THE INTEGRAL

1905


THE·
YEAR
BOOK
of THE
CLASS
of
1906
'06

The INTEGRAL

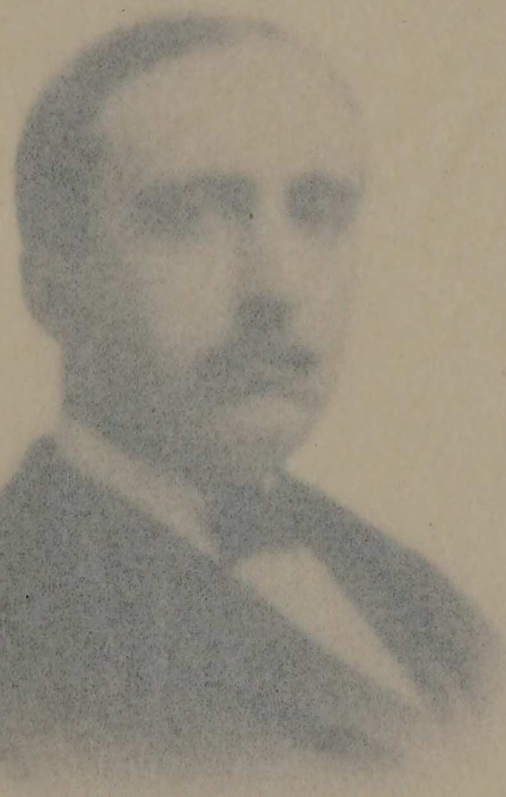
Published Annually
by the Junior Class *of* the
College *of* Engineering
Armour Institute *of*
Technology

VOLUME
SEVEN

IMPRINTED IN CHICAGO IN THE YEAR
NINETEEN HUNDRED AND FIVE
P. F. PETTIBONE & CO. PRINTERS

DEDICATION

TO MR. J. OGDEN ARMOUR · WHO IS WORTHILY CARRYING FORWARD *the* NOBLE CONCEPTION *of* HIS FATHER · THIS BOOK IS RESPECTFULLY DEDICATED





$$\int_{1904}^{1905}$$

Integral

GREETING



To the friends of
Armour Institute
of Technology,
the editors offer
this, the Book
of The Class
of Nineteen six.

"Go, little book."



Acknowledgments

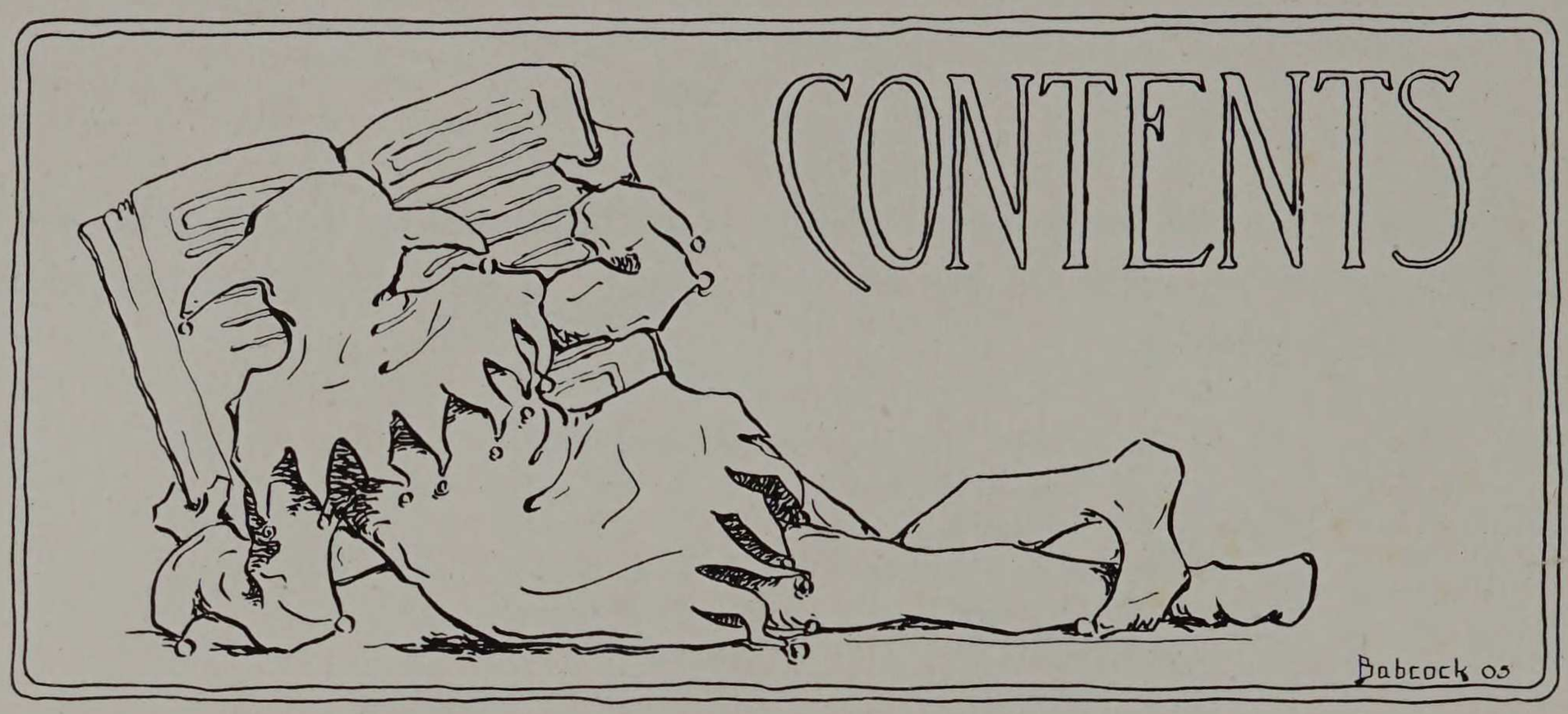
Babcock '03

The editors desire to acknowledge their indebtedness to the following artists, whose cheerful aid has assisted greatly in making the artistic side of this book what it is:

J. R. Morton
M. W. Shackelford
H. W. Armstrong
Florence A. Crocker
M. M. Levings
Dean Babcock
L. J. Herndon
Mildred Deane
E. A. Wilson
G. C. Williams
F. L. Dickey
H. R. Badger
Robert Squire
R. W. Doerr

To the '04 Integral Board we are greatly indebted for their kind assistance and many helpful suggestions. And to all others who have assisted in the preparation of the book, we hereby express our sincere thanks, more especially to the following:

Dr. Gunsaulus
Dean Raymond
Dean Monin
Mrs. Julia Beveridge
H. L. Nachman
Prof. Freeman
Dr. Scherger
H. G. Clasen
H. B. Marshall
F. M. de Beer
J. R. Armstrong
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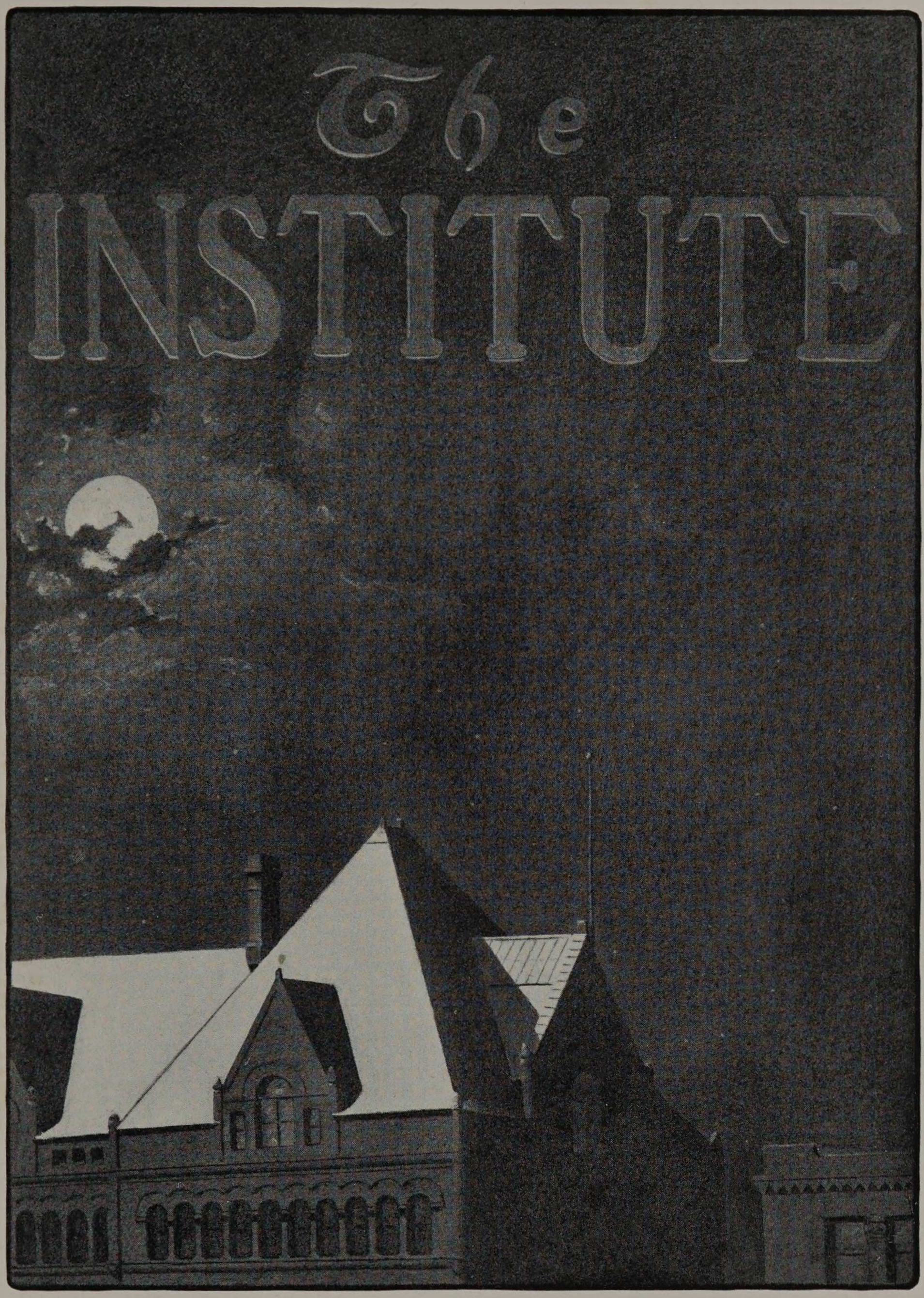
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THE CALENDAR

1904 :: 1905

1904			SUMMER TERM
June 20	Monday	. .	June Entrance Examinations.
June 27	Monday	. .	Summer Courses Begin.
August 5	Friday	. .	Summer Courses End.
			AUTUMN TERM
September 8	Thursday	. .	September Entrance Examinations.
September 19	Monday	. .	Registration Day.
September 20	Tuesday	. .	College Year Begins.
October 3	Monday	. .	Evening Classes Begin.
Nov. 24–25	Thursday and Friday		Thanksgiving Holidays.
December 9	Friday	. .	Evening Classes End.
December 16	Friday	. .	Autumn Term Ends.
1905			WINTER TERM
January 2	Monday	. .	Registration Day.
January 3	Tuesday	. .	Winter Term Begins.
January 9	Monday	. .	Evening Classes Begin.
February 22	Wednesday	. . .	Washington's Birthday, a Holiday.
March 17	Friday	. .	Evening Classes End.
March 24	Friday	. .	Winter Term Ends.
			SPRING TERM
April 3	Monday	. .	Registration Day.
April 3	Monday	. .	Evening Classes Begin.
April 4	Tuesday	. .	Spring Term Begins.
May 30	Tuesday	. .	Memorial Day, a Holiday.
June 9	Friday	. .	Evening Classes End.
June 15–16	Thursday and Friday		Commencement Exercises.
June 16	Friday	. .	College Year Ends.
			SUMMER TERM
June 19	Monday	. .	June Entrance Examinations.
June 26	Monday	. .	Summer Courses Begin.
August 4	Friday	. .	Summer Courses End.


