge of the rail B is chamfered, to pitch forward said strip to the proper angle. Along the upper inner edge of the strip C there is glued thereto a strip of vulcanized rubber, E, about three-sixteenths of an inch in thickness and one-half inch in width or depth, upon which the billiard-ball impinges, its principal office being to prevent noise and damage to the ball and cloth-cover F, the upper edge of which is held in a rabbet in the upper edge of the rail B by a strip, *a*, the inner end of the cloth being tacked under the ledge in the usual man-

ner. At intervals of about three inches apart I glue backing-springs G, of vulcanized rubber, to the faces of the inner rail and strip C. The said springs are about one-half inch in thickness, and are cut to the proper section to fit in their places. H is a thin wooden strip, covering the space between the rail B and strip C, and is secured by screwing it to blocks *b* glued to the face of the rail B.

In the cushions of billiard-tables heretofore constructed and now in general use the item of rubber alone costs from eighteen to forty-five dollars for a set of cushions for a single table, varying between these limits as the quantity and quality of the rubber is varied. With my improvement the rubber for a set of cushions costs two dollars and fifty cents, and, as will be seen, can readily be renewed when necessary. My cushion, constructed as described, will at any point give in action correct angles of incidence and reflection. The rubber strip E, being solely for the protection of the cloth and the prevention of noise, does not require renewal, but the springs G, when they lose their elasticity, may be replaced at a cost of fifty cents per set, excluding labor.

The recoil of the strip C is effected by the joint action of the steel plates D and the springs G, when the upper edge of said strip C is subjected to the impact of a billiard-ball; and it is evident that such reflex action must be uniform throughout the length of said strip.

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

1. In billiard-cushions, the combination of the metallic elastic plates D, the strip C, and the springs G, all constructed and arranged substantially as described and shown.

2. In billiard-cushions, the arrangement of the inner rail B, strip C faced with a rubber strip, E, and flexibly secured to said rail, the rubber springs G, cover H, and cloth cover F, substantially as and for the purpose set forth.

JOHN WAGNER.

Witnesses:

H. S. SPRAGUE,
H. F. EBERTS.