800 at all times when the oscillatory actuator **800** is being driven. On the other hand, the electrode **802** of the movable weight **802** is supplied with an AC voltage (drive signal) alternating between a plus and minus state from the outside of the oscillatory actuator **800** through an amplifier **810**.

[**0421**] Here, when the potentials of the electrode **802** and electrode **803** become the same, that is, become plus and plus or minus and minus, the charges of the same signs repel each other. Due to this property of electrostatic force, the movable weight **803** moves in the up direction in the figure. On the other hand, when the potentials of the electrode **802** and the electrode **803** become different, that is, plus and minus, the charges of the different sign attract each other. Due to this property of electrostatic force, the movable weight **803** moves in the down direction in the figure.

[**0422**] The oscillatory actuator **800** according to this modification linearly reciprocates in the vertical direction in the figure in this way. Further, by a counter force of the reciprocation of the movable weight **803**, a vibrational acceleration occurs at the portion of the case **801** to which the spring **805** is connected and the vibration is transmitted to the vibratory member. Note that along with reciprocation of the movable weight **803**, a vibration component transmitted from the movable weight **803** through the spring **805** is applied to the portion of the case **801** to which the spring **805** is connected in addition to the counter force of the reciprocation. The principle of generation of vibration in this oscillatory actuator **800**, however, is based on the use of the vibrational acceleration occurring by a counter force to the reciprocation of the movable weight **803** in the same way as in the oscillatory actuator **115** explained in the first embodiment.

[**0423**] Further, **FIG. 83** is a view for explaining an electrostatic type oscillatory actuator according to a second example of this modification. In the configuration shown in this figure as well, in the same way as the oscillatory actuator **800** shown in **FIG. 82**, the movable weight **813** reciprocates due to the electrostatic force and vibration is generated. Further, the oscillatory actuator **850** has a total of two pairs of counter electrodes, that is, the electrode **812***a* and electrode **814***a* and the electrode **812***b* and electrode **814***b*. When one pair of counter electrodes are in a repelling state, the other pair of counter electrodes are in an attracting state. Therefore, compared with the oscillatory actuator **800** shown in **FIG. 82**, the electrostatic force for causing the movable weight **813** to reciprocate becomes double and a greater vibration can be generated.

[**0424**] Note that the electrostatic type oscillatory actuators **800** and **850** shown in **FIG. 82** and **FIG. 83** may further be provided with brake mechanisms explained in the first example and second example of the thirteenth embodiment. Further, the electrodes, the shapes of the waveforms of the drive signals, etc. are not limited to those shown in **FIG. 82** and **FIG. 83**.

[**0425**] [Modification 6]

[**0426**] Further, in the oscillatory actuator, the support member for supporting the movable weight to be able to reciprocate in the air is not limited to a spring, rubber band, etc. For example, the support member may also be a guide rail **967** as shown in **FIG. 84**. In this figure, the movable weight **963***a* is provided with a hole passing through the vertical direction in the figure in its center. The guide rail **967** is provided to pass through the hole of the movable weight **963***a*. One end is fixed to the case **961** in contact with the vibratory member. Even when using such a guide rail **967**, it is possible to support the movable weight **963***a* to be able to reciprocate in the air by the magnetic force generated from the coil **962***a*. Further, this guide rail **967** limits the direction of motion of the movable weight **963***a* and functions to cause linear reciprocation.

[**0427**] [Modification 7]

[**0428**] In the first to 12th embodiments, the operation unit for causing vibration by the vibration generator is not limited to a touch panel or operation keys. For example, it may be the keyboard itself having a plurality of operation keys or a mouse, track ball, tablet, or other of the various types of pointing devices. Further, it is possible to use a photo coupler type, resistance type, contact type, magnetic coupler type, capacity coupler type, or other various types of touch panels.

[**0429**] [Modification 8]

[**0430**] In the first embodiment to the 12th embodiments, the explanation was made of the case of application of the present invention to a PDA or an ATM. The present invention however of course may also be applied to for example a mobile phone, electronic notebook, mobile computer, wristwatch, electronic calculator, remote controller of an electronic device, and other various types of portable electronic devices. Further, the present invention may also be applied to a stationary type computer or a vending machine, cash register, car navigation system, household electric appliance, or other of various types of electronic devices not having portability.

[**0431**] Note that in an electronic device not having portability, it is difficult to envision a mode of use where the user inputs operations by one hand while holding the electronic device by the other hand. Therefore, when causing a location other than the operation unit to vibrate in such an electronic device, it is sufficient to cause part of the housing where part of the body of the user will contact or probably will contact during operation to vibrate.

[**0432**] For example, **FIG. 85** is a perspective view illustrating the appearance of an ATM **150** according to this modification. In the figure, the operation console **151** of the ATM **150** is provided with a liquid crystal display panel **153** over which a transparent touch panel **152** is laid covering the opening. The user performs a touch operation on the touch panel **152** while standing in front of the operation console **151**. Note that the operation console **151** is provided with a cash depositing/dispensing opening **154** or a coin depositing/dispensing opening **155** in addition to the touch panel **152**. Further, the standing surface above the top surface of the ATM **150** is provided with a passbook insertion slot **156** or a card insertion slot **157**.

[**0433**] When the user performs a touch operation on such an ATM **150**, it can be envisioned that the hand other than the hand engaging in the touch operation is placed on the console area **151***a* or the console area **151***b* of the operation console **151**. Therefore, it is sufficient for the operating unit of the ATM **150** to drive a not shown vibration generator in accordance with detection of a touch operation on the touch panel **152** and cause the console area **151***a* or console area