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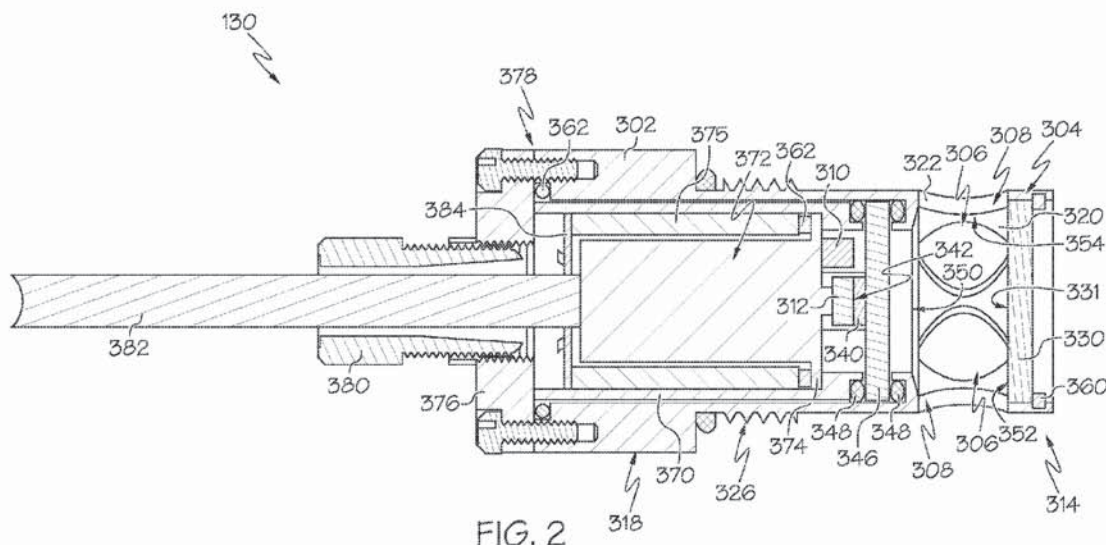


FIG. 2

(57) Abstract: An optical fluid sensor (OFS) is disclosed that includes a body defining a chamber and having one or more apertures to allow a fluid to enter the chamber, a light source optically coupled to the chamber and configured to emit light into the chamber, and a detector optically coupled to the chamber and configured to receive light from the chamber. The light source may emit IR, visible, and UV light into the chamber, and the detector may measure an intensity of one or more wavelengths of IR or visible light received by the detector. When fluid is disposed within the chamber, the light emitted by the light source may pass into and through the fluid disposed in the chamber before being received by the detector. A crossover protection system is also disclosed that includes an OFS for determining a transported liquid type.

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