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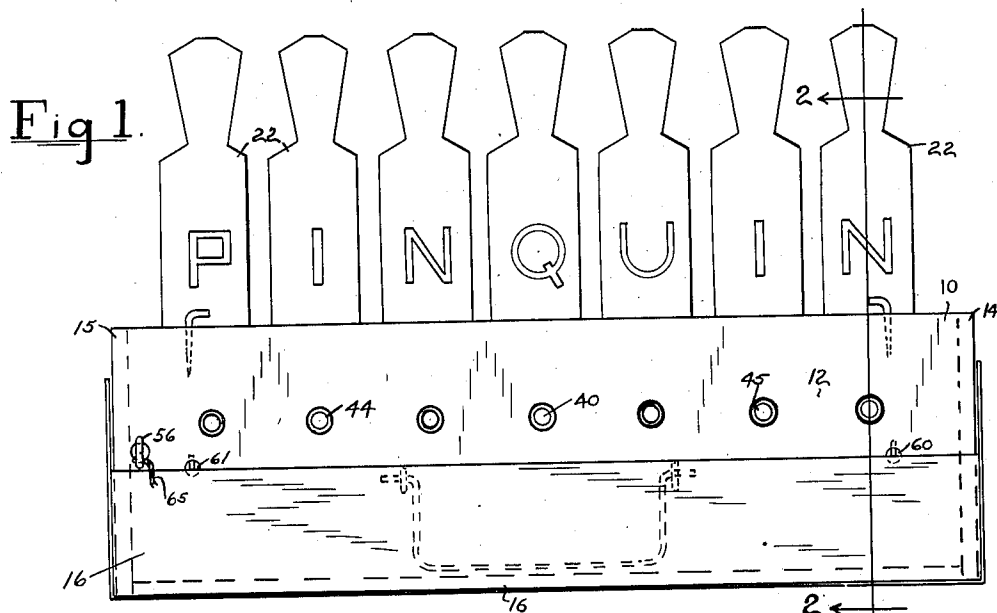
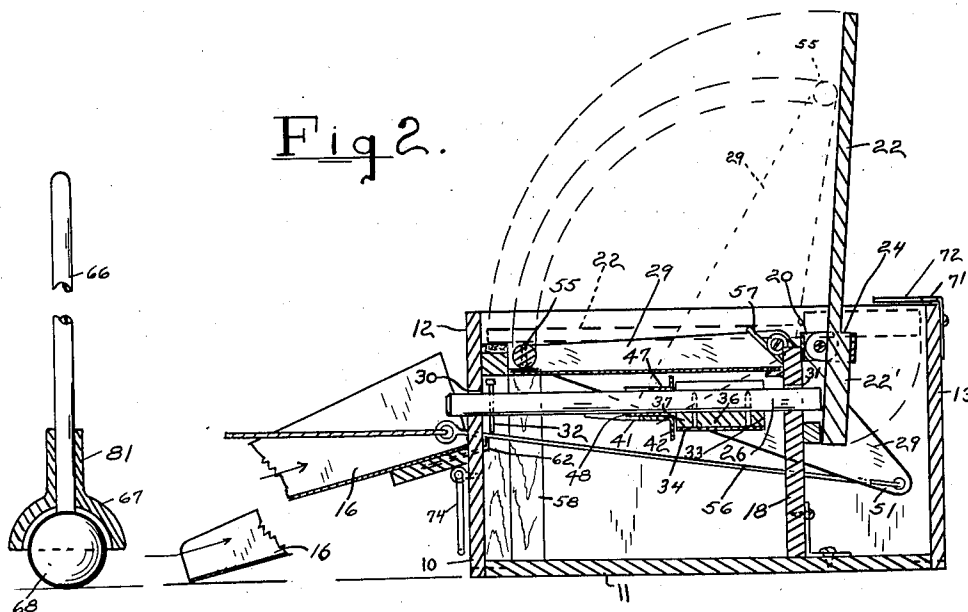
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2,256,175

PORTABLE GAME APPARATUS

Filed Feb. 29, 1940

2 Sheets-Sheet 1



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Fig. 3.

