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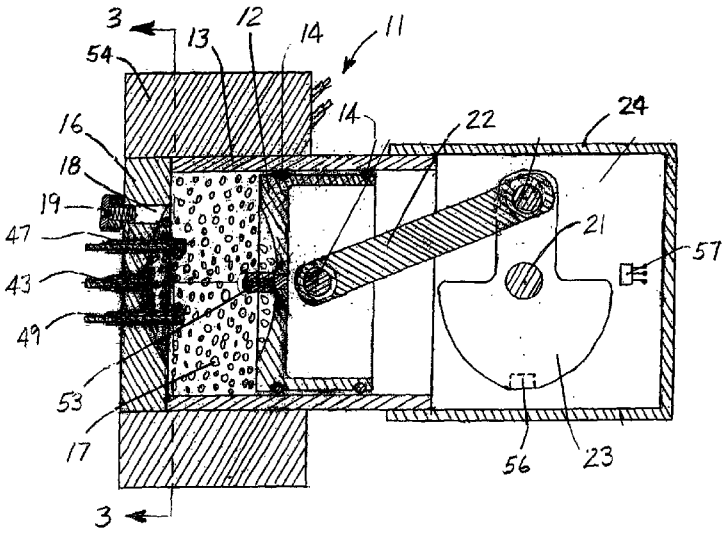
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(54) **Title:** INTERNAL EXPLOSION ENGINE AND GENERATOR USING NON-COMBUSTIBLE GASES



(57) **Abstract:** Internal explosion engine and generator having an explosion chamber, a movable member forming one wall of the chamber, a charge of non-combustible gas sealed inside the chamber, means for repeatedly igniting the gas in an explosive matter to drive the movable member form a position of minimum volume to portion of maximum volume, means for returning the movable member from the position of maximum volume to the position of minimum volume, and means coupled to the movable member for providing electrical energy in response to explosion of the gas. In one disclosed embodiment, the movable member is a piston connected to a crankshaft, and it is returned to the position of minimum volume by a flywheel on the crankshaft. In another, two pistons are connected back-to-back in a hermetically sealed chamber to prevent loss of the explosive gas. In one embodiment, the electrical energy is produced by a generator connected to the crankshaft, and in the other it is produced by a coil positioned near a magnet which moves with the pistons.

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