

(No Model.)

2 Sheets—Sheet 1.

G. BROWN.
TOY BOWLING APPARATUS.

No. 600,712.

Patented Mar. 15, 1898.

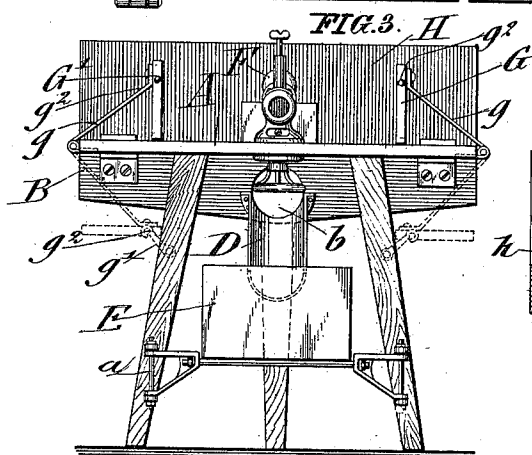
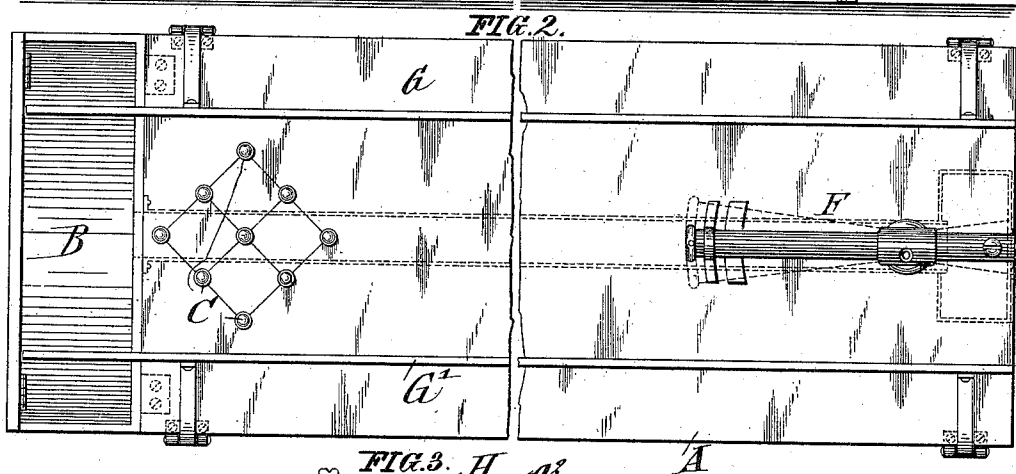
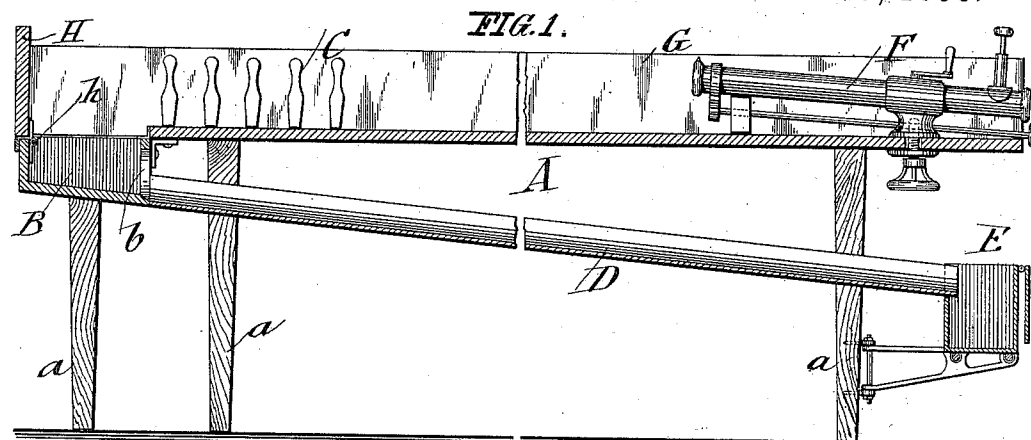
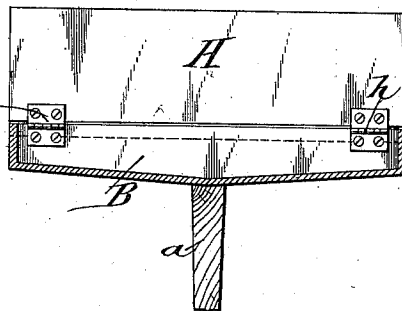


FIG. 4.



