

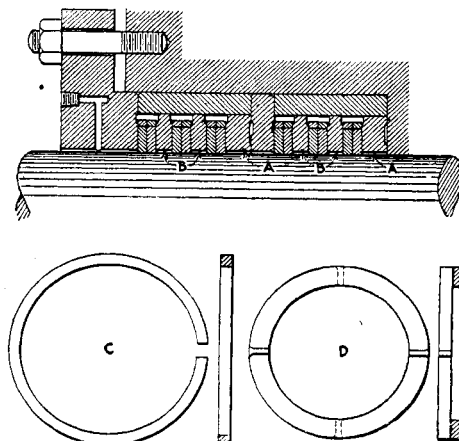
advanced and accordingly the consumption has decreased. Recently two innovations having a technical bearing upon the ceresin industry have appeared. One is a variation in the process of manufacturing potassium ferrocyanide; the other is the introduction of magnesium hydrosilicate as a decolorizing agent. It has been demonstrated at the "Frankonit" works of the Pfrschinger Mineralwerke G. m. b. H., at Kitzingen on Main, and at the "Tonsil" works of the Tonwerke Moosburg, A. & M. Ostenrieder, in München, that the ceresin bleached with silicate is superior to that decolorized with bone-black; this may be accomplished at one-half the cost. Partially refined ceresin is treated only once with concentrated sulfuric acid, and a finished product is obtained by treatment with 3 to 5 per cent of "Tonsil," instead of subjecting ozokerite to two treatments with sulfuric acid, thereby occasioning a loss of 20 per cent.

HORTON GAS-ENGINE PACKING

A new packing for large gas-engines has been designed by James Horton, of the Carnegie Steel Co. It is claimed that excessive friction and wear on the piston rod is eliminated by preventing the closing of the collapsible ring under excessive pressure.

As shown herewith, the packing rings proper *C* and *D* are in contact with the rod. They are placed in grooves, the walls *A* and *B* of which are free to move in line with the rod and thus

bind the packing rings against forcible closing at the time of the highest pressure in the cylinder. In practice it is found that this side clamping of rings does not affect the sealing quality



ROD PACKING FOR GAS ENGINE

of the packing, as contact with the rod is sufficient to prevent the passage of gas, but yet so light that wear cannot be detected on the rod. All rings and corresponding parts of the packing are interchangeable.

SCIENTIFIC SOCIETIES

PROF. DR. PAUL WALDEN, PRESIDENT OF THE NINTH INTERNATIONAL CONGRESS OF APPLIED CHEMISTRY

By GEORGE FREDERICK KUNZ

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At the Eighth International Congress of Applied Chemistry, held in New York, last September, the celebrated chemist Prof. Dr. Paul Walden, of Riga, was selected to serve as president of the Ninth Congress to be held in St. Petersburg in 1915. No more fitting choice could well have been made, for the great and important services rendered by Prof. Walden to the progress of chemical science are universally acknowledged in the scientific world.

Born near Riga in the province Livonia, July 27, 1863, the new president is by birth a Russian, although of German blood. His early education was obtained at the Real-school in Riga, and later at the Riga Polytechnicum. Here he had the privilege of studying under the great Ostwald, then professor of chemistry at this institution, and he was soon recognized to be one of the most apt and brilliant pupils of his master. In 1885, he was appointed assistant in the department of physics, and in 1888 in that of chemistry. The year 1892 saw him privatdocent, and two years later he became professor of analytical and physical chemistry. He is now, and has been since 1896, assistant professor of inorganic and physical chemistry and a director of the Riga Polytechnicum. On Ostwald's resignation of the professorship of chemistry there, Walden became his successor, and he still holds this position. His degree of Doctor of Philosophy was given him at Leipzig in 1891; in 1893 the degree of Master of Chemistry was conferred upon him at Odessa. Then followed the degree of Doctor of Chemistry from the University of St. Petersburg, and that of Doctor of Engineering from the Riga Polytechnicum. He has laboratories both in Riga and in St. Petersburg.

Russia has not failed to honor the attainments of one of her greatest citizens, Walden having received many important Russian decorations. He is commander of the Order of Vladimir as well as of those of St. Anne and of Stanislaus. The Russian Academy of Sciences has elected him one of its

members, and he is also an honorary member of the London Chemical Society. He was the Imperial Russian delegate to the Eighth International Congress of Applied Chemistry.

Prof. Walden's thorough command of a number of spoken languages will greatly facilitate the performance of his duties as presiding officer of the International Congress. Russian, French, German and Livonian he speaks fluently, and he is thoroughly familiar with English and Italian as well. His quiet, dignified manner, coupled with a large share of mental and physical alertness, can also count as an important asset. Some five feet eight inches in height and weighing about 175 pounds, with blue-gray eyes and fine teeth, and wearing his hair brushed high up on his forehead, his appearance is very prepossessing. When addressing an assembly, his words come readily and his forceful, direct delivery brings them home to his hearers. His thought seems to clothe itself spontaneously and naturally in well-chosen and effective words and phrases; there is no touch of ambiguity in his clear-cut sentences and they always convey to his auditors the strictly logical sequence of his ideas and deductions, convincing them that his statements are the outcome of ripe reflection and dictated by sound judgment.

It is for his extended investigations in the field of stereochemistry, and for his more recent epoch-making work on non-aqueous solutions, that Prof. Walden is best known. He began his scientific career, under the inspiration of his great teacher, Ostwald, with a series of investigations directed to the determination of the constitution and molecular weights of salts in aqueous solution by means of electrical conductivity measurements.

After Ostwald left Riga for Leipzig, Walden turned from physical chemistry to organic chemistry. First in collaboration with his teacher and colleague, Bischoff, and later independently, he carried on a long and important series of researches in the field of stereochemistry. Conspicuous among the achievements of Walden during this period may be mentioned his collaboration with Bischoff in the preparation of the well-known "Handbuch der Stereochemie," the discovery of the important phenomenon since known as Walden's inversion, and