

WASC 2003

Sir Frederick Nathan  
Obituary, Career  
Commentaries

1

Les, WASC 2003

2. Several quotes found for **Sir Frederic Nathan**

A InfoTrac Web: The Times Digital Archive.

- AL General
- AL Academic
- AT Power Alcohol Research.
- CT The Times
- DP Jan 17, 1920; pg. 12; Issue 42310
- IS 42310
- OT Col. Sir F. Nathan's Appointment.
- PT Newspaper
- RM COPYRIGHT 2002 The Gale Group
- SU ARTI
- XX 223
- ZZ

Power Alcohol Research.; Col. Sir F. Nathan's Appointment.  
 (Official Appointments and Notices)  
 The Times Jan 17, 1920; pg. 12; Issue 42310; Start column: A 223 words.  
 Elec. Coll.: CS201657905.

*Here with a print-out of what I have got from the Times on Nathan. - I have a copy on a memory stick. Please ask if you would like a computer copy. Hope this is of interest*

*Danell 8/7/08*

B InfoTrac Web: The Times Digital Archive.

- AL General
- AL Academic
- AT Colonel Sir F. L. Nathan
- CT The Times
- DP Dec 11, 1933; pg. 17; Issue 46624
- IS 46624
- PT Newspaper
- RM COPYRIGHT 2002 The Gale Group
- SU ARTI
- XX 262
- ZZ

Colonel Sir F. L. Nathan  
 (Obituaries)  
 The Times Dec 11, 1933; pg. 17; Issue 46624; Start column: C 262 words.  
 Elec. Coll.: CS286468491 SEE EXTRACT FURTHER ON

C InfoTrac Web: The Times Digital Archive.

- AL General
- AL Academic
- AT Sir F. L. Nathan
- CT The Times
- DP Dec 13, 1933; pg. 9; Issue 46626
- IS 46626
- OT Appreciations
- PT Newspaper
- RM COPYRIGHT 2002 The Gale Group
- SU ARTI
- XX 797
- ZZ

Sir F. L. Nathan; Appreciations.  
 (Obituaries) Sir Robert Robertson.  
 The Times Dec 13, 1933; pg. 9; Issue 46626; Start column: B 797 words.  
 Elec. Coll.: CS152119693. SEE EXTRACT FURTHER ON

D InfoTrac Web: The Times Digital Archive.

- AL General

AL Academic  
 AT Sir F. L. Nathan  
 CT The Times  
 DP Dec 14, 1933; pg. 19; Issue 46627  
 IS 46627  
 PT Newspaper  
 RM COPYRIGHT 2002 The Gale Group  
 SU ARTI  
 XX 447  
 ZZ

Sir F. L. Nathan

(Obituaries) Sir Frank Smith.

The Times Dec 14, 1933; pg. 19; Issue 46627; Start column: B 447 words.  
 Elec. Coll.: CS319629710. SEE EXTRACT FURTHER ON

E. The TIMES Friday May 01 1908 Page 20 Issue 38635 Column E

Reference and part review of Technical Book entitled THE RISE and PROGRESS of the BRITISH EXPLOSIVES INDUSTRY published under the auspices of the VIIth International Congress of applied Chemistry, (Explosives section) 418pp (Whitaker and Co) 15s

Refers to Nathan's History of Waltham Abbey and gives a source of this work

#### REVIEWS OF TECHNICAL BOOKS.

**THE RISE AND PROGRESS OF THE BRITISH EXPLOSIVES INDUSTRY.** Published under the auspices of the VIIth International Congress of Applied Chemistry by its Explosives Section. 9 1/2 x 7, 418 pp. (Whitaker and Co.) 15s.

This interesting work, printed on art paper and handsomely illustrated, is of considerable historical value. The section entitled "Chronology" records every incident bearing in any way upon the manufacture and use of gunpowder in the United Kingdom from 1242 to 1700, and the historian will here find an amount of material and information which will be of the greatest service. The "Bibliography" is also good.