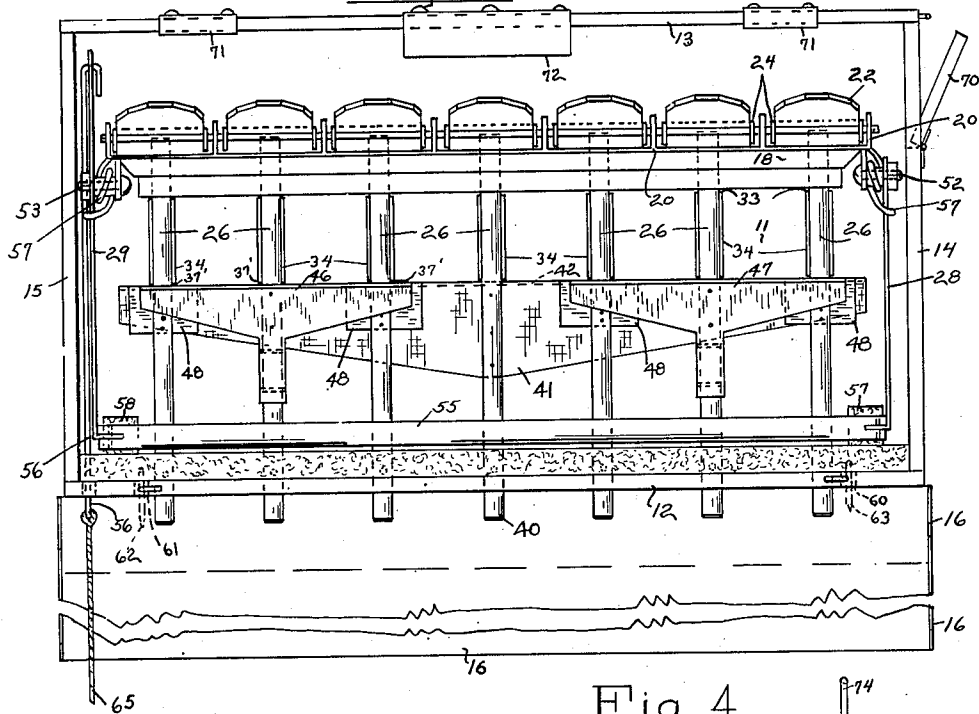


Fig. 4.

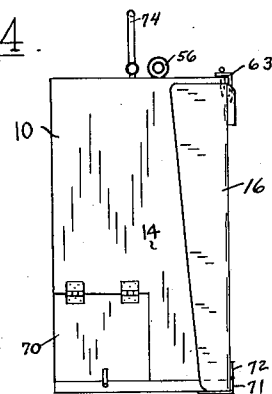
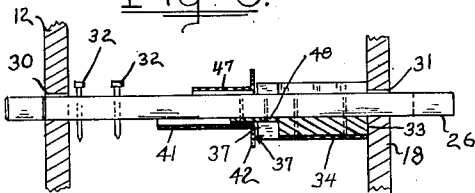


Fig. 5.



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PORTABLE GAME APPARATUS

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8 Claims. (Cl. 273-41)

My invention relates to portable game apparatus of the bowling game type.

The primary object of my invention is to provide game apparatus which combines certain characteristics of bowling with certain characteristics of golf and which is adapted to be of such miniature construction as to allow the game to be played in a room as well as on a lawn on any suitable flat surface.

The invention has for its secondary object the provision of a game which is self-contained whereby all the necessary equipment may be stored within a compact carrying case similar to an ordinary suitcase and when set up for play, the carrying case and cover are utilized in the playing of the game.

Other objects of the invention will become apparent to those skilled in the art upon examination of the following specification and the claims appended thereto.

