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Ayoub et al.

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[54] **MARBLE-CARRIER CASE**

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[51] **Int. Cl.²** **B65D 83/04;** B65D 85/58

[58] **Field of Search** ..... 206/315, 379, 459, 527, 206/526; 220/20; 229/52 AC, 54 C; 211/49 R, 49 D; 312/49

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Attorney, Agent, or Firm—Young & Thompson

[57] **ABSTRACT**

The invention relates to a case or container for carrying and storing children's marbles without risk of loss. The marble-carrier case comprises a vertical barrel having a plurality of longitudinal chambers and provided with two end-plates, the transverse-section profile of said chambers covering an arc greater than half the perimeter of the marbles in order to hold them imprisoned, one of said end-plates being fixed so as to close the bottom of said barrel, while the other said end-plate is pivotally-mounted on the top of said barrel and comprises at least one peripheral slot adapted to be brought selectively into correspondence with any one of said longitudinal chambers in order to provide access to the selected chamber, either for stacking the marbles in the chamber or for removing one or more of the marbles imprisoned in said chamber.

3 Claims, 4 Drawing Figures

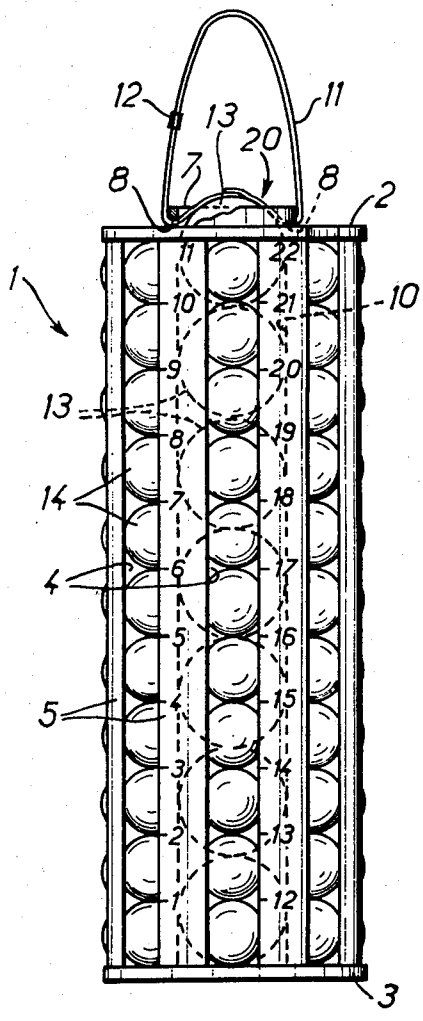


FIG.1

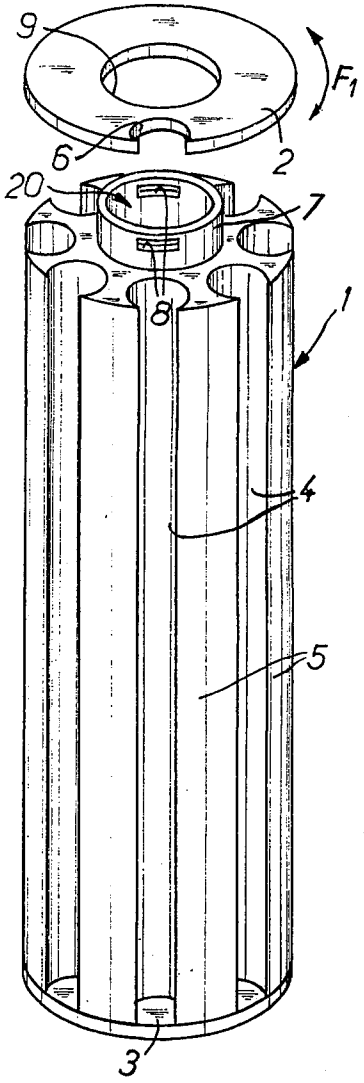


FIG.2

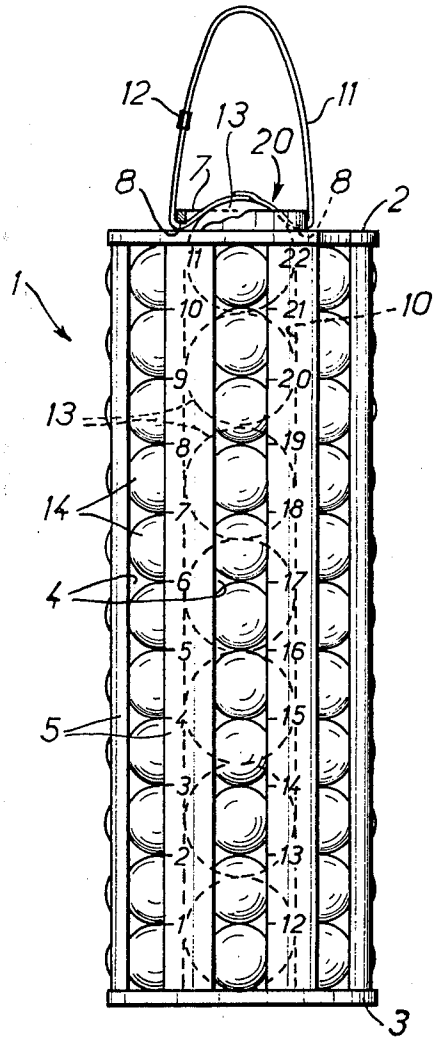


FIG.3

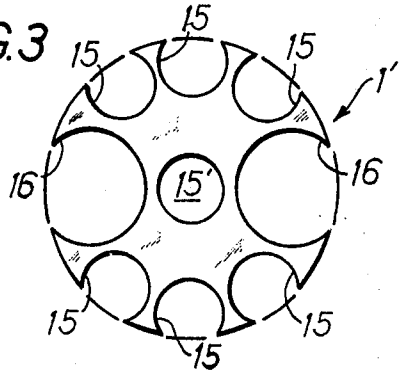
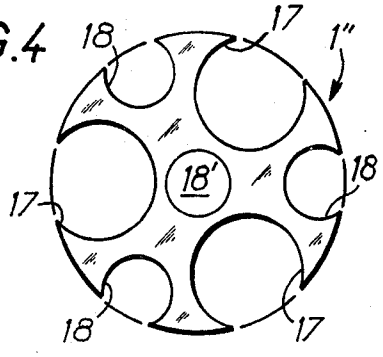


FIG.4



MARBLE-CARRIER CASE

The present invention relates to a marble-case which gives children a greater facility in tidying-away and carrying their marbles.

When a game is finished, children generally collect their marbles anyhow in a kind of small bag. These bags serve as carrying and tidying means. However, it frequently happens that as a result of violent or clumsy movements, the bag is overturned and the child is then compelled to collect his marbles again and thus some of them quite frequently go astray and are lost.

