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(54) Title: **BOARDS WITH AUDIO AND/OR VISUAL CAPABILITY AND METHOD FOR MAKING SUCH BOARDS**

(57) Abstract: This invention relates generally to the field of boards for use in board sports, such as surf boards, body boards, snow boards, skate boards, wake boards, kite surfing boards, and mountain boards, and the introduction of audio and/or video capability to these boards. This will allow users of such boards to listen to audio media or view video media while using their boards.



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BOARDS WITH AUDIO AND/OR VISUAL CAPABILITY AND METHOD FOR
MAKING SUCH BOARDS

by

Sean Goss

Field of the Invention

[0001] This invention relates generally to the field of accommodating audio or video capabilities to a board used while participating in sports, such as surfing, skateboarding, body boarding, snow boarding, wind surfing, wake boarding, kite surfing and mountain boarding.

Background of the Invention

[0002] Board sports are very popular, and include, but are not limited to the following sports: surfing, skateboarding, body boarding, snow boarding, wind surfing, wake boarding, kite surfing and mountain boarding. Typically, the boards used in these sports will only accommodate a single person. That being the case, it is desirable, though often very impractical, for the participant to wear a walkman or some similar portable audio or video delivery device (portable device). A portable device provides entertainment for the participant while engaged in the sport. The audio and video media can be for entertainment (e.g., music, music video, and the like), for instruction, (e.g., how to perform the board sport), or for other reasons that appeal to the participant.

[0003] One common problem with using a portable device; however, is having restricted movement because the device is attached to the user's body. Further, the wires leading from the portable device to the headphones are also attached to the user's body. In this configuration, the portable device hinders the participant's performance in the sport. Another problem with a portable device is that the headphones will make it difficult for the participant to hear sounds from a variety

of sources besides the audio device. Reducing a person's ability to hear sounds from a variety of other sources is a problem because that person cannot hear warnings or instructions. Headphones are also not desirable because they can have negative effects on the user's equilibrium, which again will negatively impact the user's performance in the board sport.

[0004] So, it is desirable to have a device that allows board sport participants to listen to select audio, e.g., music, but that will not restrict movement or obstruct various other audio sources. It is also desirable to have a device that provides video to a board sport participant without causing problems with restricted movement.

Summary of the Invention

[0005] One embodiment of the present invention relates to boards used with board sports having audio and/or video capability.

[0006] In one particular aspect of the present invention, the board will have a media device integrated within the board. The device can be either an audio playing device (including, but not limited to an MP3 player, CD player, cassette tape player, and a radio) a video playing device (including, but not limited to an MP3 player, DVD player, a video cassette player, and a TV receiver) or both.

[0007] In another aspect of the present invention, the media device comprises a data input component, a data storage component, a data output component, and a control component. The data input component can further comprise an antenna for receiving externally transmitted data, or it can further comprise a communication port for transferring stored data from one source to another. Data storage can further comprise a hard drive having memory. The data output component can further comprise speakers for delivering sound, or it can further comprise a screen for delivering video. Alternatively, the data output component can further comprise an amplifier for boosting the delivered data. The control component can further comprise audio volume controls, data sets selection

controls, power on/off controls, data delete and save controls, and other similar controls for adjusting and selecting the data input, storage and output.

[0008] In a further aspect of the present invention the media device is permanently integrated within the board.

[0009] In a further aspect of the present invention the media device is removably integrated within the board. In this aspect, the board will comprise a water proof case that will removably house the media device, or components thereof.

[0010] In a further aspect the control component is a control panel integrated within the board and having a surface located semi-flush with the surface of the board. This configuration allows the user to adjust the controls, but, by being semi-flush, does not present as a raised or indented obstacle to the user when participating in the board sport.

[0011] Another embodiment of the present invention relates to a media device that is integrated into a board except for the control component. In this embodiment, the control component can be a small device that the user conveniently holds in their hand, or attached to their body. Alternatively, the control component is attached to the device using a leash. The control component, being only one of the components comprising the media device, is small enough that it does not restrict the movement, nor hinder the performance of the user, as would the entire media device if it were external and held by or attached to the user.

[0012] In an alternative embodiment the data input, data storage and data control components are attached to the user's body, but the data output component is integrated into the board. The data input component, data storage component and data control component, being only a subset of all components comprising the media device, is small than is the total set of components comprising the device. Additionally, the data output component, when said component is audio speakers, is not attached to the user as headphones. This being the case, the user's

performance, equilibrium and ability to hear sounds from a variety of sources are not hindered.

[0013] In one embodiment of the method of the present invention the board will be manufactured with integrated audio and/or video capability.

[0014] In another embodiment of the method of the present invention, an existing board will be retrofitted with audio and/or video capability. A kit will be provided to the board owner that will contain everything that is needed to retrofit the board.

[0015] In an alternative embodiment of the method of the present invention, the kits for retrofitting will come in different sizes for different sized and shaped boards.

Brief Description of the Drawings

[0016] Figure 1 illustrates a board of the present invention comprising an integrated media device. In this figure there is shown the top of a surf board with (1) representing a cavity for the input component and storage component, (2) representing the wiring channel connecting the input component, the control component and the output component, (3) representing a cavity for the control component, (4) representing a cavity for the output component being speakers, and (5) representing a cavity for the output component being a video viewer.

[0017] Figure 2 shows a side view of the surf board illustrated in Figure 1.

[0018] Figure 3 shows a perspective view of the surf board illustrated in Figure 1.

[0019] Figure 4 illustrates a board of the present invention comprising an integrated media device. In this figure there is shown the top of a body board with (1) representing a cavity for the input component, (2) representing the wiring channel

connecting the input component, the control component and the output component, (3) representing a cavity for the control component, (4) representing a cavity for the output component being speakers, (5) representing a feed through for having a control component on the wrist strap of a leash, and (6) representing a cavity for the output component being a video viewer.

[0020] Figure 5 shows a side view of a body board illustrated in Figure 4.

[0021] Figure 6 shows a perspective view of a body board illustrated in Figure 4.

[0022] Figure 7 is a general illustration of the media device used in the current invention.

[0023] Figure 8a is a cross section partial view of a board having an integrated media device and illustrating the input component being flush with the surface of the board. Other components are not shown.

[0024] Figure 8b is a cross section partial view of a board having an integrated media device and illustrating the data storage component having an user interface that is flush with the surface of the board. Other components are not shown.

[0025] Figure 8c is a cross section partial view of a board having an integrated media device and illustrating the output component being flush with the surface of the board. Other components are not shown.

