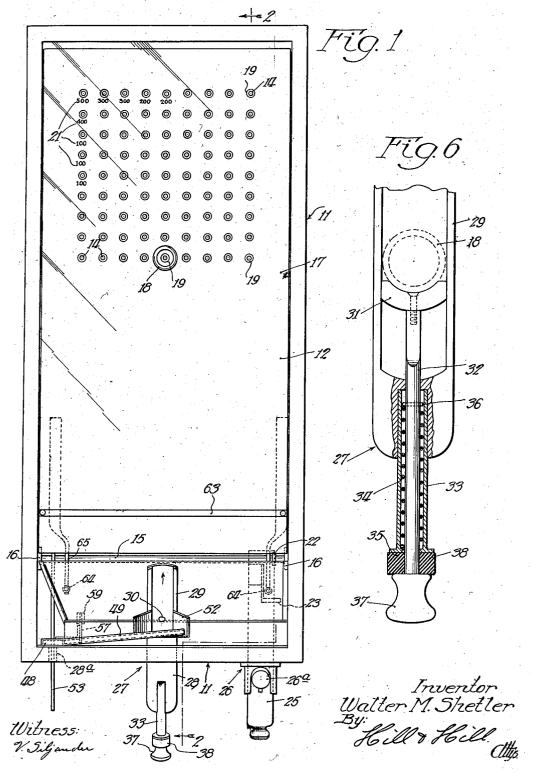
GAME

Filed May 10, 1935

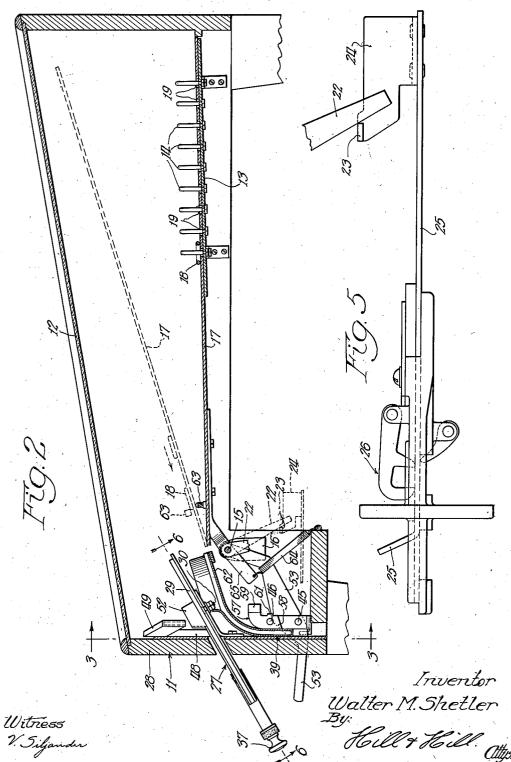
3 Sheets-Sheet 1



GAME

Filed May 10, 1935

3 Sheets-Sheet 2



2,068,200 Jan. 19, 1937. W. M. SHETLER GAME Filed May 10, 1935 3 Sheets-Sheet 3 Inventor Walter M. Shetler By Hill + Hill. (ttp. 39 Witness: (V. Siljandar

UNITED STATES PATENT OFFICE

2,068,200

GAME

Walter M. Shetler, Chicago, Ill., assignor of onehalf to Gordan Shetler, Chicago, Ill.

Application May 10, 1935, Serial No. 20,744

18 Claims. (Cl. 273-100)

This invention relates to games, and particularly to games of skill wherein projectiles such as rings, discs or similar substantially flat objects are projected onto a projectile support or field having a plurality of targets associated therewith

One object of the invention is to provide a game wherein a plurality of physical objects are provided for determining the position of the projectiles with relation to the targets and wherein means are provided for removing the projectiles from their relation with said objects and returning the projectiles to a magazine.

Another object of the invention is to provide 15 a game having a plurality of pins over which ring-like projectiles may be projected and wherein novel means are provided for removing the ring-like projectiles from the pins.

Another object of the invention is to provide a game having a manually operated projector and magazine for the projectiles, and wherein novel means are provided for conveying the projectiles from the magazine to the projector.