In the drawings:

Fig. 1 is a front elevation of my improved game showing the puppets or "pins" positioned for play.

Fig. 2 is a side elevation of a section of the game shown in Fig. 1 taken along line 2-2 of Fig. 1.

Fig. 3 is a top plan view of the game shown in Fig. 1.

Fig. 4 is an end elevation of the game with the cover secured in position to permit transportation thereof.

Fig. 5 is an enlarged cross section showing in detail the relation of the plunger, the plunger stop and the abutting yokes.

Like parts are identified by the same reference characters throughout the several views.

A box-like container 10 includes a rigid base member 11, front and back walls 12 and 13 respectively, side walls 14 and 15, and a cover 16, which is removable. Supported upon base 11, within the box, is a vertical partition wall 18 extending longitudinally of the box closer to the rear wall 13 than the front wall 12, the end margins thereof being spaced from the end walls 14 and 15 to provide channels through which a pair of arms 28 and 29 oscillate as hereinafter described.

A bracket 20 which may be right angular in cross section is secured to the upper rear margin of the wall 18 to provide a tiltable mounting for a plurality of puppets or "pins" 22. Puppets 22 are hingedly mounted to bracket 20 by means of bearing portions 24 which are positioned to divide the puppets into relatively short

lower portions and long upper portions. The lower portions are weighted, preferably by being made substantially thicker than the upper portion as shown at 22', Fig. 2, or by other means. In either event, the lower portions are of sufficient weight to normally maintain the puppets in an upright position for "knock down" during play. As shown in Fig. 2, the puppets are preferably maintained with their upper ends having a rearward inclination a few degrees off vertical position when set up.

Located centrally in respect to the puppets, and in position to contact the bottom portions thereof, are a plurality of plungers 26, equal in number to the puppets. Plungers 26 extend through bores 30, provided in front wall 12, and bores 31, provided in support 18, the plungers being supported by these members. Each plunger is mounted to slide in its supports but its axial movement is limited in a direction toward front wall 12 by a pin 32 or the like which is carried by the plunger, and in a direction toward back wall 13 by the rear end 33 of a stop 34 which is carried by each plunger, as hereinafter described. Pins 32 and stops 34 are so positioned as to prohibit either end of the plunger from being withdrawn from the bores of the supporting members, hence the plungers cannot be displaced during play or transportation of the game.

Each stop 34 preferably comprises a light piece of sheet metal which is bent into a U-channel form of a size to fit over a plunger. As shown in Figs. 2 and 3, these stops 34 may be attached to plungers 26 with a spacer element 36 therebetween to vertically position the stops whereby to provide shoulders at the end portions thereof both below and above the plungers, as viewed in Fig. 2.

The game preferably includes an odd number of plungers and associated puppets, seven being shown. They are adapted for cooperative association in the following manner. The center plunger 40 has attached to the bottom portion thereof a large yoke or cross arm 41 which has a straight edge 42 normally in abutting relation to depending shoulder 37 at the front end of all of the stops 34. When the exposed front end of plunger 40 is struck to push the plunger rearwardly, the yoke 41 is carried toward wall 18 and by reason of its abutting relation to the adjacent shoulders of stops 34, it transmits motion through shoulders 37 to all of the plungers, thus knocking down the entire groups of puppets.

Plungers 44 and 45 have smaller yokes or cross arms 46 and 47, attached to the upper surfaces

thereof as shown in Fig. 3. Each of said yokes is provided with a straight edge which is in normal abutting relation to the upper shoulders 37' of three of the stops 34. In the construction shown, when either plunger 44 or 45 is moved rearwardly, its yoke 46 (or 47) carries with it the adjacent plungers on each side thereof and hence three puppets are "knocked down" as a group. The plungers which are disposed at each end of the box, as well as each alternate plunger, carry no yokes, hence they may be pushed rearwardly to knock down their single associated puppet without affecting any other plunger.