[0026] Figure 8d is a cross section partial view of a board having an integrated media device and illustrating the input component slightly protruding from the surface of the board. Other components are not shown.

Detailed Description of the Invention

[0027] In accordance with the present invention and as used herein, the following terms are defined with the following meanings, unless explicitly stated otherwise. These explanations are intended to be exemplary only. They are not intended to limit the terms as they are described or referred to throughout the specification. Rather, these explanations are meant to include any additional aspects and/or examples of the terms as described and claimed herein.

[0028] The term “amplifier” refers to a device that commonly uses transistors or electron tubes to produce amplification of an electrical signal.

[0029] The term “audio” refers to the broadcasting, reproduction, and reception of sound.

[0030] The term “audio cassette” refers to a magnetic tape (in the form of compact cassettes) that can be used to record audio information.

[0031] The term “audio cassette player” refers to a device for playing audio cassettes.

[0032] The term “audio media” refers to a means of sound communication, including, but not limited to, audio files (including, but not limited to MP3, AVI, wmv, wma, MP4, MPEG, MOV, WAV), which may be music or spoken word files; CDs, which may be music or spoken word CDs; DVDs, which may be music or spoken word DVDs; audio cassettes, which may be music or spoken word cassettes; UMDs, which may be music or spoken word UMDs; and radio broadcasts, which may be music or spoken word broadcasts.

[0033] The term “audio playing device” refers to a device which can play audio media. Examples of audio playing devices include, but are not limited to MP3 players, iPOD, CD players, DVD players, PSP, radios, and TV receivers.

[0034] The term “audio track” refers to (1) a distinct path, as along a length of film or magnetic tape, on which sound information is recorded; (2) a distinct selection from a sound recording, such as a phonograph record or CD, usually containing an individual work or part of a larger work (e.g., the title track of an album); and (3) one of the separate sound recordings that are combined so as to be heard simultaneously, as in stereophonic sound reproduction (e.g., the vocal track and instrumental track).

[0035] The term “AVI” refers to Audio Video Interleave, which is the file format for Microsoft’s Video for Windows Standard.

[0036] The term “Bluetooth®” refers to a technology cable replacement technology, which allows devices which normally communicate with each other via cables to communicate wirelessly.

[0037] The term “board” refers to boards for use in board sports, including, but not limited to, surf boards, body boards, wind surf board, snow boards, skate boards, wake boards, kite surfing boards, and mountain boards.

[0038] The term “board sports” refers to sporting activities that involve the use of a board, including, but not limited to, surfing, body boarding, wind surfing, snow boarding, skate boarding, wake boarding, kite surfing, and mountain boarding. The field of board sports is always expanding; therefore this is not a comprehensive list.

[0039] The term “cable” refers to a bound or sheathed group of mutually insulated conductors, such as a speaker cable, component cables, composite/RCA cables, DVI cables, HDMI cables, fire wire IEEE1394 cables, SCSI, f-pin, BNC and scart-UK. This list is not exhaustive in that any cable that can transmit a digital or analogue signal is useful with the current invention.

[0040] The term "CD" refers to a compact disc (also known as a compact disk), which is an optical disc used to store digital data, originally developed for storing digital audio.

[0041] The term "CD player" refers to an audio playing device, which can be used to play the audio tracks stored upon a CD.

[0042] The term "DVD" refers to a digital video disc (also known as a digital video disk), which is a high-density CD for storing large amounts of data, especially high-resolution audio-visual material.

[0043] The term "DVD player" refers to an audio playing device and/or a video playing device, which can be used to play the audio and/or video tracks stored upon a DVD.

[0044] The term "iPOD" refers to a combination digital audio player and portable hard drive from Apple Computer.

[0045] The term "LCD screen" refers to a liquid crystal display screen, which is a low-power flat-panel display used in many laptop computers, calculators and digital watches, made up of a liquid crystal that is sandwiched between layers of glass or plastic and becomes opaque when electric current passes through it. The contrast between the opaque and transparent areas forms visible characters.

[0046] The term "MOV" refers to .mov, which is a file extension used by the QuickTime-wrapped files.

[0047] The term "MP3" refers to Motion Picture Experts Group, Audio Layer 3, which is a popular music download format. This may also be called a MPEG-3 and a MPEG-1 Audio Layer-3. MP3 is a standard technology and format for compression of a sound sequence into a very small file (about one-twelfth the size of the original file) while preserving the original level of sound quality when it is played. MP3 files are identified with the file name suffix of ".mp3".

[0048] The term “MP3 player” refers to an audio playing device, which can be used to play MP3 files.

[0049] The term “MP4” refers to MPEG-4, which is the latest compression method standardized by MPEG group, designed especially for low-bandwidth (less than 1.5MBit/sec bit rate) video and/or audio encoding purposes.

[0050] The term “MPEG” refers to Moving Pictures Expert Group, and is pronounced m-peg. MPEG is a working group of ISO/IEC in charge of the development of standards for coded representation of digital audio and video. The term MPEG also refers to the family of digital video compression standards and file formats developed by the group. MPEG achieves high compression rate by storing only the changes from one frame to another, instead of each entire frame. The video information is then encoded using a technique called DCT. MPEG uses a type of lossy compression, since some data is removed. But the diminishment of data is generally imperceptible to the human eye.

[0051] The term “plasma screen” refers to a type of flat-panel display that works by sandwiching a neon/xenon gas mixture between two sealed glass plates with parallel electrodes deposited on their surfaces. The plates are sealed so that the electrodes form right angles, creating pixels. When a voltage pulse passes between two electrodes, the gas breaks down and produces weakly ionized plasma, which emits UV radiation. The UV radiation activates color phosphors and visible light is emitted from each pixel.

[0052] The term “PSP” refers to Playstation Portable, which is a portable device designed by Sony for listening to audio media, watching video media, and playing video games.

[0053] The term “radio” refers to an audio playing device, which can be used to receive radio signals (the wireless transmission through space of electromagnetic waves in the approximate frequency range from 10 kilohertz to 300,000 megahertz

used to communicate audio signals). Radio signals include, but are not limited to those broadcasted as AM radio, FM radio, XM radio, Sirius, and other satellite radios.

[0054] The term “retrofit” refers to an instance of modernizing or expanding with new or modified parts, devices, systems, or equipment.

[0055] The term “speaker” refers to a loudspeaker, which is a device that converts electric signals to audible sound.

