

DE SAINTIGNON Fernand

(1846 - 1921) ¹

Longwy

Biography

Fernand Adrien Jean-Baptiste (Comte) DE SAINTIGNON was born in 1846 in Longwy. In 1875 he married in Differdange Marie Catherine Louise LEGENDRE, daughter of Jules Joseph LEGENDRE, *maître de forges* in Lasauvage. The latter was born in Naives-Rosières, Meuse (Lorraine).

DE SAINTIGNON was *garde général des forêts* and lived in nearby Longuyon (France). The family LEGENDRE (-GIRAUD) was well established in Lasauvage.

Jules Joseph LEGENDRE died in 1870 and DE SAINTIGNON took over the LEGENDRE business in Lasauvage in 1878.

A very exhaustive biography of Fernand DE SAINTIGNON can be found on Wikipedia. ²

As to the succession of DE SAINTIGNON's company in Lasauvage, Wikipedia provides the following information:

N'ayant pas d'enfant, il espère faire de l'un de ses neveux son héritier. Malheureusement, le premier pressenti, Paul de Saintignon, meurt en 1919 des suites de sa captivité pendant la guerre. Le second, Pierre Amidieu du Clos (1881-1955) à qui a été confié la direction du haut fourneau de Gouraincourt, opte quant à lui pour une carrière politique.

Fernand de Saintignon meurt le 1^{er} janvier 1921 à Longwy à l'âge de 75 ans, usé par les conséquences de la guerre et la maladie

Fernand DE SAINTIGNON died in 1921 in Longwy.

¹ [FamilySearch database \(G4D9-ND2\)](#)

² [Wikipedia](#)

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Patents (listing)

	Patent number	Application date	Title
1	FR125094	14/06/1878	Pyromètre différentiel
	GB1878/2400	17/06/1878	Pyrometer
	DE5731	21/10/1878	Differential-Thermometer
	LUA042	10/02/1879	Pyromètre différentiel

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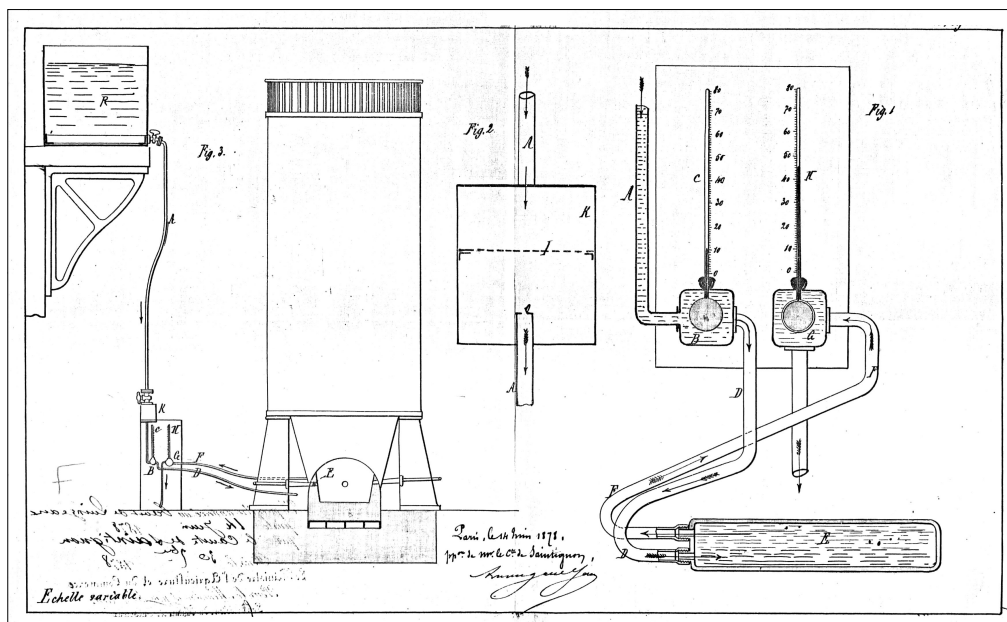
Patents (details)

