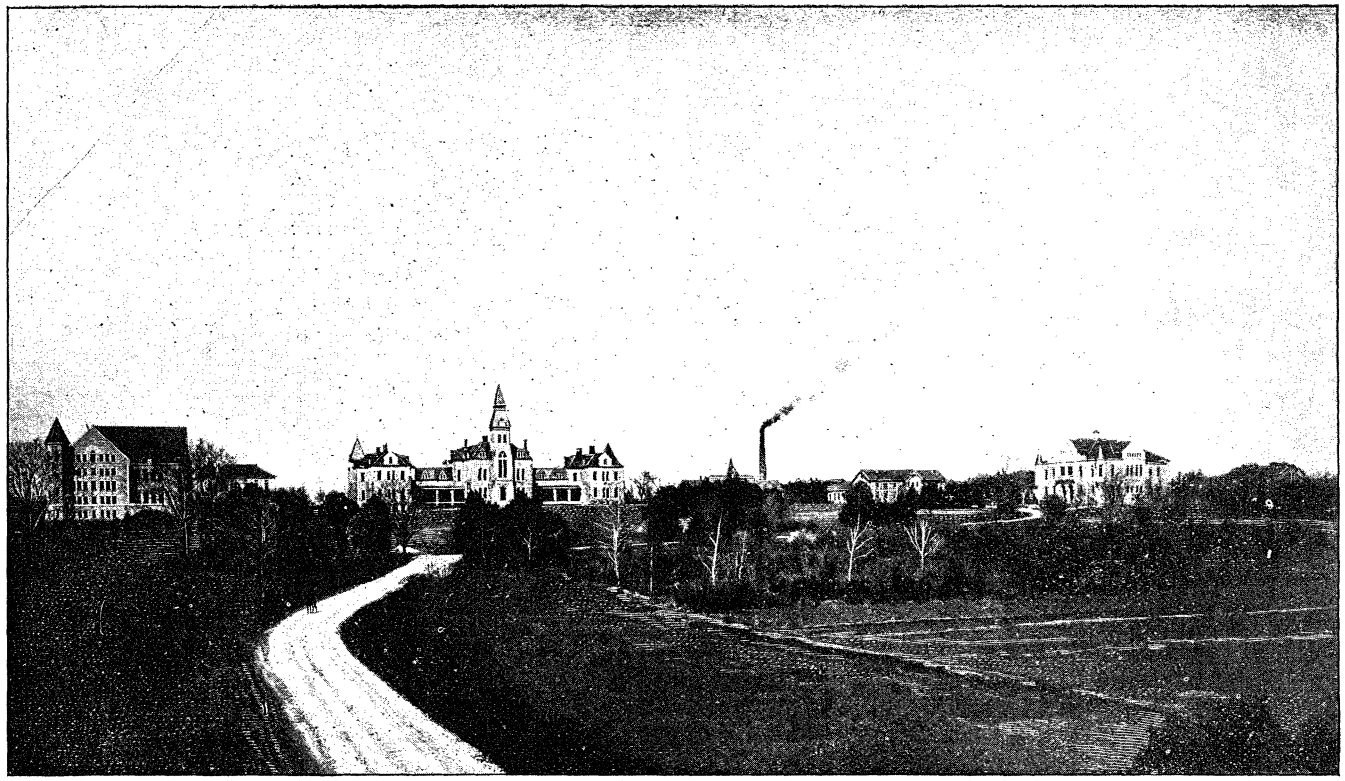
Catalogue

1899-1900.



GENERAL VIEW OF BUILDINGS AND GROUNDS.

THIRTY-SEVENTH ANNUAL CATALOGUE

OF THE

Officers, Students and Graduates

OF THE

KANSAS STATE

Agricultural College

MANHATTAN,

1899-1900.

MANHATTAN, KANSAS.
JUNE 1900.

Terms and Vacations.

Fall Term, 1900, Thirteen Weeks.

TUESDAY, SEPTEMBER 18.—Examination for admission, at 9 A. M.
WEDNESDAY, SEPTEMBER 19.—College year begins.
TUESDAY, SEPTEMBER 25.—Short course in domestic science begins.
SATURDAY, NOVEMBER 3.—Examination.
TUESDAY AND WEDNESDAY, DECEMBER 18, 19.—Examination at close of fall term.

Winter Term, 1901, Twelve Weeks.

WEDNESDAY, JANUARY 2.—Examination for admission, at 9 A. M.
THURSDAY, JANUARY 3.—Winter term begins.
THURSDAY, JANUARY 3.—Short courses in agriculture, horticulture and dairying begin.
SATURDAY, FEBRUARY, 9.—Examination.
THURSDAY AND FRIDAY, MARCH 21, 22.—Examination at close of winter term.

Spring Term, 1901, Eleven Weeks.

MONDAY, MARCH 25.—Examination for admission, at 9 A. M.
TUESDAY, MARCH 26.—Spring term begins.
SATURDAY, MAY 4.—Examination.
TUESDAY AND WEDNESDAY, JUNE 11, 12.—Examination at close of year.
JUNE 9 TO 13.—Exercises of Commencement week.
THURSDAY, June 13, AT 10 A. M.—Commencement.
JUNE 14 TO SEPTEMBER 18.—Summer vacation.

Fall Term, 1901.

WEDNESDAY, SEPTEMBER 18.—Examination for admission, at 9 A. M.
THURSDAY, SEPTEMBER 19.—College year begins.

Board of Regents.

HON. E. T. FAIRCHILD (1903)*, *President*,
Ellsworth, Ellsworth county.

HON. J. S. McDOWELL (1901), *Vice-President*,
Smith Center, Smith county.

HON. W. T. YOE (1901), *Treasurer*,
Independence, Montgomery county.

HON. WM. HUNTER (1903), *Loan Commissioner*,
Blue Rapids, Marshall county.

HON. MRS. SUSAN J. ST. JOHN (1901),
Olathe, Johnson county.

HON. CARL VROOMAN (1901),
Parsons, Labette county.

HON. J. M. SATTERTHWAITE (1903),
Douglass, Butler county.

ACTING PRES. E. R. NICHOLS (*ex officio*), *Secretary*.

MISS LORENA E. CLEMONS, *Assistant Secretary*.
Manhattan.

*Term expires.

Board of Instruction.

FACULTY.

ERNEST R. NICHOLS, A. M. (University of Iowa), ACTING PRESIDENT,
Professor of Physics and Electrical Engineering.

JOHN D. WALTERS, M. S. (Kansas State Agricultural College),
Professor of Industrial Art and Designing.

ALEXANDER B. BROWN, (Boston Music School), A. M. (Olivet),
Professor of Music.

JULIUS T. WILLARD, M. S. (Kansas State Agricultural College),
Professor of Applied Chemistry.

ALBERT S. HITCHCOCK, M. S. (Iowa State Agricultural College),
Professor of Botany.

PAUL FISCHER, B. Agr., M. V. D. (Ohio State University),
Professor of Veterinary Science.

MISS MARY F. WINSTON, Ph. D. (Goettingen),
Professor of Mathematics.

FREDERIC AUGUSTUS METCALF, O. M. (Emerson College of Oratory),
Professor of Oratory.

GEORGE F. WEIDA, Ph. D. (Johns Hopkins),
Professor of Pure Chemistry.

HENRY M. COTTRELL, M. S. (Kansas State Agricultural College),
Professor of Agriculture, Superintendent of Farm.

MISS MINNIE AVA NELLIE STONER, (Boston Normal School of Household Arts), B. S. (South Dakota Agricultural College),
Professor of Domestic Science, Dean of Women's Department.

JOSEPH D. HARPER, M. S. (Rose Polytechnic Institute),
Professor of Mechanical Engineering, Superintendent of Shops.

EDWIN A. POPENOE, A. M. (Washburn),
Professor of Horticulture and Entomology, Superintendent of Orchards and Gardens.

CARL EVANS BOYD, Ph. D. (Chicago),
Professor of History and Economics.

FRANK C. LOCKWOOD, Ph. D. (Northwestern),
Professor of English.

MISS HARRIET HOWELL, (Pratt Institute),
Superintendent of Domestic Art.

JOSHUA D. RICKMAN, (I. T. U.),
Superintendent of Printing.

MISS JOSEPHINE T. BERRY, A. B. (Kansas University),
Librarian.

B. S. McFARLAND, A. M. (Miami),
Principal Preparatory Department.

MISS LORENA E. CLEMONS, B. S. (Kansas State Agricultural College),
SECRETARY.

Assistants.

SEPTIMUS SISSON, S. B. (Chicago), V. S. (Toronto),
Associate Professor of Veterinary Science.

MISS JOSEPHINE C. HARPER,
Instructor in Mathematics.

MISS ALICE RUPP, (Indiana State Normal),
Instructor in English.

MISS FLORENCE BALL,
Director of Physical Training for Women.

WILLIAM L. HOUSE,
Foreman of Carpenter Shop.

DANIEL H. OTIS, M. S. (Kansas State Agricultural College),
Assistant in Dairying.

PERCY J. PARROTT, A. M. (University of Kansas),
Assistant in Entomology.

CHAS. W. PAPE, M. S. (Kansas State Agricultural College),
Assistant in Veterinary Science and Zoology.

MISS MARGARET J. MINIS,
Assistant Librarian.

MRS. WINNIFREDE W. METCALF,
Assistant in Oratory.

ROBERT W. CLOTHIER M. S. (Kansas State Agricultural College),
Assistant in Chemistry.

ROBERT H. BROWN, M. T. (Kansas Conservatory of Music), B. S. (Kansas State Agricultural College),
Assistant in Music.

JAMES M. WESTGATE, M. S. (Kansas State Agricultural College),
Assistant in Botany.

Miss MAY SECREST, B. S. (Kansas State Agricultural College),
Assistant in Domestic Art.

WM. ANDERSON, B. S. (Kansas State Agricultural College),
Assistant in Mathematics.

Miss GERTRUDE BARNES,
Assistant Librarian.

ALBERT DICKENS, B. S. (Kansas State Agricultural College),
Assistant in Horticulture.

WILLIAM BAXTER,
Foreman of Greenhouses.

J. E. SATTERTHWAITE,
Foreman of Printing-office.

JOHN G. HANEY, B. S. (Kansas State Agricultural College),
Assistant in Field and Feeding Experiments.

Miss MARY PRITNER, B. S. (Kansas State Agricultural College),
Assistant in Domestic Science.

THEODORE LINDQUIST, M. S. (Northwestern),
Assistant in Physics.

W. M. SAWDON, B. S. (Purdue),
Assistant in Mechanical Engineering.

O. I. PURDY, B. S. (Kansas State Agricultural College),
Assistant in Printing.

Miss BERTHA L. JAEDICKE, (Klindworth Scharwenka), Berlin,
Assistant in Music.

Miss ADA RICE, B. S. (Kansas State Agricultural College),
Assistant in Preparatory Department.

LOUIS WABNITZ,
Foreman of Iron Shop.

HENRY VAN LEEUWEN, (University of Wisconsin Dairy School),
Instructor in Cheese Making.

E. W. CURTIS,
Instructor in Butter Making.

Miss FLORENCE L. GRANT, (Massachusetts Normal Art School),
Assistant in Drawing.

ALBERT T. KINSLEY, B. S. (Kansas State Agricultural College),
Assistant in Veterinary Science.

CHARLES D. MONTGOMERY,
Cadet Major and Acting Commandant.

Other Officers.

JACOB LUND, M. S. (Kansas State Agricultural College),
Engineer.

Miss C. JEANETTE PERRY, B. S. (Kansas State Agricultural College),
Executive Clerk.

W. R. LEWIS,
Janitor.

ARCHIE HUYCKE,
Secretary to President.

Experiment Station.

Council.

ACTING PRESIDENT NICHOLS, Chairman.
PROFESSOR WILLARD, Chemist and Director.
PROFESSOR HITCHCOCK, Botanist.
PROFESSOR FISCHER, Veterinarian.
PROFESSOR COTTRELL, Agriculturist.
PROFESSOR POPENOE, Entomologist and Horticulturist.

MISS CLEMONS, *Secretary.*

Assistants.

DANIEL H. OTIS, M. S., Assistant in Dairying.
PERCY J. PARROTT, A. M., Assistant Entomologist.
ROBERT W. CLOTHIER, M. S., Assistant Chemist.
ALBERT DICKENS, B. S., Assistant Horticulturist.
JOHN G. HANEY, B. S., Assistant in Field and Feeding Experiments.
ALBERT T. KINSLEY,* B. S., Assistant in Veterinary Science.

*Since January, 1900.

Student Assistants.

F. W. BOBBITT, Surveying.
C. A. CHANDLER, Horticulture.
J. A. CONOVER, B. S., Dairying.
RACHEL CALLIE (Conwell) THOBURN, B. S., Algebra.
R. E. EASTMAN, Horticulture.
G. O. GREENE, Horticulture.
INA E. HOLROYD, B. S., Grammar and Composition.
F. E. JOHNSON, B. S., Geography.
MARIAN JONES, Sewing, Arithmetic.
A. T. KINSLEY, Chemistry.
W. F. LAWRY, Surveying.
W. E. MATHEWSON, Chemistry.
MIRIAM MONROE, Sewing.
HARRIET G. NICHOLS, B. S., Chemistry.
ELLEN (Norton) ADAMS, Sewing.
ANNA PFUETZE, B. S., Domestic Science.
ANNA SMITH, Chemistry.
ADELAIDE STRITE, Chemistry.
D. B. SWINGLE, Botany.
ADELAIDE WILDER, B. S., Domestic Science.

The College Battalion.

The following is the roster of the commissioned and non-commissioned officers of the Kansas State Agricultural College corps of cadets for 1899–1900:

CHAS. D. MONTGOMERY,
Major, and Commandant of Cadets.

STAFF.

R. B. PECK.....First Lieutenant and Adjutant.
FLOYD HOWARD.....First Lieutenant and Quartermaster.
C. O. SPARKS.....Sergeant-Major.
M. S. COLE.....Color Sergeant.
E. R. SECREST.....Drum-Major.
J. A. CORRELL.....Chief Trumpeter.

BATTERY.

C. E. EASTMAN.....Captain.

INFANTRY BY COMPANIES.

RANK.	"A" company.	"B" company.	"C" company.	"D" company.
Captain.....	L. E. Potter.....	E. Emrick.....	R. McKee.....	A. I. Bain.
First Lieutenant....	R. E. Eastman...	G. W. Hanson....	C. A. Scott.....	G. O. Greene.
Second Lieutenant..	H. F. Butterfield,	F. Meyers.....	J. H. Osterhaus..	H. H. Riley.
First Sergeant.....	B. Poole.....	C. N. Allison.....	R. A. Bower.....	B. F. Mudge.
Second Sergeant....	R. Faris.....	F. F. Hillyer.....	H. A. Avery.....	R. W. DeArmond.
Third Sergeant.....	H. W. Baker.....	H. C. Williams...	H. N. Vinall.....	W. W. White.
Fourth Sergeant....	R. C. Mitchell....	E. F. Bean.....	S. R. Kimble.....	P. H. Ross.
Fifth Sergeant.....	J. F. Ross.....	E. N. Rodell.....	E. P. McDowell..	R. C. Cole.
First Corporal.....	J. E. Young.....	R. F. Bourne.....	A. B. Cottrell.....	G. D. Reynolds.
Second Corporal....	H. T. Neilson	F. W. Boyd.....	H. M. Coe.....	D. Snyder.
Third Corporal.....	C. W. McKeen....	R. K. Taber.....	G. R. Shepherd ..	E. C. Ricord.
Fourth Corporal....	G. Fockele.....	W. A. Randle.....	R. B. Mullen.....	E. P. Daniels.
Fifth Corporal.....	F. L. Schneider..	W. D. Davis.....	G. Poole.....	H. Tracy.
Sixth Corporal.....	F. N. Gillis.....	A. H. Leidigh....	F. A. Criss.....	J. J. Healey.

History and Resources.

THE income of the College is derived from two sources—national and state. The original land-grant act was signed by President Lincoln July 2, 1862. This act appropriated 30,000 acres of land for each senator and representative in congress. Under the provisions of this act this state was to receive 90,000 acres. The amount actually received was 82,313.52. This land was to be sold and the proceeds to be a permanent endowment, to be invested in bonds bearing not less than five per cent. interest, the income from these bonds to be used for the support of at least one college in each state. The second provision of section 5 reads as follows: "No portion of said fund, nor interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings." The amount of this endowment is $503,-848. This has been increasing until recently, on account of buying bonds below par. The income derived from this endowment since 1880 is given in the column headed "Income fund," p. 15.

Under this act, the state of Kansas, in 1863, established the State Agricultural College, by endowing Bluemont College, which had been erected two miles from Manhattan, under the auspices of the Methodist Episcopal Church, but was presented to the state for the purpose named in the act of congress.

In 1873 the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 223 acres, one mile from the city of Manhattan.

In March, 1887, Congress passed the so-called "Hatch bill," which provided for the organization in each state of a station for agricultural experiments, and gave to each an annual appropriation of $15,000 for this purpose. See "Experiment Station," p. 22.

On August 30, 1890, another act was passed by congress, known as the "college-aid bill," or "Morrill bill." It provided for an annual appropriation, beginning with $15,000 for year ending June 30, 1890, with an annual increase for ten years of $1000 over the preceding year, the annual amount thereafter to each state to be $25,000. This money is "to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic sciences, with especial reference to

their applications in the industries of life and to the facilities for such instruction." The Morrill fund to June 30 last amounted to $195,000.

The total amount received from the general government from June 30, 1880, to June 30, 1899, amounted to $944,323; or, deducting the Hatch fund, $180,000, the amount available for general college purposes has been $764,323, while the total expenses of the College for that time were $817,453. It will be seen that for the last nineteen years the entire expenses of the College have been met by government appropriations, except $53,130. The total appropriation by the state to June 30, last, was $478,834, while the value of College property at the same date was $418,144. The College, therefore, has property on hand nearly equal to the value of all the money appropriated by the state.

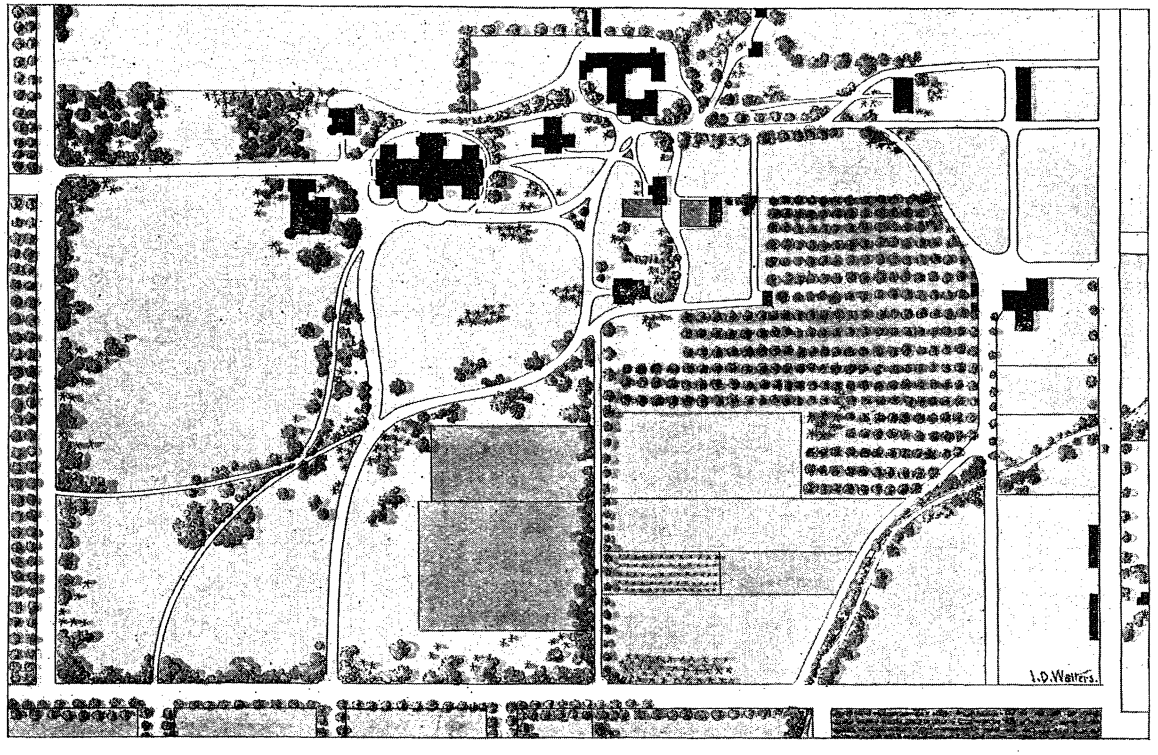
The inventory, $418,144, is made up as follows: Farm and grounds, 323 acres, $39,700; buildings, $226,900; equipment, $151,544. In 1871 the township of Manhattan donated $12,000 in bonds, partly for permanent improvements and partly for running expenses. This will account for the inventory value of the buildings being $3459 more than the amount appropriated by the state for such purposes.

The following table exhibits the various state and national appropriations:

TABULATED FINANCIAL EXHIBIT.

Fiscal Year.	STATE APPROPRIATIONS.									Inventory increase	Expense	NATIONAL APPROPRIATIONS.		
	Miscellaneous	Current expense	Water and coal	Regents, etc.	Repairs	Library	Equipment	Buildings	Total			Income fund	Morrill fund	Hatch fund
1863-80								$45,645	$155,302	$86,009				
1880-81	$17,979[1]			$1,251	$800		$1,950		4,001	3,316	$19,502	$24,766		
1881-82				1,398		$1,000		15,000	17,398	19,784	27,914	17,622		
1882-83				1,864		1,000		15,000	17,864	24,448	29,660	31,551		
1883-84				1,415	500	500	500	7,500	10,415	12,295	34,844	32,638		
1884-85	4,613[1]			1,637	500	500	500	15,000	18,137	37,105	42,646	32,213		
1885-86				1,798	700		600	10,000	12,098	34,721	45,827	38,595		
1886-87				1,733	1,400			4,100	7,233	12,910	38,788	32,253		
1887-88	2,264[1]			2,047	1,000	1,000	4,700	8,817	17,564	16,597	35,768	32,331		$15,000
1888-89	3,000[2]			1,815	1,000	1,000	2,500		9,315	10,334	32,028	31,686		15,000
1889-90			$1,425	300	1,900	1,000	2,900	1,000	8,525	8,732	29,892	34,131		15,000
1890-91			1,649	3,410	1,200	1,000	2,950		10,209	6,857	43,330	28,765	$31,000	15,000
1891-92	3,000[2]		325	1,698	3,050	250		4,000	12,323	15,219	50,722	29,654	17,000	15,000
1892-93			500	456	1,500	250			2,706	18,381	57,012	30,187	18,000	15,000
1893-94			484	37	1,000			74,000	75,521	7,846	54,989	29,761	19,000	15,000
1894-95			190	116				2,000	2,295	79,736	51,156	29,390	20,000	15,000
1895-96	1,625[3]		1,995	1,927	4,360	999	5,057	3,480	17,453	13,933	51,928	26,988	21,000	15,000
1896-97		$10,000	2,084	1,907	1,300	1,000	550	1,300	18,141	157	51,500	28,669	22,000	15,000
1897-98	629[4]	5,000	2,000	1,656	1,700	1,000	3,200	16,599	31,584	16,171	56,516	27,677	23,000	15,000
1898-99		5,000	2,000	1,700	1,000		1,050		10,750	2,993	63,431	29,549	24,000	15,000
Totals								$223,441	$478,834	$418,144	$817,453	$569,323	$195,000	$180,000
1899-00	$7,360[5]	$10,000	$2,250	$1,850	$3,000	$1,500	$22,240	43,500	91,700				25,000	15,000
1900-01	4,100[6]	10,000	2,250	1,850	3,000	1,500			22,700					
Total from state, to June 30, 1901									$593,234					

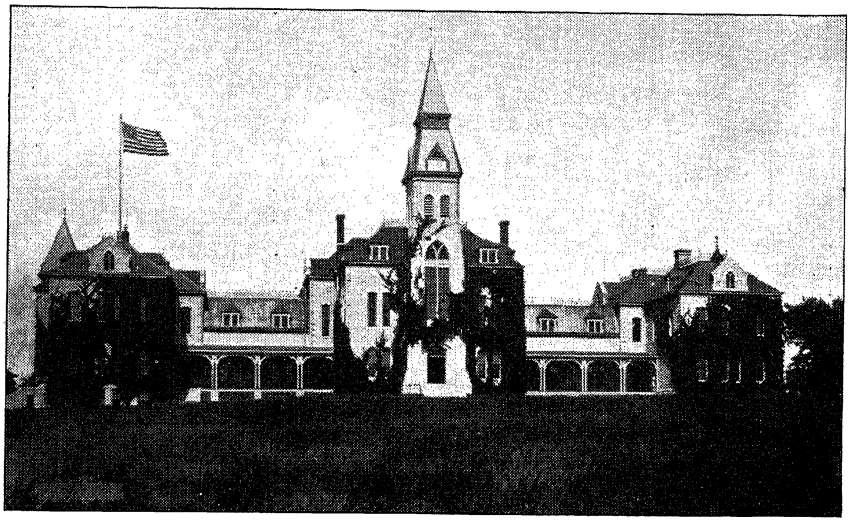
[1] To restore endowment (not included in totals).
[2] Water-mains and sewer.
[3] $1500 cadet uniforms, $125 sewer.
[4] Rent President's house.
[5] $2000 farmers' institutes, $1800 salary state veterinarian, $3000 sewer, $560 rent President's house.
[6] $2000 farmers' institutes, $1800 salary state veterinarian, $300 rent President's house.



THE CAMPUS.

Grounds and Buildings.

THE College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing toward the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape-gardener, while well-graveled drives and good walks lead to the various buildings. All these are of the famed Manhattan limestone, of simple but neat styles of archi-



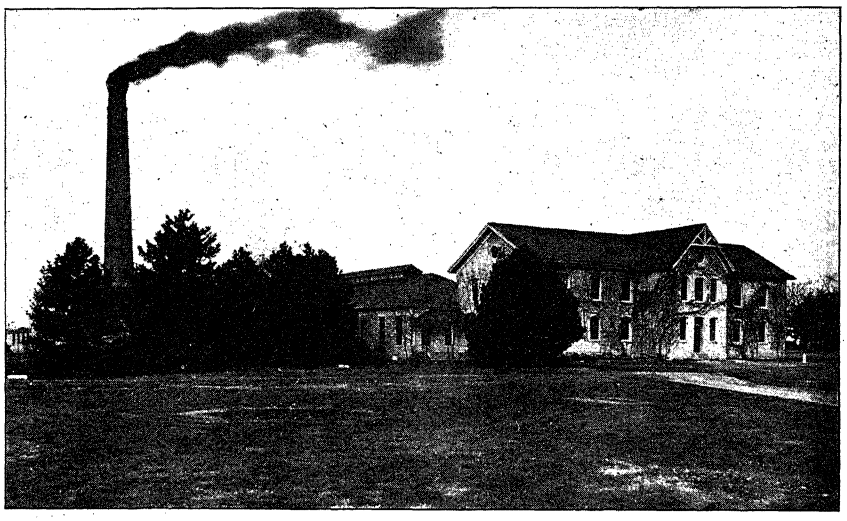
MAIN BUILDING.

tecture, and admirably suited to their use. All recitation rooms are excellently lighted and ventilated, and are all heated by steam or hot water. A complete system of sewerage has been provided. The College owns 323 acres of land, valued at $39,700, and leases 120 acres additional. The greater portion of these 443 acres is devoted to experiments.

COLLEGE (MAIN), 152x250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices of the President and

Secretary, cloak-rooms, studies, chapel, post-office, and offices and classrooms of the departments of drawing, music, physics and electrical engineering, mathematics, oratory, English, and printing. Cost, $79,000. The value of equipment and apparatus in this building is as follows: Executive, $5044; drawing, $2882; music, $1355; physics and electrical engineering, $5365; mathematics, $1849; oratory, $45; English, $123; printing, $4368.

CHEMICAL LABORATORY, one story, 26x90 and 46x75 feet of floor space, in form of a cross. It contains a commodious lecture-room, a large laboratory for the various regular classes in chemistry, a small laboratory for students in quantitative analysis and for the Experiment Station work, a balance-room, museum, and offices. Cost, $9600. Value of apparatus and equipment, $11,198. Burned May 31, 1900.



MECHANICS HALL.

MECHANICS HALL contains the following rooms, forming a connected structure: Wood shop, two stories, 40x103 feet. The upper floor contains offices and classrooms for the department of mechanical engineering. The lower floor contains benches for 220 students, and complete set of wood-working machinery and tools. Machine shops, 40x80 feet; blacksmith shop, 40x50 feet; iron foundry, 40x50 feet; brass foundry, 16x30 feet; pipe-fitting room, 18x50 feet; engineering laboratory, 35x40 feet; power room, 35x40 feet; boiler room, 40x75 feet. Cost of buildings, $21,800; value of equipment, $31,806.

HORTICULTURAL HALL, 32 x 80 feet, one story and cellar, having museum, classroom, and storage, with greenhouses attached. Cost $4200; value of equipment and apparatus, $18,929.

HORTICULTURAL LABORATORY, with five propagating houses and insectary attached. Cost, $5000.

ARMORY, 46 x 96 feet, two stories. This building, which has served many purposes, is now fitted below for an armory and drill-room and office of military department; also dressing-room and bath-room for the various athletic teams; and above are classrooms, laboratories, offices and museum of the veterinary department. Cost of building, $11,250. Value of equipment and apparatus: Military, $8172; veterinary, $12,193.

LIBRARY AND AGRICULTURAL SCIENCE HALL, 100x140 feet, three and four stories. This building provides permanent quarters for the library, with ample reading-rooms and offices, classrooms and laboratories for the departments of botany and entomology, a classroom for the department of history and economics, general museum, girls' gymnasium, and rooms for the various literary societies. Cost of building, $57,750. Value of equipments and apparatus: Botany, $17,009; history and economics, $313; entomology, $3446.

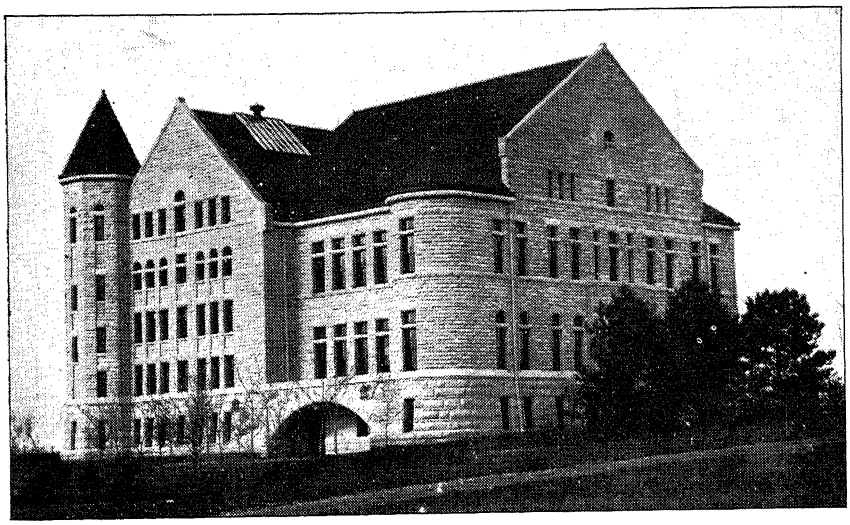
DOMESTIC SCIENCE HALL, 84 x 70 feet, containing two stories and basement. The first floor contains office, lecture-rooms and laboratories for the department of domestic science. The second floor is occupied by the department of domestic art. The basement is used by the Students' Coöperative Association, in which noon lunches are served, except on Sundays. Cost of building, $15,000. Value of apparaus: Domestic science, $2200; domestic art, $897.

THE AGRICULTURE HALL, 90 x 95 feet, two stories and basement. This contains offices, classrooms and laboratories for the department of agriculture. It is well equipped with modern improved machinery for butter and cheese making, milk testing, etc. All the workrooms are lined with opalite tiling. Cost, $25,000; equipment and apparatus, $19,286.

THE FARM BARN, a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x 50 feet. A basement, having stalls for 75 head of cattle, silos, motor-room, and granaries, underlies the entire structure. Cost, $10,831.

THE DAIRY BARN, 40x175 feet. This will be fitted up with modern swinging stalls for eighty head of cows, arranged in two rows, with driveway between. Cost of building, $3000.

THE HORTICULTURAL BARN, a stone building, containing store-room, granary, and stables for several horses. Cost, $1000.



LIBRARY AND AGRICULTURAL SCIENCE HALL.

THE COLLEGE LIBRARY is one of the most important supplements to classroom instruction. It consists of 21,450 bound volumes and about 17,000 pamphlets. These books are mainly kept in a general library, but many volumes of technical character are withdrawn and held in departmental libraries. All of the books are indexed in card catalogues, which show their author, title, and to a large degree the details of their contents; also their location. Students are allowed free access to the shelves, a privilege and a source of culture that is given in perhaps no other library of its size in the country. Students may draw books for home use under simple and liberal regulations. The library is open daily, except on legal holidays, from seven A. M. to six P. M., and the librarian or an assistant is in constant attendance during this period to assist those who use the books. By all these means the library is utilized to the fullest extent and is of inestimable value.

The College subscribes for the leading literary, scientific and agricultural journals; while the principal daily and weekly papers of Kansas, and many from other states, are received in exchange for the College publications. All these are kept on file for the use of students and Faculty. The College has been designated as a depository of United States public documents for the fifth congressional district of Kansas, and 2500 volumes have already been received on this account. An approximate estimate of the number of books, including public reports and bound periodicals, by classes, is as follows:

WHAT THE LIBRARY CONTAINS.

Classes.	*Vols.*
Agriculture	2960
Horticulture	600
Mechanics and engineering	552
Mathematics and astronomy	270
Physics and meteorology	359
Chemistry and mineralogy	330
Geology	370
Botany	1100
Zoology and entomology	570
Biology	106
Geography and travels	265
Dictionaries and cyclopedias	206
Education	445
Law	190
Administrative reports	364
Public documents on deposit	2260
Fiction	500
Poetry	200
Medical and veterinary science	396
Military science	136
Domestic science	130
Economic science	672
History and political science	1465
Printing	84
Industrial art and design	235
English language and literature	1200
Logic and philosophy	206
General science	850
Religion and morals	725
Fine arts	261
Bound magazines	1371
Music	69
History of industry	200
Oratory	60
Experiment Station bulletins and reports,	1686
Miscellaneous books	59

Objects.

This College now accomplishes the objects of its endowment in several ways:

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, physics, botany, entomology, zoölogy and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household departments is made a part of the general education for usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in about sixty counties of the state, in which from two to four members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes, held for the past twenty-two years, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. Members of the Faculty are also prominently connected with the state associations for the promotion of agriculture, horticulture, the natural sciences, and education in general. Correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences is desired.

The *Industrialist*, published by the College and edited by the Faculty, gives a wide circulation to matters of interest in the College.

THE EXPERIMENT STATION.

The Agricultural Experiment Station of the College is organized and maintained under the provisions of what is properly known as

the "Hatch act," and is officially designated as "An act to establish agricultural experiment stations in connection with the colleges established in the several states under the provisions of an act approved July 2, 1862, and the acts supplementary thereto." This was enacted "in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and practice of agricultural science." The law specifies in detail "that it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses for forage-plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The Experiment Station, so established, is an important feature of the College. The President of the College, with the professors of agriculture, botany, chemistry, horticulture and entomology, and veterinary science, form the Experiment Station Council, by the authority of which experiments are undertaken, and carried on in the several departments under the supervision of the professors. The heads of certain important departments of instruction in the College are thus also in charge of the several departments of investigation of the Station, and to a certain extent assistants serve in both capacities. The Experiment Station, therefore, is not definitely localized at the institution, but its work and property are more or less woven in with that of the College. The expenses of the Experiment Station work are separately accounted for, however, and its property is listed in separate inventories. While this arrangement involves some difficulties, it also possesses many advantages—advantages which are mutual. The College work profits by having the investigations of the Station going on alongside. The Station profits in that it thus obtains, without charge, the use of the College farm, buildings, heat, light, and use of various collections, museums, and in some cases apparatus. The expenses of the Experiment Station are met by an appropriation

by congress of $15,000 per annum. The Station's aims may be said to be twofold—those which lead to immediate returns, and those the object of which can be reached only after a series of years. Experiments of the greatest value are often of the latter kind, but if the work of the Station were limited to such, the public would feel that nothing is being accomplished. It is the intention of the Station force to make all of its experiments practical, in the sense that they lead to results which, indirectly if not directly, benefit the agricultural interests of the country.

The Hatch act provides "that bulletins or reports of progress shall be published at least once in three months, one copy of which shall be sent to each newspaper in the states or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." The publications of the Station include annual reports, bulletins, press bulletins, and monthly weather bulletins.

Since 1889 the annual reports contain no details of experiments, but simply outlines of the work of the year in general and in the several departments, and including the financial statements required by law. These annual reports, not being of general interest, therefore, are printed in but small numbers, and sent to libraries and officials only, except on special request.

The bulletins are the means of communicating the results of the Station work directly to the farmers. They are issued in the quantities judged necessary to meet the demand. All investigations are described in them when completed, and they are sent to all on our mailing lists. During the history of the Station the number issued has averaged about eight per annum, and the total number of copies printed within the year ending April 1, 1900, was 195,000.

The press bulletins are issued in limited numbers and sent to the papers, to certain state and county officers, and to a considerable number of public or semi-public institutions. They are short, readable, and popular, but at the same time accurate, articles on subjects of current interest, and embodying observations and experiments of members of the Station staff. Extra copies of some of them are printed for use in answering inquiries.

The monthly weather bulletins are sent out the next day after the close of the month, to the same addresses as the press bulletins.

Persons desiring to receive the Station bulletins are requested to address Agricultural Experiment Station, Manhattan, Kan. General correspondence in reference to the Station should be sent in the same way, but inquiries concerning any special line of investigation should be sent to the head of the department in charge of such work.

INDUSTRIAL TRAINING.

This institution is preëminently industrial in its aims, methods, and tendencies. While the pure sciences, mathematics and other studies are rigorously taught, there is constantly present a practical atmosphere which incites the student to an application of the principles taught, and thus lends interest and value to the work. In nearly every term of the four-year course the student gives one hour per day to industrial training of one kind or another. This awakens and deepens sympathy with industry and toil, impresses the student with the essential dignity of labor, thus educating toward the industries instead of away from them, and lays a good foundation for a life-work in industrial and technical lines. Even should students not all return to the farm, the shop, or to housewifery, the wider knowledge afforded them and the broader sympathies engendered cannot but redound to their good, and to the advantage of society at large and the industrial classes in particular.

Throughout the first year young men take their industrial in the shops. They thus get a familiarity with tools and methods which enables them to do the wood- and ironwork commonly needed on the farm, and which is useful to all everywhere. The young women take sewing during the first year, and a certain amount of cooking practice. The utility of this needs no argument. After the first year there are differences in the industrial requirements corresponding to differences in the several courses of study. In the domestic science course the various lines of household art constitute almost the entire industrial work, floriculture being given one term and another being open to choice. In the mechanical engineering course shop work in one or another of its various kinds is required every term. In the agricultural course the industrials include practical instruction in the fields, orchards, gardens, and dairy, and in feeding. The science course offers more latitude in choice of industrials after the second year. Young women may take sewing, cooking, printing, floriculture, or music. Young men may have woodwork, ironwork, dairying, farming, gardening, fruit-growing, or printing. The availability of these industrials depends somewhat on the season in some cases, so that not all are open each term. In addition to the above, a limited number of students are allowed typewriting as the industrial, upon recommendation of the head of a department having a machine.

The labor of students during assigned industrial time is not paid for, as its object is educational, and the student receives full value in the training afforded. In all the instruction in industrial lines special attention is given to making the courses systematic and progressive. Students desiring to give extra attention to such work are allowed every opportunity that the departments can afford. Many

students acquire sufficient proficiency to be able to turn their skill to a financial advantage during the later terms of their courses, and all who apply themselves with any diligence obtain a training that cannot fail to be of great benefit to them in after-life. The work of the several industrials will be found described in detail under the individual headings.

EXTENDED COURSE.

Considering the entrance requirements of the institution, the four-year course of study is brief. Where practicable, students are advised to extend their course to five years. For students desiring to do this, additional work will be arranged in departments in which they may desire to specialize. Work done in the extended course may receive special mention on the diploma and be counted against requirements for the second degree.

SPECIAL COURSES.

