Forty-fourth Annual Catalogue

of the

Officers, Students and Graduates

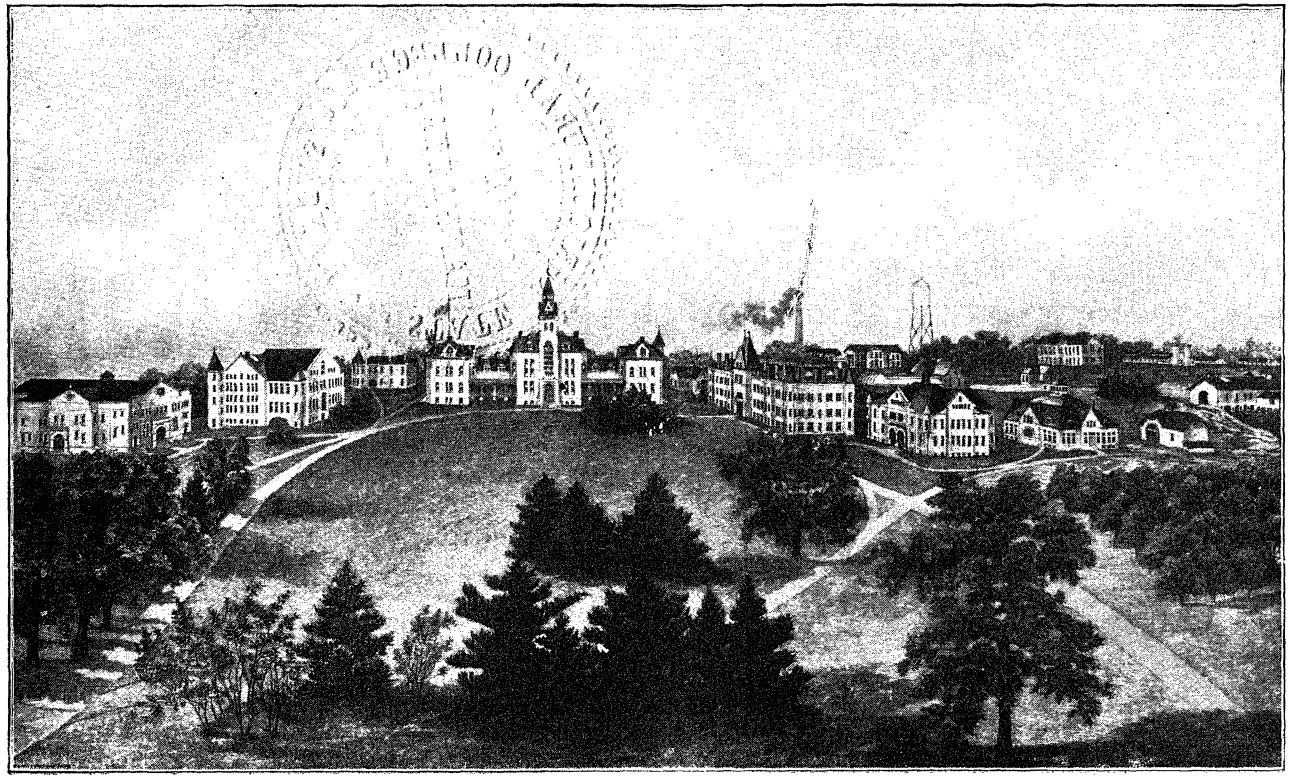
of the

Kansas State Agricultural College,

Manhattan.

1906-'07.

STATE PRINTING OFFICE,
TOPEKA, 1907.
3699



GENERAL VIEW.

Terms and Vacations.

Fall Term, 1907, Thirteen Weeks.

WEDNESDAY, SEPTEMBER 18.—Examination for admission, at nine A. M.
THURSDAY, SEPTEMBER 19.—College year begins.
TUESDAY, OCTOBER 1.—Short course in domestic science begins.
SATURDAY, NOVEMBER 2.—Mid-term examination.
THURSDAY, NOVEMBER 28.—Thanksgiving Day vacation.
THURSDAY AND FRIDAY, DECEMBER 19, 20.—Examination at close of term.

Winter Term, 1908, Twelve Weeks.

MONDAY, JANUARY 6.—Examination for admission, at nine A. M.
TUESDAY, JANUARY 7.—Winter term begins.
TUESDAY, JANUARY 7.—Short courses in agriculture and dairying begin.
SATURDAY, JANUARY 25.—Annual inter-society oratorical contest.
SATURDAY, FEBRUARY 15.—Mid-term examination.
THURSDAY, MARCH 19.—Annual concert.
THURSDAY AND FRIDAY, MARCH 26, 27.—Examination at close of term.

Spring Term, 1908, Eleven Weeks.

MONDAY, MARCH 30.—Examination for admission, at nine A. M.
TUESDAY, MARCH 31.—Spring term begins.
SATURDAY, MAY 9.—Mid-term examination.
TUESDAY, MAY 19.—Beginning of summer course in domestic science.
TUESDAY AND WEDNESDAY, JUNE 16, 17.—Examination at close of year.
JUNE 14 TO 18.—Exercises of commencement week.
THURSDAY, JUNE 18, at ten A. M.—Commencement.
JUNE 19 TO SEPTEMBER 16.—Summer vacation.

Fall Term, 1908.

WEDNESDAY, SEPTEMBER 16.—Examination for admission, at nine A. M.
THURSDAY, SEPTEMBER 17.—College year begins.

Students must be present the very first day of each term or render a reasonable excuse. Failure to take out an assignment will not be accepted as an excuse.

Board of Regents.

HON. A. M. STORY (1909),[1] *President,*
Manhattan, Riley county.

HON. J. O. TULLOSS (1911), *Vice-president,*
Sedan, Chautauqua county.

HON. J. S. McDOWELL (1909),
Smith Center, Smith county.

HON. GEO. P. GRIFFITH (1909),
Hays, Ellis county.

HON. EDWIN TAYLOR (1911),
Edwardsville, Wyandotte county.

HON. W. E. BLACKBURN (1911),
Anthony, Harper county.

PRES. E. R. NICHOLS (*ex officio*), *Secretary,*
Manhattan, Riley county.

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

1. Term expires.

Board of Instruction.

The Faculty.

ERNEST R. NICHOLS, D. B. (Iowa State Normal School), A. M. (University of Iowa),
President.

CHARLES W. BURKETT, M. Sc. (Ohio State University),
Director of Experiment Station.

JOHN D. WALTERS, M. S. (Kansas State Agricultural College),
Professor of Architecture and Drawing.

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

EDWIN A. POPENOE, A. M. (Washburn),
Professor of Entomology and Zoology.

BENJ. L. REMICK, Ph. M. (Cornell College),
Professor of Mathematics.

BENJ. F. EYER, B. S. (Armour Institute of Technology),
Professor of Physics and Electrical Engineering.

HERBERT F. ROBERTS, A. B. (University of Kansas), M. S. (Kansas State Agricultural College),
Professor of Botany.

WILLIAM A. McKEEVER, Ph. M. (University of Chicago),
Professor of Philosophy.

EDMUND B. McCORMICK, S. B. (Massachusetts Institute of Technology),
Professor of Mechanical Engineering, Superintendent of Shops.

ALBERT DICKENS, M. S. (Kansas State Agricultural College),
Professor of Horticulture, Superintendent of Grounds.

CLARK M. BRINK, A. M. (University of Rochester), Ph. D. (University of City of New York),
Professor of English.

ALBERT M. TEN EYCK, B. Agr. (Wisconsin),
Professor of Agronomy, Superintendent of Farm.

MRS. HENRIETTA W. CALVIN, B. S. (Kansas State Agricultural College),
Professor of Domestic Science.

RALPH R. PRICE, A. B. (Baker), A. M. (University of Kansas),
Professor of History and Civics.

JULIUS E. KAMMEYER, A. M. (Central Wesleyan College),
Professor of Economics.

OSCAR ERF, B. S. Agr. (Ohio State University),
Professor of Dairy Husbandry.

PEARL M. SHAFFER, Captain Twenty-fifth Infantry, U. S. A.,
Professor of Military Science.

JOHN V. CORTELYOU, A. M. (University of Nebraska), Ph. D. (Heidelberg),
Professor of German.

OLOF VALLEY, B. M. (Chicago Conservatory),
Professor of Music.

FRANCIS S. SCHOENLEBER, M. S. A. (Iowa State Agricultural College), D. V. S. (Chicago Veterinary College),
Professor of Veterinary Science.

ROLAND J. KINZER, B. S. Agr. (Iowa State College),
Professor of Animal Husbandry.

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

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

MISS MARGARET J. MINIS, B. S. (Kansas State Agricultural College),
Librarian.

MISS MARGUERITE E. BARBOUR (Sargent Normal School of Physical Training),
Director of Physical Training.

MISS ANTONETTA BECKER (Drexel),
Superintendent of Domestic Art.

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

Assistants.

JACOB LUND, M. S. (Kansas State Agricultural College),
Superintendent Heat and Power Department.

JOHN H. MILLER, A. M.
Superintendent Farmers' Institutes.

CLARENCE L. BARNES, D. V. M. (Cornell University),
Assistant Professor of Veterinary Science.

JOHN O. HAMILTON, B. S. (University of Chicago),
Assistant Professor of Physics.

ANDREY A. POTTER, S. B. (Massachusetts Institute of Technology),
Assistant Professor of Mechanical Engineering.

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

BENJAMIN R. WARD, A. M. (Harvard),
Assistant Professor of English.

MISS ADA RICE, B. S. (Kansas State Agricultural College),
Instructor in English.

MISS ELLA WEEKS, A. B. (University of Kansas),
Instructor in Drawing.

MISS DAISY ZEININGER, B. A. (Fairmount),
Instructor in Mathematics.

GEORGE F. FREEMAN, B. S. (Alabama Polytechnic Institute),
Instructor in Botany.

GEO. C. WHEELER, B. S. (Kansas State Agricultural College),
Instructor in Animal Husbandry.

LEONARD W. GOSS, D. V. M. (Ohio State University),
Instructor in Veterinary Science.

GEO. A. DEAN, M. S. (Kansas State Agricultural College),
Instructor in Entomology.

ROBERT E. EASTMAN, M. S. (Cornell University),
Instructor in Horticulture.

MISS ULA M. DOW, B. S. (Kansas State Agricultural College),
Instructor in Domestic Science.

WILLIAM L. HOUSE,
Foreman in Carpenter Shop.

MISS GERTRUDE BARNES,
Assistant Librarian.

LOUIS WABNITZ.
Foreman in Machine-shops.

MISS INA E. HOLROYD, B. S. (Kansas State Agricultural College),
Assistant in Preparatory Department.

AMBROSE E. RIDENOUR, B. S. (Kansas State Agricultural College),
Foreman in Foundry.

MISS EMMA J. SHORT,
Assistant in Preparatory Department.

MISS INA COWLES, B. S. (Kansas State Agricultural College),
Assistant in Domestic Art.

THEO. H. SCHEFFER, A. M. (Cornell University),
Assistant in Zoology.

MISS KATE TINKEY,
Assistant Librarian.

EARL N. RODELL, B. S. (Kansas State Agricultural College),
Assistant in Printing.

MISS CAROLINE HOPPS,[1] Ph. B. (University of Chicago),
Assistant in English.

MISS HELEN B. THOMPSON, B. S. (Kansas State Agricultural College),
Assistant in Preparatory Department.

OSCAR H. HALSTEAD,[2] M. S. (Kansas State Agricultural College),
Assistant in Physics.

ROY A. SEATON, B. S. (Kansas State Agricultural College),
Assistant in Mechanical Engineering.

M. FRANCIS AHEARN, B. S. (Massachusetts Agricultural College),
Foreman of Greenhouses.

MISS CECELIA AUGSPURGER (Illinois Wesleyan),
Assistant in Music.

MISS GERTRUDE STUMP, B. S. (Kansas State Agricultural College),
Assistant in Domestic Art.

1. Till January 1, 1907.
2. Till February 1, 1907.

M. SHELDON BRANDT, Ph. B. (Yale),
Assistant in Architecture and Drawing.

HEMAN A. WOOD, B. S. (Olivet),
Assistant in Chemistry.

CHARLES YOST,
Assistant in Heat and Power Department.

EARLE B. MILLIARD,
Foreman of Blacksmithing.

JAMES T. PARKER,
Assistant in Woodwork.

WILLIAM H. ANDREWS, A. B. (University of Chicago),
Assistant in Mathematics.

MISS LEILA K. McCOTTER, B. S. (University of Michigan),
Assistant in Mathematics.

MISS EDETHA M. WASHBURN, A. B. (University of Kansas),
Assistant in English.

J. D. MAGEE, A. M. (University of Chicago),
Assistant in Mathematics.

E. G. MEINZER, A. B. (Beloit),
Assistant in German.

MISS FLORENCE S. LATIMER, B. M. (Ferry Hall Seminary),
Assistant in Music.

MISS MARJORIE RUSSELL (Mechanics' Institute),
Assistant in Domestic Science.

HERBERT F. BERGMAN, B. S. (Kansas State Agricultural College),
Assistant in Botany.

CHARLES A. WILLSON, B. S. (Michigan Agricultural College),
Assistant in Animal Industry.

BURTON R. ROGERS, D. V. M. (Iowa State College),
Assistant in Veterinary Science.

HENRY D. SCUDDER, B. S. (University of Illinois),
Assistant in Agronomy.

MISS CLARA WILLIS (Framingham Normal),
Assistant in Domestic Science.

CHARLES O. SWANSON, M. Agr. (University of Minnesota),
Assistant Chemist, Experiment Station.

HERBERT H. KING, M. A. (Ewing College),
Assistant in Chemistry.

EDWARD C. CROWLEY, Ph. B. (Yale),
Assistant in Chemistry.

HUGH OLIVER,
Assistant in Heat and Power Department.

MISS CHARLAINE FURLEY, B. A. (Fairmount),
Assistant in Preparatory Department.

MISS JESSIE REYNOLDS, A. B. (University of Kansas),
Assistant in Preparatory Department.

MISS ANNE M. BOYD,[3] A. B. Lib. Sc. (James Millikin University),
Assistant Librarian.

DAVID M. WILSON,[4] D. S. (Ontario Agricultural College and Kingston Dairy College),
Assistant in Dairy Husbandry.

LELAND E. CALL,[4] B. S. (Ohio State University),
Assistant in Agronomy.

MISS MARY F. NESBIT,[4] A. B. (Illinois University),
Assistant in Mathematics.

MISS ANNETTE LEONARD,[4] A. B. (University of Kansas),
Assistant in English.

WILLIAM C. LANE,[5] B. S. (Kansas State Agricultural College),
Assistant in Physics.

---

3. Since November 22, 1906.
4. Since January 1, 1907.
5. Since January 22, 1907.

Other Officers.

MISS ALICE M. MELTON, B. S. (Kansas State Agricultural College),
Clerk in Chemical Department.

MISS MARGARET BUTTERFIELD,
Bookkeeper.

MISS MARY DAVIS, B. S. (Kansas State Agricultural College),
Record Clerk.

MISS VERA McDONALD, B. S. (Kansas State Agricultural College),
Post-office Clerk.

MISS WINIFRED DALTON, B. S. (Kansas State Agricultural College),
Clerk in Botanical Department.

WALTER H. CLOSSON,
Secretary to President.

WILLIAM R. LEWIS,
Janitor.

Student Assistants.

ERNEST E. BEIGHLE, Surveying.
HAZEL E. BIXBY, Trombone.
HARLEY J. BOWER, Agronomy.
RAYMOND W. BRINK, Zoology.
JOHN W. CALVIN, B. S., Chemistry.
ETHEL CLEMONS, B. S., Library.
BERNARD C. COPELAND, Animal Husbandry.
ALEXANDER B. CRON, Agronomy.
OLIVE DUNLAP, B. S., English.
GERTRUDE EAKIN, Singing.
LENA FINLEY, Preparatory.
CLARENCE T. GIBBON, Surveying.
FRANK W. GRABENDIKE, Clarinet.
RALPH R. HAND, Violin.
DAISY I. HARNER, B. S., Physical Geography.
FRANK C. HARRIS, Surveying.
THOMAS HASLAM, Mathematics and Chemistry.
BELLE HENNON, Library.
GERTRUDE E. HOLE, B. S., Chemistry.
DEXTER HOLLOWAY, Horticulture.
RALPH W. HULL, Agronomy.
HELEN INSKEEP, B. S., Arithmetic.
HARRY A. IRELAND, Physics.
GROVER KAHL, Surveying.
CLARENCE E. LAMBERT, Agronomy.
CARL C. LONG, Surveying.
LAURA LYMAN, B. S., Notation.
ATSUSHI MIYAWAKI, Dairying.
LEONA E. MOORE, Drawing.
CHARLOTTA A. MORTON, Drawing.
BESSIE NICOLET, Piano.
AMER B. NYSTROM, Dairying.
JOSEPH W. PAINTER, Horticulture.
LEONARD M. PEAIRS, B. S., Entomology.
JESSE L. PELHAM, Horticulture.
ALLEN G. PHILIPS, Poultry.
HARRY E. PORTER, Surveying.
JESSIE RIDENOUR, B. S., Domestic Art.
EDWIN G. SCHAFER, Agronomy.
MILTON D. SNODGRASS, B. S., Agronomy.
MABELLE SPERRY, B. S., Preparatory.
ORIN A. STEVENS, Botany.
ALBERT D. STODDARD, B. S., Physics.
HELEN SWEET, History.
DORIS TRAIN, B. S., Mathematics and Drawing.
ELSIE WATERS, B. S., Preparatory.
ALBERT A. WERNER, Horticulture.
FRED L. WILLIAMS, Agronomy.
ROBERT E. WILLIAMS, Agronomy.
CHARLES H. WITHINGTON, B. S., Physical Geography.

Agricultural Experiment Station.

Experimenting Staff.

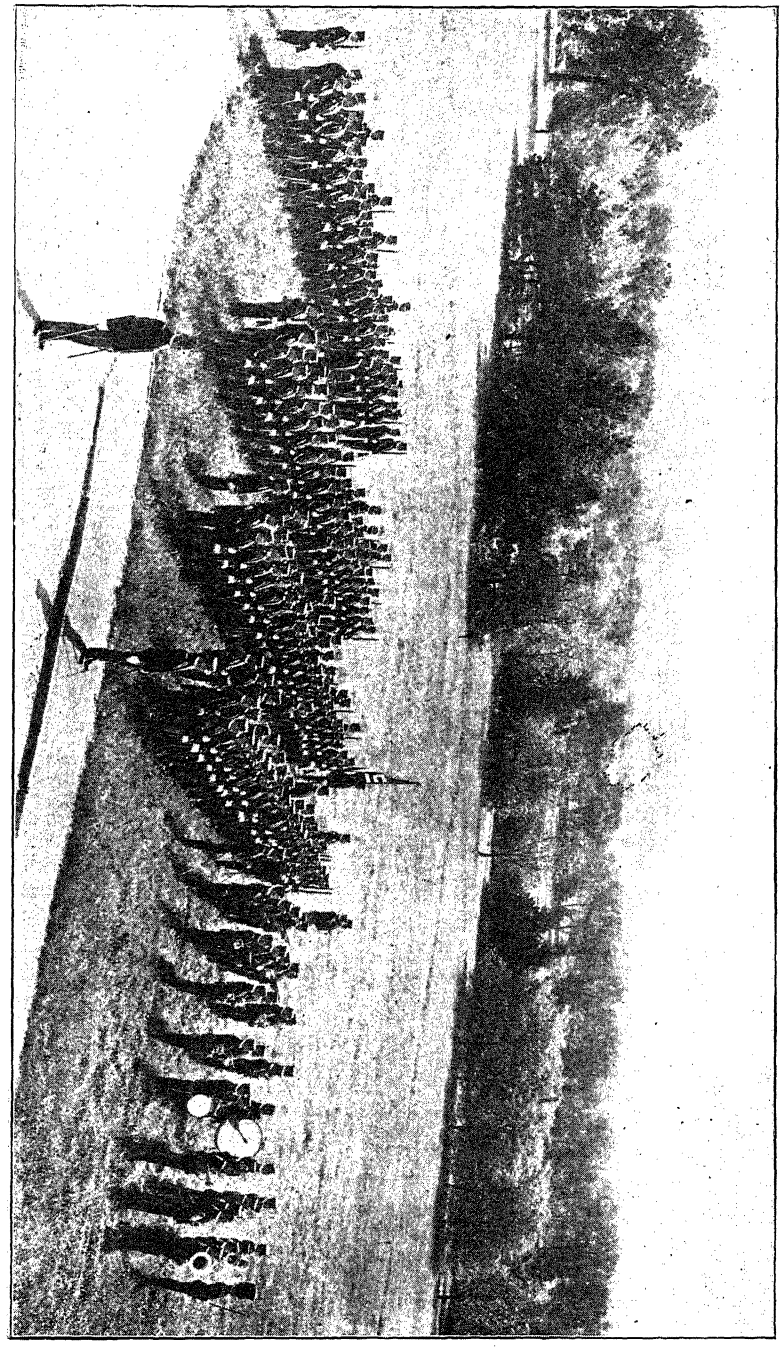
CHARLES W. BURKETT, Director.
JULIUS T. WILLARD, Chemist.
EDWIN A. POPENOE, Entomologist.
HERBERT F. ROBERTS, Botanist.
ALBERT DICKENS, Horticulturist.
ALBERT M. TEN EYCK, Agronomist.
OSCAR ERF, Dairy Husbandman.
FRANCIS S. SCHOENLEBER, Veterinarian.
ROLAND J. KINZER, Animal Husbandman.

Assistants.

GEORGE A. DEAN, Assistant Entomologist.
CLARENCE L. BARNES, Assistant Veterinarian.
ROBERT E. EASTMAN, Assistant Horticulturist.
GEORGE F. FREEMAN, Assistant Botanist.
GEORGE C. WHEELER, Assistant Animal Husbandman.
DAVID M. WILSON, Assistant Dairy Husbandman.
CHARLES O. SWANSON, Assistant Chemist.
LELAND E. CALL, Assistant Agronomist.
ETHEL W. EDWARDS, Executive Clerk.

Fort Hays Branch Station.

OTTO H. ELLING, Foreman.
ANDREW D. COLLIVER, Assistant in Agriculture.
LORENZ GREENE, Assistant in Horticulture.
GEORGE K. HELDER, Secretary.



MILITARY CADETS AND BAND. See pages 14 and 15.

The College Battalion.

The following is a roster of the commissioned and non-commissioned officers of the Kansas State Agricultural College Corps of Cadets for 1906–'07:

CAPT. PEARL M. SHAFFER, Twenty-fifth United States Infantry, Commandant of Cadets.

STAFF.

ALLEN G. PHILIPS..... Cadet Captain and Adjutant.
GEORGE S. WARREN..... Cadet First Lieutenant and Quartermaster.
EARL L. EDWARDS..... Cadet Second Lieutenant and Signal Officer.
JOHN F. O'CONNOR..... Cadet Sergeant-major.
LLOYD L. KING..... Cadet Quartermaster-sergeant.
JOE G. LILL..... Cadet Color-sergeant.
CLIFFORD H. CARR..... Cadet Sergeant and Chief Trumpeter.

RANK.	Company A.	Company B.	Company C.	Company D.
Captain	James A. Lupfer	John M. Ryan	Raymond M. Brink	Clarence Lambert.
First Lieutenant	Elmer Bull	Wayne B. Cave	David A. Kratzer	Sol W. Cunningham.
Second Lieutenant	Bruce Wilson	Charles E. Cassel	Guy C. Rexroad	John A. Porter.
First Sergeant	Harold E. Cate	William F. Droge	Rudolph B. Nelson	Roy R. Myers.
Sergeants	Casey C. Bonebrake	Frank E. Halm	Harry W. Hanson	John Schlaefli.
	George Wright	Anton Hanson	Luther O. Solt	Geo. H. Brown.
	Franklin A. Adams	Henry D. Graves	Glen A. Dawes	Malcolm C. Sewell.
	Hubert L. Popenoe	Russel E. Lawrence	Francis X. Downey	Thomas W. Hall.
Corporals	Richard W. Getty	Floyd E. Wilson	Albert Carlson	Loyd H. Sheperd.
	Oscar C. Canary	Louis B. Mickel	Arthur R. Hawkes	Clayton I. Ross.
	Charles G. Lipperd	Leslie B. Wise	Richard C. Schuppert	E. H. Moore.
	Roy E. Spriggs	Paul Calvin	Leslie L. Shaw	John Lewis.
	Harmon J. Twichell	Clifford J. Stratton	Clyde W Speer	Oliver Hunter.
Musicians	Loyd D. Willis	R. E. Crabbs	Frank H. Davis	Wm. I. Rutledge.
	William C. Polley	George H. Ross	Robert R. Mohr	Harry L. Cole.

The College Band.

The following is the roll of the College Band for the year 1906-'07:

R. H. BROWN, DIRECTOR.
F. FARRAR, Drum-major.
J. C. MCCANLASS, Principal Musician.

Sergeants: L. A. STURGIS, A. W. SENG, G. S. CHRISTY, R. R. HAND, CHAS. MCKIRAHAN, J. R. CARNAHAN.

Corporals: J. C. MCCLUNG, A. D. JACKMAN, P. V. KELLY, M. J. OTEYZA, M. O. NYBERG, A. O. SHELTON, K. MARCH, C. SNIDER.

Piccolos:
L. W. Lawson.
M. J. Oteyza.
H. Landis.

Oboe:
A. O. Shelton.

Clarinets:
F. W. Grabendike.
H. B. Hubbard.
Chas. McKirahan.
G. R. Eaton.
H. P. Bates.
J. R. Carnahan.
J. Tinkham.
H. E. Hershey.
J. L. Whipple.
P. E. McNall.
J. J. Price.
T. A. Trull.

Cornets:
L. A. Sturgis.
A. J. Cowles.
J. C. McCanlass.
W. King.
D. Jackman.
P. V. Kelly.
J. H. Payne.
K. Phillips.
G. F. Neill.
F. C. Lewis.
H. Reppert.
Joe Vail.
D. A. Perry.
I. Ingraham.

Drums:
C. L. Kipp.
A. E. Fairman.
D. D. Gray.
K. March.
W. Ross.
L. L. Shaw.

Saxophones:
M. O. Nyberg.
G. Bartholomees.

Bassoon:
L. Davis.

Horns:
A. H. Rose.
R. R. Hand.
G. E. May.
L. G. Hoffman.
R. E. Blair.
C. Snider.
T. L. Citizen.

Trombones:
G. S. Christy.
J. C. McClung.
L. Runyan.
E. E. Smith.
R. Moorman.
F. Kirgis.
P. J. Boeshe.
D. Crowther.
R. I. Ferrell.
G. G. Murphy.

Baritones:
A. G. Kittell.
V. E. Dyatt.

Euphonium:
H. E. Bixby.

Basses:
A. W. Seng.
H. E. Porter.
D. Walters.
R. R. Cave.
H. A. Pennington.
C. Kraus.

Librarian:
R. R. Hand.

EXPERIMENTAL PLOTS.

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 82,315.52 acres. 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 amount of this endowment is $492,381. "The interest of which shall be inviolably appropriated by each state which may take and claim the benefit of this act to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The income derived from this endowment since 1880 is given in the column headed "Interest Fund," page 19.

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 agriculture and sciences related thereto; 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 "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," page 26.

On August 30, 1890, another act was passed by Congress, known as the "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 instructions."

The Adams act, of 1906, gives the experiment stations $5000 for that year, this amount to be increased $2000 per year till it becomes $15,000.

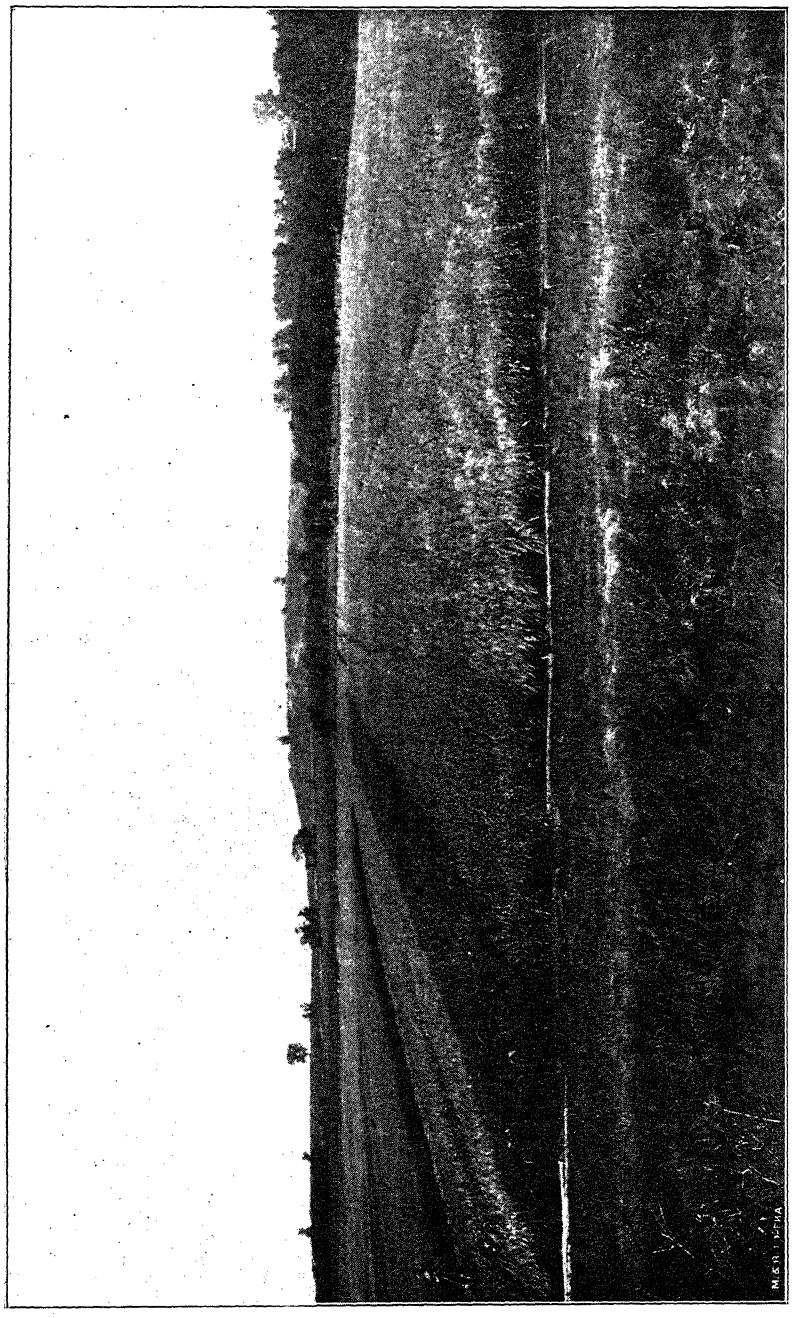
An act of 1907 adds $5000 to the support of the agricultural colleges for the fiscal year ending June 30, 1908, this to be increased $5000 each year till the total is $25,000.

LOVERS' LANE.

TABULATED FINANCIAL EXHIBIT.

Fiscal Year.	State Appropriations.								Inventory increase.	Expense.	National Appropriations.			Enrolment.	Graduates.
	Miscellaneous.	Current expense.	Water and coal.	Repairs.	Library.	Equipment.	Buildings.	Totals.			Interest fund.	Morrill fund.	Experiment Station.		
1863–'80							$45,645	$155,302	$86,009						56
1880–'85	$22,592[1]			$1,800	$3,000	$2,950	52,550	60,250	96,948	$154,566	$138,790			1,723	60
1885–'86				700		600	10,000	11,300	34,721	45,827	38,595			428	21
1886–'87				1,400			4,100	5,500	12,910	38,788	32,253			481	21
1887–'88	2,264[1]			1,000	1,000	4,700	8,817	15,517	16,597	35,768	32,331		$15,000	472	22
1888–'89	3,000[2]			1,000	1,000	2,500		7,500	10,334	32,027	31,686		15,000	445	25
1889–'90			$1,425	1,900	1,000	2,900	1,000	8,225	8,732	29,892	34,131		15,000	514	27
1890–'91			1,649	1,200	1,000	2,950		6,799	6,857	43,330	28,765	$31,000	15,000	593	52
1891–'92	3,000[2]		325	3,050	250		4,000	10,625	15,219	50,722	29,654	17,000	15,000	584	35
1892–'93			500	1,500	250			2,250	18,381	57,012	30,187	18,000	15,000	587	39
1893–'94			484	1,000			74,000	75,484	7,846	54,989	29,761	19,000	15,000	555	39
1894–'95			190				2,000	2,190	79,736	51,156	29,390	20,000	15,000	572	57
1895–'96	1,625[3]		1,995	4,300	999	5,057	3,480	17,456	13,933	51,928	26,988	21,000	15,000	647	66
1896–'97		$10,000	2,084	1,300	1,000	550	1,300	16,234	157	51,500	28,669	22,000	15,000	734	55
1897–'98	629[4]	5,000	2,000	1,700	1,000	3,200	16,599	30,128	16,171	56,516	27,677	23,000	15,000	803	69
1898–'99		5,000	2,000	1,000		1,050		9,050	2,993	63,704	29,549	24,000	15,000	870	53
1899–1900	7,360[5]	10,000	2,250	3,000	1,500	22,240	43,500	89,850	45,582	56,956	25,160	25,000	15,000	1,094	58
1900–'01	18,993[6]	10,000	2,250	3,000	1,500			35,743	3,380	65,822	30,910	25,000	15,000	1,321	60
1901–'02	4,130[7]	25,000	2,800	3,000	1,500	9,100	75,000	120,530	79,917	73,467	25,371	25,000	15,000	1,396	52
1902–'03	4,130[7]	30,000	2,800	3,000	1,500	8,500	10,000	59,930	47,234	91,891	22,970	25,000	15,000	1,574	54
1903–'04	15,830[8]	40,000	5,000	5,000	1,500	18,500	65,000	150,830	82,490	86,631	25,688	25,000	15,000	1,605	102
1904–'05	5,330[9]	50,000	3,500	5,000	1,500	18,500	5,000	88,830	30,626	132,605	25,648	25,000	15,000	1,462	107
1905–'06		90,000					42,000	132,000	64,906	145,318	31,276	25,000	15,000	1,690	96
1906–'07		100,000					28,000	128,000				25,000	20,000	1,937	....
1907–'08	5,500	140,000				14,500	140,000	300,000				30,000	22,000		....
1908–'09	6,000	155,000				8,000	80,000	249,000				35,000	24,000		....
Totals								$1,888,523							

[1] To restore endowment (not included in totals). [2] Water-mains and sewer.
[3] $1500 cadet uniforms, $125 sewers. [4] Rent president's house.
[5] $2000 farmers' institutes, $1800 salary state veterinarian, $3000 sewer, $500 rent president's house.
[6] $2000 farmers' institutes, $1800 salary state veterinarian, $300 rent president's house, $14,893 deficiency June 30, 1899.
[7] $2000 farmers' institutes, $1800 salary state veterinarian, $330 rent president's house.
[8] $2000 farmers' institutes, $2000 salary state veterinarian, $330 rent president's house, $10,500 purchase of land, $1000 contingent fund.
[9] $2000 farmers' institutes, $2000 salary state veterinarian, $330 rent president's house, $1000 contingent fund.



A TRIAL OF VARIETIES OF SMALL GRAINS.

Some eighty varieties of wheat, oats and barley were tested in comparative plots in 1906.

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 architecture, and admirably suited to their use. All recitation-rooms are excellently lighted and ventilated, and are heated by steam or hot water. A complete system of sewerage has been provided. The College owns 430 acres of land, valued at $50,000, and leases 150 acres additional. The greater portion of these 580 acres is devoted to experiments.

ANDERSON (MAIN) HALL is 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-room, studies, chapel, post-office, and offices and classrooms of the departments of architecture and drawing, mathematics, oratory, English, philosophy, preparatory, and printing. Cost, $79,000. The value of the equipment and apparatus in this building is as follows: Executive, $6790; architecture and drawing, $2376; mathematics, $1536; economics, $57; English, $133; preparatory, $53; printing, $5127.

MECHANICS HALL contains the following rooms, forming a connected structure: Wood shop, two stories, 40x103 feet. The upper floor contains office and drafting-room for the department of mechanical engineering. The lower floor contains benches for 220 students, and complete set of wood-working machinery and tools. Machine-shop, 40x80 feet; blacksmith shop, 40x50 feet; iron foundry, 40x50 feet; brass foundry, 16x30 feet; pipe-fitting room, 19x50 feet; engineering laboratory, 35x40 feet; power -room, 35x40 feet; boiler-room, 40x75 feet. Cost of buildings, $33,125; value of equipment, $33,195.

GYMNASIUM, one story, 35x110 and 46x75 feet of floor space,

is in form of a cross. It contains a drill-room 46x75 feet, a large classroom, cloak-room, dressing-room, toilet-room, ten bath-rooms, and two offices. Cost, $10,000. Value of equipment, $620.

ARMORY, 46x95 feet, is a two-story building. This building, which has served many purposes, is now fitted below for an armory and drill-room, and offices 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, $146; veterinary, $5097.

FAIRCHILD (LIBRARY) HALL is 100x140 feet, three and four stories high. This building provides permanent quarters for the library, with ample reading-rooms and offices, classroms and laboratories for the departments of entomology and zoology, and bacteriology, a classroom and office for the department of history and civics, general museum, and rooms for the various literary societies. Cost of building, $67,750. Value of equipment and apparatus: History and civics, $156; entomology and zoology, $9787.

KEDZIE (DOMESTIC SCIENCE) HALL is 84x70 feet, 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. Cost of building, $15,000. Value of apparatus: Domestic science, $2294; domestic art, $620.

AGRICULTURAL HALL, 90x95 feet, with its two stories and basement, contains offices, classrooms and laboratories for the departments of agriculture and animal husbandry. Cost of building, $25,000. Value of equipment: Agriculture, $8441; animal husbandry, $24,611.

PHYSICAL SCIENCE HALL is 96x166 feet, and its two stories and basement contain offices, classrooms and laboratories for the departments of chemistry, and physics and electrical engineering. It is heated by both direct and indirect radiation, thus insuring perfect ventilation. Cost of building, $70,000. Value of equipment: Chemistry, $11,520; physics and electrical engineering, $13,612.

AUDITORIUM is 113x125 feet, and has a seating capacity of 3000. It contains offices and music-rooms for the music department. Cost of building, $40,000. Value of equipment, $2303.

DAIRY HALL is 72x103 feet, one story and basement. It contains office, classroom, butter-manufacturing room, cheese- and cheese-curing rooms, hand-separator room, laboratory, and refrigerator. Cost of building, $15,000. Value of equipment, $15,745.

HORTICULTURAL HALL is 72x116 feet, having basement, two stories, and attic. The basement and first floor contain classrooms, laboratories and offices for the horticultural department; the second floor contains similar rooms to be used by the botanical department. The attic will provide rooms for horticultural and botanical museums. Cost, $50,000. Value of equipment and apparatus: Horticulture, $20,325; botany, $14,193.

HORTICULTURAL LABORATORY contains offices, workroom, five propagating houses, and insectary. Cost, $5000.

THE GRANARY is 40x50 feet, having basement, two stories, and attic. It contains a thrashing-floor, drying-room, office, and bins for the many varieties of corn, wheat, oats, barley, etc. Cost of building, $5000.

THE FARM BARN is a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x50 feet. The south wing, 48x96 feet, is the stock-judging room, having a seating capacity of 350. A basement underlies the entire structure. Cost, $10,831.

THE DAIRY BARN, 40x175 feet, is fitted up with modern swinging stalls for eighty head of cows, arranged in two rows, with driveway between. Cost of building and equipment, $4000.

THE HORTICULTURAL BARN is a stone building, containing storeroom, granary, and stables for several horses. Cost, $1000.

THE COLLEGE LIBRARY is one of the most important supplements to classroom instruction. It consists of 33,944 bound volumes and about 18,000 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 are given in perhaps no other library of its size in the country. Students may draw books for home use under simple and lib-

eral 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 used 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 the depository of United States public documents for the fifth congressional district of Kansas, and 3580 volumes have already been received on this account. Value of books and equipment, $70,306.

This loving cup, valued at $100, has been offered by George T. Fielding & Sons, of Manhattan, to the class scoring the highest in corn judging in the annual contest.

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, zoology 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 nearly every county of the state, in which from one to three 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 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, and natural sciences, and education in general. Correspondence as to farmers' institutes or any question of practical interest in agriculture or related sciences is desired.

The *Industrialist,* published by the College, edited by the

Faculty, and furnished to each student, 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 known as the "Hatch act." It 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 experimenting staff consists of the director and the professors of agriculture, botany, chemistry, dairy husbandry, animal husbandry, horticulture, entomology, and veterinary science. 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 advantage—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, 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, which sum has been increased by the Adams act, of 1906. That year $5000 was paid. This amount is increased $2000 per year till the total becomes $15,000. The aims of the Station 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 of reports of progress shall be published at least once in three months, one copy of which shall be sent to each newspaper in the state 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, and press bulletins.

Since 1889 the annual reports contain no details of experiments, but simply outlines of the work of the year in general 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.

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 and semipublic 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.

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.

FORT HAYS BRANCH STATION.—Congress, in an act approved March 27, 1900, ceded the Fort Hays military reservation, containing 7597.93 acres, to the state of Kansas, on the condition that the state would establish and maintain there branches of the State Normal School and of the Experiment Station. The state legislature accepted the reservation in an act approved February 7, 1901, and designated a division of the land between the Normal School and the Agricultural College, by which the latter obtained about 3500 acres, including the parts most desirable for agricultural purposes. Situated west of the ninety-ninth meridian, the station will occupy a field entirely different climatically from that of any other station in the country, and the results obtained there ought to benefit a large region extending even beyond the boundaries of the state. Experiments are being tried on a large scale in making tests of varieties and methods of culture, with special reference to the needs of regions with deficient rainfall. Experiments are also made to determine the feeding value of the drought-resisting crops produced. This Branch Station is supported by state appropriations. The funds appropriated by Congress cannot be used for the support of substations.

INDUSTRIAL TRAINING.

This institution is preeminently 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. 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 general science course offers more latitude in choice of industrials after the first 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 is 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 latter term 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.

SPECIAL COURSES.

Persons of suitable age and 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. In general, however, no one will be allowed a special course until he has completed the work of the freshman year.

GRADUATE 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 on all students who complete any one of the four-year courses: Agriculture, domestic science, general science, mechanical engineering, electrical engineering, or architecture; and the degree of doctor of veterinary medicine on all who complete the course in veterinary science.

The degree of master of science will be conferred in course upon graduates of the College who have received eighteen credits in an approved graduate course, each credit being equivalent to a full study pursued for three months.

Courses will be approved which are in line with any one of the regular undergraduate courses, and include at least six credits in the biological or the physical sciences, or mathematics, and at least six credits in technical or industrial branches.

The principal line of study shall be designated as the major, and another line as the minor study. As nearly as may be, one-third of the time is to be given to the minor and two-thirds to the major study, including in the latter such scientific, mathematical or technical branches as contribute directly to it. The minor study must fill a logical place in the scheme, so that the work as a whole may possess unity. Three minor credits may be a modern language.

Applications for graduate study shall be passed upon by the committee on graduate courses and referred by them to the Faculty for action. If approved by the Faculty, the candidate shall obtain an assignment at the beginning of each term for the studies intended to be pursued during the ensuing term. At the close of each term examinations shall be given in all branches, and the candidate shall be reported as "passed" or "not passed."

Applications for entrance upon graduate study and for

changes in major or minor subjects must be presented to the committee on graduate courses within the first week of a College term.

Non-resident candidates will be required to send to the professors in charge of the departments of their major and minor subjects a full and complete report at the middle and end of each term of the work accomplished within that period. Failure to comply with this requirement will cause the candidate to be dropped from the roll of graduate students, to be reinstated only upon approval of the Faculty. At the end of each term the date, place and manner of the examination of non-residents shall be determined by the instructors concerned.

Upon the completion of the required work, and by the 15th day of May of the year in which the degree is desired, each candidate shall present to the committee on graduate courses, typewritten and in duplicate, a satisfactory thesis involving original work along the lines of his major subject. Thereupon a special examining committee of three shall be appointed from the Faculty, of whom one member shall represent the major subject and another the minor, who shall examine the candidate orally on the subject-matter of his thesis, and report the result of such examination to the Faculty. Upon receipt of the report of this committee, the Faculty will take action concerning the recommendation of the candidate for the degree.

The subject of the thesis must be presented to the committee on graduate courses for approval by the 1st day of January preceding the commencement at which the degree is desired.

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 graduate 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.

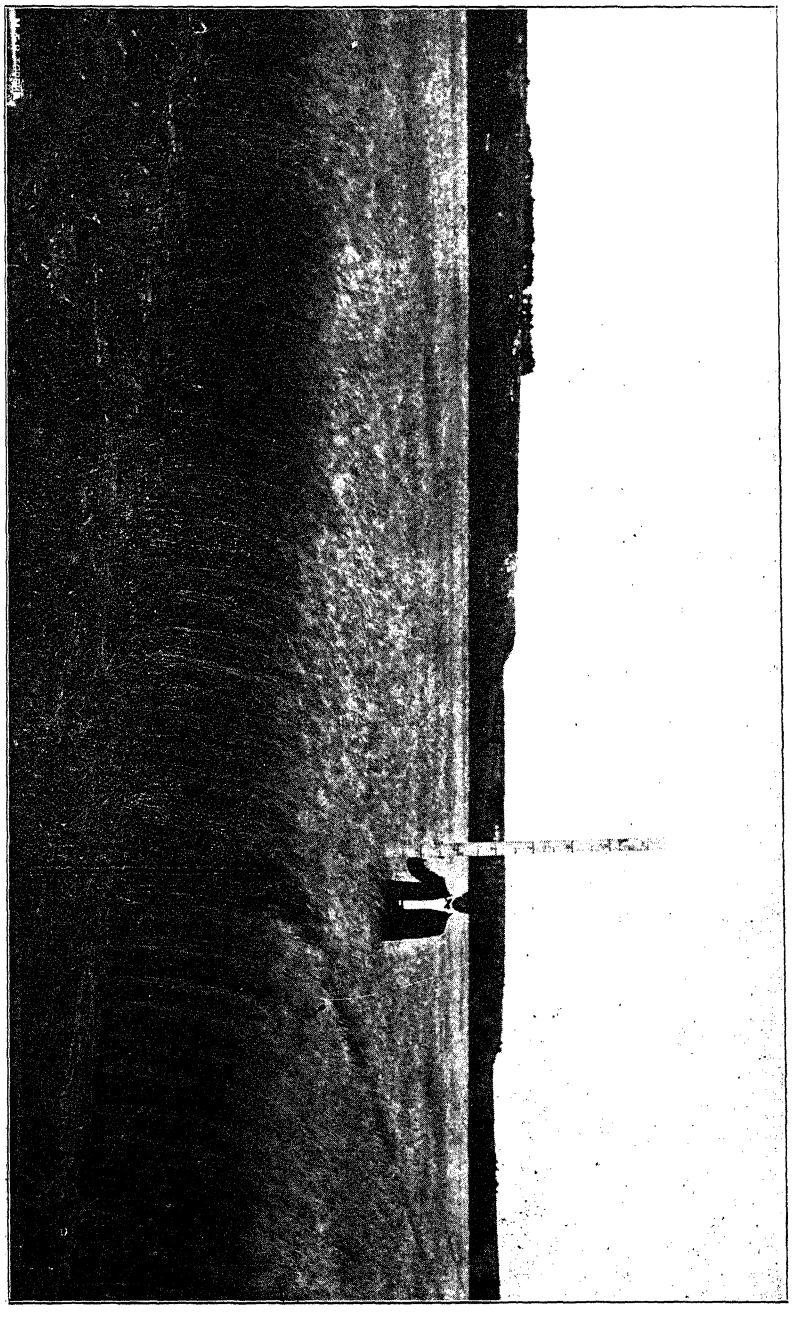
With a view of providing for the wants of the various classes of students, the following courses of study are offered:

1. Four-year courses in (*a*) general science, (*b*) agriculture, (*c*) domestic science, (*d*) mechanical engineering, (*e*) electrical engineering, (*f*) architecture, (*g*) veterinary science. The degree of bachelor of science is given upon completion of each of these courses except veterinary science, for which the degree is doctor of veterinary medicine.

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

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 pages following.

All the preparatory and first-year subjects are taught each term, so that students may enter at any term. Students can complete nearly all the work of the first two years by attendance during winter terms only.



A FIELD OF HARD RED WINTER WHEAT.
Grown on the College farm in 1906; average yield, 58.3 bushels per acre.

ALL COURSES.

FALL TERM	Geometry I	5
	English Classics	5
	Botany II	5
	Field-work	2
	Free-hand Drawing	2
	Hygiene	1
	Woodwork I	4
	or *Sewing I*	4
	Drill	4
	or *Physical Training*	4
WINTER TERM.	Geometry II	5
	Advanced Composition	5
	Cooking	5
	or Agriculture	5
	Elementary Psychology	1
	Woodwork II	3
	or *Sewing II*	3
	Object and Geometrical Drawing	4
	Drill	4
	or *Physical Training*	4
SPRING TERM.	Algebra IV	5
	Rhetoric I	5
	Physics	5
	Laboratory	2
	Blacksmithing I	4
	or *Sewing III*	4
	Elementary Projection	2
	Drill	4
	or *Physical Training*	4

Music is optional throughout the course.

FOUR-YEAR COURSES.

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.

The electives are chosen under the direction of the Faculty. In each case, the electives are expected to be in the same line as nearly as possible. The following list is announced for the different courses:

AGRICULTURE.

German	German	German.
Dairying	Dairying	Dairying.
Origin of Breeds and Stock Judging	Live-stock Management and Animal Products	Pedigrees and Advanced Feeding.
Pomology	Forestry	Ornamental Gardening.
Plant Disease	Plant Morphology	Plant-breeding.
Bacteriology	Bacteriology	Bacteriology.
Chemistry	Chemistry	Chemistry.
Veterinary Science	Veterinary Science	Veterinary Science.
Soil Physics	Farm Mechanics II	Crop Production II.

DOMESTIC SCIENCE.

Trigonometry	Physics I	Physics II.
Logic	Ethics	American Literature.
Geology	Plant Morphology	Vegetable-gardening.
History of Education and School Law	Philosophy of Education	Methods and Management.
Bacteriology	Bacteriology	Bacteriology.
Chemistry	Chemistry	Chemistry.

GENERAL SCIENCE.

Analytical Geometry	Differential Calculus	Integral Calculus.
Domestic Science I	Domestic Science II	Domestic Science III.
Animal Nutrition	Breeds of Stock	Animal Breeding.
Dairying	Crop Production	Farm Mechanics and Management.
Entomology	Entomology	Entomology.
Chemistry	Chemistry	Chemistry.
History of Education and School Law	Philosophy of Education	Methods and Management.
Bacteriology	Bacteriology	Bacteriology.

For outline of instruction, see page 53 *et seq.*

COURSES OF STUDY—Second Year.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECHANICAL ENGINEERING.	ELECTRICAL ENGINEERING.	ARCHITECTURE.	VETERINARY.
FALL TERM.	Chemistry I....... 5	Chemistry I....... 5	Chemistry I....... 5	Chemistry I..... 5	Chemistry I..... 5	Chemistry I..... 5	Anatomy I...... 2½
	Laboratory...... 2	*Laboratory*...... 2	*Laboratory*..... 2	*Laboratory*.... 2	*Laboratory*.... 2	*Laboratory*.... 2	Materia Med. I.. 2½
	Dairying.......... 2½	Entomology....... 5	Trigonometry..... 5	Trigonometry... 5	Trigonometry... 5	Trigonometry... 5	Dairying........ 2½
	Laboratory..... 6	*Laboratory*...... 2	*Surveying*...... 2	*Surveying*.... 2	*Surveying*.... 2	*Surveying*.... 2	*Laboratory*.... 3
	Trigonometry..... 5	German I......... 5	German I......... 5	German I....... 5	German I........ 5	German I........ 5	Chemistry I..... 5
	Surveying...... 2	Pub. Speak. I..... 2½	*Industrial*........ 4	Shop Lectures I, 1	Shop Lectures I, 1	Shop Lectures I, 1	*Laboratory*.... 2
	Pub. Speak. I..... 2½	*Phys. Training*... 4	*Drill*............. 4	*Proj. Drawing*.. 2	*Proj. Drawing*.. 2	*Proj. Drawing*.. 2	Pub. Speak. I... 2½
	Drill............. 4	or *Music*........ 4	*Phys. Training*... 4	*Bl'ksmithing II*, 2	*Bl'ksmithing II*, 2	*Bl'ksmithing II*, 2	*Histology Lab*... 6
			or *Music*........ 4	*Drill*........... 4	*Drill*........... 4	*Drill*........... 4	*Drill*........... 4
WINTER TERM.	Chemistry II...... 5	Chemistry II...... 5	Chemistry II...... 5	Chemistry IV... 2½	Chemistry IV... 2½	Chemistry IV... 2½	Physiology...... 5
	Laboratory...... 2	*Laboratory*...... 2	*Laboratory*...... 2	*Laboratory*.... 4	*Laboratory*... 2	*Laboratory*.... 4	Materia Med. II, 2½
	Breeds of Stock... 2½	Horticulture...... 5	Entomology....... 5	Kinematics..... 5	Kinematics..... 5	Kinematics..... 5	Chemistry II.... 5
	Stk. Judging.... 4	*Floriculture*.... 2	*Laboratory*...... 2	German II...... 5	German II...... 5	German II...... 5	*Laboratory*.... 2
	Physiology........ 5	German II........ 5	German II........ 5	*Desc. Geom.*..... 4	*Desc. Geom.*..... 4	*Desc. Geom.*..... 4	Breeds of Stock, 2½
	Laboratory...... 2	*Dressmaking*	Pub. Speak. I..... 2½	Pub. Speak. I... 2½	Pub. Speak. I... 2½	Pub. Speak. I... 2½	Pub. Speak. II.. 2½
	Pub. Speak. II.... 2½	*and Fabrics*.... 6	*Proj. Drawing*.... 2	*Foundry*........ 2	*Foundry*........ 2	*Foundry*........ 2	Anatomy II..... 2½
	Drill............. 4	*Phys. Training*... 4	*Drill*............. 4	*Drill*........... 4	*Drill*........... 4	*Drill*........... 4	*Laboratory II*, 6
		or *Music*........ 4	*Phys. Training*... 4				*Drill*........... 4
			or *Music*........ 4				
SPRING TERM.	Chemistry III..... 2½	Chemistry III..... 2½	Chemistry III..... 2½	Chemistry V.... 2½	Chemistry V.... 2½	Chemistry V.... 2½	Comp. Phys..... 5
	Laboratory...... 7½	*Laboratory*...... 7½	*Laboratory*...... 7½	*Laboratory*.... 4	*Laboratory*.... 4	*Laboratory*.... 4	Anatomy III.... 2½
	Horticulture...... 5	Physiology........ 5	Physiology........ 5	German III..... 5	German III..... 5	German III..... 5	*Laborat'y III*.. 6
	Laboratory...... 4	*Laboratory*...... 2	*Laboratory*...... 2	Analytical Geom. 5	Analytical Geom. 5	Analytical Geom. 5	Materia Med. III, 2½
	Entomology...... 5	Pub. Speak. II.... 2½	Pub. Speak. II.... 2½	Pub. Speak. II.. 2½	Pub. Speak. II.. 2½	Pub. Speak. II.. 2½	Bacteriology.... 2½
	Laboratory...... 2	German III....... 5	German III........ 5	Shop Lectures II, 1	Shop Lectures II, 1	Shop Lectures II, 1	*Laboratory*.... 4
	Drill............. 4	*Phys. Training*... 4	*Drill*............. 4	*Mech. Drawing I* 2	*Mech. Drawing I* 2	*Mech. Drawing I* 2	Chemistry III... 2½
		or *Music*........ 4	*Phys. Training*... 4	*Pattern-making*, 2	*Pattern-making*, 2	*Pattern-making*, 2	*Laborat'y III*.. 4
			or *Music*........ 4	*Drill*........... 4	*Drill*........... 4	*Drill*........... 4	*Drill*........... 4

Music is optional throughout the course.

For outline of instruction, see page 53 *et seq.*

COURSES OF STUDY—Third Year.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECHANICAL ENGINEERING.	ELECTRICAL ENGINEERING.	ARCHITECTURE.	VETERINARY.
FALL TERM.	European History, 5 Veterinary Sci.... 5 Animal Nut'tion.. 5 Bacteriology..... 2½ *Laboratory*..... 4 *Horticulture Laboratory*..... 2	Rhetoric II..... 5 Human Nutrition, 5 Domestic Sci. I... 2 *Laboratory*..... 4 German IV..... 2½ *Color and Design*, 4 Home Decoration, 2½ *Music elective.*	European History, 5 Horticulture..... 5 Rhetoric II..... 5 German IV..... 2½ *Linear Perspect.*. 4 *Industrial*..... 2	Diff. Calculus..... 5 Physics I..... 5 *Laboratory*..... 4 Mechanics..... 2½ Shop Lectures III, 1 *Machine-shop I*... 4 *Mech. Draw. II*... 4	Diff. Calculus..... 5 Physics I..... 5 *Laboratory*..... 4 Mechanics..... 2½ Shop Lectures III, 1 *Machine-shop I*... 4 *Mech. Draw. II*... 4	Diff. Calculus... 5 Physics I..... 5 *Laboratory*... 4 Mechanics..... 2½ Art Lectures I.. 1 *Linear Perspect.* 4 *Arch. Draw*..... 4	Medicine I..... 3 General Path. I, 2 Anatomy IV.... 2½ *Laborat'y IV*.. 9 Rhetoric II..... 5 European Hist., 5 *Clinic*..... 1
WINTER TERM.	Civics..... 5 Crop Production.. 5 *Grain Judging*, 2 Rhetoric..... 2 *Agri. Chemistry Laboratory*..... 6	European History, 5 Zoology..... 5 *Laboratory*..... 4 Domestic Sci. II... 2 *Laboratory*..... 4 German V..... 2½ *Music elective.*	Civics..... 5 Bacteriology..... 2½ *Laboratory*..... 4 Physics III..... 5 *Laboratory*..... 4 German V..... 2½	Integral Calc..... 5 Physics II..... 5 *Laboratory*..... 4 European History, 5 *Mech. Draw. III*.. 4 *Machine-shop II*.. 2	Integral Calc..... 5 Physics II..... 5 *Laboratory*..... 4 European History, 5 *Mech. Draw. III*.. 4 *Machine-shop II*.. 2	Integral Calc.... 5 Physics II..... 5 *Laboratory*... 4 European Hist., 5 Art Lectures II.. 1 *Arch. Draw*..... 6	Medicine II..... 5 Surgery I..... 2½ Gen. Path. II... 2½ Civics..... 5 Anatomy V..... 2½ *Laboratory V*, 8 *Clinic*..... 2
SPRING TERM.	American History, 5 Stock Feeding.... 3 Agri. Chemistry.. 2 Veg.-gardening... 5 Farm Mech. and Management.... 5	Civics..... 5 Bacteriology..... 2½ *Laboratory*..... 4 Domestic Sci. III.. 4 *Laboratory*..... 6 German VI..... 2½ *Laundering*..... 2 *Music elective.*	American History, 5 Zoology..... 5 *Laboratory*..... 4 Physics IV..... 5 *Laboratory*..... 2 German VI..... 2½	Def. Integrals .... 2½ Valve Gears..... 2½ Civics..... 5 Rhetoric II..... 5 Shop Lectures IV, 1 *Mach.-shop III*.... 4 *Mech. Draw. IV*.. 4	Diff. Equations... 2½ Electricity..... 5 *Laboratory*..... 6 Civics..... 5 Rhetoric II..... 5	Def. Integrals .. 2½ Civics..... 5 Rhetoric II..... 5 Home Arch..... 2½ Art Lect. III.... 1 *Arch. Draw*..... 4 *Modeling*..... 4	Medicine III..... 5 Surgery II..... 2 Surgical Anat... 5 Stock Feeding.. 3 American Hist., 5 *Phar. Lab*..... 5 *Clinic*..... 1

Music is optional throughout the course.

For outline of instruction, see page 88 *et seq.*

COURSES OF STUDY—Fourth Year.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECHANICAL ENGINEERING.	ELECTRICAL ENGINEERING.	ARCHITECTURE.	VETERINARY.
FALL TERM.	Physics III..... 5 *Laboratory*..... 4 Zoology..... 5 *Laboratory*..... 4 Elective 5	American History, 5 English Lit. I..... 5 Dietetics..... 2½ *Laboratory*..... 6 Elective 5	Logic..... 5 Geology..... 5 Economics..... 5 Elective 5	American History, 5 Economics..... 5 Steam-boilers..... 2½ *Engi. Lab. I*..... 2 Graphic Statics.... 2½ Shop Lectures V.. 1 *Mach.-shop IV*.... 2 *Mech. Draw. V*.... 4	American History, 5 Economics..... 5 Direct-cur. Mach., 5 *Laboratory*..... 4 *Mech. Draw. IV*.. 4 *Electrochemistry*.. 2	American Hist.. 5 Economics..... 5 Heat'g and Pl.. 2½ Graphic Statics, 2½ Art Lect. IV.... 1 *Arch. Draw'g*.. 4 *Arch. Composition I*..... 4	Medicine IV.... 5 Surgery III..... 3 Special Path.... 2 *Laboratory*.... 4 Economics..... 5 Animal Nut'n.. 5 *Clinic*..... 2
WINTER TERM.	Physics IV..... 5 *Laboratory*..... 2 Economics..... 5 Geology..... 5 Elective 5	English Lit. II.... 5 Home Managem't, 5 Psychology ..... 5 Elective 5	English Lit. I..... 5 Plant Morph..... 5 *Laboratory*..... 4 Elective ..... 5 *Industrial*..... 4	English Lit..... 5 Thermod'mics I... 5 *Engi. Lab. II*..... 4 Applied Mech. I... 5 Shop Lectures VI, 1 *Mach.-shop V*.... 2 *Mech. Draw. VI*.. 2	Direct-cur. Mach.. 2½ Alt.-cur. Mach.... 2½ *Laboratory*..... 4 English Lit..... 5 Applied Mech. I.. 5 *Engi. Lab. IV*.... 4 *Mach.-shop III*.... 2	English Lit..... 5 Geology..... 5 Applied Mech. I, 5 Art Lect. V..... 1 *Arch. Draw*.... 4 *Arch. Composition II*..... 4	Medicine V .... 4 Surgery IV..... 5 Obstetrics I..... 3 English Lit..... 5 *Sp. Bact. Lab*... 6 *Clinic*..... 2
SPRING TERM.	English Lit..... 5 Animal Breeding.. 5 Elective ..... 5 Thesis 5	Thera. Cookery... 2½ *Laboratory*..... 2 Economics..... 5 Home Nursing.... 2½ Elective ..... 5 Thesis 5	English Lit. II.... 5 Psychology..... 5 Elective ..... 5 Thesis 5	Applied Mech. II.. 2½ Thermod'mics II.. 5 Hydraulics ..... 2½ Shop Lect. VII ... 1 *Mech. Draw. VII*.. 4 *Engi. Lab. III*.... 2 Thesis 5	Alt.-cur. Mach.... 5 *Laboratory*..... 4 Hydraulics..... 2½ Power Stations... 2½ *Dynamo Des'n*.. 4 Thesis 5	*Specifications*... 2½ *Estimates and Contracts*..... 2½ *Arch. Composition III*..... 6 Roofs and Tr... 5 Thesis..... 5	Medicine VI.... 5 Obstetrics II.... 2 Operative Surg.. 3 Animal Breed'g, 5 Meat Inspection, 5 *Clinic* ..... 2 Thesis 5

Music is optional throughout the course.

For outline of instruction, see page 53 *et seq.*

Agriculture Course.

This is an age of specialists, yet the specialist is far better equipped for his life-work if he is well grounded in the fundamental branches of knowledge. The College is better equipped than ever before, in the special lines of agriculture, horticulture, and animal husbandry, for giving the student thorough preparation and training in these lines. The sciences which are related to agriculture are not slighted, and all of the essential fundamental studies are given.

The young men who take the agriculture course will not only be well prepared successfully to carry on various lines of farming for themselves, but they will be competent to act as foreman, and, after some experience, as managers and superintendents of large farms or other agricultural interests. They will also be prepared to take positions in our agricultural colleges and experiment stations as instructors and assistants. More than this, the graduate from the agriculture course, whatever calling he may choose or wherever he may make his home, will be a strong and influential citizen as well as a skilful producer, because, while the studies of the agriculture course are primarily practical, emphasizing the business side of life, yet enough "culture" studies are offered to give the student a well-balanced and well-rounded education.

The time has passed, my young farmer friend, when an uneducated and unskilled man can become a successful farmer and a man among men. It is not so easy to make a good living at farming to-day as it was forty or even twenty years ago. The soil is poorer, competition is greater. There are many educated, hustling men engaged in the various lines of farming to-day, and if you want successfully to compete with them you must be educated, too. You must understand the soil and the great principles of cultivation, aeration, and soil-moisture conservation. You must know the science of plant growth and propagation; you must know the chemistry of the plant and of the soil. You must learn the principles of animal nutrition and balanced rations in stock-feeding. You must study the animal and be practiced in stock judging, in order to select your breeding stock. You must know a thousand things about agriculture which you do not know now, if you hope successfully to compete with those who have knowledge and training in these things.

The motto of the Agricultural College is *practice with science.* This does not mean, however, that the agriculture course student is put to work on the farm. The agriculture course is a course of study, not manual labor. Some manual labor is required as practice work in the field and laboratory. The student is taught to handle tools in carpentry and blacksmithing; he is given some practice in handling stock, grafting, tree-planting, and general farm management. He is not sent into the fields to plow, harrow, or cultivate, but he has an opportunity to observe the best methods of farm practice and become acquainted with the great principles of agriculture which apply everywhere and upon which crop production and stock-breeding and stock-raising depend.

Every young farmer in the state of Kansas should take the agriculture course. It does not matter so much how long a man lives, as how much he lives, and one can live so much more and accomplish so much more after spending four years in College, that the time spent is never missed. Every young man can find means to carry him through College. "Where there 's a will there 's a way."

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:

Geometry I	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
Drill	4	107

WINTER TERM:

Geometry II	5	95
Advanced Composition	5	83
Agriculture	5	53
Elementary Psychology	1	113
Woodwork II	3	97
Object and Geom. Drawing,	4	59
Drill	4	107

SPRING TERM:

Algebra IV	5	95
Rhetoric I	5	83
Physics	5	117
Laboratory	2	117
Blacksmithing I	4	97
Elementary Projection	2	59
Drill	4	107

Second Year.

FALL TERM:

Chemistry I	5	67
Laboratory I	2	69
Dairying	2½	71
Laboratory	6	71
Trigonometry	5	95
Surveying	2	95
Public Speaking I	2½	129
Drill	4	107

WINTER TERM:

Chemistry II	5	67
Laboratory II	2	69
Breeds of Stock	2½	57
Stock Judging	4	57
Physiology	5	135
Laboratory	2	135
Public Speaking II	2½	129
Drill	4	107

SPRING TERM:

Chemistry III	2½	68
Laboratory III	7½	69
Horticulture	5	91
Laboratory	4	91
Entomology	5	85
Laboratory	2	85
Drill	4	107

Third Year.

FALL TERM:

European History	5	89
Veterinary Science	5	131
Animal Nutrition	5	68
Bacteriology	2½	137
Laboratory	4	137
Horticulture Laboratory	2	91

WINTER TERM:

Civics	5	89
Crop Production	5	53
Grain Judging	2	53
Rhetoric II	5	83
Agricultural Chemistry Laboratory	6	69

SPRING TERM:

American History	5	89
Stock Feeding	3	57
Agricultural Chemistry	2	68
Vegetable-gardening	5	93
Farm Mechanics and Management	5	55

Fourth Year.

FALL TERM:

Physics III	5	117
Laboratory	4	117
Zoology	5	85
Laboratory	4	85
Elective	5	34

WINTER TERM:

Physics IV	5	117
Laboratory	2	118
Economics	5	80
Geology	5	87
Elective	5	34

SPRING TERM:

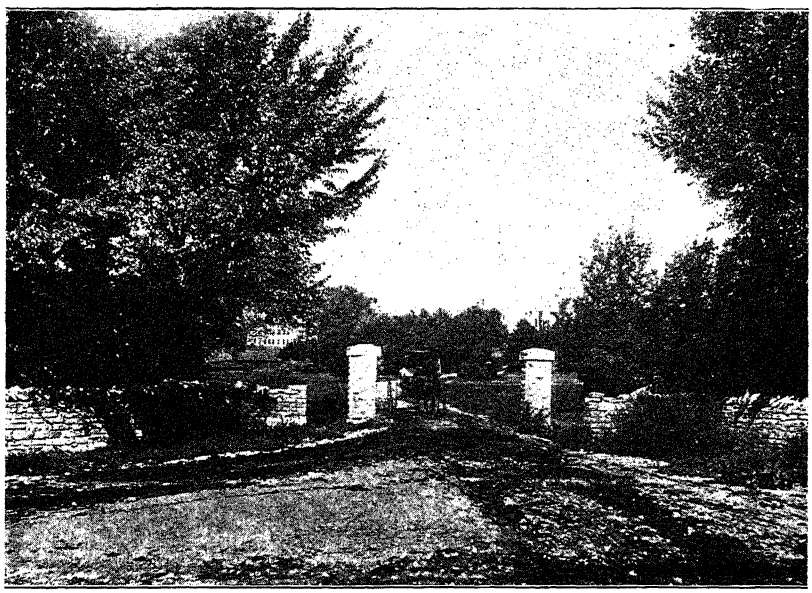
English Literature	5	83
Animal Breeding	5	57
Elective	5	34
Thesis	5	31

Domestic Science Course.

The aim of the domestic science course is both specific and general. Technically it is an application of the science of bacteriology to the study of home sanitation and hygiene, of physiology and chemistry to the composition of foods and their effect, of physics as applied to heating and lighting. These sciences, necessarily, therefore, underlie the successful and intelligent conduct of the home, whether it be large or small, and must be included in any well-arragned course of domestic science. In the kitchen laboratory a standard system of measurement is taught, and constant emphasis is placed upon neatness, accuracy and economy in the handling of the material and utensils. The instruction in domestic art includes all the various kinds of hand sewing, the making of plain garments, and a complete system of dressmaking.

While the domestic science course emphasizes, primarily, the practical and material side of life, it does not stop here. To the end that well-rounded culture may be secured, studies are offered in this course in English, history, economics, psychology, and public speaking. The young women are constantly reminded that life is not all drudgery; that technical knowledge and scientific skill, even, fail to include the full meaning of education in its highest sense. They are taught that any training that fails to develop, harmoniously, body, mind and spirit is inadequate and incomplete. They are brought face to face with ideals as well as with actualities; and are made to see that, while skilful labor is the crowing dignity of life, grace, refinement and self-poise are the highest ingredients of true service.

As the truly useful woman must be both cultured and refined, one-third of the time of this course is given to history, art, literature, and economics, and about one-third to the sciences. The electives during the fourth year give opportunity to specialize in some chosen line.



MAIN ENTRANCE TO COLLEGE GROUNDS.

Domestic Science Course.

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

First Year.

FALL TERM:

Geometry I	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Sewing I	4	75
Hygiene	1	77
Physical Training	4	115

WINTER TERM:

Geometry II	5	95
Advanced Composition	5	83
Cooking	5	77
Elementary Psychology	1	113
Sewing II	3	75
Object and Geom. Drawing,	4	59
Physical Training	4	115

SPRING TERM:

Algebra IV	5	95
Rhetoric I	5	83
Physics	5	117
Laboratory	2	117
Sewing III	4	75
Elementary Projection	2	59
Physical Training	4	115

Second Year.

FALL TERM:

Chemistry I	5	67
Laboratory I	2	69
Entomology	5	85
Laboratory	2	85
German I	5	87
Public Speaking I	2½	129
Phys. Training or *Music*	4	115

WINTER TERM:

Chemistry II	5	67
Laboratory II	2	69
Horticulture	5	91
Floriculture	2	91
German II	5	88
Dressmaking and Fabrics,	6	75
Phys. Training or *Music*	4	115

SPRING TERM:

Chemistry III	2½	68
Laboratory III	7½	69
Physiology	5	135
Laboratory	2	135
Public Speaking II	2½	129
German III	5	88
Phys. Training or *Music*	4	115

Third Year.

FALL TERM:

Rhetoric II	5	83
Human Nutrition	5	68
Domestic Science I	2	77
Laboratory	4	77
German IV	2½	88
Home Decoration	2½	61
Color and Design	4	61
Music elective	—	109

WINTER TERM:

European History	5	89
Domestic Science II	2	77
Laboratory	4	77
Zoology	5	85
Laboratory	4	85
German V	2½	88
Music elective	—	109

SPRING TERM:

Civics	5	89
Bacteriology	2½	137
Laboratory	4	137
Domestic Science III	4	77
Laboratory	6	77
German VI	2½	88
Laundering	2	77
Music elective	—	109

Fourth Year.

FALL TERM:

American History	5	89
English Literature I	5	84
Dietetics	2½	79
Laboratory	6	79
Elective	5	34

WINTER TERM:

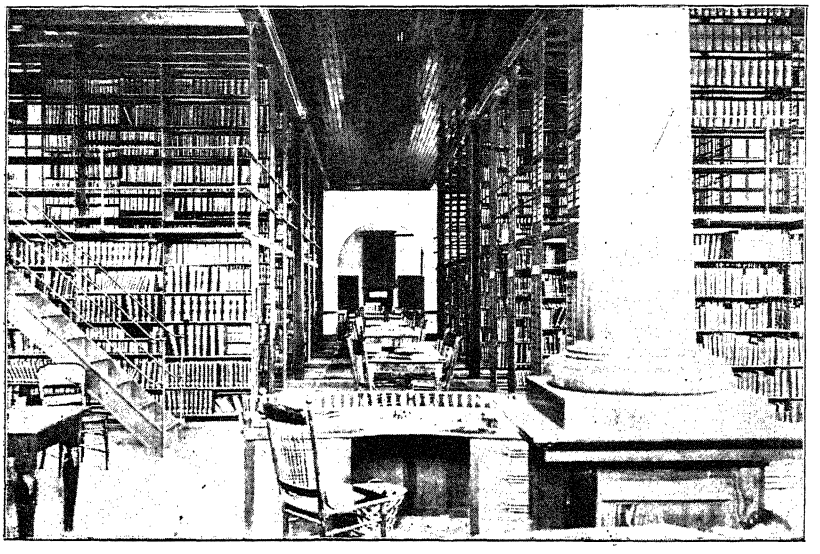
English Literature II	5	84
Home Management	5	79
Psychology	5	113
Elective	5	34

SPRING TERM:

Therapeutic Cookery	2½	79
Laboratory	2	79
Economics	5	80
Home Nursing	2½	79
Elective	5	34
Thesis	5	31

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. Laboratory and industrial work are a feature of this course, as of all others. The electives, continuing through the fourth year, give opportunity for some special lines, as follows: Young men may take analytical geometry, differential and integral calculus with the engineering students, by delaying American history till the spring term, fourth year, and young women may take the three terms in domestic science with the third-year women of the domestic science course. Other electives are announced on page 30. In each case, the electives for the three terms are expected to be in the same line as nearly as possible.



STACK ROOM—IN COLLEGE LIBRARY.

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:		
Geometry I.	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
or *Sewing I*	4	75
Drill	4	107
or *Physical Training*	4	115
WINTER TERM:		
Geometry II.	5	95
Advanced Composition.	5	83
Cooking	5	77
or Agriculture	5	53
Elementary Psychology.	1	113
Woodwork II	3	97
or *Sewing II.*	3	75
Object and Geometrical Drawing	4	59
Drill	4	107
or *Physical Training*	4	115
SPRING TERM:		
Algebra IV.	5	95
Rhetoric I.	5	83
Physics.	5	117
Laboratory	2	117
Blacksmithing I	4	97
or *Sewing III*	4	75
Elementary Projection.	2	59
Drill	4	107
or *Physical Training*	4	115

Second Year.

FALL TERM:		
Chemistry I.	5	67
Laboratory I	2	69
Trigonometry	5	95
Surveying	2	95
German I	5	87
Industrial	4	
Drill	4	107
Physical Training.	4	115
or *Music*	4	109
WINTER TERM:		
Chemistry II	5	67
Laboratory II	2	69
Entomology	5	85
Laboratory	2	85
German II.	5	88
Public Speaking I	2½	129
Projection Drawing	2	59
Drill	4	107
Physical Training.	4	115
or *Music*	4	109
SPRING TERM:		
Chemistry III	2½	68
Laboratory III	7½	69
Physiology	5	135
Laboratory	2	135
Public Speaking II	2½	129
German III.	5	88
Drill	4	107
Physical Training.	4	115
or *Music*	4	109

Third Year.

FALL TERM:		
European History	5	89
Horticulture.	5	91
Rhetoric II	5	83
German IV	2½	88
Linear Perspective	4	61
Industrial	2	28
WINTER TERM:		
Civics	5	89
Bacteriology	2½	137
Laboratory	4	137
Physics III	5	117
Laboratory	4	117
German V	2½	88
SPRING TERM:		
American History	5	89
Zoology	5	85
Laboratory	4	85
Physics IV	5	117
Laboratory	2	118
German VI	2½	88

Fourth Year.

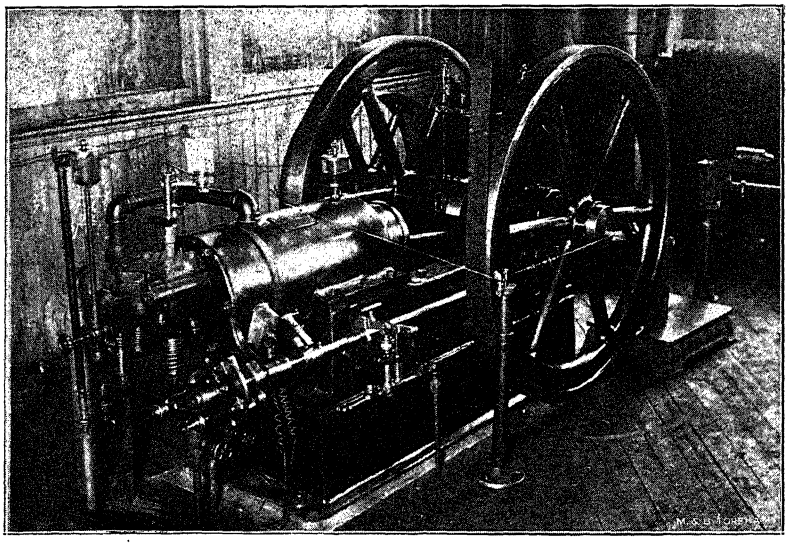
FALL TERM:		
Logic	5	113
Geology.	5	87
Economics.	5	80
Elective	5	34
WINTER TERM:		
English Literature I.	5	84
Plant Morphology	5	63
Laboratory	4	63
Elective	5	34
Industrial	4	28
SPRING TERM:		
English Literature II.	5	84
Psychology	5	113
Elective.	5	34
Thesis.	5	31

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. 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 a 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 the opposite page is offered.



GASOLINE ENGINE READY FOR TESTING.

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:

Geometry I	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
Drill	4	107

WINTER TERM:

Geometry II	5	95
Advanced Composition	5	83
Agriculture	5	53
Elementary Psychology	1	113
Woodwork II	3	97
Object and Geom. Drawing,	4	59
Drill	4	107

SPRING TERM:

Algebra IV	5	95
Rhetoric I	5	83
Physics	5	117
Laboratory	2	117
Blacksmithing I	4	97
Elementary Projection	2	59
Drill	4	107

Second Year.

FALL TERM:

Chemistry I	5	67
Laboratory I	2	69
Trigonometry	5	95
Surveying	2	95
Shop Lectures I	1	97
German I	5	87
Projection Drawing	2	59
Blacksmithing II	2	97
Drill	4	107

WINTER TERM:

Chemistry IV	2½	68
Laboratory IV	4	69
Kinematics	5	97
German II	5	88
Descriptive Geometry	4	59
Public Speaking I	2½	129
Foundry	2	97
Drill	4	107

SPRING TERM:

Chemistry V	2½	68
Laboratory V	4	69
German III	5	88
Analytical Geometry	5	95
Public Speaking II	2½	129
Shop Lectures II	1	97
Mechanical Drawing I	2	97
Pattern-making	2	99
Drill	4	107

Third Year.

