In October 1932, at the usual monthly Council meeting of the Institution of Petroleum Technologists in London, a well-known petroleum chemist, Albert Dunstan, proposed the inauguration of an Annual Dinner. Thomas Dewhurst, in the Chair, suggested holding a general meeting the same afternoon. Lt-Colonel Samuel Auld had intended, later on the agenda, to suggest a one-day symposium on the international standardisation of petroleum test methods. Instead he proposed that the dinner be preceded by a one-day conference on the subject. Apparently, it took less than five minutes for a one-day conference on standardisation to be transformed into a proposal for a conference lasting a week and covering the whole field of petroleum technological activity, to be held in London, with leading international scientists invited to write papers and participate. The Council adopted this proposal with such enthusiasm that when the Institution's journal was mailed out three days later, it carried with it, to the 50 countries in which it circulated, a questionnaire seeking support for such a conference. The result was overwhelming. So at the November Council meeting, with the full backing of the British oil industry and the government, it was decided to hold a World Petroleum Congress in London in July 1933, only eight months later.

The first appointment was to elect Thomas Dewhurst as President of the Congress, and James Kewley Chairman of the Organising Committee. George Sell was responsible for all the Institution’s...
technical meetings and publication of their books and journal. He was appointed Joint Secretary of the Congress and was given the mammoth task of producing pre-prints of the 250 technical papers envisaged – with all the organisation involved in their invitation, writing, checking, editing, printing and distribution. Commander R. E. Stokes acted as secretary to all the administrative committees.

Chairmen and rapporteurs were appointed to each of the technical sections, which were grouped under the headings of: geology; production; refining; and transport and storage of oil. The rapporteurs were outstanding British scientists who were given the responsibility of obtaining sufficient high quality papers to cover the subjects listed. They achieved this by writing to oil companies in other countries, asking them to invite papers from their experts, and also by direct invitation to well-known scientists and technologists. In the event 244 papers were submitted, scrutinised, accepted and passed to George Sell for editing and publishing as pre-prints.

The framework of the technical sessions was not completed until the end of January 1933, so the invitations were not sent out until the middle of February. It is remarkable that George Sell, with some help from a part-time typist, edited those 244 papers, checked all their illustrations, photographs and diagrams, sent them complete to the printers, read and edited the pre-print proofs and finally despatched the finished pre-prints to more than 800 delegates – by the end of June! At the closing ceremony his work was acknowledged by Alfred Dunstan: ‘Mr George Sell has been faced with an enormous amount of work in the preparation of the papers received. Whatever has happened at this Congress and however it has gone, a vast amount of thanks should be given to Mr Sell; and his work is not yet completed because there is still the problem of editing and issuing the Proceedings.’ George Sell went on to complete some 35 years service as Editor of the Institute of Petroleum (as the Institution became in 1938).
1ST WPC GETS UNDERWAY

The Congress was formally opened on 19 July 1933 at the Science Museum in Kensington, with the President, Thomas Dewhurst in the chair, and some 830 delegates from 35 countries present. There were only 35 accompanying persons, so no special ladies’ excursions were arranged; but there were several social functions at all of which wives accompanied their husbands. The Oil Industries Club held a conversazione and dance at the Mayfair Hotel, there was a boat trip on the Thames with lunch at Great Fosters and there was a welcoming banquet at the Mayfair Hotel.

The technical meetings began on 20 July. There had been massive developments in the oil industry since the last scientific oil conference, held in 1907. In addition, the Congress had been set up by a distinguished scientific society and backed by the oil industry, so there was much enthusiasm and lively debate. The sessions lasted for two hours each morning and afternoon. According to one eye witness account, the discussion on one paper on viscosity was so fiercely contested, that after over-running
by a further two hours, it was only brought to a conclusion by the janitor of the building threatening to turn the lights off!

The Congress took large numbers of company reports on the geology of specific fields all over the world and the techniques used in exploration and development. The session chairmen were briefed to analyse the papers in the light of what each would learn from the others; their detailed summaries provided valuable comparative judgements and indicated the way forward for the industry. The satisfactory desulphurisation of cracked distillates and similar products without destroying unsaturated compounds of high anti-knock value was considered one of the most difficult problems in the refining of motor fuels. Other topics covered in equal detail were knock-rating in motor and aviation gasoline, the development of special fuels for high-speed compression engines, recent developments in lubricating oil and viscosity, hydrogenation and measurement uses for bitumen. The section on alternative fuels included papers on natural gas for the propulsion of heavy vehicles, power alcohol and petrol-methanol mixtures.