Persons of suitable age or advancement, who desire to pursue such branches of study as are most directly related to agriculture or other industries, may select such studies, under the advice of the Faculty.

POSTGRADUATE COURSES.

Arrangements can be made for advanced study in the several departments at any time, and outlines of courses will be furnished on application. The electives of the extended course are open to graduates, and special opportunities will be given for investigation and research. Every facility for advancement in the several arts taught at the College will be afforded such students, though they are not required to pursue industrial training while in these courses.

DEGREES.

The degree of bachelor of science is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for state teachers' certificate. (See Laws of 1893.)

Students who extend the course one full year will receive mention on the diploma of special proficiency in those lines of study which they have pursued as an elective for not less than three terms.

The degree of master of science is conferred in course upon graduates who comply with the following conditions:

1. Upon candidates resident at least one year, the degree may be conferred at the end of a two-year postgraduate course; upon non-resident candidates, the degree may be conferred at the end of a three-year postgraduate course; upon candidates who have taken a five-year extended course or its equivalent, it may be conferred at the end of a one-year postgraduate course.

2. Each candidate shall be required to take a definite course ap-

proved by the Faculty, and his studies are expected to bear upon the distinctive work of the institution.

3. Each candidate must present for consideration by the Faculty a satisfactory thesis, involving original research in the line of his major study, and shall deposit a perfect copy in the College library.

4. Application to the Faculty for sanction of the lines of study and research should be made as early as the 1st day of November.

5. The subject of the thesis must be settled upon as soon as the 1st day of January preceding the commencement at which the degree is expected.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of master of science may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the master's degree must be a graduate of at least three years' standing, and a resident of Kansas.

2. His postgraduate study shall have been in line with that required of graduates of this College, as published in our catalogue.

3. He must make application for the degree on or before the 1st day of January preceding the granting of the same. The application must be accompanied with a statement of his course of study, the work upon which the claim for the degree is based, and the subject selected for his thesis.

4. By April 1, an abstract of the thesis must be submitted to the Faculty.

5. Before May 15, the applicant shall present himself for examination. The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.

COURSES OF STUDY.

With a view of providing for the wants of the various classes of students, the following courses of study are offered:

1. Four-year courses, each leading to the degree of bachelor of science: (*a*) General science; (*b*) agriculture; (*c*) domestic science; (*d*) mechanical engineering; (*e*) electrical engineering.

2. Short courses in (*a*) dairying, (*b*) domestic science, (*c*) agriculture and mechanics, (*d*) horticulture and mechanics.

3. Apprentice courses in the shops and in the printing-office.

Full explanations of the several courses, and of the studies included in them, will be found under the proper headings, and a general view of the four-year courses is given on the following pages.

FIRST YEAR.

ALL COURSES.

FALL TERM.	Algebra	5
	English Readings	5
	Elementary Botany	5
	Hygiene	1
	Free-hand Drawing	2½
	Shop or *Sewing*	5
	Military Drill or *Calisthenics*	4
	Singing and *Notation.**	
WINTER TERM.	Algebra	5
	English Readings	5
	Agriculture or Household Economics	5
	Geometrical Drawing	2½
	Shop or *Sewing*	5
	Military Drill 2 / Tactics 1	3
	or *Calisthenics*	5
	Singing and *Notation.**	
SPRING TERM.	Geometry	5
	English Themes	5
	Elementary Physics	2½
	Object Drawing	5
	Shop or *Sewing*	5
	Military Drill or *Calisthenics*	5
	Singing and *Notation.**	

FOUR-YEAR COURSES.

This and the three following pages give a general view of the four-year courses of study. The first year is the same for all students, excepting that the young men take military drill, agriculture, and shop work, while the young women take calisthenics, household economics, and sewing.

Figures following studies show class hours per week. Subjects in *italic type* require no study outside of class. Military drill is optional for young men of the third and fourth years. In the fourth year certain terms are open for electives in the science course and domestic science course. The electives are chosen under the direction of the Faculty. The following list is announced, and others will be provided as demanded, in so far as the teaching force available will permit:

FALL TERM.	WINTER TERM.	SPRING TERM.
Analytical Geometry.	Calculus.	Calculus.
Domestic Science.	Domestic Science.	Domestic Science.
Chemistry.	Chemistry.	Chemistry.
Comparative Anatomy.	Veterinary Science.	Breeds and Breeding.
German.	German.	German.
Botany.	Entomology.	Botany.
	Horticulture.	Entomology.
		Forestry and Landscape-gardening.
		Physics.
		Public Law.

*Music by special permission at any time during the course.

For outline of instruction, see page 42 *et seq.*

SECOND YEAR. COURSES OF STUDY—Continued.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECH. ENGINEERING.	ELECT. ENGINEERING.
FALL TERM.	Chemistry..... 5 *Laboratory*..... 2½ Geometry ..... 5 Horticulture..... 5 *Industrial, Horticulture*..... 5 *Oratory I*..... 5 *Military Drill*..... 5 *Music.**	Chemistry..... 5 *Laboratory*..... 2½ Geometry ..... 5 Horticulture..... 5 *Industrial*..... 5 *Calisthenics* ..... 5 *Music.**	Chemistry..... 5 *Laboratory*..... 2½ Geometry ..... 5 Horticulture..... 5 *Industrial*..... 5 *Military Drill* or *Calisthenics* ..... 5 *Music.**	Chemistry..... 5 *Laboratory*..... 2½ Geometry ..... 5 Projection Drawing..... 5 *Oratory I*..... 5 *Shop*..... 5 *Military Drill*..... 5 *Music.**	Chemistry..... 5 *Laboratory*..... 2½ Geometry ..... 5 Projection Drawing..... 5 *Oratory I*..... 5 *Shop*..... 5 *Military Drill*..... 5 *Music.**
WINTER TERM.	Organic Chemistry..... 3 Chemistry of Metals..... 2 *Laboratory*..... 2½ Trigonometry..... 5 Dairying..... 5 *Laboratory*.....10 Military Science..... 3	Organic Chemistry..... 3 Chemistry of Metals..... 2 *Laboratory*..... 2½ Trigonometry or American Literature... 5 Oratory I..... 2 or 3 Dressmaking..... 5 *Laboratory*..... 5 *Calisthenics* 5	Organic Chemistry..... 3 Chemistry of Metals..... 2 *Laboratory*..... 2½ Trigonometry..... 5 Physiology..... 5 Oratory I..... 2 or 3 *Industrial*..... 5 Military Science..... 3 or *Calisthenics*..... 5	Mechanics ..... 5 Chemistry of Metals..... 2 *Laboratory*..... 2½ Trigonometry..... 5 *Projection Drawing*..... 5 *Shop* and *Lectures*.....10 Military Science..... 3	Mechanics ..... 5 Chemistry of Metals..... 2 *Laboratory*..... 2½ Trigonometry..... 5 *Projection Drawing*..... 5 *Shop* and *Lectures*.....10 Military Science..... 3
SPRING TERM.	Analytical Chemistry.... 2½ *Laboratory*..... 7½ Entomology..... 5 Tillage and Fertility.... 5 Physiology..... 5 *Surveying*..... 2 *Military Drill*..... 5	Analytical Chemistry..... 2½ *Laboratory*..... 7½ Entomology..... 5 Oratory II or Music.. 2 or 3 Physiology..... 5 *Calisthenics* 5	Analytical Chemistry..... 2½ *Laboratory*..... 7½ Entomology..... 5 Oratory II..... 2 or 3 Higher Algebra..... 5 *Surveying*..... 2 *Military Drill* or *Calisthenics* 5	Analytical Chemistry.... 2½ *Laboratory*..... 7½ Physics..... 3 Hydraulics..... 2 Higher Algebra..... 5 *Axonometric Drawing*.. 5 *Shop*..... 5 *Military Drill*..... 5	Analytical Chemistry..... 2½ *Laboratory*..... 7½ Physics..... 3 Hydraulics..... 2 Higher Algebra..... 5 *Axonometric Drawing*.... 5 *Shop*..... 5 *Military Drill*..... 5

For outline of instruction, see page 42 *et seq.*

THIRD YEAR. COURSES OF STUDY—Continued.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECH. ENGINEERING.	ELECT. ENGINEERING.
FALL TERM.	Rhetoric ..... 5 General History ..... 5 Agricultural Chemistry and Soil Physics..... 5 Hygiene of Farm Animals..... 3 *Oratory II*..... 5	Rhetoric ..... 5 General History ..... 5 Chemistry of Cookery..... 5 Domestic Science..... 2 *Laboratory* ..... 5 *Oratory III* or *Music*..... 5	Rhetoric ..... 5 General History ..... 5 Oratory III ..... 2 Zoology ..... 2½ *Laboratory*..... 7½ *Projection Drawing*. ..... 2½ *Industrial*..... 5	Rhetoric ..... 5 General History ..... 5 Analytical Geometry .... 5 Descriptive Geometry... 5 *Shop* and *Lectures* 7½	Rhetoric ..... 5 General History ..... 5 Analytical Geometry ..... 5 Descriptive Geometry..... 5 *Shop* and *Lectures* 7½
WINTER TERM.	Nineteenth Cent. Hist... 5 Civics ..... 5 Chemistry of Foods (½ t.) } 5 Stock Feeding (½ t.). ... } Zoology ..... 2½ *Laboratory*..... 7½ *Industrial, Horticulture*, 5	Nineteenth Cent. Hist..... 5 Civics ..... 5 Chemistry of Foods (½ t.), } 5 Home Architecture (½ t.), } Domestic Science..... 2 *Laboratory*..... 5 *Floriculture*..... 5	Nineteenth Cent. Hist..... 5 Civics ..... 5 Projection Drawing (½ t.), } 5 Chemistry of Foods (½ t.), } Geology..... 5 *Industrial*..... 5	Nineteenth Cent. Hist... 5 Civics ..... 5 Calculus ..... 5 *Oratory II*..... 5 *Mechanical Drawing*... 5 *Graphic Statics* ..... 2½ *Shop*..... 5	Nineteenth Cent. Hist..... 5 Civics ..... 5 Calculus ..... 5 *Oratory II*..... 5 *Mechanical Drawing* ..... 5 *Graphic Statics*..... 2½ *Shop*..... 5
SPRING TERM.	Economic Principles .... 5 Geology ..... 5 Horticulture..... 5 Stock Feeding..... 5 *Agricultural Mechanics*, 5	Economic Principles..... 5 Geology ..... 5 Zoology ..... 2½ *Laboratory*..... 7½ Domestic Science..... 2 *Laboratory*..... 5	Economic Principles..... 5 Logic..... 5 Bacteriology..... 4 *Laboratory*..... 2½ Perspective and Sketching..... 2½ *Industrial*..... 5	Economic Principles .... 5 Calculus ..... 5 Principles of Mechanism ..... 5 Perspective and Sketching..... 2½ *Machine Design*..... 5 *Shop*..... 7½	Economic Principles ..... 5 Calculus ..... 5 Principles of Mechanism..... 5 Perspective and Sketching..... 2½ *Machine Design*..... 5 *Shop*..... 7½

For outline of instruction, see page 42 *et seq.*

FOURTH YEAR. COURSES OF STUDY—Continued.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECH. ENGINEERING.	ELECT. ENGINEERING.
FALL TERM.	Physics..... 5 History of Industries.... 5 Bacteriology..... 4 *Laboratory*..... .... 2½ Comparative Anatomy .. 5 *Industrial, Agriculture,* 5	Physics.... ..... 5 History of Industries..... 5 Bacteriology..... 4 *Laboratory*..... 2½ Oratory IV or Music..... 3 Therapeutic Cookery..... 2 *Laboratory*..... 5	Physics..... 5 History of Industries..... 5 Elective..... 5 Oratory IV..... 5 *Industrial*..... 5	Physics..... 5 History of Industries.... 5 Mechanics of Materials.. 5 *Eng. Laboratory*..... 5 *Engineering Design*..... 5 *Shop*..... 5	Electricity and Magnetism.. 5 History of Industries..... 5 Mechanics of Materials..... 5 *Electrical Measurements*... 5 *Engineering Design*..... 5 *Shop*..... 5
WINTER TERM.	Physics..... 5 Horticulture..... 5 Physiological Botany.... 5 *Laboratory*..... 5 Veterinary Science..... 5	Physics..... 5 English Literature..... 5 Physiological Botany..... 5 *Laboratory*..... 5 Emergency Lectures..... 2½ Special Physiology..... 2½	Physics..... 5 English Literature..... 5 Physiological Botany..... 5 *Laboratory*..... 5 Elective..... 5	Physics..... 5 Applied Mechanics..... 5 Engineering Power Plants..... 5 *Eng. Laboratory*..... 5 *Machine Design*..... 5 *Shop*..... 5	Sound and Light..... 5 Applied Mechanics..... 5 Dynamo-electric Machines.. 5 *Electrical Laboratory*..... 5 *Machine Design*..... 5 *Shop*..... 5
SPRING TERM.	English Literature..... 5 Breeds and Breeding.... 5 Plant Diseases and Plant Breeding..... 5 Agricultural Economics, 5 Thesis.	English Literature..... 5 Psychology..... 5 Elective..... 5 Demonstrations..... 5 Thesis.	English Literature..... 5 Psychology..... 5 Elective..... 5 *Object Drawing*..... 5 Thesis.	English Literature..... 5 Applied Mechanics..... 5 Thermodynamics..... 5 *Machine Design*.....10 Thesis.	English Literature..... 5 Applied Mechanics..... 5 Thermodynamics..... 5 *Applied Electricity*..... 5 Electric Power Transmission..... 5 Thesis.

For outline of instruction, see page 42 *et seq.*

General Science Course.

First column of figures indicates hours per week.
Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:		
Algebra II	5	59
English Readings I	5	54
Elementary Botany	5	44
Hygiene	1	48
Free-hand Drawing	2½	52
Shop	5	60
or *Sewing*	5	52
Military Drill	4	65
or *Calisthenics*	4	68
WINTER TERM:		
Algebra III	5	59
English Readings II	5	55
Agriculture	5	42
or Household Economics	5	48
Geometrical Drawing	2½	52
Shop	5	60
or *Sewing*	5	52
Military Drill	2	65
and Tactics	1	65
or *Calisthenics*	5	68
SPRING TERM:		
Geometry I	5	59
English Themes	5	54
Elementary Physics	5	70
Object Drawing	2½	52
Shop	5	60
or *Sewing*	5	52
Military Drill	5	65
or *Calisthenics*	5	68

Second Year.

FALL TERM:		
Chemistry	5	46
Chemical Laboratory	2½	46
Geometry	5	59
Horticulture	5	57
Industrial Elective	5	—
Military Drill	5	65
or *Calisthenics*	5	68
WINTER TERM:		
Organic Chemistry	3	46
Chemistry of Metals	2	46
Chemical Laboratory	2½	46
Trigonometry	5	59
Physiology	5	73
Oratory	2 or 3	67
Industrial Elective	5	—
Military Science	3	65
or *Calisthenics*	5	68
SPRING TERM:		
Analytical Chemistry	2½	47
Chemical Laboratory	7½	47
Entomology	5	58
Oratory	2 or 3	67
Higher Algebra	5	60
Surveying	2	59
Military Drill	5	65
or *Calisthenics*	5	68

Third Year.

FALL TERM:		
Rhetoric	5	55
General History	5	57
Oratory	2	67
Zoölogy	2½	73
Zoology Laboratory	7½	73
Projection Drawing	2½	53
Industrial Elective	5	—
WINTER TERM:		
Nineteenth Century History	5	57
Civics	5	57
Projection Drawing, 1st half,	5	53
Chemistry of Foods, 2d half	5	47
Geology	5	56
Industrial Elective	5	—
SPRING TERM:		
Economic Principles	5	57
Logic	5	74
Bacteriology	4	73
Bacteriology Laboratory	2½	73
Perspective and Sketching	5	53
Industrial Elective	5	—

Fourth Year.

FALL TERM:		
Physics	5	70
History of Industries	5	57
Elective	5	28
Oratory	5	67
Industrial Elective	5	—
WINTER TERM:		
Physics	5	70
English Literature	5	56
Physiological Botany	5	45
Botany Laboratory	5	45
Elective	5	28
SPRING TERM:		
English Literature	5	56
Psychology	5	74
Elective	5	28
Object Drawing	5	53
Thesis	-	68

General Science Course.

This course is designed to meet the wants of those who seek to obtain a sound and liberal education through the study of the mathematical, physical and natural sciences, English language, and history. It is well adapted to the student who has not yet decided upon his life-work, or who wishes to make this a foundation for further study. It is based on the principle of "a general knowledge of all things before a special knowledge of a few." It will be well worth one's time to take this course before beginning the work of a technical or professional course. The industrial work is a feature of this course, as of all others, and after the first year it is largely elective. This gives ample opportunity to specialize along any line of work, should the student desire. The elective continuing through the fourth year gives opportunity for some special lines, as follows: Young men may take analytical geometry, differential and integral calculus with the third-year engineering students, and young women may take the three terms in domestic science with the third-year women of the domestic science course. Work in other departments may be elected, as: Agriculture, chemistry, physics, horticulture and entomology, veterinary science, and German. Other electives will be provided as demanded, as far as the teaching force available will permit. Music is optional throughout the four years, and young women are allowed to take it as an industrial after the first year, by permission of the Faculty.

Agriculture Course.

First column of figures indicates hours per week.
Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Algebra II	5	59
English Readings I	5	54
Elementary Botany	5	44
Hygiene	1	73
Free-hand Drawing	2½	52
Shop	5	60
Military Drill	4	65

WINTER TERM:

Algebra III	5	59
English Readings II	5	55
Agriculture	5	42
Geometrical Drawing	2½	52
Shop	5	60
Military Drill	2	65
Tactics	1	65

SPRING TERM:

Geometry I	5	59
English Themes	5	55
Elementary Physics	5	70
Object Drawing	2½	52
Shop	5	60
Military Drill	5	65

Second Year.

FALL TERM:

Chemistry	5	46
Chemical Laboratory	2½	46
Geometry	5	59
Horticulture	5	57
Industrial, Horticulture	5	59
Oratory	5	67
Military Drill	5	65

WINTER TERM:

Organic Chemistry	3	46
Chemistry of Metals	2	46
Chemical Laboratory	2½	46
Trigonometry	5	59
Dairying	5	42
Dairy Laboratory	10	42
Military Science	3	65

SPRING TERM:

Analytical Chemistry	2⅔	47
Chemical Laboratory	7½	47
Entomology	5	58
Tillage and Fertility	5	42
Physiology	5	73
Surveying	2	59
Military Drill	5	65

Third Year.

FALL TERM:

Rhetoric	5	55
General History	5	57
Agricultural Chemistry and Soil Physics	5	47
Hygiene of Farm Animals	3	73
Oratory	5	67

WINTER TERM:

Nineteenth Century History,	5	57
Civics	5	57
Chemistry of Foods, 1st half,	5	47
Stock Feeding, 2d half	5	42
Zoology	2½	73
Zoology Laboratory	7½	73
Industrial, Horticulture	5	59

SPRING TERM:

Economic Principles	5	57
Geology	5	56
Horticulture	5	58
Stock Feeding	5	42
Agricultural Mechanics	5	62

Fourth Year.

FALL TERM:

Physics	5	70
History of Industries	5	57
Bacteriology	4	73
Bacteriology Laboratory	2½	73
Comparative Anatomy	5	73
Industrial, Agriculture	5	43

WINTER TERM:

Physics	5	70
Horticulture	5	58
Physiological Botany	5	45
Botany Laboratory	5	45
Veterinary Science	5	73

SPRING TERM:

English Literature	5	56
Breeds and Breeding	5	42
Plant Diseases and Plant Breeding	5	45
Agricultural Economics	5	43
Thesis	–	68

Agriculture Course.

The leading feature of the four-year agriculture course is the training offered in methods of farm production which will give greatest cash returns. With money-making as an object, instruction is given in tillage, crop production, stock feeding and breeding, dairying, farm management, orcharding, small-fruit culture, and gardening. Insect life is considered in its relations to the farm, orchard, and garden, including a study of beneficial and injurious insects, with practical methods of combating the latter; and the laws of disease and health are studied, with the causes of diseases of farm animals and methods of avoiding and combating them. Work is required on the farm, and in the orchards and gardens, which will familiarize the student with the best method of conducting operations in these lines; and taken with this work is a study of the results secured by the College in crop production, fruit-raising, gardening, and feeding for beef, milk, and pork. Three terms of work are given in the carpenter and blacksmith shops, that the student may learn to handle tools and be able to make the common repairs needed on the farm.

Closely connected wite the money-making branches of agriculture are the sciences upon whose laws successful farm practices are based. Bacteriology is taught, that the student may understand the conditions necessary for promoting the growth of bacteria which add to the fertility of the soil and those which improve the quality of dairy products; and the conditions necessary to prevent the growth of bacteria which exhaust the soil, cause losses in manures, injure dairy products, and bring disease. The laws of plant growth are taught in botany, that the farmer may through their aid grow larger and better crops. An understanding of the laws of physics enables the farmer to store moisture and to reduce the loss of water from the soil by evaporation, so that he can produce crops in dry years. A knowledge of chemistry applied to farm work secures richer soil, better yields, cheaper and greater gain in feeding, and better quality of farm products. The fertility of our new lands has been produced by forces which have been at work for countless ages. A knowledge of the workings of these forces, as taught in geology, helps the farmer to save the fertility of his fields until used for crops and to render available the immense food stores locked up in the soil.

A farmer should be an influential citizen as well as a skilful producer. For this reason, in the agricultural course instruction is given in literature and language, political and economic science, oratory, mathematics, drawing, and music. Such training enables the farmer to take part and become an influential factor in social and public work. Young men securing an education such as is afforded in this course do not leave the farm, but become enthusiastic and successful workers, competent either to manage farms of their own or to superintend farms for others.

We have frequent calls for farm superintendents, farm foremen, herdsmen, creamery managers, managers of fruit farms, superintendents of orchards and nurseries, foremen of greenhouses, and landscape-gardeners. These positions offer good positions to competent young men at the beginning of the engagements, with opportunities for increased pay as fast as earning ability increases. The young man who does not have the capital to run a farm of his own, if he is made of the right stuff, can complete our four-year course, secure a position at living wages, and work up to a salary of from $1000 to $3000 per year in farm work. The call for men for such positions is greater than the supply.

Domestic Science Course.

First column of figures indicates hours per week.
Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Algebra II	5	59
English Readings I	5	54
Elementary Botany	5	44
Hygiene	1	48
Free-hand Drawing	2½	52
Sewing	5	52
Calisthenics	4	68

WINTER TERM:

Algebra III	5	59
English Readings II	5	55
Household Economics	5	48
Geometrical Drawing	2½	52
Sewing	5	52
Calisthenics	5	68

SPRING TERM:

Geometry I	5	59
English Themes	5	55
Elementary Physics	5	70
Object Drawing	2½	52
Sewing	5	52
Calisthenics	5	68

Second Year.

FALL TERM:

Chemistry	5	46
Chemical Laboratory	2½	46
Geometry II	5	59
Horticulture	5	57
Industrial	5	—
Calisthenics	5	68

WINTER TERM:

Organic Chemistry	3	46
Chemistry of Metals	2	46
Chemical Laboratory	2½	46
Trigonometry	5	59
or American Literature	5	55
Oratory	2 or 3	67
Dressmaking	5	52
Dressmaking Laboratory	5	52
Calisthenics	5	68

SPRING TERM:

Analytical Chemistry	2½	47
Chemical Laboratory	7½	47
Entomology	5	58
Oratory or Music	2 or 3	67
Physiology	5	73
Calisthenics	5	68

Third Year.

FALL TERM:

Rhetoric	5	55
General History	5	57
Chemistry of Cookery	5	48
Domestic Science I	2	49
Dom. Science Laboratory	5	49
Oratory or *Music*	5	67

WINTER TERM:

Nineteenth Century History,	5	57
Civics	5	57
Chemistry of Foods, 1st half,	5	47
Home Architecture, 2d half	5	53
Domestic Science II	2	49
Dom. Science Laboratory	5	49
Floriculture	5	58

SPRING TERM:

Economic Principles	5	57
Geology	5	56
Zoölogy	2½	73
Zoology Laboratory	7½	73
Domestic Science III	2	49
Dom. Science Laboratory	5	49

Fourth Year.

FALL TERM:

Physics	5	70
History of Industries	5	57
Bacteriology	4	73
Bacteriology Laboratory	2½	73
Oratory or Music	3	67
Therapeutic Cookery	2	51
Dom. Science Laboratory	5	51

WINTER TERM:

Physics	5	70
English Literature	5	56
Physiological Botany	5	45
Botany Laboratory	5	45
Emergency Lectures	2½	51
Special Physiology	2½	51

SPRING TERM:

English Literature	5	56
Psychology	5	74
Elective	5	28
Demonstrations	5	51
Thesis	–	68

Domestic Science Course.

Recognizing the importance of domestic science, this course is offered to young women who care to make a special study of this line of work. The applications of modern science to every-day life are manifold, and nowhere more important than in the home—the center of all normal life. This course offers a broad general training in the natural and physical sciences, more especially in chemistry and bacteriology, the foundation studies for domestic science. The industrial feature, characteristic of the College, is continued throughout this course.

The object is to train the mind of the student to think methodically and systematically, and the hand to act deftly and skilfully, thus teaching "that neither the eye, nor the hand, nor the head can dispense with mutual coöperation and aid." It gives a higher conception of what was once called the homely, every-day duties of life, thus dignifying the labor of the home and lifting it from the low plane of common drudgery.

Mechanical Engineering Course.

First column of figures indicates hours per week.
Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Algebra II	5	59
English Readings I	5	54
Elementary Botany	5	44
Hygiene	1	73
Free-hand Drawing	2½	52
Shop	5	60
Military Drill	4	65

WINTER TERM:

Algebra III	5	59
English Readings II	5	55
Agriculture	5	42
Geometrical Drawing	2½	52
Shop	5	60
Military Drill	2	65
Tactics	1	65

SPRING TERM:

Geometry I	5	59
English Themes	5	55
Elementary Physics	5	70
Object Drawing	2½	52
Shop	5	60
Military Drill	5	65

Second Year.

FALL TERM:

Chemistry	5	46
Chemical Laboratory	2½	46
Geometry	5	59
Projection Drawing	5	53
Oratory	5	67
Shop	5	60
Military Drill	5	65

WINTER TERM:

Mechanics	5	60
Chemistry of Metals	2	46
Chemical Laboratory	2½	46
Trigonometry	5	59
Projection Drawing	5	53
Shop and *Lectures*	10	62
Military Science	3	65

SPRING TERM:

Analytical Chemistry	2½	47
Chemical Laboratory	7½	47
Heat	3	70
Hydraulics	2	60
Higher Algebra	5	60
Axonometric Drawing	5	53
Shop	5	60
Military Drill	5	65

Third Year.

FALL TERM:

Rhetoric	5	55
General History	5	57
Analytical Geometry	5	60
Descriptive Geometry	5	53
Shop and *Lectures*	7½	62

WINTER TERM:

Nineteenth Century History,	5	57
Civics	5	57
Calculus	5	60
Oratory	5	67
Mechanical Drawing	5	62
Graphic Statics	2½	62
Shop	5	62

SPRING TERM:

Economic Principles	5	57
Calculus	5	60
Principles of Mechanism	5	62
Perspective and Sketching	2½	53
Machine Design	5	62
Shop	7½	62

Fourth Year.

FALL TERM:

Electricity and Magnetism	5	70
History of Industries	5	57
Mechanics of Materials	5	62
Engineering Laboratory	5	62
Engineering Design	5	62
Shop	5	62

WINTER TERM:

Sound and Light	5	70
Applied Mechanics	5	62
Engineering Power Plants	5	62
Engineering Laboratory	5	62
Machine Design	5	62
Shop	5	63

SPRING TERM:

English Literature	5	56
Applied Mechanics	5	63
Thermodynamics	5	63
Machine Design	10	63
Thesis	–	68

Mechanical Engineering Course.

This course offers four years' training in mechanical-engineering subjects, and its object is to fit young men for responsible positions in that profession. It prepares for the successful management of machinery and manufacturing establishments, the designing, building and erection of machinery, superintendence of construction, etc. Though the work is largely technical, general studies of a broadening character are not excluded. The course includes instruction by text-book, lecture, laboratory, and workshop practice, and is especially based on mathematics, pure and applied mechanics, physics, chemistry, machine design, structural design, and steam engineering.

The course of study has been laid out with the aim of securing a judicious mixture of theory and practice, such as will not only give the student the technical skill required for engineering operations, but also a broad grasp of the fundamental principles of his profession. The advantages of combining a practical application of principles with theoretical instruction at the time these principles are being impressed by classroom work is well known. The shop work, being purely educational in its character, is so arranged that each student can make as rapid advancement as possible. Instruction is given by skilled workmen, and the work carried on is of the practical character, being, in fact, the building of lathes, engines, drills and machinery for the market and the department. In all shop practice the students work from blue-prints, thus learning to read drawings readily and supplementing the work of the drawing department.

Based upon the fundamental principle that laboratory and shop work, combined with technical training, constitute one of the most important features of engineering education. The course on opposite page is offered.

Electrical Engineering Course.

First column of figures indicates hours per week.
Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Algebra II	5	59
English Readings I	5	54
Elementary Botany	5	44
Hygiene	1	73
Free-hand Drawing	2½	52
Shop	5	60
Military Drill	4	65

WINTER TERM:

Algebra III	5	59
English Readings II	5	55
Agriculture	5	42
Geometrical Drawing	2½	52
Shop	5	60
Military Drill	2	65
and Tactics	1	65

SPRING TERM:

Geometry I	5	59
English Themes	5	55
Elementary Physics	5	70
Object Drawing	2½	52
Shop	5	60
Military Drill	5	65

Second Year.

FALL TERM:

Chemistry	5	46
Chemical Laboratory	2½	46
Geometry	5	59
Projection Drawing	5	53
Oratory	5	67
Shop	5	60
Military Drill	5	65

WINTER TERM:

Mechanics	5	60
Chemistry of Metals	2	46
Chemical Laboratory	2½	46
Trigonometry	5	59
Projection Drawing	5	53
Shop and *Lectures*	10	62
Military Science	3	65

SPRING TERM:

Analytical Chemistry	2½	47
Chemical Laboratory	7½	47
Heat	3	70
Hydraulics	2	60
Higher Algebra	5	60
Axonometric Drawing	5	53
Shop	5	60
Military Drill	5	65

Third Year.

FALL TERM:

Rhetoric	5	55
General History	5	57
Analytical Geometry	5	60
Descriptive Geometry	5	53
Shop and *Lectures*	7½	62

WINTER TERM:

Nineteenth Century History	5	57
Civics	5	57
Calculus	5	60
Oratory	5	67
Mechanical Drawing	5	62
Graphic Statics	2½	62
Shop	5	62

SPRING TERM:

Economic Principles	5	57
Calculus	5	60
Principles of Mechanism	5	62
Perspective and Sketching	2½	53
Machine Design	5	62
Shop	7½	62

Fourth Year.

FALL TERM:

Electricity and Magnetism	5	70
History of Industries	5	57
Mechanics of Materials	5	62
Electrical Measurements	5	70
Engineering Design	5	62
Shop	5	62

WINTER TERM:

Sound and Light	5	70
Applied Mechanics	5	62
Dynamo-electric Machines	5	70
Electrical Laboratory	5	70
Machine Design	5	70
Shop	5	63

SPRING TERM:

English Literature	5	56
Applied Mechanics	5	63
Thermodynamics	5	63
Applied Electricity	5	70
Electric Power Transmission,	5	70
Thesis	–	68

Electrical Engineering Course.

This course is arranged to supply the demand for men who have a practical knowledge of electricity, as well as a thorough knowledge of the principles and laws governing the forces and phenomena with which they have to deal. The applications of electricity are broadening out so rapidly by discovery and invention and by increased commercial applications, that new facts are to be met with almost daily. To meet these demands, the student should be well grounded in all the branches underlying his profession. This course is therefore made strong in mathematical and physical sciences. A well-equipped electrical engineer should also be a mechanical engineer, and must have some training in the principles of steam and hydraulic engineering as well as heat, plumbing, etc. Drawing, machine design, and mechanics of machinery, together with shop practice, occupy considerable portion of the time of the student. Some general-culture studies are offered in history and economics, oratory, and English. It is believed that this course will give a broad general training, with sufficient technical knowledge to meet the needs of a practical engineer.

Outline of Instruction.

Agriculture.

No. 1 is required of all young men; the other numbers in the agricultural course only.

1. **First Principles of Agriculture.** First year, winter term. Treats of soils, their contents, texture, moisture, tillage, and enrichment; the farm plant, its office, propagation, growth, and care; the animal, its life, feed, and management. Five hours per week. Text-book, Bailey's Principles of Agriculture. Lectures.

2. **Dairying.** Second year, winter term. Milk—its secretion, nature and composition; cause and conditions influencing the quality and quantity of milk; handling of the milk for the market and for butter-making; creaming of milk by gravity methods and by the separator; cream ripening; making and marketing butter. Five hours per week. Text-book, Wing's Milk and its Products. Lectures.

3. **Dairy Industrial.** Second year, winter term. Class work will be supplemented by work in the dairy room, where students will be given practice in running the hand separator, ripening and churning cream, washing, salting, working, printing and packing butter, and care of dairy utensils and machines; analyzing, by the Babcock method, milk, cream, skim-milk, and buttermilk. Ten hours per week.

4. **Tillage and Fertility.** Second year, spring term. The management of the soil for maintaining and increasing its productivity, with special study of conservation of moisture. Includes a study of the nature, functions, texture and washing of soils, with the amount and availability of plant-food in soils; practical methods of rendering more plant-food available; plows and plowing, and other implements and methods of tillage; the conservation of soil moisture; farm manures; nitrification; clover crops, fallows, and improvement of soils by clover and alfalfa; rotations; selection of seed; methods of planting; treatment after planting and harvesting of grain, grass, root and forage crops; and special treatment. Five hours per week. Text-book, Robert's Fertility of the Land. Lectures.

5. **Stock Feeding.** Third year, winter term, half study; spring term, full study. The properties of feed stuffs, and their combination to secure good results at least cost with products having the desired qualities; effect of feeds on quality of products; preparation of feeds; methods of feeding; care and shelter of farm animals; construction of farm buildings and appliances to secure best returns from feed and for saving labor; study of experimental work in stock feeding. Five hours per week. Text-book, Henry's Feeds and Feeding. Lectures.

6. **Breeds and Breeding.** Third year, spring term. History and characteristics of the breeds of live stock, and their adaptability to Kansas conditions; laws of heredity, atavism; law of correlation; variation; conditions affecting fecundity; in-and-in breeding and cross-breeding; form as an index to qualities; selection and judging of live stock; compiling pedigrees. Five hours per week. Text-book, Miles's Stock Breeding. Lectures.

7. **Agricultural Economics.** Fourth year, spring term. Selection, equipment and management of the farm; farm labor, buildings, and machinery; field and feeding experiments; study of markets for farm products; agricultural history. Five hours per week. Lectures. Library references.

8. **Industrial.** Fourth year, fall term. The industrial is in feed and feeding work; the students doing the work in these lines according to the best methods adapted to Kansas conditions.

THE FARM BARNS.

MEANS OF ILLUSTRATION.

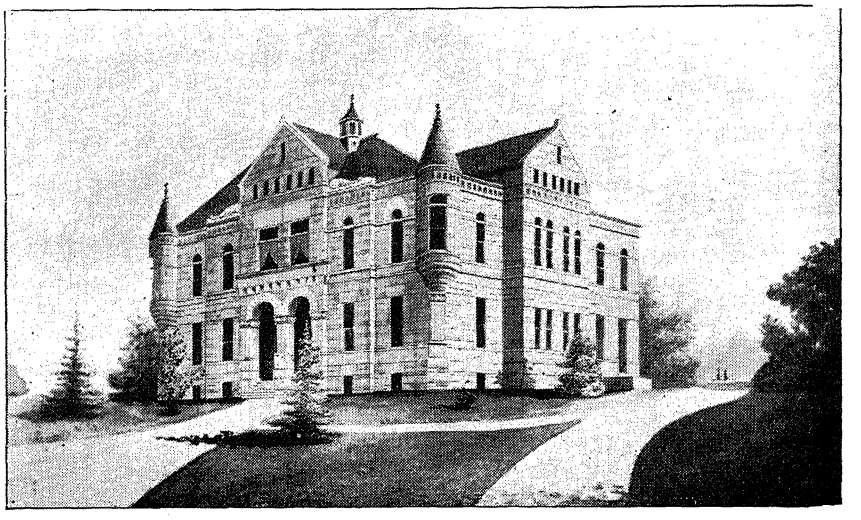
Two hundred and eighty acres of land for farm purposes, with fields in alfalfa, grasses, grains, and forage crops, illustrating the best methods of field-work.

A barn, fifty by seventy-five feet, arranged for experimental purposes, connected with a general-purpose barn, forty-eight by ninety-six feet. The barns are filled with improved machinery for shelling, grinding, thrashing, cleaning and grading grain, and for cutting for the silo. A model dairy barn for eighty cows, and cows to fill it.

We plan during the winter of 1900–'01 to fatten for the market a large number of hogs and steers, with the object of determining the best method of fattening with our drought-resisting crops. Students in the agricultural classes will be required to make a close study of this work throughout its progress.

Farm implements for all kinds of Kansas farm work.

A new agricultural building, costing $25,000, and equipped at a cost of $6000, has just been completed. It contains rooms for thorough work in creamery, butter-making, factory cheese-making, and private dairying. It also contains large classrooms for agricultural studies, and an agricultural library.



AGRICULTURAL HALL.

Botany.

The instruction in the botanical department is along three lines:

First, as a Pure Science.—The department aims to give the student the training in observation and scientific reasoning, and also the information which he should have as a matter of general knowledge, regardless of his subsequent vocation. Botany is the first natural science to which the student is introduced in his college course, and for this reason it is necessary that he receive in this department his elementary training in scientific methods.

Second, as a Science Underlying Agriculture.—It is well recognized that botany is one of the most important of the sciences upon which the practice of agriculture is based, for the reason that botany deals with plant life, and plant life is at the basis of agriculture. Wherever practicable, illustrations and examples in both the elementary and advanced work are chosen with particular reference to their bearing upon agriculture.

Third, Technical Botany, including such subjects as are of direct application in agriculture. The training in the special botanical studies of the agricultural course is chiefly of this nature, as will be seen by consulting the outline below.

Of the studies described below, Nos. 1 and 2 are required in the general science and domestic science courses; Nos. 1, 2 and 3 in the agriculture course, and No. 1 in the mechanical and electrical engineering courses.

1. **Elementary Botany.** First year, fall term. The classroom work is supplemented by daily field-work, which in the main runs parallel with the text-book used. The aim in the field-work is to teach the student how to observe, and how to draw conclusions from his observations. The following are a few of the subjects studied: Germination of corn, bean or other common seed; opening of buds; falling of leaves; various fruits and their adaptations for dissemination; pollination and adaptations for cross-fertilization. These notes and observations, together with the necessary drawings, are submitted from time to time for exami-

nation and criticism. In addition to this, each student prepares a herbarium of not less than fifty species of native plants. These are named by the aid of Gray's Manual of Botany, sixth edition, or by a key to the genera of Manhattan plants, prepared by the professor of botany. The students are required to provide themselves with pocket lenses, under the direction of the professor in charge. Text-book, Coulter's Plant Relations.

2. **Physiological Botany.** Fourth year, winter term. During this term the minute structure of plants is studied in the laboratory by the aid of the compound microscope. The anatomy of the plant is studied chiefly for the purpose of showing how the organs perform their various functions. At the same time the student is drilled in correct observation, accurate statements of results, and the illustration by drawings. Each student has the use of the compound microscope, with the necessary tools and reagents. The text-book used is Barnes's Plant Life. Each student is required to prepare a herbarium of not less than twenty-five species of twigs. These are named by the aid of a pamphlet prepared by the professor of botany. A good herbarium and a large greenhouse are drawn upon for material for study.

3. **Plant Diseases and Plant Breeding.** Fourth year, spring term. The first half of the term will include a study of the common injurious fungi that affect cultivated plants. Each student is required to prepare a herbarium of parasitic fungi of not less than twenty-five specimens. For the purpose of identifying his collection, the student may use the laboratory and library of the department at such times as are best suited to his convenience. The second half of the term will be devoted to the subject of plant breeding. The laws of heredity and variation will be studied, and their application to methods of plant improvement by crossing and selection will be presented. The library of the botanical department of the Experiment Station is rich in works upon the subject, and will be at the disposal of this class. The extended series of experiments now being carried on by the Experiment Station will be used to illustrate this important branch. Texts, Barnes's Plant Life and Bailey's Plant Breeding.

