

Tenth Annual
Catalogue



hroop Polytechnic
Institute...



Pasadena, California

1901-1902

Calendar

1901-1902

Quarterly Meeting Board of Trustees.....Tuesday, September 10, 1901
Registration.....Monday and Tuesday, September 23, 24, 1901
Fall Term begins.....Wednesday, September 25, 1901
Thanksgiving Vacation.....Thursday and Friday, November 28, 29, 1901
Quarterly Meeting Board of Trustees.....Tuesday, December 10, 1901
Founder's Day.....Thursday, December 12, 1901
Fall Term ends.....Friday, December 20, 1901

Christmas Vacation

Winter Term begins.....Monday, January 6, 1902
End of the first half-year.....Friday, February 14, 1902
Quarterly Meeting Board of Trustees.....Tuesday, March 11, 1902
W. A. Edwards Prize Debate.....Thursday evening, March 27, 1902
Winter Term ends.....Friday, March 28, 1902

Spring Vacation

Spring Term begins.....Monday, April 7, 1902
Memorial Day.....Friday, May 30, 1902
Baccalaureate Sunday.....June 8, 1902
Geo. H. Coffin Prize Contest.....Monday evening, June 9, 1902
Graduating Exercises, Grammar School.....Tuesday morning, June 10, 1902
Alumni Reunion.....Tuesday evening, June 10, 1902
Commencement.....Thursday evening, June 12, 1902
Exhibition Day and End of Term.....Friday, June 13, 1902
Annual Meeting Board of Trustees.....Tuesday, June 17, 1902

TENTH ANNUAL CATALOGUE
OF
THROOP
POLYTECHNIC INSTITUTE
AND
MANUAL TRAINING SCHOOL

PASADENA, CALIFORNIA

1901 ❁ 1902



JUNE, 1901

PUBLISHED BY THE INSTITUTE

Founder

HON. AMOS G. THROOP

Born at De Ruyter, New York, July 22, 1811. Died at Pasadena, Cal., March 22, 1894.

Board of Trustees

JOHN W. HUGUS.....	Pasadena.....	Term expires	1901
WILLIAM STANTON.....	"	"	1901
HIRAM W. WADSWORTH, A. B.....	"	"	1901
EVERETT L. CONGER, D. D.....	"	"	1902
MRS. LOUISE T. W. CONGER.....	"	"	1902
CYRUS M. DAVIS.....	"	"	1902
CHARLES D. DAGGETT.....	"	"	1903
H. M. HAMILTON.....	"	"	1903
A. R. METCALFE.....	"	"	1903
PERRY M. GREEN.....	"	"	1904
NORMAN BRIDGE, M. D.....	"	"	1904
JOHN WADSWORTH.....	"	"	1904
E. E. SPALDING, A. M.....	"	"	1905
MRS. CLARA B. BAKER BURDETTE...	"	"	1905
JAMES H. MCBRIDE, M. D.....	"	"	1905

Officers of the Board

NORMAN BRIDGE, President C. D. DAGGETT, Vice-President

P. M. GREEN, Treasurer C. M. DAVIS, Auditor

THEODORE COLEMAN, Sec'y and Business Agent

Residence, 472 Benefit Court

Executive Committee of the Board

NORMAN BRIDGE, *ex-officio* JOHN WADSWORTH C. D. DAGGETT

P. M. GREEN H. W. WADSWORTH

Officers of Instruction and Government

1900-1901

WALTER A. EDWARDS, President

Professor of Ancient Languages

A. B. and A. M., Knox College, Galesburg, Ill.; Instructor in Latin and Greek, High School, Peoria, Ill., 1883-6; student, Universities of Berlin and Tübingen, 1886-9; Principal High School, Decatur, Ill., 1889-90; Principal High School, Rockford, Ill., 1891-5; Instructor, Latin and Greek, High School, Pasadena, Cal., 1895-6; Instructor Ancient Languages, Throop Polytechnic Institute, 1896-9; Professor of Ancient Languages, 1899-; President, 1897.

356 W. California St.

HERBERT B. PERKINS

John Wadsworth Professor of Mathematics and Instructor in Mechanical Drawing.

S. B., Massachusetts Institute of Technology, 1874; Professor of Mathematics and Astronomy, Lawrence University, 1878-80 and 1882-6; student, University and Polytechnikum, Munich, Germany, and University of Geneva, Switzerland, 1880-2; student, University of California, 1886-8; Professor of Modern Languages, University of Southern California, 1890-2; Instructor in Mechanical Drawing and Higher Mathematics, Throop Polytechnic Institute, 1892-9; Professor of Mathematics, 1899-

186½ E. Colorado St.

WALLACE K. GAYLORD

Professor of Chemistry; Registrar

S. B., Massachusetts Institute of Technology, 1893; Instructor in Chemistry and Mathematics, Throop Polytechnic Institute, 1893-9; Professor of Chemistry, 1899-; Member American Chemical Society.

304 Cypress Ave.

LUCIEN H. GILMORE

Professor of Physics and Electrical Engineering

A. B., Leland Stanford Jr. University, 1894; Acting Assistant, Department of Physics, Stanford University, 1894-5; Instructor in Physics and Electrical Engineering, Throop Polytechnic Institute, 1895-9; graduate student, University of Chicago, 1898-9; Professor of Physics and Electrical Engineering, Throop Polytechnic Institute, 1899-

33 N. Euclid Ave.

ARTHUR H. CHAMBERLAIN

Professor of Pedagogy and Principal of Normal Department

Graduated Cook County Normal School, 1892; Teacher in the Public Schools of Cook County, Ill., 1892-4; Principal W. Harvey Public Schools, 1893-4; graduated, Normal Department, Throop Polytechnic Institute, 1896; Instructor Pedagogy and Sloyd, Throop Polytechnic Institute, 1896-9; diplomas Deutsche Lehrerbildungsanstalt für Knabenhandarbeit, Leipzig, Germany, and Slöjdlärareseminarium, Nääs, Sweden, 1899; Professor of Pedagogy and Director of Sloyd Normal, 1899-1901; Principal of Normal Department, 1901-; Member Deutscher Verein für Knabenhandarbeit; Member National Association of Manual Training Teachers, Great Britain; Member Sloyd Association of Great Britain and Ireland.

337 N. Los Robles Ave.

MRS. JENNIE COLEMAN

Professor of English and History; Librarian

Instructor in Latin and English, High School, Rochester, N. Y., 1867-8; Principal Grammar School, Lakeport, Cal., 1884-6; Member County Board Education, Lake Co., Cal., 1883-7; Vice-Principal High School, Pasadena, Cal., 1888-96; Instructor in English and History, Throop Polytechnic Institute, 1896-9; Professor of English and History, 1899-; Holder of California High School Life Diploma.

472 Benefit Court.

EDWARD W. CLAYPOLE

Professor of Geology and Biology; Curator of the Museum.

B. A. and D. Sc., University of London; Professor of Natural Science at Antioch College, Ohio, 1873-81; Paleontologist to the Second Geological Survey of Pennsylvania and Author of Report F2; Professor of Natural Science at Buchtel College, Akron, Ohio, 1883-98; Instructor in Geology and Biology, Throop Polytechnic Institute, 1898-9; Professor of Geology and Biology, 1899-; Fellow of the Geological Societies of London, Edinburgh, and America.

125 N. Marengo Ave.

BONNIE BUNNELLE

Principal of Grammar School

Student in P. W. Search Normal Training School, Sidney, Ohio, 1888-91; student in Pueblo Industrial School, Pueblo, Colo., 1892-4; Instructor Public School, Pueblo, Colo., 1891-4; Principal Grammar School, Throop Polytechnic Institute, 1894-

310 E. Green St.

JESSE G. CROSS

Principal of Commercial Department

A. M., McKendree College, Lebanon, Ill., Instructor in Jennings Seminary, and Aurora Commercial College, 1866-72; founder of the Northwestern Business College, Northwestern College, Naperville, Ill., 1872-76; Instructor Union College of Law, Chicago, Ill., 1876-7; Dean, College of Commerce, Illinois Wesleyan University, Bloomington, Ill., 1878-83; President Central College of Eclectic Shorthand, Chicago, Ill., 1883-95; Principal of Commercial Department, Throop Polytechnic Institute, 1900-; author of Eclectic Shorthand; Member of the International Association of Shorthand Writers; Honorary Member of the New York Stenographers Association.

Monrovia.

FRANK H. BALL

Director of Manual Training and Instructor in Forging

Instructor in Foundry Practice, Worcester Polytechnic Institute, 1889-91; student and Instructor in Foundry Practice, Cambridge (Mass.) Manual Training School, 1890-91; Instructor in Woodwork and Mechanical Drawing, Teacher's College, New York, 1891-3; Superintendent of Manual Training, Tougaloo University, Tougaloo, Miss., 1893-7; Instructor in Manual Training, Elementary School, University of Chicago, 1897-1900; Director of Manual Training and Instructor in Forging, Throop Polytechnic Institute, 1900-

575 Summit Ave.

*FRANCES F. STERRETT

Director of Art

Portrait Artist, Springfield, Ohio, 1886-91; student, Chicago Art Institute, 1891-2; graduated Normal Art Department, Pratt Institute, Brooklyn, N. Y., 1894; pupil of M. Injalbert, Sculptor, Académie Colarossi, Paris, France, 1900; Instructor in Free-hand Drawing, Painting and Clay Modeling, Throop Polytechnic Institute, 1894-1901; Director of Art, 1901-

221 N. Raymond Ave.

MRS. GRACE E. DUTTON

Director of Domestic Economy

Graduated Pennsylvania State Normal School, 1885; Instructor in Public Schools of Twin Oaks, Pa., 1885-8; graduated Mrs. S. T. Rorer's Philadelphia School of Domestic Science, 1897; Instructor Domestic Science, Throop Polytechnic Institute, 1897-1901; Director of Domestic Economy, 1901-

327 W. California St.

**ROBERT E. FORD

Instructor in Machine Shop Practice and Pattern Making

B. E. E., Engineering College, University of Minnesota; with D. & D. Electric Manufacturing Co., Minneapolis, Minn., 1895; Consulting Steam and Electrical Engineer, Minneapolis, Minn., 1896-7; graduate student, University of Minnesota, 1900; Instructor Machine Shop Practice and Pattern-making, Throop Polytechnic Institute, 1897-

44 S. Madison Ave.

*In Europe on leave of absence, Fall Term, 1900.

**At University of Minnesota on leave of absence, Fall Term, 1900.

PEARL B. FISHER

Instructor in French and Assistant in Free-Hand Drawing

Student, Mary Institute, St. Louis, Mo.; student in Paris, France, and in Lacaze Institute, Lausanne, Switzerland; graduated Normal Department, Throop Polytechnic Institute, 1897; Instructor in French and Assistant in Free-hand Drawing, Throop Polytechnic Institute, 1899-

350 N. Raymond Ave.

GEORGE W. BRADEN

Instructor in Gymnastics

Student, High School, Cedar Rapids, Iowa, 1893-6; student of Physical Culture and Heavy Gymnastics, Y. M. C. A. Gymnasium, Cedar Rapids, Iowa, 1892-6; Instructor, Throop Polytechnic Institute, and Y. M. C. A. Physical Departments, 1899-; Member of American Physical Directors.

Cor. Belvidere and Moline.

HARRY D. GAYLORD

Instructor in Wood Carving

Graduated Pasadena High School, 1893; student in Art, Throop Polytechnic Institute, 1894-6; Teacher Private Classes in Carving, 1896-9; Instructor in Wood Carving, Throop Polytechnic Institute, 1899-

304 Grove St.

MRS. L. V. SWEESY

Instructor in Music

Studied for five years with Manuel Kierollf, of Berlin, and later at Chicago Music College; Supervisor of Music, Pasadena Public Schools, 1898-; Instructor in Music, Throop Polytechnic Institute, 1899-

309 Henrietta Court.

WALTER W. MARTIN

Instructor in Wood Working

Graduated Rockford High School, Rockford, Ill., 1898; graduated Normal Department, Throop Polytechnic Institute, 1900; Assistant in Wood-working, Throop Polytechnic Institute, 1899-1900; Instructor in Wood Working, 1900-

66 N. Euclid Ave.

CLARA J. STILLMAN

Instructor in Grammar School Subjects

Graduate of Terry Kindergarten Institute, Bridgeport, Conn., 1878; student Henniker, N. H., Academy, 1878-9; Inspector and Instructor, Public Schools, Arizona, 1881-84; Instructor, Public School, Coronado, California, 1895-9; Assistant, Grammar School, Throop Polytechnic Institute, 1899-1900; Instructor in Grammar School Subjects, 1900-

310 E. Green St.

PAUL BOEHNCKE

Instructor in German, Spanish and Latin

Student Friedrich Wilhelm Gymnasium, Stettin, Germany, 1878-80; student Omaha High School, 1885-8; student University of Southern California, 1889-90; Architectural Draughtsman and Superintendent of Construction, 1893-7; student Boynton Normal, Los Angeles, 1898; Teacher, Public School, Elizabeth Lake, California, 1898-1900; Instructor in German, Spanish and Latin, Throop Polytechnic Institute, 1900-

Cor. Franklin Ave. and East St.

IDA I. JONES

Instructor in Grammar School Subjects

Graduated High School, Plymouth, Wis., 1892; graduated Milwaukee State Normal School, 1895; Instructor in Science, Plymouth High School, 1895-9; Instructor in Grammar School Subjects, Throop Polytechnic Institute, 1900-

307 N. Los Robles Ave.

CLARA SOUTHWICK

Instructor in Grammar School Subjects

Graduated High School, Chicago, 1893; Instructor Public Schools, Chicago, 1893-8; graduated Normal Department, Throop Polytechnic Institute, 1899; Instructor in Grammar School Subjects, Throop Polytechnic Institute, 1900-

342 S. Euclid Ave.

ENOS J. NORRISH

Instructor in Mathematics

Graduate and Medallist Collegiate Institute, St. Catherine's, Ontario, Canada, 1883; graduated Ottawa Normal School, 1884; Principal Rockwood Public Schools, 1885-86; Teacher High School, Brockville, Ontario, 1887; Teacher St. Catherine's Collegiate Institute, 1888-94; Teacher Santa Ana Grammar and High Schools, 1895-1900; Instructor in Mathematics, Throop Polytechnic Institute, 1900-; Holder Life High School Diploma, Ontario, Canada.

284 Cypress Ave.

*ROGER J. STERRETT

Instructor in Free Hand Drawing, Painting and Clay Modeling

Graduated Academy, Throop Polytechnic Institute, 1898; student Stanford University, 1898-

*LESLIE HEALD

Instructor in Pattern Making

Student Throop Polytechnic Institute, 1895-7; student and journeyman pattern-maker and machinist, Throop Polytechnic Institute, 1897-1900.

**_____

Instructor in Elocution and English

***IDA M. MELLISH

Assistant in Sloyd

Graduated Pasadena High School, 1892; graduated Normal Department, Throop Polytechnic Institute, 1897; student in Art, Stanford University, 1898-9; Assistant in Sloyd, Throop Polytechnic Institute, 1900-1.