FALL TERM:

Differential Calculus	5	95
Physics I	5	117
Laboratory	4	117
Mechanics	2½	99
Shop Lectures III	1	99
Mechanical Drawing II	4	99
Machine-shop I	4	91

WINTER TERM:

Integral Calculus	5	95
Physics II	5	117
Laboratory	4	117
European History	5	89
Mechanical Drawing III	4	99
Machine-shop II	2	99

SPRING TERM:

Definite Integrals	2½	95
Valve Gears	2½	
Civics	5	89
Rhetoric II	5	83
Shop Lectures IV	1	99
Mechanical Drawing IV	4	99
Machine-shop III	4	99

Fourth Year.

FALL TERM:

American History	5	89
Economics	5	90
Steam-boilers	2½	99
Graphic Statics	2½	99
Shop Lectures V	1	101
Engineering Laboratory I	2	101
Mechanical Drawing V	4	101
Machine-shop IV	2	101

WINTER TERM:

English Literature	5	83
Thermodynamics I	5	101
Applied Mechanics I	5	101
Shop Lectures VI	1	101
Engineering Laboratory II,	4	101
Mechanical Drawing VI	2	101
Machine-shop V	2	101

SPRING TERM:

Applied Mechanics II	2½	101
Thermodynamics II	5	101
Hydraulics	2½	101
Shop Lectures VII	1	103
Mechanical Drawing VII	4	103
Engineering Lab. III	2	103
Thesis	5	103

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. To meet these demands, the student should be well grounded in all the branches underlying his profession. This course is therefore made strong in the mathematical and physical sciences. A well-equipped electrical engineer should also have training in the fundamental principles of steam and hydraulic engineering. Drawing, machine design, and mechanics of machinery, together with shop practice, occupy a considerable portion of the time of the student. General-culture studies are offered in history and economics, public speaking, 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. For the first two years this course is identical with the mechanical engineering course.

MAIN DRIVE, COLLEGE GROUNDS.

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:		
Geometry I.	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
Drill	4	107
WINTER TERM:		
Geometry II.	5	95
Advanced Composition	5	83
Agriculture	5	53
Elementary Psychology	1	113
Woodwork II	3	97
Object and Geometrical Drawing	4	59
Drill	4	107
SPRING TERM:		
Algebra IV.	5	95
Rhetoric I.	5	83
Physics	5	117
Laboratory	2	117
Blacksmithing I.	4	97
Elementary Projection	2	59
Drill	4	107

Second Year.

FALL TERM:		
Chemistry I	5	67
Laboratory I	2	69
Trigonometry	5	95
Surveying	2	95
Shop Lectures I	1	97
German I	5	87
Projection Drawing	2	59
Blacksmithing II	2	97
Drill	4	107
WINTER TERM:		
Chemistry IV	2½	68
Laboratory IV	4	69
Kinematics.	5	97
German II.	5	88
Descriptive Geometry.	4	59
Public Speaking I	2½	129
Foundry	2	97
Drill	4	107
SPRING TERM:		
Chemistry V	2½	68
Laboratory V	4	69
German III.	5	88
Analytical Geometry	5	95
Public Speaking II	2½	129
Shop Lectures II	1	97
Mechanical Drawing I.	2	97
Pattern-making	2	99
Drill	4	107

Third Year.

FALL TERM:		
Differential Calculus.	5	95
Physics I	5	117
Laboratory.	4	117
Mechanics.	2½	99
Shop Lectures III	1	99
Machine-shop I.	4	99
Mechanical Drawing II.	4	99
WINTER TERM:		
Integral Calculus	5	95
Physics II	5	117
Laboratory.	4	117
European History	5	89
Mechanical Drawing III.	4	99
Machine-shop II.	2	99
SPRING TERM:		
Differential Equations	2½	95
Electricity	5	119
Laboratory.	6	119
Civics	5	89
Rhetoric II.	5	83

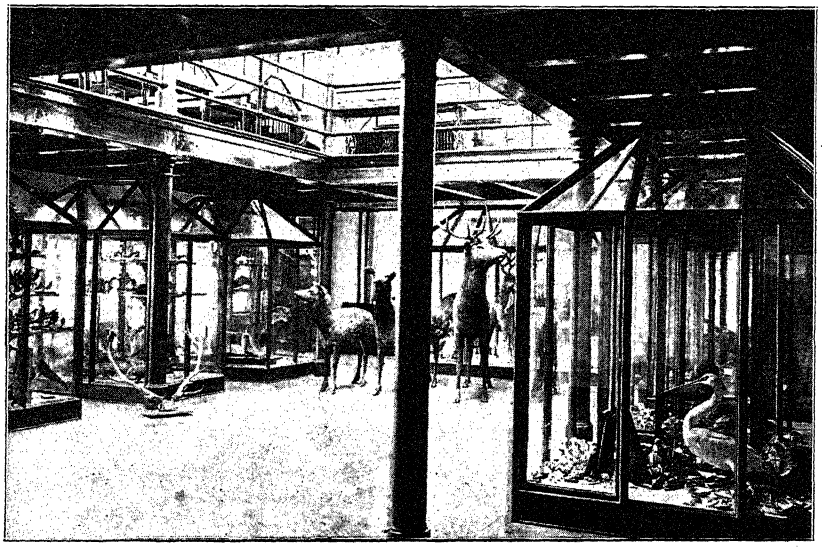
Fourth Year.

FALL TERM:		
American History	5	89
Economics	5	80
Direct-current machines	5	119
Laboratory.	4	119
Mechanical Drawing IV.	4	99
Electrochemistry	2	121
WINTER TERM:		
Direct-current Machines.	2½	119
Alternating-current Machines.	2½	119
Laboratory.	4	119
English Literature	5	83
Applied Mechanics I.	5	101
Engineering Laborat'y IV.	4	101
Machine-shop IIIa.	2	99
SPRING TERM:		
Alternating-current Machines.	5	119
Laboratory.	4	119
Hydraulics	2½	101
Power Stations	2½	121
Dynamo Design.	4	121
Thesis.	5	31

Architecture Course.

This four-year course is designed to meet the rapidly growing educational need of the building profession.

The freshman and sophomore years are identical with those of the mechanical and electrical engineering courses, and comprise, as will be seen in other parts of the catalogue, vigorous work in mathematics, drawing, surveying, physics, kinematics, English and German, supplemented by practice in the carpenter shop, the machine-shop, and the foundry. The junior and senior years are given to advanced work in the lines named, supplemented by theoretical and practical work in perspective and rendering, building construction, modeling, specifications and estimates, architectural drawing, architectural composition, etc. The department of architecture and drawing is well equipped with models, casts, samples of building materials, blue-prints and lithographs of modern structures, photographs of historic buildings, etc., and is in condition to offer unusual opportunities to Western students of architectural art.



CORNER OF COLLEGE MUSEUM.

Architecture 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:		
Geometry I	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
Military Drill	4	107
WINTER TERM:		
Geometry II	5	95
Advanced Composition	5	83
Agriculture	5	53
Elementary Psychology	1	113
Woodwork II	3	97
Object and Geom. Drawing,	4	59
Military Drill	4	107
SPRING TERM:		
Algebra IV	5	95
Rhetoric I	5	83
Elementary Physics	5	117
Laboratory	2	117
Blacksmithing I	4	97
Elementary Projection	2	59
Military Drill	4	107

Second Year.

FALL TERM:		
Chemistry I	5	67
Laboratory I	2	69
Trigonometry	5	95
Surveying	2	95
Shop Lectures I	1	97
German I	5	87
Projection Drawing	2	59
Blacksmithing II	2	97
Military Drill	4	107
WINTER TERM:		
Chemistry IV	2½	68
Laboratory IV	4	69
Kinematics	5	
German II	5	88
Descriptive Geometry	4	59
Public Speaking I	2½	129
Foundry	2	97
Military Drill	4	107
SPRING TERM:		
Chemistry V	2½	68
Laboratory V	4	69
German III	5	88
Analytical Geometry	5	95
Public Speaking II	2½	129
Shop Lectures II	1	97
Mechanical Drawing I	2	97
Pattern-making	2	99
Military Drill	4	107

Third Year.

FALL TERM:		
Differential Calculus	5	95
Physics I	5	117
Laboratory	4	117
Mechanics	2½	99
Art Lectures I	1	61
Linear Perspective	4	61
Architectural Drawing I.	4	61
WINTER TERM:		
Integral Calculus	5	95
Physics II	5	117
Laboratory	4	117
European History	5	89
Art Lectures II	1	61
Architectural Drawing II.	6	61
SPRING TERM:		
Definite Integrals	2½	95
Civics	5	89
Rhetoric II	5	83
Home Architecture	2½	61
Art Lectures III	1	61
Architectural Drawing III,	4	61
Modeling	4	61

Fourth Year.

FALL TERM:		
American History	5	89
Economics	5	80
Heating and Plumbing	2½	62
Graphic Statics	2½	99
Art Lectures IV	1	61
Architectural Drawing IV,	4	61
Architectural Compos'n I.	4	62
WINTER TERM:		
English Literature	5	83
Geology	5	87
Applied Mechanics I	5	101
Art Lectures V	1	61
Architectural Drawing V.	4	61
Architectural Compos'n II,	4	62
SPRING TERM:		
Roofs and Trusses	5	62
Specifications	2½	62
Estimates and Contracts	2½	62
Architectural Compos'n III,	6	62
Thesis	5	31

Veterinary Science Course.

The increased number and value of the live stock of Kansas have created a demand in the last few years for first-class veterinarians far in excess of the supply. The breeder of highly bred stock, the large feeder, the farmer, all combine and call for more and better qualified veterinary surgeons; the practicing veterinarians during their busy season cannot do all the work called upon and are asking for more help. The breeder, feeder and farmer all recognize the fact that there is a difference between the "horse doctor" and the veterinarian, and will trust their sick animals in the hands of the former only when the latter is not available. Thus, in the state of Kansas, has the demand for such qualified men been so great that the Board of Regents could no longer resist the pressure, and have inaugurated a full four-year course of study in veterinary science, and fitted specially to the demand of the times, equal in broadness and thoroughness to the best veterinary schools in existence. The wisdom of such a course has already been demonstrated in the work done and the qualification of the students at the end of their first year's work.

The work is arranged to give instruction along those lines which will insure the graduation of veterinarians thoroughly qualified in every respect. The course, extending over four years, gives the student ample opportunity to obtain a thorough practical education in veterinary science. It is based upon the principle of giving a thorough foundation before specializing; it thus insures the graduate being fully qualified to enter a wide field of usefulness. It is the aim of the course to provide a thorough education in all branches pertaining to veterinary science, at the same time instructing the student in his duties as an American citizen. The demand for veterinarians all the world over is constantly increasing. To meet this demand this course is made strong in the branches underlying the profession: Anatomy, physiology, pathology, surgery, medicine, materia medica, and bacteriology. Throughout the entire course each student receives personal instruction in the practical and theoretical details of the profession.

Upon the completion of the course the student receives the College diploma with the professional degree of doctor of veterinary medicine (D. V. M.), which will entitle the holder to recognition at examinations for any position in the United States: The United States cavalry, where there is a demand for a limited number of veterinarians; the Bureau of Animal Industry of the United States Department of Agriculture, where many veterinarians are employed as inspectors in slaughter-houses and on quarantine work in contagious diseases. Some state boards of health employ veterinarians, as do also state live-stock sanitary commissions. Some states have a state veterinarian with many assistants. There has sprung up lately a demand from agricultural colleges for veterinary instructors and veterinarians in experiment stations; purely veterinary colleges also are demanding better qualified men as teachers.

The call for up-to-date practitioners has increased greatly the last few years, and a thoroughly qualified practitioner can find scores of locations where he can at once pay his expenses and soon work up an enviable practice—one which, financially, far exceeds that of his brother M. D., who may have been located for years. Socially, the standard has been materially raised, and the veterinarian of to-day is held at his true worth.

The course as presented on the opposite page embodies the training necessary to fill the above requirements.

Veterinary 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:		
Geometry I	5	95
English Classics	5	83
Botany II	5	63
Field-work	2	63
Free-hand Drawing	2	59
Woodwork I	4	97
Military Drill	4	107
WINTER TERM:		
Geometry II	5	95
Advanced Composition	5	83
Agriculture	5	53
Elementary Psychology	1	113
Woodwork II	3	97
Object and Geom. Drawing,	4	59
Military Drill	4	107
SPRING TERM:		
Algebra IV	5	95
Rhetoric I	5	83
Physics	5	117
Laboratory	2	117
Blacksmithing I	4	97
Elementary Projection	2	59
Military Drill	4	107

Second Year.

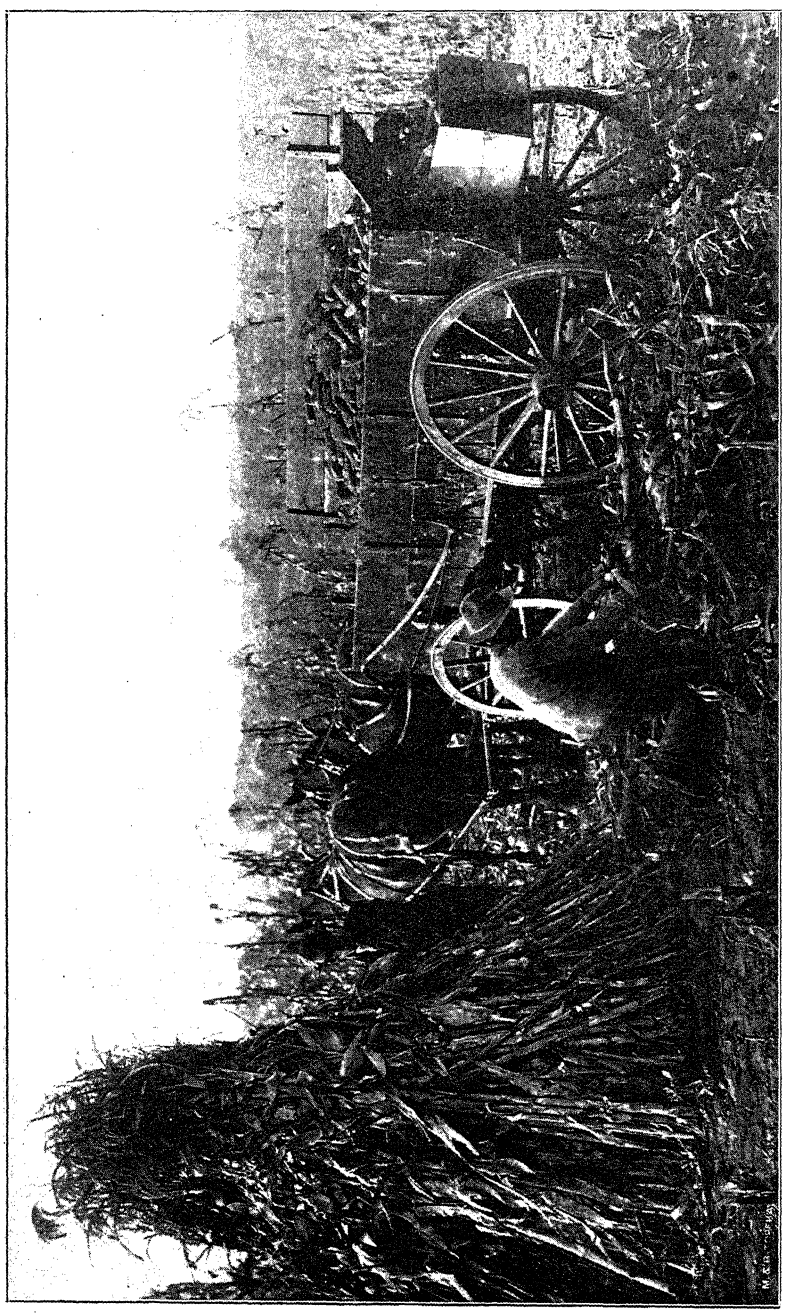
FALL TERM:		
Anatomy I	2½	131
Materia Medica I	2½	133
Dairying	2½	71
Laboratory	3	71
Chemistry I	5	67
Laboratory I	2	69
Public Speaking I	2½	129
Histology Laboratory	6	
Military Drill	4	107
WINTER TERM:		
Physiology	5	135
Materia Medica II	2½	135
Chemistry II	5	67
Laboratory II	2	69
Breeds of Stock	2½	57
Public Speaking II	2½	129
Anatomy II	2½	135
Laboratory II	6	135
Military Drill	4	107
SPRING TERM:		
Comparative Physiology	5	135
Anatomy III	2½	135
Laboratory III	6	137
Materia Medica III	2½	137
Bacteriology	2½	137
Laboratory	4	137
Chemistry III	2½	68
Laboratory III	4	69
Military Drill	4	107

Third Year.

FALL TERM:		
Medicine I	3	139
General Pathology I	2	139
Anatomy IV	2½	139
Laboratory IV	9	139
Rhetoric II	5	83
European History	5	89
Clinic	1	131
WINTER TERM:		
Medicine II	5	141
Surgery I	2½	141
General Pathology II	2½	141
Civics	5	89
Anatomy V	2½	141
Laboratory V	8	141
Clinic	2	131
SPRING TERM:		
Medicine III	5	141
Surgery II	2	141
Surgical Anatomy	5	141
Stock Feeding III	3	57
American History	5	89
Pharmacology Laboratory,	4	143
Clinic	1	131

Fourth Year.

FALL TERM:		
Medicine IV	5	143
Surgery III	3	143
Special Pathology	2	143
Laboratory	4	143
Economics	5	80
Animal Nutrition	5	68
Clinic	2	131
WINTER TERM:		
Medicine V	4	145
Surgery IV	5	145
Obstetrics I	2	145
English Literature	5	83
Special Bacteriology Laboratory	6	145
Clinic	2	131
SPRING TERM:		
Medicine VI	5	145
Obstetrics II	2	145
Operative Surgery	3	145
Animal Breeding	5	57
Meat Inspection	5	147
Clinic	2	131
Thesis	5	31



A LOAD OF WELL-BRED CORN.

Outline of Instruction.

Agronomy.

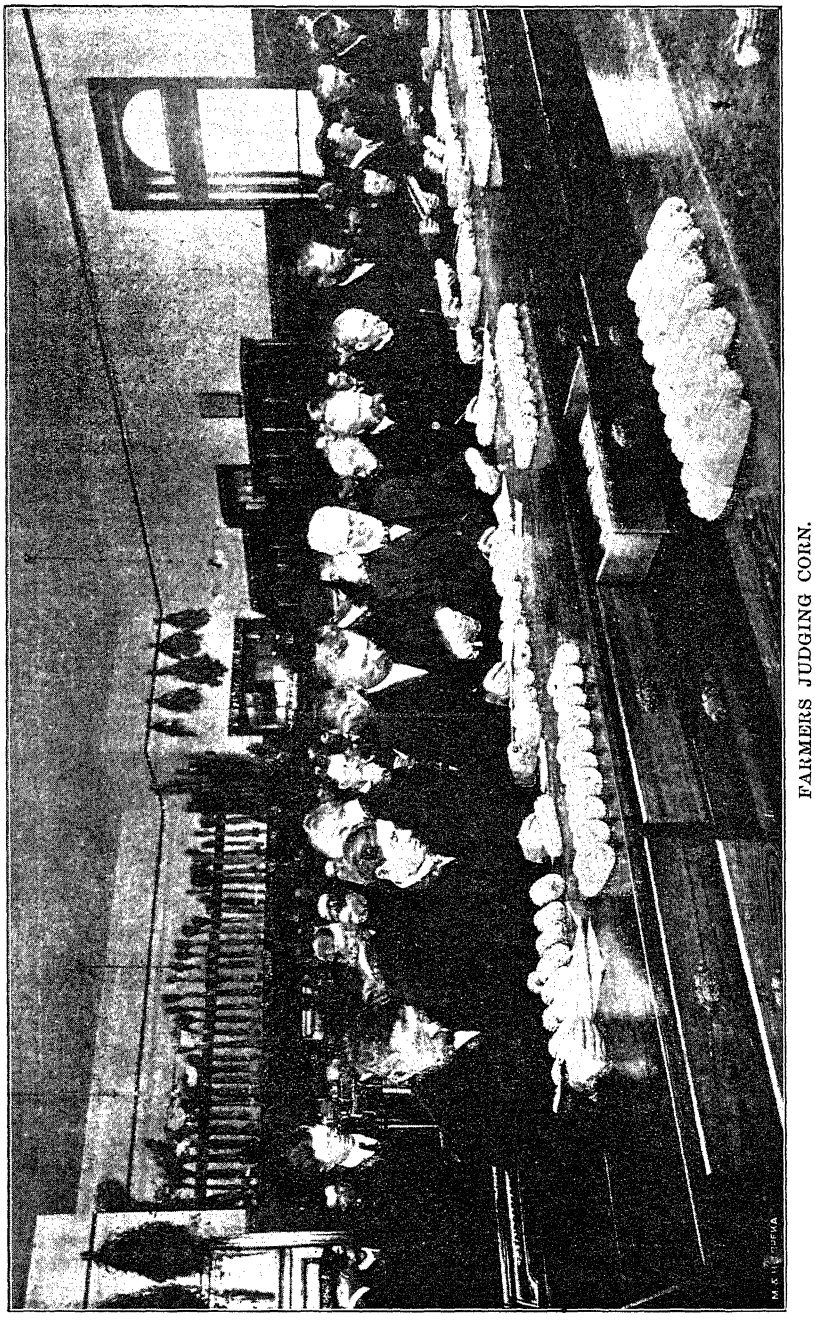
Agronomy, in its restricted sense, includes four general lines of study: Soils, crops, farm mechanics, and farm management. In the published course of study, farm mechanics and farm management are given one-half term each. The more advanced work in soils and farm mechanics is included in soil physics No. 5, elective, and in farm mechanics II, elective. The course requires a full term's work in crop production and grain judging, while, for those who wish to specialize in this line, advanced work in this subject is offered as an elective in the fourth year. Agriculture No. 1 takes up the elementary study of soils and crop production and serves as an introduction to the several branches of agriculture, animal husbandry, and dairying.

It is proposed to make the agricultural studies thoroughly practical. Agriculture is a business. It is not truly a science, but it depends upon science, and to understand the "principles of agriculture" requires a knowledge of many sciences. Physics, botany, chemistry, geology and mathematics teach theory and science, and the studies in agriculture will assist the student to make the application and put the theory and science into practice on the farm.

1. **Agriculture.** First year, winter term. An elementary study of the soil—its formation, texture, plant-food, moisture, tillage, and fertility; the plant—its relation to the soil and climate, its propagation, growth, and cultivation; the kinds of crops and their culture; the animal—its life, feeding, breeding, and management. Text-book, Bailey's Principles of Agriculture.

2. **Crop Production.** Third year, winter term. A study of farm crops as to the preparation of the seed-bed, planting, cultivating, harvesting, root systems, maintenance of soil fertility, rotation of crops, manures and fertilizers, noxious weeds, injurious insects and diseases, and their remedies. Each of the staple crops will be taken up in order, its history, characteristics, methods of culture, uses, etc., noted. Seed selection and the storing, feeding and marketing of crops will also receive attention. Crops will be studied in classes as to their special purposes or uses, as hay, forage, silage, pasture, soiling, green manure, and cover-crops. New crops will be investigated. All the different crops are grown on the farm, so that the students may see them, or at least see samples in the classroom, and thus become familiar with their characters and methods of culture and handling. Lectures and text-book.

Grain Judging is supplementary to the classroom work in crop production. This will consist mainly of work in the judging-room, in the scoring of corn and the common cereals according to inspectors' and buyers' standards, or according to recognized standards of perfection. A special study will be made of corn in the selection of seed ears. It is surprising how few people can pick out a good ear of corn before they are carefully instructed and trained in the vital points, both as to desirable qualities



FARMERS JUDGING CORN.
A characteristic scene during the ten days' Farmers' Short Course.

and defects. It is just as important to select and grow a pure and perfect type of corn or wheat as it is to select a well-formed hog or perfect type of dairy animal for breeding purposes. A higher per cent. of protein, greater productiveness, and other valuable qualities, which may be bred into corn by careful and intelligent selection, should greatly increase the value of this crop to the farmer.

3. **Farm Mechanics and Management.** Third year, spring term. Includes the study of the following subjects: Selection of a farm, as to location, soil, climate, etc.; relation of farming to other occupations; the farm equipment; different systems of farming; field and crop management; keeping farm accounts; necessity, method and kind of accounts. Practice work is required of each student, in which he shall carefully prepare records of the farm operations and business transactions for one year on his own farm or that of some successful farmer. Questions of farm economy are carefully studied, such as the care of farm buildings and works, management and care of stock, fencing, ditching, etc. Some study will be made of rural law relating to property, deeds, and conveyances; water rights, highways, legal fences, contracts, liabilities of employer and employee; notes, mortgages, bills of sale, etc. Farm management is meant not only to train men so that they may successfully apply business methods in carrying on their own farms, but to equip them for the superintending and management of large farms. This College, as well as other agricultural colleges, has many demands for men "who are properly trained in the management of large agricultural interests," and it is the aim of this course to develop men for this work. Text-book, Robert's Farmers' Business Handbook.

ELECTIVES.

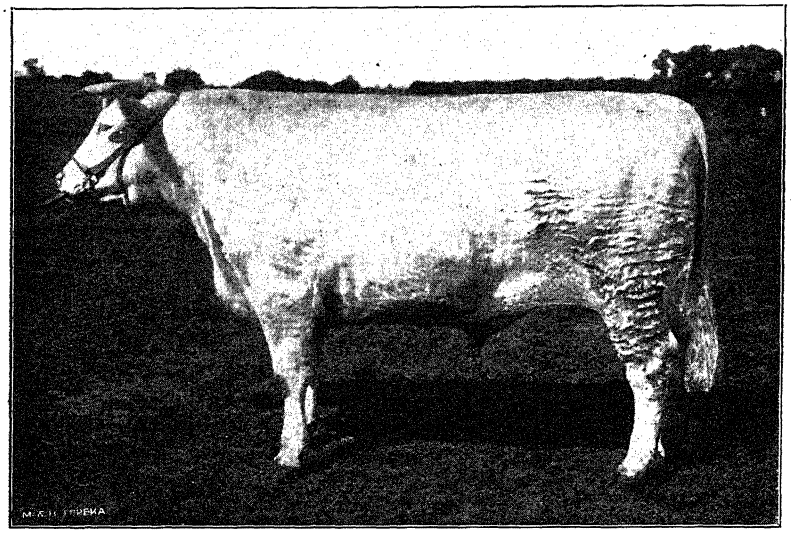
4. **Soil Physics.** Fourth year, fall term. A study of soil formation and mechanical composition, including a special study of the physical problems of the soil as regards texture, tillage, movements of soil water, soil-moisture conservation, aeration of the soil, draining and warming of the soil. A study of the implements of tillage as to their purpose and use.

Laboratory.—Will consist largely of the demonstration and application of the principles of soil physics taught in the classroom, both by work in the laboratory and in the field. The students will be given practice work in determining soil moisture, in cultivation methods, and in mechanical analysis of soils. Text-book, King's Physics of Agriculture.

5. **Farm Mechanics II.** Fourth year, winter term. This will be a continuation of the work begun in the third year. The special subject will be farm machinery, its invention, history, and development; a study of the principles of construction and operation, with comparison of the different makes of machines of the different kinds and classes, according to their adaptation for special conditions and uses. As time permits, the work in other lines of farm mechanics will be continued, especially as related to the construction, ventilation and drainage of farm buildings, and the making and maintaining of roads. The work in the laboratory will consist largely of the demonstration and application of the principles taught in the classroom, including tests of the strength of timbers of different kinds and dimensions, the use of the dynamometer in testing the draft of wagons, etc., and the illustration of draft principles as related to the size and weight of the horse and arrangement of the harness, hitch, etc. Each student will be given some work in the taking down and putting up of farm machines, in order that he may learn their parts and construction.

6. **Crop Production II.** Fourth year, spring term. This course includes a study of the following: Standard crops, as to their origin, development, and special adaptation to soil, climate, etc.; investigations of new crops; the harvesting, thrashing, storing and marketing of crops; the products manufactured from each, and their uses; plant improvement by selection, cross-fertilization, and by special culture and fertilization of the soil; practical methods of plant-breeding which may be undertaken by the farmer; plans for breeding fields; methods of taking and preserving breeding records; storage, maturity, and other factors, as affecting germination and vitality of seeds, etc.

A study will also be made of the organization, lines of work and the more important results of experiments by the state experiment stations and by the United States Department of Agriculture. The important principles of experimental work will be studied, and each student will be required to plan and conduct, under the direction of the instructor, some experiment along agricultural lines, and to prepare a written discussion of the subject, giving the results of the experiment. The experiment may include any line of work in charge of the agronomy department, such as studies in germination and purity of seeds, market conditions of grain, culture methods for different crops, effects of various methods of cultivation on temperature and moisture of the soil, etc. This course gives an opportunity for the student to begin some kind of original investigation which he may continue as a graduate student and allows him a choice of many lines of field-work which could not be commenced during the early part of the academic year.



TIM.
Grand champion two-year-old International, 1906.

Animal Husbandry.

Successful agriculture depends very largely on the quality and class of live stock kept on the farm. As the price of farm lands increases, the value of farm crops is also increased, and it becomes necessary to produce a better class of animals to consume many of the farm crops and convert them into marketable products. Realizing this, the work of this department has been planned to emphasize this fact and to encourage young men in the breeding and improvement of the various classes of domestic animals. The work has been planned with a view of giving a thorough training along the lines of stock judging and selection, stock-breeding, feeding, general care, and management. The College herds have been carefully selected, and among them are found representatives of all of the leading breeds of cattle, horses, sheep, and swine.

1. **Breeds of Stock.** Second year, winter term. Five hours a week during this term are given to the study of the breeds of horses, cattle, sheep, and swine. Each breed is taken up separately and studied from its origin. The methods used in establishing and improving the breeds, and the environments under which they were reared, their importation and popularity in the United States, are each given due attention, with the idea of making the student familiar with each of the leading breeds of live stock in this country.

2. **Stock Judging.** Two afternoons per week during the winter term of the second year. Animals of all the leading breeds are brought before the students for their inspection and criticism, and a score-card is used until the student is familiar with the breed characteristics and requirements, and then they are required to do comparative work in group judging.

3. **Stock Feeding.** Third year, spring term. The practical feeding of the various classes of domestic animals for most profitable results is given in this course. The student is shown how to apply his knowledge of feeding standards and tables of digestible nutrients in feeding-stuffs to actual feed-lot conditions; the most economical combinations of feeds for maintenance, the production of milk, and the growing and fattening of the various classes of animals for market. Special attention is given to conditions prevailing over our own state. The results of experimental feeding by the experiment stations of this and surrounding states are freely drawn upon in this subject. It must be preceded by course 7 of the chemistry department.

4. **Live Stock II.** (Elective.) Fall term, fourth year. This course embraces the judging of the representatives of the different breeds in groups of five or more animals; also the groups of the various market classes.

5. **Live Stock III.** Winter term, fourth year. A study of the housing, care and marketing of live stock. Methods of slaughtering, cutting and curing meats, and the manufacture of animal products.

6. **Animal Breeding.** Spring term, fourth year. A study of the laws of heredity, variation, atavism, selection, etc.; methods and results of crossing, inbreeding, line-breeding, etc. The methods employed by the leading improvers of live stock are studied in connection with the application of these various laws, and the student is shown how to maintain and improve his own flocks and herds by a knowledge of the fundamental principles of breeding.

JUDGING SWINE.

7. **Live Stock IV.** Spring term, fourth year. This term's work includes a study of pedigrees, and a study of the rules and requirements of the various registry associations, during the first half of the term. In the second half there is advanced work in stock feeding, and the study of the methods practiced by the leading stock feeders. Special attention is also given to recent experiment station work. This work must be preceded by stock feeding.

Architecture and Drawing.

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 4, inclusive, are required in all courses; Nos. 5 and 7, in the general science course; Nos. 5 and 6, in the engineering courses; and Nos. 8 and 9, in domestic science.

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 Industrial Drawing, envelopes 2 and 7.

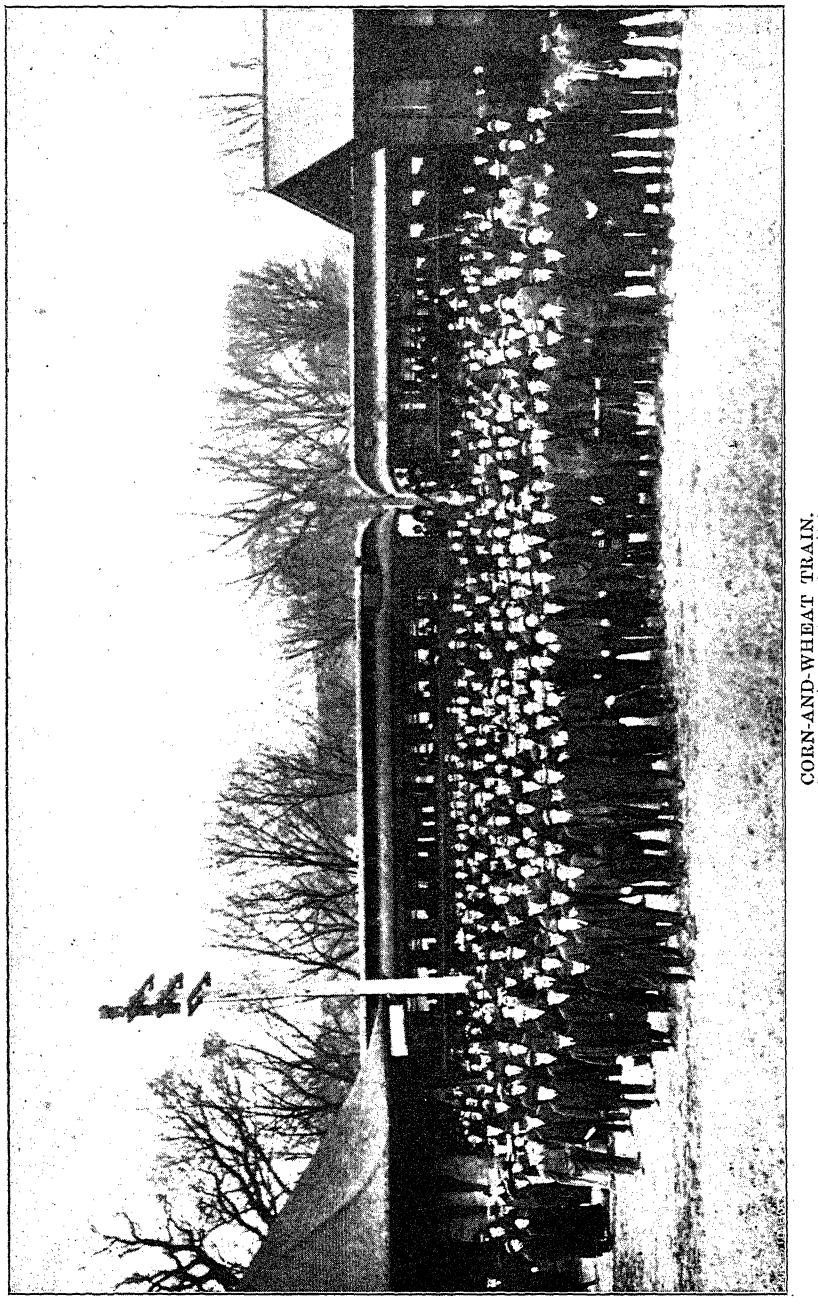
2. **Object Drawing.** First year, winter term. Discussion and drawing of geometrical models and simple objects. Exercises in shading from the object and from the imagination.

3. **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 Industrial Drawing, envelopes 11 and 12.

4. **Elementary Projection.** First year, spring 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 and pyramid. Projection of the circle, cylinder, and cone. Prerequisite, geometry II.

5. **Projection Drawing.** Second year, fall or winter term. Construction and projection of conic sections. Construction of the spiral and helix. Construction of screw forms. Interpenetrations of the cone, cylinder, and sphere. Shades and shadows of simple geometric forms. Problems in monodiametric and isometric projection.

6. **Descriptive Geometry.** Second year, spring 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 and sur-



CORN-AND-WHEAT TRAIN.

faces. General characteristics of warped surfaces. Graphic analysis of the hyperbolic paraboloid, the conoid, the hyperboloid of revolutions, the cylindroid, the helicoid, etc. Prerequisite, projection drawing.

7. **Linear Perspective.** Third year, fall 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, perspective corrections, shades and shadows in perspective, and studio methods. The models used in the work in sketching are objects 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, 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 a number of original crayon and ink sketches during the term.

8. **Color and Design.** Third year, fall term. Discussion of the nature and influence of color, its use and abuse, and the principles that underlie good design and consistent, harmonious color combinations. Original designs in construction and decoration as applied to fabrics, dress and articles of common use in the home, that young women may recognize and appreciate that which is beautiful and appropriate, and may become more discriminating as purchasers.

9. **Home Decoration.** Third year, fall term. A study of design in its application to the home; its plan, furniture, and decorations. Emphasis is laid upon the refining and educating influence of well-chosen and appropriate decoration, the importance of simplicity being urged. Lectures on fine arts and the handicrafts, teaching that the home should show that fine art and industrial art are not to be considered separately.

Problems in planning and decorating houses.

The following is a brief outline of the special branches of the course in architecture:

10. **Art Lectures I.** History and characteristic forms of Egyptian, Greek and Roman architecture.

11. **Art Lectures II.** History and characteristic forms of Romanesque, Byzantine, Moorish and Gothics architecture. Influence of climate and building materials.

12. **Art Lectures III.** History and characteristic forms of renaissance and neo-Greek architecture. Development of plastic ornamentation. Rise and growth of landscape art.

13. **Art Lectures IV.** Modern architectural styles and tendencies. Influences of modern machinery, building materials, and methods of transportation. The colonial; the American Romanesque; the American classic.

14. **Art Lectures V.** Architectural details; foundations, roofs, cornices; modern conveniences, stairs and elevators, modern methods of decoration, etc.

15. **Architectural Drawing.** This work is closely adjusted to the subjects of the art lectures given during the same term. It consists of exercises in drawing characteristic details, ornaments, facades, plans and sections of some of the representative buildings of the art period studied. Text-book: Volume 33, International Text-book Company.

16. **Modeling.** Modeling in clay of architectural details and ornaments. Original work in plastic composition. Glue and plaster molds;

work in plaster casting. Text-book: Technique of Sculpture, by W. O. Partridge.

17. **Heating and Plumbing.** Systems of heating buildings; methods of ventilation; dry closets; water-supply; plumbing; sewer construction; sewage disposition.

18. **Specifications.** Discussion and composition of standard specifications for residences and simple public buildings.

19. **Estimates and Contracts.** Detail estimates of stonework, concrete, and brickwork, lumber, plastering, painting, labor, etc. Methods of making lump estimates. Study of quotations of building materials. Discussion of the principles and forms of building contracts. The status of the architect and superintendent. Bonds, mechanics' liens, building laws, etc.

20. **Architectural Composition I.** Original work. Each student is required to draw, finish, trace and blue-print a full set of plans, elevations and details of a modern frame dwelling of given cost, size, and general form.

21. **Architectural Composition II.** Original work. Each student is required to draw, trace, finish and blue-print a full set of plans, elevations and the most important details of a modern stone or brick schoolhouse. The general character of the building, its cost, limit, the floor space of its rooms, closets, and halls, and the extent of the required conveniences are given by the instructor.

22. **Architectural Composition III.** Original work. Each student is required to draw, finish, trace and blue-print a full set of plans, elevations and details of a stone church, or public building. The general type of architecture, the character of the building material, the cost, limit of lot and floor space are given by the instructor.

23. **Roofs and Trusses.** Study of modern methods of iron and steel construction applied to columns, struts, beams, trusses, and concrete reenforcements. Study of foundation, roofing and drainage problems. Text-books: Kidder's Hand-book for Architects and Builders; also, Nos. 97-A and 657-B of the International Text-book Company.

Students taking the architecture course are required to devote their summer vacations to practical work in actual building operations.

EQUIPMENT.

The College is well equipped to maintain a course in architecture. Its mechanical workshops are the most extensive west of the Missouri; its physical science laboratories are provided with an abundance of modern scientific apparatus; it owns a rapidly growing collection of several hundred plaster casts, tile and terra-cotta samples, marble specimens, etc.; it has a fine collection of models of the classic orders; a collection of blueprints of nearly all the Kansas state buildings; a large number of modern books on architecture and engineering; a bound set of the *International* edition of the *American Architect;* a bound set of the *Inland Architect* and of several European architectural magazines; a well-equipped blue-print room, etc. The substantial stone buildings of the institution and the complete system of water-supply, drainage, heating and lighting furnish excellent illustrative material.

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. Whenever 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 agriculture course is chiefly of this nature, as will be seen by consulting the outline below.

Of the studies described below, No. 1 is required in all courses, and No. 2 in the general science course.

1. **Elementary Botany II.** First year, fall term. This course covers the elements of morphology, physiology, and ecology. All of the great groups of plants are taken up and discussed in the order of their evolutionary development. Especial attention is given to the changes in structure which appear in response to changes in environment. Emphasis is laid upon the plasticity and adaptiveness of the plant organism. By grasping this fundamental conception at the outset, the facts of plant life, particularly studied in horticulture and agriculture, become more comprehensible and significant. A general study of the classification of the plant kingdom, sufficient to enable the student to understand the broad outlines and the relationships of the great alliances secured in this course, and, by coming into close contact with plants as living organisms in their natural habitats, he becomes acquainted with the factors that regulate their life and activity. Coulter's Plant Studies is the text used.

Field-work.—Certain definite problems in plant ecology are assigned to different groups of students, and a report of observations made, together with drawings of twenty-five representative plants in the localities studied, is required. The materials called for are: A drawing tablet, a key to the local flora, published by the department, and a simple lens.

2. **Plant Morphology.** Fourth year, winter term. In this course the forms and structural relations of representatives of all the great groups of plants are studied in detail in the laboratory. The purpose is to give the student a comparative insight into the morphological characters of the more important groups of the plant kingdom, and a conception of their genetic relationships and their development and position in the evolutionary series. Coulter's Plant Structures is the text followed, supplemented by lectures.

Laboratory.—Laboratory work occupies four hours per week throughout the term. Accuracy of observation is tested by exact studies of representatives of all the great groups of plants, both with the unaided

A HEAP OF SELECTED SEED EARS.
A corner of the College seed-corn room, with drying racks in the rear.

eye and by means of the microscope. Detail drawings, according to furnished outlines, are required. Drawing materials are provided by the student. All necessary reagents and instruments are supplied by the department.

ELECTIVES.

3. **Plant-breeding.** Fourth year, spring term. This course is devoted to the study of the evolution and breeding of plants. The laws of heredity and variation are studied in detail, with especial reference to their application to the improvement of economic plants, and a critical study is made of the principles underlying seed and plant selection and hybridization. The history of the evolution and development of economic plants is taken up in considerable detail, and a critical examination is made of the methods followed and results obtained by investigators in plant-breeding here and abroad. The extended series of experiments now being conducted by the Experiment Station will be used for illustrative purposes. The course is given by lectures, supplemented by laboratory work, and a seminar in plant-breeding, held once a week.

Laboratory.—Laboratory work will involve experiments in seed and plant selection, hybridization, the statistical study of variation, etc.

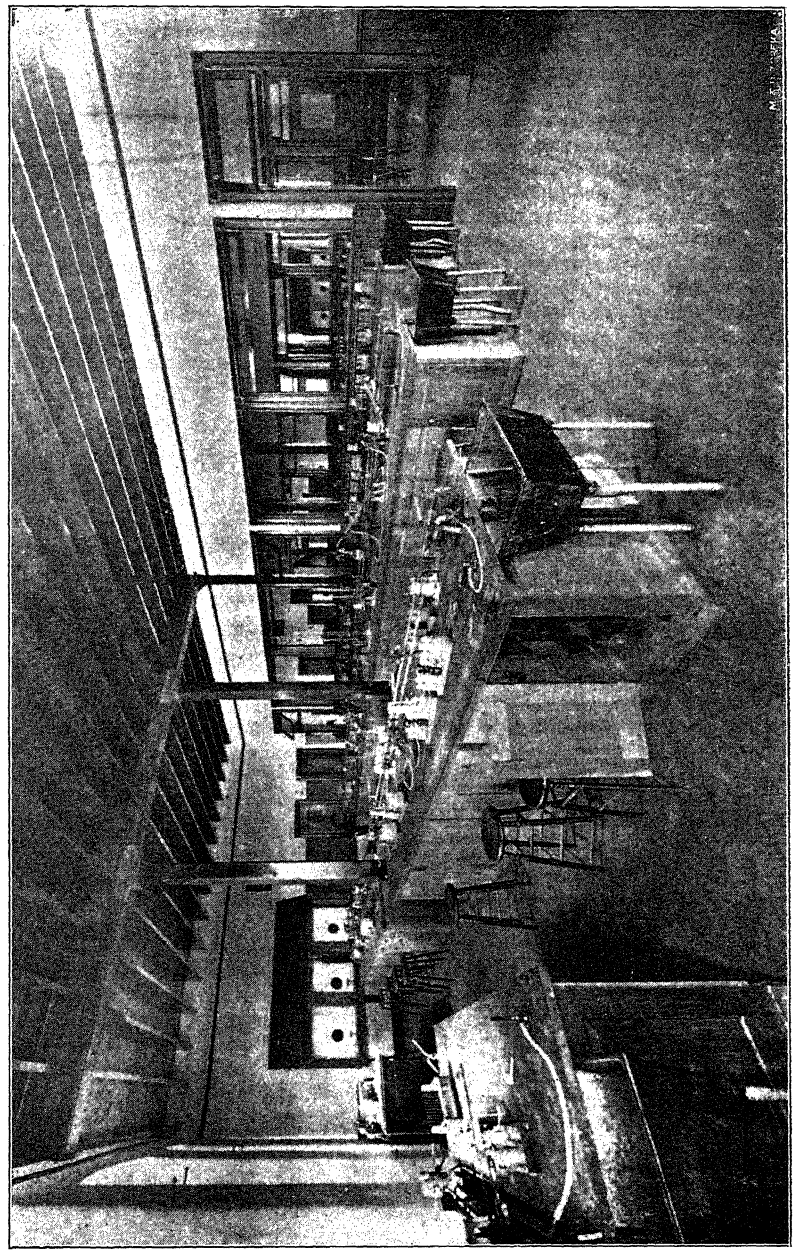
4. **Plant Diseases.** Fourth year, fall term. The term is devoted to the study of causes of diseases in economic plants. The study is familiarized by lectures upon the great groups of the parasitic fungi and their chief subsidiary groups. The general morphology of these is discussed successively, and the morphology and physiology of the particular representative of each selected for laboratory study is given in detail, together with combative and preventive measures. A rich herbarium of types and a constantly growing set of duplicates furnish abundant material for the work, and are supplemented by alcoholic specimens properly killed and fixed, and by prepared slides. Ample literature on the subject of plant diseases is afforded by the library of the department and of the Experiment Station. H. Marshall Ward's Diseases in Plants is used as a text. Prerequisites are courses 1 and 2, or their equivalents.

Laboratory.—In the laboratory work pathological specimens are examined and the changes induced in plants by fungi and by abnormal physical conditions are studied in detail under the microscope. The object of this course is rather to study the workings of diseases from the standpoint of the host than to become acquainted with the groups of parasitic fungi, although a sufficient study of the morphology of these for practical purposes is made in the laboratory.

GRADUATE COURSES.

5. **General Morphology of Thallophytes.** Winter term. Lectures and laboratory work. This course involves a detailed study of the morphological characters of the algæ, fungi, and lichens.

6. **General Morphology of Bryophytes and Pteridophytes.** Spring term. Lectures and laboratory work. The work begun in course 4 is here continued in the higher groups of liverworts, mosses, and ferns. Especial attention is given to evolutionary lines of development in these groups.



CHEMICAL LABORATORY.

Chemistry.

All the industries are becoming more and more dependent for their highest success upon intelligent application of the sciences, and the special sciences are making their greatest progress by tracing their phenomena back to the physical and chemical changes that accompany them. A study of chemistry and physics is therefore essential to any understanding of the processes of nature or human industry. In the instruction in chemistry 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, domestic and other 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 and 9 are required in all courses. In addition, the engineering and architecture courses require Nos. 4, 5, 12, and 13; and the agriculture, veterinary, domestic science and general science courses, Nos. 2, 3, 10, and 11. The domestic science course also requires No. 6; the veterinary, No. 7, and the agriculture course, Nos. 7, 8, and 14.

1. **Chemistry I.** Second year, fall term. This term's work is designed to give the student a knowledge of the fundamental principles of the science as illustrated by the chemistry of the non-metals and that of some of the metals. As all subsequent progress in this science requires a working knowledge of its principal theoretical conceptions and of the rules for naming compounds, the significance of formulæ, chemical equations, etc., much attention is given to these as well as to the practical uses of the substances and processes in metallurgy, engineering, agriculture, and other arts. The text-book, Newell's Descriptive Chemistry, is supplemented by lectures when necessary, and the subject is amply illustrated by experimental demonstrations. Elementary physics is a prerequisite.

2. **Chemistry II.** Second year, winter term. A systematic study is made of the simpler examples of the more important classes of organic compounds in their logical chemical relations. Such substances as touch the every-day affairs of life are treated with greater detail. Opportunity is thus afforded to consider the hydrocarbons, alcohols, organic acids, fats, soap, sugars, starch, proteids, and other less known substances. Compounds used for clothing, food, fuel, light, antiseptics, disinfectants, anesthetics, poisons, medicines, solvents, etc., are included. While the useful organic compounds have special attention given them, the study of others is not excluded when they contribute to an understanding of the systematic relations existing among the several classes. Any serious study of the biological sciences, or of the arts connected with them, must require this as a foundation. The subject is amply illustrated by experiments in the lecture-room. Text-book, Remsen's Organic Chemistry, in part, accompanied by lectures amplifying the treatment of constituents of foods. Course 1 is a prerequisite.

3. **Chemistry III.** Second year, spring term. In this and the accompanying laboratory work, the prime object is to increase the student's knowledge of chemistry as a whole. The science is so difficult that with most students the one term of inorganic chemistry does not do more than introduce them to it. In chemistry III the standard methods of analytical chemistry are made the basis of a systematic study of the chemical properties of the most important metals, non-metals, acids, bases, and salts. The teaching of analysis as such is a secondary object, although the student is held to the exact observations and careful reasoning required in ascertaining the composition of single substances and mixtures. The lessons, which are outlined in a special pamphlet, include a review of the more important topics of inorganic chemistry, in which natural occurrence of elements and compounds, industrial chemical processes and analytical reactions are seen to be closely connected. The pamphlet also includes simple treatment of some general chemical laws, in accordance with modern views. The exercises are so arranged as to pass from the simple to the more difficult, and at the same time facilitate the comparative study of the several cations and anions. The theories of chemistry receive constant application, and the effect of the course is to broaden, strengthen and unify the student's ideas of general chemistry, greatly to enlarge his knowledge of chemical facts, and at the same time fix many of them by their association with the reactions made use of in analytical chemistry. Must be preceded by courses 1, 9, and 10.

4. **Chemistry IV.** Second year, winter term. In this course engineering students give special attention to the metals used in construction and other engineering operations and to compounds of metals of engineering significance. This course completes Newell's Descriptive Chemistry and includes a series of lectures on alloys, materials of construction, etc. Must be preceded by course 1.

5. **Chemistry V.** Second year, spring term. The work given in this course is similar to that of chemistry III, but adapted, as far as may be, to the needs of engineering students. Must be preceded by courses 4 and 12, and accompany 13.

6. **Human Nutrition.** Third year, fall term. This is a course of lectures on the chemistry of foods and nutrition, and includes the following topics, with others: Composition of the animal body; composition of foods and methods of investigation employed in their study; the changes that the several classes of foods undergo in cooking and digestion, and the functions that they perform in nutrition; daily food requirements, and the balancing of dietaries; food economy. Course 2 and physiology must precede this course.

7. **Animal Nutrition.** Third year, fall term. This course is designed to provide a thorough scientific basis for the study of practical stock-feeding. It is a study of the relation of the animal body to matter and energy, and includes consideration of the methods of investigation employed, and of the following topics, with others: The chemical characteristics of the more important feeding-stuffs and causes of their variation in composition; the chemical changes that feed undergoes in digestion; the tissues that can be built up by the several proximate principles of feeds, and the bodily functions that they can sustain; hence, the requirements of the animal as modified by the purpose for which it is fed; the channels through which the energy of feed is lost or is utilized. Lectures and parts I and II of Henry's Feeds and Feeding. Course 2 and physiology must precede this.

8. **Agricultural Chemistry.** Third year, spring term. Among the subjects treated are: The soil-making rocks and minerals, and the

agencies by which soils are formed from them and other minerals; the soil requirements of different crops; the sources of soil fertility, and means of conserving it; the general relations of plants to earth, air, and water. Text-book, Snyder's Soils and Fertilizers. This is supplemented by lectures. Courses 3 and 11 must precede this.

9. **Chemical Laboratory I.** Second year, fall term. This course accompanies chemistry I. As far as time permits, the student performs, independently, experiments touching the preparation and properties of the more important inorganic substances. Preference is given to those operations which illustrate important principles, and the student is required as far as possible to study experiments in that light. In this, as in all other laboratory work in chemistry, the objects are, to illustrate chemical phenomena, and to teach care in manipulation, attentive observation, logical deduction, and discrimination and accuracy in recording results and conclusions. The student is not only required to give the designated amount of time, but at least a minimum amount of work must be satisfactorily performed in order to obtain credit.

10. **Chemical Laboratory II.** Second year, winter term. This includes blowpipe analysis of the more prominent species of minerals, especially those of common occurrence and economic importance in agriculture and engineering. Must be preceded by 9.

11. **Chemical Laboratory III.** Second year, spring term. This accompanies chemistry III. The regular methods of qualitative analysis serve as a basis for a laboratory study of the chemical properties of substances. At first simple known salts are given the student; later, unknown substances, simple and complex, soluble and insoluble. Course 10 is a prerequisite.

12 and 13. **Chemical Laboratory IV and V.** Second year, winter and spring terms. These courses for engineering students are similar to chemical laboratory II and III in general scope, but work in analysis of flue gases and determination of the calorific value of coal is included also. The exercises throughout are adapted to the special needs of the student for whom they are designed. Course 9 must precede these.

14. **Agricultural Chemistry Laboratory.** Third year, winter term. Six hours per week are given to laboratory work, which consists of simple quantitative exercises, as far as possible upon substances of direct agricultural interest. These are so planned as to give as great variety of training as possible in the limited time available. Prerequisite, course 11.

MORE ADVANCED COURSES.

Advanced work in chemistry is offered in graduate courses and as electives in the general science course. Classes requiring lectures and recitations will not be organized for less than three students.

15. **Inorganic Chemistry.** Fall and winter terms. This course is a thorough study of one of the larger text-books, such as Ostwald's or Alexander Smith's, accompanied by a special course of laboratory work.

16. **Organic Chemistry.** Spring term. This course includes laboratory work, and the study of Cohen's Theoretical Organic Chemistry in part. When sufficient demand exists it will be extended to two terms.

17. **Chemistry of Foods.** This course is designed for graduate students taking domestic science, and extends through a year. It consists of the study of the literature treating of food and nutrition from a chemical standpoint, accompanied by laboratory work in the separation and study of the constituents of foods, drinks, and condiments. This course may be extended to almost any extent, and leads naturally to the quantitative analysis of foods.

18. **Quantitative Analysis.** This may be taken at any time after completing course 11. 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.

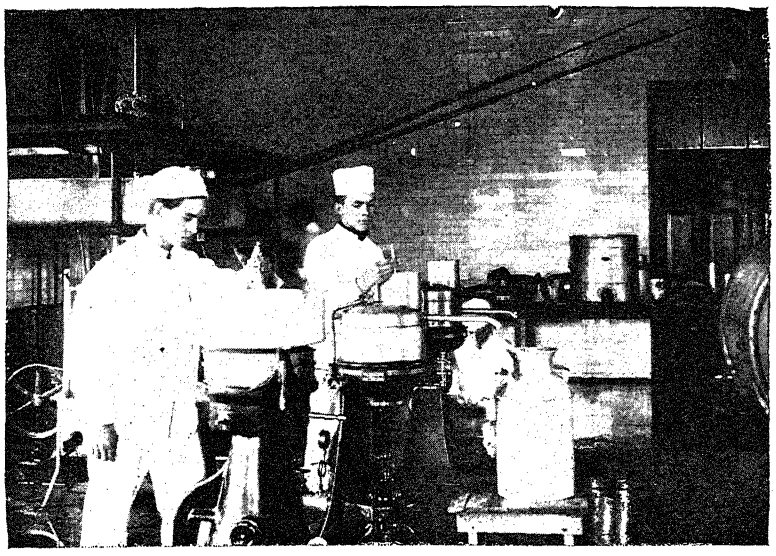
19. **Historical and Theoretical Chemistry.** This course may be arranged for by students who have completed courses 15 and 16.

20. **Mineralogy.** The study of minerals and blowpipe analysis may be taken by those who have completed course 11.

21. **Journal Meeting.** Once a week throughout the year, the officers of the department, with the more advanced students and such others as wish to, meet for papers and discussions upon topics representing the progress of chemical science, chiefly as found in the current journals. The preparation of subjects for presentation at these meetings is a part of the required work of graduate students and of those electing courses 15 and 16.

MEANS OF ILLUSTRATION.

The lecture-rooms are provided with excellent facilities for demonstrations, and the laboratories have the necessary items of equipment, to which additions are constantly being made. The laboratories for the first year's work in chemistry will accommodate 138 students at one time, and the desks are so constructed that they may be used by an equal number working at another time. The laboratory for more advanced work provides places for forty-eight students. All of the laboratories are well supplied with draft hoods. Each student's place is provided with gas and water, and distilled water is piped to all of the laboratories. The collections include representative specimens of the most important ores and minerals, a set of natural crystals, a set of large crystal models, a collection of the minerals of the noted Stassfurt deposit, and chemical and technical preparations illustrating subjects taught.



HAND SEPARATORS.

Dairy Husbandry.

Dairy and poultry farming are considered intensive lines of farming. Owing to the fact that the production and the marketing of these products are carried on together, it is essential to embrace the two in one department.

DAIRYING.

In dairying, instructions are given in breeding, feeding, rearing and judging dairy cattle, with a view of awakening and encouraging an intelligent interest, so that when a student sees an animal, he will at once compare it with an ideal he carries in his mind, and note wherein it falls short.

The principles of breeding as related to raising of dairy animals are studied, so as to enable the student to know how our improved breeds of live stock have been developed, and how animals of superior merit may not only be perpetuated but improved. This work includes practice in tracing out pedigrees, and studying the methods of carrying on the work for the advanced registries and record keeping of dairy herds.

The value of different feeds and combinations of feeds is taught, so that the student will be able not only to combine feed stuffs to get the required nutrients, but to combine them in the most economical manner to produce desired quantity and quality of product.

The aim is to give the student such knowledge and skill as will enable him to return to the farm and select, breed and feed the best dairy animals it is possible for him to obtain; or, if he has no farm of his own, opportunities are open for young men, after getting some experience, to work into positions as farm managers.

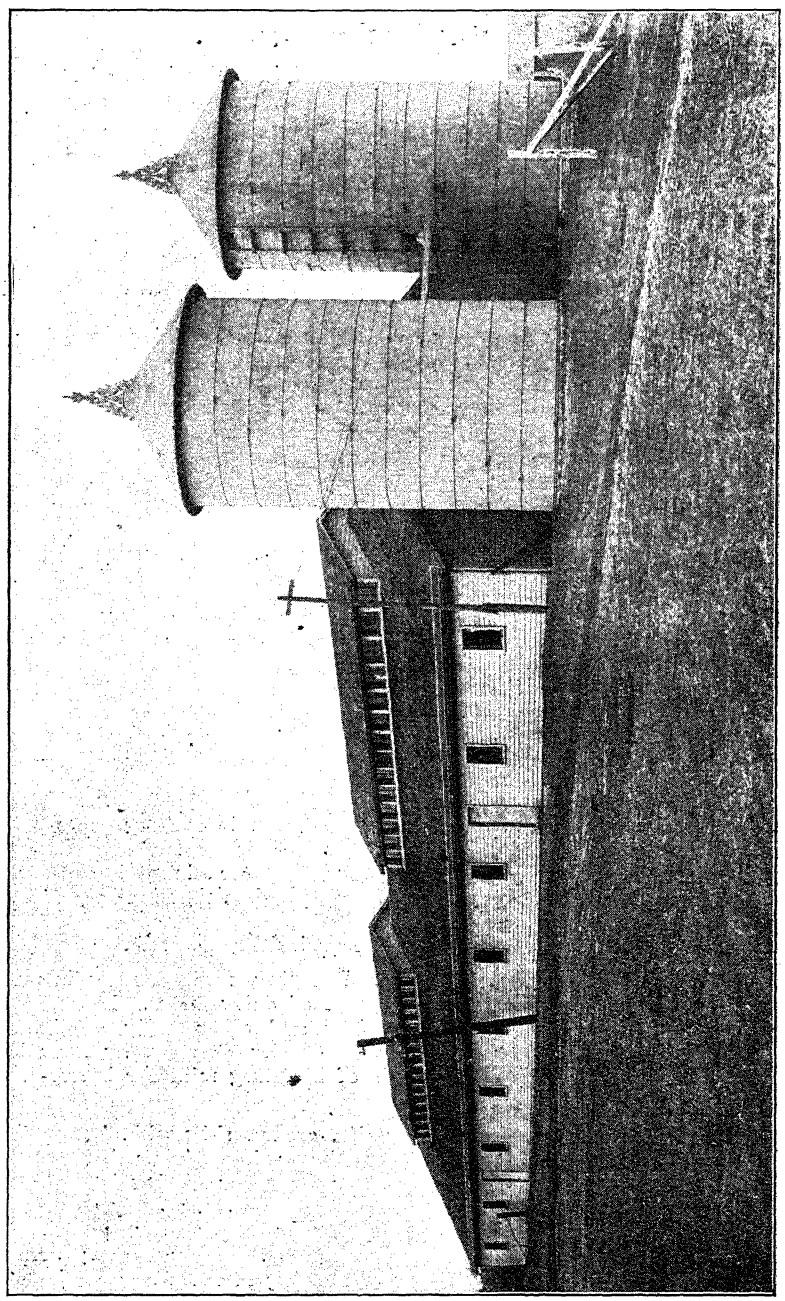
Machinery is fast taking the place of hand labor, and it is therefore essential to become acquainted with the different appliances and gain an intelligent conception of the principles of mechanics. Practical instructions are given in operating milking-machines, gas-engines, and boilers—in fact, all machinery used in connection with a modern dairy.

In dairy manufactures, instructions are given in making dairy products and everything in connection with the management of a commercial creamery, cheese factory, sanitary milk plant, etc., in such a manner that a student can intelligently handle any problem that is likely to confront him in his work afterwards.

Nos. 1, 2, 3 and 4 are required in the agriculture course.

Dairying. Second year, fall term. Breeding, feeding, recording and judging dairy cows; general management of dairy herds. Instructions are given in operating milking-machines and other dairy appliances. Conditions influencing the quantity and quality of milk, its secretion, nature, and composition; the methods of handling milk for butter- and cheese-making.

Laboratory.—Practice in testing milk, cream, skim-milk, buttermilk, and whey; butter and cheese for fat methods; determining the moisture in butter; the detection of adulteration; tests for distinguishing oleomargarine from butter; testing accuracy of glassware; study of various hand and power Babcock testers and cream separators; practice in separating milk, pasteurizing, ripening and churning cream; setting milk; curd setting; salting, pressing and curing of cheese.



DAIRY BARNS AND SILOS.

ELECTIVES.

Fall Term.—Advanced feeding of dairy animals and rearing of calves.

Advanced study of breeding; demonstrating different methods of selecting dairy cows; testing and recording dairy cows for advanced registry.

Dairy mechanics; practical work in the operating of milking-machines, boilers, and gas-engines, tread power, cream separators, and other dairy appliances.

Production of sanitary milk; practical work will be given in the handling of milk on sanitary milk farms.

Winter Term.—Planning and constructing ice-houses, refrigerators, and mechanical refrigerating plants; studying the influences of temperature on dairy and poultry products.

Planning of creameries, cheese factories, ice-cream and condensing plants.

Study of the manufacture of condensed milk.

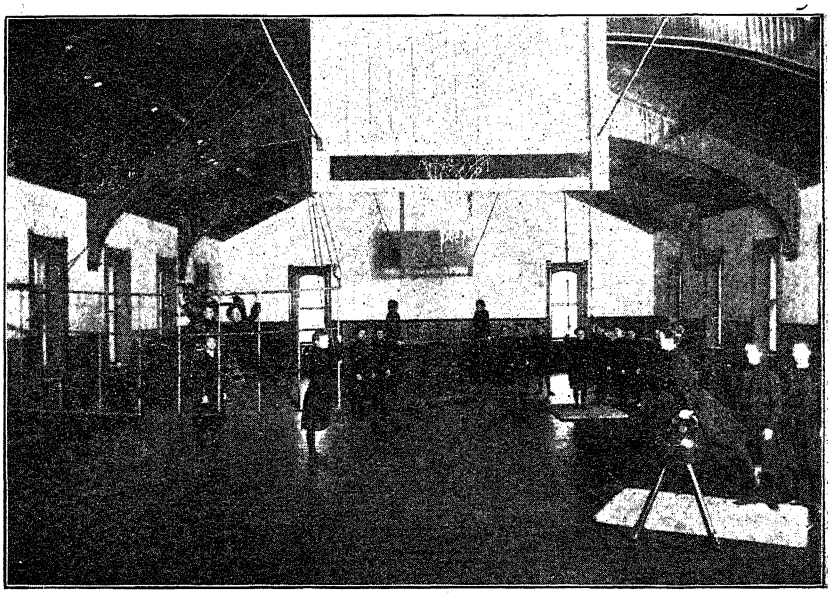
Study of the manufacture of ice-cream. Practical work will be given along these lines.

Spring Term.—Advanced butter-making.

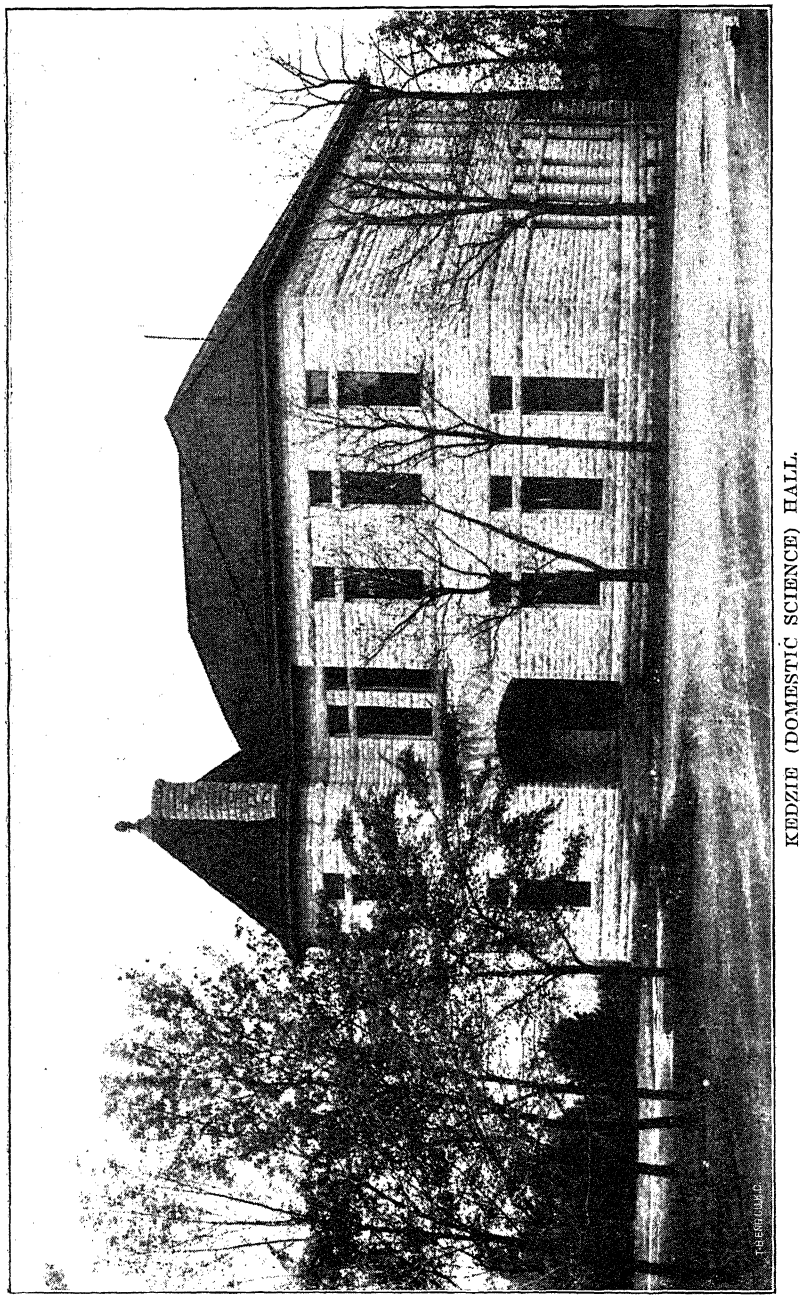
Advanced cheese-making.

POULTRY.

Winter Term.—Poultry products are fast becoming the leading animal product of the state. Instructions will be given in this line to show the most profitable and practical ways of poultry farming; such subjects as rearing, breeding, feeding, incubating, judging poultry, planning poultry houses and poultry fixtures will be studied. Practical work will be given in the handling and grading of eggs, killing and dressing of fowls. The work will be of a practical nature, accompanied by daily lectures.



INTERIOR OF GYMNASIUM.



KEDZIE (DOMESTIC SCIENCE) HALL.

Domestic Art Department.

The object of this course is to give the pupils practical knowledge of all varieties of hand sewing and machine sewing; also a thorough knowledge of the principles of dressmaking, with as much practice in their application as time will allow. It is not only valuable to those who wish to make their own dresses, but also affords an opportunity to those who wish to become practical dressmakers.

Under a system which is carefully planned and properly carried out, learning to sew may be as educational a process as any other of the industrial arts. It develops the thrifty disposition, encourages habits of neatness, cleanliness, order, management, and industry. Patching, darning and home-made garments are all ways and means of economizing.

Of the studies described below, all women are required to take Nos. 1, 2, 3, and those in the domestic science course must take No. 4.

Materials for No. 1 are furnished by the College, the student furnishing her own thread, thimbles, needles, and tape measures. In Nos. 2, 3 and 4 the pupil furnishes her own materials and makes her own garments. 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 close of each term.

1. **Sewing I.** First year, fall term. The pupils make a book of models covering the full course of hand sewing, different kinds of stitches, combinations of stitches, seams, hems, tucks, gathering, overhandling, darning, patching, and making buttonholes. Talk on implements used in hand sewing; proper position of body in sewing. Methods of using thread, needles, thimble, and tape measure.

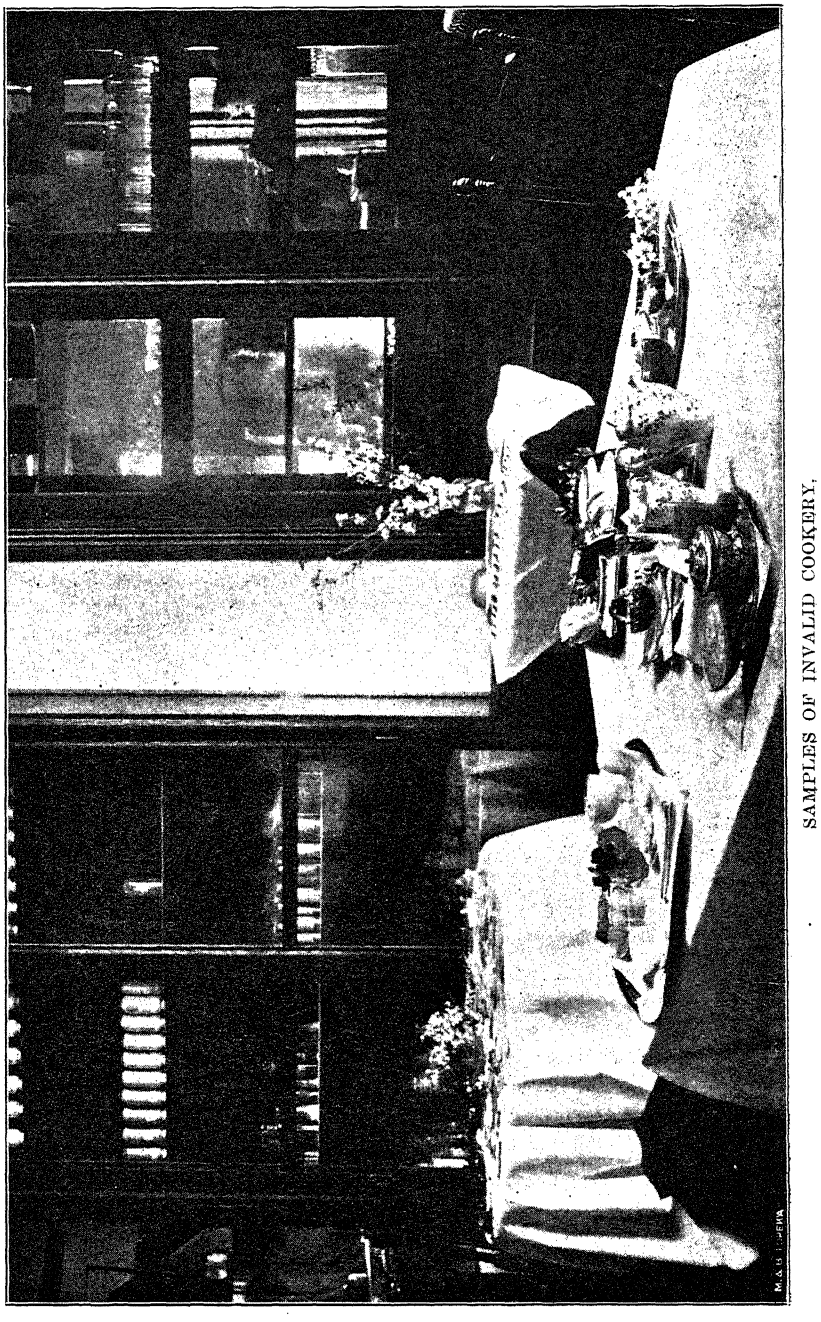
2. **Sewing II.** First year, winter term. Discussion of appropriate materials and trimmings for undergarments. Care and use of sewing-machines. Machine practice. Drafting, cutting and making underskirt and drawers. Materials used: Muslin, long-cloth, cambric, or nainsook.

3. **Sewing III.** First year, spring term. Drafting, fitting and making dresses without lining. Materials: Madras, gingham, linen, or lawn.

4. **Dressmaking.** Second year, winter term. Nos. 1, 2 and 3 are prerequisites for this course. The work of this term is devoted to the fundamental principles of dressmaking. Each pupil will be required to take measures, draft, and make a woolen dress. Talks are given on textiles and on colors and their combinations.

5. **Sewing IV.** Making jackets and coats. The work of this term includes instruction in tailor finish as applied to dresses, jackets, and coats.

6. **Art Needlework.** This course aims to give the students the necessary stitches in decorative art, and at the same time to cultivate artistic feeling and judgment in the choice of design, color; also in the decoration of fancy dress waists, collars, undergarments, and household articles.



SAMPLES OF INVALID COOKERY.

Domestic Science.

The object of the course in domestic science is to fit young women as home-makers and as capable women in whatever sphere their life-work may be. Such, then, as tends to cultivate correct observation, accurate reasoning, generous judgment and an appreciation for the beautiful in nature and art may rightfully find a place in such a course.

That which most especially pertains to woman's province, the home, is dependent upon the sciences of chemistry, physiology, bacteriology, and hygiene, and direct applications of the principles of these sciences are made in the lessons in cookery, dietetics, home nursing, and household management.

Hygiene and elementary cooking are required of all young women; the remaining courses are required of domestic science students, and may be elected by general science students.

1. **Hygiene.** First year, fall term. This course consists of one lecture each week, and is to be taken by all young women in the first year of attendance. The lectures cover the subjects of baths, exercise, ventilation of study rooms, and other topics that directly bear upon the health of a young woman student.

2. **Elementary Cookery.** First year, winter term. The economic use of fuels; the proper management of stoves and ranges; the care of utensils; the cookery of vegetables, cereals, fruits, milk, eggs, and meat, together with a few lessons in bread-baking and cake and pastry-making are taught.

3. **Domestic Science I.** Third year, fall term. This course begins with lectures on cooking utensils, ranges, cleaning agents, and household waters. This is followed by a thorough study of all carbohydrate foods, their sources, chemical composition, cooking, digestion, and economic value. Fats and oils are considered in like manner. Course 1 and physiology are prerequisites, and human nutrition must either precede or be carried with this course.

Text-books are Hutchison's Food and Dietetics and Mrs. Hill's Practical Cooking and Serving.

Laboratory practice is given in the cookery of vegetables, cereals, fruits, and combinations of foods in which the carbohydrates predominate. During the latter part of the term the lessons are on deep-fat frying, salads, and pastry.

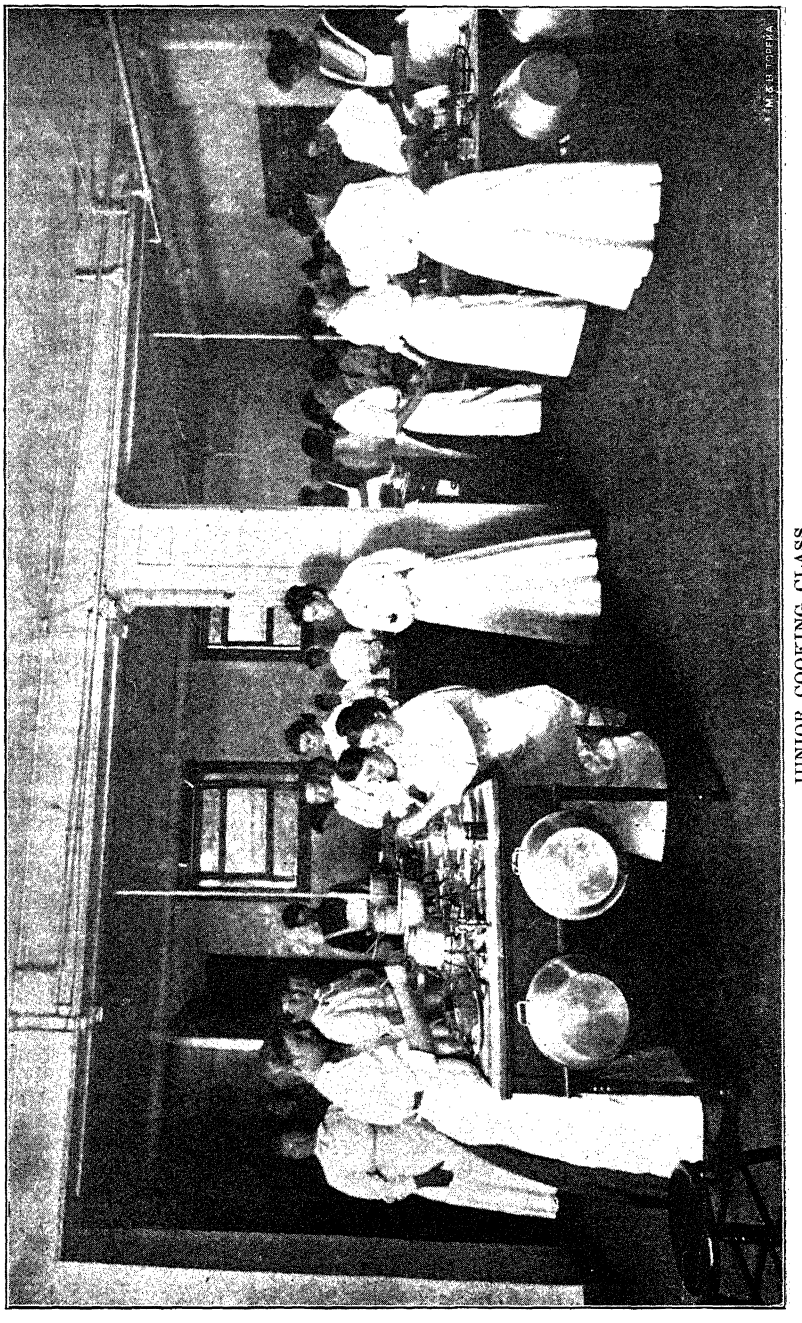
4. **Domestic Science II.** Third year, winter term. This is a continuation of course 5, and proteid foods are studied during this term as carbohydrates were in the fall term. The text-books are the same as those of course 5.