WITNESSES:

*Thoms von Pützgen
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INVENTOR

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BY *George & Raegner*
ATTORNEYS.

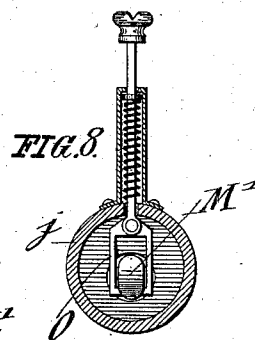
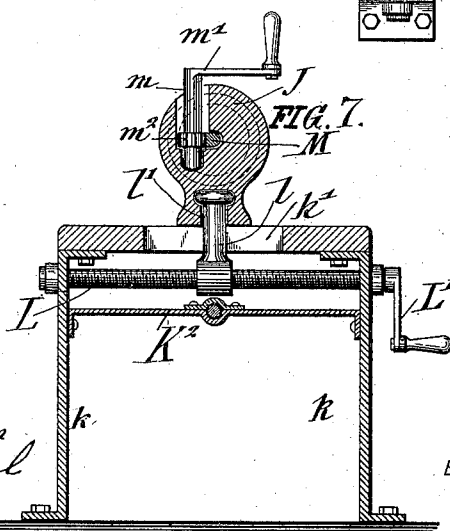
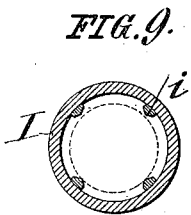
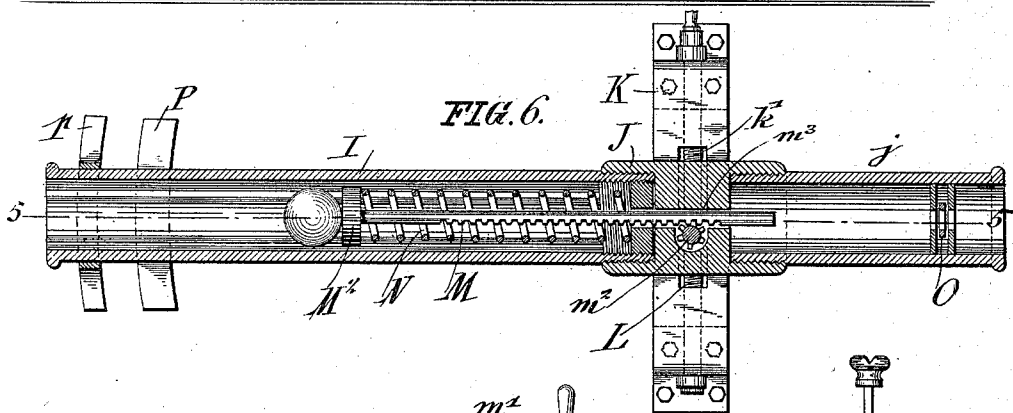
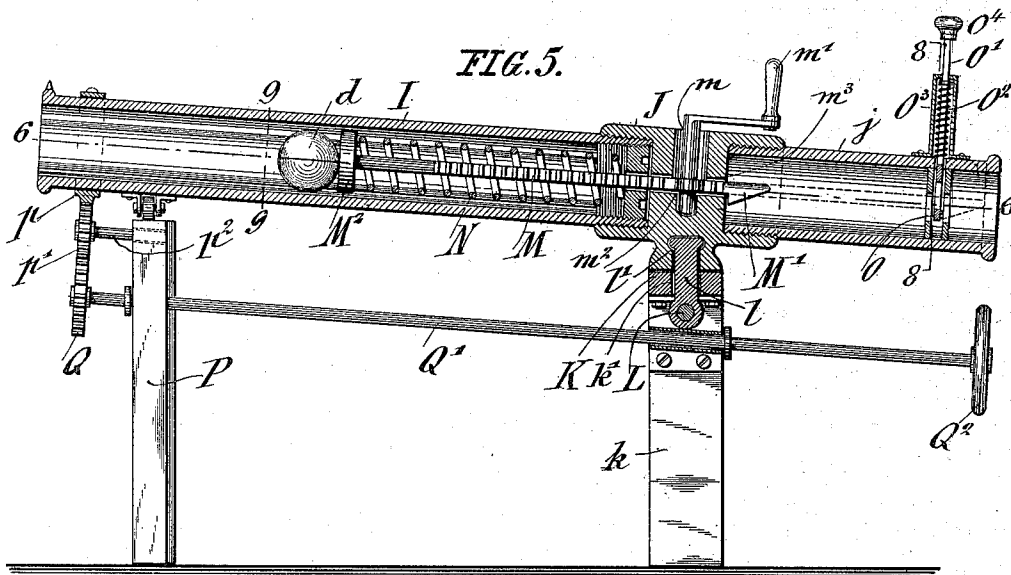
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WITNESSES

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Geo. W. Jaekel

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UNITED STATES PATENT OFFICE.

