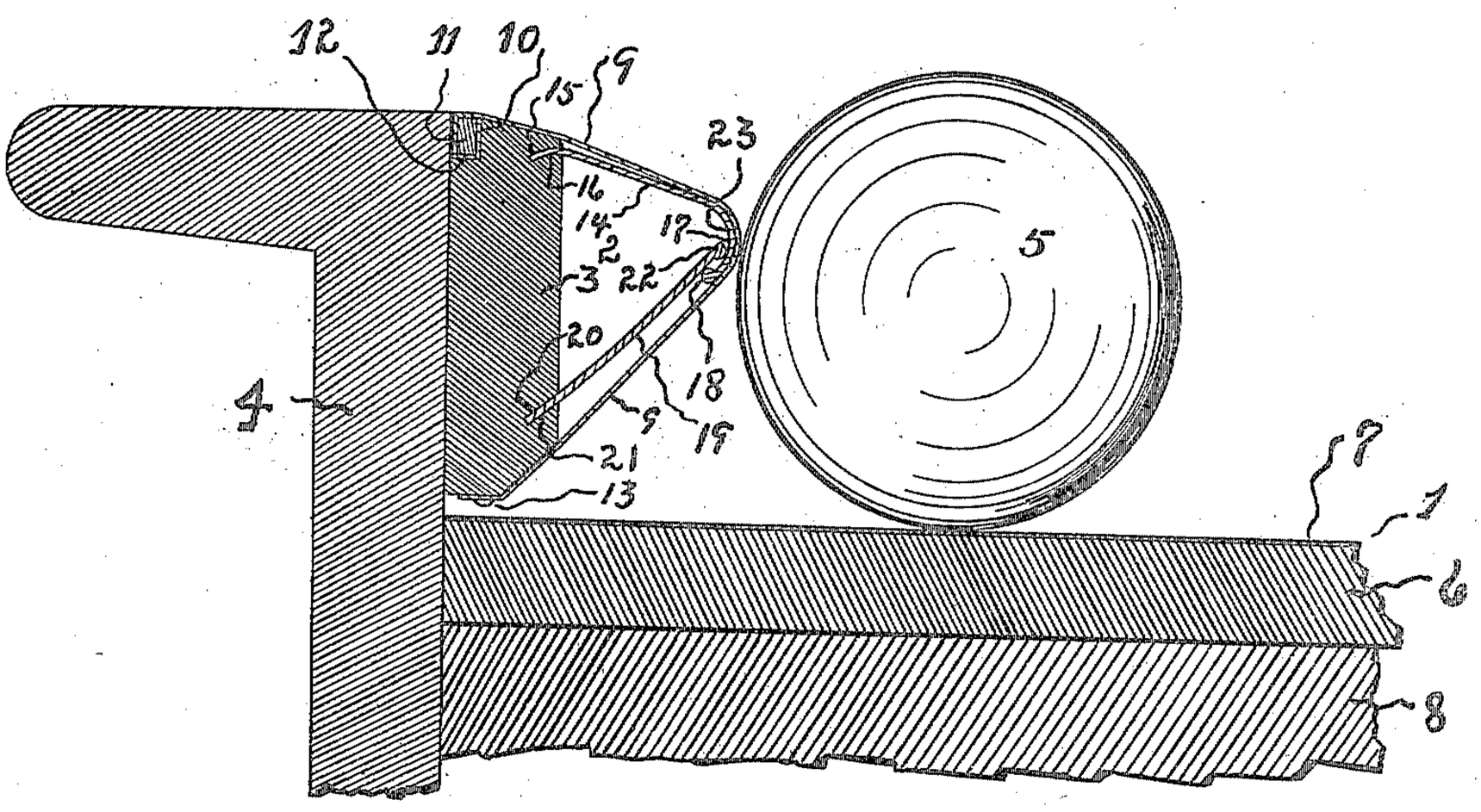
G. VICTOR.

BILLIARD TABLE CUSHION.

