



AIME's 150th Anniversary

Honoring AIME's Historical Ties to Lehigh University

By Lilly Schroer, Materials Science and Engineering Student, Georgia Institute of Technology; George Luxbacher, 2012 and 2020 AIME President and 2008 SME President; and Michele Lawrie-Munro, AIME Executive Director

AIST's "parent" organization, the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME), will celebrate its 150th anniversary on 2–4 October 2021 at Lehigh University in Bethlehem, Pa., USA, the site of the Institute's second meeting. Both institutions built legacies in parallel and, after 150 years, still influence the engineering world. Historical ties between Lehigh and AIME are the efforts of early influential leaders who were dedicated to advancing the interests of the mining and metallurgical industries.

Three Pennsylvania anthracite engineers, Eckley Coxe, Richard Rothwell and Martin

Coryell, recognized the need for a professional society devoted to mining and metallurgy to preserve and share the collective knowledge and experiences of similar professionals for the benefit of future engineers. They published and circulated a meeting announcement that outlined two major objectives for the proposed "American Institute of Mining Engineers":

- The more economical production of the useful minerals and metals.
- The greater safety and welfare of those employed in these industries.

A faithful Lehigh trustee, Eckley Coxe served the community by

extending his mining knowledge to students through his private library and his family's coal mining business. In 1878, he became AIME president, and, in 1910, the Eckley B. Coxe Mining Laboratory Building at Lehigh was donated by his wife in his memory. The building now stands on campus as Coxe Hall. Richard Rothwell was appointed demonstrator of mining and metallurgy at Lehigh in 1868. He went on to serve as president of AIME in 1882.

AIME's founding meeting took place on 16 May 1871 at the Wyoming Valley Hotel in Wilkes Barre, Pa. Coxe was unable to attend the initial meeting and, so, is not included in the 23 individuals who



Eckley Brinton Coxe

(AIME Past President archives)



Richard P. Rothwell

(AIME Past President archives)

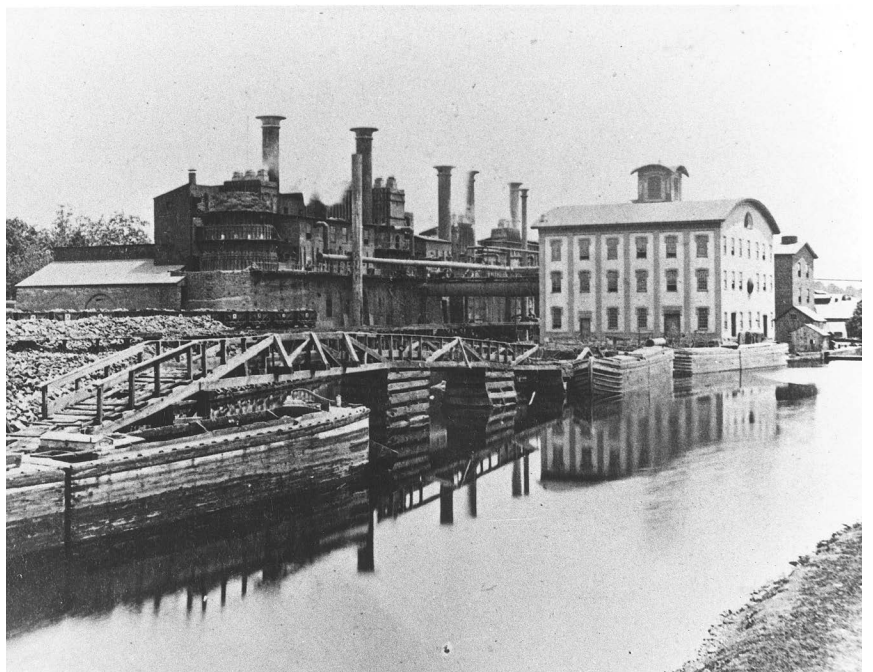
Historical view of the Thomas Iron Works, Hokendauqua, Pa., USA

(The National Canal Museum, Delaware & Lehigh Heritage Corridor, Inc., Easton, Pa., USA)

assembled that day and are considered the founders.*

While the founders are often referred to as “mining engineers,” this term was broadly applied to anyone connected with mining or metallurgy. The group included colliery engineers and managers, copper mine engineers, chemists/metallurgists, educators, mining magazine publishers, furnace

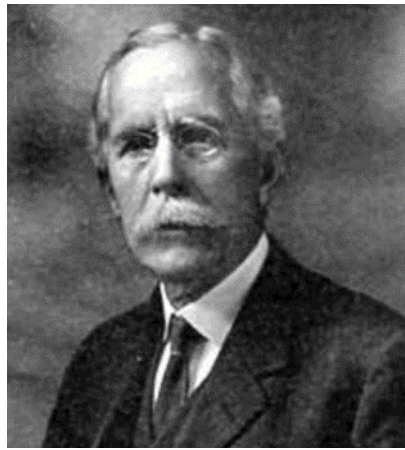
*Note that all references talk about “the 22,” not 23 — AIME president from 1872 to 1874 (and secretary for 27 years), Rossiter Raymond, noted in 1918, shortly before he died, that Martin Coryell was at the organizing meeting and acted as secretary. However, he forgot to include his own name on the list of attendees and, thus, formally joined on Day 2 of the meeting. This oversight has been rectified here.