[0056] The term “TV receiver” refers to a television receiver, which receives the transmission of visual images of moving and stationary objects, generally with accompanying sound, as electromagnetic waves and then reconverts the received waves into visual images to be displayed on the video viewer.

[0057] The term “UMD” refers to Universal Media Disc, which is a proprietary optical disc format developed by Sony for use with the PSP. At only 60 mm in diameter, it can store 1.8 GB of digital data.

[0058] The term “video” refers to the broadcasting, reproduction, and reception of images.

[0059] The term “video cassette” refers to a magnetic tape (in the form of cassettes) that can be used to record audio and video information.

[0060] The term “video cassette player” refers to a device for playing video cassettes.

[0061] The term “video display” refers to devices known in the art for projecting an image, and can include, but are not limited to LCD screens, TFT screens, Plasma screens, CTR displays and the like.

[0062] The term “video media” refers to a means of image communication, including, but not limited to, video files (including, but not limited to AVI, wmv, MPEG, MOV, WAV), CDs, DVDs, video cassettes, and television broadcasts.

[0063] The term “video playing device” refers to a device which can play video media. Examples of video playing devices include, but are not limited to MP3 players, iPOD, Windows Media Player, Real Player, Quick Time, CD players, DVD players, PSP, radios, and TV receivers.

[0064] The term “video track” refers to a distinct path, as along a length of film or magnetic tape, on which sound and image information is recorded or a distinct selection from a sound and image recording, such as a DVD, usually containing an individual work or part of a larger work.

[0065] The term “video viewer” refers to a device to display the images of a video, such devices include, but are not limited to, an LCD screen and a plasma screen.

[0066] The term “water proof” refers to an object which is impervious to or unaffected by water.

[0067] The term “WAV” refers to the format for storing sound in files developed jointly by Microsoft and IBM. WAV sound files end with a .wav extension and can be played by nearly all Windows applications that support sound.

[0068] The term “wireless” refers to the transmission of a signal without a cable, such as the transmission of an audio signal from an amplifier or an audio playing device to a speaker without the use of a cable, or the transmission of a video signal from a video playing device to a video viewer.

[0069] The term “wmv” refers to Windows Media Video, which is developed by Microsoft.

[0070] The term “wma” refers to Windows Media Audio, which is developed by Microsoft.

[0071] One embodiment of the present invention relates to boards comprising an integrated media device. This invention will allow the user of the board to listen to audio media and/or watch video media while participating in the board sport. Unlike the prior art, however, the current invention does not hinder performance, restrain movement, block out other various audio or video sources or present any of the other limitations of the prior art.

[0072] In the preferred embodiment, the media device 100 comprises a data input component 110, a data storage component 112, a data output component 114 and a control component 116 (Figure 7). The media device is not unlike other media devices known in the art (e.g., mp3 players, iPOD, sony PSP, sony walkman, Neuros 422 media player and XM satellite radio players to name a few), however, in the current invention the media device is integrated into the board.

[0073] In Figure 7, the data input device 110 can comprise an antenna, a digital interface port, an analogue interface port or a cage for receiving media such as DVDs, CDs, VHS tapes or cassette tapes. The digital interface port is preferably a firewire port, however, other interface ports can be used, and the port should be accessible at the external surface of the board. Furthermore, the port should be resistant to the environment that the board is used in. For example, a surf board having an integrated media device of the current invention should have the port resistant to water, and particularly to salt water. Likewise, for snowboards, the port should be resistant to water and snow and for mountain boards it should be resistant to dirt. Figure 8a shows a cross-section of a board 200 illustrating the data input component 110 of the media device 100 being accessible at the external surface of the board 200.

[0074] When the data input component is a port, digital or analogue media can be loaded into the data storage component 112 of the media device 100 from an external source. An external source can include, but is not limited to a laptop

computer having stored digital media. For analogue media it is preferable that that media is converted to digital. Those skilled in the art are familiar with how to construct a media device comprising an analogue to digital converter. When the data input component 110 is an antenna, the component will receive RF signals delivered from a source. The RF signal can be analogue or digital. The source can include, radio station transmitters, television station transmitters, satellite radio transmitters and satellite television transmitters or other well known RF transmission sources. Antennas for receiving RF transmissions are well known in the art. If the data input component 110 is a cage for receiving media, then that component can be configured as a CD and/or DVD insert slot similar to what is included in the common car stereo, or it can be configured as a tray that pops up to receive a VHS or cassette tape, similar to the mechanism of the VCR or cassette player. Again, as discussed with the firewire port, these input components should be resistant to the environment in which the board is used.

[0075] The data that is input to the media device integrated into a board is preferably stored and processed in the data storage component 112 of the media device 100. In the embodiment wherein data is input to the media device 100 using a digital or analogue interface port, preferably a digital interface port and more preferably a firewire port, then the data storage component 112 comprises a data storage means, preferably a hard drive and RAM memory. Moreover, if the data is analogue and the data is to be stored in digital memory, then the data storage component 112 comprises a data processing means and data is processed by the analogue to digital converter of the data storage component 112. The data is then stored in the memory. Additionally, the data storage component 112 can process the data for delivery to the user in the form of audio and/or video. In some instances, the data will have to be converted from digital to analogue, as is the case with digital music. Digital to analogue converters are well known in the art.

[0076] Data can also be delivered in the form of text or images that allow the user to organize, shuffle, select and otherwise configure the data. The control component 116 allows the user to configure and control the data. For example, as shown in Figure 8b, there is the cross-section of a board 200 comprising a media

device 100 and illustrating the control component 116. In this figure, the control component 116 further comprises a user interface 118. The user interface allows the user to view and configure the stored data. The user interface 118 can be a mechanical user interface having mechanical buttons and/or knobs that allow the user to configure the data. The user interface 118 can be a graphical user interface preferably with touch screen capabilities allowing the user to configure the data. The user interface 118 can be a combination of mechanical and graphical user interface. User interfaces are well known in the art and an integrated media device of the current invention will be understood by those of ordinary skill in the art. The user will use the interface 118 for powering on/off the media device, for selecting specific stored data, or portions thereof, for selecting the arrangement of stored data to be delivered, for selecting delivery options such as volume, and for other common functions. Because the user interface is accessible at the exterior of the board, it is preferably made resistant to the environment within which the board is used.