Laboratory.—Practice is in the cookery of milk, cheese, eggs, meats, gelatins, beverages, and breads and yeasts. The planning of menus is an important part of the work.

5. **Domestic Science III.** Third year, spring term. This course is a continuation of courses 3 and 4. Dinners are planned, materials purchased by the students, the meals served, and a record made of amounts, nutritive ratios, caloric values, etc.

Laboratory.—The practice in this course consists in the preparation and service of meals, the making of ices, creams, and desserts, with a general review of the entire year's work.

6. **Laundering.** Third year, spring term. The scientific principles involved in laundering are taught, including the use of soaps, washing fluids, and starch, and the removal of stains.



JUNIOR COOKING CLASS.

7. **Dietetics.** Fourth year, fall term. Dietetics is advanced work along the same general lines as that given in courses 3, 4, and 5. Special stress is laid upon food preservation, adulterations, and preservatives. Instruction is given in the balanced dietary, nutritive ratios, and the agreeable and hygienic combinations of foods. Prerequisites, domestic science I, II, and III. Text-books: Thompson's Practical Dietetics and Conn's Yeasts and Moulds in the Household.

Laboratory.—Practice in canning, preserving and jelly making is given first, after which the more elaborate dishes are prepared and course dinners are served. Excursions are made to the local mills and markets and to those of the near-by cities.

8. **Home Management.** Fourth year, winter term. Sanitary construction and care of the house; sanitary, economical and artistic household furnishings; judicious expenditures of incomes, and the keeping of household accounts are the topics treated. Lectures given and reference work required.

9. **Therapeutic Cookery.** Fourth year, spring term. Abnormal conditions of digestion, assimilation, and metabolism; alterations of secretions and destruction of tissue due to germ diseases are studied, together with the diets adapted to the conditions and needs of the system. Special attention is given to the feeding of infants and small children.

Laboratory.—The practice work consists of the preparation of many and easily digested foods suitable for the sick and the arrangement of trays for invalids. Some demonstration lectures are given by the class. Text-book: Thompson's Practical Dietetics.

10. **Home Nursing.** Fourth year, spring term. The course covers the furnishing and care of sick-room, the giving of baths, administration of medicines, record of symptoms, first aid to the injured, and the intelligent use of antiseptics and disinfectants. Bacteriology is a prerequisite. Week-Shaw Text-book of Nursing.

ADVANCED COURSES.

11. **Theory of the Presentation of Domestic Science.** Fall term. This is a study of laboratories, laboratory equipment, cost of equipment, and cost of supplies. Outlines of lessons are prepared and demonstrations are required of each member of the class. Courses 5, 6 and 7 are prerequisites.

12. **Food Study.** Winter term. Advanced study of the digestion, absorption and metabolism of foods. Schafer's Physiology, vol. 1, is the text-book. Weekly reviews of scientific articles bearing upon domestic science subjects are required. This course is open to graduate and elective students.

13. **Bread-making.** Spring term. Both class work and laboratory are required. Yeasts are studied under the microscope. The milling of wheat is carefully considered and the mills are visited. All the conditions that may affect the quality of bread are investigated. Bread by many methods is prepared and comparisons made. This course is open to elective and graduate students.

14. **Dietary Studies.** Spring term. The students entering this course are put upon fixed diets. The amounts consumed, amounts wasted, cost and effect upon the subjects are recorded. The nutritive ratio and caloric value of the foods used are computed. The meals are prepared by the students in the course, which gives much valuable practice in the preparation and service. This course is for elective and graduate students.

15. **Theoretical Domestic Science.** Can be arranged for graduate students, and consists of outlines and reviews of many standard works relating to domestic science subjects.

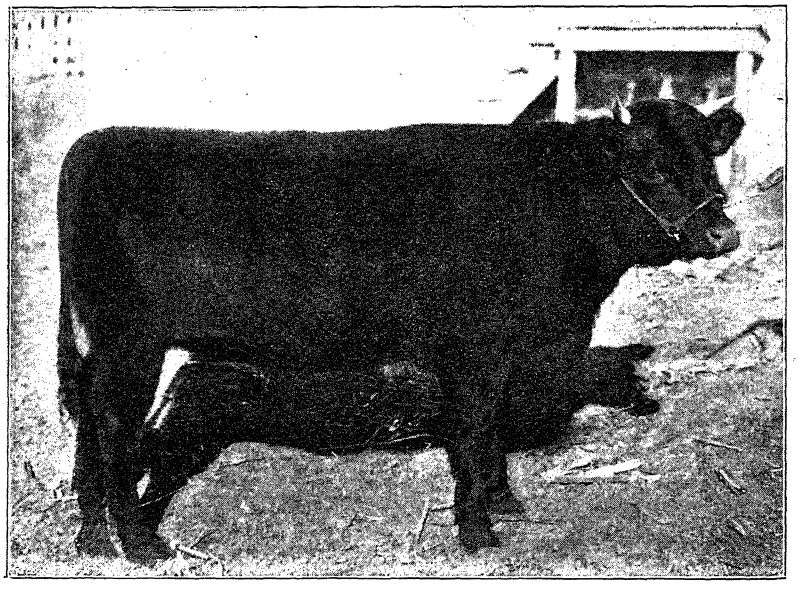
Economics.

The technical training which the state provides for young men and women is intended to be of social rather than individual advantage. It is assumed that the student who has been trained at the expense of the state will increase the productive capacity of the community in which he employs his skill, and thus advantage society as well as himself.

His whole obligation to society, however, is not discharged in this way. He owes something to the state as a citizen. As such he cannot escape the responsibility of contributing his share towards the solution of economic problems which grow out of the complex industrial system of which he is a part. To this end he should be familiar, at least, with the fundamental principles which underlie the production, exchange and distribution of wealth, and which enter so largely into the numerous economic problems that await popular solution.

It is the aim of this department, therefore, to emphasize the application of economic principles to industrial conditions. In doing this care is taken to avoid a dogmatic presentation of any subject. Students are encouraged to form habits of investigation and correct thinking before arriving at conclusions. The instruction given is by a combination of the text-book and lecture method, which offers a means of escape from the narrowness and dogmatism that result from exclusive reliance on a text-book, and from the waste of time in imparting information by lectures only, when such could be acquired more surely and quickly from the printed page. A department library of well-selected books bearing on economics, sociology and statistics is at the disposal of students, and is used for collateral readings, book reviews, and reports.

A term's work in this subject is required in the senior year of all courses, and should be preceded by both civics and American history, except in the architecture and engineering courses, where economics and American history are concurrent subjects. Text used: Gide's Economics.



YOUNG MARY—SHORT-HORN HEIFER.

English Language and Literature.

As its name implies, the work of this department is twofold: On the one hand it deals with the derivation, nature and especially the effective use of our mother tongue in practical discourse; on the other, it studies the literature of the English-speaking world, as exemplified by the master writers at different periods of our literary development. Thus, the attention of the department is devoted to the study of rhetoric and to the study of literature.

The aim of the instruction in rhetoric is to give a thorough and systematic training in the principles and practice of English composition. The most common errors to which inexperienced writers are subject are pointed out and criticized. The elements of style are studied from a text-book, discussed in daily recitations, and applied practically in the writing of paragraphs, themes, and essays. Attention is given to methods of finding, selecting and arranging material and to the application of these methods in the various types of discourse.

In literature, the instruction seeks to give the student an understanding of the nature and characteristics of literature in its leading forms, to develop in him a taste for the best literature and enthusiasm for literary study, to impart to him right methods, to train him in the ability to judge with confidence the literary qualities of any given work, and, through sympathetic study of masterpieces, to give him some knowledge of the leading authors.

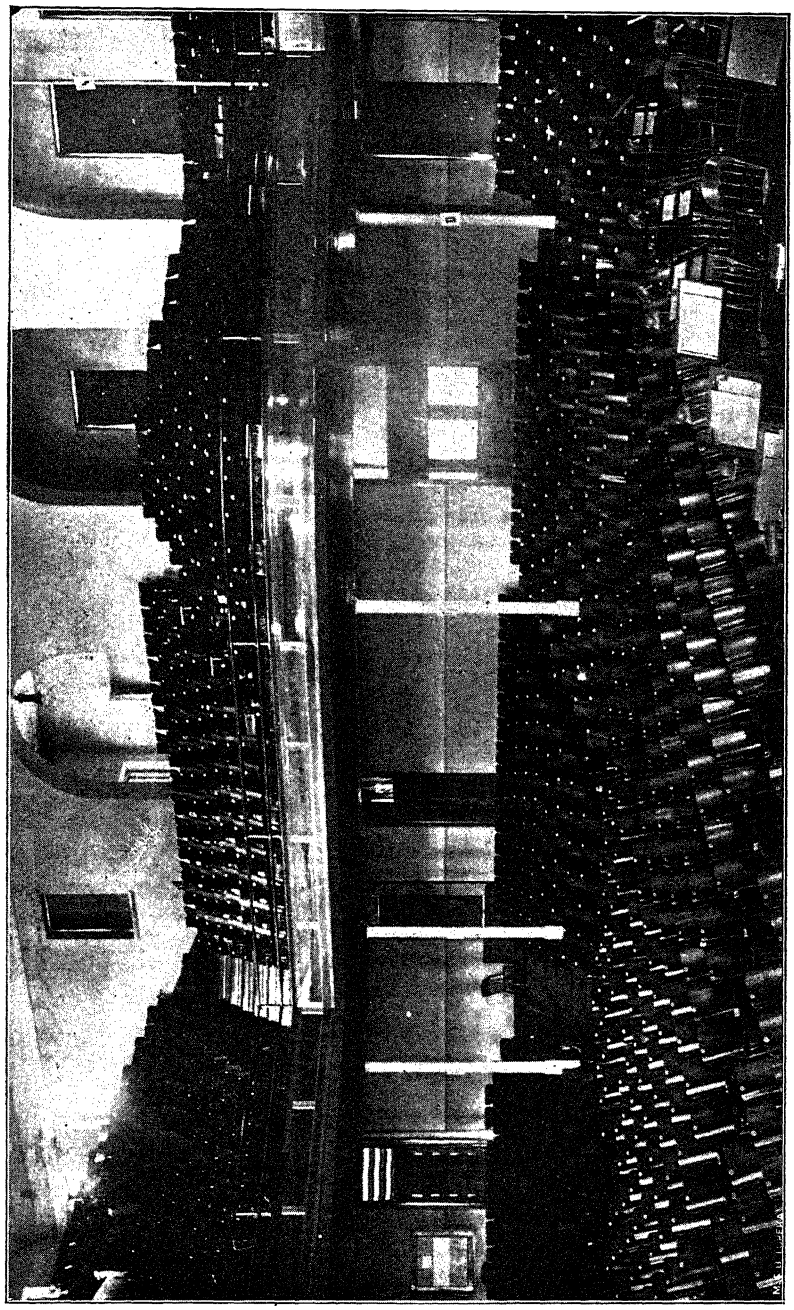
In most of the courses the work is pursued by a combination of lectures, classroom study, and seminary investigation. The literature is read at first hand, and the student is required to do for himself, by way of interpretation, as much as possible. The extensive and intensive methods are combined: wide reading, to get literary atmosphere and breadth of view; critical study, to develop accuracy and insight. While historical conditions are not neglected, the weight of emphasis is placed upon the permanent qualities of literature as an artistic expression of life. To know what some one has said about a great author is deemed to be of less importance than what a great author has said for himself.

Students who present acceptable evidence of having satisfactorily studied the works now generally prescribed for admission to American colleges and universities, or the equivalent of those works, may receive credit for the course in English readings given in our preparatory year and for the course in English classics given in the first year. The works prescribed are divided into two groups—one for intelligent reading and one for careful study. The lists for the next two years are as follows:

I. FOR READING: Shakspere's Macbeth and The Merchant of Venice, Addison's The Sir Roger de Coverley Papers, Coleridge's The Ancient Mariner, Scott's Ivanhoe, Tennyson's Idylls of the King, Lowell's The Vision of Sir Launfal, George Eliot's Silas Marner, Scott's Lady of the Lake, Irving's Life of Goldsmith.

II. FOR CAREFUL STUDY: Shakspere's Julius Cæsar, Milton's Comus, Lycidas, L'Allegro and Il Penseroso, Burke's Speech on Conciliation with America, Macaulay's Essays on Addison and The Life of Johnson.

The examination for credit in English readings will usually consist of a paragraph or two written on each of several topics drawn from group I of the above list, or from the list given on page 123 of the catalogue, under the heading "English Readings." The treatment of the topics will be designed to show a general knowledge of the books read, and especially to test the candidate's power of clear and accurate expression.



PART OF AUDITORIUM

For credit in English classics the examination will be upon the subject-matter, form, and structure, and presupposes a thorough study of the books in group II above or in course 1 below. Especial attention is called to the fact that candidates are thus left free to offer for credit either the books in the lists named or to substitute others of equivalent literary value.

Each applicant for admission is advised to present from his instructor a detailed statement of the books read, the time covered by any course, and the grades attained, together with any exercise book he may have containing compositions or other written work done in his connection with his studies in English.

What other credits in preparatory or freshman English shall be given will be determined partly by the examinations described above and partly by other evidence the candidate may give that he understands the essentials of grammar and has a practical knowledge of the elements of composition. The aim will be to assign each student to that course which he is prepared to pursue with greatest profit.

All applications for credit in English should be presented at the beginning of the first term of attendance.

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

1. **English Classics.** First year, fall term. A careful study is made 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, outlines, and analyses, as well as biographical sketches of the authors, are regularly required. The students are given continual opportunity for studying and rendering the best thought in the best forms, and are at the same time encouraged to develop their own thought and powers of expression. The aim of the course is to afford practice in composition as well as a knowledge of the selections read.

Class Readings.—Shakspere's As You Like It, Pope's Homer's Iliad, Milton's Minor Poems, Addison's De Coverley Papers, Scott's Ivanhoe, Bunyan's Pilgrim's Progress, Shakspere's Macbeth.

2. **Advanced Composition.** First year, winter term. The work in this course is a continuation and extension of that begun in composition. Especial attention is given to precision in the choice of words, to correctness in the various forms of sentence structure, and to unity and coherence in both the sentence and paragraph. Constant practice is given in writing paragraphs and in the preparation of brief essays on familiar themes.

3. **Rhetoric I.** First year, spring term. A continuation of course 2. Further practice is given in paragraph writing. Description, narration and exposition are studied as distinct types of discourse, with constant practice in making outlines and writing themes illustrative of these types. So far as possible the student is trained in the habit of criticizing his own work.

4. **Rhetoric II.** Third year, fall, winter or spring term. Study of style and invention. Rhetorical analysis of masterpieces. Lectures on oratorical composition. Practice in the making and criticism of plans for argument and orations. Essays in exposition, argumentation and persuasion, and briefs for debates.

5. **English Literature.** Fourth year, winter or spring term. A brief

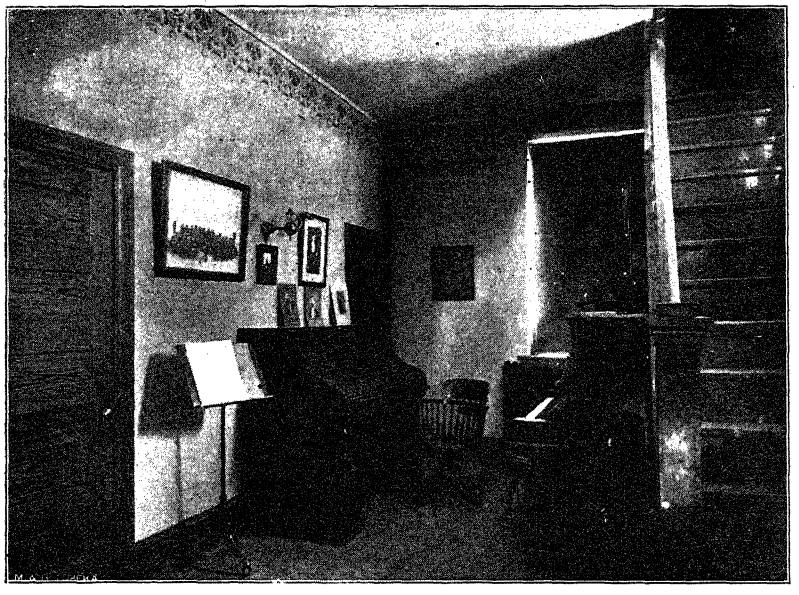
survey of the rise and development of English literature, with library study of typical authors. Lectures: The nature of literature; the nature of poetry; the periods of English literature. Class study and interpretation of masterpieces. Prerequisite, course 4.

6. **English Literature I.** Fourth year, fall or winter term. The history of the English language and literature. Lectures: What is literature? What is poetry? Elements of literary criticism; the beginnings of fiction; nature of the drama; the plays of Shakspere; the age of Scott, Burns, and Wordsworth; Tennyson and his relation to his age. The study of Shakspere, Thackeray and other great writers out of class, with reports and discussions. Classroom study and interpretation of masterpieces. Prerequisite, course 4.

7. **English Literature II.** Fourth year, winter or spring term. A continuation of course 6. The study of Shakspere, Shelley, Thackeray, Burns, Browning, and other writers. Elements of Shakesperian criticism. Must be preceded by course 6.

ELECTIVE.

8. **American Literature.** Fourth year, spring term. A rapid survey of the rise and development of American authorship from colonial times to our own day. Study of the lives of representative men of letters. Seminary study of some of the great novels, essays, and longer poems. Classroom study and interpretation of some of the more difficult poems. Lectures. Must be preceded by course 4.



MUSIC ROOM—ASSISTANT PROFESSOR BROWN.

Entomology, Zoology, and Geology.

It is not necessary to enlarge upon the importance of the studies in this department either to the student seeking general culture or to the specialist in agricultural lines. The fundamental facts of zoology underlie all appreciation of the special studies peculiar to our institution in animal biology, and are moreover essential to an understanding of the true relation subsisting between man and the creatures under his influence; while those of geology show the application of many principles of physics and biology to commonly observed but otherwise little understood phenomena daily before every one. In courses of study framed to meet the needs of the young in an essentially agricultural community, where most have come from the farms, and most must return to them, a study of the minute but important insect friends and foes of the cultivator is not only desirable but essential. The study of insects, however, offers, in addition, especial opportunity for the development of habits of discriminating observation that will be of value in any walk of life.

Of the studies here outlined, Nos. 1, 3 and 4 are required in the agriculture and general science courses; Nos. 1 and 3 in the domestic science course.

1. **Entomology.** Second year, fall, winter or spring term. In the work of this term the intention is to give the student a basis of 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.

2. **Advanced Entomology.** Fourth year, elective. Courses are offered in the following lines: (*a*) Review of the general subject, with the text-book, Comstock's Manual, extended. This study is desirable as preliminary to work in systematic or economic entomology. (*b*) Entomology 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. (*c*) The independent and critical study of systematic entomology, the work in which may be restricted, when desired, to groups of special agricultural importance. (*d*) Economic entomology, so far as relates to the insects of field and garden, with a special study of methods of repression. Course 1 is prerequisite.

3. **Zoology.** Third year, winter or spring term; fourth year, fall term. This course is an introduction to the study of animals—their structure, functions, habits, origin, relationship, and classification. The student is first introduced to the simplest forms of animals, in which structure and functions are expressed in their simplest terms. From the consideration of these he passes in a natural manner to the study of higher and more complex forms, thus obtaining a knowledge of the gradual differentiation of structure and correlative specialization of functions so clearly illustrated by the study of types. Special attention is paid to animal ecology—*e. g.*, the relation of animals to their environment, effects of climate, soil, etc.; parasitism, commercialism, symbiosis; natural and artificial selection; the interdependence of species, and the

STAGE OF AUDITORIUM.

caution which must be observed in interference with these natural relations. The course should be preceded by organic chemistry, physiology, and entomology. Text, Jordan and Kellogg's Animal Studies.

4. **Geology.** Fourth year, fall or winter term. In this study attention is chiefly given to the subject of physical geology, with a brief view of the argument and basis of the historical phase of the science. Zoology should be taken in advance of this number. Scott's Introduction is the text-book used.

MEANS OF ILLUSTRATION.

The illustrative collections embrace ample series of specimens, including the College collection of rocks, the stratigraphical collection, and the collection illustrating phenomenal geology, all from the Ward establishment; the educational collection, from the United States Geological Survey; and a valuable series of rocks and rock-forming minerals, from the National Museum. To these are added numerous specimens, especially from Kansas localities; and a small but increasing representation of characteristic fossils is also open to the student.

The zoological 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 is available also for the use of the student.

German.

In whatever line the modern student turns his energies a practical knowledge of German is very useful, often indispensable. In literature, the arts, and the sciences, much of the newest and best work appears in German, so that he who would keep abreast of the times is forced to acquire at least the rudiments of that language. It is planned to have the work in this department as practical as possible without, however, excluding the growth in the pupils of a love for literature. The tendency toward introducing German classics into second- or even first-year courses is becoming too frequent; students who have "mastered" Faust are too often unable to make the most commonplace remarks in German or to read current German literature fluently.

Of the work described below, Nos. 1, 2 and 3 are required in all courses except agriculture (where they may be taken as a senior elective) and veterinary science, and Nos. 4, 5 and 6 are required in the general science and domestic science courses. The work should be pursued in the order here given. However, with the consent of the instructor in each case, course IV may follow V and VI.

1. **German I.** Second year, fall or winter term. After two recitations given to learning the sounds of the German letters, the pupil at once begins reading. Vocabularies are learned from the start. Grammar is learned gradually, with the reading lessons, in such a way as not to discourage the pupil. Oral and written work and simple conversational exercises begin with the first reading lesson. The present, perfect, preterit (past) and pluperfect (past-perfect) tenses of the indicative mood, active voice, are studied, as are also the inflections of the various kinds of pronouns and declensions of strong, weak and mixed nouns and adjectives. Frequent reviews are taken to enable the student to digest the facts presented. The abundant conversational and written work taken up serves the same end. Text, Becker's Elements of German (first twenty-six lessons).

2. **German II.** Second year, winter or spring term. Pupils are drilled on grammatical points already gone over in German I. The remainder of the more important points of grammar are studied, the remaining tones of the verb, both active and passive, reflexive verbs, modal auxiliaries, comparison of adjectives, etc. The general plan of the work is the same as in the preceding term. Essential facts of grammar are insisted upon, but German is taught as a living language. Conversations and written exercises are frequent. Text, Becker's Elements of German (completed).

3. **German III.** Second year, spring term. More stress is laid on translations into good idiomatic English than heretofore, and the passages read are of increased length. There is oral work on each exercise read, and occasional translations into German. Such selections are read as will give something of an insight into German manners and customs. A few of the most popular songs are studied. Some of the chief treasures of German mythology and saga are taken up, as well as extracts from German history. Whenever a tendency to drag is noticed, one of the anecdotes given in the appendix will be read. Text, Müller and Wenckebach's Glück Auf.

4. **German IV.** Third year, fall term. The student begins with very simple scientific reading. The material read concerns two or more of the following subjects: Chemistry, physics, geology, physiology, political economy, the steam-engine, the thermometer, the compass. Occasionally the exercise will be varied by translations into German. Text, Dippold's Scientific German Reader.

5. **German V.** Third year, winter term. Reading of recent comedies of considerable literary merit. Three of the following four comedies are studied: Julius Rosen's Ein Knopf, Gustav von Moser's Ein amerikanisches Duell, Hugo Müller's Im Wartesalon erster Klasse, and Emil Pohl's Die Schulreiterin. Text, Manley and Allen's Four German Comedies.

6. **German VI.** Third year, spring term. The delightful and not too difficult extracts here taken deal with German peasant life. In addition, one number of some German newspaper will probably be read during the term. Text, Rosegger's Waldheimat.

History and Civics.

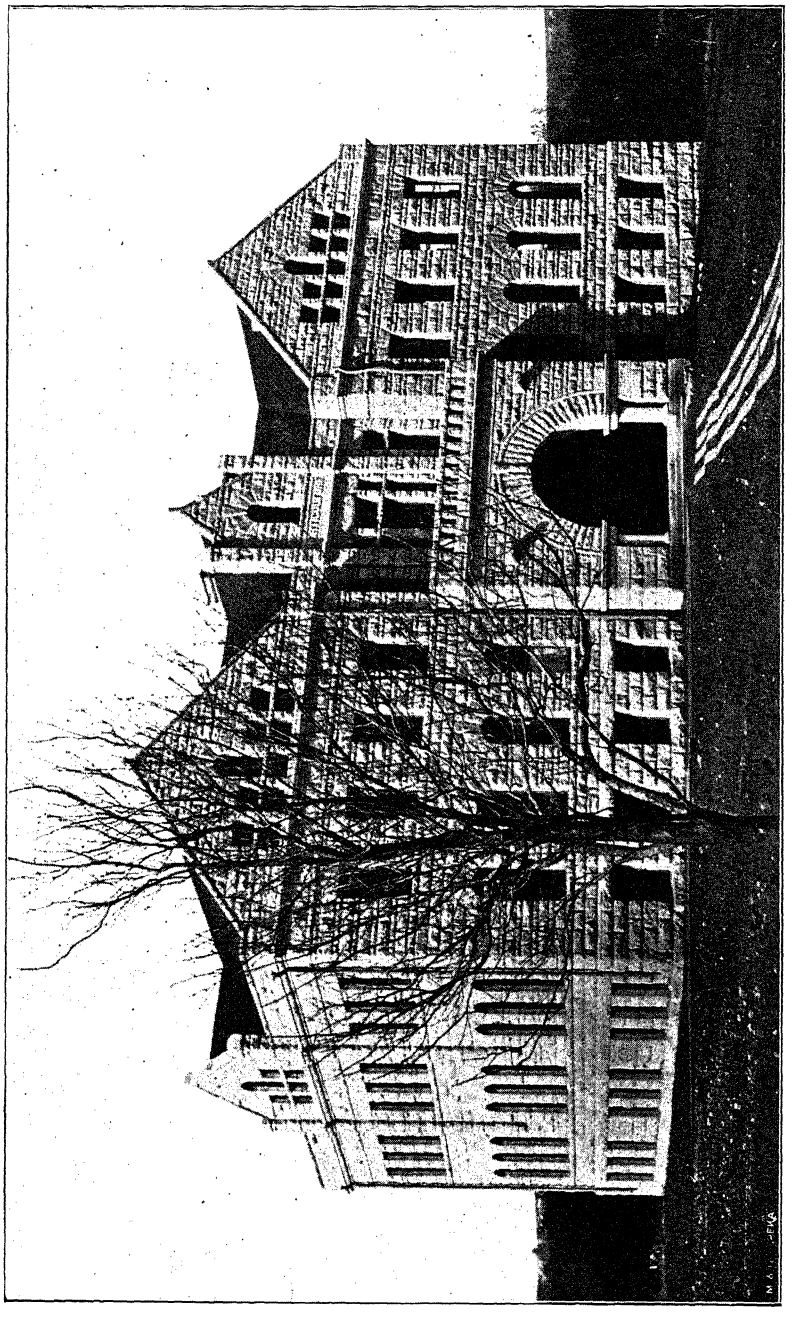
The department of history and civics offers three courses in the third and fourth years, arranged in consecutive terms and planned so as to make a logically continuous course. The modern European history includes the American history to 1776. Then the course in civics takes up the study of the articles of confederation and of the constitution. The third term is devoted to an advanced course in American history under the constitution. The constant aim is to make the work definite and practical, in keeping with the spirit of the school.

Nos. 1, 2 and 3 are required in all courses, and should be pursued in this order.

1. **European History.** This course covers the period since 1492. The following are among the subjects emphasized: The Protestant reformation and the later development in the history of the church; the thirty years' war, especially its causes and results; the second great series of wars between England and France, including the French and Indian wars, the American revolution, and the Napoleonic wars to 1815; the French revolution; the rise and fall of Spain; the growth of France and recent changes in her government; the creation of the German empire and of modern Italy; the heroic struggle of the Netherlands and the growth of Russia; the last century of European history, the chief facts in the present governments of the European nations, and their present international relations. Special attention is given to English history and England's present government, for her history includes that of her American colonies down to the war of American independence. Text-book, Schwill's History of Modern Europe.

2. **Civics.** This course is introduced by a brief study of the government of the colonies; the English government and the causes of the American revolution, in so far as these help to explain our present constitution; a careful study of the articles of confederation and the government under them; the constitutional convention and the adoption of the constitution. The work of this term is chiefly devoted to a systematic study of our national constitution and of the actual government under that instrument. Constant comparison is made with our own state government. Current events and incidents from history are used to illustrate the various points until the every-day affairs of our government are made clear and familiar. Comparison with other governments, especially with that of England, is made wherever this seems helpful. Selected cases from the United States supreme court reports are studied. A few lectures are given on the principles of international law and of commercial law. Text-book, Andrews's New Manual of the Constitution. References: Boyd's Cases; Hart's Actual Government; Cooley's Constitutional Law; Story on the Constitution; Bryce's American Commonwealth; the national and state statutes, etc. A civics guide-book, of questions and references, prepared by the department, is used by each student as an aid to the greater efficiency of the work in this course.

3. **American History.** This is an advanced course in the history of the United States under the constitution. It is introduced by a review of those events and conditions in preceding history, especially from the period of the French and Indian war to the adoption of the constitution, that directly help to a clearer and fuller understanding of the constitutional period. The brevity of the course requires judicious selection of the points to be emphasized, and the following lines of our national history are especially studied: The establishment of the nation and the organiza-



HORTICULTURAL HALL.

tion and functions of the various departments of its government; the important presidential elections; Hamilton's financial measures, taxation, banks, internal improvements; history of political parties, their issues, and their leaders; foreign relations and their connecting links between Europe and America, as in the Monroe doctrine; the slavery question—compromises, the laws and the constitution; nullification and secession throughout our history; annexation and government of territories; national boundaries; the growth and development of the West, with a study of its influence on our national character and history; the early Kansas struggle; civil war, reconstruction, and the new nation. The whole course involves a study of the practical application of our constitution in operation, and should be preceded by the course in civics. Channing's Student's History of the United States is used as a text-book; but this is primarily a library course and each student uses an American history note-book of topic and references, prepared by the department, as an aid to larger and more thorough work in the term devoted to this subject.

Horticulture.

It is the object of the department to give such instruction and practice as will enable students to become acquainted with the general principles of plant culture and the practical applications of these principles. The work is planned to give them such knowledge of horticulture as will best help to increase the capacity of the students for the enjoyment of outdoor life and work with plants and to enable them to increase the comforts, beauties and profits of life on the farm.

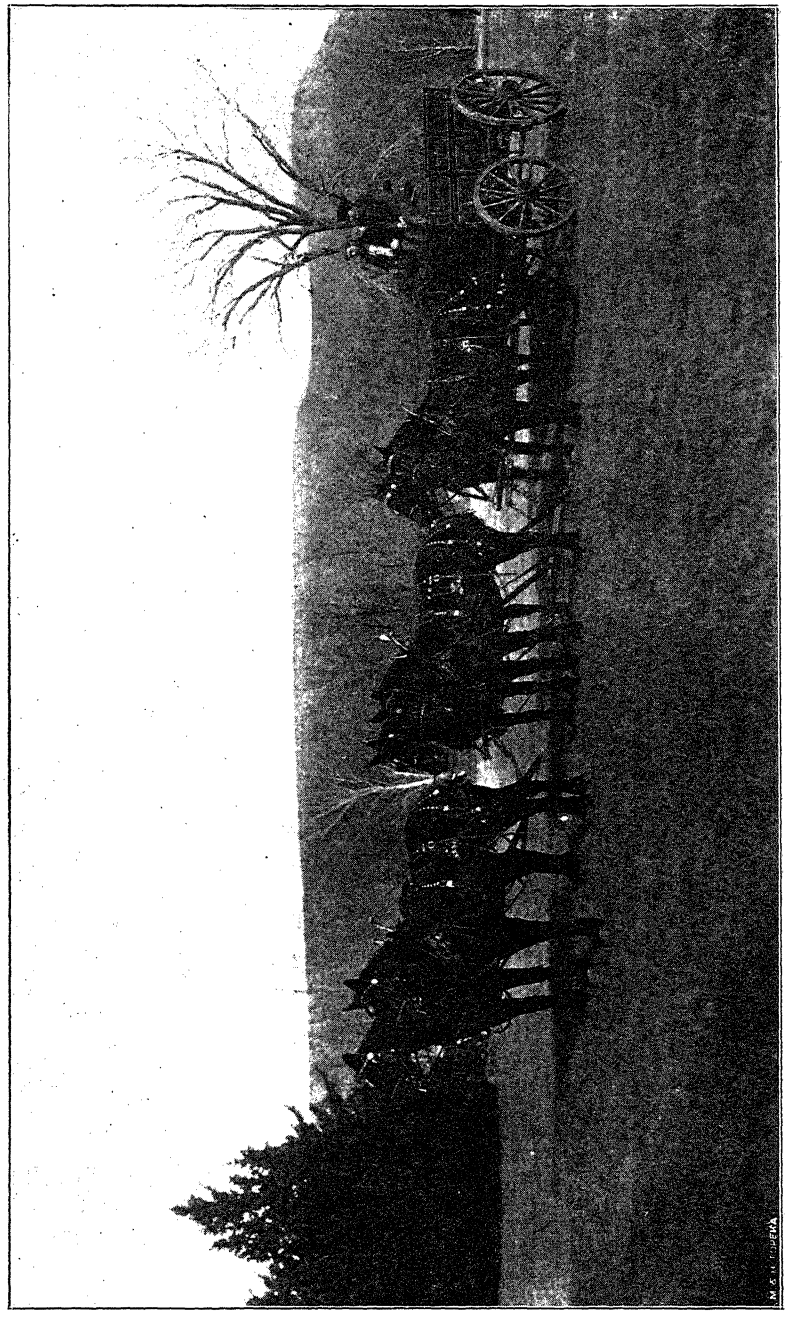
No. 1 is required in the agriculture, domestic science and general science courses; Nos. 3 and 4 in the agriculture course; and No. 2 in the domestic science course.

1. **Horticulture.** Second year, winter or spring term; third year, fall term. The work of this term presents the principles of the art, introducing the facts underlying the methods of general practice in nursery, orchard and garden work. The text-book, Goff's Principles of Plant Culture, is supplemented by lectures which are intended to adapt the general principles to the particular conditions which the student is likely to meet. The planning and planting of windbreaks, groves, orchards, and gardens, with notes as to species and varieties adapted to various conditions, form the subject-matter of the lectures.

Laboratory.—This consists of practice in nursery, garden and orchard work, including setting grafts and cuttings, transplanting both small and large trees, spring pruning, construction and care of hot-beds and cold frames, testing and planting seeds, preparation of garden soils, use of garden tools, making and application of spray mixtures, and the use of spray machinery.

2. **Floriculture.** Second year, winter term. The work of propagating, potting and caring for window and greenhouse plants, sowing of seed and transplanting hardy plants, are taught by lectures and laboratory work. The student is required to become reasonably familiar with the various window and greenhouse plants and to become acquainted with the best species for outdoor gardening, including planning and planting, beds and borders.

3. **Horticultural Laboratory.** Third year, fall term. The work consists of the fall work in pruning and protecting trees, shrubs, and vines; the collecting and handling of seeds; indoor methods of propagation, including the making and storing of grafts and cuttings.



ALL ABOARD!

4. **Vegetable-gardening.** Third year, spring term. The work of this term is devoted to a study of methods of field operations, including use of fertilizers, seed selection, means of securing sanitary conditions, and a brief study of varieties. The text-book, Bailey's Principles of Vegetable-gardening, is supplemented with lectures on small fruits, marketing, and adaptation of principles to local conditions.

ELECTIVES.

5. **Pomology.** Fourth year, fall term. The work of this term comprises a careful study of the classification of fruits; a systematic study of varieties; the means of identification; their variation in plant and fruit under different conditions of soil and culture; and their botany and history. Waugh's Pomology is used as a text, and work with fruits is made a part of the course.

6. **Forestry.** Fourth year, winter term. The work of this term presents the general principles and methods of forestry, dealing with the relations of forests to public welfare, and the means of regulating and preserving forests. Gifford's Practical Forestry forms the basis of the term's work, supplemented by lectures upon tree-planting for the farm, care of wood-lots, windbreaks, post planting, etc.

7. **Ornamental Gardening.** Fourth year, spring term. The principles of this art are studied in relation to their application to the planning and planting of home grounds, streets, parks, and cemeteries. The value of the various trees, shrubs, annual and perennial herbaceous plants for securing desired effects are taken up in detail, with special reference to their use under differing climatic and soil conditions. Graduate students or those electing more than a single term's work in this subject study in fuller detail the foregoing topics and also the propagation, training and general culture of the various plants.

The increasing interest in the preservation and increase of forest areas has created a demand for more extended information concerning forest work and methods. The plantations of the College, standing as they do in different soils and situations, offer material for comparison with native growths. The nursery offers opportunity for experience and observation in methods of propagation and transplanting and the formation of new plantings.

Graduate students are offered the following:

8. **Drendrology.** Lectures: The characters of trees; their habits of growth as influenced by local conditions; distribution of the different species; special study of the native species; flower, leaf and seed characters; methods of propagation.

Laboratory.—Nursery practice; planting, thinning and pruning of plantations; pruning and care of shade and ornamental trees.

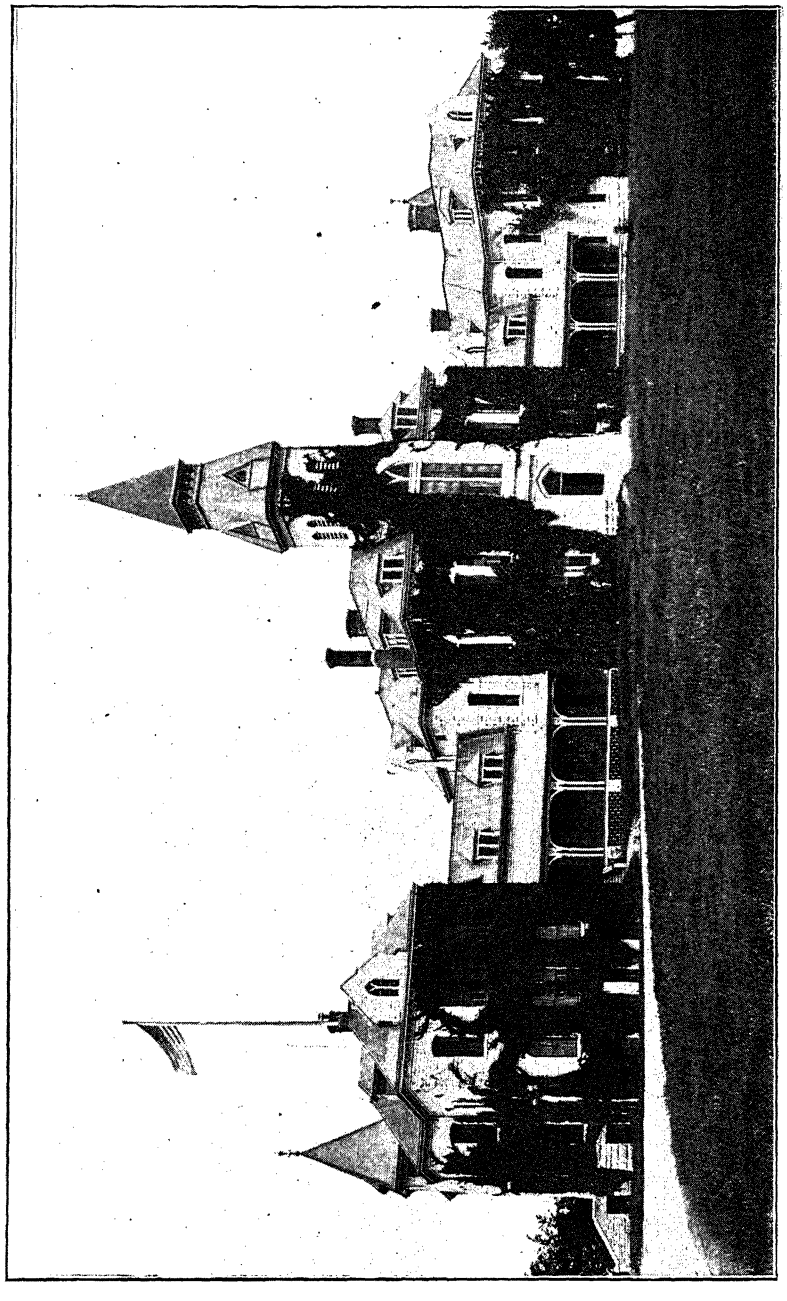
9. **Forest Technology.** Text, Boulger's Wood. Structure and growth of woods; their classification according to structure and economic uses.

Laboratory.—Gathering and storing of seeds; fall and winter planting; special treatment to insure germination, etc.

10. **Silviculture.** Lectures and references. Life-history, laws of growth and requirements of forests; forest characteristics; trees important in forestry and to farm plantings; relation of forestry to national economy.

Laboratory.—Forest mensuration. Determinations of volume, height, and stand, and the determination of the volume, height and stand increments. Stem analysis, valuation surveys, etc.

11. **Forest Management.** Plans and plantings of forests; their cultivation, care, and protection; plantings for definite purposes—to prevent erosions, protection from wind, to fix shifting sand, to regulate floods, for the utilization of worthless areas; harvesting, utilization, etc.



ANDERSON (MAIN) HALL.

MEANS OF ILLUSTRATION.

Orchards comprising seventy-five varieties of apples, forty of plums, thirty of peach, fifteen of cherries; plantations of native fruits; small-fruit plantations containing many varieties; vineyards containing 175 varieties, and six forms of trellises; a large collection in the arboretum and on the grounds of shrubs and timber, shade and ornamental trees; about thirty acres of forest plantings; fifteen acres of nursery and garden; a large collection of native and foreign plants in greenhouses; a collection containing 200 models of fruit; a grape herbarium containing leaves, canes, seeds and photographs of the fruit of 175 varieties of grapes; collections and specimens of woods; herbarium of fungous diseases, and numerous charts. The general library and the department library furnish ample opportunity for research work in various lines.

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 successfully rather than to burden his mind with a large number of facts and special methods. It is also characteristic of the methods of the department that an attempt is made to give the mathematical subject a touch of human interest by directing the attention of the student to the historical development of these topics. The statement following contains a brief description of the courses to be given.

Nos. 1 to 8 are required in the engineering courses, and Nos. 9 and 10 in the mechanical and electrical courses, respectively; Nos. 1 to 5 in agriculture and general science courses, and Nos. 1 to 3 in domestic science.

1. **Geometry I.** First year, fall term. Text-book, Gore. First, second and third books, with exercises for original demonstrations.

2. **Geometry II.** First year, winter term. Continuation of course 1. Fourth, fifth, sixth, seventh and eighth books, treated as before, with special attention to original work.

3. **Algebra IV.** First year, spring term. Text-book, Wells's New Higher Algebra. Binomial theorem, undertermined coefficients, logarithms, and general theory of equations.

4. **Trigonometry.** Second year, fall term. Text-book, Wentworth. Solution of plane triangles, essentials of goniometry, applications to surveying and navigation.

5. **Surveying.** Second year, fall term. Field-work two hours per week. Use and adjustment of instruments, chaining, leveling, and land surveying.

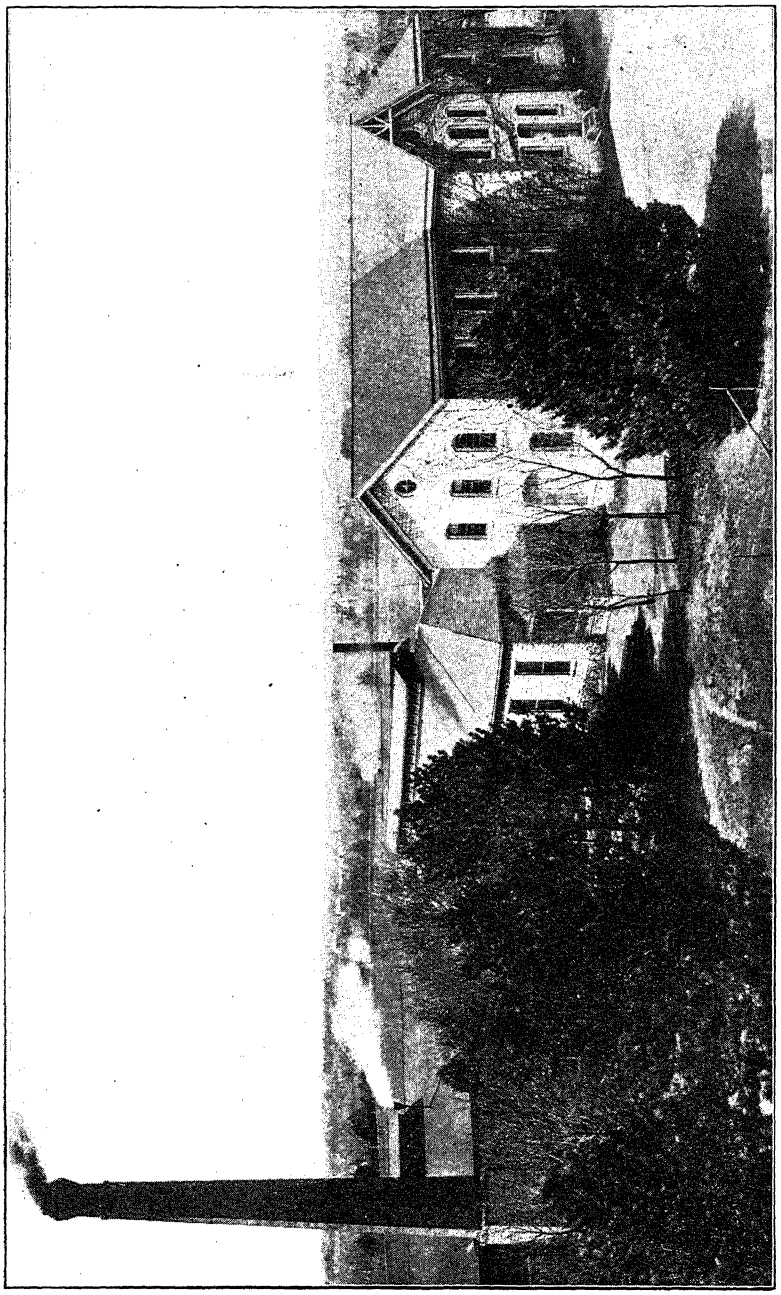
6. **Analytical Geometry.** Second year, spring term. Text-book, Nichols. Rectangular and polar coordinates; the straight line, circle, parabola, ellipse, hyperbola, and the general equation of the second degree.

7. **Differential Calculus.** Third year, fall term. Text-book, Osborne. The various methods of differentiation, with the usual applications.

8. **Integral Calculus.** Third year, winter term. Same text. Integrations, with applications to curves and surfaces.

9. **Definite Integrals.** Third year, spring term. Integration between limits. Lectures on the theory of the subject, with applications to practical problems.

10. **Differential Equations.** Third year, spring term. Text-book, Campbell. Attention to the theory of the subject, with solutions of examples of the various types.



SHOPS.

Mechanical Engineering.

The subjects in this course are adapted primarily to the needs of the students in mechanical engineering, but a few subjects are introduced to meet the requirements of the other courses. The subjects are so arranged that the student first learns the principles upon which the action of a mechanism depends in the classroom, and afterwards studies the action of the same mechanism in the laboratories and shops.

In the mechanical engineering course, all numbers below are required but 26 and 34.

In the agriculture and general science courses, Nos. 1, 2 and 3 are required.

In the electrical engineering course, all the subjects in the first and second years are required. In the third and fourth years, Nos. 11, 12, 13, 14, 15, 16, 26, 29, 34, 35 and 37 are required.

1. **Woodwork I.** First year, fall term. A graded set of problems in joining is given, together with practice in working to dimensions, and the proper use and care of bench tools. Tools required: Two-foot pocket folding rule.

2. **Woodwork II.** First year, winter term. This work is a continuation of that given under woodwork I.

3. **Blacksmithing I.** First year, spring term. A graded set of problems designed to teach the operations of drawing, upsetting, welding, and forming, accompanied with instruction in the care of fires and the behavior of iron at different heats.

4. **Shop Lectures I.** Second year, fall term. Lectures of this term are on the structure and properties of the various structural materials. In all shop-lecture courses the students are required to hand in from time to time well-written notes on the subjects discussed in the lectures. These notes are to be written in ink in a book 8x10½, preferably one with loose leaves.

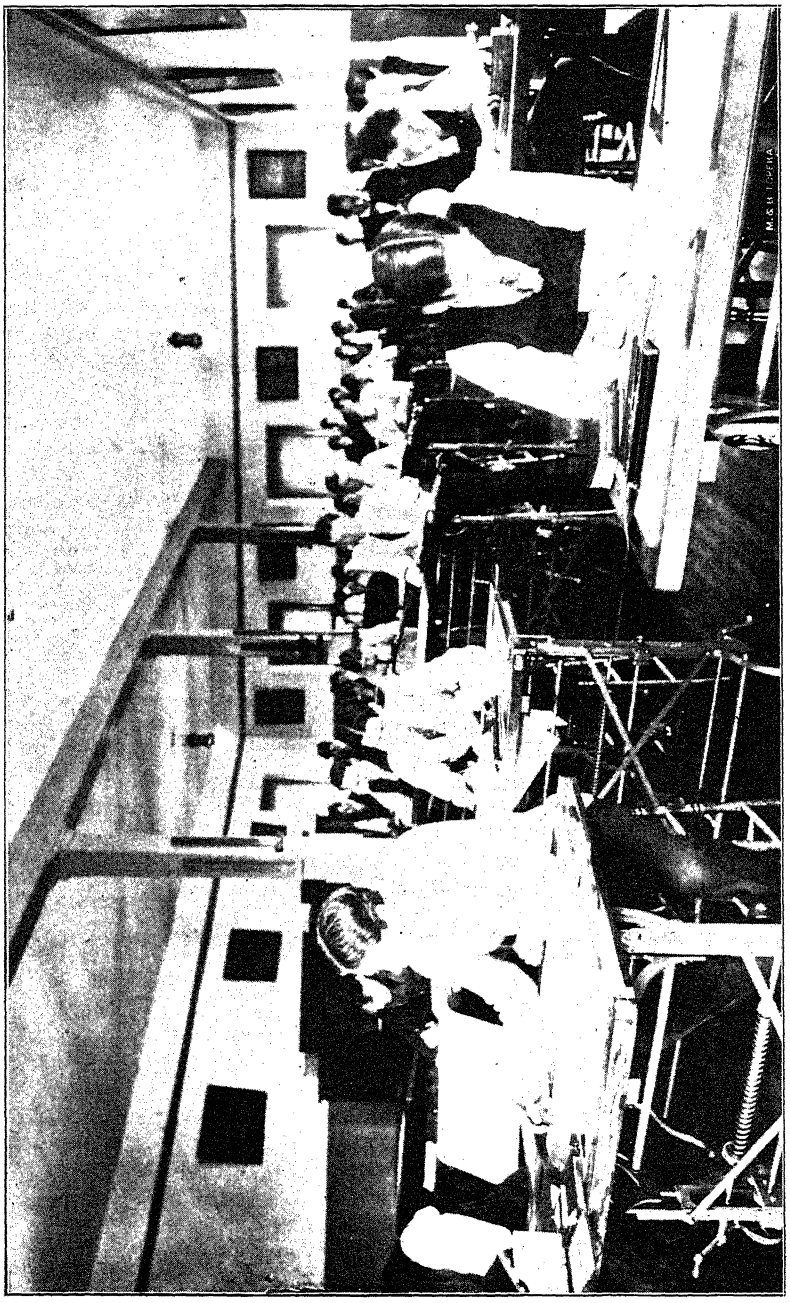
5. **Blacksmithing II.** Second year, fall term. Advanced work in the forging of iron and the manufacture of steel tools. Instruction is given in tempering, case-hardening, and annealing. Tools required: Two-foot rule, one pair of five-inch outside calipers.

6. **Kinematics of Machinery.** Second year, winter term. An elementary course in mechanisms, particularly the principles involved in the construction of gears, cams, and quick return motions. Preparation required: Trigonometry. Text-book, Schwamb and Merril's Treatise on Mechanism.

7. **Foundry.** Second year, winter term. Foundry practice is given in both floor and bench molding, including the making of cores, brass and iron castings, and the mixture of special alloys. Cupola practice and the making of machine castings for shop use are included.

8. **Shop Lectures II.** Second year, spring term. Lectures of the first half of this term are selected to accompany the work of pattern-making. The second half of the term is given to lectures on the construction, care and use of machine tools. Preparation required: Foundry and shop lectures I.

9. **Mechanical Drawing I.** Second year, spring term. Exercises in lettering, shading, and the drawing of simple mechanisms. Each student is expected to provide himself with the following drafting supplies: Triangles, T square, scale, pencils, pens, ink, erasers, thumb-tacks, and draw-



DRAFTING-ROOM.

ing instruments. It is desired, however, that the supplies be not purchased until after consultation with the instructor in charge of the work. Preparation required: Projection drawing. Text-book, Adams's Mechanical Drawing.

10. **Pattern-making.** Second year, spring term. This term's work includes wood-turning and pattern-making. Each student is required to turn several specimens and make various patterns. Tools required: One two-foot rule, one pair three-inch dividers, one pair five-inch outside calipers, one pair five-inch inside calipers, one six-inch scale.

11. **Mechanics.** Third year, fall term. A course in elementary mechanics, including the laws of motion, force, work, and energy, together with the composition and resolution of forces. Preparation required: Trigonometry and kinematics of machinery. Text-book, Dana's Elementary Mechanics.

12. **Shop Lectures III.** Third year, fall term. Lectures are given on shop methods, duplication of work, etc. Preparation required: Shop lectures II.

13. **Mechanical Drawing II.** Third year, fall term. The design of cams, gears, and quick return motions. Preparation required: Kinematics and mechanical drawing I.

14. **Machine-shop I.** Third year, fall term. Practice in chipping, filing, scraping, and laying out work from drawings. Tools required: A six-inch scale, a four and one-half to six-inch square. Students are advised to purchase a combination square.

15. **Mechanical Drawing III.** Third year, winter term. A continuation of mechanical drawing II, and practice in machine drawing.

16. **Machine-shop II.** Third year, winter term. Instruction in lathe work, gear-cutting, boring, and drilling. Tools required: One two-foot rule, one six-inch scale, one pair three-inch dividers, one pair five-inch outside calipers, one pair five-inch inside calipers, one center gage, one center drill.

17. **Valve Gears.** Third year, spring term. A study of the design, construction and operation of the valve gears and linkages of steam- and other engines. Preparation required: Mechanics and differential calculus. Text-book, Peabody's Valve Gears for Steam-engines.

18. **Shop Lectures IV.** Third year, spring term. Lectures on the selection, arrangement and organization of manufacturing plants; cost, accounting, etc. Preparation required: Shop lectures III.

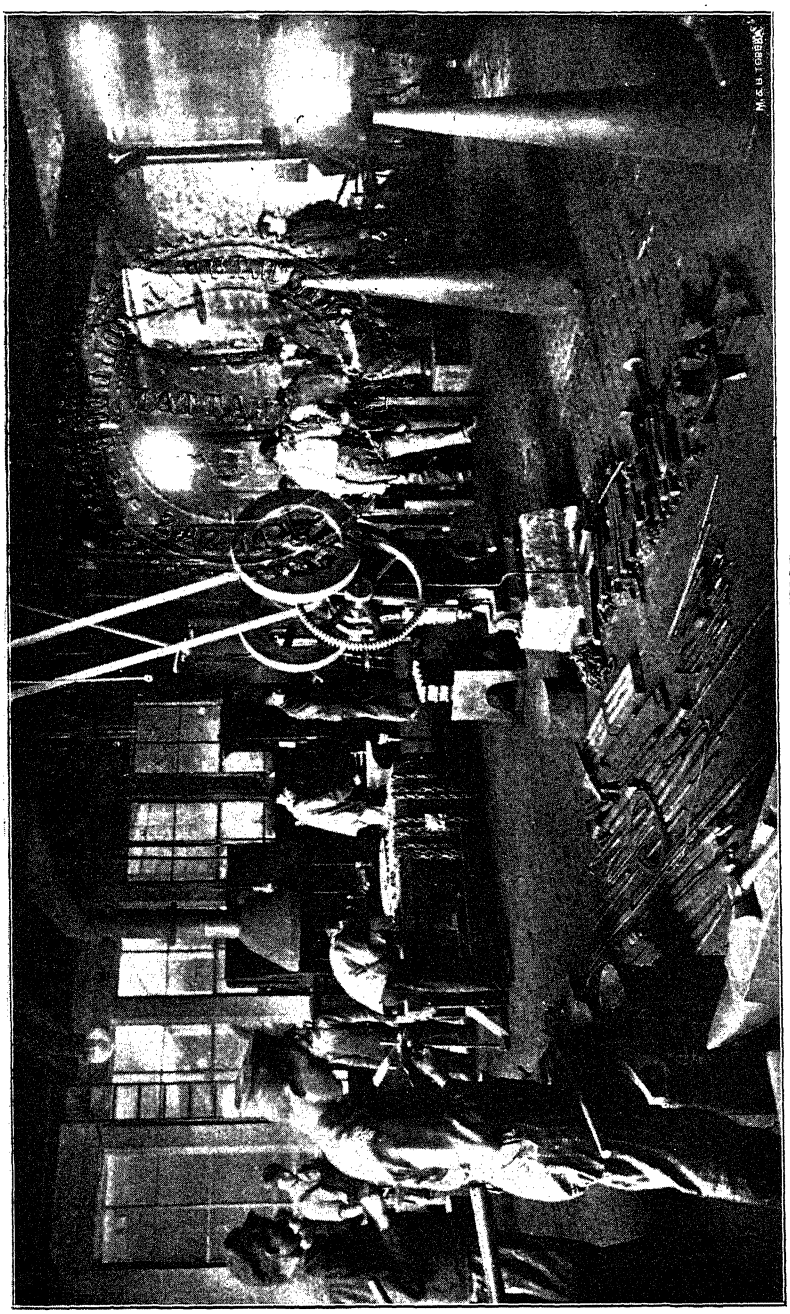
19. **Mechanical Drawing IV.** Third year, spring term. A continuation of the previous term's work.

20. **Machine-shop III.** Third year, spring term. Advanced work on lathes, planers, and milling-machines, including tool-making.

21. **Machine-shop IIIa.** A course similar to 20, but occupying one-half the time.

22. **Steam-boilers.** Fourth year, fall term. A study of the construction, erection and operation of steam-boilers and appliances, including the study of tools. Preparation required: Valve gears and integral calculus. Text-book, Peabody and Miller's Steam-boilers.

23. **Graphic Statics.** Fourth year, fall term. The graphic solution of the problems arising in the construction of roofs, bridges, and other framed structures. This subject is taught by means of lectures and drawing exercises. Preparation required: Mechanics and mechanical drawing IV.



BLACKSMITH SHOP.

24. **Shop Lectures V.** Fourth year, fall term. Lectures on the transmission of power by electricity including a course of instruction in the construction, care and operation of electrical machines most likely to be met with in practice by mechanical engineers. Preparation required: Shop lectures IV and valve gears.

25. **Engineering Laboratory I.** Fourth year, fall term. Experiments in valve setting, efficiency of hoists, gage and planimeter tests, etc. Preparation required: Third-year mechanics and steam-boilers. Text-book, Smart's Laboratory Practice.

26. **Mechanical Drawing V.** Fourth year, fall term. The design of the valve motions and reciprocating parts of the steam-engine, and work in drawing-room based on the classroom work in valve gears.

27. **Mechanical Drawing VIII.** Fourth year, fall term. This work is given the electrical engineers only, and consists of exercises in machine drawing, etc.

28. **Machine-shop IV.** Fourth year, fall term. The time of this term is devoted to the building of a small machine or making the parts of a large one.

29. **Thermodynamics I.** Fourth year, winter term. A study of the thermodynamic principles of perfect gases, saturated and superheated vapors, and the theory of injectors. Preparation required: Steam-boilers and definite integration. Text-book, Peabody's Thermodynamics of the Steam-engine and Peabody's Steam Tables.

30. **Applied Mechanics I.** Fourth year, winter term. The application of the principles of theoretical mechanics to problems arising in practice. Preparation required: Graphic statics and definite integration. Text-book, Goodman's Mechanics Applied to Engineering.

31. **Shop Lectures VI.** Fourth year, winter term. Lectures on the design, construction and operation of steam-turbines. Preparation required: Thermodynamics I.

32. **Engineering Laboratory II.** Fourth year, winter term. A continuation of the previous term's work, with practice in running steam-engine and air-compressor tests. Preparation required: Engineering laboratory I.

33. **Mechanical Drawing VI.** Fourth year, winter term. The design of a complete machine, engine, or boiler; an application of the principles studied in thermodynamics and applied mechanics. Preparation required: Mechanical drawing V and steam-boilers.

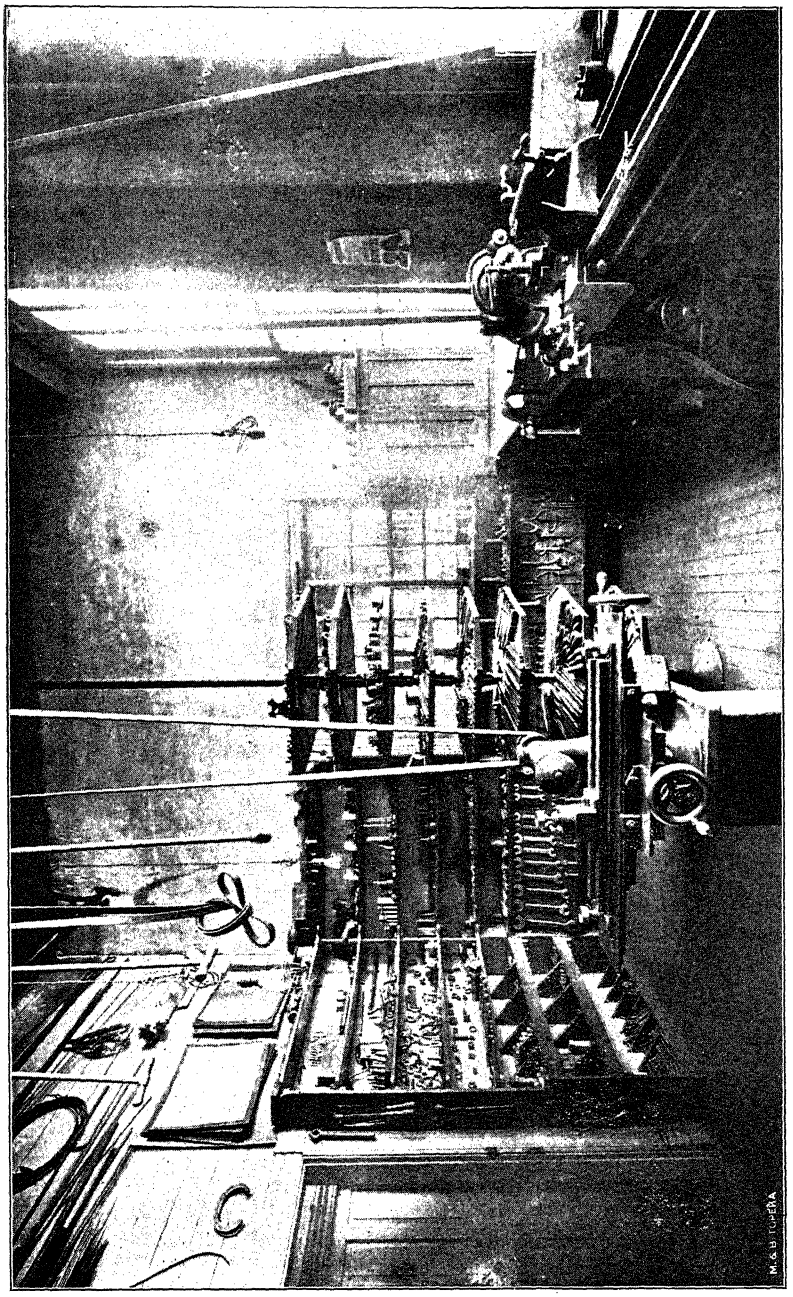
34. **Machine-shop V.** Fourth year, winter term. A continuation of the previous term's work.

35. **Engineering Laboratory IV.** Fourth year, winter term. A course in testing the strength of materials and steam-engines, for electrical engineering students.

36. **Applied Mechanics II.** Fourth year, spring term. A continuation of the work of the previous term, including a study of the strength of materials and the design of structural members. Preparation required: Applied mechanics I. Text-book, Goodman's Mechanics Applied to Engineering.

37. **Thermodynamics II.** Fourth year, spring term. A continuation of the work of the previous term, including the thermodynamics of gas-engines and air-compressors. Preparation required: Thermodynamics I. Text-book, Peabody's Thermodynamics of the Steam-engine.

38. **Hydraulics.** Fourth year, spring term. This term's work in-



TOOL-ROOM.

cludes a study of the principles of hydrostatics and the action of water-motors. Preparation required: Third year mechanics and definite integration. Text-book, Merriman's Treatise on Hydraulics.

39. **Shop Lectures VII.** Lectures on the design, construction and operation of steam and hydraulic power plants.

40. **Mechanical Drawing VII.** Fourth year, spring term. A continuation of the previous term's work.

41. **Engineering Laboratory III.** Fourth year, spring term. A continuation of the previous term's work, including tests on the strength of materials and tests on gas-engines. Preparation required: Applied mechanics I and thermodynamics I.

42. **Thesis.** Fourth year, winter and spring terms. Engineering students are required to present for graduation a suitable thesis on some subject relating to their work. It is expected that the work done on the thesis will be equivalent to at least five hours per week during the winter term and ten hours per week during the spring term.

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.—This wood-working room is 40 x 66 feet, contains 220 separate kits of tools, and benches for forty-four students in each class.

Pattern Shop.—This room is 40 x 100 feet, contains twenty wood lathes fully equipped with tools and chucks, wood planer, friezer, band-saw, jig-saw, circular saw, power mortiser, sand-papering machine, eight pattern-makers' benches, drills, grindstones, and a tool-room with complete equipment of small tools.

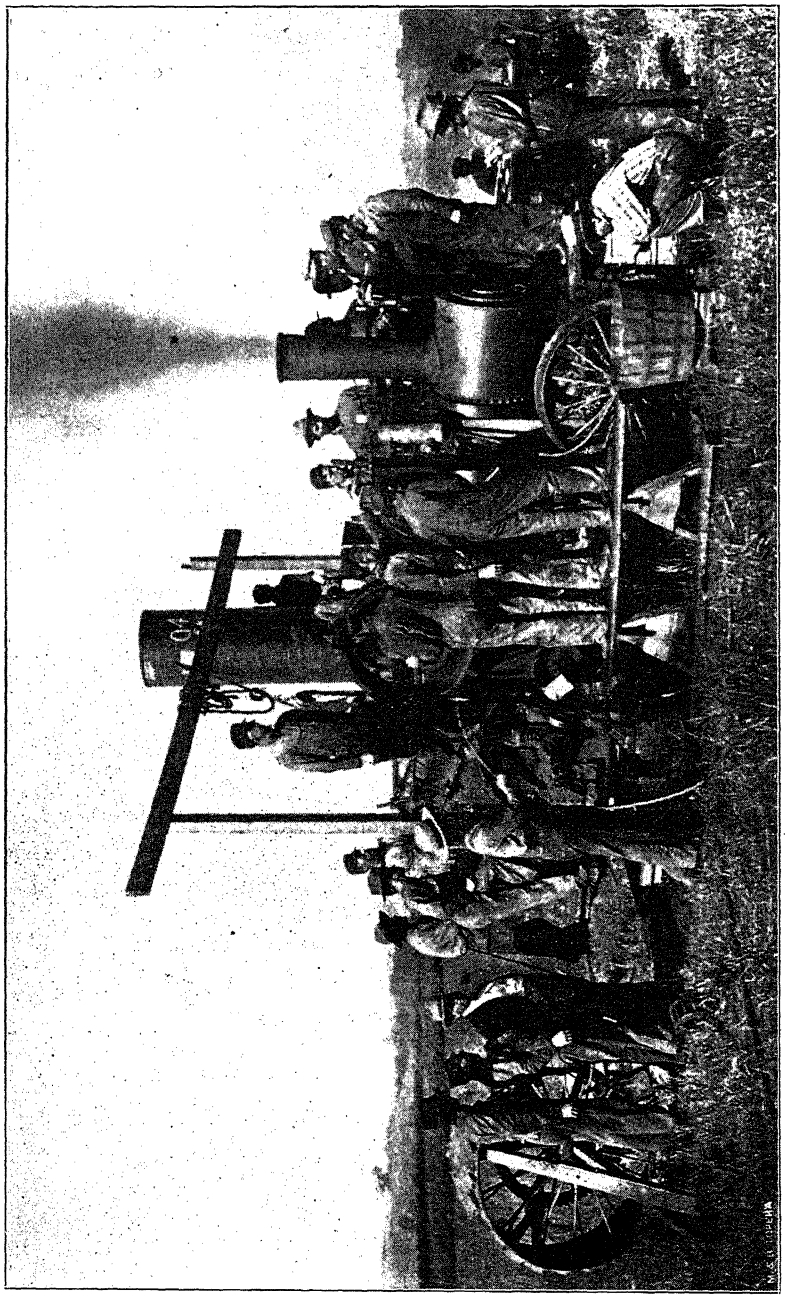
Machine-shop.—This room is 40 x 80 feet, contains twelve fourteen-inch engine-lathes, one twenty-eight-inch by twenty-foot engine-lathe equipped with blocks to raise it to sixty-inch swing, one sixteen-inch combination engine- and turret-lathe, speed-lathe, Gray planer, Hendey-Norton shaper, Brown & 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 completely 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 a drill-press, punch and shear, emery-grinders, 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 a two-ton cupola, a one-and-one-half-ton steel crane, core oven, an exceptionally large number of flasks, both wood and iron, ladles, 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 furnace, crucibles, flasks, and a complete equipment for bench and floor molding. The product consists of bearings, friction metal, valves, fittings, etc.

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; an eight-horse-



TESTING A TRACTION-ENGINE.

power vertical steam-engine; an eight-by-eight Ingersoll-Sargeant air-compressor; a six-horse-power Sturtevant engine, used as an air-motor; a ten-horse-power Witte gasoline-engine; a six-horse-power Dempster gasoline-engine; complete cement-testing outfit; absorption, transmission and traction dynamometers; steam- and gas-engine indicators, gage-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-rooms adjoining the laboratory afford special opportunities for the work relating to steam engineering. Yards and sheds have been provided for carrying on tests that cannot be made in the laboratory. The department has a twenty-horse-power traction-engine that is fitted up to run boiler, engine and traction tests. There has been installed a Miles concrete-block machine. The cement blocks made in this machine will be tested under various conditions of mixtures, age, etc. Tests will also be made to determine the effects of fire on building blocks.

Power Plant.—The boiler-room contains five sixty-horse-power horizontal, return-flue boilers, three 100-horse-power boilers, 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 a 100-horse-power, medium-speed engine, directly connected to a 60 K. W. multipolar generator, with marble switch-board and complete apparatus; one fifty-horse-power Ball & Wood engine, belted to bipolar generator, with switch-board; one ten-horse-power Atlas engine; one five-horse-power generator, built in the shop, 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.

Drawing-rooms.—On the second floor of the wood-working department are found the drafting-rooms, recitation- and lecture-rooms, photographic and blue-printing rooms, and a paint and varnish room.

Military Training.

This institution being one of the beneficiaries of the act of Congress of 1862, instruction in military tactics is made compulsory. The course of instruction is made to conform strictly to the provisions of General Orders No. 101, War Department, 1905.

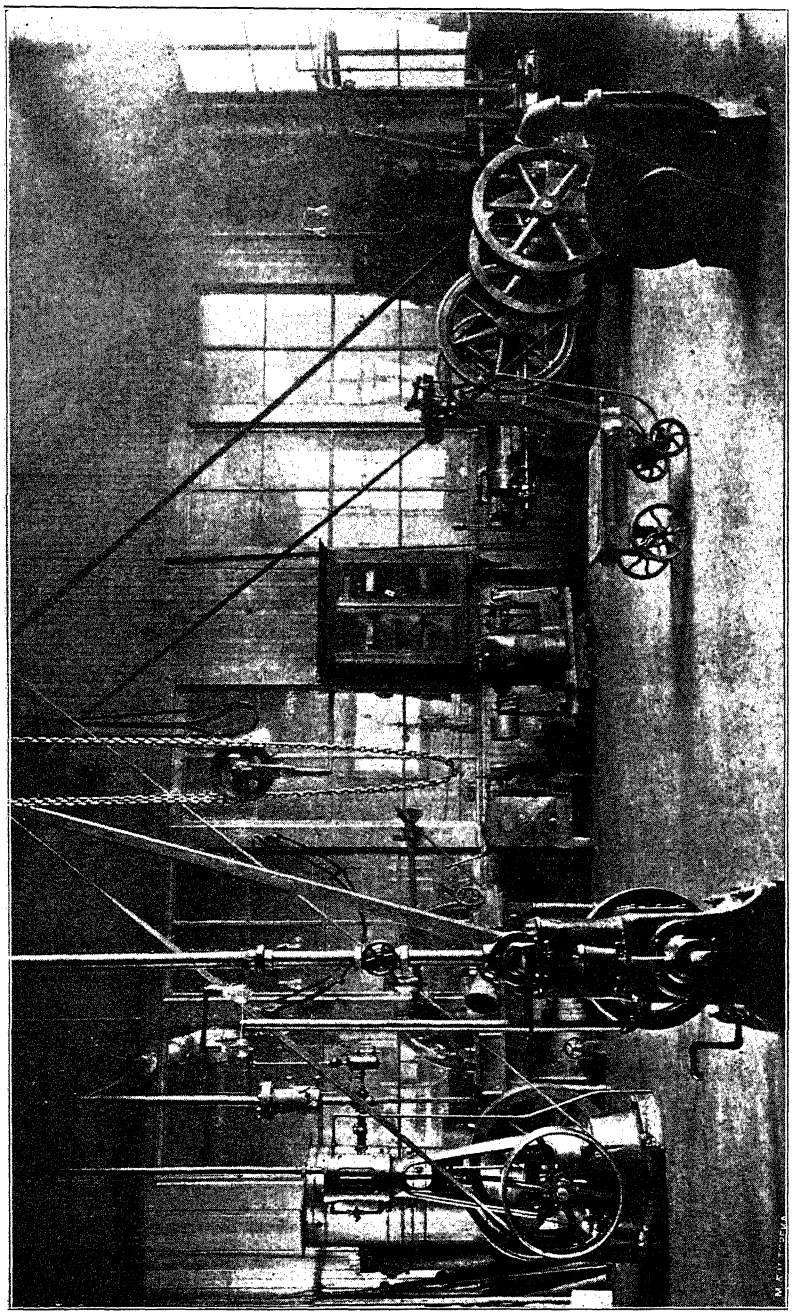
In compliance with the requirements of that order, the course will be both practical and theoretical, and applied as follows:

a.—Practical.

1.—Infantry drill regulations, through the school of the battalion, in close and extended order.
2.—Advance- and rear-guards and outposts.
3.—Marches.
4.—The ceremonies of battalion review, inspection, parades, and guard-mounting.
5.—Infantry target practice.
6.—Instruction on first aid to the injured.

b.—Theoretical.

1.—The infantry drill regulations, covered by the practical instruction.
2.—The manual of guard duty.
3.—Small-arms firing regulations.
4.—Field-service regulations.
5.—The Articles of War, with specific reference to articles 4, 8, 15, 20, 21, 22, 23, 24, 32, 38, 39, 40, 42, 44, 46, 47, 50, 55, 57, 61, and 65.
6.—Lectures.



MECHANICAL ENGINEERING LABORATORY.

The national government has supplied the College with 395 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.

Organization. Cadets are organized into a battalion of infantry and a band, the drill and administration of which shall conform to that of the United States army. Officers and non-commissioned officers are selected by the professor of military science and tactics with the approval of the president, according to the principles governing such selection at the United States Military Academy, and receive commissions and warrants from the President of the College.

Discipline. Each cadet is furnished with a copy of the cadet regulations governing the military department, approved by the Board of Regents, and is required to familiarize himself with them and to conform strictly to their requirements.

Band. Assignments to the band are made by the professor of music, who is charged with the technical instruction. Practice in the band is accredited, through the military department, in lieu of drill and theoretical instruction, subject to the provisions of the cadet regulations, with which strict conformity is required.

The purpose of the cadet band is to foster and encourage among the cadets a love for patriotic national airs and martial music.

Requirements. All young men are required satisfactorily to complete six terms' work before graduation, unless excused for physical disability. Drill periods scheduled in the course of study refer to full hours of sixty minutes each. Additional work is optional with juniors and seniors, who are given preference for appointment as officers. A junior or senior having enrolled optionally and accepted a commission is required to continue the work throughout the college year, subject to the same regulations as other cadets.

Uniform. The uniform conforms to the West Point cadet pattern. Blouse must be of good quality cadet-gray cloth, trimmed with best quality black mohair braid one inch wide, collar not less than one and one-half inches high, with half-inch gilt metal letters K. S. A. C.; insignia of rank to conform to that of the United States infantry; trousers, good quality cadet-gray doeskin, with black cloth stripe one and one-half inches wide; cap, West Point cadet pattern, with College emblem.

Trimmings of band uniforms are modified as authorized for bands in the United States army.

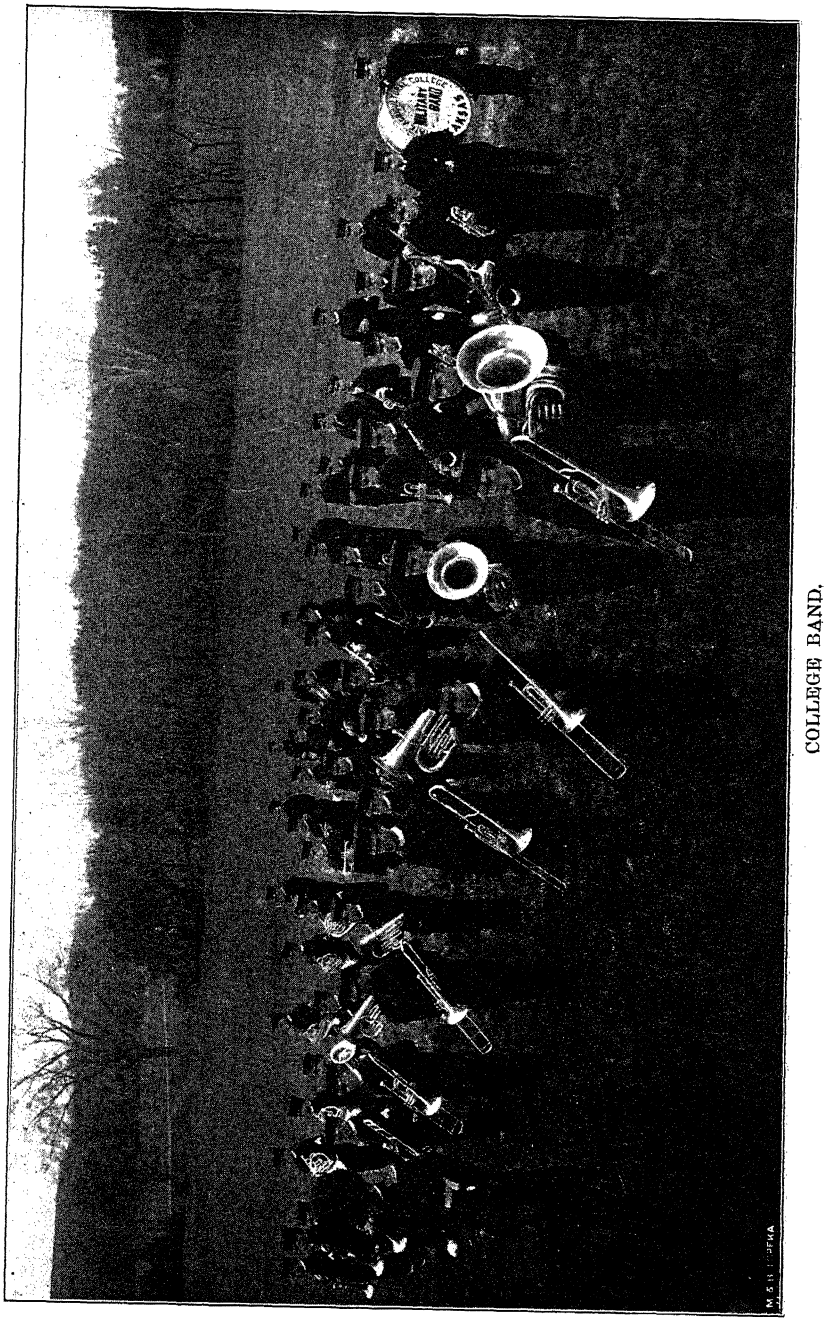
The commandant of cadets furnishes specifications to the authorized dealer in uniforms, and uniforms must conform to such specifications.

