inductor while substantially preventing said induced current from flowing into any other of the loops in the same group,

whereby each inductor serves to limit induced current in any one of a plurality of said horizontally disposed loops while substantially preventing undesired coupling between said loops.

19. An electromagnetic inductive suspension and vertical stabilization system for a ground vehicle comprising, in combination, a plurality of super-conducting magnets rigidly mounted on the vehicle and a plurality of shorted loops of non-ferromagnetic metal conductor rigidly mounted on the ground to define a track for the vehicle, said magnet and said shorted loops being so disposed relative to one another that when the vehicle is in motion a material inductive coupling exists between at least one said magnet and at least one said shorted loop so that when the vehicle is suspended in an equilibrium position the supported weight of the vehicle is annulled by a lift force generated by the magnetic coupling between said magnet and said shorted loops, the relative disposition of the magnet and shorted loops further being such that if the vehicle moves below the equilibrium position the inductive coupling between the magnet and the shorted loop is increased, thereby increasing the lift force, and if the vehicle moves above the equilibrium position the said inductive coupling is decreased, thereby decreasing the lift force, whereby the vehicle is vertically stabilized in said equilibrium position.

20. A system in accordance with claim **19**, in which the plurality of super-conducting magnets are longitudinally extended with reference to the track of the vehicle, and in which adjacent magnets are of opposite polarity.

21. An electromagnetic lateral stabilization system for a ground vehicle, comprising in combination, a super-conducting magnet rigidly mounted on the vehicle and a shorted loop rigidly mounted on the ground to define a track for the vehicle, said components being so disposed relative to each other that when the vehicle is in its lateral equilibrium position with respect to the track, there is no material net magnetic coupling force between said magnet and said shorted loop, and so that, when the vehicle is displaced from said equilibrium position, magnetic coupling is established between said components, whereby a restoring force is developed such as to move the vehicle toward said equilibrium position.

22. A system in accordance with claim **21**, in which there is a plurality of said magnets and a plurality of said shorted loops on each side of the vehicle, in such numbers, that when the vehicle is in motion, there are at all times several magnets and several shorted loops passing one another along the track of the vehicle on each side of the vehicle.

23. An electromagnetic oscillation damping system for a ground vehicle, comprising in combination, a super-conducting magnet mounted on the vehicle and a shorted resistive loop rigidly mounted on the ground to define a track for the vehicle, said components being so disposed relative to each other that normally there is material inductive coupling between said magnet and said shorted loop and so that, when the vehicle oscillates with a component of oscillation such as to vary said inductive coupling, oscillatory currents are generated in said shorted loop, whereby oscillation of the vehicle is damped by virtue of an electrical-resistance in said shorted loop.

24. A system in accordance with claim **23**, in which there are at least two shorted resistive loops inductively coupled to the said magnet, and in which said magnet lies substantially in a plane, one said shorted loop lying in said plane with said magnet and laterally displaced therefrom, and the other said shorted loop lying in a plane parallel to the plane of said magnet and substantially directly opposite said magnet.

25. An electromagnetic inductive suspension and vertical stabilization system for a ground vehicle comprising, in combination, as components, a super-conducting magnet and a shorted loop, one of which components is rigidly mounted on the vehicle and the other of which is rigidly mounted upon the ground to define a track for the vehicle, said components being so disposed relative to each other that the magnet induces a current in the shorted loop, thereby generating a lift force between said magnet and said shorted loop, which force increases as the spacing between said components decreases, said magnet and said shorted loop being oriented such that said lift force opposes the force of gravity acting upon said vehicle, whereby the strength of said magnet may be made sufficiently great to suspend the vehicle above the ground and whereby the said lift force tends to maintain the vehicle at a fixed distance above the ground.

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