It is understood that the inception of the work was due to Mr. Oscar Gottmann, to whom, as we are told in a preface from the pen of Captain T. G. Talloch, the successful compilation is chiefly to be credited. There are interesting articles by Mr. E. A. Brayley Hodgetts on gunpowder and legislation, by Mr. Henry de Mosenhals on nitroglycerine and nitroglycerine explosives and on permitted explosives, by Mr. Wyndham Huime, on percussion caps, in which considerable light is thrown on the history of this invention, by Mr. G. W. Macdonald on nitrocellulose and on researches on gunpowder and researches on nitro-glycerine, models of what such historical abstracts should be, and an interesting article by Colonel Jocelyn on military fireworks. Sir George J. Smith and Mr. Phillip Pain have both in their respective branches contributed matter of great interest. Readers may be at issue with the writers as to the proper allocation of credit to the various scientific workers in this field of chemical industry, but speaking generally the tone is remarkably fair and scientifically impartial.

The other sections of the book are devoted to descriptions of existing Government establishments and of private concerns. Of the former the most complete and instructive is Sir [redacted] account of Waltham Abbey past and present. Some 54 private enterprises are described, though the descriptions fail to give a very full account of the real state of the British explosives industry at the present time.

The trade in high explosive, which was really created by the late Alfred Nobel, was regarded in the early beginnings of the industry as a veritable El Dorado. When Nobel virtually possessed the monopoly of dynamite and when there was as yet a small demand, prices were extremely satisfactory, competition negligible, and profits great. Since that time numbers of competitive undertakings have sprung up. There are to-day, according to the latest published reports of H.M. Inspectors of Mines, 18 companies competing for an annual consumption of about 15,000 tons, which works out on a rough calculation at an average of about 830 tons for each factory. This official list does not exhaust the number of companies actually in existence, to say nothing of the many which have succumbed. It would be invidious to mention by name the various large concerns which have of recent years been unable to earn dividends. Even the oldest and most successful companies have shown regrettable fluctuations in this respect, and the chairman of one of these recently explained to his shareholders that, if it were not for a number of allied industries in which the company was interested, the rate of dividend could not be maintained. It is no exaggeration to say that millions of pounds have been sunk and lost in the promotion and fostering of unsuccessful explosives companies. The industry has, no doubt, greatly benefited by recent inventions and improvements, by which the cost, when the manufacture is on a very large scale, is considerably reduced; but on the other hand the reduction in price in consequence of inordinate competition has been so great as to overbalance the advantages thus derived. In hardly any other class of business do so many handicapping factors occur. No insurance office, for instance, will insure an explosives factory or its personnel except at prohibitive rates; and further, the rules and regulations imposed by the Home Office, though admirable in their object, imply considerably increased costs.

Beyond the trade of the United Kingdom, which is limited, there is, of course, a great Colonial and trans-European trade, but most of the Colonies have their local factories, and lately the De Beers Company, which are supplying the largest quantity of the explosives consumed in South Africa, have decided to compete in other British Colonial markets. Germany, France, Greece, Italy, Spain, Sweden, and America, all have their own native industries. Even in Russia and Japan the local factories are doing the bulk of

## RECENT IMPROVEMENTS IN THE MANUFACTURE OF CORDITE.

(FROM A CORRESPONDENT.)

It was in the year 1891 that, after much experimenting, a smokeless explosive was approved and introduced into the British service. This step had been made imperative by the adoption in 1885 by the French of a powder known as "Vicille," of which the obvious military advantages practically compelled other Powers to attempt to follow suit. Before this the problem of a smokeless powder had been solved as far as shot guns were concerned, but all attempts to adapt a nitro-compound as an explosive for either heavy guns or rifles had been unsuccessful.

Nitro powders can be divided roughly into two classes—first, those obtained from the nitration of cotton or other suitable substances; and, secondly, those in which to the above is added nitro-glycerine. It is to the first of these classes that the French powder referred to belongs, while in this country there has been adopted in the service explosive the principal feature of the second. That a mixture of nitro-glycerine and gun-cotton, two of the most violent explosives known, the former, too, being dangerous even to handle, should produce a powder of great stability and one easily controlled, is one of the mysteries of science, to the elucidation of which a great debt is due to Nobel, whose early experiments with the compound resulted in the introduction for commercial purposes in 1875 of blasting gelatine, to be followed in 1888 by that of ballistite, the latter being adopted by the Italian Government and subsequently in a modified form by Germany.

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## POWER ALCOHOL RESEARCH.

### COL. SIR F. NATHAN'S APPOINTMENT.

The Lord President of the Council has approved the appointment of Colonel Sir Frederic Nathan, K.B.E., late R.A., as power alcohol investigation officer under the Fuel Research Board of the Department of Scientific and Industrial Research.