All military students are required to provide themselves with uniforms within two weeks after assignment. The uniform can be purchased at a reasonable price, after enrolment, and makes a good serviceable suit for regular College wear.

Text-books. Each military student will be required to provide himself with the following text-books: United States Drill Regulations (latest edition), The Manual of Guard Duty (latest edition), Small-arms Firing Regulations (latest edition), Field-service Regulations.

The instruction in keeping records will be from blank books provided by the War Department.

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.



COLLEGE BAND.

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 generous provisions have been made for its introduction into the several courses:

Pupils may take music for a single term or more. A full course, extending over four years, includes theory, notation, singing, voice culture, harmony, composition, instrumentation, and technical drill on one or more instruments. The College pianos (limited in number) are used for daily practice by pupils who take music as an industrial.

Instruction in music is furnished free, under the direction of the professor in charge, to all pupils in the College—all class instruction.

1. **Notation and Theory.** Classes will be organized at such periods as will best accommodate the pupils interested.

2. **Instrumental Music, Musical Theory, and Harmony.** Classes will be organized, for pupils in the regular courses, at such periods as will best accommodate them, under the following conditions:

a. **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.

b. **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 combination 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 choral union, College glee club, College orchestra, elementary band, or the College band, may become members by assignment.

c. **College Band.** Assignments are made for the entire year, and membership requires regular attendance until after commencement exercises.

Uniforms.—(See description under "Military Training," above.)

d. **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.

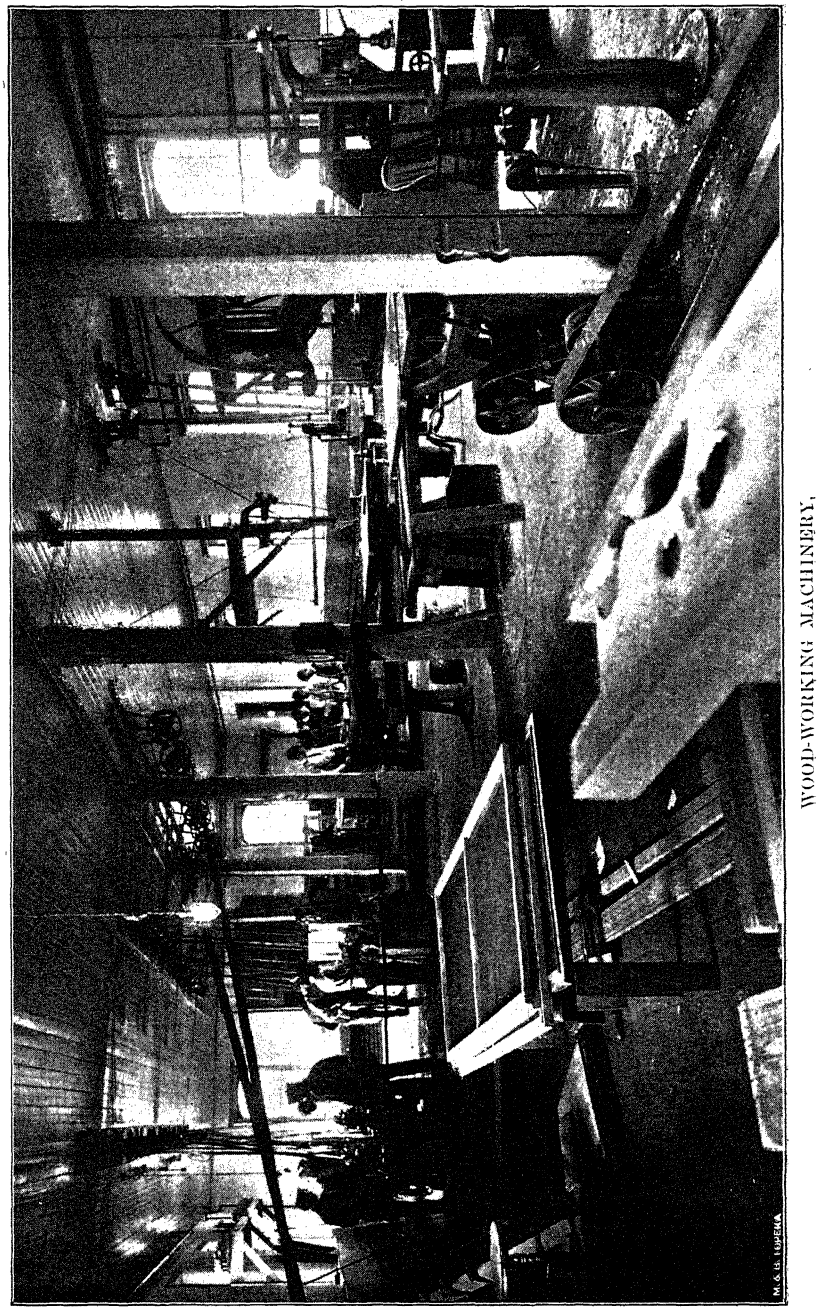
e. **Annual Concert.** An annual concert will be given on the second Thursday in March.

During the spring term a number of musical recitals are given, in which the students furnish the entire program. These are open to the public.

COURSES OFFERED.

The Voice. In the study of this instrument, the most natural and universal means of musical expression, notation is taught in connection with the establishment of a pure tone, in which there shall be resonance, volume, flexibility, and expression. The instruction will include the rudiments of music, notation, sight-reading, ear-training, theory, harmony, voice culture, methods of teaching, practice in teaching, and drill in solo, quartet and chorus singing. Texts: Concone, Bordese, Bordogni, Lablache, Nava, Lamperti, Marchesi, Panofka, Panseron, Sieber.

The Piano. In the study of this instrument, which occupies a place of so much dignity and importance in every musical education, great attention is given to every detail of technique and to the development of a



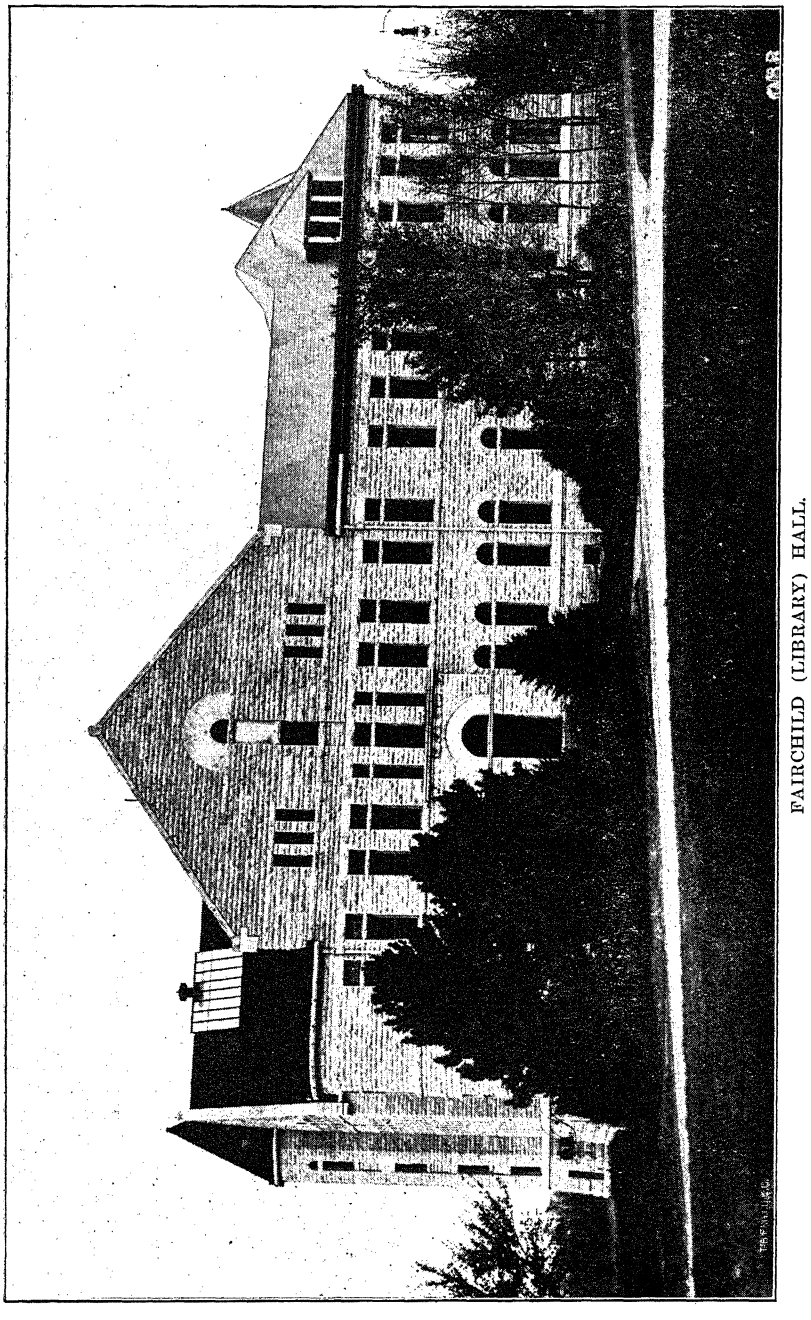
WOOD-WORKING MACHINERY.

correct touch, which is so necessary in giving expression to musical thought and feelling. It includes formation and position of fingers, hands, wrists, and arms, properties of touch, thorough drill in scale and arpeggio playing, and exercises in accent, rhythm, and expression. The curriculum is chosen from the works of the standard composers, not omitting modern European and American writers, who best represent the modern spirit and progress. The following outline of a course of study, made with reference to the musical value of the selections, as well as to the special necessities of the pupils, may be followed or varied by the professor in charge: Text, Zwintcher's Exhaustive Book of Daily Studies. Czerny, Kohler, Duvenroy, Melodic Studies by Heller, Sonatinas by Kuhlau and Clementi. Selections from Bach, Handel, Mozart, Haydn, Beethoven, Mendelssohn, and modern composers.

The Violin. Particular attention is given to correct position, intonation, and bowing; also to solo and orchestral playing. Text, selections from the following works or their equivalents: Methods by Wichtl, Henning, and De Beriot; exercises by Dancla, Pleyel, Schradick, Kayser; David, easy solos; etudes of Kreutzer; solos by De Beriot, Leonard, Dancla, Singelee; modern pieces. Memorizing.

Orchestral and Band Instruments. Similar courses of instruction are given on all the more important orchestral and band instruments—string, wood-wind, and brass; also mandolin and guitar. Opportunities are also furnished advanced pupils for orchestral, band, quartet and accompaniment playing. Text, selections from the standard methods; studies and recreations suitable to the instrument.

Musical Theory, Composition, Instrumentation, and History of Music. The aim of these courses is to give the pupil an intelligent conception of music as a science and an art, and to lay a foundation for later studies which he may undertake in the field of artistic performance and original work in musical composition. The instruction given includes theory, notation, harmony, counterpoint, composition, instrumentation, analysis of form and style, and musical history. Texts: Elson's Theory of Music, Brown's Prismatic Charts, Berlioz's Orchestration, Marx's Composition, Prout's Instrumentation, Mathew's History of Music.



FAIRCHILD (LIBRARY) HALL.

Philosophy.

To be able to grapple most advantageously with the serious problems of life, one must have an intimate acquaintance with himself. To be able to become a valuable member of society, he must know how to develop and use his mental powers judiciously. Too many people are inclined to regard their mental activities as a sort of fixed inheritance, with little or no possibility of readjustment. It is the aim of this department to interest the student in a more careful study of the mental phases of human life, and to aid him in a more definite and systematic knowledge of the meaning of his own concrete experiences.

The several subjects are offered, as follows: No. 1 is required in all courses; No. 2, in general science course; and No. 3, in domestic science and general science courses.

1. **Elementary Psychology.** First year, winter term. This course is intended to give the student (*a*) a general idea of the meaning of psychology, and (*b*) a better method of expending his time and energies in the pursuit of college work. Not less than ten lectures will be given, as follows: (1) Neural basis of mind, (2) perception, (3) imagination, (4) memory, (5) habit, (6) thinking, (7) the emotions, (8) the will, (9) self-confidence, (10) methods of study and work. No text-book used.

2. **Logic.** Fourth year, fall term. While formal or deductive logic is studied briefly, the greatest emphasis is placed upon the inductive phase of the subject. Special prominence is given to methods of exact observation and experiment and correct principles of classification. The previous researches and experiences of the students are made to illustrate these principles. Some of the ends sought are: (1) To enable the student to think more clearly and to express his thoughts more lucidly; (2) to enable him more readily to detect the erroneous statements of others, whether made by design or through ignorance; (3) to imbue himself more fully with the scientific spirit, which is the guiding principle of human progress to-day; (4) to lead him into habits of systematic, scientific methods of work in whatever vocation he may follow during later life. Text-book, Creighton.

3. **Psychology.** Fourth year, winter or spring term. An effort is made to master the general principles of the subject, the various mental processes being analyzed and explained. Some attention is also given to theories of right and wrong and correct principles of action. Considerable time is given to the discussion of mental poise, self-control, emotional expression, the influence of the mind on the body, and the like. Special effort is made to enable the student to get the psychologic point of view, to the end that he may obtain a better understanding of himself and of human nature in general. He will then think of others in terms of mental conduct rather than in terms of physical conduct; and, having been made more fully aware of the obstacles that confront every earnest soul, he will become more sympathetic. Finally, as a result of systematic mental discipline, the student may expect to meet with greater success in his chosen vocation. Some simple experiments are performed, and each member of the class is given a topic for special research. Text-book, James.

ELECTIVES.

4. **Ethics.** In this brief course the aim will be: (1) To make a brief historical review of the several types of ethical theory; (2) to examine more critically the two great tendencies of the subject, viz., the hedonistic

and the idealistic; (3) to arrive finally, if possible, at a working ideal on the subject of moral conduct.

5. **Pedagogy.** It has been found that a considerable number of the graduates of this College become public-school teachers. An act of the legislature grants to such graduates a three-year state certificate, renewable for life, provided they pass an examination in the so-called professional branches. These are given, as follows: History of education and school law, fall term; philosophy of education, winter term; methods and management, spring term.

GYMNASIUM SUITS.

Physical Training.

The maintenance of robust health and a good constitution should be one of the chief aims of every girl. It is impossible to cultivate the body without benefit to the mind; likewise, in order to cultivate the mind properly one should learn to care for the body. With this end in view, a gymnasium for women has been provided. It is well equipped with apparatus, shower-baths, lockers, etc., and a well-regulated system of physical training is in successful operation.

The German system of educational gymnastics is used as the basis of the work, while other systems are used in connection with it. Corrective and medical gymnastics are given to such as need them. The primary object of the work is to promote health, strength and symmetry of the body and to correct physical defects.

Daily classes are held in light gymnastics—free standing work, marching, fancy steps, drills with dumb-bells, wands, and Indian clubs, with musical accompaniment; heavy gymnastics, including horse, parallel bars, chest weights, flying ring, ladder, stall bars, climbing ropes, and horizontal bar. Gymnastic games, including tennis and basket-ball, are taught to those who care to learn. When the weather permits, exercises are taken in the open air.

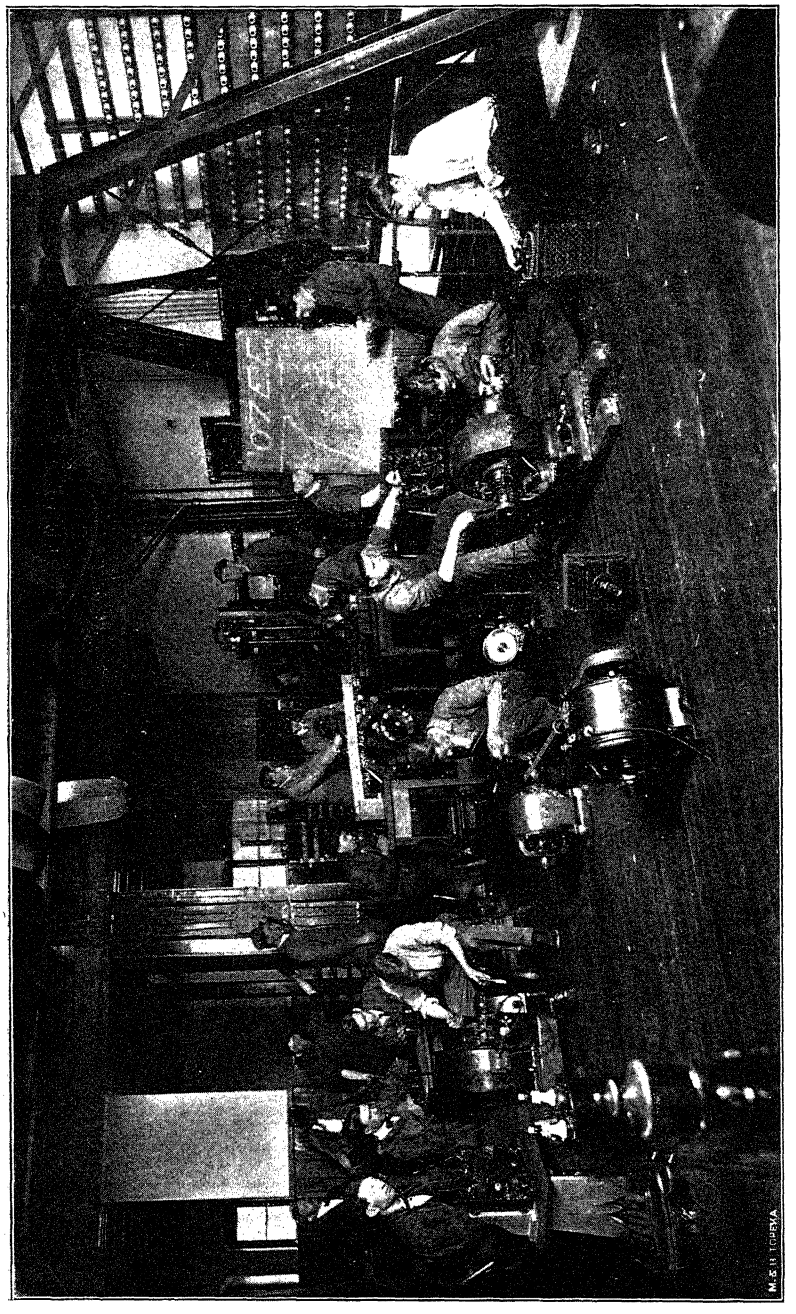
All young women of the College have access to the privileges of the gymnasium, and one year's work is required. Before entering upon the work, a physical examination is made by the director. The examination includes measurements of physical proportions and takes note of the condition of the heart and lungs. From this examination an anthropometric chart is platted, showing size, strength, and development, and defects in comparison with the normal standard. Frequent measurements are taken and comparisons made to show effects of training.

A uniform suit has been adopted, which all the girls taking gymnasium work are required to provide themselves with. The suit is black, and consists of a blouse waist and bloomers, and must be made in the uniform style, color, and cloth. The pattern for the suit and sample of cloth may be obtained by sending fifteen cents and bust measure to the secretary of the College. Gymnasium shoes may be purchased at prices ranging from fifty cents to one dollar and thirty-five cents. The entire suit, including shoes, need not cost more than four dollars.

Physics and Electrical Engineering.

In the following courses instruction is given by text-books, lectures, and laboratory work. The treatment is both theoretical and practical. Recitations and lectures are illustrated by means of apparatus and the projection lantern. The purpose of the general course in physics is to lay a thorough foundation in the fundamental principles of physical science and in the theory and practice of precise measurement. The physical laboratories are large, well lighted, and equipped with the necessary apparatus for both the elementary and advanced laboratory courses.

The course in electrical engineering is designed to provide the necessary preparation for young men who desire to engage in the practical work of electrical engineering. The theoretical work begins in the third year, with course No. 3 in physics. An extended course in laboratory work is given, covering the subject of electrical measurements, and prepares for the work of the fourth year in the dynamo laboratory. The electrical and dynamo laboratories are well equipped with high-grade ap-



DYNAMO-TESTING LABORATORY.

paratus and machinery and afford every opportunity for experimental work in electrical engineering.

Of the studies described, No. 1 is required in all courses; Nos. 4 and 5, in the general science and agriculture courses; Nos. 2 and 3, in the mechanical engineering course; Nos. 2, 3, 6, 7, 8, 9, 10, and 11, in the electrical engineering course.

1. **Elementary Physics.** First year, each term. The work is intended to give the student a general view of the subject, with emphasis placed upon such laws and principles as will be useful in further scientific study, and includes the most important laws of mechanics, heat, sound, light, and electricity. Text-book, Carhart and Chute.

Laboratory.—In this work the importance of accurate observation and conclusions is emphasized. The exercises consist of measurements with calipers, spherometers, micrometer-microscopes, the pendulum, etc. Careful records of experimental work are required.

2. **Physics I.** Third year, fall term. During this term's work the general principles of heat and sound are treated, and the most-approved methods for the measurement of each will be discussed and illustrated. The derivation of laws and formulæ, including the solution of problems involving these laws, will be required. Text-book, Watson.

Laboratory.—Experiments with the principal instruments used in exact measurement. The work is intended to give the student skill in the manipulation of instruments, in the interpretation and reduction of results, and in the use of data in curve-tracing.

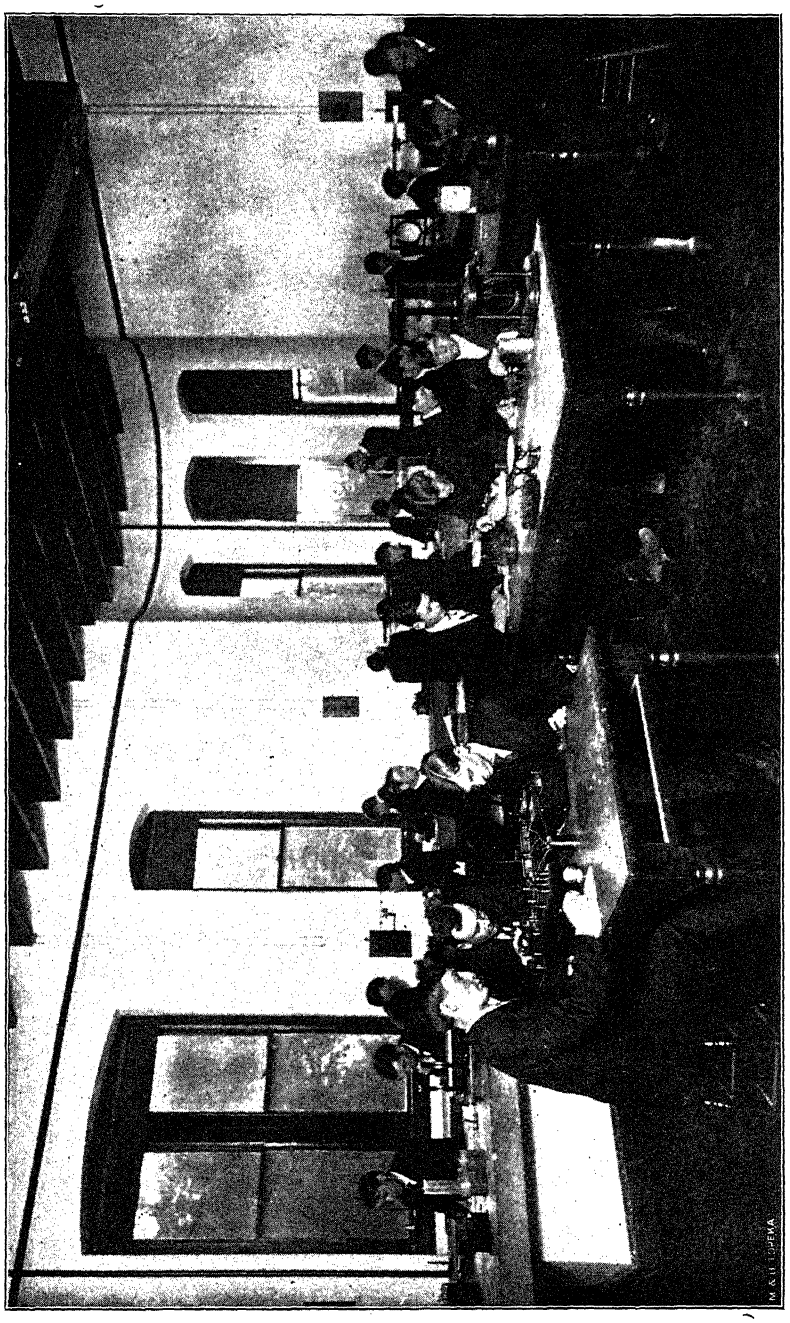
3. **Physics II.** Third year, winter term. The first half of the term is devoted to the subject of light. In this subject it is the purpose to develop the theory of light and its special application to refined physical measurements. The last half of the term is devoted to the subject of electricity. The fundamental laws of current, resistance and potential are developed, and the various methods and instruments by which they are measured are discussed. Use and care of batteries; electric wiring for lighting, telephone and bell circuits; wire inspection according to underwriters' rules.

Laboratory.—This work is designed to give the application of the laws of optics, the use and adjustment of surveying instruments and telescopes, lens testing, spectrometry. In electrical measurements, it consists of the measurement of resistance and current and the calibration of instruments. The proper use and care of electrical instruments are emphasized.

4. **Physics III.** Third year, winter term, and fourth year, fall term. A thorough study of the laws of force and motion. Composition of forces and velocities by graphic and trigonometric solutions. Nature of sound; its wave motion and velocity; the factors that will change the velocity, and the phenomena produced by its reflection. Thermometry, calorimetry, the laws of radiation and absorption of heat. Text-book, Hastings and Beach.

Laboratory.—The work is of such a nature as to give students an opportunity to make experimental verification of the laws discussed in the classroom.

5. **Physics IV.** Third year, spring term, and fourth year, winter term. Electricity, magnetism, and light. This course is intended to give the student a historical review of the development of electricity and magnetism. The methods of measuring current and resistance will be discussed and illustrated. The solution of problems involving the laws derived in the classroom is required. Nature of light; laws of reflection



JUNIOR ELECTRICAL ENGINEERS.

and refraction; construction of images in plane, concave and convex mirrors; diffraction and interference. Text-book, Hastings and Beach.

Laboratory.—This work will include measurement of resistance, current, potential, electrolysis, magnifying power of lenses, focal lengths, photometry, etc.

6. **Theory of Electricity.** Third year, beginning middle of winter term and continuing throughout spring term. The following subjects are treated: Current electricity, potential, resistance, quantity, theory of electrical measurements, induction, hysteresis, use of condensers, elementary principles of the generator and motor, the ballistic galvanometer, Carey-Foster bridge, various methods for the measurement of high resistances, calibration of commercial voltmeters and ammeters, the storage battery, etc. This course is, in many respects, the most important for the engineer, as it prepares the way for the more advanced work of the fourth year and affords every opportunity for exact measurement and mathematical treatment. Text-book, Elementary Treatise on Electricity and Magnetism, Foster and Porter, founded on Joubert's Treatise.

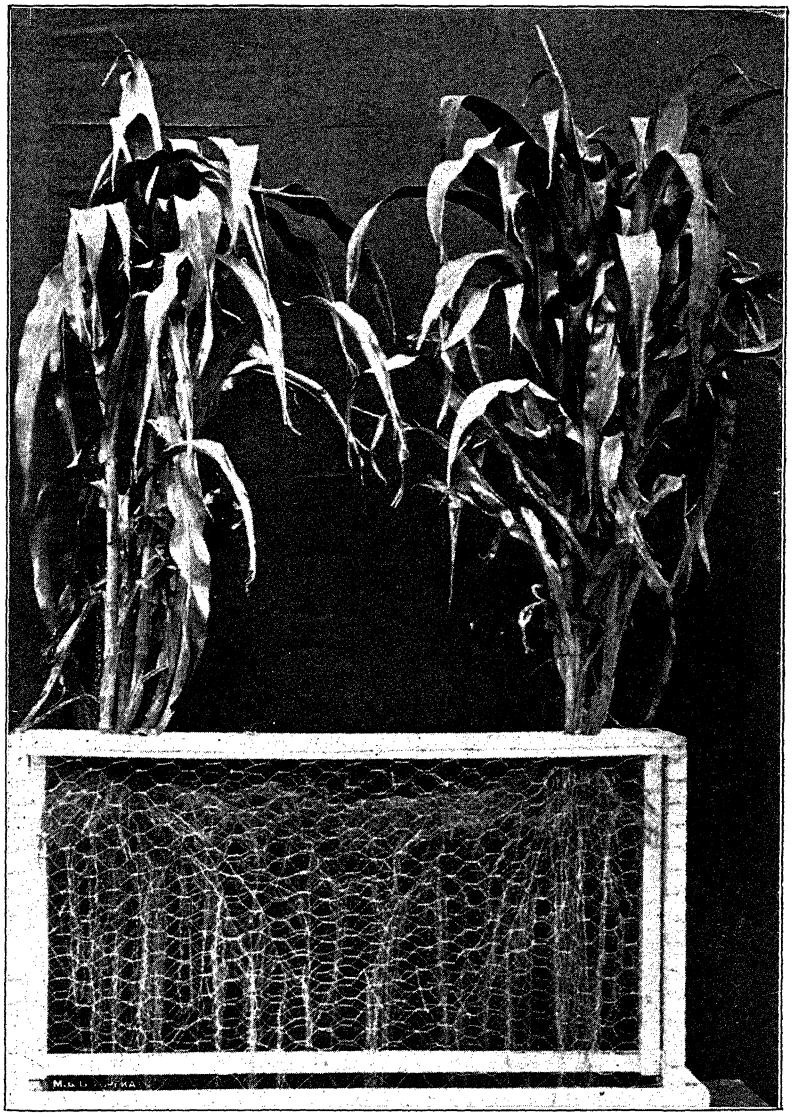
Laboratory.—It is the purpose of the laboratory course to continue the work of the classroom in the application of the principles and methods developed, the experiments being arranged to follow closely the theoretical development of the subject. The experiments include the measurement of current, potential, resistance, quantity, hysteresis, cable-testing, calibration of instruments, photometric tests of arc and incandescent lamps, use of Carey-Foster bridge, battery tests, etc. Especial emphasis is laid on curve-drawing and the interpretation of laboratory results. A number of reference books are used in this course.

7. **Direct-current Machinery.** Fourth year, fall and first half of winter terms. A continuation of the course in theory of electricity, including a detailed study of the principles of direct-current machinery, laws of magnetic circuits, the various types of machines and their characteristics, a study of efficiency and regulation, management, care and installation of machines. Text-book, Elements of Electrical Engineering, Direct Currents, Franklin and Esty.

Laboratory.—The laboratory is well equipped with one or more standard types of motors, dynamos, rotary converters, transformers, alternators, constant-current transformers, arc and incandescent lamps, a sixty-cell storage battery, marble and slate switchboards, and the necessary alternating- and direct-current measuring instruments. An extended study is made of direct-current machines, curve-plotting, tracing of E. M. F. and current curves of the various types of machines, photometric measurement of arc and incandescent lamps, various methods of determining efficiencies of motors and generators, machine characteristics, regulation, etc. The College and local plants offer additional opportunities for practical work. Courses of reading along the different lines of study are suggested.

8. **Alternating-current Machinery.** Fourth year, last half of winter term and spring term. The theory of alternating currents, the production of alternating electromotive forces, impedance, capacity, and inductance, measurement of power, the calculation of currents in reactive circuits, polyphase generators, induction motors, starting decices, transformers, etc. Text-book, Sheldon and Mason's Alternating-current Machines.

Laboratory.—Attention is given in this course to the work of testing transformers, alternators, rotary converters, induction motors, en-



The growth and distribution of corn roots between two hills of corn, sixty days after planting.

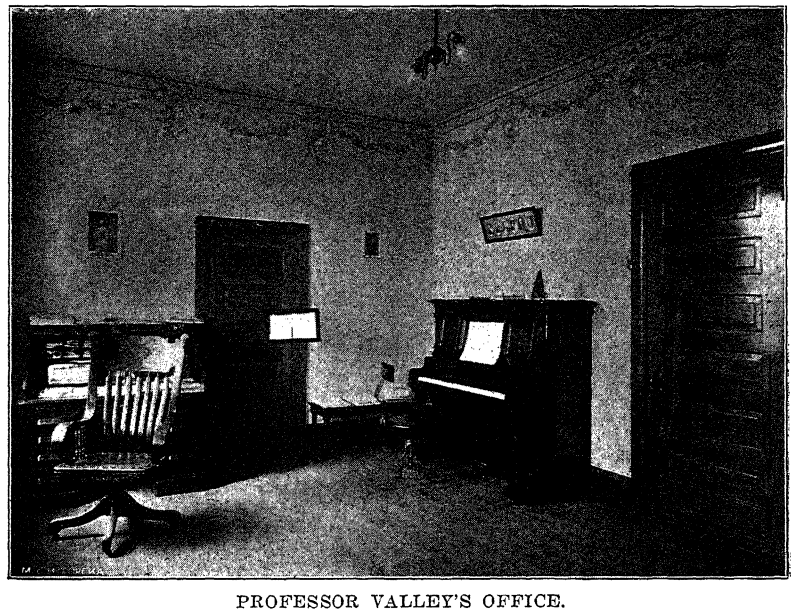
closed alternating arcs, and the various subjects taken up in the class-room discussion.

9. **Dynamo Design.** Fourth year, winter term. In this course each student is required to make the necessary calculations and working-drawings of such parts or mechanisms of electric machinery as may be assigned to him; the work is based upon a course of lectures.

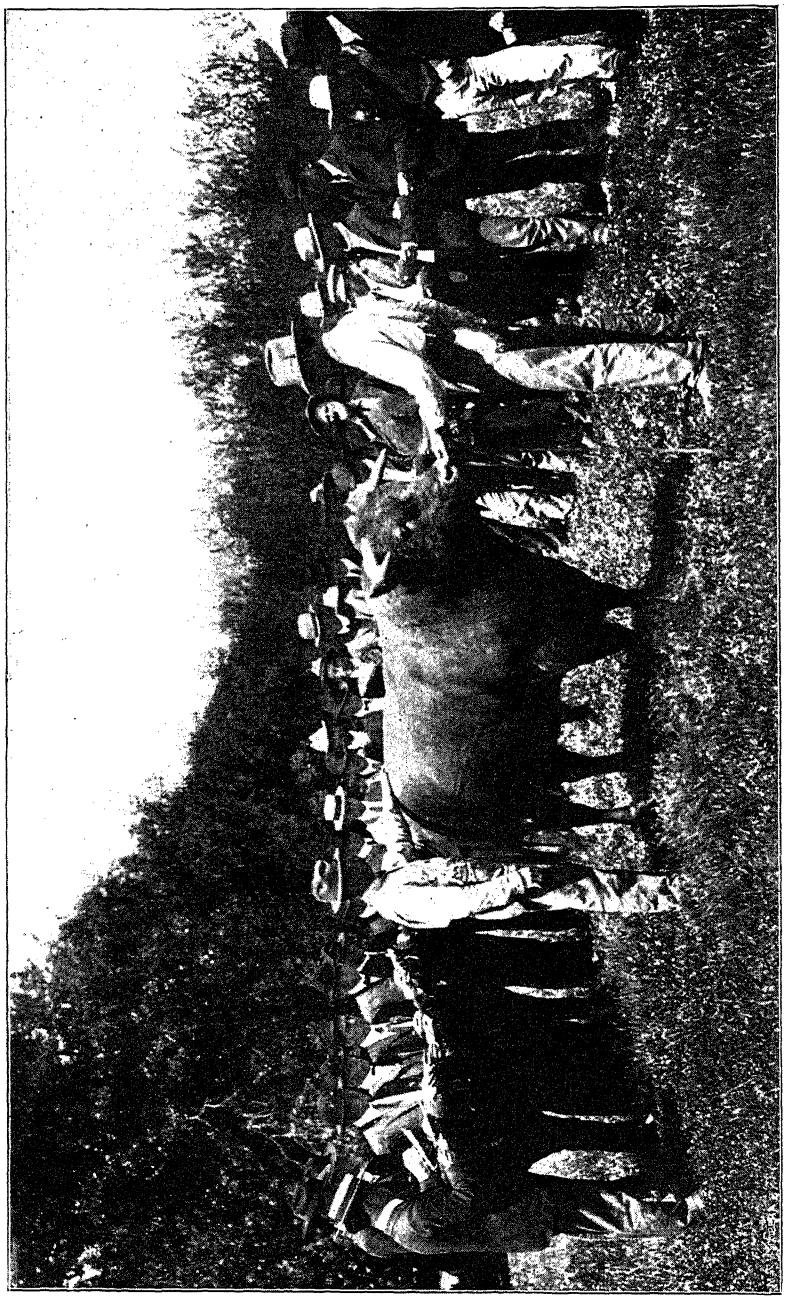
10. **Power Stations.** Fourth year, spring term. The work in this course is based on Bell's Power Transmission, supplemented by lectures and inspection visits. The treatment includes discussion of station design, methods of power transmission, electric traction, systems of distribution, station management, etc. Text-book, Bell's Power Transmission.

11. **Electrochemistry.** Fourth year, fall term. This course will consist chiefly of a study of the processes employed in electrometallurgy and the electrochemical industries, the production of electrolytic copper, carborundum, etc. Such experimental work will be provided as the equipment of the laboratory will permit.

12. **Advanced Course in Physics.** Work in advance of the courses required of the undergraduates will be offered to students who have completed the work in courses 1, 2, and 3, or the equivalent. The work will be largely of an experimental nature, with collateral reading and lecture work. While the student will work more or less independently, the course will be outlined by the instructor in charge. Advanced problems in mechanics, heat, light and electricity will be taken up, and every opportunity offered to acquaint the student with the use of standard instruments in physical measurement. The course is especially adapted to accompany work in advanced chemistry, mathematics, or the needs of those intending to teach physics.



PROFESSOR VALLEY'S OFFICE.



JUDGING CATTLE.

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. Instruction is given in all studies required for admission to the College. See "Terms of Admission."

1. **Arithmetic.** Instruction is given in the principles that underlie the various classes of problems, thus teaching the student to rely upon himself, not upon rules. Text, state book.

2. **Algebra I.** This includes the fundamental operations, factoring, highest common divisor, lowest common multiple, and fractions. Text, Wells's New Higher Algebra.

3. **Algebra II.** Simple equations, involution, evolution, theory of exponents, and radicals as far as the subject of quadratic equations.

4. **Algebra III.** Quadratic equations, ratio and proportion, arithmetical and geometrical progressions.

5. **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.

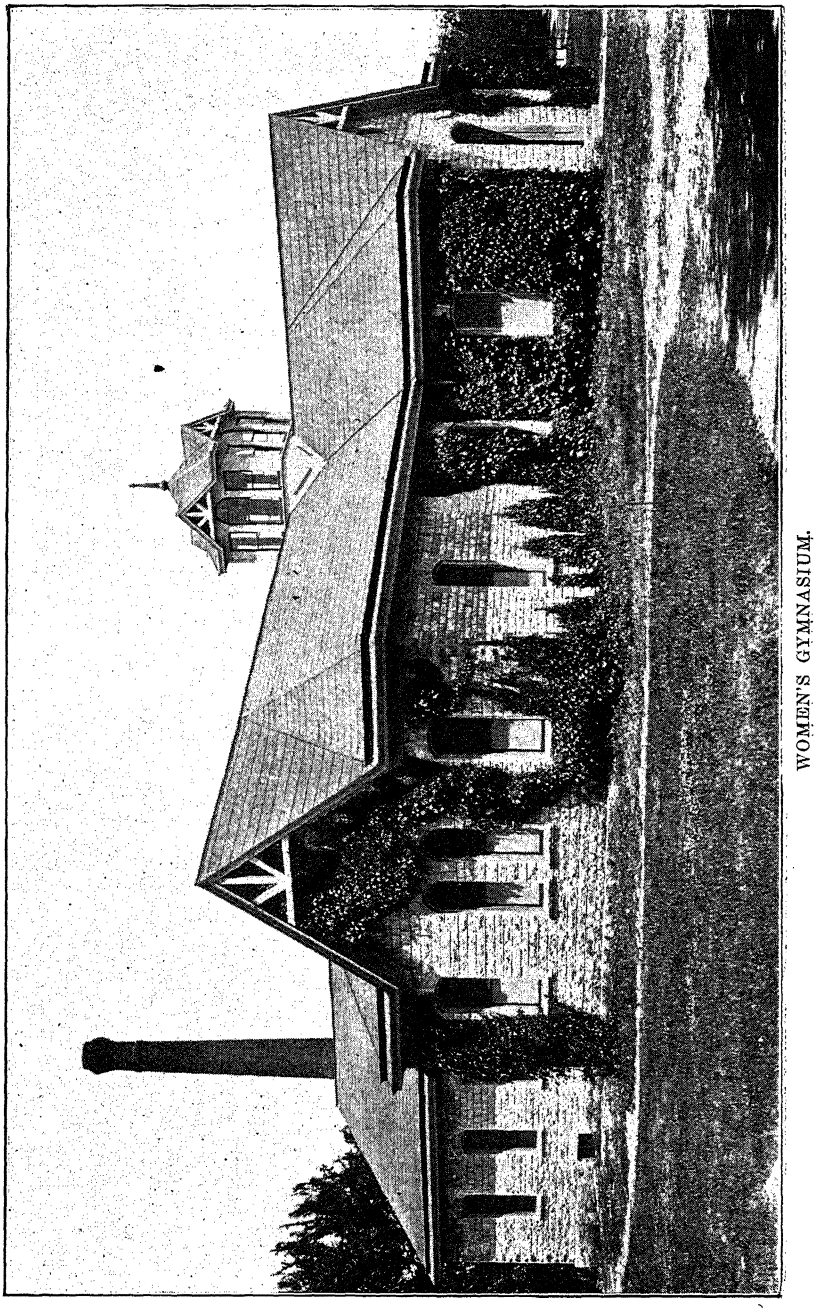
6. **English Grammar.** The aim is to lay a good foundation for the further study of English. Recognizing the fact that grammatical drill develops in students logical habits of thought, besides giving them greater command of language, special attention is given to the analysis and construction of sentences 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, Longmans.

7. **Advanced Grammar.** One term. A review of the principles of grammar as preliminary to the College requirements in English. Practice in grammatical analysis of difficult sentences and of extended passages of literature. Also a study of the etymology of derivative works, of synonyms, of the uses of words, and of the principles of sentence structure, with practical exercises in word analysis. Text, Longmans.

8. **English Readings.** As a prerequisite to admission to the College classes in English, a careful study is made of a number of standard productions of first-class interest and easy style. Sketches of authors, both oral and written, character sketches, abstracts, outlines and analyses of every production are required. As these productions are mostly read and discussed in class, opportunity is afforded for considerable valuable training in pronunciation and effective reading.

List of Readings.—Coleridge's Rime of the Ancient Mariner; Tennyson's Idylls of the King; Webster's Bunker Hill Orations; Arnold's Sohrab and Rustum; Irving's Sketch Book; Shakspere's Julius Cæsar; George Eliot's Silas Marner.

9. **English Composition.** One term. The work is based on Smith and Thomas's Composition and Rhetoric. The text is completed to chapter XIII, with the addition of chapter XIX and the appendix, special attention being given to the study of usage and diction. The object of the work of this term is to give the student a knowledge of the elementary principles of composition, to improve his vocabulary, and to help him overcome the fear of expressing himself in writing. To this end he is encouraged to choose subjects that spring from his own experience or observation, and is required to present one theme each week, which, after being read before the class, receives corrections from the instructor in charge.



WOMEN'S GYMNASIUM.

10. **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.

11. **Ancient History.** This course is introduced by a brief study of Egypt, the Hebrews, and other oriental nations. The history of Greece is followed from its prehistoric conditions to its conquest by Rome, 146 B. C. The Persian and Peloponnesian wars must be studied, but the emphasis is laid rather on the life and government of the people in their city-states, on the age of Pericles, and the art, literature and philosophy of the Greeks. Alexander the Great is studied, not so much for his military achievements, but rather as the disseminator of Greek civilization. The last half of the term is devoted to Roman history. The growth of the nation is followed, from the founding of the city till the great republic surrounded the Mediterranean and embraced practically all of the known world. The story of the Punic wars is, of course, included. The Romanizing of Europe; the reason for the change from republic to empire, and the method of its accomplishment; Rome's contribution to civilization, such as her roads and her laws; the origin of the Christian church; the Augustan age, and the lasting impression that 500 years of world empire made on mankind, are among the points emphasized. An attempt is made to acquire some familiarity with the great personages, such as Pericles and Cæsar, who played their part in the ancient world. Text, Myers's Ancient History, edition of 1904.

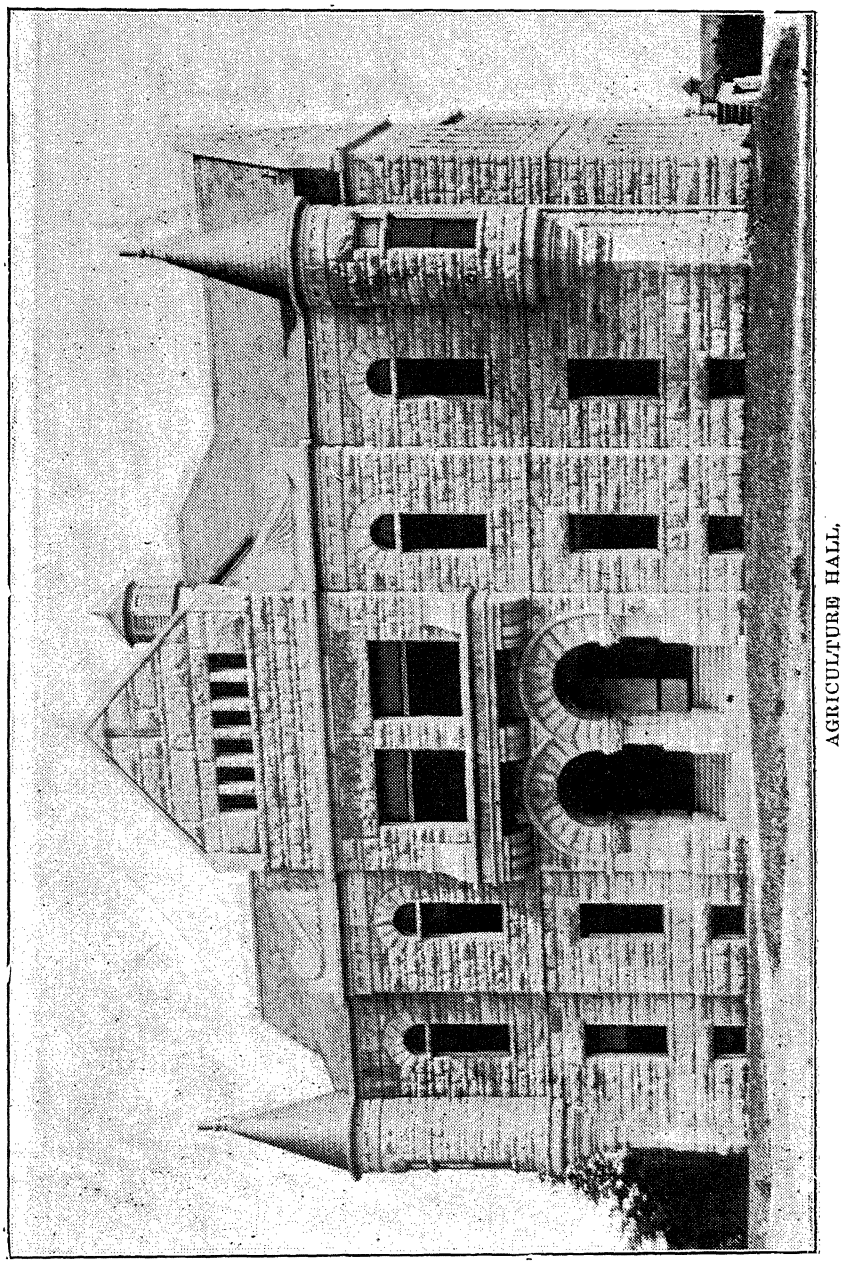
12. **Medieval History.** This course begins with the fall of Rome and the migration of the Teutonic tribes, thus discovering the very beginnings of the present European nationalities and languages. The work of Charlemagne; feudalism; the Christian church and monasticism; Mohammedanism; the achievements of the Northmen; the hundred years' war; the crusades; the formation of modern governments; the Italian cities, and the renaissance, are among the subjects studied. Special emphasis is given to the history of England and the rise and power of the medieval church. Text, Myers's The Middle Ages, revised edition.

13. **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 are made use of in the classroom. Walker's Elementary Physiology is used as a text.

14. **Geography.** Because of recent history, special attention is paid to the geography of the United States, its possessions, products, resources, methods of transportation, etc. Text, state book.

15. **Physical Geography.** Two terms. This subject considers the conformation of the earth's surface, the distribution of land and water, minerals, plants, animals, productions, the atmosphere and the ocean with reference to man's physical environment. These features are presented so as to show in what manner they affect man's way of living and how nature has guided in the development of mankind. State text.

16. **Botany I.** The object of the course is to acquaint the young student with the primary essential facts in the life and growth of plants; to enable him to see how plants work and live, and upon what things, in the external world, they depend. As much knowledge of plant structure is required as will render the working processes clear. Practical studies are followed out in such problems as germination and growth, in the uses of the different plant organs, in respiration, transpiration, carbon assimilation, storage and transport of food, building up of tissue, etc. The effects are studied of unfavorable conditions, such as drought, freez-



AGRICULTURE HALL.

ing, lack of sunlight, etc. The different ways in which plants increase are examined, and the manner in which they struggle for possession of the soil. In general, in this course, the seed plants are chiefly employed for illustration and experiment, but the other groups are freely drawn upon, and the general way in which the different groups are related to one another is shown in an elementary manner. Text-book to be selected.

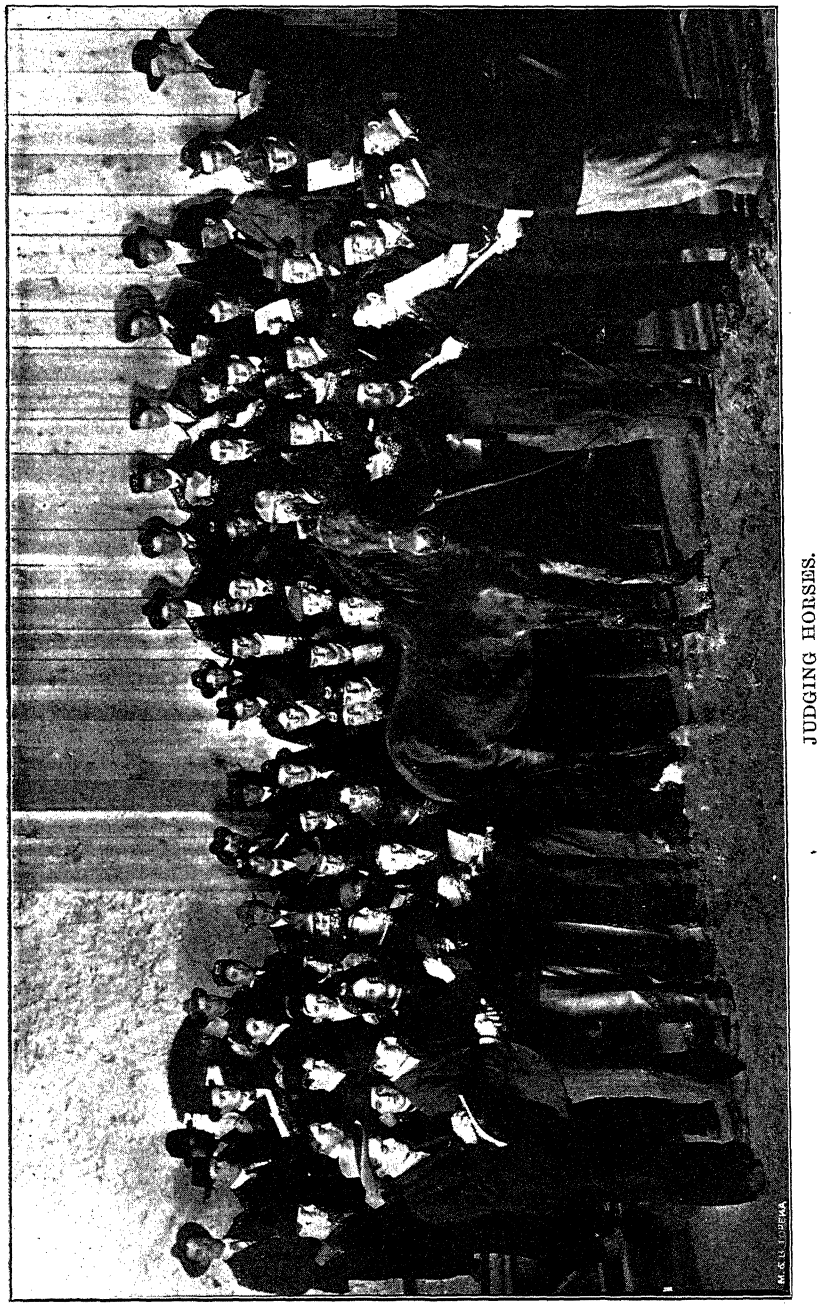
17. **Other Branches of Study.** Instruction is also given in spelling, reading, and writing.

Printing.

The printing department, in the main building, occupies six large rooms, viz.: Superintendent's office, composing-room, pressroom, folding-room or bindery, mailing-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; embossing; 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*, the *Students' Herald*, and the monthly *Jayhawker*—all in magazine form; 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, the Experiment Station bulletins, etc.—thus furnishing a greater range of work for instruction than is ordinarily found in the average printing-office.

2. **Equipment.** Forty cases of six-point, eight-point and ten-point body type and italics; an assortment of wood type and brass rule; fourteen series of job faces, from six to forty-eight points, uniform line, all in Winslow window cabinets; two Babcock two-revolution, four-roller "Optimus" cylinder presses, two quarto-medium and eighth-medium Gordon job-presses, and a Monitor wire-stitcher—all driven by individual electric motors; type-high mitering, rule-curving and stapling machines; paper-cutter, stands, imposing-stones, etc.



JUDGING HORSES.

Public Speaking.

There is perhaps no study of wider application and of more immediate benefit to the student than that of vocal expression. It helps him in his other studies. Every recitation affords him an opportunity of practically applying the rules and principles of correct expression, and, what is of still greater value to him, he soon discovers for himself the fundamental principle that proper expression is always the result of a thorough comprehension of the thought. Shallowness and inaccuracy are almost wholly due to defective reading. For this reason, students are encouraged to form the habit of mentally paraphrasing whatever they read, to the end that they may grasp every detail, relationship, contrast and purpose contained in the subject-matter. This habit, when formed, leads to accuracy of scholarship in any line.

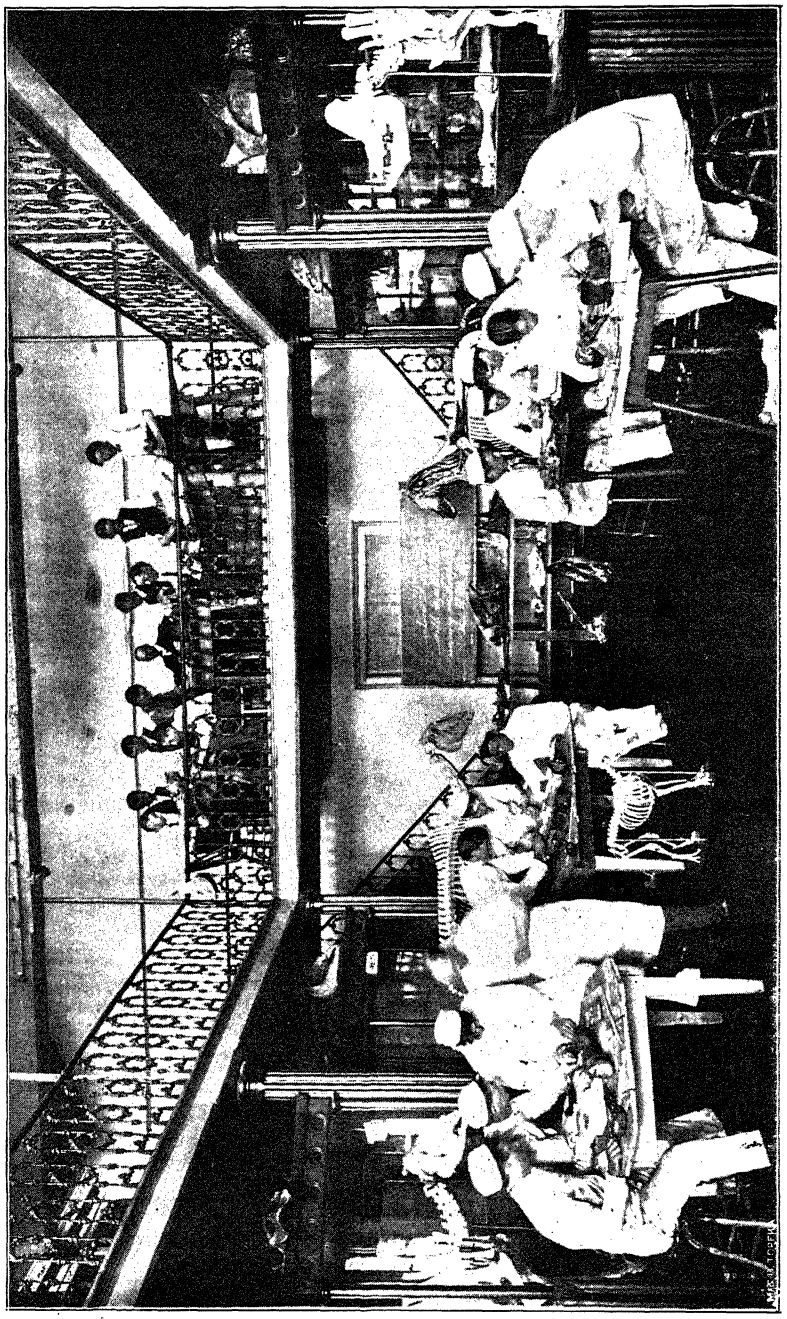
It is not intended that this department should afford an extended course in elocution. There is no intention of fitting students for the stage or platform as professional readers. It may be safely affirmed, however, that the course here offered, taken in conjunction with correlated subjects in the department of English, will prepare the student in this line for all the ordinary demands of an active and useful career.

1. **Public Speaking I.** Second year. Required in all courses. The work in this course is largely analytic. A critical study of the four general types of utterance. Paraphrasing as a preparation for expression. The principle of grouping. Musical properties of speech. Practice in literary and expressional criticism. Carefully selected exercises in vocal technique are given throughout the course. Lessons are assigned, prepared and recited as definitely as in any other study. Text-book, Vocal Expression and Literary Interpretation, part I.

2. **Public Speaking II.** Second year. Required in all courses. In this course the work is synthetic. The principles of vocal expression as studied in part I are here applied to literary wholes. Studies in formulation, discrimination, emotion, and volition. The principle of unity and the laws of movement, principality, contrast and climax are studied and applied to numerous selections from standard literature. Studies in tone-color, transitions, and descriptive gesture. The purpose is to cultivate taste, judgment and facility in the art of expression. Instruction is based on Vocal Expression and Literary Interpretation, part II.

3. **Public Readings.** Second and third years. Required in all courses. The instruction in this course is individual and consists of private rehearsals. Each student is required to appear in public at least once a year. For this purpose all sophomores, juniors and seniors are assembled in chapel every Saturday afternoon throughout the year.

4. **Orations.** Each senior student is required to prepare an oration for public delivery. These productions must meet all prescribed requirements, be rehearsed, and delivered as outlined in No. 3. By special arrangement, credits in public readings and orations may be obtained for equivalent work done in any of the College literary societies.



CLASS IN VETERINARY ANATOMY.

Veterinary Science.

The course in veterinary science is designed to prepare the student for a professional career and thoroughly equip him for his life-work. The general studies included in the course all intend to broaden his ideas, the better to fit him for his duties as a citizen, giving him the opportunity of raising himself in the social life equal in standing to that of the human physician.

The agriculture students receive a special course of training in the line of practical nursing, the use of domestic remedies, and a general knowledge of the diseases of animals and how they can be prevented.

Nos. 4 and 11 are required in the agriculture, domestic science and general science courses.

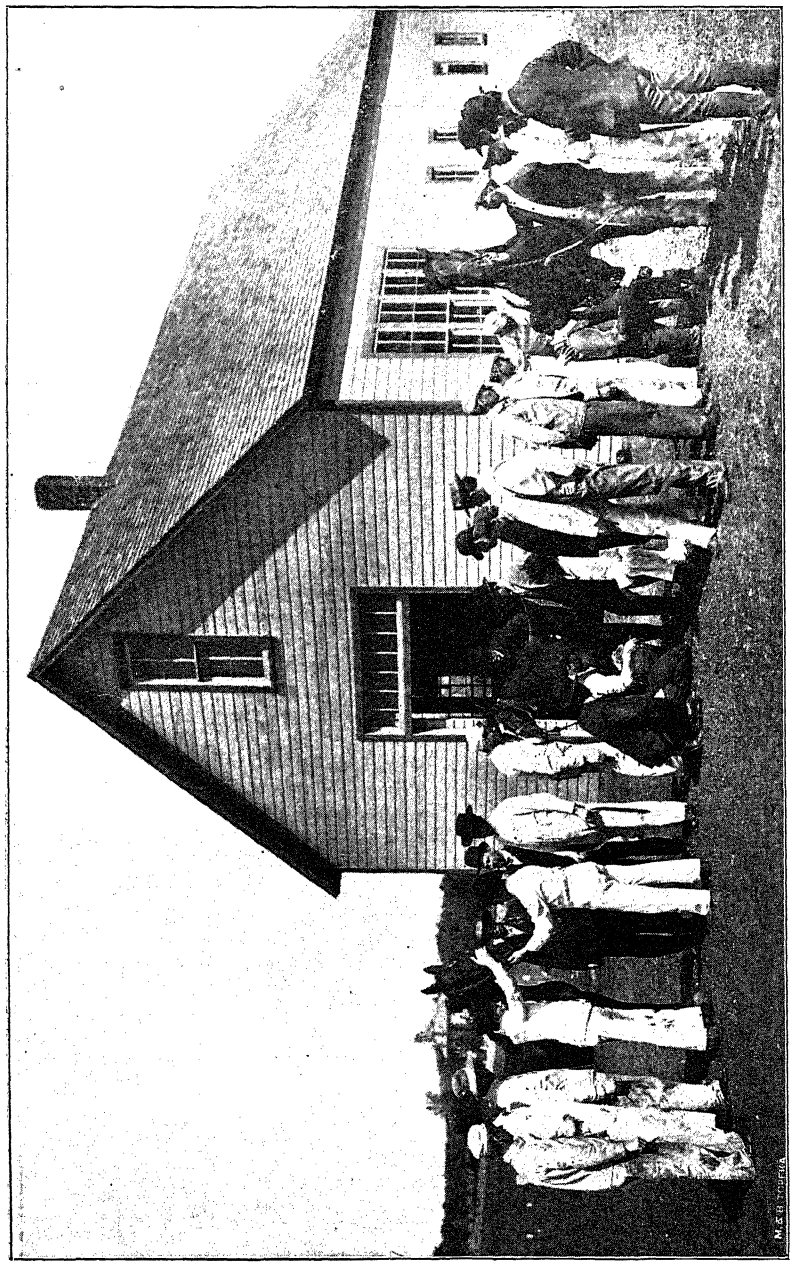
ANATOMY.

The course in anatomy receives special attention, owing to the fact that every qualified veterinarian must be master of this subject. It is the foundation of the course in veterinary science, and, therefore, is taught in the most practical manner possible. The instruction in anatomy is given by lectures, recitations, and laboratory work; the latter being by far the most important. The lectures are for the purpose of presenting general facts which will aid the student in recitation and dissection. To emphasize the relation of the various structures of the body, and to note particularly the positions of organs most subject to surgical operations, the major part of the course is devoted to laboratory work. Each student is required to make several dissections of the horse, and such parts of other animals as may be deemed necessary. The dissections are made in a systematic manner; each student is required to dissect and pass an examination upon the part assigned before he is allowed to advance to other parts. The recitations are largely a review of the work in the laboratory. The repeated quizzing fixes the various points more firmly in mind, thus giving the student a thorough working knowledge in anatomy, preparing him for the work in surgery. In the study of the bones and muscles, the skeletons in the museum and the Azoux models give valuable assistance. Manhattan and surrounding country furnish ample material for the work in anatomy. Text-books, Strangeway and Chauveau's Anatomy, McFadyean's Dissection Guide.

1. **Anatomy I.** Second year, fall term. In this course the students make a comparative study, first, of osteology, which includes the consideration of the general principles applicable to the study of all the bones. The bones of mammalia in particular, which includes a study of the vertebral column, bones of the head, thorax, anterior limb, posterior or pelvic limb, and foot. The articulations, including the articulations in general, articulations in mammalia in particular, considering the articulations of the spine, head, thorax, anterior limb, posterior limb, and the general and special ligaments of each part. Muscles: General considerations of the striped muscles, manner of study, muscles of mammalia in particular, and muscles of the anterior limb.

MATERIA MEDICA.

This department includes materia medica, therapeutics, and pharmacology; materia medica and therapeutics extending through the sophomore year, with pharmacology in the spring term, junior. The student is taught the physical and chemical characteristics of drugs and their therapeutic action. Methods of cure other than drugs are also discussed. The course is both practical and theoretical, preparing the student to use the therapeutic measures at his command in a rational manner. The



VETERINARY HOSPITAL.

actions of the more important drugs are studied throughout the course in medicine, surgery, and general clinic.

2. **Material Medica I.** Second year, fall term. The student is taught the definitions of the science, the mode of actions of drugs, and their indications. Comparative action of drugs on various animals, doses and the time of administration are thoroughly discussed. Drugs acting on the digestive system; drugs acting on the circulation, blood, heart, and blood-vessels; drugs influencing the brain, spinal cord, the nerves, and drugs acting on nerves of special sense; drugs acting on the respiratory organs, the urinary organs, the sexual organs; drugs influencing metabolism and bodily heat; drugs acting on the skin; drugs which destroy micro-organisms and parasites. Text-book, Winslow.

HISTOLOGY.

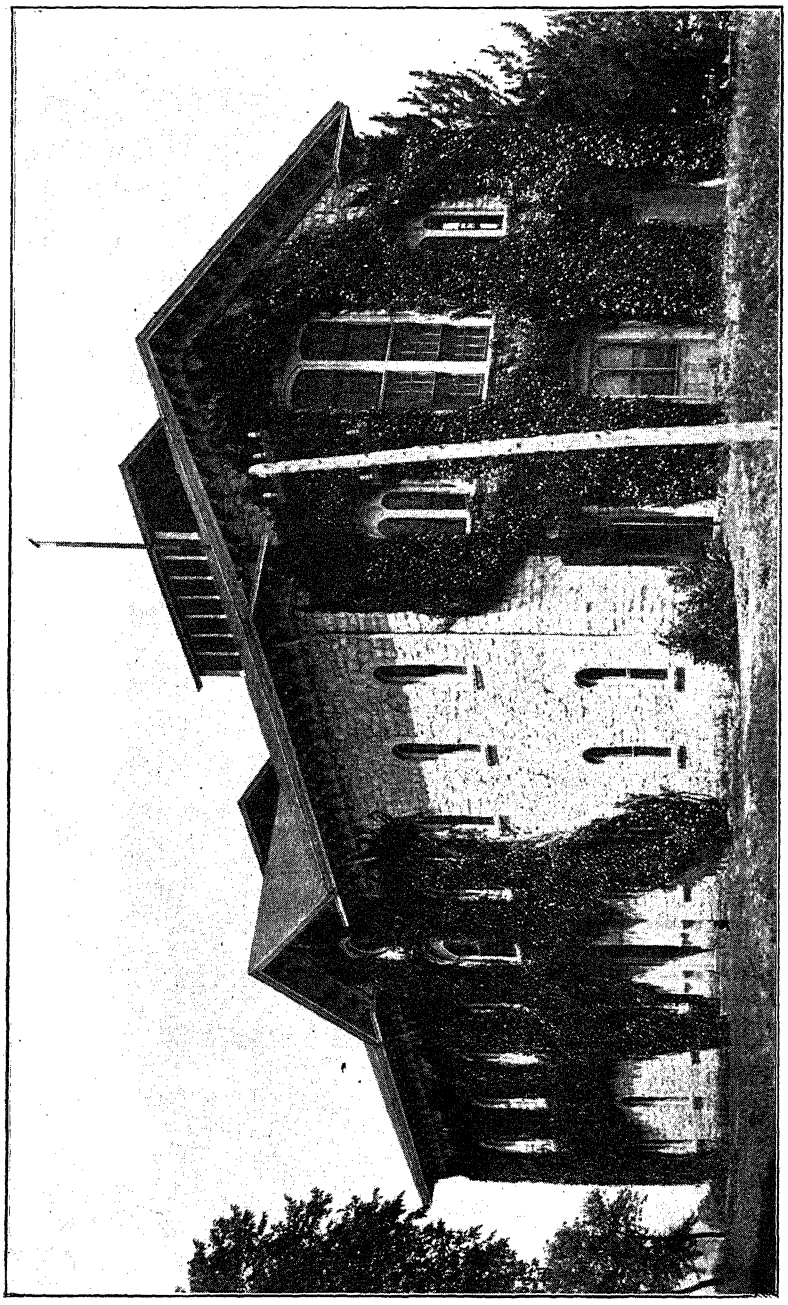
The study of the microscopic structures of the body is given in the beginning of the sophomore year. The histology prepares the student for general pathology, pathological histology, and, in fact, all the studies which have a direct bearing upon veterinary medicine. The student can thus grasp more clearly the location of the various cells and tissues which may be acted upon by drugs or are the seat of disease. He is better able to picture the lesions in pathological histology by being acquainted with the normal microscopic appearances. It is thus evident that a thorough course in histology is important for the truly educated veterinarian.

3. **Histology Laboratory.** Second year, fall term. This course is conducted by illustrated lectures, quizzes, and laboratory work. The purpose of the lectures is to clear up any difficulties that the student might encounter, and thus understand and appreciate the specimens studied in the laboratory. In the quizzes, the following subjects are considered very fully: The cells and the tissues, epithelial tissues, muscular tissues, nervous tissues, peripheral nerve endings, circulatory system, lymphatic system, mucous membranes and glands, digestive tract, urinary organs, male reproductive organs, female reproductive organs, respiratory organs, skin and its appendages, central nervous system, eye and its appendages, organ of hearing, nasal mucous membrane, and the most successful histological methods.

In the laboratory work proper, the student is first given a course in microscopy, in order that he may properly use the microscope and obtain the best results from the study of the prepared slides furnished. The assigned slides used by the student consist of specimens of the various tissues and organs studied in the recitation work. In addition to examining a slide, each student is required to make drawings of the specimens. The drawings are generally made, usually one at a small magnitude, to show the object as a whole; and the second, made of the same object, showing some of the details at a much greater magnification. The drawings made in the laboratory work are retained by the student to aid him in pathological histology, by referring back to preparations, drawings and descriptions of normal tissues and organs. In addition to studying assigned slides, the student is given instruction in the fixing, sectioning and mounting specimens and the best methods to be employed for the different tissues. Text-books, Gage's Microscopy, Piersol's Histology.

PHYSIOLOGY.

Physiology, like anatomy and histology, belongs to the foundation studies. It is a well-known fact that in disease or injury the normal physiological workings of the tissues or organs should be well understood in order fully to appreciate the conditions brought about by the disease or



ARMORY.

injury. A course in general physiology has been advisable, preparing the student for the comparative physiology to be given later.

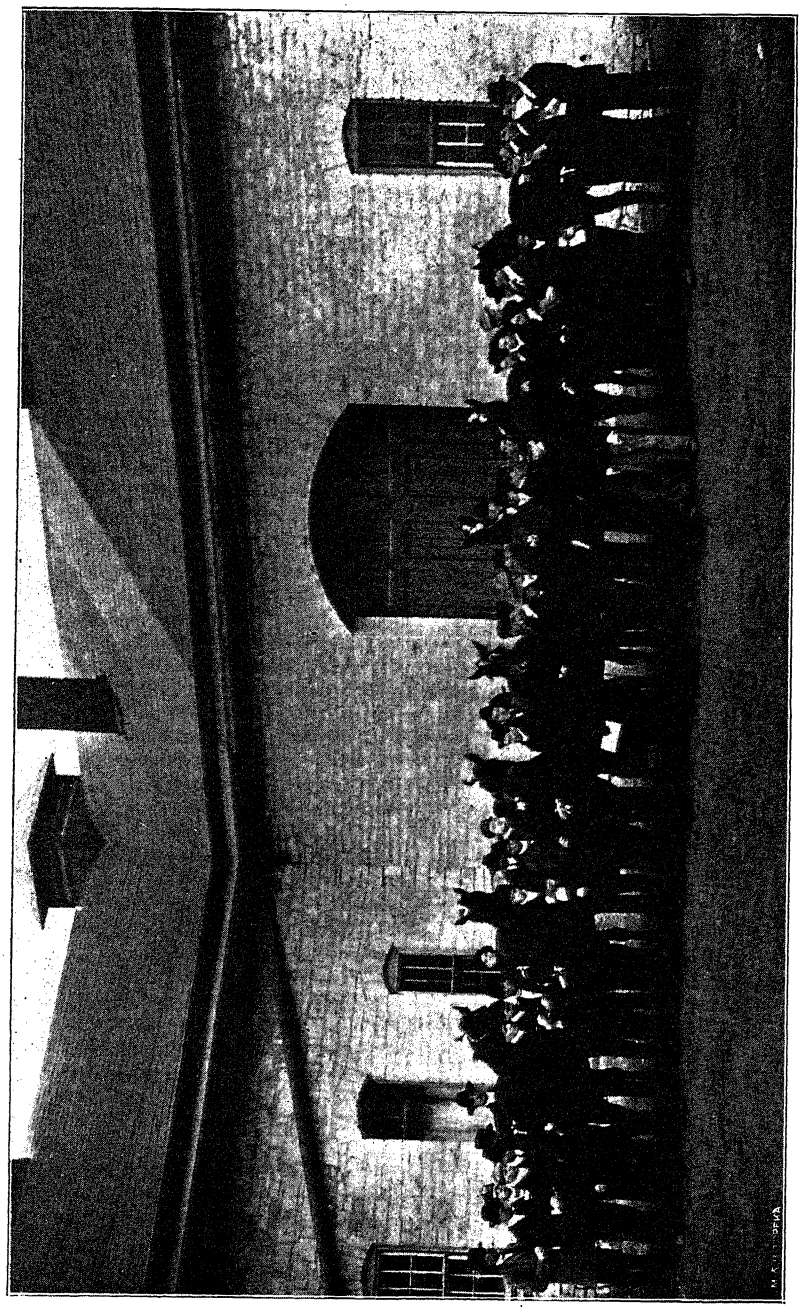
4. **Physiology.** Second year, winter term. The instruction in general physiology consists of the consideration of the composition of bones, blood, lymph, and all secretions of the body, with their functions. The functions of tissues and glands, together with their microscopic structure; also the structure and function of the digestive tract, respiratory tract, and skin. In order that the student may more fully understand the class work, a laboratory course is offered, consisting of two hours a week, in which the student is required to dissect small animals; also study the microscopic structure of all the glands of the body. The laboratory is equipped with skeletons, papier-mache manikins, and models of the eye, ear, etc.; also with both high- and low-power microscopes for each student. Veterinary students are not required to take the laboratory work, as it is a part of the work in the histology laboratory. Text-book, Thornton.

5. **Materia Medica II.** Second year, winter term. The inorganic agents which are more commonly used in medicine are thoroughly studied, including their action upon the different animals, external and internal, the source, character and indications of the drug, the preparations of each, and the dosage. The student becomes familiar with the drug and its action in the hospital, where we have occasion to demonstrate the use of nearly all drugs studied.

6. **Anatomy II.** Second year, winter term. This course is a continuation of anatomy I. The student is first given a review of the work covered in anatomy I, following a proper dissection of the muscles of the trunk and of the posterior limbs. General consideration of the digestive apparatus, the digestive apparatus in mammalia, the preparatory organs of the digestive apparatus, the essential organs of digestion, the digestive apparatus of birds. The respiratory apparatus, considering very fully the respiratory apparatus in mammalia, making a comparative study of the air-tubes and nasal cavities in the various animals, differential characters in the thorax of the various animals, a study of the glands connected with the respiratory apparatus; lastly, a special study of the respiratory apparatus of birds.

7. **Comparative Physiology.** Second year, spring term. The course in comparative physiology consists of lectures, demonstrations, recitations, and laboratory work. It must be preceded by the course in general physiology. Special attention is given to the nutritive functions and general directions for the feed of various animals from a physiological standpoint. The course consists of a comparative study of the subject of the blood, heart, blood-vessels, vascular glands, respiration, digestion, the liver and pancreas, absorption, the skin, urine, nutrition, animal heat, musuclar system, lymphatic system, nervous system, senses, the locomotor apparatus, the foot, generation and development, growth, decay, and death, and the general chemical constituents of the body. Text-book, Capt. F. Smith.

8. **Anatomy III.** Second year, spring term. This course consists of lectures and recitations on the urinary, circulatory and lymphatic apparatus. The object of this course is to emphasize the manner of dissection of the kidneys, ureters, bladder, urethra, suprarenal capsules, and the differential characters of the urinary organs in the various animals. Also a full consideration of the heart as a whole, the external and internal conformation of the heart, a review of its structure, the pericardium, and the differential characters of the heart in other animals than the horse; a general consideration of the arteries, considering the



JUDGING HORSES.

aorta, common aorta, posterior aorta, parietal branches of the posterior aorta, visceral branches of the posterior aorta, differential characters of the posterior aorta and its different branches in the different animals; differential characters of the internal iliac arteries of the various animals, external iliac arteries of the various animals, external iliac arteries with the differential characters of the external iliac arteries of the various animals; anterior aorta, branchial trunks, differential characters of the axillary arteries of the various animals, the common carotid arteries, fetal circulation, the veins; general consideration of the veins, veins of the lesser circulation of pulmonary veins, veins of the general circulation; general consideration of the lymphatics, the lymphatics in particular, the thoracic duct, the lymphatics which constitute the affluents of the thoracic duct, glands and lymphatic vessels of the limbs, pelvis, abdominal parietes, and pelvic inguinal organs, abdominal viscera, thoracic cavity, head and neck; also the great lymphatic vein.

9. **Anatomy III Laboratory.** Second year, spring term. In this course the student dissects all the structures outlined in course 8.

10. **Materia Medica III.** Second year, spring term. This work being merely a continuation of the former, the time is devoted more especially to the vegetable drugs used in medicine, their source, actions, dosage, alkaloids, tinctures, fluid extracts, solid and powdered extracts, and the indications for these different forms in diseases of the lower animals are thoroughly discussed, and, so far as practicable, demonstrated in the regular clinic.

BACTERIOLOGY.

Bacteriology has made rapid advancement during the past few years. The opportunities for investigation and the value of a general knowledge of the science render a thorough course apparent. Must be preceded by No. 4 and chemistry II.