APPLICATION FILED MAY 23, 1908.

951,410. Patented Mar. 8, 1910.

Fig. 2.



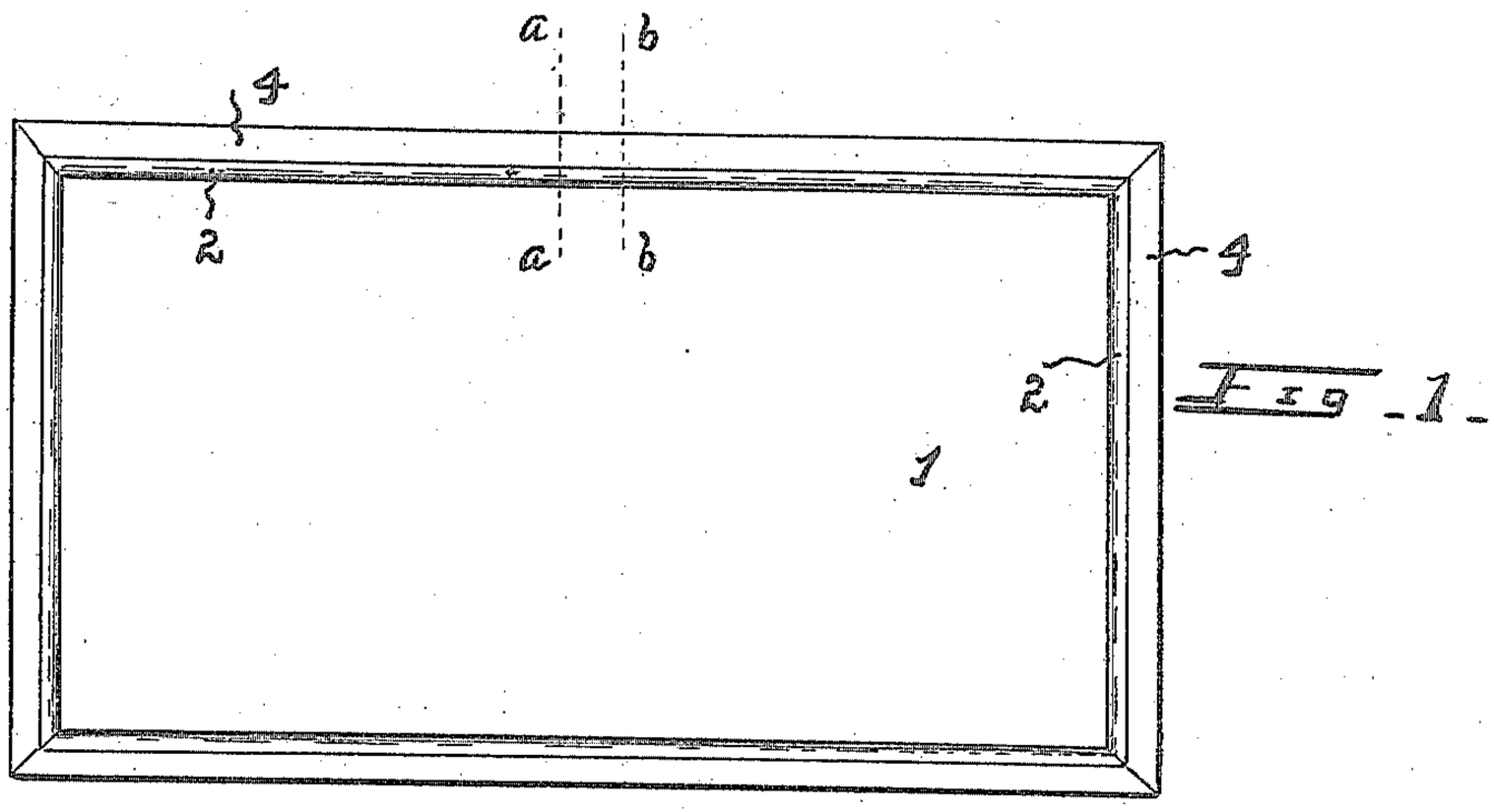


Fig. 1.

