

## OBITUARY NOTICE.

SIR ROBERT WALEY COHEN

1877—1952.

SIR ROBERT WALEY COHEN, who died on November 28th 1952, was a man of the type only too rare in British industry at the turn of the century. He combined scientific inclination and training with a keen business mind and an unusual ability for organisation.

He was born in 1877 in London and received his scientific education at Cambridge where, as a Scholar of Emmanuel College, he took the Natural Science Tripos. In 1901 he joined the then very small petroleum company—The "Shell" Transport & Trading Company—and was associated with it for more than fifty years, rising with the passing of the years to become a leading member of the group of companies known as the Royal-Dutch/Shell Group, of which the "Shell" Transport and Trading Company became one of the "parents." He rose very rapidly to take his place among the three or four men who laid the foundations of that company, which has since become one of the largest international companies. His scientific outlook soon made itself felt, for by 1904 he was employing both science and arts graduates for positions of responsibility.

In those early days of the petroleum industry, when the possibilities of using "petrol" or "gasoline" in the internal combustion engine were beginning to be appreciated, it was thought that petroleum, from whatever source, had roughly the same chemical composition, and that the lower the specific gravity the better it would generally behave in the engine. Sir Robert was not satisfied with these generalities and set about tackling the problem from two angles—the composition of the petrol and its efficiency in the engine.

On the chemical side he interested Humphrey Owen Jones, of Cambridge, in the chemical composition of a variety of petrols and, on the other side, collaborated with Mr. (now Sir) Harry Ricardo, who developed the variable compression engine. The resultant story is now too well-known to need repetition here, but it was clear at the end of these researches that the aromatic content of the petrol played a considerable part in increasing the highest useful compression ratio possible in the internal combustion engine, and if the criterion of specific gravity was to be used to specify a petrol, the higher specific gravity and not the lower must be looked for.

The collaboration with Sir Harry Ricardo continued for many years, not only in petrol engines but in diesel engines and, latterly, in development of the gas turbine. Unfortunately, the collaboration with H. O. Jones was cut short by the latter's untimely death as a result of a climbing accident. Sir Robert commemorated this collaboration by the establishment in 1912 of the H. O. Jones Readership in Physical Chemistry at Cambridge.

Immediately after the 1914—18 war he took a prominent part in promoting the collection of a large sum of money from the petroleum companies for building the new Physical Chemistry Laboratory at Cambridge.

All this time he was continually looking to the universities to supply the kind of staff which "Shell" needed; he was intimately concerned with the setting up of the Appointments Board at Cambridge, remaining a member of its committee for many years. His assistance to the universities was by no means theoretical: he brought to their councils practical advice on the needs of industry and was always ready to encourage the progress of education. His influence on the Boards of the many companies associated with the Royal Dutch/Shell Group was always brought to bear in helping any worthwhile educational cause; the many scholarships and the Chair of Chemical Engineering at Cambridge bear witness to this, the seeds of which were sown in the first decade of this century by Sir Robert himself.

As Manager, and later Managing Director or Director, he always exerted a great personal influence. His relations with the staff were personal, and to men returning to England from abroad he was always available for discussion of their problems. He had an intimate knowledge of their working lives, for he had travelled widely himself; indeed, no one who has enjoyed the privilege of these inspiring talks with Sir Robert would ever think of "big business" as being cold and impersonal. However, if the picture of Sir Robert which is emerging is that of a benign old gentleman wishing a youngster good luck as he leaves for abroad, nothing could be farther from the truth. Woe betide the young man who visited Sir Robert in the hope that

he would not be asked anything too difficult ! It was essential to know your facts when you entered his office.

It was one of Sir Robert's firm beliefs that a man could best serve the community, his country, and the world by doing his own job to the best of his ability. He did not believe in straying from his work as a leader in the petroleum industry to take part in politics or other activities outside his sphere, but it was inevitable that a man of his outlook and ability should be asked to help on many public bodies and when, in 1928, he relinquished his part in the day-to-day management of the Royal Dutch and Shell Companies for the somewhat less arduous—but for him hardly less active—work on the Board of the main company, he did from then until his death take a lively interest in other affairs. It is significant that most of these activities were concerned with education. He was Vice-Chairman of the Governors of University College, London, on the governing body of Imperial College of Science & Technology, and, as has already been said, an active member of the committee of the Cambridge Appointments Board. In addition he took the keenest interest in Jewish activities and, among other positions, was Chairman of the Jewish Memorial Council.

He remained with the one company for over fifty years; and saw it and the industry to which it belongs grow from very small beginnings into an international organisation with, as he firmly believed, an enormous power for good internationally. At the end of his career it was his proud boast that he was the oldest member of its staff, but he was equally proud to know that a large percentage of that staff had also made their life in the Group. His beliefs were simple : industry had first of all to satisfy its customers, the great public; for this it must have a keen, able, and happy staff, given which the right materials would always be available for the customer, and the company's prosperity would naturally follow.

It is difficult for one who has known him well not to create the impression of a fabulous personality, for he did indeed combine ability, energy, knowledge, and personal charm to a remarkable degree.

JOHN A. ORIEL.