

J. MORRILL RIX.
Improvement in Game Apparatus.

No. 124,915.

Patented March 26, 1872.

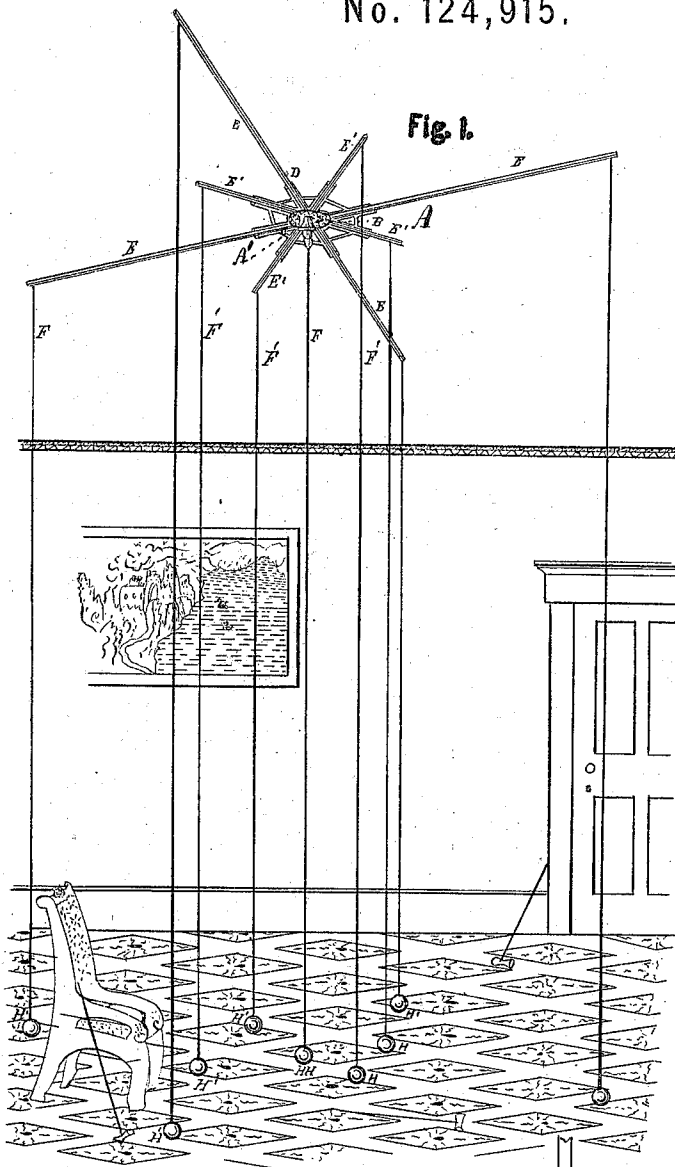


Fig. 1.

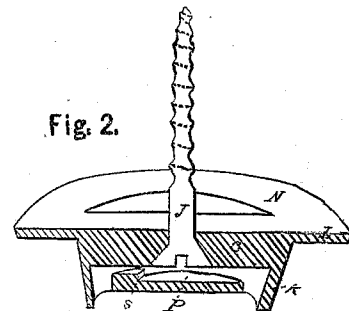


Fig. 2.

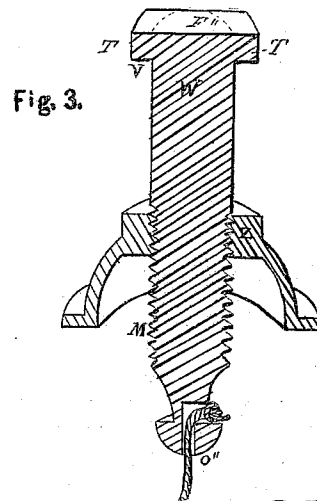


Fig. 3.

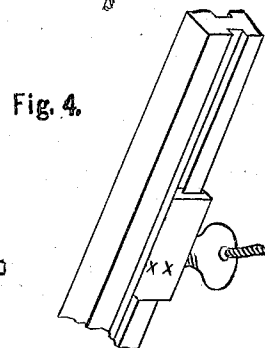


Fig. 4.

