Title: PLASTIC BOTTLE, SUITABLE TO CONTAIN LIQUIDS, BRICK-SHAPED WITH JOINTS TO CONNECT TWO OR MORE BOTTLES IN ORDER TO FORM A CONSTRUCTION

Abstract: The invention is a bottle made of plastic material or PET, suitable to contain food liquids and/or common and daily use household and/or professional liquids, the bottle is brick-shaped with cylindrical protuberances on one side and hollows, also cylindrical, on the other, so that two bottles can be joint together in a stable manner, but not definitive. A hollow of cylindrical shape on the basis allows fitting the cap of another bottle so that it is possible to have joints both vertically and horizontally. The bottle is used to pack any form of goods sold in the liquid state and after the goods are removed the container can be reused as a construction game or as construction material, the bottle empty, or filled with polyurethane foam, constitutes an excellent thermal insulator for walls construction. The bottle differs in form from the well-known construction games for the edges that are not perfectly straight but rather slightly curved and so concave.

Picture 2
Title

Plastic bottle, suitable to contain liquids, brick-shaped with joints to connect two or more bottles in order to form a construction.

Object and the technical

The invention relates to a plastic bottle (named De Brie) for liquids brick-shaped that after use as liquid container becomes construction game or construction material. It differs in form from the well-known games of construction for the lines that are not perfectly straight but rather slightly curved and so concave.

Invention Description

State of the art

The plastic or PET bottles are recycled with separate collection systems in all western countries. This doesn't mean that all plastic bottles are treated (or recycled) properly.
Disadvantages

5 million bottles every day end up in the oceans; 80 million tons of plastic are floating in the North Pacific forming a continent as large as India.

Target

The idea of turning the bottles into toys or attractive and economical building materials, does not clear the problem, but can significantly contribute to its reduction.

Solution

The invention is a bottle made of plastic material or PET, suitable to contain food liquids and/or common and daily use household and/or professional liquids, the bottle is brick-shaped with cylindrical protuberances on one side and hollows, also cylindrical, on the other, so that two bottles can be joint together in a stable manner, but not definitive. A hollow of cylindrical shape on the basis allows fitting the cap of another bottle so that it is possible to have joints both vertically and horizontally.

The bottle is used to pack any form of goods sold in the liquid state and after the goods are removed the container can be reused as a construction game or as construction material, the bottle empty, or filled with
polyurethane foam, constitutes an excellent thermal insulator for walls construction.

**Shape**

The shape of the bottle (De Brie) is a brick with cylindrical protuberances on one side and hollows, also cylindrical, on the other, so that two bottles can get stuck together in a stable manner, but not definitive. A hollow of cylindrical shape on the basis allows fitting the cap of another bottle so that it is possible to have joints both vertically and horizontally. As shown in Picture 1. Orthogonal projections in Picture 2.

The shape reminds a well-known children construction game with cylindrical protuberances in number unspecified, from a minimum of one to a maximum dependent on the size of the bottle itself. It differs in shape from the construction game for the edges that are not perfectly straight but rather slightly curved and so concave.

Between the dimension of one cylindrical protuberance and a hollow there must be a minimum yoke (to be defined at constructive) that allows the easy joint and un-joint of two bottles to each other.
**Operation**

The Bottle (De Brie) is filled, emptied and used as any other bottle. Once empty or, in the case of storage of liquid goods also full, the bottle gets stuck with another or more identical bottles or matches to other sizes (half bottle, double bottle etc.)

As construction game, owing to the absence of small parts and safe materials, the bottle can be suitable for children of any age. The bottle is a building brick of large dimensions. Bottles of different sizes can be used for the different construction units in the game itself.

Alternatively the bottle (De Brie) empty, or filled with polyurethane foam, constitutes an excellent thermal insulator for building, for example, but not only, the insulating layer between two walls.

**Benefits**

Changing the life cycle of the plastic used to contain liquids.

Reduction of plastic waste disposal.
List of Pictures

Picture 1: rendering of a possible shape of the bottle with joints.

Picture 2: orthogonal projections of the bottle in Picture 1.

The invention

The bottle will be realized with the aid of future third-party.
CLAIMS

Claim 1

Manufacturing, production, storage and sale of bottles (De Bric) brick shaped with joints that allow joining two or more bottles to each other.

Claim 2

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of mineral water.

Claim 3

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of alimentary liquids like sodas and/or syrups and/or juices.

Claim 4

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of alimentary liquids like dressings, alimentary oil.

Claim 5

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of non-alimentary liquids like personal care products (soaps, shampoo etc.).
Claim 6

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of non-alimentary liquids like home care products (soaps, detergents etc.).

Claim 1

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of non-alimentary liquids like professional supplies (diluents, solvents etc.).

Claim 8

Usage of the bottle (De Bric) according to claim 1, for the storage and sale of non-alimentary liquids like car and motors supplies (oil, cooling additives etc.).
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. B65D1/02 B65D81/36

ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Date of the actual completion of the international search

3 February 2016

Date of mailing of the international search report

11/02/2016

Name and mailing address of the ISA/

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