[0077] In alternative embodiments wherein the input component 110 receives a real-time data stream, such as RF data sent from an external transmitter, the data storage component 112 is a receiver. Receivers useful for receiving RF signals are well known in the art and include, but are not limited to, the radio receivers, television receivers and satellite receivers. In the alternative embodiments wherein the input component 110 receives CDs, DVDs, VHS tapes or cassette tapes, then the data is stored in the CD, DVD, VHS or cassette itself. In this embodiment, data storage component 112 comprises a means for reading the stored data, for example, a rotating motor and a LASER for reading CD and DVD stored data, or a magnetic head and a rotating motor for reading VHS and cassette stored media.

[0078] In Figure 7 there is shown the data output component 114. This component is typically speakers and or a video screen that will deliver the audio and video data to the user. It is preferable that the data output component 114 is integrated into the board in a configuration that is minimally disruptive to the board sport user while participating in the sport. The output component 114, therefore, can be integrated into the board 200 so that it is flush at the surface of the board (Figure 8c). Alternatively, the output component 100 can be integrated into the board 200 so

that it is slightly protruding from the board. The advantage to having a slightly protruding output component 114 is that it can be optimally angled to deliver the audio and/or video directly to the user. In a still further aspect, the output component 114 can be retractable so that it is flush with the board 200 when not in use, or at the user's preference, but can be brought into a protruding position when in use. The output component 114 is preferably resistant to the relevant environment considering the board's use.

[0079] Examples:

[0080] In one example embodiment of the present invention, the board is a surfboard and will have an audio playing device (including, but not limited to an MP3 player, CD player, cassette tape player, and a radio) and/or a video playing device (including, but not limited to an MP3 player, DVD player, a video cassette player, and a TV receiver), implanted into the board. The audio playing device and/or video playing device may be water proof itself, or it may be located within a water proof compartment within the board. Figures 1, 2 and 3 illustrate this example. (1) represents a cavity in the board for housing the input component 110 and storage component 112, (2) represents the wiring channel in the board connecting the input component 110 and storage component 112, the control component 116 and the output component 114, (3) represents a cavity for the control component 116, (4) represents a cavity for the output component 114 being speakers, and (5) represents a cavity for the output component 114 being a video viewer.

[0081] The board will have one or more speakers and a video viewer integrated into the board and located on the surface of the board. These speakers and video viewer may be water proof themselves, or they may be located within a water proof compartment within the board. The number of speakers and video viewer and their placement on the board may be varied. Additionally, the size of speaker and video viewer may be varied.

[0082] In Figure 1, the placement of the output component 114 within the surfboard is in cavities 4 and 5 (speakers and display screen, respectively). When a

user is surfing, the user is typically sitting or standing in the center of the board and facing forward. The output component 114, being placed in cavities 4 and 5, will either face up, towards the sky when configured to be flush with the board surface, or will face towards the rear of the board when in the slightly protruded position (see Figures 8c and 8d) In this configuration, the data is being directed towards the user, particularly so when in the protruded configuration. Additionally seen in Figure 2 is wiring channel 2. This wiring channel 2 will preferably house cable that is used to deliver data between the components. However, in an alternative embodiment, the data can be delivered between the components using a wireless communication means such as IEEE 802.11b, IEEE 802.11g, Bluetooth, infrared, zigbee, or other. In this embodiment, the channel 2 is representative of a wireless connection between components. It is noted that the connection of each component to the other by way of channel 2 is not limited by the configuration shown in these figures, but can be rearranged by one ordinarily skilled in the art to meet the preferences of the user, the design of the board, or any other factor wherein rearrangement is desired.

[0083] Figure 2 shows that the cavities 1; 3; and 4 and 5 are within the body of the board. So, when components 110 and 112; 116; and 114 are integrated into the board using these cavities, the components are out of the user's way. As such, the user is not hindered by these components while participating in the board sport. In Figure 3, the board is shown in a perspective view to further illustrate the cavities being integrated within the board.

[0084] In an alternative embodiment, the media device integrated within the board may comprise a data storage component wherein the data processing feature includes an amplifier. The amplifier may be powered by batteries or by solar power. The power of the amplifier may be varied. The amplifier may power the speakers so that the volume can penetrate the environmental sounds, such as waves or wind.

[0085] In the preferred embodiment, the cavities are placed into the core of the board and hold the media device components. Placing the media device into the core of the board will move the media device out of the user's way. The cavities of

the present invention are also preferably resistant to the environment in order to protect the media device and the core of the board.

[0086] Using again the surfboard as an example, the core of the board is made of foam, which will absorb and store water. When this happens, the surfboard is waterlogged and ruined. A coat of resin is, therefore, applied to the foam to prevent the water from soaking into the foam. In the present invention, the board comprises cavities in the foam to house the integrated media device. The device is then placed into this cavity and a coat of resin is placed over the device. In this embodiment, any component or part of a component that needs to be accessible from the exterior of the board (e.g., the input component when it is a firewire or USB port) is not enclosed in resin. Those of ordinary skill in the art are readily familiar with techniques for securing hardware to boards. For example, with surfboards, this is not unlike attaching a fin to the board.

[0087] In an alternative embodiment, the cavities accept a waterproof container, and that container houses the user's media device. In this embodiment, the cavity is prepared as described above, except that the cavity comprises a jack. An external container houses the user's personal media device, and also comprises internal jacks for connecting the personal media device, and an external jack that is complementary to that of the cavity. The container has a lid for access to the container's interior. The compartment, when the lid is closed, will secure the media device inside and will protect the media device from the environment in which the board is commonly used. The container is then placed in the cavity of the board, and the jack of the container connected to the jack of the cavity, thereby allowing data from the media device to transmit to the output components on the board surface. Using this embodiment, the user can integrate a variety of media devices into the board by way of the compartment, thus allowing the user to easily upgrade or replace the media device.

[0088] Another alternative embodiment of the present invention relates to a media device 100 which has a control component 116 that can be strapped onto the arm or leg of the user of the board. This will allow the user to change the volume,

change the audio track and/or video track, or perform other functions on the audio playing device and/or video playing device located inside the board. This will allow the user to easily access the features of the audio playing device and/or video playing device without having to reach to the surface of the board to adjust the controls.

[0089] Another embodiment of the present invention includes a control component 116 located boarding a cavity in the board having a waterproof lid. This embodiment will allow the user to access the control component 116 by opening the lid of a water proof compartment.

[0090] An alternative embodiment of the present invention will have only the data output component 114 integrated into the board. In this embodiment, the data input component 110, the data storage component 112 and the data control component 116 can be strapped onto the wrist or leg of the user, which will transmit a wireless signal to the amplifier, speakers, and/or video view that is implanted into the board or located on the surface of the board.