ALICE DUTTON

Assistant in Domestic Economy

Graduated Mrs. S. T. Rorer's School of Domestic Science, 1897; Teacher of Domestic Science, Stimson Industrial School, Los Angeles, 1897-8; Assistant in Domestic Economy, Throop Polytechnic Institute, 1900-

327 W. California St.

NELLIE MOORE

Assistant in Sloyd

Graduated Citrus Union High School, 1898; student Pomona College, 1898-9; graduated Normal Department, Throop Polytechnic Institute, 1900; Assistant in Sloyd, Throop Polytechnic Institute, 1900-

Glendora.

MRS. EMILY C. WEBBER

Assistant in English

B. L., University of California, 1889; M. L., 1892; Teacher English and Latin, San Rafael High School, 1890-2; Teacher of English, Los Angeles High School, 1892-1900; Assistant in English, Throop Polytechnic Institute, 1900-

2500 Vermont Ave., Los Angeles.

*During the Fall Term, 1900.

**Position to be filled for School Year, 1901-2.

***Resigned Feb. 14, 1901.

AGNES M. CLAYPOLE

Assistant in Biology

B. S., Cornell, 1894; Ph. D., University of Chicago, 1896; Instructor in Zoology, Wellesley College, 1896-8; Assistant in Histology, Cornell University, 1898-1900; Assistant in Biology, Throop Polytechnic Institute, 1900-

125 N. Marengo Ave.

PAUL V. JONES

Assistant in Mathematics

A. B., Northwestern University, 1899; Principal Public School, Stillman Valley, Ill., 1899-1900; Assistant in Mathematics, Throop Polytechnic Institute, 1900-

831 N. Orange Grove Ave.

JAMES M. GAYLORD

Assistant in Mechanical Drawing

Graduated Academy, Throop Polytechnic Institute, 1898; student Throop Polytechnic Institute, 1898- ; Assistant in Mechanical Drawing, 1900-

146 Terrace Drive.

*SALLIE PEABODY

Assistant in Sloyd

Graduated Normal Department, Throop Polytechnic Institute, 1900.

*LEONARD DAVIDSON

Assistant in Forging

Graduated Academy, Throop Polytechnic Institute, 1899; graduated Normal Department, 1900.

285 W. California St.

**LAURA A. LOUTHIAN

Assistant in Commercial Department

Student in Art, Normal Department, Throop Polytechnic Institute, 1901-

109 E. Walnut St.

*Appointed Feb. 18, 1901.

**During Spring Term, 1901.

Faculty Council

W. A. EDWARDS, Chairman

BONNIE BUNNELLE
A. H. CHAMBERLAIN
E. W. CLAYPOLE

MRS. JENNIE COLEMAN
W. K. GAYLORD
L. H. GILMORE

General Information

Historical

Throop Polytechnic Institute was founded by Hon. Amos G. Throop in 1891, and during the remainder of his life received his consecrated energy and hearty support, and at his death the greater part of the remaining accumulations of his life were bequeathed for its maintenance. Articles of incorporation were filed September 23d; the first Board of Trustees was organized October 2d. The doors of the Institute were opened to students November 2d. It was established to furnish to students of both sexes and of all religious opinions, a liberal and practical education, which, while thoroughly Christian, should be absolutely non-sectarian in character. A clause of the charter provides that a majority of the Board of Trustees "shall not belong to any one religious denomination or sect, and the institution shall be maintained and administered as an undenominational and non-sectarian school."

Polytechnic Hall, containing shops and laboratories, was built in 1892; East Hall, containing offices, recitation rooms, laboratories, etc., was built in 1893. In 1900 a commercial department was added in response to a large demand, and in order to accommodate this department and to relieve the crowded condition of other departments, it became necessary to add another wing to East Hall. This wing, 41 by 88 feet, and three stories high, was erected at a cost of about \$18,000.

Location

Pasadena is generally acknowledged to be one of the most beautiful residence cities in California. It is situated within ten miles of the city of Los Angeles, at the head of the San Gabriel valley and at the base of the picturesque San Gabriel mountains. In beauty and healthfulness, in the culture of its homes, and in its high social and moral tone, Pasadena has no superior on the Pacific Coast. It is reached by the Santa Fe, Los Angeles Terminal, Southern Pacific, and Los Angeles and Pasadena Electric railways. The last named passes in front of each of the halls. Students living along these lines are enabled to make the daily trips to and from the Institute in seasonable hours and at reasonable rates.

Departments

The Institute comprises five departments; the Grammar School, the Manual Training Academy, the Commercial Department, the Normal Department and the College.

Libraries

The books belonging to the Institute are located with reference to convenience to students, special libraries being placed in

the various department rooms. A general assortment is found in the main library room, in the East Hall. The library also receives regularly several periodicals, selected with special reference to the work of students.

The Pasadena Public Library, to which students have access, is situated near the Institute.

Accrediting

The Institute is included in the list of schools accredited by the State University. The Leland Stanford Jr. University and Vassar College also accept the certificates of the Institute and similar privileges are accorded to its graduates in other institutions.

Admission

Applicants for admission to any department of the Institute will be required to furnish satisfactory evidence of good moral character and of honorable dismissal from the schools with which they were last connected. They are also urged to bring such statements from previous teachers concerning studies completed in other schools as will be helpful in determining their classification.

Hours

The daily exercises begin at 9 o'clock in the morning and continue until 4:10 in the afternoon, with an intermission from 12:10 to 1:15. Chapel exercises occupy the time from 9 to 9:15, and all students are expected to attend regularly.

Reports

Reports of the progress of each student are sent to parents every four weeks, and oftener if the work is unsatisfactory.

Discipline

It is taken for granted that students enter the Institute with serious purposes and that they will cheerfully conform to such regulations as may be made by the Faculty. The moral tone of the school is exceptionally good, and cases requiring severe discipline seldom occur. Any conduct harmful to the moral standing of the school will, after due admonition, render a student liable to dismissal. Parents may at any time be asked to withdraw students from the Institute whose work is unsatisfactory by reason of lack of diligence.

Athletics

Encouragement is given to athletics, and the athletic organizations are under the immediate care of a joint committee of students and Faculty. Membership in these organizations is subject to forfeiture for failure in any regular line of school work.

Societies

Two literary societies, the Gnome Club and the Debating Club, are maintained by the students of the Institute with the co-operation

of the Faculty, and are doing good work; they afford an opportunity for training in debating, essay writing, declamation, extempore speaking, parliamentary practice, etc.

A Camera Club and a Mandolin and Guitar Club find also a hearty support among the students of the Institute.

The POLYTECHNIC, a monthly paper devoted to the interests of the school, is maintained by the students.

Exhibition Day

The last day of the spring term, including evening, is devoted to an exhibition of the work of the year in the different departments. Articles made in the shops and studios remain in the charge of the various instructors until the close of Exhibition Day, when they may be claimed by their respective owners.

Scholarships

Through the generosity of some of the citizens of Pasadena a number of free scholarships have been founded for the benefit of worthy and needy students. The trustees have, in addition to those who are now enjoying these scholarships, a list of worthy applicants, and any person desirous of extending the influence of the school in this way may obtain full information from the Secretary.

Prizes

A prize of ten dollars, offered by the President of the Institute, is awarded each year to the winner in a public debate at the end of the winter term, the contestants being chosen by the various literary clubs from among their own members.

A first prize of ten dollars and a second prize of five dollars, offered by Mr. Geo. H. Coffin, are awarded each year to the first and the second best in a contest in declamation, held in commencement week, the contestants being selected from the students in the Academy.

Finances

Tuition

The tuition fee, the same in all departments, is \$75 a year, payable in advance at the beginning of each term, as follows:

First term	\$30
Second term	30
Third term	15

Students in attendance only one or two terms pay at the rate of \$30 a term. Those taking but one period of study per day pay \$12.50 per term; those taking two periods per day are charged \$25 per term.

Fees

Fees are required in the following work, payable at the beginning of each term:

Biology	\$1 00
Chemistry	5 00
Clay Modeling	1 25
Cooking, Academy	6 00
Cooking, Grammar School.....	3 50
Cooking, Normal	6 00
Electrical Engineering	1 25
Forging	4 00
Free-hand Drawing and Painting, either or both.....	50
Geology	1 00
Pattern and Machine Shop.....	2 50
Physics	1 00
Sewing and Dressmaking, either or both.....	50
Sloyd, Grammar Grades.....	1 50
Sloyd, Normal	3 00
Typewriter, Use of	5 00
Wood Shop.....	1 50
Wood Carving (1st year, 1st term).....	50

In wood carving, drawing, painting, sewing and dressmaking, students will furnish their own materials, and in all other work where extra large or unusually costly articles are desired, the material for the same will be paid for by the student.

Breakage and any damage done to buildings, books, furniture, equipment, etc., or any tools lost will be charged to the student responsible for the same.

Term bills are payable strictly in advance, and students must submit the Secretary's receipt for the same to each instructor, whose classes he may seek to enter.

Diploma Fees

College	\$5 00
Normal Department	1 25
Commercial Department	1 25
Academy	1 25

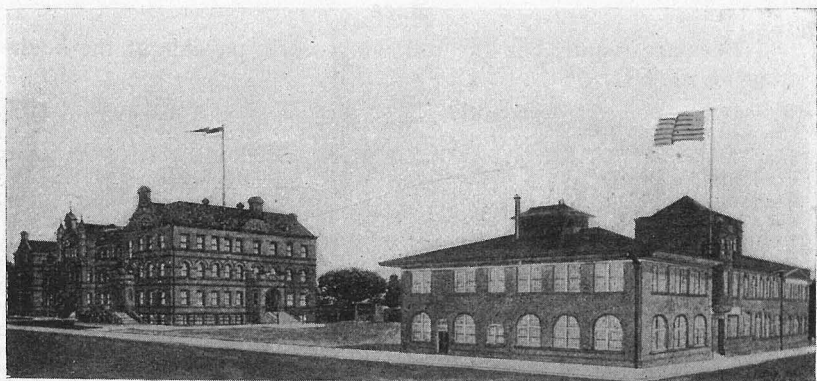
Board

Good board can be obtained at from \$4.50 to \$6 per week. Any change in boarding place must be immediately reported at the office.

At the request of parents the Institute will assume responsibility for the care and oversight of students who board in homes approved by the officers of the Institute.

Text-Books

The text-books used in the classes of the Institute may be purchased at the Institute book store on the second floor of East Hall.



PERSPECTIVE DRAWING OF THE INSTITUTE BY A STUDENT

Buildings

Polytechnic Hall

Polytechnic Hall is a two-story brick building with a frontage of 148 feet on Fair Oaks Avenue and 80 feet on Chestnut Street. It contains the rooms described below:

Wood Shop

The wood shop, located on the second floor, is provided with twenty benches and turning lathes. The shop is also supplied with a large hand saw, a fine jig-saw, a sand-papering machine for polishing surfaces, and a three-arbor circular saw built by the students in the several shops. Each bench has also a set of tools for general use.

Each student is provided with a locker, in which are kept the individual tools used in joinery and turning.

Pattern Shop

The pattern shop adjoins the wood shop, and has an equipment of lathes, etc., needed in making large and small patterns.

An addition to the pattern-shop facilities this year consists of a medium-size brass furnace and an increased number of molding benches, enabling students to test their patterns by casting in brass or softer metals.

Forging Shop

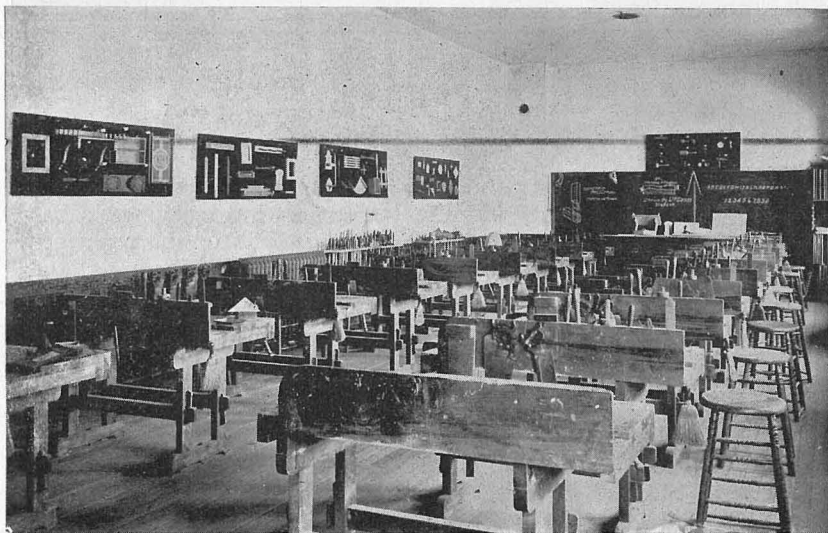
The forging shop, situated on the first floor, is equipped for twenty-three pupils. The furnishings consist of five sets of Buffalo quadruple forges and three single forges, double emery grinders

and drills, all operated by power. The anvils are furnished with all necessary tools for individual use; and in addition there are sets of special tools for general use and for vise work.

Machine Shop

The machine shop is situated in a large room on the first floor and is finely equipped for elementary and advanced machine practice. It is fitted with the following machines of the latest style: planer, shaper, drills, milling machine, emery grinder and a large number of lathes of various sizes. The tool room has a large assortment of general tools.

The power to run the different shops is furnished by a twenty horse-power motor, located in this department.



Sloyd Room, Grammar Grades

The grammar grade pupils have a commodious room, fitted with eighteen benches and the necessary hand tools for woodwork.

Sloyd Room, Normal Department

The room used for normal sloyd and manual training work is fitted with all necessary tools and equipment. Models, exercises and drawings of English, Swedish and German courses, and of American schools as well, are supplied for comparative study.

The library of the department includes the best works on psychology, education and manual training subjects.



Sewing Room

The sewing and garment-making room is located on the first floor. It is equipped with large tables, six sewing machines, a gas iron-heater and pressing-boards. Along two sides of the room are high, narrow tables containing large, deep drawers for the individual use of students in this department. One portion of the room, cut off by curtains, is used as a retiring room for fitting purposes.



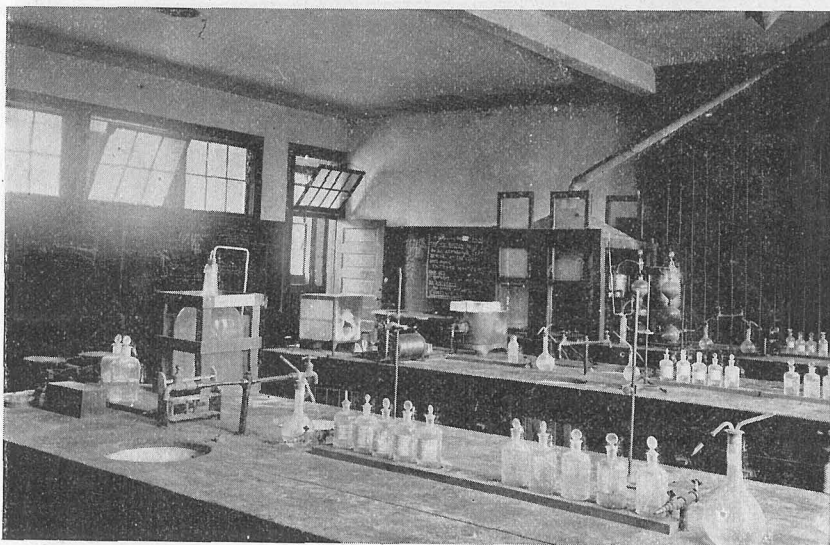
Cooking Room

The cooking room is located on the second floor and is supplied with tables upon which are gas stoves. Each table is provided with

drawers for the caps, aprons, sleeve-protectors, notebooks, etc., of the two students assigned to work at that table. Other drawers contain cooking utensils, mixing and measuring-dishes, stirring-spoons, kitchen knives and forks, etc., while in cupboards beneath is a full assortment of stove and kitchen furnishings. At either end of the table towels, etc., are hung. A large dust-proof cupboard, containing meal and flour bins, dish closets, etc., a large water-heater, a gas range, a large refrigerator, and cupboards for furnishings are also provided.