EXTENDED COURSE.

4. **Morphology and Ecology.** Fall term, three days per week. The former includes a study of the organs of plants, their modifications to perform various functions, and the comparison of these organs in plants of various degrees of development. The latter is that part of vegetable physiology which treats of plants as organisms, and would include such topics as germination, pollination, insectivorous plants, symbiosis, and adaptation to climate. The second half of the term will be devoted to the subject of ecological plant geography, which will include a study of plant communities as a result of adaptation to environment.

5. **Systematic Botany.** Spring term, three days per week. A study is made of the natural orders of phenogamous plants, their characters and relationships.

6. **Vegetable Physiology.** Fall term, two days per week. This deals with the chemical and physical problems presented in living plants, such as the absorption of food, elaboration of organic material, transfer of food, action of light. This course should be preceded by the required physics and fourth-year botany. In the spring term a course of experimental physiology will be offered, consisting of laboratory experiments illustrating the preceding course.

7. **Cryptogamic Botany.** Winter term. During this term the principal types of fungi, algæ, mosses and ferns are studied. This course should be preceded by the required botany of the fourth year.

8. **Economic Botany.** Spring term, two days per week. A study of the economic products of the vegetable kingdom, their origin, history, and uses. This should be preceded by systematic botany.

MEANS OF ILLUSTRATION.

A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the state; a twig herbarium, illustrating woody plants in their winter condition; and a seed herbarium, containing a representative collection of seeds and fruits—all together, the herbarium contains about 70,000 specimens; also twenty-eight compound microscopes, seven dissecting microscopes, tools, reagents, etc. The department is provided with a zinc culture room, and the ordinary apparatus for bacteriological work; a dark room and apparatus for photography; microtomes and other apparatus for microtomic work; about 200 charts, illustrating all departments of botany; a botanical library of over 1200 bound volumes and numerous pamphlets.

Chemistry.

Modern industries are based on science, and one of the fundamental sciences is chemistry; this must, therefore, receive considerable attention in such an institution as this. The aim is to insist upon a mastery of the chief concepts of the pure science through the agency of text-book drill, accompanied by demonstrations in the lecture-room, and experimental observations by the student himself in the laboratory. As the course proceeds, illustrations of chemical principles are drawn from the industrial processes of the chemical, agricultural and domestic arts, thus impressing the practical nature of the study. The ultimate object of the instruction is to develop in the student the power to form independent judgments upon the manifold problems of daily life in which chemistry plays a part.

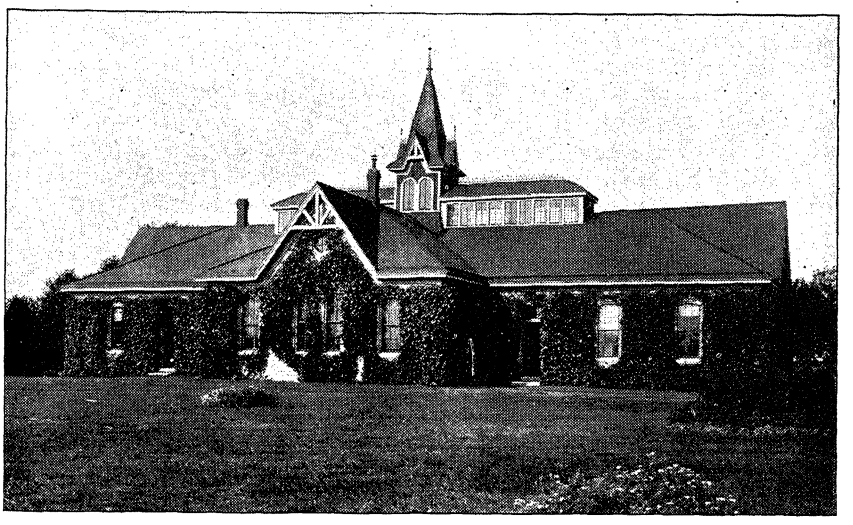
Of the studies described below, Nos. 1 to 8, inclusive, are required in the agriculture course; Nos. 1, 2, 3, 4, 5, 6, and 8, in the general science and domestic science courses; Nos. 1, 2, 3, 5, and 6, in the mechanical and electrical engineering courses.

1. **Chemistry.** Second year, fall term. A general introduction is given this term, consisting of about fifty lectures and experimental demonstrations, supplemented by both oral and written recitations. After a few weeks the periodic system of the elements is made the basis of chemical classification. Special attention is given to the non metals and the general foundations of chemical science.

2. **Chemistry of the Metals.** Second year, winter term, twice a week. This course not only serves to elucidate chemical principles, but it is the basis of ustruction in metallurgical processes and industrial applications of the metals.

3. **Elementary Laboratory Work.** Second year, fall and winter terms. A course of laboratory work one afternoon per week (two consecutive hours) is required of all students pursuing the study of elementary inorganic chemistry.

4. **Organic Chemistry.** Second year, winter term, three times a week. In this course special emphasis is given to the fatty compounds and the study of general reactions, as a separate elective course on aromatic compounds follows. Prerequisite: Course 1.



CHEMICAL LABORATORY.

5. **Analytical Chemistry.** Second year, spring term. This course is designed not only to impart the principles and practices of qualitative chemical analysis, but to give opportunity for extending the student's knowledge of inorganic chemistry. It regularly follows course 2, but may be taken at the same time with that course, and requires two and one-half hours per week.

6. **Laboratory Work in Analytical Chemistry.** This course must be taken with course 5, and occupies seven and one-half hours per week. The exercises are so arranged as to pass from the simple to the more difficult, and at the same time to facilitate comparative study of the various basic and acid radicals. Opportunity is afforded for advanced work to such students as desire it.

7. **Agricultural Chemistry and Soil Physics.** Third year, fall term. A series of lectures is given on the formation and characteristics of different types of soil; the soil requirements of a variety of crops; the modes of soil enrichment and amelioration, and the general relation of crops to earth, air, and water. Both chemical and physical relations are considered throughout this course, but especial attention is given to the study of soil moisture from the physical point of view. The lectures are illustrated by experiments. Courses 4 and 5 must precede this course.

8. **Chemistry of Foods.** Third year, winter term. This course is given by lectures during each half of the term, and embodies a presentation of the chemical composition of foods, the changes which they undergo in cooking and digestion, and their adaptation to the various needs of the animal body. Course 4 must be finished before undertaking this work.

9. **Advanced Chemistry of Foods.** This course may be taken by advanced or postgraduate students. It consists in study of the literature treating of food and nutrition from a chemical standpoint, and is accompanied by laboratory work. The latter feature may be enlarged to almost any extent that the student may desire. The higher lines of work in this course require some previous training in quantitative analysis.

10. **Quantitative Analysis.** May be taken up at any time after the completion of courses 5 and 6. After the necessary preliminary training, the student may give special attention to any line of quantitative analysis, such as that of foods and fodders, soils and fertilizers, ores, water, gases, etc. The investigation of special chemical questions is encouraged.

11. **Advanced Inorganic Chemistry.** In the spring term, lectures and laboratory work in this subject are offered as an elective to fourth-year students and postgraduates. The course will include assigned reading of a text-book in inorganic chemistry. Prerequisites: Courses 1, 2, and 3.

12. **Aromatic Compounds.** This course (offered in the fall term) is supplementary to course 4, and is an elective for fourth-years and postgraduates. Prerequisite: Course 4.

13. **Advanced Laboratory Work in Pure Chemistry.** Advanced laboratory courses, supplementary to the advanced classroom work, will be offered in any term to properly qualified students. Students undertaking this line of work must spend at least twenty or thirty hours of work under the direction of the professor in charge in order to receive credit.

14. **Historical and Theoretical Chemistry.** This course (offered in any term when three or more students apply for it) will be adapted to the convenience of instructor and students concerned. Prerequisites: Courses 10 and 12.

MEANS OF ILLUSTRATION.

Laboratory tables, with all the necessary equipment for eighty students in qualitative analysis and eight in quantitative analysis; facilities for assaying; illustrative apparatus, both general and special; a well-selected mineralogical collection, representing all but the rarest species, in various forms, colors, and structures; a good collection of rocks; a set of Stassfurt minerals, and the fertilizers prepared from them. (Largely destroyed by fire May 31, 1900.)

Domestic Science.

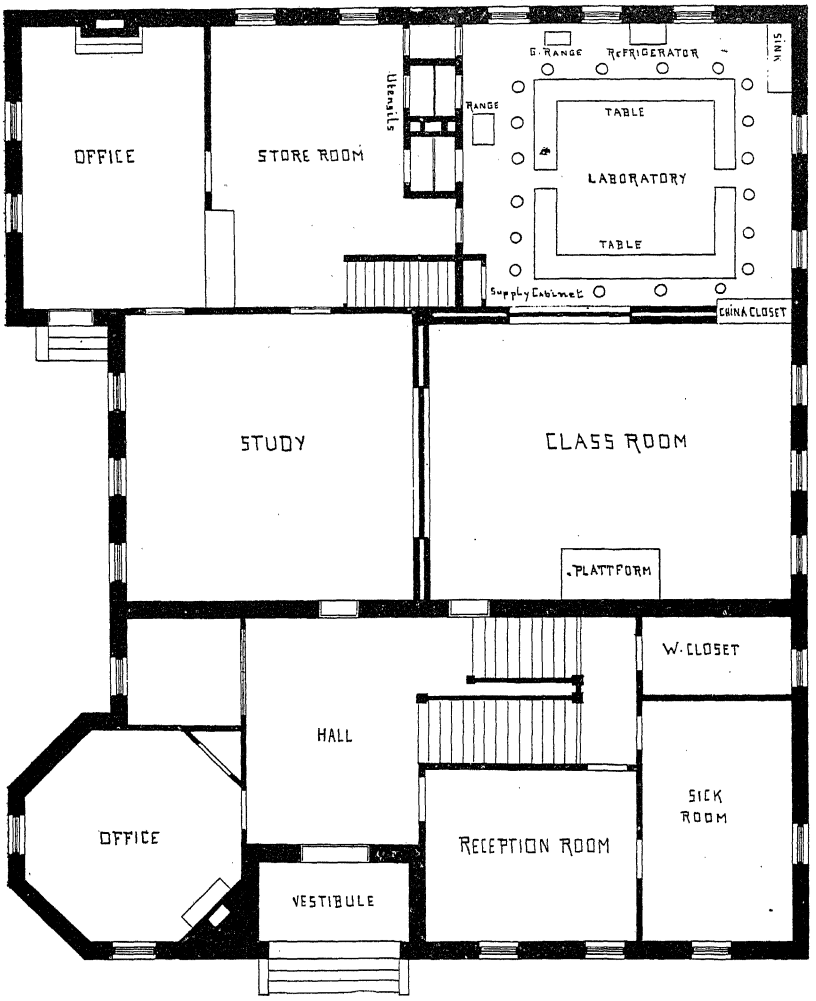
Of the studies described below, Nos. 1 and 2 are required of all young women, and Nos. 3 to 9, inclusive, are required in the domestic science course. Nos. 4, 5 and 6 are elective for young women in the general science course.

1. **Hygiene.** First year, fall term. A course of lectures in elementary hygiene for young women is given under the direction of the professor of domestic science. The general principles of wholesome living and care of the human body are the leading subjects taught. The student is required to keep a note-book of the work and submit it for weekly correction.

2. **Household Economics.** First year, winter term. Lectures, with weekly laboratory practice. The objective points, neatness, order, economy, and accuracy, will be observed. The subject of cookery, its origin, purpose, etc., table of measurements and weights, directions in measuring, definitions pertaining to manipulations, methods of cookery, etc., the general care of utensils, the kitchen and its adjoining apartments, the general sanitation of the home, general household management and home ethics constitute the leading subjects of practice and lecture work.

3. **Chemistry of Cookery.** Third year, fall term. Text-books, Mathieu Williams's Chemistry of Cookery and Ellen H. Richards's Chemistry of Cooking and Cleaning.

In the following subjects the student is required to keep a set of note-books, as follows: Permanent note-book for the lectures, recipe book for the practical



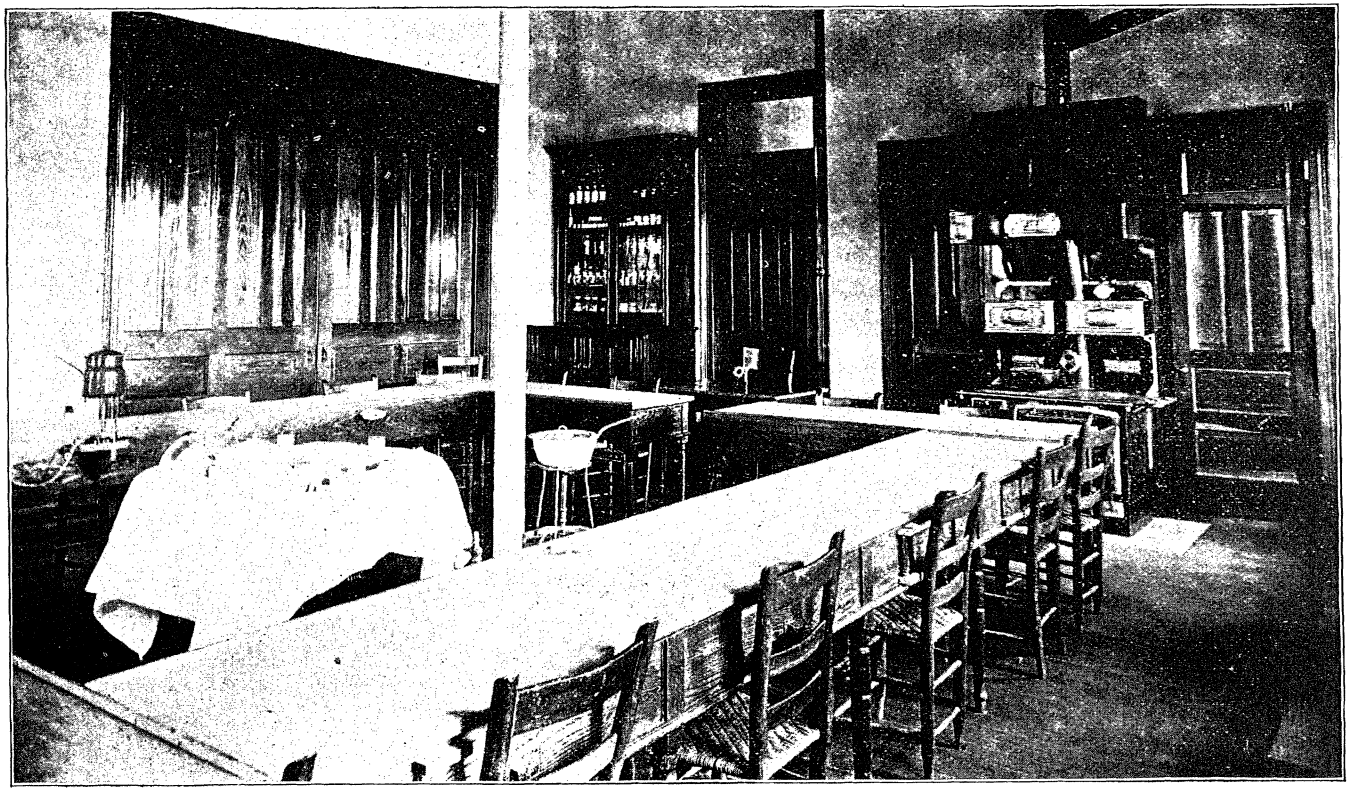
FLOOR PLAN OF DOMESTIC SCIENCE HALL.

work, and the daily class record of the individual and general work of each lesson given.

4. **Domestic Science I.** Third year, fall term. The following topics are considered: A course in fruit cookery, plain household cookery; lectures upon food principles, classifications, etc., cooking temperatures, study of fuels, and fire building.

5. **Domestic Science II.** Third year, winter term. Plain household cookery, including the cooking of vegetables, cereals, fruits, meats, etc.; lectures on general serving and the science of nutrition.

6. **Domestic Science III.** Third year, spring term. Advanced cookery the first half-term, high-class cookery the second half-term; standard menus; lectures on the science of nutrition and the study of various food materials; in-



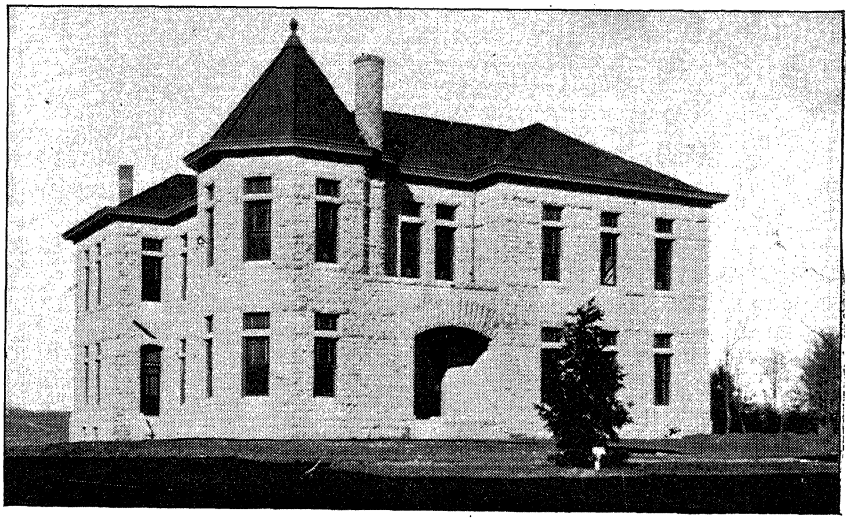
DOMESTIC SCIENCE DEPARTMENT—KITCHEN LABORATORY.

struction in general serving and entertaining is given; the study of kitchen, dining-room, etc.

7. **Therapeutic Cookery.** Fourth year, fall term. This work comprises special cookery for the sick, and mutual relations of foods and medicines; the chemistry of digestion and assimilation; the various ways of administering food to the sick and convalescent, and precautions in the general care of the sick.

8. **Emergency Lectures and Physiology.** Fourth year, winter term. This work consists of lectures on the following topics: First aids to the injured; general lectures on home nursing and home sanitation; contagious and infectious diseases; special and advanced physiology.

9. **Demonstrations.** Fourth year, spring term. Lecture work in scientific and practical cookery. Each student is required to give a demonstration lecture in cooking before the class, and give approved recipes, observing all the educational, scientific, technical and practical points involved in each method demonstrated. The student lecturer may select one assistant from the class, to assist in the general details of the work. In connection with this lecture work, each student is required to give a complete lesson outline and conduct one class in practical work according to the best approved methods in laboratory practice.



DOMESTIC SCIENCE HALL.

Domestic Art.

This department provides a systematic course in plain sewing and dressmaking.

The course of work in plain sewing is carefully graded, not only to insure a thorough knowledge of the subject, but to develop habits of order, accuracy and self-reliance. Each pupil is required to keep a note-book in which she records a description of the work accomplished. A written examination is held at the end of each term.

Of the studies described below, all young women are required to take Nos. 1, 2, and 3, and those in the domestic science course must take No. 5.

Materials for No. 1 are furnished by the College, the pupil furnishing her own thread, needles, thimble, etc. In Nos. 2, 3, 4, and 5, the pupil furnishes her own materials and makes the garments for herself.

1. **Sewing I.** First year, fall term. The pupil makes a book of models, covering the full course in hand sewing, and consisting of basting, hemming, gathering, darning, patching, etc.

2. **Sewing II.** First year, winter term. Machine practice; drafting, cutting and making undershirt and drawers.

3. **Sewing III.** First year, spring term. Drafting, fitting and making dress without lining.

4. **Sewing IV.** Second year, fall term. Cutting and making corset cover and night-dress.

5. **Dressmaking.** Second year, winter term. Nos. 1, 2 and 3 are a prerequisite for this course. The use of a dress-cutting system is taught, and each pupil will be required to draft, cut and make a woolen dress for herself.

Ten hours per week are devoted to class work and about three hours' home work is required per week.

Drawing, Descriptive Geometry, and Architecture.

Drawing is the language of form and the key to every artistic and nearly every industrial pursuit. The educational and practical value of an extended and systematic course in its various branches can hardly be overestimated. The general aims of the several courses in industrial art are the same: (*a*) The cultivation of observation and analysis of form; (*b*) the development of correct taste; (*c*) the teaching of the different methods of graphic representation; (*d*) the acquirement of skill in handling drawing tools.

Of the studies described below, Nos. 1 to 8, inclusive, are required in the mechanical and electrical engineering courses; Nos. 1, 2, 3, 9, 10, 8, and 11, in the general science course; Nos. 1, 2, 3, and 12, in the domestic science course; and Nos. 1, 2, and 3, in the agriculture course.

The College furnishes drawing-board, T square, triangles and water-colors for the graphic work done at the College; but all tools for home use, including drawing-board, T square, triangles, compasses, shading pen, and protractor, must be furnished by the student.

1. **Free-hand Drawing.** First year, fall term. Exercises with forms involving the right line and the arc, illustrating the effects of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. After a few lessons in geometrical lines, the conventional surface ornament is taken up, and more subtle curvatures and complex forms are introduced. Text-book, Walters's Free-hand Drawing, envelopes 1 and 2.

2. **Geometrical Drawing.** First year, winter term. Construction of perpendiculars, parallels, angles, polygons, tangents, etc. Construction of the ovoid, oval, ellipse, and spiral. Drawing in India ink and water-colors, of various geometrical designs and architectural forms. Use of drawing-board and T square. Text-book, Walters's Geometrical Drawing.

3. **Primary Object Drawing.** First year, spring term. Discussion and drawing of geometrical models and simple objects. Exercises in shading from the object and from imagination.

4. **Orthographic Projection.** Second year, fall term. Principles of orthographic projection; the profile plane; the secant plane; rotation in space; change of ground line. Development of surfaces. Interpenetrations of the prism, pyramid, and polyhedron. Projection of the circle, cylinder, and cone. Exercises in pen and brush shading.

5. **Orthographic Projection.** Second year, winter term. Construction and projection of the conic-section lines. Construction of the cycloid, involute, spiral, cissoid, conchoid, curve of pursuit, helix, etc. Construction of screw forms. Interpenetrations of the cone, cylinder and sphere. Shades and shadows of simple geometric forms. Exercises in pen and brush shading.

6. **Axonometry.** Second year, spring term. Problems in monodimetric and isometric projection. The approximate development of the sphere. Problems on the spheric triangle. Graphic investigations of the torus and its sections. Shades and shadows produced by local light. Exercises in pen and brush shading. Instruction and practice in the manipulations of the black- and blue-printing processes.

7. **Descriptive Geometry.** Third year, fall term. Discussion and solution of the usual problems relating to the point, right line, and plane. Generation and classification of lines and surfaces. Discussion and construction of tangents, normals, and asymptotes to lines. Study of osculation, rectification, and radius of curvature. Construction of tangent, normal and asymptotic planes and surfaces. Construction of tangents to curves of intersection. General characteristics of warped surfaces. Graphic analysis of the hyperbolic paraboloid, the concoid, the hyperboloid of revolution, the cylindroid, the helicoid, etc. Construction of tangent planes to warped surfaces. Construction of tangent hyperboloids.

8. **Perspective and Sketching.** Third year, spring term. Linear perspective is taught as central projection, and is intended to furnish the scientific answers to the questions which constantly confront the student of drawing from the object. It comprises the subjects of vanishing points, vanishing traces, measuring points, cylindric perspective and perspective corrections, shades and shadows in perspective, studio methods. The models used in the work in sketching are objects of utility and beauty, whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow and reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish. Each student is required to make eighteen original crayon sketches during the term.

9 and 10. **Projection Drawing.** Third year, fall and winter terms. The third-year work in projection drawing of the science course is similar in character and scope to the second-year work of the engineering course, as described in paragraphs 4 and 5.

11. **Advanced Object Drawing.** Fourth year, spring term. Exercises in pen drawing, crayon and brush shading, use of water-colors, architectural and machine drawing, illustrating, thesis work, at the option of the student.

12. **Home Architecture.** Third year, winter term. This study is taught by lectures covering the following topics: Location of the home; landscape surroundings; roads, walks, fences, and outbuildings; the individuality of the home; building materials; the historic development of the dwelling-house; foundations and basement; the arrangement of the main-floor rooms; the roof

and attic; heating and ventilation; water-supply; water-closets, cesspools and other drainage problems; paint and varnish; interior decoration: the schoolhouse. Each student is required to design a set of plans, elevations and details of a residence, with modern provisions for heating, ventilation, and drainage.

13. **Farm Architecture.** Second year of farmers' short course. Lectures are given on the following topics: Location of residence, barn, and outbuildings; roads and walks; water-supply; drainage; building materials; individuality of the home; the general-purpose barn; the modern dairy barn. Half of the time is devoted to work in planning and drafting of farm buildings.

14. **Free-hand Drawing.** First year of short course in domestic science. The character of this work is the same as that outlined in paragraph 1.

15. **Architectural Course.** The courses of study for all engineering branches must necessarily be the same with regard to work of a preparatory or general character, but differ with regard to the professional branches. Students who intend to take architecture in place of mechanical engineering may substitute architectural studies for the strictly professional work of the third and fourth years of that course. The department of industrial art is well equipped to teach the branches named. It owns a rapidly growing collection of illustrative building material, complete sets of drawings and blue prints of most of the Kansas state buildings, a photographic camera, a dark room equipped with running water and ruby light, etc. The substantial buildings of the institution and its complete system of heating and lighting furnish additional illustrative material.

English Language and Literature.

DEPARTMENT AIMS.

1. To create and increase a taste for reading.
2. To develop a careful and discriminating judgment regarding literature and printed matter.
3. To teach by examples the meaning and uses of the various forms of literature.
4. To increase the student's stock of words by an extended experience in word analysis, dictionary use, and language of history.
5. To give him actual practice in the exercise of many forms of composition, and thereby to develop facility in expressing himself.
6. To beget the historic sense while tracing the literature of the Anglo-Saxon race in its cause-and-effect relations to the great events and movements of history.
7. To lead the student to a plane in which he may see language and literature as the most complete and most permanent index to the civilization of any people in any age.
8. To point out the vital connection between literature and life, and to inspire in the student such an appreciation of esthetic values as shall enrich and ennoble his life, be his vocation what it may.

Of the studies described below, Nos. 1, 2, 3 and 5 are required in all courses; No. 6 is required in the agriculture and mechanical and electrical engineering courses; No. 7 is required in the domestic science and general science courses. No. 4 is an elective in the domestic science course.

1. **English Readings.** First year, second term. The careful study of a number of standard authors, of first-class interest and easy style. As far as possible, the selections are read and discussed in class. Character sketches, paraphrases, abstracts and analyses are frequently required, so that the students are not only given continual opportunity of rendering and hearing the best thought

in the best forms, but are, at the same time, encouraged to develop their own thought and skill in abridged reproductions. With these objective readings, the student learns to distinguish various forms and styles of literature, and to note the qualities of thought and expression. In conjunction with this course, Swinton's Word Analysis is used twice a week as a guide to the study of etymology.

FALL-TERM CLASS READINGS.

Benjamin Franklin's Autobiography; Irving's Sketch Book; Shakspere's Julius Cæsar; Goldsmith's Deserted Village; De Quincey's Flight of a Tartar Tribe; Byron's Prisoner of Chillon.

2. **English Readings.** First year, winter term. This is a continuation, with new authors, of the work begun in the fall term.

WINTER TERM CLASS READINGS.

Longfellow's Evangeline; Hawthorne's House of Seven Gables; Coleridge's Ancient Mariner; Tennyson's Princess; Emerson's American Scholar, Self-reliance, Compensation; Shakspere's Merchant of Venice.

3. **English Themes.** First year, spring term. The work of this term is an extension and application of that begun in composition. With Herrick and Damon's Composition and Rhetoric as a guide, the student is given further experience in outlining and developing themes. As far as possible the natural method is pursued. The student is encouraged to write freely upon subjects that appeal to him and that spring spontaneously from the activities and interests of his daily life, without severe restraint at first, or strict regard to the formal rules of rhetoric. When once the fear and dread of writing has been somewhat overcome, and he has learned that, after all, writing is not very different from talking, and that it may become real fun if he choose to make it such, the instructor begins to practice the pruning process more and more strictly. It is believed that successful instruction in this subject depends not so much upon precept as upon example and practice. The chief aim is to keep the student interested and to keep him writing in accordance with the best models of English style. To this end the instruction is made extremely flexible, and freshness and variety of method are constantly sought.

4. **American Literature.** Second year, winter term. The work of this term will consist of a rapid survey of the rise and development of American authorship from colonial times to the present. Due attention will be given to the lives of the representative men of letters, for it is believed that the works of our great writers will not be fully appreciated until the authors themselves have been made to live in the thought and affection of the reader. Many of the shorter poems and sketches of our chief poets, essayists and story writers will be read and discussed in class, while a number of the longer classics will be assigned for outside reading and analysis. The method of instruction will include both text-book and lectures.

5. **Rhetoric.** Third year, fall term. This includes the philosophy and analysis of the principles involved in the various kinds of literary art. It covers a comparison of the ancient and modern ideas of the subject; the meaning of rhetoric as a science and as an art; the nature and differences between the many kinds of style; the elements which go to make up these; the characteristics and uses of the great divisions—prose and poetry; the grand problem of the material and thought, or of the content of discourse of whatever sort, how to get it, how to handle it; how to limit a subject, how to expand a theme, and how to stop. The work will be partly by lectures, partly by text-book study, partly by exam-

ining examples in the standard authors, and partly by written work from the students.

6. **English Literature.** Fourth year, spring term. A brief survey of the principal facts in connection with the rise and development of English literature, together with lectures upon the chief English writers, and a careful study of the thought and literary form of the great masterpieces from Shakspere's time to the present.

7. **English Literature.** Fourth year, winter and spring terms. The purpose of this course is, therefore: To trace the rise and growth of English literature from its beginning until the present time; to introduce the student in a modest and elementary way to the various aspects and species of literature and to the artistic problems involved in an appreciative study of the great classics of the language; and, lastly, to study and analyze in chronological order a number of the famous masterpieces of English literature in accordance with sound principles of taste and interpretation. Pancoast's Introduction to English Literature will be taken as a guide, but there will be no slavish adherence to the text. The instruction will be varied by occasional lectures from the professor in charge, and the presentation, from time to time, of thoroughly prepared papers by members of the class. At all times the utmost freedom of discussion will be invited. A few of the great classics will be read, analyzed, and interpreted in class, while others will be assigned for private reading.

Especial stress is all the way laid on finding the elements of beauty and moral power in every production read. All together, it is hoped that this extended excursion along the most considerable stream of the world's literature may prove an inspiration toward noble and earnest life; may show the power of language and the imperishable character of its more beautiful forms; may reveal something of the mode and meaning of social advance and civilization, and be to the student in after-life a well-spring of pleasure and profit.

Geology.

The object of this work is to give an application of chemistry and physics to the subject of the earth. Until a separate professorship of geology is established in this institution, the part of geology described here naturally falls to the instructors in the department of chemistry, while any consideration of the history of rock formation and the study of fossils would as naturally be taken up in the departments of botany and zoology.

Of the studies described below, No. 1 is required in the general science, domestic science and agriculture courses.

1. **Inorganic Geology.** Third year, winter or spring term. As already stated, more attention is given to the physical and chemical aspects of geological study than to the biological and historical sides of the subject. The aim is to teach the students something of the relations of geology to other sciences and of its importance and scope, rather than to enter into its details and technicalities. Especial emphasis is given to the relation between this science and physical geography. The students are required to become familiar with some of the typical minerals and rocks, and to distinguish sharply between these classes. Special specimens are available for actual hand study, as well as museum specimens for comparison and reference.

2 and 3. Elective courses are offered whenever a sufficient number of Senior students desire instruction in this department. The subject taken up may be crystallography or blowpipe analysis (determinative mineralogy), or both of these subjects in succession.

History and Economics.

Whatever occupation in life men may adopt—whether they become farmers, lawyers, teachers, or merchants—they are first of all citizens. For this reason the College offers to its students instruction in those subjects which fit them in a special manner to discharge the duties which they owe to their state and to the nation and to form an intelligent judgment concerning the public questions which, as voters or perhaps as officers; they will be called upon to meet. The work of this department is arranged with this end in view.

Of the studies described below, all, except No. 6, are required in all courses.

1. **General History.** Third year, fall term. An outline of the chief epochs in the history of the most important countries of the world is given as an introduction to the more detailed study of certain selected epochs. Text, Adams's European History.

2. **Nineteenth Century History.** Third year, winter term. Beginning with the outbreak of the French revolution, the chief movements in the history of Europe are studied, with a view to explaining the existing condition of European politics. Particular attention is devoted to the progress of democracy in England and on the continent, especially in so far as it is reflected in the form of government. There is also considerable discussion of current topics. Text, Sears.

3. **Civics.** Third year, winter term. This course is given by lectures and text-books, and involves a study of the formation of the constitution, the organization and methods of the federal, state and local governments, the most important sections of the state and federal institutions, and a discussion of current topics in politics and legislation. Text-book, Bryce, The American Commonwealth, abridged edition.

4. **Principles of Economics.** Third year, spring term. This course is an introduction to the general subject, with elaboration of certain aspects. Care is taken to compare conflicting views and to point out sources of information on all sides of vexed questions. Sound thinking rather than the dogmatic teaching of certain views is the object sought. Text-book, Walker, Political Economy, briefer course.

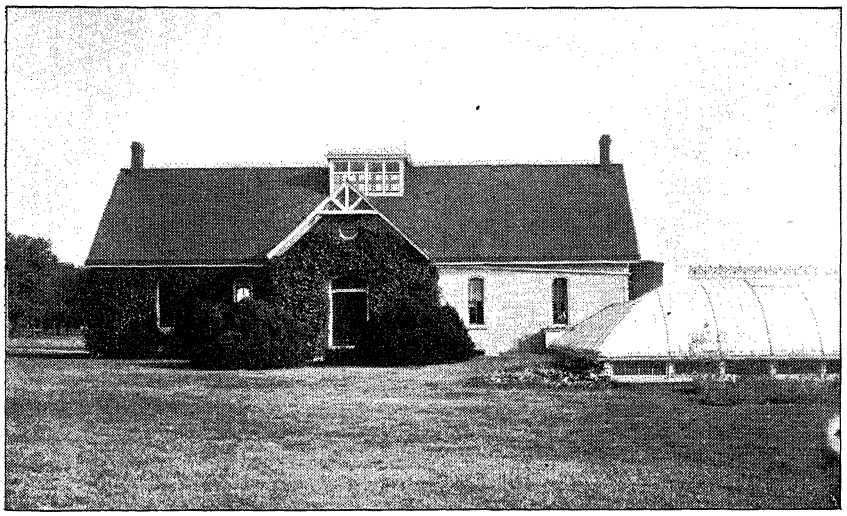
5. **History of Industries.** Fourth year, fall term. The development of science and industry is traced in a course of lectures. Text-book, Wright's Industrial Evolution of the United States.

6. **Elements of Public Law.** Third or fourth year, spring term. This course is an elective for those students of the third and fourth years who have had the course in civics. In it, during the first half-term, some of the leading decisions of the supreme court interpreting the constitution are studied. In the second half-term lectures are given on the principles of international law. Text-book, Boyd, Cases on Constitutional Law.

Horticulture and Entomology.

Of the courses enumerated below, Nos. 1 and 5 are required in the general science course; Nos. 1, 4, and 5, in the domestic science course; and Nos. 1, 2, 3, 5, 7, and 8, in the agriculture course.

1. **Principles of Horticulture.** Second year, fall term. The lectures of this term present the principles of the art, introducing the facts underlying methods of propagation, nursery, orchard and garden treatment; the handling,



HORTICULTURAL HALL.

storing and preservation of fruits, with a brief discussion of the origin and characteristics of garden varieties.

2. **Vegetable-gardening.** Third year, spring term. The work of this term is devoted to an examination of the operations of vegetable-gardening, with special attention to seasonable practice, including the application of fungicides and insecticides, and a more detailed study of varieties with reference to local conditions.

3. **Advanced Horticulture.** Fourth year, winter term. The principles of construction and management of various glass horticultural structures, specific methods of propagation, the forcing of flowering and vegetable plants, and other work of the season, are among the topics of the lectures of this term.

Electives are offered in the fourth year to classes in ornamental gardening, pomology, or the principles of forestry.

4. **Floriculture.** Third year, winter term. This subject, open to young women in the domestic science course, includes general greenhouse management, window gardening, the growing of flowering plants in the open air, the destruction of plant pests, etc., practice alternating with lectures on these topics.

5. **Entomology.** Second year, spring term. In the work of this term, the intention is to give the student a basis for the intelligent appreciation of the important relations of the science to agriculture and horticulture. A brief view of structural types precedes an outline of insect classification, and a special study of the economic bearings of the subject completes the work. Illustrative material is furnished from the individual collections of the students and from the College museum. Charts, dissections and drawings from nature are used to illustrate points of value in classification. The pocket lens used in botany is required in this study. Text-book, Comstock's Manual for the Study of Insects, abridged.

6. **Advanced Entomology.** Fourth-year, elective. Review of the general subject, with the text-book, Comstock's Manual, extended. Entomological

methods, including field-work in observation and collection, laboratory work in preparation, dissection, and preservation, and in the study of life-histories by the aid of the vivarium. The independent and critical study of systematic entomology, the work in which may be restricted, when desired, to groups of special agricultural importance. Economic entomology, so far as relates to the insects of field and garden, with a special study of methods of repression.

7. **Industrial Horticulture.** Second year, fall term. The practical work of the term is largely devoted to the seasonable operations of gathering and storing seeds, fruits, and vegetables, with the addition of practice in the modes of winter protection of garden plants, and in the selection and preparation of material for the winter's work in their propagation.

8. **Industrial Horticulture.** Third year, winter term. The practical work of this term is devoted to the indoor method of propagation of fruit- and ornamental-trees and shrubs, supplemented by work with vegetables in the forcing-house.

For those electing horticultural practice as industrial in other classes than those of the above outline, there will be provided work appropriate to the season, and suited to the advancement of the student.

Mathematics.

It is the aim of the department of mathematics to give a thorough training in a small number of subjects, and to develop in the student the ability to attack new problems, rather than to burden his mind with a large number of facts or special methods. It is also characteristic of the methods of the department that an attempt is made to give to the mathematical subjects a touch of human interest by directing the attention of the student to the historical development of these subjects. For example, the course in plane geometry is opened by a lecture on the history of geometry. The following statement contains a brief description of the courses to be given next year:

Of the courses described below, all except No. 6 are required in the mechanical and electrical engineering courses; Nos. 1 to 7, inclusive, are required in the general science course; Nos. 1 to 4, inclusive, in the domestic science course; and Nos. 1 to 5, inclusive, in the agriculture course.

1. **Algebra II.** First year, fall term. Simple equations with more than one unknown quantity, involution, evolution, fractional and negative exponents, radicals, and quadratic equations with one unknown quantity.

2. **Algebra III.** First year, winter term. Quadratic equations completed, ratio and proportion. Arithmetical and geometrical progression. Review of work covered so far.

3. **Geometry I.** First year, spring term. (Text-book, Phillips and Fisher's Elements of Geometry, abridged edition.) First, second and third books, with numerical exercises and theorems for original demonstration.

4. **Geometry II.** Second year, fall term. Continuation of course 3. Review of previous work; fourth, fifth, sixth and seventh books, treated as before, with original exercises. A short time is devoted to books 8 and 9, only a few important propositions being demonstrated.

5. **Trigonometry.** Second year, winter term. Solution of plain triangles; essentials of goniometry; applications to surveying and navigation.

6. **Surveying.** Second year, spring term. Field-work, two hours per week. Use and adjustment of instruments. Chaining, leveling, and land surveying.

The data for a definite series of problems laid out during course in trigonometry of the winter term are obtained in the field; results platted and computed.

7. **Higher Algebra.** Second year, spring term. Factoring, theory of quadratics, ratio and proportion, variation, series, undetermined coefficients, indeterminate equations, logarithms, elementary theory of coördinates.

8. **Analytic Geometry.** Third year, fall term. Text-book, Tanner and Allen's Analytic Geometry. Rectangular and polar coördinates, the straight line and circle, other conic sections, the general equation of the second degree.

Calculus. Osborn's Calculus, with lectures.

9. Third year, winter term. Differentiation, with the usual applications to maxima and minima, mechanics, series, etc.

10. Third year, spring term. Integration, with applications.

In addition to these, courses in theory of equation, differential equations, elliptic functions or other branches of the higher mathematics may be given to postgraduate students, or to undergraduates who are able to carry extra work.

