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MIXING AND DISPENSING MARBLE GAME

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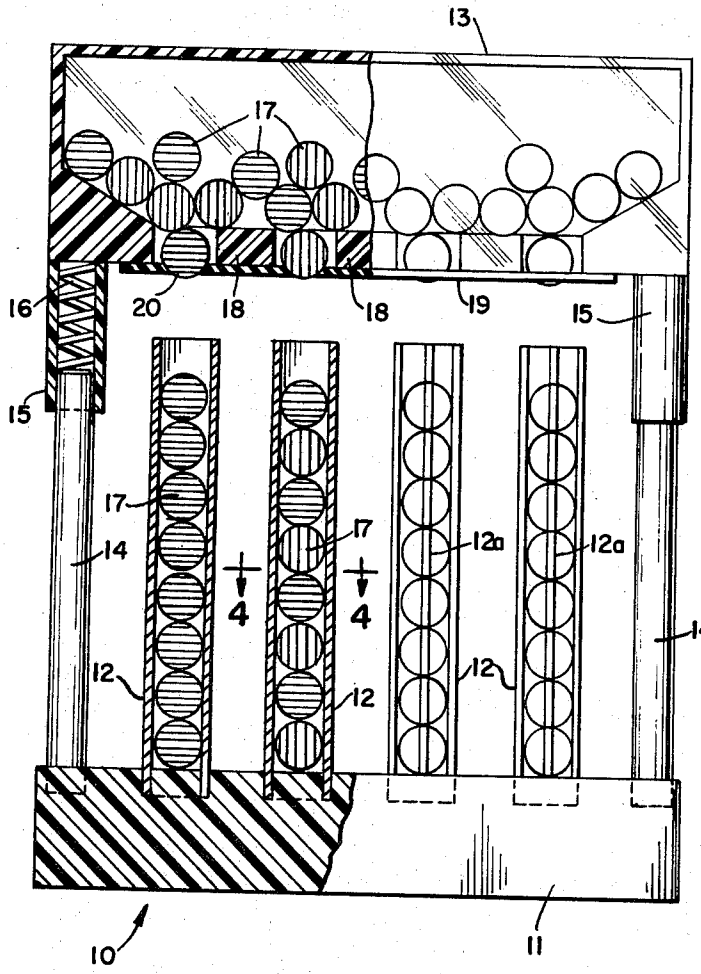



FIG. 1.

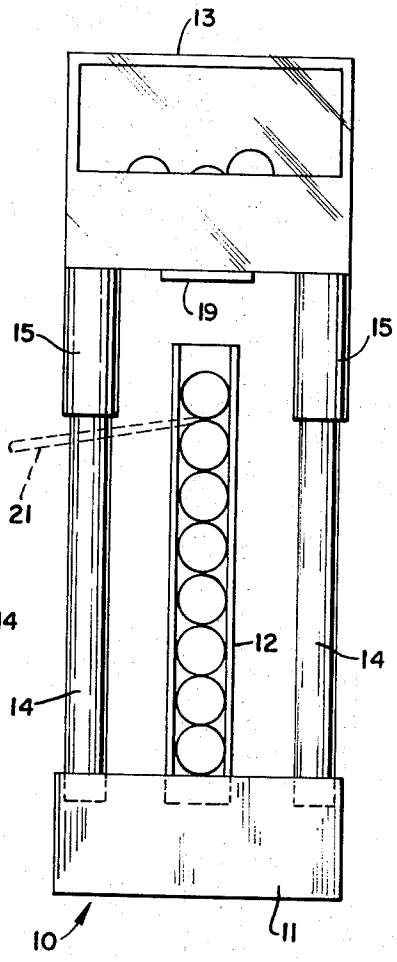



FIG. 2.

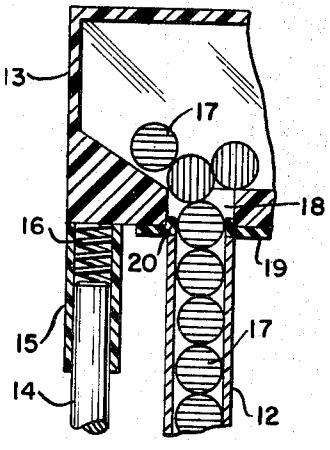



FIG. 5.

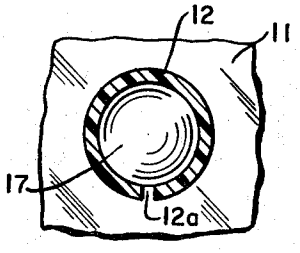



FIG. 4.

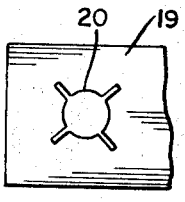



FIG. 3.