[0091] Another embodiment of the present invention relates to a media device 100 wherein the control component 116 can be attached to a leash that is attached to the board, and which will allow the user to change the volume, change the audio track and/or video track, or perform other functions on the audio playing device and/or video playing device located inside the board. This embodiment is illustrated in Figures 4, 5 and 6, and a body board or boogie board is the board used to illustrate the embodiment. Here, (1) represents a cavity for the input component 110 and the data storage component 112, (2) represents the wiring channel connecting the input component 110 and data storage component 112, the control component 116 and the output component 114, (3) represents a cavity for the control component 116, (4) represents a cavity for the output component 114 being speakers, (5) represents a feed through for having a second control component 116 on the wrist strap of a leash, and (6) representing a cavity for the output component 114 being a video viewer.

[0092] In Figures 4, 5 and 6, the cavities are integrated into the body of the board as described above and herein. In these figures, there can be a control component attached to a leash outside the board and fed in through feed 5, there can be a control component integrated inside of the board housed in cavity 3, or there can be both. The feed through 5 will allow an external control component 116 to attach to the integrated components using a wire. Body boards, as with many other boards, have a leash that attaches the board to the user's body. The purpose of the leash is so that the user will not lose the board. Taking advantage of this preexisting configuration of the board, the current invention can attach a control panel in this leash, thereby bringing the control panel in close contact with the user (i.e., attached to the user's wrist). The leash is there anyway, so having the control panel there is not an additional hindrance to the user's performance. The control component 116 can be housed in the wrist strap, and the cable connecting the control component 116 to the remaining components of the media device 100 can run within the leash cord, or in parallel along side the leash cord.

[0093] In one embodiment, there is provided a media device 100 integrated into a board. In this embodiment, the media device 100 is completely encased within the board having only a small expanse of a power cord exposed outside of the board. The power cord allows the user to keep the system charged. Data is transmitted to the media player using a wireless communication protocol, such as Bluetooth, zigbee, IEEE 802.11b, IEEE 802.11g, IR or other known protocol. The power cord is preferably a small cord having one of the complementary fits of a banana clip, and so will accept a charge from a power source having the other of the complementary fits of a banana clip. The power cord is made resistant to the environment by insulating the cord with rubber (e.g., waterproof rubber for a surfboard) and having a corrosion resistant and electricity conductive metal covering over the internal wires. By having the media device completely encased in the board, except for the small expanse of power cord, the device is protected from the environment in which the board is commonly used.

[0094] In one embodiment of the method of the present invention a board will be manufactured with the audio and/or video capability.

[0095] In one embodiment of the method of the present invention a template will be created or pre-made for a particular board. The template will be used to drill and/or route holes and/or carve out the necessary area for the components of the media device and for the water proof cavities and channels. The board will be fit with components by mounting them inside or on the surface of the board. Components mounted on the surface of the board will either be flush or will protrude only a minimal amount to keep the streamline design of the board. Retractable components at the surface are preferable. The components will be secured using adhesive and/or fitting. The board will be finished by using the main coat ingredient that the board is composed of (including, but not limited to, resin, polystyrene, polyether, glass, plastic foam, metal, and wood).

[0096] In another embodiment of the method of the present invention a template will be created or pre-made for a particular board. The template will be used to drill and/or route cavities and channels for the components. The board will be fit with components by mounting them inside the board. The components will be secured using adhesive and/or fitting. The board will be finished by using the main coat ingredient that the board is composed of (including, but not limited to, resin, polystyrene, polyether, glass, plastic foam, metal, and wood). The output component 114, being speakers in this embodiment will be fit such that when they are covered with the main coat ingredient, the sound from the speakers resonates through the board so that the audio sounds are still audible to the board user. The board itself will also add to the volume and tonal qualities of the audio sounds coming out of the board.

[0097] In another embodiment of the method of the present invention a template will be created or pre-made for a particular board. The template will be used to drill and/or route holes and/or carve out the necessary cavities and channels for the components. The board will be fit with components by mounting them inside the board. The components will be secured using adhesive and/or fitting. The output component 114, being a video viewer in this embodiment will be water proof or it will be made to be water proof by using a case or mold or a layer of the boards

like materials. The board will be finished by using the main coat ingredient that the board is composed of (including, but not limited to, resin, polystyrene, polyether, glass, plastic foam, metal, and wood). The output component 114 being speakers will be fit such that when they are covered with the main coat ingredient, the sound from the speakers resonates through the board so that the audio sounds are still audible to the board user. The board itself will also add to the volume and tonal qualities of the audio sounds coming out of the board.

[0098] In another embodiment of the method of the present invention, an existing board will be retrofitted with audio and/or video capability. A kit will be provided to the board owner that will contain everything that is needed to retrofit the board. The kit will contain a waterproof container that is to be placed flush against the board. A board specific template will also be provided in the kit that will allow the retrofitter of the board to shape the board appropriately. The kit will contain instructions and possibly a DVD on exactly how to use the kit in general and for specific types of boards.

[0099] In an alternative embodiment of the method of the present invention, the kits for retrofitting will come in different sizes for different sized and shaped boards.

I claim:

1. A board for use in board sports comprising an integrated media device having components, wherein the media device delivers audio or video or audio and video data to a user of the board.

2. The board of claim 1, wherein said board comprises of a surf board, a body board, a wind surf board, a snow board, a skate board, a wake board, a kite surfing board, or a mountain board.

3. The board of claim 2, wherein said board comprises a surf board or a body board.

4. The board of claim 1, wherein said board comprises a surf board.

5. The board of claim 1, wherein said board comprises a body board.

6. The board of claim 1 wherein the media device further comprises a data input component, a data storage component, a data out put component and a data media component.

7. The board of claim 1, wherein the board comprises cavities and channels for integrating the media device having components into the board.

8. The board of claim 7, wherein the cavities and channels are made resistant to the environment in which the board is typically used.

9. The board of claim 7, wherein the cavities are arranged within the board to position select components to be useable outside of the board.

10. The board of claim 9, wherein the components that are positioned to be useable outside of the board are selected from the group of components consisting of data input component, control component and data output component.

11. The board of claim 10 wherein the data input component is positioned so that data from an external source can be transmitted to the integrated media device.

12. The board of claim 11 wherein the data input component is a firewire port that is flush with the surface of the board so that digital data can be transmitted.

13. The board of claim 10 wherein the control component is positioned flush with the surface of the board.

14. The board of claim 10 wherein the control component is positioned in a position external the board, the position being selected from the group of positions consisting of a leash and the user's body.