Mechanical.

In the mechanical engineering course all studies below are required but No. 8.

In the agriculture course, studies 1, 2, 3 and 8 are required.

In general science course, 1, 2 and 3 are required, and additional shop work is optional.

In the electrical engineering course all studies are required except 8, 17, 21, and 27.

1. **Woodwork.** A graded set of problems in joining, a working to dimensions, together with proper use and care of bench tools. Advanced practice in general woodwork, carpentry, cabinet-making, turning, and pattern-making; special attention being given to the making of patterns for machinery and apparatus to be constructed in the shops.

2. **Blacksmithing.** A graded series of problems of forgings, welding and forming under the hammer, designed to teach the management of material and blacksmith tools. Advanced work is given in tool making, tempering, hardening, and general blacksmithing work.

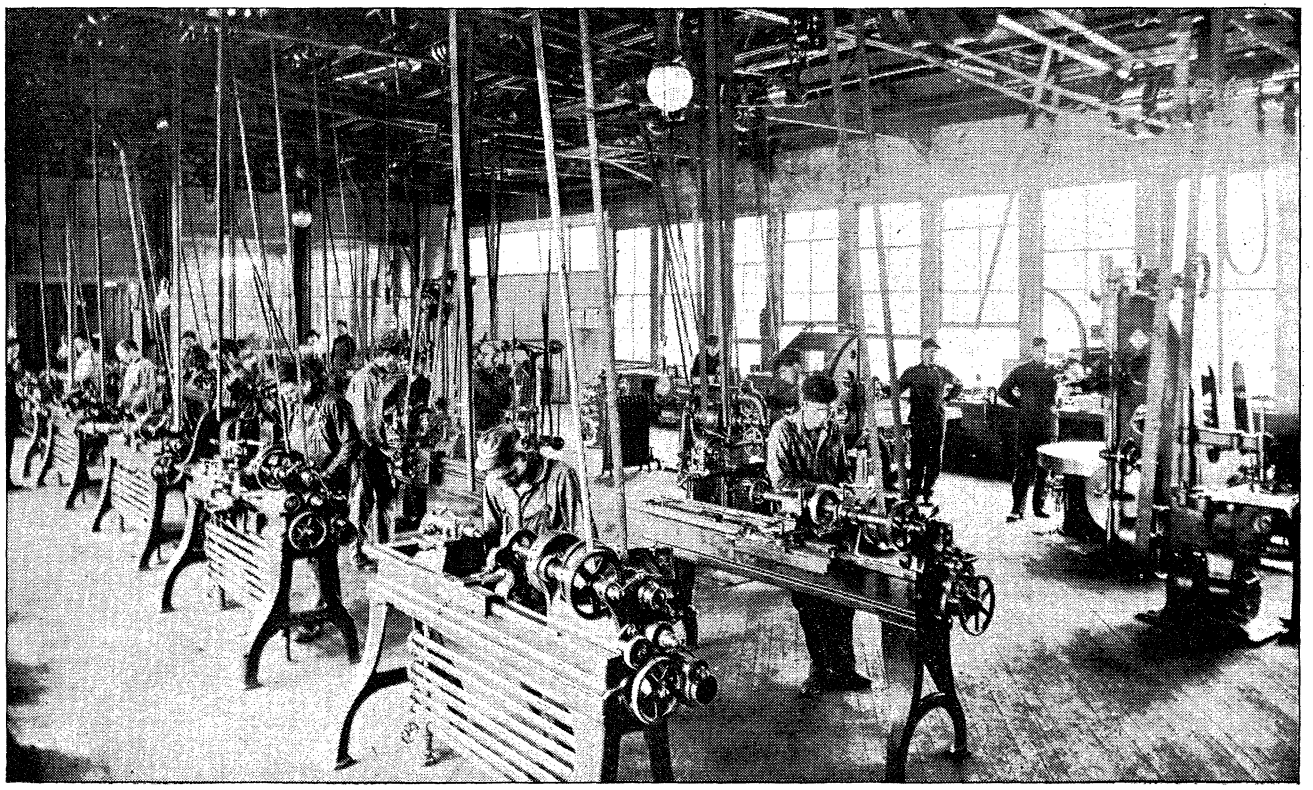
3. **Foundry.** Foundry practice is given in both floor and bench molding, including the making of cores, brass and iron castings, and the mixing of special alloys. Cupola practice and the making of machine castings for shop use are included.

4. **Machine-shop.** Instruction is given in bench and machine work, filing and fitting, laying out work from drawings, and planing. Lectures are given on machine-shop tools, their use, care, and construction; also on shop standards and methods.

5. **Elementary Analytical Mechanics.** A course in elementary mechanics, including the laws of motion, force, work, and energy, together with the composition and resolution of forces and moments.

6. **Hydraulics.** Lectures on hydromechanics will be given, including problems in flotation, flow from orifices and pipes, together with the measurement of water by weirs and jets.

7. **Shop Practice.** Machine-shop work on plans, lathes, shapers, milling-machine and grinder, giving general shop practice in the construction of machinery.



MACHINE SHOPS—MECHANICAL DEPARTMENT.

8. **Agricultural Mechanics.** Advanced instruction in machine-shop is given to agricultural students. This work includes bolt making, grinding, sharpening, screw setting, and repairing of agricultural machinery. It is supplemented by lectures and practical instruction in the operation of traction-engines.

9. **Shop Practice and Lectures.** Shop practice will comprise advanced machine work and the building of fine tools and special apparatus and machinery. Lectures will be given on machine-shop methods of production, cost of work, and arrangement of factories and machinery.

10. **Mechanical Drawing.** The drawing of this term will begin with exercises in lettering and the making of simple working drawings, followed by construction drawings to scale and the preparation of plates of standard details.

11. **Graphic Statics.** The graphical determination of stresses in trusses, frame structures, and machines, together with the design of roof trusses and cranes.

12. **Shop Practice.** Machine-shop practice, together with instruction and practice in the boiler-house and engine-room, the management of pumps, engines, and electrical apparatus.

13. **Principles of Mechanism.** A study of the fundamental principles of machinery, with special work in gears, linkages, belting, and devices for transmission of power.

14. **Machine Design.** Designing follows in the work in drawing, and is based on Low and Bevis's text. Complete designs of simple machines and tools are made, with tracings and blue-prints.

15. **Shop Practice.** In this term advanced machine-shop work is supplemented by practice in steam- and pipe-fitting as relates to power-house work and steam-heating systems.

16. **Mechanics of Materials.** This course is based on Merriman's text on engineering materials, with special attention to the mechanics of beams, columns, shafts, and practical problems on the use of construction materials.

17. **Engineering Laboratory.** Engineering laboratory practice will include tests of power by both absorption and transmission dynamometers, engine and boiler tests, calibration of electric machinery, strength of materials, etc.

18. **Engineering Design.** Practical problems will be given in roof design and power-house arrangement and construction.

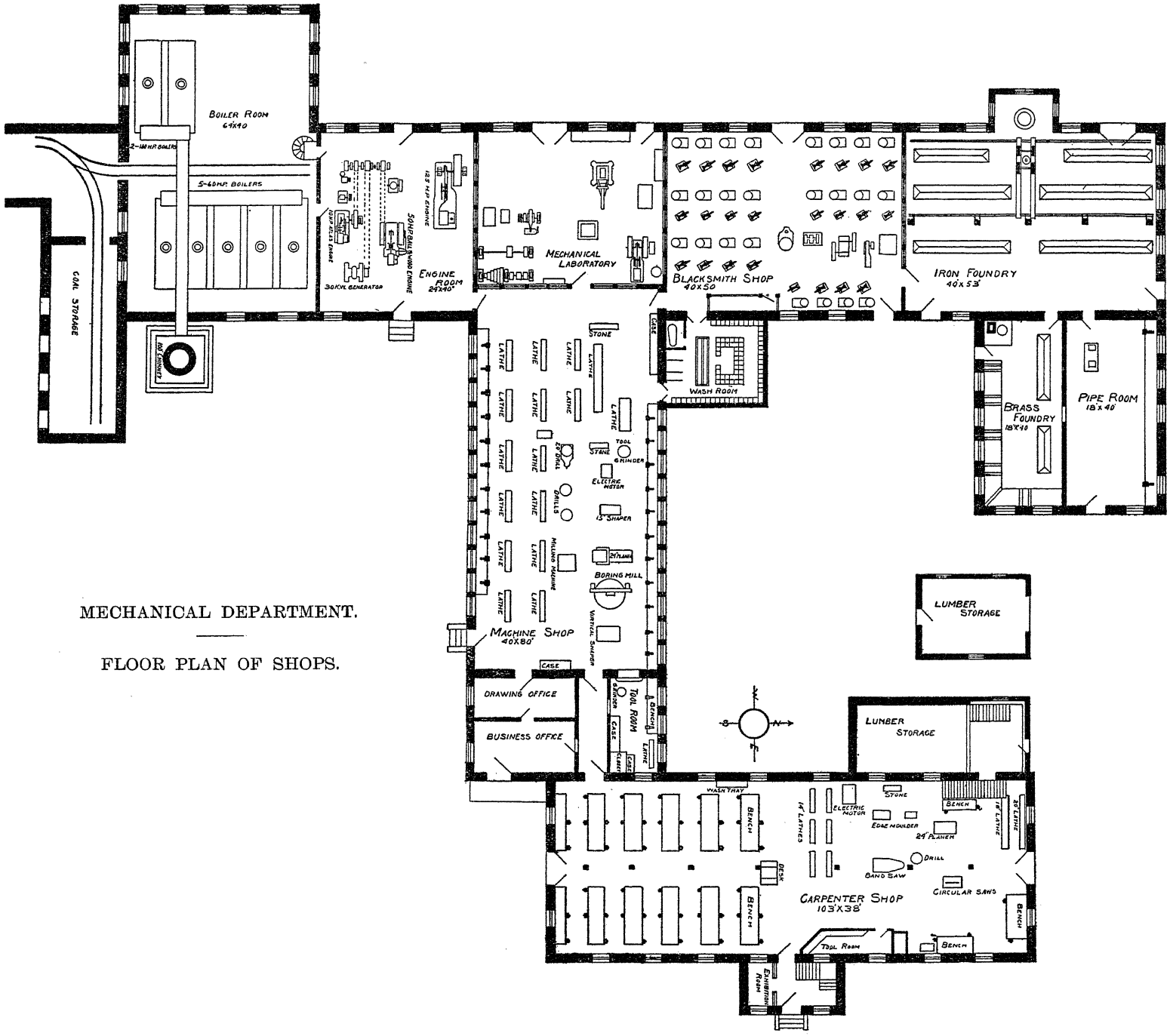
19. **Shop Practice.** Shop practice of this term will include the building of special machinery, such as engines, lathes, and laboratory apparatus.

20. **Applied Mechanics.** A text on applied mechanics, consisting largely of practical problems, will be used to instil the principles of theoretical mechanics.

21. **Engineering of Power Plants.** Hutton's text on mechanical engineering of power plants will be used as a basis for study of the design of engines, boilers, and the details of modern power plants.

22. **Engineering Laboratory.** Advanced work in the engineering laboratory will be given, covering tests of structural materials, the determination of power, hydraulic experiments, calibration of instruments, and tests of electric machinery.

23. **Machine Design.** Beginning with machine parts, the work will include the complete design of machines and the making of working patterns, pattern drawings, and blue-prints.



MECHANICAL DEPARTMENT.

FLOOR PLAN OF SHOPS.

24. **Shop Practice.** Machine-shop practice in the building of machine tools and testing apparatus for laboratory.

25. **Applied Mechanics.**—A continuation of previous term's work, embracing instruction in the application of dynamics to practical problems in machinery and structures, the stresses in machines, elastic properties of materials, hydraulics, power-transmission, mechanisms, etc.

26. Special attention is paid to the theory and underlying principles of the steam-engine, steam-turbine, explosion engines, compressed-air apparatus, and refrigerating machinery.

27. **Machine Design.**—Advanced work in the designing of machinery, engines, and tools, attention being given to the development of complete machines for special work.

28. **Thesis.**—Engineering students are expected to present, for graduation, a suitable thesis on some subject relating to their work. Practice in the machine-shop is omitted in this term, and it is considered that the thesis work should occupy at least ten hours per week.

EQUIPMENT.

The shops of the Kansas State Agricultural College are furnished with the best modern machinery and tools for working both wood and iron, and are in operation six days per week throughout the year.

WOOD SHOP.—The wood-working room is 40 x 103 feet, contains 220 separate kits of tools, and benches for fifty students in each class; lathes, planer, circular saw, friezer, mortising machine, grinders, and tool room containing all kinds of wood-working tools for general use, together with complete outfit of wheelwright's tools.

MACHINE-SHOP.—This room is 40 x 80 feet, contains twelve fourteen-inch engine-lathes, one sixteen-inch combination engine and turret lathe, speed lathe, Gray planer, Hendy-Norton shaper, Brown & Sharpe No. 2 universal milling-machine, Walker universal grinder, special drill grinder, key seater, bolt-cutter, pipe machine, vertical drills, fifty-one inch vertical turning and boring mill, benches and tools for fifty students, and a complete stocked tool room, equipped with the finest modern tools.

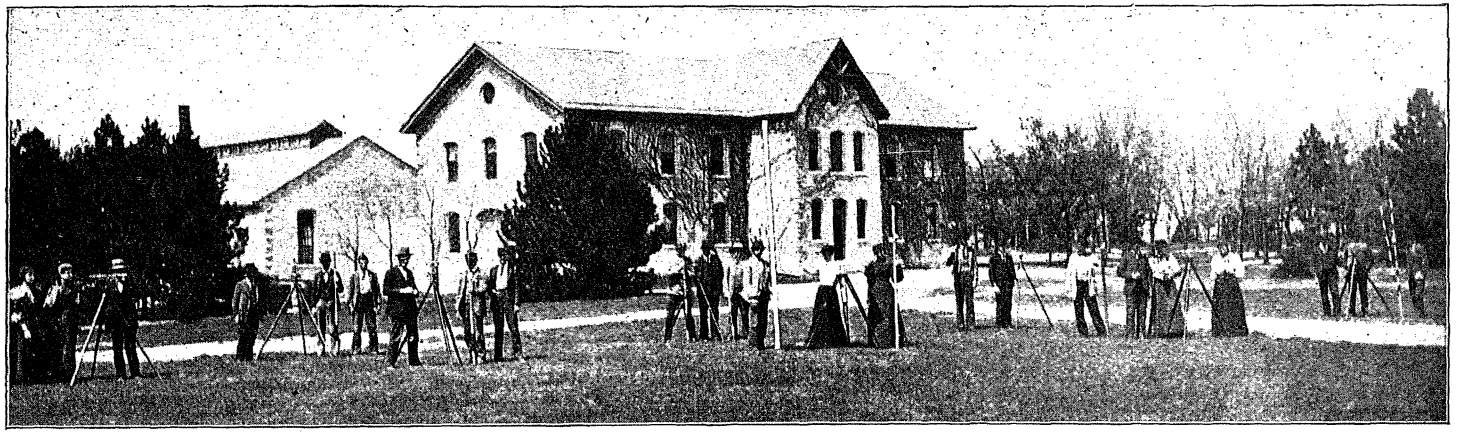
BLACKSMITH SHOP.—This room is 40 x 50 feet, equipped with twenty-four forges fitted with power exhaust. Each forge has anvil and complete set of smithing tools. In addition to the general tools for a fully equipped blacksmith shop, there are also installed here power punch and shears, cold saws, and a number of pieces of special apparatus built by the department.

IRON FOUNDRY.—This room is 40 x 50 feet, equipped with two-ton cupola, core oven, an exceptionally large number of flasks, ladles, traveling hoists, etc. The foundry makes all castings for machine building, together with boiler fronts, grate-bars, and special repair work.

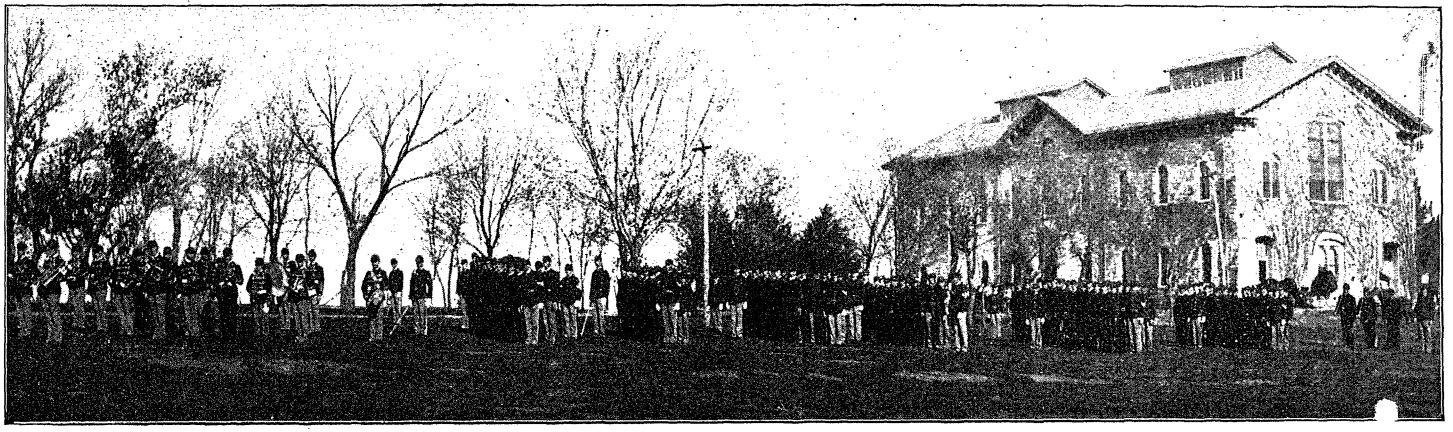
BRASS FOUNDRY.—This room is 16 x 30 feet, with crucible furnace, flasks, and complete equipment for bench and floor molding. The product consists of bearings, friction metal, valves, fittings, etc.

PIPE-FITTING ROOM.—This room is 18 x 50 feet, contains a motor-driven Jarecki pipe machine, and is completely equipped with tools used by steam-fitters. Practice in pipe-fitting and steam-fitting is given.

ENGINEERING LABORATORY.—This room is 35 x 40 feet, and contains a great variety of apparatus, among which may be specified a 100,000-pound testing machine, both automatic and autographic; Flather transmission dynamometer, for determining the power required by various machines; complete cement-testing outfit;



SURVEYING SQUAD. IRON AND WOODWORK SHOPS.



COLLEGE BATTALION. ARMORY AND VETERINARY SCIENCE.

absorption brakes; steam indicators; gauge-testing apparatus, and a variety of special machines for the testing of material; also, thermometers, calorimeters, speed indicators, etc. The very complete boiler- and engine-room adjoining the laboratory, together with a ten-ton refrigerating plant, afford special opportunities for the work relating to steam engineering and refrigeration.

POWER PLANT.— The boiler-room contains five 60-horse-power horizontal-return-flue boilers, one 100-horse-power boiler, pumps, steam-traps, etc. These boilers are used for the generation of steam, both for power and heating purposes, and are independently connected, that they may be tested individually or in groups. The engine-room is equipped with one 100-horse-power, medium-speed engine, directly connected to a 60 K. W. multipolar generator, with marble switchboard and complete apparatus; one 50-horse-power Ball & Wood engine, belted to bipolar generator, with switchboard; one 10-horse-power Atlas engine; one 5-horse-power generator, built in the shops, for testing purposes; one Shipman coal-oil engine, and several small dynamos for testing purposes. In connection with the power plant is a very complete rope-driven installation, especially designed for the department.

CLASSROOMS.— On the second floor of the wood-working department are found the classrooms, drawing-rooms, photographic rooms, paint room, varnish room, and pattern-storage room.

Military Training.

Drill Regulations. During the winter term of the first year the cadets have one lesson per week in the "Drill Regulations of the United States Army." This includes a study of the soldier, the squad, and the company, and their organization and movements.

Military Science. Three hours per week are devoted to the study of the elements of military science during the winter term. The recitations and lectures embrace the elementary principles that govern the art of war, the disciplining of troops, military law, the use of the small arms, and, in fact, give a practica knowledge of applied military science, such as an officer of volunteers should be conversant with when called into the field.

Infantry. Special attention is given to setting-up exercises, school of the soldier, company, and battalion, and such ceremonies as parades, reviews, inspections, and guard mounts.

Artillery. Manual of the piece, mechanical maneuvers, and practice firing with blank cartridges.

Target Practice. A good range gives excellent opportunity for rifle practice, which receives considerable attention.

Signaling. A class is instructed each year in the sending and receiving of messages by the flag system in use in the regular army.

The national government has supplied the College with 245 cadet rifles and an equal number of sets of infantry accouterments; also, two three-inch field-guns and carriages. Swords, target supplies and annual issues of ball and blank cartridges are also received from the general government. The College furnishes uniforms to all students who do not wish to purchase their own, to be worn only during the drill hour. Each student may buy his own suit, to be worn whenever he pleases. The following is a description of the suit: "This suit to consist of regulation blue cap with college emblem, blue blouse cut and trimmed in officers' style, gray trousers trimmed with black mohair braid."

War Department Record. At the close of the year the names of the three cadets most distinguished in military science and tactics are reported to the war department for insertion in the United States army register, and also to the adjutant general of the state.

Organization. The cadets are organized into a battalion of four companies and a band. The commissioned officers are chosen from the Senior and Junior classes, and the non-commissioned from the Sophomores.

Music.

Recognizing music as a factor in education which is practical and elevating, and believing that the germ of artistic faculty exists in every normal person, the following unique and generous provisions have been made for its introduction into the several courses.

Students may take music for a single term or more. A full course, extending over four years, includes theory, notation, voice culture, singing, harmony, composition, and technical drill on one or more instruments. The College pianos and organs are used for daily practice; the other instruments must be provided by the pupils using them.

Instruction in music is furnished free, under the direction of the professor in charge, to all students in the College, as follows:

1. **Notation and Theory.** Class B meets on Tuesday, at 1:30 P. M.; class A, on Wednesday, at 12:20 P. M.

2. **Harmony and Composition.** Classes in harmony and composition will be formed when the demand justifies their organization.

3. **Vocal Music.** B classes meet on Tuesday at the first and third hours, and on Wednesday at the second hour. A classes meet on Thursday at the first and third hours, and on Friday at the second hour. A general class meets on Friday, at 12:20 P. M.

4. **Instrumental Music.** Instruction upon the piano, organ, violin, mandolin, guitar, flute, clarinet, cornet and the more important orchestral and band instruments is given free to students in the regular courses, under the following conditions:

a. **Elective.** Music may be taken as an elective for the year in place of oratory by the members of the domestic science course. Students taking it as an elective will be required to furnish their own instruments, if they wish to practice more than one period.

b. **Industrials.** It may be taken as an industrial by ladies only, in connection with their notation and vocal music, after the required industrials of the first year, and after passing an examination equivalent to two terms in vocal music, in which case, one period's daily practice at the College or at home is required.

c. **Extras.** It may be assigned as an extra to students, ladies or gentlemen, who do well in their general course of study, on the same conditions as above, excepting as to practice, when students may furnish their own instruments.

d. **Optional.** All music is optional—is taken at the choice of the student—but after assignment regular attendance is required as at other classes. Class organization shall be wholly under the control of the professor of music.

e. **Musical Organizations.** Each instrument has a distinct function in the science of tonal expression, and only in their combination are the finest effects in the coloring of the melody, harmony and rhythm procured. This com-

bination is made possible in the musical department by the number of pupils and the variety of instruments studied. All students who are sufficiently advanced to join the College glee club, College orchestra, or the mandolin, guitar and banjo club, or the elementary band, or the College band, may become members by assignment.

f. **Public Exercises.** Music for commencement week and other public College exercises is furnished by the musical department, under the direction of the professor in charge, and all students in the department shall be subject to his call to assist in furnishing the same.

Oratory.

The aim of this department is to so develop the powers of the students' minds that they may be able to think more clearly for themselves, and to express their thoughts effectively in oral form. Practical work is done, according to natural and scientific methods, and every effort is made to adapt the work to the needs of the particular class of students to whom it is presented. In all the courses personal criticisms and suggestions are made. The work is scientifically classified and arranged according to pedagogical principles. Occasional lectures will be given.

Of the studies described below, Nos. 1, 2 and 3 are given during two terms in the agriculture and mechanical and electrical engineering courses, and during four terms each in the domestic science and general science courses. For the amount of time required in each course, see "Schedule of Courses of Study," on another page of this catalogue. No. 4 is required in the third and fourth year in all courses. No. 5 is assigned to the spring term, fourth year, and is valued as equal to one study.

1. **Physical Culture.** This is a course in psycho-physical culture, and consists entirely of movements, without apparatus, designed to develop health, strength, freedom and grace in the body, in order that it may act quickly and truly in obedience to the highest thoughts, feelings and purposes of the soul. During the entire course, daily drill on the exercises will be given in the classroom. The work is thoroughly practical, and will be of benefit to persons in any walk of life.

2. **Voice Culture.** The voice drill is designed to fit the voice to fulfil its highest function, namely, to be a willing servant of the soul, and to assist the body in revealing the mental states. It consists of daily practice on exercises for freedom, flexibility, volume, harmony, and expressiment of voice.

3. **Rendering.** The work in rendering is based upon the natural order of unfoldment in the activities of the human mind, and is in accord with the latest approved pedagogical principles, the aim being to cultivate *original thought* and to produce that condition of mind and heart which shall result in *personal power* and *character*. This is done by bringing the pupil into vital relationship with the masterpieces of the greatest minds, and causing the pupils, through sympathetic experience, to reproduce in others the same mental states in which those great minds were when they wrote or spoke. The method is free from mechanical dictation, working always from within outward. The results are obtained entirely by means of arousing the activities of the pupil's mind through concentration upon proper objects of thought. Individual drill in reciting from memory, on the platform, selections from standard authors, together with criticism and suggestions for practice, will be given throughout the course. The theory and philosophy of different phases of the work will be set forth as far as may be practicable in the time.

4. **Public Speaking.** Each third-year student appears in chapel, before the whole College, twice during the year, with declamations. Each fourth-year student appears in the chapel once during the year, in an original part. The original parts are upon subjects chosen by the students and written under the direction of the professor of oratory. For the chapel work the students are prepared by rehearsals with the professor in charge of the department. This work is required of *all* third-year and all fourth-year students before graduating, regardless of which course they are taking.

5. **Graduating Thesis.** Each student, before graduating, is required to write a thesis of not less than 1500 words in some department of the College work. The technical part of these is under the direction of the head of the department in which the thesis is chosen, and his English is in charge of the professor of oratory.

6. **Special Work.** In addition to the above, assistance is rendered by the department in the preparation of society annuals and class-day program, as far as is practicable.

Physical Training.

The attainment of robust physical health is one of the important aims of the college graduate. With this object in view, a well-regulated system of physical training has been devised and is successfully operated. The work is required of all first- and second-year young women, except such as are found to be physically unable to engage in it.

Before entering upon the work a physical examination is made by the director of the gymnasium. The examination includes measurements of physical proportions, and takes note of the condition of the heart and lungs. At the same time the family and personal history is inquired into, so as accurately to estimate the condition of the student. From this examination an anthropometric chart is platted, showing size, strength, and development, and defects in comparison with the normal standard.

It is the object of the director to give such exercises as will give increased health, strength and symmetry of body.

Daily classes are held in light gymnastics—movements that can be practiced in any position with or without apparatus—marching, free work, bells, wands, etc.; heavy gymnastics, including chest weights, flying rings, horse, bars, etc.; gymnastic games.

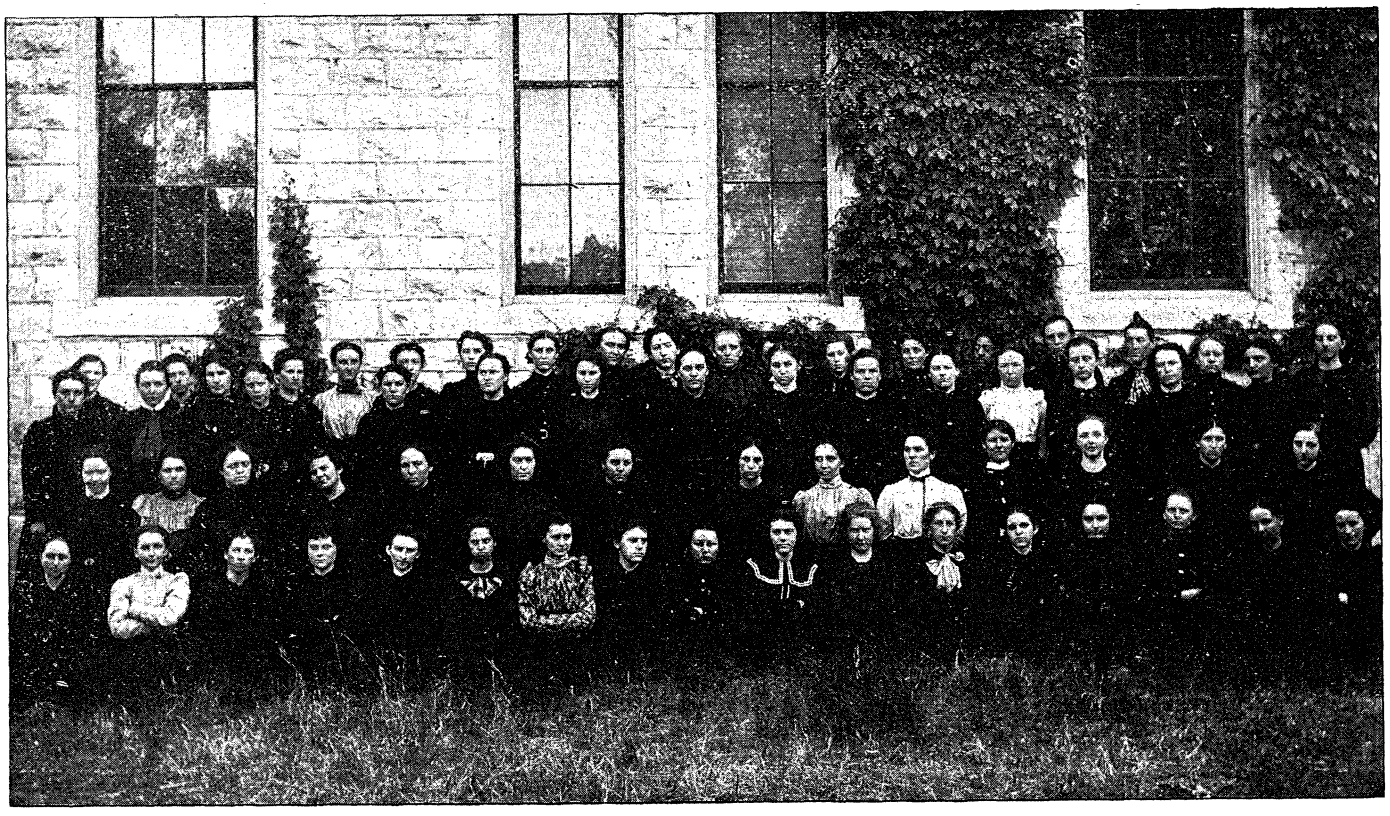
During the fall and spring terms, when the weather permits, exercises are taken in open air.

EQUIPMENT.—In the lower floor of the Library and Agricultural Science building is a spacious hall, well lighted and well ventilated, which is used as the young women's gymnasium. The two smaller rooms adjoining are used as the dressing-rooms. The Board of Regents made a liberal appropriation for the furnishing of the gymnasium, which has been equipped with the best and most-approved developing appliances, as well as apparatus for light and heavy gymnastics.

The campus adjacent to the gymnasium furnishes ample playground for tennis, basket-ball, and golf.

Physics and Electrical Engineering.

In the following courses instruction is given by text-books, lectures, and experiments. Attention will be called to the practical applications of the principles learned. In all courses special lines of reading will be encouraged, and investigation and experimentation, so far as the equipment of the department will permit.



CALISTHENICS CLASS.

Of the studies described Nos. 1, 5 and 6 are required in the agriculture, domestic science and general science courses; Nos. 1, 2, 3, and 4, in the mechanical engineering course; and all except Nos. 5 and 6, in the electrical engineering course.

Text-books: No. 1, Carhart and Chute's Elements of Physics; Nos. 2, 3, and 4, Carhart's University Physics; Nos. 5 and 6, Barker's Advanced Physics.

1. **Elementary Physics.** First year, spring term. This term's work is intended to give the student a general view of the subject, with such laws and principles as will be useful to them in scientific studies. The importance of accurate observations and conclusions will be impressed.

2. **Heat.** Second year, spring term. Three hours per week. A thorough study of heat and the elements of thermodynamics.

3. **Magnetism and Electricity.** Fourth year, fall term. A thorough study of magnetism and electricity, with advanced laboratory practice.

4. **Sound and Light.** Fourth year, spring term. Advanced work on heat, sound, and light, with laboratory practice.

5. **Sound and Heat.** Fourth year, fall term.

6. **Light and Electricity.** Fourth year, winter term.

7. **Electrical Measurements.** Fourth year, fall term. This course includes practice on the distribution of magnetism, effects of temperature upon magnetism, determination of resistance by various methods, of galvanometer constants, measurements of currents, and electromotive force.

8. **Dynamo-electric Machines.** Fourth year, winter term. This course consists of the study of the fundamental theory of such machines, of their various forms, and of the practical design and operation of electrical apparatus and machinery.

9. **Electrical Laboratory.** Fourth year, winter term. Advanced electrical testing—the efficiency of dynamos and motors, transformers, coefficients of self and mutual induction.

10. **Machine Design.** Fourth year, winter term. Practice in original designing based on the previous work.

11. **Applied Electricity.** Fourth year, spring term. Study and practice in the application of electricity to bells, telephones, annunciators, etc.

12. **Electric Power Transmission.** Fourth year, spring term. Lectures on central station design and management, electric traction, and transmission of power.

Preparatory Department.

Inasmuch as many students seek admission to the College with inadequate preparation in one or more of the subjects required for entrance, it has been found necessary to establish a preparatory department in which such deficiencies can be remedied. Students who fail in any subject in the admission examinations are assigned to that subject in the preparatory department. The work in this department is under the direction of a principal, with whom are associated three assistants and a number of student assistants. Some of the preparatory classes are also conducted by the heads of the College departments. Instruction is given in all the studies required for admission to the College.

1. **English Grammar.** The aim is to lay a good foundation for the further study of English. Recognizing the fact that grammatical drill develops in students logical habits of thought, besides giving them greater command of language,

special attention is given to the analysis and construction of sentences and to the principles of elementary composition. Two classes are formed each term, the B class completing the work in two terms; the A class in one term. Text, Lyte's Advanced Grammar and Composition.

2. **English Composition.** One term, based on Herrick and Damon's Composition and Rhetoric. The text is completed to part IV, special attention being given to the study of usage and diction. In addition to the work of the text, each student is required to write one composition each week, which, after being read before the class, receives corrections from the instructor in charge.

3. **Physiology.** This is elementary work, intended to prepare students for the more advanced work given in second year of the agriculture, domestic science and general science courses. As far as possible, models, skeletons and dissecting material is made use of in the classroom. Martin's Elementary Physiology is used as a text.

4. **Bookkeeping.** This is not an extended course, but sufficient instruction is given to enable the individual to open and close accounts in ordinary business transactions. Text, Stevenson.

5. **Arithmetic.** Instruction is given in the principles that underlie the various classes of problems, thus teaching the student to rely upon himself and upon rules. Text, Belfield's New Model Arithmetic.

6. **Algebra.** This includes the fundamental operations, least common multiple, greatest common divisor, and simple equations of the first degree containing one unknown quantity, equivalent to 131 pages of the text, Wells's Higher Algebra.

7. **United States History.** The leading facts, causes and sequences showing the growth of our country and national history are studied with a view to develop true patriotism. Text, McLaughlin, History of the American Nation.

8. **Other Branches of Study.** Instruction is also given in spelling, reading, writing, and geography.

Printing.

The printing department, in the main building, occupies six large rooms, viz.: Superintendent's office, composing-room, pressroom, folding room or bindery, stock-room, and storeroom, all well lighted, amply ventilated, and heated by steam.

1. **Instruction.** The lessons embraced may be briefly summarized under these suggestive topics: The elements of news, book and job composition and imposition; proof-reading and correcting; plain and color presswork; adaptation of various grades of inks and papers; newspaper and magazine folding; mailing; tableting of stationery, and pamphlet stitching and stapling. The instruction is of that character in which individual advancement is always taken into account, and opportunity is extended for individual growth in the knowledge of those principles which are of practical utility in the every-day work of a printing-office. Occasion for the gaining of experience and acquirement of skill is supplied by the weekly publication of the *Industrialist* and the *Students' Herald*, the execution of the wide range of job printing needed to furnish the various College departments with blanks, lesson outlines and stationery, and the College societies with programs, notices, etc.; thus furnishing a greater range of work for instruction than is ordinarily found in the average printing-office.

2. **Equipment.** Thirty pairs of cases; large fonts of six-point, eight-point and ten-point Roman type and italics; a good assortment of wood and metal job

STUDENTS' HERALD STAFF.

type and brass rule; a Babcock cylinder press and a new Liberty quarto-medium job press, run by electric motor; a Gordon eighth-medium job press; mitering, rule-curving and stapling machines; wire stitcher; paper-cutter, cabinets, stands, imposing stones, etc.

3. **Apprentice Course.** An apprentice course of eighty weeks, thirty hours per week, is offered, though this time may be materially reduced by putting in more hours per week and remaining through vacation. At the expiration of the time the apprentice is given a certificate of competency, or diploma. Apprentices are expected to complete the course.

Veterinary Science and Zoology.

Of the subjects described below, 1 is required of all young men; 2, 4, 5, general and domestic science courses; and 2 to 7, inclusive, in the agriculture course.

1. **Hygiene.** First year, fall term. The young men are given one lecture per week on the general care of the body.

2. **Physiology.** Second year, winter or spring term. The structure of the body, including the form and use of the skeleton and muscles. The form, size and position of the various internal organs are first considered. Following this the various functions of these organs, such as digestion and growth of tissue, circulation of blood and lymph, respiration, secretion, and excretion, the nervous system, and the special senses. This subject is taught with its practical application to the laws of health constantly in view. A few dissections of cadavers of dogs and cats are made before the class, and, when practicable, students will be permitted to assist in this work. This course must precede zoölogy, comparative anatomy, bacteriology, and veterinary science. Recitations are from Martin's Human Body, with lectures and illustrations.

3. **Hygiene of Farm Animals.** Third year, fall term. As the name indicates, this includes a study of the laws of health relating to farm animals, and incidentally also the laws of health relating to the farm home. These two subjects bear an intimate relation to each other. Among the subjects discussed may be mentioned the following, viz.: The laws of health and disease; care of the various organs of the body; influence of climate, soil, and water; impurities and diseases of foodstuffs; animal parasites and their life-histories; injurious insects; breeding; quarantining; disinfection, etc. All these subjects are discussed purely as they have a practical bearing on the health of man and beast. This course consists of lectures and reference reading.

4. **Zoology.** Third year, fall, winter or spring term. This includes in a very general way the study of the science of life, protoplasm, the cell theory, etc. Following this, a study of the animal kingdom, its classification, the origin and distribution of animals, etc. This subject will be made as practicable as possible, and every student will be obliged personally to dissect a number of the lower animals, make drawings of the parts, and thus become familiar with the structure of the beings whose interesting physiology he studies. One of the valuable features of this study is the attending development of the powers of observation in a manner that is impossible by any other means. Lectures, recitations, and laboratory work. This study must precede bacteriology and veterinary science. Ten hours a week.

5. **Bacteriology.** Third year, spring term, or fourth year, fall term. This is bacteriology as applied to the practical problems of life. Special attention is given to the germ life that is active in the dairy and creamery, its relation to the character of the product turned out, the flavor and keeping qualities of milk, butter, and cheese, diseases of these products, etc. Bacteria as nitrifiers in the

soil, as agents of fertility and as causes of disease are studied. Students will learn to stain and mount disease germs, examine them under high-power microscopes, to isolate species and cultivate them in artificial food media, and the endless variety of other interesting work connected with the study of general bacteriology. Must precede veterinary science. Lectures and laboratory work.

6. **Comparative Anatomy.** Fourth year, fall term. This includes a study of the anatomy of the horse and other domesticated animals. Special attention will be paid to the structure and functions of the digestive and nervous systems, in such a manner as to be useful to the farmer and stock-raiser. At the same time, the course in this subject will be so taught that it will be preparatory to a complete course leading to the degree of doctor of veterinary medicine, which, it is hoped, we will be able to offer in the near future.