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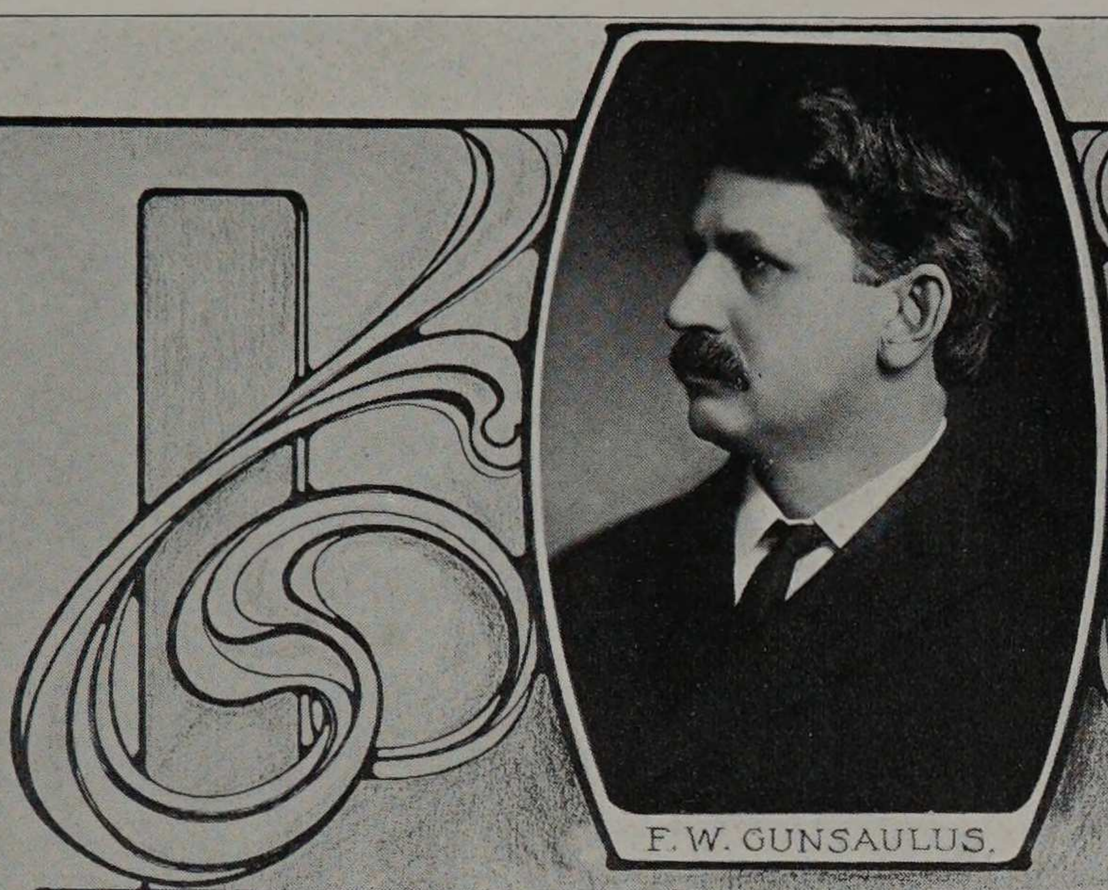
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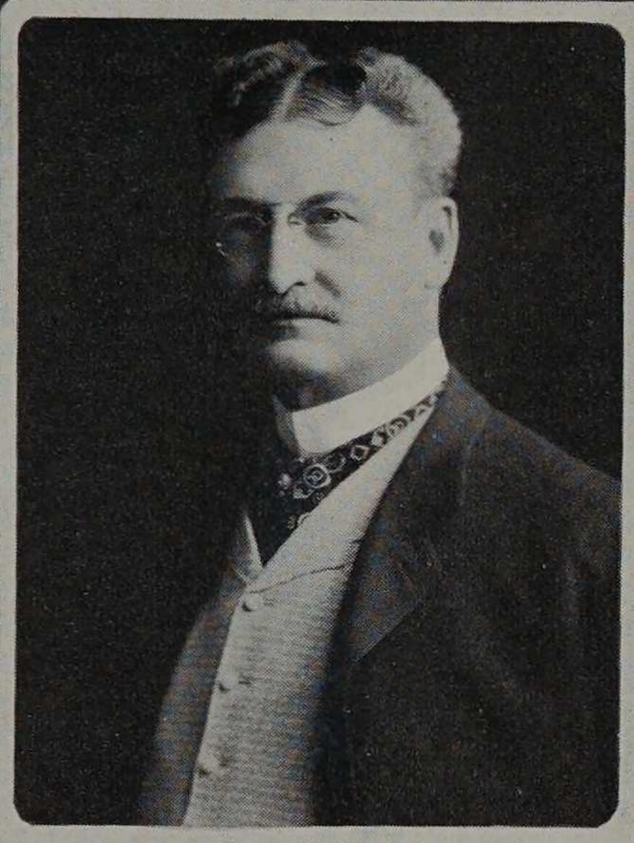
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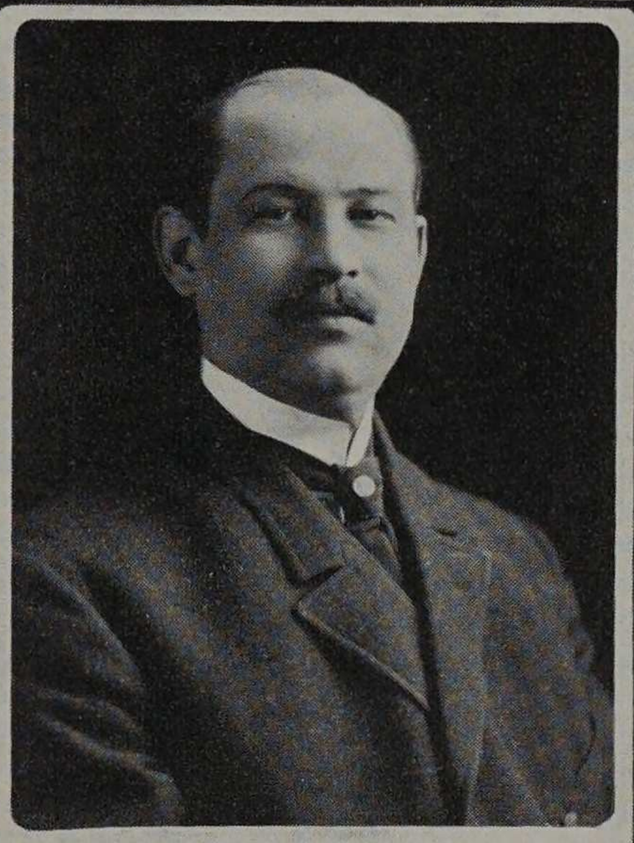
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Charles Bradford Tibbetts — *resigned April 1st, 1905*

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B. S. (in E. E.), Armour Institute, 1902.



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B. S., Kansas State Agricultural College, 1889. Graduated Kansas State Normal School, 1890. M. S., Kansas State Agricultural College, 1893. B. S. (in E. E.), Armour Institute, 1897. E. E., Armour Institute, 1902. Member A. I. E. E.

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Ray Crow — *Instructor in Civil Engineering*

University of Oklahoma.



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London Collegiate Institute, 1892-1896.

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A. B., Indiana University, 1904.

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M. A., University of Wisconsin, 1902.

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B. S., Nebraska Wesleyan University, 1892. A. M., University of Nebraska, 1896. Ph. D., University of Chicago, 1904. Fellow in Physics, University of Nebraska, 1894-97, University of Chicago, 1903-04. Sigma Xi.

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A. M., Northwestern University, 1903.

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A. B., University of Chicago, 1893. S. B., Massachusetts Institute of Technology, 1896.
Student of Gustav Umbdenstock and Atelier Deglane.



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A. M., Harvard University, 1895. Ph. D., Harvard University, 1898.

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Charles Wilber Leigh — *Assistant Professor of Mathematics*

B. S., University of Illinois, 1897. Brevet Captain, I. N. G. Phi Gamma Delta.

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B. S., University of Michigan, 1900. Delta Tau Delta.

Claude Irwin Palmer — *Instructor in Mathematics*

A. B., University of Michigan, 1902.

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B. S., Northwestern University, 1903. Harvard Scholarship of Harvard Club of Chicago, 1903.
A. M., Harvard University, 1904. Phi Beta Kappa.

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Rosa C. Lang, — *Instructor in German*

Cornell University, 1893. Kappa Kappa Gamma.

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Woman's College of Baltimore, 1904. Alpha Phi.

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A. B., Denison University. Post-graduate student, University of Chicago, 1899.
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The Department *of* English

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Julia Beveridge — *Librarian and Instructor in Bibliography*

William W. Manning — *Instructor in English*

Walter K. Smart — *Instructor in English*

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A. B., Indiana University, 1895. Ph. D., Cornell University, 1899. Author of "The Evolution of Modern Liberty."

William Bradley Walrath — *Instructor in Business Law*

Henry B. Thomas — *Medical Adviser and Director of Physical Culture*

B. S., University of Chicago, 1899. M. D., Northwestern Medical School, 1903. Kappa Sigma. Phi Sigma.

Ralph E. Riley — *Assistant in Gymnasium*

George F. Dietz — *Registrar*



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The Department *of* Mechanical Engineering, Shops *and* Laboratories

William H. Price — *Instructor in Experimental Engineering*
M. E., Cornell University, 1904

James Fitchie Cook — *Instructor in Experimental Engineering*
B. S., University of Illinois, 1903

William Frederick Dietzsch — *Instructor in Experimental Engineering*
M. E., Royal Polytechnic High School, Stuttgart, Germany.

Edward D. Agle — *Superintendent of Shops and Instructor in Machine Tool Work*

James Ritchey — *Instructor in Wood-working*

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L. Allen Sommer — *Instructor in Machine Tool Work*

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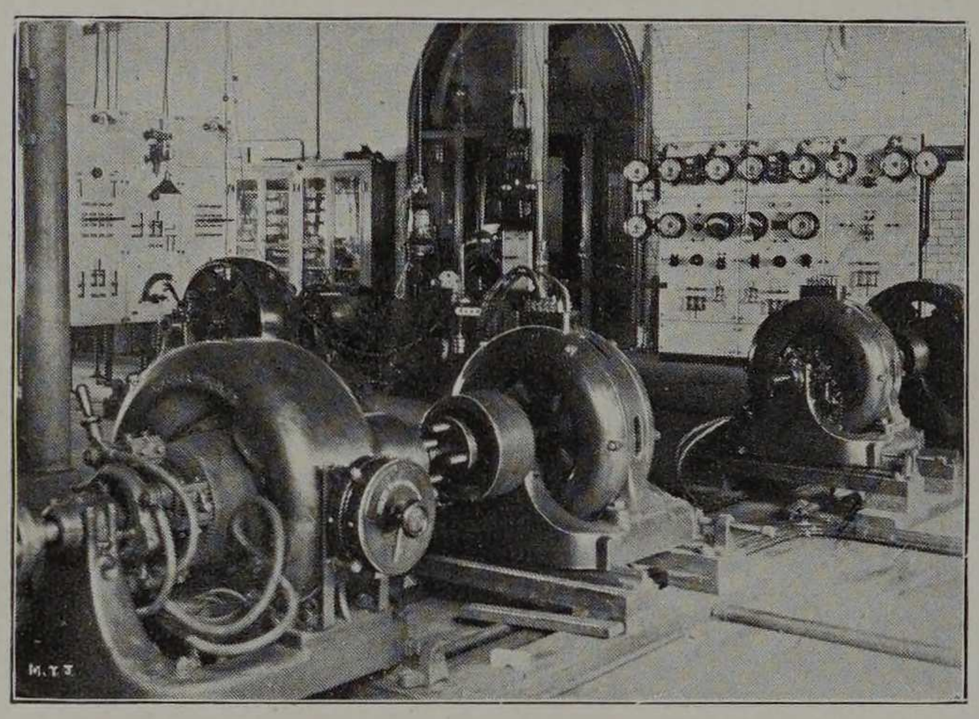


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The Institute

THE most notable event in connection with the Institute during the past year was the opening of Ogden Field in September, 1904. When we think of this tract of land covered with its many buildings and later with brick, stone, mortar and rubbish, it seems as if nothing less than a magician's wand could have brought about such a complete change in so short a time.

The students returning to school for the Autumn term, could scarcely believe their eyes as they looked upon our new campus, with its beautiful lawn, and a splendid lunch room and athletic clubhouse at one end.



Work was begun on the grounds in May, 1904, and everything was completed and ready for the students by September 1, 1904. Through the untiring efforts of Mr. F. U. Smith, our Comptroller, the plans were executed and carried out, with the valuable assistance of Mr. James Little. That the students thoroughly appreciate this gift of Mr. Armour is evidenced by the unusual interest taken by them in outdoor sports and games of all kinds. That it contributes largely to the health, development and comfort of the students there is no question.

