Nov. 7, 1944. A. MORCH 2,362,214

TELEVISION TOY

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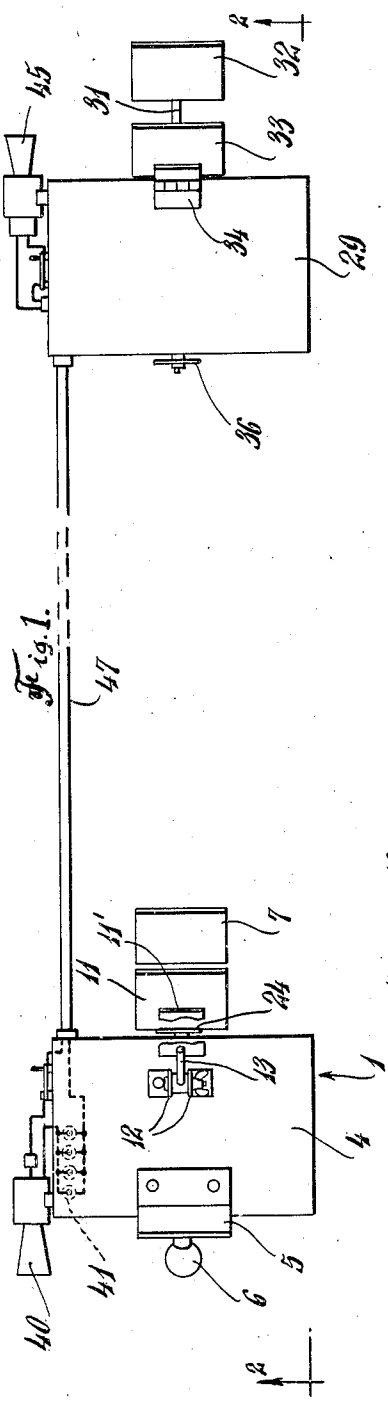


Fig. 1.