Two addresses were given on separate evenings in the Royal Institution. For these addresses, the lecturer and the entire audience were in formal evening dress. The first address was by Sir John Cadman on ‘Science in the Petroleum Industry’ and ranged from geophysics to the operation of an oilfield. The second was given by J. B. Aug Kessler on ‘The Rationalisation of the Oil Industry’. By all accounts this was a fascinating paper, which although largely a review of the current marketing problems of petroleum and especially fuel oil, launched a vigorous attack on the taxation of petroleum in general and the government of the day in particular. This well-reasoned attack was so effective, and the response of the British government was so negative, that the President noted that government policy and taxation were two topics to be kept off future WPC programmes at all costs. Taxation only returned to the agenda in the 1980s.

The final paper presentations and discussions on 25 July were followed by a Plenary Session of all the delegates, with Thomas Dewhurst again in the chair. The purpose of the meeting was to adopt resolutions that had been proposed by the various sessions. The first resolution was to the effect that all matters concerning international standardisation of methods of testing petroleum products should be put forward by national bodies to the International Federation of the National Standardising Associations’ (now the International Organisation for Standardisation) Committee 28, who should in
future be the co-ordinating body in respect of all standardisation activities. After unanimous approval this resolution was carried into international effect and became the basis for the standardisation of the methods of testing petroleum products.

The second resolution was proposed from the Chair. Dewhurst proposed that a World Petroleum Congress should in future be held triennially, and this resolution was carried. Before the meeting closed, it was agreed that the preliminary steps toward the organisation of the Second World Petroleum

THE SCHLUMBERGER BROTHERS

Conrad and Marcel Schlumberger with Henri-Georges Doll presented a paper at the First Congress on ‘The electromagnetic teleclinometer and dipmeter’. In this paper they described how the teleclinometer could determine the angle of inclination of the axis of a drill hole in relation to the vertical, and of the azimuth of this inclination in relation to the magnetic North. The apparatus was lowered into a drill hole and measurements were made at the surface. The dipmeter was an improvement to the teleclinometer, as it also had a pole for sending current into the ground and measuring electrodes. These provided information which could be used to deduce the direction of the dip of the beds.

Conrad was born in 1878 and his brother Marcel six years later. The family came from the Alsace region of France; their great-grandfather served as Prime Minister. Conrad Schlumberger was a talented scientist and became a professor of physics at the École des Mines in 1907. Marcel specialised in mechanical engineering and business. Conrad developed an interest in the electrical resistance generated by different types of rock formation. In 1914 he successfully completed the first commercial application of this technique, locating a body of copper ore for a client in Serbia. The business was held up by the First World War, but in 1919 Conrad and Marcel set up in Paris to develop further electrical prospecting, as they called it. In 1923, the brothers received their first order from an oil company and successfully mapped an oil-rich salt dome in Romania.

A few years later the Pechelbronn Oil Company of France asked the Schlumbergers to make measurements, not from ground level, but from the interior of an already drilled borehole. Conrad asked Henri Doll, his son-in-law and technical supervisor to design the necessary equipment, and in September 1927 the men compiled the first ‘wireline log’ by lowering an electrical recording device down an oil well in the Pechelbronn field in Alsace, France, and measuring the resistance every few feet. The results were accurate, which meant that oil deposits could now be located and measured without resorting to expensive and time-consuming mechanical coring.

The biggest break for the company came with its introduction to the US market in 1932, when Shell asked it to run logs in California and on the Texas gulf coast. These were successful, and Schlumberger soon picked up business among the many wildcatters in Texas and Oklahoma. In 1934 the brothers founded Schlumberger Well Surveying Corporation in Houston to meet the growing demand for their services. This US
Congress should be left in the hands of the Institution of Petroleum Technologists. They would confer with other countries regarding the venue of this Congress, and when this had been decided they would then hand over all responsibility to that country.

Thus the first World Petroleum Congress took place in 1933, the year that Hitler came to power, when Britain’s Prime Minister was busy preaching disarmament to France and practising it at home, and the Americans were preoccupied with the ‘New Deal’.

division soon became the largest and most profitable of the parent company’s worldwide business.

