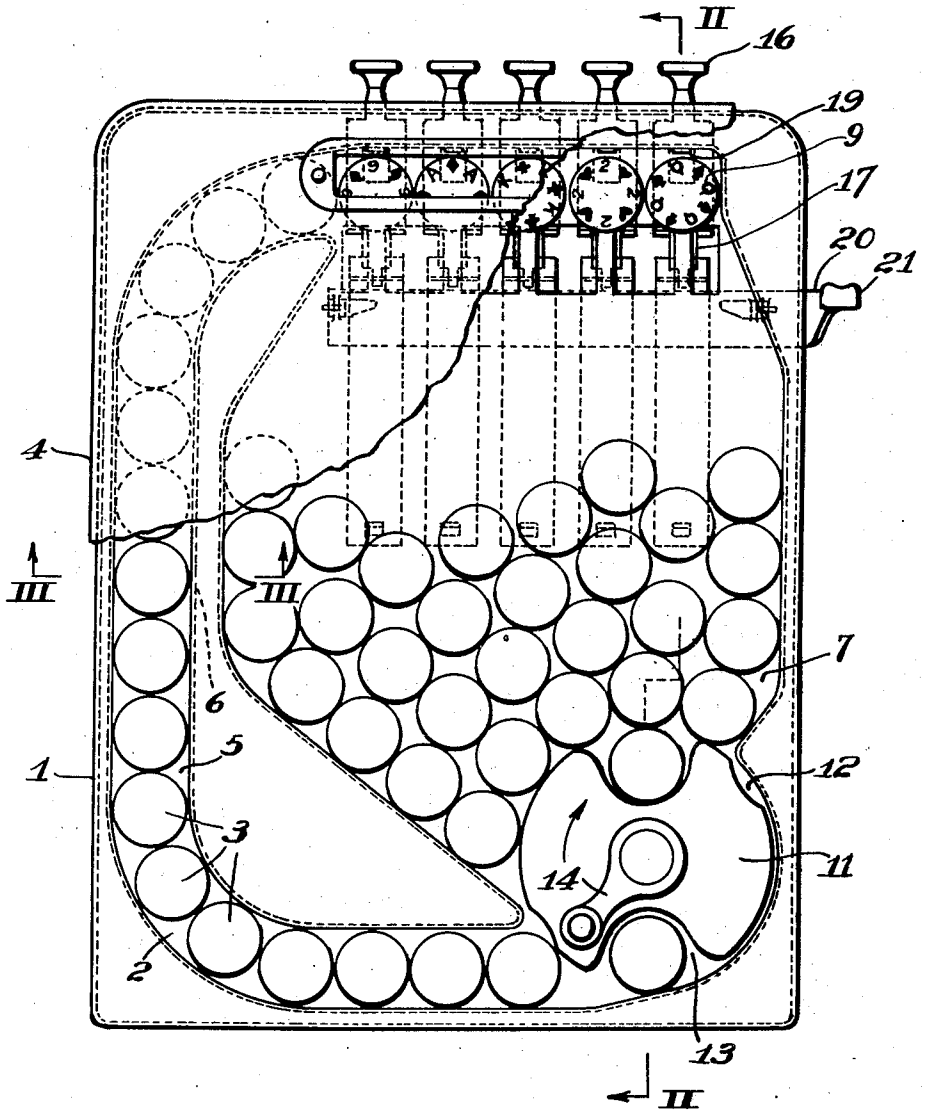
July 5, 1932. T. H. SLOAN 1,866,063

GAME APPARATUS

Filed June 17, 1931 2 Sheets-Sheet 1

Fig. 1.




