F. O. SINGER.

EDUCATIONAL TOY DEVICE.

APPLICATION FILED DEC. 24, 1917.

1,278,395. Patented Sept. 10, 1918.

Fig. 1.

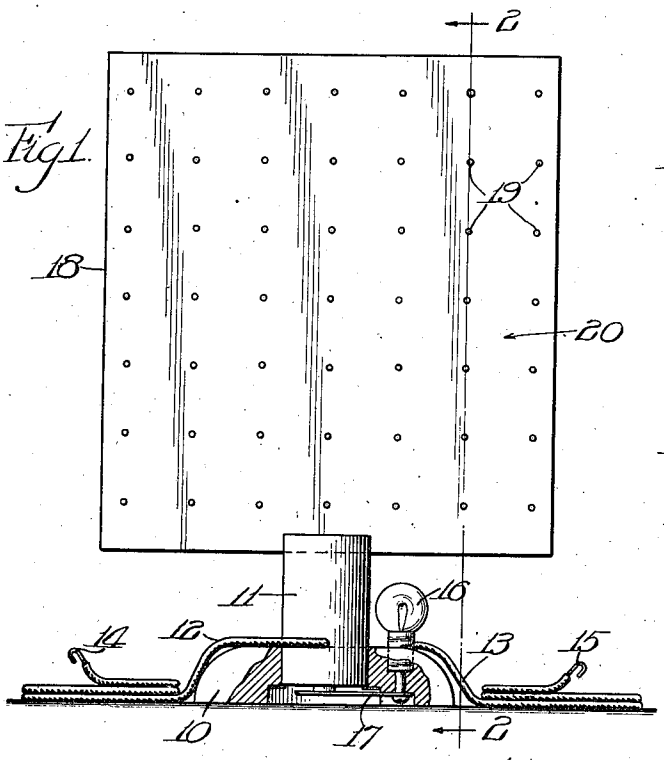


Fig. 2.

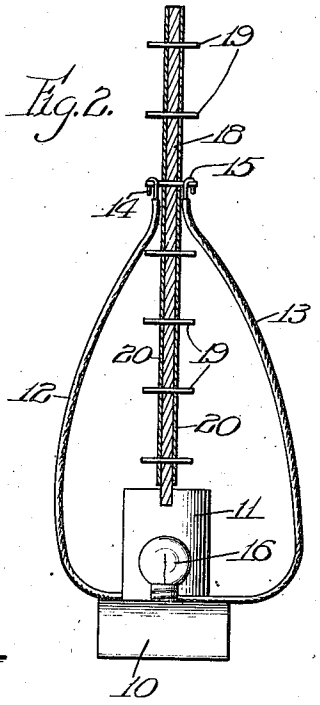


Fig. 3.

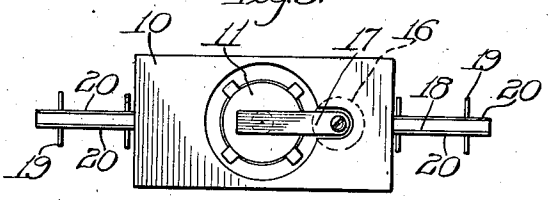


Fig. 5.

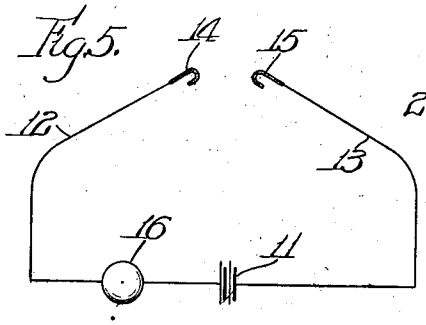
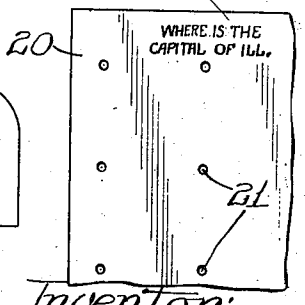


Fig. 4.



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UNITED STATES PATENT OFFICE.

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EDUCATIONAL TOY DEVICE.

1,278,395. Specification of Letters Patent. Patented Sept. 10, 1918.

Application filed December 24, 1917. Serial No. 208,599.

To all whom it may concern:

Be it known that I, FREDERICK O. SINGER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Educational Toy Devices, of which the following is a specification.

This invention relates to improvements in educational toy devices and one of the objects of the invention is to provide an improved electric device of this character which will not only be amusing and instructive in operation, but which will also be of a simple and durable construction.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing illustrating this invention and in which,

Figure 1 is a front elevation, partly in section, of an improved device of this character constructed in accordance with the principles of this invention.

Fig. 2 is a vertical sectional view taken on line 2—2, Fig. 1.

Fig. 3 is a bottom plan view of Fig. 1.

Fig. 4 is an elevation of one of the question and answer sheets to be used in connection with the apparatus.

Fig. 5 is a diagrammatic view of the circuit.

Referring more particularly to the drawing, the numeral 10 designates a supporting base of any suitable character and housed thereon is a battery 11.

Leading from one side of the battery is a conductor 12 and leading from the other side of the battery is a similar conductor 13 to form an electric circuit, with terminals 14, 15 formed at the free ends of the conductors. Included in the circuit thus formed is a signal device, which is here shown as a visual signal or incandescent light. The connection with the battery being formed by the conductor 17.

A board 18 constructed preferably of any suitable insulating material, such as wood or the like is preferably supported by the battery 11 and this board may be of any desired size and configuration. A plurality of pins 19 are supported by the board 18 and these pins pass through the board so that the extremities thereof project beyond opposite faces of the board. The pins are spaced, insulated and disconnected electrically from each other and may be arranged in any desired manner with respect to the board.

