game player's head, i.e. follow a displacing amount and a displacing direction of the position of his head.

[0037] **FIGS. 4A** to **4**D are diagrams showing one example of a change of the viewing point of images on the monitor screen when the game player's head is vertically moved, and **FIG. 5** is a diagram showing a game playing state of the game player. **FIGS. 4A** to **4**D correspond to a lapse of time and show four scenes when the game player gradually rises from a half-sitting posture (see **FIG. 5**) to a substantially upright posture in a direction of an arrow in front of the main game unit **10**, i.e. the game player's head (eyes) is displaced upward from below. **FIG. 4A** shows a state where there is an obstacle B like a desk right in front of the viewing point, the game player hides himself before the obstacle B at the front side, and part of the head of an enemy character AC**1** holding a gun is seen behind the obstacle B. The scene shown in **FIG. 4B** is reached when the game player slightly lifts his head from the state of **FIG. 4A**, and shows that only the eyes of the game player are in alignment with the upper surface of the obstacle B, the enemy character AC**1** is seen up to his chest, and two other enemy characters AC**2**, AC**3** are newly seen behind the enemy character AC**1**. The scene of **FIG. 4C** is reached when the game player straightens his back to further lift his head, and shows that the eyes of the game player are slightly exposed from the upper surface Bs of the obstacle B, the upper halves of the bodies of the three enemy characters AC**1**, AC**2**, AC**3** are seen and the upper surface Bs of the obstacle B is also slightly seen. The scene of **FIG. 4D** is reached when the game player stands upright, and shows that the game player is exposed from the obstacle B up to his neck and the upper surface Bs is more widely seen. As the eyes of the game player rise, the upper surface Bs of the obstacle B is gradually lowered as shown in **FIGS. 4A** to **4**D.

[0038] **FIGS. 6A** to **6**D are diagrams showing one example of a change of the viewing point of images on the monitor screen when the game player's head is transversely moved, **FIG. 7** is a diagram showing a game playing state of the game player. **FIGS. 6A** to **6**D correspond to a lapse of time and show four scenes when the game player gradually is moved to left in a direction of an arrow from the right side (see **FIG. 7**) of the main game unit **10**, i.e. the game player's head (eyes) is displaced leftward from right. **FIG. 6A** shows a state where an obstacle B like a door or a wall exists right in front of and on the right side of the viewing point, the game player hides himself behind the obstacle B, and part of an arm of the enemy character AC**1** holding a gun is seen on the other side of the obstacle B. The scene of **FIG. 6B** is reached when the game player slightly moves his head to left from the state of **FIG. 6**A, and shows that only the eyes of the game player are slightly exposed from the left end of the obstacle B and the face and the chest of the enemy character AC**1** can be seen. The scene of **FIG. 6C** is reached when the game player further moves his head to left, and shows that the game player's head is slightly more exposed from the left end of the obstacle B, the upper half of the body of the enemy character AC**1** is seen and part of another enemy character AC**2** is newly seen behind the enemy character AC**1**. The scene of **FIG. 6D** is reached when the game player jumps to left from the obstacle B to expose the upper half of his body, and shows that still another enemy character AC**3** is seen in addition to the two enemy characters AC**1**, AC**2**.

[0039] Since the head detector **30** can detect the vertical and transverse positions of the game player's head, when his head moves while having components of two directions, i.e. vertical direction and transverse direction, the viewing point can be moved accordingly, i.e. in an oblique direction.

[0040] **FIG. 8** is a flow chart showing an example of a game progress processing executed by the CPU **101**. When the game machine is turned on, the -main routine starts, whereby a demonstration screen is first displayed on the monitor **11** (Step ST**1**). When insertion of a specified coin is detected by the coin switch **25***a* (YES in Step ST**2**), a start screen is displayed (Step ST**3**) and the gaming processing as a shooting game is executed (Step ST**4**). In a mode wherein the game is comprised of a specified number of stages, a judgment is made as to whether a specified condition is not met during each stage. For example, an judgment is made by the control of the CPU **101** functioning as a life game administering means as to whether the life gauge displayed in, for example, an upper area of the screen of the monitor **11** has decreased to a specified value or below, e.g. to 0. If a condition such as shooting all enemy characters appearing during the stage is cleared before the life gauge reaches 0, it is discriminated whether the next stage is a final stage (Step ST**5**). Conversely, if the life gauge reaches 0 during the game, the display content on the monitor **11** is switched to a game-over screen, thereby forcibly ending the game.

[0041] On the other hand, if the cleared stage is a final stage, an ending demonstration screen presenting a commendation is displayed (Step ST**6**) and the game-over screen is displayed (Step ST**7**) after displaying scores or the like if necessary, thereby ending the game.

[0042] **FIG. 9** is a flow chart showing a subroutine "Gaming Processing" executed in Step ST**4**. During the gaming processing, a judgment is made as to whether or not a gaming time set for each stage and measured by a built-in timer has elapsed (Step ST**11**) and then it is discriminated whether there still remains any life gauge (Step ST**12**) if the gaming time has not elapsed yet. If the discrimination results in both Steps ST**11**, ST**12** are negative, Step ST**7** follows. On the other hand, if there still remains some life gauge, an I/O processing is executed, i.e. an information on the position of the game player's head, i.e. an information substantially on the positions of the game player's eyes is transferred from the head detector **30** (Step ST**13**).

[0043] It is then discriminated whether the current viewing point is an objective viewing point or a subjective viewing point (Step ST**14**). In this game, during a certain period at the beginning of each stage, the CPU **101** functioning as an objective/subjective viewing point switching means and the timer causes an overall situation of the game space, i.e. an image of a wide area to be displayed by retracting the simulated camera to include the player character so that the game player can grasp and recognize where he is in the game space. During this period, the viewing point is set at the subjective viewing point. On the other hand, upon completion of the imaging processing by the subjective viewing point, the viewing point is switched to the objective one based on the game player's eyes. In Step ST**14**, if the viewing point is the subjective one, the game image is formed at the viewing point independent of the information obtained by the I/O processing (Step ST**15**), and if a shooting battle occurs, an interrupt processing for the sound