

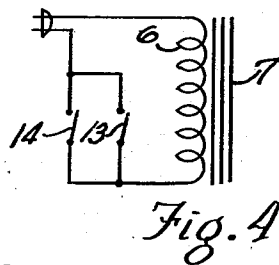
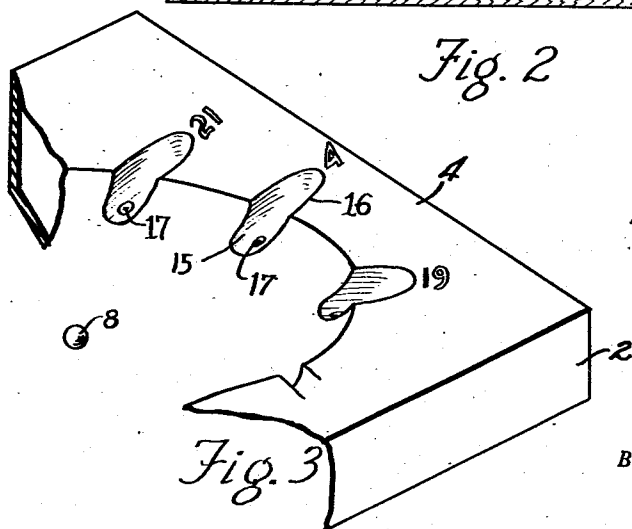
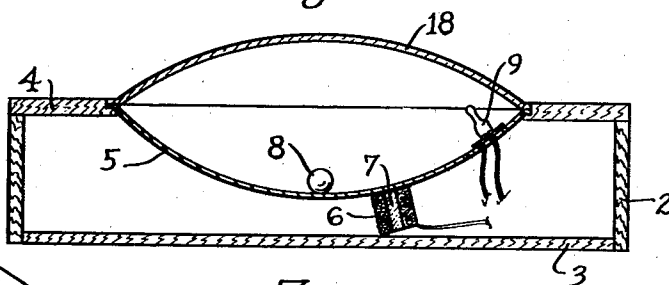
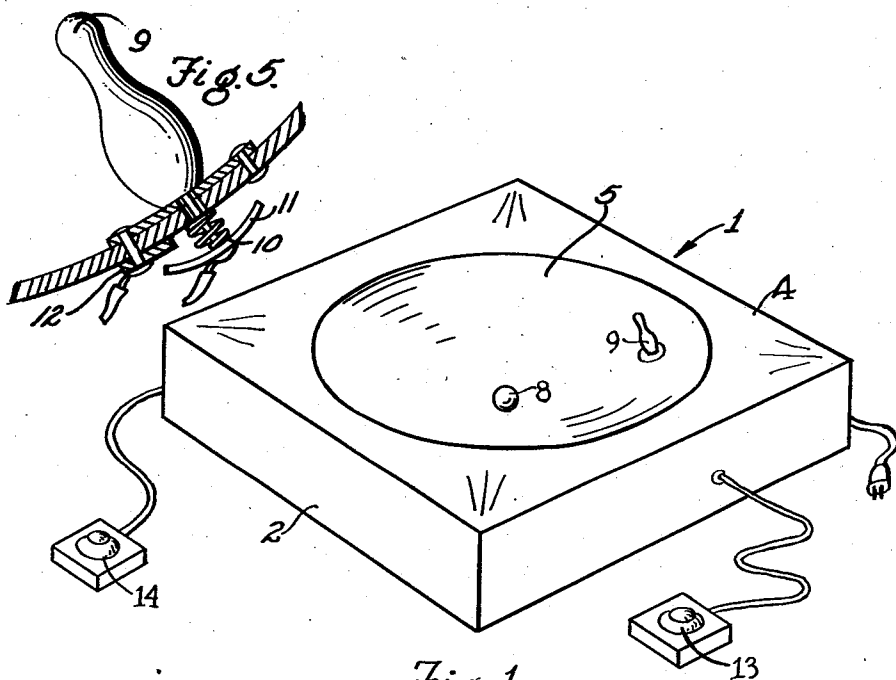
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GAME OR TOY

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GAME OR TOY

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My invention relates to improvements in toys or games. One of the objects of my invention is to provide a simple game device, wherein through the instrumentality of an electromagnetic means, a ball or similar device may be projected at a target or targets.

Another object of my invention is the provision of a game of the above characteristic which may be played by one or more players or by a single player.

