

Abstract

Postage Meter with Improved Handling of Power Failure

A postage meter has a print rotor rotated by a motor and the motor is capable of being started and stopped under processor control. State variables are established within a nonvolatile memory. The rotor begins in its home position. When a mail piece such as a letter is detected by a letter sensor, the processor sets a state variable. At some point (either before loss of power, or after restoration of power) the postage value to be printed is booked into the accounting register. The rotor motor is started. At some point (either before loss of power, or after restoration of power) the rotor reaches its home position again. A state variable is cleared. In this way, it is possible, even after the loss and restoration of power, to distinguish between a rotor that is in its home position because it has not yet printed postage (but needs to do so) and a rotor that is in its home position because the printing of postage has been completed. Similarly it is possible, even after the loss and restoration of power, to distinguish between accounting registers that are quiescent because they have not yet had a postage amount booked, and registers that are quiescent because the booking of postage has been completed. The postage meter is thus quite unlikely to print postage that has not been booked, or book postage that does not get printed, even in the face of power losses at unpredictable times, and even in the absence of a large-capacity reserve power supply.