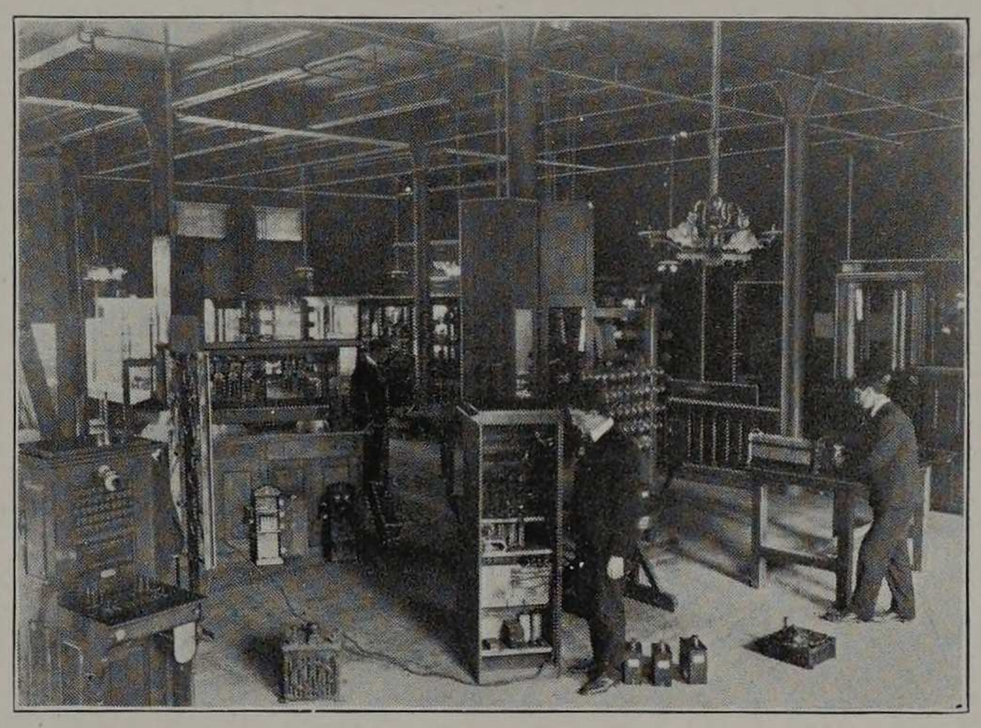
The present school year is characterized by various activities in the several departments which tend to make the life of an institution vigorous and efficient. The continued prosperity of the school is illustrated in a forcible manner by the extent of the registration for the year. Of late, each succeeding year has shown evidence of healthy growth, but in the present year the marked increase in the total enrollment is noteworthy. This is particularly noticeable in the College of Engineering, where the number of students exceeds the enrollment for the academic year 1903-1904 by nearly one hundred. In the main, this may be accounted for by the wave of prosperity which has seemed to extend to all manufacturing industries and branches of the engineering profession. To no small extent have the students of the American School of Correspondence contributed to this large enrollment, especially in the evening classes. Several American School students are already members of our Freshman class, and if present indications count for anything, many students will come to us from this source. There are already five hundred students preparing with the American School of Correspondence for admission to the College of

Engineering. The total enrollment at the present writing is classified as follows:

College of Engineering	587
The Scientific Academy	285
The Evening Classes	340

The average age of students entering the Freshman class is nineteen years, eight months. In the College of Engineering, we have students from thirty States and territories and seven foreign countries. Of the 587 college students 345 reside in Chicago. The Scientific Academy has representatives from twenty States and territories, four foreign countries and 204 from Chicago. In September, 1904, thirty-three students entered our engineering courses from twenty-eight colleges and universities scattered over the country, which fact furnishes gratifying evidence of the esteem in which the Institute is held in other institutions of learning. The attendance for each year in the College of Engineering since its inception has been as follows:

1893-1894	252	1899-1900	178
1894-1895	111	1900-1901	229
1895-1896	154	1901-1902	353
1896-1897	158	1902-1903	422
1897-1898	144	1903-1904	493
1898-1899	134	1904-1905	587

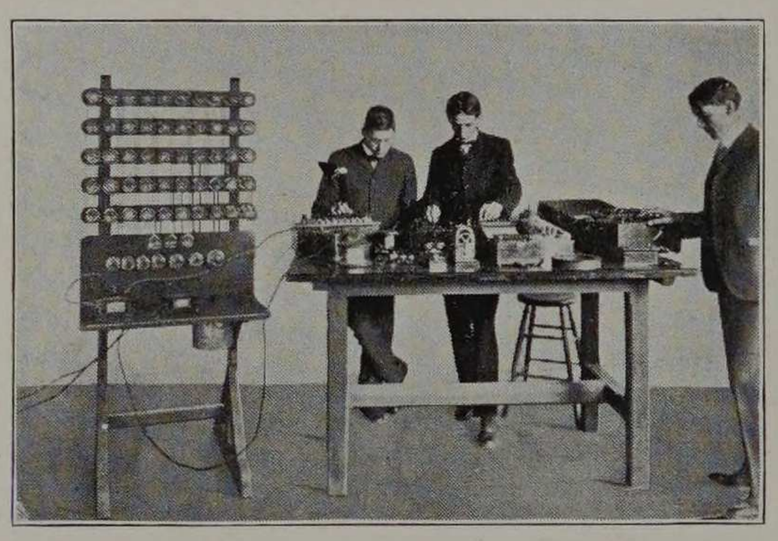


The graduates of the College of Engineering now number 210, nearly all of them holding positions of trust and responsibility. The location of the Armour Institute of Technology in one of the greatest industrial and engineering cities of the world presents opportunities for its graduates such as can be offered by very few technical institutions. The present year has been an exceptional one for the demand of engineers, and the number of positions offered has exceeded the number of students available. We already have applications filed in advance for members of the Class of 1905. Early last year it was recognized that if the instruction in the Civil Engineering and Chemical Engineering Departments was to be maintained at its present high standard, further facilities must be provided in the way of more space and more equipment. The old drill hall in the Mission Building was remodeled during the summer for the Civil Engineering Drafting Room, and its former quarters, on the fourth floor of the main building, were fitted up for the new Engineering Chemistry Laboratory. This new arrangement is highly satisfactory, and the Civil Engineering Department, with the recent additions to its equipment, now offers facilities for instruction equal to those of the best institutions in the country. To the already splendid equipment of this department the following pieces of apparatus

have been added:—One Azimuth, five Wye levels, one Thacher slide rule, one set railroad curves, one set ship curves and four transits.

The Chemical Engineering Department has, in addition to the above mentioned Engineering Chemistry Laboratory, equipped a laboratory for the special study of Electro-Chemistry. It is expected that, in the near future, plans will be effected by which students may specialize in this subject during the Junior and Senior years of their course. The equipment of the Chemical Laboratories has been increased during the year by two complete Hempel gas analysis outfits, four Becker balances, platinum crucibles and other small pieces of apparatus.

The efficiency of the Physics Laboratories has been increased by a large specific heat apparatus and two heat of vaporization calorimeters, designed by Prof. Wilcox, and made by our mechanician, Mr. Mulvey. Other pieces purchased for the department are a duplex Geryk vacuum pump, Becker balance, Bunsen effosometer and several Green thermometers. Some important instruments made by the mechanicians and designed by Prof. Burnham are the following:—A photometer for measuring the time required for charge to burn in gas engine cylinder, an extensometer, a rotary gas engine indicator. The following were designed by Prof. Freeman:—A farader for measuring condenser capacity and a rotating commutator for measuring induction.



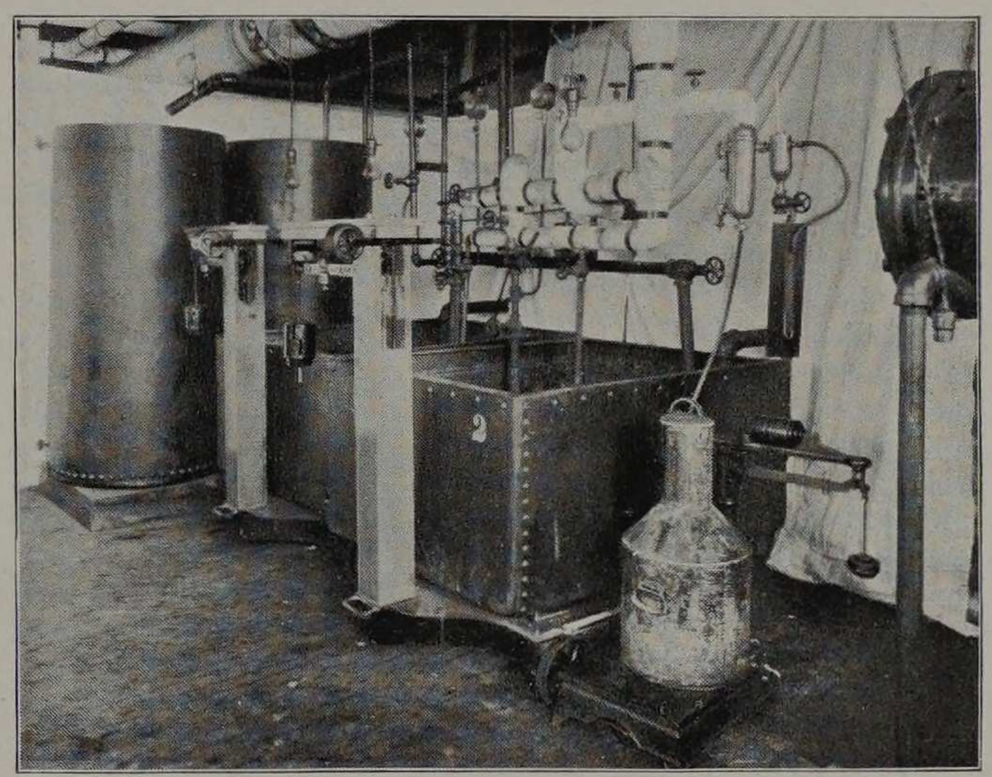
The removal of the lunch room to the north end of Ogden Field made it possible for the Electrical Engineering Department to enlarge its Dynamo Laboratory, so that it now occupies the entire south end of the main building, on the first floor. This laboratory has added to its already splendid equipment a 15 horse-power single phase induction motor, one 15 horse-power series motor and controller, one 9½ kilo-watt alternating current generator and one 1.87 kilo-watt rotary converter. A 30 kilo-watt turbo-generator has been purchased and will be installed in the Steam Engine Laboratory. For the other electrical laboratories have been purchased a mercury vapor lamp, a Hefner amyl acetate standard lamp, resistance and post-office boxes, permeameters, ohmmeters, ammeters, voltmeters, Watt-meters, tachometers, galvanometers, condensers, hysteresis tester, and an additional storage battery of 120 cells. In addition to the above, several pieces of original design are being made by the mechanicians.

The Telephone Engineering Department is now well equipped and valuable additions are being constantly made. This branch of engineering offers splendid inducements to those interested in this line of work, and as Armour Institute of Technology is the only institution in the United States

offering a distinct course in this subject, the prospects for the future are certainly reassuring.

The Mechanical Engineering Department has made many additions in the way of machines and apparatus in the different shops and laboratories. Among the most important are a pneumatic hammer for the Foundry, a pipe cutting machine for the Forge Shop, a wood shaper, a trimmer, and two wood lathes for the Pattern Shop, and a Brown & Sharp Universal grinder for the Machine Shop.

The equipment of the Mechanical Laboratories has been increased by a 6″ x 6″ vertical steam engine, a wire testing machine, chemical balances, a micro-photographic outfit, a Heræus oven for high temperature measurements, a high pressure testing pump, a storage battery, steam calorimeters, scales, pyrometers, planimeters, tachographs, chronographs and several other minor pieces of apparatus.



The development of the course in Fire Protection Engineering during the past year has been most gratifying. While this course is planned for those who wish to enter the field professionally, it also offers a splendid opportunity for those who desire a broad technical education, including not only the engineering training, but an insight into commercial methods and an intelligent knowledge of insurance. The opportunities offered in Chicago, with its vast manufacturing industries, is unsurpassed for the study of insurance hazards, and the Underwriters' Laboratories furnish the means for the experimental study of problems of fire protection such as can be found in no other city in the world.

For several years past, the Art Institute, in co-operation with the Armour Institute of Technology, has maintained a school of architecture known as the Chicago School of Architecture, offering a two years' and a four years' course. The Institute has now assumed the entire responsibility for this course, and it is now organized as the Department of Architecture of the Armour Institute of Technology.

In addition to the regular course, a new system of study, embodying some features of the Ecole des Beaux Arts of Paris, has been adopted. Advancement will depend upon credits in competitions passed upon by juries of practicing architects rather than upon periods of study. Young architects not in the school will be permitted to enter the competitions. Drawings in competition will be exhibited publicly, so that architects seeking assistants may find them among the students. The above system was proposed by an

advisory committee of architects, and has been worked out by Mr. J. Gamble Rogers and Prof. Walter F. Shattuck of the Department of Architecture. The enrollment of students this year is the largest since the establishment of the course and several applications for the ensuing year have already been made. New life and vigor has seemed to permeate the entire department, and much credit is due Prof. Shattuck and Prof. von Holst for their energetic efforts in bringing about this condition.

The summer session has now become a permanent feature in the organization of the Institute. The significant growth of attendance and the interest taken by both students and faculty make it manifest that its good work should continue. Regular courses are given, for which students receive full credit in the College of Engineering and the Scientific Academy. Special courses are arranged for mechanics, artisans and correspondence school students who have not the opportunity of attending the regular school year. Manual training teachers find the shop and drawing courses especially adapted to their purposes.

The evening classes are fulfilling their mission of reaching the class of men which Mr. Armour had in mind when he founded the Institute, and they also offer the opportunity of preparing for a college course to many young men who could not otherwise think of so doing. Many students are availing themselves of this opportunity and several have already entered the college, having prepared themselves in this way.