GEORGE BROWN, OF BROOKLYN, NEW YORK.

TOY BOWLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 600,712, dated March 15, 1898.

Application filed October 13, 1897. Serial No. 655,010. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BROWN, a citizen of the Empire of Germany, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Toy Bowling Apparatus, of which the following is a specification.

This invention relates to a toy bowling apparatus, the object of the same being to provide a convenient and interesting game apparatus which can be placed in the room of a house without taking up unnecessary space, inasmuch as the table which is equipped with the instrumentalities necessary to carry out my invention is adapted to be converted into shape for use as an ordinary dining-table or the like.

The invention consists of certain details of construction and combinations of parts, to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through my improved toy bowling apparatus. Fig. 2 is a plan view of the same. Fig. 3 is an end view. Fig. 4 is a horizontal transverse section on the line 4 4, Fig. 2. Fig. 5 is a longitudinal section on line 5 5, Fig. 6, through the toy gun used in projecting the balls toward the pins. Fig. 6 is a longitudinal section on the line 6 6, Fig. 5, through the same in a horizontal plane. Fig. 7 is a transverse section on the line 7 7, Fig. 6; and Figs. 8 and 9 are transverse sections on the lines 8 8 and 9 9, respectively, of Fig. 5.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A indicates a table on which the parts of my apparatus are mounted, said table being supported by suitable legs, as *a*. One end of the table is provided with a pit B, formed by a depressed pocket of suitable construction, into which the ball which is used for striking the pins C passes and from which the ball is returned back to the player by means of the gutter D, leading from an opening *d* in the inner wall of the pit to the front end of the table, where the same is led into a receptacle E, suitably supported from one of the legs of the table. Arranged at the forward end of the table, opposite the pit, is a swiveled toy cannon F, which by means of suitable training mechan-

ism is directed toward either side of the table, so as to point toward any one of the pins C.

In order to confine and guide the ball when projected from the toy cannon, there are hinged to the sides of the top of the table by means of arms *g* side boards G G', said boards being firmly connected to the outer ends of said arms in such a manner as that when the side boards are swung over onto the top of the table corresponding edges of the same will rest on the top surface of the table, so that the boards are arranged in parallel position at the sides of the table to form a central channel extending longitudinally thereof. At the ends of the movable side boards G G' and to the back of the pit B is hinged at *h* a back board H, which prevents the ball from falling off the end of the table and directs the ball into the pit B.

If the table is to be used as a dining-table or for other purpose where the top should be cleared, the toy cannon F is disconnected from the table, the pins C removed, and the side boards G G' swung into the position below the top of the table as shown by dotted lines in Fig. 3, in which position they are fastened by means of hooks *g'*, pivoted to the legs of the table and adapted to engage pins *g*³, applied to the ends of the said side boards. In this position the side boards form shelves underneath the table-top for supporting the different portions of the apparatus which have been removed from the top of the table or any other articles which may be desired. When the side boards G G' have been swung down into the position shown, the end board H is swung down, so as to close the pit B, said board forming a continuation of the table-top proper. The apparatus is used in the usual manner of bowling apparatuses and its operation will be apparent without detailed description.

The toy cannon is of special construction, now to be described, referring especially to Figs. 5 to 9, inclusive.

I is the barrel of the cannon, the inner end of which is secured into a socket-piece J, into the other end of which socket-piece is secured a tube *j* in the form of a barrel.

The toy cannon is mounted upon a horizontal support K, provided with suitable supporting legs or brackets *k* in such a way that

the same can be adjusted transversely of the said support. To this end the support is provided with a slot K' , extending transversely of the cannon, through which slot passes a headed swivel-pin l , which is received in a socket l' in the bottom of the socket-piece J of the cannon, the lower end of said swivel being screw-threaded, so as to receive a screw-spindle L , the ends of which are journaled in the supporting-legs k of the cannon-support K and provided with a hand-crank L' for rotating it. By this means the cannon can be shifted sidewise on the support or it can be swung on the pivoted point furnished by the swivel l , according to the direction to be given to the ball.

