CATALOG OF ARTICLES

IN THE

Exhibit of The Lehigh University,  

AT THE

WORLD'S COLUMBIAN EXPOSITION,

1893.

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SOUTH BETHLEHEM, PA.,
1893
CATALOG OF ARTICLES IN THE EXHIBIT OF
THE LEHIGH UNIVERSITY
AT THE WORLD'S COLUMBIAN EXPOSITION, 1893.

PREPARED BY MANSFIELD MERRIMAN, CHAIRMAN OF THE FACULTY'S COMMITTEE ON EXHIBIT.

PHOTOGRAPHS.

1. Asa Packer, Founder of The Lehigh University.
2. Packer Hall and the Library: South-west view, and two south-east views.
3. Packer Memorial Church, exterior and interior. Gymnasium, exterior and interior.
4. Library: Two interior views, doorway, and rear view.
5. Christmas Hall, Saucon Hall, the University Park, and Athletic Grounds.
6. New Physical Laboratory: Elevation, longitudinal section, and floor plans.
7. New Physical Laboratory: Cross-section and floor plans, front view from architect's sketch, and rear view taken March 20, 1893.
11. The President and Professors, 1893.
12. Chemical and Metallurgical Laboratory: Floor plans.
13. Chemical Laboratory Fixtures.
14. Chemical Laboratory: Sectional plans and chemical museum.
15. Packer Hall: Civil engineering drawing room, civil engineering lecture room and surveying instruments, civil engineering Senior drawing room, and Museum of Geology and Ornithology.
EXHIBIT OF THE LEHIGH UNIVERSITY

17. Chemical and Metallurgical Laboratory: Front view, angle view, rear view, and still for water.
18. Chemical Laboratory: Quantitative and qualitative rooms.
19. Chemical Laboratory: Lecture room, laboratory for organic chemistry, assaying laboratory, laboratory for industrial chemistry.
20. Chemical Laboratory: Gas works, sugar refinery, calico printing machine, alcohol still.

STATISTICS, CHARTS, AND MAPS.

31. List of Alumni of the Lehigh University, 1869–1892.
32. List of officers and students for the collegiate year 1892–93.
33. Comparison of rosters of recitations, 1870 and 1893 (106 recitations per week in 1870, and 356 in 1893).
35. Map of Bethlehem, South Bethlehem, and West Bethlehem, showing location of the University with respect to industrial establishments. Prepared by R. M. Wilcox, Instructor in Civil Engineering.
36. Comparison of Classes, '69 to '96 inclusive, showing the number of Freshmen, Sophomores, Juniors, Seniors, and Graduates in each. Prepared by John S. Siebert, Instructor in Civil Engineering.
37. Map of portions of New York, New Jersey, and Pennsylvania, showing places and objects visited by students in tours of inspection. Prepared by Edward H. Williams, Jr., Professor of Mining Engineering and Geology.
38. Topographical Map of Lehigh University Park, showing dates of erection of buildings. Prepared by John P. Brooks, Instructor in Civil Engineering.
39. Chart showing the growth of numbers of students, 1866 to 1893. Prepared by John S. Siebert, Instructor in Civil Engineering.
40. Programs of Study in the School of General Literature, comprising the Classical Course, Latin Scientific Course, and Course in Science and Letters.
41. Chart showing the numbers of students in the different courses during eleven years, 1882 to 1892. Prepared by John P. Brooks, Instructor in Civil Engineering.

42. Programs of study in the School of Technology, comprising the Courses in Civil Engineering, Mechanical Engineering, Mining Engineering, Physics and Electrical Engineering, Analytical Chemistry, and Architecture.

EXAMINATION QUESTIONS.

45. Scrap Book containing copies of the questions given in the entrance examinations and in the examinations of classes during the year 1892.

46-48. Examination questions of the second term, January to June, 1893, with the best two sets of answers by students in each subject.

PUBLICATIONS OF THE UNIVERSITY.

52. Register of the Lehigh University, 1868–1875. One volume, 8vo.

53. Registers of the Lehigh University, 1876–1887. One vol., 12mo.

54. Registers of The Lehigh University, 1887–1893. One vol., 12mo.


PUBLICATIONS OF THE ALUMNI ASSOCIATION.


BOOKS EDITED AND WRITTEN BY PROFESSORS, INSTRUCTORS, AND ALUMNI.


