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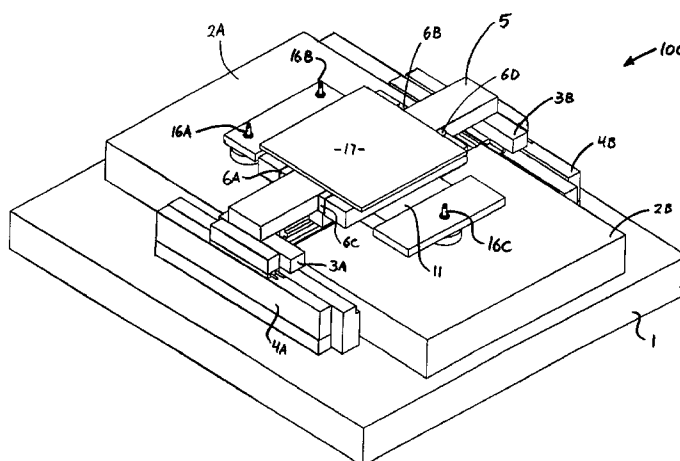
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(54) Title: DECOUPLED PLANAR POSITIONING SYSTEM



(57) **Abstract:** A planar positioning system having a rigid base, and first and second linear actuator means mounted to the rigid base, the first and second linear actuator means being arranged orthogonal to one another. A rigid reference surface (2A, 2B) is mounted to the base, (1) and a moveable platform (17) for holding a workpiece is supported for movement on the rigid reference surface (2A, 2B). First and second guiding means are coupled to moveable portions of the respective first and second actuator means, the first and second guiding means being arranged to bear on the moveable platform for transmission of forces thereto from the respective first and second actuator means to effect movement of the platform (17) on said rigid reference surface (2A, 2B). The first actuator means may comprise two linear actuators (4A, 4B) parallel to one another and spaced apart with the second linear actuator means (8) orthogonal thereto and arranged in an H-shaped configuration. The first and second guiding means and/or the components of the moveable platform (17) against which they bear are preferably constructed for low frictional movement in the direction orthogonal to the transmission of forces therefrom, such as by the use of non-contact aerostatic bearings (16A, 16B, 16C) or the like. Similarly, low friction bearings are utilised between the moveable platform (17) and the reference surface (2A, 2B).