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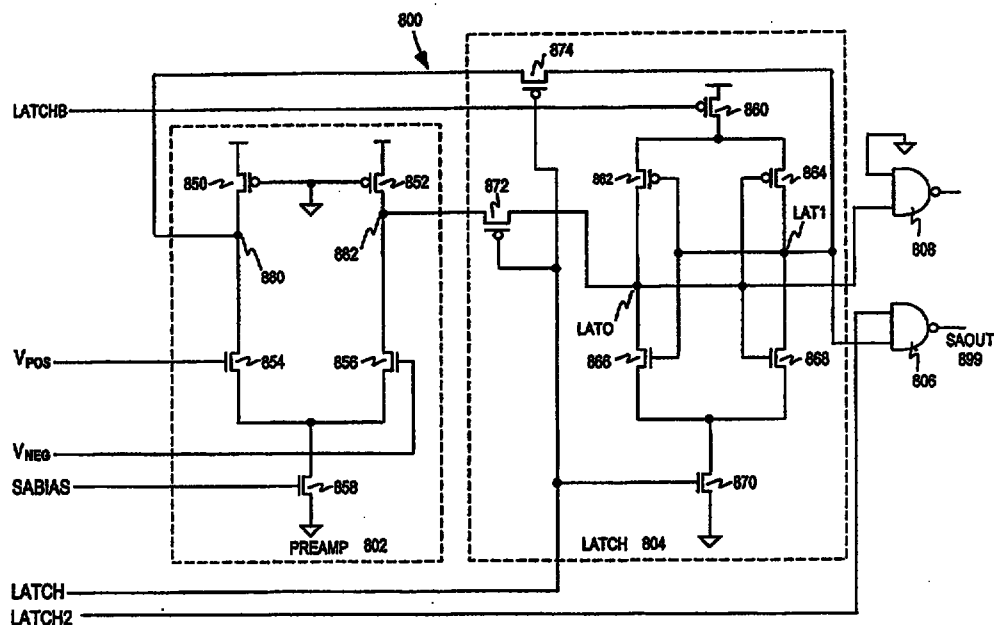
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(54) Title: SENSE AMPLIFIER FOR FLASH MEMORIES



(57) Abstract

A sense amplifier (800) for a nonvolatile writeable memory is described. The sense amplifier (800) has preamplifier (802) coupled to receive a signal from a grounded-gate p-channel metal-oxide semiconductor input stage. A differential input latch (804) is coupled to the preamplifier output. The differential input latch (804) uses a pair of cross-coupled inverters. A logic device (806) is coupled to the differential input latch output and provides the sense amplifier output signal. The logic device (806) reduces the offset in the differential input latch (804) and provides an output indicative of one of a number of stages or voltage levels of the cell.