A further object of the invention is to provide novel means to eliminate jamming of the projectiles in the magazine and interferring with their passage to the conveying means.

A still further object of the invention is to improve devices of the character described in sun-30 dry details hereinafter referred to and particularly pointed out in the appended claims.

One embodiment of the present invention is shown for illustrative purposes in the accompanying drawings, in which:

Fig. 1 is a plan view of a game device embodying features of the present invention;

Fig. 2 is a longitudinal sectional elevational view taken substantially as indicated by the line 2—2 of Fig 1;

Fig. 3 is an enlarged transverse sectional elevational view taken as indicated by the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary sectional elevational view of a portion of the structure illustrated in 45 Fig. 3, and taken substantially as indicated by the line 4—4 thereof;

Fig. 5 is an elevational view of a coin controlled device illustrating its relation to certain structure forming a portion of the present invention; and

Fig. 6 is an enlarged fragmentary plan sectional view of the projector mechanism taken substantially as indicated by the line 6—6 of Fig. 2.

The illustrative embodiment of the invention

shown in the drawings comprises a housing or frame, indicated as a whole by the numeral 11, and having, preferably, a transparent cover member such as glass or the like, indicated by the numeral 12, mounted adjacent its upper side.

Mounted in the frame 11, preferably adjacent one end thereof, is a supporting member 13 having a plurality of substantially uniformly spaced pins 14 mounted therein and extending upwardly from the upper side thereof.

Mounted preferably adjacent the opposite end portions of the frame !! and shown, in the present instance, as rigidly connected to a supporting bar !5 rotatably mounted in brackets !6 is a plate !7 adapted to support a plurality of projectiles 15 employed in playing the game and indicated by the numeral !8, the plate !7 being provided with a plurality of substantially uniformly spaced apertures !9 adapted, respectively, to receive the pins !4 in such a manner that the pins will extend therethrough, the upper surface of the plate !7 being also provided with a plurality of targets adjacent the apertures !9 and designated by scoring numerals, such as "500", "200", "100", etc., indicated at 2! in Fig. 1 of the drawings.

For convenience in the further description of the device, the projectiles 18 will be referred to, preferably, as rings, but it will be understood that the projectiles may be either of substantially circular disc-like form, or of annular ring-like form as shown in the present instance, and reference to the projectiles as rings or the like is intended to include projectiles of a character which may be projected and which may cooperate with the pins in a manner to be positioned thereby.

Rigidly connected to the rotatable supporting bar 15 is a downwardly extending arm 22 adapted to be engaged by a lug 23 formed on a bracket 24 carried by a slide bar 25 forming a part of suitable coin controlled mechanism as shown in 40 Figs. 1 and 5, and indicated as a whole by the numeral 25, in a manner to tilt the plate 17 about the axial line of the supporting bar 15 by movement of the slide bar 25 as indicated by dotted lines in Fig. 2.

Inasmuch as the specific type of coin controlled mechanism forms no part of the present invention, a detailed description of the mechanism is not thought necessary as any suitable coin controlled device having a slide such as indicated 50 at 25 may be employed.

For projecting the rings 18 in the direction of the pins 14, an inclined projector and ring guide, indicated as a whole by the numeral 27, is adapted to extend through the end wall 28 of the 55 frame 11, and comprises a ring guide 29 pivotally mounted at 30 in a manner to permit lateral, pivotal or swinging movement of the projector 27 in a manner to direct the rings in various directions towards the pins 14.

The projector 27 is clearly shown in Fig. 6 and comprises the ring guide 29 having a plunger 31 slidably mounted therein, the plunger 31 being provided with a stem 32 extending outwardly 10 through a sleeve 33 rigidly mounted in the ring guide member 29 and having a compression spring 34 surrounding the stem 32 and operating between a shoulder 35 on the outer end of the sleeve 33 and a pin 36 extending through the 15 stem 32, the outer end of the stem being provided with a knob 37 by which the stem may be drawn outwardly and the spring energized to project a ring 18 toward the pins 14, a resilient washer 38, such as rubber or the like, being po-20 sitioned between the end of the sleeve 33 and the knob 37 to absorb the shock or impact of the knob with the end of the sleeve when released.