Due to the association between the yokes and the various shoulder portions, both upper and lower, of the stop members 34, it is apparent that the plungers must be prevented from rotating to insure proper operation of the device. Plungers 40, 44 and 45 are held against rotation by reason of the respective yokes which they carry extending across at least an adjacent plunger on each side thereof. The plungers which carry no yokes and hence would otherwise be free to rotate are prevented from doing so by fin-like guides 48 which are fastened to the bottom of the plungers with portions projecting on each side thereof in adjacent parallel relation to the upper surface of yoke 41.

To quickly restore the puppets to an upright position, a re-setting device is provided. This may include a pair of lever-like arms 23 and 29 heretofore mentioned. Said arms are pivotally mounted adjacent the end walls 14 and 15 on pintle bolts 52 and 53, respectively. The arms are divided by the pintle bolts into long and short portions, the long portions having their outer ends secured to an intermediate rod 55. A wire-like element 56 has one end fastened to a short arm portion 51 in a position offset from pintle bolt 53. The opposite end of element 56 projects through a suitable bore provided in the front box wall, its outer end being looped to receive a cord. A spring 57 or other suitable means, such as a weight, is provided to bias the arms normally to remain in the position shown in Fig. 2, in which position rod 55 rests on supports 57 and 58. When wire 56 is pulled forwardly from the box, the arms 28 and 29 and rod 55 are swung to the positions shown by dotted lines in Fig. 2, thus returning the puppets to an upright position.

To set the game up for play, cover 16 is removed from the box and positioned with one margin resting on a floor or playing surface and the opposite margin is fastened to the outer surface of the front wall of the box below the protruding portions of the plungers. The wall is apertured at 60 and 61, Fig. 1, and the cover is provided with hooks 62 and 63, Fig. 3, to engage in such apertures. A cord 65 is fastened to the eye portion of wire element 56, the opposite end of the cord being positioned near the point of play. A playing tool or "putter" 81, Fig. 2, is employed by an operator to direct the ball into contact with the plungers. This tool includes a handle 66 and a plunger-like portion 67 provided with a hemispherical recess to adapt it to fit loosely over the ball 68. Rod-like handle 66 has its lower end slidably disposed within a companion bore to permit the end thereof to be projected into the recess, hence a ball which might otherwise stick in the recess may be prevented from entering far enough to do so. Ball 68 is preferably of the type used in playing golf.

An operator, by use of the putter shown, or if preferred by use of a regulation golf putter, rolls the ball from a predetermined position to-

ward the plungers. A properly directed ball will ascend the ramp (cover 16) and hit the center plunger 40. If it has sufficient speed, it knocks down all the puppets and obtains a "strike."

Balls not so accurately placed may knock down either one or three puppets, or none at all. The game may be scored as in bowling or other rules may be adopted by the players. After each "frame" or sequence of plays, the puppets may be "set up" for the next frame. Balls which ascend the ramp and hit either a plunger or the front box wall will acquire enough momentum in their subsequent descent to return automatically toward the point of play.

The box may be provided with a hinged door 70 which leads into the space intermediate the rear wall 13 and the supporting member 18, and during periods of non-use the putter, ball and cord may be conveniently stored therein. Brackets 71 and 72 are provided to retain the cover in position during such period and handle 74 is provided to facilitate transportation. It is obvious that various modifications in the number and character of the puppets and in the means for transmitting motion from one plunger to another may be made without departure from the spirit and scope of the invention.

I claim:

1. In a game of the described type, the combination with a plurality of axially movable plungers mounted in spaced parallel relation in a common plane, certain of the plungers being individually operable, of a set of pivotally supported normally upright puppets each adapted to be swung to a horizontal plane by a plunger, means associated with some of the plungers including a yoke carried thereby and extending to an individually operable plunger on either side thereof and adapted to engage radial portions of said individually operable plungers, and means preventing rotation of the plungers whereby the radially extending members and the yoke are held in position for mutual engagement during operation of the device.