WITNESSES

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Fig. 2

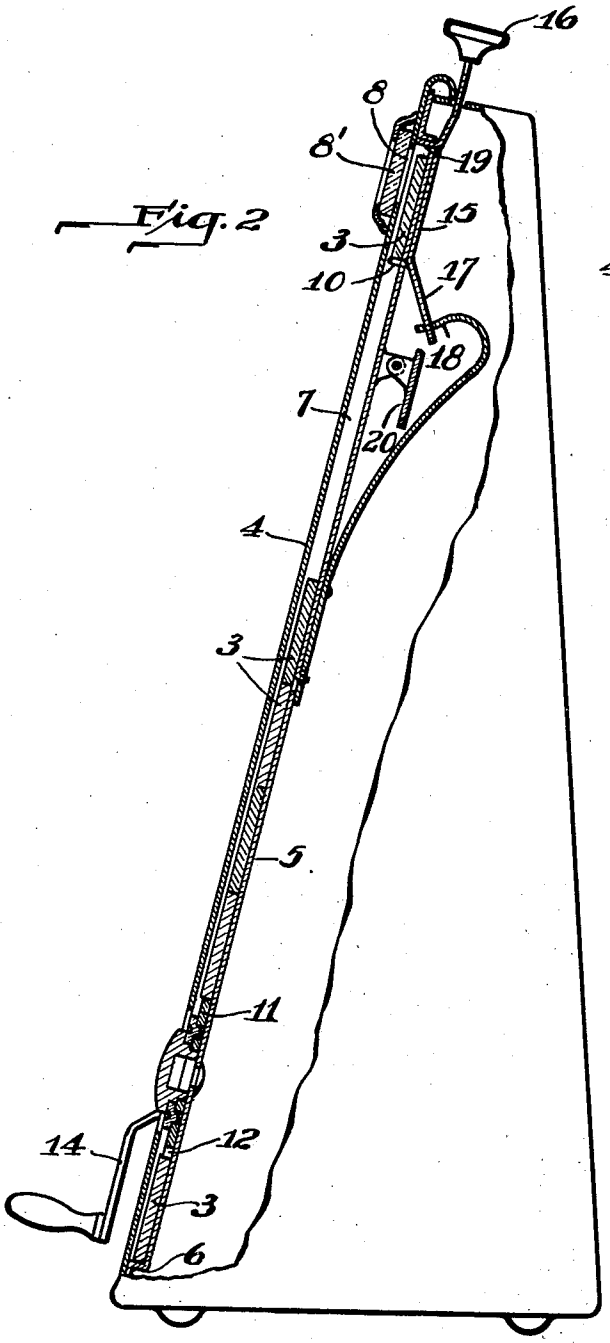
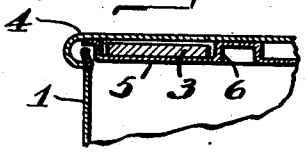



Fig. 3.

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# UNITED STATES PATENT OFFICE

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## GAME APPARATUS

Application filed June 17, 1931. Serial No. 544,977.

This invention relates to games, and pertains particularly to apparatus for mechanically shuffling, and dealing, freely movable playing pieces, as for a hand of cards in poker.

Apparatus for such games as poker not only should arrange a hand compactly within view of a player without affording any possibility to foretell or to regulate the order of cards to be received, but also it should be controllable to discard any units selected and in a positive manner to draw others in replacement.

Objects of this invention are to provide a game apparatus that exposes a compact hand of freely movable counters without dependence on the manner or speed of operating an actuating mechanism; that operates by a simple but definite movement; that can remove counters from a hand, but only those that are definitely discarded; that can draw new playing units, but none before another first is discarded; and that shuffles the counters effectively by the very acts of discarding and drawing to a hand.

These objects, and others, are accomplished according to this invention by apparatus enclosing a courseway for the passage of a series of counters, with an aperture over the courseway for exposing a limited group of counters, means for expelling selected counters from under the aperture, a magazine into which counters are expelled from under the aperture and in which they are shuffled in their passage, and driving means at the magazine outlet to withdraw counters from the magazine and advance them along the courseway. The apparatus further comprises separate keys for the discarding of selected counters from an exposed hand into the magazine; and as driving means at the magazine outlet comprises a wheel having a peripheral recess to receive counters one by one from the magazine and force them along the courseway.

In the accompanying drawings illustrating the preferred embodiment of this invention,

Fig. 1 is a face view of the apparatus with its cover partially broken away to expose the playing units and internal mechanism;

Fig. 2 is a side elevation of the apparatus with its casing partially broken away to show the face portion in vertical section along the line II—II of Fig. 1; and

Fig. 3 is a cross section along the line III—III of Fig. 1, showing an arrangement of the cover with interior flanges to form a courseway for playing units.

Referring more particularly to the drawings, the apparatus comprises a vertically disposed casing 1 that encloses from view a continuous courseway 2 for the passage of relatively movable playing counters 3 which are preferably in the form of disks having game indicia on their faces. The courseway is formed between a pair of oppositely disposed plates, as face sheet 4 and backing sheet 5, with upstanding flanges 6 mounted between them as barriers to complete the sides of the passage. As shown in Fig. 3, the backing sheet 5 is secured by interlocking of its edges between those of the face sheet 4 and the edges of the casing. The thickness of the counters and the depth of the entire courseway are commensurate with each other so that the counters may be propelled in series around the entire passage without overlapping each other and jamming.

The courseway at one side, and bottom, constitutes a relatively narrow passage having unit-entering and unit-discharging portions, but at the other side widens to form a magazine 7 for accumulation of the counters. The magazine enables the courseway as a whole to contain the usual 52 separate playing units of a deck of cards and assists in shuffling the units effectively.

