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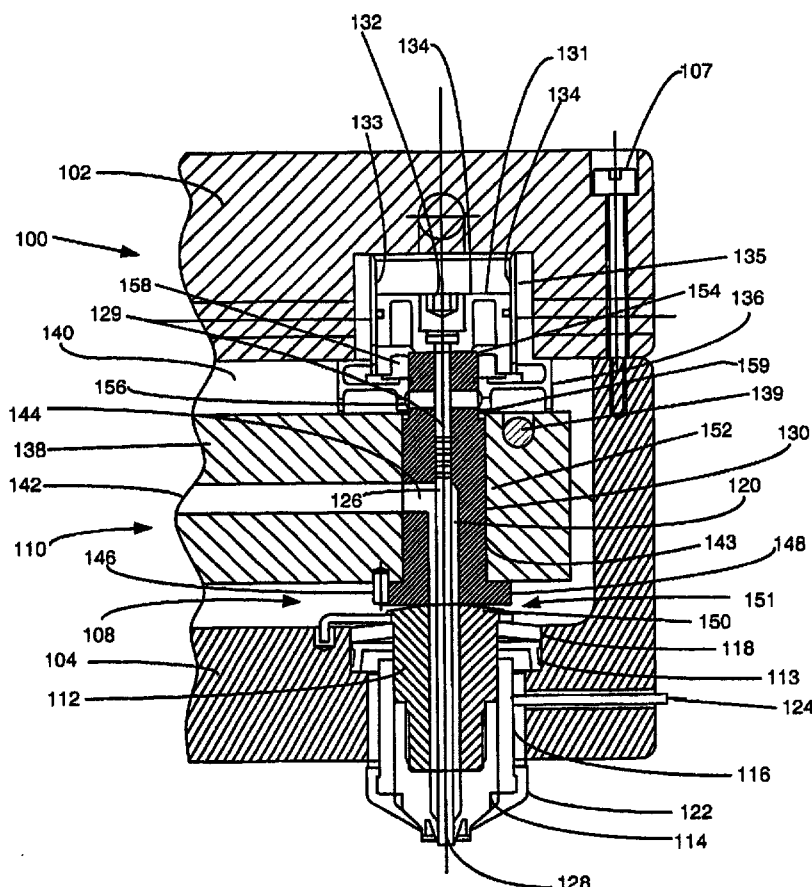
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(54) Title: IMPROVED HOT RUNNER SEALING APPARATUS AND METHOD



(57) Abstract: The present invention relates to an apparatus and method for injecting molten plastic. The apparatus and method includes a novel non-flat sealing interface therein that prevents the premature leakage of molten plastic. A nozzle with a non-flat sealing surface is brought into intimate contact with a manifold or bushing. Within the manifold, the bushing and the nozzle is a melt channel for communication of molten plastic to the mold. Thermal expansion at the non-flat interface as well as an initial preload creates a concentrated sealing pressure distribution that prevents leakage of the molten plastic from the melt channel. In one embodiment of the present invention, the bushing has a passageway through which a valve-stem is inserted for closing off a gate in the nozzle.

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