The invention is directed to overcoming the above-mentioned drawbacks by proposing a marble carrier of simple and economical construction suitable for the most varied requirements and intended to provide a convenient and rational means of putting away, and also an easy method of carrying them without risk of loss.

To this end, and according to a first characteristic feature of the invention, the marble case comprises a vertical barrel with longitudinal fluted grooves and provided with two end-plates, the transverse profile of the said fluted chambers covering an arc greater than half the perimeter of the marbles in order to keep them imprisoned, one of the said plates being mounted pivotally and comprising at least one peripheral slot intended to be brought selectively into correspondence with the said longitudinal chambers in order to permit of access to the selected chamber, either for the purpose of stacking the marbles when putting them away, or for taking out one or more marbles which are held imprisoned.

This construction provides in particular an orderly storage of the marbles in a series of stacks effected in the various longitudinal chambers provided for that purpose and easy access to the various chambers by virtue of the peripheral slot in the pivoted plate which plays the part of a liberating means for the stacked marbles when this slot is brought into coincidence with the selected chamber, while the full area of the pivoted plate simultaneously plays the part of a retaining means for the marbles stacked in the other longitudinal chambers.

Advantageously, and according to a second characteristic feature of the invention, the vertical barrel is of cylindrical form and the said end-plates are circular plates having a diameter substantially equal to the diameter of the cylindrical vertical barrel.

In a preferred form of embodiment of the invention, the barrel comprises a central bore intended to permit the insertion and the housing of a series of marbles arranged in a stack.