7. **Veterinary Science.** Fourth year, winter term. The aim of this course is by no means to make veterinary surgeons. This it is absolutely impossible to do in so short a time. But with the studies in zoölogy, farm hygiene, bacteriology and comparative anatomy preceding a course of lectures on veterinary science, it is intended to make a young man thoroughly familiar with the ordinary causes of disease and latest successful methods of avoiding and combating them. A few common infectious diseases of farm animals are discussed in detail. The study of lameness of the horse, selection of horses for given purposes, etc., will constitute part of the term's work. Most diseases of farm animals can be prevented by intelligent foresight. It is our aim to train young men to exercise this foresight. Lectures and recitations.

8. **Histology.** Arrangements will be made to give instruction in the technique of the microscope and in histology to a class consisting of a limited number of students. This class will be open only to such students as do exceptionally satisfactory work in other branches of natural science. This course also will constitute work for which credit will be given in the proposed full course in veterinary medicine and surgery.

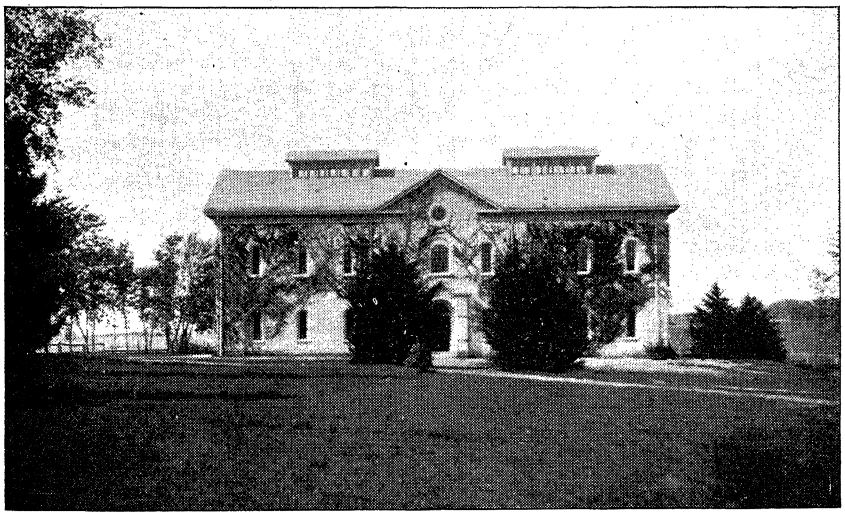
MEANS OF ILLUSTRATION.

The zoölogical museum, containing numerous representatives of the several classes, especially full in fishes and mollusks of Kansas and in illustrations in economic and systematic entomology. Increasing material in skins, alcoholic and anatomical preparations are available also for the use of the student. For veterinary work there is provided a laboratory fitted with apparatus, instruments and reagents for the study and treatment of disease. An Azoux model of a horse, which is dissectible, showing nearly 1000 anatomical structures, skeletons, charts, and a large collection of anatomical specimens, showing healthy and diseased structures.

Logic and Psychology.

1. **Logic.** Third year, spring term. The art of reasoning correctly is aided by a study of systematic logic, both deductive and inductive. Special prominence is given to methods for exact observation and experiment and correct principles of classification. The previous researches and experience of the students are made to illustrate these principles.

2. **Psychology.** Fourth year, spring term. A short course in psychology gives the general principles of intellectual and moral philosophy. Sensation, apperception, perception, memory, imagination, thought, feeling and volition are topics of explanation and analysis. Theories of right and wrong and correct principles of action are made the means of a clear understanding of individual responsibility, with special attention to personal rights and duties. Topics are assigned for research, to be presented in thesis form at the close of the term.



ARMORY AND VETERINARY SCIENCE.

The Short Courses.

There are large numbers of young people who from lack of means or time are unable to take an extended course of study, but whose usefulness in the world would be much increased by a little special training. Their earning capacity in the household or on the farm is far from what it might be, and they are thus handicapped in the struggle for a livelihood. To bring to this large portion of the "industrial classes," even in small measure, the "liberal and practical education" provided for by the organic act, the College has established certain short courses of study, with practice.

The teaching in these courses, while no whit less accurate than in the others, is upon a different plane. Taking students without scientific or mathematical training, the instruction must be more largely a giving of facts, without an elaboration of the underlying principles which the regular courses afford. The work is intensely practical. Studying such texts as any bright young man or woman can understand, receiving lectures of the same type, and putting into daily practice through industrial exercises the facts and principles learned in the classroom, the student cannot but be greatly benefited. It is hoped, too, that in many cases young people who had thought that they could not afford a four-year course will, by this taste of the advantages and pleasures of an education, be led into the regular courses.

These courses are put at the seasons of the year which seem likely to accommodate the most students, those for young men being given in the winter term, when farm work is more slack, and the young women's course being in the fall. Four such courses are now offered: A dairy course of one winter term; a domestic science course of two fall terms; an agriculture-mechanics course and a horticulture-mechanics course of two winter terms. The last two courses are identical the first term, but in the second, one treats horticultural lines more exclusively and the other agricultural.

Persons at least eighteen years of age and of good moral character are admitted to these courses without examination, but should have sufficient training

in the common schools to enable them to understand the simple text-books used, and to handle readily problems in common and decimal fractions and percentage. They will be required to attend strictly and constantly to their duties, or leave. They have the same free use of the College library that other students have. Owing to the peculiar nature of the work and to the slight degree of preparation which it assumes, students are required to be present at the very beginning of the course, and those applying later will not be admitted.

Dairy School Course.

ONE WINTER TERM, TWELVE WEEKS.

	Hrs. per wk.
Principles of Agriculture, one-half term; Dairy Bookkeeping, one-half term	5
Dairying, one-half term; Creamery Butter-making, or Private Butter-making, or Cheese-making, one-half term	5
Feeds and Feeding, one-half term; Breeds and Breeding, one-half term	5
Bacteriology	3
Diseases of Dairy Animals	2
Boiler and *Engine*	5
Milk Testing and *Private Butter-making*, or *Milk Testing* and *Creamery Butter-making*, or *Milk Testing* and *Factory Cheese-making*	20

Principles of Agriculture. Treating of soils, crops, tillage, and manures; the selection, laying out, equipping and management of Kansas dairy farms. Text-book, Bailey's Principles of Agriculture.

Dairy Bookkeeping. Practice in bookkeeping that will enable the student to understand the underlying principles, followed by training in keeping books for farm, dairy and creamery accounts.

Dairying. Milk: its secretion, nature, and composition; causes and conditions influencing the quality and quantity of the milk; handling of milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; creaming of milk by the separator; cream ripening and butter-making. Text-book, Wing's Milk and its Products. Lectures.

All students will study dairying together for the first half of the term. This class will then be divided, creamery men taking lectures on *creamery butter-making*, the cheese-makers on *factory cheese-making*, and the dairymen on *private butter-making*.

Feeds and Feeding. Properties of common feed stuffs, their effect on character and yield of milk and butter, and their adaptability to Kansas conditions of dairying. The compounding of dairy rations to secure good yields at least cost with products having desired qualities. Careful study of the feeding of the College dairy herd will also be required. Text-book, Henry's Feeds and Feeding.

Breeds and Breeding. Characteristics of leading breeds of cattle, and their adaptability to Kansas dairy farming; dairy farm, and the selection of dairy animals; care and management of the dairy herd; principles of stock-breeding. Lectures.

Bacteriology. Relations of bacteria to methods of keeping milk, ripening cream and cheese, and flavoring butter; diseases of milk, their relations to the health of man and animal; principles of disinfection. Text book, Russell's Bacteriology. Lectures.

Diseases of Dairy Cattle. The common ailments of calves and dairy cows are discussed and their causes and symptoms explained, remedies and preventives suggested, all from a practical farmer's standpoint. During the dairy school the College herd will be tested with tuberculin and the students taught how to make the test. Students will also inoculate hogs against cholera or swine-plague. Lectures.

Boilers and Engines. Lectures and practice in the firing of boilers, care and running of engines, pumps, etc. Care and attendance of refrigerating machinery; practice in shops.

Butter-making and Milk Testing. Practice in handling milk and its products from the time it leaves the cow until it is marketed as butter, cheese, or sanitary milk. Students may choose either creamery butter-making, cheese-making, or private dairying. Thorough instruction and practice will be given in all three of these lines. The dairy rooms will be fully equipped with hand and power separators, Babcock tests, churns and butter-workers, aerators, heaters, sterilizers, refrigerating machinery, milk and cream vats, factory-cheese apparatus, Mann's acid tests, and other needed apparatus. Many manufacturers have volunteered to loan us machinery, so that the dairy students may make tests of the work of the different makes of separators, churns, etc.

EXPENSES.

Tuition is free. Board and rooms can be secured for $2.50 and upward per week; lunches may be had at the College dining-room at cost; laundry costs about fifty cents per week. Each student will need two white suits and caps for use in the dairy room. These can be purchased in Manhattan. Unnecessary breakage will be charged at cost. Incidental expenses will be high or low as the individual determines. The total of all expenses for the entire time, exclusive of railroad fare in coming and returning, need not exceed forty dollars, and with close economy may be made less. Students in the dairy course cannot expect to earn any part of their expenses while at the College, as every hour will be needed for class work, practice, or study.

Domestic Science Short Course.

FIRST YEAR, FALL TERM, TWELVE WEEKS.	*Hrs. per wk.*
Lectures and Practice in Cooking	15
Home Sanitation and Household Accounts	1
Sewing	16
Drawing	5
Vegetable-gardening and *Floriculture*	5

SECOND YEAR, FALL TERM, TWELVE WEEKS.	*Hrs. per wk.*
Lectures and Practice in Cooking and Home Nursing	10
Bacteriology and Physiology	2½
Physics one-half term, Chemistry one-half term	5
Dressmaking	12

Lectures and Practice in Cooking. This work includes the following topics: The origin and purpose of cooking, and the effects of heat and cold upon starch and albumen; direct application of the principles learned to the cookery of eggs, vegetables, beverages, and soups; the general cookery of meats, with study of the meat charts; baking-powders, their composition and adulteration; yeast, and bread-making by fermentation.

Drawing. The work in drawing is especially adapted to the needs of this class of students; it will consist of free-hand and geometrical drawing.

Sanitation and Household Accounts. Care of the kitchen, living-rooms, sleeping-rooms, dining-rooms, etc., including the cleaning of kitchen utensils and lamps, sweeping, dusting, and care of plumbing. A simple method of keeping accounts of receipts and expenditures will be given.

Sewing. Pupil makes a model book covering the full course in hand sewing, and consisting of basting, gathering, darning, patching, etc. Machine practice, drafting, cutting and making underskirt and drawers; drafting, fitting and making dress without lining; cutting and making corset cover and night-dress. Materials for the model work will be furnished by the College. Each pupil will furnish her own material for the garments, but if sufficient proficiency is shown in making the first garment, pupils may be allowed to take orders for the others.

Vegetable-gardening and Floriculture. The first half of the term is devoted to vegetable growing. Subjects treated include the raising of vegetables for home and for market, with location, soils, manures, tools, irrigation, etc., best suited for crops grown in kitchen- and market-gardens; the construction and manipulation of hotbeds, cold-frames, and winter gardens; the growing of early and late crops, their special treatment, methods of cultivation, planting, transplanting, harvesting, and marketing; a study of varieties suitable to local conditions; and the origin, nature and methods of improvement of vegetables. The last half of the term is devoted to floriculture. Lectures in the classroom are supplemented by practical exercises in the greenhouses and gardens, treating of the propagation and culture of flowers, including the treatment of seeds, cuttings, mixings of soils, potting, repotting, watering, cut flowers, packing, and the many operations that attend amateur and commercial flower-gardening.

SECOND YEAR, FALL TERM, TWELVE WEEKS.

Lectures and Practice in Cooking and Home Nursing. The following subjects are taken up: The food principles and their classification; the uses of food in the body; canning and preserving; cookery of the various combinations made with eggs, thus involving the application of heat to albumen; simple chemistry of bread-making, rolls, puddings, etc.; practical lessons in frying and in cookery of salads, plain pastry, dessert, and cake; a series of six lessons in invalid cookery, including gruels, toast, beef tea, soups, eggs, and milk; and six lessons in home nursing.

Physics. The subjects of mechanics, sound, heat, light and electricity will be briefly treated by lectures, especial attention being given to heat in its relation to cooking, ventilation, etc.

Chemistry. By means of lectures, accompanying a single text-book, the attempt is made to give the students some idea of the nature of chemical action, and to impart the facts most directly bearing upon cleaning, sanitation, cooking, and nutrition. A weekly written quiz is a part of the work.

Bacteriology and Physiology. Characteristics of bacteria and their relation to health and disease, to quality and preservation of foods, principles and methods of disinfection; physiology and hygiene of the human body; laws of health and care of the sick.

Dressmaking. Pupil will be taught to adopt and use pattern taken from pattern sheet, also use of dress-cutting system, cutting, fitting and making woolen dress. Pupil will furnish her own material for the first dress, but if sufficient proficiency is shown she will be allowed to take orders for the others.

Farmers' Short Course.

(A short course in agriculture, horticulture, and mechanics.)

FIRST YEAR, WINTER TERM, TWELVE WEEKS.

	Hrs. per wk.
Feeds and Feeding	5
Horticulture, Entomology	5
Crop Production, Bookkeeping	5
Diseases of Farm Animals and Bacteriology	5
Fruit Propagation	5
Blacksmithing, Repairing	10
Science Lectures	1

SECOND YEAR, WINTER TERM, TWELVE WEEKS.

HORTICULTURE.		AGRICULTURE.	
Vegetable-gardening and Small-fruit Culture	5	Breeds and Breeding	5
Orchard Treatment, Pomology	5	Dairying, Farm Architecture	5
Diseases and Insects	5	Botany	5
Physics and Chemistry	5	Physics and Chemistry	5
Shops, Farm Carpentry, etc.	10	*Shops, Farm Carpentry, etc.*	10
Horticultural Practice	5	*Farm Practice*	5
Science Lectures	1	*Science Lectures*	1

Feeds and Feeding. The properties of feed stuffs, and their combinations to secure good returns at least cost with products having the desired qualities; effect of foods on quality of products; construction of farm buildings and appliances to secure best returns from feed and for saving labor; a study of the feeding on the College farm. Text-book, Henry's Feeds and Feeding. Lectures.

Horticulture. General principles underlying plant growth; structure and functions of the various parts of the plants; nutrition, formation of seed, etc.; propagation by seedage, cuttage, graftage, and layerage; environment, including the effects of temperature, light, food, and water-supply; possibilities of improvement by cultivation, training, and selection. Text-book, Goff's Principles of Plant Culture.

Fruit Propagation. Practice work in the various methods of budding and grafting, and storing of the same; treatment of grafted stock during the winter and setting it in nursery rows in spring; the making of herbaceous and hardwood cuttings; winter treatment of tree seeds in preparation for spring planting.

Entomology. Nature, time and expense of the injuries from insect life, and a knowledge of the remedies, when and how to apply them. Structure of a number of insect types; study of the beneficial insects, and the more injurious forms attacking farm, orchard and garden crops. Use of preventives and insecticides.

Crop Production. A study of the soil, the plant and crop growing, including the management of the soil for maintaining and increasing its productivity, the improvement of worn-out soils, conservation of moisture and the preparation of the soil, selection of the seed, method of planting, treatment after planting and harvesting of Kansas field crops to secure best returns at least cost. Text-book, Bailey's Principles of Agriculture. Lectures.

Bookkeeping. The principles are mastered through their practical application to forms adapted to farm affairs. Each student keeps a regular set of books, in which accuracy and neatness are not less important than a correct understanding of principles. A set of books is developed which would be practical for every farmer, accounts being kept with various departments of his business—fields, granaries, garners, orchards, hogs, cattle, milch cows, etc.

Diseases of Farm Animals. The common ailments of farm animals are discussed, their causes and symptoms explained, and preventives and remedies suggested. Inoculation against blackleg and swine-plague will be performed by the student in his course.

Bacteriology. Characteristics of bacteria; their relation to health and disease of man and animals, to soil fertility, and to quality of dairy products; principles and methods of disinfection.

Blacksmithing. Forging and welding, construction of singletree clips, wagon ironing, clevises, horseshoes, sharpening and tempering plows and tools, general repair work. Advanced work is also offered in the care and management of boilers and engines. If the student desires, he can make a forge and set of blacksmith tools to take home with him, paying only for the iron used.

Science Lectures. Lectures will be given in both the first and second years of the course by the instructors on subjects of most interest to the students in this course.

SECOND YEAR—AGRICULTURE COURSE.

Breeds and Breeding. Characteristics of the breeds of live stock and their adaptability to Kansas conditions; principles of breeding; form as an index of qualities; selection and judging of live stock. Lectures.

Dairying. Milk: its secretion, nature, and composition; causes and conditions influencing the quality and quantity of milk; handling of milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; creaming of milk by gravity methods and by the separator; cream ripening and churning; washing, salting, working, packing and marketing butter. Text-book, Wing's Milk and its Products.

Farm Architecture. Each student will be required to prepare plans, elevations, sections, detailed drawings and specifications of a sanitary farm barn, with outbuildings.

Botany. The laws of plant growth, which have a direct bearing upon the raising of grasses, grains, clovers, forage-plants, and weeds; a study of the common fungi that affect cultivated plants; seed testing; practical methods of farm seed breeding.

Physics. A consideration of the principles of physics which underlie farm operations, farm mechanics, control of soil moisture, physical laws of tillage, meteorology. A knowledge of the laws of physics enables the farmer to store moisture and to reduce loss of water from the soil by evaporation. It is the practical application of these laws that will solve our drought problem.

Chemistry. The relation of soils to earth, air, and water, formation and characteristics of different kinds of soils, soil enrichment and improvement, the chemistry of feeds and of animal products.

Farm Carpentry. Elementary woodwork in joinery and construction, followed by general woodwork and carpentry, care and use of farm machinery, the building of frame structures, such as stables, piggeries, poultry-houses, ice-houses, and farm creameries, will be given both by lectures and by practical work.

SECOND YEAR—HORTICULTURE COURSE.

Vegetable-gardening and Small-fruit Culture. The first half of the term is devoted to vegetable growing, consideration being given to the raising of vegetables for home and market; locations, soils, fertilizers, tools, irrigation, etc., best suited for crops grown in kitchen- and market-gardens; the growing of

extra early or late crops, their special treatment, cultivation, and harvesting; the means employed in the preservation of vegetables for future use; vegetables suited to Kansas conditions, methods of improvement, etc. Small-fruit culture occupies the second half of the term. The subject is treated in much the same manner as vegetable-gardening, taking up the cultivation of small fruits and the methods employed in their propagation, handling, and improvement. Five hours per week. Lectures.

Orchard Treatment and Pomology. This branch is devoted to the practical treatment of orchard work; location, soil, planting, pruning, cultivation and fertility of the orchard; a study of the use and value of windbreaks — how best made, trees suitable for same in Kansas; causes of plant variation, and methods employed in the improvement of orchard fruits; grape growing in the West, a study of the distinctive characteristics of varieties, their value for home and market use; lists of varieties of fruits suitable for Kansas orchards; a general treatment of planning the grounds, location of houses, barns, gardens, orchards, lawns, fields, etc. Five hours per week. Text-book, Bailey's Principles of Fruit-growing. Lectures, with library references.

Orchard Diseases and Insects. The work of this branch is the investigation of various orchard pests. Life-history and depredations of insects and fungous diseases attacking horticultural crops, together with means of combating them, preventives, and remedies; mechanical devices, spraying compounds and machinery, and methods employed in the warfare.

Chemistry and Physics. In classes with the agriculture course.

Apprentice Courses.

MECHANICAL DEPARTMENT.

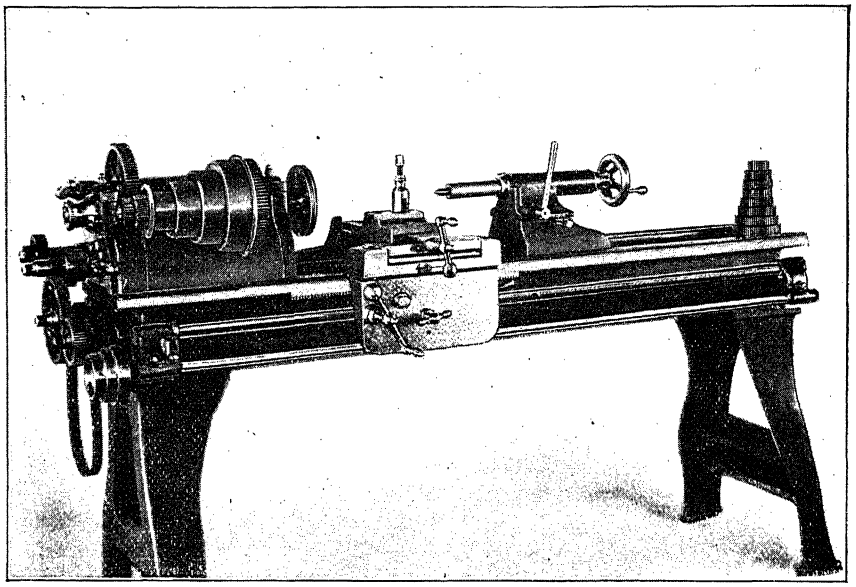
Many who are unable to take the four-year engineering course and who wish to learn a trade will find in the apprentice courses opportunities to obtain practical skill in carpentry, blacksmithing, foundry, machine-shop practice, and boiler and engine attendance.

In the apprentice courses the advantages of the shops are offered free to a limited number of young men who cannot enter regularly in the College classes. Since instruction rather than money-making is the object of these courses, it can be readily seen that the apprentice work under skilled instructors offers many advantages over the ordinary trade apprenticeship. The number that can be accommodated for the coming year is estimated at thirty, and the work given is of the most practical character.

Requirements are as follows: Young men must be at least eighteen years of age, and their attendance on regular College duties must be obviously impracticable; must observe College regulations; must agree to work at least thirty hours per week in the shops, and must remain in the shops for a minimum period of eighty weeks. No charge of any kind is made, nor is any pay given to apprentices. All apprentices are taken on one month's trial, that those not naturally suited for such work may be relieved of the necessity of remaining the full period. Graduates of these courses are given a certificate showing proficiency in line of work pursued.

Courses are offered in the following lines:

a. Machine-shop.
b. Blacksmith shop.
c. Carpenter shop.
d. Foundry.
e. Boiler- and engine-room.



LATHE BUILT BY SIUDENTS AT THE SHOPS.

Graduates from these apprentice courses are in considerable demand and have in the past had no difficulty in securing desirable positions.

PRINTING DEPARTMENT.

Persons may enter the printing department under the same requirements as above. The work consists of composition, proof-reading, press and job work.

The Young Men's Christian Association.

The Young Men's Christian Association, having a membership of over 300, is one of the largest and most influential student organizations of the College. The association is thoroughly organized for practical Christian work, and exerts a most wholesome influence in the College.

When a young man gets off the train at Manhattan he finds a committee from the Young Men's Christian Association ready to help him find a desirable board ing place, and to assist him, in every way possible, to make his college life both pleasant and profitable.

The nature of the work of the association may be briefly indicated by the following quotation from the back of a membership application blank.

Reasons for Joining the Y. M. C. A.

I.—BECAUSE OF WHAT IT STANDS FOR:

Clean Christian manhood in the College.

Growth into a larger and more spiritual Christian life.

"Practical Christianity": Rendering material assistance in every way possible.

Aggressive Christian work by and for students.

Y. M. C. A. CABINET.

II.—Because of what it offers You, and all other Young Men of the College:

Attractive and profitable religious meetings.
The use of a homelike parlor, together with an organ, where you may go evenings and Sunday afternoons when you feel lonely and cannot study.
A sick-room, where you will be placed and taken care of when you need such attention.
Opportunities of fellowship and frequent social gatherings.
Two courses in Bible study.
Classes in the study of modern missions.
The opportunity of doing Christian work among your fellows.
Free tutoring when needed and deserved.
Free employment and general information bureau.
Students' loan fund, for helping worthy students out of tight places.
A loan library of text-books.
The most valuable and helpful handbook in the West.
A membership ticket which will secure for you special courtesies and privileges in all the leading city, railroad and college associations on the continent.
The brotherly sympathy and advice of the general secretary in regard to any difficulty that you may have.

III.—Because of what it is:

The largest student organization in the College.
The largest intercollegiate organization in existence.
An organization heartily supported by the Faculty.
An organization in good financial condition.
An organization that keeps out of College politics.
An organization that has in its membership the most prominent men in College, and men from all classes of students.

All young men contemplating entering college are invited to write to the general secretary of the association for all kinds of information regarding the College, and especially in regard to the work of the Y. M. C. A.

Young Women's Christian Association.

The Young Women's Christian Association of the Kansas State Agricultural College was organized in 1886, and in 1899–'00 had a membership of 150, made up of ladies of the Faculty and young women of the various classes.

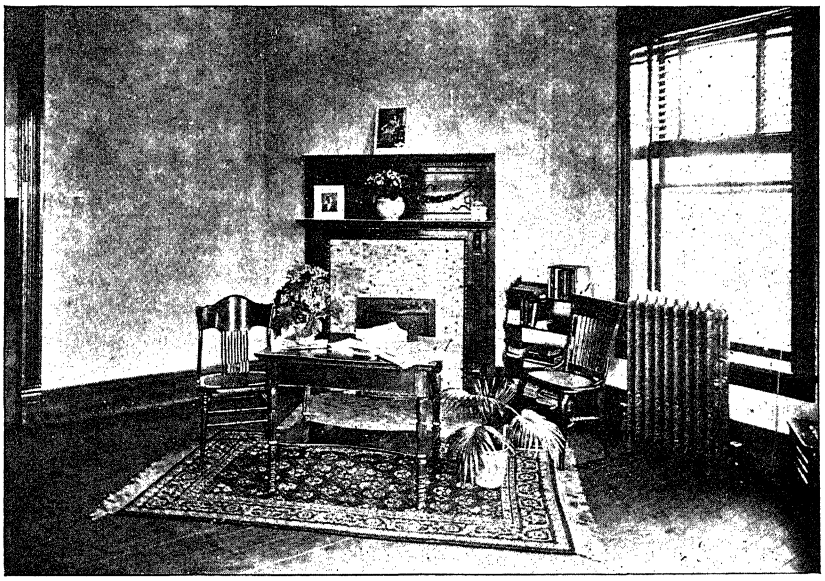
The object of the association is to look after the general welfare of the girls who attend the institution and to give them any assistance needed. The work of the association begins by meeting the new girls at the train and helping them to secure the best and most homelike boarding places, at reasonable rates. Guides are supplied to show new students to their respective classrooms until familiar with the buildings.

To the young woman away from home for the first time questions arise which the older and more experienced student will be able to solve, and help in solving these problems is cheerfully given. The idea of each association member is to make each new girl feel at home in the College and the association rooms, and feel that when she meets a Y. W. C. A. girl she meets a friend who is interested in her welfare.

The association looks after girls in case of sickness, and where the sickness is

Y. W. C. A. OFFICERS.

Trena Dahl. Adelaide Strite.
Myrtle Mather. Miss Stoner. Clara Nitcher. Eva Rigg.
Margaret Minis. Maude Hart. Maude Zimmerman. Ina Cowles. Lucy Sweet.
Maude Coe. Helena Pincomb.



Y. W. C. A. OFEICE.

severe nurses are detailed from the members to look after the patient as long as a nurse's services are required.

Each Saturday at the noon hour a meeting is held for discussion of plans and work of the association. Socials are held from time to time to enable the young women of the College to become better acquainted.

In the Domestic Science Hall is the office of the general secretary and a general headquarters of the association. This office and reading-room is supplied with papers and magazines, and here any girl may spend a vacant hour with a short story or a scientific article, being assured she is a welcome visitor.

Each year the officers of the association receive letters from parents or friends of prospective students asking that care in certain lines be given. These cases always receive special care.

Last year the work of the association enlarged, so that it demanded more time than the students could give; so a young woman was employed to act as general secretary. When help of any kind is needed application may be made to this general secretary, who will be willing to do anything she can.

Any young woman who contemplates attending the Kansas Agricultural College, and who wishes information such as the catalogue cannot give, may write to the general secretary, Y. W. C. A., Manhattan, Kan.

General Information.

Examinations.

Examinations for admission are held at the beginning of each term, as shown in the calendar of the college year. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of seventy per cent., at least, must be obtained to pass a study.

Examinations in the courses are held twice each term, as announced in the calendar. The results of these examinations, marked on a scale of 100, are combined with the grades of the preceding daily exercises into a grade for the period. Grades reported to the Secretary for record are made up by giving the mid-term record a value of one-third and the record for the last half of the term a value of two-thirds. For passing a study, the mean grade so calculated, and also the grade for the last half of the term, must be at least seventy. Any student receiving less than a passing grade on two or more studies may either drop back or withdraw from the College. Any student may receive a certificate of standing, upon leaving College at the close of a term.

Students deficient in entrance studies must make good such deficiencies before entering on the work of the second year. Students are not catalogued in the third-year class unless all deficiencies of the preceding years are provided for. Candidates for graduation must make good all deficiencies before entering on the work of the spring term of the fourth year.

After entering college, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the committee on assignments. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive. Students desiring credit for work done elsewhere must bring certificates and catalogues to show that the work done is equivalent to ours.

Regulations in Regard to Substitutions.

With the five regular courses that the College now offers, most of the requirements of students are met. For one reason or another, however, some students find it necessary or desirable to substitute something else for the work that their respective courses would re-

quire. To place such substitutions on a systematic basis, the following regulations have been adopted by the Faculty:

1. Students desiring to substitute other work for any requirement in their respective courses of study must present written requests to the committee on assignments.

2. No student shall be allowed a substitute for work in which he has failed.

3. Substitutions shall not be allowed to students who have failed in any study during the two terms' work immediately preceding, or who are below the third year.

4. Unless the substitution is made necessary by the acts of the Board of Regents or the Faculty, substitutions shall be allowed only when arranged for in advance.

5. Substitutions shall, as far as practicable, give training similar to that of the work displaced.

6. When a request for substitution is made by any student, the committee on assignments shall consult with all the professors whose work is touched by the proposed substitution, and if unable to agree with them the case shall be submitted to the Faculty.

7. All substitutions approved by the committee on assignments shall be reported to the Faculty by posting on the Faculty bulletin-board, and if not objected to within one week shall be reported to the Secretary for record in the students' register.

Terms of Admission.

Applicants for admission must be at least fourteen years of age. The courses, given elsewhere, are based on the following entrance requirements: Reading, spelling, writing, geography, arithmetic, United States history, English grammar, English composition, elementary physiology, bookkeeping, and algebra through simple equations of one unknown quantity. It is recognized that only the very best rural schools will prepare students for unconditional entrance, and the College will therefore maintain preparatory classes under experienced teachers for the instruction of such as are unable to fully pass the entrance requirements. Applicants over eighteen years of age, who for lack of early advantages are unable to pass even the common-school branches, may, under special conditions, be admitted to preparatory classes, but all others will be expected to pass them.

Examinations for admission are held at the beginning of each term. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of sexenty per cent., at least, must be obtained to pass a study.

On entrance, applications for advanced standing in the courses or for credit for certain studies of the courses may be made to the chair-

man of the committee on examinations. After entrance, such applications should be made to the professor in charge of the study. In any case the applicant will be required to pass such an examination as the professor in charge deems necessary.

Applicants may receive credit without examination for such entrance requirements as may be covered by the following:

1. Grades of at least seventy per cent. on a Kansas teacher's certificate.

2. Diploma received on completion of a county course of study which has been approved by the Faculty.

3. Certificate of passing the grammar grade, or graduating from the high school, of any city with a course of study approved by the Faculty.

The courses of the following cities and counties have been approved by the Faculty, and others may be submitted at any time:

CITIES.

Abilene.	Coffeyville.	Hiawatha.	Lyons.	Pratt.
Alma.	Columbus.	Holton.	Manhattan.	Russell.
Anthony.	Concordia.	Horton.	Mankato.	Salina.
Argentine.	Council Grove.	Humboldt.	Marion.	Scranton.
Arkansas City.	Dexter.	Hutchinson,	McPherson,	Sedan.
Atchison.	Dodge City.	Independence.	Minneapolis.	Seneca.
Augusta.	El Dorado.	Iola.	Neodesha.	Solomon City.
Baldwin.	Ellsworth.	Junction City.	Newton.	St. Mary's.
Belleville.	Emporia.	Kanopolis.	Olathe.	Topeka.
Beloit.	Eureka.	Kansas City.	Osage City.	Valley Falls.
Burlingame.	Fort Scott.	Kingman.	Osborne.	Wamego.
Burlington.	Fredonia.	La Cygne.	Oswego.	Washington.
Caldwell.	Garden City.	Larned.	Ottawa.	Waverly.
Chanute.	Garnett.	Lawrence.	Paola.	Wellington.
Cherryvale.	Gaylord.	Leavenworth.	Parsons.	Wellsville.
Chetopa.	Girard.	Lebo.	Pittsburg.	Winfield.
Clay Center.	Great Bend.	Lincoln.	Pomona.	Wichita.
Clifton.				

COUNTIES.

Allen.	Elk.	Kingman.	Phillips.	Shawnee.
Barber.	Ellis.	Labette.	Pottawatomie.	Sherman.
Bourbon.	Ellsworth.	Lane.	Pratt.	Smith.
Chautauqua.	Franklin.	Lincoln.	Reno.	Thomas.
Cheyenne.	Geary.	Logan.	Republic.	Trego.
Clay.	Gove.	Marion.	Rice.	Wabaunsee.
Cloud.	Greeley.	Miami.	Riley.	Wallace.
Coffey.	Harper.	Mitchell.	Rooks.	Washington.
Comanche.	Harvey.	Morris.	Rush.	Wilson.
Cowley.	Jefferson.	Nemaha.	Russell.	Woodson.
Decatur.	Jewell.	Norton.	Scott.	Wyandotte.
Douglas.	Johnson.	Ottawa.		

COUNTY HIGH SCHOOLS.

Atchison and Dickinson.

Counties and cities on the accredited list may be called upon at any time to furnish evidence that they are maintaining a satisfactory standard of scholarship.

The studies of the first year, and many of the second, are taught in two or all of the terms of the year, and not simply in the terms shown in the schedule, so that students who enter deficient in a term's work on entrance studies will go right on with first-year work the next term. It is quite possible for a good student who enters somewhat

behind to make up his deficiency in the course of a year or two and graduate in four years.

Students should make every effort to enter on the first day of the term. Those entering later will be at a serious disadvantage, and if more than two or three weeks late should expect to take review work or fewer studies. If unable to enter before mid-term it will be better to wait until the next term.

Hospitants.

That mature persons not able to attend College continuously may nevertheless be able to enjoy, in a measure, the privileges of the institution, an invitation has been extended to all citizens of Kansas who may be so disposed to visit the College, its lectures, laboratories, library, shops, and various departments, and to avail themselves as fully of its advantages as may be consistent with their wishes, with the needs and duties of the regular students, and with the harmonious and successful working of the institution. Following are certain rules concerning hospitants:

Persons regularly attending any of the classes of the Kansas State Agricultural College, without assuming the regular duties of students, will be known as hospitants, and—

1. Must be persons of mature age, whose attendance on regular College duties is obviously impracticable.
2. Must be properly enrolled at the President's office.
3. May attend any of the regular classes of the institution, subject to the same regulations, with regard to punctuality and attendance, as are imposed upon regular students, except as to recitations and examinations.
4. May use the library, as regular students.
5. Are not entitled to laboratory privileges without special recommendation of the professor in charge and the permission of the Faculty.

General Duties and Privileges.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week-day except Monday, and no student may be absent without excuse. Students cannot honorably leave the College before the close of a term, unless excused beforehand. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy fifteen minutes before the meeting of classes each morning, and absence from them is noted.

Every Saturday, at 1:30 P. M., the whole body of students gathers for a public lecture, or for rhetorical exercises of the third- and fourth-year classes.

Systematic training in gymnastic and calisthenic exercises is provided for both young men and young women, under teachers appointed by the College.

There are four prosperous literary societies, which meet weekly in rooms set apart for their use. The Alpha Beta, open to both sexes, and the Ionian, for young women, meet Saturday afternoon. The Webster and the Hamilton admit to membership young men only, and meet on Saturday evening.

The Students' Farmers' Club meets weekly to discuss farm questions, and furnishes a valuable part of the education offered.

A Science Club, and an Engineering Club, conducted largely by the students, afford valuable opportunities for the preparation of original articles and reviews of progress in the arts and sciences.

At various times during the year the College halls are opened for social or literary entertainments for the whole body of the students, or for classes. For the last two years the students have organized and presented courses of entertainments, which have been of high value, and of a moderate expense to each individual.

Earning One's Way.

The courses of study are based upon the supposition that the student is here for study, and a proper grasp of the subjects cannot be obtained by the average student unless the greater part of his time is given to college duties. Students in straightened circumstances are encouraged and aided in every way possible, but unless exceptionally strong, both mentally and physically, are advised to take lighter work by extending the course, if obliged to give any considerable time to self-support. As a rule, students should be prepared with means for at least a term, as some time is necessary for one to make acquaintances and learn where work adapted to him may be had. Sometimes arrangements may be made in advance.

The lines in which employment may be had are various. The College itself employs student labor to the extent of about $900 per month, the rate paid being ten cents per hour. This work is on the farm, in the orchards and gardens, in the shops and printing-office, for the janitor, etc. As one's ability and trustworthiness become established, more responsible and more remunerative work may be had, to a limited extent. Many students obtain employment in the town; some work for their board in families in town or in the country near the College. Labor is everywhere respected, and the student who earns his way is honored by all. He will necessarily have little time for the lighter pleasures that may be made incident to college life.

Expenses.

Tuition is free to all, irrespective of residence in Kansas; and no fee for incidental or contingent expenses is charged. Board and washing are not furnished by the College. Board, with furnished room, can be procured in private families at from $2.50 to $3.50 per week, or table board in student clubs from $1.50 to $2.25 per week. Furnished rooms, without board, can be obtained at from $3.50 to $5 per month. Some students board themselves at even less cost, and rooms for the purpose can be obtained at a rent of from $1 to $3.50 a month. Washing costs from 50 cents to $1 a dozen pieces. Ordinary expenditures, aside from clothing and traveling expenses, range from $100 to $200 a year. No institution in the state furnishes an education at less cost to the student.

Business Directions.

General information concerning the College and its work, studies, examinations, grades, boarding places, etc., may be obtained from the President or the Secretary.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid from the office of the Treasurer.

All payment of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The *Industrialist* may be addressed through Acting Pres. E. R. Nichols, managing editor. Subscriptions are received by Supt. J. D. Rickman.

Donations for the library should be sent to the Librarian; donations for the museum, to the chairman of the committee on museums.

Applications for farmers' institutes should be made as early in the season as possible, addressing institute department, Kansas State Agricultural College.

Applications for the publications of the Experiment Station, and general inquiries concerning its work, should be addressed Agricultural Experiment Station; but correspondence concerning special lines of investigation should be sent to the member of the Council in charge of such work.

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Students.

POSTGRADUATES.

CANDIDATES FOR MASTER'S DEGREE, 1900.

Adelaide Frances Wilder, B. S. '98..... *Domestic Science, Designing, Bacteriology.*
Manhattan, Riley county.

NON-RESIDENT.

Charles Francis Doane, B. S. '96..... *Agriculture, Bacteriology.*
College Park, *Maryland.*

Edwin H. Webster, B. S. '96..... *Agriculture, Engineering.*
Meriden, Jefferson county.

IN COURSE LEADING TO MASTER'S DEGREE.

William Anderson, B. S. '98..... *Physics, Mathematics, Architecture.*
Cleburne, Riley county.

Albert Edwin Blair, B. S. '99 ..... *Agriculture, Bacteriology, Architecture.*
Quenemo, Osage county.

Spencer Norman Chaffee, B. S. '91..... *Agriculture, Botany, Bacteriology.*
Riley, Riley county.

Rachel Callie (Conwell) Thoburn, B. S. '91, *Domestic Science, Chemistry.*
Oklahoma City, *Oklahoma.*

Herman Emch..... *Graphics, Biology.*
Gossliwil, *Switzerland.*

Ina Emma Holroyd, B. S. '97 ..... *Domestic Science.*
Manhattan, Riley county.

Fred Emanuel Johnson, B. S. '99..... *Horticulture, Zoology, Literature.*
Melvern, Osage county.

