rod **104** in the pilot stage **102**, so that the piston rod **123** vibrates at a speed in proportion to the oil flow. The detection signals from the first displacement transducer **112** and the second displacement transducer **129** are sent to the vibration generator by dynamic electricity **108** as feedback, which enables precise control.

In the eighth embodiment, if a driver feels drowsiness coming on, the driver can operate switches installed on a control panel (such as, control panel **14** as shown in FIG. **6**), whereby alternating current is sent into the coil **108***a* of vibration generator by dynamic electricity **108** so that a servo valve **101** operates to supply oil from the hydraulic pump to the pressure chambers **124** and **125** of the hydraulic cylinder **120** and the piston rod **123** moves vertically and the driver is kept alert and traffic accidents will be prevented.

In the ninth embodiment in FIG. **22**, the vibration generator **132**, by dynamic electricity **130**, is adapted to vibrate the driver's seat **1**. In detail, support axes **133** of the vibration generator, by dynamic electricity **130**, are extended from opposite sides in a horizontal direction, and supported by support base, not shown. And also, in the vibration generator by dynamic electricity **130**, a base **135**, wherein the driver's seat is fixed, is supported by iron core **134**. The iron core **134** has an annular body magnetic pole **136**, an annular upper yoke **137** fixed on an upper part of annular body magnetic pole **136**, an annular lower yoke **138** fixed on a lower part of body magnetic pole **136**, an annular upper center magnetic pole **139** and a lower center magnetic pole **140**, arranged concentrically. Annular exciting coils **143** and **144** are arranged concentrically in two divided spaces of upper annular chamber **141** and lower annular chamber **142** formed thereby. Both exciting coils **143** and **144** are, like in embodiment four, electrically connected with the battery **17** of the automobile **15** so that the battery supplies direct current to both exciting coils **143** and **144**.

An annular cavity **145**, connecting the spaces of upper chamber **141** and lower chamber **142**, is formed concentrically with exciting coils **143** and **144** in a central annular projecting portion **136***a* of body magnetic pole **136**, while a bore **146** is formed through the center of upper center magnetic pole **139**. Linear ball bearing **149** is fixed on the upper part of pit **146**. A connecting holes **151**, connecting with upper space **141**, are formed at regular intervals in upper yoke **137**. A hole of small diameter is formed on the upper portion of lower center magnetic pole **140**, and a hole of larger diameter is formed under the hole of small diameter. Linear ball bearing **147** is fixed in the small diameter while air spring **148** is positioned in the hole of larger diameter.

Supporting rod **150**, which extends downward from the center of the underside of base **135**, passes through bore **146** of upper center magnetic pole **139** and the hole of small diameter of lower center magnetic pole **140** and is supported by air spring **148**, for free vertical-sliding-movement by linear ball bearings **147** and **149**. Connecting piece **152** extends downward through connecting hole **151** on the lower part of base **135**, and is connected, through connecting hole **151**, with annular driving coil **153**. Driving coils **153**, **163** are arranged in the cavity concentrically with concentric exciting coils **143** and **144**, and **141** and **142** respectively. Driving coil **153** is electrically connected, through an inverter, with battery **17**, whereby electricity, supplied to the driving coils **153**, **163** is converted into alternating current. An on-off switch, not shown, controls the supply of electricity to driving coil **153** and is arranged in a control panel, such as control panel **14** as shown in FIG. **6**. In FIG. **22**, reference number **154** is an air seal and reference number **155** is a loop spring, which works as a baffle.

In the ninth embodiment, when the switch of the control panel is turned on, direct current is charged through exciting coils **143** and **144**; and magnetic flux in the direction of arrow A is formed and alternating current is charged through the driving coil **153** at right angles to the magnetic flux of the direct current in coils **143**, **144**. According to Fleming's rule, an excitation force works in the B arrow directions, and the driver's seat vibrates. Therefore, if a driver feels drowsiness coming on, the driver can vibrate the driver's seat **1** by turning on the switch; thereby preventing dozing of the driver during driving which subsequently prevents accidents from occurring.

In each of the above embodiments, the switch to turn on/off supply of electric current to vibration motor **10**, electro-magnet **43**, **86** or coil **108***a*, **153** is installed in operation panel (or control panel) so that the vibration motor **10** operates by turning on the switch if a driver feels drowsiness. This is not construed to limit the scope of this invention. For example, instead of said switch, a timer, installed in the operation panel (or control panel), is a adoptable. In such a case, only if the timer is set up in starting off, the vibration motor **10** or the like operates when a certain time (for example, 10 minutes) has pass, while it also stops automatically when a certain time (for example, 5 minutes) has pass since it started to move. Such a timer is convenient in case that a person knows in advance from experience that he will feel drowsiness at a certain time (for example, 10 minutes) from starting to drive. In addition, instead of the timer for moving/stopping the vibration motor or the like, the switch for moving/stopping the vibration motor **10** or the like can be adoptable together with the timer so as to operate manually.

Thus, according to this invention, a driver's seat having a vibration generator connected to the driver's seat and controls for turning the vibration generator on and off for vibrating the driver's seat so that when a driver feels drowsiness coming on, the driver can operate the controls for switching on-off the vibration generator so that the driver's seat can be vibrated and the dozing of the driver during driving can be prevented. Accordingly, occurrences of accidents can be prevented.

While the invention has been particularly shown and described in reference to preferred embodiments thereof, it will be understood by those skilled in the art that changes in form and details may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. An apparatus for vibrating a seat comprising a driver's seat, means for vibrating said driver's seat and means for controlling vibration of said means for vibrating the driver's seat,

wherein said means for vibrating said seat comprises a rod having one end sliding-freely in a cylinder chamber and the other end projected outward from said cylinder chamber and connected to said driver's seat, a piston connected to said one end of said rod and sliding-freely in said cylinder chamber, means for supplying pressure fluid to said cylinder chamber, a channel control valve for supplying and discharging said pressure fluid to said cylinder chamber and means for controlling said valve for repeatedly freely sliding said piston.

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