Conrad died in 1936 and Marcel then took over the business until his death in 1953. The firm was left divided, roughly between Doll, who controlled technical research; de Ménil who controlled the business in South America and the Middle East; Seydoux who ran the Europe business; and Pierre Schlumberger who ran the company’s US operations.
HENRI-GEORGES DOLL, 1902-1991

In a career spanning more than 40 years, Henri-Georges Doll invented, designed, built and field tested geophysical instruments, developed interpretation methods, created research and engineering centres, and guided young scientists and engineers. During the Second World War he formed a company for developing a detector for metallic land mines. This venture later produced automatic guidance and telemetry systems, industrial instrumentation, photomultiplier tubes and sealed-tube neutron generators. Even after retirement from Schlumberger, he worked at his own expense for more than a decade developing medical instruments for the in-situ measurement of blood-flow rate. During his working life he filed more than 70 patents and wrote over 30 publications.

Doll was born in Paris and studied at the École Polytechnique, and then at the École des Mines, both in Paris. While still a student there, he married Annette Schlumberger, Conrad’s daughter, and in 1925 he joined the Schlumberger’s small electrical prospecting group. By 1927 he had designed and tested equipment for Conrad’s newly conceived carottage électrique, or ‘electric coring’.

Doll was the first to recognise the origins of small voltages called spontaneous potentials that appeared on the measurement electrodes of electrical logging tools even when no survey current was emitted – and to note that these differentiated shales from permeable conglomerates. He brought to fruition borehole measurements of temperature, dip and inclination. To measure inclination he used the first sonde containing complex downhole instruments, not merely wires and electrodes. He also developed a useful, simple method for detecting cable leaks.

Shortly after the start of the Second World War, Doll moved to Houston to establish Schlumberger’s first R&D centre outside France. When Doll retired in 1967, the Schlumberger Well Surveying Corporation’s research laboratory in Connecticut which he had founded, was renamed the Schlumberger-Doll Research Center.

In the 1950s Doll predicted the eventual demise of the slide rule and coloured pencil and that they would be replaced by truck-borne computers doing on-line interpretation. Doll’s crowning achievement was the invention of the induction log. Eventually induction logging became one of the most widely used logging methods in the world. It solved the oil-base mud problem, and overcame the obstacle presented to electrode methods by high-resistivity invaded zones.

He died in 1991 and was buried next to his mentor, Conrad Schlumberger, at the Schlumberger family estate in Normandy, France.
JOHN CADMAN, LORD CADMAN OF SILVERDALE, 1877-1941

John Cadman was born in 1877 in Silverdale in the English county of Staffordshire, and later lived next to the mine his father managed. At the age of 19, he was awarded the county’s first mining scholarship to study Mining and Geology at Armstrong College (Durham University). He graduated in 1899 with a first class honours degree, and became a Fellow of the Geological Society in 1900. He first became assistant colliery manager at Silverdale Colliery and then moved to Scotland as Chief Inspector of Mines. He almost certainly became aware of the significance of oil through the experience of the Staffordshire oilseeps at Longton and the Scottish oilshales.

In 1908 Cadman was appointed Professor of Mining at Birmingham. In 1912 he was the first person in the UK to develop a course in Petroleum Geology, supported by the Principal, Sir Oliver Lodge. Cadman advised the British Government on the importance of securing Persian oil supplies before the First World War, as a consequence of which, British warships soon changed from coal to oil. He led the search for oil in Britain and was awarded a knighthood for these services in 1918. He was appointed Technical Advisor to the Anglo-Persian Oil Company in 1921, and rose to become Chairman in 1927. He was certainly one of the first people with any scientific training to hold such a major position in a multi-national company and was instrumental in initiating the application of geophysical techniques in the successful search for oil in Persia.

In 1927 Cadman suggested that the British Geological Survey should consider using geophysical techniques and this led to the first gravity and magnetic surveys in the UK. Cadman was raised to the peerage in 1937 and became Baron Cadman of Silverdale. He became a Fellow of the Royal Society and died in 1941 in Bletchley.

Sir John Cadman addresses WPC-1 delegates at the Royal Institution on 21 July. During his address he paid tribute to the chemist and physicist Michael Faraday (1791-1867) and the audience stood in a minute’s silence.