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United States Patent

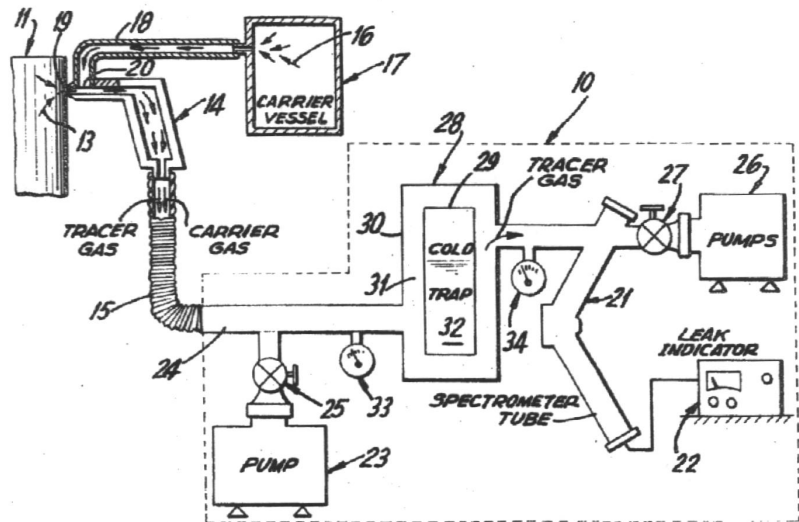
Granted on February 29, 1972 to

Guy E. Mongodin
-INVENTOR-

Patent No. 3,645,127
Veeco Instruments

REMOTE LEAK DETECTION

In a method and apparatus for remote detection of leaks in vessels wherein the vessel to be tested is pressurized with a tracer gas and a hand probe connected via a flexible conduit to a mass spectrometer apparatus is used to selectively sample the atmosphere near the surface of the vessel, a continuous flow of a condensable carrier gas of a different molecular weight than the tracer gas is injected into the vacuum system near the probe tracer inlet to increase capillary conductance and thereby cut down on response time as well as to sweep the line clean of residual tracer gas molecules and thereby prevent background indications. The carrier gas is condensed at a cold trap in the conduit upstream of the analytical portion of the mass spectrometer apparatus and thereby pumped out of the system.



The Commissioner of Patents and Trademarks has received an application for a patent for a new and useful invention. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law. Therefore, this

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grants to the person or persons having title to this patent the right to exclude others from making, using or selling the invention throughout the United States of America for the term of seventeen years from the date of this patent, subject to the payment of maintenance fees as provided by law.

S. Clement Swisher

Witnesses

