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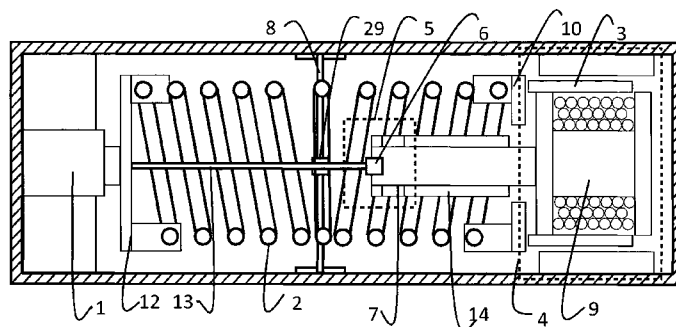
(54) Title: SYSTEM AND METHOD FOR CONTROLLING THE STROKE AND OPERATION AT RESONANCE FRE-
QUENCY OF A RESONANT LINEAR MOTOR

FIG. 1

(57) Abstract: Linear compressor comprising a resonant linear motor (4) having a stator (9) and a linear displacer (3), the linear mo-
tor (4) cooperating with a resonant spring (2) that is driven by the linear displacer (3) at one of the ends of the resonant spring (2)
with the opposite end of the resonant spring (2) cooperating with a mechanical actuation element (1). A variation sensor of magnetic
flux (5) cooperates with the resonant spring (2). Said variation sensor of magnetic flux (5) comprising a fixed part (7) and a movable
part (6), the movable part (6) coupled to the end of the resonant spring (2) opposite to the end cooperating with the linear displacer
(3). The variation sensor of magnetic flux (5) is the sole means required to determine the displacement amplitude and the frequency
of oscillation of the displacer (3) of the linear motor (4). Corresponding method for controlling the stroke in such a linear com-
pressor.