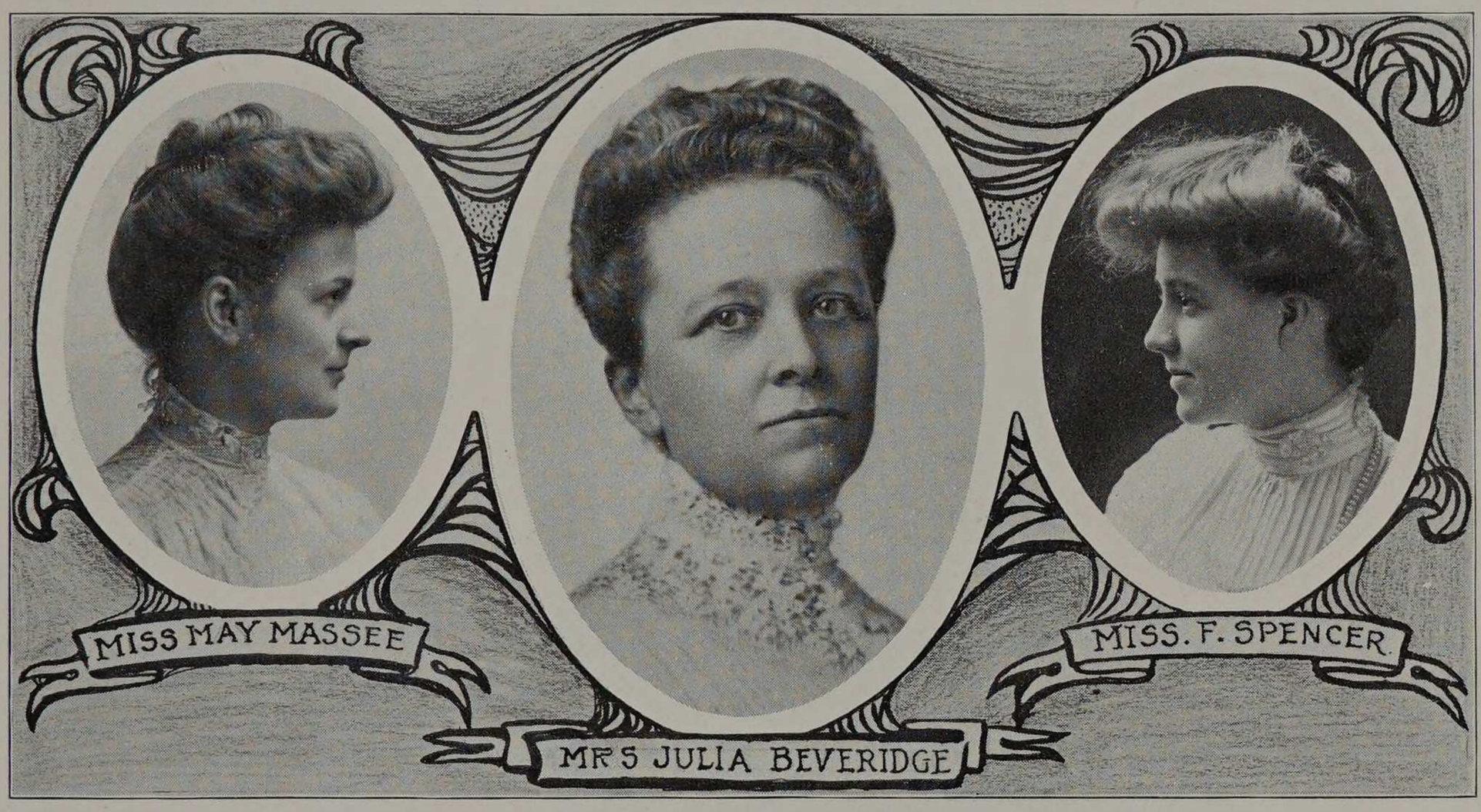
In view of the increasing demand for a course in science, the Institute has decided to establish such a course, beginning in September, 1905. This is designed to meet the wants of persons who, while not caring to take a complete engineering course, may wish to avail themselves of the training and associations of a technical institution. To such are offered not only extended instruction in mathematics, physics and chemistry, but also options in topics selected from the several engineering courses and a wide range of other subjects.

Arrangements have also been made to establish graduate courses in the departments of Electrical, Civil and Chemical Engineering and in the departments of Mathematics and Physics. The increased enrollment in the technical schools throughout the United States shows not only a growing appreciation by the people for high grade scientific instruction, but that it is regarded as an absolute essential for the development of the vast resources of a great nation.

The Armour Institute of Technology has always stood for that which was best and highest in scientific instruction, and as the years have passed, the standard of scholarship has kept pace with that of the foremost institutions of learning in our country, a fact that fills the hearts of students, alumni and faculty with a justifiable pride. We are proud of our present and we are looking for rapid advancement and still greater opportunities in the future.

The Library

IN the INTEGRAL last year a retrospective glance was given of the history of the Library. This year the statistical tables show a very satisfactory increase in the attendance, accessions and circulation. Bibliographies on the following subjects have been made and are on file in the Library for reference :



Astronomy
Bearings
Boiler Scale
Cams
Cement
Centrifugal Pumps—Fans
Concrete, Comparison of—made with limestone screenings and with sand
Dams
Elevated Tanks
Gas Engines
Gas Producers
Gears
Liquid Fuel
Mechanical Plant
Mechanical Stokers
Micro-photography of Iron and Steel
Oil
Pavements
Piping
Power Plants
Pumps
Pyrometry
Reinforced Concrete
Reservoirs
Rotary Converters
Sewerage Disposal Plants
Steam and Oil Separators
Steam Engine
Steam Trap
Superheated Steam
Tool Steel
Trestles
Underground Water
Water Power Development

It is the aim and constant effort of the Library Committee to procure, as far as possible, all works of real value which may appear in the various fields of scientific research and to make the Library of Armour Institute of Technology the greatest possible influence for usefulness.

The STUDENT



MORTON


SENIORS
MORTON

The Senior Class

COLORS : Blue and White.

YELL : *Ssss—Boom—Rah—'05.*

CLASS OFFICERS

H. B. Marshall, *President*
F. M. deBeer, *Vice-President*
F. R. Goldsmith, *Secretary*
J. C. Penn, *Treasurer*
H. J. Ash, *Sergeant-at-Arms*

SOCIAL COMMITTEE

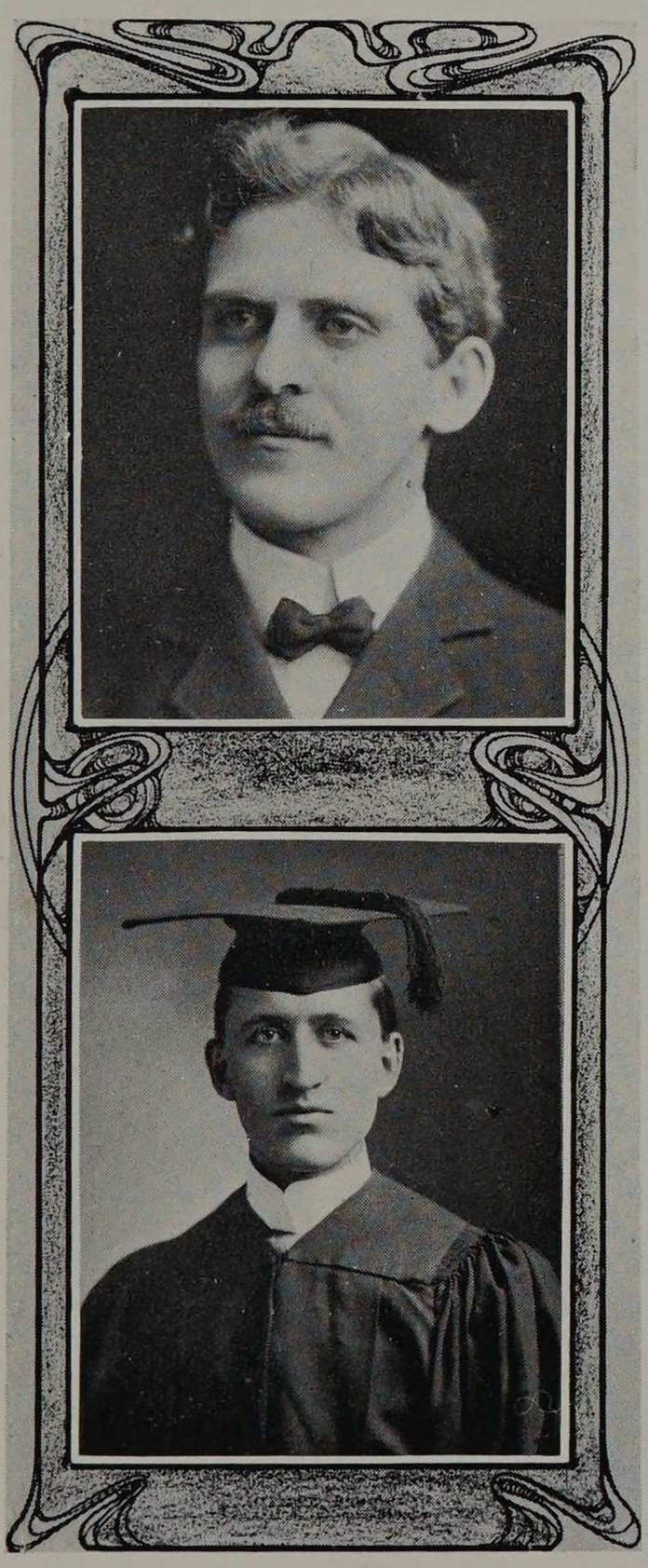
Kretsinger, Durr, Carroll

FINANCE COMMITTEE

Penn, Snowdon, Natkin

Integral Representatives: deBeer, Marshall

Fulcrum Representatives : Brackett and Penn



Post Graduate

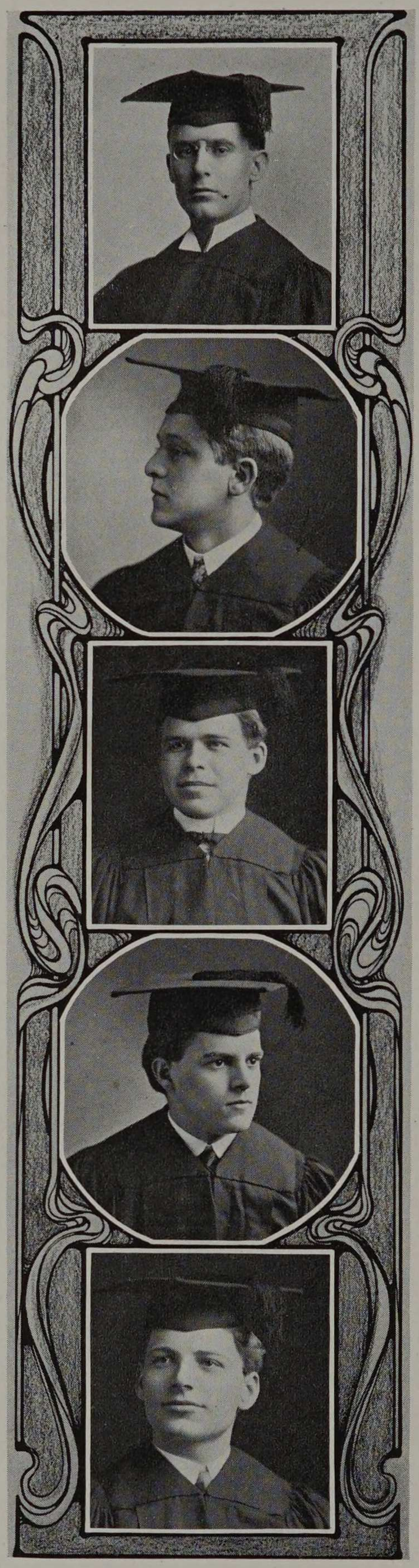
Wickersham, Edward James

B. S. in M. E., Armour Institute, 1904.
Post graduate work in Electrical Engineering.

Graduate in Architecture

Reily, Solon Llewellyn

Born at Fremont, Wis., July 11, 1881.
Prepared at Marshfield High School, Marshfield, Wis.
Graduated '99.



Graduates in Chemical Engineering

deBeer, Franklin Martin

Born in Chicago, November 14, 1881.
Prepared at Chicago English High School. Graduated '99.
With C. D. Peacock, '99–'01.
Member Freshman Smoker Committee, '02, '03, '04; Chairman, '04.
Assistant Business Manager Fulcrum, '03.
Editor-in-Chief Integral, '03-'04.
Class Treasurer, '02-'03.
Class Vice-President, '04-'05.
Class Representative to Integral, '03, '05.
Manager Tennis Tournament, '03.
Member '05 Bowling Team, '03, '04, '05.
Manager Glee and Mandolin Clubs, and Member Glee Club, '04-'05.
Member Chemical Engineering Society.
Member Radical X Society.