15. The board of claim 10 wherein the data output component is flush with the surface of the board so that the audio or video data are directed towards the user when the user is in the typical position for using the board.

16. The board of claim 10 wherein the data output component slightly protrudes from the surface of the board so that the audio or the video is directed towards the user when the user is in the typical position for using the board.

17. The board of claim 6 wherein the contact between the components comprises cables and wireless.

18. A method of making a board for use in board sports, wherein said board an integrated media device having components, the components

comprising a data input component, a data storage component, a control component and a data output component.

19. The method of claim 18, wherein said method involves the use of a board specific template to make cavities and channels into which the components are placed and connected.

20. The method of claim 19, wherein the output component is a speaker or a video display and the speaker or video display is integrated into the board in a position so that sound or video is optimally delivered to the user while participating in sports, that position comprising inside the board, flush with the surface of the board or slightly protruding from the board.

21. The method of claim 18, wherein said board is finished by using a board coating ingredient that matches said board, the coating ingredient comprising resin, polystyrene, polyether, glass, plastic foam, metal, or wood.

22. The method of claim 18, wherein the media device is integrated into the board using a retrofit cavity that mounts inside the board or at the surface of the board with adhesive or fitting.

23. The method of claim 22 wherein the retrofit cavity is sealed into the board using a board coating ingredient that matches said board, the coating ingredient comprising resin, polystyrene, polyether, glass, plastic foam, metal, or wood.