Mechanical and Architectural Drawing Room

This is an east room, situated on the second floor, and is well lighted. It is furnished with tables, which have lockers for each student. The room is also provided with models and casts illustrating the five orders of architecture. A number of valuable imported models for work on machine design are in use.



LABORATORY OF GENERAL CHEMISTRY

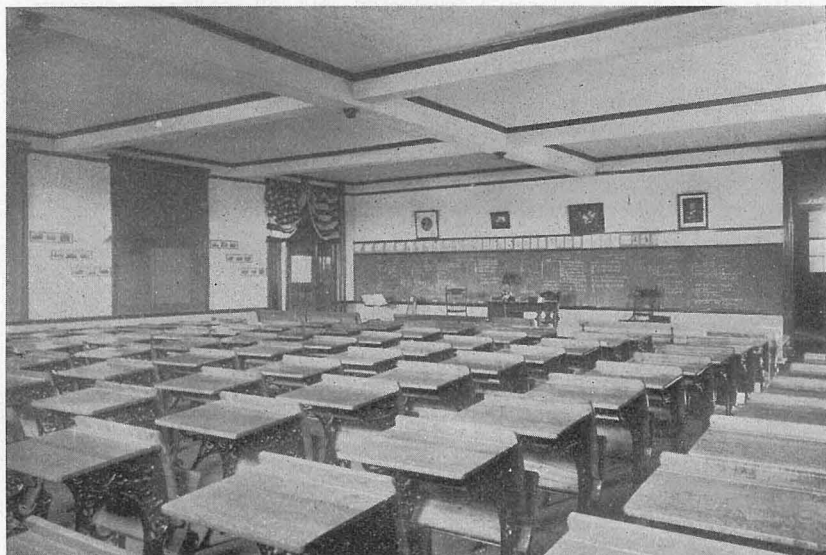
Chemical Laboratories

The laboratory for general chemistry is situated on the second floor and is furnished with the usual desks, hood, etc. The analytical laboratory is on the first floor, and contains commodious desks for ten students, well arranged for convenient work in qualitative and quantitative analysis.

Both laboratories are supplied with a good assortment of apparatus and chemicals, which are loaned to the students without charge, payment being required for the cost of articles not returned in good condition.

East Hall

East Hall is a large three-story brick building on Chestnut Street and Raymond Avenue. In addition to the rooms described below it contains a reception room, the offices of President and Business Manager, the general library, a large assembly room, various recitation rooms, etc.



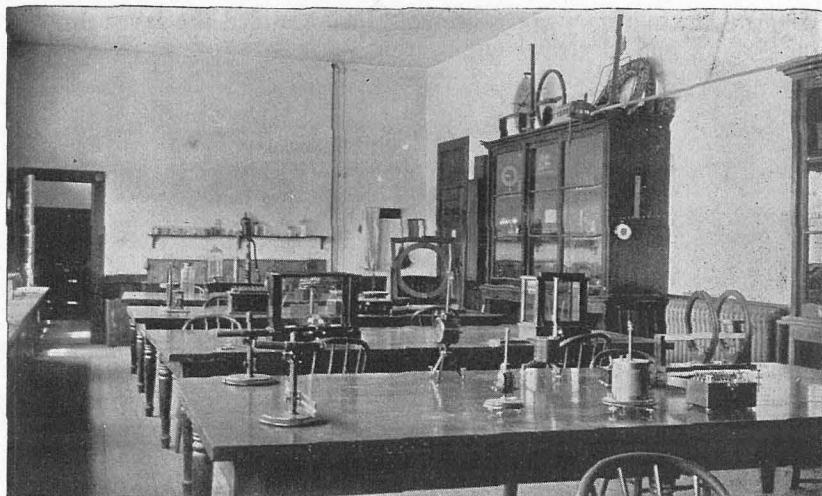
Grammar School

The entire lower floor of the addition to East Hall is devoted to the Grammar School. On the south is a large, well lighted assembly hall with a seating capacity of about one hundred; it connects with two recitation rooms on the north and with another on the east. All rooms are seated with desks and fully equipped with all necessary appointments. The pupils of this department are provided with cloak and lunch rooms in the well lighted basement.

Physical and Electrical Engineering Laboratories

The department of Physics and Electrical Engineering occupies two rooms in East Hall. The Physical Laboratory is a large, well lighted room, fitted with gas and water pipes, electric wires, tables, lockers, cases, etc. This room is used for the elementary work in physics.

On the basement floor of East Hall is the Engineering Laboratory, a large room with cement floor, heavy piers of brick and cement, work-benches and cases. It is piped for gas, water and

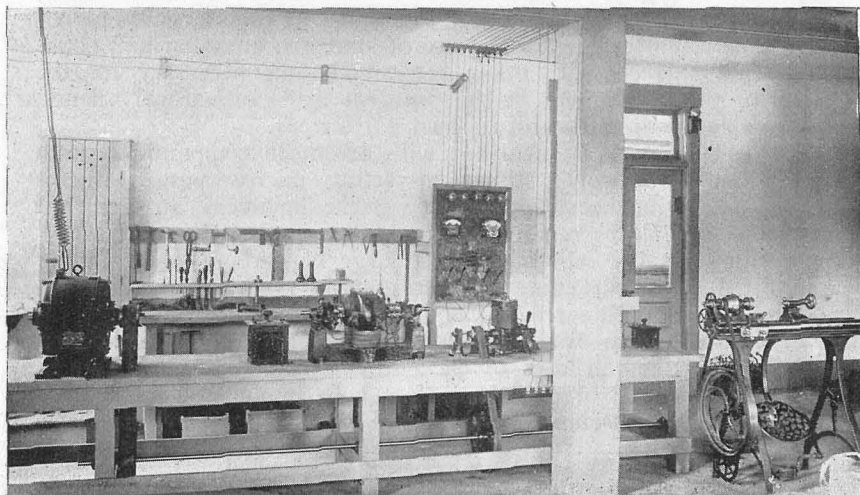


PHYSICAL LABORATORY

steam, and is wired for electric light and power. Here are found the facilities for precise work in advanced physics and electricity, in the solid foundations and freedom from outside disturbances.

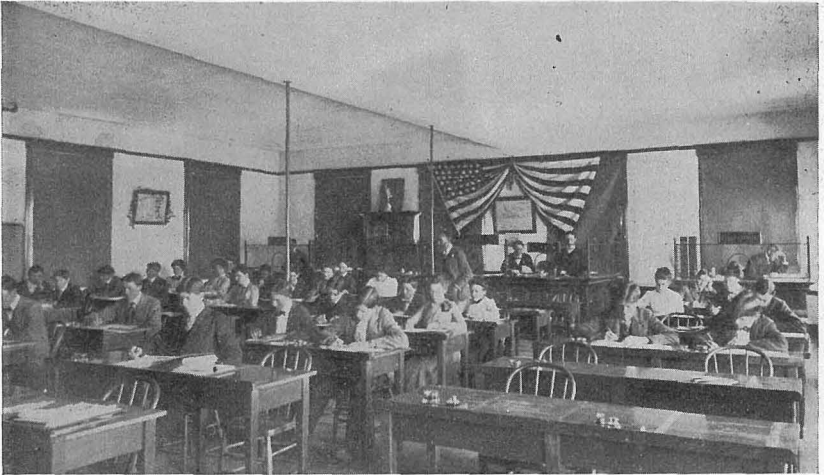
The two laboratories are well supplied with apparatus for physical, electrical and power measurements. Direct and alternating currents of various voltages are available for experimental work.

The Physical Laboratory also contains the library for this



A CORNER IN THE ELECTRICAL LABORATORY

department, to which are continually being added the latest works on physics and electrical engineering.



Commercial Department

The Commercial Department occupies the entire second floor of the new addition to East Hall, and contains all the furnishings, fittings and offices, including a bank, required by the best business and stenographic colleges.

Biological Rooms

The Biological department is on the second floor. Facing the north is the laboratory (50x19) lighted by nine large windows, with tables and lockers for the use of students, an aquarium, book-cases and shelves, with other accommodations necessary for the work of the department in the different fields of natural science. Each table is supplied with its own gas burner.

The laboratory is furnished with seventeen compound Bausch and Lomb microscopes, thirty dissecting microscopes, a microtome, camera lucida, steam and dry sterilizing ovens, an incubator and other appliances required in the higher grades of work.

Adjoining the laboratory is a large class-room, well lighted and fitted with darkening shutters, which render it possible to exhibit objects on a screen either by solar or artificial light.

A small room furnishes accommodations for the collection required for the purposes of class teaching and individual study. Such collection is, of course, distinct both in purpose and nature from that of a museum, and must adjoin the laboratory and class-room.

Museum

The museum occupies a large room on the third floor and contains the collections in mineralogy, geology, botany, zoology and

archæology. A large addition has been made during the past year by the purchase of the collection of the late Dr. John Dickinson of Los Angeles. A number of books and specimens have also been placed in the museum by the Professor of Biology. For the reception of the above mentioned material the room has been fitted up with a set of cases and drawers, in which the specimens are now arranged for reference.

Society Hall

The various literary and art clubs of the Institute share in the use of a large hall on the third floor. This hall is attractively carpeted and furnished, and is provided with electric lights.

Free-Hand Drawing, Painting and Designing Rooms

These rooms are fully equipped with all necessary appointments. The equipment is as follows: adjustable desks, which can be transformed into tables or easels, at any angle desired; a large table with water connection adapted for mounting designs and grinding colors; blackboards for class demonstrations of perspective principles; a full line of wooden models, type solids, from which first lessons in perspective are given; a case of bric-a-brac and objects of still-life furnishing material for sketches; a complete set of charts used in study of historic ornament and design; plaster casts of historic ornament, natural leaf-forms, masks, heads and full-length figures which serve as models in the rendering of light and shade in charcoal drawings.

Wood Carving and Clay Modeling Rooms

The departments of Wood Carving and Clay Modeling occupy rooms in the basement of East Hall, fitted with work tables, lockers with tools for students' use and cases for exhibition of work. These rooms are furnished with a good selection of casts and charts showing the various styles of historic ornament and a complete set of anatomical charts.

Gymnasium

A large, well lighted room in the basement is occupied by the classes in gymnastics. It is provided with dumb-bells, Indian clubs, horizontal bar and other gymnastic apparatus.

Departments

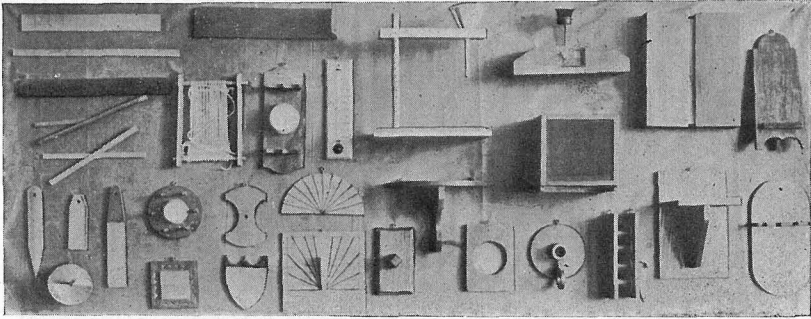
Grammar School

Requirements for Admission

Pupils are admitted to this department who have completed the usual third year of the public school. All pupils not bringing certificates from other schools are required to pass an examination before being classified. The work, as arranged for this department, consists of two lines—the ordinary book work and the manual work.

Schedule of Work

4TH GRADE	{ Arithmetic—fundamental operations. English—language lessons from Hyde's Book I, Myths, Miss Harrison's <i>In Story Land</i> , and supplementary reading. History and Geography—elementary work with sand-modeling. Science—elementary work on plants and animals. Free-hand Drawing and Clay Modeling—brush work, ambidextrous drawing on blackboard. Writing—vertical. Manual Work—cardboard construction.
5TH GRADE	{ Arithmetic—review of fundamental operations, factoring, greatest common divisor, least common multiple, simple work in fractions, regular work in Wentworth's <i>Practical Arithmetic</i> . English—language lessons in Hyde's Book II, Frank Carpenter's <i>Geographical Reader</i> , <i>The Song of Hiawatha</i> . History and Geography—Montgomery's <i>The Beginner's American History</i> , Frye's <i>Elements of Geography</i> with sand-modeling. Science—elementary work on plants and animals. Free-hand Drawing and Clay Modeling—brush work, ambidextrous drawing on blackboard. Writing—vertical. Manual Work—cardboard construction, first half year, sloyd and mechanical drawing, second half year.
6TH GRADE	{ Arithmetic—fractions, denominate numbers completed, regular work in Wentworth's <i>Elements of Arithmetic</i> . English—language lessons in Hyde's Book II completed, <i>The Song of Hiawatha</i> completed, John Burroughs' <i>Birds and Bees</i> , <i>Evangeline</i> , Rice's <i>Speller</i> . History and Geography—Montgomery's <i>The Beginners' American History</i> completed, Frye's <i>Advanced Geography</i> with map drawing and modeling. Science—elementary work on plants and animals. Free-hand Drawing—outline drawing of objects with pencil, water color. Writing—vertical. Manual Work—sloyd and mechanical drawing, sewing.



SLOYD MODELS—GRAMMAR GRADES

- | | | |
|-----------|---|--|
| 7TH GRADE | { | Arithmetic—applications of percentage and supplementary work, Wentworth's Practical Arithmetic completed.
English—elements of grammar and analysis, regular work in Reed and Kellogg's Higher Lessons in English, Evangeline completed, Charles Dudley Warner's A Hunting of the Deer, Lady of the Lake, Rice's Speller.
Geography—geography completed, with map drawing and modeling.
Elementary Science.
Free-hand Drawing.
Writing—vertical.
Manual Work—sloyd and mechanical drawing, cooking, sewing. |
| 8TH GRADE | { | Arithmetic—arithmetic reviewed, using the algebraic equation, and introducing elementary geometry, regular work in Walsh's Higher Arithmetic.
English—Reed and Kellogg's Higher Lessons in English completed, Lady of the Lake completed, Six Selections from Sketch Book, Rice's Speller.
History—Fiske's United States History.
Elementary Science.
Free-hand Drawing—perspective and first principles in designing.
Writing—vertical.
Manual Work—sloyd and mechanical drawing, cooking, sewing. |

The course in English includes a thorough drill in writing, spelling and composition.