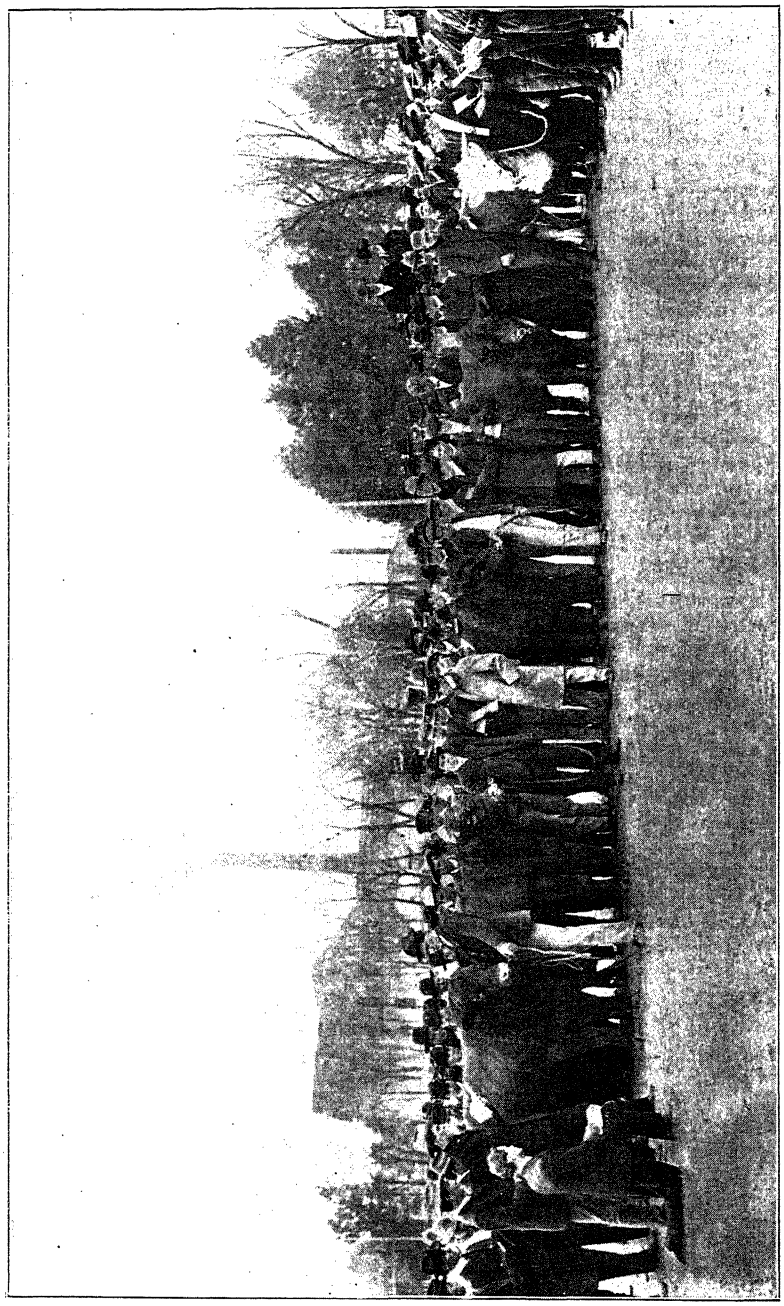
11. **Bacteriology.** Second year, spring term. The general bacteriology consists of the study of the morphology, classification and physiology of bacteria; relation of external conditions to bacterial development, disinfectants and disinfecting; bacteriological technique, preparation of culture media, staining, isolating and identifying bacteria; general fermentation, putrefaction, and decay; bacterial action on foods, nitrification, ptomains, toxins, and other bacterial products; hygiene of infectious diseases; the preparation and use of antitoxins and vaccines.

12. **Bacteriology Laboratory.** Second year, spring term. The students of all courses are required to take laboratory work in which they study cultural and microscopical features, the staining of bacteria, and preparation of culture media, thus becoming perfectly familiar with bacteriological apparatus.

VETERINARY MEDICINE.

The study of medicine extends throughout the last two years of the course, and is taught by lectures and recitations, supplemented by practical demonstrations in the clinic. An exhaustive study is made of Doctor Law's Veterinary Medicine, the five volumes being used as a text. The student familiarizes himself in the daily clinic with nearly all the diseases met in an ordinary practice of veterinary medicine, thereby becoming thoroughly conversant with their causes, symptoms, diagnoses, treatment, and prognoses. A special course in lameness and shoeing is given to seniors. Contagious diseases, parasitism and sanitary science are included, giving the student a thorough knowledge of the practical as well as theoretical phase of the subject.

Each student, before entering the senior year, must be proficient in diagnosing and treating the more common diseases and be able success-



JUDGING BEEF BULLS.

fully to prepare and administer medicines in all forms. During the year just passed upwards of 600 different cases have been treated in the general clinic in which the students have had a practical part; many of them treated by the student alone. This work inspires confidence, and the knowledge thus gained is indelibly fixed upon the student's mind.

13. **Medicine I.** Third year, fall term. Introducing the student into the study of internal medicine; the general pathology is first considered. This is followed by a comprehensive study of the diseases of the respiratory and circulatory organs, of the blood-vessels and lymphatic system in all domestic animals. Special stress is being placed upon the various causes, the symptoms, the diagnosis, prognosis, and treatment, and tissue changes of the organs in these diseases.

PATHOLOGY.

This important subject is given special attention on account of its value in veterinary medicine, being the basis of diagnosis and rational therapeutics. A course in practical pathology is necessary in such special branches of veterinary practice as meat inspection and other government positions.

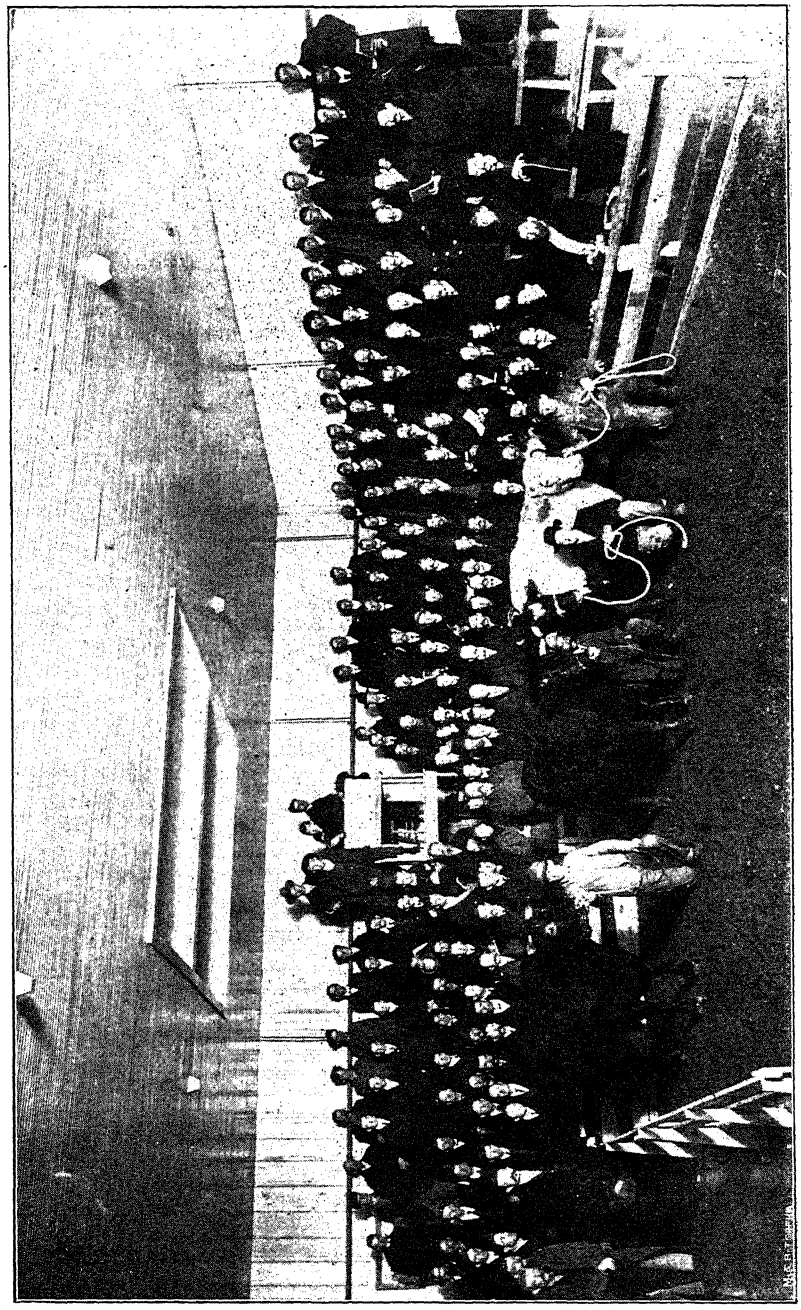
14. **General Pathology I.** Third year, fall term. This course must be preceded by normal histology; the student considers the causes of disease, the spread and generalization of disease through the organism, auto-intoxication and secondary diseases, the protective and healing forces of the body, the acquiring of immunity, disturbances of the circulation of the blood and lymph. Text-book, Zeigler's General Pathology is used as a guide.

15. **Anatomy IV.** Third year, fall term. This course consists of a consideration of the nervous system, including the protective and enveloping parts of the cerebro-spinal axis, the nerves, including the cranial and encephalic nerves, spinal nerves, brachial plexus and its branches, lumbo-sacral plexus and its branches, and the great sympathetic system. The student is also given a review on the circulatory system, urinary system, and lymphatic system.

16. **Anatomy Laboratory IV.** Third year, fall term. In this course the student dissects the brain, cord and nerves outlined in course 15, and reviews the dissection of the urinary, circulatory and lymphatic systems.

SURGERY.

The veterinary hospital and daily clinics furnish an abundance of material for practice work. Senior students are assigned to major operations for diagnosis and treatment, under the supervision of the professor in charge. The student is therefore given the opportunity to put into practice the principles acquired in the recitation; this gives him confidence to perform similar operations upon his own responsibility. The junior students are assigned to various cases as assistants to the seniors, doing such work as helping to confine animals, preparing fields of operation, and dressing the cases daily after the operation. The senior doing the operating has special charge of the case. The clinic is conducted the same as laboratory work in other departments, especially designed blank books being furnished for this work. When assigned a case, the number of the case is taken by the student, the owner's name, his address, and the species, age, sex and color of the patient, the date when the animal arrived, the history of the case, the exciting or predisposing causes, previous treatment, symptoms, the student's diagnosis, the prognosis, etc. Sophomore students are not required to attend clinic, but are given the opportunity to receive instruction in the administration of capsules, drenches, enemata, blisters, hypodermic injections, etc., and assisting in confining animals.



JUDGING CATTLE.

A special course in dentistry is offered, owing to the numerous diseases of the teeth in horses. The course is given by lectures and laboratory work in connection with the general surgical clinics. In the lectures special attention is given to the structure of the teeth, their location in the jaws, their growth and replacement, diseases and irregularities of the teeth and how to treat them. A practical demonstration of the work pursued in the lectures is given in the dental clinic, where each student receives personal instruction in the use of each dental instrument. The surrounding country affords an ample number of cases to illustrate cutting elongations, floating, extraction, repulsion, and trephining. Before passing the subject, each student is required to become reasonably proficient in all the ordinary dental operations.

17. **Surgery I.** Third year, winter term. The course in surgery is given by recitations and hospital work. In the beginning the students are given a preliminary course on surgical restraint (the means of controlling animals), the use of anesthetics, antiseptics, etc., general principles in healing wounds, controlling hemorrhages, administration of medicines, bandaging, massage, etc.

18. **Medicine II.** Third year, winter term. During this term the diseases of the digestive organs in all the domestic animals are studied. This also includes the diseases of the liver, pancreas, and spleen. Special stress is laid upon the different forms of colics, their causes, differential diagnoses, and treatment.

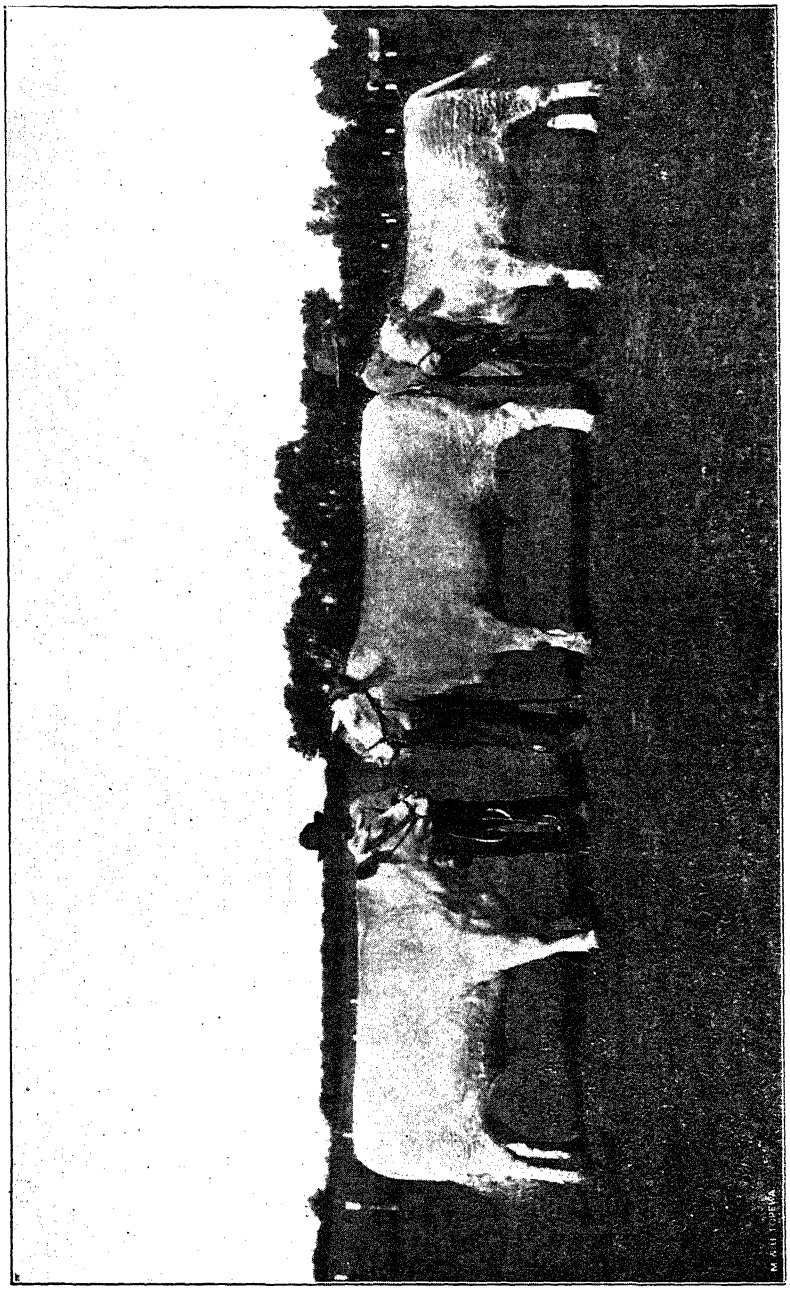
19. **General Pathology II.** Third year, winter term. This course is a continuation of general pathology I. The subjects considered are the retrograde disturbances of nutrition, and infiltration of tissues, hypertrophy, and regeneration, results of transplantation of tissues, inflammation, and fever.

20. **Anatomy V.** Third year, winter term. This course consists of a full discussion of the apparatus of touch, taste, smell, vision, and auditory, the parts being fully demonstrated upon the cadaver; also, a dissection of the genital organs of the male and female mammalia, and the generative apparatus of birds. A review of the entire subject of anatomy, including the muscles, bones, arteries, veins, nerves, etc., is given before leaving the subject.

21. **Medicine III.** Third year, spring term. A thorough discussion of the diseases of the urinary and generative organs, skin, eye, and nervous systems, also constitutional diseases, occupies the attention of the student in this session.

22. **Surgery II.** Third year, spring term. This course considers minutely the causes, symptoms, prognosis and treatment of the surgical diseases of the head, nose, nostrils, salivary glands, face and lower jaw, ear and guttural pouches, skull, neck, larynx and trachea, thorax, abdomen; surgical diseases of the stomach and bowels, urinary organs, posterior portions of the rectum and anus, male organs of generation, and female organs of generation. Text-book, Möller.

23. **Surgical Anatomy.** Third year, spring term. This course consists of regional dissection, preparing the student for the course in operative surgery; special attention being given to the location of and operating for trephining the frontal sinuses and maxillary sinuses; the location of the trifacial nerve as it emerges from the infraorbital foramen. A special dissection showing location of the guttural pouches; a dissection of the trachea for tracheotomy. The parts of the larynx are given special attention, particularly for the location of operating for arytenoidraphy. The jugular vein is dissected, showing its relation to



PRIZE SHORT-HORN STEER HERD.

the carotid artery and the point for it to be opened in phlebotomy. The esophagus is dissected, from its beginning above the larynx to its termination in the stomach, the various points for the lodgment of foreign substances being especially noted. The muscles of the tail are carefully reviewed, to indicate the location of operation for myotomy and caudal myectomy. The surgical anatomy of the urethra is carefully pointed out, to indicate the location of operating in the case of urethrotomy. The genital organs of both male and female are carefully dissected, to indicate seats of operation. Tendons of the perforatus and perforans are separated, to indicate the location of the operation for tenotomy; also the lateral extensor of the foot as it joins the extensor pedis is located before the integument is incised, to indicate location of operation of tenotomy of this tendon in the case of string-halt operation. The cunean branch of the flexor metatarsi, having special importance in the spavin operation, is located upon the cadaver; the various nerves which will be the seat of operation are especially dissected, such as the plantar, digital, median, ulnar, sciatic, and anterior tibula.

24. **Pharmacology Laboratory.** Third year, spring term. In the laboratory course of pharmacy the student is given a thorough drill in the pharmaceutical processes, the different official preparations and methods of preparing them, the non-official preparations which are used in veterinary practice. The incompatibility of drugs, chemically, physically, and physiologically, is demonstrated in the laboratory and hospital. A thorough drill in prescription writing, measures and weights is given, and the preparing of the tinctures, fluid extracts and powdered extracts of those drugs most commonly used in veterinary practice receives a considerable attention. The student is required to compound prescriptions used in the College practice, make boluses, blisters, liniments, etc., and has a thorough course in the identification of drugs in their different forms.

25. **Medicine IV.** Fourth year, fall term. This includes the infectious diseases, sanitary science, and police. A thorough drill is given in the bacteriology of tuberculosis, Texas fever, glanders, hog-cholera, rabies, contagious abortion, anthrax, influenza, and distemper. The methods of diagnosis, control, and eradication, and the laws governing general and special contagious diseases.

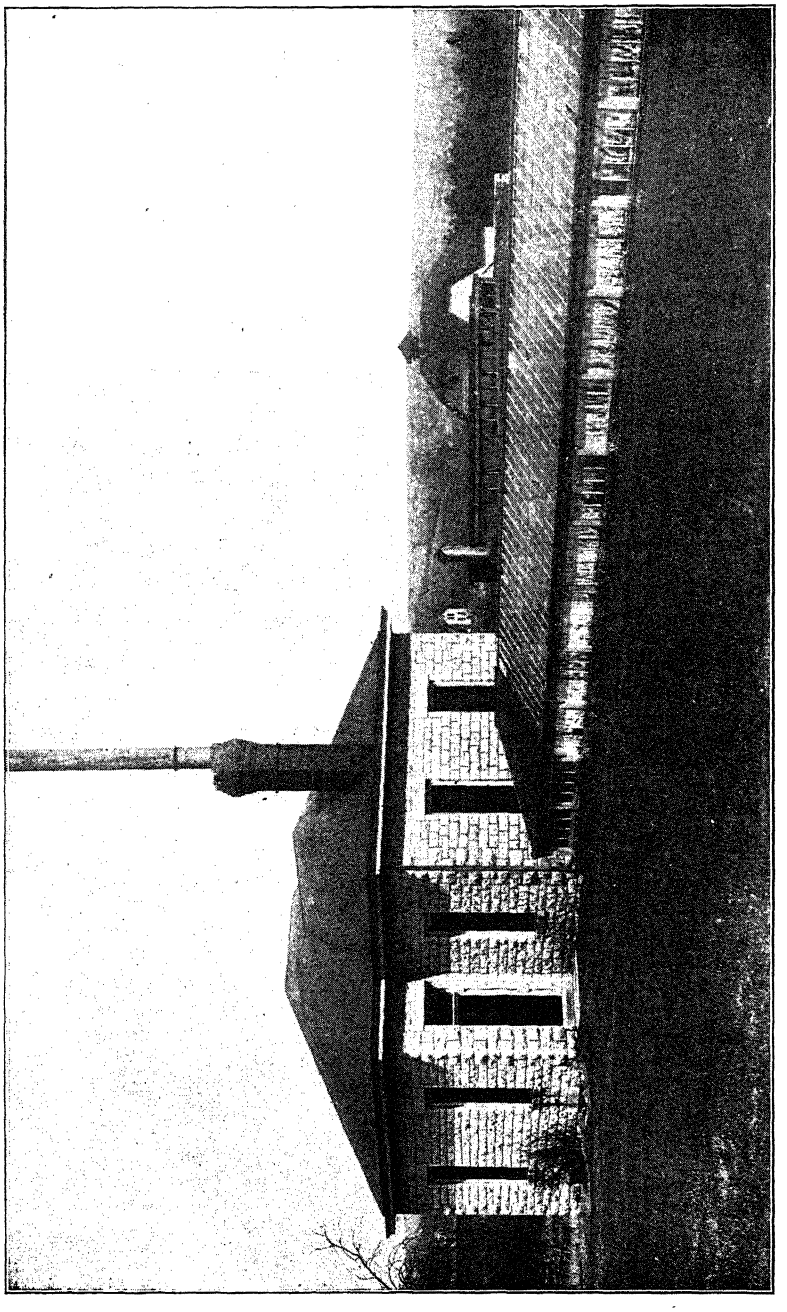
26. **Surgery III.** Fourth year, fall term. This course is a continuation of surgery II, and includes a complete study of the surgical diseases of the spinal column and pelvis, the fore and hind limb. Text-book, Möller.

27. **Special Pathology.** Fourth year, fall term. The course in special pathology treats of the etiology and morphology of diseases caused by streptococci, bacilli, higher fungi, protozoa, disturbances of development and resulting malformations, tumors, and the special lesions of the infectious diseases.

28. **Special Pathology Laboratory.** Fourth year, fall term. In this laboratory work the student is taught the methods of preparation, preservation and mounting of pathological specimens for microscopic study; diagnosing for microscopic examination from specimens furnished, including the various tumors, inflammations and degenerations which have been fully considered in the recitation work.

OBSTETRICS.

The increased value of the breeding stock of the state of Kansas calls for the employment of a skilled veterinarian at the time of parturition. For this reason a very extensive course is offered in obstetrics.



EXPERIMENT STATION BUILDING.

29. **Obstetrics I.** Fourth year, winter term. This course considers fully the obstetrical anatomy, obstetrical physiology, including reproduction, puberty, fecundation, sterility, changes in the ovum, development of the embryo, fetal membranes, development of the fetus, gestation, hygiene of pregnant animals, pathology of gestation, which includes anomalies, diseases of the pregnant animals, and accidents of pregnancy. Normal parturition, which includes the physiology of parturition, the causes of parturition, the expelling powers, symptoms and course of parturition, presentations of the fetus, necessary aid in normal parturition. Dystokia, including maternal dystokia by pelvic construction, dystokia by displacement of changed relations of the uterus, dystokia from morbid alterations in the genital organs, and fetal dystokia, including excess in volume of the fetus, diseases of the fetus, monstrosities, and dystokia from multiparity. Text-book, Fleming.

30. **Special Bacteriology Laboratory.** Fourth year, winter term. This course considers pathogenic bacteriology and must be preceded by the work in general bacteriology. It is required of all students of veterinary medicine. The student must make all media used, isolate and identify the germs of the most important infectious diseases of our domestic animals and man, by growing them on media, and inoculation of animals. He must become familiar with the methods of attenuation and the production of immunity, the manner of infection, and the methods of prevention. The importance of sterilization and disinfection are emphasized, and special attention is given to their practical application in veterinary practice and every-day life.

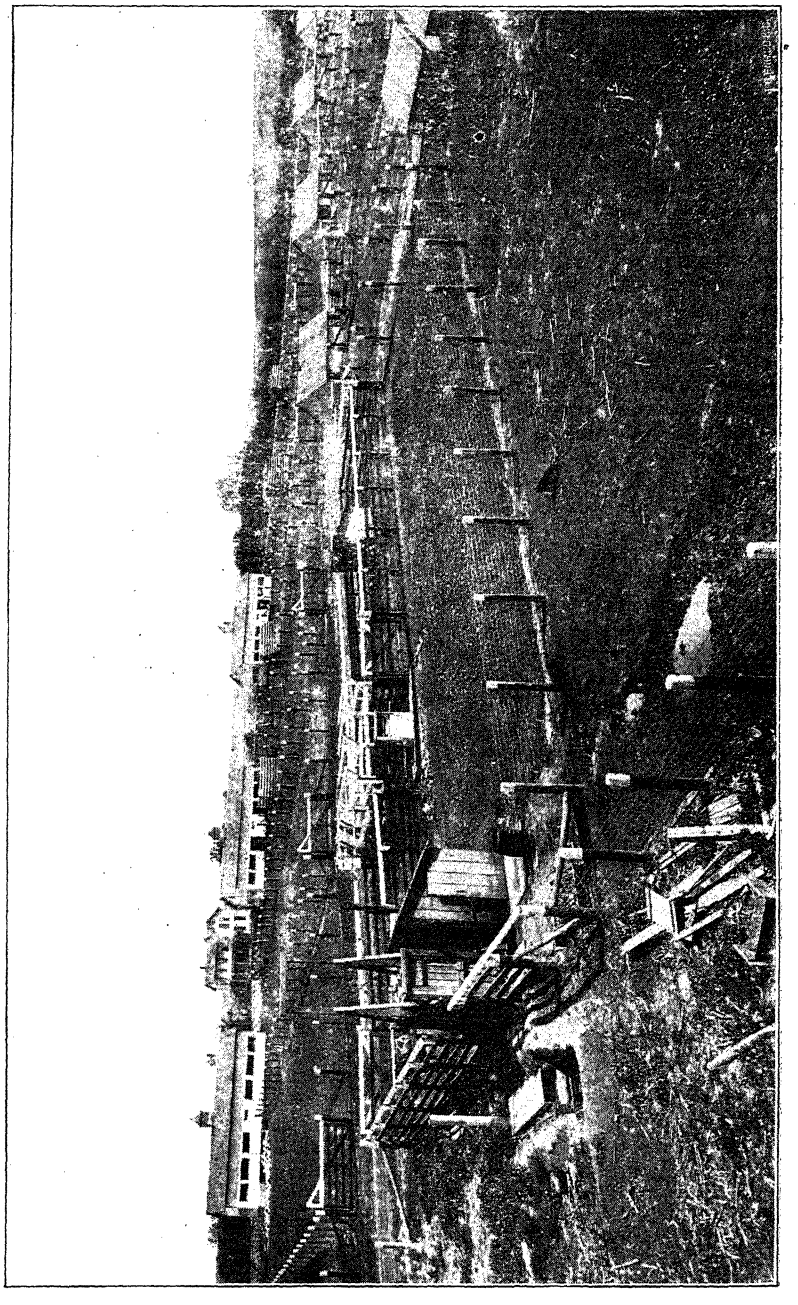
31. **Medicine V.** Fourth year, winter term. This term's work includes parasites and parasitism, internal and external, special methods of diagnosing, and the treating of animals affected with parasites. Neuman's Parasites is used as a reference book.

32. **Surgery IV.** Fourth year, winter term. This course is devoted to the subject of horseshoeing, which considers the following subjects: The horse's foot in relation to shoeing, the structure and functions of the foot, and the shoeing of diseased feet and of lame horses. Text-book, Dollar's Handbook of Horseshoeing.

33. **Medicine VI.** Fourth year, spring term. During this session a general review of the most important work of the course is given; also a course of lectures on lameness.

34. **Obstetrics II.** Fourth year, spring term. This course is a continuation of obstetrics I, and considers dystokia from malformation, or malposition of the fetus; embryotomy, vaginal hysterotomy, gastrohysterectomy or the cæsarean section. Accidents incidental to parturition, including retention of the fetal envelopes, post-partum hemorrhage, inversion of the uterus, vagina and bladder, traumatic lesions of the genital and neighboring organs. Pathology of parturition, including vaginitis, leucorrhea, metritis, metro-peritonitis and parturient fever, parturient apoplexy, parturient collapse, post-partum paralysis, parturient laminitis, mammitis or mastitis, and injuries to the teats; diseases and abnormalities of the young animal, which includes asphyxia of the new-born animal, umbilical hemorrhage, persistence of the urachus, umbilical hernia, edema of the umbilicus, inflammation of the umbilical cord, arthritis, indigestion, diarrhea, retention of the meconium, skin dryness of the new-born animal, imperforation of the anus, vulva, and prepuce; cyanosis. Text-book, Fleming.

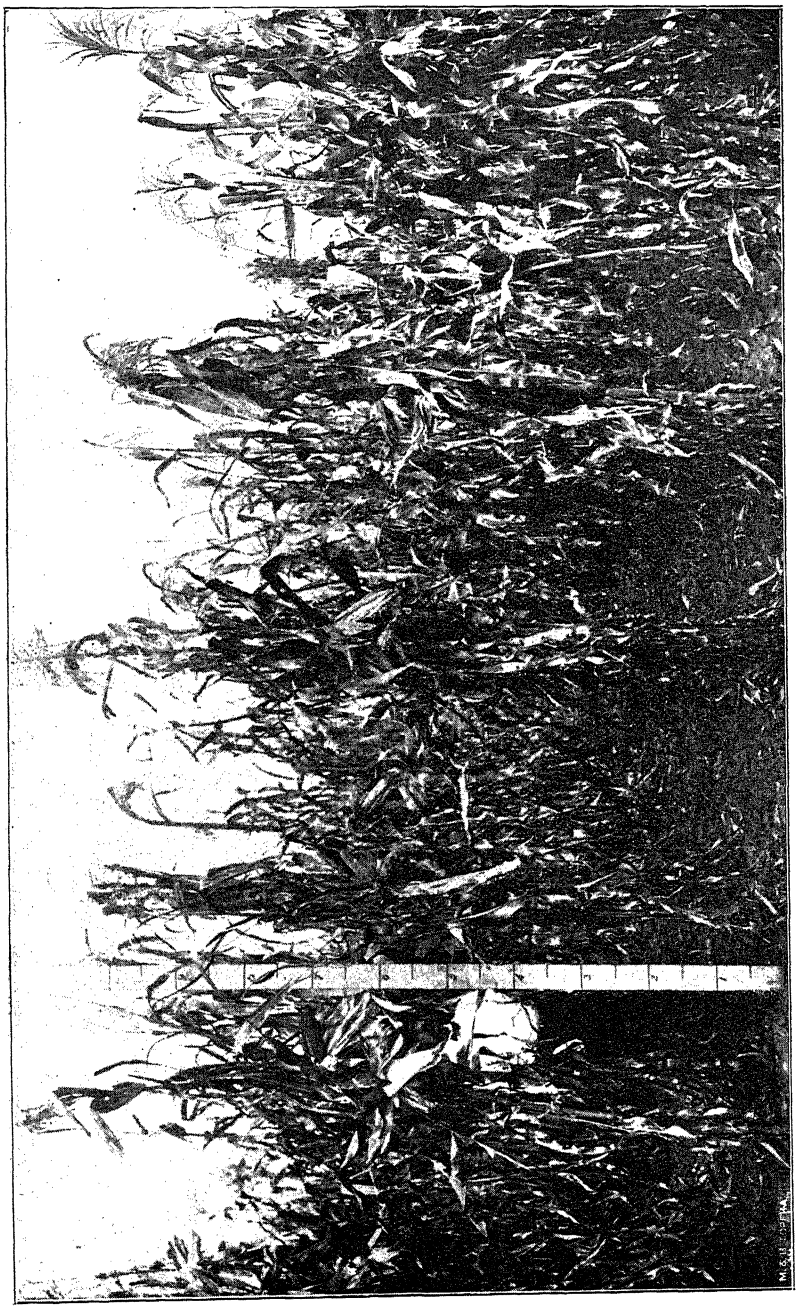
35. **Operative Surgery.** Fourth year, spring term. In this course the student gives special attention to the technique of performing the



FEED-LOTS.

various surgical operations, which includes extractions of teeth, repulsion of teeth, trephining of frontal and maxillary sinuses, trephining of nasal passages, ligation of parotid duct, entropium operation, staphylotomy, intratracheal irrigation, arytenoidraphy, intravenous injection, phlebotomy with fleams, lancet, and trocar, esophagotomy, puncture of the chest, puncture of the intestine, subcutaneous myotomy for curved tail, caudal myectomy for gripping the reins, urethrotomy, amputation of the penis, vaginal ovariectomy, tenotomy of the flexor tendons of the foot, tenotomy of the lateral extension of the foot (string-halt operation), plantar neurectomy, sciatic neurectomy, anterior tibial neurectomy, resection of the lateral cartilages of the *os pedis*, resection of the tendon of the flexor of the *os pedis*, amputation of the claws of ruminants. The foregoing surgical operations, in addition to being outlined in the recitation work, are performed upon the cadaver by each student pursuing the course, and the majority in the general clinic. Text-book, Williams.

36. **Meat Inspection.** Fourth year, spring term. The work in this department prepares the student for the government civil-service examination and general sanitary work. The course considers a general discussion of meat inspection, the food of animals, the inspection of animals before slaughter, methods of slaughter, and inspection of slaughtered animals. The normal appearance and differentiation of meat and organs of different animals; abnormal physiological conditions which possess sanitary interest; general pathology of food animals from the standpoint of sanitary police; *post mortem* alterations of meat; preservation, adulteration, and the effects of different diseases on meats; parasites and parasitism in general as related to sanitary work; a discussion of the laws regulating the inspection of meat and meat-producing animals in the United States as well as foreign countries; contagious diseases, their control, and laws governing the same. Text-book, Ostertag.



A College farm corn-field; an eighty-bushel crop.

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 through the fall and winter. Four such courses are now offered: A dairy course of one winter term; a domestic science course of one fall and one winter term; a farmers' course of two winter terms, and a dairy course of one winter term.

REQUIREMENTS FOR ADMISSION.

Persons at least eighteen years of age and of good moral character are admitted to these courses as follows:

Persons between the ages of eighteen and twenty-one will be admitted upon presentation of common-school diploma, grammar-school certificate, teacher's certificate, or high-school diploma, or upon passing an examination in the following sub-

jects: Reading, writing, spelling, arithmetic, grammar, geography, physiology, and United States history. Persons over twenty-one will be admitted without examination, but should have sufficient education 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.*

The short courses are in no sense equivalent to the long courses, and no one should take a short course who can take a whole or even a part of one of the long courses. All of the common-school preparatory and freshman branches are taught each term; so that it is possible for one to get nearly all subjects of the first two years by attending during the winter terms only.

Short Course in Domestic Science and Art.

FALL TERM, TWELVE WEEKS.

Figures following subject indicate hours per week.

Lectures and Practice in Cooking	15
Sewing	15
Drawing	5

WINTER TERM, TWELVE WEEKS.

Lectures and Practice in Cooking	13
Home Nursing	2
Physiology and Hygiene	5
Vegetable-gardening and Floriculture	5
Dressmaking	10

FIRST TERM.

Lectures and Practice in Cooking. The study of stoves, stove construction, management and fuels are the first topics considered, followed by experiments illustrating the effect of heat upon starch and proteid. The principles are then applied to the cookery of cereals, vegetables, beverages, breads, meats, soups, and simple cake mixtures and puddings. At stated intervals lectures are also given on home sanitation and household accounts.

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. 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.

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.

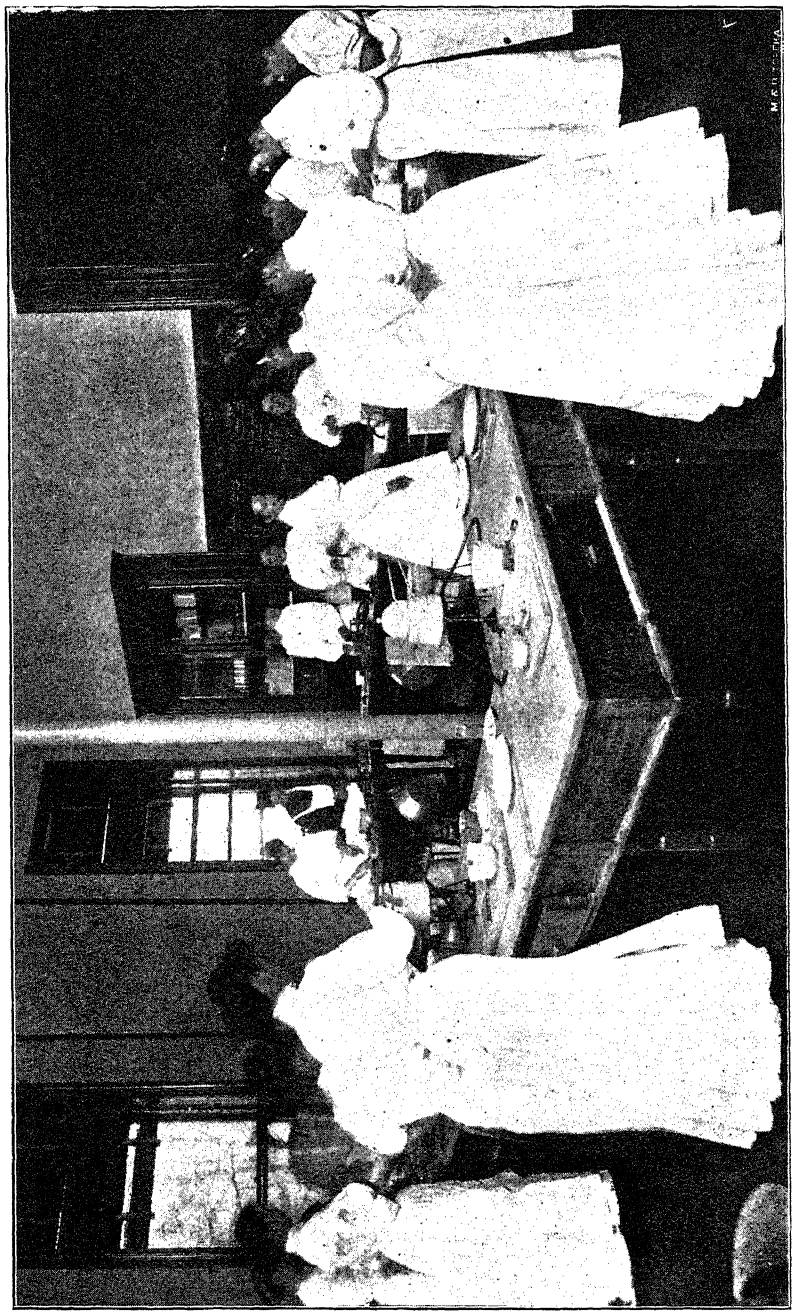
SECOND TERM.

Lectures and Practice in Cooking. Canning, preserving, salads, cakes, pastries, desserts, the planning and serving of meals and invalid cooking are topics considered.

Home Nursing. This implies simple suggestions for the sick-room and its furnishings, and means of adding to the comfort of the sick.

Physiology and Hygiene. Physiology and hygiene of the human body, laws of health and care of the sick.

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, manure, 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 treat-

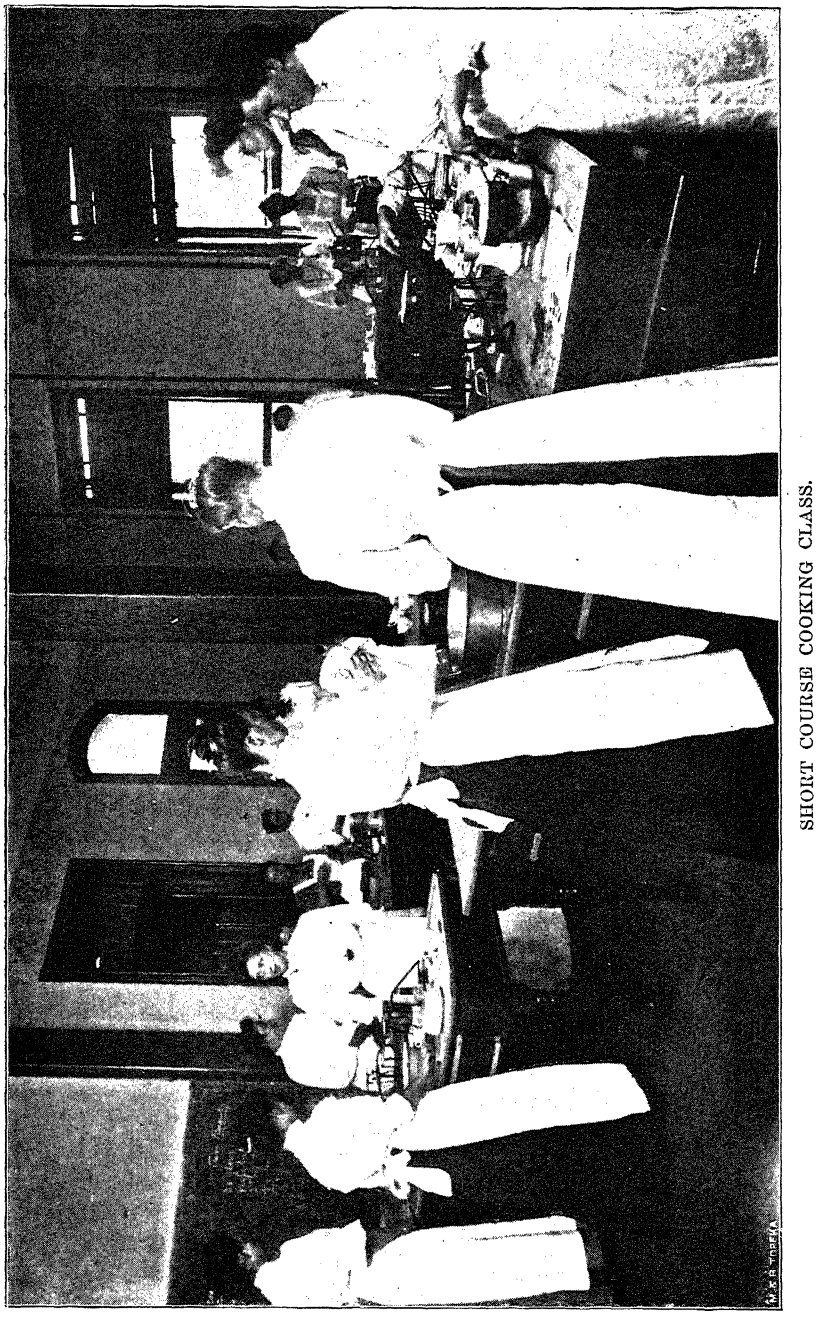


SENIOR COOKING CLASS.

ment of seeds, cuttings, mixing of soils, potting, repotting, watering, cut flowers, packing, and many operations that attend amateur and commercial flower-gardening.

Dressmaking. Pupil will be taught the use of a dress-cutting system, cutting, fitting and making woolen dress. Pupil must furnish her own material, and cut and make a dress for herself.

A COOK.



SHORT COURSE COOKING CLASS.

Summer Course in Domestic Science and Art.

FIRST SUMMER TERM.

Figures following subject indicate hours per week.

Domestic Science	15
Sewing	10
Floriculture	5

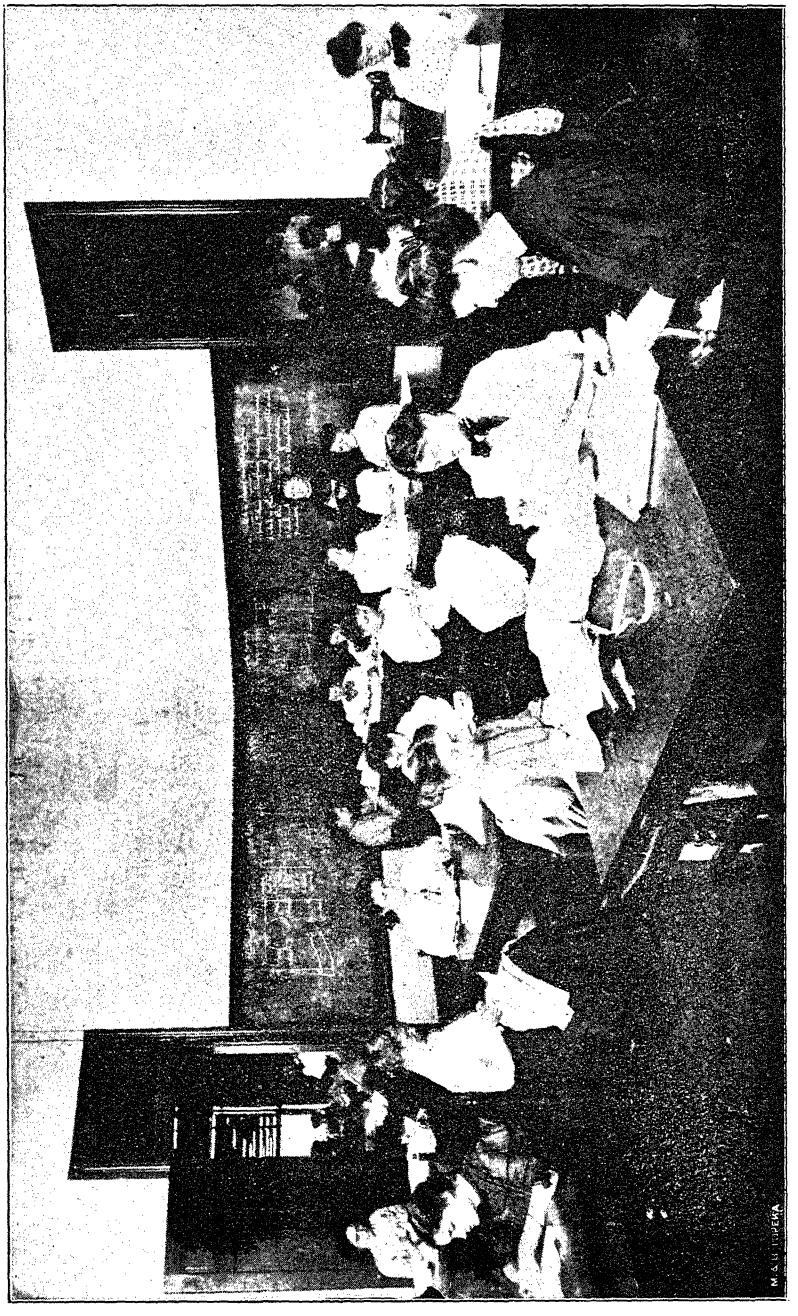
SECOND SUMMER TERM.

Domestic Science	5
Household Economics	5
Dressmaking	10
Bacteriology	5

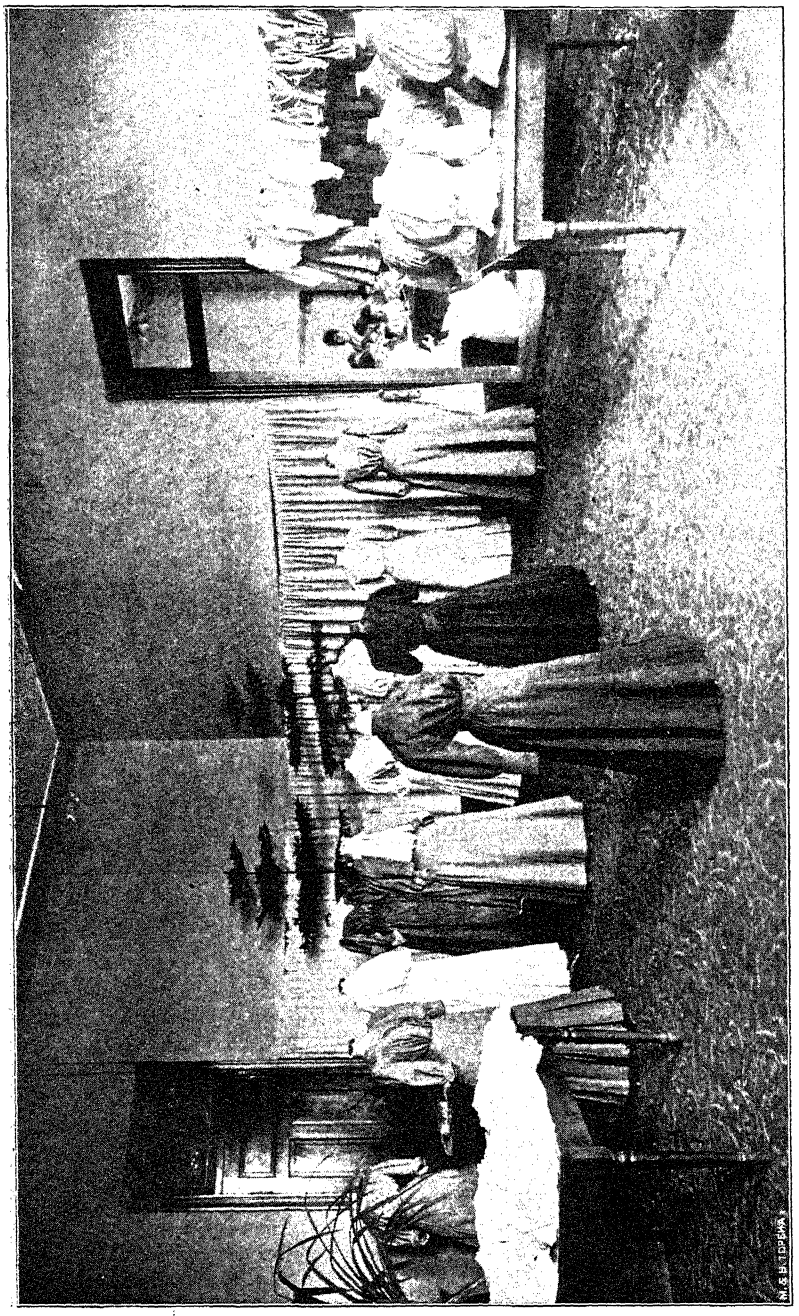
This course will begin May 19, 1908, and close July 24.

This course was instituted to meet the needs of teachers in the public schools. Completion of one summer's work entitles to a one-year certificate to teach domestic science in the state; two summers' work entitles to two-year certificate. Only teachers now holding county or state certificates can enter these classes.

The teaching follows the same general line as in the regular course, with the exception that more stress is laid upon the methods of presentation to young students. There are daily lectures and recitations on the theoretical portion and the laboratory experiments in cooking. The sewing is the same at that taught in long course under sewing I, sewing II, sewing III, and dressmaking.



CLASS IN DRESSMAKING.



DRESSMAKING.

Farmers' Short Course.

FIRST YEAR, WINTER TERM, TWELVE WEEKS.

Figures following subject indicate hours per week.

Crop Production	5
Feeds and Feeding	5
Breeds of Live Stock	5
Stock Judging	5
Horticulture	5
Carpentry	5

SECOND YEAR, WINTER TERM, TWELVE WEEKS.

Botany	5
Elementary Physics	5
Farm Mechanics and Management	5
Diseases of Farm Animals	5
Grain Judging	5
Blacksmithing or *Traction-engines*	5

FIRST YEAR.

Crop Production. A study of the soil—its formation, types or classes, composition, characteristics, uses, physical characters, texture, purposes and problems of tillage, conserving soil moisture, warming, ventilating and draining the soil. The implements of tillage; principles involved in their construction and use. A study of the plant—its relation to soil and climate; its life, growth, and propagation; its root system, principles of seed selection, preparation of seed-bed, methods of cultivation, etc. The fertility of the soil, tillage, manures, fertilizers, and rotation of crops. A study of crops by classes and varieties, as grains, grasses, corn, forage, silage, soiling and root crops; practical methods of culture—saving, feeding, and marketing. Text-book, Bailey's Principles of Agriculture.

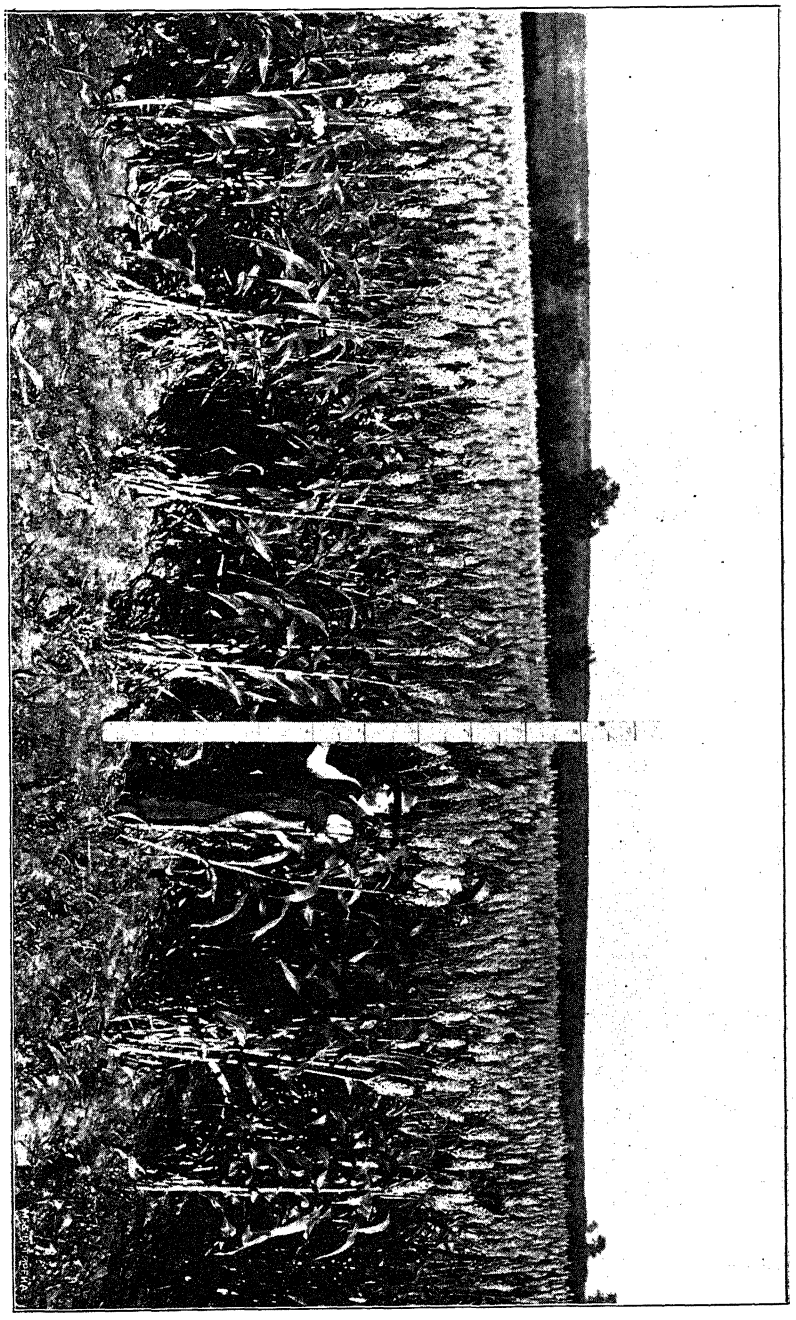
Feeds and Feeding. The properties of feed stuffs, and their combination to secure good returns at least cost with products having the desired qualities; effect of feeds on quality of products; construction of farm buildings and appliances to secure the best returns from feed and for saving labor; a study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

Breeds of Live Stock. A study of the market types of live stock; history and characteristics and adaptability of the breeds of live stock; selection and judging of live stock according to the official standards; forms as an index to qualities; practice in tracing out pedigrees. Text-books: Shaw's Breeds of Live Stock, Craig's Stock Judging.

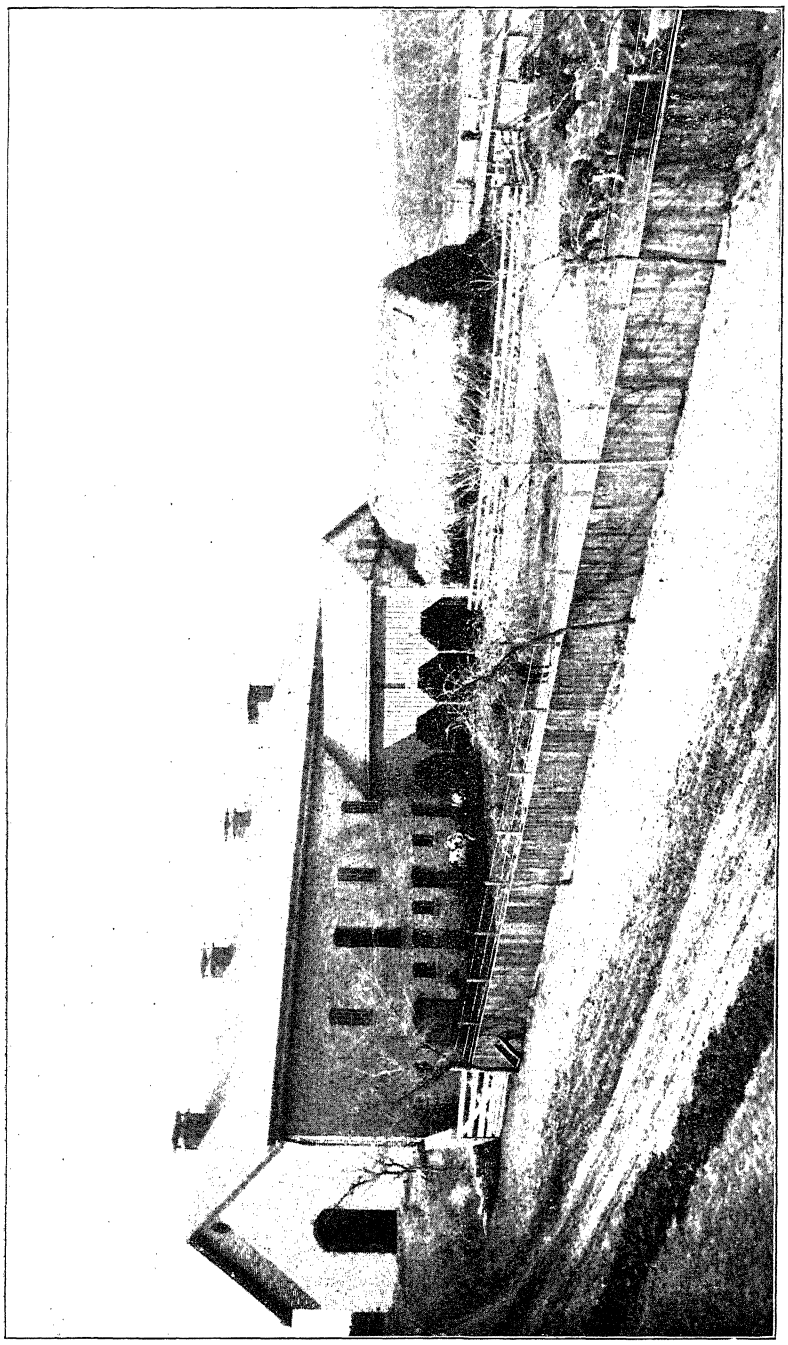
Stock Judging. Practice work. Practice in judging chickens, beef cattle, dairy cattle, hogs, horses and sheep according to official standards.

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

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 practical work.



A field of well-bred Kafir-corn grown on the College farm in 1906.



BARN

SECOND YEAR.

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.

Elementary Physics. This course is designed to give the student a knowledge of the fundamental principles upon which the various physical phenomena depend. The course does not provide laboratory practice. Numerous class demonstrations illustrate the various subjects of mechanics, hydrostatics, heat, light, sound, etc.

Farm Mechanics and Farm Management. The first half of the term will be devoted to rural engineering and farm machinery, and will include laying out of the farm, as regards the selecting of building sites, location of farm buildings, division of the farm into fields, and plans for crop rotation; the construction of buildings and works as to the principles of construction, plans, specifications and estimates of the cost of farm buildings, and the water-supply, sewerage, drainage, roads, fences, etc.

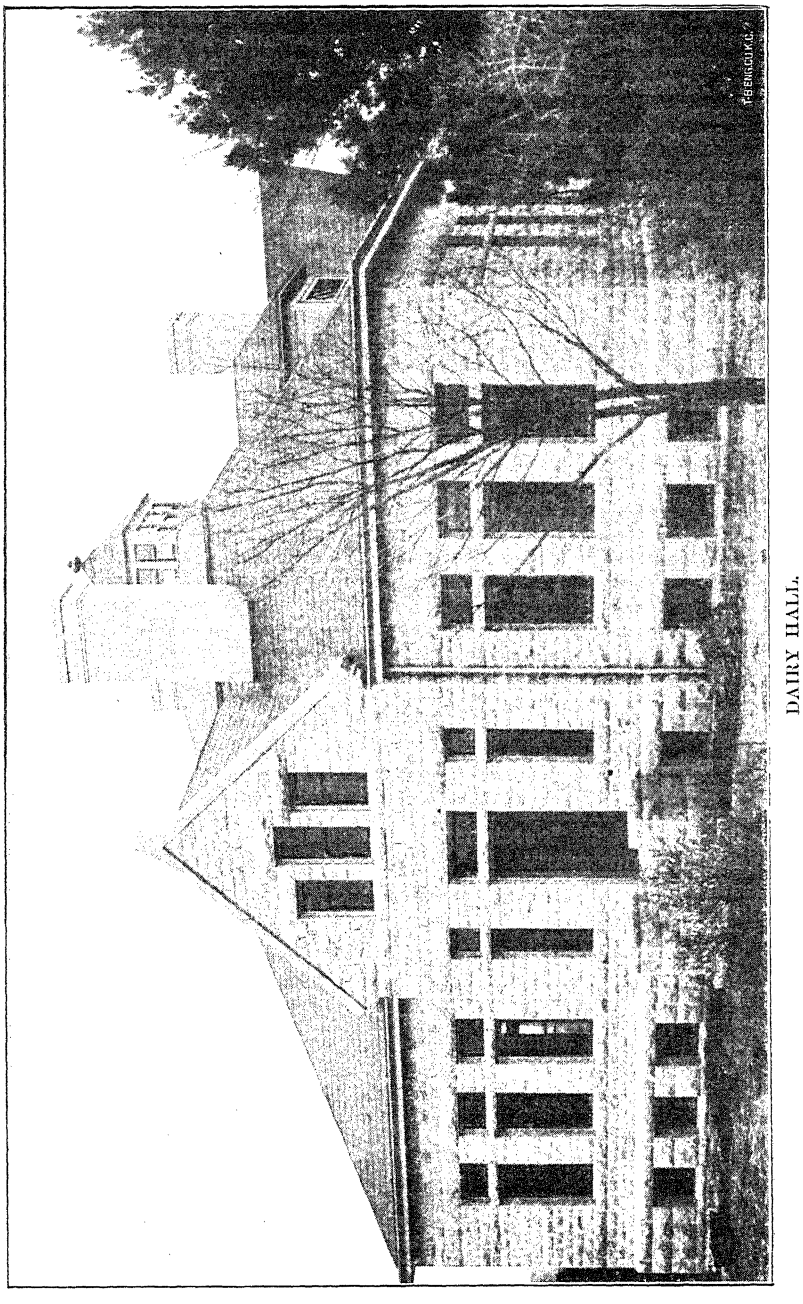
Several lectures will be devoted to the elements of machines, disclosing the principles involved in the use of the lever, evener, wheel and axle, pulley, inclined plane, and wedge. The several classes of farm machinery will be taken up in their order and studied as to the principles of construction and use of each machine, and attention will be given to the operation, care and repairing of farm machinery, and to the building of machinery sheds.

During the latter half of the term, instruction and practice work will be given in keeping farm accounts, and in the application of business methods to farm operations. Economic questions relating to the employment and management of farm help, outlay for farm equipment, buildings, and improvements, the buying of machinery and marketing of crops, will receive attention. Some instruction will be given in simple questions of rural law, relating to property, deeds, leases, contracts, water-rights, line fences, notes, bills of sale, mortgages, interest, taxes, etc. Text-book, Robert's Farmers' Business Handbook.

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 will be performed by the student in this course.

Grain Judging. This will be a continuation of the study of crop production, and will consist mainly of work in the judging-room, in scoring corn and the common cereals according to inspectors' and buyers' standards or according to recognized standards of perfection. Lectures and quizzes will be given, explaining the work in the judging-room. A special study will be made of corn in the selection of seed ears. Very few farmers will select a "good" ear of corn before they have been carefully instructed and trained to note defects and vital points. It is necessary to know the characteristics of a breed and its recognized standard of perfection before one can intelligently select breeding animals. This is true also of a variety of corn or wheat, and the improved qualities of higher protein, greater vitality and larger productiveness which may be bred into corn by careful and intelligent selection should greatly increase the value of this crop to the farmer.

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.



DAIRY HALL.

Farm Dairy Course.

WINTER TERM, TEN WEEKS.

Figures following subject indicate hours per week.

Breeding and Feeding	5
Dairy Management	2½
Disease of Dairy Animals	2½
Dairy Mechanics and Refrigeration	5
Crop Production	5
Judging Dairy Cattle, Testing and Recording the same	5
Carpentry	5
Dairy Practice	5

Breeding and Feeding. The study of the dairy breeds and of the laws of heredity, variation, selection, and results of cross-breeding, in-breeding, and line-breeding. The method employed by the leading improvers of dairy breeds are studied in connection with the application of these various laws, and the student is shown how to maintain and improve his own herd by a knowledge of the fundamental principles of breeding.

Instructions are given in feeding of dairy cattle, with the object of obtaining the most profitable results. A study of the properties of feed stuffs; their effect upon the character and the yield of milk, butter and cheese; their adaptation and combination to meet the needs of dairy cows; composition of feeds and method of feeding.

Dairy Management. Location and construction of dairy farm buildings, care of dairy cows and the marketing of dairy products, and keeping records of same.

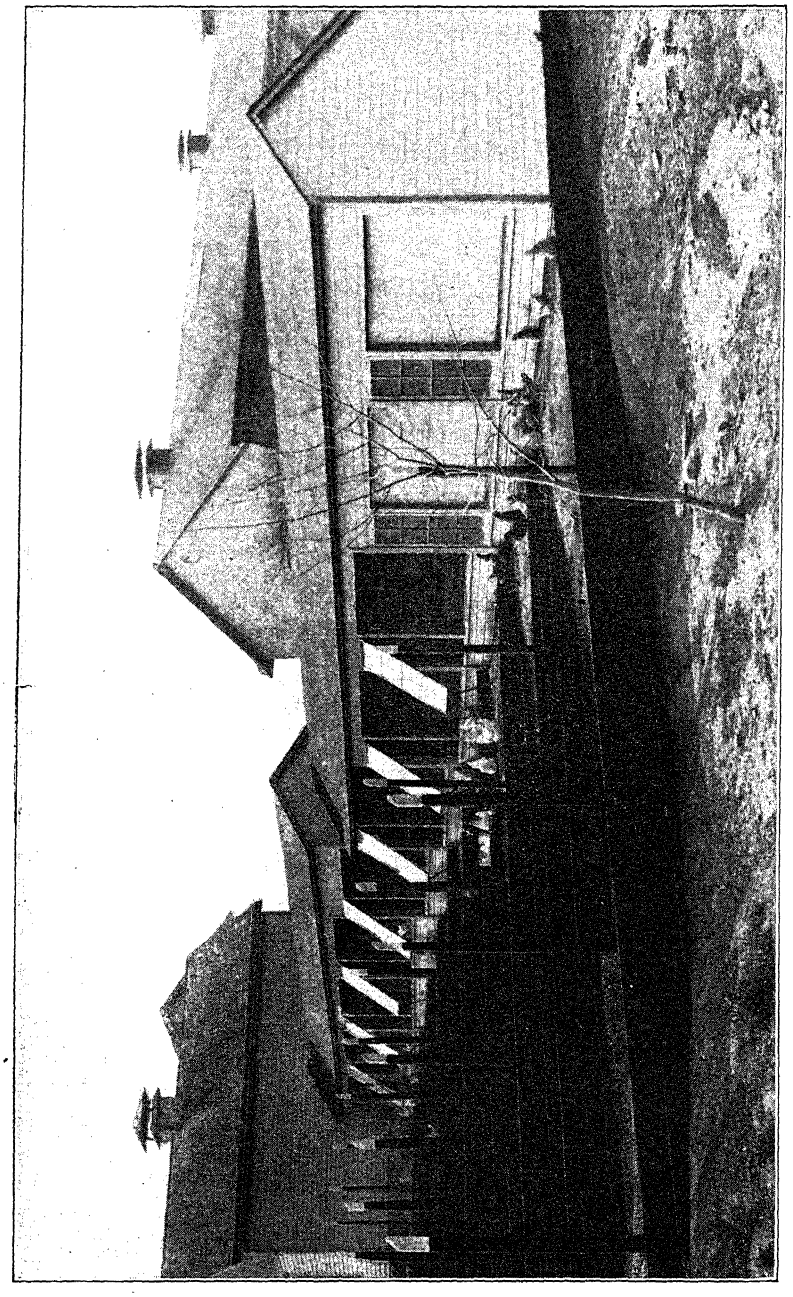
Dairy Mechanics. Practical work with farm dairy machinery such as milking-machines, cream separators, gas-engines, etc. A study in planning constructions of ice-houses, refrigerators and dairy mechanical refrigerator plants.

Judging Dairy Cattle. Practice work in selecting and judging dairy cattle according to the official standard; testing and recording dairy cows to enter them in the advanced registry; this also includes tracing of pedigrees.

Disease of Dairy Animals. 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.

Dairy Practice. Practice in handling milk and its products from the time it leaves the cow until it is marketed as butter, cheese, or sanitary milk. The dairy room is fully equipped with hand and power separators, Babcock testers, churns, and butter-workers, aerators, heaters, sterilizers, milk and cream vats, factory cheese apparatus, Mann's acid test, and other needed apparatus. Many manufacturers have volunteered to loan us machinery, so that the dairy students may get the work of different modes of separators, churns, etc.

The remainder of this course is the same as the first year of the farmers' short course.



POULTRY PENS.

Dairy Course.

WINTER TERM, TEN WEEKS.

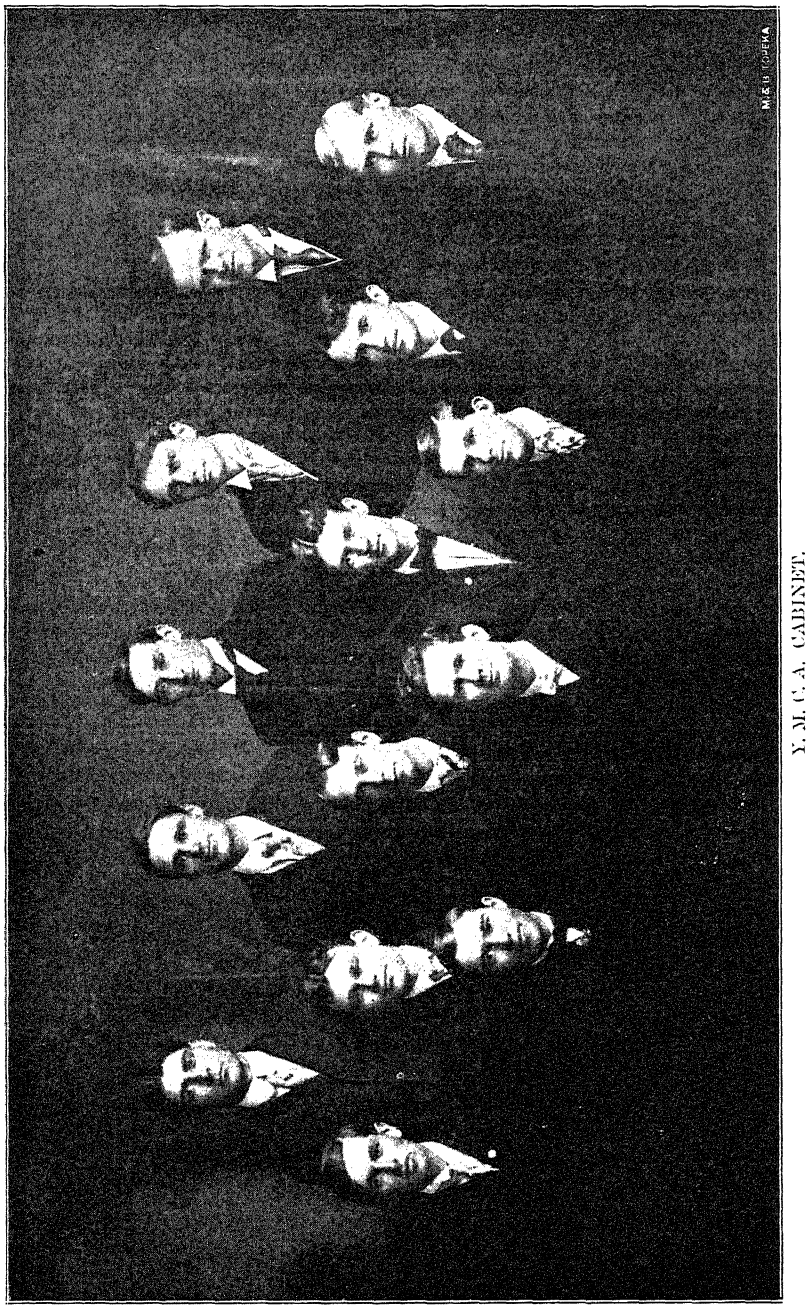
Figures following subject indicate hours per week.

Breeding and Feeding	5
Dairy Management	2½
Disease of Dairy Animals	2½
Dairy Mechanics and Refrigeration	5
Butter- and Cheese-making	5
Dairy Practice	10
Boilers and Engines	5

Butter- and Cheese-making. The handling of the milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; testing; creaming of milk by the separator; cream ripening and butter-making. Construction and management of receiving stations and creameries; methods of handling farm separator cream; method of dealing with patrons. The handling of milk for cheese-making; contamination, aeration, enzymes, rennet, making of chedder cheese, cutting and heating curd, drawing whey, dripping and milling the curd, salting and pressing the curd, curing and packing the finished cheese; construction of cheese factories. Swiss, Limburger, Edam and cottage cheese. Text-books: Decker's Cheese-making, McKay and Van Slyke's Testing Milk and its Products. Lectures.

Dairy Practice. 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 room is fully equipped with hand and power separators, Babcock testers, churns and butter-workers, aerators, sterilizers, 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.

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



Y. M. C. A. CABINET.

Young Men's Christian Association.

"See that he (the college student) is in the fullest sense a man and a good man."—PRESIDENT ROOSEVELT.

"Character is of more importance than education."—PRESIDENT SCHURMAN, *of Cornell University.*

"The young men going to college will be the leaders of society in the future. If they leave the college as earnest Christians, they will exert good influence throughout their lives."—HON. JAMES WILSON, *United States Secretary of Agriculture.*

"It is a holy mission to reform a boy or man after he has gone wrong, but it is still better to save him from going wrong."—HON. ALBERT B. CUMMINS, *Governor of Iowa.*

OBJECT: The Young Men's Christian Association is organized for service. Any young man in the College who is of good moral character may belong. Although its distinct function is religious, it is not exclusively such. Active membership is limited to those belonging to evangelical churches, while those young men who are not church members but who believe in good, clean living may join as associate members.

HEADQUARTERS. In the fall of 1903 the association rented what is known as Park Place, situated at the corner of Ninth and Fremont streets. In one end of the building there is a large, well-lighted parlor, used by the association for its regular Thursday evening meetings, for a reading- and game-room, and for social headquarters. This room is open to all students of the College.

While this building has been of great service to the young men, yet it did not prove adequate to meet the needs of the association and the student body. For three years a canvass has been carried on for a new building. This canvass was completed this spring, and work begun on the building. It will contain reading- and game-rooms, recreation rooms, eighteen rooms for students' living rooms, dining-room, and a gymnasium 42x70, with lockers, baths, etc. The cost of the building complete will be about $33,000. The contractor hopes to have the building ready by October 1, although he has until January 1, 1908, in which to complete it.

NEW-STUDENT WORK. New students are met at trains, taken to headquarters, and assisted to find rooms. A handbook published by the two associations and containing valuable informa-

tion to the new student is given to each one. At the College, in the main building, an information bureau is kept during the first few days of College. The parlors of the Young Men's Christian Association house are wide open for each new student. Every evening of the opening days special amusements are offered. A "stag" social is given to all new men on one of the first evenings of the term.

EMPLOYMENT BUREAU. Students are assisted to find work free of charge. This work is under the supervision of the general secretary, assisted by an employment bureau committee.

BIBLE STUDY. The association offers five Bible study courses. A regular systematic course is studied. The classes meet once a week, under student leaders. Four hundred and two men were enrolled in thirty-three different classes during the past year. A force of fifty men will prepare themselves during the summer to lead classes during 1907-'08.

MISSION STUDY. Several courses in the study of missions will also be offered by the association. Many men have received a broad general knowledge of foreign lands by this study.

REGULAR MEETINGS. The association holds its regular meetings on Thursday evenings, 6:45 to 7:30. These meetings are usually led by students, but sometimes outside speakers and Faculty men are invited to address the young men. Occasional Sunday afternoon meetings are held during the year.

SOCIALS AND RECEPTIONS. From time to time socials and receptions are held. These serve to draw the men closer together. At the beginning of the fall and winter terms there is given a social especially planned for the new students.

CORRESPONDENCE. The association employs a general secretary on full time. Any prospective student who desires information not contained in this catalogue may feel free to write to him.

Address, GENERAL SECRETARY Y. M. C. A.,
KANSAS STATE AGRICULTURAL COLLEGE,
Manhattan, Kan.

Young Women's Christian Association.

The Young Women's Christian Association is organized for practical service and Christian fellowship. All girls of the institution are eligible for membership. While the organization is maintained by the girls for the girls, it is supported by the Faculty and Board of Regents.

Trains are met at the beginning of the terms, and help given in securing rooms and boarding-places. Look for a girl wearing a purple bow at the station, and she will be glad to help you.

The first Friday night after college opens a reception is given, where old and new students become acquainted.

The claims of the Christian life are presented in Bible and mission study classes and in devotional meetings held every Saturday noon.

A Young Women's Christian Association house is maintained, where all girls are welcome at all times. The house is always open for those coming on late trains. In case no one should meet you when you arrive in Manhattan, come to the house, and help will be given you.

The employment bureau serves many girls in securing work for them. If you wish work, write to the general secretary. She will be glad to answer any questions in regard to association work, rooming- and boarding-places, and to give information concerning the College not found in this catalogue.

Address, GENERAL SECRETARY Y. W. C. A.,
KANSAS STATE AGRICULTURAL COLLEGE,
Manhattan, Kan.

Y. W. C. A. CABINET.

General Information.

TERMS OF ADMISSION.

Persons over fourteen years of age will be admitted in any of the following ways:

1. Kansas teacher's certificate, provided no subject is below seventy per cent.
2. Diploma received on completion of county course of study.
3. Certificate of passing the grammar grade or diploma from the high school of any city or county.
4. Pass a satisfactory examination in reading, spelling, writing, geography, arithmetic, United States history, English grammar, and physiology.

Persons over eighteen years of age will be admitted to the preparatory classes if unable to pass the common-school branches.

Full admission to the first year, in addition to the common-school branches—reading, spelling, writing, geography, arithmetic, United States history, English grammar, and physiology—requires bookkeeping, advanced English grammar, English readings, English composition, algebra through progressions, physical geography, elementary botany, ancient and medieval history. (See Preparatory Department, page 115.)

It is quite possible for a good student who enters somewhat behind to make up his deficiency in a year or two and graduate in four years.

All of the preparatory and first-year studies are taught each term, and nearly all of the second-year subjects; so that a person may enter at the beginning of any term and find work suited to his advancement.

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 seventy per cent., at least, must be obtained to pass a study.

On entrance, applications for advanced standing in the courses or for credits for certain studies in the courses may be made through the chairman of the committee on examinations. Students desiring credit for work done elsewhere must bring certificates and catalogues to show that the work done is equivalent to ours. The right is reserved to cancel any credits if the work of the student in succeeding branches shows insuffi-

cient preparation. 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.

EXAMINATIONS.

Examinations in the courses are held twice each term, as announced in the calendar. The results of the 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 must be at least seventy. Any student receiving less than a passing grade on two or more studies may be required to 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 junior 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. No student is considered as a candidate for graduation who, after the opening of the fall term, is deficient more than three full studies in addition to regular work. Extra work is not allowed to any student who failed in any branch the preceding term, or whose average grade for all branches was less than eighty.

A student receiving less than sixty per cent. in any subject shall not be allowed a special examination in that subject, but shall be required to pursue it in class at the first opportunity. A mark of sixty per cent. or over, but less than seventy per cent. shall be called a condition. A student receiving a condition in any subject shall, in case the subject is susceptible to an examination, be entitled to take the condition examination in that subject at the time and place regularly appointed for it. He shall not take a condition examination at any other time or place except by two-thirds vote of the Faculty. It shall be the duty of the student receiving a condition to learn the time and place set for the condition examination and be present at that examination without any notification from his instructor or assignor. In subjects not susceptible to examination, conditions shall be made up at the time and in the manner determined by the head of the department in which the subject is taught. Condition examinations shall be held on the second Monday of each term, for the subjects of the preceding

term. A condition not made up at the first opportunity shall be changed to a failure and the student be required to repeat the subject in class.

A student receiving a condition may, in the judgment of the assignor, be assigned to dependent subjects. Shall he fail to make up the condition at the time set, he shall be required to drop the dependent subjects and be given no grade for the work he has done. In industrial work, the instructor may withhold the grade of any student and send in a mark of deficient when the quality of the work done by the student is satisfactory but the quantity is not. A deficiency shall be made up when the student has completed the required quantity of work in a satisfactory manner. A deficiency may be made up outside of class, but shall be made up by the end of the fourth week of the term following that in which it was made, or be changed to a failure and the student be required to repeat the subject.