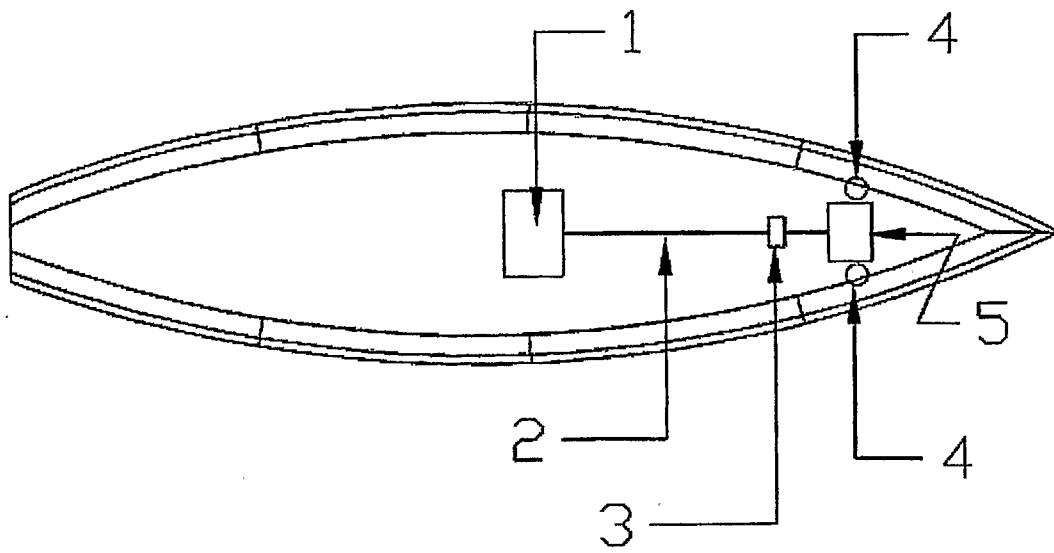


FIG. 1

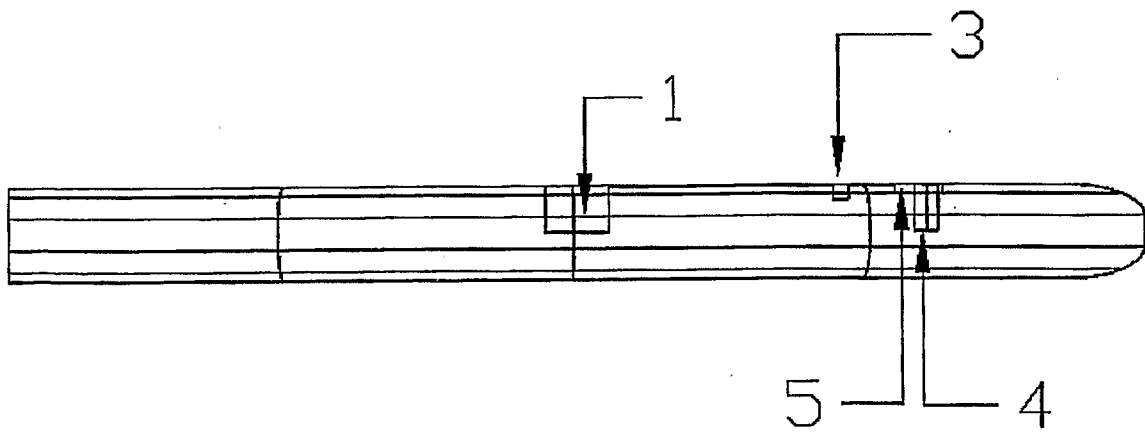


FIG. 2

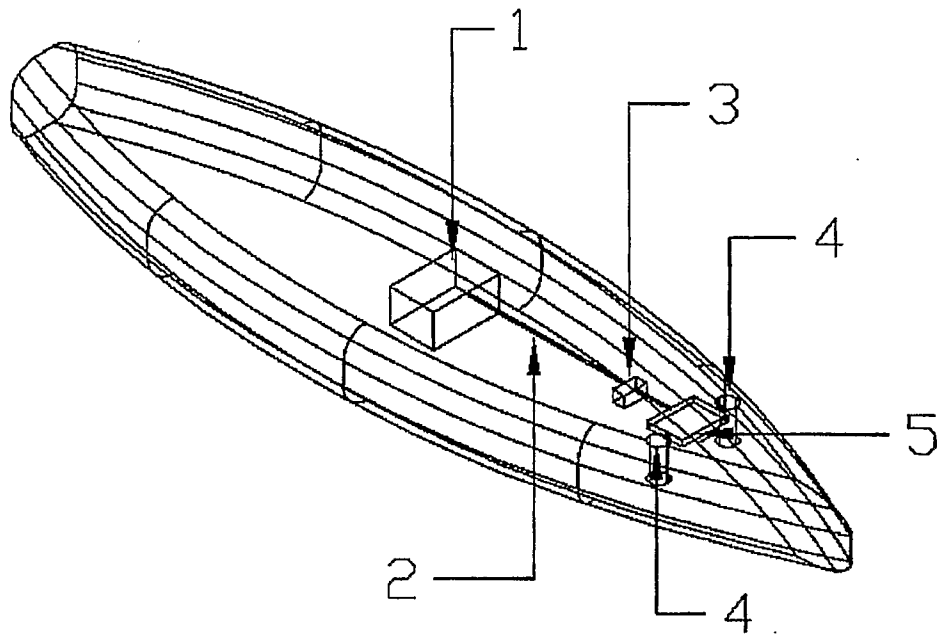


FIG. 3

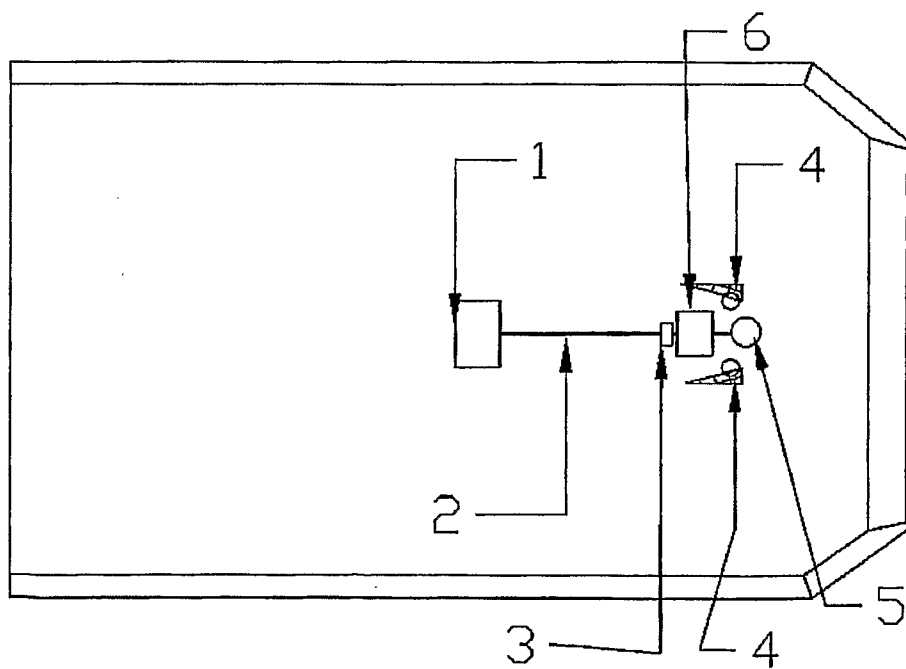


FIG. 4

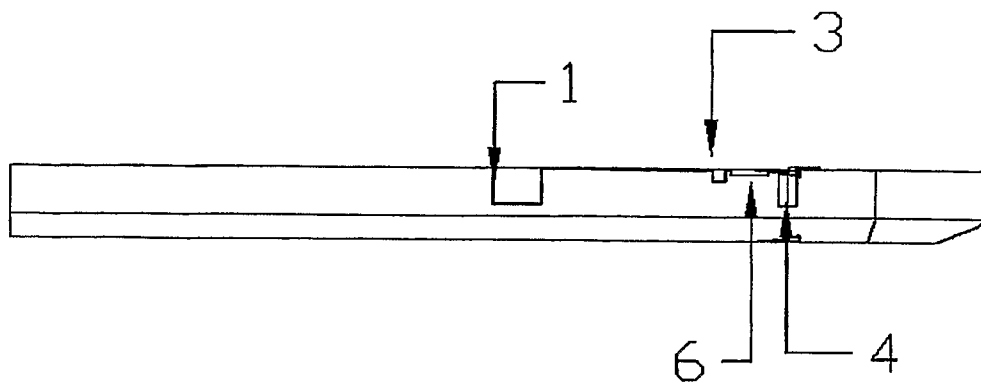


FIG. 5

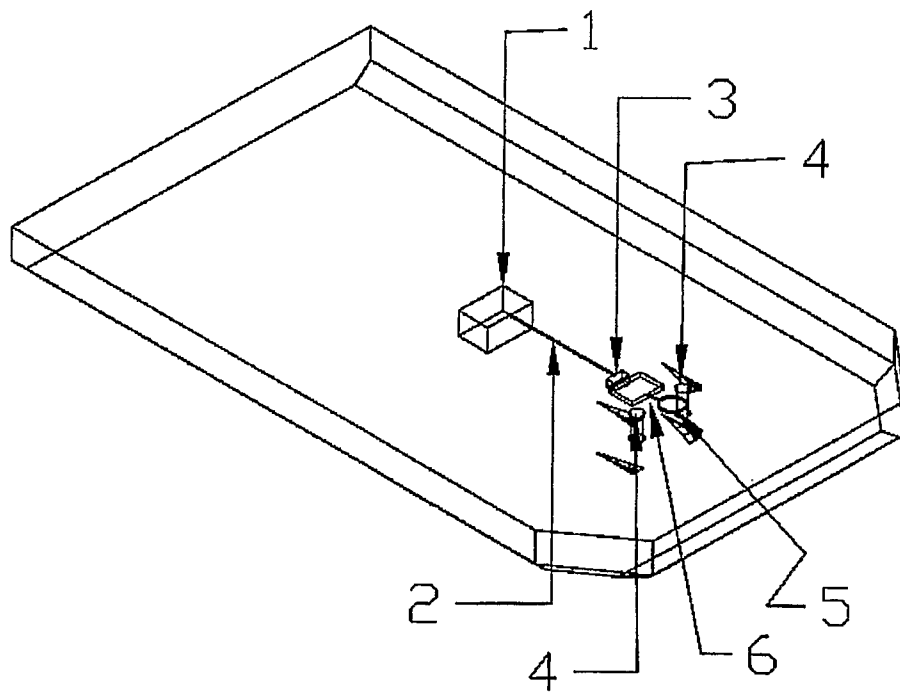