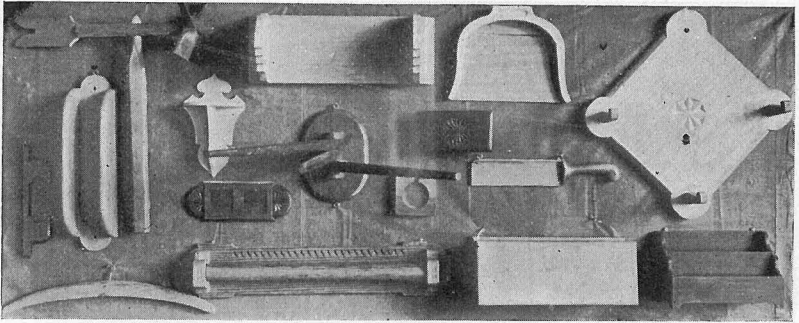
Instruction in French by the conversational method may be elected by pupils in the seventh and eighth grades.

Instruction is given in vocal music, theory and sight-reading.

Systematic work in the gymnasium is offered.

Fourth, fifth and sixth grades will spend forty-five minutes daily in the sloyd room, the seventh and eighth grades, ninety minutes.

Working drawings of all models precede their construction in wood.



SLOYD MODELS—GRAMMAR GRADES

Each student will require the following articles: a drawing-board, a T-square, triangles, set of drawing instruments, thumb-tacks, drawing-paper, pencils and erasers, which need not cost over \$4, and will be useful later in the Academy.

Academy

Requirements for Admission

All candidates for admission to the Academy will be required to show their ability to compose, spell and punctuate, and to use capital letters correctly.

Students holding a certificate of graduation from a California grammar school, or any other school of equivalent grade, will be admitted without further examination. All other applicants will be subject to examination in arithmetic, grammar, English, geography and United States history.

In arithmetic the examination will be upon the following subjects: fundamental operations, factoring, greatest common divisor, least common multiple, fractions, denominate numbers, applications of percentage, involution, evolution, mensuration, and the metric system; in grammar and English, upon elements of English grammar and the analysis of the sentence, Lady of the Lake, and Evangeline.

Courses of Study

The diploma of graduation is granted upon the completion of one of the following courses:

	Classical	Literary	Scientific
First Year	English I Algebra Latin I { Drawing, Free- hand and Mech. Shop-work	English I Algebra { German I, French I, or Latin I { Drawing, Free- hand and Mech. Shop-work.	English I Algebra { Physiography and Comparative Anatomy { Drawing, Free- hand and Mech. Shop-work
Second Year	English II Plane Geometry Latin II { Drawing, Free- hand and Mech. Shop-work	English II Plane Geometry { German II, French II, or Latin II { Drawing, Free- hand and Mech. Shop-work	English II Plane Geometry { Zoology and Botany { Drawing, Free- hand and Mech. Shop-work
Third Year	English III History I Latin III Drawing Shop-work	English III History I or II { German I or French I Drawing Shop-work	English III { German I or French I Chemistry I Drawing Shop-work
Fourth Year	History III { Zoology and Botany, Chemistry I or Physics I Latin IV Drawing Shop-work	History III { Zoology and Botany, Chemistry I or Physics I { German II or French II Drawing Shop-work	History III Mathematics III Physics I { German II or French II Drawing

Roman numerals in the above table refer to subjects outlined on pages 24 to 34.

A subject once selected may not be dropped after two weeks from the time of choice, and must, thereafter, be pursued until successfully completed. In special cases, for reasons satisfactory to the Faculty Council, this regulation may be set aside.

If Latin, French or German be chosen it must be pursued for not less than two years to receive credits for the work. In the literary course two years of Spanish may be substituted for two years of Latin.

In special cases courses may be arranged substituting book subjects for manual training work. A diploma of graduation certifying that fact will be granted to any student completing such a course.

To a limited extent subjects from the commercial course may be substituted for subjects named above and gymnastics for other manual work.

Subjects and Methods of Instruction in the Academy

Mathematics

I. Elementary Algebra. Fundamental operations; special attention given to the reading of problems; to the subjects of factors, simultaneous equations, involution, evolution, theory of indices, surds, imaginary quantities and quadratic equations. This is first-year work.

II. Plane Geometry. The usual college preparatory work in the five books of Plane Geometry is the work of the second year. The work includes the original propositions and problems in the text-book, supplemented by other original work.

III. (a) Higher Algebra. Indeterminate equations of the first degree, inequalities, ratio, proportion, variation, arithmetical, geometrical and harmonical series, permutations and combinations, proof of binomial theorem for any index, logarithmic calculations, convergency and divergency of series, undetermined coefficients, continued fractions, summation of series, theory of equations with solution of cubics and biquadratics having commensurable roots, determinants. Text-book: Hall and Knight's Elementary Algebra, edition 1900, or Algebra for Colleges and Schools.

(b) Solid Geometry. The course given in Phillips and Fisher's Elements of Geometry, books VI-IX, inclusive. This subject with Higher Algebra, comprises the work of the third year in the regular course.

English

All regular students are required to take instruction in English during three years of the Academic course. Frequent and varied written exercises are required. Special attention given to spelling, punctuation, paragraphing and the forming of a plain natural style.

The following subjects are made the basis of study. Those marked (a) are to be critically studied. Those marked (b) are for general reading and the student will be expected to gain a knowledge of their subject-matter and the lives of their authors:

I. (a) The Alhambra, Deserted Village, Classic Myths, Cotter's Saturday Night.

(b) Horatius, Prisoner of Chillon, Sir Roger de Coverly.

II. (a) Merchant of Venice, Julius Cæsar, Winter, Snow-Bound, Tam O' Shanter, The Ancient Mariner, L'Allegro, Il Penseroso.

(b) Winter Morning Walk, Warren Hastings.

III. (a) Comus, Lycidas, Milton's Sonnets, The Elegy, Eve of St. Agnes, The Cloud, The Nightingale, The Skylark, Tintern Abbey, Ode on Intimations of Immortality, Ode to Duty, Passing of Arthur, Vision of Sir Launfal.

Speeches: Burke, at Bristol; Webster, in Reply to Hayne; Macaulay, on Reform Bill.

(b) Alexander's Feast, The Rape of the Lock, Laodamia, Transcript from Euripides, Silas Marner, Vicar of Wakefield, The Bard.

Elocution

Courses of instruction in reading and public speaking are offered. Detailed information will be given on application.

History

Three courses in History are offered; course III is required of all students before graduating.

I. Eastern Nations, Greece and Rome, with special reference to the development of the institutions, and the growth and influence of the arts and literature of each. Text-book: Myers and Allen, with collateral assigned reading.

II. Mediæval and Modern History. Particular attention paid to institutional growth and social life of the people. Text-book: Myers' Mediæval and Modern History, with reading of Emerton's Introduction to the Middle Ages, and Seebohm's Era of the Protestant Reformation.

III. American History and Civics. Special attention to development of the Constitution. Text-books: Montgomery's History of the United States and John Fiske's Civil Government in the United States.

Latin

I. Special attention to forms and vocabularies; translation of the exercises from Latin into English and from English into Latin; structure of Latin sentence and comparison with English sentence-structure.

II. Introduction to Roman Literature. The readings comprise selections from the Viri Romæ, Cornelius Nepos and Cæsar, with a generous amount of sight-reading; critical study of text, with translation into idiomatic English; prose composition; incidental study of history and geography throughout the year. Allen and Greenough's Grammar. Rolfe and Dennison's Junior Latin Book. Dodge and Tuttle's Prose Composition.

III. Cicero's Orations. Textual study, as in Cæsar, sight-reading and composition; historical allusions investigated; the system of Roman government; powers of officers; customs and occupations of the people; geography involved in the text is made an incidental topic of study. Allen and Greenough's New Cicero.

IV. Vergil's Æneid. Structure of the poem, with the theory

and practice of scansion; translation into idiomatic English; study of the superstitions and religious rites of antiquity, as well as the myths and legends; minute word study and analysis. Allen and Greenough's text.

German

I. Careful attention to correct pronunciation; thorough drill in forms, and in the common principles of syntax; practice in translation at sight and hearing and in conversation.

Joynes-Meissner's German Grammar to syntax.

Brandt's German Reader.

II. Exercises throughout the year in conversation, translation and composition.

Joynes-Meissner's German Grammar finished.

Reading of standard German literature.

French

I. The grammar and vocabulary, reading French in order to obtain the pronunciation, a study of the verbs, and frequent dictations. French conversation required in class.

Whitney's Practical French Grammar.

Guerber's Contes et Légendes. La Tâche du Petit Pierre-Mairet.

II. Special study of the syntax and idioms and practice in French conversation. Abbé Constantin—Ludovic Halévy; La Tulipe Noire—Alexandre Dumas; Madame Thérèse—Erckmann-Chatrian.

Spanish

I. Thorough drill in pronunciation and forms by means of much conversation; practice in translation at sight and hearing.

Monsanto and Languellier's Practical Course with the Spanish.

Worman's Spanish Readers and some standard Spanish texts.

II. Exercises throughout the year in conversation; translation at hearing; essays; correspondence; reading of standard Spanish.

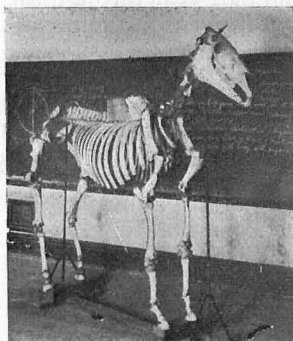
Monsanto and Languellier completed. Garner's Spanish Grammar.

Matzke's Spanish readings and other modern Spanish literature.

Natural Science

Physiography. This subject occupies one period daily during the first half-year. It includes the relation of the Earth to the other bodies in the solar system, the agents affecting its surface, such as rivers, waves, tides, currents, glaciers, etc. The relation of the animal and plant worlds to their environments is also considered.

Text-book: Physical Geography by W. M. Davis.



SKELETON PREPARED BY STUDENTS
IN PHYSIOLOGY

Comparative Anatomy and Physiology. This subject is taken up during the second half of the first year. It includes the comparative structure of the vertebrata and their relation to the conditions of life, the different organs and their functions, resemblances and differences. A practical acquaintance with the arrangement and mechanism of the vertebrate skeleton is then acquired and the bearing of the various parts on the question of health and sanitation becomes familiar.

Text-book: Martin's Human Body (last edition).

I. Zoology. The purpose of this study is to afford an opportunity of examining the leading types of animal life, chiefly invertebrate, and also of becoming acquainted with some of the common living objects with which they meet in daily life. Man's relation to the rest of the organic creation, the advantages which he receives and the losses which he suffers from them, also receive attention.

Text-book: Packard's First Lessons in Zoology.

Phænogamic Botany. This subject includes the structure and functions of the organs of the phænogamic plants, studied both by the unaided eye and by the microscope. Systematic work is also done in naming and classifying the plants of Southern California.

Text-book: The Foundations of Botany, Bergen.

Chemistry

I. (a) General Chemistry. The first half-year's work consists of the study of the non-metallic elements and the essentials of chemical theory. Its principal aim is to develop scientific methods of observation and thought, to which the acquirement of the mere facts of chemistry is considered of secondary importance. To this end experiments are selected which require considerable care in manipulation, and illustrate quantitative relations of substances so far as possible. The time spent in laboratory work is $5\frac{1}{4}$ hours per week. The experimental work is individual, and careful notes must be daily submitted to the instructor for examination. Accompanying the laboratory work there are one lecture and two recitations per week. The lectures discuss some of the industrial applications of the chemistry of the elements studied in the laboratory. Considerable attention is paid to the solution of problems.

Text-book: Freer's Elements of Chemistry. Preparation required, Mathematics I, English I. Students are strongly advised to defer beginning chemistry until the third year of their academy course.

(b) The metals are studied in the second half-year through the medium of qualitative analysis, and lectures are given on the metallurgy and industrial chemistry of the principal elements.

Preparation required, Chemistry I (a).

Physics

I. General elementary course in physics. Instruction is given by means of laboratory work with discussion of experiments performed and study of references to text and books in library. Experiments are performed by the student himself. They are not illustrations of some principle already learned, but lead the student to deduce the principles from the phenomena observed. Whenever possible quantitative experiments are employed. Careful notes are required in this and the following courses.

Text-books: Elements of Physics, Crew; Manual of Experimental Physics, Nichols, Smith and Turton. Preparation required, algebra and plane geometry.

Free-Hand Drawing

I. Principles of perspective as applied in the drawing of simple type forms, beginning with cube, sphere, cylinder, etc., followed by objects based on type solids; perspective drawings of wood and iron-shop models. Relative proportion, and the study of values in light and shade are developed in the execution of drawings of still-life, corners of rooms, houses, etc.

II. Systematic drill in the execution of curves and scrolls as applied to ornamental design; original application of scrolls to iron and wood designs. These designs are practical, and are wrought in iron, or carved in wood by the student designer. Lettering, as applied to book covers, posters, menus, etc. Pen and ink rendering of the leading styles of ornament.

III. Drawing in charcoal, groups of still-life and cast; flowers executed in pen and ink and water-color; textile designing in color.

IV. Advanced work in charcoal from cast, full-length figure; water-color; sketching from life.

Special courses may be planned to meet the needs of advanced students.

Mechanical Drawing

I. Practice sheets of lines and circles; free-hand and geometric lettering; orthographic projections of simple models; elementary working drawings of wood-shop models drawn to scale; tracings and blue-printing; drawings of supplementary shop exercises.

II. Cavalier and isometric projections; methods of stretching paper and coloring drawings; orthographic projection of objects inclined to the plane of projection; patterns and developments;

intersection of solids; fundamental principles of perspectives; application of simple shadows.

III. Complete set of plans of moderate priced cottage, perspectives of house and of one room; projection of shadows; machine details, bolts, nuts, rivets, monkey wrench; machinist's vise with section details, sketches to be made first; details of machinery, lathe, drill, shaper, grinder or dynamo.

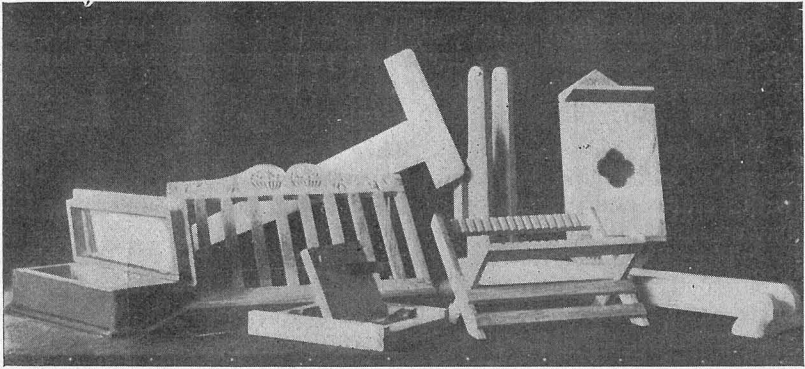
IV. Mechanical movements, external and internal epicycloidal and involute gears, spur gears, bevel gears, cams, eccentrics and useful geometric problems in connection therewith.

Special courses may be planned to meet the needs of advanced students.

Wood Work

This course consists of work in joinery, turning and cabinet-making. Each article is complete and useful in itself and has been designed to secure a gradual growth in the difficulty of construction, and at the same time present practical, useful and æsthetic elements.

Near the close of the year each student may make an ornamental piece of work under the direction of the instructor, or he may take advanced work looking to greater skill and practice in cabinet-making.



TYPICAL, EXERCISES IN JOINERY

The course in turning consists of progressive exercises involving center, face plate, chuck-work and inside turning.