Fash, Ralph Henry

Born in Chicago, September 2, 1884.
Prepared at West Division High School and Armour Academy.
Graduated Armour Academy, '01.

Harper, Robert Brinton

Born in Evansville, Ind., February 28, 1882.
Graduated South Side Academy, '00.
University of Chicago, '00-'01.
Secretary Chemical Engineering Society.
Member Radical X Society.

Stem, Le Vere H.

Born in Gilead, Mich., August 25, 1882.
Prepared at Mantino, Ill., High School and Armour Academy.
Graduated Armour Academy, '01.
Member Glee Club, '00–'01, '02–'03, '04-'05.
Member Y. M. C. A.
Member Chemical Engineering Society.
Member '05 Trio.

Thompson, John Kring

Born at Des Plaines, Ill., December 31, 1881.
Prepared at South Chicago High School.



Graduates in Civil Engineering

Dean, Stanley

Born in Manchester, England, February 22, 1879.
With Frisco Line, '93-'00; Grand Trunk Railway, '00-'01.
Washington University, '01-'03.
Beta Theta Pi Fraternity.
Member Glee Club, '04-'05.
Member Y. M. C. A.

Dean, William Henry, Delta Tau Delta

Born at Oshkosh, Wis., November 21, 1878.
Prepared at Oshkosh High School.
Literary Editor Fulcrum, '01-'02.
Assistant Editor Integral, '02-'03.
Employed by Bates & Rogers Construction Co., and Bosteda Pneumatic Tool Co.
Member Radical X Society.

Harvey, William Ferry, Phi Kappa Sigma

Born in Chicago, 1882.
Prepared at Chicago English High School.
Assistant Business Manager Integral, '03-'04.
Assistant Advertising Manager "Walking Delegate."
Advertising Manager Glee Club, '04-'05.
Marshal '04 Commencement Exercises.
Chairman Senior Photo Committee.
Member Technical Society, '04.
Member Y. M. C. A.
Member Radical X Society.

Hein, Peter Leo

Born at Manitowoc, Wis., January 22, 1884.
Prepared at Manitowoc High School.

Jones, Clarence Ira, Phi Kappa Sigma

Born at Valparaiso, Ind., 1879.
Prepared at Boone Grove High School.
B. S., Valparaiso College, '99.
Member '04 Football Team.



Penn, John Cornelius

Born in the Netherlands, November 26, 1881.
Prepared at Calumet High School, Chicago.
Class Treasurer, '03-'04-'05.
Fulcrum Representative, '04-'05.

Sharp, Herbert Moore, Delta Tau Delta

Born at Edgerton, Ohio, December 31, 1881.
Prepared at Edgerton High School and Armour Academy.
Graduated Armour Academy, '01.
Member A. S. A. Baseball Team, '01.
Member '05 Bowling Team, '02-'05.

Vey, Frank Eugene

Born in Chicago, May 7, 1884.
Prepared at Chicago English High School. Graduated '01.

Whitney, Fred Boston

Born at Port Jervis, N. Y., July 29, 1882.
Prepared at Englewood High School and Chicago English High School.
Member Y M. C. A.

Graduates in Electrical Engineering

Armstrong, Julius Roy

Born in Cook County, Ill., 1879.
Prepared at West Division High School and Armour Academy.
Graduated Armour Academy, '01.
Manager Track Team, '01-'02.
Manager Baseball Team, '03-'04, '04-'05.
Member Technical Society.
Member Engineering Society.
Member Executive Committee A. I. E. E,, '03-'04, '04-'05.
Member Glee Club, '02-'03, '04-'05.
Member Freshman Smoker Committee. '04.
With Vial Bros., '98-'00.
Partner, Armstrong & Vial Milk Co., '00-'01.
With Lounsberry Electrical Construction Co., '01-'02.



Ash, Howard Joseph

Born in Chicago, June 30, 1882.
Prepared at Chicago Manual Training School. Graduated '01.
Class Sergeant-at-Arms, '04-'05.

Beamer, Burton Evans

Born at Paw Paw, Ill., October 22, 1881.
Prepared at East Aurora High School.
Member Y. M. C. A.
Member A. I. E. E.
Member Mandolin Club, '04–'05.
Member '05 Trio.

Brackett, John Charles

Born in Chicago, January 7, 1884.
Prepared at Chicago English High School.
Member A. S. A. Track Team, '02.
Member Fulcrum Staff, '02-'03.
Class Fulcrum Representative, '04-'05.
Member A. I. E. E.

Brashares, Harry Ernest

Born in Janesville. Ill., September 5, 1881.
Prepared at Thornton Township High School, Harvey, Ill.
With Whiting Foundry Equipment Co., '99-'02.
Member Baseball Team, '02.
Member Board of Directors, Engineering Society, '03-'04.

Carroll, Emil Joseph

Born in Chicago, October 8, 1884.
Prepared at Hyde Park High School.
Member Baseball Team, '04.
Member Executive Committee, A. I. E. E., '04.
Member Radical X Society.



Clark, Frank C., Phi Kappa Sigma

Born in Ogden, Utah, 1881.
Prepared at Cedar Rapids High School and Coe College.
Vice-Chairman A. I. E. E., '04-'05.
Member Technical Society.

Croskey, Philip

Born in Chicago, July 10, 1882.
Prepared at Hyde Park High School.
Member A. I. E. E.

Culbertson, Roger Goodwin, Phi Kappa Sigma

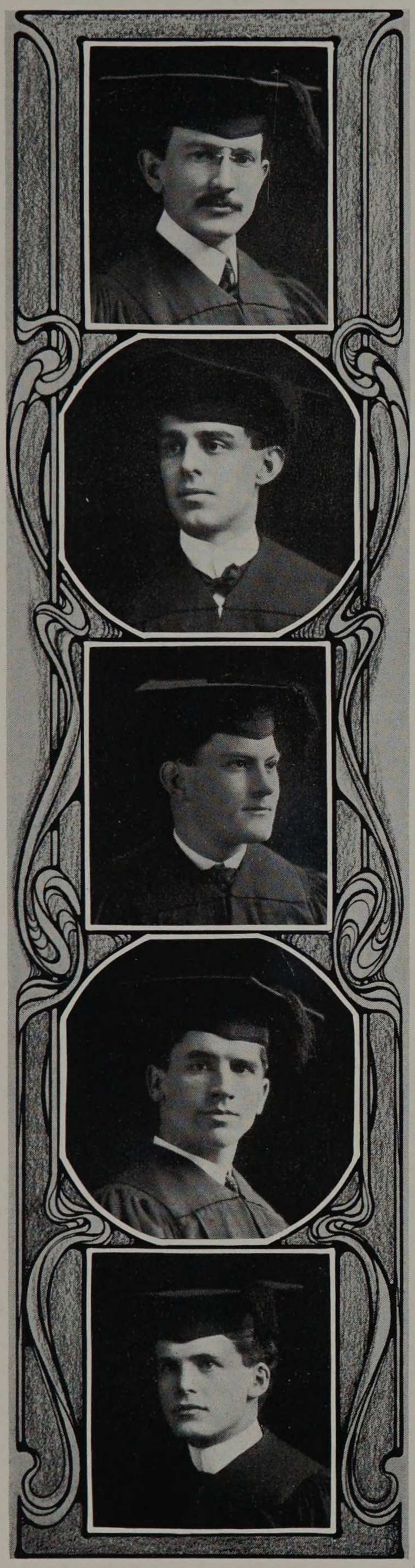
Born in Carroll, Iowa, 1881.
Prepared at Culver Military Academy and Armour Academy.
Graduated Armour Academy, '01.
Member Basketball Team, '01-'02.
Member A. I. E. E.
Member Radical X Society.

Engblom, John F. T.

Born in Stockholm, Sweden, August 31, 1880.
Prepared at Northern Latin School, Stockholm, '90-'97 and Preparatory Engineering School, '97-'98, '00–'01.
With J. Foychting, Stockholm, '98–'99.
Member A. I. E. E.

Heine, Fred Conrad B.

Born in Chicago, January 11, 1882.
Prepared at Chicago English High School.
Member A. I. E. E.



Hutchins, Leonard Bolton

Born at Joliet, Ill,, November 21, 1880.
Prepared at Joliet High School and Armour Academy.
Graduated Armour Academy, '01.
Fulcrum Artist, '02-'03.
With Economy Light & Power Co., Joliet.

Kadic, Joseph Frank

Born in Chicago, 1879.
With Western Electric Co., '98-'01.
Prepared at West Division High School.
Member A. I. E. E.
Member '05 Bowling Team, '05.

Marshall, Harry Barrett

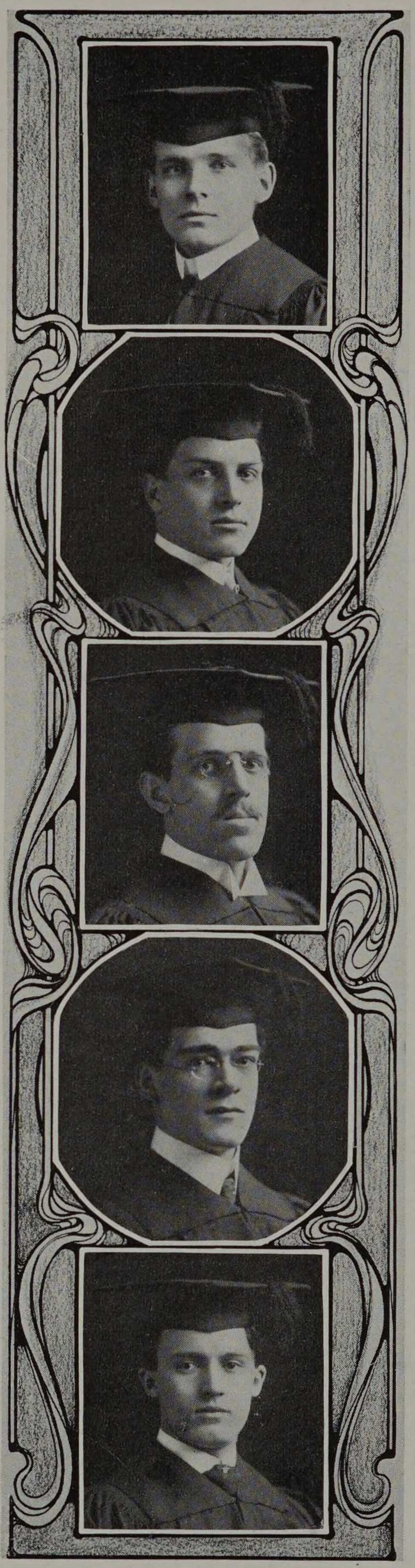
Born in Chicago, 1883.
Prepared at Englewood High School.
Secretary of Class, '01-'02.
President of Class, '02–'03-'04–'05.
Advertising Manager Fulcrum, '02-'03.
Business Manager Integral, '03-'04.
Class Representative to Integral, '04-'05.
Teacher at Yale Preparatory School, '04-'05.
Teacher in Evening Classes, '05.
Member A. I. E. E.
Member Executive Committee, '04–'05.
Member Glee Club, '02-'03, '04-'05. Student Leader, '04-'05.
Member Radical X Society.

Parker, Worthington Francis, Delta Tau Delta

Born at Winchester, Va., December 19, 1881.
Prepared at Hyde Park High School.
Sporting Editor Fulcrum, '01-'02.
Member Technical Society.
Captain Class Football Team.
Member College Football Team, '00, '01, '02.
Captain Baseball Team, '05
Manager Baseball Team, '03.
Member Athletic Board.
Class Integral Representative, '03-'04.

Payne, John Howard

Born at Titusville, Pa., June 24, 1883.
Prepared at Fostoria, Ohio, High School. Graduated '01.
Member A. I. E. E.
Member Glee Club, '04-'05.



Putt, Frank Alva

Born at Sugar Grove, Ill., December 4, 1881.
Prepared at West Aurora High School and Armour Academy.
Graduated Armour Academy, '01.
Member A. I. E. E.
Member Glee Club, '04-'05.
Member Orchestra, '01-'02-'04.
Member Engineering Society.
With Western Electric Co., '00.
With General Electric Co., '04.

Redman, Anthony Rawson

Born at Saguache, Colo., October 21, 1882.
Prepared at John Marshall High School and Armour Academy.
Graduated Armour Academy, '01.

Robinson, Rhea Hamilton

Born in Dubuque, Iowa, June 18, 1883.
Prepared at Dubuque High School.
Member '05 Football Teams.
Class Vice-President '03-'04.
Member A. I. E. E., '04-'05.
Member Y. M. C. A.; Secretary, '03; President, '04.
Member Engineering Society.
Member '05 Bowling Team, '05.

Snowdon, Charles Rossiter

Born at Guelph, Ontario, Canada, June 11, 1878.
Prepared at Guelph Collegiate Institute.
Member G. C. I. Football Team.
Teacher in Guelph Public Schools, '00-'01.
Member A. I. E. E.

St. Clair, Oscar Allen

Born at Atchison, Kansas, October 8, 1880.
Prepared at State Normal School, Indiana, Pa.
Member A. I. E. E.



