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## CUSHION FOR BILLIARD-TABLES.

Specification forming part of Letters Patent No. 5,952, dated December 5, 1848; Reissued December 25, 1849, No. 152.

To all whom it may concern:

Be it known that I, ABRAHAM BASSFORD, of the city and county of New York, in the State of New York, have invented a new and useful mode of constructing the cushion for a billiard or a bagatelle table by a continuous tube inflated with air or gas made air-tight, constructed of sheet gum or india-rubber or other material; and I do hereby declare that the following is a full and exact description thereof.

The billiard table or the bagatelle table being of an oblong shape Figure 1, is supported upon six eagles, which form the rests or legs, as represented in the side and end view of the table Fig. 1 *a a a*. The eagles are made of cast iron, solid or hollow, according to the taste of the constructor, and a continuous iron rail rests upon the neck and wings of each eagle, Fig. 2 *b* having three or five braces or supports *c c c c c*. Two of the eagles are placed upon each of the oblong sides and one at each end of the table. The frame of the bed is made in three sections, Fig. 4 *d e f*, making at the corners of *d* and *f* the necessary curves, *g, g, g, g*, for the pockets, and in the outer stile of *e* making the necessary cuttings to admit the center pockets *h h*: the panels which form the sections of the bed of the table *d e* and *f* are severally made of red cedar, mahogany or any other wood, cut in squares of any given size which will suit the construction, a difference in size not being essential, six inches surface being a convenient shape, and in thickness one and a half, or, one and a quarter inches *i i i* Fig. 4; each square having a groove cut in it across the bed and a tongue of iron or wood, iron being preferable, is driven through the muntins and each set of panels the whole width of the bed, Fig. 5 *k k k*, which manner of putting the panels together makes the bed stronger than if an alternate tongue and groove were cut in each square. A stile is framed around three sides of *d* and *f* and upon the ends of *e* Fig. 4.

Each section has five rails or muntins or any other number let into the stiles *m m m*, which in addition to being let into the stiles *n n n* Fig. 4 are braced with bars of cast iron *o o o o* Fig. 4, and *o o o o* Fig. 3, which project and are let into a mortise *o<sup>1</sup> o<sup>1</sup> o<sup>1</sup>* Fig. 4, the several sections being put together and bolted down to the rail which rests on

the eagle Fig. 2 *b*; the outside sections having four cast iron bars bolted upon each, the bars projecting, the projection forming a tenon which is let into a corresponding mortise *e* Fig. 4, in the cast iron bars *p p* which are let into the arm of the outer sections by a mortise.

The eagles to form the rests or legs may be put together to suit the taste of the constructor.

*a a* Fig. 1 represents the surface or bed of a billiard table or a bagatelle table with the cushion, rail and pockets, and a continuous cushion extending entirely around the table, made as an air tight tube *b b* passing outside the pockets, *b<sup>2</sup>* Fig. 1, Fig. 7, which tube may be inflated with air or gas by means of an air pump *c c* Fig. 8.

Fig. 7 represents one of the corners of the table and the manner in which the ends of the air tight tubes are secured and fastened by means of plugs *c c* Fig. 7 and *d d* Fig. 9, and also the screw *e e* Fig. 8 and *e e* Fig. 9 to which the air pump at *e e* Fig. 8 and 9 is attached. The pocket irons *f f* Fig. 7, *g g* Fig. 1 are covered with a leather covering Fig. 10 *h h*. When the air tight tube is sufficiently inflated a protection plate Fig. 12 is placed at one corner over the air tube *c c c c* Fig. 7 and fastened securely to the pocket iron by two leather straps Fig. 7 and 10 *l l*, the straps passing through the two holes *m m* Fig. 11 and Fig. 12 and are buckled below the leather covering.

The cushion rail is represented by Fig. 6 *m m* and Fig. 1 *n n* and an end view of the rail, the cushion in its place, Fig. 13 *o o*, and the manner of securing the rail to the bed with a screw clamp *o o<sup>2</sup>, o o<sup>2</sup>*.