For students who have completed the sloyd course, a special course in wood work and turning is offered, on the completion of which they will receive full wood-shop credit. This course occupies two terms.

Forging

Forge. Mechanism and care of forge; preparation of forge for fire; building and managing fire.

Tools. Instruction in the care and use of tools.

this point, and a systematic study is made of the needs of the machine for successful and rapid operation.

Machine work is begun with a series of exercises illustrating the principal processes, as plain turning, facing, thread-cutting, inside boring and threading, turning of tapers, hand tool and chuck-work of all kinds.

At different stages of the course work is given on the shaper, planer, drill-presses and milling machines.

Preparation required, pattern-making and forging.

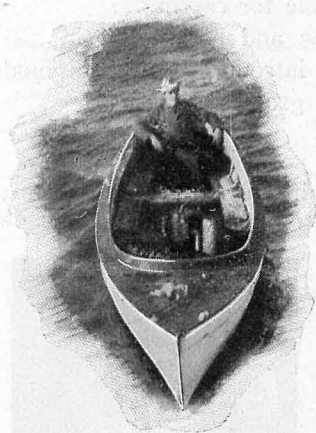
Text-books are not used. Students are expected to provide themselves with calipers and scale.

II. Advanced course.

(a) Pattern making.

(b) Machine-shop practice.

These courses continue the work begun in the previous courses, and embrace exercises illustrating more advanced and complex processes and a large amount of practical work on actual construction of machine. It is desirable that the student undertake the design, details, pattern work, machine work and final completion of some machine or piece of apparatus, and with this object in view, there are constructed during each year several pieces, such as lathes, gas and steam engines, dynamos, windmills, etc., where the entire work, from the original sketch to the finished machine in operation, is carried out by the students. The courses in the drawing



ENGINE FOR THIS BOAT BUILT IN
MACHINE SHOP

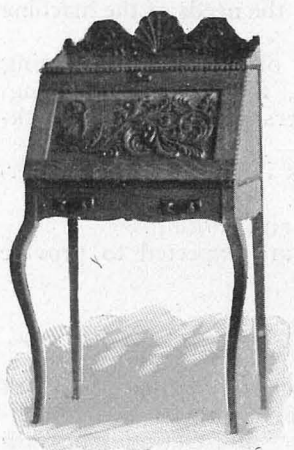
rooms, pattern-shops and machine-shops are so arranged as to carry out the general scheme of work.

The scope of this course is illustrated by the following statement of work carried on this year: There have been constructed a four horse-power, two-cylinder marine gasoline engine; a two-cylinder, three horse-power gasoline engine of similar type; a circular-saw bench swinging three saws, and having attachments for general shop work; an eight-foot, steel windmill for pumping work; a crushing-machine for fruit pits with vibrating hopper and feeder; a power metal-sawing machine for the machine-shop; together with various smaller tools and appliances.

Preparation required, Course I and its requirements.

Wood Carving

This work aims to give practical application to the principles gained in drawing and modeling.



STUDENTS' WORK IN WOOD CARVING

I. Instruction in the care and use of tools; exercises to illustrate the principles of carving; application of these principles in designing and ornamenting furniture, in chip-carving, incising and low relief in historic arts.

Students are required to make the working drawings as well as the designs for the decoration of all work.

Lectures on the general structure of wood, its preparation for use, and the special qualities necessary to render it suitable for carving.

II. Low and high relief in historic styles, introducing the additional features of grotesque figures.

Modeling

This work is of great value in comprehending the facts of form; as drawing is but the representation of form, the student is made stronger in drawing by coming in contact with the realities of form, viz., length, breadth and thickness.

I. Modeling of fruits, flowers and sprays of foliage from nature and casts; different styles of historic ornament from casts, and original designs; portrait-relief from casts; mask and head from cast; animals, such as Barye's lions and panthers.

II. Modeling portrait busts from cast; full-length figure from cast; portrait busts from life; lectures on antique and modern sculpture.



AN EXAMPLE OF MODERN FRENCH TECHNIQUE IN CLAY MODELING

Plain Sewing

(a) Two periods each day. The fundamental principles of hand-sewing, basting, running, hemming, hem-stitching, tucking, felling, sewing on lace, darning, etc.

(b) Machine-sewing, plain stitching, hemming, tucking and gathering.

(c) Continuation of plain sewing. Practical experience in shopping by each pupil.

During the year a complete suit of underwear must be made by each pupil; also a shirt waist and a cotton dress. Some pre-

liminary study in designing for the dressmaking course will be done. Neatness and accuracy are demanded in all work.

Dressmaking

Two periods each day. Pupils must complete the plain sewing course before entering this class, the work of which includes the following:

(a) Taking measures for drafting; drafting tight-fitting basque with bias darts; cutting, fitting, and finishing waists; trimming and draping the same; putting on collars and revers; drafting, cutting and making sleeves; cutting gored and circular skirts; lining, interlining and hanging them.

(b) Choice of materials, cost, amount, harmony of colors; appropriateness of dress to individual; practical experience in shop-ping.

(c) Matching stripes, plaids and figured goods; fitting stout figures.

(d) During the year a house jacket, a waist, a lined dress skirt and a gown must be made by each pupil.

Cooking

(a) The fundamental principles of cookery and practice in the preparation of vegetables, soups, meats, cereals, biscuits, eggs; cost of materials; care of kitchen; serving a simple dinner.

(b) Instruction in the preparation of more complicated dishes; bread, fish, oysters, poultry, etc.; setting and serving a table.

(c) Entrées, salads, desserts, pastry, cake and creams; jellies, canning of fruits and vegetables.

(d) Menus; marketing; giving of entire breakfasts, lunches and dinners.

(e) In connection with cookery, instruction will be given in the classification and composition of foods, the action of water upon starch and albumen; tea, coffee and alcohol, their food values and effects upon the system; the yeast plant; fermentation—lactic, vinous and acetic; baking powders, soda and cream of tartar.

Other subjects treated will be the development of odors and flavors of foods; food for the sick; food adulterations; the cheapest and most wholesome foods; physiology of digestion, and a general plan of household work.

Special lectures on Chemistry of Cookery, and on Bacteriology.

Throughout the year dietaries and nutrition will be kept constantly in mind, the object being as much to study the scientific principles of food as to prepare palatable viands.

Books required: Mrs. Rorer's Cook Book, blank-books for chemistry notes.

Gymnastics

This course consists of both corrective and recreative work, for boys and girls. Advanced pupils will be given instruction in fencing and other heavy branches.

Students who desire special suggestions and advice regarding their physical work, should consult with the Instructor.

Commercial Department

Requirements for Admission

Students having passed in the studies of the eighth grade are admitted to the courses of this department, but the commercial student who has graduated in a high school, or even college course of studies, will be greatly advantaged thereby.

Courses

Three courses are provided: (1) Complete Course, including accounts and stenography, together with such accessory subjects as writing, accounts, arithmetic, spelling, penmanship, commercial law and political economy. (2) Special Course in Accounts. (3) Special Course in Stenography.

The Complete Course is all that the best students can accomplish within a college year, being intended to cover the needed fundamental training for the successful accountant, stenographer and business man. The time occupied is about equally divided between accounts and stenography and typewriting. The Special Course in Accounts may be finished in six months or a year, depending on the ability and the advancement of the student and also upon the range of study pursued. The Special Course in Stenography may take from three months to a year, depending upon advancement and ability as well as range of work desired, viz., whether one is seeking preparation for amanuensis, for office work, for court or general reporting. Students may devote their entire time to any course and complete it within a year, or any of the courses may be pursued in connection with other courses or work in the Institute; and completed in from two to four years.

Subjects and Methods of Instruction in the Commercial Department

Complete Course

Stenography. (a) Class and private instruction in the principles of shorthand.

(b) Dictation in all kinds of phraseology, especially of business correspondence and commercial and legal forms.

(c) Drill in writing for the acquisition of speed and accuracy in writing, punctuation, and reading shorthand notes. Special instruction in general and court reporting, for those who desire it.

Text-book: Cross.

Typewriting. (a) The touch method of writing thoroughly taught.

(b) Daily drill on business and legal forms, manifolding, etc.

Text-book: Barnes.

Accounts. (a) Class and personal instruction in the nature of transactions and accounts; processes of business, and records of transactions and books of accounts.

(b) The handling of money; the construction, passing, filing and disposition of business papers and vouchers.

(c) The opening and closing of books, drawing of statements, trial balances, and the settlement of personal accounts.

(d) The range of accounts comprises retailing, wholesaling, commission, manufacturing and banking; also special books for those desiring special preparation. The department is in possession of several sets of books taken from the books of prominent business houses, including that of Marshall Field & Co., Chicago, of great value to the student.

Text-book: The "Budget System," Saddler-Rowe Co., in which the student immediately assumes and practices the duties of an office accountant.

Arithmetic. (a) Special daily drill for accuracy and speed in the practice of the fundamental rules.

(b) Interest, percentage, commission, discounts, etc., etc.

Text-book: Goodyear & Marshall.

Spelling. (a) General spelling and syllabication, both oral and written.

(b) Mercantile, financial, manufacturing, commission, banking, railroading and other special words.

(c) Reading of commercial reports and other commercial literature.

Text-book: Saddler-Rowe Co.

Penmanship. (a) Study of the science.

(b) Practice of plain penmanship, for ease, uniformity and speed.

(c) Writing from dictation, bills, invoices, etc.

Commercial Law and Political Economy. One period daily will be devoted to these branches.

Text-book: Law, Parkinson; Political Economy, Bullock.

Special Course in Accounts

Comprises accounts and accessory subjects outlined in Complete Course. It is intended for students seeking the knowledge and practice of accounts only.

Special Course in Stenography

As outlined in Complete Course.

Normal Department

Requirements for Admission

Admission to this department can be gained by persons holding teachers' certificates and by graduates of High and Normal Schools or Colleges, or by others giving satisfactory evidence of attainments necessary to secure a teacher's certificate in this State.

Students properly qualified, may, with the approval of the Faculty, omit certain book subjects, and select such other work as to gain the necessary number of credits for graduation.

Courses

Three courses are offered :

- (1) Manual Training.
- (2) Domestic Economy.
- (3) Art.

A manual training diploma may, in special cases, be awarded on the completion of one year of study. Students entering with advanced standing may also complete courses (2) or (3) in one year.

	Manual Training	Domestic Economy	Art
First Year	Psychology Free-hand Drawing Shop-work Gymnasium	Psychology Practical Work Free-hand Drawing Gymnasium	Psychology Free-hand Drawing Mechanical Drawing Design and Composition Elementary Clay Modeling
Second Year FIRST HALF	Pedagogy Theory and Methods Mechanical Drawing Shop-work Clay Modeling Gymnasium Practice Teaching	Pedagogy Theory and Methods Mechanical Drawing Practical Work Gymnasium Practice Teaching	Pedagogy Theory and Methods Charcoal Drawing Pose Drawing Advanced Clay Modeling
SECOND HALF	History of Education Theory and Methods Mechanical Drawing Shop-work Wood Carving Gymnasium Practice Teaching Thesis	History of Education Theory and Methods Mechanical Drawing Practical Work Gymnasium Practice Teaching Thesis	History of Education Theory and Methods Water-color History of Art Advanced Clay Modeling Practice Teaching Thesis

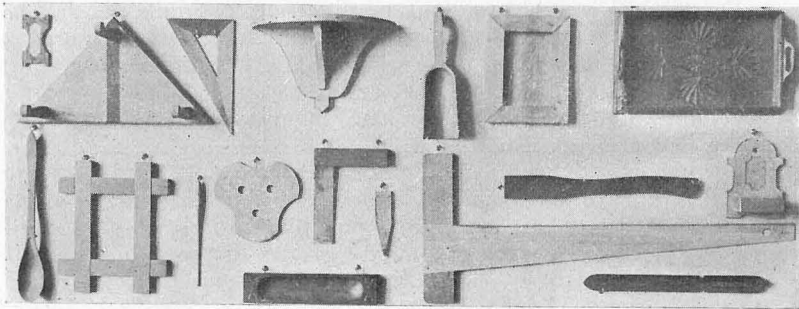
Subjects and Methods of Instruction in the Normal Department

Manual Training

Psychology, Pedagogy and History of Education. See page 41.

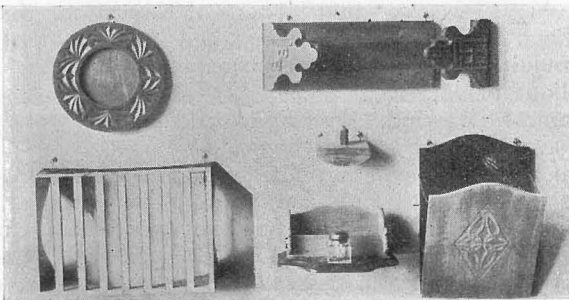
Free-hand Drawing. Principles of perspective; model and black board drawing; brush-work; perspective sketching; charcoal, designing; lectures on historic ornament, sculpture and painting.

Shop-work. Manual training for primary schools; thin-wood



TYPICAL MODELS—NORMAL DEPARTMENT, MANUAL TRAINING

processes; paper construction; wire-work; bench-work for upper grammar grades; sloyd; cardboard construction; chip-carving for decoration; advanced cabinet-work; turning; Venetian iron-work; designing and making of original models.



ORIGINAL MODELS—NORMAL DEPARTMENT, MANUAL TRAINING

Special work in joinery; turning, inlaying and forging for men.

Mechanical Drawing. Principles of working drawings, plans, elevations, sections, scales; orthographic and isometric projection; perspective; tracing and blue-printing.

Clay Modeling. Modeling of ornament; plant forms from cast and nature.

Wood Carving. Elementary work in exercises and small articles aiming to give a thorough knowledge of the foundation principles and a comprehensive view of the purpose and practice of carving as applied to elementary schools.

Domestic Economy

Psychology, Pedagogy, History of Education. See page 41.

Free-hand Drawing. Perspective; history of art; study of color and form.

Mechanical Drawing. Domestic architecture.

Practical Work. Physiology of digestion, assimilation; botany of cereals and vegetables; physics of heat; chemistry of human body; cooking and serving of breakfasts, dinners, luncheons; study of menus, food compositions, dietaries, national foods; evolution of the home; home and public hygiene; invalid diet; catering; fancy cookery; bacteriology; laundry work.

Sewing. Study of textiles; manufacture of cloth; draping, cutting and fitting; ornament in the home; history of costumes; designing; combination of colors; models and plans for sewing in third, fourth, fifth, sixth, seventh and eighth grades of the public schools.

Text-books: First year—Mrs. Rorer's Cook Book; Cereals, Frederick Sargent; Advanced Physiology, Frank Overton. Second year—Food and Feeding, Sir Henry Thompson; Eating and Drinking, Hoy; Food, Church.

Art

The aim is to qualify students to fill positions as teachers and supervisors of art education in the public schools. Students who enter must have a good general knowledge of drawing.

Psychology, Pedagogy and History of Education. See page 41.

Free-hand Perspective. Drawings and sketches artistically rendered are required to illustrate the principles of cylindric, rectangular and oblique perspective.

Mechanical Drawing. Principles of common working drawings, both architectural and mechanical.

Design and Composition. The principles of design and composition as applied in straight and curved line designs; landscape composition; surface patterns; book-covers; metal and textile designs.