Witnesses

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BILLIARD-TABLE CUSHION.

951,410. Specification of Letters Patent. Patented Mar. 8, 1910.

Application filed May 23, 1908. Serial No. 434,449.

To all whom it may concern:

Be it known that I, GEORGE VICTOR, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Billiard-Table Cushions, of which the following is a specification.

This invention relates to improvements in billiard table cushions of the class where resilient wings, plates or strips are substituted for india rubber, and has for its object the production of a cushion which, by reason of the form of strips employed and their cooperation, will provide a cushion having more perfect action and greater resilience than heretofore shown, and may also be more economically manufactured.

The present invention comprises a cushion having an exterior appearance similar to the rubber cushion heretofore in general use. Wings or strips are secured longitudinally upon the holding-rail; these strips are formed substantially flat, in cross section, a curvature being provided, however, upon the inner end of one of them, and they are disposed inwardly convergent from the holding-rail to overlap upon and along the line which contacts with the balls. The wings are preferably formed of attenuated sheets of celluloid or steel having a uniform thickness, and, being very thin, are adapted to readily yield at the point of contact with the rolling ball. On account of their flattened form, as will be more fully pointed out hereinafter, the degree of resiliency of the plates or wings is very great, exceeding that of rubber, and, as will be seen, the amount of material required for a complete cushion, is quite inconsiderable.

The invention consists of the novel combination and arrangement of parts described herein, pointed out by the appended claims, and as illustrated in the accompanying drawing, wherein,—

Figure 1 represents a plan view of a billiard table. Fig. 2 is a sectional view between lines *a a* and *b b* of Fig. 1, looking toward the right, a billiard ball being added.

The parts illustrate the structure of a billiard table cushion embodying my invention.

Referring now to the drawing for a more particular description, numeral 1 indicates the ball-rolling surface of the table; 2 indicates the cushion, which projects inwardly to overhang the outer boundary of surface 1. As generally constructed, the india rubber cushion is secured to a holding-block or table-rail 3 which extends longitudinally of and is secured upon the inner side of the frame 4. The billiard balls, of which one is shown at 5, are generally constructed of ivory, and as is well known, the elastic cushions with which the balls forcibly contact, must have a form or consistency which will not deface the balls. Slabs 6 of marble or slate usually form the surface of the table, this being covered with fabric 7, upon which the balls rest. The slabs are supported upon a bed plate 8, the cushions being covered with a fabric 9. Ordinarily, one edge 10 of the fabric is secured by means of wedge 11 mounted within recess 12, this recess being formed to extend lengthwise in the upper side of rail 3, adjacent frame 4, and the fabric is extended to inclose the upper and lower surfaces of the cushion, the opposite edge of the fabric being secured beneath rail 3, by tracks 13.

For the purposes of my invention I provide the wing or cushion-strip 15, having its outer edge secured in the lengthwise extending recess 16 formed in and near the upper side of rail 3. Strip 15 extends longitudinally of rail 3 and, transversely considered, is formed with a flat body or sustaining-portion 14 for withstanding the severe stresses incident to the use of the cushion, and to prevent buckling. Strip 15 has an abrupt or pronounced downward curvature near its free inner edge to provide a convexed contact-portion 17. It will be noted that portion 14 occupies a single transverse plane and includes the greater part of strip 15, the curved portion 17 being the lesser part; also it occupies all of the space between rail 3 and contact-portion 17, and has a uniform downward inclination from the rail. These are desired features, for since portion 17 must be constructed very thin in order to be responsive for reliably imparting a reverse course to the balls, and since the wings preferably have a uniform thickness, the flattened form for the wing and its inclination adds materially to the degree of resiliency, as compared with one having a spiral form, and requires less material.