The tube which constitutes the cushion *b b* Fig. 1 I construct of sheet gum, or india rubber, about the eighth of an inch thick, cutting it into strips wide enough to make the tube the required size Fig. 14 *p p*; the edges of the strips are beveled to prevent ridges when lapped, Fig. 15 *q q*, then by wrapping the beveled sheets around a mandrel of sufficient size, say three eighths of an inch in thickness, Fig. 14 *p p*, Fig. 15 *q q*, covered with cloth and cementing the edges together it receives the form of a tube, then by cementing a strip of very thin india rubber about half an inch wide over the joint the whole will be made air tight; it is then covered with india rubber cloth wrapped as

many times around it Fig. 14 *p p* as will be required to withstand the pressure of the air or gas, which is forced into the tube by means of an air pump Fig. 8 *c c*. This air or gas tight tube is made of sufficient length to reach entirely around the table Fig. 1, *b b*, *b b*, *b b*, *b b*, passing outside whenever a tube passes a pocket Fig. 1 *b<sup>2</sup>*, Fig. 7 *b b*. The two ends of the tube, before being filled with air or gas, are closed with metallic plugs *c c c c* Fig. 7, *d d* Fig. 9, the ends of the tube being, after the insertion of the plugs, wound very tight with copper wire *r r* Fig. 7 and *r r* Fig. 9.

5 Each plug has a valve in the end which is inserted in the tube Fig. 16 *s s* Fig. 9, which is intended to prevent the air from escaping after the tube has been inflated—the valve admitting the air, or gas, but self acting by backward pressure. The tube being now complete is filled with air or gas; when the process of filling the tube is completed it is ready to attach to the rail by making a groove on the inside of the rail 5 Fig. 6 *t t t t* and Fig. 13 *t t*, of sufficient size to receive the inflated tube, and the tube cemented to the upper edge of the rail on the inside with any kind of cement which is strong enough to hold the tube in its place— 0 I generally use india rubber cement (an article well known among india rubber dealers) for that purpose.

As before observed, when the tube is required to pass a pocket, whether at the corner Fig. 1 *b<sup>2</sup>*, or at the oblong center Fig. 1 *b<sup>2</sup>*, it will pass outside the pocket; when carried all around the table and properly secured in its place, the tube is covered with a suitable material, generally with green billiard cloth, extending from the upper edge of the groove where the tube is inlaid and extending to the lower side of the rail where it is secured to the bed, Fig. 13 *o o*.

Another method of fastening the air or 5 gas tight tube to the cushion rail is, to place it in the groove, made continuous except at the pockets, as heretofore described, and cover the tube with muslin by tacking both the upper and lower edges of the muslin to the cushion rail, confining the tube to the groove without the use of cement. I do not consider the manner of securing the tube to the rail as essential. Many different ways will be suggested to the workman; if, however, it be requisite to lower the tube upon the rail, that is, toward the bed of the table,

there may be a beveled piece of india rubber cemented to the surface of the tube, previous to the covering of green billiard cloth being put on, so as to bring the upper surface of 60 the tube parallel with the upper edge of the rail, and which will present the ball from bouncing (or hopping) when played or thrown against the tube.

The substance which I have found in practice to answer best for making the air tight 65 tube is sheet gum, or india rubber, it may however be made of any material which will allow the elasticity of the air within it to have sufficient play: the tube may also be 70 made of different shapes, the form not being essential; and the mandrel over which it is formed may be of different substances: or, instead of the mandrel, there may be used a cord made of india rubber and varnished so 75 that the sheet rubber will not adhere to it; the cord is left inside of the air tight tube, Fig. 14 *p p<sup>2</sup>*; and if the tube should at any time from injury permit the escape of the air it will nevertheless form a complete india 80 rubber cushion. The elasticity of the cushion will be greater the more the tube is inflated, any excess of pressure, however, will greatly increase the elasticity of the cushion and even the mere pressure of the atmosphere 85 within the tube, provided the ends are closed, will add to its elasticity and cause it to throw a ball farther than a common cushion.

I do not claim a valve of any peculiar shape, and the plug which is inserted in the 90 tube to confine the air or gas may vary in shape, or any other material may be used which will confine the air or gas in the tube after it is inflated.

What I claim as my invention and desire 95 to secure by Letters Patent is—

1. The application of air or gas confined in a tube of india rubber or other elastic material to form the cushion of a billiard table or bagatelle table. 100

2. I also claim the within described mode of extending the tube that contains the air or gas in one length around the table in consequence of which the cushions (tubes) on a table may be inflated at the same time with 105 one air pump, by which the cushions are inflated equally in every part and by which every point receives the same elasticity.

ABM. BASSFORD.

Witnesses:

WM. H. PUGHM,  
ISAAC O. BARKER,