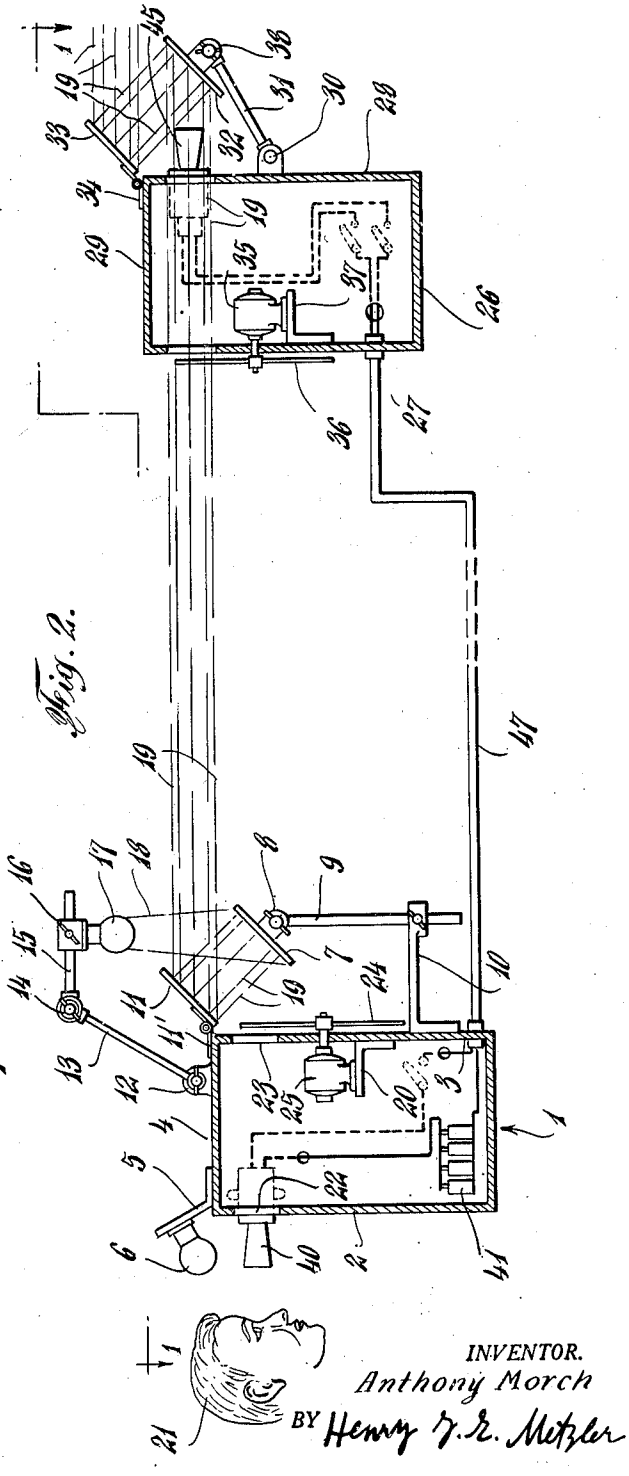


Fig. 2.

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TELEVISION TOY

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2 Claims. (Cl. 46—1)

This invention relates to a new television toy by means of which an image placed before a transmitter unit can be seen in a receiver unit which is located at some distance from said transmitter.

The main object of the present invention is the provision of a device of the character described, which is light in weight, simple in construction so that it can be manufactured and sold at a very reasonable price, but which will reproduce the transmitted images in such a manner that they appear to have the characteristic of real television pictures;

Another object of the present invention is the provision of a toy of the character described which, due to some movable parts, will be of increased interest for children and which, due to the requirements of exact adjustment will also have a certain educational effect;

A further object of the present invention is the provision of a television toy which has facilities for transmitting sounds and which can be operated with flashlight or other low-power voltage batteries so that children using this toy cannot receive electric shocks or injuries which are possible when a device is connected to any other source of current having a voltage of 110 or more volts.

Still a further object of the present invention is the provision of a television toy which does not require any high frequency tubes or other expensive and sensitive parts which could easily be damaged by shocks or by careless manipulation.

Further objects of the instant invention reside in any novel feature of construction or operation or novel combination of parts present in the embodiment of the invention described and shown in the accompanying drawing whether within or without the scope of the appended claims and irrespective of other specific statements as to the scope of the invention contained herein;

In the drawing:

Fig. 1 is a top plan view of a preferred embodiment of my invention partially in section on the line 1—1 of Fig. 2;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

The transmitter unit consists primarily of a closed box 1 of card board or the like having a front wall 2, a rear wall 3, a top 4 and a bottom and side walls. A source of light consisting of an electric light bulb 6 is secured to the top 4 by means of a socket bearer 5 so that it will illuminate an object, for instance a head 21, which is before the front wall 2. In the upper portion of the front wall 2, is an aperture 22, for instance a square hole, and in the rear wall 3 is also an aperture 23 which registers with aperture 22. Within the box 1 is a small electro motor 25, carried by a supporting member 20. The shaft of motor 25 extends through the rear wall 3 and carries at its outer end one or more blades 24. A mirror 7 is angularly adjustable at 8 carried by a vertically adjustable shaft 9 which is affixed to the outer side of rear wall 3 by means of an arm 10. Another mirror 11 is angularly and adjustably secured to the outer side of the top 4 by means of a hinge 11'; and a pivot 12 also secured to top 4 is connected through a shaft 13 to another shaft 15 pivoted at 14. A source of light 17 is carried by a sleeve member 16 which can be slid on shaft 15. A microphone 40 is secured to box 1 near the aperture 22 and is connected to flash light batteries 41 or to any other source of low voltage current, which may also provide the current for the lights 6 and 17 and for motor 25.

The receiver unit consists of substantially the same box as the transmitter unit and has a bottom 26, a rear wall 27, a front wall 28 and a top 29. The walls 27 and 28 are provided with registering apertures which are substantially the same as the apertures 22 and 23 in the transmitter unit previously referred to. A pivot 30 on the wall 28 carries a rod 31 to which a mirror 32 is hinged at 38. Another motor 35, the shaft of which is extended through wall 27 and carries one or several blades 36, is supported within the receiver unit box by a member 37. A device for reproducing sounds, such as a receiver microphone 45 is attached to the receiver unit and connected to the microphone 40 and to the source of current 41 of the transmitter unit by means of insulated wires 47.