Tyler, Alva Warren

Born at Sturgis, Mich., November 4, 1881.
Prepared at Sturgis High School.
Member A. I. E. E.
Member Y. M. C. A.

Wright, Malvin Edwin

Born at North Prairie, Wis., November 29, 1878.
Prepared at Waukesha High School.
Money Order Clerk, Waukesha Postoffice.
Night Manager, Hyde Park Exchange, Chicago Telephone Co.
Member A. I. E. E.

Graduates in Mechanical Engineering

Dreffein, Henry A.

Born in Chicago, September 17, 1881.
With T. L. Knudston & Co., Chicago, '99-'00.
Prepared at Northwest Division High School and Lewis Institute.
Member Class '04 for three years.
Recipient of White Scholarship, '03.
With American School of Correspondence, '03-'04.
Member Senior Mechanical Society.

Durr, Herbert Albert, Delta Tau Delta.

Born in Chicago, September 15, 1883.
Prepared at Chicago Manual Training School.
Member Glee Club, '04-'05.
Member Senior Mechanical Society.

Felgar, James Huston, A. B.

Born at Stuart, Iowa, July 27, 1874.
Prepared at Newton High School, Newton, Kansas.
A. B. from Kansas State University.
Member of Beta Theta Pi.
Member of Phi Beta Kappa.
President Senior Mechanical Society.



Fiske, George Wallace

Born in Burlington, Wis., 1879.
Prepared at Sextonville, Wis., High School.
Graduated at Wisconsin Business University, '97.
Stenographer, '98.
Partner in Mercantile Business, '99-'00.
Member Y. M. C. A. Vice-President, '02-'03.
Member Engineering Society. Secretary, '04.
Member Senior Mechanical Society.

Goldsmith, Frank Rowell

Born in Chicago, February 21, 1881.
Prepared at Chicago Manual Training School, two years; Union High School, Crystal Lake, Ill., one year; Beloit Academy, Beloit, Wis., two years.
Member Mandolin Club, '01-'02, '04-'05.
Member Y. M. C. A.
Member '05 Trio.
Member Engineering Society.
Class Secretary, '04-'05.
Secretary-Treasurer Senior Mechanical Society.

Hill, Warren Edwin

Born at Chicago. June 26, 1882.
Prepared at South Chicago High School. Graduated '99.
Member Baseball Team, '02, '03, '04, '05.
Captain Baseball Team, '04.
With John Mohr & Son, '00-'01,
Member Senior Mechanical Society.

Hoy, Walter George

Born at Woodstock, Ill., 1882.
Prepared at Woodstock High School and Armour Academy.
Graduated Armour Academy, '99.
Member '04 Bowling Team, '04; '05 Team, '05.
Member Class '04 three years.

Lennartz, Garfield P.

Born at Geneva, Ill., 1881.
Prepared at Geneva High School, St. Viateur's College and Armour Academy.
Graduated Armour Academy, '01.
Member Y. M. C. A.
Member Camera Club.
Member Engineering Society.
Member Senior Mechanical Society.



McBurney, Edward, Jr.

Born at Gilman, Ill., April 7, 1880.
Prepared at Armour Academy.
Graduated Armour Academy, '01.
With I. C. R. R., '03-'04.
Member Senior Mechanical Society.

MacMillan, Arthur Wellesley

Born at LaCrosse, Wis., 1881.
Prepared at Hyde Park High School.
Member Senior Mechanical Society.

Natkin, Benjamin

Born in Chicago, 1884.
Prepared at Joseph Medill High School.
Member Senior Mechanical Society.

Ratcliff, Walter Alonzo

Born at Milwaukee, Wis., October 11, 1878.
Prepared at Hyde Park High School and Armour Academy.
Graduated Armour Academy, '01.
Member Glee Club, '02-'03, '04'-05.
Member Senior Mechanical Society.
With H. L. Newhouse, Architect, '97-'98.

Willard, Donald Edwin, Delta Tau Delta

Born at Braidwood, Ill., May 21, 1882.
Prepared at Armour Academy.
Graduated Armour Academy, '01.
Managing Editor Fulcrum, '02-'03.
Member Radical X Society.
Member Senior Mechanical Society.

To the Most High and Mighty Prince

JAMES

President of Nought Five, Defender of the Other Classes, etc., etc.
The Translator of this book wishes Grace, Mercy
and Peace, through Armour Tech.

THE BOOK OF ALMUS PATER

CHAPTER I.

AND it came to pass, many years after the flood, there was given to the world Almus Pater, and he did wax fat and grow strong.

2 And he did beget many sons who were loyal to him.

3 And when, in the evening of one night he was called by the spirit, he did rise up and offer his praises to the Lord for such as was given him, saying,

4 And it was the pleasure of the Lord to give me many sons who are but a short time with me in the flesh, but unto the end of their days are with me in the spirit, and for such do I offer Thee my praises and entrust to Thee all the sons of Almus Pater.

5 And the Lord was pleased and did shower many blessings upon Almus Pater.

6 Houses He gave him and all the things that goeth therein. And He gave to him care of all the books and knowledge of the earth, saying,

7 In the full enjoyment of thy prosperity, thou hast turned to Me and it pleaseth the Lord to give thee custody over knowledge; thee and thy sons. And they shall multiply and become powerful, but shall ever turn to thee.

8 And this is thy reward.

CHAPTER II.

AND it shall come to pass that after there shall be light, yea, nineteen hundred years and one more, there shall be born unto Armour Tech, one of thy families, a mighty son who shall be known as the class of Nought Five.

2 And he shall be powerful and even as a giant to his brother classes.

3 This son of Armour Tech shall have many children, and of these two score and eleven shall survive and prove themselves worthy of thee.

4 And they shall be scattered over the earth and shall be monuments to thy name, spreading knowledge and wisdom to thy people.

5 And of all the sons of Armour Tech none shall be as powerful.

6 ¶ And it shall come to pass that Nought Five shall triumph in thy name over his fellow classes, and shall be as a mountain, while the others are as the hills; both above the common level of all else on earth.

7 And this shall be on account of thy goodness.

8 And so spake the Lord.

9 And it was even so. Almus Pater did become master of books, and his sons did beget knowledge.

10 And he wondered of the powerful son of Armour Tech.

CHAPTER III.

AT the meeting of the night and day, there happened a time when Almus Pater was weary and fell asleep over his books.

2 Then did the spirit come to him and call him by name, saying,

3 Almus Pater, thy wish is granted. Thou shalt see Nought Five in all his glory and even as he will be many years from now. Look!

4 And Almus Pater saw the Heavens open and in the opening were many men, and it was given him to know them and their deeds.

5 ¶ He recognized Jimmye, who was singing his praise to Almus Pater and it was pleasant to hear.

6 And three were apart and did play beautiful music.

7 When suddenly there did arise a terrible noise, like unto a thousand thousand serpents and then did the thunder roar loudly. And from the throats of the

hosts came a happy and victorious shout, —Rah ! Nought Five !

8 Around the ground were other classes which were not seen at first.

9 And then did arise from the earth a most glorious spectacle. Two large symbols were they and did mean Nought Five

10 And at the command of one Brakk Ett they were covered over with stars and it was glorious.

11 And Almus Pater said, I am satisfied.

12 But when he looked again, all the classes on the ground were running as if stricken with fear, and the spirit said,

13 And it is even so, that the brilliancy of Nought Five hath caused them to flee.

14 And Almus Pater wondered thereat.

15 The hosts drew nearer and from the ranks came a lady, fair but not over stout, who brought fruit.

16 And Almus Pater knew it was Magge and the fruit was currents, which many of the class were raising and studying.

17 Then did the clouds roll up and the Heavens close and Almus Pater saw no more.

18 But the spirit did say unto Almus Pater, Even as they are fair to look upon, so are their deeds.

CHAPTER IV.

NOW when Armour Tech was given his mighty son Nought Five, he had many daughters, but as he looked upon his son, his heart gladdened and he said,

2 God is good.

3 Also offered he praises to Almus Pater, saying,

4 Thou hast given me a son that is of mine own heart. May all my children to come be as he and I will be satisfied.

5 But Almus Pater was angered because Armour Tech had presumed to judge finally of his work.

6 ¶ And he rebuked him, saying,

7 While Nought Five *is* thy best son and shall rule over his brothers, thou hast displeased me by being satisfied.

8 No more daughters shalt thou have, but all thy children shall be male, even unto the end of the earth.

9 And it was so.

10 And while Nought Five was with Armour Tech, none was there which could equal his deeds, which were many.

CHAPTER V.

AND the sons of Nought Five were of four tribes, the Ees, Mes, Ces and Ches.

2 All were peaceful and worked together and did produce results.

3 And the Ees were of greatest numbers, and had many of fame.

4 There was Ash the Smiling, and Phillip the Actor, and Hutch the Artist, and there were many more.

5 There were Payne the Tall and Wright the Tubb, and Rhea the Cute. And one was ferocious and did make much noise, who was called Redman.

6 Of the tribe of Mes many were as dwarfs, for three, known as Don, Goldie and Bennie were as stalks of grain beside a tree of the forest when in the presence of Durr the Hefty.

7 And of the rest were Penn of the receipt book and Harper the Rotund and de Beer, whose name dispelleth thirst.

8 And all were great in the eyes of Almus Pater.

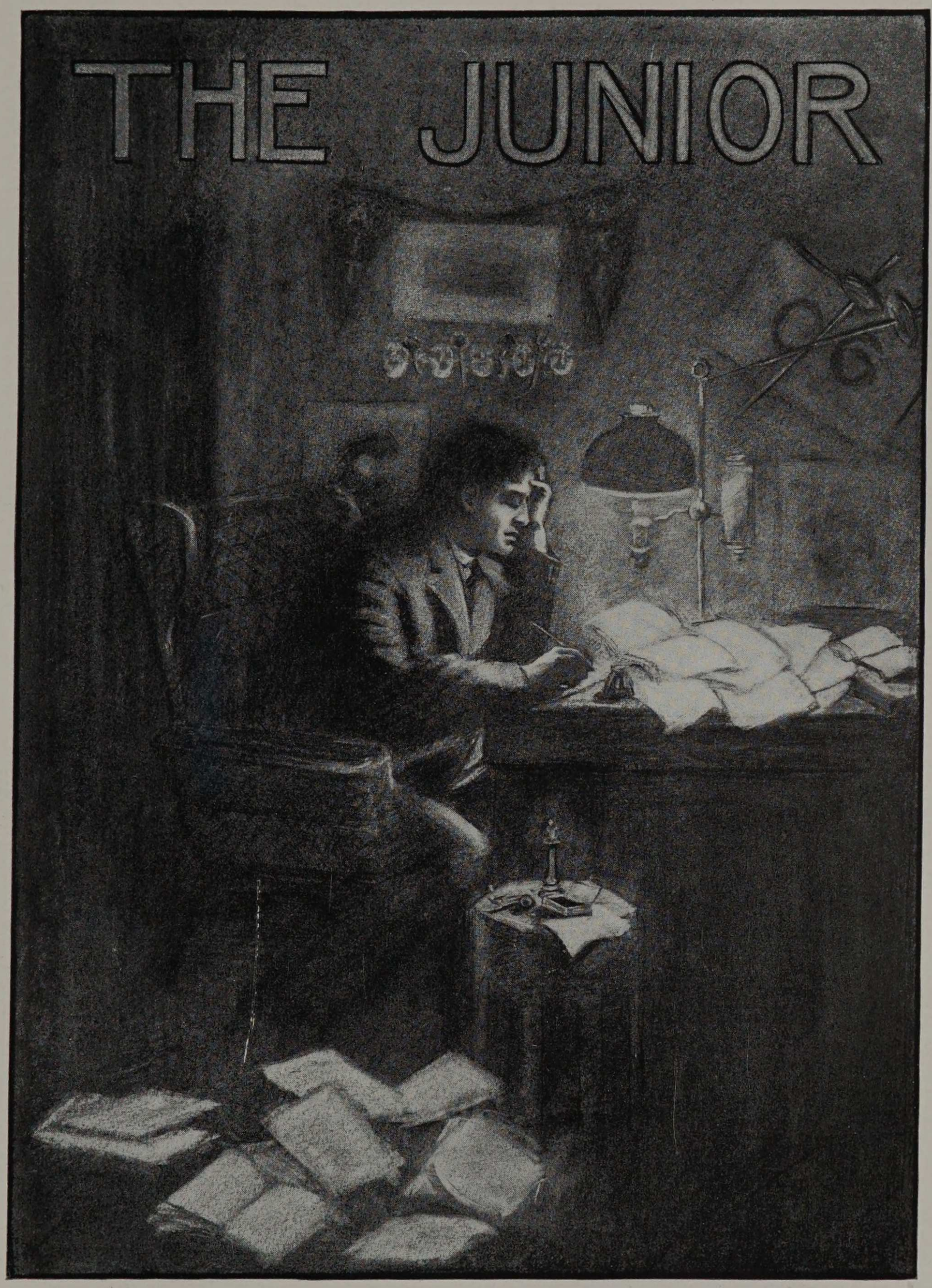
9 ¶ And they did work wonders and establish customs.