FIG. 6

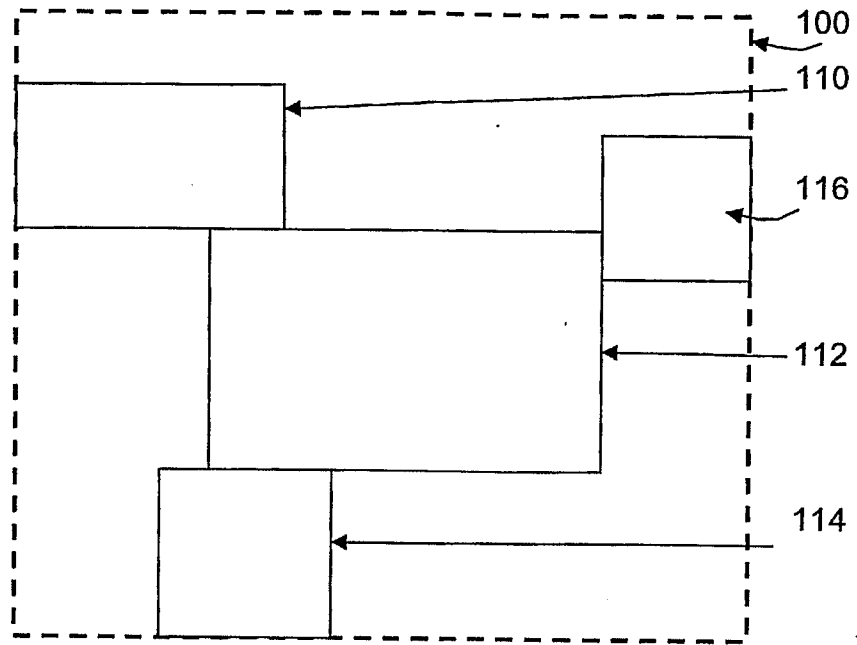


FIG. 7

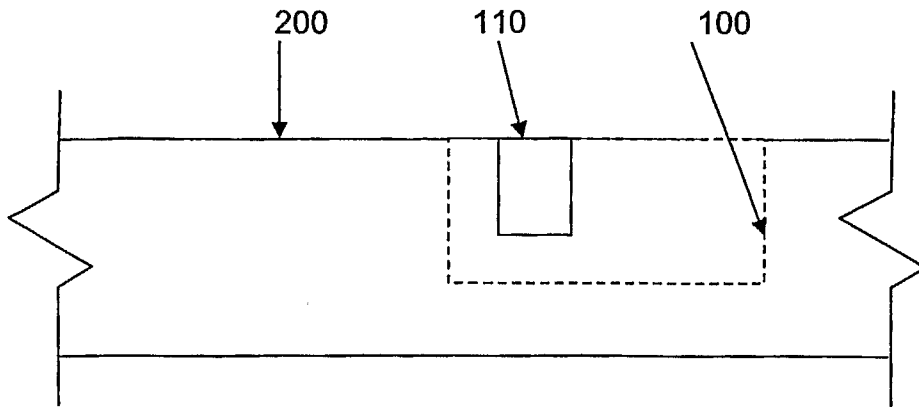


FIG. 8A

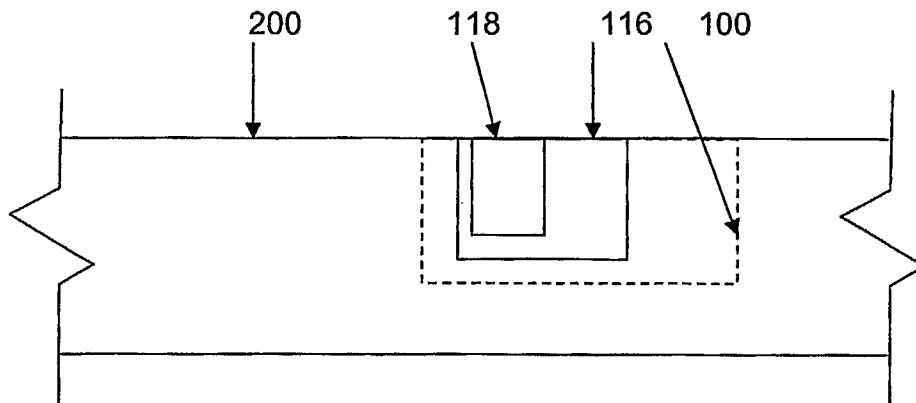


FIG. 8B

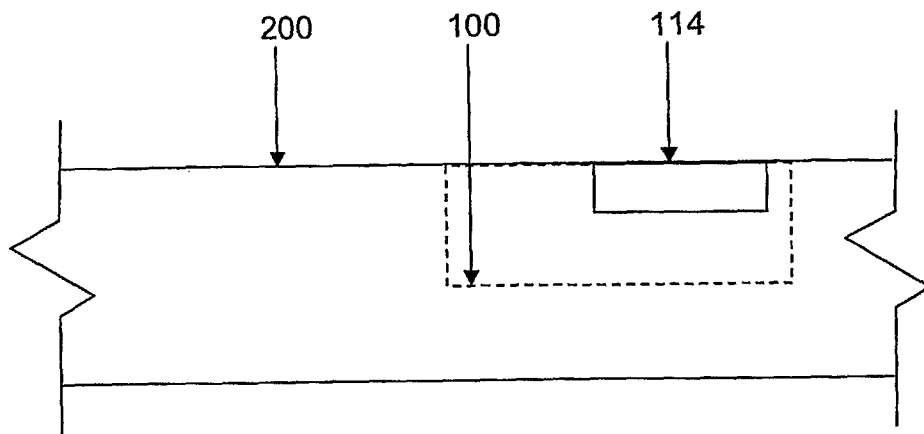


FIG. 8C

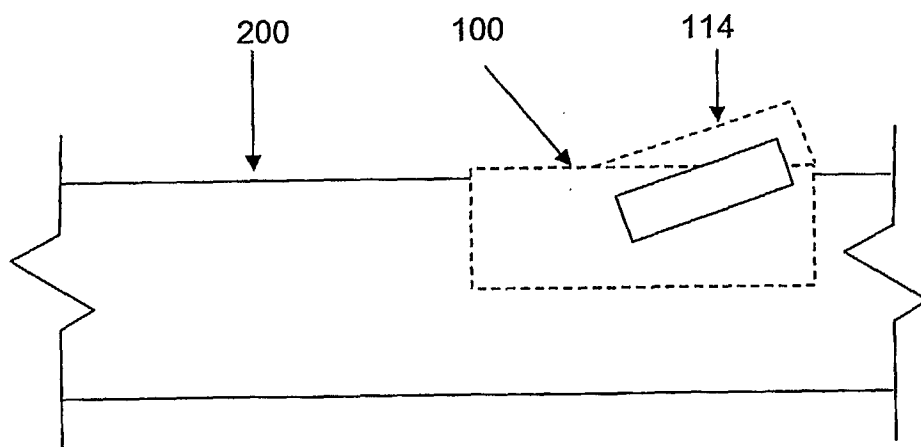


FIG. 8D