2. In a device of the character described, the combination of a slidable plunger provided with a yoke in right angular relation thereto, and a second plunger mounted in spaced parallel relation to the first mentioned plunger and provided with a radially extending portion adapted to be engaged by said yoke for simultaneous movement of the two plungers in one direction, and a fin-like guide carried by the plunger adjacent said yoke whereby to maintain the radially extending plunger portion in position to be contacted by said yoke.

3. Portable bowling game equipment, comprising the combination of a cabinet having a front wall provided with a row of apertures and a partition near its rear wall provided with corresponding apertures, a set of pins having their end portions respectively mounted in the front wall and partition wall apertures, a set of puppets pivotally mounted in the space between the partition and the rear wall with depending end portions in the path of the pins, and reset means including a pair of pivoted arms and a connecting rod intermediate the unpivoted ends thereof and normally disposed to lie in a horizontal plane adjacent the top wall of the partition, a lever offset from said arms within the cabinet and a rod extending through the front wall to engage the offset lever whereby to provide reset means accessible from outside the cabinet, and a cover for the cabinet having means for connecting one

of its margins with the front wall underneath the forwardly projecting ends of said pins, whereby a ball may be rolled across the cover into contact with any one of the pins.

4. Portable bowling game equipment, comprising the combination of a cabinet having a front wall provided with a row of apertures and a partition near its rear wall provided with corresponding apertures, a set of pins having their end portions respectively mounted in the front wall and partition wall apertures with portions projecting from the front wall, some of said pins being cross connected in the space between the front wall and the partition for selective transmission of motion from one pin to another pin, a set of puppets pivotally mounted in the space between the partition and rear wall with depending end portions in the path of the pins, and a cover for the cabinet having means for connecting one of its margins to the front wall underneath the projecting ends of said pins, whereby during play a ball may be rolled across the cover to depress one of the pins, and knock down one or more puppets depending upon whether or not the pin depressed is cross connected.

5. Portable bowling game equipment, comprising the combination of a cabinet having a front wall provided with a row of apertures, and a partition near its rear wall provided with corresponding apertures, a set of puppets pivotally mounted in the space between the partition and the rear wall with depending end portions in the path of the pins, puppet reset means including a pair of pivoted arms and a connecting arm therebetween, said arms and rod being adapted to normally lie in a horizontal plane adjacent the top wall of the partition, a lever carried by one of said arms in offset relation therewith within the cabinet, and a rod extending through the front wall to engage said lever whereby to provide puppet reset means accessible from the outside of the cabinet.

6. In a portable bowling game, a cabinet provided with a removable cover and a front wall provided with a row of apertures, a partition in parallel spaced relation to the rear cabinet wall and provided with corresponding apertures, a set of pins having their end portions respectively mounted in the front wall and partition wall apertures with portions extending outwardly from the front wall, a set of puppets pivotally mounted adjacent the upper margin of the partition, said mounting dividing each of the puppets into a long portion adapted to be swung when the cover is removed from a horizontal position within the top portion of the cabinet to an upright tilted position above the cabinet, and a relatively short portion adapted to be simultaneously swung from a horizontal position within the upper portion of the cabinet to a depending position within the space within the rear cabinet wall and the partition, said short portion, when depending, being in the path of one of the pins to be contacted thereby and swung from an upright to a horizontal position upon depression of the outwardly extending pin portion.

7. A device as set forth in claim 6 wherein the short pin portion is of thicker material than the long portion thereof to provide sufficient weight to maintain the puppet tilted until struck by an associated pin during operation of the game.

8. A device as set forth in claim 6 wherein the rear wall of the partition is provided with a bumper disposed below the pin aperture thereof and the short puppet portion is offset in respect to the pivot and is of sufficient weight to maintain the depending portion thereof in contact with the bumper whereby to maintain the puppet upright at a sufficient angle of tilt to prevent its return to a horizontal position prior to being struck by its associated pin.

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