The shaft m of a hand-crank m' is mounted in a vertical hole in the socket-piece J of the cannon and is provided with a pinion m^2 , which meshes with a rack M , which is guided longitudinally through a longitudinal guide-hole m^3 in the said socket-piece J . This rack is provided at one end with a hook M' and at the other end with a head M^2 . Between the head M^2 and the rear end of the barrel I of the cannon is arranged a helical spring N , the tendency of which is to project the rack rearwardly until the hook M' at the rear end of the same abuts against the socket-piece J . The hook M' is beveled, so that when the rack M is pressed back against the action of its spring N it will pass over and engage with a spring-actuated detent O , said detent consisting of a plate which is provided with a central perforation, into which the hook passes, so that the hook can engage with said detent or plate or slide, which is provided with a shank O' , around which is coiled a spring O^2 , arranged within a housing O^3 , mounted on top of the rear tube j of the cannon. Said spring bears at its lower end against the tube j and at its upper end against an abutment on the shank or stem O' , so that the detent O is normally raised by the spring, said shank being provided at its upper end with a push piece or button O^4 , so that the detent can be pressed down for disengaging the same from the hook M' and permit the actuating-spring N of the rack M to project the head M^2 forwardly. Arranged adjacent to the muzzle of the barrel I of the cannon is a transverse rack p , which is engaged by a pinion p' , journaled on a short shaft p^2 , fixed to a support P , arranged beyond the cannon-support K , said pinion P being in turn intermeshed by a gear-wheel Q , which is mounted on a rotary shaft Q' , turning in suitable bearings of the support P and of cross-piece K^2 , connecting the legs k of the support K . The rear end of the rotary shaft Q' is provided with a hand-wheel Q^2 .

The operation of the cannon is as follows: When the barrel I is to be prepared ready for receiving the bowling-ball d , the hand-crank m' at the top of the cannon is rotated so as to retract the projector-head M^2 and the rack which carries the same until the hook M' en-

gages with the spring-actuated detent O . The ball d is now inserted into the barrel I , and as the latter is in slight upwardly-inclined position the ball will naturally roll down to and in contact with the head M^2 . If the cannon is to be shifted bodily sidewise, the hand-crank L' is rotated, and if the same is to be trained on its pivotal support the hand-wheel Q^2 is rotated, so that through medium of the shaft Q' and the gearing $Q p' p$ the cannon is swung on the axis l . The pins having been set in proper position, the ball is now ready to be projected from the cannon, this being done by pressing down the head O^4 of the spring-detent O , thereby disengaging the hook m' of the rack m from the detent, so that the head on the rack under the actuation of the actuating-spring throws or discharges the ball from the barrel of the cannon. For the purpose of better guiding the ball the barrel of the cannon is preferably provided on the interior with longitudinally-extending ribs i , the distance between which corresponds to the diameter of the ball. In this manner the apparatus is permitted to more nearly simulate the movements in a regular bowling-game.

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

1. A toy bowling apparatus, comprising a table provided with a pit at one end, a cannon or ball-projector at the other end, and side boards hinged to the sides of the table and adapted to be swung over onto the top of the table in vertical position and to a position below the table, substantially as set forth.

2. A toy bowling apparatus, comprising a table, a toy cannon or ball-projector at one end of the table and a pit at the other end of the table, side boards hinged to the sides of the table and adapted to be swung over onto the top of the table in vertical position, as well as below the table out of the way, and a movable end board adapted to be arranged against the ends of the side boards, substantially as set forth.

3. A toy bowling apparatus, comprising a table, a toy cannon or ball-projector at one end of the table, means leading from the other end of the table to the forward end of the table for conducting the ball from the rear end to the forward end, hinged side boards applied to the sides of the table and adapted to be swung up into vertical position on the surface of the table, and an end board arranged at the rear end of the table and adapted to close the space between the rear ends of the side boards, substantially as set forth.

4. In a toy cannon, the combination of a socket-piece, a barrel applied to one end of the socket-piece, a guide-tube applied to the other end of the socket-piece, and means for supporting said parts, of a spring-actuated projector guided in the barrel, and a spring-

actuated detent supported on the said tube and adapted to connect with the projector for detaining the same, substantially as set forth.

5 In a toy cannon, the combination with a support provided with a slot, a screw-spindle provided with means of rotation, and a swivel-pin passing through the slot of said support and actuated by said spindle, of a toy cannon swiveled to said swivel, and means for turning the cannon on said swivel, substantially as set forth.

10 6. In a toy cannon, the combination with a barrel, and a spring-detent arranged at the

rear end of the barrel, of a spring-actuated projector comprising a headed rack provided with a hook adapted to be engaged by said 15 detent, and a pinion intermeshing with said rack, and provided with suitable means of rotation, substantially as set forth.

In testimony that I claim the foregoing as 20 my invention I have signed my name in presence of two subscribing witnesses.

GEORGE BROWN.

Witnesses:

PAUL GOEPEL,
GEO. W. JAEKEL.