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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

(54) **Title:** FLOW CELL ASSEMBLY SECUREMENT SYSTEM AND METHOD

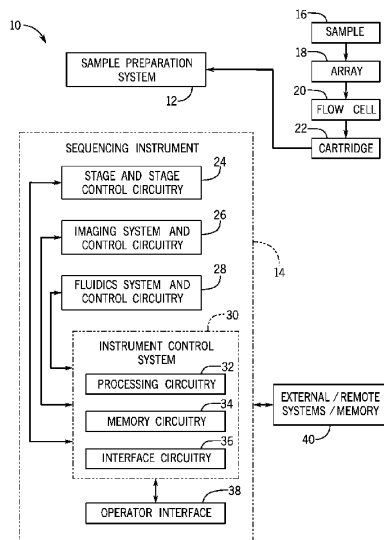


FIG. 1

(57) **Abstract:** A flow cell and cartridge assembly may be loaded into a processing system, such as for genetic sequencing. The system locates the assembly and is then actuated to move the assembly to a desired reference position in both X- and Y-directions. Further actuation causes clamps to contact the flow cell, the cartridge, or both to exert a hold-down force during processing. Further hold-down forces may be provided by a vacuum chuck. Fluid connections are also made by manifolds that contact the flow cell. The hold-down forces counteract the forces needed for sealing the manifolds to the flow cell.

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