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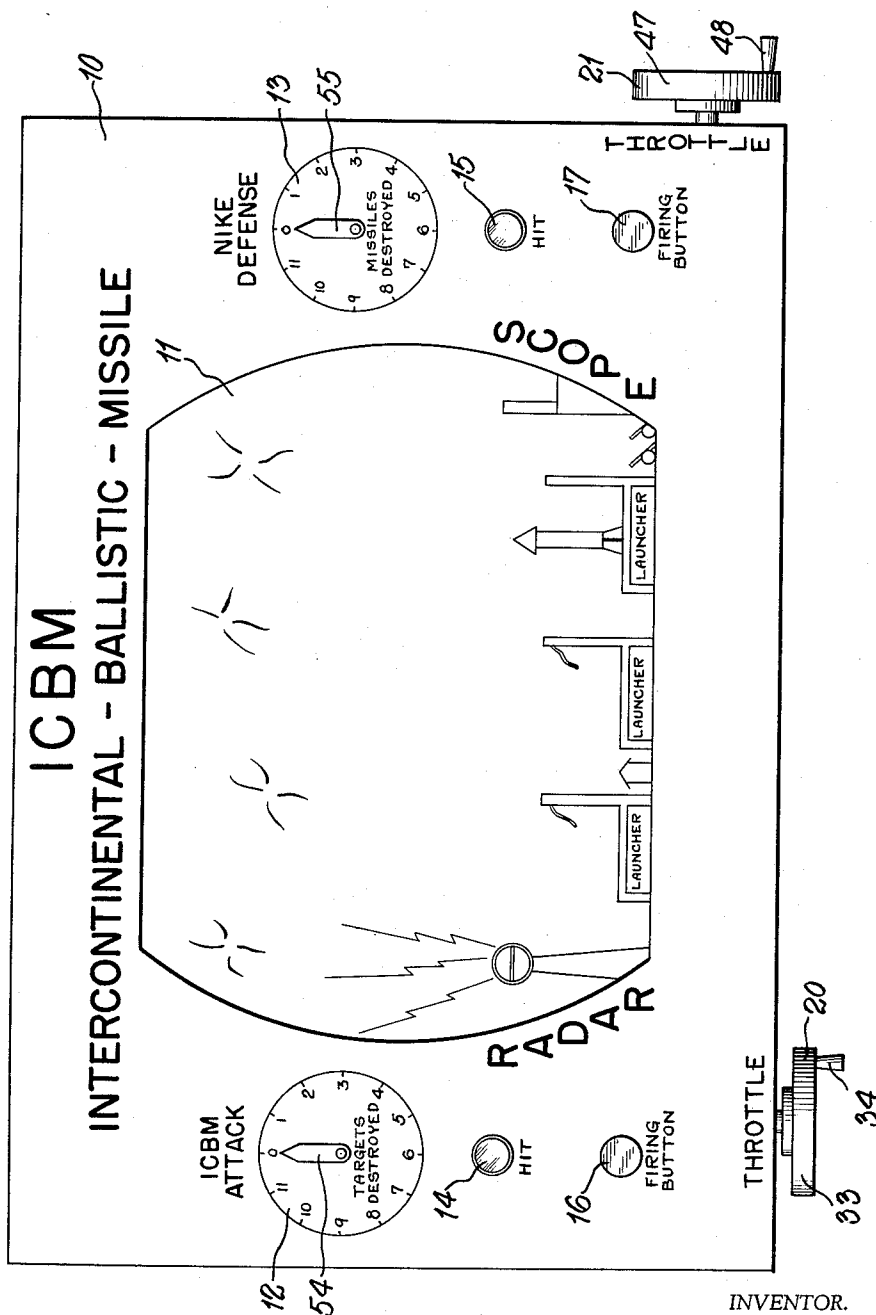
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ICBM GAME

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Fig. 1.