It will readily be understood that according to the diameter of the various longitudinal chambers on the one hand and of the central bore on the other hand, it will be possible to make an orderly arrangement of marbles of varying sizes, corresponding to commercial standards, while respecting a minimum bulk.

According to another characteristic feature of the invention and in the case where the barrel comprises a central bore, the pivoted plate comprises a central orifice having a diameter at least equal to the diameter of the said bore. One extremity of the said bore is advantageously closed by the other end-plate or closure-plate, while the opposite extremity is extended by an annular projection forming a retaining, centering and guiding means in rotation for the pivoted plate through the intermediary of its central orifice.

According to still another characteristic feature of the invention, this projection comprises two oppositely-facing ports intended to permit the passage of a belt which simultaneously forms a handle for carrying the marble case and a retention means for the marbles housed in the said central bore.

Other characteristic features and advantages of the invention will furthermore be brought out in the description which follows below, given by way of example with reference to the accompanying drawings, in which:

FIG. 1 is a view in partly-exploded perspective of a marble case according to the invention;

FIG. 2 is a view in elevation with parts broken away of a filled marble case similar to that shown in FIG. 1;

FIGS. 3 and 4 are transverse sections of marble cases in accordance with two further forms of embodiment.

Referring to the accompanying drawings, and more particularly to FIG. 1, the marble case comprises a vertical cylindrical barrel, generally indicated at 1, provided with two end-plates 2 and 3 having the same diameter.

In the barrel 1 are formed longitudinal chambers 4 separated by full zones or facets 5. The arc covered by the profile of the transverse section of the chambers 4 is greater than half the perimeter of the marbles to be retained. The closure-plate 3 is fixedly mounted on the lower extremity of the barrel 1, while the plate 2 on the upper extremity is pivotally mounted in the directions indicated by the double arrow F1. This plate 2 is provided with a peripheral slot 6, the opening profile of which covers an arc having substantially the same length as the arc covered by the profile of the transverse section of the chambers 4.

The barrel 1 with longitudinal chambers is traversed from one extremity to the other by a central bore not indicated in FIG. 1, having a diameter greater than that of the chambers 4. This bore is indicated generally at 10 in FIG. 2. The bore 10 is closed at its lower extremity by the closure plate 3, and is open at its upper extremity, at which it is extended by an annular projection 7 having a diameter at least equal to that of the central bore 10, and defining a passage 20 providing access to the interior of the bore 10.

Two oppositely-facing horizontal openings 8 are formed in the projection 7.

The pivoted plate 2 comprises at its centre an orifice 9 shaped in such manner that the plate 2, after fitting on the annular projection 7 (FIG. 2), may be guided in rotation by friction on the outer wall of this projection 7, the latter thereby serving as a centering and retention means for the pivoted plate 2 at the upper extremity of the barrel.

In FIG. 2, the marble case has been shown after the chambers 4 on the one hand and the central bore 10 on the other have been filled with a stack of marbles 14 and 15 of small diameter and larger diameter respectively. In addition, it will be observed that a strap 11, serving as a handle and provided with a loop 12, known per se, passes through the two openings 8 in the projection 7 and thus retains the first marble of the stack 13 in its housing, and that the facets 5 formed by the full areas which separate two successive chambers 4 have been graduated so as to indicate the number of marbles

14 in each chamber 4 and in the whole of the chambers 4 of the marble-case.

Thus the child, by simply reading the reference marks on the facets 5 is immediately able to know the number of marbles remaining in his case. In order to remove one or more marbles from the chambers 4, the child should rotate the pivoted plate 2 until the slot 6 is brought into coincidence with the desired chamber 4, and then by simply tilting the barrel 1, he can take out the desired number of marbles. After taking the required quantity, if necessary in several of the chambers 4, he will close these latter by a further rotation of the plate 2 in order to bring the slot 6 between the communication openings of two successive chambers 4. Before putting back the marbles 14, he will have to carry out the reverse movement, namely to replace the slot 6 in coincidence with an unfilled chamber 4, and again move the plate 2 pivotally into a position in which it closes the whole of the chambers 4.

