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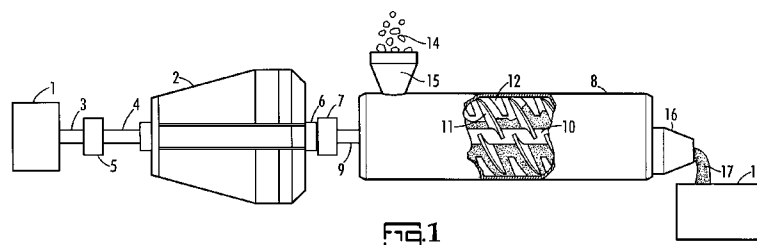
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(54) Title: GEAR BOX WITH VARIABLY COUPLED OSCILLATION AND ROTATION FOR KNEADING MACHINE



(57) Abstract: A gear box for a reciprocating kneader. A primary rotational gear is attached to a gear box primary shaft and rotates in concert therewith. A secondary rotational gear is engaged with the primary rotation gear and rotates therewith. A secondary shaft is attached to the secondary rotational gear and rotates therewith. A primary oscillation gear is attached to the gear box primary shaft and rotates therewith. A secondary oscillation gear is rotationally engaged with the primary oscillation gear and rotates on the secondary shaft. An eccentric is coupled to the secondary oscillation gear and rotates in concert therewith. A yoke is engaged with the eccentric and oscillates on an axis perpendicular to the secondary shaft in response to the lobe. The gearbox secondary shaft moves along its axis in concert with yoke oscillation. A housing is pivotally attached to the yoke and pivotally attached to a casing at a casing.