Permission for examination in studies not pursued with a class must be obtained from the committee on assignments, and on recommendation of the professor in charge, 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.

REGULATIONS IN REGARD TO SUBSTITUTIONS.

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

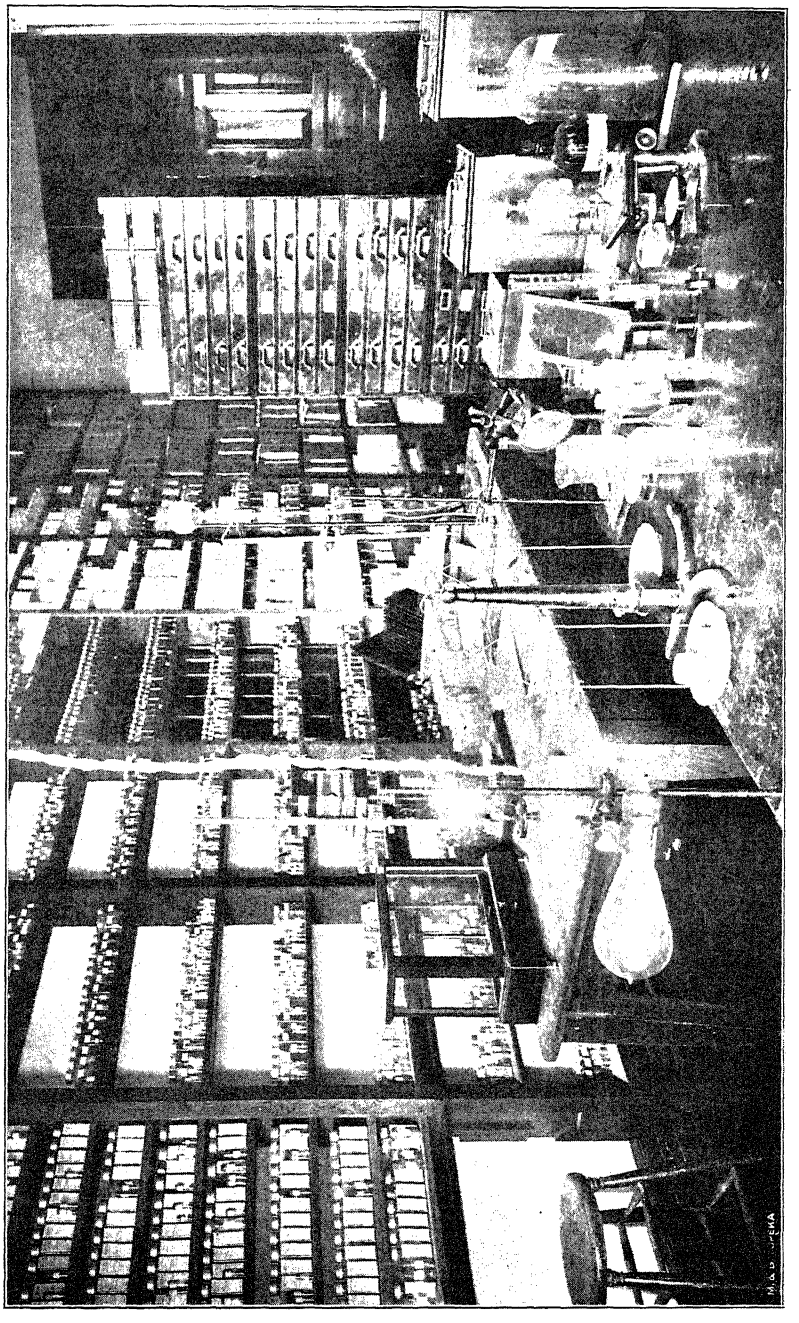
1. Substitutions shall, as far as practicable, give training similar to that of the work displaced.

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

3. Unless made necessary by the acts of the Board of Regents or of the Faculty, substitutions shall not be allowed: (*a*) To students who are below the third year; (*b*) to students who have failed in any study of the two terms' work immediately preceding; (*c*) unless arranged for in advance.

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

5. When a request for substitution is made by any student, the committee on substitutions shall consult with all of the professors whose work is touched by the proposed substitution,



SEED LABORATORY.
Botanical Department, Agricultural College.

and if unable to agree with them the case shall be submitted to the Faculty.

6. All substitutions arranged by the committee on substitutions 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.

GENERAL DUTIES AND PRIVILEGES.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged to 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.

There are nine prosperous literary and scientific societies, which meet weekly in rooms set apart for their use—the Alpha Beta and Franklin, open to both sexes, and the Ionian and Eurodelphian for young women. The Webster, the Hamilton, the Agricultural Association, the Engineering Association and the Architectural Club admit to membership young men only.

At various times during the year the College halls are opened for social and literary entertainments for the whole body of students, or for classes. For the last nine years the students have organized and presented courses of entertainments, which have been of high value, and of 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 strained 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, a student should be prepared with means

for at least a term, as some time is necessary for one to make acquaintances and learn where suitable work may be had.

The lines in which employment may be had are various. The College itself employs student labor to the extent of about $1200 per month, the rate paid being twelve and one-half 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 incident to college life.

EXPENSES.

TUITION IS FREE. An incidental fee of $3 per term will be charged all students from Kansas. Students from outside of Kansas will be charged an incidental fee of $10 per term, and an enrolment fee of $10. Each student must present receipt for incidental fee before enrolment in classes. Rooms, board and washing are not furnished by the College. Board, with furnished room, can be procured in private families at $2.50 to $3.50 per week, or table board in student clubs from $2.25 to $2.50 per week. Furnished rooms, without board can be obtained at from $3 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 per month. Washing costs from 50 cents to 75 cents per dozen. Books cost about $3 per term. Young men of the freshman and sophomore years will be required to have military uniforms costing about $16, and the young women of the freshman year must have a physical-training suit costing about $4. Ordinary expenditures, aside from clothing and traveling expenses, range from $125 to $200 per 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 State School-fund Commission, Topeka.

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

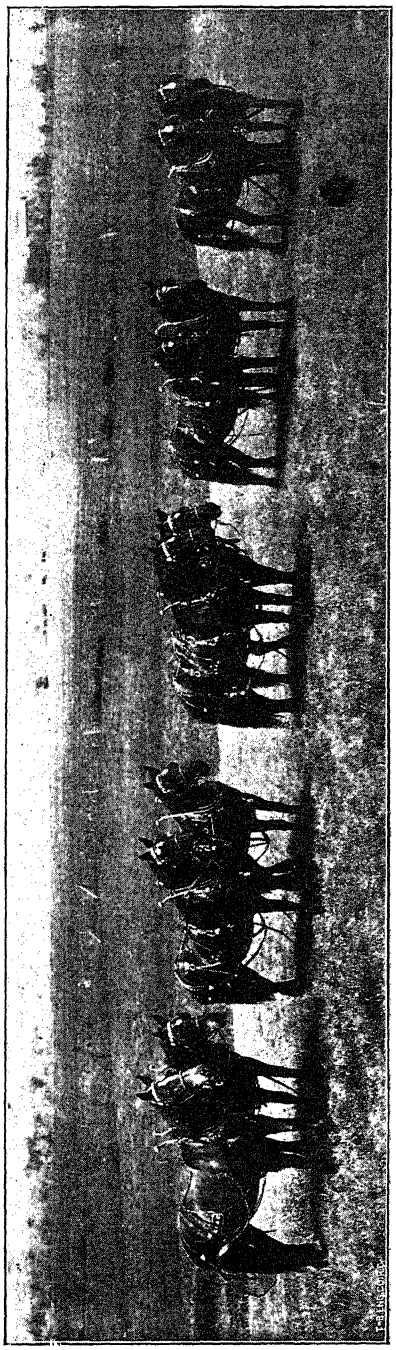
All payments of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The *Industrialist* may be addressed through President E. R. Nichols, managing editor.

Donations for the library should be sent to the Librarian; donations for the museum, to the curator of the museum.

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 to Agricultural Experiment Station; but correspondence concerning any special line of investigation should be sent to the member of the staff in charge of the work concerning which information is desired.



WHOA!

Students.

Graduates.

Candidates for Master's Degree, 1907.

Helen B. Thompson, B. S. '03..... *Domestic Science, German, Horticulture.*
Wamego, (Wabaunsee county).

NON-RESIDENT.

Homer Derr, B. S. '00..... *Physics, Mathematics.*
Mt. Pleasant, *Michigan.*

Charles Wesley Melick (Univ. of Neb.).. *Dairying, Bacteriology.*
College Park, *Maryland.*

In Course Leading to Master's Degree.

Mary Copley, B. S. '06..... *Domestic Science, German.*
Manhattan, Riley county.

Edward C. Crowley, Ph. B. (Yale)..... *Chemistry.*
Manhattan, Riley county.

Rennie Greene, B. S. '06..... *Horticulture, Entomology.*
Lincoln, Lincoln county.

Daisye Ina Harner, B. S. '06..... *Domestic Science, Chemistry.*
Manhattan, Riley county.

Herbert H. King, M. A. (Ewing Coll.).. *Chemistry.*
Manhattan, Riley county.

Leonard Marion Peairs, B. S. '05..... *Entomology, Horticulture.*
Lawrence, Douglas county.

George A. Spohr, B. S. '06..... *Horticulture.*
Manhattan, Riley county.

Warren Elmer Watkins, B. S. '06..... *Dairying, Animal Husbandry.*
Anthony, Harper county.

Charles H. Withington, B. S. '06..... *Entomology, German.*
Manhattan, Riley county.

In Advanced Work Not Leading to a Degree.

John Willard Calvin, B. S. '06..... *German, Mathematics.*
Manhattan, Riley county.

Edith E. Coffman, B. S. '06..... *Domestic Science, Chemistry, Music.*
Manhattan, Riley county.

Inga Josephine Dahl, B. S. '98..... *Domestic Science, Chemistry.*
Montrose, Jewell county.

Odessa Della Dow, B. S. '06..... *German, Music.*
Manhattan, Riley county.

Mary Josephine Edwards, B. S. '05..... *Domestic Science.*
Emporia, Lyon county.

Laura Lillian Lyman, B. S. '06..... *Domestic Science, Music.*
Manhattan, Riley county.

Charles Wilbur McCampbell, B. S. '06.. *Mathematics, German.*
Manhattan, Riley county.

Alma McRae, B. S. '06 ..... *Mathematics, Domestic Science.*
Goodrich, Linn county.

Albert D. Stoddard, B. S. '06 ..... *German, Mechanical Engineering.*
Manhattan, Riley county.

Gertrude Ella Stump, B. S. '96 ..... *Music.*
Manhattan, Riley county.

Doris M. Train, B. S. '06 ..... *Mathematics, English.*
Manhattan, Riley county.

Harry Castle Turner, B. S. '01 ..... *Horticulture, German.*
Manhattan, Riley county.

SENIORS.

Name.	Post-office and county (or state).
Ernest L. Adams,	Ozawkie, Jefferson.
Lizzie Bea Alexander,	Manhattan, Riley.
Jessie Patience Allen,	Manhattan, Riley.
Cecile Allentharp,	Manhattan, Riley.
Alfred Henry Baird,	Minneapolis, Ottawa.
Ethel Barber,	Manhattan, Riley.
Charles Earle Bassler,	Manhattan, Riley.
Julia Susanna Bayles,	Manhattan, Riley.
Ethel Esther Berry,	Jewell, Jewell.
Clare Biddison,	Manhattan, Riley.
Roy C. Bowman,	Oxford, Sumner.
Raymond W. Brink,	Manhattan, Riley.
Henry W. Brinkman,	Olpe, Lyon.
Fred Wallace Caldwell,	Garnett, Anderson.
Albert F. Cassell,	Beverly, Lincoln.
Robert Archer Cassell,	Manhattan, Riley.
James Hamilton Cheney,	Great Bend, Barton.
Roy H. Clark,	Newton, Harvey.
Lee S. Clarke,	Wagoner, *Indian Territory.*
Amy Cole,	Manhattan, Riley.
Hermon H. Conwell,	Topeka, Shawnee.
(Mrs.) Ida E. Cook,	Effingham, Atchison.
Jerome Earl Cooley,	Manhattan, Riley.
Allan Elizabeth Cooper,	Manhattan, Riley.
Bernard C. Copeland,	Idana, Clay.
Alson J. Cowles,	El Dorado, Butler.
Edgar Andrew Cowles,	El Dorado, Butler.
Ethel Cowles,	Sibley, Douglas.
James R. Coxen,	Eskridge, Wabaunsee.
Everet William Cudney,	Belpre, Edwards.
Margaret Ruth Cunningham,	Glasco, Cloud.
William L. Davis,	Fairview, Brown.
Alexander H. Denneler,	Winchester, Jefferson.
Marshal Elsas,	Manhattan, Riley.
Lois Failyer,	Manhattan, Riley.
Stella Finlayson,	Summerfield, Marshall.
Louise Fleming,	Tecumseh, Shawnee.
Anna Helen Foster,	Bennington, Ottawa.
Mamie C. Frey,	Elk, Chase.
Erma Gammon,	Ramah, *Colorado.*
James R. Garver,	Abilene, Dickinson.
Walter Byron Gernert,	McPherson, McPherson.
Clyde Jamison Gore,	Raymore, *Missouri.*
Frank W. Grabendike,	Ottawa, Franklin.
May Lucetta Griffing,	Manhattan, Riley.

Name.	Post-office and county (or state).
Herbert Revere Groome,	Manhattan, Riley.
Samuel P. Haan,	Burlington, Coffey.
Ellen J. Hanson,	Marquette, McPherson.
A. Dexter Holloway,	Yates Center, Woodson.
Fred Houser,	Oxford, Sumner.
Annice Howell,	North Topeka, Shawnee.
Harvey B. Hubbard,	Beloit, Mitchell.
Flora May Hull,	Manhattan, Riley.
Kate M. Hutchinson,	Bellaire, Smith.
Irene Ingraham,	Manhattan, Riley.
Harry A. Ireland,	Bronson, Bourbon.
Elmer Johnson,	Latimer, Morris.
Louis M. Jorgenson,	Greenleaf, Washington.
Miner M. Justin,	Manhattan, Riley.
Clara Myrtle Kahl,	Manhattan, Riley.
Grover Cleveland Kahl,	Manhattan, Riley.
Mary Kimball,	Manhattan, Riley.
Edward Rudolph Kupper,	Kansas City, Wyandotte.
Clarence Lambert,	Hiawatha, Brown.
Lorin Wendell Lawson,	McPherson, McPherson.
Adah Lewis,	Manhattan, Riley.
Gertrude Lill,	Mount Hope, Sedgwick.
Percy E. Lill,	Mount Hope, Sedgwick.
Fred R. Lindsey,	Frankfort, Marshall.
James A. Lupfer,	Larned, Pawnee.
William Thomas McCall,	Wa Keeney, Trego.
Edward Louis McClaskey,	Girard, Crawford.
Edwin William McCrone,	Haddam, Washington.
Ethel McDonald,	Manhattan, Riley.
Ethel Olive McKeen,	Russell, Russell.
Carl E. Mallon,	Ogden, Riley.
Ella M. Meyer,	Riley, Riley.
James Arthur Milham,	Waverly, Coffey.
Fred Carl Miller,	Belvue, Pottawatomie.
Atsushi Miyawaki,	Manhattan, Riley.
George A. Moffatt,	Clyde, Cloud.
Joseph Shaw Montgomery,	Cedar Point, Chase.
Leona Estel Moore,	Manhattan, Riley.
Edward Allen Morgan,	Brainerd, Butler.
Jacob Michael Murray,	Goff, Nemaha.
Clarence G. Nevins,	Ford, Ford.
Bessie Minerva Nicolet,	Manhattan, Riley.
Amer B. Nystrom,	Topeka, Shawnee.
Ole J. Olsen,	Willis, Brown.
Harry Oman,	Leonardville, Riley.
Burton Sylvester Orr,	Topeka, Shawnee.
Joseph W. Painter,	Beverly, Lincoln.
Jesse Leroy Pelham,	Manhattan, Riley.
Allen G. Philips,	Dover, Shawnee.
Harry E. Porter,	Manhattan, Riley.
Adeline Poston,	Emporia, Lyon.
George Percival Potter,	Peabody, Marion.
Charles A. Pyle,	Morrill, Brown.
Elizabeth Randle,	Bala, Riley.
Lulu Mahala Rannells,	Manhattan, Riley.
Hiram R. Reed,	Centralia, Nemaha.
Edward Richards,	Manhattan, Riley.
James Richards,	Manhattan, Riley.
Blanche Robertson,	Manhattan, Riley.
Donald Ross,	Independence, Montgomery.
John Michael Ryan,	Muscotah, (Jackson).

Name.	Post-office and county (or state).
Edwin George Schafer,	Jewell, Jewell.
Walter T. Scholz,	Frankfort, Marshall.
Martin William Schottler,	Emporia, Lyon.
Earl Locke Shattuck,	Holton, Jackson.
Wilson George Shelley,	McPherson, McPherson.
Perle Harrison Skinner,	Jewell, Jewell.
Frank Sorgatz,	Concordia, Cloud.
Maurice I. Stauffer,	Randall, Jewell.
Orin A. Stevens,	Blue Rapids, Marshall.
Claudius Stewart,	North Topeka, Shawnee.
Grace Elizabeth Streeter,	Wakefield, Clay.
Lyman Bradley Streeter,	Wakefield, Clay.
Bertha Florence Sweet,	Manhattan, Riley.
S. Ray Tilbury,	Arkansas City, Cowley.
Anna R. Tolin,	Soldier, Jackson.
Besse L. Tolin,	Soldier, Jackson.
Virginia Troutman,	Comiskey, Lyon.
May E. Umberger,	Hymer, Chase.
Carroll Walker,	Frankfort, Marshall.
Josephine Elizabeth Walter,	Manhattan, Riley.
Merton Luther Walter,	Manhattan, Riley.
Catherine N. Ward,	Minneapolis, Ottawa.
Albert A. Werner,	Alden, Rice.
Georgiana West,	Silverlake, Shawnee.
Helen Clara Westgate,	Manhattan, (Geary).
Robert E. Williams,	Herington, Dickinson.
Asa Calvin Zimmerman,	Moray, Dickinson.

JUNIORS.

Franklin Alexander Adams,	Maplehill, Wabaunsee.
Clyde Harrison Alspaugh,	Lincolnville, Marion.
Eva Irene Alspaugh,	Lincolnville, Marion.
William C. Anderson,	Minneapolis, Ottawa.
Marie Rilda Bardshar,	Mount Hope, Sedgwick.
Francis Alva Barnett,	Emporia, Lyon.
Ernest Elmer Beighle,	Manhattan, Riley.
George P. Berger,	Longford, Clay.
Edna Eleanor Biddison,	Manhattan, Riley.
Horace Bixby,	Manhattan, Riley.
Cool Fenton Blake,	Glasco, Cloud.
Casey C. Bonebrake,	Stockton, Rooks.
Mabel J. Bower,	Manhattan, Riley.
James E. Brock,	Beatrice, *Oklahoma.*
Ella V. Brooks,	Tescott, Ottawa.
Elmer Bull,	Kipp, Saline.
Ralph Elmer Caldwell,	Garnett, Anderson.
Walter W. Carlson,	Mingo, Thomas.
Ralph Thompson Challender,	Burrton, Harvey.
Esther Evangeline Christensen,	Randolph, Riley.
Claude S. Conner,	Lyons, Rice.
Louis Graham Cook,	Effingham, Atchison.
Katherine Cooper,	Manhattan, Riley.
Alexander B. Cron,	Augusta, Butler.
Herman L. Cudney,	Belpre, Edwards.
Sol Whitney Cunningham,	Manhattan, Riley.
James Scott Daniels,	Jamestown, Cloud.
Bernice Ada Deaver,	Ionia, Jewell.
Ruby Fae Deaver,	Esbon, Jewell.
Maxwell C. Donley,	Powhattan, Brown.
Florence Edith Dresser,	Manhattan, Riley.

Name.	Post-office and county (or state).
George Richard Eaton,	Highland, Doniphan.
Carl Forsberg,	Manhattan, Riley.
Walter A. Foster,	Bennington, Ottawa.
Mary Eliza Gaden,	Riley, Riley.
David Emerson Gall,	Reserve, Brown.
John M. Garrity,	Perth, Sumner.
Jesse E. George,	Manhattan, Riley.
Clarence T. Gibbon,	Hartford, Lyon.
Oliver Holmes Gish,	Acme, Dickinson.
George G. Goheen,	Manhattan, Riley.
Cecile Agnes Graham,	Manhattan, Riley.
Olin Graham,	Floyd, *Texas.*
Chester W. Grizzell,	Claflin, Barton.
Edna Gertrude Grizzell,	Claflin, Barton.
Charles Meyers Haines,	Manhattan, Riley.
Helen H. Halm,	Topeka, Shawnee.
James Howard Hamilton,	Clifton, Washington.
Harry T. Hamler,	Manhattan, Riley.
Dora Inez Harlan,	Walnut, Crawford.
Frank Clyde Harris,	Harveyville, Wabaunsee.
Maude Harris,	Harveyville, Wabaunsee.
Lizzie F. Hassebroek,	Manhattan, Riley.
Fred M. Hayes,	Kansas City, Wyandotte.
Leon George Hoffman,	Manhattan, Riley.
Edith Antonette Holmberg,	Manhattan, Riley.
Charles Clinton Howenstine,	Manhattan, Riley.
Grace Gertrude Hull,	Manhattan, Riley.
Ralph W. Hull,	Manhattan, Riley.
Wyllys Lyman Hull,	Manhattan, Riley.
Helen Knostman Huse,	Manhattan, Riley.
Esteban Ibalio,	Pasuguin, Luzon, *P. I.*
Estella May Ise,	Downs, Osborne.
Charles Jacobus,	Manhattan, Riley.
Benjamin David Jeffs,	Hutchinson, Reno.
Margaret Johnston,	Topeka, Shawnee.
Seneca Jones,	Bala, Riley.
Edith B. Justin,	Manhattan, Riley.
Henry D. Kappelmann,	Linn, Washington.
Maude Kelly,	Kansas City, Wyandotte.
Harry E. Kiger,	Burlington, Coffey.
Venus Kimble,	Keats, Riley.
Walter King,	Enterprise, Dickinson.
Arthur W. Kirby,	Ottawa, Franklin.
Frank Kirgis,	Beloit, Mitchell.
Orville M. Kiser,	Sedgwick, Harvey.
Elizabeth M. Kramer,	Kansas City, Wyandotte.
David Kratzer,	Mitchell, Rice.
Alfred John Larmor,	Garden City, Finney.
Neva Ethel Larson,	Tescott, Ottawa.
Carl C. Long,	Neodesha, Wilson.
Faye Gertrude McConnell,	Minneapolis, Ottawa.
J. Myron McCray,	Manhattan, Riley.
Olive R. McKeeman,	Soldier, Jackson.
Fred B. McKinnell,	Maize, Sedgwick.
Harry Charles McLean,	Mankato, Jewell.
Henry Alexander McLenon,	Everest, Brown.
Vincente G. Manalo,	Taal, Batanzas prov., *P. I.*
Eleanor March,	Manhattan, Riley.
Phillip Edward Marshall,	Denison, Jackson.
Ethel Madge Martin,	Mound City, Linn.
Jessie Lou Marty,	Merriam, Johnson.

Name.	Post-office and county (or state).
Chalmer A. Mather,	Manhattan, Riley.
Harry H. Momyer,	Great Bend, Barton.
Ross Moorman,	Burr Oak, Jewell.
David Karl Morris,	Ottawa, Franklin.
Orr O. Morrison,	Manhattan, Riley.
Charlotte Augusta Morton,	Tescott, Ottawa.
Lizzie Morwick,	Eskridge, Wabaunsee.
Edna Anna Munger,	Manhattan, Riley.
Lucy Needham,	Lane, Franklin.
Orien James Newlin,	Coldwater, Comanche.
John Francis O'Connor,	Hartford, Lyon.
Victor Emanuel Oman,	Walsburg, Riley.
Henry Otto,	Manhattan, Riley.
Rennick Rubenell Paine,	Manhattan, Riley.
Harry A. Paul,	Osborne, Osborne.
Arthur Alexander Raymond Perrin,	Newton, Harvey.
John Buell Peterson,	Wichita, Sedgwick.
Marcia Pierce,	Junction City, Geary.
Arthur Benjamin Pincomb,	Merriam, Johnson.
Hubert L. Popenoe,	Topeka, Shawnee.
Herman Albert Praeger,	Claflin, Barton.
John A. Richards,	Manhattan, Riley.
Alvertis Santford Salkeld,	Manhattan, Riley.
George Arthur Savage,	Meredith, Cloud.
Clara Dorothy Schield,	Hanover, Washington.
Hugo Schild,	Hanover, Washington.
Jay Warren Simpson,	Talmage, Dickinson.
Grace Smith,	Manhattan, Riley.
Hallie M. Smith,	Manhattan, Riley.
Jay Latimer Smith,	Ozawkie, Jefferson.
Martin G. Smith,	Waverly, Coffey.
Stanley Van Smith,	Ozawkie, Jefferson.
Arthur R. Snapp,	Belleville, Republic.
Herbert D. Strong,	Goddard, Sedgwick.
Daniel Charles Sullivan,	Ulysses, Grant.
Leora Juanita Sutcliff,	Mankato, Jewell.
Helen Louise Sweet,	Manhattan, Riley.
Edwin Springer Taft,	Topeka, Shawnee.
Irene Alma Taylor,	Chapman, Dickinson.
Mabel Addie Thompson,	Manhattan, Riley.
Raymond Charles Thompson,	Manhattan, Riley.
Earle Thurston,	Manhattan, Riley.
Merritt Rex Tinkham,	Manhattan, Riley.
Matilda Trunk,	Caldwell, Sumner.
Elsie May Tulloss,	Ottawa, Franklin.
Harmon J. Twichell,	Clay Center, Clay.
Gabriella Venard,	Kansas City, Wyandotte.
Daniel Walters,	Manhattan, Riley.
George Stanley Warren,	Pittsburg, Crawford.
Oley W. Weaver,	Effingham, Atchison.
Charles Julius Willard,	Manhattan, Riley.
Bruce S. Wilson,	Manhattan, Riley.
Ira A. Wilson,	Winfield, Cowley.
Georgia Withington,	Manhattan, Riley.
Nelle Wolf,	Manhattan, Riley.
Stuart Smith Young,	Manhattan, Riley.
James Walter Zahnley,	Dwight, Morris.

SOPHOMORES.

Name.	Post-office and county (or state).
Adriano Pablo Alcazar,	Iloilo, *Philippine Islands.*
Fred T. Alderson,	Burden, Cowley.
Mollie Aldridge,	Junction City, Geary.
M. Reuben Alleman,	Kansas City, Wyandotte.
Charles M. Alspach,	Axtell, Marshall.
Juan R. Alvano,	Laoag, I. N., *P. I.*
Jessie Mabel Alvord,	Zurich, Rooks.
Raiffe Alvord,	Manhattan, Riley.
Augusta C. Amos,	Manhattan, Riley.
Cyrus J. Anderson,	Hollis, Cloud.
Jessie Edwina Apitz,	Manhattan, Riley.
Ralph Armstrong,	Manhattan, Riley.
Eppa Cleveland Ausherman,	Elmont, Shawnee.
Benjamin B. Baird,	Riley, Riley.
Robert Roy Baird,	Riley, Riley.
Walter E. Baker,	Washington, Washington.
Harold Bales,	Densmore, Norton.
Cecil Pearl Barnett,	Manhattan, Riley.
Ralph Earl Barnhart,	Ottawa, Franklin.
Dorus Clark Bascom,	Howard, Elk.
Harry Penock Bates,	Topeka, Shawnee.
Vernon Elwell Bates,	Manhattan, Riley.
Edward E. Bealey,	Morrill, Brown.
Hulda L. J. Bennett,	Manhattan, Riley.
Robert E. Berkeley,	Burr Oak, Jewell.
Elbridge Jarvis Best,	Manhattan, Riley.
Hazel E. Bixby,	Manhattan, Riley.
Clara Louise Blair,	Mulvane, Sumner.
Roscoe Eugene Blair,	Mulvane, Sumner.
Pearl J. Boesche,	Gaylord, Smith.
Charles Joseph Boyle,	Spivey, Kingman.
Elsie Brown,	Manhattan, Riley.
G. Homer Brown,	Arkansas City, Cowley.
James Browning,	Cimarron, Gray.
Ruby Mildred Buckman,	Conway, McPherson.
Eben Burrough,	Kansas City, *Missouri.*
Albert Carlson,	Blue Rapids, Marshall.
Anna Wilhelmina Carlson,	Manhattan, Riley.
Etta Carlton,	Manhattan, Riley.
Florence Carpenter,	Woodsdale, Stevens.
Clifford Carr,	Solomon, Dickinson.
Charles Elmer Cassel,	Manhattan, Riley.
Sarah Elizabeth Cassel,	Manhattan, Riley.
Harold Edmund Cate,*	Eskridge, Wabaunsee.
Wayne B. Cave,	Manhattan, Riley.
Kirk P. Cecil,	North Topeka, Shawnee.
George Sidney Christy,	Howard, Elk.
Theodore Lea Citizen,	Mulvane, Sumner.
Minnie Faye Conner,	Lyons, Rice.
Marie Coons,	Manhattan, Riley.
Carl Coover,	Wilson, Ellsworth.
Margaret Copley,	Manhattan, Riley.
Reva Violet Cree,	Manhattan, Riley.
Guy S. Crise,	Manhattan, Riley.
Don A. Crowther,	Douglass, Butler.
Alfhild Marie Dahl,	Montrose, Jewell.
Curtis Lynn Daughters,	Lincoln, Lincoln.
Ivor Davies,	Olivet, Coffey.
Leon Milehame Davis,	Topeka, Shawnee.

* Deceased.

Name.	Post-office and county (or state).
Mabel Ethel Davison,	Michigan Valley, Osage.
Wilbur Sumner Davison,	Michigan Valley, Osage.
Edgar Hamilton Dearborn,	Manhattan, Riley.
Vinton V. Detwiler,	Jewell, Jewell.
Lulu Holmes Docking,	Manhattan, Riley.
Charles Doryland,	Junction City, Geary.
Harry D. Douglas,	Manhattan, Riley.
Philip R. Dunton,	Lebanon, Smith.
Verne E. Dyatt,	Almena, Norton.
Ralph Waldo Edwards,	Emporia, Lyon.
Ross C. Egy,	Langdon, Reno.
Mary Amy Elder,	Osage City, Osage.
Ruth E. Elliot,	Manhattan, Riley.
Emmett Emslie,	Manhattan, Riley.
Wilma Dette Evans,	Colby, Thomas.
Foss Farrar,	Arkansas City, Cowley.
Leo Lester Felps,	Le Roy, Coffey.
Frank E. Ferris,	Osage City, Osage.
Louise L. Fielding,	Manhattan, Riley.
Donald Foote,	Simpson, Mitchell.
Alice Winifred Foster,	Bennington, Ottawa.
Jesse Foster,	Manhattan, Riley.
W. Karl Gardner,	Homewood, Franklin.
LeRoy E. Gaston,	Morrill, Brown.
Gilbert G. Ghormley,	Partridge, Reno.
Robert T. Gilbert,	Kansas City, *Missouri.*
Amos H. Gish,	Abilene, Dickinson.
Ambrosio Gison,	Iloilo, Panay, *P. I.*
William Holman Goldsmith	Acme, Dickinson.
Ardi M. Graham,	Topeka, Shawnee.
Henry Devillo Graves,	Lincoln, Lincoln.
Roy R. Graves,	Kansas City, Wyandotte.
Fred Foster Greeley,	Manhattan, Riley.
Gabriel Grosfield,	Willis, Brown.
Paul D. Guy,	Winfield, Cowley.
Albert P. Haeberle,	Peck, Sedgwick.
Barrett L. Halderman,	Long Island, Phillips.
Hope Faith Charity Hall,	Wichita, Sedgwick.
Ralph Robert Hand,	Wellington, Sumner.
Anton Hanson,	Jamestown, Cloud.
Harry W. Hanson,	Clay Center Clay.
Ervin Harold,	Manhattan, Riley.
Ina Harold,	Manhattan, Riley.
Tillie Harold,	Manhattan, Riley.
Annie A. Harrison,	Jewell, Jewell.
Ella Hathaway,	Mankato, Jewell.
John B. Hawley,	Trinidad, *Colorado.*
Cecil Earl Haworth,	Galena, Cherokee.
Lawrence Glenn Haynes,	Glasco, Cloud.
Alice Mabel Hazen,	Centralia, Nemaha.
Jestie Lovinia Hepler,	Manhattan, Riley.
Thomas Newton Hill,	Elk Falls, Elk.
Jesse T. Hirst,	Hutchinson, Reno.
Erwin Burr Hockens,	Arrington, Atchison.
Faye Eleanor Houser,	Oxford, Sumner.
Mabel Howell,	Manhattan, Riley.
James Clark Hughes,	Topeka, Shawnee.
Ralph E. Hunt,	Marysville, Marshall.
Harley Main Hunter,	Kansas City, Wyandotte.
Oliver William Hunter,	Blue Rapids, Marshall.
Archie Edward Immenschuh,	Wamego, Pottawatomie.
Mary Edna Ireland,	Bronson, (Allen).

Name.	Post-office and county (or state).
Herman Berger Johnson,	Vliets, Marshall.
Roy Mentzer Johnson,	Mankato, Jewell.
Edith Ellen Jones,	Cawker City, Mitchell.
Edna Mary Jones,	Manhattan, Riley.
Elmer W. Jones,	Elk Falls, Elk.
Leslie Eldon Joss,	Fairview, Brown.
Margaret Justin,	Manhattan, Riley.
Elsie Kammeyer,	Manhattan, Riley.
Charles Alterson Kelsall,	Reno, Leavenworth.
Loyd L. King,	Wichita, Sedgwick.
Carl L. Kipp,	Piqua, Woodson.
Elmer Kiser,	Sedgwick, Harvey.
Albert G. Kittell,	McPherson, McPherson.
Elsie Kratzinger,	Manhattan, Riley.
Edison Frank Kubin,	McPherson, McPherson.
Florence Laman,	Osborne, Osborne.
Herbert Ross Landis,	Yates Center, Woodson.
Harold Larson,	Vesper, Lincoln.
Russell E. Lawrence,	Larned, Pawnee.
Raymond Hill Learned,	Northampton, *Massachusetts.*
Arthur Albert Lee,	Columbus, Cherokee.
Emma Lee,	Esbon, Jewell.
Grace Elizabeth Leuszler,	Washington, Washington.
David Ernest Lewis,	Independence, Montgomery.
Joe Grigsby Lill,	Mount Hope, Sedgwick.
Roland Loyd,	Bendena, Doniphan.
John Wallace Lumb,	Wakefield, Clay.
Hal H. H. Lynch,	Manhattan, Riley.
David I. McCallum,	Kansas City, Wyandotte.
John R. McClung,	Jewell, Jewell.
John E. McCoy,	Cawker City, Mitchell.
Wesley Deer McCoy,	Coffeyville, Montgomery.
Minnie Vergie McCray,	Manhattan, Riley.
Mabel Mortier McKenzie,	Solomon, Dickinson.
Preston Essex McNall,	Gaylord, Smith.
Sam A. McWilliams,	Morrowville, Washington.
Robert A. Macnab,	Manhattan, Riley.
John Edward Martin,	Waverly, Coffey.
Roy D. Martin,	Glasco, Cloud.
F. Herman Mayer,	Alta Vista, Wabaunsee.
Virginia Lee Meade,	Topeka, Shawnee.
Vincent Mecke,	Anness, Kingman.
Peter J. Meenen,	Clifton, (Clay).
William Shields Merriam,	Winfield, Cowley.
Louis B. Mickel,	Soldier, Jackson.
Francis Burzley Milliken,	Hill City, Graham.
John Rutherford Minis,	Manhattan, Riley.
Claude Moorman,	Burr Oak, Jewell.
Margaret Ethel Moseley,	Alma, Wabaunsee.
G. Glenn Murphy,	Lyons, Rice.
Flora Belle Needham,	Osawatomie, Miami.
Rudolph B. Nelson,	Osage City, Osage.
Guy D. Noel,	Valencia, Shawnee.
John W. Norlin,	Windom, McPherson.
Milton Oscar Nyberg,	Mayfield, Sumner.
Victor F. Oblefias,	Lucban, Fayabas prov., *P. I.*
David Lawrence Orendorff,	Manhattan, Riley.
Hobart Oskins,	Manhattan, Riley.
Myrtle Oskins,	Manhattan, Riley.
Maurice J. Oteyza,	Manila, *Philippine Islands.*
Alvin Oscar Overman,	Manhattan, Riley.
Charles Henry Paine,	Manhattan, Riley.

Name.	Post-office and county (or state).
James Oliver Parker,	Lakin, Kearny.
Frank Thomas Parks,	Manhattan, Riley.
John Howard Payne,	Randall, Jewell.
Theodore Edgar Payne,	Larned, Pawnee.
Vernon Peachey,	Darlow, Reno.
Claro Pendon,	Iloilo, *Philippine Islands.*
Harold Albert Pennington,	Hutchinson, Reno.
Cyrus Arthur Perry,	Greenleaf, Washington.
Gweneth M. Petty,	Morganville, Clay.
John Allison Porter,	Manhattan, Riley.
Harold Kenneth Powell,	Powhattan, Brown.
Fred Tunis Rader,	Mayfield, Sumner.
Thomas Jefferson Ragland,	Topeka, Shawnee.
Raymond Ramage,	Arkansas City, Cowley.
Leaffa Laura Randall,	Manhattan, Riley.
Harold S. Records,	Beloit, Mitchell.
Ernest Carl Reed,	Glen Elder, Mitchell.
Hallie Reed,	Havensville, Pottawatomie.
Wray Robert Reeves,	Manhattan, Riley.
Guy Chester Rexroad,	Partridge, Reno.
Ida Ethel Rigney,	Manhattan, Riley.
Reuben Rupert Rittenhouse,	Columbus, Cherokee.
Hugh Robertson,	Highland, Doniphan.
Clayton I. Ross,	Wichita, Sedgwick.
Ernest John Rossman,	Clifton, Washington.
Eugene Ruede,	Manhattan, Riley.
Leoni Cloyde Runyan,	La Harpe, Allen.
Albert Leslie Schell,	Wichita, Sedgwick.
John Schlaefli,	Cawker City, Mitchell.
Kathleen Selby,	Manhattan, Riley.
Malcolm C. Sewell,	Hastings, *Nebraska.*
Claude L. Shaw,	Eskridge, Wabaunsee.
Elizabeth C. Shearer,	Frankfort, Marshall.
William Lenley Shelly,	Atchison, Atchison.
Elva Lucretia Sikes,	Leonardville, Riley.
Zenorah Sim,	Topeka, Shawnee.
Walter Alvin Simpson,	Manhattan, Riley.
Lloyd Erwin Snapp,	Belleville, Republic.
Ralph Edwin Snapp,	Belleville, Republic.
Calvin Snider,	Mound City, Linn.
Roy E. Spriggs,	Little River, Rice.
Charles Stants,	Kensington, Smith.
Effie Eleanor Steele,	Minneapolis, Ottawa.
Clifton J. Stratton,	Kansas City, Wyandotte.
L. A. Sturgis,	Sterling, Comanche.
Ross H. Sweet,	Manhattan, Riley.
G. Eldon Thompson,	Manhattan, Riley.
Charles T. Topping,	Florence, Marion.
Jean G. Troutman,	Comiskey, Lyon.
Edwin Earl Truskett,	Caney, Montgomery.
Lonnie F. Vass,	Glasco, Cloud.
Roy L. Walthour,	Newton, Harvey.
Clyde Q. Ward,	Wetmore, Nemaha.
Alma Warden,	Lyons, Rice.
Samuel A. Washburn,	Quenemo, Osage.
Charles R. Wears,	Manhattan, Riley.
Ray Thurman Wells,	Parsons, Labette.
Georgiana Welstead,	Jewell, Jewell.
Alberta M. Wenkheimer,	Belpre, (Pawnee).
Pauline Emilie Wetzig,	Winkler, Riley.
Lura Angeline Wharton,	Topeka, Shawnee.
Eva May Wheeler,	Tyro, Montgomery.

Name.	Post-office and county (or state).
Burton H. Wilber,	Manhattan, Riley.
Roy Wilkins,	Burden, Cowley.
Francis Buckner Williams,	Lincolnville, Marion.
James J. Williams,	Home, Marshall.
Marion Williams,	Barnes, Washington.
Chloe May Willis,	Manhattan, Riley.
Vesta Williston,	Manhattan, Riley.
Floyd E. Wilson,	Soldier, Jackson.
Frances Odell Wilson,	Ingalls, Gray.
Norman F. Wilson,	Oberlin, Decatur.
Robert Wilson,	Miltonvale, Cloud.
Roy M. Wilson,	Concordia, Cloud.
Albert Lemont Wiltse,	Covert, Osborne.
Frederick William Winter,	Dover, Shawnee.
Henry B. Winter,	Manhattan, Riley.
Ray M. Wolfe,	La Cygne, Linn.
William B. Wood,	Anthony, Harper.
Ward Woody,	Cawker City, Mitchell.
Ray Curtis Worswick,	Oskaloosa, Jefferson.
George Wright,	Burlington, Coffey.
Roy Milton Wyatt,	Atchison, Atchison.
Florence Wyland,	Smith Center, Smith.
Mignonette Yerkes,	Hutchinson, Reno.
Carrie York,	Dunlap, Morris.

FRESHMEN.

Francis C. Abbott,	Manhattan, Riley.
Stephen Abbott,	Manhattan, Riley.
Martha Lee Abshire,	Manhattan, Riley.
William Alexander,	Manhattan, Riley.
Winifred Lois Alexander,	Manhattan, Riley.
Russell Allingham,	Manhattan, Riley.
Aaron E. Anderson,	Eskridge, Wabaunsee.
Albion J. Anderson,	Manhattan, Riley.
Bernard Anderson,	Jamestown, Cloud.
William John Armstrong,	Burlington, Coffey.
Will David Austin,	Isabel, Barber.
Lambert L. Bailey,	Great Bend, Barton.
James Martin Baker,	Fairport, (Ellis).
Walter Ransom Ball,	Anthony, Harper.
Stella Louise Ballard,	Washington, Washington.
Verne Barber,	White City, Morris.
Albert Smith Bell,	Manhattan, Riley.
Verne Ethel Bell,	Manhattan, Riley.
Ella M. Benner,	Manhattan, Riley.
James W. Benner,	Manhattan, Riley.
Willis Ernest Berg,	Cleburne, Riley.
Lillie Bergman,	Manhattan, Riley.
Bessie Louisa Blanchard,	Marysville, Marshall.
Cynthia Bonebrake,	Stockton, Rooks.
Zella Bonebrake,	Stockton, Rooks.
Delmo Booker,	Kansas City, Wyandotte.
Florence Bower,	Manhattan, Riley.
Harley James Bower,	Eureka, Greenwood.
Ralph Coleman Bowlby,	Fairport, Russell.
Fred S. Bradford,	Concordia, Cloud.
Roscoe Arthur Branson,	Belleville, Republic.
Edwin H. Brooks,	Tescott, Ottawa.
Charles E. Brower,	Wellington, Sumner.
Charles Elmer Brown,	Manhattan, Riley.
George Wiley Brown,	Ellsworth, Ellsworth.

Name.	Post-office and county (or state).
Virgil C. Bryant,	Cimarron, Gray.
Glenn Buckman,	Conway, McPherson.
Elmer Wilmot Buell,	Miltonvale, Cloud.
Bertha Bull,	Manhattan, Riley.
John W. Bullard,	Bellaire, Smith.
Mary O. Burr,	Manhattan, Riley.
Walter P. Byers,	Hutchinson, Reno.
Frank Robert Bynum,	Wichita, Sedgwick.
Ralph Morris Caldwell,	Wichita, Sedgwick.
Paul Calvin,	Manhattan, Riley.
Ruth Calvin,	Manhattan, Riley.
Oscar Canary,	Fall, Leavenworth.
Clarence Edwin Carman,	Phillipsburg, Phillips.
John R. Carnahan,	Manhattan, Riley.
Robert Russell Cave,	Manhattan, Riley.
Ben T. Chaney,	Adrian, Jackson.
Ralph Brower Chapman,	Muscotah, Atchison.
Robert Vernon Christian,	Iola, Allen.
Lulu Anna Christie,	Waverly, Coffey.
Irma Irene Church,	Smith Center, Smith.
Earl Clayton,	Admire, Lyon.
Harry K. Coe,	Topeka, Shawnee.
Ethel R. Coffman,	Manhattan, Riley.
Joseph H. Coffman,	Manhattan, Riley.
Alvin Theodore Coith,	Greenleaf, Washington.
Edwin Lloyd Cole,	Manhattan, Riley.
Harry L. Cole,	Manhattan, Riley.
Leslie D. Connell,	Altoona, Wilson.
John M. Coons,	Manhattan, Riley.
Albert W. Copeland, jr.,	Hays, Ellis.
Streat H. Cox,	Hays, Ellis.
Ralph Edward Crabbs,	Arlington, Reno.
Walter S. Criswell,	Frankfort, Marshall.
James Wesley Crooks,	Beattie, Marshall.
Forrest Virgil Curtis,	Goddard, Sedgwick.
Nellie Custer,	Manhattan, Riley.
Olga Dahl,	Montrose, Jewell.
Una Helen Dakens,	Downs, Osborne.
Alma M. Danneberg,	Argentine, Wyandotte.
Bertha Davis,	Brownell, Ness.
Frank Davis,	Topeka, Shawnee.
Paul B. Davis,	Santa Fe, Haskell.
Percy Grover Davis,	Brownell, Ness.
Susan Davis,	Arkalon, Seward.
Glenn Ananias Dawes,	Asherville, Mitchell.
Glen DeGarmo,	Naron, Pratt.
Floyd Dixon,	Lebanon, Smith.
Francis Downey,	Manhattan, Riley.
Hallie Caroline Drake,	Manhattan, Riley.
William Droge,	Seneca, Nemaha.
Hal B. Dubois,	Burlingame, Osage.
Leo E. Duehn,	Clements, Chase.
Samuel Duffield,	Manhattan, Riley.
George Edward Dull,	Washington, Washington.
Leila Dunton,	Lebanon, Smith.
Martin Dupray,	Ash Valley, Pawnee.
Amy Lenora Eakin,	Manhattan, Riley.
J. Fred Eden,	Hutchinson, Reno.
Earl Lewis Edwards,	Phillipsburg, Phillips.
Navarre H. Edwards,	Russell, Russell.
Katherine Lucy Emslie,	Manhattan Riley.
Francis Lewellyn Engelhardt,	Padonia, Brown.

Name.	Post-office and county (or state).
Abner Ethan Engle,	Abilene, Dickinson.
Grace Enlow,	Wamego, Pottawatomie.
Maude Estes,	Manhattan, Riley.
Alwyn Kenneth Evans,	Manhattan, Riley.
Ralph Waldo Evans,	Waldo, Russell.
Robert Kenneth Evans,	Manhattan, Riley.
Arthur Eugean Fairman,	Wakefield, Clay.
Eugenia Fairman,	Wakefield, Clay.
Kittie Fanska,	Americus, Lyon.
Rena Amelia Faubion,	Oskaloosa, Jefferson.
Harry Albert Feary,	Anness, Sedgwick.
Christine Faye Ferguson,	Kansas City, Wyandotte.
Nina Ethel Finch,	Merriam, Johnson.
Frank Flenniken,	Topeka, Shawnee.
Fredric Leroy Fogwell,	Topeka, Shawnee.
Minnie L. Forceman,	Vliets, Marshall.
Charles Earl Foresman,	Manhattan, Riley.
Lucile Mabel Forest,	Thayer, Neosho.
Nora Angelina Frasure,	Ford, Ford.
Jennie French,	Manhattan, Riley.
Clarence Griffing Fry,	Manhattan, Riley.
John Francis Gaden,	Riley, Riley.
James Hubert Gaston,	Axtell, Marshall.
Richard William Getty,	Downs, Osborne.
John Gingery,	Haddam, Washington.
Charlotte E. Gledhill,	Portis, Osborne.
Harold William Gore,	Raymore, *Missouri.*
Rob A. Grant,	Lane, Franklin.
David D. Gray,	Topeka, Shawnee.
Clarence G. Gustafson,	Galva, McPherson.
Dick Halderman,	Long Island, Phillips.
Emma Ellen Hall,	Hoyt, Jackson.
Thomas Hall,	St. John, Stafford.
Frank Ermel Halm,	Topeka, Shawnee.
Charles H. Hanson,	Greenleaf, Washington.
Fritz F. Harri,	Brookville, Saline.
Carrie Olive Harris,	Manhattan, Riley.
Ina May Harris,	Garrison, Pottawatomie.
William A. Harris,	Le Roy, Coffey.
Floyd Harrison,	Conway, McPherson.
Arthur Raymond Hawkes,	Banner, Trego.
Joseph Morrow Hawks,	Hiawatha, Brown.
Cyrus Hazlet,	Almena, Norton.
Charles Appleton Hazzard,	Maplehill, Wabaunsee.
Will H. Healy,	Tyrone, *Oklahoma.*
Belle Hennon,	Morrowville, Washington.
Ida Viola Hepler,	Manhattan, Riley.
Harry Ellis Hershey,	White Water, Butler.
Blaine Hill,	Hutchinson, Reno.
Rees William Hillis,	Reading, Lyon.
James Felix Hills,	Kinsley, Edwards.
Martin Anthon Hinrichs,	Randolph, Riley.
Karl William Hofer,	Manhattan, Riley.
Charles Irenus Hoffhines,	Marquette, McPherson.
Leonard Joseph Hole,	Manhattan, Riley.
Walter Hole,	Manhattan, Riley.
Ward Hollis,	Whiting, Jackson.
Alice B. Holmstead,	Manhattan, Riley.
Robert H. Hougham,	Manhattan, Riley.
Hubert Hudson,	———
D. Ray Hull,	Manhattan, Riley.
Clarence A. Hulse,	Meriden, Jefferson.

Name.	Post-office and county (or state).
Clara Hungerford,	Randolph, Riley.
DeForest Hungerford,	Randolph, Riley.
Esther Lillie Hungerford,	Manhattan, Riley.
Mildred Huse,	Manhattan, Riley.
Clyde Hussey,	Glasco, Cloud.
Aldie P. Immenschuh,	Manhattan, Riley.
Ivor Stanley Ion,	Jamestown, Cloud.
Emma Sophia Irving,	Baker, Brown.
Carl D. Irwin,	Salina, Saline.
Helen Emma Iversen,	Hartford, Lyon.
Alva Dee Jackman,	Lincoln, Lincoln.
Fleta Cecille Jefferson,	Buffalo, Wilson.
Jessie Jenkins,	Council Grove, Morris.
Harry C. Jennings,	Oswego, Labette.
Benjamin Olaf Johnson,	Wichita, Sedgwick.
Robert C. Johnston,	Adams, Kingman.
R. Nell Johnston,	Allen, Lyon.
Bertha Jolley,	Manhattan, Riley.
Ethel M. Justin,	Manhattan, Riley.
Arthur L. Kahl,	Manhattan, Riley.
Tillie Marie Kammeyer,	Manhattan, Riley.
Jesse A. Keeble,	Coffeyville, Montgomery.
Paul V. Kelly,	McCracken, Rush.
George Kernohan,	Manhattan, Riley.
James Carlisle Kimble,	Manhattan, Riley.
Elmer Cecil King,	Bucklin, Ford.
Harry I. King,	Turon, Reno.
Amanda C. Kittell,	McPherson, McPherson.
Carey Krause,	Herington, Dickinson.
Fred Krotzer,	Manhattan, Riley.
Harry C. Lambert,	Kansas City, *Missouri.*
Mary S. Lane,	Chalk, Wabaunsee.
Willard W. Lawton,	Denison, Jackson.
Mary G. Lecrone,	Chase, Rice.
Frank Clark Lewis,	Fontana, Miami.
John Lewis,	Emporia, Lyon.
Charles James Lindsay,	Manhattan, Riley.
Nellie Lindsay,	Manhattan, Riley.
Charles Lipperd,	Oxford, Sumner.
Oscar M. Lloyd,	Altoona, Wilson.
Lillian May Lowrance,	Thayer, Neosho.
Joseph G. Lundholm,	Osage City, (Lyon).
Will McBride,	Mankato, Jewell.
Vern Allen McCall,	Manhattan, Riley.
John C. McCanles,	Lincoln, Lincoln.
Walker M. McColloch,	Anthony, Harper.
Walter McCullough,	Solomon, Dickinson.
Edwin McDonald,	Abilene, Dickinson.
Scott Roger McDonald,	Manhattan, Riley.
Homer B. McFadden,	Maize, Sedgwick.
Myrtle McFadden,	Stafford, Stafford.
Walter Scott McKay,	Independence, Montgomery.
Clyde McKee,	Manhattan, Riley.
Charles Curtis McKirahan,	Topeka, Shawnee.
Ralph Manly,	Manhattan, Riley.
Kenneth R. March,	Manhattan, Riley.
John Z. Martin,	Kansas City, Wyandotte.
Thomas Roy Martin,	Highland, Doniphan.
Allen Mayhew,	Belpre, Edwards.
Mabel Mayhew,	Belpre, Edwards.
Everett L. Meldrum,	Cedar Vale, Chautauqua.
Lester O. Mellor,	Almena, Norton.

Name.	Post-office and county (or state).
Clarence Eugene Miller,	McPherson, McPherson.
Dwight Logan Miller,	Manhattan, Riley.
Ernest Miller,	Bennington, Ottawa.
Harry Edward Miller,	Kechi, Sedgwick.
W. George Milligan,	Olathe, Johnson.
Gail Vanfossin Mitchell,	Herington, Dickinson.
Robert Rhea Mohr,	Lincoln, Lincoln.
Celia Caroline Moore,	Manhattan, Riley.
Charles Bela Moore,	Manhattan, Riley.
Elijah Haywood Moore,	Manhattan, Riley.
Lucretia Moorman,	Smith Center, Smith.
Harold H. Munger,	Manhattan, Riley.
Charles Murphy,	Halstead, Harvey.
Della Delpha Murphy,	Manhattan, Riley.
Frank Ellery Murray,	Wellington, Sumner.
Karl Bryant Musser,	Acme, Dickinson.
Mymie Myers,	Manhattan, Riley.
Roy Myers,	Manhattan, Riley.
Charles Myszka,	Garnett, Anderson.
Joseph M. Myszka,	Garnett, Anderson.
Telie E. B. Nafziger,	Partridge, Reno.
Thomas Neidiger,	Cimarron, Gray.
Winifred Louise Neusbaum,	Manhattan, Riley.
Franklin W. Newacheck,	El Dorado, Butler.
Arthur F. Nichols,	Buffalo, (Woodson).
Gladys Irene Nichols,	Liberal, Seward.
Laura B. Nixon,	Riley, Riley.
Ida Rose Nonamaker,	Osborne, Osborne.
Fern Norris,	Geneseo, Rice.
Frank A. Nyfeler,	Fairview, Brown.
Edythe O'Brien,	Manhattan, Riley.
William O'Connell,	Kiowa, Barber.
Wilma Orem,	Manhattan, Riley.
William Mails Orr,	Manhattan, Riley.
Arthur J. Ostlund,	Clyde, Washington.
Harry Elmer Overholt,	Jewell, Jewell.
Hope Olive Palmer,	Geuda Springs, (Cowley).
Dale Vernon Payton,	Ottawa, Franklin.
Dudley B. Pellette,	Hutchinson, Reno.
Grace Ethel Perkins,	Wamego, Pottawatomie.
Boyd A. Perry,	Greenleaf, Washington.
Lora Perry,	Manhattan, Riley.
Bertha Ellen Phillips,	Manhattan, Riley.
Kenneth W. Phillips,	Manhattan, (Pottawatomie).
Charles Beryl Pitman,	Manhattan, Riley.
Otis H. Pixley,	Wamego, Pottawatomie.
Robert Platt,	Ætna, Barber.
William Cleveland Polley,	Republic, Republic.
Russell C. Porter,	Manhattan, Riley.
William Leslie Porter,	Manhattan, Riley.
Percy B. Potter,	Kiowa, Barber.
James J. Price,	Emporia, Lyon.
Leo Price,	Manhattan, Riley.
William Arthur Pulver,	Mankato, Jewell.
Daniel Milton Purdy,	Arkansas City, Cowley.
Iola Grace Rader,	Manhattan, Riley.
Charles Ernest Randels,	Anthony, Harper.
Henry Arthur Rankin,	Nashville, Kingman.
Hilie Rannells,	Manhattan, Riley.
Fred Rathbone,	Manhattan, Riley.
George Thomas Ratliffe,	Wichita, Sedgwick.

Name.	Post-office and county (or state).
Eva Rees,	Topeka, Shawnee.
Eva Mary Reeves,	Manhattan, Riley.
Roy J. Regnier,	Wamego, Pottawatomie.
Harry W. Reppert,	Valley Falls, Jefferson.
C. W. Rich,	Le Roy, Coffey.
Constance E. Richmond,	Lenora, Norton.
Cyril Guy Rickenbrode,	Medora, Reno.
Newell Robb,	Neal, Greenwood.
Floyd Joe Robbins,	Russell, Russell.
Burgess William Roberts,	Morrill, Brown.
Aline Robidoux,	Manhattan, Riley.
Charles Henry Robison,	Delavan, Morris.
Maybeth Robison,	Manhattan, Riley.
Arthur Henry Rose,	New Cambria, Saline.
George Helmick Ross,	Manhattan, Riley.
Worth D. Ross,	Manhattan, Riley.
Harold Rowe,	Hill City, Graham.
Floyd Rundle,	Clifton, (Clay).
William T. Rutledge,	Arlington, Reno.
Clarence W. Sanders,	Osage City, (Lyon).
Matah Schaeffer,	Jewell, Jewell.
George Schild,	Hanover, Washington.
Fred H. Schreiner,	Dorrance, Russell.
Ed. H. Schroer,	Parallel, Riley.
Richard Schuppert,	Arrington, Atchison.
Bertha Schwab,	Morganville, Clay.
Walter Scidmore,	Tescott, Ottawa.
George Llewellyn Seaman,	Kansas City, Wyandotte.
Ernest O. Sechrist,	Meriden, Jefferson.
August W. Seng,	Salina, Saline.
George J. Seufert,	Tonganoxie, Leavenworth.
Leslie Leon Shaw,	Leavenworth, Leavenworth.
S. Earl Shaw,	Eskridge, Wabaunsee.
Grace Ellen Shelley,	Manhattan, Riley.
Lloyd Hedrick Shepherd,	Hutchinson, Reno.
Gladys Shinn,	Jewell, Jewell.
Archie James Shirley,	Grantville, Jefferson.
Clara Lois Shofe,	Manhattan, Riley.
William Preston Shuler,	Burrton, Harvey.
Reynold Shuyler,	Sterling, Rice.
Esther Metta Sieder,	Enterprise, Dickinson.
Grace Evelyn Simpson,	Manhattan, Riley.
Alberta Aurelia Smith,	Manhattan, Riley.
Bernard M. Smith,	Silverdale, Cowley.
Eads Edward Smith,	Holyrood, Ellsworth.
Harlan D. Smith,	Manhattan, Riley.
Harry Lewis Smith,	Hutchinson, Reno.
Isaac Newton Smith,	Manhattan, Riley.
Laura May Smith,	Wamego, (Wabaunsee).
Luberta Smith,	Manhattan, Riley.
Ned Smith,	Manhattan, Riley.
Olive Marguerite Smith,	Waverly, Coffey.
Jonathan K. Snyder, jr.,	Altoona, Wilson.
Otis C. Snyder,	Dodge City, Ford.
Luther O. Solt,	Manhattan, Riley.
Talmage Solt,	Manhattan, Riley.
Lester Sommers,	Manhattan, Riley.
Edna Grace Soupene,	Manhattan, (Pottawatomie).
Estella Pearl Soupene,	Manhattan, Riley.
Alice Louise Southern,	Manhattan, Riley.
Judd P. Stack,	Topeka, Shawnee.
Gail Harold Stark,	Ozawkie, Jefferson.

Name.	Post-office and county (or state).
John Sherman Stauffer,	South Haven, Sumner.
Raymond Stauffer,	Manhattan, Riley.
Clyde Raymond Stevens,	Humboldt, Allen.
J. Frank Stevens,	Humboldt, Allen.
Carl James Stoddard,	Muscotah, Atchison.
Walter W. Strite,	Manhattan, Riley.
Matthew Castle Stromire,	Ellis, (Trego).
Alden G. Strong,	Goddard, Sedgwick.
Ollie Swanson,	Manhattan, Riley.
Archie M. Sweeney,	Hamlin, Brown.
Elton C. Swingle,	Manhattan, Riley.
May Swingle,	Manhattan, Riley.
Randall E. Talley,	Overbrook, Osage.
Vernon Fisher Tannehill,	Wakefield, Clay.
Vere Leland Tatlock,	Tescott, Ottawa.
Frances Isabel Taylor,	Manhattan, Riley.
Ruth Taylor,	Manhattan, Riley.
Harold A. Thackrey,	Kansas City, Wyandotte.
M. Mabel Thompson,	Garrison, Pottawatomie.
Jesse H. Thornton,	Manhattan, Riley.
John Tinkham,	Manhattan, Riley.
Harry Totten,	Haddam, Washington.
Robert Thadious Towler,	Ulysses, Grant.
Earl Jay Trosper,	Manhattan, Riley.
Thomas Abraham Trull,	Hiawatha, Brown.
Alice Harriet Tucker,	Manhattan, Riley.
Grace Irene Tucker,	Manhattan, Riley.
Vera Lillian Tull,	Manhattan, Riley.
Chestér Francis Turner,	Manhattan, Riley.
Roy Valentine,	Manhattan, Riley.
Blanche Vanderlip,	Manhattan, Riley.
Harriet Emily VanEveren,	Manhattan, Riley.
Ray Vansell,	Muscotah, Atchison.
Clarence Dudley Vawter,	Topeka, Shawnee.
Guy Manley Veburg,	Ottawa, Franklin.
Zola Walton,	Geneseo, Rice.
Lloyd E. Warner,	Fairview, Brown.
Clarence Shont Watson,	Pittsburg, Crawford.
Edgar Westover,	Brownell, Ness.
Andrew Jefferson Wheeler,	Tyro, Montgomery.
Clarence Wheeler,	Jefferson, Montgomery.
Glenn B. Wheeler,	Logan, Phillips.
Helen Wheeler,	Logan, Phillips.
Leonard Churchill Wheeler,	Manhattan, Riley.
Ethel Whipple,	Longford, Clay.
Glenn Edwin Whipple,	Olivet, Osage.
John Leroy Whipple,	Longford, Clay.
Bessie May White,	Manhattan, Riley.
Lantz Merrill Whitford,	Kansas City, Wyandotte.
Willard Ames Whitney,	Manhattan, Riley.
Henry George Wierenga,	Cawker City, (Jewell).
William H. Wight,	Antelope, Marion.
Clyde Douglas Williams,	Williamsburg, Franklin.
Jennie Williams,	Meriden, Jefferson.
Raymond Williams,	Newton, Harvey.
Edna Leona Willis,	Manhattan, Riley.
Lloyd D. Willis,	Manhattan, Riley.
Lura Williston,	Manhattan, Riley.
Esther S. Wilson,	Manhattan, Riley.
John Thomas Wilson,	Winfield, Cowley.
Amelia Margaret Winter,	Manhattan, Riley.
Leslie B. Wise,	Clearwater, Sedgwick.

Name.	Post-office and county (or state).
Joseph Roy Witmer,	Baileyville, Nemaha.
Clara Mary Woestemeyer,	Bethel, Wyandotte.
Nellie Lunette Wreath,	Manhattan, (Pottawatomie)
Kirby K. Wyatt,	Highland, Doniphan.
Charles L. Zoller,	Kirwin, Phillips.

SUB-FRESHMEN.

Elizabeth Aberle,	Manhattan, Riley.
Nellie Aberle,	Manhattan, Riley.
William Monroe Ablard,	Delphos, Ottawa.
Effie Adams,	Ozawkie, Jefferson.
Nora Ann Addington,	Abilene, Dickinson.
Zora Alice Addington,	Fay, Russell.
Roy E. Alexander,	Bucklin, Ford.
Ida Florence Alspaugh,	Lincolnville, Marion.
Frances May Anderson,	Hartford, (Coffey).
Fred Anderson,	Salina, Saline.
John H. Anderson,	Lebanon, Smith.
Frances Ayars,	Keats, Riley.
Emery Babb,	Wakefield, Clay.
Ruth Babb,	Wakefield, Clay.
Ray Cecil Baird,	Manhattan, Riley.
Arthur Baker,	Solomon Rapids, Mitchell.
Earl Franklin Baker,	Arkansas City, Cowley.
Nellie M. Baker,	Marvin, Phillips.
Orville L. Baker,	Manhattan, Riley.
Thomas Thompson Baker,	Peabody, Marion.
Marian Emily Balderson,	Louisville, Pottawatomie.
Inez Balfour,	Ford, Ford.
Clyde Banker,	Russell, Russell.
George Earnest Bartholomees,	Kansas City, *Missouri.*
Ellen Margaret Batchelor,	Manhattan, Riley.
Albert Jewell Bates,	Topeka, Shawnee.
Benjamin Franklin Bayles,	Manhattan, Riley.
Myrtle Ruth Bayles,	Manhattan, Riley.
Pearl Beaman,	Hopewell, Pratt.
Joe L. Bear,	Jefferson, Montgomery.
Osa Beeler,	Mankato, Jewell.
William Thomas Bell,	Oskaloosa, Jefferson.
Mina Bellomy,	Manhattan, Riley.
Arthur Randall Bentley,	Valhalla, Gove.
Hanna Berg,	Mankato, Jewell.
Arthur M. Berkey,	Manhattan, Riley.
Gilbert W. Berry,	Lancaster, Atchison.
Harry Beuoy,	Elmont, Shawnee.
Lydia Beverly,	Sylvan Grove, Lincoln.
George Edward Bircher,	Cairo, Pratt.
Irene Black,	Waterville, Marshall.
James I. Blackwood,	Idana, Clay.
Lena Francise Blackwood,	Idana, Clay.
Rena Ellen Blackwood,	Idana, Clay.
Earl Milton Blake,	Ulysses, Grant.
Delia C. Blanchard,	Marysville, Marshall.
David George Blattner,	Jetmore, Hodgeman.
Ernest Boettcher,	Winkler, Riley.
Jacob Bohen,	Hope, Dickinson.
James Burns Bond,	Bala, Riley.
Paul Harbert Boone,	Lenexa, Johnson.
David Wesley Bowers,	Centropolis, Franklin.
William Irvin Bowman,	DuBois, *Pennsylvania.*
Wilson Porter Boyd,	Manhattan, Riley.

Name.	Post-office and county (or state).
Everard H. Boyle,	Kansas City, Wyandotte.
Floyd Bozarth,	Lenora, Norton.
James Bradley,	Niles, Ottawa.
Lola Edna Brethour,	Green, Riley.
Miles Harley Brewer,	Burlingame, Osage.
Albert Bricker,	Rantoul, Franklin.
Clarence V. Broberg,	Vesper, Lincoln.
Harrison Broberg,	Vesper, Lincoln.
Mabel M. Broberg,	Vesper, Lincoln.
Frank M. Brockway,	Wellsville, Miami.
Floyd T. Brooks,	Poe, Logan.
William Brooks,	Tescott, Ottawa.
Allott Brown,	Pratt, Pratt.
Ira E. Brown,	Sylvan Grove, Lincoln.
Roy John Brown,	Scottsville, Mitchell.
Fred Brunker,	Manhattan, Riley.
William Brunker,	Manhattan, Riley.
Walter August Buchheim,	Winkler, Riley.
Meta Evalina Buck,	Manhattan, Riley.
Claude William Burch,	Haviland, Kiowa.
Agnes Burke,	Belvue, Pottawatomie.
Emma Burke,	Dwight, Morris.
Hazel Burwell,	Jarbalo, Leavenworth.
Roy Butterfield,	Overbrook, Osage.
Alfred Vivian Byarlay,	Bala, Riley.
Alpha Vivia Byarlay,	Bala, Riley.
Joseph Lee Byram,	Cedar Point, Chase.
George Caldwell,	Oswego, Labette.
Julia Helen Caldwell,	Oswego, Labette.
Faith Calvin,	Wakefield, Clay.
Grace Calvin,	Wakefield, Clay.
Frank Griswold Campbell,	Manhattan, Riley.
George Lewis Campbell,	Bushong, Lyon.
Terrence Andrew Carson,	Ashton, Sumner.
Homer H. Carter,	Fulton, Bourbon.
Dwight Cavaness,	Chiles, Miami.
Ernest Chamberlin,	Ness City, Ness.
Earl K. Chambers,	Milford, Geary.
Grace H. Chapin,	Delphos, Ottawa.
Charles T. Chapman,	Riley, Riley.
L. Roy Chase,	Maitland, *Missouri.*
Chester Dillen Clark,	Asherville, Mitchell.
Ernest Herbert Clark,	Linn, Washington.
Lewis Milton Clark,	Rose, Woodson.
M. Bessie Clark,	Riley, Riley.
Stanley Clark,	Manhattan, Riley.
Walter Clark,	Kinsley, Edwards.
James Bertin Claywell,	Olsburg, Pottawatomie.
Walter Harvey Closson,	Manhattan, Riley.
Grover Coker,	Scott City, Scott.
Roy David Coleman,	Denison, Jackson.
C. P. Collins,	Eros, *Louisiana.*
Fred Augustus Cone,	Udall, (Sumner).
Ray F. Cooper,	Wichita, Sedgwick.
George D. Cox,	Cummings, Atchison.
George Henry Cox,	Hays, Ellis.
Merton Cozine,	Linn, Washington.
Rexford B. Cragg,	Padonia, Brown.
George Samuel Croyle,	New Cambria, Saline.
Virgil Cunningham,	Manhattan, Riley.
Petrea Christina Dam,	Marysville, Marshall.
Alethea Gertrude Davis,	Blaine, Pottawatomie.

Name.	Post-office and county (or state).
Floyd Ivan Davis,	Cave, Gray.
Gladys Davis,	Riley, Riley.
Roy Ira Davis,	Plevna, Reno.
Fred Perry Day,	Allen, Lyon.
Callie E. Debus,	Jewell, Jewell.
Lena S. DeSelm,	Manhattan, Riley.
Rena L. DeSelm,	Manhattan, Riley.
John S. Dhority,	Greenleaf, Washington.
Victor Pearl Dixon,	Manhattan, Riley.
Lenora Kathryn Doane,	Manhattan, Riley.
Thomas C. Dodd, jr.,	Linn, Washington.
Ada Dodge,	Stockdale, Riley.
Dan V. Dodge,	Manhattan, Riley.
Urfa A. Domsch,	Galva, McPherson.
Paul Girard Donnel,	Auburn, Shawnee.
Myrtle Douglas,	Ingalls, Gray.
Charles Douglass,	Pierceville, Finney.
J. Mary Dow,	Manhattan, Riley.
Florence Drake,	Zion City, *Illinois.*
Lulu Irene Drake,	Manhattan, Riley.
Homer Drum,	Waverly, Coffey.
Vera Belle Dugger,	Morganville, Clay.
Howard M. Dukelow,	Hutchinson, Reno.
Goldie Georgie Eagles,	Assaria, Saline.
Robert Eberhardt,	Maplehill, Wabaunsee.
John D. Ebert,	Kinsley, Edwards.
Charles E. Eckles,	Eskridge, Wabaunsee.
Mary Belle Edelblute,	Keats, Riley.
Frank Elliott,	Anthony, Harper.
James Cyrus Ryan Elliott,	Linn, Washington.
Glen Elsworth Englehardt,	Hiawatha, Brown.
Floyd Oliver Ergenbright,	Independence, Montgomery.
Zilphia Essmiller,	Great Bend, Barton.
Ned Bluford Estes,	Stafford, Stafford.
Osier Verne Estes,	Manhattan, Riley.
Ada Elizabeth Evans,	Manhattan, Riley.
Berkeley Evans,	Coffeyville, Montgomery.
Grace Evans,	Manhattan, Riley.
Lizzie Fanska,	Americus, Lyon.
Henry Faris,	Denison, Jackson.
Herman G. Feitz,	Hays, Ellis.
Lloyd Lester Ferguson,	Manhattan, Riley.
Wallace Marine Ferguson,	St. Marys, (Jackson).
Roland I. Ferrell,	Utica, Ness.
Cornelius J. Fields,	Larned, Pawnee.
Fritz Florell,	Kackley, Republic.
Victor Florell,	Jamestown, Republic.
Lydia C. Fowler,	Ozawkie, Jefferson.
Ralph Waldo Fox,	Westmoreland, Pottawatomie.
Charles Walter Frank,	Manhattan, Riley.
George Walter Frey,	Mankato, Jewell.
John Funderburgh,	Morrill, Brown.
Alice Maude Gaden,	Riley, Riley.
Roy D. Gates,	Asherville, Mitchell.
Harley Wakefield Gatlin,	Topeka, Shawnee.
Roy I. Gentry,	Minneapolis, Ottawa.
Russell George,	Lebo, Coffey.
Thomas Gideon,	Havensville, Pottawatomie.
Albert Gieseman,	Idana, Clay.
J. Scott Gilleece,	Mayetta, Jackson.
Naomi Gish,	Abilene, Dickinson.
William H. Glaskin, jr.,	Plattsburg, *Missouri.*

Name.	Post-office and county (or state).
Ina May Glick,	Manhattan, Riley.
Ray F. Glick,	Summerfield, Marshall.
Walter William Goddard,	Minneapolis, Ottawa.
John H. Goheen,	Manhattan, Riley.
Andrew Goldsmith,	Abilene, Dickinson.
Howard Good,	Cimarron, Gray.
Maude Carrie Gossett,	Belpre, Edwards.
Della Gould,	Jamestown, Cloud.
Edna Jane Grandfield,	Wichita, Sedgwick.
Edwin Harrison Grandfield,	Wichita, Sedgwick.
Vernon L. Grant,	Emporia, Lyon.
Marcus F. Gray,	Woodsdale, Stevens.
Preston Graybill,	Hutchinson, Reno.
Blanche Griffee,	Marysville, Marshall.
Fred E. Groves,	Edwardsville, Wyandotte.
Roy Clarence Guldner,	Frederic, Rice.
Ralph Valentine Gulick,	Hutchinson, Reno.
Merle I. Gwin,	Morrowville, Washington.
Roy E. Gwin,	Morrowville, Washington.
Joseph Haden,	Clay Center, Clay.
Asa B. Hagans,	Utica, (Lane).
Frank L. Hager,	Stafford, Stafford.
Sidney Hagge,	Pleasanton, Linn.
Anton Leadue Haggman,	Kackley, Republic.
Nellie Hale,	Woodston, Rooks.
Abbie B. Hall,	St. John, Stafford.
George Davis Hamer,	Howard, Elk.
Aaron L. Hammond,	North Topeka, Shawnee.
Grace Lorena Hammond,	Manhattan, Riley.
Mabel Rea Hammond,	Manhattan, Riley.
Joseph Mike Hanser,	Lenexa, Johnson.
Henry H. Harbecke,	Whiting, Jackson.
Estel Arthur Harcourt,	Rock, Cowley.
Roy Harder,	Zenda, Kingman.
James Franklin Harris,	Cheney, Kingman.
Richard Harris,	Manhattan, Riley.
Estella Rosetta Harrison,	Manhattan, Riley.
James D. Harrod,	Stockholm, Wallace.
Raymond Hartman,	Summerfield, Marshall.
John Hartwell,	Tipton, *Iowa.*
Leota Estella Headington,	Manhattan, Riley.
Ledru R. Healy,	Manhattan, Riley.
Fred Heim,	Baldwin, Douglas.
Alfred T. Heinig,	Wichita, Sedgwick.
Charles Hennon,	Morrowville, Washington.
Mida Amelia Henry,	Washington, Washington.
Thomas Elliot Henry,	Meade, Meade.
Walter Andrew Hepler,	Manhattan, Riley.
Bertha Hewson,	Larned, Pawnee.
Charles William Hickok,	Ulysses, Grant.
Mary Elizabeth Hickok,	Ulysses, Grant.
Nellie Marguerite Hickok,	Ulysses, Grant.
Hazel Juanita Hoke,	Manhattan, Riley.
Clarence Hole,	Manhattan, Riley.
Lula Belle Holeman,	Abilene, Dickinson.
Zoa M. Hollopeter,	Ford, Ford.
Matthew Holte,	Barnes, Washington.
William B. Honska,	Lost Springs, Marion.
Clara D. Hooper,	Junction City, Geary.
William Harrison Hopp,	Wamego, (Wabaunsee).
Arthur Justus Hotte,	Manhattan, Riley.
Edgar Houk,	Americus, Lyon.

Name.	Post-office and county (or state).
Frank Howard,	Morrill, Brown.
Grace Pearl Howe,	Westmoreland, Pottawatomie.
Arthur B. Hungerford,	Manhattan, Riley.
Grace Hunt,	Clifton, (Clay).
Laura Belle Huse,	Manhattan, Riley.
Russ T. Hutchins,	Cawker City, Mitchell.
William Rufus Ice,	Cedar Point, Chase.
Irving Ingraham,	Manhattan, Riley.
(Mrs.) Florence Jeffries,	Manhattan, Riley.
Wilbur R. Jeffries,	Lawrence, Douglas.
Martin Vincent Jennings,	Lincoln, Lincoln.
Harrie L. Jennison,	Farnsworth, Lane.
Fern Jessup,	Merriam, Johnson.
Oliver Wheeler Jewett,	Dighton, Lane.
Albert E. Johnson,	Miltonvale, Cloud.
C. E. Arthur Johnson,	Healy, Gove.
Edward Hurd Johnson,	Manhattan, Riley.
Judith Johnson,	Axtell, Marshall.
Marie Johnson,	Wichita, Sedgwick.
Grover C. Jones,	La Harpe, Allen.
John George Jones,	Walnut, Crawford.
Mary Countiss Jones,	Manhattan, Riley.
Moyme Jones,	Alanthus, Gove.
Thomas Frederick Jones,	Topeka, Shawnee.
Oscar Martin Jorgenson,	Manhattan, Riley.
Charles Kabance,	Holton, Jackson.
Clarence Kaser,	Cedar Vale, Chautauqua.
Henry T. Kasl,	Concordia, Cloud.
Charles A. Keener,	Topeka, Shawnee.
Walter Sherman Keller,	Wellington, Sumner.
Elsie A. Kent,	Agenda, Republic.
Ray Kiene,	Valencia, Shawnee.
Clyde Kilner,	Olsburg, Pottawatomie.
Nellie L. King,	Lexington, Clark.
Roy William Kiser,	Geneseo, Rice.
Elmer Frederic Kittell,	Topeka, Shawnee.
Otto Kief Knoche,	Hays, Ellis.
Elgie A. Kubin,	McPherson, McPherson.
Charles F. Kuoni,	Marysville, Marshall.
William Henry Lacey,	St. Marys, (Jackson).
Ray Delbert Laflin,	Goff, Nemaha.
J. Ralph LaMont,	Longton, Elk.
Ray Forrest Lancaster,	Junction City, Geary.
Edward Larson,	Vesper, Lincoln.
Hilmer H. Laude,	Rose, Woodson.
Frank Baxter Lawton,	Newton, Harvey.
Elva M. Lindsay,	Grantville, Jefferson.
M. Eva Linn,	Otis, Rush.
Charles Thomas Little,	Muscotah, Atchison.
Walter Loch,	Summerfield, Marshall.
Hulda Lundeen,	McPherson, McPherson.
Levi L. Lundholm,	Osage City, (Lyon).
Nile McCallum,	Kansas City, Wyandotte.
Mary Catherine McCawley,	Hollenberg, Washington.
James Fred McClure,	Summerfield, Marshall.
Leonard McColm,	Cherokee, Crawford.
Zara Harmon McDonnall,	Goff, Nemaha.
Bert J. McFadden,	Stafford, Stafford.
J. L. McFadden,	Riverside, Ness.
John Francis McKelvey,	Atchison, Atchison.
Blanche McLain,	Manhattan, Riley.
Claude Madison,	Manhattan, Riley.

