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(54) Title: SMART WATER SENSOR

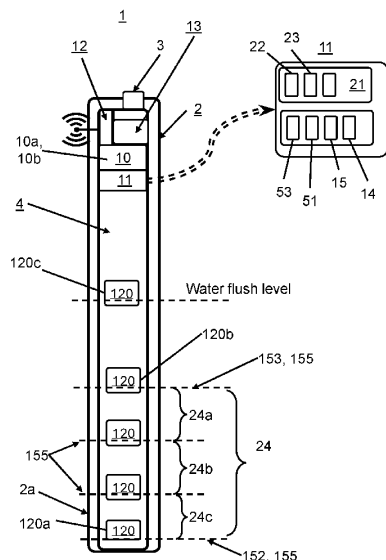


FIG. 1

(57) Abstract: A smart water sensor for monitoring water in planters, having a detector housing, a microcontroller, a top and bottom water detector producing top and bottom detector signals indicative of water absence or presence at a top and bottom levels; the microcontroller timestamping the detector signals, adds the timestamped signals to a timeseries, and identifying detector signal transitions from wet-to-dry and dry-to-wet; microcontroller further determines a dewatering duration, a drink rate, and irrigation period based on the drink rate and watering parameters; the smart water sensor further having a wireless transceiver for communication datalink with a remote microcontroller, the microcontroller configured to cause the water detectors to produce detector signals at a regular interval; the top and bottom water detectors having a top and bottom emitter, a top and bottom reflector, and a top and bottom receiver; and, the top and bottom receivers generating the detector signals.

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