In order to provide access to the stack of marbles 13 of larger diameter housed in the central bore 10, these latter being retained by the strap or handle 11 (FIG. 2), the child will open this strap by the loop or buckle 12, then by sliding the strap 11 out of the openings 8 in order to free the passage 20, and by turning over the marble-carrier unit he can collect the desired number of marbles 13. In order to replace the marbles 13 in a stack in the bore 10, the passage 20 remaining free, it is only necessary to introduce the marbles 13 one by one into the bore 10 and then to pass the strap 11 back through the openings 8 to obtain the closed position of the passage 20. The handle 11 will then be closed by means of the buckle 12.

The marble-case which has just been described has an economic advantage since it does not necessitate any special method of manufacture. In fact, the barrel 1 of the marble-carrier case can be produced by assembly around a central tube of given diameter, of a series of longitudinally-split tubes having a diameter and length less than those of the central tube, this series of tubes being intended to constitute chambers such as 4 previously described.

For the reasons indicated above, the width of the slots will of course remain less than the diameter of the balls to be retained. There will be employed for example tubes of polyethylene assembled together in the manner described above, for example by sticking. There can then be added to the barrel thus obtained, by sticking, a lower plate such as 3, and this latter will be fixed on the corresponding extremity of the barrel 1 in order to serve as a closure plate. At the opposite extremity, a plate will be mounted by fitting on the annular projection, formed in this case by the excess length of the central tube of the largest diameter over the length of the split tubes of smaller diameter which form the chambers 4, a plate in which there have been formed for that purpose a central orifice and a peripheral slot such as 6.

It will also be understood that the channelled barrel 1 may be produced in the form of a monoblock element by a process of extrusion.

In all cases, there is obtained a light marble-carrier case having an attractive appearance.

It will of course be understood that the invention is not in any way restricted to the form of embodiment described and shown, but includes all its alternative forms.

Thus, a number of profiles of transverse sections may be chosen for the chambers 4 and the central bore 10, and in consequence the number of chambers can be varied as a function of the number and of the diameter of the marbles to be housed.

As shown in FIG. 3, there may be designed a barrel 1' grooved longitudinally with two series of three chambers 15 of small size located on each side of two facing chambers 16 of larger size, the diameter of the central bore 15' corresponding to the diameter of the chambers 15. In this particular method of construction of course, the peripheral slot of the upper pivoted plate, similar to the plate 2, will have a diameter corresponding to the largest diameter of the chambers 16 in order to liberate the marbles from the chambers 15 and 16.

FIG. 4 illustrates another form of construction in which a barrel 1'' comprises a series of three longitudinal chambers 17 of large diameter alternating with three chambers 18 of smaller diameter. In this particular case, the diameter of the central bore 18' will correspond to the diameter of the small chambers 18, and the diameter of the slot in the upper pivoted plate will of course be at least equal to that of the large chambers 17.

Other arrangements could be provided for chambers having a different profile of transverse section, depending on the final appearance which it is desired to obtain, the principles of assembly of the other elements remaining identical with those already described with reference to FIGS. 1 and 2.

What we claim is:

1. A marble-carrier case comprising a vertical barrel having a plurality of longitudinal chambers and provided with two end-plates, the transverse section profile of said chambers covering an arc greater than half the perimeter of the marbles in order to hold them imprisoned, one of said plates being rotatably mounted and comprising at least one peripheral slot adapted to be brought selectively into correspondence with said longitudinal chambers in such manner as to provide access to the selected chamber, either for the purpose of making a stack of marbles or for removing at least one of said marbles which are held imprisoned, said one plate having a central orifice having a diameter at least equal to a central bore formed in said barrel, one extremity of said central bore of said barrel being closed by a fixed end plate, while the opposite extremity of said bore is extended to form an annular projection forming a retention centering and rotational guiding means for said pivoted plate.

2. A marble-carrier case as claimed in claim 1, in which the annular projection of said bore comprises two oppositely-facing openings adapted to permit the passage of a strap which forms simultaneously a handle for said marble-carrier case and a retention means for marbles housed in said central bore.

3. A marble carrier case as claimed in claim 2, said strap being continuous whereby one portion of said strap provides said handle and another portion of said strap provides said retention means.

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