For the purpose of illustrating my invention, I have illustrated certain embodiments thereof in the accompanying drawings, in which:

Fig. 1 is a perspective view of a toy embodying my invention;

Fig. 2 is a transverse, sectional view thereof;

Fig. 3 is a perspective, detail view of a modification of my invention;

Fig. 4 is a diagrammatic view of a circuit arrangement of the circuit parts; and

Fig. 5 is a detail section showing more particularly the mounting for the target.

In the embodiment of the invention illustrated, I preferably provide a suitable box or casing 1 having side walls 2 and a bottom 3. This box or casing is provided with a cover 4 having a central circular opening therein. Fitting within this opening is a semi-spherical bowl 5, which may be made of any suitable material, such as pasteboard, wood or any other desirable material. Mounted within the casing 1 and beneath the bowl 5, I provide an electro-magnet 6 having its polepiece 7 adjacent or preferably flush with, the inner peripheral surface of the bowl. A spherical magnetic metal ball 8 is disposed within the bowl to freely roll therein and also mounted within the bowl is a target 9, which may take the form of a suitable ten pin which is tiltably supported at or near the periphery of the bowl. The target 9 is preferably supported through the medium of a pin 10 extending through the bowl and carrying on its underside a metal contact 11 adapted, when the target is rocked, to engage a second contact 12 supported in the bowl, for the purpose of closing an electric signal circuit. The circuit through the winding of the electro-magnet 6 is controlled through the means of manually operated switches 13 and 14.

The electro-magnet is preferably mounted slightly off center, relative to the center of the bowl, or at least so mounted that the center of the magnetic field of the polepiece is slightly off center from the center of the bowl.

In Fig. 4, I have illustrated a circuit arrangement for controlling the energization of the

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winding 6. In this figure, the winding 6 for the magnetic core 7 has one terminal connected to one terminal of an attachment plug adapted for connection with any source of electric power. The opposite terminal of the winding 6 is connected through a series of switches 13 and 14. By this arrangement, the energization of the electro-magnet may be effected through either of the switches.

Various other types of targets than that illustrated in Fig. 2 may be used, and in Fig. 3 I have shown another form. In this figure, I have provided a series of recessed pockets 15 which are arranged at the outer periphery of the bowl and which extend into pockets 16 mounted in or formed in the top of the casing 4. Preferably these pockets 15 and 16 are formed of metal, each having mounted therein a contact button 17. The pocket itself is connected to one side of a suitable source of power and the pin 17, which is insulated from the pocket is connected to the other side. The ball itself being formed of metal, when it rolls in the pocket and contacts the pin 17 will close the circuit through any signalling device, such as a lamp, a bell, or any other suitable signalling means.

In operation, with a single operator playing, the circuit through the electro-magnet is intermittently closed to cause the ball to roll up the sides of the bowl. By suitable manipulation of the switch to energize the ball with proper timing, the ball can be caused to roll up until it engages the target and, as a matter of fact, the direction of movement of the ball can also be changed by proper timing. Where two players are operating the game, one player having for his object the contact of the ball with the target, may control the energization of the magnet with one switch and the other player having for his object the blocking of the play, may also energize the magnet in timed relation to cause the ball to roll in another direction.

In order to prevent manual interruption of the movement of the ball, I preferably provide a transparent cover 18 for the bowl, which cover may be fastened to the top of the casing.

Various modifications of the game are apparent and it is obvious that various types of targets may be used in the development of the game.

I claim as my invention:

1. A game or toy comprising a semi-spherical receptacle, an electro-magnet associated with said receptacle having its polepiece at least adjacent the outer wall of said receptacle and disposed in such a position that the center of the

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magnetic field of said magnet is off center relatively to the center of said receptacle, a target arranged within said receptacle, a ball of magnetic material disposed within said receptacle, and a switch controlling the circuit of said electro-magnet and manually operable.

2. A game or toy comprising a semi-spherical receptacle, an electro-magnet associated with said receptacle having its polepiece at least adjacent the outer wall of said receptacle and disposed in such a position that the center of the magnetic field of said magnet is off center relatively to the center of the receptacle, a target arranged within said receptacle, a ball of magnetic material disposed within said receptacle, and a plurality of switches electrically connected

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in parallel and each independently of the other controlling the circuit of said electro-magnet and manually operable.

3. A game or toy comprising a substantially bowl-shaped receptacle having its sides inclined upwardly from its bottom portion, an electro-magnet associated with said receptacle having its polepiece at least adjacent the wall of said receptacle and disposed in such a position that the center of the magnetic field of said magnet is off center relatively to the center of said receptacle, a target arranged within said receptacle and a ball of magnetic material disposed within said receptacle and caused by gravity to move toward the bottom of said receptacle.

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