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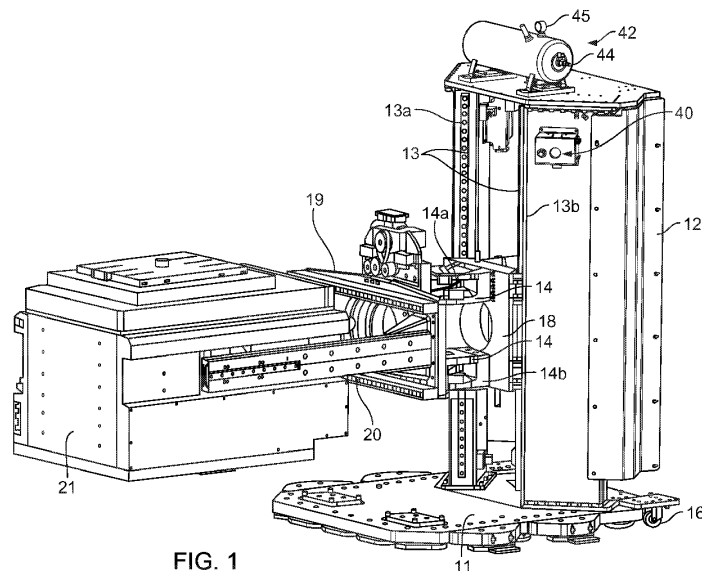


FIG. 1

(57) Abstract: An example manipulator for transporting a test head includes: a tower having a base and a track, with the track being vertical relative to the base; an arm to enable support for the test head, with the arm being connected to the track to move the test head vertically relative to the tower; one or more motors to drive movement of the arm along the track; and pneumatic cylinders to control movement of the arm to cause the test head to apply an amount of force to a peripheral device.

WO 2017/069846 A1