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**Henry et al.**

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(54) **DIGITAL FLOWMETER**

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**G01F 1/84**

(52) **U.S. Cl.** ..... **702/45; 73/861.355; 73/861.356**

(58) **Field of Search** ..... **702/45-47, 50,**  
**702/100, 104-106; 73/861.356, 861.357,**  
**861.355**

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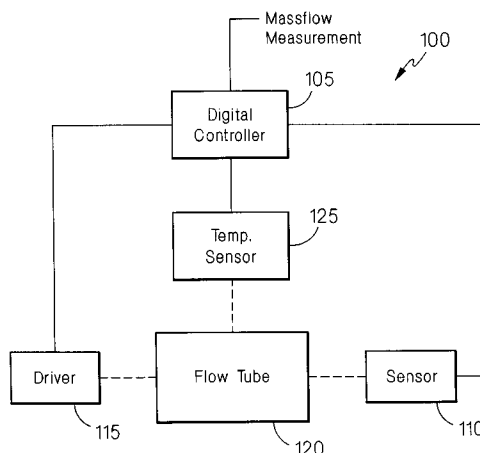
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(57) **ABSTRACT**

A digital flowmeter includes a vibratable conduit, a driver  
connected to the conduit and operable to impart motion to  
the conduit, and a sensor connected to the conduit and  
operable to sense the motion of the conduit. A control and  
measurement system is connected between the driver and  
the sensor. The control and measurement system includes  
circuitry to receive a sensor signal from the sensor, generate  
a drive signal based on the sensor signal using digital signal  
processing, supply the drive signal to the driver, and gener-  
ate a measurement of a property of material flowing  
through the conduit based on the signal from the sensor.

**37 Claims, 71 Drawing Sheets**



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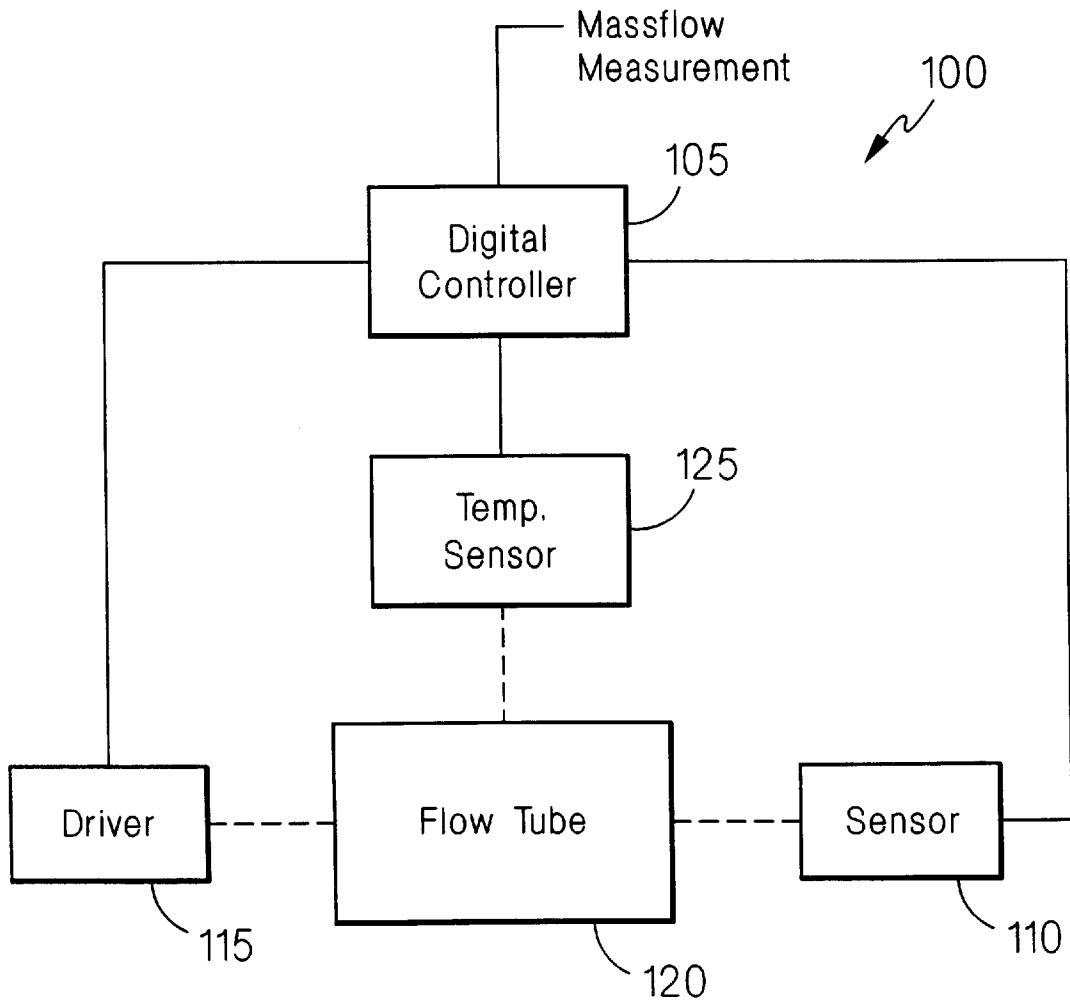