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

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Addendum

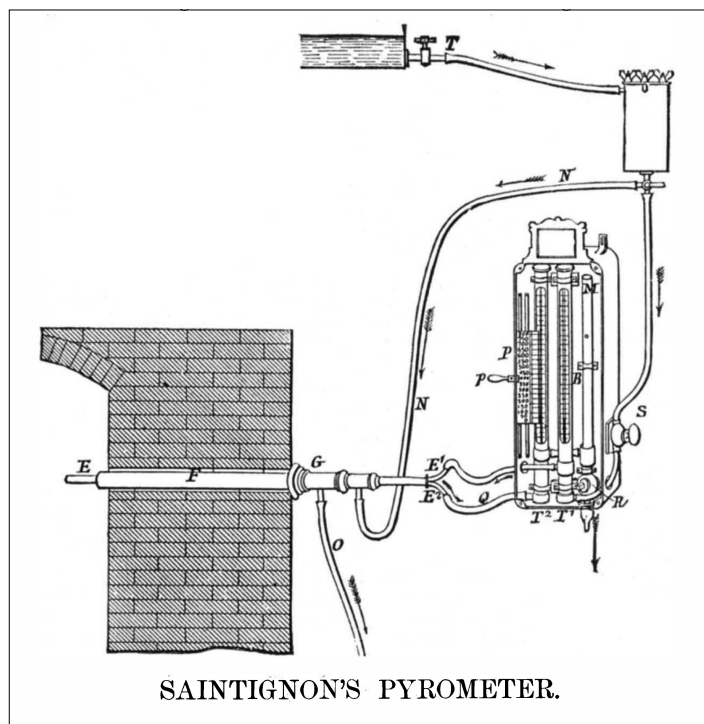
Public recognition

DE SAINTIGNON's invention was widely recognised at the time as a major advance in measuring high temperatures in furnaces.

Even the US magazine « *Scientific American* » of 17 October 1885 reported the invention and provided its own illustration of it: ¹

In the pyrometer invented by M. De Saintignon, high temperatures are measured by inserting in the furnace a tube through which a current of water is passing at a uniform rate. The temperature of the water is measured by a mercurial thermometer as it enters the tube, and again as it leaves, and from the difference of the two readings the intensity to which it has been exposed is deduced.

The instrument is made in two forms. In the first, it is applicable to heated spaces with thin walls, such as smoke boxes; and in the second, to furnaces inclosed with masonry. It is the latter form of which we annex an illustration. It comprises two thermometers, T^1 , T^2 , graduated with long scales, and connected by elastic tubes to the pipe, E , which is passed through the wall into the furnace the temperature of which it is desired to measure. A uniform current of water flows from a reservoir situated at a height of about ten feet above the pyrometer, passes through a filter, and descends into a vessel encircling the bulb of the thermometer, T^1 . This thermometer indicates the initial temperature of the water. From it the water flows by the elastic tube, E^1 , into the copper tube, E , which is situated within the furnace, and is exposed to its heat at the particular point where it is stationed for the time being. The water becomes heated in its passage, and returns to the second thermometer, E^2 , where its temperature is again measured. The speed of the current, and the length of the tube exposed to the action of the fire, are so adjusted that the water is raised one degree for each twenty-five degrees of the furnace...



¹ *Scientific American Supplement* N° 511, 1885, page 8454

Obituary ¹

Lorrain de vieille souche, il l'était aussi de cœur et de sentiment. L'annexion de la Lorraine par l'Allemagne en 1870 le frappa douloureusement, mais le laissa plein d'espoir, et, comme tous les Lorrains, il gardait inébranlablement au fond du cœur l'assurance de voir de nouveau le drapeau tricolore flotter sur les cathédrales de Metz et de Strasbourg. Lorsque la guerre éclata en 1914 il n'en fut pas effrayé. Dès les premiers jours il se dévoua sans compter et lorsque l'ennemi se fut installé à Longwy, il ne craignit pas de lui tenir tête et de revendiquer ses droits et ceux de ses concitoyens. Il s'ingénia pour leur venir en aide de toutes les façons et plus d'un se souvient avec émotion et reconnaissance de tout le dévouement et de toute l'abnégation qu'il mit à leur service.

Cependant sa santé se ressentait profondément de toutes les privations auxquelles étaient soumises les malheureuses populations des pays envahis. Il sollicita et obtint des Allemands la permission de venir faire une cure à Mondorf. Il lui fut ensuite permis de prolonger son séjour dans le pays pour des raisons de santé et c'est ainsi que Mr et Mme de Saintignon purent passer le reste de la guerre à Luxembourg.

Dès l'armistice, Mr de Saintignon retourna à Longwy pour rendre l'essor à toutes les œuvres qu'il avait entreprises avant la guerre. Sa verte vieillesse réjouissait tous ses amis et l'on était loin de s'attendre à la fatale nouvelle. Une attaque d'apoplexie a frappé M. le comte de Saintignon à l'âge de 75 ans.

¹ *Revue technique luxembourgeoise, 1921, page 14*