For collecting and arranging the rings 18 in such a manner that they may be successively con25 veyed to the projector 27, a magazine, indicated as a whole by the numeral 39, and having an inclined bottom portion 41, is arranged within the frame 11 preferably adjacent the wall 28, the magazine 39 being provided adjacent its lower 30 end with a discharge opening 42.

For temporarily holding the rings within the magazine 39, a stop member 43 is mounted adjacent the discharge opening 42 and is provided with a vertically disposed portion 43a having a slot 44 therein adapted to loosely receive a pair of studs or bolts 45 and 46 by which the stop member 43 and portion 43a is slidably mounted on a bracket 47 secured to the magazine 39.

Mounted adjacent the discharge end of the magazine 39 and communicating therewith through the discharge opening 42 is a vertically disposed guide or channel 48 extending upwardly a substantial distance above the horizontal plane of the projector, the guide channel 48 communicating at its upper end portion with one end of an inclined guide 49, the opposite or lower end of the guide 49 terminating above the ring guide 29 and having an opening 51 in its lower side through which the rings may be discharged into a hopper-like structure 52 mounted on the ring guide 29 to facilitate the positioning of the rings in proper relation with respect to the projector.

For conveying the rings 18 from the magazine 39 to the projector 27, an elevator lever 53 is 55 shown, in the present instance, as pivotally mounted on the bar 15, and as extending through an elongated slot 48a formed in the guide channel 48 and extending outwardly through a slot 28 α in the wall 28 of the frame 11, the elevator 60 lever 53 being adapted to rest on a laterally extending finger 54 forming a part of the stop member 43 and extending therefrom in such a manner that when the elevator lever 53 is moved downwardly from the position shown in Figs. 2 65 and 3 to the full line position shown in Fig. 4, the stop member 43 will be moved out of the discharge opening 42 and permit a ring to pass by gravity into the guide channel 48 and be positioned above and on the lever 53, so that when 70 the lever is moved to the dotted line position shown in Fig. 4, the ring within the channel member 48 will be moved upwardly into engagement with a deflector 55 by which the ring will be moved laterally into the inclined guide 49 75 through which it is intended to roll and be discharged through the opening 51 formed therein. For returning the stop member 43 to its operative position, a tension spring 56 may be connected to a portion of the stop member and to a fixed portion of the device.

For engaging super-posed rings, such as 18a (Fig. 3), which may become positioned above other rings in the magazine 39 in the manner illustrated in Fig. 3, and which might cause the rings to jam and interfere with their efficient 10 passage or feed from the magazine 39 when the stop member 43 is lowered, a retaining pawl, indicated as a whole by the numeral 57, is pivotally mounted on the stud or bolt 48 and is provided at one of its ends with a portion 58 adapted to 15 extend into the magazine 39 and engage a superposed ring 18a, as illustrated in Fig. 4 when the stop member 43 is in its lowermost position to permit the passage of a ring into the vertically disposed guide channel 48, the positioning of the 20 portion 58 in the magazine 39 being accomplished by reason of a weighted end portion 59 formed on the pawl at the end thereof opposite the bolt 46 from the portion 58, the action of the portion 58 being to lift the superposed ring 18a and per- 25 mitting other rings to pass thereunder into engagement with the stop member 43. For removing the portion 58 from within the magazine 39 or to the position shown in Fig. 2 in a manner to release the ring 18a, a lug 61, formed on the 30 portion 43a of the stop member 43 and movable with the stop member, is adapted to engage an edge portion of the pawl 57 in a manner to rotate it in a counter-clockwise direction from the position shown in Fig. 4 to the position shown in 35 Fig. 2, such movement of the stop member 43 and portion 43a being accomplished by the spring 56 when manual pressure is relieved from the elevator arm 53.

The magazine 39 at its receiving side is provided with a guide portion 62 for receiving the rings or projectiles from the plate 17 when the latter is tilted to the dotted line position shown in Fig. 2, and for preventing the rings or projectiles from entering upon the guide portion 62 45 in superposed position or one upon another, a gauge bar 63 is mounted upon and spaced from the plate 17 a distance slightly greater than the thickness or transverse dimension of one of the projectiles 18.