Clay Modeling. From cast and nature; ornament and plant forms; head from cast in relief and in the round; modeling full-length figure from cast; portrait bust from life.

Drawings in Charcoal. From still-life and cast; head and full-length figure from cast.

Pose Drawing. Thirty minutes pose sketching from life.

Water-color. Painting of studies of flowers and still-life, also applied design.

History of Art. Illustrated lectures on the history of architecture, sculpture, painting and ornament.

College

Requirements for Admission

The requirements for admission to the college are as follows:

(1) The completion of one of the Academy courses outlined on page 23; or (2) the completion of a course in an accredited High School or an approved Preparatory School; or (3) passing an examination upon English I, II and III, and Mathematics I and II, and any seven of the following subjects, as outlined on pages 24 to 34: Physical Geography, Botany and Zoology, Physics I, Chemistry I, Latin I, Latin II, Latin III, Latin IV, German I, German II, French I, French II, History I, History II, History III, Mathematics III. Any applicant offering Latin, French or German must present at least two years of each.

Courses

The following tables show the work required of students, beginning September, 1900, for the degree of B. S. in each department. To the subjects named below must be added elective work to make a total of 32 credits, two credits being allowed for each annual subject except drawing, for which one credit is given:

	Chemistry	Electrical Engineering	Physics	Natural Science
First Year	Chemistry I Mathematics IV English V { French I or German I	Physics II Mathematics III English V Drawing—Mech. Shop-work	Physics II Mathematics III English V Chemistry II Drawing—Mech.	Intermediate Zoology and Botany
Second Year	Chemistry II Physics II Mathematics V { French II or German II	Electrical Engineering I Math. IV and V Chemistry II Drawing—Mech. Shop-work	Physics III Math. IV and V Chemistry III English VI Drawing—Mech.	Chemistry Advanced Botany
Third Year	Chemistry III Mathematics VI Mineralogy History IV	Electrical Engineering II Math. VI and IX Drawing—Mech. Shop-work	Physics IV Math. VI and IX Drawing—Mech.	Zoology Mineralogy
Fourth Year	Chemistry IV	Electrical Engineering III Mathematics X	Physics V Mathematics VII	Geology and Paleontology

Roman numerals above refer to the subjects described below, pages 40 to 44.

The Institute reserves the right not to organize classes in any given subject, unless at least eight students elect said subject.

Subjects and Methods of Instruction in the College

Mathematics

In all the courses given below, stress will be laid on such parts of mathematics as are of especial help in scientific work.

IV. (a) Trigonometry. The course comprises plane and spherical trigonometry. Problems from text-books proven in the field, also problems solved by the class.

(b) Plane Surveying. Survey with chain alone; with compass and chain; leveling with "Y" level; making profiles of elevations and grades. Adjustment of transit and level. Plotting the field-work, also field-work done from plottings.

Higher Surveying. Trigonometrical surveying. Running railroad preliminary lines; setting slope stakes; plotting cross-sections; calculating cut and fill, running grade lines for irrigating ditches, or roads.

(c) Field Engineering. Theory and practice of laying out curves, side-tracks, economic principles of railway location and construction. Carhart's Field Book will be used as a text-book.

Land Surveying. Plotting field-work, using various methods of representing topography, calculation of areas by latitudes and departures, also by use of the planimeter. Henck's and Searle's Field Books are used.

V. Analytic Geometry of Two Dimensions, Analytic Geometry of Three Dimensions. Both require one year.

VI. Differential and Integral Calculus. One year.

VII. A course in Differential Equations with especial reference to such applications as occur in Physics and Engineering. One year.

VIII. Mathematical Theory of Alternating Currents in Electricity.

IX. A course in Descriptive Geometry.

X. A course in Theoretical and Applied Mechanics. The work in Statics will contain applications to the science of stresses in bridges and framed structures, and that in Dynamics to the theory of machines for measuring work, the theory of energy in its application to the theory of steam and other heat engines, etc.

English

IV. (a) Silas Marner, Vicar of Wakefield, Laodamia, Transcript from Euripides, Prologue to Canterbury Tales. (b) Burke on Conciliation with America, Webster in Reply to Hayne, Macaulay

on Reform, Eve of St. Agnes, The Cloud, The Nightingale, The Skylark, Tintern Abbey, Ode on Intimations of Immortality, Ode to Duty, The Passing of Arthur, Vision of Sir Launfal.

V. Rhetoric and English Composition.

VI. The development of English Literature. Written exercises and themes will be required throughout these courses. Note-books and other written exercises in other departments will be subject to examination and correction by the English instructors.

History

IV. United States History; European History since 1815.

V. History of England.

Latin

I, II, III, and IV as outlined on pages 25 and 26.

German

I and II as outlined on page 26.

French

I and II as outlined on page 26.

Psychology, Pedagogy and History of Education

I. Elements of Psychology. Recitations and practical work. James' Psychology used as general text in recitations. The physiological, pathological and experimental phases; problems under association, habit, attention, etc., discussed. Reference books: Central Nervous System, Halleck; Growth of the Brain, Donaldson; Primer of Psychology, Titchener, and other texts.

Pedagogy. Applications of psychology in teaching; general method in primary, grammar and secondary school work; recitations and discussions with assigned readings. Texts: McMurry's General Method; Talks on Pedagogics, Parker; Manual of Pedagogy, Putnam; Essentials of Method, De Garmo; Science in Education, Herbart; Art of Study, Hinsdale.

II. History of Education. Lectures, assigned readings and discussions; Historical Survey of Pre-Christian Education, Laurie; Compayré's History of Pedagogy; Educational Reformers, Quick; History of Education, Seeley.

Practice Teaching and Methods. Observation of lessons and practical work by students, followed by conferences and discussions. Relative values in manual training subjects; reports, courses, etc.

Natural Science

I. As outlined on pages 26 and 27.

II. Intermediate Zoology and Botany. The topics of the elementary stages of these sciences (I) are here advanced to a higher stage and some new ones are introduced. Classification, herbarium

work and the economic bearings of both zoology and botany are made prominent, and students are thus prepared in some degree for special studies in these fields. Text-books: Needham's Elementary Lessons in Zoology and Bergen's Foundations of Botany.

Preparation required, Elementary Zoology and Botany. (I).

III. Advanced Zoology and Botany. The work in this department will include systematic work in both subjects and the study especially of the lower members of the two kingdoms. Cryptogamic botany, including the bacteria and their allies and the protozoons among animals, are important topics in the work of the third year.

Preparation required. (I) Elementary Zoology and Botany.

(II) Intermediate Zoology and Botany.

Text-books, as in I and II; also Rattan's Californian Flora and Packard's Entomology for Beginners.

Mineralogy. This course includes the elements of mineralogy, or a study of the more common and important metallic and non-metallic minerals. For undertaking this subject an acquaintance with the elements of chemistry is required and the following books are necessary: Crosby's Mineralogical Tables; Dana's Elementary Mineralogy.

Geology. The course in geology in the senior year includes a study of the processes and changes through which the earth has passed during its history, of the fossil remains that indicate the general evolution of life and of the principles of geological field-work and the representation of the result in maps and sections.

Preparation required: Mineralogy and Intermediate Zoology and Botany. Text-book: Scott's Introduction to Geology.

Advanced Work. Advanced work following the above preliminary studies may be taken later in the course by those who satisfy the professor in this department that they are qualified to undertake it. The work will be for the most part individual and students will be expected to conduct it with only general superintendence and advice. It will be arranged for those who wish to become practically acquainted with scientific methods and to study scientific subjects of a higher grade than those which can be taught in classes. Any of the many topics of natural science may be chosen according to the bent of the student, who must furnish the simpler and less expensive part of the outfit required, the more costly and valuable portion being supplied by the Institute, subject to compensation for damage during use.

Chemistry

I. Course outlined on page 27.

II. (a) Qualitative Analysis is reviewed and completed in the first half of the second year. The work consists of the analysis of unknowns of fairly complicated nature, including minerals and industrial products. The laboratory work is accompanied by crit-

ical study of the processes used. Text-book: A. A. Noyes' Qualitative Chemical Analysis. Students are also advised to procure Prescott and Johnson's Qualitative Analysis. Preparation required, Chemistry I and Physics I.

(b) Inorganic Preparations. Method of preparation and purification of inorganic chemicals, starting with raw materials. Tests for impurities. Discussion of reactions. Preparation required. Chemistry II (a).

(c) Theoretical Chemistry. Important points of the theories of chemistry. Two recitations per week for seventeen weeks. Text-book: Remsen's Theoretical Chemistry. Preparations required, Chemistry II (a).

III. (a) Organic Chemistry. Recitations on typical members and reactions of the various groups of carbon compounds. Laboratory work upon class reactions. Text-books: Remsen's Organic Chemistry, Noyes and Mulliken's Class Reactions of Organic Compounds. Two recitations per week through the year. Laboratory work six hours per week for seventeen weeks. Preparation required, Chemistry II (a), (c).

(b) Quantitative Analysis. Typical determinations in gravimetric and volumetric analysis. Discussion of methods and solution of stoichiometrical problems. Seven and one-half hours per week for eighteen weeks. Text-book: Talbot's Quantitative Analysis. Preparation required, Chemistry II (a).

(c) Assaying. Fire assay for gold, silver and lead. Volumetric assay for copper and silver. Seven and one-half hours per week for twelve weeks. Preparation required, Chemistry III (b). This course must be accompanied by mineralogy.

IV. (a) Quantitative Analysis. Advanced work, comprising analysis of industrial products, minerals, milk, water, foods, air, etc. Preparation required, Chemistry III (b).

(b) Industrial Chemistry. Lectures and readings on important chemical industries, inorganic and organic. Two exercises per week for seventeen weeks.

(c) History of Chemistry, and reading of French and German chemical literature. Two exercises per week for eighteen weeks. Preparation required, German II, Chemistry II (a).

Physics

I. Course outlined on page 28.

II. General advanced course in physics. This course is intended for those who wish to continue their work in physics or pursue the work in electrical engineering. Recitations are accompanied by laboratory work, consisting of a series of physical measurements intended to supplement Physics I.

Theory of Physics by Ames, and a Manual of Experiments in Physics by Ames and Bliss are used as texts.

Preparation required, Physics I and Chemistry I.

III. Electricity and magnetism. Practically identical with Electrical Engineering I. The laboratory work in it and the following courses in Physics consist largely of quantitative experiments intended to acquaint the student with the use and adjustment of physical instruments, to familiarize him with and enable him to use with skill and precision the different methods for determining physical constants. A study is also made of the sources of error incidental to physical measurements, and the means of eliminating them or correcting for them.

Preparation required. Physics II.

IV. Mechanics and heat.

V. Light and sound. IV and V will not be offered in 1901-02.

Electrical Engineering

I. Electrical measurements. This course includes such work as determination of horizontal component of earth's magnetism, measurement of resistance, measurement of current, determination of galvanometer constants, measurement of electromotive force, measurement of capacity of condensers, study of magnetic qualities of iron, insulation tests, location of line faults, study of characteristic curves of dynamos and motors.

Instruction is given by work in laboratory, together with discussion of experimental work and reading references. Experiments are selected from various manuals.

Preparation required, Physics II.

II. Theory and use of steam indicator, cradle dynamometer and Prony brake; efficiency tests of dynamos and motors; photometry; study of general technical applications of electricity as telegraphy, telephony, electric lighting, etc.

Instruction is given by means of laboratory work, recitations and lectures.

Preparation required, Electrical Engineering I.

III. (a) Study of periodic currents by analytical and graphical methods.

(b) Design of dynamos, motors and transformers.

(c) Electric distribution and transmission of power.

Instruction is given by means of laboratory work, recitations and lectures. Periodic Currents, by Bedell and Crehore, is used as a text in (a). In the latter part of the year the usual methods of instruction are supplemented by visits to the various electrical plants in Pasadena and Los Angeles, and by talks from men engaged in commercial electrical work.

Preparation required, Electrical Engineering II, and Differential and Integral Calculus.

List of Students

1900-1901

College

Bayley, Edgar A.....	Los Angeles
Beardslee, James Louis.....	Azusa
Davidson, Leonard Ernest.....	Pasadena
Dyer, Kirk Worrell.....	Pasadena
Gaylord, James Mason.....	Pasadena
Jerauld, Edwin Whipple.....	Pasadena
Jones, Paul Vernon, A. B.....	Pasadena
Lescher, Royal William.....	Carpinteria
McCutchan, H. Chester.....	Azusa
McMechen, Frank List.....	McMechen, W. Va.
Maxson, Edgar Schuyler.....	Rivera
Nicholson, Maude Louise.....	Pasadena
Poage, Jewell Asberina.....	Pasadena
Royal, Harry J.....	Pasadena

Normal Department

Abbott, Mary Bourne.....	Pasadena
Beckett, Alice M.....	Placentia
Brewer, Margaret A.....	
Brooks, Imelda E.....	Pasadena
Collier, Gertrude.....	Pasadena
Getchell, Mary E.....	Pasadena
Gibson, Annette Montgomery.....	Los Angeles
Glick, Naomi.....	Los Angeles
Gooch, Mrs. Emma Anna.....	Pasadena
Grace, Mrs. Mary C.....	Weimar, Texas
Hanna, Ross.....	Wilmington
Howe, Gertrude.....	Pasadena
Johnson, Mrs. Carrie.....	Pasadena
Junkin, Mary.....	Los Angeles
Little, Mrs. Lulu P.....	Monrovia
Miller, Ada J.....	Los Angeles
Moore, May Carolyn.....	Pasadena
Moore, Nellie.....	Glendora
Parsons, Ellen N.....	Los Angeles
Pease, Virginia.....	Pasadena
Romick, Della Blanche.....	Pomona
Ross, Donald A.....	Pasadena
Russell, Emma.....	Pasadena
Smith, Mary.....	Los Angeles
Stevens, Elizabeth.....	Los Angeles
Strain, Margaret.....	Placentia
Sturtevant, Myrta M.....	Sierra Madre

Commercial Department

Conger, Lulu Nell.....	Pasadena
Elliott, Charles.....	Monrovia
Erwin, Hattie Bronson.....	Pasadena
Gammon, Harry Elder.....	Pasadena
Giddings, Joe.....	Pasadena
Giddings, Levi Warren.....	Pasadena

Gregory, Carrie E.	Redlands
Grigsby, Cecil Achilles	Pasadena
Haig, Cecil Shields	San Gabriel
Hartley, Ethel	Pasadena
Hotaling, Carl	Pasadena
King, Adele	San Gabriel
Kysor, Charles H.	Los Angeles
McCarthy, Maud E.	Pasadena
McDermid, Kathryn Leoine	Pasadena
McFarland, Donald H.	Pasadena
Martin, Ivy Dorothy	St. Helena
Menner, Lottie	Pasadena
Menner, Ivy	Pasadena
Munger, Roy R.	Pasadena
Page, Emma C.	Pasadena
Parker, Henry Butler	Los Angeles
Peirce, Rollin W.	Ramona
Raftery, Michael Roy	Pasadena
Richardson, Allen	Prescott, Ariz.
Stonehouse, Nellie M.	Pasadena
Strain, Thomas	Placentia
Sweesy, Homer	Pasadena
Talbot, Ethel Pearl	Pasadena
Thomas, R. Ray	Pasadena
Thompson, Mabelle M.	Pasadena

