H. G. TAYLOR.

MECHANICAL TOY.

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1,118,248.

Patented Nov. 24, 1914.

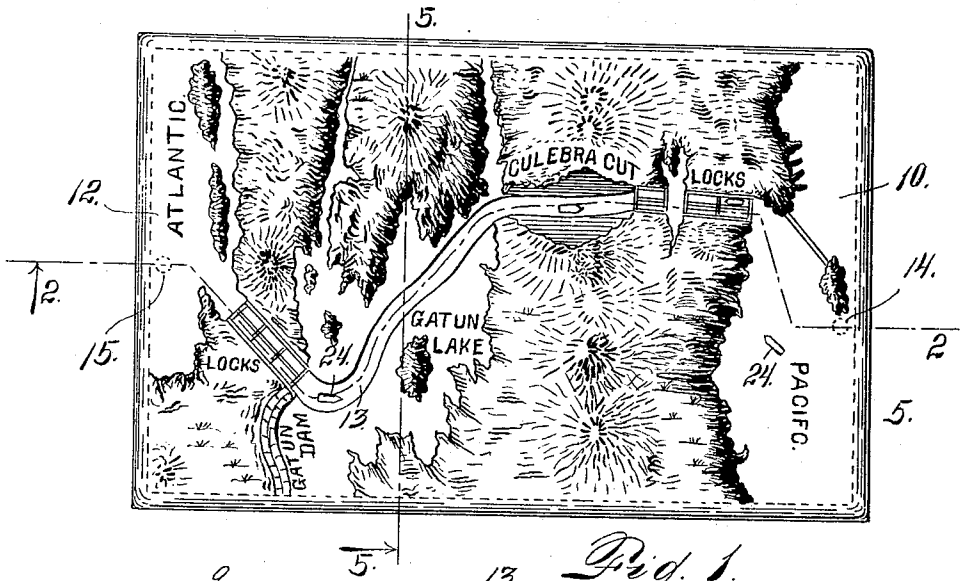


Fig. 1.

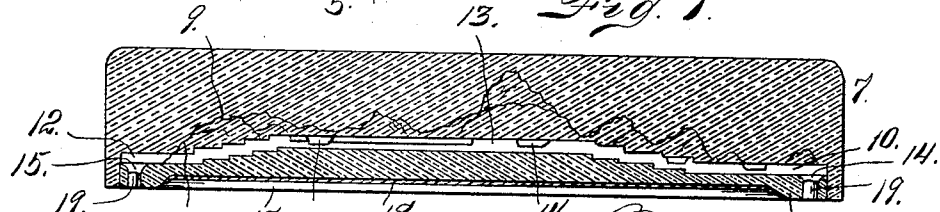


Fig. 2.

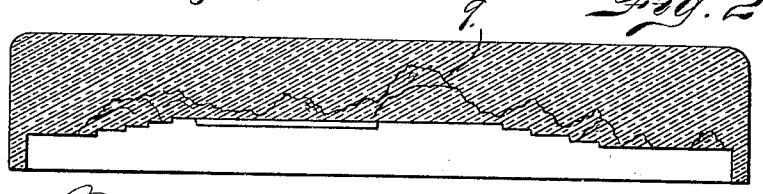


Fig. 3.

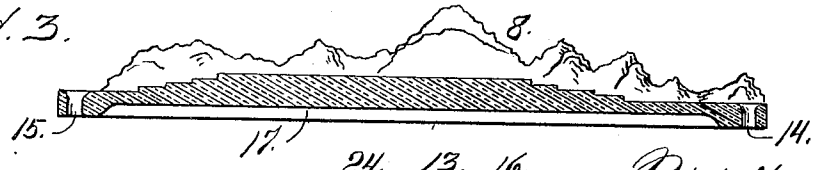


Fig. 4.

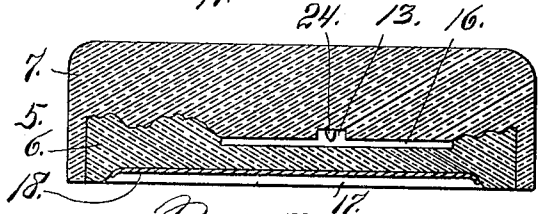


Fig. 5.

Witnesses

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MECHANICAL TOY.

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To all whom it may concern:

Be it known that I, HUGH G. TAYLOR, citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Mechanical Toys; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in mechanical toys, my object being to provide a useful device of this character, and in order to make it more interesting I have illustrated the same in such a manner as to represent the Panama Canal in miniature form.

The device as constructed is adapted for use as a paper weight.

It consists of two members whose adjacent faces are so fashioned as to leave relatively large cavities therein, the said cavities being placed in communication with each other through the medium of a channel which is of irregular or tortuous shape, its general outline being made to conform, as far as practicable, to the Panama Canal. Within the cavities or the channel, either or both, small bodies are placed, the substance of which is of less specific gravity than that of the liquid to be employed with the device. After placing these floatable bodies within the device, as just explained, the two parts are secured together hermetically, with the exception of two openings located at the opposite extremities of the device. Through one of these openings water is introduced, while through the other the air escapes as the water enters. After the cavities and channel are completely filled with water, both openings are tightly plugged or corked, whereby the water is retained. As illustrated in the drawing, the two cavities are supposed to represent the Atlantic and the Pacific Ocean, and the connecting channel the Panama Canal, as heretofore intimated.