88. Mansfield Merriman, C. E., Ph. D., Professor of Civil Engineering. The Figure of the Earth, an Introduction of Geodesy. New York, John Wiley & Sons, 1881, 12mo., pp. 88.


ARTICLES AND PAMPHLETS WRITTEN BY PROFESSORS, INSTRUCTORS, AND ALUMNI.


gulating Lamp Socket for Alternating and Continuous Current, 1893.


130. William Griffith. Tabular estimate showing the approximate past and future production of coal in the several districts of the northern Anthracite Coal Basin of Pennsylvania.


AT THE WORLD'S COLUMBIAN EXPOSITION.

EXHIBITS BY EDMUND M. HYDE, PH.D., PROFESSOR OF LATIN.


152. Description of Illustrative Apparatus for the Teaching of Ancient Languages and History.

CLASSICAL COURSE: GRADUATING THESESES OF STUDENTS.


156. The Life, Times, and Writings of Menander. By S. E. Berger, 1889.


159. The Early English Novel. By W. N. R Ashmead, 1892.

MECHANICAL ENGINEERING: GRADUATING THESESES OF STUDENTS.


ELECTRICAL ENGINEERING: GRADUATING THESESES OF STUDENTS.


177. The Opened Magnetic Circuit Transformer; a general discussion, and also a test of a 10-light Transformer. By S. A. Rhodes, 1892.

178. A Test of the Cars of the Savannah Street Railroad Company, with a view to determining the power absorbed by different styles of motors. By M. N. Usina, 1892.

EXHIBITS BY THE STUDENTS.


185. The Epitome, published by the Class of '92. 4to, pp. 274.

187. Students' Hand Book. Number One. Published by the Lehigh University Christian Association. 18mo., pp. 44.

188. Students' Hand Book. Number Two. Published by the Lehigh University Christian Association, 18mo., pp. 48.

189. The Lehigh Burr, published every ten days by students of The Lehigh University. Vol. XI, 1891-1892. 4to.


191. Intercollegiate Championship Lacrosse Banner. Won by Lehigh University Lacrosse Team, 1890.


193. Photograph of the Senior Class, April, 1893.

194. Photograph of Lacrosse Team, 1892.

195. Photograph of Base-Ball Nine, 1892.

196. Photograph of Foot-Ball Team, 1892.
197. Photograph of Musical Organizations starting on a trip, February 17, 1893.
198. Photograph of the Banjo Club, 1893.
199. Photograph of the Orchestra, 1893.

CIVIL ENGINEERING: FRAMED DRAWINGS OF STUDENTS.

209. Results of Test of the Turbine in the Civil Engineering Laboratory. Senior year, second term. By J. B. Glover, May 18, 1888.
212. Plan of Electric Light Station in Bethlehem. Sophomore year, first term (Electrical Course). By J. L. Neufeld, November, 1891.


219. Comparison of the Programmes in the Civil Engineering Course, 1870, 1880, 1890.


229. Queen Post Truss Bridge. Freshman year, second term. By C. L. Olmstead, April, 1890.

235. Skew Arch at Reading, Pa. Junior year, second term. By J. H. Budd, April, 1892.
236. Twenty Freehand Sketches. Freshman year, first term. 1892.
277. Shades and Shadows on a Tuscan Column. Junior year, first term (Architectural Course). By H. Schneider, October, 1892.

CIVIL ENGINEERING: SETS OF DRAWINGS, NOTE BOOKS AND GRADUATING THESSES OF STUDENTS.

247. Bound Set of Twenty-Seven Plates in Freehand Drawings. Freshman year, first term. By J. A. McClurg, 1887.
252. Set of Twenty-three Plates in Descriptive Geometry and Projection Drawing. Freshman year, second term.
   By T. W. Wilson, 1891.
   By C. L. Olmstead. 1890.
258. Transit and Level Book. Sophomore and Junior years.
   A. Cardenas, 1887–89.
259. Transit and Level Book. Sophomore and Junior years.
   By G. Nauman, 1887–89.
260. Transit and Level Book. Sophomore and Junior years.
   By W. C. Perkins. 1887–89.
272. Field Notes of Topographic and Railroad Surveying. Sophomore and Junior Years. By T. C. J. Baily, Jr., 1887–89.


275. Twelve Cement Briquettes made and Tested by Junior Civil Engineers. Junior year, first term. 1891–92.


281. Lectures on Bridges, by Mansfield Merriman, Professor of Civil Engineering. Senior year, first term. Notes taken by F. E. Bray, 1892.


