A. McNAB.

EDUCATIONAL TOY.

APPLICATION FILED MAY 21, 1919.

1,331,817.

Patented Feb. 24, 1920.

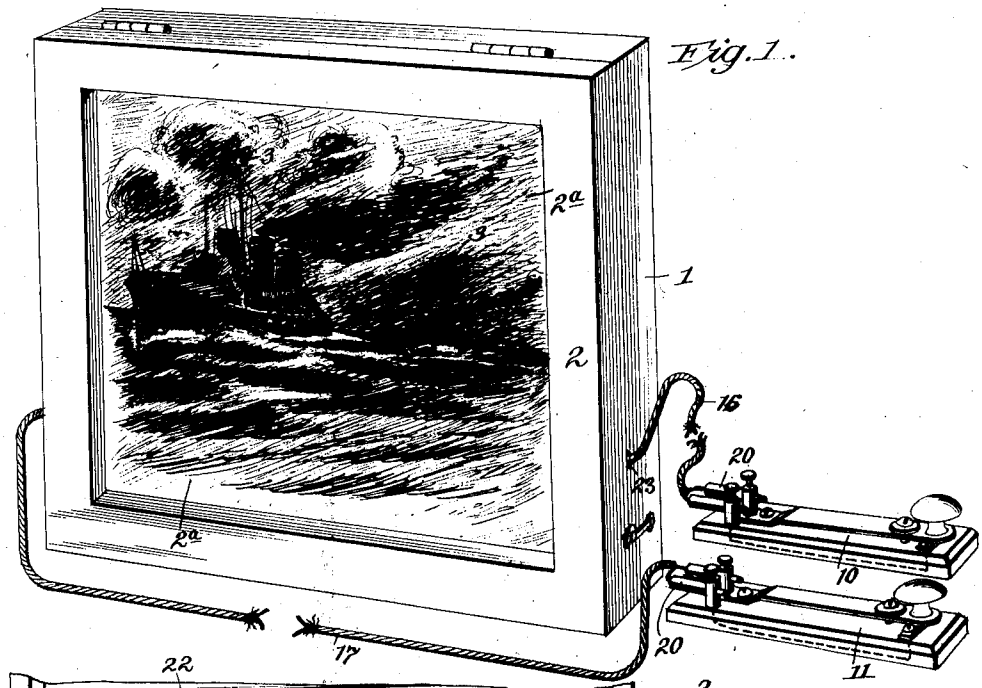


Fig. 1.

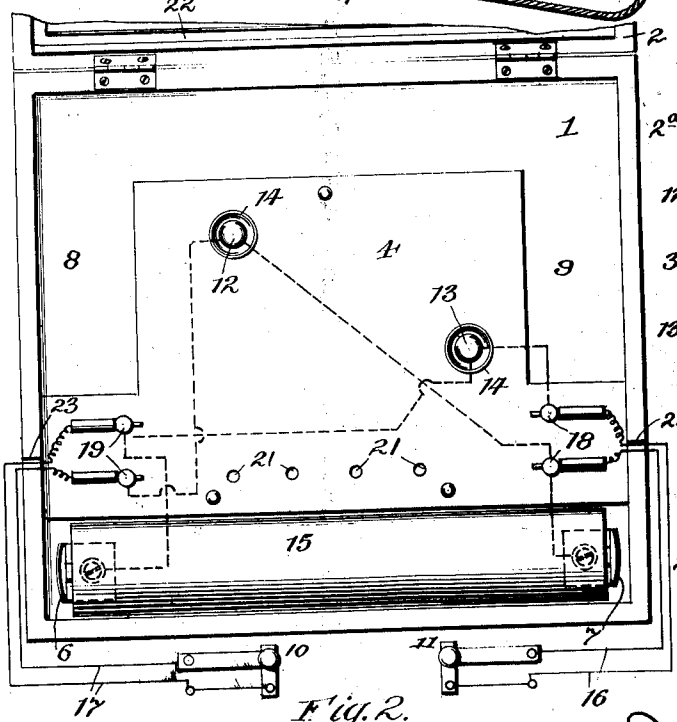


Fig. 2.

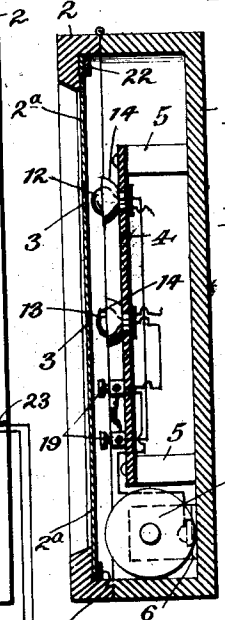


Fig. 3.

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UNITED STATES PATENT OFFICE.

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EDUCATIONAL TOY.

1,331,817. Specification of Letters Patent. Patented Feb. 24, 1920.