Face sheet 4 is provided with an aperture

8 having a transparent covering 8′ over the courseway at the top of magazine 7, to afford a view of a hand of playing units. The length of this aperture is sufficient to include the five counters of a poker hand, and its width is approximately half that of a counter so as to permit reading the face designations 9 without confusion of numbers. Repeated designations are carried by each half of a counter.

The counters of a hand are supported under the aperture at the top of magazine 7 upon separate pairs of prongs 10. The prongs supporting any counter are adapted to be withdrawn to permit the counter selected to drop into the magazine. Means to discard any selected counters from a hand by withdrawing supporting prongs 10 comprise vertical key-links 15 of stiff material mounted back of each counter, as shown in Fig. 2, with each pair of prongs 10 struck forward from a corresponding link-strip. The top of each strip projects freely through the slitted top of casing 1 and terminates in a suitable depressing button 16; while the bottom end 17 of each strip extends below the counter and is bent back as a tongue from the prongs. The tongue projects through a slotted guide plate 18, for support thereby. Plate 18 in turn is fastened to the rear of back-plate 5. Thus, as the button 16 back of any selected counter of the hand is depressed, bottom 17 of the corresponding strip is retracted by guide 18 to withdraw the supporting prongs from that counter. It sometimes happens that the counters of a hand bridge under the aperture. Hence to assure that a selected counter is dropped from the hand, each strip contains an upper prong 19 to be pushed down upon the counter as the lower prongs are withdrawn.

In order to discard a whole hand at once, each slotted guide plate 18 is extended downwardly as an elongate, resilient strip and mounted as a vertical leaf spring; and a gang plate 20 extending across the row of these counter-supporting strips is hinged for being swung against the row to push them back together, and to move the supporting prongs back with them. For swinging gang plate 20, its end is extended out through the side of casing 1 and terminates in depressing button 21.

In the magazine, discarded counters fall to group themselves in various relative positions by chance, and thus to shuffle themselves. They are shuffled further by being milled around in the magazine under positive propulsion from a peripherally recessed wheel 11 at the bottom of the magazine. This wheel with horizontal axis is mounted in the plane of the passageway. It contains shallow depressions 12 in its edge that are rotated into slight engagement with the lowermost counters to force them back and shuffle them between other counters of the group.

Rotatable wheel 11 at the bottom of the magazine functions also to abstract counters one by one from the magazine and propel them in series around the passage to form the playing hands. For this purpose the wheel edge contains recesses 13 of sufficient depth to receive a counter entirely. In rotation, a recess 13 conveys a counter from the magazine above and delivers it to the narrow passage below to advance a train of counters. To facilitate release of the counter into the bottom passage, recess 13 is cut away at its back, as shown; and further, the lower part of passage 2 is inclined downwardly away from the wheel. Wheel 11 is rotated by a handle 14 to advance the train of playing units.

When the apparatus is assembled, only discarding keys 16 and 21, and handle 14 for drawing new counters, are outside the casing. The handle can be turned at any time to circulate counters in the magazine to shuffle them and to break up any tendency for them to arch over the magazine outlet as well as to advance counters into a hand after a corresponding number of them is discarded. The arrangement of keys affords positive and selective control of discarding; while all discarded counters re-arrange themselves by chance beyond any control or knowledge of a player.

In playing, handle 14 is turned to advance a series of counters from magazine 7 until five of the units are exposed under aperture 8. Their further advance is prevented by a barrier, such as at the end of the passageway above the magazine. Should discarding be desirable, any one or more counters selected may be dropped from the hand by depressing the appropriate button 16 or the whole hand be dropped at once by depressing button 21. After one or more counters thus are removed, their places are filled by turning handle 14 to advance the series of counters until the space under the aperture again is occupied. This will push the units of a hand all toward one end, but if there are several places to be filled, new units may be introduced one by one simply by discontinuing turning of the handle as each place is filled. Thus a hand is drawn by chance as vacant places are filled and discarded by choice as selected counters are ejected into the magazine.

According to the provisions of the patent statutes, I have explained the principle and mode of operation of my invention, and have illustrated and described what I now consider to represent its best embodiment. However, I desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

I claim:

1. A game apparatus, comprising a casing including a pair of oppositely-disposed plates spaced from each other to form a chamber for a set of playing units, barriers between said plates dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, the casing being provided with means associated with the courseway for indicating a limited number of playing units, means for moving playing units from the magazine into indicating position in the courseway, and means for moving the units from the courseway into the magazine.

