Sir Dugald Clerk, K.B.E., M.Inst.C.E., D.Sc., LL.D., F.R.S.

SIR DUGALD CLERK, who died on November 12, 1932, was one of the pioneers in the early development of the internal combustion engine. He was born in Glasgow on 31st March 1854. After completing his workshop training he spent four years studying, especially Physics and Chemistry, at the Andersonian College, Glasgow, and the Yorkshire College of Science, Leeds. Returning to Glasgow, he joined Messrs Thomson, Sterne & Co., and in 1877 began to devote himself to the development of the gas engine. It is interesting to recall that the four-stroke cycle Otto engine had been exhibited for the first time at the Paris Exposition in 1878. Clerk, realising the disadvantages of having only one working stroke in four, set to work to design a gas engine operating on a two-stroke cycle; his first engine working on this cycle made its appearance in 1881, and eventually many hundreds of this type were placed on the market. From this period right up to the time of his death Clerk devoted most of his work to the practical development of the internal combustion engine and to researches on the specific heat of gases and on explosion pressures. His researches had great influence on modern advance in the science of thermodynamics.

For these researches, which had placed him in the front rank of scientific investigators in the field of applied science, he was elected a Fellow of the Royal Society of London in 1908; in 1924 he was awarded the Royal Medal of the Society. He received honorary degrees from the Universities of Glasgow, St Andrews, Leeds, Liverpool, and Manchester. In 1932 he was elected President of the Institution of Civil Engineers, the highest professional distinction to which an engineer can attain; unfortunately ill-health prevented him from taking office. He had already in 1917 been created K.B.E.

On the outbreak of war in 1914, though by that time in his sixtieth year, he placed his exceptional talents in research at the disposal of the Government; he became Director of Engineering Research at the Admiralty, President of the Internal Combustion Engine Committee at the Air Ministry, and was a member of Committees in other fields of research.

He took great interest in the development of the motor vehicle, and did much important work in this branch of Mechanical Engineering.

For many years he was in partnership with Lord Marks as a consulting engineer and patent agent, and no other engineer was so frequently called upon for service as expert witness in patent cases.

As a member of the University Grants Committee, Clerk took a very real and keen interest in the teaching of Pure and Applied Science in the Universities, and University Engineering departments always benefited by the wise and sound advice he gave to the staff on the occasion of official visits.

He was elected a Fellow of the Society in 1922.

T. H. B.

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