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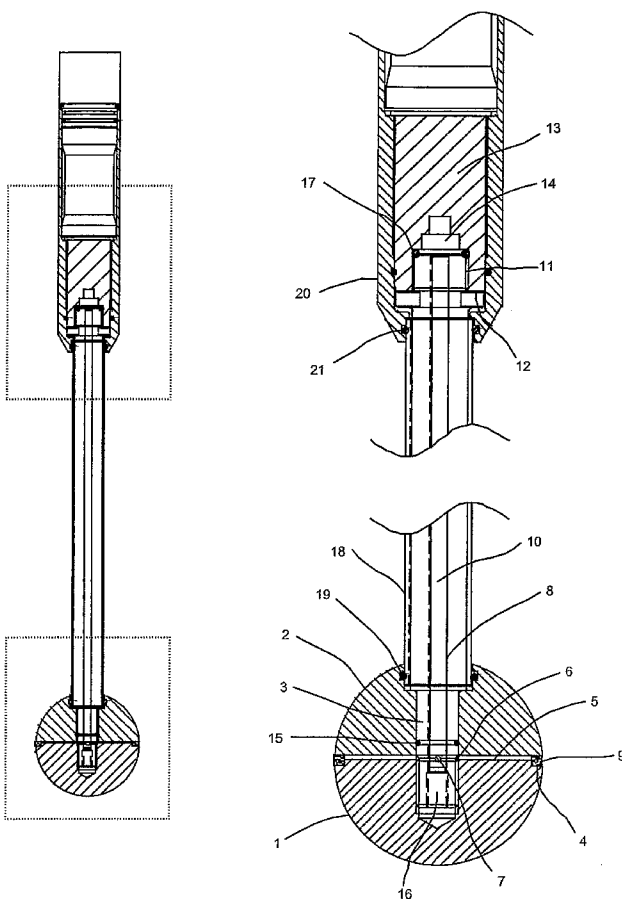
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(54) Title: IMPROVED BALL PENETROMETER FOR SOFT SOILS TESTING



(57) Abstract: A ball penetrometer probe for in situ measurement of soft soil properties, particularly in the seabed, comprises a spherical body and slender shaft assembly, and either individually or in combination, an anti-friction sleeve enclosing the shaft and/or a peripheral porous ring on the spherical body with connecting internal passages through the shaft assembly, the shaft being adapted to attach to an electronic transducer module. The ball penetrometer is deployed to penetrate the soil bed, to continuously measure the soil bearing forces resisting penetration and withdrawal of the ball, to optionally measure the pore water pressure of the soil in contact with the ball and to transmit the measurement data from the probe to a remote operating station, either by wireless means such as an acoustic transducer or via a wired electrical connection.

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