10 After them by their example, did the classes struggle to decide who was mightiest, on the second day of the second week of each year.

11 As they did, do the classes continue to give in the first year of their existence as sons of Armour Tech and Almus Pater, a festivity known as the Freshman dance.

12 And they did originate and perpetuate many other things and were skilled in tests of strength and of brain and did triumph.

13 And of the Armourites, none did excel Nought Five. And Armour Tech did await many years for another like him.


THE JUNIOR

The Junior Class

COLORS: Navy Blue and Gold.

YELL: *Rixey, Ray, Rah, Rix,*
Armour Tech., '06.

OFFICERS

G. B. Carpenter, *President*
Lindsay Miller, *Vice-President*
E. J. Smith, *Secretary*
F. T. Pierce, *Treasurer*

Fulcrum Representatives: Sawtell, Ellett

SOCIAL COMMITTEE

A. L. Carr, F. N. Wilson, A. G. Rockwell

Students in Chemical Engineering

Collins, W. R.
Elkin, Maurice
Flood, Walter H.
Gooken, J. B.
Hotchkiss, C. C.
Livingston, Julian M.
Nicholson, Victor
Quin, Hugh G.
Schumacher, Joseph J.
Warszewzki, F. S.
Woldenberg, M. W.

Students in Civil Engineering

Allen, Orrin T.
Ellett, Edwin H., Jr.
Flanagan, Frank J.
Ford, Tenney S.
Greifenhagen, Edwin O.
Haggander, G. A.
Hiller, Eugene F.
Holcomb, C. S.
Johnson, Carl O.
Klein, Samuel
Leininger, Walter G.
Liebermann, Ernst
Nass, George R.
Pierce, Frank T.
Purdy, James H., Jr.
Reynolds, Myron B.
Saner, C. C.
Spalding, R. S.
Stanton, Joseph M.

Photo by Walinger



Students in Electrical Engineering

Allyn, A. J.
Blumenthal, Edward A.
Bremer, Harry A.
Campbell, E. E.
Castle, D. S.
Chandler, Fred E.
Couchois, Edward
Cronk, E. P.
Cutler, E. Warner
Deming, E. G.
Fletcher, Arthur J.
Fry, August
Harrington, Philip
Kanzler, Oscar C.
Klapper, Charles
Krum, Howard L.
Kubitz, Alfred L.
Kuhn, George W.
McCrackin, Wallace
Michael, Maurice
Miller, Lindsay H.
Moran, Charles E.
Moreton, D. P.
Neilson, Robert A.
Riker, Charles R.
Rosenheim, Benedict
Schaedlich, Hans
Smith, George W.
Torrance, R. S.

Students in Fire Protection Engineering

Ballard, E. L.
Edwards, Frank T.
Hepp, Arnold A.
Ross, L. R.
Smith, Earl J. L.
Speers, Ralph D.
Swearingen, R. E.

Students in Mechanical Engineering

Beazley, John G.
Brock, W. L.
Brown, Arthur J.
Brubaker, William C.
Carpenter, George B.
Carr, Alva Lee
Chan, Yoke H.
Clucas, G. W.
Davis, Augustine, Jr.
Edson, Norman L.
Enander, Einar
Focht, R. G.
Gaylor, William
Hayes, Charles E.
Houghton, V. A.
Keeth, Grover
Kimball, R. W.
Levings, L. R.
Morrison, R. D.
Paradise, L. A.
Sawtell, H. J.
Scott, P. J.
Strube, Harry L.
Wanner, A. Franklin
Wilson, Fred N.
Wilson, W. Robert

Junior History

Introduction

FROM the nature of the case, a class history is the most favorable presentation of the achievements of the class. Nothing could be more favorable to '06 than the plain, unvarnished truth, so here it is with all the trimmings left off.

Chapter I.

Never were there such Freshmen. Manfully backing our gigantic president in the class rush, we rolled the '05 hordes in the mire.* Then adding science to our brute strength, we subdued their much touted football team. The basketball season arrived, and we again overcame our rivals, and then vanquished '04. In bowling we swept the board, and did likewise in baseball. Still having time upon our hands, we gave the usual social functions, with enlargements. That all our attention was not given to class affairs, the number of our men on Institute teams shows. Throughout all this outside work, we still managed to maintain our high standard of scholarship, showing our versatility.

Chapter II.

Football in 1903 brought us more glory, and not wishing to monopolize all the honors, we gave ourselves over to our studies. Thus the bowling honors fell to our friends of the even year, '04, and, as we did not push it, there was no basketball that winter. Baseball claimed our attention in the spring, and again we were victorious. This year also we took our due place in the social affairs of the school. Our aggressive spirit was shown in the way the newly organized '06 Civil Society carried out the purpose of its organization. Our pocket size edition of the Fulcrum commended itself to the many who were, not unnaturally, so interested in its contents that they had to read in class.

Chapter III.

Now, we are poor, overworked Juniors, and time, swiftly flying, leaves us too few hours of the twenty-four in which we may take up outside work with our accustomed zest.

However, we have entered more seriously into our fewer undertakings. Of this book, you are judge. The men from the Juniors on the football team were more numerous than those from any other class. In more than one game, the five men on the basketball team were Juniors, and, moreover, we gathered five more basketball stars and easily defeated the upstart '08 team.

Our record could hardly be better, and there is no Junior who would not say with pride, "I am of the Class of '06."

---

*This is not a figure of speech.

Memorabilia

September 30, '02
Won Class Rush

October 29, '02
Football, '06–16, '05–6.

February 27, '03
Freshman Dance.

March 2, '03
Basketball, '06–25, '05–21.

March 9, '03
Bowling Championship.

March 16, '03
Basketball, '06–14, '04–7.



May 30, '03
Baseball, '06–9, '05–7.

June 5, '03
Freshman Banquet.

September 27, '03.
Won Class Rush

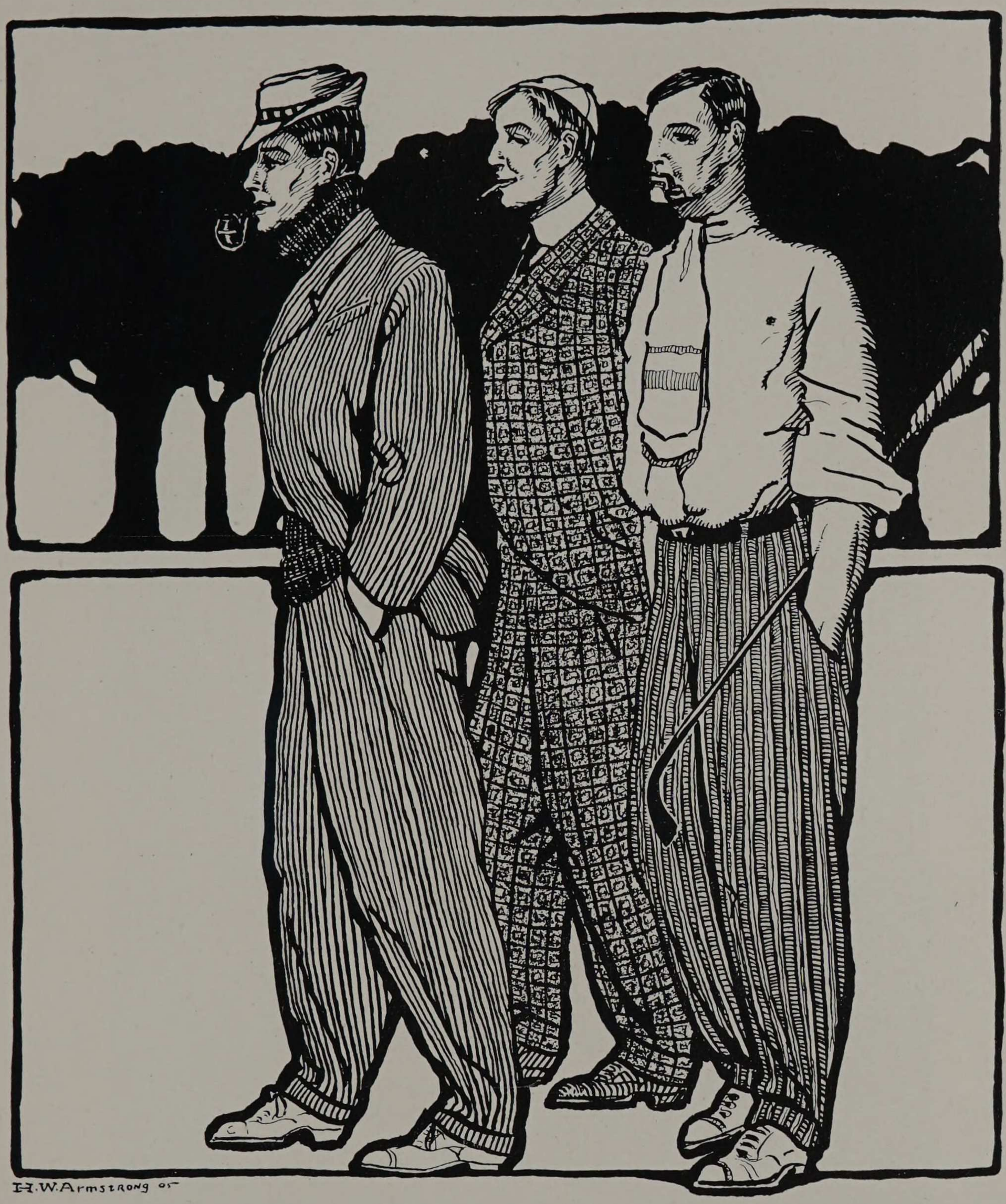
January 8, '04
Sophomore Dance.

May 27, '04
Baseball, '06–18, '07–3.

October 16, '03
Football, '06–12, '07–0.

February 20, '05
Basketball, '06–22, '08–14.

March 3, '05
Junior Dance.



SOPHOMORES

The Sophomore Class

YELL : *We're it, by Heaven,*
Armour Tech. '07.

COLORS : Scarlet and Blue.

OFFICERS

Balthasar Hoffman, *President* — Harry R. Shepherd, *Vice-President*
Horace B. Kimmey, *Secretary* — H. J. Gray, Jr., *Treasurer*
Integral Representative : Franklin G. Rogers

SOCIAL COMMITTEE

B. B. Buchanan, *Chairman*, W. F. Hebard, Sidney V. James

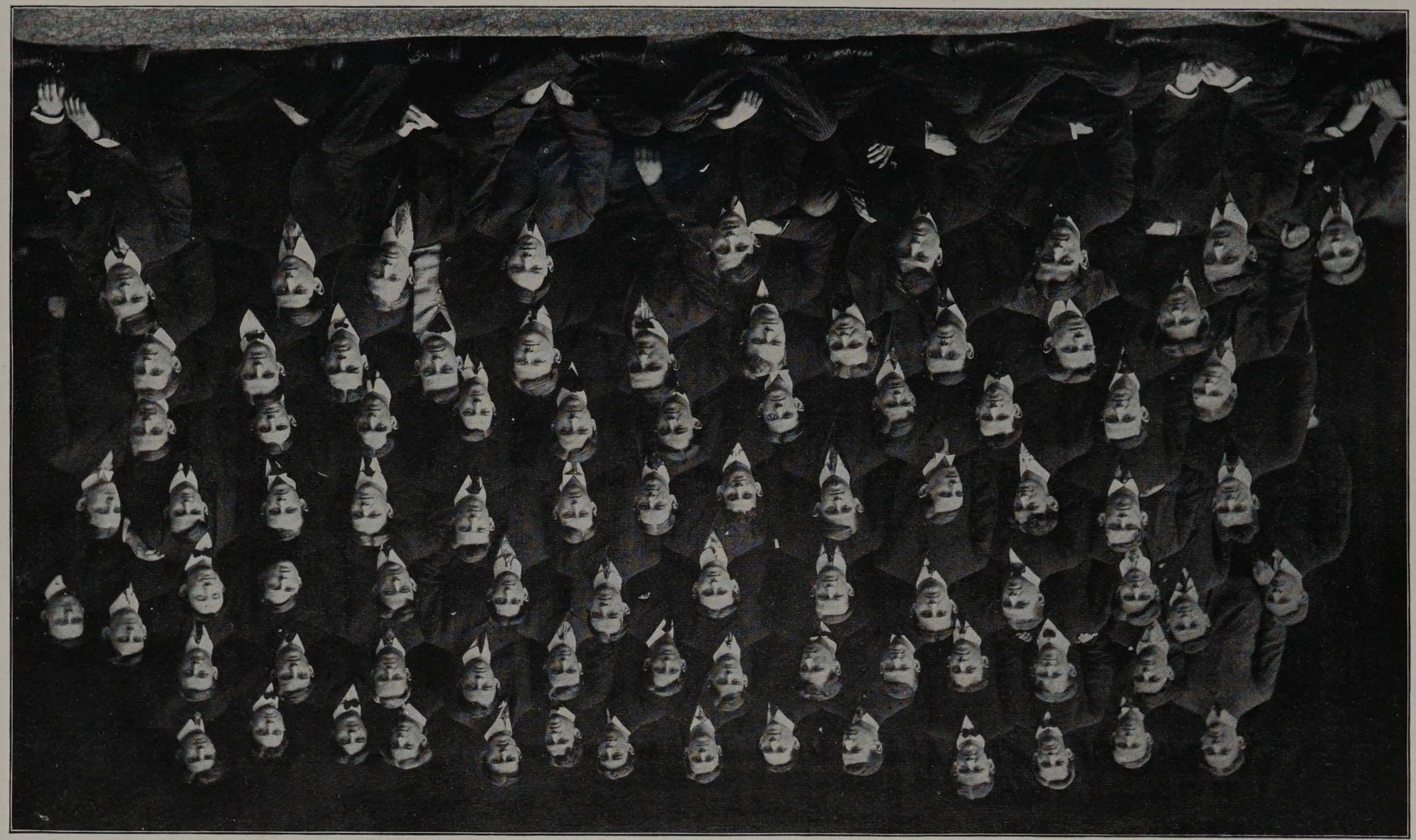
Students in Chemical Engineering

Arnold, Emery E.
Heath, Chester S.
Heuchling, F. G.
Hoffman, B.
Jones, H. W.
Myers, E.
Pacyna, Arnold
Perlstein, Benjamin
Robinson, Frank H., Jr.
Smith, Lorenzo B.
Steward, Roy F.
Walter, R. C.
Wight, R. A.
Wendt, H. L.