Marian Elizabeth Jones, B. S. '96 ..... *Domestic Science, Chemistry, Music.*
Manhattan, Riley county.

John Martin Kessler, B. S. '99 ..... *Horticulture, Botany.*
Topeka, Shawnee county.

Albert Thomas Kinsley, B. S. '99..... *Veterinary Science, Zoology, Physiology, Chemistry.*
Oakley, Logan county.

Kate Anna Manley, B. S. '99..... *Domestic Science, Bacteriology, Literature, History.*
Council Grove, Morris county.

Ellen Elizabeth (Norton) Adams, B. S. '96, *Domestic Science, Literature.*
Manhattan, Riley county.

Jesse Baker Norton, B. S. '97 ..... *Botany, Entomology, Drawing.*
Manhattan, Riley county.

Josephine Hannah Wilder, B. S. '98.... *Domestic Science, Drawing, Bacteriology, Literature, German.*
Manhattan, Riley county.

NON-RESIDENT.

Alonzo Charles Havens, B. S. '96..... *Agriculture, Entomology, Botany.*
Dwight, Morris county.

Winifred Anna (Houghton) Buck, B. S. '97, *Domestic Science, Chemistry.*
Wichita, Sedgwick county.

IN ADVANCED WORK NOT LEADING TO A DEGREE.

George Lemon Clothier, M. S. '99..... *Chemistry, Oratory.*
Vera, Wabaunsee county.

Alice Maude Melton, B. S. '98..... *Domestic Science, German.*
Manhattan, Riley county.

Anna C. Pfuetze, B. S. '99..... *Domestic Science, Chemistry.*
Manhattan, Riley county.

Mary Bly Pritner, B. S. '99..... *Domestic Science, Chemistry.*
Keats, Riley county.

Delmer William Randall, B. S. '99..... *Mechanical Engineering, Mathematics.*
Manhattan, Riley county.

Elias W. Reed, B. S. '92..... *Chemistry, Physics.*
St. Clere, Pottawatomie county.

Marietta Smith, B. S. '95..... *German, Music.*
Manhattan, Riley county.

John Minton Westgate, M. S. '99..... *Botany, Calculus, German.*
Westgate, Geary county.

FOURTH YEAR.

Name.	Post-office and county (or state).
Lizzie Jane Agnew,	Yates Center, Woodson.
Delmer Akin,	Manhattan, Riley.
Elizabeth Edna Asbury,	Topeka, Shawnee.
Minnie Atwell,	Manhattan, Riley.
Effie Elizabeth Bailey,	Manhattan, Riley.
Alvah I. Bain,	Marysville, Marshall.
Harry H. Bainer,	Ottawa, Franklin.
Charlotte Almira Berkey,	Cleveland, *Missouri.*
John Harold Blachly,	Manhattan, Riley.
Minerva Blachly,	Manhattan, Riley.
Zina Leigh Bliss,	McPherson, McPherson.
Fred Winchester Bobbitt,	Manhattan, Riley.
Lillie Grace Bolton,	Paxico, Wabaunsee.
Prudence Dell Broquet,	Manhattan, Riley.
Nellie Burtner,	Manhattan, Riley.
Clarence Asa Chandler,	Argentine, Wyandotte.
Frederick Waldemar Christensen,	Mariadahl, (Riley.)
Ernest Mansel Cook,	Oakley, Logan.
Joseph Bryson Corbett,	Manhattan, Riley.
Charles McClain Correll,	Manhattan, Riley.
Mary Elizabeth Crum,	Stockdale, Riley.
Amanda Culp,	Leavenworth, Leavenworth.
Jennie Maude Currie,	Manhattan, Riley.
Harry Leroy Dern,	Kingman, Kingman.
Homer Derr,	Baldwin, Douglas.
Mary Alberta Dille,	Edgerton, Johnson.
Robert Edward Eastman,	Bloomington, Osborne.
Jennie Edelblute,	Keats, Riley.
Eugene Emrick,	Lone Tree, *Missouri.*
Josephine Finley,	Randolph, Riley.
Harry Verne Forest,	Thayer, Neosho.

Name.	Post-office and county (or state).
George Ogden Greene,	Lincoln, Lincoln.
Hermann Haffner,	Junction City, Geary.
Gustaf William Hanson,	Marquette, McPherson.
James William Harner,	Manhattan, Riley.
Daisy Gladys Hoffman,	Enterprise, Dickinson.
Edith Huntress,	Manhattan, Riley.
Harold Bigelow Kempton,	Wolfville, *Nova Scotia*.
Walter Fisk Lawry,	Hollis, Cloud.
Emma Elizabeth Lock,	Riley, Riley.
N. Ollie McCurry,	Milo, Lincoln.
George C. McDowell,	Manhattan, Riley.
Roland McKee,	Marysville, Marshall.
Madge Ruth McKeen,	Manhattan, Riley.
Nettie McLaren,	Altoona, Wilson.
Charles Dudley Montgomery,	Cedar Point, Chase.
Eugene Lawrence Morgan,	Hillside, Phillips.
Fred Byers Morlan,	White Rock, Republic.
Andrew Edward Oman,	Walsburg, Riley.
Kate Paddock,	Manhattan, Riley.
Joseph Loyd Pancake,	Scott City, Scott.
Albert William Parrack,	Riley, Riley.
Edith Perkins,	Manhattan, Riley.
Elenore Perkins,	Manhattan, Riley.
Paul du Chaillu Piersol,	Manhattan, Riley.
Luther Eugene Potter,	Rose, Woodson.
William Stephen Sargent,	Riley, Riley.
Clara Spilman,	Manhattan, Riley.
Mabel Stewart,	Manhattan, Riley.
Stella Stewart,	Manhattan, Riley.
Fayette Charles Sweet,	Burlington, Coffey.
Cora Edith Swingle,	Manhattan, Riley.
Dean Brett Swingle,	Manhattan, Riley.
Perrin K. Symns,	Bendena, Doniphan.
Barton Thompson,	Garrison, Pottawatomie.
Laura Helen Trumbull,	Manhattan, Riley.
Jessie May Wagner,	Enterprise, Dickinson.
Luther Watts Waldraven,	Randolph, Riley.
Kate Elizabeth Zimmerman,	Moray, Doniphan.

THIRD YEAR.

Grace Allingham,	Manhattan, Riley.
Cyrus Norton Allison,	Florence, Marion.
Edgar McCall Amos,	Manhattan, Riley.
Henry Albert Avery,	Manhattan, Riley.
Wallace W. Baird,	Milford, (Riley.)
Edna De Haven Barnes,	Manhattan, Riley.
George Ford Bean,	Alma, Wabaunsee.
Charles Dallas Blachly,	Leonardville, Riley.
Loua Adelle Blachly,	Manhattan, Riley.
William Keller Blachly,	Leonardville, Riley.
Georgia Evelyn Blaney,	Manhattan, Riley.

Name.	Post-office and county (or state).
Bessie Sarah Bourne,	Delphos, (Cloud.)
Harry S. Bourne,	Delphos, (Cloud.)
Martha Amelia Briggs,	Briggs, Geary.
Ben Remenyi Brown,	Manhattan, Riley.
Charles Jay Burson,	Niotaze, Chautauqua.
Howard Frank Butterfield,	Hull, Marshall.
Emma M. Cain,	Clay Center, Clay.
Martha Henrietta Campbell,	Acme, Dickinson.
Charles Howard Clark,	Kinsley, Edwards.
Murray Stanley Cole,	Denison, Jackson.
Edwin Charles Cook,	Oakley, Logan.
Joseph Bryson Corbett,	Manhattan, Riley.
Ina Foote Cowles,	Sibley, Douglas.
Trena Dahl,	Webber, Jewell.
Fannie Rachel Ellen Dale,	Manhattan, Riley.
Herman August Dieball,	Alma, Wabaunsee.
Edgar Willis Doane,	Louisville, Pottawatomie.
Noble Dunn,	Oxford, (Cowley.)
Charles Eastman,	Long Beach, *California*.
Otto H. Elling,	North Cedar, Jefferson.
Vollie M. Emmert,	Blue Rapids, Marshall.
Robert Alexander Esdon,	Olsburg, Pottawatomie.
Rainey Faris,	Denison, Jackson.
Harry Raines Fay,	Wilsey, Morris.
Fred Fockele,	Le Roy, Coffey.
Louisa Gerteis,	Derby, Sedgwick.
Clark A. Gingery,	Summerfield, Marshall.
Myron Gould,	Fairmount, Leavenworth.
Hakon Hansen,	Guy, Sheridan.
Maude Hart,	Manhattan, Riley.
Fred Willis Haselwood,	Clifton, (Clay.)
Christine Delphine Hofer,	Manhattan, Riley.
Henrietta Mattie Hofer,	Manhattan, Riley.
Karl William Hofer,	Manhattan, Riley.
Edward Wilfred House,	Manhattan, Riley.
Floyd James Howard,	Fulton, *Oklahoma*.
Minnie Howell,	Manhattan, Riley.
Nellie Malitta Hubble,	Manhattan, Riley.
Fred M. Johnson,	Marysville, Marshall.
Louis Berton Jolley,	Onaga, Pottawatomie.
Jesse W. Joss,	Fairview, Brown.
Edgar Willes Kimball,	Manhattan, Riley.
Samuel Robert Kimble,	Manhattan, Riley.
Helen Knostman,	Manhattan, Riley.
Daniel Ladd,	Manhattan, Riley.
Raymond George Lawry,	Manhattan, Riley.
Otto Meade McAninch,	Manhattan, Riley.
John A. McKenzie,	Solomon, (Saline.)
Amelia Augusta Maelzer,	Neuchatel, Nemaha.
George Martinson,	Randolph, Riley.
Myrtle Mather,	Manhattan, Riley.

Name.	Post-office and county (or state).
Walter Eldridge Mathewson,	Topeka, Shawnee.
Emma Maude Miller,	Milford, Geary.
Margaret Jane Minis,	Manhattan, Riley.
Clarence William Morgan,	Manhattan, Riley.
Ruth A. Mudge,	Manhattan, Riley.
Charles Elmer Munkres,	Kelso, Morris.
Jessie May Mustard,	Manchester, Dickinson.
Fred Myers,	Marquette, McPherson.
Clara Nitcher,	Ottawa, Franklin.
Martha Nitcher,	Ottawa, Franklin.
Ida Lewis Norton,	Manhattan, Riley.
John H. Oesterhaus,	Junction City, Geary.
Carrie Bell Oneel,	Manhattan, Riley.
Herbert H. Perry,	Girard, Crawford.
Helena Maude Pincomb,	Merriam, Johnson.
Bryant Poole,	Briggs, Geary.
Harry Paul Richards,	Manhattan, Riley.
Leroy Rigg,	Marvin, Phillips.
Kate L. Robertson,	Manhattan, Riley.
Alice May Ross,	Manhattan, Riley.
Maude Sauble,	Florence, Marion.
Charles A. Scott,	Westmoreland, Pottawatomie.
Anna Louisa Smith,	Ottumwa, Coffey.
Charles Orval Sparks,	Ludell, Rawlins.
Walter Hayward Spencer,	Yates Center, Woodson.
Amelia Spohr,	Manhattan, Riley.
John Thomas Stafford,	Garnett, Anderson.
Adelaide Strite,	Ogden, Riley.
Anna Odette Summers,	Waterville, Marshall.
Lucy A. Sweet,	Stockdale, Riley.
Frances Elleanor Thackrey,	Manhattan, Riley.
Stella Mae Tharp,	Winfield, Cowley.
Myrtie Lucy Toothaker,	Wheaton, Pottawatomie.
Helen Castle True,	Vera, Wabaunsee.
Harry Castle Turner,	Rock Creek, Jefferson.
Florence Helen Vail,	Manhattan, Riley.
Blaine Vosburg,	Thayer, Neosho.
Mary Caroline Wagner,	Enterprise, Dickinson.
Fred Walters,	Manhattan, Riley.
Eleanor Mary White,	Newton, Harvey.
Paul Anthony Wiedeman,	Alma, Wabaunsee.
Katherene Winter,	Manhattan, Riley.
Ai Lacy Worswick,	Oskaloosa, Jefferson.
Lucie Joan Wyatt,	Westmoreland, Pottawatomie.
Mary Estelle Yenawine,	Manhattan, Riley.
Henry Theodore York,	Rossville, Shawnee.
Lilly Maud Zimmerman,	Moray, Doniphan.

SECOND YEAR.

Name.	Post-office and county (or state).
Mamie Alexander,	Welda, Anderson.
Albert Franklin Babb,	Wichita, Sedgwick.
Mary Olive Barr,	Myers Valley, Pottawatomie.
Wayne Baxter,	Neosho Falls, Woodson.
Hattie Beachum,	Manhattan, Riley.
Roy Robert Berkley,	Manhattan, Riley.
Hazel Norris Berry,	Gardiner, *Maine*.
John Jeremiah Biddison,	Manhattan, Riley.
John W. Blachly,	Leonardville, Riley.
Otis Neel Blair,	Quenemo, Osage.
Richard Franklin Bourne,	Delphos, (Cloud.)
Roy Allison Bower,	Eureka, Greenwood.
Frank William Boyd,	Kensington, Smith.
Charles Robert Brawner,	Axtell, Marshall.
Carl Herman Brice,	Blue Rapids, Marshall.
Ezra Garfield Burt,	Eureka, Greenwood.
August Belmont Carnahan,	Douglass, Butler.
Floyd Adelbert Champlin,	Phillipsburg, Phillips.
Elijah Ellis Chase,	Merriam, Johnson.
Elizabeth Blachly Clothier,	Manhattan, Riley.
Hayes Marion Coe,	Yates Center, Woodson.
Maude Mildred Coe,	Yates Center, Woodson.
Linna Coffman,	Overbrook, Osage.
Robert Curtis Cole,	Denison, Jackson.
Weltha Myrtle Cole,	Wauneta, Chautauqua.
William Dent Cool,	Manhattan, Riley.
Mabel Aletta Corbett,	Manhattan, Riley.
De Verne Corbin,	Oxford, Sumner.
Earl Salisbury Cowles,	Sibley, Douglas.
Lotta Irene Crawford,	Manhattan, Riley.
Frank A. Criss,	Grigsby, Scott.
Claude Carrol Cunningham,	Manhattan, Riley.
Lydia Lovette Currie,	Olsburg, Pottawatomie.
Elliott Perie Daniels,	Birmingham, Jackson.
Joe Robert Davidson,	Agricola, Coffey.
Robert William De Armond,	Lincoln, Lincoln.
Daniel Curtis Deming,	Larkin, Jackson.
Myrtle Dougherty,	Manhattan, Riley.
Oliver J. Brown,	Manhattan, Riley.
Edwin Irwin Durant,	Riley, Riley.
Charles Ross Edwards,	Phillipsburg, Phillips.
Leonora Darlin Eggen,	Manhattan, Riley.
Laura Engel,	Manhattan, Riley.
Lizzie Engel,	Manhattan, Riley.
Albert R. Engle,	Minneapolis, Ottawa.
Ernest Clifford Farrar,	Beattie, Marshall.
LeRoy Firebaugh,	Osawatomie, Miami.
Glick Fockele,	Le Roy, Coffey.
Una Maude Fowler,	Manhattan, Riley.
Andrew Jewell Francis,	Lucas, Russell.

Name.	Post-office and county (or state).
David Emerson Gall,	Reserve, Brown.
Frances Gibson,	Geneseo, Rice.
Fred Norton Gillis,	Keene, Wabaunsee.
M. H. Ginter,	Winchester, Jefferson.
Donna Menroe Gwin,	Neosho Falls, Woodson.
Lucy Edith Hall,	Silver Lake, Shawnee.
Thomas L. Hall,	Kansas City, *Missouri.*
Etta Beatrice Halsey,	Osawatomie, Miami.
Grace Martyn Haney,	Manhattan, Riley.
John D. Hansen,	Willis, Brown.
Esther E. Hanson,	Marquette, McPherson.
Lola May Harris,	Harveyville, Wabaunsee.
Anna M. Hastings,	Neosho, *Missouri.*
Lillian Estelle Hathaway,	Grant, Riley.
Benjamin F. Haynes,	Marvin, Phillips.
John James Healey,	Wallace, Wallace.
William B. Heckman,	Pfafftown, *North Carolina.*
William Rutherford Hildreth,	Altamont, Labette.
Frank Ferris Hillyer,	Wilsey, Morris.
Thaddeus L. Hoffman,	Enterprise, Dickinson.
Sarah C. Hougham,	Manhattan, Riley.
Newell Howard,	Belvidere, Kiowa.
Harry E. Hubbard,	Blue Rapids, Marshall.
Henry L. Johnson,	Oskaloosa, Jefferson.
Ida Matilda Johnson,	Melvern, Osage.
Jesse McCullah Jones,	Moran, Allen.
Letta Birdilla Keen,	Clay Center, Clay.
Jessie Mabel Lantz,	Waldo, Russell.
Harrie Stancliff Lee,	Manhattan, Riley.
Arthur Henry Leidigh,	Hutchinson, Reno.
Clarence Curtis Livingston,	Abilene, Dickinson.
Mabel E. Lock,	Riley, Riley.
George Logan,	Manhattan, Riley.
John Austin Loomis,	Girard, Crawford.
Rosa Margaret McCoy,	Manhattan, (Pottawatomie.)
Edward Purcell McDowell,	Manhattan, Riley.
Carl W. McKeen,	Russell, Russell.
Edward Marksheffel,	Manhattan, Riley.
Marshall H. Matts,	Homewood, Franklin.
John Rutherford Minis,	Manhattan, Riley.
William J. Mitchell,	Wabaunsee, Wabaunsee.
Benjamin Franklin Mudge,	Manhattan, Riley.
Roger Bonner Mullen,	St. Joseph, *Missouri.*
Mabel Regina Nelson,	Wilber, *Oklahoma.*
Nellie Therese Nilson,	Manhattan, Riley.
Margaret Alice Norton,	Manhattan, Riley.
Anna Luella O'Daniel,	Westmoreland, Pottawatomie.
Walter E. Pangburn,	Waldo, Russell.
August Peak,	Manhattan, Riley.
Ruthford Brockway Peck,	Oakland, Shawnee.
Jennie Grace Phillips,	Kackley, Republic.

Name.	Post-office and county (or state).
Myrtle Phillips,	Kackley, Republic.
Grover Poole,	Briggs, Geary.
Pearl Jasper Porter,	North Topeka, Shawnee.
Willis Howard Purdy,	Fairview, Brown.
Lewellyn Victor Putnam,	Manhattan, Riley.
William Arthur Randle,	Bala, Riley.
Arthur J. Rhodes,	Manhattan, Riley.
Ernest Chester Ricord,	Esbon, Jewell.
Eva Talitha Rigg,	Marvin, Phillips.
Elsie May Robinson,	Manhattan, Riley.
Earl Nathaniel Rodell,	Marquette, McPherson.
Frank Rollings,	Delphos, Ottawa.
John Francis Ross,	Webber, Jewell.
Pontus Henry Ross,	Webber, Jewell.
Zeta Salkeld,	Manhattan, Riley.
Fred Lewis Schneider,	Manhattan, Riley.
John Marcus Scott,	Westmoreland, Pottawatomie.
Edmond Raymond Secrest,	Randolph, Riley,
Glen Reid Shepherd,	Manhattan, Riley.
Letta Celestia Sherwood,	Manhattan, Riley.
Lucia Sherwood,	Manhattan, Riley.
Ethel Lilian Shofe,	Manhattan, Riley.
Harry Allen Shuyler,	Nickerson, Reno.
Henry August Sidorfsky,	Le Roy, Coffey.
Bert N. Simpson,	Yates Center, Woodson.
Garfield William Skow,	Leonardville, Riley.
Charles Franklin Smith,	Keighley, Butler.
Frank H. P. Smith,	Manhattan, Riley.
Fred G. Smith,	Manhattan, Riley.
Mary Helen Smith,	Manhattan, Riley.
Birchard Franklin Snodgrass,	Manhattan, Riley.
Milton David Snodgrass,	Manhattan, Riley.
Dean Snyder,	Oskaloosa, Jefferson.
John Edwin Snyder,	Newkirk, *Oklahoma*.
Raymond Kelley Taber,	Burlingame, Osage.
Jesse K. Tilford,	Waverly, Coffey.
Mary Etta Towers,	Manhattan, Riley.
Harry Nelson Vinall,	Oakley, Logan.
Alberta Lorena Voiles,	Manhattan, Riley.
Roy Bingham Vrooman,	Parsons, Labette.
Orin Russell Wakefield,	Wilsey, Morris.
Laura Bell Ware,	Manhattan, Riley.
Henry Russell Webster,	Yates Center, Woodson.
Margaret Welter,	Myers Valley, Pottawatomie.
Albert A. Werner,	Alden, Rice.
Pauline Emily Wetzig,	Winkler, Riley.
James Halley Whipple,	Olivet, Osage.
Carrie Jane White,	Newton, Harvey.
David Dwight White,	Newton, Harvey.
Leon Vincent White,	Manhattan, Riley.
William Walker White,	Newton, Harvey.

Name.	Post-office and county (or state).
George Everett Whitney,	Manhattan, Riley.
Harry C. Williams,	Edgerton, Johnson.
George Waldere Winfield,	Chanute, Neosho.
Charles Clarence Winsler,	Abilene, Dickinson.
Henry Bernard Winter,	Manhattan, Riley.
Alta L. Worley,	Natoma, Osborne.
William Scott Wright,	Marvin, Phillips.
John Wyse,	Yates Center, Woodson.
George Lester Yeakley,	Great Bend, Barton.
Joe Ell Young,	Stanley, Johnson.
Ed. H. Zirkle,	Richland, Shawnee.

FIRST YEAR.

Pearl Akin,	Manhattan, Riley.
Amy Alena Allen,	Manhattan, Riley.
Ralph Alm,	Sharon Springs, Wallace.
Hilda Anderson,	Manhattan, Riley.
James McPherson Archer,	Waldo, Russell.
Kate E. Atkins,	Udall, Cowley.
Amy Viola Atwell,	Utica, Ness.
Max E. Bacon,	Lakin, Kearny.
Charles M. Baird,	Arkansas City, Cowley.
Harvey Wiltson Baker,	Marvin, Phillips.
William Burgess Banning,	Lyndon, Osage.
Lida Kate Bannister,	Ogden, Riley.
Harry C. Bardshar,	Mount Hope, Sedgwick.
Charles Albert Barr,	Myers Valley, Pottawatomie.
R. A. Barry,	Belle Plaine, Sumner.
Earl Maynard Baxter,	Manhattan, Riley.
Cora Mae Beachum,	Manhattan, Riley.
Lawrence C. Bell,	Arkansas City, Cowley.
James Bennett,	Denison, Jackson.
Evelyne Myrtle Berkley,	Manhattan, Riley.
McDonald Biddison,	Manhattan, Riley.
Ida E. Birch,	Manhattan, Riley.
Raymond Russell Birch,	Manhattan, Riley.
Frank Andrus Blakslee,	Lynn, *Pennsylvania.*
Henry Elden Boardman,	Centralia, Nemaha.
Mary Bolton,	Paxico, Wabaunsee.
Edwin T. Bower,	Manhattan, Riley.
William Armfield Boys,	Richter, Franklin.
Ruth Augusta Branstine,	Long Island, Phillips.
William Branstine,	Long Island, Phillips.
George K. Brenner,	Porterville, Bourbon.
Viva Brenner,	Porterville, Bourbon.
P. Jean Brown,	Guilford, Wilson.
Thaddie C. Brown,	Guilford, Wilson.
Will Brown,	Manhattan, Riley.
Fred Buckmaster,	Oskaloosa, Jefferson.
Thomas Warner Buell,	Roanoke, *Texas.*
Grayce Buffum,	Manhattan, Riley.
Eva Maggy Burtner,	Manhattan, Riley.

Name.	Post-office and county (or state).
Olive Wright A. Cadwell,	Kanopolis, Ellsworth.
Fred Wallace Caldwell,	Garnett, Anderson.
Perry Campbell,	Pleasant Hill, (Franklin.)
Axel Leonard Carlson,	Morganville, Clay.
Carl Champe,	Garnett, Anderson.
Florence Christina Christensen,	Mariadahl, Riley.
Ezra James Clark,	Manhattan, Riley.
Ray Garfield Cochran,	Lakin, Kearny.
Edwin Weaver Coldren,	Oberlin, Decatur.
Anna B. Cole,	Manhattan, Riley.
Clark Stewart Cole,	Manhattan, Riley.
James Martin Cook,	Effingham, Atchison.
Clarence L. Cool,	Columbus, Cherokee.
Perry Alfred Cooley,	Denison, Jackson.
James A. Correll,	Manhattan, Riley.
Victor L. Cory,	Dundee, Barton.
Amos Luther Cottrell,	Wabaunsee, Wabaunsee.
Jennie Pearl Cottrell,	Wabaunsee, Wabaunsee.
Roy T. Cox,	Manhattan, Riley.
Jesse Addison Craik,	Oketo, Marshall.
Ella Criss,	Grigsby, Scott.
Ora Dow Crofut,	Westmoreland, Pottawatomie.
Walter Leroy Cropper,	Oakvale, Smith.
Newton Crow,	West Point, *Mississippi*.
Harry Crump,	Manhattan, Riley.
Lemuel Russell Cunningham,	Delphos, Ottawa.
Jesse Clyde Currie,	Olsburg, Pottawatomie.
Edwin James Dalton,	St. George, Pottawatomie.
Bertha May Dana,	Manhattan, Riley.
Charles E. Dana,	Manhattan, Riley.
Frank Daniel,	Overbrook, Osage.
Rose Daugherty,	Strong City, Chase.
Harvey Benton Davidson,	Williamsburg, Franklin.
Wade Herbert Davidson,	Agricola, Coffey.
Leo A. Davies,	Bala, Riley.
Ida Mayme Davis,	Manhattan, Riley.
William Doz Davis,	Marquette, McPherson.
Charles Griswold Denison,	Menoken, Shawnee.
Edith De Priest,	Salina, Saline.
Orinne F. Dewey,	Dawson, *Nebraska*.
Lisla C. Dial,	Stockdale, Riley.
Thomas E. Dial,	Leavenworth, Leavenworth.
Walter Eugene Dickinson,	Meriden, (Shawnee.)
Harvey Heartwell Dix,	Manhattan, Riley.
Lawrence A. Doane,	Louisville, Pottawatomie.
May Doane,	Louisville, Pottawatomie.
Bernice Dodge,	Manhattan, Riley.
Roy Nathan Dorman,	Wabaunsee, Wabaunsee.
Bessie Dougherty,	Manhattan, Riley.
James A. Downs,	Appanoose, Douglas.
Otto Jonathan Pugh Doyle,	Manhattan, Riley.

Name.	Post-office and county (or state).
Orrin Pomery Drake,	Beattie, Marshall.
Alma Duckwall,	Manhattan, Riley.
Isaac Dumler,	Vilas, Woodson.
Anna Dunlap,	Walsburg, Riley.
Guy Vivian Dunlap,	Bonner Springs, Wyandotte.
Olive B. Dunlap,	Walsburg, Riley.
Thomas Scott Eicholtz,	St. Mary's, (Wabaunsee.)
John Russell Elliott,	New Lancaster, Miami.
Joseph Conroe Engle,	Manhattan, Riley.
William Leslie English,	Renfrow, Grant.
Elsie E. Ensign,	St. George, Pottawatomie.
Corinne Failyer,	Manhattan, Riley.
Maude Irene Failyer,	Manhattan, Riley.
James H. Fair,	Alden, Rice.
Minter Farrar,	Axtell, Marshall.
Estella May Fearon,	Manhattan, Riley.
Ralph B. Felton,	McPherson, McPherson.
Ray Bonifield Felton,	McPherson, McPherson.
George Thomas Fielding,	Manhattan, Riley.
Elias Bert Fields,	Ft. Gibson, *Indian Territory*.
Edward A. Fitzgerald,	Valencia, Shawnee.
Beulah Fleming,	Smith Center, Smith.
Elmore Sampson Fleming,	Block, Miami.
Fenton Burn Fleming,	Athol, Smith.
Flora Fern Fleming,	Smith Center, Smith.
Mildred Beatrice Foltz,	Manhattan, Riley.
Maud Bernice Fortune,	Manhattan, Riley.
Louis Cloyd Foster,	Newton, Harvey.
Lester J. Franks,	Glasgow, Cloud.
Milton Fox Fritts,	Luray, Russell.
Charles Alpha Gage,	Mont Ida, Anderson.
Arthur B. Gahan,	Manhattan, (Pottawatomie.)
John W. Garberick,	Arkansas City, Cowley.
Edwin Chase Gardner,	Homewood, Franklin.
Eunice May Gates,	Manhattan, Riley.
Mary Mabel Gibbons,	Capioma, Nemaha.
Charles Edward Gibbs,	Manhattan, Riley.
Rainey R. Glenn,	Block, Miami.
Robert Dudley Glidden,	Ransomville, Franklin.
Ellsworth Paul Goodyear,	Oatville, Sedgwick.
Peter William Grandeen,	Allen, Lyon.
Walter Otis Gray,	Crestline, Cherokee.
Emma Victoria Grecian,	Blosser, *Missouri*.
Wellie Greene,	Lincoln, Lincoln.
Augusta Griffing,	Manhattan, Riley.
Francis Linus Grimm,	Solomon, Dickinson.
Ella May Gross,	Upland, Dickinson.
Charles Alfred Groves,	Edwardsville, Wyandotte.
Edna Haines,	Manhattan, Riley.
Mabel Louise Hamilton,	Manhattan, Riley.
Annie Hammond,	Wakefield, Clay.

Name.	Post-office and county (or state).
Mary Edna Haney,	Williamsburg, Franklin.
Robert Howe Haney,	Manhattan, Riley.
William Ira Hanlin,	Barrett, Marshall.
John Allan Haskell,	Capioma, Nemaha.
Arthur Hurchel Helder,	Manhattan, Riley.
Frank John Hessel,	Frankfort, Marshall.
Charles Reaves Hewitt,	Wakefield, Clay.
Henry Houghton Hiatt,	Edwardsville, Wyandotte.
Aaron Cutler Higgins,	Coyville, Wilson.
Chester Albert Hite,	Baker, Brown.
Marie Hjort,	Council Grove, Morris.
Edward Howard Hodgson,	Little River, Rice.
Ernest Alfred Houghton,	Junction City, Geary.
John Samuel Houser,	Oxford, Sumner.
Charles Clinton Howenstine,	Manhattan, Riley.
John Sherman Howey,	Topeka, Shawnee.
Bessie Isabel Hudson,	Manhattan, Riley.
Flora Alice Hudspeth,	Manhattan, Riley.
Milfred Elliott Hunt,	Patterson, Harvey.
Addie Hurlburt,	Sharon Springs, Wallace.
Mildred Irma Hurlburt,	Sharon Springs, Wallace.
Vida Grace Hurlburt,	Sharon Springs, Wallace.
Lindon Inskeep,	Manhattan, (Pottawatomie.)
Evan James,	Bala, Riley.
Axel H. Johnson,	Marquette, McPherson.
Carol Bertie Johnson,	Olsburg, Pottawatomie.
John Arthur Johnson,	Manhattan, Riley.
Retta Johnson,	Manhattan, Riley.
Willis Harmon Johnson,	Codell, Rooks.
Samuel Edgar Joy,	Osborne, Osborne.
Bayard Andrews Kackley,	Kackley, Republic.
James A. Kaff,	Overbrook, Osage.
Lenna May Keech,	Ogden, Riley.
Walter Keigley,	Rossville, Shawnee.
Daniel Lyon Kent,	Florence, Marion.
Fannie Kent,	Oswego, Labette.
Evan Kernohan,	Beverly, Lincoln.
Ralph Teeter Kersey,	Louisville, Pottawatomie.
Jesse Fredrick Kibbe,	Randall, Jewell.
Kennith William Kimble,	Manhattan, Riley.
Charles Franklin Kinman,	Formosa, Jewell.
Robert Lewis Kirkwood,	Marysville, Marshall.
Frank Louis Kirsch,	Abilene, Dickinson.
Frederick Vinton Klemp,	Leavenworth, Leavenworth.
Arthur Knudsen,	Richland, Shawnee.
Anthony Kolsky,	Kanona, Decatur.
Bertha Krotzer,	Manhattan, Riley.
Merle Lamborn,	Lansing, Leavenworth.
Samuel Bartholomew La Rue,	Phillipsburg, Phillips.
Allison Leadley,	Chase, Rice.
Albert Addison Leonard,	Mahaska, Washington.

Name.	Post-office and county (or state).
Abraham Lincoln Leonard,	Ellis, Ellis.
John Wesley Lewis,	Manhattan, Riley.
Laura Matilda Lewison,	Mankato, Jewell.
Halvor Lindland,	Toronto, *South Dakota.*
Ed Logan,	Manhattan, Riley.
Charles Clyde Lorimer,	Great Bend, Barton.
John E. P. Lowe,	Phillipsburg, Phillips.
Percy J. Lowe,	Phillipsburg, Phillips.
Ella Belle Luke,	Talmage, Dickinson.
William L. Lyman,	Manhattan, Riley.
Minnie Alta McCoy,	Meriden, Jefferson.
Rachel V. McCoy,	Manhattan, (Pottawatomie.)
Frances McCreary,	Manhattan, Riley.
Arletta McCurdy,	Hutchinson, Reno.
Charles Alfred McCutchan,	Wabaunsee, Wabaunsee.
Fred B. McIntire,	Woodston, Rooks.
Belle J. McKessor,	Minneapolis, Ottawa.
Alvin McKibbin,	Goff's, Nemaha.
Garth McMillen,	Piedmont, Greenwood.
Edwin B. McProud,	Louisville, Pottawatomie.
Charles Oscar Malm,	Olsburg, Pottawatomie.
Fred Manners,	Garnett, Anderson.
Harry P. Manners,	Garnett, Anderson.
Bessie March,	Manhattan, Riley.
Charles F. Marshall,	Manhattan, Riley.
Chester Arthur Maus,	Topeka, Shawnee.
Clara Pearl May,	St. Petersburg, *Florida.*
James G. May,	Manhattan, Riley.
Ruby Estella May,	Manhattan, Riley.
Sidney Wiley Means,	Blue Rapids, Marshall.
Bertha Amelia Messall,	Concordia, Cloud.
Etta Metler,	Manhattan, Riley.
Alvin Otto Meyer,	Menager, Wyandotte.
Melvin D. Mickle,	El Dorado, Butler.
Earle B. Millard,	Manhattan, Riley.
Clarence Metcalf Miller,	Manhattan, Riley.
Fred Carl Miller,	St. Mary's, (Wabaunsee.)
George C. Miller,	Valencia, Shawnee.
Katherine Jessie Miller,	Centralia, Nemaha.
Leonore Elizabeth Miller,	Manhattan, Riley.
Percy E. Mills,	Ottawa, Franklin.
Walter Mills,	Ellis, Ellis.
Winfred Milner,	Belleville, Republic.
Roland Calvin Mitchell,	Florence, Marion.
Archie E. Moore,	Manhattan, Riley.
Samuel Erwin Morlan,	White Rock, Republic.
Lewis Claude Morton,	Osage City, Osage.
Bessie A. Mudge,	Manhattan, Riley.
Albert Marvin Nash,	Burlington, *Iowa.*
James B. Nelson,	Greenleaf, Washington.
Martin A. Nelson,	Lovell, Jewell.

Name.	Post-office and county (or state).
Harry Netherland,	Codell, Rooks.
Albert F. Neuman,	Arkansas City, Cowley.
Arthur Nichols,	Buffalo, Woodson.
Harold Theodore Nielsen,	Denmark, Lincoln.
Jesse David Nitcher,	Ottawa, Franklin.
Ivan L. Nixon,	Manhattan, Riley.
Virginia Viola Norton,	Manhattan, Riley.
Russell Arthur Oakley,	Reedsville, Marshall.
Fred W. Oberhelman,	Winkler, Riley.
Fred O'Daniel,	Westmoreland, Pottawatomie.
Lenna M. Padgett,	Wonsevu, Chase.
Max Palenske,	Alma, Wabaunsee.
Clara Pancake,	Scott City, Scott.
Louis Reynolds Parkerson,	Manhattan, Riley.
Thenia Parr,	Dallas, *Missouri.*
George Benton Parrack,	Riley, Riley.
Floyd Calvin Payne,	Munden, Republic.
Celoas Alice Perry,	Manhattan, Riley.
Koscie Lereau Perry,	Manhattan, Riley.
Lenna Belle Perry,	Manhattan, Riley.
Alice Loviana Phillips,	Riley, Riley.
Maggie Charlotte Phillips,	Riley, Riley.
Maud May Phillips,	Kackley, Republic.
Burr Newton Porter,	Oronoque, Norton.
Emily Pritchard,	Leonardville, Riley.
George Henry Pulk,	Lucas, Russell.
Eunice Putnam,	Manhattan, Riley.
William Putnam,	Manhattan, Riley.
George Raby,	Carbondale, Osage.
Ralph Ramsbottom,	Munden, Republic.
Charles Clinton Randle,	Bala, Riley.
Alexis Joseph Reed,	Smith Center, Smith.
Abraham F. Regier,	Moundridge, (Harvey.)
Walter E. Reynolds,	Hollenberg, Washington.
Edward M. Rickershauser,*	Paxico, Wabaunsee.
Jesse Clyde Rickman,	Manhattan, Riley.
Wayne Riddle,	Marion, Marion.
Alfred Montgomery Ritner,	Manhattan, Riley.
Mona Clare Robbins,	Manhattan, Riley.
Will Robertson,	Coyville, Wilson.
Jesse Loyde Rogers,	Louisburg, Miami.
Jennie Rogler,	Matfield Green, Chase.
Fred Calvin Romig,	Curran, Harper.
Anna R. Rose,	Topeka, Shawnee.
Alvertis C. Salkeld,	Manhattan, Riley.
William Samuel,	Stockdale, Riley.
Alfred Hayes Sanderson,	Reedsville, Marshall.
Mattie E. Sauble,	Cedar Point, Chase.
Nickolas Schmitz,	Little River, Rice.
Gussie Schneider,	Manhattan, Riley.

* Deceased.

Name.	Post-office and county (or state).
Ida Amanda Schorer,	Vining, Clay.
Marie Edith Schorer,	Vining, Clay.
Henry P. Schowalter,	Halstead, Harvey.
Charles Warren Shamburg,	Waldo, Russell.
Lura Walter Culison Shoemaker,	Centerville, Linn.
John L. Siceloff,	Belle Plaine, Sumner.
Peter F. Simpson,	Barnard, Lincoln.
Alva Lewis Smith,	Prairie Center, Johnson.
Lyda Mary Smith,	Manhattan, Riley.
Margie Smith,	Manhattan, Riley.
Sallie Maud Smith,	Manhattan, Riley.
Guy Emerson Souders,	Manhattan, Riley.
Harrold Addison Spilman,	Manhattan, Riley.
Minnie May Sprague,	Fredonia, Wilson.
John Leroy Stafford,	Leonardville, Riley.
Harry Elias Stephens,	North Topeka, Shawnee.
Mabel Stevens,	Humboldt, Allen.
Halcey Benjamin Stickney,	Centralia, Nemaha.
George Ross Oswald Stratton,	Minneapolis, Ottawa.
Lillie I. V. Stratton,	Minneapolis, Ottawa.
Lois Stump,	Manhattan, Riley.
Luther Emanuel Swanson,	Madison, Greenwood.
Charles Bartholow Swift,	Williamsburg, Franklin.
Charles Taber,	Burlingame, Osage.
Dock Eugene Taber,	Burlingame, Osage.
Ernest Wilkins Tague,	Manhattan, Riley.
Nellie May Tague,	Manhattan, Riley.
Joseph Earl Tanner,	Laclede, Pottawatomie.
John M. Taylor,	Junction City, Geary.
Norah L. Taylor,	Berryton, Shawnee.
Arthur Morgan Thomas,	Prairie View, Phillips.
Henry Thomas,	Wichita, Sedgwick.
James Thomas,	Haysville, Sedgwick.
John Augustus Thompson,	Edwardsville, Wyandotte.
Lewis William Thompson,	Osborne, Osborne.
Harry Thralls,	Lawrence, Douglas.
Robert Tipton,	Lakin, Kearny.
John Tompkins,	Waverly, Coffey.
Norman Lee Town,	Valencia, Shawnee.
Hezekiah Tracy,	New Lancaster, Miami.
Marshall Trembley,	Buffalo, Woodson.
Frieda Trunk,	Lyons, Rice.
Nellie Tufts,	Jamestown, Cloud.
Kate Tully,	Westgate, Geary.
William Turnbull,	Summerfield, Marshall.
William A. Turner,	Rock Creek, Jefferson.
James R. Tye,	Chanute, Neosho.
Dovie May Ulrich,	Manhattan, Riley.
Charles William Utterson,	Oswego, Labette.
Gertrude M. Vance,	Manhattan, Riley.
Charles Van Dalsem,	Fairview, Brown.