Before the war Sir Frederic Nathan was expert of the Royal Gunpowder Factory at Waltham Abbey, and later was works manager of Messrs. Nobel's Explosives Factory at Ardeer. During the war he was the officer in control of alcohol under the Ministry of Munitions and chairman of the Production Section of the Inter-Departmental Committee on the Production and Utilization of Alcohol for Power and Traction Purposes.

The appointment of a power alcohol investigation officer has been made as the result of a recommendation to establish a small permanent organization under the Department to continue investigations. The Fuel Research Board propose to bring into proper focus the work now being done in regard to both production and utilization of alcohol.

Another appointment under the Fuel Research Board is that of Professor Pierce Purcell, who was secretary of the Irish Peat Inquiry Committee, to the post of peat investigation officer. His duties will be to keep the Board informed of progress in peat utilization research, to continue and extend experiments on the mechanical cutting and winning of peat, and to arrange for tests of peat as boiler fuel.

G EXTRACT from TIMES for 17<sup>th</sup> Jan 1920 page 12 Issue 42310 column A Col Sir F NATHAN's appointment to DSIR to head Power Alcohol Research (Biofuels!!)

*The Times*, Dec 11, 1933; pg. 17; Issue 46624; col C ITEM B Continued

## Colonel Sir F. L. Nathan

Category: Obituaries

Full Text: Copyright 1933, The Times

### COLONEL SIR F. L. NATHAN

Colonel Sir Frederic Lewis Nathan, late R.A., died yesterday at his residence in Cornwall Gardens at the age of 72.

The son of Mr. Jonah Nathan, and brother of the Right Hon. Sir Matthew Nathan, he was born on February 10, 1861. Educated at home, he passed into the Royal Military Academy and joined the Royal Artillery in 1879. In 1886 he was appointed Captain Inspector of the Royal Laboratory, and in 1888 assistant to the Director-General of Ordnance Factories. From 1892 to 1899 he was officer in charge of the danger building at the Royal Gunpowder Factory at Waltham Abbey, and assistant superintendent and then superintendent there. From 1909 to 1914 he was works manager of Messrs. Nobel's factory at Ardeer. In the War he was employed at the Admiralty and at the War Office, and was officer in control of alcohol under the Ministry of Munitions and chairman of the production section of the inter-departmental committee on the production and utilization of alcohol for power and traction.

After the War, in January, 1920, he was appointed power alcohol investigation officer under the Fuel Research Board of the Department of Scientific and Industrial Research. He was president of the Institution of Chemistry in 1925-27. He was knighted in 1906 and created a K.B.E. in 1918, and had received Russian and Belgian decorations. Sir Frederic married in 1888 Adeline Edith, daughter of Mr. E. F. Sichel; she survives him with three sons.

The funeral, which will be private, will be at Willesden Jewish Cemetery to-morrow at 11 o'clock.

## SIR F. L. NATHAN

### APPRECIATIONS

Sir Robert Robertson, the Government chemist, writes:—

In your account of the late Sir Frederic Lewis Nathan the milestones of his career are given, but some further appreciation may be made by one who for many years worked in close association with him.

Having taken part at Woolwich in the early experiments of Abel, Dewar, and Kellner on the production of a new propellant—cordite—shortly after the start of the manufacture of that explosive, he was sent to the Royal Gunpowder Factory, of which he became ultimately superintendent. There he made himself an authority on the manufacture of explosives, and organized the factory until it became a model of what an explosive factory should be. Danger precautions were studied, new processes were invented and operated, and research both of the more purely scientific and also of the technical kind was fostered under Sir Frederic's direction. Those of his scientific staff who were privileged to work with him at that time well remember his enthusiastic interest in the investigational side, and had cause to be grateful for his unfailing support. In this work the superintendent's part was personal, and he contributed notably to the advances then made, while at the same time he brought the operative side of the factory up to a pitch of the highest efficiency, so that it became the Mecca of representatives from all the then numerous explosive factories in the country. Soon after a visit to India with the writer in 1906-7, during which a method of ascertaining the residual thermal life of cordite, worked out at Waltham Abbey, and described by Sir Frederic in a Royal Institution discourse in January, 1909, was applied, he became works manager of Messrs. Nobel's factory at Ardeer, where the manufacture of industrial explosives came under his control and where he was concerned in the devising of stabilizers for propellants.