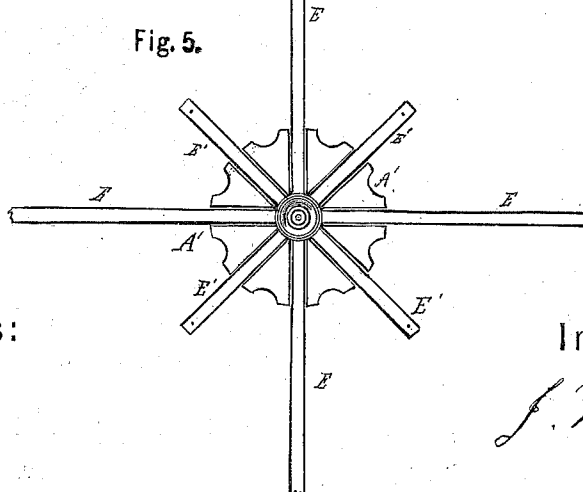


Fig. 5.

Witnesses:

A. P. Davis.
W. A. Rix

Inventor:

J. Morrill Rix

UNITED STATES PATENT OFFICE.

J. MORRILL RIX, OF WARNER, NEW HAMPSHIRE.

IMPROVEMENT IN GAMES.

Specification forming part of Letters Patent No. 124,915, dated March 26, 1872.

SPECIFICATION.

I, J. MORRILL RIX, of the town of Warner, in the county of Merrimack and State of New Hampshire, have invented a Mechanical Apparatus for the Performance of certain Games of Skill that are or may be adapted thereto, of which the following is a specification:

Nature and Objects of the Invention.

Ordinary games now in popular use that are played with balls and cues or mallets, such as billiards, croquet, and the like, either require a table of some sort; or, if played in the open air, are impeded by irregularities of the ground whereon they are played, or by storms and bad weather. It is the object of my invention, which I have called "Swinging Billiards," to avoid such and other disadvantages and to afford a means for healthful and graceful exercise of the body and limbs, and to supply a means of amusement which will be equally available for the open air or indoor use. Mallets and balls are employed as in other games; but the balls are suspended by means of my invention according to the principles of adjustment hereinafter set forth.

General Description of the Accompanying Drawing.

Figure 1 represents a perspective view of an apparatus, constructed on the principles of my invention, attached to the ceiling of a room and arranged ready for use. Fig. 2 represents a sectional view through the center of a single ornamental casting or device, intended to be permanently secured by a common wood screw to the ceiling or other support over head, and by its use allowing the suspensory frame with its attachments to be put up or removed quickly and without injury to the finish of the room. The drawing is represented full size. Fig. 3 represents a sectional view through the center of a bolt and nut, by which the frame or principal part of the apparatus may be secured in its place and removed quickly at pleasure. This bolt is held by its head, which consists of a flange or projection on opposite sides of the upper end, forming an oblong face, which may be made to enter the slot in the lower surface of the device represented in Fig. 2, and, being

turned one-fourth around, said flanges slide over the edges of said slot, holding the bolt from direct withdrawal until the movements are reversed. The bolt, when in place, passes through the center of the principal frame with the nut below, which, (said nut,) being properly turned, raises and secures the frame in place. The drawing is represented full size. Fig. 4 represents a perspective view of a sliding guide on the arms of the frame seen in Fig. 1, with set-screw for holding the same at any desirable point, the drawing being nearly full size.

General Description.

The frame or upper part of the apparatus A, Fig. 1, is composed of an ornamental center piece, A', solid, of proper material, having in its center a hole for admitting a supporting-bolt, shown in Fig. 3. From said hole as the center, on the lower surface of the horizontal circular portion, and running outwardly at equal and proper angles to each other to a short distance beyond the circumference, are pairs of flanges or ribs, their widest direction being concentric with and composing the circular solid part of the center piece A'. Between said ribs or flanges, and pivoted to their outer projecting ends, rest arms E E E E' E' E'. The number of flanges and places for arms may be varied to suit any particular game or apparatus. The said arms consist of two or more sets, as E E E E' E' E', which, being pivoted to the ends of the flanges of the center piece A', may be folded when not in use for stowage or transportation. The arms of each set are of equal length, those of one set, as E E E, being relatively longer than those of another set, E' E' E'. The long and short arms should be fixed alternately in the center piece A', so as to have no independent motion of their own, they serving only as supports for the balls suspended from them. The center piece A' is provided, as may be preferred, with a hook, bolt, (Fig. 3,) screw, and nut, (Fig. 3,) or other ordinary appliance in common use, for securing it, movably (as in the drawing) or immovably, to whatever support is selected. The number of the suspensory arms will of necessity be controlled by the size of the particular apparatus and number of balls. The suspensory wires or