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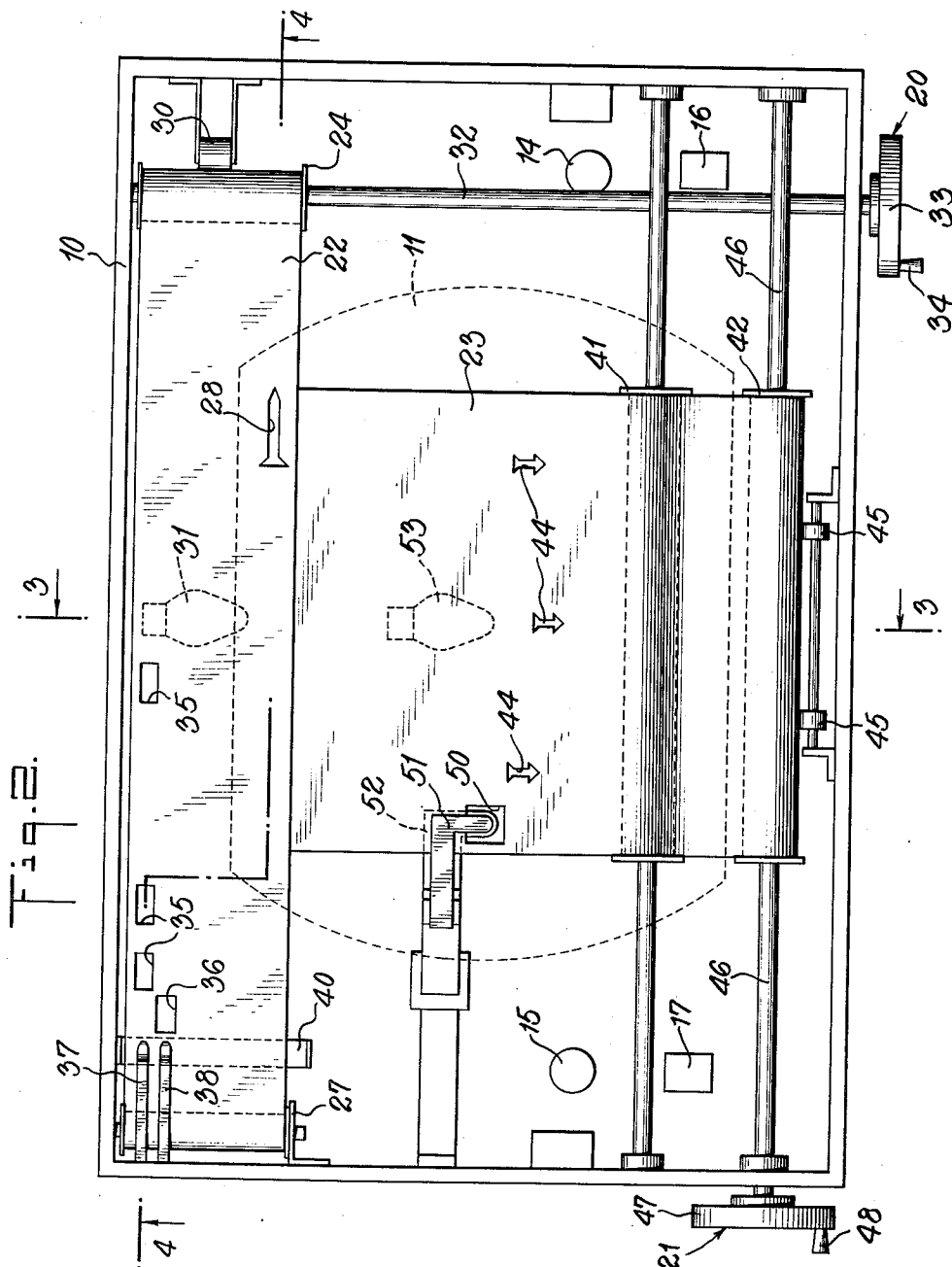
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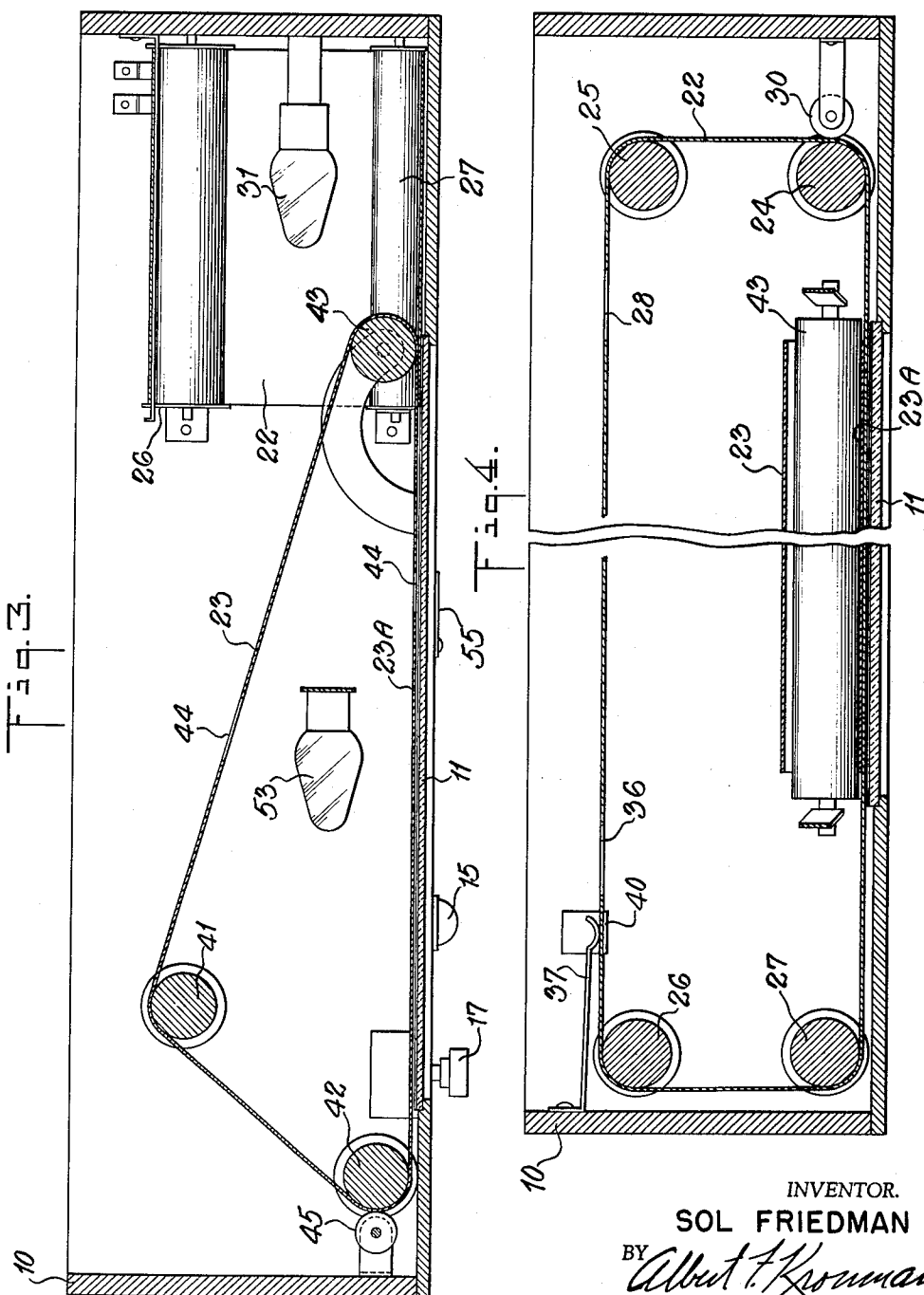
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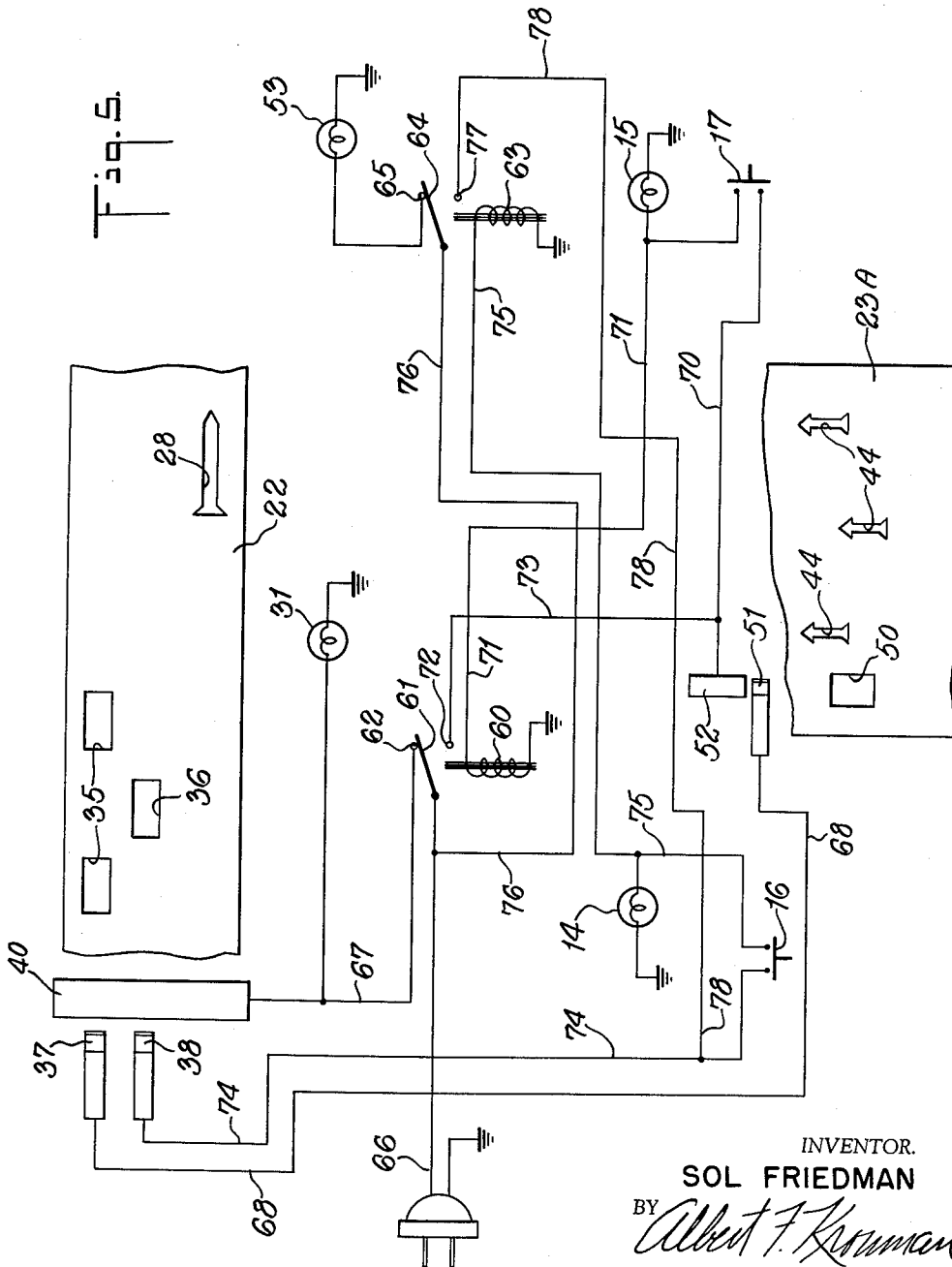
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This invention relates to a game for two people who operate knobs to control the image of objects on a viewing screen. The invention has particular reference to a game which employs images of modern fighting equipment as part of the game components.

