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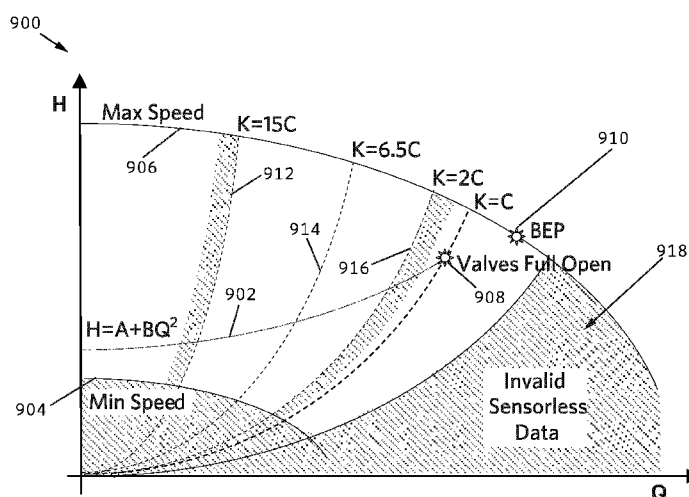
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- (54) **Title:** SELF LEARNING CONTROL SYSTEM AND METHOD FOR OPTIMIZING A CONSUMABLE INPUT VARIABLE

**FIGURE 9**

(57) **Abstract:** A control system for an operable system such as a flow control system or temperature control system. The system operates in a control loop to regularly update a model with respect at least one optimizable input variable based on the detected variables. The model provides prediction of use of the input variables in all possible operation points or paths of the system variables which achieve an output setpoint. In some example embodiments, the control loop is performed during initial setup and subsequent operation of the one or more operable elements in the operable system. The control system is self-learning in that at least some of the initial and subsequent parameters of the system are determined automatically during runtime.