strings F F F F' F' F', as in Fig. 1, at the end of the arms E E E E' E' E', must be of the same length for each set of arms, that the balls suspended by them may be respectively in the same planes and parallel with the plane of the frame A. The balls H H H H' H' H' and ball H H, Fig. 1, may be of any material in common use for the construction of such balls. When the frame A is properly fixed or hung the ball H H, called the "king ball," is first to be suspended, that the relative positions of the other balls may be determined. The second set of balls H H H, from the shorter arms E E E, are then to be suspended, so that when moved toward the "king ball" H H upon the arc of a circle described, with the suspensory string or wire F as a radius, they will strike the "king ball" H H, the latter being at rest; and so with the set of balls from the longer arms relatively to the "king ball" and to the inner set from the shorter arms. The "king ball" is suspended from the lower end of the supporting-bolt, in the center of the apparatus, or other device at that point. The means for holding the frame A in position may be a common wood screw or screws passing through the center or other parts of the frame, the said screw or screws being driven into the support above the frame, or any other simple means by which the object of holding said frame in position may be accomplished. Preferably, however, I use the device shown in the drawing, Figs. 2 and 3, for the reasons already given in "general description" of said drawing, Fig. 2 being a sectional view through the center, nearly full size, of an ornamental device or button, preferably metallic, cup-shaped, having surrounding its upper edge a horizontal flanged portion, L, for resting against the ceiling. In the lower surface is a slot, P, for the admission of the head T of the supporting-bolt W. A bar portion, o, crosses the upper open part, and has in its center a hole through which may be passed a common wood screw, J, for securing the device; also, for greater security, the flanged portion L, forming the outer circumference, may be pierced with holes for admitting additional screws. These latter holes are not shown in the drawing. The bolt, Fig. 3, has upon its lower portion a screw-thread, M, on which works a milled-edge thumb-and-finger nut, Z. The extreme lower end o' is pierced for the attachment of the suspensory cord of the "king ball." The head or upper end of the bolt has upon two opposite sides flanges or projections T for holding the bolt from direct withdrawal when properly adjusted in its place in the device shown in Fig. 2. The drawing undoubtedly shows these parts so well that more minute description is unnecessary. The suspensory cords F F F, &c., may be attached to the arms E E E, &c., by passing through holes in said arms and

secured therein, or by other simple means, but preferably by sliding guides or stop X X, working on said arms E E, and shown in Fig. 4. Said guides may consist of an -shaped metal plate sliding on the lower surface of the arm, held to said arm by its upper horizontal portion or edges sliding in grooves formed in each side of the arms. The guides or stops are provided with a set-screw, by which they may be held at any desirable point on the arm. The drawing shows the device sufficiently without any greater detail; but any movable device for regulating the distance of the suspensory cords from the center of the frame may be substituted for the one described.

The apparatus being thus prepared for use, it will be found that if the lower and outer set of balls are struck with mallets or cues, as in ordinary billiards or croquet, an indefinite complication of caroms and other results may be obtained. The precise distances between the perpendiculars F F F and between the planes of the sets of balls H H H and H' H' H' and ball H H must be determined and adjusted by the size and proportions adapted for different apparatuses and with reference to the number of sets of arms and balls employed.

The number of games and combinations of which this apparatus is capable is practically indefinite, and I do not here mention or claim any particular combination or precise construction of the same. I do not claim as novel the suspension of balls simply, except with reference to a principle of arrangement and use, producing new combinations and new results. Suspended balls, I am aware, are not a thing new or novel.

Claims.

I claim as my invention—

1. The suspensory frame A, consisting of a center piece, A', and arms E E E E' E', substantially as and for the purposes hereinbefore set forth.
2. The sliding guide or stop *xx*, with set-screw, on the arms E E E and E' E' E', for the attachment and proper adjustment of the perpendiculars F F F F' F' F', substantially as and for the purposes hereinbefore set forth.
3. The suspended balls H H H H' H' H' and ball H H, adjusted in planes proportioned to the separation of the perpendiculars or radiuses F F F F' F' F', substantially as and for the purposes hereinbefore described.
4. The combination of frame A, sliding guide *xx*, and suspended balls H H H H' H' H' and H H, substantially as and for the purposes hereinbefore described.

J. MORRILL RIX.

Witnesses:

A. P. DAVIS,
M. A. RIX.