Name.	Post-office and county (or state).
Bertha Margaret Magers,	Whiting, Jackson.
Arthur J. Mahon,	Clyde, Cloud.
Daniel G. Mahon,	Clyde, Cloud.
Webber Malcolm,	Oakhill, Clay.
Grover C. Mangan,	Garden City, Finney.
Asa R. Mann,	Wathena, Doniphan.
Maude Mannen,	Lincoln, Lincoln.
VanVliet Manning,	Leavenworth, Leavenworth.
Charles Lockridge Mariner,	Bucyrus, Miami.
Joseph Francis Marron,	Ogden, Riley.
Gifford Leslie Marrs,	Arrington, Atchison.
Cora Marguerite Martin,	Ogden, Riley.
Elmer E. Martin,	Ottawa, Franklin.
Mary Louise Matthews,	Wichita, Sedgwick.
Amy Leota Maxwell,	Valley Falls, Jefferson.
George May,	New Cambria, Saline.
Fred Christian Maybach,	Great Bend, Barton.
Myrtle Clara Mayer,	Keats, Riley.
John H. Mayhew,	Belpre, Edwards.
Mary E. Mayhew,	Belpre, Edwards.
Edgar Clyde Meade,	Dexter, Cowley.
Ola B. Meade,	Dexter, Cowley.
Grover Meyer,	Basehor, Leavenworth.
Charles E. Miller,	Robinson, Brown.
Ella R. Miller,	Belvue, Pottawatomie.
Henry Miller,	Milford, Geary.
H. S. Bertrand Miller,	Sylvan Grove, Lincoln.
George M. Moore,	Manhattan, Riley.
William James Moore,	Wakarusa, Shawnee.
Dorr D. Morey,	Manhattan, Riley.
Leslie Earl Morris,	Sedgwick, Harvey.
Fred Morse,	Lebo, Coffey.
Robert Clay Moseley,	Alma, Wabaunsee.
Myra May Munger,	Manhattan, Riley.
Florence Estelle Needham,	Osawatomie, Miami.
Stephen D. Needham,	Rantoul, Franklin.
George F. Neill,	Manhattan, Riley.
Guy D. Nelson,	Circleville, Jackson.
Roy Nelson,	Deering, Montgomery.
Jessie E. Newland,	Bridgeport, Saline.
Floyd Bruce Nichols,	Buffalo, Woodson.
John Carlton Nichols,	Eureka, Greenwood.
James M. Nicholson,	Scranton, Osage.
Irl C. Nicolay,	Scranton, Osage.
J. Arthur Nicolay,	Scranton, Osage.
Josie E. Nicolay,	Scranton, Osage.
Katherine I. Nielson,	Marysville, Marshall.
Guy E. Niemyer,	Baker, Brown.
Nellie Florence Nixon,	Manhattan, Riley.
William Franklin Noble,	St. John, Stafford.
Harry M. Noel,	Valencia, Shawnee.
Ella Nolan,	Lanham, (Washington).
Johanna M. L. Nolan,	Lanham, (Washington).
Maude Eveline Nonamaker,	Osborne, Osborne.
Oscar Marion Norby,	Cullison, Pratt.
Eleanor Marie Nygard,	Vesper, Lincoln.
Harold Dale O'Brien,	Luray, Russell.
Earl O'Connell,	Kiowa, Barber.
Bernt B. Olsen,*	Baker, Brown.
Dora Marie Otto,	Riley, Riley.
William Charles Pacey,	Miltonvale, Cloud.

* Deceased.

Name.	Post-office and county (or state).
Benjamin H. Painter,	Beverly, Lincoln.
Floyd Blanchard Park,	Idana, Clay.
John W. Parsons,	Sylvan Grove, Lincoln.
Mell Patterson,	Oskaloosa, Jefferson.
Milton Leroy Pearson,	Cawker City, Mitchell.
Blanche Peck,	Tecumseh, Shawnee.
Clarence Covell Peck,	Wellington, Sumner.
George Perry,	Nashville, Kingman.
Clara E. M. Peters,	Washington, Washington.
Claude Harold Peterson,	La Harpe, Allen.
Ernest William Peterson,	La Harpe, Allen.
Kenneth Petty,	Morganville, Clay.
Ralph William Phenicie,	Reno, Leavenworth.
William Loyd Pine,	Spearville, Ford.
Homer Pipher,	Oskaloosa, Jefferson.
Forrest Mark Platt,	Manhattan, Riley.
Lucy W. Platt,	Ætna, Barber.
Roy Wade Poage,	Kackley, Republic.
Frank Glendon Pollom,	North Topeka, Shawnee.
Ray Hamlin Pollom,	North Topeka, Shawnee.
Stanford Delos Pomeroy,	Phillipsburg, Phillips.
Marion Poorman,	Arlington, Reno.
Thomas B. Porter,	Richfield, Morton.
Harry E. Potter,	Norwich, Kingman.
Clifford H. Powers,	Junction City, Geary.
Harry Cassell Priddy,	Elmont, Shawnee.
Aaron Purdy,	Arkansas City, Cowley.
Grace Ruth Purdy,	Arkansas City, Cowley.
Walter Purkey,	Hoyt, Jackson.
Samuel Wesley Pyke,	Detroit, Dickinson.
Clara Edith Quigley,	Blaine, Pottawatomie.
Olga Raemer,	Herkimer, Marshall.
Ralph Raymond Rankin,	Idana, Clay.
Louie Read,	Winfield, Cowley.
Carl H. Reed,	Centralia, Nemaha.
Edith Mary Reed,	Seward, Stafford.
William L. Rees,	Emporia, Lyon.
Raymond Rexroad,	Darlow, Reno.
Harry R. Richardson,	Moline, Elk.
Guy Dent Richey,	Emporia, Lyon.
Ralph Ritter,	Spearville, Ford.
Roy Ritter,	Spearville, Ford.
Marl M. Robbins,	El Dorado, Butler.
Homer Burnette Roberts,	Wellington, Sumner.
Lindsay Harlow Rochat,	Helmick, Morris.
(Mrs.) Luella White Rockwell,	Dwight, Morris.
Mary Rodgers,	Manhattan, Riley.
Harvey Roots,	Seneca, Nemaha.
Fred Ruffner,	Beloit, Mitchell.
Albert Wilson Rymph,	Harper, Harper.
Lillie May Sage,	Willard, Shawnee.
Minnie Pearl Sanderson,	Marysville, Marshall.
Stuart Savage,	Manhattan, Riley.
Otis Schaper,	Mulvane, Sumner.
Manuel Schimkowitsch,	Voda, Trego.
Elsie Helen Schmidler,	Marysville, Marshall.
Lloyd Eugene Seaman,	Kansas City, Wyandotte.
G. Elmer Seeber,	Manhattan, Riley.
Merle Duane Serrot,	Winfield, Cowley.
Ben F. Shambaugh,	Le Roy, Coffey.
William H. Shank,	Salina, Saline.
Orval Shelton,	Galatia, Barton.

Name.	Post-office and county (or state).
Etta Sherwood,	Manhattan, Riley.
Virgie Sherwood,	Manhattan, Riley.
Carrie Marietta Shumway,	Manhattan, Riley.
Edward Leon Sikes,	Leonardville, Riley.
Lewis Anthony Sikes,	Leonardville, Riley.
Albert C. Sills,	Manhattan, Riley.
John Slabach, jr.,	Conway, McPherson.
John Andrew Sleeth,	Cedar Vale, Chautauqua.
Clara Joyce Smith,	Norton, Norton.
Harry C. Smith,	Manhattan, Riley.
Ben Harrison Snodgrass,	Little River, Rice.
Ronald Snyder,	Cawker City, Mitchell.
Frank Sherwood Southwick,	Topeka, Shawnee.
Clyde Wilbur Speer,	Wichita, Sedgwick.
Mabel Irene Spencer,	Lecompton, Douglas.
Robert Thomas Spriggs,	Westphalia, Anderson.
Harry Austin Stanton,	Washington, Washington.
Stutely Henry Stark,	Ozawkie, Jefferson.
Nettie Startup,	Rossville, Shawnee.
Lottie Geneva Stephenson,	Clements, Chase.
Iva Stewart,	Sylvan Grove, Lincoln.
Delia Stoddard,	Manhattan, Riley.
Philip Streeter,	Muscotah, Atchison.
Wilbur M. Strong,	Goddard, Sedgwick.
Jerry P. Sullivan,	Ulysses, Grant.
Harry Oscar Sutcliff,	Mankato, Jewell.
Ben F. Sweet,	Manhattan, Riley.
Leonhardt Swingle,	Manhattan, Riley.
Orton Lemont Talbott,	McPherson, McPherson.
Clarence Talley,	Overbrook, Osage.
Cassie Lydia Tanner,	Manhattan, Riley.
Dorothy Taylor,	Independence, Montgomery.
John Calvin Taylor,	Zenith, Stafford.
Ralph C. Taylor,	Great Bend, Barton.
Clyde F. Teagarden,	Wayne, Republic.
James Andrew Thompson,	Greenleaf, Washington.
Rudolph Wren Thompson,	Lakin, Kearny.
Walter Edwin Tomson,	Topeka, Shawnee.
Laura Allen Toothaker,	Blaine, Pottawatomie.
Marianna Toothaker,	Blaine, Pottawatomie.
Tom K. Toothaker,	Blaine, Pottawatomie.
Carl Harris Torrence,	Reading, Lyon.
Raymond G. Trexler,	Bucklin, Ford.
Vernon Roland Trexler,	Bucklin, Ford.
Forrest Barrett Trull,	Hiawatha, Brown.
Otho C. Tucker,	Salina, Saline.
James Austin Tuggle,	Powhattan, Brown.
Alberlina Tulloss,	Ottawa, Franklin.
Mamie O. Turley,	Stafford, Stafford.
Floyd C. Turner,	Lincoln, Lincoln.
Fred B. Turner,	Frederic, Rice.
Duggy A. J. Tyler,	Haven, Reno.
Arthur Unruh,	Pawnee Rock, Barton.
Joe Vale,	Webber, Jewell.
Emma V. Valentine,	Manhattan, Riley.
Harry Vanderlip,	Manhattan, Riley.
Milton J. Wagner,	Fort Dodge, Ford.
Thurman Solen Walker,	Valley Falls, Jefferson.
Frederick W. Waller,	Maize, Sedgwick.
Bert Walter,	Lecompton, Douglas.
Walter Gilling Ward,	Bird City, Cheyenne.
Harold Warner,	Arlington, Reno.

Name.	Post-office and county (or state).
John Webster,	Carneiro, Ellsworth.
Lillian M. Wendt,	Elmo, Dickinson.
Frank J. Wenkheimer,	Belpre, (Pawnee).
James West,	Rydal, Republic.
Florence R. Whipple,	Longford, Clay.
Dyson W. White,	Kansas City, Wyandotte.
Jacob Whitfield,	Wabaunsee, Wabaunsee.
A. Homer Whitney,	Narka, Republic.
Asaph Whitney,	Manhattan, Riley.
Raymond Whitney,	Manhattan, Riley.
Frank Williams,	Hull, Marshall.
Fredric C. Williams,	Hull, Marshall.
Owen E. H. P. Williams,	Manhattan, Riley.
Roy Williams,	Elk Falls, Elk.
Harry E. Williamson,	Manhattan, Riley.
Elmer W. Wilson,	Turner, Wyandotte.
John Andrew Witmer,	Baileyville, Nemaha.
Agnes Woestemeyer,	Bethel, Wyandotte.
Leta Wood,	Lahoma, *Oklahoma.*
(Mrs.) Stella Woodsum,	Manhattan, Riley.
Oscar York,	Dunlap, Morris.
Carrie Youngs,	Little River, Rice.
Squire Boone Zane,	Protection, Comanche.
Bertha Margaret Zeller,	Keats, Riley.

PREPARATORY.

H. Craig Alexander,	Medicine Lodge, Barber.
Ernest Horace Austin,	Madison, Greenwood.
George H. Baird,	Valencia, Shawnee.
Malvina Maude Baldridge,	Manhattan, Riley.
William Roland Bankson,	Park, Sheridan.
Carl Arthur Banta,	Topeka, Shawnee.
Harry Barbour,	Deering, Montgomery.
Earl Baughn,	Cedron, Lincoln.
John Bayles,	Manhattan, Riley.
Francis L. Bein,	Kansas City, *Missouri.*
Joe F. Beland,	Concordia, Cloud.
James Attison Bell,	Ackerland, Leavenworth.
Gertrude Grace Bentley,	Pendennis, Lane.
Otis A. Benton,	Grainfield, Gove.
Edna Almeda Berg,	Cleburne, Riley.
Lonnie Bills,	Crescent, Kiowa.
Charles Albe Bixby,	Manhattan, Riley.
Thomas Blackwood,	Idana, Clay.
Charles W. Boatright,	Norwich, Kingman.
William High Bond,	Manhattan, Riley.
Charles Boyd,	Conway Springs, Sumner.
F. Wilbur Burkhard,	Trinidad, *Colorado.*
Earnest Chenoweth,	Belpre, Edwards.
John Henry Chenoweth,	Belpre, Edwards.
John Cleveland,	Milford, Geary.
Blanche M. Collister,	Manhattan, Riley.
Ella Cook,	Eskridge, Wabaunsee.
Horace Edward Cormack,	Solomon, Dickinson.
Merritt Linscott Curtis,	Spearville, (Hodgeman).
Jennie Singleton Davis,	Zeandale, Riley.
Milo Deweese,	Miltonvale, Cloud.
Dora Douglass,	Athol, Smith.
Clyde L. Dull,	Washington, Washington.
James Lee Dutton,	Concordia, Cloud.
Henry Theodore Engelke,	Tecumseh, Shawnee.

Name.	Post-office and county (or state).
Ralph Gerald Erbentraut,	Minneapolis, Ottawa.
Noll Rufus Estes,	Stafford, Stafford.
David Evans,	Lebo, Coffey.
Joe A. Feitz,	Hays, Ellis.
George Fincham,	Pratt, Pratt.
William Homer Flick,	Larned, Pawnee.
William Booker Flint,	Girard, Crawford.
Joseph Henry Fowler,	Ozawkie, Jefferson.
Carrie M. Gates,	Asherville, Mitchell.
Clifford H. George,	Downs, Osborne.
Samuel Gibbs,	Manchester, Clay.
Loren Earl Gibson,	Denison, Jackson.
Liberty Earnest Gingery,	Haddam, Washington.
Otto H. Goellert,	Colby, Thomas.
Claude Harpster,	Valley Center, Sedgwick.
Courtney Harris,	Great Bend, Barton.
James K. Harris,	Great Bend, Barton.
LeRoy Dunton Hawkes,	Banner, Trego.
Stella Helvern,	Russell Springs, Logan.
Lester H. Higginbottom,	Parsons, Labette.
Mamie Ihde,	Hope, Dickinson.
Mary Cassandra Jeffries,	Manhattan, Riley.
Emil Julius Johnson,	Axtell, Marshall.
Jesse R. Johnson,	Maplehill, Wabaunsee.
Selma A. Johnson,	Axtell, Marshall.
William Kelly,	Rydal, Republic.
Charles Clarence King,	Lexington, Clark.
Lee Lake,	Formoso, Jewell.
Roy Laswell,	St. Clere, Pottawatomie.
Elizabeth Lewis,	Riley, Riley.
Charles Harrison Lightner,	Kinsley, Edwards.
William Roy Linton,	Mayetta, Jackson.
Winfred E. Littleton,	Dexter, Cowley.
Thomas A. Lowe,	Liberal, Seward.
Willby McAhren,	Caven, Pratt.
Hugh McCleary,	Linn, Washington.
Lovin Mack,	Soldier, Jackson.
Stella Viola Marvin,	Manhattan, Riley.
Sidney V. Mayberry,	Manhattan, Riley.
Leonard Brooks Mayer,	Newton, Harvey.
Otto Meckenstock,	Clyde, Cloud.
Leroy Meek,	Grenola, Elk.
William Wesley Mellott,	Barnes, Washington.
Benjamin M. Mersereau,	Kalvesta, Finney.
Ethel Clara Miller,	Morganville, Clay.
Bert Ross Mills,	Burden, Cowley.
Arthur Mogge,	Alma, Wabaunsee.
Ralph A. Morton,	Cawker City, Mitchell.
Frank Clayton Mower,	Mankato, Jewell.
Lloyd Nicolay,	Scranton, Osage.
Roy W. Nixon,	Manhattan, Riley.
Ben Oldweiler,	Mayetta, Jackson.
Arnold Harney Ott,	Valley Falls, Jefferson.
Ray Morrow Page,	Salina, Saline.
Albert Paquette,	Miltonvale, Cloud.
Barney Ralph Parker,	Abilene, Dickinson.
Lester L. Parrish,	Peabody, Marion.
Grace Parsons,	Minneapolis, Ottawa.
Mabel Pearson,	Clifton, Washington.
Frank Perry,	Wabaunsee, Wabaunsee.
Martin Peterson,	Manhattan, Riley.
Ed Pickenpaugh,	Phillipsburg, Phillips.

Name.	Post-office and county (or state).
Guy G. Pingree,	Pomona, Franklin.
Bevie P. Platt,	Ætna, Barber.
Henrietta Caroline Price,	Ada, Ottawa.
Ralph Hogan Price,	Valley Falls, (Atchison).
James Andrew Pringle,	Eskridge, Wabaunsee.
Nellie Reed,	Havensville, Pottawatomie.
John A. Rempel,	Hillsboro, Marion.
Walter S. Robinson,	Nashville, Kingman.
Thomas Hayden Ruble,	Bradford, Wabaunsee.
Ben Sanneman,	Clay Center, Clay.
Harry Sanneman,	Blue Rapids, Marshall.
Joe Sanneman,	Blue Rapids, Marshall.
Mary H. Sanneman,	Blue Rapids, Marshall.
Otto Schild,	Gerardy, Washington.
Earl Scidmore,	Tescott, Ottawa.
Perley K. Seaton,	St. Clere, Pottawatomie.
Cecil Marvin Severns,	Williamsburg, Franklin.
Clyde M. Shaw,	Concordia, Cloud.
William Crane Sherman,	Kansas City, *Missouri.*
Charles David B. S. Smelser,	Linwood, Leavenworth.
Charles Joseph Smith,	Childress, *Texas.*
Mary Alice Smith,	Manhattan, Riley.
Walter Gillette Smith,	Manhattan, Riley.
David Harold Snowden,	Sterling, Rice.
Jesse Otis Spray,	Moline, Elk.
James Frank Stack,	Manhattan, Riley.
George Stout,	Burden, Cowley.
Guy E. Sturdy,	Bradford, Wabaunsee.
Thomas Leonard Sturtevant,	Formoso, Jewell.
Chrisie Sumpter,	Rossville, (Jackson).
Ivie Ann Taylor,	Mineral Spring, *Missouri.*
Oscar M. Taylor,	Mineral Spring, *Missouri.*
Richard Taylor,	Great Bend, Barton.
Calvin Irving Tichenor,	Manchester, Dickinson.
Tonnes Torkelson,	Everest, Brown.
Herman C. Trautwein,	Green, Clay.
John R. Travis,	Pratt, Pratt.
John Isaac Vale,	Webber, Jewell.
John McBrayer Walker,	Coffeyville, Montgomery.
Arthur William Walters,	Yates Center, Woodson.
Amos Waugh,	Webber, Jewell.
Andrew Wear,	Barnard, Lincoln.
Harvey Westlake,	Onaga, Pottawatomie.
Roy R. Wiard,	Keats, Riley.
Bennie Wyman,	Arlington, Reno.
Clay Collins Zollars,	Manhattan, Riley.
Charles Albert Zook,	Larned, Pawnee.

SPECIAL STUDENTS.

Hilma Louise Anderson,	Olsburg, Pottawatomie.
A. Cecilia Augspurger,	Manhattan, Riley.
Julia Baker,	Cherryvale, Montgomery.
George Henry Berenzen,	De Soto, Johnson.
Worthy ValJean Biddison,	Manhattan, Riley.
Edwin M. Cook,	Effingham, Atchison.
Luther L. Dougan,	Manhattan, Riley.
Gertrude Eakin,	Manhattan, Riley.
Esther E. Ericson,	Manhattan, Riley.
Mary Alice Evans,	Colby, Thomas.
Amy Farney,	Kansas City, *Missouri.*
Mary G. Fisher,	Manhattan, Riley.

Name.	Post-office and county (or state).
Florence Forest,	Thayer, Neosho.
Charlaine Furley,	Wichita, Sedgwick.
Jay Pearl Germain,	Phillipsburg, Phillips.
Richard Gleed,	Lawrence, Douglas.
Lloyd McConnell Graham,	Topeka, Shawnee.
Clara Harri,	Manhattan, Riley.
Elizabeth C. Harri,	Brookville, Saline.
Thomas Haslam,	Council Grove, Morris.
Geneva L. Henderson,	Topeka, Shawnee.
Hespera Hougham,	Manhattan, Riley.
Myra Jerome,	Kansas City, Wyandotte.
Mamie W. Johnson,	Macksville, Stafford.
Lillean Kendrick,	Leavenworth, Leavenworth.
Robert J. Mackey,	Topeka, Shawnee.
Sallie Luella Mumaw,	Onaga, Pottawatomie.
Heber Orla Munger,	Manhattan, Riley.
Mathilde Neuenschwander,	Banner, Trego.
Alice E. O'Brien,	Manhattan, Riley.
Mabel Lovina Oesterhaus,	Junction City, Geary.
Margaret Alice (Norton) Parsons,	Manhattan, Riley.
Beulah Pitman,	Manhattan, Riley.
Leland M. Post,	Norton, Norton.
Marjorie Beryl Rickman,	Manhattan, Riley.
Jesse E. Rodkey,	Blue Rapids, Marshall.
Guy Ryan,	McCracken, Rush.
John F. Sanders,	Manhattan, Riley.
Myrtle Simpson,	Talmage, Dickinson.
David Baker Smith,	Topeka, Shawnee.
Ruth Anna Smith,	Manhattan, Riley.
Frank Jacob Spuhler,	Manhattan, Riley.
Elvis Thaddeus Summitt,	Wichita, Sedgwick.
Clyde A. Taylor,	Kansas City, Wyandotte.
Walter C. Taylor,	Long Island, Phillips.
Petra C. Wahlgreen,	Manhattan, Riley.
Frank Giles West,	Silverlake, Shawnee.
Clifford C. Young,	Manhattan, Riley.

DAIRY SHORT COURSE.

William I. Bowman,	Manhattan, Riley.
F. Wilbur Burkhard,	Trinidad, *Colorado.*
Louis L. Cobb,	Manhattan, Riley.
Lloyd R. Cobb,	Manhattan, Riley.
Floyd Dixon,	Manhattan, Riley.
Emmett Emslie,	Manhattan, Riley.
Glen Westly French,	Manhattan, Riley.
Roy R. Graves,	Kansas City, Wyandotte.
Roy Clarence Guldner,	Frederic, Rice.
Anton Leadue Haggman,	Kackley, Republic.
Vernon Halstrom,	Vliets, Marshall.
Ernest E. Hawke,	Wakarusa, Shawnee.
Charles Holbrook,	Valley Falls, Jefferson.
Archie Edward Immenschuh,	Manhattan, Riley.
James Jeffrey Orr,	Manhattan, Riley.
Scott W. Overfield,	Baker, Brown.
Benjamin H. Painter,	Beverly, Lincoln.
Harry Leslie Ridenour,	Manhattan, Riley.
Edwin Carl Rockwell,	Dwight, Morris.
Lester Emmett Salkeld,	Manhattan, Riley.
Robert C. Seaton,	St. Clere, Pottawatomie.
Marcus Theodore Talley,	Overbrook, Osage.
Harry E. Williamson,	Manhattan, Riley.

FARMERS' SHORT COURSE—SECOND TERM.

Name.	Post-office and county (or state).
Thomas Thompson Baker,	Peabody, Marion.
John Barthold, jr.,	Partridge, Reno.
Charles Atwood Blackwelder,	Sawyer, Pratt.
Earl D. Blackwelder,	Sawyer, Pratt.
Mathias J. Bohen,	Dorrance, Russell.
Clarence V. Broberg,	Vesper, Lincoln.
Jesse C. Brown,	Cedron, Lincoln.
Clifford Lewis Buskirk,	Hutchinson, Reno.
Rolland Campbell,	Meriden, Jefferson.
Edwin M. Cook,	Effingham, Atchison.
John C. Emick,	Miltonvale, Cloud.
Peter Goeken,	Linn, Washington.
Herman A. Goff,	Arkansas City, Cowley.
Arthur W. Hewson,	Larned, Pawnee.
Hugh E. Hill,	Hope, Dickinson.
Homer James,	North Topeka, (Jefferson).
Emil J. Johnson,	Axtell, Marshall.
J. Ross Knappenberger,	Penalosa, Kingman.
Roy C. Knappenberger,	Penalosa, Kingman.
William Kroesch,	Lorraine, Ellsworth.
William Roy Linton,	Mayetta, Jackson.
Henry C. Lucas,	Frankfort, Marshall.
W. Henry McAninch,	Manhattan, (Pottawatomie)
Benjamin G. McCormick,	Augusta, Butler.
J. Jasper McCray,	Manhattan, Riley.
Robe E. McVicar,	Onaga, Pottawatomie.
Robert J. Mackey,	Topeka, Shawnee.
Ernest Richard Miller,	Sabetha, Nemaha.
Guy C. Miller,	Dighton, Lane.
Emmett Earl Page,	Bradford, Wabaunsee.
Charles Francis Park,	Miltonvale, Cloud.
Otto J. Pearson,	Assaria, Saline.
Axel Hugo Peterson,	St. Marys, Pottawatomie.
S. Clayton Phillips,	Walton, Harvey.
Holmes L. Rinehart,	Bernal, Reno.
John Ralph Rivenberg,	Peabody, Marion.
Walter S. Robinson,	Nashville, Kingman.
Ira B. Rundell,	Stafford, Stafford.

FARMERS' SHORT COURSE—FIRST TERM.

Fred Ansdell,	Jamestown, Cloud.
William John Armstrong,	Burlington, Coffey.
James F. Bain,	Bushong, Lyon.
George Smith Baker,	Council Grove, Morris.
George Thomas Baker,	Saxman, Rice.
Oscar Griffith Baker,	Lincoln, Lincoln.
Homer S. Banks,	Salina, Saline.
Harley M. Barber,	Atchison, Atchison.
George Earnest Bartholomees,	Kansas City, *Missouri.*
Ammie Alson Bowker,	St. John, Stafford.
James Leonard Boyce,	Hutchinson, Reno.
G. Selden Brockway,	Wellsville, Franklin.
Allott Brown,	Pratt, Pratt.
Julius Richard Bubb,	Cummings, Atchison.
Nelson Buckles,	Otego, Jewell.
Glenn Buckman,	Conway, McPherson.
Perry Hood Burns,	Girard, Crawford.
George Walter Burr,	Salina, Saline.
J. B. Campbell,	Meriden, Jefferson.

Name.	Post-office and county (or state).
Samuel B. Carter,	Galena, Cherokee.
Paul Everett Cashatt,	Oskaloosa, Jefferson.
Carl Coleman,	Sylvia, Reno.
George D. Cox,	Cummings, Atchison.
George Henry Cox,	Hays, Ellis.
Clarence Arthur Crotts,	Turon, Reno.
Merritt Linscott Curtis,	Spearville, (Hodgeman).
Sigurd E. Dahlsten,	Lindsborg, McPherson.
John W. Danneberg,	Gaylord, Smith.
George Henry Dauron,	Cherokee, Crawford.
William K. Davies,	Fall River, Elk.
Manfred Earnest Denney,	Lexington, Clark.
Clyde L. Dull,	Washington, Washington.
Herbert Edmundson,	Dighton, Lane.
Ralph Gerald Erbentraut,	Minneapolis, Ottawa.
Everett W. Eustace,	Wakefield, Clay.
Berkeley Evans,	Coffeyville, Montgomery.
Robert Yantis Evans,	LaFontaine, Wilson.
Henry Faris,	Denison, Jackson.
Henry J. Farley,	Ætna, Barber.
Samuel A. Fields, jr.,	McPherson, McPherson.
Harold Fish,	Centerville, Linn.
L. H. Fish,	Centerville, Linn.
Harry P. Fisher,	McPherson, McPherson.
Eugene Fitts,	Cuba, Republic.
Fredric Leroy Fogwell,	Topeka, Shawnee.
Royale Cecil Fox,	Zenda, Kingman.
William James Gahan,	Manhattan, (Pottawatomie).
Raymond E. Gates,	Anthony, Harper.
Loren Earl Gibson,	Denison, Jackson.
William T. Goddard,	Lamar, Ottawa.
Nelson Griswold,	Marysville, Marshall.
Don Groom,	Wichita, Sedgwick.
Fred E. Groves,	Edwardsville, Wyandotte.
William F. Hall,	Powhattan, Brown.
Jesse Hamilton,	Soldier, Jackson.
Hans Peter Hansen,	Vesper, Lincoln.
Louis W. Hansen,	Greenleaf, Washington.
Joseph Henry Harris,	Madison, Greenwood.
Sylvester Haynes,	Nashville, Kingman.
George Clinton Heil,	Topeka, Shawnee.
Fred Hinck,	Burlingame, (Wabaunsee).
George Elmer Hineman,	Dighton, Lane.
Ralph M. Hoch,	Hartford, Lyon.
Charles Irenus Hoffhines,	Marquette, McPherson.
Eldon Elisha Hollister,	Sabetha, Nemaha.
Robinson Philip Horney,	Neodesha, Wilson.
Otto W. Hueppelheuser,	Marysville, Marshall.
Forrest Hummer,	Elmont, Shawnee.
Roy Jaggers,	Burlington, Coffey.
Charles P. Johnson,	Macksville, Stafford.
Thomas Frederick Jones,	Topeka, Shawnee.
Charles Kabance,	Holton, Jackson.
David Kaff,	Carbondale, Osage.
Harry Trowbridge Kelsey,	St. Joseph, *Missouri.*
Chester A. King,	Emporia, Lyon.
Charles Mervin Kiser,	Otego, Jewell.
Elmer Kiser,	Sedgwick, Harvey.
Emmanuel Kolarik,	Caldwell, Sumner.
George J. Kreth,	Onaga, Pottawatomie.
John M. Kubin,	McPherson, McPherson.

Name.	Post-office and county (or state).
Arza Samuel Lamoree,	Russell, Russell.
Clifford Lathrop,	Burns, Marion.
Clarence Bartram Law,	Hill City, Graham.
Ray Law,	Hill City, Graham.
Charles A. Leger,	Sharon Springs, Wallace.
Henry H. Levien,	Hanover, Washington.
Thomas L. Lewellen,	El Dorado, Butler.
Harry E. Lidikay,	Wellsville, Miami.
Charles James Lindsay,	Manhattan, Riley.
Benjamin John Lockhart,	Goff, Nemaha.
Albin Lundquist,	Lindsborg, McPherson.
Carey Samuel McConachie,	Ottawa, Franklin.
Harold D. Marcell,	Ottawa, Franklin.
Walter C. Matti,	Cottonwood Falls, Chase.
David Ray Miller,	Oxford, Sumner.
George Miller,	Solomon, Dickinson.
Arthur Mogge,	Alma, Wabaunsee.
Asa F. Moore,	Topeka, Shawnee.
Earle James Nelson,	Augusta, Butler.
Edwin Nelson,	Randolph, Riley.
James M. Nicholson,	Scranton, Osage.
Guy E. Niemyer,	Baker, Brown.
Frank Edward Norris,	Winkler, Riley.
Gunnard Olson,	Burlingame, Wabaunsee.
Floyd Blanchard Park,	Idana, Clay.
Blaine B. Phillips,	Waverly, Coffey.
Chester J. Porter,	Webber, Jewell.
William L. Rees,	Emporia, Lyon.
Ralph Glee Rexroad,	Darlow, Reno.
Guy Dent Richey,	Emporia, Lyon.
Andrew Riederer,	Holton, Jackson.
George A. Rinehart,	Arkansas City, Cowley.
Harley Robinson,	Great Bend, Stafford.
Ernest Ellsworth Russell,	Winfield, Cowley.
Henry Charles Seal,	Wakefield, Clay.
Herbert C. Seal,	Meriden, Jefferson.
Charles David B. S. Smelser,	Linwood, Leavenworth.
David Baker Smith,	Topeka, Shawnee.
Grover Smith,	Jameson, *Missouri.*
Don Victor Stephenson,	St. Marys, Pottawatomie.
Julien Strecker,	Russell, Russell.
Ernest Thiessen,	Solomon Rapids, Mitchell.
Walter C. Tichenor,	Manchester, Dickinson.
Tonnes Torkelson,	Everest, Brown.
Walter Benjamin Torrance,	Nashville, Kingman.
Dale A. Tucker,	Salina, Saline.
Edward Verna Walton,	Harveyville, Wabaunsee.
Ray Warner,	Longford, Clay.
Harry Milton Weil,	Overbrook, Osage.
H. C. Weiser,	Cheney, Sedgwick.
Thomas West,	Rydal, Republic.
John James White,	Ada, Ottawa.
Roy E. Whitlock,	Belvue, (Wabaunsee).
Arthur F. Wilke,	Troy, Doniphan.
Glenn Saville Wilkin,	Burlingame, Osage.
Frank Williams,	Hull, Marshall.
Owen E. H. P. Williams,	Manhattan, Riley.
Ansel W. Wright,	Wichita, Sedgwick.
Lynn Wright,	Hoxie, Sheridan.
Raymond Wright,	Winfield, Cowley.
Hiram Edward Wristen,	Dighton, Lane.

DOMESTIC SCIENCE SHORT COURSE—SECOND TERM.

Name.	Post-office and county (or state).
Clarinda Alexander,	Manhattan, Riley.
Rubie Darlow Alspach,	Axtell, Marshall.
Ida Florence Alspaugh,	Lincolnville, Marion.
Lieuthena Anderson,	Minneapolis, Ottawa.
Hilda Anstrum,	Osage City, Osage.
Myrtle Ashton,	Monroeville, *Ohio*.
Inez Irena Askew,	Plains, Seward.
Ellen Berkey,	Manhattan, Riley.
Minnie Britt,	Manhattan, Riley.
Lillie Emelia Carlson,	Manhattan, Riley.
Bessie Cole,	Manhattan, Riley.
Ebba V. Dahlstrom,	Olsburg, Pottawatomie.
Anna N. Day,	Allen, Lyon.
Anna D. Dodge,	Manhattan, Riley.
Mary Atelia Ekholm,	Inman, McPherson.
Bettie J. Extrand,	Green, Clay.
Selma Amelia Fager,	Osage, Lyon.
Florence Forest,	Thayer, Neosho.
Winifred Elizabeth Gahan,	Manhattan, (Pottawatomie).
Carrie M. Gates,	Asherville, Mitchell.
Ida Mae Groves,	Edwardsville, Wyandotte.
Ethel Haller,	Burlingame, Osage.
Nettie May Haller,	Burlingame, Osage.
Cecelia Hammond,	Scandia, Republic.
Mary Haney,	Manhattan, Riley.
Ada Statira Holroyd,	Manhattan, Riley.
Laura Belle Huse,	Manhattan, Riley.
Myra Jerome,	Kansas City, Wyandotte.
Bertha Mae Johnston,	Allen, Lyon.
Margaret Johnston,	Topeka, Shawnee.
Anne Luella Lewis,	Onaga, Pottawatomie.
Nellie Margaret Lind,	Saffordville, Chase.
Theodosia Lofinck,	Manhattan, Riley.
Hulda Lundeen,	McPherson, McPherson.
Hulda E. Lundgren,	Osage City, Osage.
Grace Mae McLain,	Manhattan, Riley.
Mary Manchester,	Paola, Miami.
Cora Marguerite Martin,	Ogden, Riley.
L. Lynette Mickey,	Olathe, Johnson.
Vellah Della Montgomery,	Manhattan, Riley.
Almira V. Murphy,	Manhattan, Riley.
Martha Musch,	Elmo, Dickinson.
Ruby A. Myers,	Manhattan, Riley.
Emma S. Nelson,	Randolph, Riley.
Flora Nicholson,	Manhattan, Riley.
Johannah Anna Christina Nordlund,	Osage City, Osage.
Mabel Lovina Oesterhaus,	Junction City, Geary.
Neoma Parker,	Linn, Washington.
Elizabeth Patterson,	Blue Rapids, Marshall.
Lena Pearson,	Clifton, Washington.
Margaret Price,	Emporia, Lyon.
May Daisy Price,	Clay Center, Clay.
Grace Ruth Purdy,	Arkansas City, Cowley.
Helen Rogers,	Burlingame, Osage.
Bertha May Romine,	Burlingame, Osage.
Anna Emily Rosenquist,	Osage City, Osage.
Olive Edith Rundell,	Stafford, Stafford.
Martha Schubert,	Manhattan, Riley.
Ruth Anna Smith,	Manhattan, Riley.
Delia Wave Tobyne,	Idana, Clay.

Name.	Post-office and county (or state).
Delia Toll,	Salina, Saline.
Luella M. Vale,	Webber, Jewell.
(Mrs.) Stella Woodsum,	Manhattan, Riley.
Irma Mabel Wright,	Hoxie, Sheridan.

DOMESTIC SCIENCE SHORT COURSE—FIRST TERM.

Enid L. Barrington,	Spring Creek, Chautauqua.
Carrie Ray Bordner,	Manhattan, Riley.
Lillian Erle Collins,	Eros, *Louisiana.*
Elizabeth Crews,	Clay Center, Clay.
Mattie Daugherty,	Strong City, Chase.
Anna Emmert,	Blue Rapids, Marshall.
Blanche L. Evans,	Manhattan, Riley.
Nina Grenawalt,	McPherson, McPherson.
Blanche Harrison,	Manhattan, Riley.
Margaret M. Helbert,	Topeka, Shawnee.
Zora May Henton,	Lyndon, Osage.
Inez M. Jackson,	Kidderville, Hodgeman.
Estelle Rosetta Jones,	Manhattan, Riley.
Bessie Jordan,	Caldwell, Sumner.
Mary Ellen Nicoll,	Larned, Pawnee.
Stella J. Pearson,	Humboldt, Allen.
Ellen Peterson,	Manhattan, Riley.
Nina Virginia Ross,	Alta Vista, (Geary).
Matie Walden,	Manhattan, Riley.
Anna Zurbuchen,	Alta Vista, Wabaunsee.

DOMESTIC SCIENCE—SUMMER TERM.

Eva Irene Alspaugh,	Lincolnville, Marion.
Julia Baker,	Cherryvale, Montgomery.
Elizabeth Ball,	Hays, Ellis.
Madelene Ball,	Hays, Ellis.
Hulda L. J. Bennett,	Manhattan, Riley.
Clare Biddison,	Manhattan, Riley.
Grace C. Crofoot,	Wilson, Ellsworth.
Corda Dixon,	Manhattan, Riley.
Mary Amy Elder,	Osage City, Osage.
Lois Failyer,	Manhattan, Riley.
Stella Finlayson,	Summerfield, Marshall.
Mary G. Fisher,	Manhattan, Riley.
Mary Eliza Gaden,	Manhattan, Riley.
Lydia Glossop,	Manhattan, Riley.
(Mrs.) Mabel Florence Hall,	Junction City, Geary.
Helen H. Halm,	Topeka, Shawnee.
Maude Harris,	Havensville, Wabaunsee.
Marguerite Hartwig,	Goodland, Sherman.
Marion Hepworth,	Burlingame, Osage.
Edith Holmberg,	Manhattan, Riley.
Mabelle Howell,	Manhattan, Riley.
Minta A. Hungerford,	Soldier, Jackson.
Edith Belle Ingham,	Topeka, Shawnee.
Estella May Ise,	Downs, Osborne.
Jennie Anna Johnson,	Russell, Russell.
Mary Carrie Johnson,	Russell, Russell.
Margaret Justin,	Manhattan, Riley.
Venus Kimble,	Keats, Riley.
Elizabeth M. Kramer,	Kansas City, Wyandotte.
Elsie Kratzinger,	Manhattan, Riley.
Olive McKeeman,	Soldier, Jackson.

Name.	Post-office and county (or state).
Anna Minert,	Bennington, Ottawa.
Nellie C. Mitchell,	Manhattan, Riley.
Charlotte Augusta Morton,	Tescott, Ottawa.
Edna Anna Munger,	Manhattan, Riley.
Dorothy Myers,	Manhattan, Riley.
Pearl Nance,	Morrill, Brown.
Ella Nolan,	Lanham, (Washington).
Johanna M. L. Nolan,	Lanham, (Washington).
Eva Bell Redmon,	Overbrook, Osage.
Genevieve Louise Riddell,	Minneapolis, Ottawa.
Clara Schield,	Hanover, Washington.
Katie Minnie Sitterley,	Manhattan, Riley.
Hallie M. Smith,	Manhattan, Riley.
Phœbe Jane Smith,	Manhattan, Riley.
Elsie May Tulloss,	Ottawa, Franklin.
May E. Umberger,	Hymer, Chase.
Pauline Emilie Wetzig,	Winkler, Riley.
Ethel Mary Whipple,	Longford, Clay.
Ora Yenawine,	Manhattan, Riley.

SUMMARY.

CLASSES.	Men.	Women.	Totals.
Graduate	13	11	24
Senior	87	46	133
Junior	100	49	149
Sophomore	199	70	269
Freshman	293	118	411
Sub-freshman	366	145	511
Preparatory	122	22	144
Special	21	27	48
Dairy	23	.....	23
Farmers' Short Course	179	.....	179
Domestic Science Short Course	.....	134	134
Counted twice	*47*	*41*	*88*
Totals	1356	581	1937

From 100 counties of Kansas, 1894.
From fourteen other states, 35; Philippine Islands, 8.

RECORD OF ATTENDANCE.
1879–1907.

COLLEGE YEAR.	Domestic science short course	Farmers' short course	Dairy	Apprentice	Special	Preparatory	Sub-freshman	Freshman	Sophomore	Junior	Senior	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	....	401	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	21	870	53
1899-1900†	24	47	57	50	32	162	.....	376	163	109	69	27	22	1094	58
1900-01	47	109	72	79	23	318	.....	348	183	80	74	40	52	1321	60
1901-02	41	125	66	87	19	298	.....	396	206	120	65	32	59	1396	52
1902-03	63	123	38	78	36	342	.....	471	229	141	86	24	57	1574	55
1903-04†	51	122	16	72	33	443	.....	403	206	161	114	20	36	1605	102
1904-05†	88	99	24	12	30	500	.....	289	198	122	117	26	43	1462	107
1905-06	92	118	28	....	46	598	.....	373	214	145	110	30	64	1690	96
1906-07	134	179	23	....	48	144	511	411	269	149	133	24	88	1937	.....

* 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., 14 Corona flats, Denver, Colo. Stenographer county court.
Belle M. (Haines) Pond, A. M. Died in 1905.
Emma Laura (Haines) Bowen, A. M., 1401 Humboldt street, Manhattan, Kan. Field secretary W. B. M. I.
John J. Points, A. M., box 1057, Paxton hotel, Omaha, Neb. Secretary Kitchen Bros. Hotel Company.
Martha A. (White) Abbott, A. M., 288 Oakley boulevard, Chicago, Ill. Housewife.

1871.

Emily M. (Campbell) Robinson, A. B. Died in 1877.
Ellen F. (Denison) Whedon, A. B., 1845 D street, Lincoln, Neb. Housewife.
Luella M. Houston, A. B., 1216 South Tenth street, Denver, Colo. Music teacher.
Charles O. Whedon, B. S., 1845 D street, Lincoln, Neb. Attorney at law.
Kate E. (White) Turley, A. B., 973 Jackson boulevard, Chicago, Ill. Housewife.

1872.

Theophania M. (Haines) Huntington, A. B. Died in 1880.
Albert Todd, A. M., Washington, D. C. Lieutenant-colonel, general staff, United States army.
Samuel Wendell Williston, A. M., M. D., Ph. D., Walker Museum, University of Chicago, Chicago, Ill. Professor of paleontology.

1873.

Eliza Z. (Davis) Stringfield, A. B., 1111 Santee street, Los Angeles, Cal. Housewife.
Sam Kimble, A. B., Manhattan, Kan. Judge twenty-first district.

1874.

Harry A. Brous, A. M., M. D. Died in 1906.
Edgar F. Clark, A. B.
John E. Davis, B. S., D. D. S., 1143 Oak street, Columbus, Ohio. Dentist.
William D. Gilbert, A. B. Government inspector of rural mail routes.
A. Judson White, A. B., 288 Oakley boulevard, Chicago, Ill. Minister.

1875.

Reuben E. Lofinck, B. S., Manhattan, Kan. Merchant.
Alice E. (Stewart) Points, A. M., 84 Storm avenue, Jersey City, N. J. Teacher city schools.

1876.

George A. Gale, A. B., West Palm Beach, Fla. Poultry and fruit raiser.
Ella M. (Gale) Kedzie, A. B., Oakwood, Agricultural College, Mich. Teacher of art.
Carrie M. Kimball, A. B., R. F. D. No. 2, Santa Ana, Cal. Housekeeper.
Nellie (Sawyer) Kedzie-Jones, M. S., 421 Pearl street, Kalamazoo, Mich. Housewife.
Minerva E. (Whitman) Heiser, A. B., Lyndon, Kan. Housewife.

1877.*

Ella S. (Child) Carroll, R. F. D. No. 7, Station B, Topeka, Kan. Housewife.
George H. Failyer, M. S., bureau of soils, Washington, D. C. Scientist in bureau of soils, United States Department of Agriculture.
John S. Griffing, M. S., R. F. D. No. 16, Tecumseh, Kan. Farmer.
Walter Cyrus Howard, B. D., 721 Monterey street, Hollister, Cal. Minister.
Frederick O. Hoyt, M. D. Died in 1884.
Louis E. Humphrey, Chapman, Kan. Druggist.
James F. La Tourrette, Sitka, Alaska. Missionary.
Marion Franklin Leasure, LL. B., La Cygne, Kan. Attorney at law.
William Ulrich, M. S., Chautauqua, Ill.

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

1878.

Albert N. Godfrey, M. S., box 272, Port Townsend, Wash. Civil engineer. County surveyor and acting city engineer.
Charles S. McConnell. Died in 1902.
George S. Platt. Died in 1878.
Amos E. Wilson, 1008 S. Fourth street, Leavenworth, Kan. Cashier First National Bank, and president Missouri Valley Bridge and Iron Company.

1879.

Arthur T. Blaine, Duarte, Cal. Fruit-grower.
Etta (Campbell) Blain, Duarte, Cal. Housewife.
Wilmer K. Eckman, Longview, Tex. Bank cashier.
Corwin J. Reed, R. F. D. No. 1, Havensville, Kan. Farmer.
Harry C. Rushmore, 357 Waverly street, Kansas City, Kan. Traveling salesman for Norvell-Shapleigh Hardware Company.
Wm. H. Sikes, Leonardville, Kan. Merchant.
Lewis A. Salter, Carmen, Okla. Editor Carmen *Headlight*, and lawyer.
Ella (Vincent) McCormick, Clay Center, Kan. Housewife.
Clarence E. Wood, A. B., Cherokee, Okla. Editor.

1880.

Augustine Beacham. Died about 1890.
Lizzie R. (Cox) Kregar, 503 W. First street, Junction City, Kan. Housewife.
Emma (Hoyt) Turner, 524 S. Eddy street, Fort Scott, Kan. Housewife.
Emma (Knostman) Huse, Manhattan, Kan. Housewife.
Grace (Parker) Perry, box 85, Pocatello, Idaho. Housewife.
Noble Asa Richardson, 780 Fifth street, San Bernardino, Cal. Merchant.
Marie E. (Sickels) Davis. Died in 1894.

1881.

Flora (Donaldson) Reed, R. F. D. No. 1, Havensville, Kan. Housewife and journalist.
Ulysses Grant Houston, Amherst, Mass. Lecturer on Bible lands and archæology.
Fletcher M. Jeffery, 747 New York block, Seattle, Wash. Lawyer.
William J. Jeffery. Died in 1900.
Darwin S. Leach, care of Y. M. C. A., San Juan, Porto Rico.
William J. Lightfoot, 706 Fifth avenue, Spokane, Wash. Examiner of surveys and special disbursing agent, Department of the Interior.
Dalinda (Mason) Cotey, 210 W. First South street, Logan, Utah. Dean of school of domestic science and arts, State Agricultural College of Utah.
Wirt S. Myers, Warrington, Fla. Pattern-maker in department of steam engineering, Pensacola navy-yard.

1882.

J. Chester Allen. Died in 1885.
Ida (Cranford) Sloan, 2524 Gould avenue, N. Fort Worth, Tex. Housewife.
Edward V. Cripps.
Warren Knaus, M. S., 512 S. Main street, McPherson, Kan. Editor and proprietor of *Democrat*.
Mattie E. (Mails) Coons, Manhattan, Kan. Housewife.
Allie S. (Peckham) Cordry, 1725 Appleton avenue, Parsons, Kan. Housewife.
Belle (Selby) Curtice, R. F. D. No. 10, Independence, Mo. Housewife.
Burton L. Short, 47 N. Valley street, Kansas City, Kan. Assistant postmaster.
John A. Sloan, M. D. V., N. Fort Worth, Tex. United States meat inspector.

1883.

James W. Berry, Jewell, Kan. Lumberman and contractor.
Mary C. (Bower) Ady, Manhattan, Kan. Housewife.
Lewis W. Call, LL. B., LL. M., D. C. L., 1448 Newton street N. W., Washington D. C. Chief clerk and solicitor, judge-advocate general's office, United States War Department.
Emma E. Glossop, 1404 Charles street, St. Joseph, Mo. Journalist.
William J. Griffing, R. F. D. No. 1, Manhattan, Kan. Farmer and fruit-grower.
Phœbe E. (Haines) McKeen, M. S., Manhattan, Kan. Housewife.
Hortense L. (Houston) Martin, 501 Nebraska street, Warren avenue, Miami, I. T. Housewife.
Jacob Lund, M. S., Manhattan, Kan. Superintendent of heat and power department, Kansas State Agricultural College.
Katie I. (Meguire) Sheldon.
J. Dana Needham, Lane, Kan. Merchant.
Milan T. Ward, M. D., Toulon, Ill. Physician.
Julius T. Willard, M. S., Manhattan, Kan. Professor of chemistry, Kansas State Agricultural College.

1884.

Emmett S. Andress, Lakin, Kan. Farmer.
Florence J. (Brous) Smalley, 608 Freeman avenue, Kansas City, Kan. Housewife.
Bartholomew Buchli, M. S., D. V. M., Sunbeam, Kan. Farmer and stockman; county commissioner.
John H. Calvin, LL. D., Died in 1898.
William A. Corey, 207 New High street, Los Angeles, Cal. Organizer socialist party and associate editor of *Common Sense*.
Henry M. Cottrell, M. S., Fort Collins, Colo. Director of farmers' institutes, Colorado Agricultural College.
Carrie F. (Donaldson) Brown. Died in 1902.
Florence A. Donaldson. Died in August, 1888.
Frank W. Dunn.
I. Day Gardiner. Died in 1899.
Edwin H. Kern, 528 Main street, Grand Junction, Colo. Civil engineer.
Marion M. Lewis. Died in 1895.
Charles L. Marlatt, M. S., 1440 Massachusetts avenue, N. W., Washington, D. C. Entomologist in charge of experimental field-work, United States Department of Agriculture.
Lincoln H. Neiswender, R. F. D. No. 6, North Topeka, Kan. Farmer and stock-raiser.
Geo. C. Peck, Jewell, Kan. Manager book, news and stationery business.
Hattie L. (Peck) Berry, Jewell, Kan. Housewife.
John W. Shartel, Oklahoma, Okla. Lawyer.

1885.

Thomas Bassler, Stillwater, Okla. Teacher.
Albert Deitz, 2747 Holly street, Kansas City, Mo. Grocer and meat dealer.
Geo. E. Hopper, M. S., 303 N. Third street, Arkansas City, Kan. Contractor.
Florence F. Hough.
Frank A. Hutto, M. S., Ph. D., Twin Falls, Idaho. Attorney at law; prosecuting attorney of Twin Falls county.
J. Allen Lewis, M. S., C. E., 383 Third street, Brooklyn, N. Y. Civil engineer.
Nellie J. Murphy, Sterling, Kan. Graduate nurse.
Arthur L. Noyes, R. F. D. No. 1, Zeandale, Kan. Farmer and stock-raiser.
Clarence D. Pratt, 345 Elm street, Dallas, Tex. Merchant.
Rollin R. Rees, Minneapolis, Kan. District judge.
Frederick J. Rogers, M. S., 4 Lasnen street, Stanford University, Cal. Assistant professor of physics, Leland Stanford Jr. University.
Dorothy E. C. (Secrest) Hungerford, Manhattan, Kan. Housewife.
Grace L. (Wonsetler) Rude, M. D., R. F. D. No. 1, Hoisington, Kan. Physician and housewife.
Effie E. (Woods) Shartel, Oklahoma, Okla. Housewife.

1886.

Lillie B. Bridgman, M. S., 1715 Boute avenue, Berkeley, Cal. Teacher of science, California School of Mechanical Arts.
Louis P. Brous, M. S., 1011 Barnett avenue, Kansas City, Kan. Teacher of mechanical drawing in manual-training high school, Kansas City, Mo.
Paul Halsted Fairchild, M. D., 60 Berkman street, New York city. President Pulvola Chemical Company, manufacturing chemists.
Abbott M. Green, Lookout, Cal. Surveyor and civil engineer.
James G. Harbord, M. S., Manila, P. I. Colonel United States army, assistant chief Philippine constabulary.
John U. Higinbotham, 205 La Salle street, Chicago, Ill. Assistant treasurer of National Biscuit Company.
Maria C. (Hopper) Getty, Downs, Kan. Housewife.
E. Ada (Little) MacEwan, 314 Elm street, Kalamazoo, Mich. Housewife.
Frank L. Parker, Hutchinson, Kan. Stock-raiser and fruit-grower.
Edward H. Perry, 231 W. Twelfth street, Oklahoma, Okla. Real-estate broker.
H. Augustus Platt. Died in 1903.
Ada H. (Quinby) Perry, 231 W. Twelfth street, Oklahoma, Okla. Housewife.
Ida H. (Quinby) Gardiner, 1514 Laguna street, Santa Barbara, Cal. Housewife.
Minnie Reed, M. S., Kamehameha manual school, Honolulu, H. I. Teaching science in manual-training school for boys; conducting botanical research work for United States experiment station of Hawaii.
David G. Robertson, 153 La Salle street, Chicago, Ill. Lawyer.
Edward O. Sisson, A. B., Ph. D., 4333 Ninth avenue, Seattle, Wash. Professor of education, University of Washington.
John W. Van Deventer, 2022 Stout street, Denver, Colo. Writer.

George W. Waters, Dillon, Colo. Cattle ranchman.
William E. Whaley, 117 Maroon heights, Chicago, Ill. Instructor, University of Chicago.
F. Henrietta (Willard) Calvin, Manhattan, Kan. Professor of domestic science, Kansas State Agricultural College.
John L. Wise, Pocahontas, Ill. Dealer in hay and live stock.

1887.

Edgar A. Allen, U. S. Indian office, Washington, D. C. Special United States Indian agent.
Fred H. Avery. Died in 1896.
Claude M. Breese, M. S., 318 Leavenworth street, Manhattan, Kan. Assistant cashier, First National Bank.
John B. Brown, M. S., Morris, Minn. Superintendent Indian training-school.
Walter J. G. Burtis, R. F. D. No. 2, Fredonia, Kan. Farmer and stock-breeder.
Mark A. Carleton, M. S., Washington, D. C. Cerealist in charge of grain investigations, bureau of plant industry, United States Department of Agriculture.
Nellie E. (Cottrell) Stiles, R. F. D. No. 2, Fullerton, Cal. Housewife.
Bert R. Elliott, Dawson City, British Yukon Territory. Miner.
Frederick B. Elliott, 219 Poyntz avenue, Manhattan, Kan. Real-estate and insurance agent.
Clara M. (Keyes) Graham, box 250, Manila, P. I. Teacher.
Fred G. Kimball, Unakleet, Alaska. Miner.
Frederick A. Marlatt, Manhattan, Kan. Proprietor Blue Valley Manufacturing Company.
William J. McLaughlin, 463 W. Sixth South street, Salt Lake City, Utah. License clerk in city recorder's office and assistant clerk to city council.
Mary E. Moses. Died in 1906.
Charles A. Murphy, Nickerson, Kan. Editor and publisher of the *Argosy*.
Orlando G. Palmer, LL. M., Manila, P. I. Second lieutenant, Seventh United States cavalry.
Louis B. Parker. Died in 1889.
James E. Payne, M. S., 1326 Houston street, Manhattan, Kan. Special agent, bureau of plant industry, United States Department of Agriculture.
Seward N. Peck, 1030 Railway Exchange building, Chicago, Ill. Chief draftsman for A. T. & S. F. railway system.
George N. Thompson, Belmond, Iowa. General mechanic.
Willis M. Wright, Jennings, La. Engineer.

1888.

Grant Arnold, Toledo, Wash. Merchant.
Bertha H. (Bachelier) Foster, M. S., Kansas City, Kan. Housewife.
Clement G. Clark, 601 Sixth street, S. E., Minneapolis, Minn. Pastor of First Congregational church.
Alexander C. Cobb, Wagoner, I. T. Contractor and farmer.
Mattie (Cobb) Clark, 601 Sixth street, S. E., Minneapolis, Minn. Housewife.
Minnie H. Cowell, Steyning, Sussex, England. Trained nurse.
Lyman H. Dixon, 11 East Twenty-fourth street, New York city. Architect.
David G. Fairchild, M. S., Washington, D. C. Agricultural explorer, in charge of foreign explorations, United States Department of Agriculture.
Carl E. Friend, Soldier, Kan. Lumberman.
John R. Harrison, Federal building, Kansas City, Mo. Post-office inspector in charge.
Humphrey W. Jones, 1251 Lincoln street, Topeka, Kan. Principal of Branner school.
Nathan E. Lewis, 1003 High street, Youngstown, Ohio. Mechanical engineer, the Carnegie Steel Company.
Abby L. Marlatt, M. S., technical high school, Providence, R. I. Teacher household economics.
William C. Moore, Lock box 357, Parsons, Kan. Breeder of registered Jersey cattle.
Ernest F. Nichols, M. S., D. Sc., 430 W. 118th street, New York, N. Y. Professor of experimental physics in Columbia University.
Harry E. Robb, Eureka, Kan. Farmer and county surveyor.
Anna Snyder, Lebo, Kan. Telephone exchange.
Edwin H. Snyder, 2825 Wyandotte street, Denver, Colo. Editor and publisher.
Oliver L. Utter, A. B., A. M., S. T. B., 1902 Freeman avenue, Cincinnati, Ohio. Minister.
Aaron Walters. Died in 1892.
Lora L. (Waters) Beeler, M. S., Glen Ellyn, Ill. Housewife.
Daniel W. Working, R. F. D. No. 2, Capitol Hill station, Denver, Colo. Principal Petersburg school.

1889.

Emma A. Allen. Died in 1891.
Joseph W. Bayles, A. B., Onaga, Kan. Minister.
Walter R. Browning, Padonia, Kan. Grain dealer.
David E. Bundy, Mancos, Colo. Minister.
Samuel S. Cobb, Wagoner, I. T. Postmaster and editor.
Judson H. Criswell, Ames, Iowa. Superintendent of field experiments, Iowa Experiment Station.
Mattie I. (Farley) Carr, Winthrop, Okanogan county, Washington. Teacher.
Clarence E. Freeman, M. S., E. E., 1015 E. Fifty-ninth street, Chicago, Ill. Director of department of electrical engineering, Armour Institute of Technology.
Hattie L. (Gale) Sanders, West Palm Beach, Fla. Housewife.
John S. Hazen, 107 E. Ross avenue, Tampa, Fla. Local forecaster, United States weather bureau.
Albert B. Kimball, Scandia, Kan. Publisher Scandia *Journal.*
William Knabb, 301 N. Second street, Hiawatha, Kan. Cashier First National Bank.
Mary Cornelia Lee, Manhattan, Kan. City librarian.
Alonzo A. Mills, Anaheim, Cal. Proprietor of Walnut Nursery.
Susan W. (Nichols) Eshelman, 926 Felix street, St. Joseph, Mo. Housewife.
Walter H. Olin, M. S., 829 Peterson street, Fort Collins, Colo. Professor of agronomy, state agricultural college.
Eli M. Paddleford, A. B., S. T. B., Lenexa, Kan. Minister.
Maude F. (Sayers) DeLand, lock box 390, Pittsburg, Pa. Medical student.
Florine (Secrest) Linderman, Capay, Yolo county, California. Housewife.
Stanley Snyder, Oskaloosa, Kan. Farmer.
Charles W. Thompson, D. D. S., Holton, Kan. Dentist.
Jane Chapin Tunnell, 16 Astor street, Chicago, Ill. Teacher, Thomas Hoyne manual-training high school.
Ina M .(Turner) Bruce, 3857*a* Juniata street, St. Louis, Mo. Housewife.
Robert U. Waldraven, Farmington, N. M. Minister.
Henry S. Willard, M. D., Manhattan, Kan. Physician and druggist.

1890.

Samuel I. Borton, 507 Fourth street, Lamar, Colo. Chief agriculturist, American Beet Sugar Company.
Frank A. Campbell, B. A., 525 Kansas avenue, Topeka, Kan. Sign-writer.
Arthur Fulton Cranston, LL. B., Central avenue, Parsons, Kan. Attorney at law.
John Davis, Nowata, I. T. Superintendent of city and Cherokee schools.
Grant W. Dewey, 522 E. Fiftieth street, Hyde Park, Chicago, Ill. Traveling salesman for Dolese & Shepard Company.
Charles J. Dobbs, 418 New York building, Seattle, Wash. Attorney at law.
Charles W. Earle, 1942-1948 Curtis street, Denver, Colo. Signs.
Schuyler C. Harner, Keats, Kan. Merchant.
John W. Ijams, Fort Belknap agency, Harlem, Mont. Farmer in United States Indian service.
Bertha S. (Kimball) Dickens, M. S., Manhattan, Kan. Housewife.
Eusebia (Knipe) Curtis, 841 Garfield avenue, Kansas City, Kan. Housewife.
Nellie P. (Little) Dobbs, 418 New York building, Seattle, Wash. Housewife.
Ellsworth Thomas Martin, LL. B., 1402-100 Washington street, Chicago, Ill. Lawyer.
Silas C. Mason, M. S., Berea, Ky. Arboriculturist in dry-land agriculture, bureau of plant industry, United States Department of Agriculture.
Wilton L. Morse, Mancos, Colo. Principal of school.
Albert E. Newman, Texas City, Tex. Custom-house official.
Julia R. Pearce, Washington, D. C. Assistant in physical laboratory, bureau of plant industry, United States Department of Agriculture.
Emil C. Pfuetze, Manhattan, Kan. Lumber dealer.
William H. Sanders, care of "Tomoka," West Palm Beach, Fla. Hydraulic engineer.
Emma Secrest, A. M. Died in 1898.
Marie Barbara (Senn) Heath, M. S., 3427 Colby avenue, Everett, Wash. Housewife.
Ralph Snyder, Oskaloosa, Kan. Farmer and stockman.
George E. Stoker, A. B., Columbian building, Topeka, Kan. Lawyer.
Walter T. Swingle, M. S., 3315 Seventeenth street, N. W., Washington, D. C. Physiologist in charge plant life-history investigations, bureau of plant industry, United States Department of Agriculture.
Gilbert J. VanZile. Died in 1899.
Harry Nichols Whitford, M. S., Ph. D., bureau of forestry, Manila, P. I. Forester and botanist.
Thomas E. Wimer. Died in 1890.

1891.

William Aaron Anderson, 4218 W. Prospect Place, Kansas City, Mo. Manager Pacific coast lumber and shingle department, Long-Bell Lumber Company.
William Sherman Arbuthnot, D. V. S., Lebanon, Kan. Druggist.
Herman Willard Avery, R. F. D. No. 2, Wakefield, Kan. Farmer and breeder of Percheron horses.
Judd Noble Bridgman, M. S., A. B., Riven, Mo. Civil engineer.
Robert James Brock, Manhattan, Kan. Lawyer.
Francis Charles Burtis, M. S., 822 Irving street, Muskogee, I. T. Secretary-treasurer and general manager Arkansas Valley Shipping Association.
Charles Albert Campbell, 1728 Williams street, Denver, Colo. Clergyman.
Spencer Norman Chaffee, M. D., Talmage, Kan. Physician and surgeon.
Clay Ephraim Coburn, M. D., 908 Orville avenue, Kansas City, Kan. Physician.
Gertrude (Coburn) Jessup, Hinsdale, Ill. Housewife.
Tina Louise (Coburn) Tomson, 111 North Sixteenth street, Cedar Rapids, Iowa. Housewife.
Rachel Callie (Conwell) Thoburn, 906 West Twenty-first street, Oklahoma, Okla. Housewife.
Christine Mossman Corlett.
Mary Emmeline (Cottrell) Payne, M. S., 1326 Houston street, Manhattan, Kan. Housewife.
Phil Sheridan Creager. Died in 1906.
Kary Cadmus Davis, M. S., Ph. D., Menomonie, Wis. Principal Dunn County School of Agriculture.
Thomas Clarke Davis, Benedict, Kan. Farmer and oil producer.
Helen Pearl (Dow) Peck, 309 Marlborough road, Brooklyn, N. Y. Housewife.
Anna (Fairchild) White, Claremont, Cal. Housewife.
Harry Benson Gilstrap, Chandler, Okla. Postmaster and publisher *News*.
Almon Arthur Gist, Fairfax, Okla. Agent A. T. & S. F. railway.
Amy Myrtle (Harrington) Deibler, 120 E. Tenth street, Leadville, Colo. Housewife.
Delpha May (Hoop) Montgomery, Manhattan, Kan. Housewife.
Mayme Amelia (Houghton) Brock, Manhattan, Kan. Housewife.
Willis Wesley Hutto, Manhattan, Kan. Teacher in city schools.
George Victor Johnson, Portales, N. M. Editor and proprietor Portales *Times*.
Frank Mullett Linscott, D. V. S., Farmington, Kan. Farmer.
Bessie Belle Little, M. S., M. D., Manhattan, Kan. Physician.
Albert Edward Martin, B. A. Died in 1906.
Nellie Evangeline (McDonald), Thayer. Died in 1902.
David Collins McDowell, Elkton, Colo. Cashier Colorado Trading and Transfer Company.
Alfred Midgley, Minneapolis, Kan. Manager lumber-yard.
Madeleine Wade Milner, 522 College avenue, De Kalb, Ill. Librarian Northern Illinois State Normal School.
Paul Chambers Milner, Carbondale, Ill. Farmer.
Harry Elbridge Moore, 201 Alaska building, Seattle, Wash. Real-estate agent and broker.
John Otis Morse, Mound City, Kan. Lawyer.
Hattie May Noyes, R. F. D. No. 1, Zeandale, Kan. Teacher.
Louise (Reed) Paddleford, Lenexa, Kan. Housewife.
Artemus Jackson Rudy, R. F. D. No. 1, Oleander, Cal. Fruit-grower.
Henry Vernon Rudy, R. F. D. No. 1, Fresno, Cal. Fruit-grower and shipper.
Charlotte Jane (Short) Houser, M. S. [B. S., Dickinson College, Carlisle, Pa.], Lewiston, Pa. Housewife.
Ben Skinner, M. D., Wetmore, Kan. Physician and surgeon.
Caroline Scott (Stingley) Van Blarcom. Died in 1899.
Lillian Alice (St .John) Williams, 841 Osage avenue, Kansas City, Kan. Housewife.
Ellis Cheney Thayer, 2477 Dunkeld Place, Denver, Colo. Teacher of mathematics and drawing in North Denver high school.
Sam L. Van Blarcom. 115 North Quincy avenue, Kansas City, Mo. Railway mail service.
Frank Albert Waugh, M. S., Amherst, Mass. Professor of horticulture and landscape-gardening, Massachusetts Agricultural College.
Fannie Elizabeth (Waugh) Davis, M. S., Menomonie, Wis. Housewife.
Flora Emilie Wiest, Manhattan, Kan. Teacher in city schools.
Bertha (Winchip) Spilman, 324 Fifth street, S. E., Washington, D. C. Housewife.
Alfred Orrin Wright, Cornish, I. T. Editor of the Cornish *Herald*.
Effie Jeanetta Zimmerman, M. S., Moray, Kan. Chautauqua lecturer.

1892.

Grace Maria Clark, M. S. Died in 1904.
George L. Clothier, M. S., M. F., Washington, D. C. Field assistant, bureau of forestry, United States Department of Agriculture.
Lillian Clyde Criner, McPherson, Kan. Editor and publisher of *Opinion*.
Harry A. Darnall, Lents, Ore. Principal of city schools.
William H. Edelblute, Rathdrum, Idaho. County surveyor; United States deputy mineral surveyor for Idaho.
Elizabeth (Edwards) Hartley, Manhattan, Kan. Housewife.
John Frost, R. F. D. No. 3, Blue Rapids, Kan. Farmer.
Effie (Gilstrap) Frazier, Tacoma, Wash. Student of shorthand and typewriting.
Ava (Hamill) Tillotson, M. S., Latham, Kan. Pharmacist.
J N Harner. Died in 1897.
Loyall S. Harner, 1120 Hayes avenue, Colorado Springs, Colo. Employed by Portland Gold Mining and Milling Company.
Charles Pinckney Hartley, M. S., 3420 Center street, N. W., Washington, D. C. Physiologist in charge of corn breeding, United States Department of Agriculture.
John William Abraham Hartley, Manhattan, Kan. Farmer.
James Laird McDowell, McCammon, Idaho. Market-gardener.
Robert A. McIlvaine, Warm Spring, Ore. Teacher in government Indian training school.
Kate (Oldham) Sisson, 1497 Alsop avenue, Columbus, Ohio. Housewife.
Daniel Henry Otis, M. S., Madison, Wis. Assistant to the dean, college of agriculture, and associate professor of animal nutrition, University of Wisconsin.
Ivan Bryan Parker, M. D., Hill City, Kan. Physician and surgeon; president Graham County State Bank.
Warner S. Pope. Died in 1899.
Burton Homer Pugh, drawer C, Topeka, Kan. B. H. Pugh Manufacturing Company.
Elias Wilber Reed, M. D., Holton, Kan. Physician.
Robert Stirling Reed, Simpson, Kan. Miller.
Arthur Daniel Rice, Hubbell, Neb. Minister.
Fred C. Sears, M. S., Truro, Nova Scotia. Professor of horticulture, Nova Scotia Agricultural College.
Birdie E. Secrest, D. S., Randolph, Kan. Clerk.
May Secrest, 1306 Mill street, San Luis Obispo, Cal. Instructor in domestic science, California Polytechnic School.
Ruth Tipton (Stokes) Sears, M. S., Truro, Nova Scotia. Housewife.
Harry W. Stone, Y. M. C. A. building, Portland, Ore. General secretary Y. M. C. A.
Walter Percival Tucker, Aguascalientes, Aguas, Mexico. Chief clerk, American Smelting and Refining Company.
Mary Alice (Vail) Waugh, Amherst, Mass. Housewife.
Robert Lynn Wallis. Died in 1895.
Ora Rebecca (Wells) Traxler, 709 Constitution street, Emporia, Kan. Housewife.
Daniel F. Wickman, post-office box 107, Topeka, Kan. Nurseryman.
George Washington Wildin, South Bethlehem, Pa. Superintendent of motive power, Lehigh Valley railroad.
Charles Ernest Yeoman. Died in 1902.

1893.

Edmund Clarence Abbott, 235 Cerrillos road, Santa Fe, N. M. Attorney at law, district attorney, and assistant attorney-general of New Mexico.
Edwin McMaster Stanton Curtis.
Corinne Louise (Daly) Burtis, 822 Irving street, Muskogee, I. T. Housewife.
Laura Greeley Day, 1008 Eighth street, Menomonie, Wis. Director of department of domestic science and art, Stout training schools.
Ione (Dewey) Sutherland, 183 Warren avenue, Boston, Mass. Student.
Albert Dickens, M. S., Manhattan, Kan. Professor of horticulture, Kansas State Agricultural College.
Mary Maud (Gardiner) Obrecht, M. S., 1016 Nevada street, Urbana, Ill. Housewife.
Susie (Hall) Linscott, Farmington, Kan. Housewife.
Mary Frances Burgoyne Harmon, Kansas City, Kan. Teacher of drawing in Kansas City, Kan., high school.
Ivy Frances Harner, M. S., Lafayette, Ind. Professor of household economics, Purdue University.
Margaretha Elise Horn, 320 Vinewood avenue, Detroit, Mich. Teacher of botany in Western high school.
Mac F. Hulett, D. O., S East Broad, Columbus, Ohio. Osteopathic physician.
Marcia Ione Hulett, D. O., 1208 New England building, Cleveland, Ohio. Osteopathic physician.

Fred Hulse, Manhattan, Kan. Carpenter and building foreman.
Charles Augustus Kimball, Manhattan, Kan. Editor.
Maud Ethel (Knickerbocker) Pyles, 1145 Village Deep, Johannesburg, South Africa. Housewife.
Thomas Eddy Lyon, LL. B., Sangamon Loan and Trust building, Springfield, Ill. Lawyer.
William Otis Lyon, 400 Eleventh street, N. E., Washington, D. C. Merchant.
McLeod Wilson McCrea, Winchester, Kan. Teacher.
Rose Edith McDowell, Billings, Mont. At home.
George Lane Melton, Ph. B., 445 Fifty-sixth street, Chicago, Ill. Business man.
Eusebia DeLong (Mudge) Thompson, Marysville, Kan. Manager of the Thompson Hardware Company.
Nora (Newell) Hatch, R. F. D. No. 2, Manhattan, Kan. Housewife.
August Fred. Niemoller, Wakefield, Kan. Miller.
Susie Amanda Noyes. Died in 1894.
Henry Leamer Pellett, D. O., R. F. D. No. 4, Eudora, Kan. Breeder Red Polled cattle and farmer.
Charles John Peterson, Topeka, Kan.
Carl Frederic Pfuetze, Manhattan, Kan. Lumber merchant.
John Dewitt Riddell, M. D., Enterprise, Kan. Physician and surgeon.
John Albert Rokes, 617 Marion building, Seattle, Wash. Lawyer.
Agnes (Romick) Edgar, Kelseyville, Cal. Housewife.
Fred Raymond Smith, 431 Kearney street, Manhattan, Kan. Court reporter twenty-first judicial district.
George Wildman Smith, M. D., 1103 Main street, Kansas City, Mo. Physician and surgeon; professor of mental and nervous diseases, Hahnemann Medical College, and registrar.
William Elmer Smith, Independence, Mo. Lawyer; deputy clerk of circuit court of Jackson county.
John Eugene Thackrey, S. T. B., R. F. D. No. 6, Independence, Mo. Minister.
Joseph B. Thoburn, 906 West Twenty-first street, Oklahoma, Okla. Editor and publisher of an agricultural newspaper.
Charles Henry Thompson, M. S., St. Louis, Mo. In charge of the succulent plants, Missouri Botanical Garden.
George K. Thompson. Died in 1905.
William James Yeoman, La Crosse, Kan. Farmer and stock-raiser.

1894.

Frank Weber Ames, room 316, Carnegie building, Pittsburg, Pa. Contract clerk, rail department, Carnegie Steel Company.
Clara Francelia Castle, M. S., Manhattan, Kan. At home.
George Luther Christensen, 115 Clark street, Houghton, Mich. Assistant professor in mechanical engineering, Michigan School of Mines.
John Cornelius Christensen, Manhattan, Kan. County treasurer.
Lorena Estella Clemons, Manhattan, Kan. Secretary Kansas State Agricultural College.
Martha Cottrell, R. F. D. No. 2, Fullerton, Cal.
Sarah Esther (Cottrell) Wright, Jennings, La. Housewife.
Alverta May Cress, 813 W. Tenth avenue, Topeka, Kan. Teacher.
Fannie Jane Cress, 517 Ohio street, Wheaton, Ill. Teacher, Oak Park, Ill.
Ernest A. Donaven, M. D., Mount Hope, Kan. Physician.
Jephthah W. Evans, M. D., Council Grove, Kan. Physician and surgeon.
Isabelle Russell (Frisbie) Criswell, Ames, Iowa. Housewife.
Eugene Leonard Frowe. Died in 1898.
Walter Harling. Died in 1903.
Lorena Marguerite (Helder) Morse, 1100 W. Fortieth street, Kansas City, Mo. Housewife.
Mark V. Hester, Manila, P. I. Teacher, United States civil service, insular bureau, Philippine islands.
Charles Ross Hutchings, Chihuahua, Mexico. Civil engineer.
Isaac Jones, jr., Etiwanda, Cal. Fruit-grower.
Stella Victoria (Kimball) Tucker, Aguascalientes, Aguas, Mexico. Housewife.
Mary Eliza (Lyman) Otis, M. S., Madison, Wis. Housewife.
William Henry Moore, M. S., Manhattan, Kan. Florist and horticulturist.
Sarah (Moore) Foster, 8027 Wallingford avenue, Seattle, Wash. Housewife.
James Francis Odle, Wamego, Kan. Farmer.
Charles Randolph Pearson, Hoxie, Kan. County treasurer.
Horace Greeley Pope, LL. B., 3510 E. Tenth street, Kansas City, Mo. Attorney at law, member of firm Bird & Pope.
Minnie Louise Romick, 567 N. Gordon street, Pomona, Cal. Teacher.

Winnie Luella (Romick) Chandler, R. F. D. No. 3, Swope Park, Kansas City, Mo. Housewife.
Victor Irvin Sandt, Winona, Minn. Supervisor of manual training.
John Alfred Scheel, R. F. D. No. 7, Emporia, Kan. Farmer and fruit-grower.
Jacob Ulrich Secrest, Randolph, Kan. Farmer.
Charles Chrisfield Smith, Pomona, Cal. Real-estate agent.
Jennie Ruth (Smith) Strong, Osborne, Kan. Housewife.
Wesley Ohio Staver, Del Rio, Tex. Immigrant inspector, United States immigration service.
John Stingley, 1316 N. Emporia street, Wichita, Kan. Traveling agent for Moline Plow Company.
John Edwin Taylor. Died in 1896.
Delbert L. Timbers, Osborne, Kan. Merchant and stock-raiser.
Phebe Carey (Turner) Clothier, St. Marys, Kan. Housewife.
Samuel Robert Vincent, M. S., R. F. D. No. 2, Deer Creek, Okla. Farmer.
Lucy Helena Waters, A. M., Santa Clara, Cal. Teacher.

1895.

Edward Jones Abell, R. F. D. No. 2, Leonardville, Kan. Farmer and stock-raiser.
Carl D. Adams, R. F. D. No. 1, Hickman Mills, Mo. Manager of fruit farm.
Robert John Barnett, Manhattan, Kan. Assistant postmaster.
Burton Wesley Conrad, D. V. S., Sabetha, Kan. Veterinarian.
Florence Ruth Corbett, M. S., department public charities, foot of East Twenty-sixth street, New York city. Dietitian to the department of public charities.
Sid Henry Creager, box 582, Cincinnati, Ohio. Lumberman.
Elsie Emeline (Crump) Ames, 1012 State street, Boise City, Idaho. Housewife.
David Thomas Davies, Manhattan, Kan. Farmer.
Frank Andrew Dawley, Waldo, Kan. Farmer and stock-raiser.
Daisy Day, M. S., Onaga, Kan. At home.
Flora (Day) Barnett, M. S., Manhattan, Kan. Housewife.
George Adam Dean, M. S., Manhattan, Kan. Assistant in entomology, Kansas State Agricultural College.
Lillie Christena (Dial) Falin, Cleburne, Kan. Housewife.
Lucy Ellis, 334 Ann avenue, Kansas City, Kan. Teacher.
Victor Emrick, 1034 E. Main street, Portland, Ore. Clerk, ticket auditor's office, Oregon Railway and Navigation Company.
George Forsyth, 201 S. Main street, Franklin, Ind. Traveling salesman, Dwiggins Wire Fence Company, Anderson, Ind.
Ernest Harrison Freeman, Armour Institute of Technology, Chicago, Ill. Assistant professor of electrical engineering, Armour Institute of Technology.
Florence Eleanor (Fryhofer) Webster, 215 The Ontario, Washington, D. C. Housewife.
George William Fryhofer, 4428 Forest Park boulevard, St. Louis, Mo. Broker.
Oscar Hugo Halstead, M. S., 1014 Houston street, Manhattan, Kan. Secretary E. L. Knostman Clothing Company.
Hortensia (Harman) Patten, 207 N. Harvey avenue, Oak Park, Ill. Housewife.
John Bright Harman, Wigwam, Colo. Stockman.
Clarence V. Holsinger, R. F. D. No. 5, Rosedale, Kan. Horticulturist and nurseryman.
Christian Andrick Johnson, Success, Kan. Farmer and stock-raiser.
John James Johnson, M. D., 303 E. Clark street, Litchfield, Ill. Physician.
Fred Ralph Jolly, Baxter Springs, Kan. Mining operator.
William Irving Joss, M. D., 96½ W. Main street, Newark, Ohio. Physician and surgeon.
Maud Estella (Kennett) Darnall, Lents, Ore. Teacher in city schools.
Myron Arthur Limbocker, Pomona, Kan. Banker.
Samuel Alexander McDowell, Victor, Colo. Miner.
Laura Sara (McKeen) Smith, Russell, Kan. Housewife.
Theo. Wattles Morse, M. S., 1100 W. Fortieth street, Kansas City, Mo. Publisher of agricultural paper.
Oscar Albert Otten, Hebron, Neb. Agent C. R. I. & P. Rly. Co.
William Hackworth Painter. Died in 1901.
Charles Wesley Pape, M. S., 918 L street, Lincoln, Neb. Chemist and bacteriologist for Beatrice Creamery Company.
Ethel (Patten) Ames, 616 Hale street, Pittsburg, Pa. Housewife.
John Vernon Patten, 207 N. Harvey avenue, Oak Park, Ill. Secretary and treasurer of Charles Smith Company.
William H. Phipps, 1209 Union avenue, Kansas City, Mo. Manager Empire Cream Separator Company.
Alice Julia (Quintard) Peck. Died in 1899.