Assuming that there are two floatable bodies within the device, the solving of the puzzle or the object to be attained in manipulating the device, when considered as a toy, is to cause the floatable bodies to respectively occupy the two cavities at the same time. In order to facilitate this operation, the margins of the cavities are irregularly formed, in imitation of the Atlantic and Pacific coast lines at the opposite ends of the canal. These irregularities form pockets within which the floatable bodies may be caught and detained by skillful manipulation of the device in such a manner as to attain the object sought, as heretofore explained. In order to cause the floatable bodies, which are supposed to represent boats, to move within the liquid filling the cavities and channel, the device is tilted to any position between the horizontal and vertical, and under these circumstances it will be understood that the bodies, being of less specific gravity than the liquid, will have a tendency to rise or move upwardly within the liquid by virtue of their buoyancy.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof.

In this drawing,—Figure 1 is a top plan view of my improved device. Fig. 2 is a section taken on the line 2—2, Fig. 1. Fig. 3 is a similar section, showing the upper member of the device in detail. Fig. 4 is a similar view of the lower member. Fig. 5 is a cross-section taken on the line 5—5, Fig. 1.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the device in its entirety, the same being composed of a lower member 6 and an upper member 7. As shown in the drawing, the upper surface of the lower member is provided with irregularities intended to represent a hilly or mountainous region similar to the Panama Zone on opposite sides of the canal. This irregular configuration is designated by the numeral 8. The upper member, which is composed of transparent material, is of counterpart shape, whereby the irregularities of the lower member fit thereinto, as shown at 9. The adjacent surfaces of the two members, when assembled, are so formed as to leave relatively large cavities 10 and 12 at the opposite ends of the device, the same being placed in communication with each other by a channel 13 which is stepped upwardly from the cavities 10 and 12 to represent the locks at the opposite

ends of the Panama Canal. The upper member 7, being composed of transparent material, discloses in top plan view the irregular configuration 8 of the bottom member, this irregular portion being painted or colored with this end in view. The bottom member may for convenience also be formed of glass, though it is evident that this is not necessary.

Within the cavities or the connecting channel, small floatable bodies 24 are placed, after which the two members of the device are assembled and sealed. The lower member is provided with openings 14 and 15, through one of which the necessary liquid may be introduced for filling the cavities and channel of the device. It is evident that by properly tilting or reversing the device, liquid may be introduced at one of these openings while the air escapes at the other opening. After the device is filled with liquid, both openings are closed to prevent leakage. The device is then ready for use, and may be employed as heretofore explained.

In the central part of the device a relatively wide, shallow cavity 16 is formed, extending on opposite sides of channel 13. This shallow cavity is of such character that the floatable bodies 24 are unable to enter it. This is intended to represent Gatun Lake, through which the Panama Canal passes. As illustrated in the drawing, the lower member of the device is recessed as shown at 17, to make room for a card or piece of fabric 18, upon which will be printed instructions for manipulating the device or specifying the object to be attained in solving the puzzle.

The plugs or closures for the openings 14 and 15 are designated by the numeral 19.

Having thus described my invention, what I claim is:

1. As an improved article of manufacture, a block having two relatively large, suitably separated, closed cavities, and a connecting channel, the cavities and channel being filled with liquid in which are placed floatable bodies of such size as to move in the channel and cavities as the block is manipulated.

2. As an improved article of manufacture, a block having two relatively large cavities suitably spaced, the said cavities being closed and connected by a channel, the channel and cavities being filled with liquid, bodies floatable in the liquid and of such size as to move in the channel and cavities, the block having openings for the introduction of liquid and the escape of air, and closures for the said openings.

3. As an improved article of manufacture, a block having relatively large, suitably spaced, closed cavities connected by a channel, the channel and cavities containing liquid, in which are located floatable bodies of such size as to be movable therein, the block being fashioned to give the cavities irregular margins.

4. As an improved article of manufacture, a block having relatively large, suitably spaced, closed cavities connected by a channel, the channel and cavities containing liquid, in which are located floatable bodies of such size as to be movable therein, the block being fashioned to form pockets at the margins of the cavities to receive the floatable bodies, for the purpose set forth.

5. As an improved article of manufacture, a block having relatively large, hermetically sealed cavities suitably spaced and filled with liquid, the block having a channel connecting the cavities which is also filled with liquid, floatable bodies located within the channel and cavities and adapted to move freely by virtue of their buoyancy, the portion of the block above the channel and cavities being transparent, for the purpose set forth.

6. As an improved article of manufacture, a block having relatively large cavities connected by a tortuous channel, the channel and cavities being filled with liquid and containing floatable bodies, the upper part of the block being transparent, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HUGH G. TAYLOR.

Witnesses:
A. EBERT O'BRIEN,
LENA DILLMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."