OBITUARY.

The Right Hon. RICHARD EVERARD WEBSTER, VISCOUNT ALVERSTONE, G.C.M.G., P.C., LL.D. (*Cantab.*), late Lord Chief Justice of England, died at Cranleigh, Surrey, on the 15th December, 1915. Born on the 22nd December, 1842, he was the second son of the late Mr. Thomas Webster, Q.C., who was the first Secretary and subsequently Honorary Secretary of The Institution, with which both father and son were thus identified. Richard Webster was educated at King's College, London, and Charterhouse, and at Trinity College, Cambridge. Taking his degree in 1865, he was called to the Bar in Lincoln's Inn in 1868, and ten years later was made Queen's Counsel. From the earliest years of his distinguished career at the Bar, he became intimately associated with the Parliamentary and legal side of engineering enterprise, particularly in railway matters, and his thorough grasp of the principles of mechanical science and keen interest in their practical applications, an aptitude inherited from his father, rendered his work in this field especially notable. He entered Parliament in 1885, and immediately afterwards became Attorney-General. In October, 1900, after serving a few months as Master of the Rolls, he became Lord Chief Justice in succession to Lord Russell of Killowen. He served his country in many important commissions, including the Behring Sea arbitration, the Venezuela dispute, and the Alaska Boundary Commission; was made a G.C.M.G. in 1893, a baronet in 1899, and was raised to the peerage in the following year. On his retirement, he was created a Viscount. Despite many and onerous preoccupations, Lord Alverstone retained to the last his interest in the work of The Institution, and was a frequent speaker at its annual dinners. He was elected an Associate on the 4th December, 1883; and on the 5th March, 1901, he was elected an Honorary Member, "because, during his distinguished career at the Bar, he has gained the respect and esteem of the members of this Institution, the best interests of which, during his long attachment to it as an Associate, have uniformly received his support."

Field-Marshal The Right Hon. EARL KITCHENER OF KHARTOUM, K.G., K.P., G.C.B., O.M., G.C.S.I., G.C.M.G., G.C.I.E., D.C.L. (*Oxon.*), LL.D. (*Cantab.*), whose tragic death, in the destruction of H.M.S. "Hampshire" off the Orkneys on the 5th June, 1916, was a national loss, exemplified pre-eminently in his career the

important influence of engineering both upon military science and economic development. In view of the very full accounts of his life and notable achievements which have appeared in the public press,[1] a brief reference to the principal facts, in so far as they illustrate his connection with engineering science, will suffice for the purposes of this record.

Horatio Herbert Kitchener was born on the 24th June, 1850, at Gunsborough House, near Listowel, Co. Kerry, and was the second son of Lieut.-Col. H. H. Kitchener, of Cossington, Leicestershire. He was educated privately, and entered the Royal Military Academy, Woolwich, in 1868. Whilst a cadet at Woolwich, he volunteered for service with the French Army, and served in the winter of 1870–71 in the Franco-Prussian War. In January, 1871, he was granted a commission in the Royal Engineers, and after the usual course at Chatham and a brief period of practical work at Aldershot, he was appointed in 1874 to make surveys and maps for the Palestine Exploration Society, a work involving considerable difficulty and danger, which he completed successfully in 1878. He was subsequently chosen to carry out similar work in Cyprus. He served through the Egyptian campaign of 1882, was made a C.B. in 1889, succeeded Sir Francis Grenfell as Sirdar in 1892 and was created K.C.M.G. in 1894. The Soudan campaign of 1898 probably illustrated most effectively his ability in applying engineering methods and scientific organization to warfare, the influence of the railway and steamboat in that campaign being considerable. He was later to apply the same organizing skill on a larger scale in South Africa in 1899–1902, when he acted first as Chief of the Staff to Lord Roberts, and from November, 1900, was in chief command. Shortly after the conclusion of peace he was appointed Commander-in-Chief in India, where for the next seven years he found ample scope for his energies. As the result of his labours, the Indian Army was completely reorganized and the defence of India placed upon an entirely new basis. Returning home by way of Australia and New Zealand, he made, at the invitation of the Colonial authorities, a characteristically thorough investigation of Australasian defences. He was made a Field-Marshal in September, 1909.

After serving for a time as Commander-in-Chief in the Mediterranean, he returned in 1911 to the sphere of his earlier influence as British Agent and Consul-General for Egypt. Under his regime the country made marked economic progress, and true to his predilection for engineering, he encouraged in every way the development of the country by extensive land-drainage and reclamation schemes and other engineering and agricultural enterprises. In July, 1914, he was elevated to the peerage as Earl Kitchener of Khartoum. Being in England at the outbreak of war, he was appointed Secretary of State for War on the 5th August, 1914.

[1] See especially *The Times* memoir of the 7th June, 1916.

His labours were incessant, and even for one of his remarkable capacity, exceptionally severe; but he was not destined to see their final fruition. History must record his last great services to his country.

Lord Kitchener was elected an Honorary Member of The Institution on the 2nd February, 1904, on account of his services "as a soldier in Egypt, the Soudan and South Africa, and for the remarkable work done by him as a Military Engineer."

Sir ANDREW NOBLE, *Bart.*, Captain R.A., *ret.*, K.C.B., D.Sc. (*Oxon.* and *Cantab.*), D.C.L. (*Durham*), F.R.S., Chairman of Sir W. G. Armstrong, Whitworth and Company, Limited, died at his residence, Ardkinglas, Argyllshire, on the 22nd October, 1915, aged 84. For the past 55 years he had been identified with the Elswick Works, and was largely responsible for their organization and the world-wide expansion of the business, besides contributing in no small degree, by his researches and inventions, to the high scientific reputation which it has acquired.

Born at Greenock on the 13th September, 1831, Andrew Noble was educated at Edinburgh and the Royal Military Academy, Woolwich. In 1849 he entered the Royal Artillery, attaining the rank of Captain in 1855. He was first employed on the staff of the Magnetic Survey at the Cape, and on his return to this country, was appointed Secretary of the Royal Artillery Institution. In 1858 he became Secretary to the Committee on Rifled Cannon and in 1859 to that on Plates and Guns. In this year also he became Assistant-Inspector of Artillery at Woolwich, and in the following year he joined the Ordnance Select Committee and also the Committee on Explosives, serving on the latter continuously for 20 years until its dissolution in 1880.

In 1860, Sir William (afterwards Lord) Armstrong, who had been brought into contact with Captain Noble in connection with the methods devised by him to test the new Armstrong guns, induced him to relinquish the public service for the direction of the Ordnance department at Elswick, and subsequently acquiring an interest in the business, he began at 30 his life-long association with the Elswick firm. In the course of the long series of experiments which, continued over 50 years, contributed so materially to the development of the science of gunnery, he investigated the phenomena attendant on the firing of large guns, carried out experiments in electroballistics, invented the Noble chronoscope, and made numerous researches in "Fired Gunpowder" and on the properties of cordite and ballistite. Some of this work is described in the collected Papers published in 1906 under the title of "Artillery and Explosives." For his services to military science he was made a C.B. in 1881 and K.C.B. in 1893: in 1902 he received a baronetcy. He was a member of many foreign Orders and was honoured by several universities and scientific societies. He was elected a Fellow of the Royal Society in 1870 and in 1880 received the Royal medal in recognition of his researches on