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To all whom it may concern:

Be it known that I, ALEXANDER McNAB, a subject of the King of Great Britain, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Educational Toys, of which the following is a specification.

This invention pertains to improvements in educational toys, and is designed more particularly for teaching children and adults the Morse code or any other code of transmitting signals or messages.

The main object of the invention is to provide a structure which is in and of itself attractive and in which all of the various elements may be housed or stored away.

Referring to the drawing,—

Figure 1 is a perspective view of the apparatus with the wires and circuit closures or keys shown as placed outside thereof;

Fig. 2 an interior view of the box or casing with the lid broken away, said view likewise showing the wiring and circuits; and

Fig. 3 a vertical cross sectional view.

In said figures 1 denotes the body of the box and 2 the lid or closure thereof, to which there is secured a picture 2^a, in this instance the representation of two vessels at sea, the vessels being provided with signal masts, at the upper end of each of which there is formed an opening through the picture, such openings being designated by 3. The opening 3 of the mast of the ship in the immediate foreground is larger in diameter than the opening of the other mast, see more particularly Fig. 3. In other words, the openings are made to accord with the perspective of the picture.

Placed within the body of the box is a board or supporting plate 4, in the present instance shown as secured to and supported by blocks 5. The board will preferably have the outline as shown in Fig. 2, forming at the lower portion of the box body a chamber or receptacle, adjacent each end of which are fastened terminals 6 and 7, respectively. The board at the upper portion thereof stands away from the side walls of the box body, forming spaces 8 and 9 in which the circuit closures or keys 10 and 11 may be housed. Mounted upon the board are two small electric bulbs 12 and 13, behind which stand reflectors 14, such lights standing directly behind the openings 3 when the box lid is closed down and locked in position. A battery 15 having end terminals is clipped in between the contacts 6 and 7. Suitable double insulated wires, indicated by 16 and 17, respectively, are connected to the keys 10 and 11 and are attached to binding posts 18 and 19, which posts are in circuit with the respective lamps and the battery, as indicated by dotted lines in Fig. 2. The opposite edges of the box will preferably be notched out, as at 23, to afford a space for the passage of the wires 16 and 17 when the lid is closed and locked. The keys will preferably be connected to the wires 16, 17 by terminal pins 20, which may be readily disconnected from the binding post carried by the key and when the parts are to be housed, inserted into openings 21 formed in the supporting plate or board 4, thus holding the terminals out of any possible contact with each other and a resultant discharge of the battery.

In use, after the keys have been withdrawn from the compartments 8 and 9 and the terminal pins 20 connected to the keys and the lid closed down and secured, the box is set up on edge, as indicated in Fig. 1, at a distance from the users of the apparatus. If the users are not familiar with the Morse code, or its equivalent, a card having the code printed thereon will be placed in front of each user and the circuit closed through the key to cause a flash of light through the lamp 12 or 13, as the case may be. Preferably the picture will be dark and the light which is projected through the opening by the reflector becomes very distinct and a short flash and a long flash, representing dots and dashes of the Morse code, may be readily distinguished.

By having the openings 3 made of different diameter, the perspective effect and the apparent passing of the ships is accentuated and the realistic effect produced which would not otherwise obtain.

Various picture sheets may be used and one substituted for another, and as the pictures will be produced upon cardboard, they may be readily slipped into place behind suitable fastening cleats or strips, designated by 22, best shown in Fig. 3. Thus, for instance, instead of having ships, lighthouses, wireless towers, airplanes, etc., may be represented.

What is claimed is:—

1. An educational toy comprising in com-

bination, a dark colored picture having a plurality of openings therein; an electric lamp placed in rear of each of such openings; a source of current connected to each lamp by a normally open circuit; and an independent manually operable key for closing the circuit leading to each light.

2. An educational toy comprising in combination a picture bearing the representation of at least two objects, the picture having an opening formed therethrough in a portion of each of said objects, said openings being of different sizes; an electric lamp placed in rear of each of said openings; a source of current connected to each lamp by a normally open circuit; and a key for closing the circuit leading to each lamp.

3. An educational toy comprising in combination a picture bearing the representation of at least two objects as viewed in perspective, the picture having an opening therethrough in a portion of the object which stands in the foreground, and a smaller opening in a portion of the object which appears in the distance; an electric lamp placed in rear of each of said openings; a source of current connected to each lamp by a normally open circuit; and a key for closing the circuit leading to each lamp.

4. An educational toy, comprising in combination, a box; a lid or closure therefor taking the form of a frame; a picture mounted in said frame, said picture having a plurality of different size openings formed therein; an electric lamp mounted within the box in rear of each of said openings; a reflector for each lamp; a source of current; separate wires connecting each of said lamps to such source in open circuit, said wires being of such length that they may extend some distance from the box; and a key for each of said circuits for closing the same.

In testimony whereof I have signed my name to this specification.

ALEXANDER McNAB.