A sheet 20 of any suitable non-conducting material is provided with a plurality of openings 21 therethrough and which openings are adapted to coincide with the ends of the pins 19 on the face of the board adjacent which the sheet is adapted to be placed. This sheet may contain any desirable data such as questions or answers, and are preferably provided in pairs, so that one sheet will contain questions while the other sheet contains the respective answers to the questions.

In use one of the sheets is placed against one side of the board so that the pins 19 will project therethrough and the other and cooperating sheet is placed adjacent the other side of the board so that the other ends of the pins will project through the openings therein. The game is played by two persons, one being the questioner and the other the answerer. Either one or both of the parties may be more or less informed concerning the subject matter appearing on the sheets 20. The questioner places one of the terminals, such as the terminal 15 on the end of the conductor 13 into engagement with any one of the pins adjacent his side of the board, and the answerer then endeavors to place the terminal 14 on the conductor 12 into contact with the other end of the pin that is engaged by the terminal 15 of the conductor 13. Not knowing just which pin the terminal 15 is in engagement with, the answerer has no means of ascertaining what question is asked until he is successful in placing the terminal 14 of the conductor 12 in engagement with the proper pin 19. When this is accomplished the signal, 16 will be rendered active, in the present instance being a lamp, it will be lighted.

Obviously any questions or answers may be provided and the game may be played in any desired manner.

It will be noted that the pins 19 are spaced from each other and disconnected electrically so that the circuit will be completed only when the terminals 14, 15 are in contact with the same pin.

This construction obviates the necessity of connecting the pins by means of a mass of wires and by arranging the exposed extremities on opposite sides of the board, it will be manifest that the players cannot see which pin the respective terminals are in engagement with and thereby renders the game not only more difficult to play, but more amusing.

While the preferred form of the invention has been herein shown and described, it is of course, to be understood that various changes may be made in the details of construction and in the combination and arrangement of the several parts without departing from the spirit of this invention.

What is claimed as new is:

1. An electrical device of the character described embodying a support, a plurality of pins mounted upon the support and projecting beyond opposite faces of the support, said pins being electrically disconnected from each other, a battery, conductors leading from the battery, terminals on the end of the conductors, and adapted to be placed in contact with the said pins, and means whereby a signal will be given when the said terminals are in contact with the same pin on opposite sides of the support.

2. An electrical device of the character described embodying a support, a plurality of pins mounted upon the support and projecting beyond opposite faces of the support, said pins being electrically disconnected from each other, a battery, conductors leading from the battery, terminals on the ends of the conductors, and adapted to be placed in contact with the said pins, and a signal device arranged in series with the battery and adapted to be rendered active when the said terminals are in contact with the same pin on opposite sides of the support.

3. An electrical device of the character described, embodying a supporting board, a plurality of independent pins projecting through the board and beyond opposite faces thereof, said pins being electrically disconnected, a normally open electric circuit, said circuit embodying conductors having free ends, terminals at the said free ends of the conductors, said terminals being adapted to be placed in contact with pins on opposite sides of the board, and signal means included in said circuit and adapted to be rendered active when the said terminals contact with the same pin.

4. An electrical device of the character described embodying a supporting board, a plurality of independent pins projecting through the board and beyond opposite faces thereof, said pins being electrically disconnected, a normally open electric circuit, said circuit embodying conductors having free ends, terminals at the said free ends of the conductors, said terminals being adapted to be placed in contact with pins on opposite sides of the board, and a visual signal included in the said circuit and adapted to be rendered active when the said terminals contact with the same pin.

5. An electrical device of the character described embodying a supporting board, a plurality of pins extending through the board and having their ends projecting beyond opposite faces thereof, said pins being electrically disconnected, separate members of non-conducting material perforated to correspond with the said pins and through which perforations the respective ends of the pins project, an electric circuit embodying conductors having free extremities, terminals at the ends of the conductors and adapted to be placed in contact with the said pins on opposite sides of the board, and a signal device adapted to be rendered active when the said terminals contact with the same pin.

6. An electrical device of the character described embodying a supporting board, a plurality of independent pins projecting through the board and beyond opposite faces thereof, said pins being electrically disconnected, a normally open electric circuit, said circuit embodying conductors having free ends, terminals at the said free ends of the conductors, said terminals being adapted to be placed in contact with pins on opposite sides of the board, and signal means included in said circuit and adapted to be rendered active when the said terminals contact with the same pin, said circuit embodying a battery and said battery forming a support for the said board.

7. An electrical device of the character described, embodying an electric circuit including a battery, a signal device also included in the circuit, and conductors having free ends, terminals at the extremities of said free ends, a contact supporting board, and a plurality of contacts being spaced and electrically disconnected from each other, portions of each of said contacts being exposed on opposite sides of the board, the said terminals being adapted to be connected with the same contact on opposite sides of the board, whereby the circuit will be completed thereby and the said signal will be rendered active.

8. An electrical device of the character described embodying an electric circuit including a battery, a visual signal connected in series with the battery and conductors having free ends, terminals at the extremities of the said free ends of the conductors,

a board supported by the battery, and pins extending through the board the ends of the pins projecting beyond opposite faces of the board, said pins being spaced and electrically disconnected from each other, the said terminals being adapted to be placed in engagement with the pins on opposite sides of the board and said signal being rendered active when the terminals contact with the same pin.

In testimony whereof I have signed my name to this specification, on this 19th day of December, A. D. 1917.

FRED. O. SINGER.