Many types of games have been designed and made for competitive use. The great majority of these have been static wherein one player makes a move or finishes an operation and then another player makes a similar operation. The present invention permits both players to play at the same time without recourse to waiting periods or time out for study. Because of this novel arrangement the success at playing and winning depends largely upon the player's judgment and speed. This game then introduces new factors into competitive engagement.

One of the objects of this invention is to provide an improved game apparatus which avoids one or more of the disadvantages and limitations of prior art arrangements.

Another object of the invention is to provide a game which requires judgment of spacing and speed in order to win.

Another object of the invention is to provide a game which includes replicas of modern fighting equipment as part of the game components.

Another object of the invention is to house all the essential game components within a compartment where they are well protected and remain in operative condition for a long time.

The invention includes a game housed in a container for competitive engagement by two players. A translucent screen is mounted on one side of the container and receives images which are viewed by the players. Within the container is a first projection means which shows the image of one or more rockets moving vertically on the screen and a second projection means for showing the image of a long range missile moving horizontally across the screen toward a target. Each player controls a manual knob, one moving the images of the rockets and the other moving the image of the missile. Circuit means are included within the container for indicating the intersection of a rocket image with a missile image or a missile image with a target.

For a better understanding of the present invention, together with other and further objects thereof, reference is made to the following description taken in conjunction with the accompanying drawings.

FIG. 1 is a front view of the game showing the two throttles, the translucent screen, the indicating lamps, and the dial recorders.

FIG. 2 is a rear view of the game container with the back panel removed.

FIG. 3 is a cross sectional view of the structure shown in FIG. 2 and is taken along line 3—3 of that figure.

FIG. 4 is a cross sectional view of the structure shown in FIG. 2 and is taken along line 4—4 of that figure.

FIG. 5 is a schematic diagram of electrical connections of the game.

