Sept. 25, 1923. 1,469,151

E. E. BARTRAM

TOP

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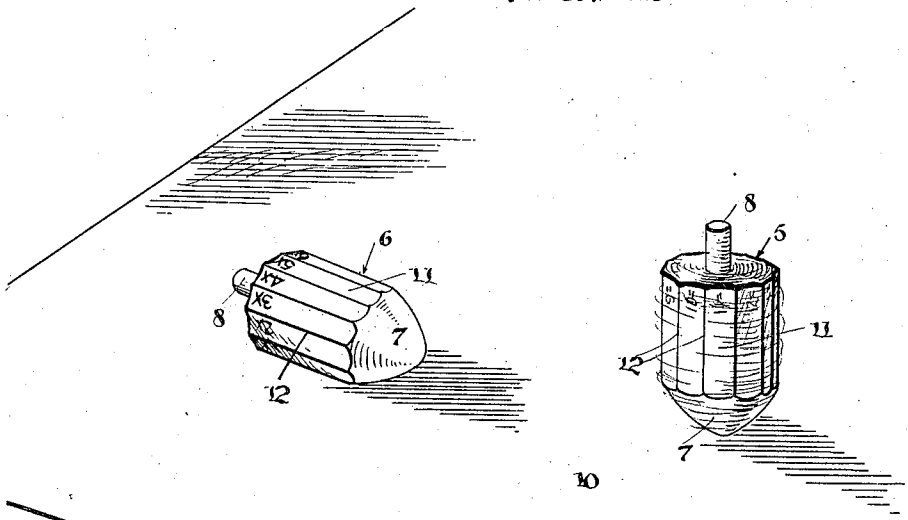


Fig. 1.

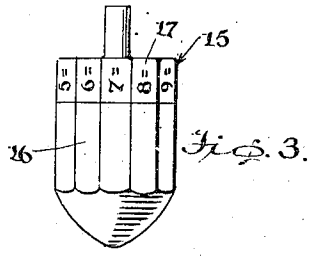


Fig. 3.

Fig. 2.

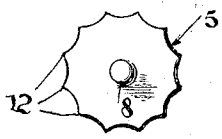
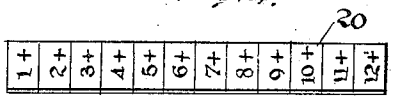


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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TOP.

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To all whom it may concern:

Be it known that I, EDWARD E. BARTRAM, a citizen of the United States, and resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Tops, of which the following is a specification.

This invention relates to educational devices especially adapted for use by children although not necessarily restricted to such use.

An important object of this invention is to provide an educational device in the nature of a pair of tops having a plurality of numbered faces, the numbered face of one top coacting with the numbered face of the other top in the playing of the game.

A further object of the invention is to provide an amusement and educational device which is simple to use, of highly simplified construction and cheap to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawing, forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view illustrating the coacting tops in use.

Figure 2 is an end elevation of one of the tops.

Figure 3 is a side elevation of a modified form of top.

Figure 4 is a plan view of a numbering strip adapted for use in connection with the form of the invention illustrated in Figure 3.

In the drawing wherein for the purpose of illustration is shown several preferred embodiments of the invention, the numerals 5 and 6 designate similarly constructed tops which are adapted to coact when the same is played.

Each top consists of a substantially cylindrical body having its forward portion of cone-shaped formation as indicated at 7 and having its rear end provided with a reduced axially arranged spindle 8 by means of which the same may be manually rotated. When setting one of the tops in operation it is gripped between two of the fingers and is given a quick turn so that when the tops alight on the table 10 the same will continue to rotate.

Each cylindrical body is provided with a plurality of indicating faces 11 formed by providing longitudinal grooves in the outer side of the body. The grooves 11 which extend completely about the cylindrical body are somewhat shallow and are curved transversely so as to provide an annular series of ribs 12. It will be seen that the ribs 12 which have their outer edges tapered space the bottom wall of the groove 11 from contact with the table and thereby prevent the numbers or characters inscribed on the walls of the grooves from becoming worn as the result of continued use of the top. In other words, the numbers which range from 1 to 12 on the faces of the top are arranged inwardly of the beveled or tapered ribs 12 and are protected by the said ribs.

A further function of the ribs 12 is to prevent the top from rolling too freely after assuming a horizontal position as the result of its ceasing to spin upon its pointed end. In other words the top stops more readily when provided with the ribs than it would if it were provided only with an annular series of flat faces, the edges of which would soon become worn.

As illustrated in Figure 1 the grooved faces 11 of the body 6 are provided with numbers behind which multiplication symbols are applied. On the other hand the top 10 is provided on its grooved faces with numbers ranging from 1 to 12 and behind these numbers is applied an annular series of equality symbols. It is thus seen that when the two tops cease to rotate the upper faces of the same will read for example $5 \times 10 = 50$. The players take turns in spinning the pairs of tops and when each player has had ten turns the total of each play is added and the one attaining the highest score wins the game.

As indicated in Figure 3 the top which is generally designated by the numeral 15 is provided with a body having a plurality of grooved faces 16 and the said grooved faces may be provided with a strip 17 having numbers ranging from 1 to 12. The strip 17 may be pasted or otherwise secured to the body 15.

The strip 20 illustrated in Figure 4 may

be provided with numbers ranging from 1 to 12 and may if desired be provided with addition symbols to take the place of the multiplication symbols illustrated on the top 6.

When the addition symbols are employed in lieu of the multiplication symbols the game is played as before except that the numbers appearing on top of the top are added instead of multiplied.

Having thus described the invention what I claim is:—

1. A combined amusement and educational device comprising a pair of tops having longitudinally grooved faces and cone-shaped forward ends, the grooved faces of each top having numbers and symbols, the symbols acting to establish a connection and relation between the numbers on the two tops.

2. A combined amusement and educational device comprising a plurality of members each having a plurality of faces and a spinning end, respective faces of said members having both numbers and symbols, the symbols acting to establish a connection and relation between the numbers which are on the faces of said members with said symbols, so as to display mathematical expressions.

EDWARD E. BARTRAM.