Academy

Abbott, Earl	Lordsburg
Baldwin, Harry W.	Pasadena
Ballou, Edward Allen	Sierra Madre
Bandini, Ralph	Pasadena
Barker, Karl Herbert	Pasadena
Barnes, William Cowan	Los Angeles
Bartels, Arnold	Los Angeles
Bascom, Nellie Way	Los Angeles
Bassett, Archie M.	Los Angeles
Bassett, Louis H.	Los Angeles
Bates, Bernice	Los Angeles
Beeson, Edgar Washburn	Los Angeles
Behan, Hugo	Prescott, Ariz.
Belknap, Fredrick Roland	La Canada
Bender, William Burr	Glendora
Bixby, Edward H.	Lordsburg
Bland, Rose Florence	No. Pasadena
Blankenhorn, Louis McLaughlin	Pasadena
Bogue, Henry	Los Angeles
Bowser, Vincent E.	Pasadena
Brackett, Ross D.	Pasadena
Brackett, William F.	Pasadena
Braddock, Fred B.	Pasadena
Brant, Alfred Thomas	Los Angeles
Brown, Walter Marion	Pasadena
Burnham, Ralph French	Orange
Burt, Dodge	Pasadena
Caldwell, Fred B.	Los Angeles
Cartwright, Duff	Alhambra
Case, J. Ovington	Winchester
Chase, Arthur Lo	Cleburne, Texas
Cline, George	Los Angeles

Crane, Talmage Bert.....	Pasadena
Crane, Elliott	Pasadena
Cross, Hugh F.....	Monrovia
Cross, Ralph Mitchell.....	Monrovia
Curtis, Willie	Pasadena
Daggett, Ethel E.....	Pasadena
Daggett, Maud	Pasadena
Dake, Benjamin Frank.....	Pasadena
Davis, Paul M.....	Banning
Dean, Wilbur Huntington.....	Allegheny City, Penn.
Dickey, Florence Iva.....	Pasadena
Doolittle, Harold	Pasadena
Dorsey, James	Azusa
Duff, Hugh	Los Angeles
Eddy, Nathaniel Nelson.....	Avalon
Edwards, Mark	No. Pasadena
Elliott, Grace E.....	Riverside
Elliott, Charles Merrill.....	Ontario
Erickson, John August.....	Garvanza
Fabrick, Fred W.....	Azusa
Fassett, John G.....	Pasadena
Fordyce, Grace	Pasadena
Forster, George H.....	Capistrano
✓Furneaux, John Elson.....	Sierra Madre
Fussell, Edwin Briggs.....	Pasadena
Gardiner, William Alexander.....	Fullerton
Gaylord, John Clarence.....	Pasadena
German, Fred Arthur.....	Pasadena
Gilmour, Guy Burns.....	Whittier
Gooding, Edwin John.....	Kingman, Ariz.
Gosnell, Ira.....	Ventura
Gould, Judson Porter.....	Pomona
Gould, Robert D.....	Los Angeles
Graettinger, Darwin George.....	Ontario
Grant, Allan D.....	Los Angeles
Greening, Walter	Los Angeles
✓Gregory, Holt R.....	Los Angeles
Griffith, Leigh M.....	Pasadena
Hampton, Lawrence C.....	Prospect Park
Hancock, Glen	Riverside
Haskell, Beulah	Pasadena
Haskell, Edward E.....	Pasadena
Hatch, Wilson S.....	Los Angeles
Heald, Oscar Leslie.....	Pasadena
✓Henszey, Thomas MacKellar.....	Sierra Madre
Herwig, H. F.....	Lordsburg
Hill, Knute.....	San Dimas
✓Hill, Roland Varian.....	Pasadena
Holcomb, John Delaney.....	Pasadena
Hook, Barbee	Los Angeles
Hoose, James Harmon, Jr.....	Pasadena
✓Hornby, Ralph Walter.....	Pasadena
Hughes, Ivy Ethel.....	Los Angeles
Hughes, William A.....	Los Angeles
Hummel, Bert	Los Angeles
Hutton, William Bryant.....	Los Angeles
Jerauld, Rodman Ernest.....	Pasadena
Jones, Claude	Glendora
Jones, Grace Elizabeth.....	Pasadena

Jonson, William	Los Angeles
Kloeckner, Arthur Loring.....	Pasadena
Kuns, Fern	Lawrence, Kas.
Lacey, Louise	Pasadena
Leahy, Richard Armstrong.....	Garvanza
Lewis, Donald Fergus.....	Colegrove
Linde, Eva	Los Angeles
Lisk, Grace Agnes.....	No. Pasadena
Louthian, Laura	Etiwanda
Lyon, Marion Clarice.....	Santa Ana
McCauley, Alma Louise.....	Pasadena
McCauley, Marie Blanche.....	Pasadena
McLean, Jennie Elnora.....	Pasadena
McQuiston, Henry, Jr.....	Pasadena
Macneil, Adela	Pasadena
Main, Fred Willard.....	Iowa City, Ia.
Markham, Gertrude	Pasadena
Marshall, Hugh	Monrovia
Mason, Edgar E.....	Los Angeles
Maxwell, Guy Floyd.....	Tropico
Maxwell, Joseph	Monrovia
Mayo, William Riley.....	Compton
Mendelson, Clarence	Capistrano
Merrill, Richard Brackett.....	Littleton, N. H.
Metcalfe, James A.....	Azusa
Milnor, Walter Sears, Jr.....	Pasadena
Moll, Walter E.....	Pasadena
Morey, Helene Rose.....	South Bend, Ind.
Mosteller, Roy	Pasadena
Mueller, Earl W.....	Los Angeles
Newport, Fred Tate.....	Hanford
Niles, Porter Howe.....	Pasadena
Painter, Charles W.....	Pasadena
Painter, Ethel M.....	No. Pasadena
Pascoe, Elmer	Los Angeles
Pearson, Leo E.....	Lamanda
Pearson, George William.....	Pasadena
Percy, Albert Emerson.....	Chino
Peterson, Bertram Roderick.....	Ensenada, Mexico
Phillips, Virginia	Pasadena
Poage, Leland Starke.....	Pasadena
Price, Jacob Meday.....	Los Angeles
Proctor, Elmo C.....	Los Angeles
Raynesford, Frank L.....	Pasadena
Richardson, Stanley Miller.....	Riverside
Rodgers, Warren Stewart.....	La Mesa
Ryus, David D.....	Los Angeles
Sawtelle, Mary G.....	Pasadena
Schrock, Irvin	Pasadena
Scott, Archie	Duarte
Scott, Arthur Virgil.....	Los Angeles
Scudder, Ethel Wilton.....	Pasadena
Scudder, Jessie Ingram.....	Pasadena
Shaw, Earle Selwyn.....	Ventura
Sherman, Lancey	Pasadena
Shibley, Marie	Pasadena
Shrode, David Roy.....	Murrieta
Sidwell, Chester C.....	Rivera
Smith, Raymond Stratton.....	Fremontville

Squire, Guy Oliver.....	Downey
Squire, Roy Ellis.....	Downey
Stehman, John M.....	Pasadena
Story, Henry.....	Burbank
Swigart, De Witt.....	Norwalk
Thomas, Jessie Prudence.....	Pasadena
Thorkildsen, Corinne.....	Pasadena
Tilley, Norman William.....	Los Angeles
Tucker, James.....	No. Pasadena
Tweedy, James Knox.....	Downey
Twinting, Bertha.....	Pasadena
Ward, Nellie.....	Pasadena
Waterhouse, Gerald.....	Pasadena
Waterhouse, Melicent Eda.....	Pasadena
Webster, Mabel B.....	Pasadena
Westrem, Eric.....	Alhambra
Weymouth, Walter Alson.....	Pasadena
Whitmore, Ben L.....	Pasadena
Williams, Gilbert R.....	Pasadena
Wood, Helen.....	Glendora
Wood, Helen B.....	Pasadena
Wood, Hilda.....	Glendora
Woodbury, Fred Ralls.....	Pasadena
Wright, Sydney Augustus.....	Bangor, Me.
Wyckoff, Ralph Fenton.....	So. Pasadena

Grammar School

Allen, Lois.....	Los Angeles
Armstrong, Margaret.....	Altadena
Ashdown, Charles Lawrence.....	Lamanda
Aspinall, John.....	Los Angeles
Baldwin, Eugene Irving.....	Medina, Ohio
Ball, Bertrand Logan.....	Pasadena
Ball, Katharine Fairchild.....	Pasadena
Banbury, William Mohr.....	Pasadena
Barker, Huntington.....	New York City, N. Y.
Barker, Parrish.....	New York City, N. Y.
Barnwell, Edwin.....	Alhambra
Barnwell, Reginald Hunting.....	Alhambra
Bell, Emma Henrietta.....	Pasadena
Benton, Irving Wright.....	Pasadena
Bergman, Henry H.....	Pasadena
Beyer, Harry Gysbert.....	No. Pasadena
Bland, Serena Lois.....	No. Pasadena
Bolt, Marjory.....	Pasadena
Brainerd, Edward Rankin.....	Los Angeles
Campbell, Earl.....	Los Angeles
Cartwright, James Lowson.....	Alhambra
Case, R. Frank.....	Pasadena
Charouleau, Louise Mary.....	Pasadena
Coffin, George Holman.....	Pasadena
Colton, George R.....	Searchlight, Nevada
Coman, William Meriam.....	No. Pasadena
Cook, Dorothy Glyde.....	Philadelphia, Penn.
Cook, Helen Chaffey.....	Philadelphia, Penn.
Cotton, Catharine Mary.....	Pasadena
Cross, Margaret Dorothy.....	Monrovia
Cross, Philip Byrns.....	Los Angeles
Dancaster, Dunstan.....	Los Angeles

De Arman, Frank.....	Pasadena
Douglass, Benjamin Kaime.....	Los Angeles
Douglass, Francis Archibald.....	Los Angeles
Douglass, Margaret	Los Angeles
Elliott, Hazel	Pasadena
Ferrin, Charles Sabin.....	Montpelier, Vt.
Forbes, George Lewis.....	Pasadena
Foster, George Henry	Evanston, Ill.
Frohman, Philip Hubert.....	Cincinnati, Ohio
Gaylord, Ruth Louise.....	Pasadena
Gould, Howard Arthur.....	Pasadena
Greeley, Benjamin Merritt.....	Los Angeles
Green, Percy Bartlett.....	Colorado Springs, Colo.
Greene, John D.....	Pasadena
Harris, Frank Wendell.....	Pasadena
Hayes, Marshall Crane.....	Lamanda
Hayes, Oliver Bliss.....	Lamanda
Hippach, Robert Albert.....	Chicago, Ill.
Hoover, George E.....	Pasadena
Hughes, Fern	Los Angeles
Hunt, Arthur Lewis.....	Pasadena
Ingvaldsen, Andrew	Altadena
Irwin, Ethel C.....	Quincy, Ill.
Johnson, James	Pasadena
Johnson, Ruth.....	Pasadena
Judson, Howard Wilcox.....	Whittier
Kendall, Jennie	Pasadena
Kloeckner, Frank Dana.....	Pasadena
Lowe, Harry Leo.....	Pasadena
McAulay, Calvin	Los Angeles
McBride, James Aclay.....	Pasadena
McCoy, Ernest Royal.....	Pasadena
Macomber, Laurence Osgood.....	Somerville, Mass.
Mears, Margaret	Evanston, Ill.
Mears, Nathan	Evanston, Ill.
Merrill, Everett Hardy.....	Los Angeles
Moody, Graham Blair.....	Los Angeles
Moody, Wilbur Ladde.....	Los Angeles
Moore, Leonard Lewis.....	Pasadena
Moses, Radford.....	Washington, D. C.
Newman, Miller Emil.....	Riverside
Newman, Davis Hjalmar.....	Riverside
Norrish, Ernest Springwood.....	Pasadena
Painter, Harry John.....	Pasadena
Phelps, Robert W.....	Los Angeles
Pinkham, Robie L.....	Pasadena
Potts, William George.....	Los Angeles
Price, Ruth	Pasadena
Reed, Charles Allen.....	Deer Lodge, Mont.
Ricker, Chester Stevens.....	Chicago, Ill.
Risher, Frank Gladden.....	Pittsburg, Penn.
Shaffer, John Wesley.....	Pasadena
Sharp, Clyde B.....	No. Pasadena
Sharp, George Garfield.....	No. Pasadena
Shrode, John	Long Beach
Smith, Addison B.....	Pasadena
Smith, Kate	Pasadena
Smith, John Stanley.....	Martinsdale, Mont.
Snyder, Andrew	Altadena

Stewart, John Ernest.....	Lone Pine
Strafford, John Evererd.....	Pasadena
Taylor, George Henry.....	Los Angeles
Thorkildsen, Henry William.....	No. Pasadena
Thrall, Walter Isaac.....	Pasadena
Tompkins, De Ronde.....	St. Paul, Minn.
Vance, Marjeane Paine.....	Los Angeles
Visscher, Helen Ruth.....	Pasadena
Wadsworth, Katharine.....	Pasadena
Wadsworth, Mary Manter.....	Pasadena
Weeks, Cyrus Foss.....	Alhambra
Welsh, Clyde M.....	Los Angeles
Winsor, Charles Travis.....	San Jose
Winsor, Samuel Wiley.....	San Jose

Special

Backus, Charles S.....	Pasadena
Brent, Florence.....	Pasadena
Brown, Anna A.....	Pasadena
Chapin, Grace June.....	Pasadena
Clark, Oliver Cutter.....	Pomona
Dalton, Mable Lucy.....	Los Angeles
Day, Frederick.....	Pasadena
Dutton, Horace H.....	Pasadena
Etienne, Mary.....	Pasadena
Fowler, Kate.....	Pasadena
Gould, M. Augusta.....	No. Pasadena
Greef, Elva Charlotte.....	Pasadena
deGuigne, Marie Christine.....	Pasadena
Hayes, Katherine Valera.....	Pasadena
Hecht, Carolyn Centennial.....	Los Angeles
Howell, George Franklin, Jr.....	Pasadena
Jacques, Nina G.....	Pasadena
Lescher, Ada Elizabeth.....	Carpinteria
Markham, Alice.....	Pasadena
Mattis, Mrs. D. L.....	Pasadena
Norton, Elizabeth.....	Pasadena
Pattee, Mona.....	Pasadena
Perrin, William E.....	Pasadena
Pickering, May E.....	Pasadena
Prenzlauer, Myrtle Wagoner.....	Los Angeles
Rouse, Van Elton.....	Colorado Springs, Colo.
Sweesy, Millie Merle.....	Pasadena
Upton, Emory S.....	Pasadena
Wamsley, Frank C.....	Glendora
Wright, Howard.....	Pasadena

Summary

	Male.	Female.	Total.
College.....	12	2	14
Normal Department.....	2	25	27
Commercial Department.....	17	14	31
Academy.....	136	39	175
Grammar School.....	80	25	105
Special Students.....	10	20	30
Totals (no duplicates).....	257	125	382

Graduates

1895

Normal Department

Daniels, Esther C. (Mrs. Turner).....Corona
 Gower, Hattie F.....Teacher of Sloyd, Los Angeles
 Harris, Caroline E.....Teacher of Sloyd, Los Angeles
 Miller, Charles E...Director Manual Training, Normal School, Los Angeles
 Simcoe, Benjamin F.....Teacher Manual Training, San Francisco

Academy

Allen, Robert S.....Proprietor Electric Supply and Fixture Co., Pasadena
 Carlton, Don W.....Bank Teller, Los Angeles
 Doty, George F.....Bank Clerk, Pasadena
 Ferguson, Clarence.....In business, Los Angeles

1896

College

Haynes, Dian M., A. B.....Teacher, Compton
 Doty, George F., A. B.....Bank Clerk, Pasadena

Normal Department

Beckwith, Kate B.....Tulare
 Burkhead, Ada H. (Mrs. Hale Weaver).....Grand Rapids, Mich.
 Chamberlain, Arthur H.....Professor of Pedagogy, T. P. I., Pasadena
 Johnson, Annette.....Teacher of Sloyd, Los Angeles
 Keyes, Mrs. Helen B.....Hartford, Conn.
 Mathews, Amanda.....Teacher of Sloyd, City of Mexico
 McLaren, Jennie.....Student University of California, Berkeley
 Riggins, Ara.....Teacher, San Bernardino

Academy

Arnold, Ralph.....Assistant in Geology, Stanford University, Palo Alto
 Conger, Lulu N.....Student, Commercial Dept., T. P. I., Pasadena
 Gray, Roy W.....Draughtsman, Los Angeles
 Menner, Ivy.....Book-keeper, Pasadena
 Morrison, Margaret L.....Compton
 Snyder, Blanchard N.....Assayer, Anaheim
 Winslow, Edward F..Train Dispatcher, B., C. R. & N. Ry., Cedar Rapids, Ia.