299. Statement of Drawing done by Students in the various Class, Field, and Office Exercise of the Department of Civil Engineering.

CHEMISTRY: DYES AND CHEMICALS MADE BY STUDENTS.

302. Four Specimens of Calico Prints. By Senior Chemists, 1892.
303. Eighteen Specimens of Dyed Woolens. By Senior Chemists, 1892.
304. Sixteen Specimens of Dyed Cotton. By Senior Chemists, 1892.
305. Twelve Specimens of Dyed Leathers. By Senior Chemists, 1892.
308. Thirty-nine Specimens of Dyed Silk. By Senior Chemists, 1892.
309. Twenty-six Specimens of Dyed Woolen Yarns. By Senior Chemists, 1892.

CHEMISTRY: PHOTOGRAPHS, NOTE BOOKS, AND GRADUATING THESSES OF STUDENTS.

311. Album of Photographs. By Senior Chemists.


417. Line Shading. Freshman year, second term. By H. Eckfeldt, April, 1892.


442. Design of Hot Blast Stove. Senior Class, second term. By H. Orth, April, 1893.

445. Description of Metallurgical Drawings.

METALLURGY: NOTE-BOOKS, REPORTS, AND GRADUATING THESESES OF STUDENTS.

432. Shop Visits and Reports. Sophomore Class, first term. By the Class, December, 1891.

433. Shop Visits and Reports. Sophomore Class, first term. By H. Eckfeldt, December, 1892.

434. Shop Visits and Reports. Sophomore Class, first term. By F. S. Young, December, 1892.


EXHIBIT OF THE LEHIGH UNIVERSITY


MINING: GRADUATING THESES OF STUDENTS.

481. The Eighth Street Cable Railway Tunnel at Kansas City, Mo. By R. S. Breinig, 1886.


483. Method of Mining the Mammoth Bed at Lost Creek, Pa. By S. Warriner, 1890.

A Proposed Scheme for Clarifying Waste Water. By Morgan Davis, 1892.

Design for an Iron Head Frame. By H. Orth, Jr., 1892.

Register.

Registry Book in which all officers, alumni, and students, now or formerly connected with the University, are requested to record their names and addresses.

Bibliography.

A List of Publications by professors, instructors, and students now or formerly connected with The Lehigh University. Prepared by B. W. Frazier, Secretary of the Faculty's Committee on Exhibit.

Location and Arrangement of the Exhibit.

The exhibit of The Lehigh University at the World's Columbian Exposition is located in the south-west gallery of the main building devoted to Manufactures and Liberal Arts. It is in the section assigned to the educational exhibits of Pennsylvania, and on the south side of the main aisle which traverses the gallery from east to west. Its official number is 9951.

The space assigned to the exhibit is a floor area of 19 feet by 19 feet. Around this are three side walls ten feet in height, the north side, which adjoins the aisle, being left open. A spur partition, eight feet high and eight feet long is built out from the middle of the south wall. The wall space of the exhibit aggregates about 620 square feet.

A show case eight feet long and three feet high, with glass top and sides, is placed near the front of the space and parallel with the aisle.

On the eastern part of the south wall are hung the photographs Nos. 1-10 and Nos. 193-196, and on the western part photographs Nos. 11-20 and Nos. 197-200.

The east wall is covered with framed drawings of the department of Civil Engineering Nos. 201-236, and the index, or statement of drawings done by students, No. 299.
The west wall is covered with framed drawings of the department of Metallurgy Nos. 401-431, 435, 436, 438, 439, 442, and the index or explanation No. 445.

The spur partition contains the frames of maps, charts and statistics Nos. 31-42, No. 152, also eight drawings by students in Civil Engineering and Architecture No. 238-244, 276, 277. The registry book No. 501 and a small bulletin board are on the western side of this partition.

The top of the show case contains the exhibits of the department of Chemistry No. 301-326. On shelves on the sides of the case are placed the books and pamphlets Nos. 45-48, Nos. 52-151, Nos. 181-190, and the students note books, sets of drawings and theses Nos. 154-178, Nos. 247-292, Nos. 432-486, and also the banner No. 191.

It should be said that Nos. 52-132 embrace only a part of the publications of professors, instructors, and alumni. A more complete list of such publications is contained in No. 502.

The students' work which is shown has been made in the regular courses of instruction, not a single piece having been specially prepared for this exhibit.