Name.	Post-office and county (or state).
Eleanor Belle Van Orsdel,	Riley, Riley.
Clytus Curtis Voiles,	Manhattan, Riley.
Gordon Voiles,	Manhattan, Riley.
Karl O. Walters,	Manhattan, Riley.
Margaret Walcher,	Louisville, Pottawatomie.
Charles Hamilton Waterman,	Lakin, Kearny.
Harry Wilson Wells,	Belleville, Republic.
Ray Wells,	Munden, Republic.
Ernest Dwight Wheat,	Broderick, Pottawatomie.
Ernest E. Wheatley,	West Mineral, Cherokee.
Orville Blaine Whipple,	Olivet, Osage.
Helen Alice White,	Newton, Harvey.
Ralph Whitney,	Manhattan, Riley.
Ray Wick,	New Chillicothe, Dickinson.
Jenevi M. Wilkinson,	Topeka, Shawnee.
William J. Wilkinson,	Newman, Jefferson.
Albert Chauncy Williams,	Manhattan, Riley.
Blanche Williams,	Manhattan, Riley.
Elgin Clemons Williams,	Manhattan, Riley.
Herbert Norton Williams,	Manhattan, Riley.
George Leroy Williston,	Manhattan, Riley.
George Heber Wilson,	Kellogg, Cowley.
John T. Wilson,	Fairview, Brown.
Martha Ellen Wilson,	Kellogg, Cowley.
Jesse E. Winsler,	Abilene, Dickinson.
Henry Garfield Wolcott,	Kinsley, Edwards.
Harold Bert Wolfe,	Kensington, Smith.
Alba M. Woods,	Zeandale, Riley.
Alice M. Worley,	Natoma, Osborne.
John K. Wright,	Junction City, Geary.
Justice E. Wright,	Junction City, Geary.
Robert John Yust,	Peace Creek, Reno.

PREPARATORY.

Ray Allison,	Kensington, Smith.
William J. Baehl,	Hoge Station, Leavenworth.
William Louis Bartholomees,	Kansas City, *Missouri.*
Fred Beach,	Havensville, Pottawatomie.
Thomas Edward Beckett,	Olathe, Johnson.
Kate Bell,	Manhattan, Riley.
Lawrence Bell,	Wellsville, Miami.
Herschel Tice Brenner,	Porterville, Bourbon.
Benjamin Franklin Britton,	Fort Worth, *Texas.*
Eben Dunham Brockway,	Wellsville, Franklin.
Albert Brown,	Osawkie, Jefferson.
Etta Buell,	Pavilion, Wabaunsee.
Ben Burge,	Augusta, Butler.
Chester Campbell,	Hammond, Bourbon.
Wilbur Henry Campsey,	Fairview, Brown.
Roscoe Conclan Carley,	Westmoreland, Pottawatomie.
William Pearl Carter,	Groveland, McPherson.

Name.	Post-office and county (or state).
John G. Chapin,	Oketo, Marshall.
Ida Olive Cline,	Rock Creek, Jefferson.
Robert L. Collins,	Washington, Washington.
Norman W. Cook,	Effingham, Atchison.
Ralph Cooley,	Manhattan, Riley.
Richard J. Courter,	Downs, Osborne.
Leon D. Cover,	Arkansas City, Cowley.
Mark Cruzan,	Soldier, Jackson.
Lloyd Cushman,	Manhattan, Riley.
William Dempsey,	Doniphan, Doniphan.
Will C. De Selm,	Oakvale, Smith.
Nellie June Doane,	Louisville, Pottawatomie.
Joseph C. Doege,	Tonganoxie, Leavenworth.
Nora Dorsey,	Prescott, Linn.
Susie Ellen Doverspike,	Welcome, Geary.
Aaron C. Emig,	Holland, Dickinson.
Alfred Henry Errebo,	Denmark, Lincoln.
George Louis Fenwyck,	Irving, Marshall.
Marion Hayden Fleming,	Smith Center, Smith.
George W. Gasser,	Neosho, *Missouri.*
Clyde Allan Gibbons,	Manhattan, Riley.
Mary Belle Gilchrist,	Topeka, Shawnee.
Arthur Burt Ginter,	Winchester, Jefferson.
Pearl Mabel Ginter,	Winchester, Jefferson.
Thomas A. Gribben,	Hope, Dickinson.
Vivian Roy Griffith,	Ballard, *Missouri.*
Henry John Grundmeier,	Barnard, Lincoln.
Pearl Guthrie,	Cedar Vale, Chautauqua.
Emil Theodore Haggman,	Kackley, Republic.
May E. Hall,	Manhattan, Riley.
William H. Hall,	Hoyt, Jackson.
Arthur Clark Harrington,	Wichita, Sedgwick.
Clark S. Hart,	Manhattan, Riley.
Robert Roy Haslett,	Eskridge, Wabaunsee.
Mary Florence Hawkins,	Fort Scott, Bourbon.
Charles E. Hawks,	Annelly, Harvey.
William A. Hendershot,	Waverly, Coffey.
John E. Hershner,	Esbon, Jewell.
Orley Justin Hillyer,	Manhattan, Riley.
Samuel W. Hodgson,	Little River, Rice.
George E. Holmes,	Imes, Franklin.
Otto William Holt,	White City, Morris.
George Houghton,	Kackley, Republic.
Frank N. Howard,	Manhattan, Riley.
I. L. Howe,	Westmoreland, Pottawatomie.
Leroy Howe,	Westmoreland, Pottawatomie.
William Hart Hower,	Sylvan Grove, Lincoln.
Robert Hudgin,	Hinton, *West Virginia.*
George William Hunt,	Blue Hills, Mitchell.
Charles Clifton Hutchinson,	Capioma, Nemaha.
Harry Lee Hutchinson,	Capioma, Nemaha.

Name.	Post-office and county (or state).
David Jacobson,	Morganville, Clay.
Alfred H. Jefferis,	Newton, Harvey.
Axel Ferdinand Johnson,	Morganville, Clay.
Adolph Sigfred Johnson,	Kackley, Republic.
James Sidney Johnson,	Irving, Marshall.
Frank George Jolley,	Onaga, Pottawatomie.
Mary Frances Jones,	Eureka, Greenwood.
Leanora Joss,	Fairview, Brown.
Charles Judd,	Irving, Marshall.
Joseph Klein,	Fostoria, Pottawatomie.
Luie Edgar Klein,	Fostoria, Pottawatomie.
Herman Knitter,	Westmoreland, Pottawatomie.
Eddie S. Kobes,	Narka, Republic.
Elbert M. Lantz,	Waldo, Russell.
John Frederick Leonhardt,	Manhattan, Riley.
Emma Lund,	Lasita, Riley.
S. W. Lyons,	Minneapolis, Ottawa.
Brittain Goodall McAlester,	McAlester, *Indian Territory*.
William Rufus McHill,	Utopia, Greenwood.
Clarence E. McKibbin,	Goff's, Nemaha.
George Earl McKibbin,	Goff's, Nemaha.
Abner H. McManis,	Beloit, Mitchell.
Osborne McProud,	Manhattan, Riley.
Ida Augusta Maas,	Alma, Wabaunsee.
Richard Henry Maas,	Alma, Wabaunsee.
Edwin B. Maelzer,	Neuchatel, Nemaha.
Chalmer A. Mather,	Manhattan, Riley.
Frank Riley Means,	Blue Rapids, Marshall.
Arthur L. Miller,	Woodbine, Geary.
Thomas Henry Mintier,	Tonganoxie, Leavenworth.
Mary Josephine Monahan,	Manhattan, Riley.
Hattie Elisbeth Moss,	Topeka, Shawnee.
Minnie Mattie Moyer,	North Topeka, Shawnee.
Erving Murphy,	Manhattan, Riley.
Verda Ellen Murphy,	Manhattan, Riley.
Arnold Nelson,	Greenleaf, Washington.
Emil Ney,	Wilson, Ellsworth.
Winifred Laura Oldham,	Riley, Riley.
Arda Parker,	Wardin, *Oklahoma*.
Edna May Perry,	Louisville, Pottawatomie.
Florence Phillips,	Garrison, Pottawatomie.
William Leslie Porter,	Manhattan, Riley.
Theodore Bennett Price,	Garfield, Pawnee.
Gerald A. Reeher,	Imes, Franklin.
Margaret Reeves,	Topeka, Shawnee.
Henry Reinecke,	Heizer, Barton.
Henry Edward Richter,	Summerfield, Marshall.
Andrew Rickard,	Vliets, Marshall.
Charles P. Ritchie,	Manhattan, Riley.
Jennie Inez Ritner,	Manhattan, Riley.
Margaret Isabel Ritner,	Manhattan, Riley.

Name.	Post-office and county (or state).
Frank B. Robbins,	Esbon, Jewell.
Hannah Rollins,	Agra, Phillips.
Sarah Rollins,	Agra, Phillips.
Ranier Henry Sanneman,	Clay Center, Clay.
James G. Savage,	Bluff Springs, *Illinois.*
Frank Sebesta,	Palacky, Ellsworth.
Nellie Severson,	Randall, Jewell.
Oscar O. Severson,	Randall, Jewell.
Hugh R. Shearer,	Frankfort, Marshall.
Sarah Ann Simms,	Manhattan, Riley.
Lavera Simon,	Corning, Nemaha.
Roxy Simon,	Corning, Nemaha.
Ward Simon,	Corning, Nemaha.
Charles Andrew Simpson,	Manchester, Dickinson.
Barton Howard Smith,	Manhattan, Riley.
Lizzie May Snyder,	Newkirk, *Oklahoma.*
Henry Adams Spuhler,	Okarche, *Oklahoma.*
Millard Alexander Stearman,	Belvidere, Kiowa.
George W. Stevens,	Humboldt, Allen.
Francis Marion Stibbs,	Numa, Grant.
Clarence Garfield Stump,	Manhattan, Riley.
George W. Thierer,	Volland, Wabaunsee.
Jerry Jasper Thomas,	Belpre, Edwards.
Charles L. Thompson,	Leon, Butler.
Rose Thompson,	Garrison, Pottawatomie.
Theodore Tischhauser,	Donegal, Dickinson.
Edward Elwood Tobias,	Lyons, Rice.
Gertrude Alice Tull,*	Wabaunsee, Wabaunsee.
Elliott Van Everen,	Manhattan, Riley.
August Wilhelm Wahl,	Wheaton, Pottawatomie.
Glen Edward Watkins,	Goff's, Nemaha.
David B. Weaver,	Heizer, Barton.
Edward Welter,	Myers Valley, Pottawatomie.
Jesse Thomas West,	Soldier, Jackson.
Rose Wilkinson,	Newman, Jefferson.
Hester D. Willey,	Garrison, Pottawatomie.
Samuel Alexander Willey,	Phillipsburg, Phillips.
Louis J. Williams,	Sharon Springs, Wallace.
Myron D. Williams,	Manhattan, Riley.
Margaret Matilda Wolfersperger,	Lindsey, Ottawa.
Hannah Worthington,	Americus, Lyon.
Edward J. Young,	Paola, Miami.
Barnhard Youngkamp,	Manhattan, (Pottawatomie.)

SPECIAL STUDENTS.

Annie Florence Baker,	Manhattan, Riley.
Louise Burnham,	Manhattan, Riley.
Laura Davidson,	Agricola, Coffey.
Lois Marie Deming,	Larkin, Jackson.
Matilda Charlotte Doll,	Larned, Pawnee.

*Deceased.

Name.	Post-office and county (or state).
Della Drollinger,	Garrison, Pottawatomie.
Lewis Sidney Edwards,	Emporia, Lyon.
Daisy Deane Fisk,	Manhattan, Riley.
Ernest Christian Gasser,	Neosho, *Missouri.*
Karakin Krikor Gregory,	Sia, *Asia Minor, Turkey.*
Grace Grove,	Larned, Pawnee.
Benjamin Joseph Gudge,	White City, Morris.
Mrs. Edna Harper,	Manhattan, Riley.
Alice Horton,	Manhattan, Riley.
Maude Howard,	Manhattan, Riley.
Bertha L. Jaedicke,	Hanover, Washington.
Katrine Krudop,	Manhattan, Riley.
Azelia Lamb Lewis,	Blue Rapids, Marshall.
Minnie May McCleary,	Beloit, Mitchell.
Mary Alice Marlatt,	Manhattan, Riley.
Wilmina Pearl Martin,	Eskridge, Wabaunsee.
Mrs. Winifred Woodside Metcalf,	Manhattan, Riley.
Kate Bell Morgan,	Manhattan, Riley.
Dorothy Myers,	Manhattan, Riley.
Pearl Mabel Phillips,	Manhattan, Riley.
Abbie Putnam,	Manhattan, Riley.
Herman Hale Riley,	Waverly, Coffey.
George Dwight Reynolds,	Hollenberg, Washington.
Bertha Schorer,	Vining, Clay.
Mrs. Kate (Oldham) Sisson,	Manhattan, Riley.
Olivia Marguerite Staatz,	Enterprise, Dickinson.
Mihram H. Torossian,	Adana, *Asia Minor, Turkey.*

DAIRY STUDENTS.

Carl Anderson,	Manhattan, Riley.
Herbert Eunis Arnold,	Kansas City, *Missouri.*
Chancy Bainer,	Pleasant Hill (Franklin.)
Otis F. Bolinger,	Great Bend, Barton.
William W. Bolton,	Paxico, Wabaunsee.
F. A. Bouts,	Allison, Sheridan.
Frank Brooks,	Cavendesh, *Missouri.*
F. D. Buck,	Big Springs, Douglas.
Albert J. Burger,	Clyde, Cloud.
Will W. Canfield,	Belleville, Republic.
James Hamilton Cheney,	Great Bend, Barton.
Clarence L. Cool,	Columbus, Cherokee.
James A. Downs,	Appanoose, Douglas.
Lewis Sidney Edwards,	Emporia, Lyon.
Albert C. Fankhauser,	Great Bend, Barton.
J. F. Hamilton,	Independence, Montgomery.
Alonzo Charles Havens,	Dwight, Morris.
Robert C. Hendershot,	Lyndon, Osage.
Otto William Holt,	White City, Morris.
Willis G. Huffman,	Guilford, Wilson.
Colonel D. Hurd,	Grantville, Jefferson.
Theodore William Jensen,	Mingo, Thomas.

Name.	Post-office and county (or state).
Walter Warren Keyes,	Dallas, *Wisconsin.*
Fred Leiser,	North Topeka, Shawnee.
Gerry M. Limbocker,	Great Bend, Barton.
John D. McFerren,	Abilene, Dickinson.
Edwin B. McProud,	Louisville, Pottawatomie.
John Charles Mannen,	Overbrook, Osage.
Otto Rownd Mechem,	Norwood, Franklin.
George Elderidge Merritt,	Great Bend, Barton.
Dudley Morrow,	Blue Rapids, Marshall.
Clinton Chester Nichols,	Great Bend, Barton.
William J. Parker,	McDowell, *Illinois.*
Earle R. Parkman,	Emporia, Lyon.
Fred Austin Parks,	Mont Ida, Anderson.
George Benton Parrack,	Riley, Riley.
William H. Putnam,	Manhattan, Riley.
Harry Eugene Reed,	Smith Center, Smith.
J. A. Reh,	Homewood, Franklin.
Robert C. Roach,	Hutchinson, Reno.
F. Schaaf,	Seneca, Nemaha.
Mary Schulz,	Walnut, Crawford.
James L. Sinnott,	Clyde, Cloud.
Walter L. Souders,	Richland, Shawnee.
Charles Webster Swallow,	Clinton, Douglas.
Arthur Campfield Tannehill,	Wakefield, Clay.
H. J. Taylor,	Enterprise, Dickinson.
George Thralls,	Lawrence, Douglas.
Harry Thralls,	Lawrence, Douglas.
William R. Waring,	Abilene, Dickinson.
Otto Christian Weyer,	Baileyville, Nemaha.
Herbert Morton Williams,	Manhattan, Riley.
Charles Clarence Winsler,	Abilene, Dickinson.
John H. Wolfersperger,	Lindsey, Ottawa.
Lloyd E. Woodward,	Clinton, Douglas.
Thomas Ray Woodward,	Lone Star, Douglas.
Valentine Tucker Woodward,	Clinton, Douglas.

FARMERS' SHORT COURSE STUDENTS.

Alvin Eugene Axelton,	Randolph, Riley.
Hallie Baggerley,	Delphos, Ottawa.
William Thomas Baird,	Arkansas City, Cowley.
Ira Roscoe Berkey,	Cleveland, *Missouri.*
Herschel Tice Brenner,	Porterville, Bourbon.
Homer Matthew Brownlee,	Lawrence, Douglas.
Oscar C. Brownlee,	Lawrence, Douglas.
Ben Burge,	Augusta, Butler.
Fred C. Caster,	Oberlin, Decatur.
Burchard Deluna Courter,	Downs, Osborne.
Charles R. Dewey,	Dawson, *Nebraska.*
James Walter Dilts,	Leon, Butler.
Charles Morton Dole,	Doles Park, McPherson.
George F. Dole,	Canton, McPherson.

Name.	Post-office and county (or state).
Edward Doll,	Larned, Pawnee.
Charles Frevert,	Holyrood, Ellsworth.
Charles Alpha Gage,	Mont Ida, Anderson.
John Germann,	Hiattville, Bourbon.
Theodore F. Guthrie,	Strong City, Chase.
John D. Hansen,	Willis, Brown.
John Earl Hershner,	Esbon, Jewell.
Peter Jochumson,	Lyndon, Osage.
Frank O. Johnson,	Axtell, Marshall.
Emil Kesl,	Cuba, Republic.
Loren Kiser,	Andale, Sedgwick.
William Gilbert Kling,	Ottawa, Franklin.
George O. Learned,	Stafford, Stafford.
Frank Jem Lundstedt,	Lindsborg, McPherson.
Orville Berkey Means,	Arkansas City, Cowley.
George H. Mogge,	Halifax, Wabaunsee.
Herbert William Nafziger,	Narka, Republic.
John William Oman,	Walsburg, Riley.
Shirley Howard Pearce,	Stockdale, Riley.
George Piper,	Emporia, Lyon.
Lauritz Earl Reed,*	Smith Center, Smith.
Martin Eli Replogle,	Hays City, Ellis.
Frank James Riley,	Mayview, Jewell.
Jacob A. Schowalter,	Halstead, Harvey.
Thurman Shockley,	Tonganoxie, Leavenworth.
Lura Walter Culison Shoemaker,	Centerville, Linn.
Marion Smith,	Fredonia, Wilson.
John W. Tredway,	La Harpe, Allen.
Charles Van Dalsem,	Fairview, Brown.
William Walker White,	Newton, Harvey.
John Perry Whitlock,	Florence, Marion.
George Grant Wilson,	Newton, *Illinois*.
Edward P. Yust,	Peace Creek, Reno.

DOMESTIC SCIENCE SHORT COURSE STUDENTS.

Myrtle Allison,	Florence, Marion.
Ruth Barlow,	Manhattan, Riley.
Iva May Chandler,	Manhattan, Riley.
Sarah Davis,	Manhattan, Riley.
Emma Goodpasture,	Alma, Wabaunsee.
Elvira Hawkinson,	Marquette, McPherson.
Minerva Ann Howell,	Manhattan, Riley.
Sigma Ipsen,	Manhattan, Riley.
Christina Larson,	Vesper, Lincoln.
Mary Josephine Monahan,	Manhattan, Riley.
Delia Miriam Monroe,	Whiting, Jackson.
Martha R. Mortimer,	Gypsum City, Saline.
Sadie Eliza Rathbone,	Manhattan, Riley.
Lizzie M. Regner,	Moundridge, McPherson.

* Deceased.

Name.	Post-office and county (or state).
Gussie Schneider,	Manhattan, Riley.
Mrs. W. D. Silkman,	Manhattan, Riley.
Grace Dollie Smith,	Manhattan, Riley.
Rose S. Thompson,	Garrison, Pottawatomie.
Lottie Townsend,	Westmoreland, Pottawatomie.
Ida Tressin,	Gypsum City, Saline.
Mary Elizabeth Vance,	Manhattan, Riley.
Helen Julia Woffing,	Manhattan, Riley.
Margaret Elizabeth Woodford,	Maple Hill, Wabaunsee.
Alta L. Worley,	Natoma, Osborne.

APPRENTICES IN SHOPS.

Harmon S. Armstrong,	Birmingham, Jackson.
Fred Edward Bender,	Manhattan, Riley.
John Harold Blachly,	Manhattan, Riley.
Milton Callaway,	Milton, Sumner.
Frank H. Clarke,	Gideon, Douglas.
E. Maltby Cooper,	Wabaunsee, Wabaunsee.
Willit Ransom Correll,	Manhattan, Riley.
John A. Deardorff,	Holland, Dickinson.
A. Tobe Delahunt,	Olathe, Johnson.
Joseph C. Doege,	Tonganoxie, Leavenworth.
Frank Dutton,	Keene, Wabaunsee.
Albert Gasser,	Neosho, *Missouri.*
Fred J. Griffing,	Topeka, Shawnee.
Joseph Alexander Guild,	Silver Lake, Shawnee.
Donna Menroe Gwin,	Neosho Falls, Woodson.
Samuel McCreedy Hanlon,	Orie, *Oklahoma.*
Hans H. Hansen,	Marysville, Marshall.
Fred Ed. Jacobson,	Norway, Republic.
Alvin E. Johnson,	Newton, Harvey.
George R. Johnson,	Axtell, Marshall.
A. L. Johnston,	Manhattan, Riley.
Fred W. Keller,	Marion, Marion.
Albert W. Krotzer,	Manhattan, Riley.
Everett N. McLeod,	Marysville, Marshall.
De Witt C. Manchester,	Chiles, Miami.
Fred Cranston Nicholson,	Manhattan, Riley.
Oscar N. Olson,	Vermillion, Marshall.
Merton R. Raynesford,	Ellis, Ellis.
Bert N. Simpson,	Yates Center, Woodson.
Alva Lewis Smith,	Prairie Center, Johnson.
Barton Howard Smith,	Manhattan, Riley.
Fred G. Smith,	Manhattan, Riley.
Harry E. Smith,	Wichita, Sedgwick.
George W. Stevens,	Humboldt, Allen.
Eddie L. Strong,	Manhattan, Riley.
Hiram Webster Strong,	Goddard, Sedgwick.
Karl O. Walters,	Manhattan, Riley.
Ralph Kirkland Ware,	Manhattan, Riley.
Charles Bernard White,	Waverly, Coffey.

Name.	Post-office and county (or state).
Oliver Wesley Wilcox,	Corning, Nemaha.
Charles Luvern Williams,	Ellis, Ellis.
George Edward Williams,	Hoganville, Graham.
Edward J. Young,	Paola, Miami.
Jasper Young,	Paola, Miami.
Barnhard Youngkamp,	Manhattan, (Pottawatomie.)

APPRENTICES IN PRINTING.

Albert Hanson,	Elkhorn, *Iowa.*
David Wheeler Hazen,	Erie, Neosho.
Hartley Bowen Holroyd,	Manhattan, Riley.
Sidney M. Morrison,	Great Bend, Barton.
Jesse Clyde Rickman,	Manhattan, Riley.

SUMMARY.

CLASSES.	*Gentlemen.*	*Ladies.*	*Totals.*
Postgraduate	15	12	27
Fourth year	38	31	69
Third year	61	48	109
Second year	113	50	163
First year	263	113	376
Preparatory	123	39	162
Special	7	25	32
Diary	56	1	57
Farmers' short course	47	.....	47
Domestic science short course	.....	24	24
Apprentices	50	.....	50
Counted twice	19	3	22
Totals	754	340	1,094

From 81 counties of Kansas, 1,046.

From 17 other states, 44.

From 3 foreign countries, 4.

RECORD OF ATTENDANCE, 1879-1900.

COLLEGE YEAR.	*Domestic science short course*	*Farmers' short course*	*Dairy*	*Apprentice*	*Special*	*Preparatory**	*First year*	*Second year*	*Third year*	*Fourth year*	*Postgraduate*	*Counted twice*	*Total*	*Graduated*
1878–79	...	...	...	...	1	.....	89	89	16	12	.....	...	207	9
1879–80†	...	...	...	...	1	.....	166	61	35	11	2	...	276	7
1880–81‡	...	...	...	...	6	.....	178	48	24	9	2	...	267	8
1881–82	...	...	...	...	5	.....	227	50	19	11	.....	...	312	9
1882–83	...	...	...	...	4	.....	241	60	30	12	.....	...	347	12
1883–84	...	...	...	...	2	.....	255	92	26	18	2	...	395	17
1884–85	...	...	...	...	2	.....	271	71	36	16	5	...	402	14
1885–86	...	...	...	...	1	.....	273	91	35	24	4	...	428	21
1886–87	...	...	...	...	.....	.....	303	100	44	24	10	...	481	21
1887–88	...	...	...	...	.....	.....	305	92	46	27	2	...	472	22
1888–89†	...	...	...	...	.....	.....	266	103	41	28	7	.	445	25
1889–90	...	...	...	...	1	.....	307	105	63	28	10	...	514	27
1890–91†	...	...	...	...	.....	.....	343	135	50	53	12	...	593	52
1891–92	...	...	...	...	.....	.....	336	139	62	37	10	...	584	35
1892–93	...	...	...	...	.....	.....	339	110	66	43	29	...	587	39
1893–94	...	...	...	...	.....	.....	275	141	72	42	25	...	555	39
1894–95	...	...	...	...	5	.....	276	108	89	64	30	...	572	57
1895–96	...	...	...	...	3	.....	353	121	67	71	32	...	647	66
1896–97*	...	...	...	...	6	67	321	163	69	62	46	...	734	55
1897–98	...	...	6	9	15	77	316	174	77	82	57	10	803	69
1898–99	...	...	26	35	40	110	306	177	92	65	40	20	871	53
1899–00†	24	47	51	50	32	162	375	163	109	69	27	22	1,094	...

*Previous to 1896–'97 the preparatory students were not listed separately from the first-years.

†Requirements for admittance raised.

‡Course strengthened.

Graduates.

This list is made from the best data obtainable. A favor will be conferred by notifying the College Secretary of any errors or changes.

1867.

Henry L. Denison, A. M., 1257 Clarkson street, Denver, Colo. United States court reporter.
Belle M. (Haines) Pond, A. M., 1821 Clay street, Topeka, Kan. Housewife.
Emma L. (Haines) Bowen, A. M., Manhattan, Kan. Housewife.
John J. Points, A. M., Omaha, Neb. Lawyer.
Martha A. (White) Abbott, A. M., 283 South Oakley avenue, Chicago, Ill. Housewife.

1871.

Emily M. (Campbell) Robinson, A. B. Died in 1877.
Ella F. (Denison) Whedon, A. B., Lincoln, Neb. Housewife.
Luella M. Houston, A. B., Galveston, Tex. Milliner and dressmaker.
Charles O. Whedon, B. S., 1845 D street, Lincoln, Neb. Lawyer.
Kate E. (White) Turley, A. B., Chicago, Ill. Housewife.

1872.

Theophania M. (Haines) Huntington, A. B. Died in 1880.
Albert Todd, A. M., Manila, P. I. Captain, Sixth U. S. artillery.
S. Wendell Williston, A. M., M. D., Ph. D., Lawrence, Kan. Dean of medical school, State University.

1873.

Eliza Z. (Davis) Stringfield, A. B., 1111 Santee street, Los Angeles, Cal. Housewife.
Sam Kimble, A. B., Manhattan, Kan. Lawyer.

1874.

Harry A. Brous, A. M., M. D., southwest cor. Ninth and Pine streets, Philadelphia, Pa. Physician
Edgar F. Clark, A. B., New Whatcom, Wash. Lawyer.
John E. Davis, B. S., D. D. S., 737 Oak street, Columbus, Ohio. Dentist.
William D. Gilbert, A. B., Atchison, Kan. Lawyer.
A. Judson White, A. B., Manhattan, Kan. Farmer.

1875.

Reuben E. Lofinck, B. S., Manhattan, Kan. Merchant.
Alice E. (Stewart) Points, A. M., 128 Bright street, Jersey City, N. J. Teacher.

1876.

George A. Gale, A. B., Mangona, Fla. Merchant and postmaster.
Ella M. (Gale) Kedzie, A. B., Lansing, Mich. Teacher of art.
Nellie (Sawyer) Kedzie, M. S., Peoria, Ill. Professor of domestic economy, Bradley Polytechnic Institute.
Carrie M. Kimball, A. B., Garden Grove, Cal. Art instructor.
Minerva E. (Whitman) Heiser, A. B., Lyndon, Kan. Housewife.

1877.*

Ella S. Child, Manhattan, Kan. Dressmaker.
George H. Failyer, M. S., Manhattan, Kan. Farmer.
John S. Griffing, M. S.. 401 Lake street, Topeka, Kan. Merchant.
Walter C. Howard, Penryn, Placer county, Cal. Minister.
Frederick O. Hoyt. Died in 1884.
Louis E. Humphrey, Chapman, Kan. Druggist.
James F. La Tourette, Idaho Springs, Colo. Miner.
Marion F. Leasure, L L. B., La Cygne, Kan. Lawyer.
William Ulrich, M. S., Manhattan, Kan. Contractor and builder.

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*B. S. has been granted all graduates since 1877.

1878.*

Albert N. Godfrey, M. S., Port Townsend, Wash. United States customs service.
Charles S. McConnell.
George S. Platt. Died in 1878.
Amos E. Wilson, Leavenworth, Kan. Banker.

1879.*

Arthur T. Blain, Lacanada, Cal. Nurseryman.
Etta (Campbell) Blain, Lacanada, Cal. Housewife.
Wilmer K. Eckman, Longview, Tex. Bank cashier.
Corvin J. Reed, St. Clere, Kan. Farmer.
Harry C. Rushmore, 735 Lincoln street, Topeka, Kan. Commercial traveler.
Wm. H. Sikes, Leonardville, Kan. Merchant and grain dealer.
Lewis A. Salter, Alva, Okla. Lawyer.
Ella (Vincent) McCormick, Clay Center, Kan. Bookkeeper.
Clarence E. Wood, A. B., Erwin, Okla. Farmer.

1880.*

Augustine Beacham.
Lizzie R. (Cox) Kregar, Milford, Kan. Housewife.
Emma (Hoyt) Turner, Peru, Ill. Housewife.
Emma (Knostman) Huse, Arkansas City, Kan. Housewife.
Grace (Parker) Perry, Pocatello, Idaho. Housewife.
Noble A. Richardson, San Bernardino, Cal. Superinendent of city schools.
Maria E. (Sickels) Davis, Chicago, Ill. Housewife.

1881.*

Flora (Donaldson) Reed, St. Clere, Kan. Housewife.
Ulysses G. Houston, Kingfisher, Okla. Lecturer.
Fletcher M. Jeffrey, Cripple Creek, Colo. Lawyer.
William J. Jeffrey, Boston, Mass. Law student, Boston University.
Darwin S. Leach, ——, Africa.
William J. Lightfoot, 307 May avenue, Cripple Creek, Colo. Deputy United States mineral surveyor.
Dalinda (Mason) Cotey, Logan, Utah. Professor of domestic arts, Utah Agricultural College.
Wirt S. Myers, Tampa, Fla. Furniture manufacturer.

1882.*

J. Chester Allen. Died in 1885.
Ida (Cranford) Sloan, Stillwater, Cal. Housewife.
Edward V. Cripps, ——.
Warren Knaus, M. S., McPherson, Kan. Editor.
Mattie E. (Mails) Coons, Manhattan, Kan. Housewife.
Allie S. (Peckham) Cordry, Minneapolis, Kan. Housewife and art teacher.
Belle (Selby) Curtice, 604 American Bank building, Kansas City, Mo. Housewife.
Burton L. Short, Kansas City, Kan. Assistant postmaster.
John A. Sloan, Stillwater, Cal. Farmer and nurseryman.

1883.*

James W. Berry, Jewell City, Kan. Lumberman.
Mary C. Bower, Manhattan, Kan. Clerk.
Lewis W. Call, LL. M., D. C. L., Washington D. C. Chief clerk, judge-advocate general's office, United States war department.
Emma E. Glossop, Manhattan, Kan. At home.
William J. Griffing, Manhattan, Kan. Farmer and fruit-grower.
Phœbe E. Haines, M. S., Manhattan, Kan. At home.
Hortense L. (Houston) Martin, Miami, I. T. Housewife.
Jacob Lund, M. S., Manhattan, Kan. Engineer, Kansas State Agricultural College.
Katie I. (Meguire) Sheldon, Riverside, Cal. Housewife.
J. Dana Needham, Lane, Kan. Merchant.
Milan T. Ward, M. D., Orion, Ill. Physician.
Julius T. Willard, M. S., Manhattan, Kan. Professor of applied chemistry, Kansas State Agricultural College; director Experiment Station.

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1884.*

Emmett S. Andress, Lakin, Kan. Farmer.
Florence J. Brous, 704 St. Paul street, Kansas City, Kan. Teacher.
Bartholomew Buchli, M. S., D. V. S., Alma, Kan. County clerk.
John H. Calvin, LL. B. Died in 1898.
Wm. A. Corey, Salt Lake City, Utah. Teacher and editor.
Henry M. Cottrell, M. S., Manhattan, Kan. Professor of agriculture, Kansas State Agricultural College.
Carrie F. (Donaldson) Brown, Portland, Oregon. Housewife.
Florence A. Donaldson. Died in August, 1888.
Frank W. Dunn, Aultman, Colo. Assayer.
I. Day Gardiner. Died in 1899.
Edwin H. Kern, Cripple Creek, Colo. Mining engineer.
Marion M. Lewis. Died in ——.
Charles L. Marlatt, M. S., 1440 Massachusetts avenue, Washington, D. C. First assistant in entomological division, United States department of agriculture.
Lincoln H. Neiswender, Silver Lake, Kan. Farmer.
Geo. C. Peck, Junction City, Kan. Feed dealer.
Hattie L. (Peck) Berry, Jewell City, Kan. Housewife.
John W. Shartel, Oklahoma City, Okla. Lawyer.

1885.*

Thomas Bassler, Batchelder, Okla. Horticulturist.
Albert Deitz, 2402 Fairmount avenue, Kansas City, Mo. Merchant.
George E. Hopper, M. S., Arkansas City, Kan. Superintendent of water-works.
Florence F. Hough, Great Bend, Kan.
Frank A. Hutto, Stillwater, Okla. Professor of history and economics, Oklahoma Agricultural and Mechanical College.
J. Allen Lewis, M. S., C. E., 288 South Oakley avenue, Chicago, Ill. Civil engineer.
Nellie J. Murphy, South Denver, Colo. Trained nurse.
Arthur L. Noyes, Wabaunsee, Kan. Farmer.
Clarence D. Pratt, Dallas, Tex. General agent paint company.
Rollin R. Rees, Minneapolis, Kan. Attorney and member of legislature.
Frederick J. Rogers, M. S., Ithaca, N. Y. Instructor in physics, Cornell University.
Dorothy E. C. (Secrest) Hungerford, Randolph, Kan. Housewife.
Grace Wonsetler, Chicago, Ill. Medical student.
Effie E. (Woods) Shartel, Oklahoma City, Okla. Housewife.

1886.*

Lillie B. Bridgman, M. S., Berkeley, Cal. Professor of physics, Lick Polytechnic.
Louis P. Brous, M. S., 800 Minnesota avenue, Kansas City, Kan. Teacher of sciences in high school.
Paul H. Fairchild, M. D., 100 William street, New York city. Publisher of medical journals, and president of Pulvola Chemical Company.
Abbott M. Green, Adin, Cal. Civil engineer and teacher.
James G. Harbord, M. S., Manzanillo, Cuba. Lieutenant, Tenth cavalry, U. S. A.
John U. Higinbotham, National Home Insurance building, 205 La Salle street, Chicago, Ill. Cashier biscuit manufacturing company.
Maria C. (Hopper) Getty, Downs, Kan. Housewife.
E. Ada (Little) MacEwan, Logan, Utah. Housewife.
Frank L. Parker, Hutchinson, Kan. Merchant.
Edward H. Perry, Perry, Okla. Editor and publisher.
H. Augustus Platt, St. Joseph, Mo. Commercial traveler.
Ada H. (Quinby) Perry, Perry, Okla. Housewife.
Ida H. (Quinby) Gardiner, Wakefield, Kan. Housewife.
Minnie Reed, M. S., Berkeley, Cal. Postgraduate student, university.
David G. Robinson, 948 and 950 Marquette building, 204 Dearborn street, Chicago, Ill. Lawyer
Edward O. Sisson, Peoria, Ill. President Bradley Polytechnic Institute.
John W. Van Deventer, Sterling, Colo. Editor and publisher.
George W. Waters, Dillon, Colo. Ranchman.
William E. Whaley, 5418 Greenwood avenue, Chicago, Ill. Instructor in history, South Side school.
F. Henrietta (Willard) Calvin, Topeka, Kan. Topeka city library.
John L. Wise, Smithboro, Ill. Merchant.

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1887.*

Edgar A. Allen, Albuquerque, N. M. Superintendent of Indian school.
Fred H. Avery. Died in 1896.
Claude M. Breese, M. S., Manhattan, Kan. County clerk.
John B. Brown, M. S., Lawrence, Kan. Teacher, Haskell Institute.
Walter J. G. Burtis, Fredonia, Kan. Farmer.
Mark A. Carleton, M. S., Washington, D. C. Assistant in division of vegetable pathology, United States department of agriculture.
Nellie E. (Cottrell) Stiles, Lakeside, Cal. Housewife.
Bert R. Elliott, Dyea, Alaska. Merchant and freighter.
Frederick B. Elliott, Manhattan, Kan. Real-estate and insurance agent.
Clara M. Keyes, Warner, Cal. Teacher.
Fred. G. Kimball, St. Michaels, Alaska. Chief postal clerk.
Frederick A. Marlatt, Manhattan, Kan. Proprietor Blue Valley Manufacturing Company.
William J. McLaughlin, Randolph, Utah. Editor.
Mary E. Moses, Manhattan, Kan. At home.
Charles A. Murphy, Kingman, Kan. Superintendent of schools.
Orlando G. Palmer, LL. M., Perry, Okla. Superintendent of schools.
Louis B. Parker. Died in 1889.
James E. Payne, M. S., Cheyenne Wells, Colo. Superintendent Rain Belt Experiment Station.
Seward N. Peck, Topeka, Kan. Cabinet-maker, railroad shops.
George N. Thompson, Belmond, Iowa. Mechanic.
Willis M. Wright, Jennings, La. Farmer.

1888.*

Grant Arnold, Toledo, Wash. Teacher.
Bertha H. Bacheller, M. S., Kansas City, Mo. Teacher of domestic science, manual training school.
Clement G. Clarke, 219 York street, New Haven, Conn. Instructor, Yale University.
Alexander C. Cobb, Wagoner, I. T. Farmer and carpenter.
Mattie (Cobb) Clarke, New Haven, Conn. Housewife.
Minnie H. Cowell, Castle View Styning, Sussex, England. Hospital nurse.
Lyman H. Dixon, Buffa o, N. Y. Architect.
David G. Fairchild, M. S., Washington, D. C. Agricultural explorer, department of agriculture.
Carl E. Friend, Soldier, Kan. Banker.
John R. Harrison, Salina, Kan. Inspector of post-offices.
Humphrey W. Jones, 1251 Lincoln street, Topeka, Kan. Teacher of music in city schools.
Nathan E. Lewis, 149 East Fifth street, Plainfield, N. Y. Draughtsman.
Abbie L. Marlatt, M. S., 261 Benefit street, Providence, R. I. Teacher of domestic science, manual training school.
William C. Moore, Junction City, Kan. Editor and publisher.
Ernest F. Nichols, Hanover, N. H. Professor of physics, Dartmouth College.
Harry E. Robb, Eureka, Kan. Farmer and county surveyor.
Anna Snyder, Emporia, Kan. Student, State Normal School.
Edwin H. Snyder, Denver, Colo. Editor and publisher.
Oliver L. Utter, 72 Mount Vernon street, Boston, Mass. Student in Boston University.
Aaron Walters. Died in 1892.
Lora L. (Waters) Beeler, M. S., 2469 N. Springfield avenue, Irving Park, Chicago, Ill. Housewife.
Daniel W. Working, jr., box 432, Denver, Colo. Farmer.

