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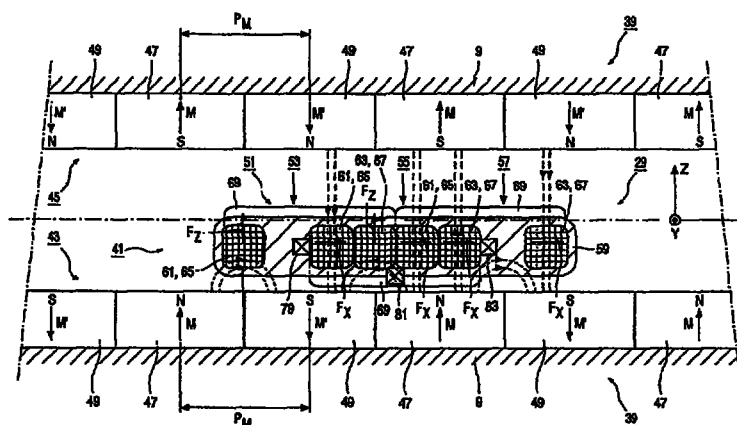
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SCANNING DEVICE COMPRISING A MAGNETICALLY GUIDED LINEAR MOTOR



(57) Abstract: A scanning device comprises a rotatable (3) for an information carrier, a scanning unit (13) and a linear motor (29). The linear motor comprises a first part (39) and a second part (41) guided with respect to each other in the radial direction by straight guide (27). The first part comprises pairs of magnets (47, 49) having alternating directions of magnetization (M, M'). The second part comprises coil system (51) having windings (65, 67) extending perpendicular to the directions of magnetization and to the straight guide. A control unit (77) controls the current (i_1, i_2, i_3) in at least one of the windings (65, 67) if the winding is in a transition region between two adjacent magnets (47, 49) having opposite magnetizations (M, M'). A Lorentz force (F_z) on the winding is generated, which is perpendicular to the straight guide (27) and which fixes one degree of freedom of the second part (41) with respect to the first part (39). Since the degree of freedom in the radial direction (X, X') is fixed by a Lorentz force (F_x) of the linear motor (29) so only four degrees of freedom have to be fixed by the straight guide.