

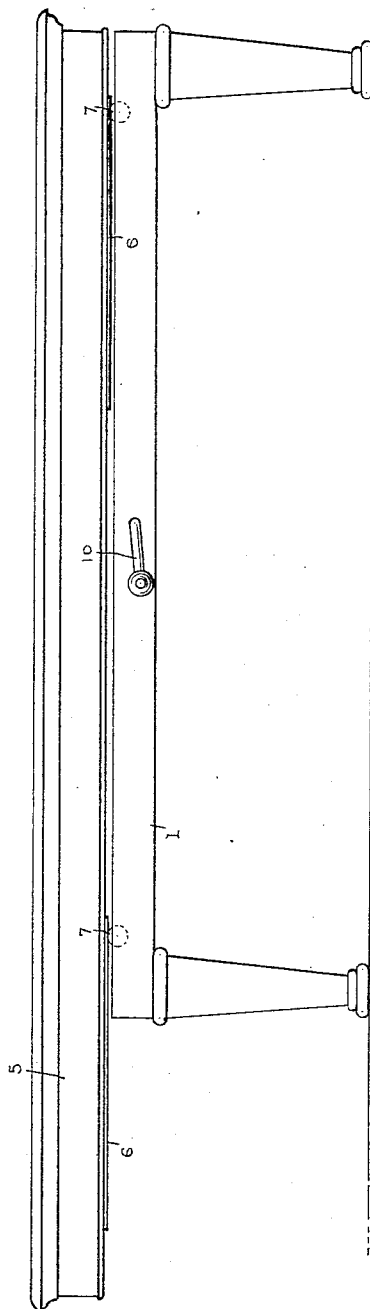
C. F. WENDELKEN.
EXTENSIBLE BILLIARD TABLE.
APPLICATION FILED JULY 12, 1913.

1,106,017.

Patented Aug. 4, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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Fig. 2.

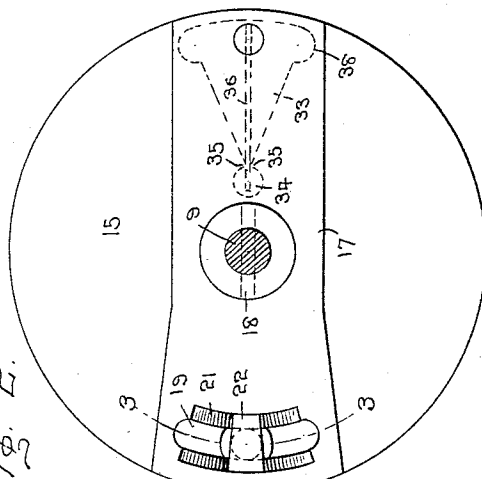


Fig. 3.

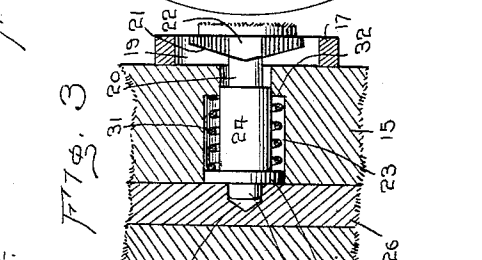
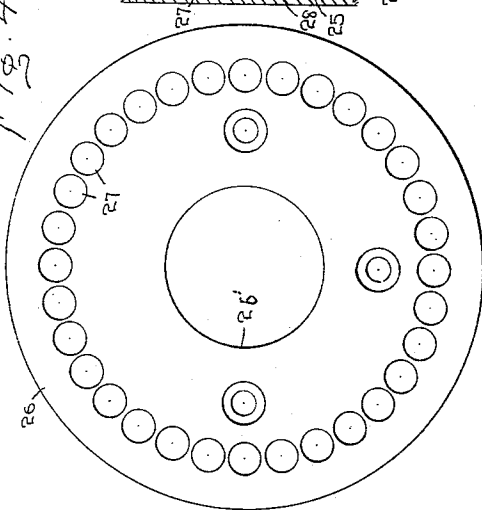


Fig. 4.



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2 SHEETS-SHEET 2.

Fig. 5.

