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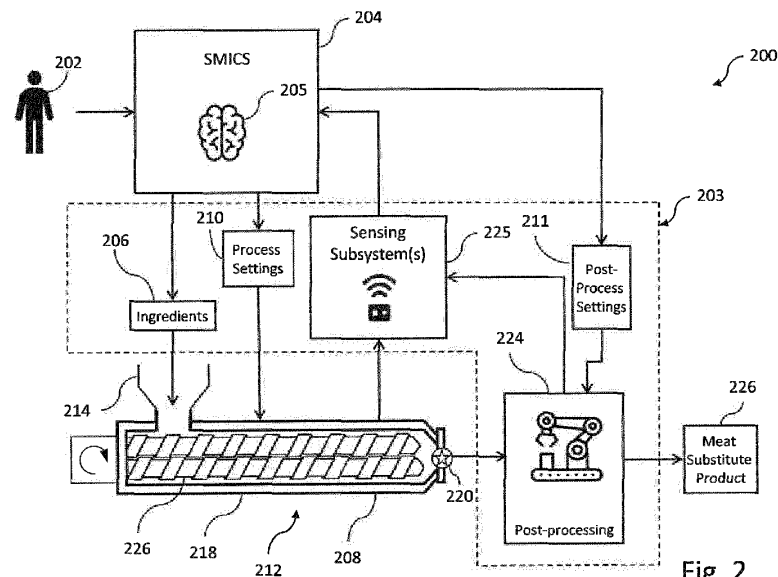


Fig. 2

(57) Abstract: A system includes a wet extrusion process machine configured to receive, mix, and convey a plurality of ingredients to an extrusion die, the plurality of ingredients include a protein powder, an oil, and water. The system includes an electronic process control system (EPCS) configured to control the wet extrusion machine using a plurality of process settings effective to produce an extrusion die mixture which is forced into, passes through, and is output from the extrusion die. The system further comprises a supervisory machine intelligence control system (SMICS) operatively coupled with at least one of a direct fibrosity measurement (DFM) subsystem configured to directly measure one or more physical fibrosity parameters of the extrusion die mixture, and an indirect fibrosity measurement (IFM) subsystem configured to measure one or more extrusion process parameters associated with the extrusion die mixture. The SMICS is configured to modify one or more of the plurality process settings in response to at least one of the one or

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more physical fibrosity parameters, and the one or more extrusion process parameters, effective to modify the extrusion die mixture.