Referring now to FIGS. 1, 2, and 3, the game includes a container 10 which houses most of the game components. At one side of the container a translucent screen 11 is mounted for showing images projected from the interior of the container. The viewing screen 11 is mounted on a side of the container which may be in a vertical position when the game is in progress or the container may be held in a horizontal position and placed on a table. On the container wall on the same side as the

viewing screen two counters 12 and 13 are mounted. These counters are not connected to any other part of the game system and must be manually moved to a count position after a hit has been scored. Also, on this same container wall two indicator windows 14 and 15 are mounted, each with an electric lamp mounted behind the window for indicating when a hit has been achieved.

Two firing buttons 16 and 17 are also mounted on the front panel for operation by the players. Each player is assigned a throttle or knob 20, 21, which must be turned while the game is in progress.

On the inside of the container, as shown in FIG. 2, there are two endless belts 22 and 23. Endless belt 22 is mounted on four vertical rollers 24, 25, 26, and 27, and the endless belt contains a cut-out portion 28 which represent a long range missile generally called an inter-continental ballistic missile or "ICBM." Endless belt 22 is held in frictional contact with roller 24 by means of an idler roller 30. The endless belt 22 is mounted near the top of the container so that only the bottom edge passes over the inside surface of the translucent screen 11, however, enough of the belt overlaps the screen so that the image 28 of the missile can be seen at the top of the screen.

The image of the missile 28 is made visible on the screen 11 by means of a source of illumination 31 which may be an electric lamp as shown in FIG. 2. Roller 24 is connected by a shaft 32 to a knob 33 having a handle 34 which may be turned by a player at any convenient speed. The endless belt 22 is also formed with a double set of control means 35 and 36 which operate to close resilient contacts 37 and/or 38 to contact 40. Control means 35, 36, may be simple perforations in the belt or they may comprise conductive inserts riveted or otherwise secured to the belt. Contacts 37, 38, are resiliently urged to make contact with one side of the belt at a position which is just above another contact electrode 40 and when perforations 35 pass under contact 37 this contact is forced downwardly to make contact with electrode 40. There is only one cut-out portion 36 which is so positioned in belt 22 as to close contacts 38 and 40 when the image of the missile 28 is at the right hand edge of the screen 11 thereby simulating a hit on a target.

Endless belt 23 moves on three rollers 41, 42, and 43, one portion of the belt 23A moving vertically in contact with the viewing screen 11. Belt 23 is formed with several cut-out portions 44 to indicate the presence of Nike rockets for defense. Belt 23 is held in contact with roller 42 by a pair of idler wheels 45 and the belt 23 is moved by means of a shaft 46 secured to roller 42 and turned by a knob 47 having a handle 48. Endless belt 23 is formed with several cut-out portions 50 similar to the cut-out portions 35, 36. These portions are designed to control resilient contacts 51, 52, so that the contacts are closed whenever a cut-out portion passes between them. Images of cut-out portions 44 are shown on the viewing screen 11 by means of an electric lamp 53.

During the operation of the device one player turns knob 33 while the other player turns knob 47, it being the object of the first player to move the image of the long range missile 28 completely across the viewing screen to hit an imaginary target at the right edge of the screen. If the player succeeded in doing this the cut-out portion 36 will permit contacts 38 and 40 to be closed and thereby indicate a hit of the missile on the target for which the player scores one point and moves indicator 54 one digit space on dial 12.

While the first player is moving knob 33 to move the image of missile 28 in horizontal direction the second player is turning knob 47 to move the images of rockets 44 in a vertical direction to make contact with the missile and simulate its destruction. If the second player should

be successful in causing the two images 44 and 28 to coincide, then a circuit will be completed which includes contacts 37 and 40 closed by means of portions 35 and contacts 51, 52, closed by cut-out portions 50. The actuation of this circuit causes a hit to be registered for the second player who then moves indicator 55 on dial 13 one digit space.

The wiring diagram is shown in FIG. 5 which also shows belts 22 and 23A together with their cut-out portions. The wiring diagram also includes a first relay winding 60 having an armature 61 which normally makes contact with an upper contact point 62. The wiring system also includes a second relay winding 63 with a relay armature 64 normally in contact with contact point 65. The illuminating means for belt 23A (lamp 53) is connected between ground and contact point 65 while the illuminating means for belt 22 (lamp 31) is connected between ground and contact point 62. It will be obvious that whenever one of the relay windings 60 or 63 receives current its armature is actuated and its associated lamp is extinguished.

When a hit is scored by either player an indicator lamp 14 or 15 is turned on. These lamps are connected between ground and an electrical switch 16 and 17 identified on the panel as firing buttons, these switches receiving current through the contacts controlled by the cut-out portions in the endless belts.