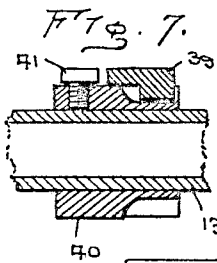
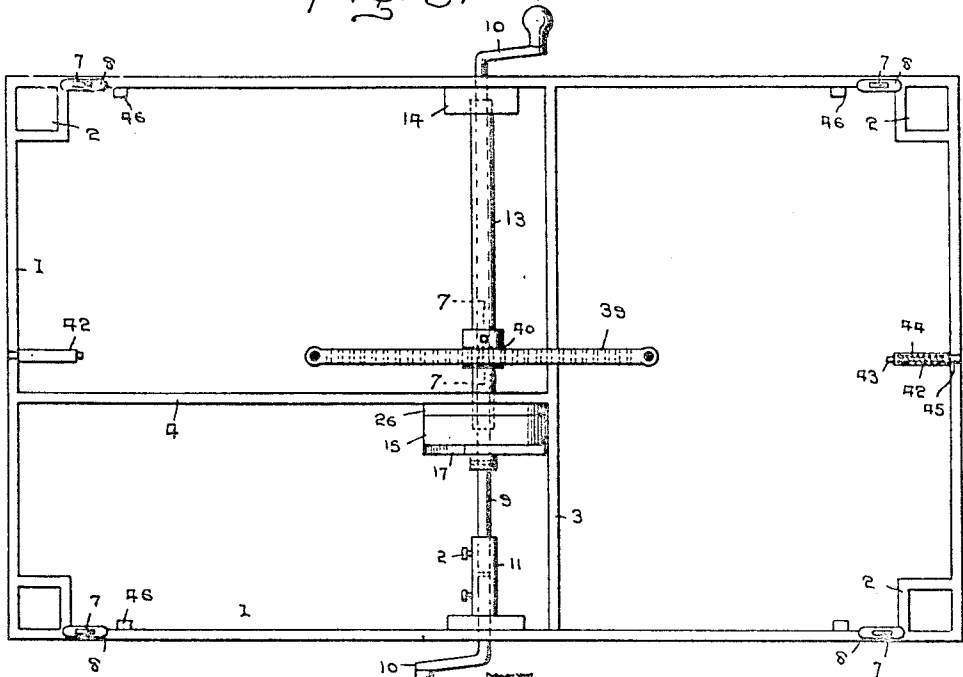
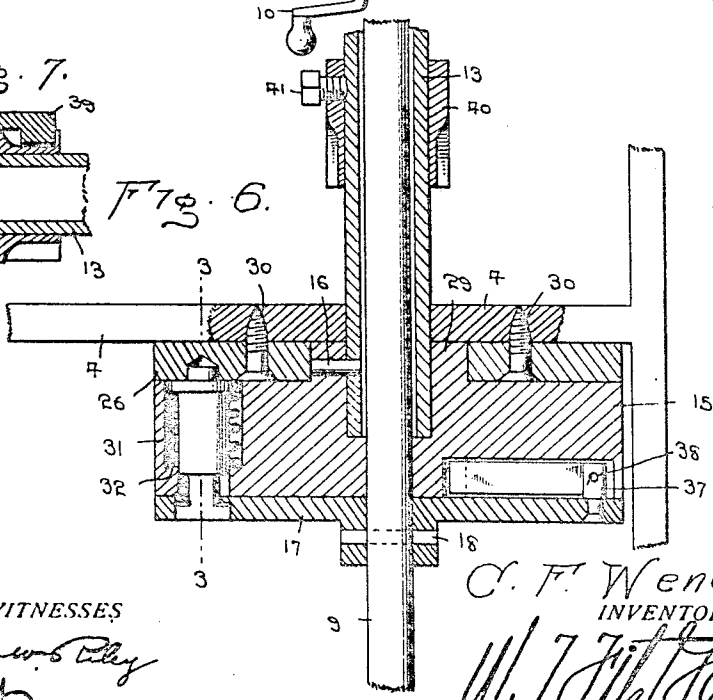


Fig. 6.



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EXTENSIBLE BILLIARD-TABLE.

1,106,017.

Specification of Letters Patent.

Patented Aug. 4, 1914.

Application filed July 12, 1913. Serial No. 778,684.

To all whom it may concern:

Be it known that I, CYRUS F. WENDELKEN, a citizen of the United States, residing at 498 East Main street, Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Extensible Billiard-Tables; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to billiard and pool tables, and more particularly to a billiard or pool table having a movable top.

One of the principal objects of my invention is to provide a billiard table with a movable top, and means for operating said top.

Another object is to provide means for holding the top at any desired point in the path of its movement.

A further object is to provide means for automatically locking the tip in a predetermined position.

Another object is to provide means for moving the top without displacing the billiard balls from their position on the table.