1897

College

Grinnell, Joseph, A. B.....Graduate Student, Stanford University, Cal.

Normal Department

Batchelder, Lizzie.....Teacher of Sloyd, Los Angeles
 Blanchard, Ada F.....Student, Teachers' College, N. Y.
 Cleveland, Ada C.....Teacher of Sloyd, Honolulu, H. I.
 Cook, Mary A.....Glendora
 Coombs, Sarah C.....Teacher, Visalia
 Fisher, Pearl B.....Teacher of French and Drawing, T. P. I., Pasadena

Holbrook, Lucy M.....Book-keeper, Worcester, Mass.
 Mellish, Ida M.....Art Student, Hopkins Institute, San Francisco
 Smith, Mary M.....Teacher Normal School, Los Angeles
 Wright, Charles H.....Teacher of Manual Training, Phoenix, Ariz.

Academy

Baker, Calvin.....In business, Pasadena
 Baker, Ruth Ellen.....Pasadena
 Barker, James Edmund...With Minneapolis Electric Co., Minneapolis, Minn.
 Blick, Kate Fay.....Pasadena
 Conger, Lyda Drowne (Mrs. Richard A. Vose).....Clinton, Iowa
 Conger, Ray Everett.....Ass't Sup't Sunset Crude Oil Co., Bakersfield
 Farnsworth, John Arthur.....Book-keeper, Los Angeles
 Jewett, Frank Baldwin...Senior Fellow, University of Chicago, Chicago, Ill.
 *Johnston, Blanche
 McQuilling, William....Ass't Sec. Pasadena Land and Water Co., Pasadena
 Polkinhorn, Edwin J.....In business, City of Mexico
 Reed, John O.....Sugar Boiler, Beet Sugar Factory, Alamitos
 Russell, Emma.....Student Normal Dept., T. P. I., Pasadena
 Stimson, Charles W.....Lumber business, Ballard, King Co., Wash.
 Vose, Richard A.....In business, Clinton, Iowa

1898

College

Blackman, Roy Beebe, A. B.....U. S. Army, Philippine Islands
 Jewett, Frank Baldwin, A. B.....
Senior Fellow, University of Chicago, Chicago, Ill.

Sloyd Normal Course

Elleau, Jeanette Marcelle (Mrs. Harold Simpson).....Los Angeles
 Elleau, Pauline Margaret.....Recorder's office, Los Angeles
 Faithfull, Claude A.....Teacher of Sloyd, Los Angeles
 Hannah, LillianOntario
 Hunt, Genie A.....Teacher of Sloyd, Los Angeles
 Jordan, Mabel (Mrs. Chas. F. Denison).....Pasadena
 Olson, Albert L.....Sup't Manual Training, San Diego
 Russell, Emma.....Student, T. P. I., Pasadena
 Sanders, M. Frances.....Teacher, Los Angeles
 Shields, Mrs. Alice.....Teacher of Sloyd, Los Angeles
 Webber, Marie Bambrick.....Highgrove

Academy

Beery, Mary Ellen.....South Pasadena
 Folsom, Harry G.....Student M. I. T., Boston, Mass.
 Gaylord, Horace Amidon..Student Baltimore Dental College, Baltimore, Md.
 Gaylord, James Mason.....Student T. P. I., Pasadena
 Menner, Lottie Ethel.....Student Commercial Dept., T. P. I., Pasadena
 Monroe, Grace Ella (Mrs. John O. Reed).....Alamitos
 Olson, Albert L.....Sup't Manual Training, San Diego
 Poindexter, Charles Lawrence....Student Mining School, Houghton, Mich.
 Sterrett, Roger Jordan.....Student Stanford University, Palo Alto
 Wright, Rachel Edna.....Pasadena

1899

Normal Department

Barker, Katharine K.....Teacher of Cooking, Los Angeles
 Blanford, May.....Student Teachers' College, New York

*Deceased.

Burnett, Grace.....	Teacher of Sloyd, Los Angeles
De Yoe, Mrs. Rose J.....	Teacher, San Francisco
Fordyce, Mabel	Pasadena
Haller, Dora.....	Teacher of Sloyd, Los Angeles
Jordan, Mabel (Mrs. Chas. F. Denison).....	Pasadena
Read, Archie L.....	Teacher of Sloyd, San Francisco
Sabin, Jessie	Pasadena
Southwick, Clara.....	Instr. Grammar School Subjects, T. P. I., Pasadena

Academy

Bixby, William F.....	Architectural Draughtsman, Los Angeles
Clark, Adeline Orilla.....	Teacher in Normal School, Honolulu, H. I.
Davidson, Leonard.....	Ass't in Forging, T. P. I., Pasadena
Fordyce, Mabel	Pasadena
Raleigh, Carl	Los Angeles
Wood, Clifford H.....	Student University of California, Berkeley

1900

College

Harris, Irving, A. B.....
.....	With Redlands Electric Light and Power Co., Craftonsville
Olson, Albert, A. B.....	Sup't Manual Training, San Diego

Normal Department

Anderson, Lucy J.....	Instructor in Domestic Science, L. A. Normal, Los Angeles
Brooks, Ada M.....	Teacher of Sloyd, Los Angeles
Davidson, Leonard E.....	Assistant in Forging, T. P. I., Pasadena
Dobbs, Ella V.....	Supervisor of Cardboard Construction, Los Angeles Schools
Gower, Mary L.....	Student in Teachers' College, New York
Holton, Lola N.....
Lyde, Louise.....	Teacher of Domestic Economy, Public Schools, Los Angeles
Martin, Walter W.....	Instructor Wood Working, T. P. I., Pasadena
Metcalf, Stella	Pasadena
Moore, Nellie.....	Assistant in Sloyd, T. P. I., Pasadena
Morgan, Mabel V.....	Teacher of Domestic Economy, Public Schools, Los Angeles
Peabody, Sallie.....	Assistant in Sloyd, T. P. I., Pasadena
Pearce, Mrs. Susan.....	Teacher of Domestic Economy, Los Angeles
Toll, Mabel E.....	Baldwinsville, N. Y.
Van Hook, Kate.....

Academy

Jerauld, Edwin W.....	Student College Dept., T. P. I., Pasadena
Jewett, Pauline	Pasadena
Richards, Bessie E.....	Artist, Wakeley Novelty Co., Pasadena
Strong, Robert M.....	Student, Albany, N. Y.

Officers of the Alumni Association

President, James M. Gaylord, '98	Vice-President, Pearl Fisher, '97
Secretary, Kate Blick, '97	Treasurer, Leonard Davidson, '99
Historian, Lulu N. Conger, '96	

Summer School of Manual Training

The Summer School of Manual Training was established in 1900. While it is open to all students wishing to pursue work in manual lines, the courses offered are planned with a view to meeting the needs of teachers in the public schools. Special thought will be given those who may wish to become candidates for the normal diploma in any department. All work done will be credited by the Institute.

The courses to be offered at the Summer Session, July 8 to August 3, 1901, are as follows:

Psychology; Dr. Edwin Diller Starbuck, Assistant Professor of Education in Leland Stanford Jr. University.

The Theory of Motor Activity; Arthur H. Chamberlain.

Primary Manual Training; Jane Langley, Supervisor of Training School, Territorial Normal School, Silver City, New Mexico.

Paper and Cardboard Construction; Ella V. Dobbs, Supervisor of Cardboard Construction, Los Angeles, Cal.; Ida Mellish.

Advanced Cardboard Construction; Arthur H. Chamberlain.

(a) Bench-work for apparatus making; (b) Chip and knife carving; Frank H. Ball.

Educational Bench-work; Arthur H. Chamberlain; Albert L. Olson, Supervisor of Manual Training, San Diego, Cal.

Free-hand Drawing and Painting; Frances F. Sterrett.

Mechanical Drawing; Frank H. Ball.

Clay Modeling; Frances F. Sterrett.

Wood Carving; Harry D. Gaylord.

Pyrography; Ida Mellish.

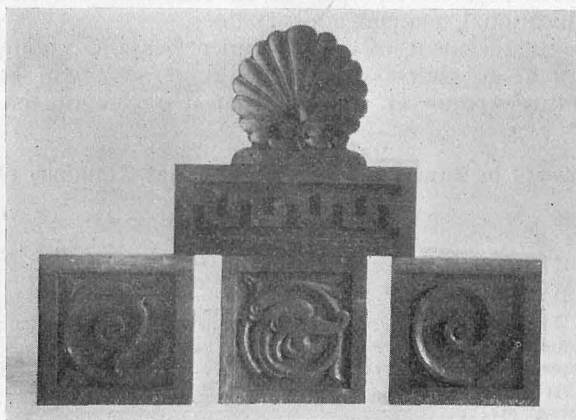
A course of lectures, open to all students, will be given on general educational, manual and art lines.

The announcement of the Summer Session, giving detailed information as to courses, terms, lodgings, etc., will be sent on application to Arthur H. Chamberlain, Director of the Summer School.

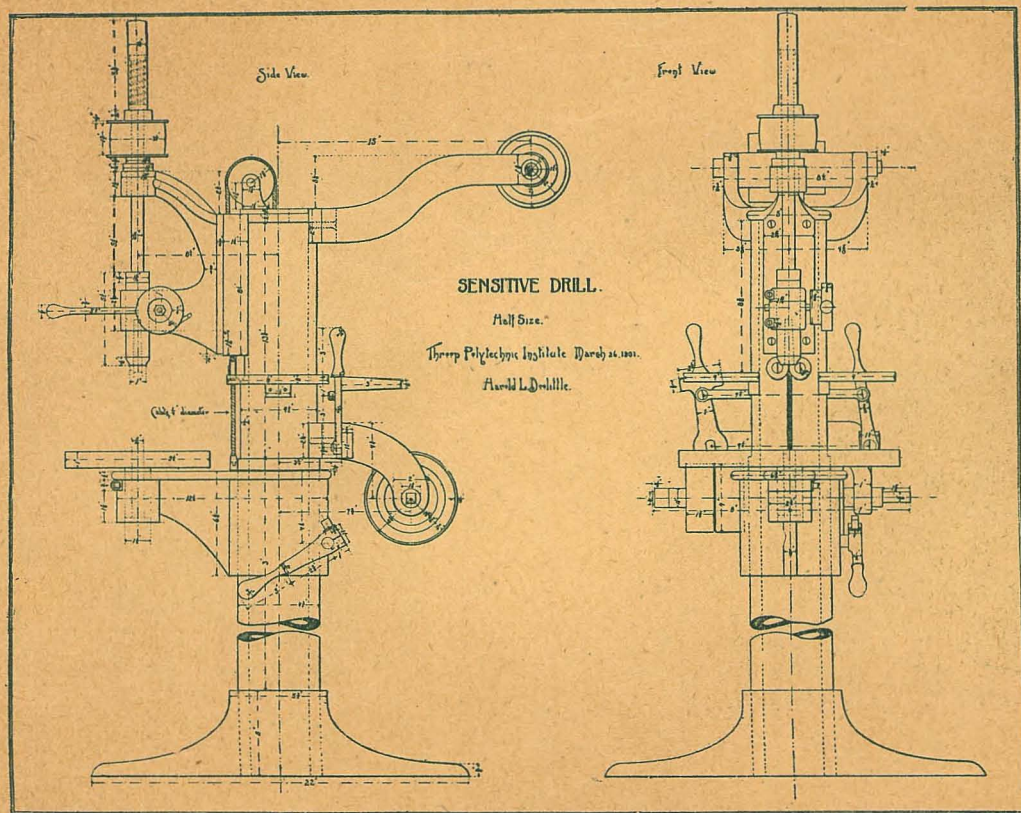
Students in Summer School of Manual Training, 1900

Abbott, Mary A.	Pasadena
Baker, Mary M.	The Pass
Barber, Charles E.	North Platte, Neb.
Bemis, Grace L.	Redlands
Blanchard, Dora A.	Covina
Bosbyshell, Mary C.	Redlands
Bowen, Cornelia E. L.	Glendale
Burnett, Grace R.	Los Angeles
Collier, Gertrude.	Eldridge
Compton, Mrs. H.	South Pasadena
de Pencier, Mabel J.	Sierra Madre
Dexter, Yetta F.	Monrovia
Dix, Cora A.	Los Angeles
Duren, Cornelia	Fernando
Espy, Frances A.	San Bernardino

Foster, Tuey	Murietta
Fuller, Grace	Azusa
Forbes, Fannie E.	Pasadena
Gooch, Mrs. E. A.	Pasadena
Gordon, Alfred W.	Pasadena
Harris, Mabel A.	Pasadena
Haynes, Diantha M.	Compton
Higley, Alice D.	Terminal
Holton, Lola	Ramona
Hunt, Genie A.	Los Angeles
Lemon, Anna E.	Pasadena
Lyde, Louise	Los Angeles
Machold, Ernestine L.	San Pedro
McMahan, Arminta	Pasadena
McNair, Martha J.	Pasadena
Messer, N.	Highland Park
Metcalf, Beeda	Lamanda Park
Mosher, Ella D.	Pomona
Martin, Walter W.	Pasadena
Morgan, Mabel	Los Angeles
Olson, A. L.	San Diego
Peabody, Sallie	Pasadena
Pearce, Mrs. Susan.	Los Angeles
Reed, D. C.	Redlands
Robinson, Ida R.	Pasadena
Romick, Minnie	La Verne
Seegmiller, Emily M.	Lamanda Park
Seegmiller, Frances C.	El Monte
Stoermer, Rosella	San Gabriel
Svenson, Lillie M.	Pomona
Townsend, Mrs. B.	South Pasadena
Wagner, Fred A.	Redlands



EXERCISES IN WOOD CARVING



MACHINE DRAWING BY AN ACADEMY STUDENT

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