

WAsc 2212

Career Summary

JM Thomson

1 DESBOROUGH DRIVE
TEWIN WOOD
WELWYN
HERTS. AL6 0HQ
TEL: BULLS GREEN (01438) 798250

Mr. Les Tucker
8 The Heights
Loughton
Essex
IG10 1RN

8 March 2004

Dear Mr. Tucker

It is most kind of you to send me the copies of entries from Sir Robert Robertson's diary. They have a personal interest in that I did not know that my great uncle William T Thomson (not Thompson as in the paper) had received an award for gallantry.

Moreover, the list of former members of the Glasgow City Analyst's Laboratories is of considerable interest in the context of the research that our son Colin, a Professor at Strathclyde University, and I are engaged in on our Thomson and Tatlock ancestors.

James Milne Thomson and William T. Thomson were half-nephews of Robert Rattray Tatlock who founded an analytical chemistry consultancy while teaching at the Andersonian Institute, which was one of the educational organisations that subsequently amalgamated, step by step, to form Strathclyde University.

It is, as you say, remarkable that of the great Waltham Abbey Names no fewer than four originated from the Glasgow Laboratories. I believe that Colin and I may be able to trace how this came about back to circa 1845 when a school teacher enthused Robert Rattray Tatlock with the ambition to become a first-class analytical chemist.

I have sent copies of your letter and enclosures to Colin who, I am sure, will also find them of great interest.

I am well, thank you, though the inability to travel regrettably precludes my visiting the Royal Gunpowder Mills at Waltham Abbey.

May I ask you a question? I would be much obliged if you could let me know whether there is a record at the Royal Gunpowder Factory site of the staff role in 1918. In that year my father married Barbara, the daughter of James Milne Thomson. My father's father, Walter Charles Suckling, is recorded as a store keeper or charge hand but there is doubt as to whether this was at the Enfield Royal Small Arms Factory or the Waltham Abbey Royal Gunpowder Factory. I am trying to clear this up. The latter would seem the most likely for someone living in Waltham Abbey.

I trust that you also are well and that your research is progressing well.

Again many thanks,

Sincerely

Charles Suckling

WALTHAM ABBEY

MR. J. M. THOMSON

[NB Mr. J. M. Thomson had a younger brother, W. T. Thomson, who was Chemist in Charge of guncotton production at Waltham Abbey].

1894-1915 then Hocton Heath

1872 - Guncotton (nitrocellulose) production commences at Waltham Abbey employing system developed by Frederick Abel, based on boiling, pulping and pressing.

1889 - Cordite, based on nitrated glycerine (nitroglycerine), guncotton and mineral jelly, patented by Sir Frederick Abel, Head of Government Explosives Committee.

1890 - Nitroglycerine plant, based on Nobel plant design, purchased from Germany for installation on South Site.

12th Oct 1890 - Mr. J. M. Thomson from British Dynamite Co. at Ardeer, Nobel's company in Britain, engaged for employment at Waltham Abbey.

28th Jan 1891 - Mr Thomson appointed Manager of Waltham Abbey nitroglycerine factory at £400 p.a.

Early 1891 - supervised erection of plant from Germany - needed substantial modification and rectification.

16th Mar 1891 - Waltham Abbey commences cordite production.

Apart from ongoing plant and process improvement, J. M. Thomson and his brother made significant contributions to process change and improvement at Waltham Abbey which were of wide ranging significance to the industry, private and military at home and internationally.

Guncotton - Displacement Process - 1905

J. M. Thomson and W. T. Thomson

Abel's system produced good quality material, but was expensive in labour, acid usage, plant renewal and was dangerous to worker health.

J. M. Thomson and W. T. Thomson, with what W. H. Simmons has called a 'stroke of sheer genius' invented a much superior method for nitration of the cotton, termed the displacement process.

This was an immense improvement over Abel's process in all respects and was widely adopted by the industry, continuing in use at Waltham Abbey until the 1950's.

Nitroglycerine - Nitrator Separator - 1903

The process of nitroglycerine manufacture involved separation and washing of liquids, nitroglycerine floating on acids, involving running off from the base of vessels through earthenware taps. This was potentially hazardous - taps becoming blocked through differential warming of parts, friction with solidified nitroglycerine in cold weather. Messrs Nathan, Thomson and Rintoul patented a method of utilising waste acids to force the nitroglycerine from the top of the vessel into the next stage and at the same time replacing earthenware taps where still necessary with rubber tubing. Again this was an immense improvement widely used throughout the industry and continued in use at Waltham Abbey until closure.

LES TUCKER