A still further object is to provide a billiard table having a movable top which will be simple, durable, efficient in operation, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts herein-after more fully described and claimed, and illustrated in the accompanying drawings, in which like reference characters indicate like parts throughout the several views, in which,

Figure 1, is a side elevational view of a table constructed according to my invention, Fig. 2, is a side elevational view of the pin supporting plate, showing the lock actuating arm thereon. Fig. 3, is a vertical transverse sectional view on the line 3—3 of Fig. 6. Fig. 4, is a side elevational view of the locking plate. Fig. 5, is a top plan view of the table stand, the table top being removed therefrom, the rack bar being shown. Fig. 6, is a horizontal sectional view through the central portion of the locking plate, pin supporting plate, lock actuating arm, and adjacent parts. Fig. 7 is a section on line 7—7 of Fig. 5.

Referring more particularly to the drawings, the table stand comprises side and

end bars 1, forming a rectangular frame which is supported from the floor by means of legs 2. A cross bar 3, is secured between the side bars of the frame and parallel with the end bars of the frame, and to one side of the transverse axis of the frame, and is connected to one of the end bars 1, by means of a supporting bar 4, the latter being positioned to one side of the longitudinal axis of the frame.

A top 5, which is considerably longer than the frame, but of the same width, comprises side and end boards which are provided in the usual manner with a playing surface and cushion, the lower edges of the side boards at both ends thereof, being provided with plates 6, which are adapted to bear on rollers 7, secured in recessed brackets 8, which are countersunk in the upper edges of the side bars of the frame at opposite ends thereof. A shaft 9, extends transversely of the frame, and has its ends supported in bearings in the side bars thereof, and provided with crank arms 10, for rotating said shaft. The shaft is formed in two sections which have their adjacent ends secured in a sleeve 11, by means of set screws 12.

A hollow shaft 13, is rotatably mounted on the shaft 9, and bears at one end in a bearing block 14, secured to one of the side bars of the frame, and has its opposite end extending through a bearing opening in the supporting bar 4, and projecting into a circular recess formed in the pin supporting plate 15, said plate being secured to the hollow shaft by means of a pin 16. A pin actuating member 17, is secured by means of a pin 18, to the shaft 9, and has one of its ends provided with an arcuate slot 19, adapted to receive the upper reduced end of a locking pin 20. On each side of the slot 19, the pin actuating arm is recessed as at 21, and the bottom of this recess is oppositely beveled so that the deepest portion of the recess occurs mid-way of the length of the slot, the bottom of the recess sloping upwardly from that point to the ends of the recess. Formed integrally with the upper reduced end of the pin 20, is a lug 22, which extends at both sides of the pin into the recess 21, and has its under face oppositely beveled to conform with the beveled bottom of the recess 21, so that when the pin actuating arm is moved in either direction from the position shown in Fig. 3, the pin 20 will be raised until one longi-

tudinal side of the lug 22, contacts with the end of the recess.

The locking pin 20, as clearly shown in Fig. 3, is positioned in a cylindrical recess 23, formed in the plate 15, near the outer edge thereof, said pin being enlarged as at 24, in its central portion, the end of the enlargement 24, adjacent the reduced outer end of the pin being slidable in a reduced portion of the recess 23, said reduced portion connecting said recess with the outer face of the plate 15. A collar 25, is formed on the inner end of the enlargement 24, and is adapted to normally rest against the locking plate 26, which as shown in Fig. 4, is provided with a circular series of openings 27, into which a lug 28, on the inner end of the pin 20, is adapted to normally project. The locking plate 26, is circular in formation and is provided with a central opening 26', adapted to slidably embrace the reduced portion 29, of the plate 15, through which reduced portion, the pin 16 extends, said portion at its outer end slidably contacting with the supporting bar 4. The locking plate 26 is stationary and is secured to the supporting plate 4, by means of screws 30, which have their heads countersunk in the outer face of the plate 26. To normally hold the lug 24 in one of the recesses 27, of the plate 26, a helical spring 31, is interposed on the enlargement 24 of the pin 20, between the collar 25 and the shoulder 32, formed at the point where the recess 23 of the plate 15 is reduced. It is obvious that by this construction, when the pin actuating arm is moved from the position shown in Fig. 2, that the pin 20, will be withdrawn from the recesses 27. At a point diametrically opposed to the recess 23, the plate 15 is provided in its outer face with a substantially triangular recess 33, the base of which is near the periphery of the plate, and the apex of which is directed toward the center of the plate. At the apex of the triangular recess, the latter communicates with the circular recess 34, and forms therewith a pair of shoulders 35 between which the inner end of a leaf spring 36 is adapted to extend, the outer end of said leaf spring being secured to a split pin 37, by means of a pin 38, said split pin being secured to the inner face of the pin actuating member 17, at a point diametrically opposed to the center of the slot 19, thus normally positioning the split pin 37 at the central point in the length of the base of the recess 33. When the pin actuating member 17 is moved by means of the rotation of the shaft 9, from the position shown in Fig. 2, the pin 20 will be lifted out of one of the recesses 27, and the split pin 37 will be moved against the tension of the leaf spring 36 to engage one of the semi-circular recesses 38, formed at the base of the recess 33, whereby the plate 15 and

the hollow shaft 13, to which said plate is pinned, will be rotated, and will thus cause the table top 5 to move longitudinally on the table support through the medium of a rack bar 39, which is secured to the under side of the table top, and which is actuated by means of a toothed sleeve or pinion 40, which is pinned to the hollow shaft 13, by means of a set screw 41.