To facilitate the tilting of the plate 17 from the full line to the dotted line positions shown in Fig. 2, a plurality of counter-balancing springs 54 may be connected at one of their ends to a fixed part of the device and at their opposite 55 ends to arms 65 mounted on the bar 15 and by which the plate 17 is connected thereto.

Assuming that all of the projectiles in the device have been discharged from the projector 27 onto the plate 17, the operation of the device is consubstantially as follows:

By placing a suitable coin in the pocket 26a (Fig. 1) of the coin controlled mechanism, the slide bar 25 may be moved inwardly to the position shown in Fig. 5 and by reason of the engagement of a lug 23 with the arm 22, the plate 17 may be tilted or moved from its full line position in Fig. 2 to the dotted line position therein, thereby lifting the plate clear of the pins 14 and by reason of the inclination of the plate 17 in its 70 dotted line position, the projectiles or rings 18 will slide down the plate past the gauge bar 63 by which superposed rings will be separated and the rings directed onto the guide portion 62 of the magazine 39 and thence into the magazine 75

2,068,200

to be directed downwardly by reason of the inclined bottom 41 thereof toward the stop member 43, and upon releasing the pressure on the slide bar 25, the plate 17, by reason of its weight, will resume its full line position as shown in Fig. Thereafter, by pressing the elevator lever downwardly, the stop member 43 is removed from the discharge opening 42 and an adjacent ring permitted to roll into the vertically disposed 10 guide channel 48 at a point above the elevator arm in a position to be moved upwardly thereby. As the elevator arm 53 is moved upwardly, the stop member 43 is returned to its operative position by the spring 56, and the continued upward 15 movement of the arm 53 will move the ring thereon upwardly through the vertically disposed guide channel 48 and against the deflector 55 by which it is directed into the inclined guide 49 and thence through the opening 51 therein into 20 the hopper-like structure 52 associated with the ring guide 29 for positioning the ring in the guide in front of the plunger 31 mounted therein, the inclination of the projector 27 and ring guide 28 being such that the ring 18 will remain in contact with the plunger 31 when the stem 32 is withdrawn to energize the spring 34 preparatory to discharging the ring from the projector toward the pins 14.

By successive similar operations of the elevator 30 lever 53, the remaining rings in the magazine 39 will be successively conveyed to the projector for discharging them toward the pins 14, after which, by depositing another coin in the pocket 26a, the above described operations may be repeated and

35 the playing of the game continued.

Obviously, the present invention is not limited to the precise construction and arrangement shown and described as the same may be variously modified. Moreover, all the features of the in-40 vention need not be used conjointly as the same may be used to advantage in variously different combinations and sub-combinations.

What I claim as new and desire to secure by Letters Patent is:

1. A game of the class described comprising a supporting member having a plurality of pins projecting therefrom, a plurality of annular projectiles, a relatively narrow magazine therefor for retaining the projectiles on their edge por-50 tions in substantially upright position, a projector, means including an inclined guide for conveying the projectiles from said magazine to said projector, a projectile supporting plate having apertures formed therein adapted to receive $_{55}$ said pins, said plate and pins being relatively movable for removing the projectiles from said pins and directing the return of said projectiles by gravity to said magazine.

2. A game of the class described comprising a 60 frame, a supporting member having a plurality of pins projecting therefrom, a plurality of annular projectiles, a relatively narrow magazine therefor, an adjustable projector pivotally mounted on said frame, means including an in-65 clined guide for conveying the projectiles from said magazine to said projector, a projectile supporting plate having a plurality of apertures formed therein adapted to receive said pins, said plate and pins being relatively movable for re-70 moving the projectiles from said pins and directing the return of said projectiles by gravity to said magazine.