In order to explain the operation of the circuit let it be assumed that the players have started turning their knobs and moving their endless belts into position. The image of the missile 28 moves horizontally across the screen while the images of rockets 44 move vertically to intercept the missile. If now the image of a rocket coincides with the image of the missile, a circuit is completed which may be traced from conductor 66 connected to a source of potential, through armature 61 and contact point 62, over conductor 67, to contact 40, then to contact 37, over conductor 68, to contacts 51 and 52, over conductor 70, through switch 17 which must be held down by the player in order to score a hit, then over conductor 71, to relay winding 60, and back to ground. At the same time current is provided for lamp 15 which lights up indicating that a hit has been scored. When relay winding 60 receives current, armature 61 is actuated and the current to contact point 62 and conductor 67 is broken. This action removes the current from lamp 31 which goes out and the image of missile 28 disappears from the screen, thereby indicating that the missile has been destroyed. When the armature 61 is actuated, it makes contact with a normally open contact point 72 and thereby completes a locking circuit which may be traced from the source of potential, over conductor 66, through armature 61 and contact 72, over conductors 73 and 70, through switch 17, over conductor 71, and through relay winding 60, to ground. This retains the relay in its actuated condition until button 17 is released at which time the circuit is again normalized.

Now let it be assumed that the player who turned knob 33 managed to elude all the rockets and moved the image of the missile 28 completely across the screen. At this point cut-out portion 36 permits contacts 38 and 40 to be brought together thereby completing a circuit which may be traced from conductor 66, through the armature 61 and contact point 62, over conductor 67 to contacts 40 and 38 which were joined through cut-out portion 36, then over conductor 74 and through the contacts of switch button 16, over conductor 75 through the relay winding 63, to ground. This circuit causes the actuation of relay armature 64 and extinguishes lamp 53 which was the source of illumination for the vertically moving belt 23A. Lamp 53 received its current from conductors 66 and 76 through contacts 64 and 65 and when the lamp is extinguished the images of the rockets disappear from the screen indicating that they are no longer effective.

When current is applied to conductor 75 lamp 14 is

lighted, thereby indicating on the front panel that a hit has been scored by the missile on a target. Lamp 14 remains lighted and lamp 53 remains extinguished as long as button 16 is held in its depressed position. When the relay armature 64 is in its actuated position it makes contact with point 77 and thereby completes a locking circuit which may be traced from conductors 66 and 76 through armature 64 and point 77, over conductor 78, through the contacts of button 16, over conductor 75, and through winding 63 to ground. When button 16 is released the relay is normalized and the circuit is ready for another playing operation.

Having thus fully described the invention, what is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A competitive game of skill for two players comprising, a container, a translucent screen forming one wall of said container, a first horizontally-disposed endless belt carried on spaced rollers supported within said container, means for a first player manually driving said first belt, first illumination means within said container for projecting an image on said first belt onto said screen, a second vertically-disposed endless belt arranged in a different plane than said first belt and having a portion thereof overlapping a portion of said first belt to form a T-shaped configuration, said second belt being carried on spaced rollers supported within said container, means for a second player manually driving said second belt, second illumination means within said container for projecting an image on said second belt onto said screen, and circuit means for indicating the condition of substantial registration between said image on said first belt and said image on said second belt at said overlapping portion of said belts.

2. The combination set forth in claim 1 wherein said circuit means comprises, electrical contact members adjacent each of said belts, selectively spaced means integral with each of said belts to operate said contact members, an electrical power supply connected to said circuit means, and a lamp responsive to the simultaneous closing of said contact members on both said belts to indicate the occurrence of said condition of substantial registration between said images.

3. The combination set forth in claim 1 further comprising second circuit means for indicating a second condition when said image on said first belt has traversed said overlapping portion of said belts without said condition of substantial registration with said image on said second belt occurring.

4. The combination as set forth in claim 3 wherein said second circuit means comprises, electrical contact members adjacent said first belt, selectively spaced means integral with said first belt to operate said contact members, an electrical power supply connected to each said circuit means, and a lamp responsive to the closing of said contact members on said first belt to indicate the non-occurrence of said condition of substantial registration between said images.

5. The combination set forth in claim 2 further comprising relay means responsive to said simultaneous closing of said contact members on both said belts for extinguishing said first illumination means.

6. The combination set forth in claim 4 further comprising relay means responsive to said closing of said contact members on said first belt for extinguishing said second illumination means.

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