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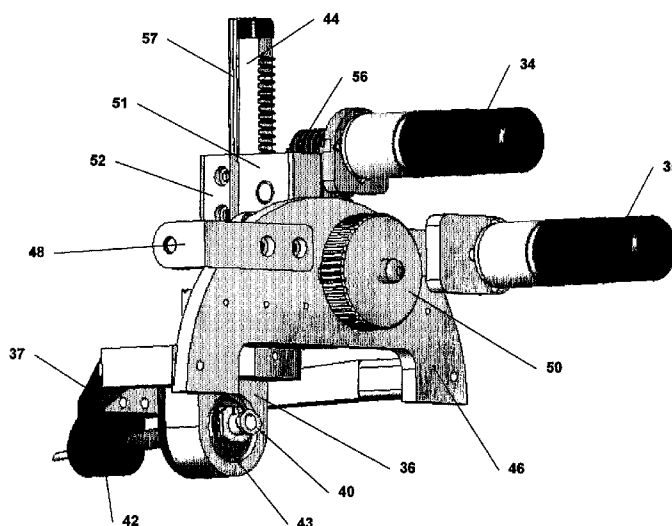
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(54) Title: APPARATUS AND METHOD FOR MOTORISED PLACEMENT OF NEEDLE



(57) Abstract: The present invention provides a method and apparatus to insert a needle through a predetermined trajectory and with a predetermined depth, in order to reach a target accurately within soft tissue, under ultrasound imaging guidance. The invention can be applied to carry out, for example, prostate biopsy, or prostate brachytherapy. The apparatus can guide a biopsy needle into defined sites in the prostate gland. A conical approach is used to reach the prostate through one or more pivot points on the perineal wall. The biopsy needle penetrates the patient's skin through the pivot point for multiple cores. The apparatus holds a needle sheath with two ball joints. The orientation of the needle sheath (40) is controlled by locking the front ball joint (41) at the pivot point, and moving the back ball joint (43) on a virtual plane. The biopsy needle is inserted manually through the needle sheath. The depth of the insertion is controlled by the position of the stopper on the biopsy gun holder. Both the orientation and depth stopper are preferably driven by motors.

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