

DE SAINTIGNON Fernand

(1846 - 1921)

Longwy

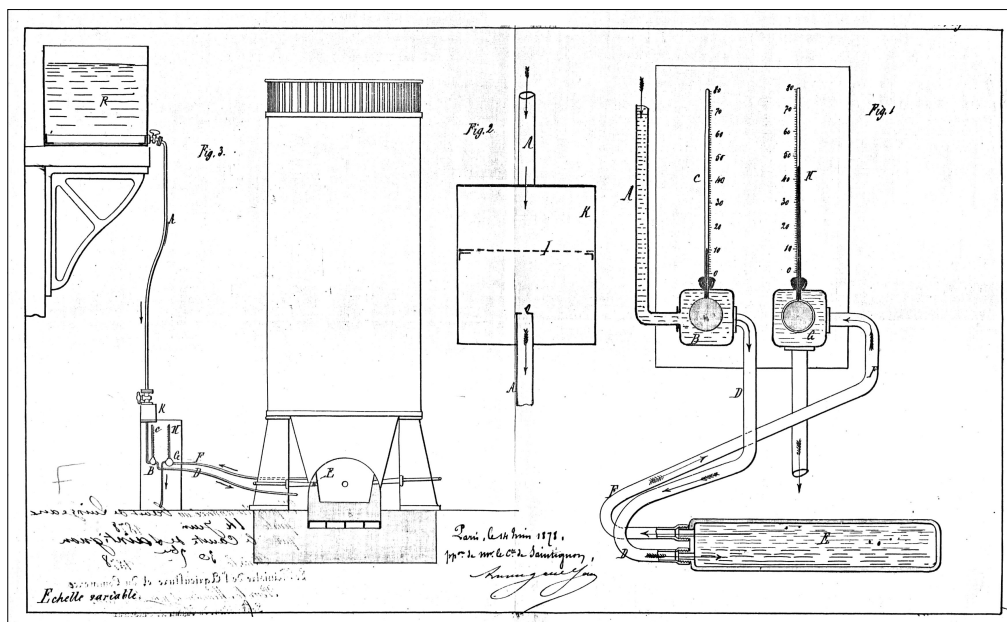
Patents (details)

1 - Pyrometer

GB patent	1878/2400
Application date	17 June 1878

Thermometers and pyrometers as usually constructed depend for their action on the expansion and contraction of fluids and solids, and are subject to the defect that high temperatures are beyond the range of many such instruments, and that the accuracy of those which are capable of bearing great heat, including electric pyrometers, is affected by changes produced in the molecular constitution of the thermal body.

My Invention relates to a construction of instrument to measure high temperatures by ascertaining the elevation of temperature which a liquid, such as water, undergoes by its circulation in certain quantity through a vessel exposed to the heat which has to be measured. For this purpose I place in the furnace or other chamber in which the heat is to be measured a vessel, which, when the temperatures are very high, should be of refractory material, such as porcelain. I cause water or other liquid to flow from a cistern into the lower part of this vessel, and to flow out at its upper part. In the pipes leading to and from the vessel I place thermometers, arranging them side by side, so that the temperatures of the supply and discharge can be easily read and compared. The elevation of temperature which the liquid undergoes in passing through the vessel, multiplied by a constant number, depending on the nature of the liquid and the quantity passed through the vessel in a given time, will then give the actual excess of the temperature of the furnace or hot chamber above that of the liquid supply.



(drawing from FR patent 125094)

Corresponding patents

DE, FR, LU