3. A game of the class described comprising a frame, a supporting member having a plurality 75 of pins projecting therefrom, a plurality of relatively thin annular projectiles, a magazine therefor having an inclined bottom portion and of relatively narrow transverse dimension for retaining the projectiles on their edge portions in substantially upright position, an adjustable pro- 5 jector mounted on said frame, manually operated means and an inclined guide operatively related thereto for conveying the projectiles from said magazine to said projector, an inclined projectile supporting plate having a plurality of ap- 10 ertures formed therein adapted to receive said pins, said plate and pins being relatively movable for removing the projectiles from said pins and directing the return of said projectiles by gravity to said magazine.

4. A game of the class described comprising a frame, a supporting member having a plurality of pins projecting therefrom, a plurality of annular projectiles, a magazine therefor, a projector pivotally mounted on said frame, manu- 20 ally operated means and an inclined guide for conveying the projectiles from said magazine to said projector, an inclined projectile supporting plate having a plurality of apertures formed therein adapted to receive said pins, said plate 25 and pins being relatively movable for removing the projectiles from said pins and directing the return of said projectiles by gravity to said magazine, and coin controlled means for causing the relative movement of said plate and pins.

5. A game of the class described comprising a frame, a supporting member having a plurality of pins projecting from one side thereof, a plurality of annular projectiles, a magazine therefor, a spring actuated projector pivotally mounted 35 and laterally movable on said frame, manually operated means and an inclined guide for conveying the projectiles from said magazine to said projector, an inclined projectile supporting plate having a plurality of apertures formed therein 40 adapted to receive said pins, said plate and pins being relatively movable for removing the projectiles from said pins and directing the return of said projectiles by gravity to said magazine, and coin controlled means operatively related to 45 said plate and pins for causing the relative movement thereof.

6. A game of the class described comprising a frame, a supporting member having a plurality of pins projecting therefrom, a plate having a plu- 50 rality of apertures formed therein adapted to receive said pins, said plate being pivotally mounted adjacent one of its edges on said frame, a plurality of substantially flat circular projectiles, a relatively narrow magazine therefor for retaining the 55 projectiles in substantially upright position and having one of its sides flared laterally to provide a guide portion adjacent the pivoted edge of said plate, a projector, means including an inclined guide for conveying the projectiles from said 60 magazine to said projector, and manually operated means movably mounted in said frame and operatively related to said plate for tilting the plate out of operative relation with respect to said pins to return said projectiles by gravity to 65 said guide portion and magazine.

7. A game of the class described comprising a frame, a supporting member having a plurality of spaced pins projecting therefrom, a plate having a plurality of apertures formed therein 70 adapted to receive said pins, said plate being pivotally mounted adjacent one of its edges on said frame, a gauge bar operatively related to said plate, a plurality of projectiles, a magazine therefor having a guide portion adjacent the 75

pivoted edge of said plate, a projector, means for conveying the projectiles from said magazine to said projector, and coin controlled means movably mounted in said frame and operatively related to said plate for tilting the plate out of operative relation with respect to said pins for returning the projectiles by gravity past said gauge bar to said guide portion and magazine.

8. A game of the class described comprising a 10 frame, a supporting member having a plurality of spaced pins projecting therefrom, an inclined plate having a plurality of apertures formed therein adapted respectively to receive said pins, said plate being pivotally mounted adjacent one 15 of its edges on said frame, a gauge bar mounted on and spaced from said plate adjacent the pivoted edge thereof, a plurality of projectiles, a magazine therefor, having a guide portion adjacent the pivoted edge of said plate, a projector 20 pivotally mounted on said frame, means for conveying the projectiles from said magazine to said projector, and coin controlled means movably mounted in said frame and operatively related to said plate for tilting the plate to remove the 25 pins from the apertures formed therein and returning the projectiles by gravity past said gauge bar to said guide portion and magazine.

9. A game of the class described comprising a frame, a supporting member having a plurality 30 of spaced pins projecting therefrom, a plurality of circular projectiles, a magazine therefor having an inclined bottom, a movable projectile stop member adjacent one end of said magazine, a projector movably mounted on said frame, means 35 for conveying projectiles from said magazine to said projector, said means comprising a vertically disposed guide adjacent the lower end of said magazine, an inclined guide communicating at one of its ends with said vertically disposed guide 40 and terminating at its opposite end adjacent said projector, and an elevator engageable with said stop member for releasing a projectile from said magazine and elevating the released projectile to said inclined guide, a plate pivotally mounted $_{45}$ in said frame and having a plurality of spaced apertures adapted respectively to receive said pins, and means operatively related to said plate for tilting the plate to return the projectiles to said magazine.