FIG. 1

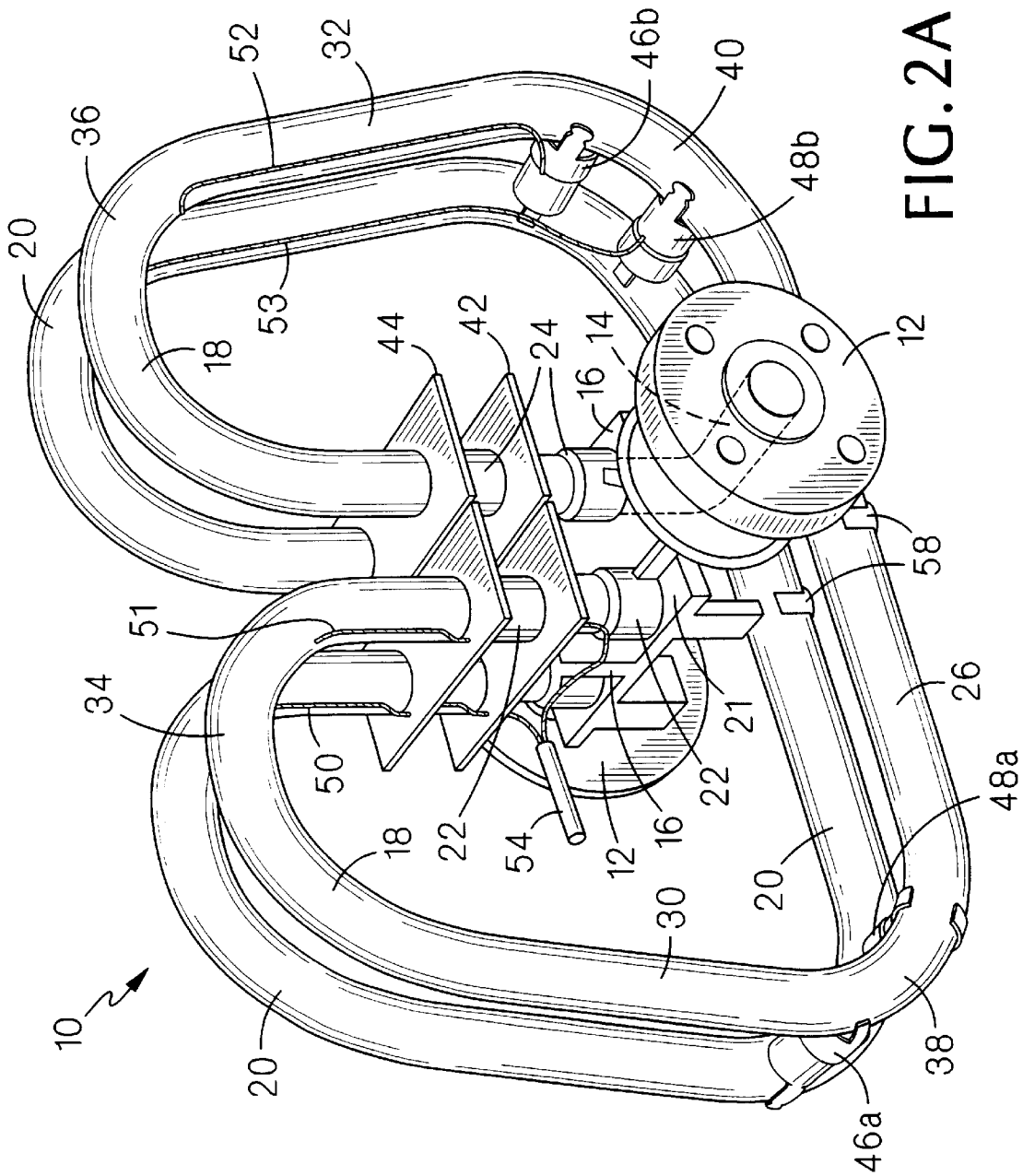
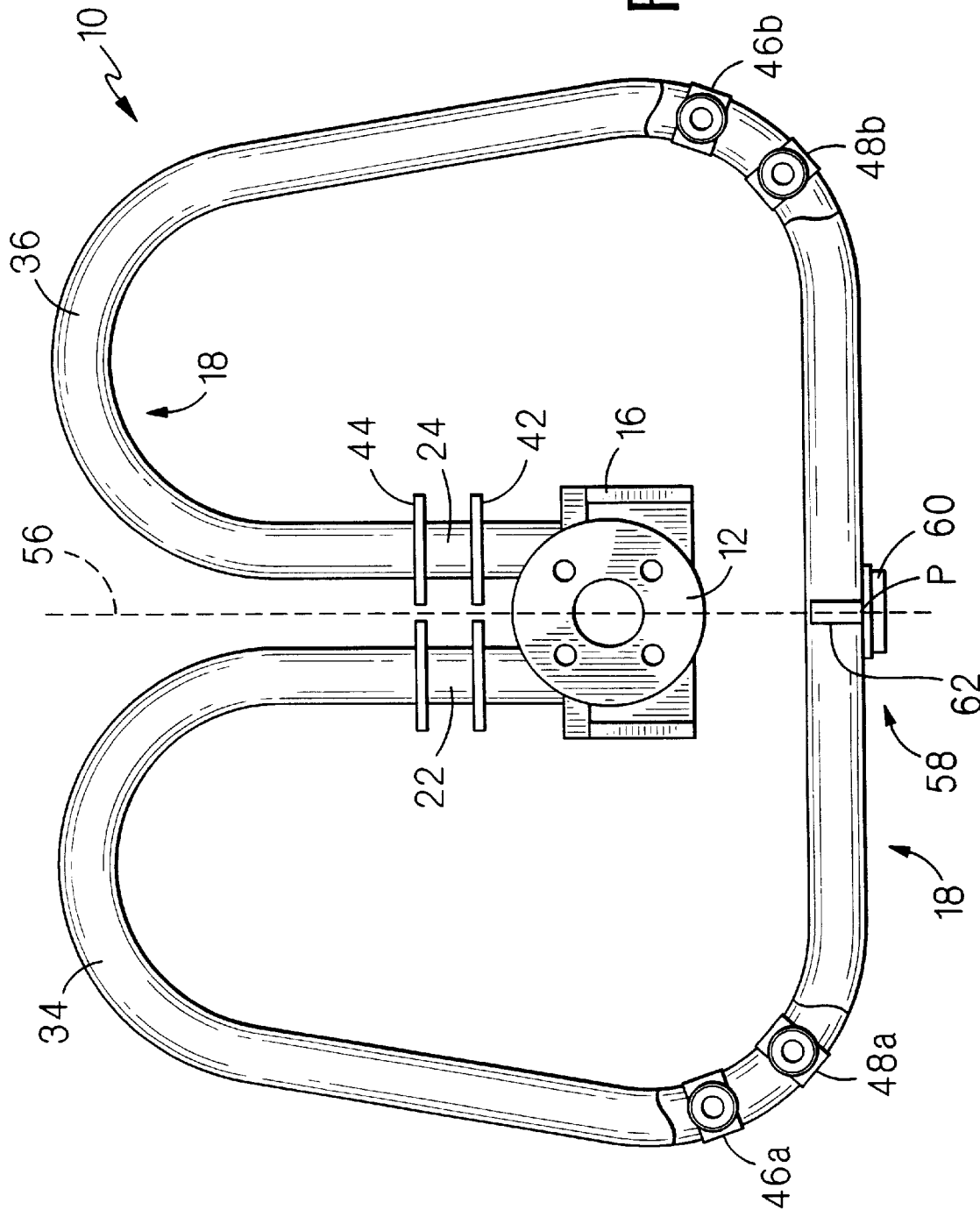


FIG. 2A

FIG. 2B



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