2. A game apparatus, comprising a casing having a pair of oppositely-disposed plates spaced from each other to form a chamber for a set of playing units, barriers mounted between the plates to divide the chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, the casing being provided with an aperture to expose a limited number of playing units, means to withdraw playing units from the magazine and to advance them in series along the courseway into aperture-exposed position, and means for individually moving any of the exposed units from the courseway into the magazine.

3. A game apparatus, comprising a casing having a pair of vertically disposed plates spaced from each other to form a chamber for the passage of a series of relatively movable playing units, and barriers mounted therebetween dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, said casing being provided with means along the courseway to expose a hand of counters, means to discard selected counters from the exposed hand into the magazine, and means comprising a peripherally-recessed wheel mounted rotatably below the magazine to advance counters along the courseway from the magazine into the hand.

4. A game apparatus, comprising a casing including a pair of oppositely-disposed plates spaced from each other to form a chamber for a set of playing units, barriers between said plates dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, the casing being provided with an aperture over the courseway for exposing a limited number of playing units, means for moving the units from the courseway into the magazine, and means for moving playing units from the magazine into aperture-exposed position in the courseway, said means for withdrawing units from the magazine comprising a wheel rotatably mounted at the bottom of the magazine and having edge recesses of different depths, the more shallow recesses being adapted for slight engagement of playing units in the magazine to move them against others therein for shuffling, and the deeper recesses being adapted to retain a counter and transfer it from the magazine toward the hand.

5. A game apparatus, comprising a casing having a pair of vertically disposed plates spaced from each other to form a chamber for the passage of a series of relatively movable playing units, and barriers mounted therebetween dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, said casing being provided with means along the courseway to expose a hand of counters, means to discard selected counters from the exposed hand into the magazine, and means to withdraw units from the magazine comprising a wheel rotatably mounted at the bottom of the magazine and having an edge recess sufficiently deep to withdraw a counter from the magazine and transfer it to the unit-entering portion of the courseway, said recess being cut away in back and said unit-entering portion of the courseway being downwardly inclined from the wheel to facilitate release of counters into the courseway.

6. A game apparatus, comprising a casing having a pair of vertically disposed plates spaced from each other to form a chamber for the passage of a series of relatively movable playing units, and barriers mounted therebetween dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, said casing being provided with means along the courseway to expose a hand of counters, means to discard selected counters from the exposed hand into the magazine, and means comprising a peripherally-recessed wheel mounted rotatably below the magazine to advance counters along the courseway from the magazine into the hand, said means to expose a hand of counters being disposed over the courseway at the top of the magazine, and said means to discard counters from the exposed hand into the magazine comprising separate supporting elements under each counter of the hand and corresponding separate key-links mounted movably in the casing for withdrawing the supporting element from under any corresponding counter.

7. A game apparatus, comprising a casing having a pair of vertically disposed plates spaced from each other to form a chamber for the passage of a series of relatively movable playing units, and barriers mounted therebetween dividing said chamber into a magazine and a courseway having unit-entering and unit-discharging portions communicating with the magazine, said casing being

provided with means along the courseway to expose a hand of counters, means to discard selected counters from the exposed hand into the magazine, means comprising a peripherally-recessed wheel mounted rotatably below the magazine to advance counters along the courseway from the magazine into the hand, said aperture being disposed over the courseway at the top of the magazine, and said means to discard counters from the exposed hand into the magazine comprising pairs of supporting prongs under each counter of the hand and key-links mounted through the casing for individual movement and having inclined tongues secured to the respective prongs, and slotted guide members mounted to engage the inclined tongues for withdrawing any counter support as its key-link is depressed.

8. A game apparatus, comprising a casing having a pair of vertically disposed plates spaced from each other to form a chamber for the passage of a series of relatively movable playing units, and barriers mounted therebetween dividing said chamber into a magazine and a courseway having a unit-entering and unit-discharging portions communicating with the magazine, said casing being provided with means along the courseway to expose a hand of counters, means to discard selected counters from the exposed hand into the magazine, means comprising a peripherally-recessed wheel mounted rotatably below the magazine to advance counters along the courseway from the magazine into the hand, said aperture being disposed over the courseway at the top of the magazine, and said means to discard counters from the exposed hand into the magazine comprising separate pairs of supporting prongs under each counter of the hand and separate key-links mounted through the casing for individual movement and having inclined tongues secured to the respective prongs, and slotted guide members mounted to engage the inclined tongues for withdrawing any counter support as its key-link is depressed, said slotted guide members being resiliently mounted in the casing, and a gang-plate extending across all the slotted guide members and mounted for forcing all the guide members and supporting prongs back together to discard a whole hand at once.

In testimony whereof, I sign my name.

THEODORE H. SLOAN.