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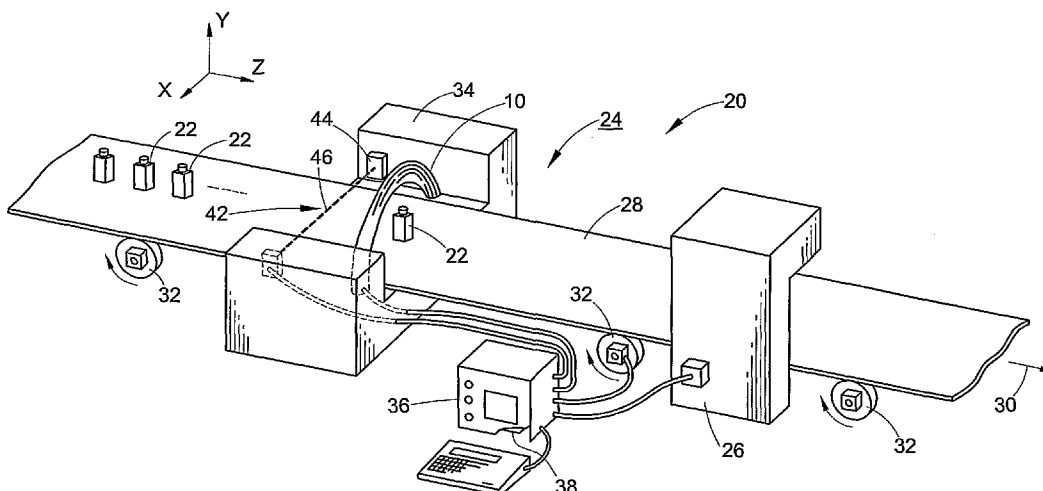
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(54) Title: RF PROBE APPARATUS FOR NMR CHECK WEIGHING SYSTEM



(57) Abstract: A radio frequency (RF) probe for a nuclear magnetic resonance check weighing system produces uniform magnetic field at the center of RF probe, has minimal sensitivity to electrical interference from external sources, shapes the magnetic field to minimize cross coupling from packages such as drug vials not under test, and presents minimal airflow obstruction. RF probe includes a coil with a plurality of conductive loops having a rectangular cross section carried inside two opposing, rectangular cross section housings, respectively. Housings are spaced apart and in parallel, creating an "open probe" configuration permitting a conveyor belt carrying vials whose contents are to be checked to pass between housings, and allows airflow surrounding the vials and conveyor belt to pass substantially without obstruction. Conductive loops and the housings carrying them may be placed such that the longitudinal axis of coil is oriented in either horizontal or vertical spatial relation with conveyor belt.

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