As indicated in Fig. 7 the teeth of the rack bar extend only half way across the same, the plane portion of the under side of the bar resting on the smooth portion of the sleeve, and the teeth of the bar and sleeve are slightly less in length than the depth of the notches in which they work so that said teeth contact only on their lateral sides and thus allow a very smooth and regular action between the bar and sleeve. When the table top has reached the point desired, the rotation of the shaft 9, is stopped, whereupon the leaf spring 36 will assume its normal position, thus allowing the locking pin 20 to engage one of the recesses 27 in the plate 26, and thus locking the table top against movement.

By reason of the low gear ratio between the rack bar 39 and the pinion 40, together with the action of the spring 36, the movement of the table top will be very smooth and gradual, and will thus prevent displacement of the pool or billiard balls, as the table top is moved. It will be noticed that the recesses 27, are very close together so that no matter in what position the table top may be, the pin 20, may be dropped into one of the recesses.

Positioned centrally of the end bars of the frame of the table stand, are a pair of buffers 42 which extend inwardly from the bar and which comprise cylindrical casings adapted to receive pins 43 which are surrounded within the casings by helical springs 44, which are interposed on the pins 43, between the inner ends of the casings and enlargement 45, formed on the outer end of the pins, and which are adapted to engage the inner faces of the end boards of the table top, when the latter reaches either extremity of its movement, thus bringing the table top to a gradual stop. In order to guide the table top, a plurality of posts or guide members 46 are secured to the inner faces of the side bars of the frame, and which are adapted to contact with the inner faces of the side boards of the table top for guiding the same in its movement. It will of course be understood that table tops of different lengths may be used with a supporting frame of standard size, and that the length of the rack bar 39 may be optional. It is evident that a pool or billard table constructed according to my invention, may be used to a great advantage in a smaller room than would be required for an ordinary table of the same size. It is

also apparent that should a player lean against either end of the table, the top will not be moved, but may be only moved by rotating the shaft 9, through the medium of the crank arms 10. Although the table top is illustrated as adapted for billard playing only, it is of course to be understood that it may be provided with pockets for playing pool.

10 If it is so desired in lieu of of the construction shown, a split pin (not shown), may be secured in the recess 34 in the supporting plate 15, and the inner end of the spring 36 may be received in said pin, the
15 outer end being free to play in a slot in a pin (not shown) secured to the member 17 in a manner similar to the pin 37.

Although I have described the preferred embodiment of my invention, I reserve and
20 may exercise the right to make such changes in the construction, combination and arrangement of parts, as do not depart from the spirit of the invention and the scope of the appended claims.

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

1. The herein described billiard table comprising a table stand and a movable top
30 therefor, a rack bar secured to the under side of said top, a hollow shaft rotatably mounted in said stand, a pinion on said hollow shaft adapted to actuate said rack bar, a shaft

extending through said hollow shaft and journaled in said stand and yieldable driving connections between said last mentioned
35 shaft and said hollow shaft.

2. The herein described billiard table comprising a table stand and a movable top therefor, a rack bar secured to said top, a
40 hollow shaft rotatably supported in said stand, a pinion on said hollow shaft adapted to actuate said rack bar, a second shaft rotatable in said hollow shaft and journaled in said stand, yieldable driving connections between said second shaft and said hollow
45 shaft, and means for locking said hollow shaft against rotation.

3. The herein described billard table comprising a table stand and a movable top
50 therefor, a rack bar secured to said top, a hollow shaft rotatably supported in said stand, a pinion on said hollow shaft adapted to actuate said rack bar, a second shaft rotatable in said hollow shaft, yieldable driving
55 connections between said hollow shaft and said second shaft, and means for automatically locking said hollow shaft against movement imparted through said rack bar.

In testimony whereof I have signed my
60 name to this specification in the presence of two subscribing witnesses.

CYRUS F. WENDELKEN.

Witnesses:

E. L. RUGG,

J. R. HAMILL.