10. A game of the class described comprising a frame, a supporting member having a plurality of spaced pins projecting therefrom, a plurality of circular projectiles, a magazine therefor having an inclined bottom, a vertically movable projec- $_{5\bar{5}}$ tile stop member adjacent the lower end of said magazine and provided with a laterally extending finger, a projector movably mounted on said frame, means for conveying projectiles from said magazine to said projector, said means comprising 60 a vertically disposed guide adjacent the lower end of said magazine and communicating therewith. an inclined guide communicating at one of its ends with the upper end of said vertically disposed guide and terminating at its opposite end adja-65 cent said projector, and an elevator engageable with the laterally extending finger of said stop member for releasing a projectile from said magazine and elevating the released projectile to said inclined guide, a plate pivotally mounted in said 70 frame and having a plurality of spaced apertures therein adapted to receive said pins, and manually actuated means for tilting the plate to return said projectiles to said magazine.

11. A game of the class described comprising a 75 frame, a supporting member having a plurality

of spaced pins projecting therefrom, a plurality of circular projectiles, a magazine therefor having an inclined bottom and having a guide portion associated therewith, a vertically movable projectile stop member adjacent the lower end of 5 said magazine and provided with a laterally extending finger, a projector and projectile guide associated therewith pivotally mounted on said frame, means for conveying projectiles from said magazine to said projector, said means compris- 10 ing a vertically disposed guide adjacent the lower end of said magazine and communicating therewith, an inclined guide communicating at one of its ends with the upper end of said vertically disposed guide and terminating at its opposite end 15 above said projectile guide, and a manually operated elevator engageable with the laterally extending finger of said stop member for releasing a projectile from said magazine and elevating the released projectile to said inclined guide, a plate 20 pivotally mounted in said frame adjacent said magazine guide portion, and having a plurality of spaced apertures adapted respectively to receive said pins, and coin controlled means operatively related to said plate for tilting the plate to return 25 the projectiles to said guide portion and magazine.

12. A game of the class described comprising a frame, a supporting member having a plurality of spaced pins projecting therefrom, a plurality of 30 annular projectiles engageable with said pins, a magazine for said projectiles, having an inclined bottom and having a guide portion associated therewith, a vertically reciprocating projectile stop member adjacent the lower end of said magazine 35 and provided with a laterally extending finger, a retaining pawl movable into and out of said magazine and operatively related to said stop member in a manner to be moved thereby, a projector and projectile guide associated therewith pivotally 40 mounted on said frame, means for conveying projectiles from said magazine to said projector, said means comprising a vertically disposed guide channel adjacent the lower end of said magazine and communicating therewith, an inclined guide 45 communicating at its upper end with the upper end of said vertically disposed guide channel and terminating at its lower end above the projectile guide associated with said projector, and a manually operated elevator engageable with the lat- 50 erally extending finger of said stop member for releasing a projectile from said magazine and elevating the projectile to said inclined guide, a projectile deflector adjacent the upper end of said guide channel, a plate pivotally mounted at one 55 of its edges in said frame adjacent said magazine guide portion, and having a plurality of spaced apertures adapted respectively to receive said pins, and coin controlled means operatively related to said plate for tilting the plate out of operative re- 60 lationship with said pins to direct the return of the projectiles by gravity to said guide portion and magazine.

13. A projectile handling device including a projector, a plurality of projectiles, a magazine 65 therefor having a discharge opening adjacent its lower end, a movable stop member adjacent said opening and having a laterally extending finger, a retaining pawl movably mounted adjacent said discharge opening and adapted to extend into said 70 magazine to engage a superposed projectile therein, means on said stop member engageable with said pawl for moving the pawl from said magazine to release a projectile engaged by said pawl, means for conveying projectiles from said magazine to 75

said projector, said conveying means comprising a vertically disposed guide communicating with said magazine through said discharge opening, an inclined guide communicating at one of its ends with said vertically disposed guide and terminating at its opposite end adjacent said projector, a deflector adjacent the juncture of said guides, and an elevator engageable with said laterally extending finger to move said stop member and allow a 10 projectile to enter said vertically disposed guide, said elevator being movable upwardly to elevate said projectile into engagement with said deflector and into said inclined guide.

