

German Chemists at Munich

NEARLY three thousand delegates representing thirteen different German societies took part in a national congress of German chemists held at Munich on July 7-11. Prof. P. Duden of Frankfurt presided at the general meeting, which was welcomed by Staatsminister Herr Adolph Wagner. Dr. O. Nicodemus of Frankfurt delivered an address on the development of the chemistry of acetylene and its national importance as a source of raw materials. From acetylene many derivatives of the vinyl group can be made, which can be developed by polymerization to a great variety of valuable synthetic products. Amongst these may be mentioned the unsaturated hydrocarbons isoprene and butadiene, from which synthetic rubber is made, and a chlorinated derivative, chloroprene, which polymerizes seven hundred times as fast as isoprene and gives rise to an oil-proof synthetic rubber. By varying the conditions of polymerization, it is possible to plan the synthesis of products possessing specified physical properties, so that the range of application of these products is increasing rapidly.

Prof. Noack of Berlin then addressed the meeting upon the chemistry and physiology of plant structures. Afterwards the Congress broke up into twenty sections, which met for the discussion of special subjects, full reports of which will be found in the August number of *Angewandte Chemie*.

Although the main interest of the Congress was in applied chemistry, we find that one section was devoted to the history of chemistry, and a proposal was made to undertake the complete documentation and collection of publications (or copies) relating thereto. In a paper by Dr. Theis of Mannheim, the discovery of catalytic activity was credited to Döbereiner, who described in 1823 the ignition of hydrogen at atmospheric temperatures in the presence of spongy platinum.

Reference can only be made here to a few of the subjects discussed during the sectional meetings. Prof. Hedvall of Göteborg and Prof. Jander of Frankfurt discussed reactions between substances in the solid state, Prof. W. Kuhn of Karlsruhe the properties of thread-molecules in solution and Prof. Staudinger of Freiburg the chemistry of macromolecules. Dr. Brederick of Leipzig described his work on the constitution of the nucleic acids and Dr. Seidel of Munich his synthesis of urobilin. In the sections on applied chemistry will be found numerous papers dealing with fuel-oils, colours, paints, dyes, foodstuffs, building materials, leather, photographic materials, agricultural chemistry and many other subjects.

A whole section has been devoted to the consideration of the rapidly increasing number of *Kunststoffe* or artificial products. Among those of practical importance we may mention the 'organic' glass of Dr. O. Röhm. This substance, which is free from silicates, is derived from α -methylacrylic acid. Esters of the acid are colourless liquids, which polymerize, under somewhat difficult conditions, to vitreous solids, possessing a very high degree of transparency and a low coefficient of expansion. These glasses can be bent and moulded into shape at high temperatures and can be used for making windows for motor-cars and aeroplanes. They can also be used for optical purposes and for the manufacture of apparatus, such as filter-presses.

Another artificial product of first-rate importance is the substance trolitul, formed by polymerization of the hydrocarbon styrene, which is distinguished from most other artificial resins by reason of its excellent insulating properties, resistance to wear and impermeability to water. Thus it can be moulded into insulators and is suitable for employment even where high frequencies are used. The growing use of artificial products in industry has given new interest to the scientific study of complex polymers.

Science News a Century Ago

Schönbein and Faraday

IN 1836, the long and interesting series of letters began between Schönbein and Faraday which extended over twenty-six years and was afterwards published with notes and comments by G. W. A. Kahlbaum and F. V. Darbishire. The first two letters were from Schönbein, who was then professor of physics and chemistry at Basle. The first was dated May 17 and the second September 12, 1836. Both dealt with experiments on the action of nitric acid on iron and the protective influence of a film of oxide of iron. The most curious thing Schönbein said he had observed was that iron wire could be made indifferent to nitric acid. Previous to this second letter, Faraday had communicated an account of Schönbein's investigations to the *Philosophical Magazine*, and in his letter of September 12 Schönbein wrote: "I feel much obliged to you for the kind manner in which you mentioned my late researches on iron in the *Philosophical Magazine*. It is this kindness which encourages me to address to you a second letter on the same subject".

Worcestershire Natural History Society

UNDER the above heading, the *Analyst*, 5, 160 (1836), records: "The ceremony of opening the museum of this Society took place on the 13th of September; on which occasion upwards of eight hundred persons attended, including a large proportion of the inhabitants of the county and city distinguished for their literary and scientific attainments. The Bishop of Worcester entered the room about twelve o'clock accompanied by the members of the council and at the request of the Hon. and Rev. J. S. Cocks took the chair". His lordship in a short speech congratulated the members of the Society upon the completion of the building and then called upon Dr. Hastings to deliver the inaugural address, "which was listened to with marked attention, and frequently elicited very considerable applause". About a hundred members and friends afterwards dined together, some admirable speeches were made and it was gratifying, said the *Analyst*, "to observe the interest which the prosperity of the Society appeared to excite".

De la Rue on Voltaic Electricity

THE first scientific paper of Warren De la Rue (1815-89) was a communication to the editor of the *Philosophical Magazine* dated September 15, 1836, and entitled "On Voltaic Electricity, and on the Effects of a Battery charged with Sulphate of Copper". "The greatest effect," the author said, "being always produced in those voltaic arrangements where the chemical agent exerted an action on