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(54) Title: SMART KICK-STAND DEVICE FOR TWO-WHEELED VEHICLES

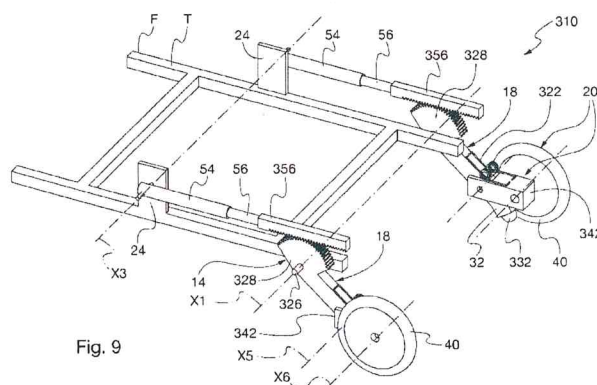


Fig. 9

(57) Abstract: The device (10, 110, 210, 310) comprises: a mounting structure (12) associated with a frame (F) of a two-wheeled vehicle (V); a pair of swinging supports (14) located on opposite sides of the structure (12), in which each of the supports (14) comprises a single lever (18) rotatably mounted on one side of the structure (12) about a corresponding fulcrum axis (XI) and a wheel assembly (20) mounted on the lever (18) and capable of rolling in order to maintain vehicle (V) in balance; and a pair of actuators (16) located between structure (12) and supports (14). Each of the actuators (16) is connected to a lever (18) such as to adopt an active and an inactive position in which this rotates the lever (18) between a resting position in which said assembly (20) is brought close to the structure (12) and a working condition in which the assembly (20) is far away from the structure (12) to be supported on the ground. The device also comprises a pair of dampers (22; 122; 222; 322) in which each of these is connected to the associated lever (18) and is able to dampen out the oscillations imparted to assembly (20). Each lever (18) has a force arm (28; 128; 328) and a resistance arm (32) which extend from opposite sides with respect to the fulcrum axis (XI) and which are connected to and cooperate with the associated actuator (16) and the associated wheel assembly (20) respectively in such a way as to define a first order or interfulcrum lever. In a preferred way the device (10; 110; 210; 310) provides for a control system (58) designed to command the actuators (16) in such a way as to actuate the lever (18).

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