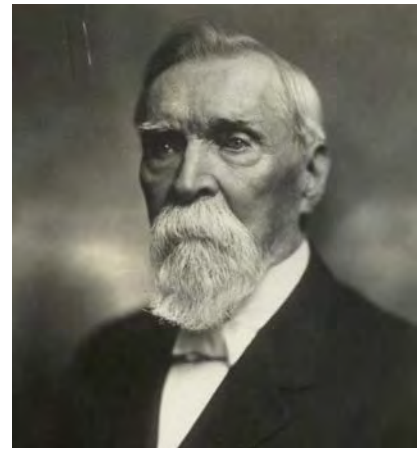
David Thomas

(AIME Past President archives)



Henry Sturgis Drinker

("Semi-Centennial: The Borough of South Bethlehem, Pennsylvania – Souvenir History," issued in connection with the Semi-Centennial Celebration 3–9 October 1915, Bethlehem Area Public Library)



John Fritz

(Encyclopedia of Pennsylvania Biography: Illustrated, Volume 3, 1914, page 706)

operators, and one soon-to-be new graduate from Lehigh the following month, Henry Drinker (more on him later).

Founded while the industrial world in the U.S. was on the rise, Lehigh was one of the few universities offering a mining curriculum. The university's geographical location hosted some of the most prominent events in mining advancement at the time. In 1840, the first commercially successful anthracite iron in the U.S. was produced under the direction of David Thomas for the Lehigh Crane Iron Company of Catsauqua, Pa. This success laid the foundation for the development of the iron and steel industry in the Lehigh Valley. In 1853, the success of the Freidensville zinc mines enabled the first commercial production of zinc metal in the U.S. As mining progress in the region continued, an entrepreneur, Asa Packer, was inspired by these achievements to financially support the founding of Lehigh

University and its School of Metallurgy and Mining in 1866.

When it came time to choose the first president of the fledging Institute, the founders realized that a practical engineer would do much to emphasize the Institute's inclusive nature. Consequently, David Thomas, who had emigrated in 1838 from Wales to erect and operate a blast furnace, was elected the first president in 1871. In 1872, he became the first Honorary Member of the Institute, in recognition of his contributions to the iron industry and AIME (the second and third Honorary Members, Sir Lowthian Bell in 1872 and Peter R. Von Turner in 1873, were also both renowned for their iron and steel careers).

Many other affiliates of Lehigh were associated with AIME's founding. Lehigh's first president, Henry Coppée, foregrounded the relationship between the entities by offering a permanent meeting space to AIME. As such, Coppée

made the welcoming address at the second technical meeting, held in Packer Hall at Lehigh University on 15 August 1871.

Additionally, Henry Sturgis Drinker, as previously noted, was the first Lehigh Engineer of Mines graduate and one of AIME's founders. At the AIME Bethlehem technical meeting, Drinker presented a paper, "The Mines and Works of the Lehigh Zinc Company," which was published in *AIME Transactions*, Vol. 1, in 1874. He later became Lehigh's fifth president, the only alumnus to become president of that university. Another AIME founder and Honorary Member of AIME, Thomas M. Drown, was the fourth Lehigh president. During his tenure, he established metallurgy, chemical engineering, and hydro-metallurgy as separate curricula and geology as a separate degree. In 1897, Drown became AIME president and supported the establishment of the AIME library.



Packer Hall, now
University Center

(Lehigh University in Bethlehem,
Pa., USA)

Another prominent AIME leader whose name marks the campus is John Fritz. Fritz was an original Lehigh trustee. He made an impression through his career with the Bethlehem Iron Company and was one of the first engineers to introduce the Bessemer process into the U.S. Fritz served as AIME president in 1894 and as president of AIME's sister engineering founder society, the American Society of Mechanical Engineers (ASME), from 1895 to 1896. He was also elected Honorary Member of another AIME sister society, the American Society of Civil Engineers (ASCE). Throughout his career, he strived to mentor Lehigh students, and, in 1892, he endowed the Fritz Engineering Laboratory to further the university's engineering curriculum. The Fritz Medal is still conferred throughout the engineering community and is administered by AIME's Member Society, the Society for Mining, Metallurgy, and Exploration (SME).

Today, AIME and Lehigh University continue their traditions of excellence that began in the late 1800s as ideas inspired in the Lehigh Valley. During AIME's 150th celebration in October 2021 (moved from mid-May due to the COVID-19 pandemic), AIME leadership will install a plaque at Lehigh honoring the organizations' historical ties. A gala dinner will be hosted with a toast to the Institute and its achievements, as well as history talks and local industry-related field trips. On AIME's actual anniversary, 16 May 2021, a small group of local leaders will also reveal a supplemental plaque to the 125th anniversary one already installed in the town center of Wilkes-Barre. Finally, AIME's four Member Societies will also celebrate AIME's 150th at their annual conferences, which began last October and will continue through early 2022. Although pivots to the original plans have been made, it has also allowed the groups to extend the

recognition of AIME's long legacy. We hope you are able to join us in some way to help celebrate 150 years of AIME and the Institute's continued commitment to its members, industries, professions and society! ♦



To learn more about AIME's history, visit the redesigned website at www.aimehq.org or follow us on social media and look for our "Did You Know?" historical snippets. Questions should be directed to AIME Executive Director, Michele Lawrie-Munro, at lawriemunro@aimehq.org.