14. A ring handling device including a pro-15 jector and ring guide associated therewith, a plurality of rings, an inclined magazine therefor having a discharge opening adjacent its lower end, a vertically movable stop member adjacent said opening and having a laterally extending 20 finger, a retaining pawl pivotally mounted adjacent said discharge opening and adapted to extend into said magazine to engage a superposed ring therein, means movable with said stop member and engageable with said pawl for moving the 25 pawl from said magazine to release a ring engaged by said pawl, means for conveying rings from said magazine to said projector, said conveying means comprising a vertically disposed guide communicating with said magazine through said discharge 30 opening, an inclined guide communicating at one of its ends with the upper end of said vertically disposed guide and terminating at its opposite end adjacent and above the ring guide associated with said projector, a deflector in said vertically disposed guide adjacent its juncture with said inclined guide, and a vertically movable elevator operable in said vertically disposed guide and engageable with said laterally extending finger to move said finger and stop member downwardly to 49 allow a projectile to enter said vertically disposed guide above said elevator, said elevator being movable upwardly to elevate said ring into engagement with said deflector and into said inclined guide.

15. A ring handling device comprising a frame, a plurality of rings, a magazine therefor mounted in said frame and having a discharge opening, a movable stop member adjacent said opening for retaining the rings in said magazine, a retaining 50 pawl adjacent said discharge opening and adapted to extend into said magazine to engage a superposed ring therein, and means operatively related to said stop member and pawl for moving the pawl from said magazine to release the ring $_{55}$ engaged by said pawl.

16. A game of the class described comprising a frame, a supporting member having a plurality of spaced pins projecting therefrom, a plate hav-

ing a plurality of apertures formed therein adapted to receive said pins, said plate being pivotally mounted adjacent one of its edges on said frame, a plurality of rings, ring separating and gauging means operatively related to said plate, a magazine for said rings having a guide portion adjacent the pivoted edge of said plate, a projector, means for conveying the rings from said magazine to said projector, and manually actuated means operatively related to said plate 10 for tilting the plate out of operative relation with respect to said pins for returning the rings by gravity past said ring separating and gauging means to said guide portion and magazine.

17. A projectile handling device comprising a 15 frame, a plurality of ring-like projectiles, a relatively narrow magazine therefor mounted in said frame and having a discharge opening, a projector having a ring guide associated therewith and pivotally mounted on said frame, means for 20 conveying the projectiles from said magazine to said ring guide and projector, said means comprising a substantially vertical relatively narrow guide adjacent and in the plane of the discharge opening of said magazine and communicating 25 therewith to receive projectiles therefrom, a relatively narrow inclined guide having one of its ends in the lateral plane of and communicating at that end with the upper end portion of said vertical guide to receive projectiles therefrom, 30 said inclined guide terminating at its opposite end above and adjacent the ring guide associated with said projector, and a manually operated elevator engageable with a projectile discharged from said magazine for elevating said projectile 35 through said vertical guide to the receiving end of said inclined guide.

18. A game of the class described comprising a frame, a plurality of spaced targets, a plurality of substantially flat projectiles, a magazine 40 therefor having a discharge opening, means operatively related to said targets for directing the projectiles into said magazine, a movable stop member adjacent the discharge opening of said magazine for retaining the projectiles therein, a $_{
m 45}$ projector movably mounted on said frame, and means for conveying the projectiles from said magazine to said projector, said means comprising a substantially vertical guide adjacent the discharge opening in said magazine and com- 50 municating therewith, an inclined guide communicating at one of its ends with said vertically disposed guide and terminating at its opposite end adjacent said projector, and an elevator engageable with said stop member for releasing a $_{55}$ projectile from said magazine and elevating the released projectile to said inclined guide.

WALTER M. SHETLER.