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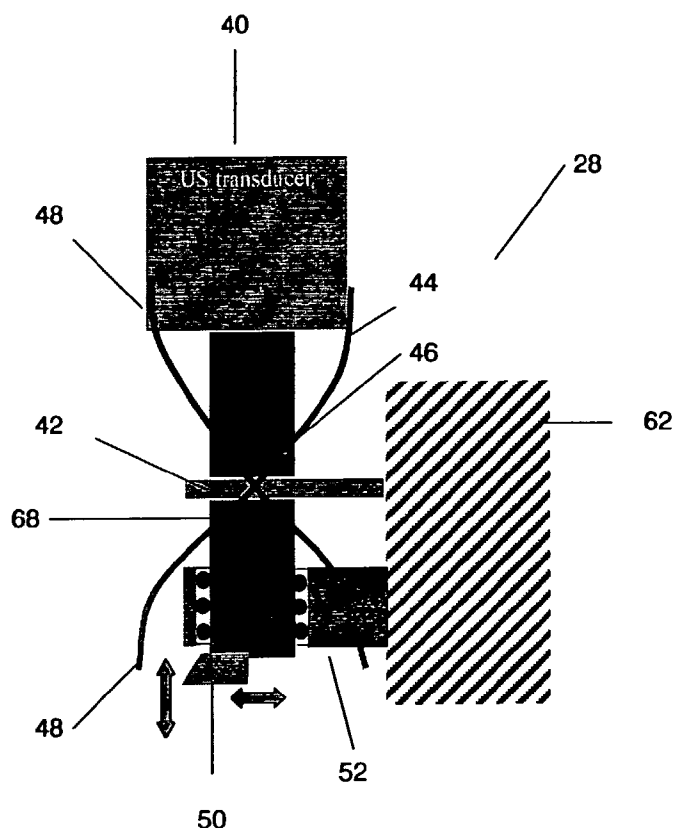
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(54) Title: APPARATUS FOR ULTRASONIC VIBRATION-ASSISTED MACHINING



(57) Abstract: Apparatus for ultrasonic vibration-assisted machining, the apparatus comprising an ultrasonic transducer for generating ultrasonic waves in a vibration horn; first clamp on the vibration horn at a static node of the ultrasonic waves; and a second clamp between the first clamp and a lowermost end of the vibration horn. The second clamp comprises a linear bearing for reducing vibration of the vibration horn in a direction laterally of the vibration horn, and allowing vibration of the vibration horn in the direction of a longitudinal axial of the vibration horn.



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