1889.*

Emma A. Allen. Died in 1891.
Joseph W. Bayles, Manhattan, Kan. Farmer.
Walter R. Browning, Padonia, Kan. Grain dealer.
David E. Bundy, Randolph, Kan. Minister.
Samuel S. Cobb, Wagoner, I. T. Cattle dealer.
Judson H. Criswell, Manhattan, Kan. Sales clerk.
Mattie I. (Farley) Carr, Winthrop, Wash. Housewife.
Clarence E. Freeman, M. S., Chicago, Ill. Associate professor electrical engineering and technology, Armour Institute.
Hattie L. (Gale) Sanders, Mangona, Fla. Housewife.
John S. Hazen, Springfield, Mo. United States weather bureau observer.
Albert B. Kimball, Scandia, Kan. Editor and postmaster.
William Knabb, Hiawatha, Kan. Assistant bank cashier.

*B. S. has been granted all graduates since 1877.

Mary C. Lee, 3229 Vine street, Kansas City, Mo. At home.
Alonzo A. Mills, Kamas, Utah. Manager of creamery.
Susan W. Nichols, 637 North Tenth street, St. Joseph, Mo. Music teacher.
Walter H. Olin, M. S., Ottawa, Kan. Superintendent of city schools.
Eli M. Paddleford, Highland, Kan. Minister.
Maude F. Sayers, Ottawa, Kan. Bookkeeper.
Florine (Secrest) Linderman, Willow Glen, San Jose, Cal. Housewife.
Stanley Snyder, Oskaloosa, Kan. Farmer.
Charles W. Thompson, Holton, Kan. Dentist.
Jane C. Tunnell, Manhattan, Kan. Teacher.
Ina M. (Turner) Bruce, St. Louis, Mo. Housewife.
Robert U. Waldraven, Rosedale, Kan. Minister.
Henry S. Willard, M. D., Manhattan, Kan. Physician and druggist.

1890.*

Samuel I. Borton, Hilltop, Kan. Teacher.
Frank A. Campbell, Highlands, Colo. Reporter.
Arthur F. Cranston, Parsons, Kan. Lawyer.
John Davis, Alva, Okla. Professor of English and literature, Oklahoma Normal School.
Grant W. Dewey, Manhattan, Kan. Photographer.
Charles J. Dobbs, Central National Bank building, Topeka, Kan. Lawyer.
Charles W. Earle, 917 E street, Denver, Colo. Advertising agent.
Schuyler C. Harner, Leonardville, Kan. Teacher and farmer.
John W. Ijams, Orlando, Okla. Teacher.
Bertha S. (Kimball) Dickens, M. S., Manhattan, Kan. Housewife.
Harriet E. (Knipe) Curtis, Council Grove, Kan. Housewife.
Nellie P. (Little) Dobbs, Topeka, Kan. Housewife.
Ellsworth Thomas Martin, LL. B., Chicago, Ill. Lawyer.
Silas C. Mason, M. S., Berea, Ky. Professor of horticulture and biology, Berea College.
Wilton L. Morse, Mancos, Colo. Farmer.
Albert E. Newman, Watonga, Okla. County superintendent and editor.
Julia R. Pearce, Sonoma, Cal. Journalist.
Emil C. Pfuetze, Manhattan, Kan. Lumberman.
William H. Sanders, Mangona, Fla. Plumber and builder.
Emma Secrest, A. M. Died in 1898.
Marie Barbara Senn, M. S., Fargo, N. Dak. Instructor in domestic economy, State Agricultural College.
Ralph Snyder, Oskaloosa, Kan. Farmer and stockman.
George E. Stoker, A. B., Topeka, Kan. Lawyer.
Walter T. Swingle, M. S. Traveling in Africa for division of vegetable pathology, U. S. department of agriculture.
Gilbert J. Van Zile. Died in 1899.
Harry N. Whitford, Botany building, Chicago, Ill. Instructor in Armour Institute, and student University of Chicago.
Thomas E. Wimer. Died in 1890.

1891.*

William Aaron Anderson, Kansas City, Mo. Bookkeeper.
William Sherman Arbuthnot, D. V. S., Republic, Kan. Veterinary surgeon and druggist.
Herman William Avery, Wakefield, Kan. Farmer and merchant.
Judd Noble Bridgman, M. S., Kansas City, Mo. Kansas City gas-works.
Robert James Brock, Manhattan, Kan. Lawyer and county attorney.
Francis Charles Burtis, M. S., Stillwater, Okla. Professor of agriculture and horticulture, Oklahoma Agricultural and Mechanical College.
Charles Albert Campbell, 1947 North Seventh street, Philadelphia, Pa. Minister.
Spencer Norman Chaffee, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Ephraim Clay Coburn, 422 North Fourth street, Kansas City, Kan. Physician.
Gertrude Coburn, Ames, Iowa. Professor of domestic science, Iowa State College.
Tina Louise (Coburn) Tomson, Cedar Rapids, Iowa. Housewife.
Rachel Callie (Conwell) Thoburn, Oklahoma City, Okla. Housewife.
Christine Mossman Corlett, Guthrie, Okla. Teacher.
Mary Emmeline (Cottrell) Payne, M. S., Cheyenne Wells, Colo. Housewife.
Phil Sheridan Creager, Kansas City, Mo. Telegraph editor, Kansas City *Journal*.

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Kary Cadmus Davis, 69 Eddy street, Ithaca, N. Y. Student, Cornell University.
Thomas Clarke Davis, Benedict, Kan. Farmer.
Helen Pearl (Dow) Peck, 112 Marlborough road, Brooklyn, N. Y. Housewife.
Anna (Fairchild) White, 61 Poplar street, Brooklyn, N. Y. Housewife.
Harry Benson Gilstrap, Chandler, Okla. Editor and publisher.
Almon Arthur Gist, Fort Riley, Kan. Telegraph operator and station agent.
Amy Myrtle (Harrington) Deibler, Leadville, Colo. Housewife.
Delpha May Hoop, Manhattan, Kan. Teacher.
Mayme Amelia (Houghton) Brock, Manhattan, Kan. Housewife.
Willis Wesley Hutto, Riley, Kan. Principal of schools.
George Victor Johnson, Sedan, Kan. Editor.
Frank Mullett Linscott, D. V. S., Holton, Kan. Stock-raiser.
Bessie Belle Little, Nashville, Tenn. Teacher of physical culture in Belmont College.
Albert Edward Martin, Streator, Ill. Manager telephone company.
Nellie Evangeline (McDonald) Thayer, Manhattan, Kan. Housewife.
David Collins McDowell, Elkton, Colo. Merchant.
Alfred Midgley, Minneapolis, Kan. Clerk.
Madeleine Wade Milner, 6514 Kimbark avenue, Chicago, Ill. Assistant librarian, Armour Institute.
Paul Chambers Milner, 6514 Kimbark avenue, Chicago, Ill. Assistant exchange teller, Illinois Trust and Savings Bank.
Harry Elbridge Moore, Kansas City, Mo. Commission merchant.
John Otis Morse, Mound City, Kan. Farmer and teacher.
Hattie May Noyes, Wabaunsee, Kan. Teacher.
Louise (Reed) Paddleford, Highland, Kan. Housewife.
Artemus Jackson Rudy, Fresno, Cal. Fruit-raiser.
Henry Vernon Rudy, Fresno, Cal. Fruit-raiser.
Charlotte Jane (Short) Houser, M. S., Danville, Pa. Housewife.
Ben Skinner, M. D., Fairview, Kan. Physician.
Caroline Scott (Stingley) Van Blarcom. Died in 1899.
Lillian Alice St. John, Manhattan, Kan. Teacher.
Ellis Cheney Thayer, Manhattan, Kan. Farmer.
Sam L. Van Blarcom, M. D., 2024 Walnut street, Kansas City, Kan. Railway postal clerk.
Frank Albert Waugh, M. S., Burlington, Vt. Professor of horticulture in Vermont University.
Fannie Elizabeth (Waugh) Davis, M. S., Ithaca, N. Y. Housewife.
Flora Emilie Wiest, Manhattan, Kan. Teacher.
Bertha (Winchip) Spilman, 509 Second street, S. E., Washington, D. C. Housewife.
Alfred Orin Wright, Lake Arthur, La. Editor.
Effie Jeanetta Zimmerman, M. S., Moray, Kan. Journalist.

1892.*

Grace Maria Clark, M. S., Berea, Ky. Clerk in president's office, Berea College.
George L. Clothier, M. S., St. Anthony Park, Minn. Postgraduate student, Minnesota Agricultural College.
Lillian Clyde Criner, McPherson, Kan. Editor.
Harry Darnell, Gardner, Kan. Teacher.
William H. Edelblute, Harrison, Idaho.
Elizabeth (Edwards) Hartley, Manhattan, Kan. Housewife.
John Frost, Blue Rapids, Kan. Teacher.
Effie (Gilstrap) Frazier, Chandler, Okla. Housewife.
Ava (Hamill) Tillotson, M. S., Hill City, Kan. Housewife.
J N Harner. Died in 1897.
Loyall S. Harner, Junction City, Kan. Farmer.
Charles Pinckney Hartley, M. S., Washington, D. C. Division of vegetable physiology and pathology, United States department of agriculture.
John William Abraham Hartley, Manhattan, Kan. Farmer and teacher.
James Laird McDowell, Elkton, Colo. Assayer.
Robert A. McIlvaine, Durham, Kan. Principal of schools.
Kate (Oldham) Sisson, Manhattan, Kan. Housewife.
Daniel Henry Otis, M. S., Manhattan, Kan. Assistant in dairying, Kansas State Agricultural College.
Ivan Bryan Parker, M. D., Hill City, Kan. Physician, and president Graham County State Bank.
Warner S. Pope. Died in 1899.

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Burton Homer Pugh, Oakland, Kan. Farmer.
Elias W. Reed, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Robert Stirling Reed, Emporia, Kan. Student, State Normal School.
Arthur Daniel Rice, Granada, Colo. Minister.
Fred. C. Sears, M. S., Wolfville, Nova Scotia. Director of provincial school of horticulture.
Birdie E. Secrest, Randolph, Kan. Clerk.
May Secrest, Manhattan, Kan. Assistant in sewing, Kansas State Agricultural College.
Ruth Tipton (Stokes) Sears. M. S., Wolfville, Nova Scotia. Housewife.
Harry W. Stone, Portland, Ore. General secretary Y. M. C. A.
Walter Percival Tucker, Aveno, Mexico. Cashier for mining company.
Mary Alice (Vail) Waugh, Burlington, Vt. Housewife.
Robert Lynn Wallis. Died in 1895.
Ora Rebecca (Wells) Traxler, Irving, Kan. Housewife.
Daniel F. Wickman, P. O. box 107, Topeka, Kan. Farmer.
George Washington Wildin, Savannah, Ga. Mechanical engineer.
Charles Ernest Yeoman, La Crosse, Kan.

1893.*

Edmund Clarence Abbott, Red River, N. M. Lawyer.
Edwin McMaster Stanton Curtis, Equitable building, St. Louis, Mo. Clerk in Missouri Pacific railroad office.
Corinne Louise (Daly) Burtis, Stillwater, Okla. Housewife.
Laura Greeley Day, Menominee, Wis. Instructor in household economy, Stout Manual Training School.
Ione (Dewey) Sutherland, Kansas City, Kan. Housewife.
Albert Dickens, Manhattan, Kan. Assistant horticulturist, Kansas State Agricultural College.
Mary Maud Gardiner, M. S., Ames, Iowa. Instructor in domestic economy, Iowa State College.
Susie (Hall) Linscott, Holton, Kan. Housewife.
Mary Frances Burgoyne Harman, Valley Falls, Kan. Teacher.
Ivy Frances Harner, M. S., Ruston, La. Teacher of domestic science, Louisiana Industrial Institute.
Margaretha Elise Horn, Dr. O., 397 McKinstry avenue, Detroit, Mich. Teacher of sciences Detroit high school.
Marcia Ione Hulett, Akron, Ohio. Osteopathist.
Mac F. Hulett, 120 East Gay street, Columbus, Ohio. Osteopathist.
Fred Hulse, Manhattan, Kan. Carpenter.
Charles Augustus Kimball, Courtland, Kan. Editor and lawyer.
Maud Ethel Knickerbocker, Terraville, S. Dak. Teacher.
Thomas Eddy Lyon, 507 Hill street, Ann Arbor, Mich. Student of law.
William Otis Lyon, Emporia, Kan. Teacher.
McLeod Wilson McCrea, Winchester, Kan. Teacher.
Rose Edith McDowell, Manhattan, Kan. At home.
George Lane Melton, Chicago, Ill. Student, Chicago University.
Eusebia DeLong (Mudge) Thompson, Beattie, Kan. Housewife.
Nora (Newell) Hatch, Manhattan, Kan. Housewife.
August Fred. Niemoller, Stitt, Kan. Teacher.
Susie Amanda Noyes. Died in 1894.
Henry Leamer Pellett, 1524 Chestnut street, Philadelphia, Pa. Physician.
Charles John Peterson, Topeka, Kan. Farmer.
Carl Frederic Pfuetze, Manhattan, Kan. Railway postal clerk.
John Dewitt Riddell, M. D., Enterprise, Kan. Physician.
John Albert Rokes, Holton, Kan. Lawyer.
Agnes (Romick) Edgar, Salubra, Idaho. Housewife.
Fred. Raymond Smith, Manhattan, Kan. Lawyer and court stenographer.
George Wildman Smith, Chicago, Ill. Medical student.
William Elmer Smith, 613 Massachusetts building, Kansas City, Mo. Lawyer.
John Eugene Thackrey, Chapman, Kan. Minister.
Joseph B. Thoburn, Oklahoma City, Okla. Editor.
Charles Henry Thompson, Sera Cruz, Cal. Poultry farmer.
George K. Thompson, Beattie, Kan. Superintendent of schools.
William James Yeoman, Mankato, Kan. Merchant.

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1894.*

Frank Weber Ames, 5323 Jackson avenue, Chicago, Ill. Clerk, National Steel Company.
Clara Francelia Castle, M. S., Manhattan, Kan. At home.
George Luther Christensen, Houghton, Mich. Instructor in mechanical engineering and drawing, Michigan School of Mines.
John Cornelius Christensen, Manhattan, Kan. Assistant county treasurer.
Lorena Estella Clemons, Manhattan, Kan. Secretary, Kansas State Agricultural College.
Martha Cottrell, Wabaunsee, Kan. At home.
Sarah Esther (Cottrell) Wright, Jennings, La. Housewife.
Alverta May Cress, Manhattan, Kan. At home.
Fannie Jane Cress, 71 Walton Place, Chicago, Ill. Artist.
Ernest A. Donaven, M. D., Goodrich, Kan. Physician.
Jephthah W. Evans, Chicago, Ill. Medical student.
Isabelle Russell Frisbie, Brookings, S. Dak. Professor of domestic economy, State Agricultural College.
Eugene Leonard Frowe. Died in 1898.
Walter Harling, Lehi, Utah. Principal of New West Academy.
Lorena Marguerite Helder, Boston, Mass. Student in conservatory of music.
Mark V. Hester, Lawrence, Kan. Student, State University.
Charles Ross Hutchings, Ottawa, Kan. Civil and sanitary engineer.
Isaac Jones, jr., Sitka, Alaska. Alaskan Experiment Station.
Stella Victoria Kimball, Manhattan, Kan. Teacher.
Mary Eliza (Lyman) Otis, Manhattan, Kan. Housewife.
William Henry Moore, Manhattan, Kan. Florist and horticulturist.
Sarah (Moore) Foster, Seattle, Wash. Housewife.
James Francis Odle, Parsons, Kan. Manager Sayda Polo Jersey farm.
Charles Randolph Pearson, Hoxie, Kan. Teacher.
Horace Greeley Pope, 406 and 407 Massachusetts building, Kansas City, Mo. Lawyer.
Minnie Louisa Romick, Emporia, Kan. Student, State Normal School.
Winnie Luella (Romick) Chandler, Manhattan, Kan. Housewife.
Victor Irvin Sandt, Home, Kan. Teacher.
John Alfred Scheel, ——, N. Dak. Farmer.
Jacob Ulrich Secrest, Randolph, Kan. Farmer.
Charles Chrisfield Smith, Lyndon, Kan. Editor.
Jennie Ruth Smith, Manhattan, Kan. Teacher in city schools.
Wesley Ohio Staver, 625 New York Life building, Kansas City, Mo. Lawyer.
John Stingley, 402 Aldeen Court, Kansas City, Mo. Freight offices.
John Edwin Taylor. Died in 1896.
Delbert L. Timbers, Beloit, Kan. Teacher.
Phebe Carey Turner, Vera, Kan. Teacher.
Samuel Robert Vincent, Orie, Okla. Teacher.
Lucy Helena Waters, A. M., Stanford University, Cal. Postgraduate student, Leland Stanford University.

1895.*

Edward Jones Abell, Smith Center, Kan. Principal of schools.
Carl D. Adams, Hector, Kan. Teacher.
Robert John Barnett, Manhattan, Kan. Principal of Central school.
Burton Wesley Conrad, Sabetha, Kan. Liveryman.
Florence Ruth Corbett, Elizabeth, N. J. Matron and teacher of domestic science in Elizabeth general hospital.
Sid Henry Creager, Kansas City, Mo. Railway postal clerk.
Elsie Emeline Crump, Manhattan, Kan. Teacher.
David Thomas Davies, Riley, Kan. Farmer.
Frank Andrew Dawley, Osborne, Kan. County clerk.
Daisy Day, M. S., Onaga, Kan. At home.
Flora (Day) Barnett, Manhattan, Kan. Housewife.
George Adam Dean, Topeka, Kan. Farmer.
Lillie Chistena Dial, Cleburne, Kan. Teacher.
Lucy Ellis, Westmoreland, Kan. Teacher.
Victor Emrick, 998 East Taylor street, Portland, Ore. Passenger auditing clerk, Oregon Transportation and Navigation Company.
George Forsyth, Franklin, Ind. Sales agent.

B. S been granted all graduates since 1877.

Ernest Harrison Freeman, Chicago, Ill. Student, Armour Institute.
Florence Eleanor (Fryhofer) Webster, Meriden, Kan. Housewife.
George William Fryhofer, Ellettsville, Ind. Banker.
Oscar Hugo Halstead, 218 South Sixth street, St. Joseph, Mo. Merchant.
Hortensia (Harman) Patten, Sycamore, Ill. Housewife.
John Bright Harman, Valley Falls, Kan. Farmer.
Clarence V. Holsinger, Rosedale, Kan. Fruit-raiser.
Christian Andrick Johnson, Success, Kan. Farmer.
John James Johnson, Russell, Kan. Physician.
Fred. Ralph Jolly, Manhattan, Kan. Newspaper reporter.
William Irving Joss, Fairview, Kan. Teacher.
Maud Estella Kennett, Silver Lake, Kan. Teacher.
Myron Arthur Limbocker, 401 Portsmouth building, Kansas City, Kan. Lawyer.
Samuel Alexander McDowell, Elkton, Colo. Clerk.
Laura Sarah (McKeen) Smith, Russell, Kan. Housewife.
Theo. Wattles Morse, M. S., Topeka, Kan. Journalist.
Oscar Albert Otten, Pierce Junction, Kan. Telegraph operator.
William Hackworth Painter, Lakeland, Kan. Stockman.
Charles Wesley Pape, M. S., Manhattan, Kan. Assistant in zoology, Kansas State Agricultural College.
Ethel (Patten) Ames, 5323 Jackson avenue, Chicago, Ill. Housewife.
John Vernon Patten, Sycamore, Ill. Manufacturer.
William H. Phipps, Kansas City, Mo. Bookkeeper.
Alice Julia (Quintard) Peck. Died in 1899.
Frederick Ellsworth Rader, Sitka, Alaska. Alaskan Experiment Station.
Ralph Waldo Rader, Topeka, Kan. Wolff Packing Company.
Ada Rice, Manhattan, Kan. Assistant in preparatory department, Kansas State Agricultural College.
Benjamin Franklin Simeon Royer, St. Joseph, Mo. Physician.
Charles Baxter Selby, Marion, Va. Lawyer.
Mabel Gertrude Selby, Argentine, Kan. Teacher.
Ernest P. Smith, 1208 West 24th street, Kansas City, Mo. Mechanic.
Frederick John Smith, Russell, Kan. Editor.
Kitty Myrtle (Smith) Wheeler, 66 East 122d street, New York city. Housewife.
Marietta Smith, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
William Henry Steuart, Victor, Colo. Mining engineer.
Cora Idella (Stump) Chaffee, Lasita, Kan. Housewife.
Dora (Thompson) Winter, Omaha, Neb. Housewife.
Elven Creveling Trembly, Comiskey, Kan. Farmer.
George Carpenter Wheeler, 66 East 122d street, New York city. Railroad conductor.
Mary Elizabeth (Willard) Emrick, 998 East Taylor street, Portland, Ore. Housewife.
Olive Mabel (Wilson) Holsinger, Rosedale, Kan. Housewife.
Ora Gertrude Yenawine, Brooklyn, N. Y. Student, Pratt Institufe.

1896.*

May Haines Bowen, Topeka, Kan. Student, Washburn College.
Con Morrison Buck, M. S., Wichita, Kan. Civil engineer on Santa Fe railroad.
Margaret Isaphene (Carlton) Doane, College Park, Md. Housewife.
William Annesley Cavenaugh, Manila, P. I. Lieutenant, company I, Twentieth infantry.
William Arthur Coe, Coloma, Kan. Farmer.
Charlotte Mabel (Cotton) Smith, 1208 West 24th street, Kansas City, Mo. Housewife.
Ernest Brown Coulson, Alva, Okla.
George Henry Dial, Cleburne, Kan. Teacher and farmer.
Charles Francis Doane, College Park, Md. Assistant bacteriologist.
John Berthold Dorman, box 206, Saratoga, N. Y. Teacher.
Bradford Dougherty, Kansas City, Kan. Clerk.
Charles Silar Evans, Manila, P. I. Hospital corps.
Robert Kilby Farrar, Axtell, Kan. Teacher.
George William Finley, Wauneta, Kan. Teacher.
Joanna Freeman. Died in 1897.
John Jacob Fryhofer, Joplin, Mo. Stenographer.
Elmer George Gibson, Stockdale, Kan. Farmer.
George Clifton Hall, Manhattan, Kan. Teacher.

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Alonzo Charles Havens, Dwight, Kan. Farmer.
Gertrude Julia (Havens) Norton, St. Louis, Mo. Housewife.
Lawrence Wilbur Hayes, 1028 Kansas ave., North Topeka, Kan. Attendant, asylum for insane.
John Warren Holland, Manila, P. I. Quartermaster's department.
Henry George Johnson, 358 Marsfield street, Chicago, Ill. Student in dentistry.
Susan Effie (Johnson) Cooper, Success, Kan. Housewife.
Marian Elizabeth Jones, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Thomas Lormar Jones, 1000 Walnut street, Kansas City, Mo. Piano-tuner.
Edward Clarence Joss, Fairview, Kan.
Royal S. Kellogg, M.S., Fay, Kan. Farmer.
Mark Kirkpatrick, Fredonia, Kan. United States land surveyor.
Edith Lynette Lantz, Chapman, Kan. At home.
Sue Long, Manhattan, Kan. Newspaper reporter.
Charles W. Lyman, Salina, Kan. Commercial traveler.
Charles Dwin McCauley, 417 Madison street, Topeka, Kan. Draughtsman.
Charles Sumner Marty, Merriam, Kan. Farmer.
Elda Lenore (Keen) Moore, Manhattan, Kan. Housewife.
Arthur Houston Morgan, Hillside, Kan. Farmer.
Clara Verena Newell, Shubert, Neb. At home.
Ellen Elizabeth (Norton) Adams, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
John Bitting Smith Norton, St. Louis, Mo. Assistant in Missouri Botanical Garden.
Hattie A. (Paddleford) McFadden, Walsburg, Kan. Housewife.
Mary Kerilla (Painter) Rogers, Ashland, Kan. Housewife.
Elva Luthera (Palmer) Thackrey, Chapman, Kan. Housewife.
Inez Luella (Palmer) Barrows, Washington, Kan. Housewife.
Fannie (Parkinson) Moyer, Ottawa, Kan. Housewife.
Archie Carpenter Peck, Lexington, Okla. Manager and proprietor of cotton-gin.
Arthur Louis Peter, 418 Mock building, Denver, Colo. Student, medical college.
Charles Edwin Pincomb, Hector, Kan. Stockman.
Mary Josephine Pincomb, Mescalero, N. M. Assistant matron in Indian school.
John Poole, Briggs, Kan. Farmer.
Edgar Arthur Powell, Osage City, Kan. Farmer and stock-raiser.
Lisle Willits Pursel, Kansas City, Mo.
Howard Newton Rhodes, Manhattan, Kan. Clerk in post-office.
Ambrose Elliott Ridenour, Manhattan, Kan. Mechanic, Blue Valley foundry.
Mary Etta Ridenour, Manhattan, Kan. Bookkeeper.
Isaac Archie Robertson, Boonville, Mo. Telegraph operator.
Grace Anna Secrest, Brooklyn, N. Y. Student, Pratt Institute.
Carl Snyder, Oskaloosa, Kan. Farmer.
Max Gilbert Spalding, Wichita, Kan. Farmer.
Orville Ashford Stingley, 721 West Eleventh street, Kansas City, Mo. Meat inspector, Armour's.
Sadie Stingley, Manhattan, Kan. Teacher.
Gertrude Ella Stump, Manhattan, Kan. At home.
Miriam Esther Swingle, 116 High street, Peoria, Ill. Assistant in household economy, Bradley Polytechnic Institute.
William Elwood Thackrey, Geneva, Neb. Manual training teacher, Indian service.
James Dunbar Trumbull, Manhattan, Kan. Clerk.
Frank Edwin Uhl, Gardner, Kan. Dairy farmer.
Edwin H. Webster, Meriden, Kan. Brady-Meriden Creamery Company.

1897.*

Cora Atwell, Topeka, Kan. Teacher.
Roger William Bishoff, Eudora, Kan. Farmer.
Mary Frances Carnell, Denver, Colo. Milliner.
William Burns Chase, Hoyt, Kan. Hardware merchant.
Frank E. Cheadle, Erwin, Okla. Painter.
Robert Waitman Clothier, M. S., Manhattan, Kan. Assistant in chemistry, Kansas State Agricultural College.
Maggie A. (Correll) Uhl, Gardner, Kan. Housewife.
Mabel Crump, Manhattan, Kan. Clerk.
Fred Volley Dial, Cleburne, Kan. Clerk.
Viola Grace Dille, Edgerton, Kan. At home.

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Samuel Dolby, Manila, P. I. Company L, U. S. volunteer infantry.
George Doll, Larned, Kan. Teacher and farmer.
Anna Phillipina Engel, Manhattan, Kan. At home.
Emma Finley, Manhattan, Kan. Teacher.
Martha Fox, Manhattan, Kan. At home.
Philip Fox, Salina, Kan. Commandant, St. John's Military Academy.
Ned Merrill Green, Fort Crook, Neb. United States army.
Mary Eliza Haulenbeck, Boulder, Colo.
Lewellyn Gaines Hepworth, Scranton, Kan. Insurance.
Ina Emma Holroyd, Manhattan, Kan. Assistant and postgraduate student, Kansas State Agricultural College.
Myrtle Hattie Hood, Nevada, Mo. Stenographer.
Charles Henry Hoop, Laramie, Wyo.
Winifred Anna (Houghton) Buck, Wichita, Kan. Housewife.
Bret Redmon Hull, Alta Vista, Kan. Lumber dealer.
Clay Berkey Ingman, Barnes, Kan. Farmer.
Gertrude May Lyman, Manhattan, Kan. Teacher.
Frederick Hugo Meyer, Mount Vernon, S. Dak. Creamery company.
Valentine Maelzer, Morse, Idaho. Farmer.
Sherman Bodwell Newell, Zeandale, Kan. Teacher and farmer.
Oliver Ezra Noble, Manhattan, Kan. County surveyor.
Jesse Baker Norton, Washington, D. C. United States department of agriculture.
Mary Augusta Norton, 912 Taylor avenue, St. Louis, Mo. Nurse, Mayfield sanitarium.
Bertha Olivia Olson, Manhattan, Kan. At home.
Hilda Sophia Olson, Manhattan, Kan. Teacher.
Russell John Peck, McFarland, Kan. Teacher.
William Oscar Peterson, Randolph, Kan. Farmer.
Eva Louise Philbrook, Louisville, Kan.
Rufus M. Philbrook, Louisville, Kan.
William Joseph Rhoades, Shockey, Kan. Ranchman.
Carl Rice, Appari, North Luzon, P. I. Company A, Sixteenth infantry.
Thomas Meade Robertson, Coffeyville, Kan. Dentist.
Homer Joseph Robison, Topeka, Kan. Machinist.
Edward Shellenbaum, Randolph, Kan. Clerk in post-office.
Alice Myrtle Shofe, 125 Western avenue, Topeka, Kan. Student.
Charles Wesley Shull, Manhattan, Kan. Farmer.
Alfred Caleb Smith, Seattle, Wash. Electrical engineer.
Phœbe Jane Smith, Manhattan, Kan. Teacher, city schools.
Wilhelmina Henrietta Spohr, Manhattan, Kan. Teacher, city schools.
Charles Harrison Stokely, Sedalia, Mo. Student, Central Business College.
John E. Trembly, Comiskey, Kan. Farmer.
Harriet Agnes Vandivert, Ames, Iowa. Postgraduate student, Iowa State College.
Olive Voiles, Cedar Rapids, Iowa. Nurse, St. Luke's hospital.
John Minton Westgate, M. S., Westgate, Kan. Assistant botanist, Kansas State Agricultural College.
Mark Wheeler, Manila, P. I. First lieutenant, Fourth U. S. infantry.
Clare Annie Wilson, Mapleton, Kan. Teacher.

1898.*

Emory Sherwood Adams, Fort Thomas, Ky. Corporal, Second U. S. infantry.
Joshua William Adams, Cheyenne Wells, Colo. Rain Belt Experiment Station.
Samuel John Adams, Manhattan, Kan. General secretary of Kansas State Agricultural College Y. M. C. A., and postgraduate student.
Thomas Walter Allison, Florence, Kan. Farmer and fruit-grower.
William Anderson, Manhattan, Kan. Assistant in mathematics, Kansas State Agricultural College.
Jessie Geneva Bayless, Yates Center, Kan. At home.
Hope Brady, Manhattan, Kan. Teacher.
Robert Henry Brown, Manhattan, Kan. Assistant in music, Kansas State Agricultural College.
Earl Carver Butterfield, Millbrook, N. Y. Gardener.
John Alfred Conover, Belleville, Kan. Continental Creamery Company.
Minnie Laura Copeland, Garrison, Kan. Teacher.
Lucy Maria (Cottrell) Pottorf, Riley, Kan. Housewife.

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Anna Magdalena Dahl, Webber, Kan. Teacher.
Inga Josephine Dahl, Webber, Kan. At home.
Cassie Belle Dille, Edgerton, Kan. Teacher.
Emma Phillipine Doll, Larned, Kan. Teacher.
Cora Elizabeth (Ewalt) Brown, Manhattan, Kan. Housewife.
Guy Francis Farley, Melvern, Kan. Farmer.
Mary (Finley) Ridenour, Manhattan, Kan. Housewife.
Arthur Lorenzo Frowe, Onaga, Kan. Teacher.
William Logan Hall, M. S., Washington, D. C. Assistant in division of forestry, United States department of agriculture.
Anna Viola Hanson, Manhattan, Kan. Clerk.
Walter Eugene Hardy, Manhattan, Kan. Farmer.
James Madison Harvey, Junction City, Kan. Farmer.
Emmett Vivian Hoffman, Enterprise, Kan. Bookkeeper.
Guy Dudley Hulett, Kirksville, Mo. Student of osteopathy.
Bertha Emma Ingman, Barnes, Kan. At home.
Ary Cordelia Johnson, Sedalia, Mo. Student, business college.
Charles Percy King, Eldorado Springs, Mo. Lumberman.
Bessie May Locke, Riley, Kan. Teacher.
Olive Long, 1957 Logan avenue, Denver, Colo. Clerk in city offices.
William Andrew McCullough, Kansas City, Mo. Student, Kansas City Medical College.
Inez Isadore Manchester, Chiles, Kan. At home.
Florence Adelia Martin, Junction City, Kan. At home.
Henry Alba Martin, Admire, Kan. Creamery.
Alice Maude Melton, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
George Gerkein Menke, Garden City, Kan. Stockman.
Mary Frances Minis, Manhattan, Kan. Teacher.
May Moore, Manhattan, Kan. At home.
Harriet Grace Nichols, Liberal, Kan. At home.
Schuyler Nichols, Liberal, Kan. Medical student.
Lucy Junie Parks, Manhattan, Kan. Teacher.
Ernest Byron Patten, Silver Lake, Kan. Farmer.
Clara Jeanette Perry, Manhattan, Kan. Clerk in secretary's office, Kansas State Agricultural College.
Emilie Mat lda Pfuetze, Manhattan, Kan. Teacher.
John Martin Pierce, Healdsburg, Cal.
Raymond Haines Pond, M. S., Ann Arbor, Mich. Student, State University.
William Poole, Briggs, Kan. Farmer.
Willis Thomas Pope, Doylestown, Pa. Horticulturist, National Farm School.
Nora May Reed, Genoa, Ill. Teacher.
Gertrude Elizabeth Rhodes, Manhattan, Kan. Teacher.
Henry William Rogler, Matfield Green, Kan. Farmer.
Ferdinand John Rumold, Emporia, Kan. Student, State Normal School.
Martin Wilbur Sanderson, Reedville, Kan. Farmer.
Olive Maria Shelden, Manhattan, Kan. At home.
Edwin Lee Smith, Manhattan, Kan. Teacher.
Oliver Russell Smith, Lawrence, Kan. Student, State University.
Bertha Spohr, Olathe, Kan. Teacher in deaf and dumb institution.
Andrew B. Symns, Bendena, Kan. Farmer.
Cora Thackrey, Valentine, Neb. Teacher.
Harriet Emerson Thackrey, Valentine, Neb. Clerk in county treasurer's office.
Henry Marsden Thomas, Melvern, Kan. Farmer.
Elsie Lucile Waters, Keats, Kan. Teacher.
Fred Dorsey Waters, Dillon, Colo.
Abner Davis Whipple, Marion, Ala. Instructor, Marion Military Academy.
Adelaide Frances Wilder, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Josephine Hannah Wilder, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Frank Yeoman, 50 Water-works building, Kansas City, Mo. Law student.
Frederick Zimmerman, Moray, Kan. Stockman and farmer.

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Bonnie Frances Adams, Marvin, Kan. Teacher.
Morrison Carpenter Adams, Cheyenne Wells, Colo. Rain Belt Experiment Station.
Melvia Fairetta Avery, Manhattan, Kan. Teacher.
Albert Edwin Blair, Hutchinson, Kan. Parker Creamery Company.
James Courtney Bolton, Paxico, Kan. Farmer.
Joseph Abbott Butterfield, Success, Kan. Farmer.
Willit Ramson Correll, Manhattan, Kan. Carpenter.
Ernest Lerned Cottrell, Wabaunsee, Kan. Farmer.
Alfred Burton Dille, Edgerton, Kan. Farmer.
Francis Joseph Habiger, Bushton, Kan. Farmer and teacher.
John George Haney, Manhattan, Kan. Assistant in agriculture, Kansas State Agricultural College.
John Andrew Harvey, Junction City, Kan. Farmer.
Grace Edna Hill, Phillipsburg, Kan. Teacher.
Hiram Adsit Holzer, Pittsburg, Kan. Draughtsman for Santa Fe railroad.
Charles Clifford Jackson, Doylestown, Pa. Instructor at National Farm School.
Fred Emanuel Johnson, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Harry Wallace Johnston, Caldwell, Kan. Farmer.
Lot Parker Keeler, Manila, P. I. Corporal, Fortieth U. S. volunteers.
John Martin Kessler, North Topeka, Kan. Horticulturist, State Reform School.
Albert Thomas Kinsley, Manhattan, Kan. Assistant in veterinary science, Kansas State Agricultural College.
Frank Elmer LaShelle, Chepstow, Kan. Teacher.
Christian Dagobert Lechner, Morganville, Kan. Carpenter.
Ross Long, Manhattan, Kan. Teacher.
Louisa Mary Maelzer, 52 Berkley street, Boston, Mass. Student, Y. W. C. A. School of Domestic Science and Christian Work.
Kate Anna Manley, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Claud Masters, Paola, Kan. Clerk.
Robert Burtice Mitchell, Manila, P. I. Second lieutenant, company E, Fortieth U. S. volunteers.
Jennie June Needham, Lane, Kan. At home.
Roscoe Townley Nichols, Liberal, Kan. Medical student.
Fanny Gertrude Noyes, Wabaunsee, Kan. At home.
Harry Delphos Orr, Topeka, Kan. Farmer.
George Washington Owens, Tuskegee, Ala. Professor of agriculture and dairying.
Carrie Vashti Painter, Meade, Kan. Teacher.
Ella Emerson Peck, Lexington, Okla. Teacher.
Anna C. Pfuetze, Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
Andrew Pottorf, Riley, Kan. Farmer.
Mary Bly Pritner, Manhattan, Kan. Assistant in domestic science, Kansas State Agricultural College.
Otto Independence Purdy, Manhattan, Kan. Assistant in printing-office, Kansas State Agricultural College.
Delmer William Randall, Manhattan, Kan. Farmer.
William Harry Roberts, Walsburg, Kan. Teacher.
Frank Sessions Shelton, Seattle, Wash. Bookkeeper.
Louisa Mary Spohr, Chicago, Ill. Student, nurses' training school.
Annie Louisa Streeter, Milford, Kan. At home.
Nellie Towers, Manhattan, Kan. At home.
Otho Sprague True, Vera, Kan. Farmer.
James Otis Tulloss, Sedan, Kan. Clerk.
William Guy Tulloss, Rantoul, Kan. Farmer.
George Franklin Wagner, Aledo, Ill. Herdsman, Greenview stock farm.
Mary Lana Waugh, Manhattan, Kan. Office assistant in farm department, Kansas State Agricultural College.
Charles Bernard White, Manhattan, Kan. Electric-light plant.
Nannie Elizabeth Williams, Sedalia, Mo. Student, business college.
Alexander George Wilson, Russell, Kan. Printer.
Frederick Otto Woestemeyer, Bethel, Kan.

*B. S. has been granted all graduates since 1877.

SUMMARY.

The number of graduates up to 1900 is 697, of whom 253 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of bachelor of arts. Since 1877, all have received the degree of bachelor of science, after a four-year course in the sciences, with good English training.

Of the 444 men, 16 are deceased, and the remainder are reported in the following occupations:

Farmers and stock-raisers	88
Fruit-growers, nurserymen, and gardeners	12
Professors and instructors in colleges	20
President of polytechnic institute	1
Superintendent of agricultural experiment station	1
Assistants in agricultural experiment stations and agricultural colleges	15
In United States department of agriculture	7
In United States government civil service	2
In military service	11
County superintendent of public instruction	1
Superintendents and teachers in public schools	45
Teachers in Indian schools	3
Postgraduate students in K. S. A. C	4
Students in other institutions	12
Physicians and students of medicine, druggists, and dentists	25
Lawyers and students of law	28
Ministers and secretaries of Y. M. C. A	9
Journalists	23
Architects and builders	10
Civil, electrical, mining and mechanical engineers	10
Mechanics	7
Manufacturers	3
Miners	3
Telegraph and telephone managers and operators	9
Officials and official clerks	21
Clerks	12
Commercial travelers	5
Merchants	21
Bankers and cashiers	8
General business men	3
Other professional men	9
Creamery men	6
Assistant in botanical garden	1
Unknown	14
Total	449
In two occupations	21
	428

Of the 253 women, 9 are deceased, and the remainder occupied as follows:

Housewives	92
Teachers in public schools	45
Teachers of household economy	12
Teachers of special sciences	2
Teacher of art and music	5
Teacher of physical culture	1
Teacher in deaf and dumb institution	1
Assistant matron in Indian school	1
Physicians and students of medicine	2
Students in other institutions	14
Postgraduate students in K. S. A. C	9
Assistants in K. S. A. C	6
Secretary of K. S. A. C	1
Librarians	2
Nurses	4
Bookkeepers, stenographers, and clerks	11
Milliners and dressmakers	3
Journalists	3
At home	28
Unknown	4
Total	246
In two occupations	2
	244

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