ENGINEERING

Nazis Lagged in Rubber

Lack of prewar cooperation between production and tire industries responsible for slowness of progress in Buna rubber development.

➤ THE GERMAN rubber industry, postwar investigations by American scientists reveal, had not progressed relatively as far as the American rubber industry in the use of their Buna type synthetic rubbers, Earl W. Glen of the U. S. Civilian Production Administration told scientists attending a meeting of the Society of Automotive Engineers in Detroit. And this in spite of German pioneering work on synthetic rubber during the prewar years.

This particular session of the SAE is designated as a German Engineering Evaluation meeting, given largely to reports by specialists on technical matters concerning German automotive war equipment and such accessories as tires, fuels and lubricants. An exhibit of German military and automotive vehicles featured the meeting.

The backwardness in the German synthetic rubber program was attributed by Mr. Glen, whose permanent position is with the Goodyear Tire and Rubber Company, to a lack of cooperation between the synthetic production industry and the manufacturing companies using the product. This situation changed rapidly as Germany prepared for war, he said, but the opportunity for close cooperation in the development of better synthetics on a production scale was lost and the industry was obliged to accept existing materials just when it was necessary to go into large-scale production as Germany mobilized for war.

Tire and rubber goods manufacturers were very critical of the Buna rubber they were forced to use. Under pressure from them, I. G. Farbenindustrie developed Buna S-3, he said, which eliminated some of the production difficulties and improved the performance of rubber products, particularly tires. The development of Koresin for compounding with synthetic rubber to improve the tackiness facilitated tire and mechanical goods production.

German equipment for brass-plating metal goods to facilitate bonding synthetics to track blocks and bogie rollers was excellent, Mr. Glen stated. An improved method of bonding these articles was in process of development in the I. G. Farbenindustrie laboratories at Leverkusen "wherein a coating of a new chemical called Desmodur R could be applied more efficiently than brass plating and produced a more uniform and satisfactory bond." Desmodur R was also used as a tire cord dip and general tackifier in the German tire industry.

Luka Reifen and Draftband Reifen were interesting German developments. The first was a tire unit with a cellular solid rubber filler which was claimed to be very successful in operation without air. The Draftband Reifen was a tire without a steel base band, using bead wire embedded in a bevelled hard-rubber base as the surface to mount on a bevelled split rim.

Science News Letter, March 9, 1946

CHEMISTRY

New Elements Described to Young Science Winners

➤ TWO NEW elements that are not yet in chemistry textbooks were described to 40 high school scientists by an atomic scientist who helped discover the elements.

Dr. Glenn T. Seaborg, University of California chemist and co-discoverer of elements No. 95 and 96, even offered the youthful scientists a chance to help write the history of chemistry as he told them suggestions of names for the new elements were still being considered.

The atomic scientist spoke to the 29 boys and 11 girls at a meeting of the Science Talent Institute sponsored by Science Clubs of America, administered by Science Service.

Still unnamed, elements 95 and 96 were produced at the University of California by bombarding the 238 isotope of uranium and 239 plutonium with alpha particles, Dr. Seaborg reported.

He said that the new elements would probably fit in the chemists' charts as members of a new series of elements.

"The elements actinium, 89, thorium, 90, and protactinium, 91, are the first elements in this new rare-earth-like series which corresponds very much to the series of elements that begins with lathanum, which is farther down in the scale of atomic numbers," Dr. Seaborg explained.

Stressing the importance of element 94, plutonium, to chemistry as well as the atomic bomb, the University of California chemist pointed out that it was the first time in which laboratories had produced an element to prove that it existed in nature.

Admitting that the social and political consequences of the atomic bomb had outweighed scientific consideration in the public mind, Dr. Seaborg said that in the future work done in the development of the bomb will assume an important place in chemical history.

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