Shortly after the outbreak of the War he left Ardeer and joined the Admiralty for the purpose of designing and superintending the erection of the Royal Naval Cordite Factory at Holton Heath. Here he had a free scope in the arrangement of a new factory, and displayed his genius for planning a manufacture in orderly fashion

Heath. Here he had a free scope in the arrangement of a new factory, and displayed his genius for planning a manufacture in orderly fashion from raw to finished material. Under Lord Moulton he was responsible for the provision of propellant supplies during the last three years of the War, and thereafter joined the Department of Scientific and Industrial Research. There he not only concerned himself with explosive matters, such as for the Safety in Mines Research Board, but also wrote on the subject of fuel for internal combustion engines, especially as regards the use of alcohol and its production for this purpose. Always interested in the application of engineering to chemistry, he became president of the Institution of Chemical Engineers and took a leading part in the discussion of the academic curriculum for that profession. It was characteristic of his orderly cast of mind that he devoted much time to the subject of the indexing of chemical literature, both for the library at Ardeer and also later in connexion with fuel for the World Power Conference.

Sir Frederic Nathan will be remembered as a skilled organizer, whose methodical mind reached beyond what came so easily to him—the design of efficient apparatus and plant. He put into practice his belief in scientific method as the basis of modern industry.

The Assistant Secretary of the Institution of Chemical Engineers writes:—

Sir Frederic Nathan was the ideal type of public servant, one who when he undertook any kind of work would see it through to the end. Of immense industry, he preferred to work quietly behind the scenes rather than to take the centre of the stage. He had great facility in handling matters of detail, which was of the utmost value to the Institution of Chemical Engineers, of which he was the second president. Although keenly interested in all its activities, his work for the institution was perhaps more particularly identified with its educational policy, which work was very near his heart. The memorandum, published by the institution, on "The Training of a Chemical Engineer," was very largely due to him and his active participation in the work of the Education Committee only ceased when his health broke down during the summer. His high character and steadfastness of purpose were an inspiration to all who were fortunate to know him, and the institution, which he helped to found and which he did so much to further, is definitely the poorer by his passing.

The Brigade Secretary writes:—Sir Frederic Nathan became Commandant of the Jewish Lads' Brigade in 1905, and he continued to direct the brigade for 21 years. Since then he had been honorary Colonel Commandant.

## SIR F. L. NATHAN

Sir Frank Smith, secretary of the Department of Scientific and Industrial Research, writes:—

May I add to the notice which has already appeared in *The Times* concerning Sir Frederic Nathan a sincere tribute to the memory of a charming personality and a most valued colleague?

Colonel Sir Frederic Nathan's official connexion with the Department of Scientific and Industrial Research started in January, 1920, when he was appointed Power Alcohol Investigation Officer, at a time when the possibilities of using home-produced alcohol as a motor fuel were attracting much attention. He was engaged on this work until 1924, and was responsible for the preparation of four important memoranda on the subject published for the Department.

In 1925 he became Intelligence Officer to the Fuel Research Organization of the Department, a position he held until a few weeks ago. He was most enthusiastic about this work, and though the post was described as "part time," his interpretation of "part time" was exceedingly generous. His ripe experience, his wide knowledge of fuel problems and the world literature dealing with them, and his almost uncanny knack of extracting important and accurate information from a mass of apparently contradictory material will make his loss very greatly felt by all interested in the better utilization of fuel.

Sir Frederic's experience as Intelligence Officer soon impressed on him the vital necessity for a more systematic method of indexing scientific literature, and he became an enthusiastic exponent of a scheme for international cooperation in the abstracting and indexing of the world's scientific literature and the adoption of the universal decimal classification of the *Institution Internationale de Bibliographie*. He found an outlet for this enthusiasm in his activities as chairman of the Association of Special Libraries and Information Bureaux (A.S.L.I.B.), at whose conferences he read many papers. He represented the Department of Scientific and Industrial Research at a number of important conferences, including the World Fuel Conference, London, 1928, at which he acted as chairman of the Power Alcohol Section. In 1930 he became a member of the British National Committee of the World Power Conference and chairman of its Sub-Committee on Bibliographies. He was the prime mover in the publication of a *British Power and Fuel Bulletin*, issued by the World Power Conference, and continued to be its editor until a few weeks ago. This was a small beginning towards a larger scheme which he had in view at the time of his death, the object of which was the publication of an *International Power and Fuel Bulletin* to be issued in three languages and indexed according to the *Universal Decimal Classification*.

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