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## (57) Abstract :

An imbalance correction mechanism is included in a four-pan algebra balance. This mechanism is responsible for keeping a balancing beam in a horizontal equilibrium position, provided that the imbalance between the two sides of the device does not reach a certain threshold value. The balance has several components: a base, an upright stand that is mounted to and extends substantially vertically from the base, a crossbar that is mounted to an upper end of the stand so that it can extend substantially horizontally, and a balance beam that is pivotally coupled to a midpoint of the stand. A first weight receptacle subassembly, which consists of two pans, is coupled to the first end of the crossbar and the first end of the balance beam. Additionally, a second weight receptacle subassembly, which also consists of two pans, is coupled to a second end of the crossbar and a second end of the balance beam. The first and second-weight receptacle subassemblies are shown to have a visual indicator that indicates whether or not they are comparable to one another. Several different configurations of the mechanism for correcting imbalances are disclosed here. These configurations include a spring, band, or elastic strip that is coupled between the balance beam and the stand, as well as a bolt that is coupled to the balance beam and is designed to receive a nut.

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