The foregoing features are thus particularly mentioned to distinguish the present structure from metallic cushions heretofore shown which, in cross section, appear to be formed of O-shaped, S-shaped or spiral strips. They require an excessive amount of

material to provide the necessary degree of resiliency, and their action when resisting the movement of the ball is necessarily different when compared with the herein described cushion.

The inner edge of contact portion 17 may have a bead 18 formed thereon, but this feature is not important, its only function being to afford an accurate bearing surface, so that the yielding effects from the stroke of the ball will be uniform, and to prevent undue friction in the contact of strip 15 with strip 19.

Strip 15, as described, may alone be employed as a billiard cushion, but its usefulness is largely increased when operated in connection with reinforcing strip 19. Strip 19 has its outer edge 20 secured in recess 21 formed in and near the lower part of rail 3. It extends longitudinally of rail 3 and strip 15, its outer edge being disposed at a uniform distance from the outer edge of strip 15. It has an upward, transverse inclination from edge 20 in the direction of contact portion 17 of wing 15; and it may have a slight curvature as shown, but may be constructed as a flat plate, if desired. I have provided for strip 19 a smooth or rounded, inner edge 22, adapted to have a seating upon the concaved surface 23 upon the lower or inner side of portion 17 of strip 15. The entire cushion is covered with fabric 9, substantially as shown in the drawing. Strips 15 and 19 are constructed of yielding, resilient material, and for this purpose the attenuated sheets of celluloid or steel, as first mentioned, may be used to advantage.

In operation, when ball 5 strikes the curved portion 17, the latter bends downward together with flat portion 14, and the terminal edge 22 is raised upward, the movements of these parts being simultaneous from the force of the stroke; the resiliency of these parts is so great that the ball will be thrown conversely with much greater force than when india rubber is used for this purpose. At this time both strips 15 and 19 coöperate in action for the purposes mentioned, the bearing 22 remaining in contact with the lower surface of strip 15, and since the strips overlap, it is considered that the resiliency at the point of contact is increased, and that the elastic action is different than where a continuously curved body is used.

By use of the herein described cushion a great saving is effected in manufacture, as compared with rubber, and the structure is considered durable.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is,—

1. A device of the character described comprising a longitudinally extending base member, a resilient plate extending continuously longitudinally of said member, said plate being slightly inclined downwardly from said base member and terminating at its outer end in a curved contact portion, and a reinforcing resilient plate which also extends continuously longitudinally of the table and which bears against the curved portion of the first named plate.

2. A device of the character described comprising a longitudinally extending base member, a resilient plate extending continuously longitudinally of said member, said plate being slightly inclined downwardly from said base member and terminating at its outer end in a curved contact portion, and a reinforcing resilient plate which also extends continuously longitudinally of the table and which bears against the curved portion of the first named plate, the inner face of the first named plate having a beaded termination and the outer edge of the reinforcing plate also having a beaded termination whereby said plates are held out of actual contact with each other except for said beaded portions.

3. A device of the character described comprising a longitudinally extending base member, a resilient plate extending continuously longitudinally of said member, said plate being slightly inclined downwardly from said base member and terminating at its outer end in a curved contact portion, a reinforcing resilient plate which also extends continuously longitudinally of the table and which bears against the curved portion of the first named plate, and a cover 9 secured to the upper and lower edges of the base member completely inclosing said plates.

4. A device of the character described comprising a longitudinally extending base member, a resilient plate extending continuously longitudinally of said member, said plate being slightly inclined downwardly from said base member and terminating at its outer end in a curved contact portion, a reinforcing resilient plate which also extends continuously longitudinally of the table and which bears against the curved portion of the first named plate, the inner face of the first named plate having a beaded termination and the outer edge of the reinforcing plate also having a beaded termination whereby said plates are held out of actual contact with each other except for said beaded portions, and a cover 9 secured to the upper and lower edges of the base member completely inclosing said plates.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEORGE VICTOR.

Witnesses:

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A. M. REED.