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# MIXING AND DISPENSING MARBLE GAME

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## ABSTRACT OF THE DISCLOSURE

A set of marble receiving tubes mounted on a base which also supports a movable marble reservoir above the tubes. The reservoir has a set of marble outlet ports aligned with the tubes and the ports are normally closed by expandable valve means. When the reservoir is moved to a lowered position relative to the base, the tubes expand the valve means and marbles are discharged through the ports into the tubes.

This invention relates to new and useful improvements in games, and the principal object of the invention is to provide a highly entertaining and amusing marble game which may be played by a number of players.

As such, the marble game of the invention comprises a set of marble receiving tubes mounted on a base, and a relatively movable marble reservoir from which marbles are discharged into the tubes when the reservoir is moved relative to the base. The marbles in the reservoir are of different colors and each tube receives a column of marbles which may happen to be of the same color or of different colors in succession. Each player has one of the tubes assigned to him and the game may be won by a player whose tube receives a column of marbles of the same color, or of different colors in succession according to some definite pattern, as the several players may agree upon. Also, means are provided whereby each player may eject marbles of undesired colors from his tube, so that as the sequence of play is repeated, each player may attempt to collect a column of marbles of a selected color or combination of colors in his tube, in order to win the game.

Another important feature of the invention resides in providing the marble reservoir with outlet ports which are normally closed by expandable valve means, the arrangement being such that when the reservoir is moved relative to the tube-equipped base, the tubes are operative to open the valve means to facilitate discharge of marbles through the outlet ports into the tubes.

The game of the invention is simple in construction, highly entertaining in operation, and lends itself to economical manufacture.

With the foregoing more important object and features in view and such other objects and features as may become apparent as this specification proceeds, the invention will be understood from the following description taken in conjunction with the accompanying drawings, wherein like characters of reference are used to designate like parts, and wherein:

FIG. 1 is a view, partly in side elevation and partly in vertical section, showing the marble game of the invention;

FIG. 2 is an end elevational view thereof;

FIG. 3 is an enlarged, fragmentary plan view of the valve means;

FIG. 4 is an enlarged, fragmentary sectional detail, taken substantially in the plane of the line 4—4 in FIG. 1; and

FIG. 5 is a fragmentary vertical sectional view, similar to the upper left-hand portion of FIG. 1, but showing the reservoir in the lowered position while marbles are being discharged into the tubes.



Referring now to the accompanying drawings in detail, the marble game of the invention is designated generally by the reference numeral **10**. The same comprises a suitable base **11** which supports a set of vertical marble receiving tubes **12**, the lower end portions of these tubes being suitably anchored in the base while their upper ends are open for reception of marbles therein. The entire device may be made of plastic material and at least the tubes **12** are transparent so that the marbles therein may be observed. Also, each tube is provided with a longitudinal slot **12***a* open at its upper end, for a purpose hereinafter to be described.

The base **11** also supports a vertically movable marble reservoir **13** which is disposed above the tubes **12**. Conveniently, the reservoir may be movably supported by vertical posts **14** which are rigidly secured at their lower ends to the base **11**, while their upper end portions are slidably received in tubular sockets **15** provided at the underside of the reservoir. Compression springs **16** are positioned in the sockets **15** to react against the upper ends of the posts **14**, whereby the reservoir **13** is normally maintained in its raised position, but it will be understood that the reservoir may be moved downwardly toward the upper ends of the tubes **12**, against the resiliency of the springs **16**.

The reservoir **13** contains a plurality of marbles **17** which are of substantially the same diameter or somewhat smaller than the inside diameter of the tubes **12**, so that when the marbles are received in the tubes, each tube contains a column of marbles of a thickness of a single marble. The marbles **17** are discharged from the reservoir **13** through a set of outlet ports **18** which are provided in the bottom of the reservoir in vertical alignment with the respective tubes **12**. However, passage of marbles through the ports **18** is normally prevented by expandable valve means **19**, provided at the bottom of the reservoir **13**.

The valve means **19** comprise a panel or strip of elastomeric material such as natural or synthetic rubber, suitably secured to the underside of the reservoir, as by adhesive for example, so that it covers the outlet ports **18**. However, the valve strip **19** is provided at points below the respective ports **18** with aperture means **20** which, as exemplified in FIG. 3, may be in the form of a circular hole with a set of radiating slots, although some other suitable form of aperture means may be employed. In any event, it will be understood that in the normal state of the aperture means **20**, the valve strip **19** closes the outlet ports **18** of the reservoir so that the marbles **17** cannot pass through the ports, as will be apparent from FIG. 1.