The device is operated as follows: An object placed before aperture 22 of the transmitter unit, for instance the head 21 of a person, is illuminated by the light 6 and the image is received (through the apertures 22 and 23) by mirror 7, which receives also additional light 18 from the lamp bulb 17. The image is reflected from mirror 7 to mirror 11. The receiver unit may be at a distance of several hundred feet from the transmitter unit, for instance in another room, the doors between the rooms being open so that the image can be projected from mirror 11 of the transmitter unit, through the apertures in the walls 27 and 28 of the receiver unit to the mirror

32 as indicated by dash-and-dotted lines 19 in Fig. 2. In order to receive the image of the object which is before the aperture 22, of the head 21 in the instance shown, the unit must be exactly in line and the mirrors must be adjusted to a certain angular position. The image will then be projected from mirror 32 to mirror 33, which acts as image receiver similar to the receiver screen in a real television apparatus. The blades 24 and 36, which revolve before the apertures in the rear walls of both units, will cause a flicker effect of the received image which is characteristic for television pictures, and the mirrors 7 and 32 will prevent the object before aperture 22 from being seen directly through the apertures. The lights 6 and 17 as well as the motors 25 and 35 can also be connected to the net, instead of being fed by batteries, particularly if the toy is intended for use by older children. The microphones 40 and 45 will make it possible for a person standing before aperture 22 to be heard on the receiving end even if he speaks in a low voice which normally could not be heard at the distance which is between the transmitter and the receiver unit.

If the toy is used outdoors, the sunlight can be utilized instead of the electric lights 6 and 17.

While there has been shown and described and pointed out the fundamental novel features of the invention as applied to a single modification, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the art without departing from the spirit of the invention. It is the intention therefore, to be limited only as indicated by the scope of the following claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent in the United States is:

1. A television toy comprising a transmitter unit of a light weight box having in opposite walls apertures which register with one another and blades adapted to be rotated before one of said apertures; said transmitter unit having near one of said apertures a source of light and a microphone, and at the other aperture a vertically and angularly adjustable mirror, a second source of light adjustably mounted upon said unit and a second angularly adjustable mirror; and a receiver unit having near one of its apertures a device for reproducing the sounds received by the microphone on said transmitter unit and a pair of mirrors one of which is angularly and vertically adjustable and the other of which is angularly adjustable; said angularly and vertically adjustable mirror on said transmitter unit being adapted to receive through both apertures in said unit the image of an object placed before said unit and also to receive light from said second source of light and to project the image and light upon said second mirror, the latter being adapted to project the image and the light through the apertures in said receiving unit upon the angularly and vertically adjustable mirror on said receiving unit when both sets of mirrors are in line with each other and to project the image and light received into the angularly adjustable mirror of said receiving unit, all substantially as described.

2. A television toy comprising a transmitter unit which consists of a closed box having apertures in the upper portion of its front and rear walls which register with each other, of a stationary source of light at the aperture in said front wall adapted to illuminate an object placed before said aperture, of an adjustable source of light, two adjustable mirrors and a rotating blade outside of and near the aperture in said rear wall, and of a microphone near the aperture in said front wall; and a receiver unit which consists of substantially the same box as said transmitter unit having aligned apertures, of a plate adapted to be rotated before the aperture in the front wall of the receiver unit, of a pair of adjustable mirrors at the rear wall of said unit and of a device for reproducing sounds received by the microphone at the transmitter unit; said mirrors on said transmitting unit being adapted to receive the image of an object placed before the front aperture of said transmitting unit and to project the image and light received from said sources of light into the mirrors of said receiving unit when both sets of mirrors are in line and spaced relation to one another, and said rotating blades being adapted to cause a flicker effect on the received image which is characteristic of television pictures, all substantially as described.

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