Frederick Ellsworth Rader, Rampart, Alaska. Agent and expert, United States Department of Agriculture; superintendent Alaskan Experiment Station.
Ralph Waldo Rader, 323 Sutton street, Fayetteville, Ark. Bookkeeper, McIlroy Banking Company.
Ada Rice, Manhattan, Kan. Instructor in English, Kansas State Agricultural College.
Benjamin Franklin Simeon Royer, M. D., 1411 Buena Vista street, Los Angeles, Cal. Physician and optometrist.
Charles Baxter Selby, Sterling, Okla. Attorney and United States court commissioner.
Mabel Gertrude (Selby) Laughlin, Los Angeles, Cal. Housewife.
Ernest P. Smith, box 580, Globe, Ariz. Foundry foreman.
Frederick John Smith, Russell, Kan. Editor and county clerk.
Kitty Myrtle (Smith) Wheeler, Manhattan, Kan. Housewife.
Marietta (Smith) Reed, Holton, Kan. Housewife.
William Henry Steuart, Winchester, Kan. Farmer.
Cora Idella (Stump) Chaffee, Lasita, Kan. Housewife.
Dora (Thompson) Winter, 2303 Wabash avenue, Kansas City, Mo. Housewife.
Elven Creveling Trembly, R. F. D. No. 5, Council Grove, Kan. Farmer and stock-raiser.
George Carpenter Wheeler, Manhattan, Kan. Assistant in animal husbandry, Kansas State Agricultural College.
Mary Elizabeth (Willard) Emrick, 1034 E. Main street, Portland, Ore. Housewife.
Olive Mabel (Wilson) Holsinger, R. F. D. No. 5, Rosedale, Kan. Housewife.
Ora Gertrude Yenawine, 1317 N. Seventh street, Kansas City, Kan. Instructor in domestic science, Kansas City, Kan., high school.

1896.

May Haines (Bowen) Schoonover, A. B., 228 E. Fifty-sixth street, Chicago, Ill. Housewife.
Con Morrison Buck, M. S., 1006 Garfield avenue, Topeka, Kan. Office engineer for A. T. & S. F. railway.
Margaret Isaphene (Carleton) Doane, Albert Lea, Minn. Housewife.
William Annesley Cavenaugh, Manila, P. I. Captain, Sixth United States infantry.
William Arthur Coe, Blackfoot, Idaho. Farmer.
Charlotte Mabel (Cotton) Smith, box 580, Globe, Ariz. Housewife.
Ernest Brown Coulson, Cherokee, Okla. Civil engineer, K. C. M. & O. railway.
George Henry Dial, Irving, Kan. Farmer and stock-raiser.
Charles Francis Doane, M. S., Albert Lea, Minn. Cheese expert, dairy division, United States Department of Agriculture.
John Berthold Dorman, Pd. B., Boulevard and Jewett avenue, West New Brighton, N. Y. Teacher New York city schools.
Bradford Dougherty, 632-634 Minnesota avenue, Kansas City, Kan. Merchant.
Charles Silar Evans, M. D., Partridge, Kan. Physician.
Robert Kilby Farrar, Osborne, Kan. Superintendent of city schools.
George William Finley, Tonkawa, Okla. Professor of mathematics, Oklahoma University preparatory school.
Joanna Freeman. Died in 1897.
John Jacob Fryhofer, 1810 Byers avenue, Joplin, Mo. Bookkeeper and cashier for Freeman Foundry and Machine Company.
Elmer George Gibson, 825 Lincoln street, Topeka, Kan. Civil engineer, A. T. & S. F. railway.
George Clifton Hall, Manhattan, Kan. Editor and publisher.
Alonzo Charles Havens, R. F. D. No. 4, Manhattan, Kan. Farmer.
Gertrude Julia (Havens) Norton. Died in 1905.
Lawrence Wilber Hayes, 228 Tyler street, Topeka, Kan. Foreman local freight department, C. R. I. & P. railway.
John Warren Holland, box 319, 228 Calle Alix, Manila, P. I. Broker.
Henry George Johnson, D. D. S., Lindsborg, Kan. Dentist.
Susan Effie (Johnson) Cooper, Blakeman, Kan. Housewife.
Marian Elizabeth (Jones) Pincomb, M. S., Lenexa, Kan. Housewife.
Thomas Lormer Jones, Kansas City, Mo. Piano-tuner, J. W. Jenkins' Sons Music Company.
Edward Clarence Joss, M. D. C., room 402 United States custom-house, Portland, Ore. Inspector in charge Portland, Ore., station, bureau of animal industry, United States Department of Agriculture.
Royal S. Kellogg, M. S., Washington, D. C, Forest inspector, forest service, United States Department of Agriculture.
Mark Kirkpatrick, 325 B street, S. W., Ardmore, I. T. Real estate.
Edith Lynette (Lantz) Simmons, 308 S. Fifth street, Victor, Colo. Housewife.
Sue (Long) Strauss, 1241 Tyler street, Topeka, Kan. Housewife.

Charles W. Lyman, Topeka, Kan. Traveling salesman, Seymour Packing Company.
Charles Dwin McCauley, Wilburn, Kan. Farmer.
Charles Sumner Marty, Sun, Barber county, Kansas. Stockman.
Elda Lenore (Keen) Moore, Manhattan, Kan. Housewife.
Arthur Huston Morgan, R. F. D. No. 3, Long Island, Kan. Farmer and stock-raiser.
Clara Verena Newell, R. F. D. No. 2, Glenville, Neb. At home.
Ellen Elizabeth (Norton) Adams, Cheyenne Wells, Colo. Housewife.
John Bitting Smith Norton, M. S., College Park, Md. Professor of botany and vegetable pathology, Maryland Agricultural College, and state pathologist.
Hattie A. (Paddleford) McFadden, Riley, Kan. Housewife.
Mary Kerilla (Painter) Rogers, Bellaire, Okla. Housewife.
Elva Luthera (Palmer) Thackrey, R. F. D. No. 6, Independence, Mo. Housewife.
Inez Luella (Palmer) Barrows, Marysville, Kan. Housewife.
Fannie (Parkinson) Moyer, R. F. D. No. 3, Melvern, Kan. Housewife.
Archie Carpenter Peck, Francis, I. T. Manager of cotton-gin.
Arthur Louis Peter, M. D., Los Angeles, Cal. Physician.
Charles Edwin Pincomb, Lenexa, Kan. Stockman.
Mary Josephine (Pincomb) Moats, box 54, Tampico, Mexico. Housewife.
John Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
Edgar Arthur Powell. Died in 1904.
Lisle Willits Pursel, Cherokee, Kan. Car clerk, Frisco railroad.
Howard Newton Rhodes, 1524 Harrison street, Topeka, Kan. Head of tracing department, general offices, A. T. & S. F. railway.
Ambrose Elliott Ridenour, Manhattan, Kan. Foreman of foundry, Kansas State Agricultural College.
Mary Etta (Ridenour) Plowman, Jewell, Kan. Housewife.
Isaac Archie Robertson, Alma, Kan. Manager Knostman's clothing and shoe store.
Grace Anna Secrest. Died in 1902.
Carl Snyder, Lebo, Kan. Telephone exchange.
Max Gilbert Spalding, Eureka, Kan. Railway mail clerk.
Orville Ashford Stingley, D. V. S., 1912 East Thirty-sixth street, Kansas City, Mo. Veterinary inspector, bureau of animal industry, United States Department of Agriculture.
Sadie (Stingley) Haggman, 1409 Wright street, Los Angeles, Cal. Housewife.
Gertrude Ella Stump, Manhattan, Kan. Assistant in domestic art department and graduate student, Kansas State Agricultural College.
Miriam Esther (Swingle) Joss, Portland, Ore. Housewife.
William Elwood Thackrey, Fort Totten, N. Dak. Assistant superintendent, Fort Totten Indian school.
James Dunbar Trumbull, 227 Olive street, Santa Rosa, Cal. With Samona Fruit and Produce Company.
Frank Edwin Uhl, 607 Quindaro boulevard, Kansas City, Kan. Bookkeeper Meyer Sanitary Milk Company.
Edwin H. Webster, M. S., 215 The Ontario, Washington, D. C. Chief dairy division, bureau of animal industry, United States Department of Agriculture.

1897.

Cora Atwell, 1125 W. Third street, Topeka, Kan. At home.
Roger Williams Bishoff, United States Indian school, Wyandotte, I. T. Disciplinarian, Seneca Indian training-school.
Mary Frances (Carnell) Roe, Dorrance, Kan. Housewife.
William Burns Chase, Dodge City, Kan. Wire chief, Dodge City Telephone Company.
Frank E. Cheadle, Cherokee, Okla. Farmer.
Robert Waitman Clothier, M. S., Gainesville, Fla. Professor of agriculture and horticulture, State University of Florida.
Maggie A. (Correll) Uhl, 607 Quindaro boulevard, Kansas City, Kan. Housewife.
Mabel (Crump) McCauley, 719 E. Forty-sixth street, Chicago, Ill. Housewife.
Fred Volley Dial, Irving, Kan. Farmer.
Viola Grace Dille, 3519 Euclid avenue, Kansas City, Mo. Clerk Meriden Creamery Company.
Samuel Dolby. Died in 1903.
George Doll, Lewis, Kan. Merchant.
Anna Phillipina (Engel) Blackman, Manhattan, Kan. Housewife.
Emma (Finley) Schroder, 625 North Garey avenue, Pomona, Cal. Housewife.
Martha (Fox) Smith, 923 Madison street, Topeka, Kan. Housewife.
Philip Fox, M. S., Yerkes observatory, Williams Bay, Wis. Astronomer.
Ned Merrill Green, Manila, P. I. First lieutenant, Fifteenth infantry, United States army.
Mary Eliza Haulenbeck. Died in 1901.

Lewellyn Gaines Hepworth, Burlingame, Kan. Traveling salesman.
Ina Emma Holroyd, Manhattan, Kan. Assistant in preparatory department, Kansas State Agricultural College.
Myrtle Hattie (Hood) Johnson, Success, Kan. Housewife.
Charles Henry Hoop, Manhattan, Kan. Clerk.
Winifred Anna (Houghton) Buck, 1006 Garfield avenue, Topeka, Kan. Housewife.
Bret Redmon Hull, 214 Poyntz avenue, Manhattan, Kan. Hardware merchant.
Clay Berkey Ingman, Barnes, Kan. Farmer.
Gertrude May (Lyman) Hall, Hyattsville, Md. Housewife.
Frederick Hugo Meyer, 610 N. Fifth street, Kansas City, Kan. Creameryman.
Valentine Maelzer, May, Idaho. Assistant state engineer, county surveyor, and farmer.
Sherman Bodwell Newell, R. F. D. No. 3, Manhattan, Kan. Ranchman.
Oliver Ezra Noble, Hobart, Okla. Civil engineer.
Jesse Baker Norton, M. S., Washington, D. C. Assistant physiologist, plant breeding investigations, United States Department of Agriculture.
Mary Augusta (Norton) Polson, Randolph, Kan. Housewife.
Bertha Olivia Olson, 502 N. Sixth street, St. Joseph, Mo. Housework.
Hilda Sophia (Olson) Axelton, Garrison, Kan. Housewife.
Russell John Peck, Gotebo, Okla. Farmer.
William Oscar Peterson, Bonner Springs, Kan. Teacher.
Eva Louise Philbrook, Wa Keeney, Kan. Teacher in city schools.
Rufus M. Philbrook, Palace hotel, Walla Walla, Wash. Painter.
William Joseph Rhoades, Olathe, Kan. Cashier in bank.
Carl E. Rice, police department, Manila, P. I. Patrolman.
Thomas Meade Robertson, D. D. S., Coffeyville, Kan. Dentist.
Homer Joseph Robison, Washington barracks, Washington, D. C. Sergeant first class, hospital corps, United States army.
Edward Shellenbaum, Randolph, Kan. Postmaster.
Alice Myrtle Shofe, Manhattan, Kan. Teacher.
Charles Wesley Shull, Wallace, Kan. Farmer and dairyman.
Alfred Caleb Smith, 207 Harvard avenue, N., Seattle, Wash. Real-estate broker.
Phœbe Jane Smith, 514 W. Eighth street, Pueblo, Colo. Supervisor of domestic art and basketry in city schools.
Wilhelmina Henrietta Spohr, 1008 Eighth street, Menomonie, Wis. Student, Stout training schools.
Charles Harrison Stokely, 4908 Wyandotte street, Kansas City, Mo. Solicitor for Missouri & Kansas Telephone Company.
John E. Trembly, R. F. D. No. 5, Council Grove, Kan. Farmer and stock-raiser.
Harriet Agnes (Vandivert) Remick, Manhattan, Kan. Housewife.
Olive Voiles, 854 First avenue, E., Cedar Rapids, Iowa. Trained nurse.
John Minton Westgate, M. S., Lanham, Md. Assistant agrostologist, United States Department of Agriculture.
Mark Wheeler, Fort Wm. McKinley, P. I. Captain, Sixteenth infantry, United States army.
Clare Annie (Wilson) Dutton, R. F. D. No. 2, Alta Vista, Kan. Housewife.

1898.

Emory Sherwood Adams, Vancouver barracks, Vancouver, Wash. Second lieutenant, Fourteenth United States infantry.
Joshua William Adams, Cheyenne Wells, Colo. Ranchman.
Samuel John Adams, Cheyenne Wells, Colo. Farmer and real-estate agent.
Thomas Walter Allison, Florence, Kan. Fruit-grower and farmer.
William Anderson, M. S., 136 Hubble avenue, Houghton, Mich. Instructor in physics and mathematics, Michigan College of Mines.
Jessie Geneva (Bayless) Staver, R. F. D. No. 1, Lenexa, Kan. Housewife.
Hope Brady, 203 N. Juliette avenue, Manhattan, Kan. Teacher.
Robert Henry Brown, Manhattan, Kan. Assistant professor of music, Kansas State Agricultural College.
Earl Carver Butterfield, Arlington farm, Rosslyn, Va. Assistant horticulturist, United States Department of Agriculture.
John Alfred Conover, Raleigh, N. C. In dairy division, bureau of animal industry, United States Department of Agriculture.
Minnie Laura Copeland, 1933 Indiana avenue, Chicago, Ill. Trained nurse.
Lucy Maria (Cottrell) Pottorf, R. F. D. No. 1, Riley, Kan. Housewife.
Anna Magdalena (Dahl) Davis, R. F. D. No. 1, Montrose, Kan. Housewife.
Inga Josephine Dahl, R. F. D. No. 1, Montrose, Kan. Teacher.
Cassie Belle Dille, 3519 Euclid avenue, Kansas City, Mo. Stenographer in office of Meriden Creamery Company.
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. Died in 1904.
William Logan Hall, M. S., Hyattsville, Md. Assistant forester, forest service, United States Department of Agriculture.
Anna Viola (Hanson) Higinbotham, Manhattan, Kan. Housewife.
Walter Eugene Hardy, Arleta, Ore.
James Madison Harvey, R. F. D. No. 1, Ogden, Kan. Farmer.
Emmett Vivian Hoffman, Enterprise, Kan. Secretary and manager C. Hoffman & Son Milling Company.
Guy Dudley Hulett, D. O. Died in 1904.
Bertha Emma Ingman, Barnes, Kan. At home.
Ary Cordelia (Johnson) Butterfield, 602 W. Eighteenth street, Kansas City, Mo. Housewife.
Charles Percy King, Baxter Springs, Kan. Lumberman.
Bessie May (Lock) Noble, Hobart, Okla. Housewife.
Olive Long. Died in 1902.
William Andrew McCullough, M. D., Delavan, Kan. Physician and surgeon.
Inez Isadore (Manchester) Allison, Florence, Kan. Housewife.
Florence Adelia Martin. Died in 1901.
Henry Alba Martin, Admire, Kan. Creameryman and farmer.
Alice Maude Melton, Manhattan, Kan. Clerk in chemical department, Kansas State Agricultural College.
George Gerkein Menke, Garden City, Kan. Stock-breeder.
Mary Frances Minis, 501 Moro street, Manhattan, Kan. Stenographer and bookkeeper.
May (Moore) Dakin, 1147 N. Emporia avenue, Wichita, Kan. Housewife.
Harriet Grace (Nichols) Donohoo, Tucumcari, N. M. Deputy probate clerk.
Schuyler Nichols, M. D., 2 N. Broadway, Herington, Kan. Physician and surgeon.
Lucy Junie Parks, Manhattan, Kan. Teacher.
Ernest Byron Patten, Carthage, S. Dak. Assistant cashier, State Bank of Carthage.
C. Jeanette (Perry) Thomas, 1253 S. Thirteenth street, Harrisburg, Pa. Housewife.
Emilie Matilda (Pfuetze) Samuel, Manhattan, Kan. Housewife.
John Martin Pierce, Geyserville, Cal. Fruit-grower.
Raymond Haines Pond, M. S., Ph. D., 87 Lake street, Chicago, Ill. Professor of botany and pharmacognosy, Northwestern University.
William Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
Willis Thomas Pope, Honolulu, H. I. Vice-principal of the Territorial Normal and Training School of Hawaii.
Nora May (Reed) Pierce, Geyserville, Cal. Housewife.
Gertrude Elizabeth Rhodes, Manhattan, Kan. Clerk.
Henry William Rogler, Bazaar, Kan. Farmer.
Ferdinand John Rumold, Hope, Kan. Farmer and stockman.
Martin Wilbur Sanderson, box 328, Marysville, Kan. County surveyor and city engineer of Marysville.
Olive Maria (Shelton) Parker, 319 Prospect avenue, El Paso, Tex. Housewife.
Edwin Lee Smith, Manhattan, Kan. Rural letter-carrier.
Oliver Russell Smith, C. E., Socorro, N. M. Professor of civil engineering, New Mexico School of Mines; United States deputy mineral surveyor.
Bertha (Spohr) Smith, Garnett, Kan. Housewife.
Andrew B. Symns, R. F. D. No. 5, Troy, Kan. Farmer and stock-raiser.
Cora Thackrey, Valentine, Neb. Teacher.
Harriet Emerson (Thackrey) Reece, Simeon, Neb. Housewife.
Henry Marsden Thomas, 1253 South Thirteenth street, Harrisburg, Pa. General collection agent for J. I. Case Threshing-machine Company.
Elsie Lucile (Waters) Conner, Albert Lea, Minn. Housewife.
Fred Dorsey Waters, Neame, La. Foreman grading department of C. C. C. C. Lumber Company.
Abner Davis Whipple, 614 West Sixty-first Place, Chicago, Ill. Clerk, Western Electric Company.
Adelaide Frances (Wilder) Sawdon, M. S., 961 East State street, Ithaca, N. Y. Housewife.
Josephine Hannah (Wilder) McCullough, M. S., Delavan, Kan. Housewife.
Frank Yeoman, LL. B., 57 Water-works building, Kansas City, Mo. Lawyer.
Frederick Zimmerman, Bendena, Kan. Cashier Bendena State Bank.

1899.

Bonnie Frances Adams, Cheyenne Wells, Colo. Teacher in city schools.
Morrison Carpenter Adams, Marvin, Kan. Stock farmer.
Melvia Fairetta Avery, M. D., 14 South Park street, Kansas City, Kan. Physician-interne at general hospital, Kansas City, Mo.

Albert Edwin Blair, 715 Henton avenue, Topeka, Kan. Architectural draftsman.
James Courtney Bolton, Zeandale, Kan. Farmer.
Joseph Abbott Butterfield, 602 West Eighteenth street, Kansas City, Mo. Railway postal clerk.
Willitt Ramson Correll, R. F. D. No. 4, box 32, Carbondale, Kan. Farmer.
Ernest Lerned Cottrell, Wabaunsee, Kan. Farmer.
Alfred Burton Dille, jr., Alamagordo, N. M. Farmer.
Francis Joseph Habiger, Bushton, Kan. Farmer.
John George Haney, Oswego, Kan. Manager of the Deming ranch.
John Andrew Harvey, R. F. D. No. 1, Ogden, Kan. Farmer.
Grace Edna (Hill) Champlin, Phillipsburg, Kan. Housewife.
Hiram Adsit Holzer, 206 West Park avenue, Pittsburg, Kan. Superintendent United Iron-works Company, Pittsburg plant.
Charles Clifford Jackson, R. F. D. No. 1, Westmoreland, Kan. Farmer.
Fred Emanuel Johnson, D. V. S., box 510, Lincoln, Neb. Inspector, quarantine service, bureau of animal industry, United States Department of Agriculture.
Harry Wallace Johnston, Brookeland, Tex. Agent G. C. & S. F. railway and Wells-Fargo Express Company.
Lot Parker Keeler, 819 East Seventh street, Portland, Ore. Carpenter.
John Martin Kessler, Twenty-fifth and Kansas avenue, Topeka, Kan. Florist.
Albert Thomas Kinsley, M. S., D. V. S., 2108 East Thirty-sixth street, Kansas City, Mo. Director microscopic laboratory, Kansas City Veterinary College; veterinary practitioner.
Frank Elmer LaShelle, 1217 Third street, Clay Center, Kan. Foreman Clay Center *Dispatch* job printing department.
Christian Dagobert Lechner, Russell, Kan. Contractor and builder.
Ross Long, Denver, Colo. Lawyer.
Louisa Mary (Maelzer) Haise, Russell, Kan. Housewife.
Kate Anna Manly, Manhattan, Kan. Teacher in city schools.
Claud Masters, Sulphur, I. T. Abstracter and insurance agent.
Robert Bertice Mitchell. Died in 1904.
Jennie June (Needham) Carter, R. F. D. No. 1, Rantoul, Kan. Housewife.
Roscoe Townley Nichols, M. D., Liberal, Kan. Physician and surgeon.
Fanny Gertrude Noyes, Lakeside Hospital, Cleveland, Ohio. Pupil nurse, Lakeside Hospital training-school.
Harry Delphos Orr, M. D., 103 Randolph street, Chicago, Ill. Physician.
George Washington Owens, box 30, Institute Station, Ala. Instructor in dairy husbandry and assistant in agriculture, Tuskegee Institute.
Carrie Vashti (Painter) Desmarias, Lakeland, Kan. Housewife.
Ella Emerson Peck, 752 South Travis street, Sherman, Tex. Student, North Texas Female College.
Anna C. (Pfuetze) Julian, Olathe, Kan. Housewife.
Andrew Pottorf, R. F. D. No. 1, Riley, Kan. Farmer.
Mary Bly (Pritner) Lockwood, Allegheny Place, Meadville, Pa. Housewife.
Otto Independence Purdy, 901 North Twenty-fourth street, South Omaha, Neb. Field-man Daily Drovers-Journal Stockman.
Delmer William Randall, Twin Falls, Idaho. Farmer and surveyor.
William Harry Roberts, Vernon, Kan. Teacher and farmer.
Frank Sessions Shelton, Ketchiken, Alaska. Bookkeeper.
Louisa Mary Spohr, Parkview Hospital, Manhattan, Kan. Trained nurse.
Annie Louisa (Streeter) Haney. Died in 1906.
Nellie (Towers) Brooks, 301 West Thirteenth street, Kansas City, Mo. Housewife.
Otho Sprague True, R. F. D. No. 2, Paxico, Kan. Farmer.
James Otis Tulloss, Sedan, Kan. Merchant, and Regent Kansas State Agricultural College.
William Guy Tulloss, Rantoul, Kan. Cashier State Bank.
George Franklin Wagner, Enterprise, Kan. Farmer and stock-raiser.
Mary Lana (Waugh) Smith, 207 Harvard avenue, N., Seattle, Wash. Housewife.
Charles Bernard White, 708 Lawrence street, Topeka, Kan. With Seymour Packing Company.
Nannie Elizabeth Williams, R. F. D. No. 2, Gardner, Kan. Stenographer.
Alexander George Wilson. Died in 1902.
Frederick Otto Woestemeyer, B. D., Bethel, Kan. Minister.

1900.

Elizabeth Jane Agnew, 330 St. Francis street, Wichita, Kan. Instructor in cooking and sewing in city schools.
Elizabeth Edna (Asbury) Derr, 1009 Normal avenue, Mt. Pleasant, Mich. Housewife.
Effie Elizabeth (Bailey) Foltz, Zeandale, Kan. Housewife.
Alvah I. Bain, Hutchinson, Kan. Merchant.

Harry M. Bainer, M. S. A., Fort Collins, Colo. Professor of farm mechanics, Colorado Agricultural College.
Charlotte Almira (Berkey) Smith, El Dorado, Kan. Housewife.
John Harold Blachly, Manhattan, Kan. Student Western Dental College, Kansas City, Mo.
Minerva (Blachly) Dean, Manhattan, Kan. Housewife.
Zina Leigh Bliss, A. B., 57 South McComb street, Monroe, Mich. Forester and nurseryman.
Fred Winchester Bobbitt, 1135 K street, Perry, Okla. Engineer for the Trinity & Brazos Valley Railway Company.
Lillie Grace Bolton, R. F. D. No. 1, Wamego, Kan. Teacher.
Prudence Dell (Broquet) Bailey, Huerfano, Colo. Housewife.
Nellie (Burtner) Sargent. Died in 1901.
Clarence Asa Chandler, Swope Park, R. F. D. No. 3, Kansas City, Mo. Superintendent Swope Park.
Frederick Waldemar Christensen, box 325, State College, Pa. Assistant in animal nutrition in the institute of animal nutrition, Pennsylvania State College.
Ernest Mansel Cook, Oakley, Kan. Farmer.
Charles McClain Correll, 691 East Fifty-seventh street, Chicago, Ill. Student University of Chicago.
Jennie Maude Currie, 904 Monroe street, Topeka, Kan. Stenographer, A. T. & S. F. general offices.
Harry Leroy Dern, Cimarron, Kan. Farmer.
Homer Derr, 1009 Normal avenue, Mt. Pleasant, Mich. Instructor in physics and mathematics, Central State Normal School.
Mary Alberta (Dille) Hulett, Alamogordo, N. M. Ranching.
Robert Edward Eastman, Manhattan, Kan. Assistant horticulturist, Kansas State Agricultural College.
Jennie (Edelblute) Smethurst, Manhattan, Kan. Housewife.
Eugene Emrick, 1724 Main street, Joplin, Mo. Bookkeeper for L. B. Price Mercantile Company.
Josephine Finley. Manhattan, Kan. At home.
Harry Verne Forest, Thayer, Kan. Electrical engineer.
George Ogden Greene, M. S., Plainville, Kan. Merchant.
Herman C. Haffner, Breen, Colo. Assistant superintendent, Fort Lewis Indian school.
Gustaf William Hanson, lock box P, Marquette, Kan. Proprietor and superintendent of Hanson Novelty Manufacturing Company.
James William Harner, Manhattan, Kan. With horticultural department, Kansas State Agricultural College.
Daisy Gladys (Hoffman) Johntz, 307 Vine street, Abilene, Kan. Housewife.
Walter Fisk Lawry, 4145 Indiana avenue, Chicago, Ill. Draftsman with the Link Belt Company.
Amanda Culp (McCarty) Coats, Liberal, Mo. Housewife.
N. Ollie (McCurry) Walker, Plymouth, Kan. Housewife.
George G. McDowell, Elkton, Colo. Miner.
Roland McKee, Chico, Cal. Scientific assistant in horticulture, United States Department of Agriculture.
Nettie (McLaren) Scott, box 75, Altoona, Kan. Housewife.
Charles Dudley Montgomery. Died in 1902.
Fred Byers Morlan, R. F. D. No. 1, Courtland, Kan. Farmer.
Andrew Edward Oman, M. F., forest service, Washington, D. C. Forest assistant, forest service, United States Department of Agriculture.
Kate (Paddock) Hess, Manhattan, Kan. Housewife.
Joseph Lloyd Pancake, Mt. Airy, Ga. Farmer and stock-raiser.
Albert William Parrack. Died in 1901.
Edith (Perkins) Myers, 1708 Oak street, South Pasadena, Cal. Housewife.
Elenore Perkins, box 238, South Pasadena, Cal. At home.
Paul du Chaillu Piersol, 119 South First street, Guthrie, Okla. Manufacturing confectioner.
Luther Eugene Potter, Myton, Utah. Farmer.
Clara Spilman, Camden Point, Mo. Instructor in domestic science at the Christian Female Orphans' School.
Mabel Stewart, Neosho, Mo. Instructor in mathematics, high school.
Stella Stewart, Wingohocking Hall, Mt. Airy, Philadelphia, Pa. Teacher of the deaf.
Fayette Charles Sweet, Sophia, Okla. Stockman.
Cora Edith Swingle, Rochester, Mich. At home.
Deane Bret Swingle, M. S., Bozeman, Mont. Assistant professor of botany, Montana Agricultural College.
Barton Thompson, 1107 Locust street, Columbia, Mo. Assistant in dairying, University of Missouri.

Laura Helen (Trumbull) Correll, 691 East Fifty-seventh street, Chicago, Ill. Housewife.
Jessie May Wagner, Enterprise, Kan. At home.
Luther Watts Waldraven, R. F. D. No. 1, Winkler, Kan. Farmer and stock-raiser.
Kate Elizabeth Zimmerman, Moray, Kan. Teacher.

1901.

Del Mar Akin, 830 Moro street, Manhattan, Kan. Student University Medical College, Kansas City, Mo.
Cyrus Norton Allison, D. D. S., box 954, Falls City, Neb. Dentist.
Loua Adelle (Blachly) Freeman, Manhattan, Kan. Housewife.
Harry S. Bourne, Delphos, Kan. Carpenter and machinist.
Charles J. Burson, Hewins, Kan. Bank cashier.
Howard Frank Butterfield, 606 West Second street, Pittsburg, Kan. Instructor in manual training in city high school.
Edwin Charles Cook. Died in 1903.
Ina Foote Cowles, Manhattan, Kan. Assistant in domestic art department, Kansas State Agricultural College.
Trena (Dahl) Turner, Norton, Kan. Housewife.
Fannie Rachel Ellen Dale, Manhattan, Kan. Stenographer in mechanical department, Kansas State Agricultural College.
Herman August Dieball, Alma, Kan.
Edgar Willis Doane, A. B., Oakland, Cal. Resident engineer, with Western Pacific railway.
Otto H. Elling, Lawton, Okla. Farmer.
Valentine Meacham Emmert, R. F. D. No. 1, Blue Rapids, Kan. Farmer and stock-raiser.
Rainey Faris, box 371, Upper Alton, Ill. Assistant mechanical engineer for Western Cartridge Company, of East Alton.
Harry Haines Fay, R. F. D. No. 2, Wilsey, Kan. Farmer.
Fred Fockele, Waverly, Kan. Banker.
Louise Gerteis, Derby, Kan. Teacher.
Maud Hart, R. F. D. No. 2, Coin, Iowa. At home.
Fred Willis Haselwood, Altamont, Cal. Resident engineer, Western Pacific Railway Company.
Minnie M. Howell, 838 Freeman avenue, Kansas City, Kan. Teacher of domestic science in Sumner high school.
Edith (Huntress) Rhoades, Olathe, Kan. Housewife.
Louis Berten Jolley, M. D., Gurnee, Ill. Physician and surgeon.
Helen (Knostman) Pratt, Manhattan, Kan. Housewife.
Daniel Ladd, 652 East Fifty-seventh street, Chicago, Ill. Student University of Chicago.
Erma Elizabeth Locke, Mountain Grove, Mo. Teacher.
Harvey McCaslin, A. B., LL. B., Atwood, Kan. Lawyer.
Madge Ruth (McKeen) Axelton, Randolph, Kan. Housewife.
John A. McKenzie, R. F. D. No. 1, Solomon, Kan. Farmer.
George Martinson, Manhattan, Nev. Attorney.
Walter E. Mathewson, M. S., Manhattan, Kan. Assistant in chemistry, Kansas State Agricultural College.
Emma Maude (Miller) Cook, Oakley, Kan. Teacher.
Margaret Jane Minis, Manhattan, Kan. Librarian, Kansas State Agricultural College.
Clarence William Morgan, Phillipsburg, Kan. Farmer.
Eugene Lawrence Morgan, Phillipsburg, Kan. Physician and surgeon.
Ruth Atwill Mudge, 909 Fourth avenue, Louisville, Ky. Teacher of botany, girls' high school.
Jessie May Mustard, Manchester, Kan. Assistant principal in high school, Solomon, Kan.
Martha (Nitcher) Sowers, R. F. D. No. 1, Ames, Iowa. Housewife.
John H. Oesterhaus, Manila, P. I. Veterinarian, Seventh cavalry, United States army.
Carrie Belle Oneel, 191 Lincoln avenue, San Jose, Cal. Cashier and bookkeeper.
Helena Maude Pincomb, Lenexa, Kan. Teacher of domestic science.
Bryant Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
Leroy Rigg, Kirwin, Kan. Farmer and stock-raiser.
William Stephen Sargent, Tombstone, Ariz. Field assistant, United States Geological Survey.
Maude (Sauble) Rogler, Bazaar, Kan. Housewife.
Charles A. Scott, Halsey, Neb. Forest supervisor, forest service, United States Department of Agriculture.
Anna Louisa (Smith) Kinsley, 2108 East Thirty-sixth street, Kansas City, Mo. Housewife.

Adelaide Strite, 219 North Juliette avenue, Manhattan, Kan. Teacher in city schools.
Anna Odette (Summers) Galligan, 209 West Fifth avenue, Spokane, Wash. Housewife.
Lucy Sweet, 64 Walnut avenue, Santa Cruz, Cal. Clerk.
Perrin K. Symns, R. F. D. No. 6, Troy, Kan. Farmer and stock-raiser.
Estella Mae Tharp, R. F. D. No. 8, Winfield, Kan. Teacher.
Helen Castle True, 1409 Fillmore street, Topeka, Kan. Teacher.
Harry Castle Turner, Capitan, N. M. Forest planting assistant, United States Department of Agriculture, and graduate student, Kansas State Agricultural College.
Florence Helen (Vail) Butterfield, 606 West Second street, Pittsburg, Kan. Housewife.
Mary Caroline (Wagner) Gresham, 804 West Main street, Grand Junction, Colo. Housewife.
Eleanor Mary White, American Falls, Idaho. Teacher.
Katharena Winter, Manhattan, Kan. Clerk.
Lucie Joan (Wyatt) Wilson, Onaga, Kan. Housewife.
Henry Theador York. Died in 1902.

1902.

Mamie (Alexander) Boyd, Phillipsburg, Kan. Housewife.
Edgar McCall Amos, 1015 Leavenworth street, Manhattan, Kan. Printer and publisher.
Henry Albert Avery, Wakefield, Kan. Hardware, furniture and implement dealer.
Etta Marie Barnard, Blue Rapids, Kan. Teacher in city schools.
Mary Olive Barr, Manhattan, Kan. At home.
George Ford Bean, Elmwood hotel, Trinidad, Colo. With O. L. Davis Lumber Company.
Charles Dallas Blachly, Leonardville, Kan. Student at Kansas City Medical College.
Bessie Sarah Bourne, Delphos, Kan. Teacher.
Martha Amelia Briggs, Manhattan, Kan. At home.
Emma M. Cain, Clay Center, Kan. Teacher.
Floyd Adelbert Champlin, Phillipsburg, Kan. Stock-farmer.
Elijah Ellis Chase, R. F. D. No. 1, Merriam, Kan. Farmer.
Charles Howard Clark, Kinsley, Kan. Farmer and dairyman.
Maude Mildred Coe, Yates Center, Kan. At home.
Murray Stanley Cole, Yermo, Cal. Car inspector for the San Pedro, Los Angeles & Salt Lake railway.
Robert Curtise Cole, Platte, S. Dak. Stockman.
Lottie Irene Crawford, 315 Plum street, Fort Collins, Colo. Teacher of domestic science, Colorado Agricultural College.
Sarah Emily Davies, Bala, Kan. Teacher.
Della (Drollinger) Glunt, Garrison, Kan. Housewife.
Charles Eastman, D. V. S., 1169 Pismo street, San Luis Obispo, Cal. Veterinarian, and agent of the bureau of animal industry.
Leslie Arthur Fitz, 1545 Ruskin avenue, Baltimore, Md. In charge of grain standardization office, bureau of plant industry, United States Department of Agriculture.
Glick Fockele, Le Roy, Kan. Journalist, loan and insurance agent.
Clark A. Gingery, R. F. D. No. 2, Caldwell, Kan. Farmer.
William Lee Harvey, 1324 Tyler street, Topeka, Kan. Attorney at law and assistant supreme court reporter.
Benjamin F. Haynes, jr., R. F. D. No. 3, Boise, Idaho. Ranchman.
William Rutherford Hildreth, R. F. D. No. 2, Altamont, Kan. Farmer.
Christine Delphine (Hofer) Johnson, 26 Prospect Place, Belleville, N. J. Housewife.
Henrietta Mattie Hofer, Brielle, N. J. Vocal teacher, Graceland College, Lamoni, Iowa.
Edouard Wilfred House, 519 East Eleventh street, Kansas City, Mo. Patternmaker and millwright, Proctor & Gamble Soap Company.
Letta Birdilla (Keen) Edmondson, Clay Center, Kan. Housewife.
Edgar Willis Kimball, 728 Poyntz avenue, Manhattan, Kan. Publisher of *Republic.*
Arthur Henry Leidigh, Amarillo, Tex. Superintendent of Amarillo experimental farm, scientific assistant, United States Department of Agriculture.
George M. Logan, M. D., city hospital, Akron, Ohio. Physician and surgeon.
Otto Meade McAninch, Weskan, Kan. Ranchman and farmer.
Amelia Augusta Maelzer, R. F. D. No. 1, Centralia, Kan. At home.
Margaret Myrtle Mather, 416 Delavan street, Lincoln, Ill. Director of domestic science department, Lincoln College; Chautauqua and farmers' institute lecturer.

Roger Bonner Mullen, Lake Bay, Wash. Fruit-grower and poultry raiser.
Grover Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
Abbie Elida (Putnam) Cutting, Lenora, Kan. Housewife.
Henry Paul Richards, 417 Madison street, Topeka, Kan. Mechanical expert for A. T. & S. F. Rly. Co.
Eva Talitha Rigg, East Fifteenth street and Denver avenue, Kansas City, Mo. Teacher of domestic science in Fisk Deaconess Training School.
John Francis Ross, Genoa, Neb. Teacher of agriculture in Genoa Indian school.
Pontus Henry Ross, Kenai, Alaska. Superintendent of United States Experiment Station.
Fred Lewis Schneider, D. V. S., room 308, Occidental Life building, Albuquerque, N. M. Veterinarian; inspector, bureau of animal industry, United States Department of Agriculture.
Edmund Ray Secrest, Wooster, Ohio. Assistant forester, Ohio Agricultural Experiment Station.
Glen Reid Shepherd, 623 Oakland avenue, Kansas City, Kan. Teller Wyandotte State Bank.
Charles Franklin Smith, El Dorado, Kan. Principal of high school.
Walter Hayward Spencer, Yates Center, Kan. Farmer and stock-raiser.
John Thomas Stafford, Crawford, Colo. Ranchman.
Myrtie Lucy Toothaker, R. F. D. No. 3, Blaine, Kan. At home.
Fred Walters, 356 Colorado avenue, Trinidad, Colo. Civil engineer.
Lilly Maud Zimmerman, Moray, Kan. Teacher of science and literature in Oswego high school.

1903.

Richard Franklin Bourne, D. V. S., 1336 East Fifteenth street, Kansas City, Mo. Professor of physiology and histology, Kansas City Veterinary College.
Howard McCune Chandler, Guanica Central, Guanica, Porto Rico. Mechanical draftsman, Honolulu Iron-works Company.
DeVerne E. Corbin, Oxford, Kan. Farmer.
James A. Correll, 165 West Canton street, Boston, Mass. Student in Massachusetts Institute of Technology.
Amos Luther Cottrell, Chicago, Ill. Traveling salesman for the Quaker Oats Company.
Claude Carroll Cunningham, Manhattan, Kan. Farmer.
Orrin Pomeroy Drake, R. F. D. No. 2, Frankfort, Kan. Farmer.
Louis Sidney Edwards, Oswego, Kan. Ranch foreman.
Robert Alexander Esdon, 616 North avenue, W., Allegheny, Pa. Theological student.
Corinne (Failyer) Kyle, 26 East Bowman street, Wooster, Ohio. Housewife.
Maude Irene (Failyer) Kinzer, Manhattan, Kan. Housewife.
Estella May Fearon, Manhattan, Kan. Director of physical training, St. Louis Young Women's Christian Association.
George T. Fielding, care of Mr. Walton, corner Union street and Elmer avenue, Schenectady, N. Y. Electrical engineer, General Electric Company.
James William Fields, D. D. S., 949 Minnesota avenue, Kansas City, Kan. Dentist.
Arthur B. Gahan, College Park, Md. Assistant entomologist, Maryland Experiment Station.
Fred Norton Gillis, Wishek, N. Dak. Cashier First State Bank, and secretary and treasurer Bankers' Loan Company.
Clara S. Goodrich, Higginsville, Mo. Teacher of mathematics in high school.
Edith Anna Goodwin, Detroit, Kan. Teacher of science in Dickinson county high school, Chapman.
Ellsworth Paul Goodyear, R. F. D. No. 1, Oatville, Kan. Fruit-grower and dairyman.
Alanson L. Hallsted, Havana, Kan. Farmer.
Esther E. (Hanson) Ross, Kenai, Alaska. Housewife.
Edward Howard Hodgson, Little River, Kan. Farmer and stock-raiser.
Pearl Holderman, R. F. D. No. 4, Chetopa, Kan. At home.
Hartley Bowen Holroyd, Washington, D. C. Forest assistant in forest service, United States Department of Agriculture.
Sarah Hougham, 320 Ninth street, Manhattan, Kan. Editor alumni magazine, Kansas State Agricultural College.
Axel H. Johnson, Mill Creek No. 3, Craftonville, Cal. Switchboard operator, Edison Electric Company.
Jesse McCullah Jones, R. F. D. No. 4, Montgomery, Ala. Planter and stock-raiser.
Hernon Curtis Kyle, 26 E. Bowman street, Wooster, Ohio. Assistant in agronomy, Ohio Experiment Station.
Raymond George Lawry, 4145 Indiana avenue, Chicago, Ill. Structural engineer, with Roberts & Schaefer Company.
Rosè Margaret McCoy, Manhattan, Kan. Teacher.

Edwin William McCrone, Haddam, Kan. Senior veterinary student, Kansas State Agricultural College, and veterinarian.
Bessie A. (Mudge) Houser, Wooster, Ohio. Housewife.
Harold Theodore Nielsen, 1228 B street, S. W., Washington, D. C. Scientific assistant, bureau of plant industry, United States Department of Agriculture.
Ivan L. Nixon, Geological hall, Albany, N. Y. Assistant to state entomologist.
Russell Arthur Oakley, 322 Maryland avenue, N. E., Washington, D. C. Assistant agrostologist, United States Department of Agriculture.
Anna Louella (O'Daniel) Amos, 1015 Leavenworth street, Manhattan, Kan. Housewife.
Clara Pancake, 21 South Front street, Philadelphia, Pa. Teacher of domestic science.
Celoa Alice (Perry) Hill, Fayette, Mo. Housewife.
Alexis Joseph Reed, 1122 Wesley avenue, Oak Park, Ill. Telephone engineer, with Western Electric Company.
Earl Nathaniel Rodell, Manhattan, Kan. Assistant in printing, Kansas State Agricultural College.
Alice May (Ross) Cunningham, Centralia, Kan. Housewife.
Alfred Hayes Sanderson, R. F. D. No. 1, Marysville, Kan. Farmer.
John Marcus Scott, 406 East Orange street, Gainesville, Fla. Professor of animal industry, Florida Agricultural Experiment Station.
Henry August Sidorfsky, Avenida Central 76, Rio de Janeiro, South America. With tramway, light and power company.
Emma Estella (Smith) Burt, R. F. D. No. 1, Alma, Kan. Housewife.
Harold Addison Spilman, 426 Leavenworth street, Manhattan, Kan. Clerk.
Lois Stump, Manhattan, Kan. Student of music, Washburn College, Topeka, Kan
Harry Raymond Thatcher. Died in 1906.
Helen B. Thompson, Manhattan, Kan. Assistant in preparatory department and graduate student, Kansas State Agricultural College.
John Augustus Thompson, 711 Cornell avenue, Kansas City, Kan. Mail-carrier.
Sarah Pauline (Thompson) Manny, 22 Howard street, Bellevue, Pa. Housewife.
Dovie May (Ulrich) Boys, Goodland, Kan. Housewife.
Harry Nelson Vinall, Washington, D. C. Scientific assistant, bureau of plant industry, United States Department of Agriculture.
Alberta Suena Volles, 3421 San Franco street, Los Angeles, Cal. Teacher.
Leon Vincent White, 111 South Pine street, North Chillicothe, Ill. Transit man, civil engineering department, A. T. & S. F. railway.

1904.

Amy Alena Allen, Manhattan, Kan. Proof-reader in printing department, Kansas State Agricultural College.
Marian (Allen) Buell, Roanoke, Tex. Housewife.
Grace Allingham, 927 Humboldt street, Manhattan, Kan. Teacher in city schools.
James George Arbuthnot, 656 Third street, Portland, Ore. Special agent Old Line Bankers' Life Insurance Company.
Clinton Jesse Axtell, 308 Summit avenue, Schenectady, N. Y. In testing department of the General Electric Company.
Wallace W. Baird, Clay Center, Kan. Farmer.
Flora Evacelia (Ballou) Banning, R. F. D. No. 2, Lyndon, Kan. Housewife.
William Burgess Banning, R. F. D. No. 2, Lyndon, Kan. Farmer.
Clara Florence Barnhisel, White Earth, Minn. Matron, Indian school.
Frank Lorin Bates, 1221 South University avenue, Ann Arbor, Mich. Law student, University of Michigan.
Louis Blaine Bender, Highland, Kan. Engineer, Western E ectric Company.
John Jeremiah Biddison, Little Rock, Ark. Telegraph editor, *Arkansas Gazette.*
P. McDonald Biddison, 833 West Fourth street, Joplin, Mo. Consulting engineer with Hope Engineering and Supply Company.
Wallace Newton Birch, 135 Tyler street, Topeka, Kan. Dairyman.
Otis Neel Blair, Portland, Ore. Mechanical draftsman, with Portland Railway Light and Power Company.
William Armfield Boys, Goodland, Kan. Farmer.
Viva (Brenner) Morrison, 1530 Arapahoe avenue, Boulder, Colo. Housewife.
Thomas Warner Buell, Roanoke, Tex. Farmer.
Clark Stewart Cole, Manhattan, Kan. Teacher in city schools.
Victor L. Cory, 503 North Main street, McPherson, Kan. Scientific assistant, bureau of plant industry, United States Department of Agriculture.
Jennie Pearl Cottrell, Wabaunsee, Kan. At home.
Ella Criss, Anaheim, Cal. At home.
Wilma Greene (Cross) Rhodes, 1524 Harrison street, Topeka, Kan. Housewife.
Mary E. Davis, Manhattan, Kan. Record clerk, executive department, Kansas State Agricultural College.
William DeOzro Davis, R. F. D. No. 1, Marquette, Kan. Electrician, with A. T. & S. F. railway.

Charles Sumner Dearborn, Bozeman, Mont. Assistant professor of mechanical engineering, Montana Agricultural College.
Thomas E. Dial, Topeka, Kan. Traveling electrician, A. T. & S. F. railway.
Lawrence A. Doane, Roswell, N. M. Farmer.
May Doane, Manhattan, Kan. At home.
Roy Nathan Dorman, R. F. D. No. 6, North Topeka, Kan. Superintendent Spring Brook farm.
Carl O. Duehn, 39 West Twelfth street, New York city. In purchasing department, American Bank Note Company.
Glen Edgar Edgerton, West Point, N. Y. Cadet, United States Military Academy.
Carl G. Elling, Santiago de las Vegas, Cuba. Assistant, Department of Animal Industry of Cuba.
Ralph B. Felton, R. F. D. No. 6, McPherson, Kan. Farmer.
Ray Bonifield Felton, R. F. D. No. 6, McPherson, Kan. Farmer.
Elizabeth (Finlayson) Zuck, Cheyenne Wells, Colo. Housewife.
Jessie Lois Fitz, R. F. D. No. 5, Baldwin, Kan. Teacher.
Beulah Fleming, Manhattan, Kan. Teacher.
Hattie L. (Forsyth) Felton, R. F. D. No. 6, McPherson, Kan. Housewife.
Louis Cloyd Foster, 427 State street, Emporia, Kan. Electrician, with A. T. & S. F. railway.
Edwin Chase Gardner, 4361 Emerald avenue, Chicago, Ill. Cattle-buying department, Swift & Company.
Walter Otis Gray, M. D., 1330 Charlotte street, Kansas City, Mo. Emergency surgeon for police department.
Augusta (Griffing) Harlan, Iloilo, Panay, P. I. Teacher of domestic science in normal school.
John Bernice Griffing, University Place, Des Moines, Iowa. Student Drake University.
Charles Alfred Groves, Edwardsville, Kan. Farmer.
Mary Elizabeth Longfellow Hall, 222 Brook street, Los Angeles, Cal. Student in Los Angeles State Normal School.
Harry Vaughn Harlan, Iloilo, Panay, P. I. In charge of school of agriculture.
Mamie Magdalene Hassebroek, Manhattan, Kan. Teacher.
Arthur Hurschel Helder, 1100 West Fortieth street, Kansas City, Mo. Florist and gardener at Swope park.
Mamie Eva (Helder) Hallsted, Havana, Kan. Housewife.
William A. Hendershot, box 168, Kanopolis, Kan. Principal of schools.
John Samuel Houser, Wooster, Ohio. Assistant entomologist, Ohio Agricultural Experiment Station.
Evan James, R. F. D. No. 3, St. John, Kan. Farmer.
John Arthur Johnson, Elk, Wash. Farmer.
Helen Kernohan, Beverly, Kan. Clerk.
Ralph Teeter Kersey, Wamego, Kan. Traveling salesman, with Underwood & Underwood.
Charles Franklin Kinman, Auburn, Ala. Assistant horticulturist, Alabama Polytechnic Institute, and graduate student Cornell University.
Alice M. Loomis, Oak Glen, Peru, Neb. Teacher of domestic science in Nebraska State Normal.
George W. Loomis, R. F. D. No. 4, Girard, Kan. Farmer and stock-raiser.
Sara Grace McCrone, R. F. D. No. 3, Haddam, Kan. At home.
Vera Alta McDonald, Manhattan, Kan. Clerk in post-office, Kansas State Agricultural College.
Kirk P. Mason, Cawker City, Kan. Physician.
Howard David Matthews, 702 Campbell avenue, Schenectady, N. Y. Electrician, with General Electric Company.
Vernon Matthews, 174 South Common street, Lynn, Mass. Steam-turbine tester for General Electric Company.
Chester Arthur Maus, 623 Lawrence street, Topeka, Kan. Chief electrician for Santa Fe railway shops.
Julia Anna Monroe, Kelly hall, University of Chicago, Chicago, Ill. Student, University of Chicago.
Helen Monsch, 606 Floral Terrace, Louisville, Ky. Teacher of domestic science in city schools.
Samuel Erwin Morlan, 2727 Boles avenue, Kansas City, Mo. Assistant foreman of shop, Western Electric Company.
Albert Marvin Nash, Golden, Colo. Student Colorado School of Mines.
Virginia Viola Norton, 718 Kearney street, Manhattan, Kan. Dressmaker.
Mary Lorena (O'Daniel) Scott, 406 East Orange street, Gainesville, Fla. Housewife.
Tom Lawrence Pittman, Livingston, Mont. Electrician.

Charles A. Pyle, Manhattan, Kan. Senior veterinary student, Kansas State Agricultural College.
Elvin Rickman, Compton, Cal. Contractor.
Jennie Florence Ridenour, 512 Moro street, Manhattan, Kan. Assistant in domestic art department, Kansas State Agricultural College.
Florence Rebecca (Ritchie) Dearborn, Bozeman, Mont. Housewife.
Jesse L. Rogers, Pueblo, Colo. Railway postal clerk.
Flora Rose, 30 West Fifty-ninth street, New York city. Graduate student, Columbia University.
Lawrence V. Sanford, R. F. D. No. 2, Oneida, Kan. Farmer and stock-raiser.
James G. Savage, 716 Fifth street, San Bernardino, Cal. Special apprentice, with A. T. & S. F. railway.
Nicholas Schmitz, Washington, D. C. Expert in bureau of plant industry, United States Department of Agriculture.
Robert Douglas Scott, Marysville, Kan. Traveling salesman.
Roy A. Seaton, Manhattan, Kan. Assistant in mechanical engineering, Kansas State Agricultural College.
John T. Skinner, 904 Ohio street, Lawrence, Kan. Superintendent of Lawrence Electric-light Company.
Marjorie Smith, 514 West Eighth street, Pueblo, Colo. Student in business college.
Sallie Maud Smith, 312 Pottawatomie avenue, Manhattan, Kan. Primary teacher in Douglas school.
Arthur S. Stauffer, 326 North First street, Rockford, Ill. Architect.
K. Elizabeth Sweet, M. S., Burlington, Kan. At home.
Wendell Phillips Terrell, S. B., Prairie View, Tex. Superintendent of mechanical department and professor of drawing, Prairie View State Normal and Industrial College.
Henry Thomas, 1726 Bordeaux street, New Orleans, La. Electrical superintendent of main station, Consumers' Electric Company.
Carl Thompson, R. F. D. No. 1, Garrison, Kan. Farmer and stockman.
Norman Lee Towne, Reno, Nev. With Wells-Fargo Express Company.
William Turnbull, 716 Fifth street, San Bernardino, Cal. Special apprentice, A. T. & S. F. railway shops.
Gertrude M. Vance, 1200 Laramie street, Manhattan, Kan. At home.
Orin Russell Wakefield, 352 South Hoyne avenue, Chicago, Ill. Student College of Physicians and Surgeons, University of Illinois.
Frank Cooper Webb, R. F. D. No. 1, Clearwater, Kan. Farmer.
William Allen Webb, R. F. D. No. 1, Clearwater, Kan. Farmer.
James Halley Whipple, 816 Jefferson street, Topeka, Kan. Special apprentice, Topeka shops, A. T. & S. F. railway.
Orville Blaine Whipple, Grand Junction, Colo. Field horticulturist of Colorado Agricultural Experiment Station.
Emily Jennie (Wiest) Joss, Fairview, Kan. Housewife.
Robert S. Wilson, R. F. D. No. 3, Burden, Kan. Farmer and stock-raiser.
Retta Womer, 1408 Tennessee street, Lawrence, Kan. Senior in pharmacy course, State University.

1905.

Harvey Adams, Manila, P. I. Third lieutenant in constabulary department of the Philippines.
Edward E. Adamson, 133 Front street, Schenectady, N. Y. Electrician, with General Electric Company.
Elva Veola Akin, Zeandale, Kan. Teacher at Riley, Kan.
Pearl Akin, 830 Moro street, Manhattan, Kan. At home.
Nellie Wilhelmina Baird, Washington street, Marquette, Kan. Teacher.
Walter Raymond Ballard, College Park, Md. Assistant horticulturist, Maryland Agricultural Experiment Station.
Jessie Mary Ballou, Delphos, Kan. Teacher.
Frank Everett Balmer, Woodston, Kan. Farmer.
Asa William Barnard, 1123 Houston street, Manhattan, Kan. Mechanical engineer.
Atwood N. H. Beeman, 2454 Tracy avenue, Kansas City, Mo. Linotype operator, Kansas City *Star*.
Herbert F. Bergman, Manhattan, Kan. Assistant in botanical department, Kansas State Agricultural College.
Charles Paul Blachly, 49 Warren avenue, Chicago, Ill. Telephone engineer, Western Electric Company.
Helen Elizabeth Bottomly, Manhattan, Kan. Stenographer in animal husbandry department, Kansas State Agricultural College.
Walter J. Brant, 1815 South Main street, Wichita, Kan. Contractor and builder.
Harvey A. Burt, 2454 Tracy avenue, Kansas City, Mo. With Tuttle & Pike, civil engineers.
Eva Maggy (Burtner) Potter, Manhattan, Kan. Housewife.

Ray Arthur Carle, 1502 Continental Insurance building, Baltimore, Md. Erecting engineer, Westinghouse Electric and Manufacturing Company.
August Belmont Carnahan, 19 Warren street, Lynn, Mass. Mechanical engineer, turbine-engine office of the General Electric Company.
Albert F. Cassell, Manhattan, Kan. Senior veterinary student, Kansas State Agricultural College.
Joseph Griffith Chitty, Blaine, Kan. Farmer and stock-raiser.
L. Ethel Clemons, Manhattan, Kan. At home.
Mary Margaret Cole, Manhattan, Kan. Teacher at Zeandale.
Andrew D. Colliver, Hays, Kan. Assistant in agriculture, Fort Hays Branch Experiment Station.
Mary P. Colliver, 1061 West Thirty-first street, Los Angeles, Cal. Teacher.
Gertrude Matilda (Conner) Snodgrass, Manhattan, Kan. Housewife.
Forrest Leslie Courter, Downs, Kan. Farmer and stock-raiser.
Bertha Cowles, R. F. D. No. 1, Vinland, Kan. At home.
Charles William Cummings, Wilmore, Kan. Teacher.
Jules Cool Cunningham, Centralia, Kan. Manager of fruit farm.
Mamie Grace Cunningham, Fairview, Okla. Teacher.
Edith Nellie Davis, Manhattan, Kan. At home.
Guy R. Davis, 2424 Benton boulevard, Kansas City, Mo. Real estate.
Minnie Estella Deibler, Barnes, Kan. Teacher.
Ula May Dow, Manhattan, Kan. Assistant in domestic science department, Kansas State Agricultural College.
Olive B. Dunlap, Manhattan, Kan. Teacher in preparatory and mathematics departments, Kansas State Agricultural College.
Mary Josephine Edwards, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
William K. Evans, Goodland, Kan. Farmer.
Scott Stuart Fay, 26 East Bowman street, Wooster, Ohio. Assistant chemist, Ohio Experiment Station.
Lathrop Weaver Fielding, Cleburne, Tex. Telephone inspector for Cleburne Automatic Telephone Company.
Lena Finley, Manhattan, Kan. Teacher in preparatory department, Kansas State Agricultural College.
Frances Walker Fish, Carpenteria, Cal. At home.
Charles Wesley Fryhofer, 111 Maryland avenue, Washington, D. C. Scientific assistant, dairy division, United States Department of Agriculture.
Robert Anson Fulton, 1779 East Twenty-fifth street, Cleveland, Ohio. Electrician.
George W. Gasser, Rampart, Alaska. Agent in charge of experiment station.
William H. Goodwin, Station A, Lincoln, Neb. Graduate student, University of Nebraska.
Herbert Revere Groome, Manhattan, Kan. Senior veterinary student, Kansas State Agricultural College.
Margaret Helen Haggart, Agricultural College, N. M. Professor of household economics, New Mexico College of Agriculture and Mechanic Arts.
Otto Albert Hanson, Marquette, Kan. Teacher at Pleasant Hill.
William H. Harold, 417 West Reno street, Oklahoma, Okla. Electrician with Oklahoma Gas and Electric Company.
Lola May Harris, Manhattan, Kan. Teacher.
Henry P. Hess, Manhattan, Kan. Traveling salesman, Western Electric Company, Chicago, Ill.
Frederick Earl Hodgson, 133 Front street, Schenectady, N. Y. Electrical tester for General Electric Company.
Jessie May Hoover, station A, R. F. D. No. 5, Topeka, Kan. Teacher in city schools.
Charles Frederick Johnson, R. F. D. No. 2, Leonardville, Kan. Farmer.
James Henry Johnson, Blueslide, Wash. Electrician.
Winifred Mae Johnson, Solomon Rapids, Kan. At home.
George Henry Kellogg, 712 Leavenworth street, Manhattan, Kan. Teacher.
Mildred I. Kirkwood, Marysville, Kan. Teacher.
Nina H. Kirkwood, Marysville, Kan. Teacher.
George Otto Kramer, Saffordville, Kan. Herdsman.
William C. Lane, Manhattan, Kan. Assistant in physics department, Kansas State Agricultural College.
Daniel Andrew Logan, McFarland, Kan. Trainmaster and roadmaster's secretary, C. R. I. & P. railway.
Edward Logan, Havensville, Kan. Hardware merchant.
Rhoda C. McCartney, Oakes, N. Dak. Primary teacher.
Nellie Reeder (McCoy) Cover, R. F. D. No. 1, Pasadena, Cal. Housewife.
Freide E. Marty, Merriam, Kan. Teacher.
Richard Meyer, Riley, Kan. Farmer.
Mary Mudge, Manhattan, Kan. Cashier in store.

Lewis J. Munger, R. F. D. No. 1, Hollis, Kan. Farmer and stock-raiser.
Rachel Gertrude Nicholson, Fort Lapwai, Idaho. Primary teacher in Indian school.
Jens Nygard, Vesper, Kan. Farmer.
Nell (Paulsen) Pickett, Whiting, Kan. Housewife.
Leonard Marion Peairs, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
Luther B. Pickett, Whiting, Kan. Horticulturist.
Charles Holcomb Popenoe, R. F. D. No. 2, Topeka, Kan. Farmer.
Fanny E. Reynolds, Manhattan, Kan. At home.
Arthur J. Rhodes, Central Y. M. C. A. building, Topeka, Kan. Civil engineer, A. T. & S. F. railway.
Eva May (Rickman) Gilbert, Phillipsburg, Kan. Housewife.
Kate L. Robertson, 417 West 114th street, New York city. Student, teachers' college, Columbia University.
Garfield Shirley, Perry, Kan. Farmer.
Walter Emory Smith, Raton, N. M. Carpenter.
Crete Spencer, 1400 Forest avenue, Kansas City, Mo. Teacher of domestic art in manual-training high school.
William Wesley Stanfield, R. F. D. No. 4, Chanute, Kan. Farmer and fruit-grower, and associate editor, *The Farmers' Advocate.*
Blanche Stevens, Humboldt, Kan. At home.
Effie L. Stewart, 308 North Twelfth street, Humboldt, Kan. At home.
Mary Catherine Strite, Kanopolis, Kan. Teacher.
Jessie A. Sweet, 944 Ashland avenue, Evanston, Ill. Director of domestic science in South Evanston schools.
Charles Bartholow Swift, Williamsburg, Kan. Teller Williamsburg State Bank.
Charles L. Thompson, Etiwanda, Cal. Fruit-grower.
John Bert Thompson, Manila, P. I. With bureau of plant industry, United States Department of Agriculture.
Roger S. Thompson, 219 Garfield avenue, Kansas City, Mo. Draftsman in construction department, S. & S. Company.
Claude B. Thummel, West Point, N. Y. Cadet United States Military Academy.
Alonzo F. Turner, Norton, Kan. Teacher of agriculture and science, Norton county high school.
Grace E. Umberger, 304 Honore street, Chicago, Ill. Training for nurse in Illinois Training-school for Nurses.
Harry Umberger, 1416 K street, N. W., Washington, D. C. Scientific assistant, bureau of plant industry, United States Department of Agriculture.
Fred Van Dorp, R. F. D. No. 8, Topeka, Kan. Farmer.
Rebecca Rees Washington, Manhattan, Kan. At home.
Earl Wheeler, Washington barracks, Washington, D. C. Electrical engineer and instructor, engineer school, United States army.
Inez (Wheeler) Westgate, Lanham, Md. Housewife.
Clarence H. White, R. F. D. No. 5, Burlington, Kan. Farmer and stockman.
Wayne White, R. F. D. No. 5, Burlington, Kan. Farmer and stockman.
William J. Wilkinson, 1462 Seventh street, Oakland, Cal. Architect.
Frederick W. Wilson, Grand avenue, Phœnix, Ariz. Professor of animal husbandry and institute worker, University of Arizona.
George Heber Wilson, R. F. D. No. 8, Winfield, Kan. Farmer and stock-raiser.
George Wolf, 529 South Clinton street, Chicago, Ill. Telephone engineer.
Grace (Enfield) Wood, 218 North Hillside street, Wichita, Kan. Housewife.
Jay G. Worswick. Died in 1906.

1906.

Kate Alexander, Manhattan, Kan. Teacher.
Albert Clay Aumann, R. F. D. No. 4, Arkansas City, Kan. Farmer.
Jesse N. Bealey, Morrill, Kan. Farmer and stock-raiser.
Raymond Russell Birch, Manila, P. I. With bureau of animal industry, United States Department of Agriculture.
Herbert Joseph Bottomly, Cedar, Kan. Miller.
F. Edna Brenner, Manhattan, Kan. Teacher.
Byron Broom, 324 West Seventh street, Junction City, Kan. Teacher of manual training.
Frank E. Brown, 1335 Grant avenue, Denver, Colo. In installation department of Western Electric Company.
John Willard Calvin, Manhattan, Kan. Assistant in chemical department and graduate student, Kansas State Agricultural College.
Stella Campbell, Goodrich, Kan. At home.
Will Ward Campbell, Hewett's Landing, Saskatchewan, Canada. Farmer.
Torje Carlson, ———.

James Hamilton Cheney, Manhattan, Kan. Senior veterinary student, Kansas State Agricultural College.
Edith Ellen Coffman, R. F. D. No. 4, Manhattan, Kan. Teacher and graduate student, Kansas State Agricultural College.
William Irving Coldwell, 801 Franklin avenue, Wilkinsburg, Pa. With Westinghouse Electric and Manufacturing Company.
Archie Conner, Lyons, Kan. Farmer.
Jessie Leona (Travis) Cook, Oakley, Kan. Housewife.
Perry Alfred Cooley, 402 South Fifth street, Salina, Kan. Student.
Ruth Cooley, Manhattan, Kan. At home.
Mary Copley, Manhattan, Kan. Graduate student and assistant in secretary's office, Kansas State Agricultural College.
Winifred Anna Dalton, Manhattan, Kan. Assistant in botanical department, Kansas State Agricultural College.
Charles Ernest Davis, 1480 State street, Schenectady, N. Y. Tester of electrical machinery.
Jay L. Dow, 6042 Woodlawn avenue, Chicago, Ill. Telephone engineer, Western Electric Company.
Odessa Della Dow, Manhattan, Kan. Teacher and graduate student, Kansas State Agricultural College.
Arthie Aileen Edworthy, Solomon, Kan. Clerk in post-office.
Leonard Roscoe Elder, 5 Eagle street, Schenectady, N. Y. Tester of electrical machinery.
Harriet Marie Esdon, 110 South Tenth street, St. Joseph, Mo. Student.
Earl Joy Evans, corner Texas and Auge streets, El Paso, Tex. Estimator for El Paso Sash and Door Company.
Smith Faris, 468 South Pierce street, Milwaukee, Wis. Special apprentice, Allis-Chalmers Company.
Arba C. Ferris, 6042 Woodlawn avenue, Chicago, Ill. With Western Electric Company.
M. Edith Forsyth, Dwight, Kan. At home.
Charles A. Gilkison, R. F. D. No. 2, Larned, Kan. Farmer and breeder of Angus cattle.
William Thomas Gilliford, 6042 Woodlawn avenue, Chicago, Ill. Sub-operator in substation of Chicago Edison Company.
Lewis M. Graham, 5 Eagle street, Schenectady, N. Y. Electrical tester, General Electric Company.
Laurenz Greene, Mesilla Park, N. M. Assistant in horticulture, New Mexico College of Agriculture and Mechanic Arts.
Elbert Ernest Greenough, Lo Lo, Mont. Farmer.
David H. Gripton, R. F. D. No. 3, Smith Center, Kan. Farmer and stock-raiser.
Roswell Leroy Hamaker, Butterick Publishing Company, New York, N. Y. Mechanical engineer.
Mary L. Hamilton, 903 East Second avenue, Monmouth, Ill. At home.
Boline Hanson, R. F. D. No. 1, Jamestown, Kan. Teacher.
Daisye Ina Harner, Manhattan, Kan. Graduate student and teacher in preparatory department, Kansas State Agricultural College.
Raymond D. Harrison, Jewell, Kan. Farmer.
Milo M. Hastings, 1012 Kentucky street, Lawrence, Kan. Student, Kansas State University.
Clarence L. Hawkinson, Marquette, Kan. Wiring for A. T. & S. F. railroad.
Leslie Eugene Hazen, Hays, Kan. Special agent, bureau of plant industry, United States Department of Agriculture.
Harry Russell Heim, 801 Franklin avenue, Wilkinsburg, Pa. Apprentice, Westinghouse Electric and Manufacturing Company.
Gertrude Elma (Hole) Campbell, Shawnee, Okla. Housewife.
Nellie Dorothy Hughes, 1210 Byron street, Topeka, Kan. Teacher.
Helen C. Inskeep, Manhattan, Kan. Teacher in preparatory department, Kansas State Agricultural College.
Charles Sumner Jones, R. F. D. No. 4, Montgomery, Ala. Farmer.
Fredric Arthur Kiene, Valencia, Kan. Farmer.
Clarence Brady Kirk, R. F. D. No. 3, Burr Oak, Kan. Farmer.
Laura Lillian Lyman, Manhattan, Kan. Graduate student and teacher in music department, Kansas State Agricultural College.
Charles Wilber McCampbell, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
Cora E. McNutt, Girls' Industrial School, Beloit, Kan. Domestic science teacher.
Alma McRae, Manhattan, Kan. Teacher and graduate student, Kansas State Agricultural College.
Ernest Wilson Matherly, 830 Thurston street, Manhattan, Kan. Teacher.
Henry Greenleaf Maxwell, Tuskegee Institute, Ala. In charge of creamery.

Caroline Morton, 117 East Tenth street, Topeka, Kan. Office work.
Verda Ellen (Murphy) Hudson, Manhattan, Kan. Housewife.
Ruth Emma Neiman, White Water, Kan. Teacher.
Ross N. Newland, York, Pa. Special apprentice in erecting department, York Manufacturing Company.
Henry Otto, 727 Humboldt street, Manhattan, Kan. Law student.
John J. Peckham, ———.
Martha S. Pittman, Chilocco, Okla. Teacher of domestic science in Indian school.
Lester Allen Ramsey, York, Pa. Special apprentice in erecting department, York Manufacturing Company.
Richard Reece, 6042 Woodlawn avenue, Chicago, Ill. Telephone engineer, Western Electric Company.
Jessie A. Reynolds, Manhattan, Kan. Assistant in preparatory department, Kansas State Agricultural College.
Emmit D. Richardson, Glen Elder, Kan. Running traction-engine.
Jennie Inez Ritner, box 363, Manhattan, Kan. At home.
Ramer Henry Sanneman, 1203 West Springfield street, Urbana, Ill. Student, University of Illinois.
William Paul Schroeder, Ninth and Market streets, Enid, Okla. Creamery operator.
Martin Roy Shuler, Holton, Kan. Teacher of science in high school.
Emily G. (Smith) Skinner, 904 Ohio street, Lawrence, Kan. Housewife.
Milton David Snodgrass, Manhattan, Kan. Assistant in agronomy department, Kansas State Agricultural College.
Mabelle Sperry, Neodesha, Kan. At home.
George A. Spohr, Manhattan, Kan. Compositor in printing department, Kansas State Agricultural College.
Julia C. Spohr, Manhattan, Kan. Deputy clerk of district court.
Henry Adam Spuhler, Manhattan, Kan. Architect.
Albert D. Stoddard, 1246 Pennsylvania avenue, Kansas City, Mo. Electrician, Metropolitan street-railway; graduate student, Kansas State Agricultural College.
Ernest Felix Swanson, Clyde, Kan. Carpenter.
Elbert Wren Thurston, 6042 Woodlawn avenue, Chicago, Ill. With Western Electric Company.
Warren Bunn Thurston, 2605 Olive street, Kansas City, Mo. Creameryman.
Doris M. Train, Manhattan, Kan. Graduate student and teacher in mathematics and preparatory departments, Kansas State Agricultural College.
Marcia Elizabeth Turner, 719 Bluemont avenue, Manhattan, Kan. Teacher.
Warren Elmer Watkins, Anthony, Kan. Farmer, and graduate student, Kansas State Agricultural College.
Chauncey Iles Weaver, 11½ North College street, Schenectady, N. Y. In testing department of General Electric Company.
Ralph Richard White, 2315 Norwood avenue, Cincinnati, Ohio. Student apprentice, Allis-Chalmers Company.
Thomas F. White, Manhattan, Kan. Traveling salesman.
Edgar M. Wilson, 6042 Woodlawn avenue, Chicago, Ill. With Western Electric Company.
Charles H. Withington, Manhattan, Kan. Graduate student and teacher in preparatory department, Kansas State Agricultural College.
Thomas M. Wood, 218 North Hillside street, Wichita, Kan. Electrical engineer.
Edith Worden, 308 E. Sixtieth street, Chicago, Ill. Student, University of Chicago.
Earnest A. Wright, 2315 Norwood avenue, Cincinnati, Ohio. Apprentice, with Allis-Chalmers Company.
Walter Scott Wright, Pueblo, Colo. Gardener at the Colorado state asylum.
Guy E. Yerkes, Fort Riley, Kan. Forester, United States military reservation.

Summary.

The number of graduates up to 1907 is 1227, of whom 460 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 767 men, 39 are dead, and the remainder are reported in the following occupations:

Farmers and stock-raisers	152
Farm foremen	4
Fruit-growers, nurserymen, gardeners, and florists	28
Creamerymen	6
Superintendent of agricultural experiment station	1
Professors and assistants in experiment stations and agricultural colleges	31
In United States Department of Agriculture	42
Teachers and employees in Indian service	8
Mechanics	26
Manufacturers	7
Miners	4
Contractors, architects, and builders	9
Draftsmen	9
Civil, electrical, mining and mechanical engineers	72
Telephone and telegraph operators and managers	3
Veterinary surgeons	5
Postmasters and assistants	5
In military and naval service	12
Cadets, United States Military Academy	2
Regent Kansas State Agricultural College	1
Professors and instructors in colleges	30
Superintendents and teachers in public schools	26
Graduate and special students, Kansas State Agricultural College	13
Students in other institutions	14
Ministers, missionaries, and secretaries of Y. M. C. A.	14
Journalists and editors	23
Merchants	27
Commercial travelers	12
Agents	6
Clerks, bookkeepers, and stenographers	16
Officials and managers	24
In United States civil service	12
Physicians, students of medicine, chemists, druggists, dentists	35
Lawyers	25
District judges	2
County and state officials	12
Bankers and cashiers	14
Astronomer	1
Lecturer	1
Brokers and real-estate agents	11
Unknown	12
Total	757
In two occupations	29
	728

Summary — *Concluded.*

Of the 460 women, 22 are dead, and the remainder are occupied as follows:

Housewives	213
Teachers of domestic science and domestic art, and dietitians	27
Nurses	7
Physicians and druggists	6
In United States Department of Agriculture and Indian service	3
Secretary of Kansas State Agricultural College	1
Librarians	3
Professors and assistants in agricultural colleges and experiment stations	8
Professors and instructors in colleges	2
Teachers of art, music, and physical training	7
Principals and teachers in public schools	74
Graduate and special students, Kansas State Agricultural College	10
Students in other institutions	13
Dressmaker	1
Bookkeepers, stenographers, and clerks	24
Lecturers	2
Journalists	3
Merchant	1
Telephone exchange	1
At home	38
Unknown	3
Total	447
In two occupations	9
	438

Advanced Degrees

Granted to persons not holding undergraduate degrees from this College.

1877.

John Fraser, LL. D. (Dead.)

1883.

John D. Walters, M. S., Manhattan, Kan. Professor of architecture and drawing, Kansas State Agricultural College.

1894.

Arnold Emch, M. S., Solothurn, Switzerland. Professor of mathematics, cantonal college.

1897.

Oscar E. Olin, M. A., Akron, Ohio. Professor of economics and history, and instructor in philosophy, Buchtel College.

1898.

Elam Bartholomew, M. S., Stockton, Kan. Farmer and botanist.

Herbert F. Roberts, M. S., Manhattan, Kan. Professor of botany, Kansas State Agricultural College.

George E. Rose, M. S., Rosedale, Kan. Superintendent of city schools.

1902.

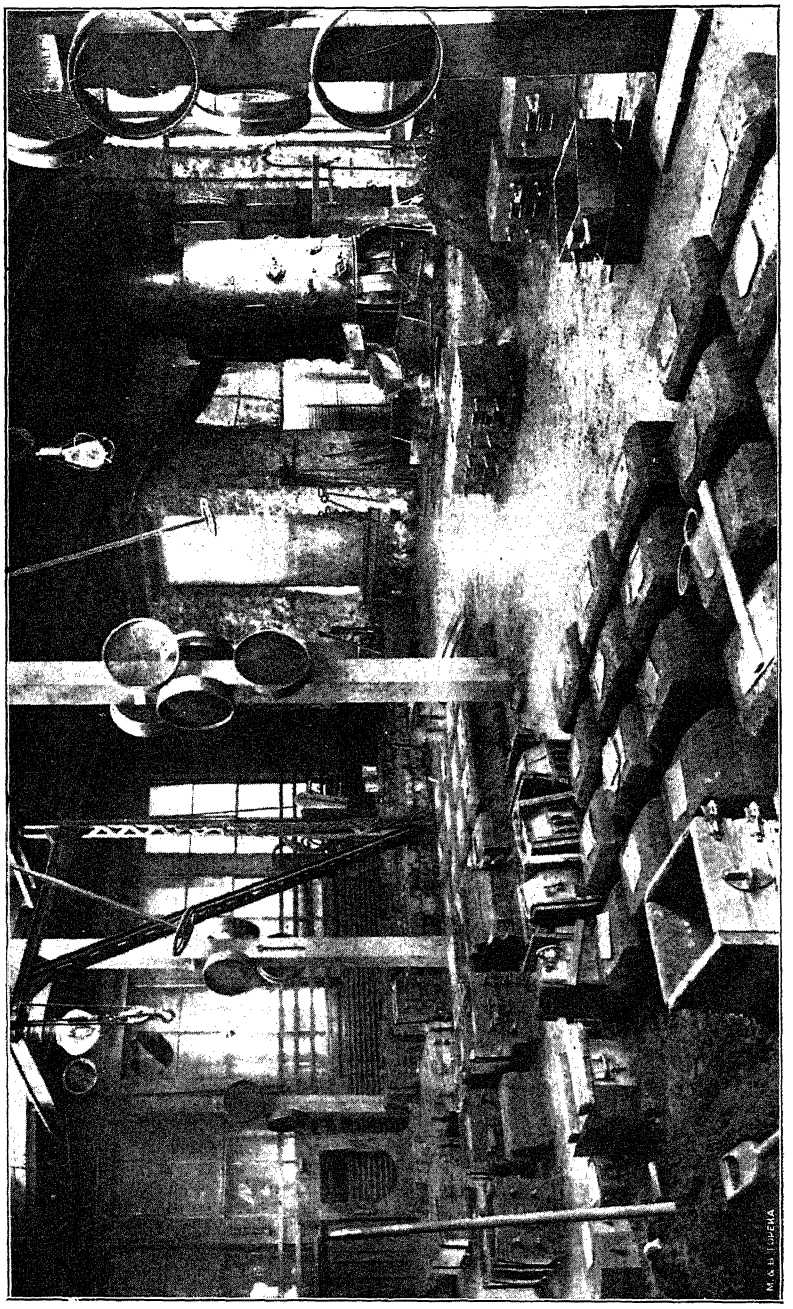
George Fayette Thompson, M. S. Died in 1906.

1904.

Alice (Rupp) Wishard, M. A., Clinton, Ind. Housewife.

1907.

Edward T. Fairchild, M. A., Topeka, Kan. State superintendent of public instruction.



FOUNDRY.

Index.