However, when the reservoir **13** is moved downwardly on the supporting posts **14** against the resiliency of the springs **16**, the open upper ends of the tubes **12** come into engagement with portions of the valve strip **19** at the edges of the aperture means **20** and these edge portions of the strip are deflected upwardly as shown in FIG. 5, so that the aperture means **20** are expanded sufficiently to permit discharge of marbles **17** from the reservoir **13** through the ports **18** into the several tubes **12**. Thus, each tube becomes filled with a column of marbles, whereupon downward pressure on the reservoir **13** may be relaxed to permit the reservoir to return to its initial, raised position, wherein the ports **18** are automatically closed by the elastomeric valve strip **19**.

The marbles **17** in the reservoir **13** are of different colors and when the device is actuated, each of the tubes **12** will become filled with a column of marbles which may happen to be all of the same color, or in which the colors may be mixed in succession, depending upon the flow of marbles of the various colors from the reservoir. Thus for example, all the marbles in the first tube **12** at the left of FIG. 1 are shown to be of the same color, blue for example, while those in the next tube are mixed,

as for example, red and blue. Also in the second tube, the marbles happened to be mixed so that red and blue are present alternately in the column, or some other pattern of progression may be sought, as for example, one red followed by two blue, followed by one red, et cetera. In any event, while the color sequence of marbles in each of the tubes **12** is dictated by chance, it may determine the winner of the game in accordance with some advance understanding among the several players as to which color arrangement is to win. Thus, for example, the winner may be the one whose tube **12** contains a column of marbles of the same color; or of all different colors; or of different colors according to a predetermined pattern of succession, and game points may also be scored in relation to a predetermined color pattern, it being understood that in playing the game, each player is assigned one of the tubes **12** and that the several tubes are filled with marbles simultaneously, when the reservoir **13** is lowered as already explained. The game may end with that single actuation of the reservoir, and the winner may be determined in accordance with the color make-up of the marble columns of the several players.

Alternatively, the game may be continued beyond the initial actuation of the reservoir **13**, in which event the reservoir is held in its depressed position and any one or more of the players may insert a suitable implement **21** (see FIG. 2) through the slot **12***a* of his tube **12**, so as to expel marbles of an undesired color back up into the reservoir, with the hope that marbles of a desired color will pass into the tube while the valve strip **19** is still open during the time when the reservoir is still depressed, or when the valve strip is opened again during a subsequent lowering of the reservoir. In this manner the game sequence may be repeated indefinitely, until one of the players attains a winning combination of marbles in his column.

In the same manner, that is, by use of the implement **21**, all the marbles in all the tubes **12** may be returned to the reservoir **13** when each phase of the game or when the entire game is completed, this being done while the reservoir is in its lowered position and the valve strip **19** is open. Thus, the marbles are at all times contained within the apparatus and the possibility of losing them by dispersion outside of the device is averted. On the other hand, if there is no objection to removal of marbles from the tubes **12** after each play, as by tilting the device and collecting the marbles by hand as they fall out of the tubes, a suitable access door (not shown) may be provided on top of the reservoir **13** so that the marbles may be replaced therein.

Like the tubes **12**, the reservoir **13** is also preferably made of transparent material, so that the flow of marbles from the reservoir into the ports **18** and tubes **12** may be observed when the device is in use.



The marble ejecting implement **21** may be in the form of a toothpick-like blade, or the like, capable of being inserted through the slots **12***a* into the tubes **12** at a selected point along the length of the tubes, for ejecting marbles of an undesired color, as already explained.

What is claimed as new is:

**1.** A marble game comprising in combination, a base, a set of marble receiving tubes upstanding on said base and having open upper ends, a reservoir movably disposed above said tubes and containing a plurality of marbles, said reservoir having a bottom provided with a set of marble outlet ports in alignment with the respective tubes, and valve means normally preventing passage of marbles through said ports, said reservoir being movable downwardly with respect to said base and said tubes being operative to open said valve means when the reservoir is lowered, whereby marbles may be discharged through said ports into said tubes.

**2.** The device as defined in claim **1** together with means supporting said reservoir on said base for raising and lowering movement.

**3.** The device as defined in claim **2** together with means resiliently biasing said reservoir to its raised position.

**4.** The device as defined in claim **1** wherein said marbles are of different colors, the inside diameter of said tubes corresponding substantially to the diameter of said marbles, whereby each tube may receive a column of marbles only one marble thick.

**5.** The device as defined in claim **1** wherein said tubes are provided with longitudinal slots for reception of an implement whereby marbles may be ejected upwardly from the tubes.

**6.** The device as defined in claim **1** wherein said valve means comprise a panel of elastomeric material secured to the bottom of said reservoir, said panel being provided at points below said ports with expandable aperture means, said aperture means being expandable by engagement of said tubes therewith when the reservoir is lowered.

**7.** The device as defined in claim **1** wherein at least said marble receiving tubes are formed from transparent material.


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