Students in Civil Engineering

Badger, Leroy H.
Bond, Sanford H.
Burkholder, Fred L.
Clasen, H. G.
Copenhaver, H. K.
Cranwell, Bronson
Dowdell, Charles
Hackett, James L.
Hayden, Albert, Jr.
Hayden, Julian
Hebard, W. F.
Heinsen, George M.
Hough, Walter
Jorgensen, Adolph
Kimmey, H. B.
Laubach, George S.
Lichtner, William O.
Lynch, Thomas E.
McCracken, Robert W.
Mathews, J. F., Jr.
Megahy, J. A.
Millard, Chauncey S.
Oosterbeek, Henry A.
Powers, William C.
Rossiter, J. A.
Scharle, Louis M.
Schermerhorn, W. E.
Schoger, Louis E.
Stanton, Gustav
Thompson, Morris
Tompkins, G. Dwight
Walbridge, J. T.
Wilsey, Grover H.
Young, L. B.

Photo by Walinger



Students in Electrical Engineering

Alderson, Harvey B.
Badger, H. Ralph
Baker, Charles
Bangs, L. W.
Banning, Thomas A.
Barnet, Alex. G.
Blackwood, R. W.
Blenkinsopp, Fred.
Buchanan, Byron B.
Bunnelle, P. A.
Busse, Clayton F.
Chamberlin, J. P.
Chapin, Chauncey C.
Clarke, Fred
Cole, Arthur
Dwan, J. A.
Eustice, A. L.
Gilmore, Millard
Grant, Roy G.
Groesbeck, A. J.
Hail, Joseph
Harmon, A. M.
Hartshorn, K. L.
Henning, C. S., Jr.
Hopkins, R. H.
Jackson, I. F.
Jones, E. W.
Jones, L. B.
Kelkenney, A. A.
Leddy, Daniel H.
Lurvey, Dave
McCoy, Lloyd
Maas, Sol
Mathews, George W.
Moffat, R. W.
Morrison, R. A.
Nichols, H. W.
Olsen, Arthur
Peterson, N. P.
Pool, James Sinclair
Quackenbush, A. D.
Reker, W. H.
Roush, Leroy C.
Rowe, Hugh I.
Sanders, Walter
Saunders, J. Earl
Satterthwaite, L.
Sigwalt, Elmer
Sleezer, Frank W.
Smalley, J. S.
Sollars, Charles L.
Stagg, Milton V.
Sturgess, F. M.
Welch, H. V.
Wendell, R. B.
Wheeler, H. M.
Williams, Wallace
Wolfe, Edward J.

Students in Fire Protection Engineering

Alling, Claude
Burge, George C.
Gray, H. A., Jr.
Hicks, T. R.
Schmidt, J. Lorenz
Sollitt, Leslie
Wilson, J. R.

Students in Mechanical Engineering

Allen, George
Barnett, Ferdinand Lee
Boehmer, Alexander H.
Chambers, Frank A.
Chapman, C. B.
Davies, Howard C.
Dearborn, Arthur S.
Dreffein, C. G.
Dunmore, Glenn B.
Ehretsman, J. L.
Furry, William
Heimerdinger, C. C.
Hess, Edward H.
Hills, Leon P.
Hodges, G. C.
Hoffman, Balthasar, Jr.
Hooper, Blake C.
Horlock, D. G.
James, S. V.
Jarrow, H. W.
Kilgore, C. Earle
Maher, Lucas W.
Manning, R. R.
Mansfield, William M.
Matchett, J. C.
Nind, J. N., Jr.
Pahlman, Paul J.
Perkins, Robert A.
Porter, Lee W.
Rech, Everett
Rogers, Franklin G.
Shepherd, H. R.
Singer, Sidney C.
Smith, C. U.
Thorson, Lars M.
Turnbull, I. J.
Wachs, Theodore
Wells, J. Barnard
Weston, F. W.
Wooley, Guy G.

History *of* the Sophomore Class

"Self-praise
Goes but little ways."

AND YET—how could we disappoint our friends by not repeating to them the story of the versatility and wonderful accomplishments of the renowned and great CLASS OF 1907, whose luster outshines that of all other classes of our beloved A. I. T., not even excepting the 57 varieties.

You will remember how well we performed our task of introducing the poor and benighted Freshmen into the beauties of college life at the beginning of this year—how we as a reception committee did our best to show them all the courtesies to which they were entitled—a free but blinded ride over our beautiful lanes and boulevards. But they, poor unsophisticated mortals, utterly failed to appreciate these beauteous sights, owing, perhaps, to the earliness of the hour, and other *tight* reasons. Still further to show our hospitality, we spread before them a feast a la milk carte in the beautifully frescoed coal bin in the lower recesses of the Physics laboratory. We shall always remember with pleasure how they made one grand effort to overwhelm us with thanks (?), and then resumed their peaceful representation of "Asleep at the Bin."

Altho' on this occasion, and the day following, we showed our guests many other kindnesses, they were still not satisfied with our efforts in their behalf, and it required the final test of a football battle to show them that we were indeed their superiors in every way. It was only after this trial, which resulted in the only possible way, that they were content to take the station for which they were naturally fitted, and retire forevermore into innocuous desuetude.

The CLASS OF 1907 has taken an active part in general athletics with results that are very gratifying. It is unnecessary to make any extended

reference at this time. It is enough to say that our boys are all striving for the highest honors, and will be content with nothing less.

The *Fulcrum*, under the present able management, has become a bright, breezy and instructive paper, and we are confident that the "CLASS OF 1907" can and will, in the coming year, demonstrate its ability to make the "INTEGRAL" the greatest ever.*

As an interesting point in connection with the class might be mentioned the fact that we are the only class on record in which may be found both father and son. Reference to the list of members will show that both Balthasar Hoffman and Balthasar Hoffman, Jr., are enrolled therein. This, however, is only one of the many interesting points about our class. Any one desiring further information may obtain it from our Mr. Badger, who is capable, and more than willing, to give it at any time and place.

In conclusion, the "CLASS OF 1907" wishes to remind everyone that they will continue to

"Jog on, jog on, the footpath way
And merrily hent the stile-a;
A merry heart goes all the day,
And a sad one tires in a mile-a."

—*Winter's Tale.*

---

* EDITOR'S NOTE.—This with their usual egotistical euphemism.



FRESHMEN

The Freshman Class

COLORS : Scarlet and Black.

YELL : *You bet we're great,*
Armour Tech. '08.

OFFICERS

C. O. Frary, *President*
J. E. Monahan, *Secretary*
H. W. Martin, *Treasurer*
J. S. Townsend, *Vice-President*
W. M. Childs, *Sergeant-at-Arms*

SOCIAL COMMITTEE

Irving Odell J. S. Townsend H. A. Pegues
Integral Representative: A. W. Boylston
Fulcrum Representatives: Bannerman, Manthei

Students in Chemical Engineering

Andrews, Ellis
Chatain, Paul E.
Cohen, Jacob
DeLemon, Hugo
Ettenson, Isidore Z.
Goldsmith, Melvin
Grace, Stephen G.
Holmberg, Edgar T.
Hotchkiss, Everett
Jones, M. T.
Kewley, R. E.
Klein, Floyd A.
Klooz, Elmer G.
Martin, Herbert W.
Robinson, Clarence A.
Schuster, Charles A.
Windmueller, S.

Students in Civil Engineering

Anderson, H. C.
Atkinson, S. K.
Barber, Robin H.
Benjamin, Jack C. A.
Benson, Edwin B.
Brown, H. Clifford
Buhman, G. Gilbert
Cerny, James
Childs, W. M.
Converse, W. I.
Conway, Neil
Dittmar, A. A.
Douthitt, Merton
Eaton, A. W., Jr.
Ellington, Harold S.
Farmer, Harry J.
Flanagan, George
Flodin, Rudolph
Frary, Charles O.
Guerin, James
Hagerup, Clarence
Heidenreich, Walter L.
Holmboe, Ralph
Hoodwin, H. J.
Jones, Percy, Jr.
Larson, Reuben L.
Levi, E. Harold
Levin, Louis J.
Levy, Marcel S.
Markey, James
Martin, G. E.
Matthay, Henry P. L.
Matthei, H. R.
Meyer, Grover J.
Newman, O. R.
Nitschke, Paul H.
Packer, Charles S.
Pegues, H. A.
Perry, Raymond S.
Pollak, Ernest
Powell, E. W.
Rawn, Ira L.
Robinson, Clarence A.
Sawyer, John E., Jr.
Schram, Irwin
Smith, Thomas W.
Solomon, W. W.
Stevens, Roe L.
Stone, E. G.
Sturtevant, R. W.
Trinkaus, William, Jr.
Tuthill, R. W.
Urson, Frank J., Jr.
Webb, Alex. R.
Wilson, Schuyler S.
Zimmerman, S. L.



Photo by Walinger

Students in Electrical Engineering

Anderson, M. J.
Arthur, Ray
Beaty, Mark
Binder, Gurdon A.
Bingham, Reed
Bliss, Harold D.
Bremers, Henry, J., Jr.
Brooke, Walter Edwin
Buehler, Martin, Jr.
Buell, Roy D.
Cobb, H. W.
Collins, Frank C.
Cornell, W. S.
Cornwell, Augustus B.
Darling, J. T.
Dodds, Fred C.
Doyle, Horace F.
Dunbar, William, Jr.
Eager, E. C.
Ebner, Alfred J.
Edelstein, Clarence
Eldridge, Lindsay
Engsberg, Bernard C.
Ervin, E. H.
Eustis, Truman W.
Fineman, Oscar
Francis, Albert L.
Grady, Paul L.
Harger, Kendrick
Hoard, Horace O.
Hurd, Charles G.
Irwin, Robert
Jacobson, Joseph H.
Jaeger, Neil M.
Jaquet, George E.
Johnson, A. Roy
Kean, G. P.
Lalis, Anthony
Langstaff, Charles R.
Lewis, Raymond
Lloyd, E. J.
Loofbourrow, J. D.
McClain, M. A.
Manthei, John
Marsh, Orlando
Meeker, D. W.
Milnes, H. C.
Monahan, Joseph
Montgomery, Fred
Morey, C. R.
Mott, Harold
Mulcahey, D. S.
Muszynski, L.
Nelson, George W.
Noth, George J.
O'Sullivan, Timothy
Patrick, Wilbur
Paul, H. J.
Petty, E. W.
Popp, Lee W.
Purcell, N. A.
Rasmussen, Edwin
Raymond, Archie B.
Richardson, James R.
Rosenberg, Harry
Rosenthal, Sidney
Schmich, Frank G.
Sherman, Robert F.
Simmons, Leslie E.
Slaught, Hugh M.
Smith, H. C.
Smith, Raymond R.
Souther, S. A.
Taylor, Arthur B.
Trainor, Roscoe J. C.
Vacek, Vincent F.
Valerio, Joseph M.
Vanderkloot, M.
Vore, Milton P., Jr.
Waffle, W. H.
Whitehead, J. T.
Wilsnack, George W.
Winser, Roy A.
Withrow, Joseph E.
Wright, Jay L.
Wright, Walter
Young, Claud M.

Students in Fire Protection Engineering

Dargan, J. T.
Eyers, Walter
Lunak, Sidney E.
Thomson, Frank L.
Ward, M. A.
Weinette, S. N.
Wistrom, Felix E.

Students in Mechanical Engineering

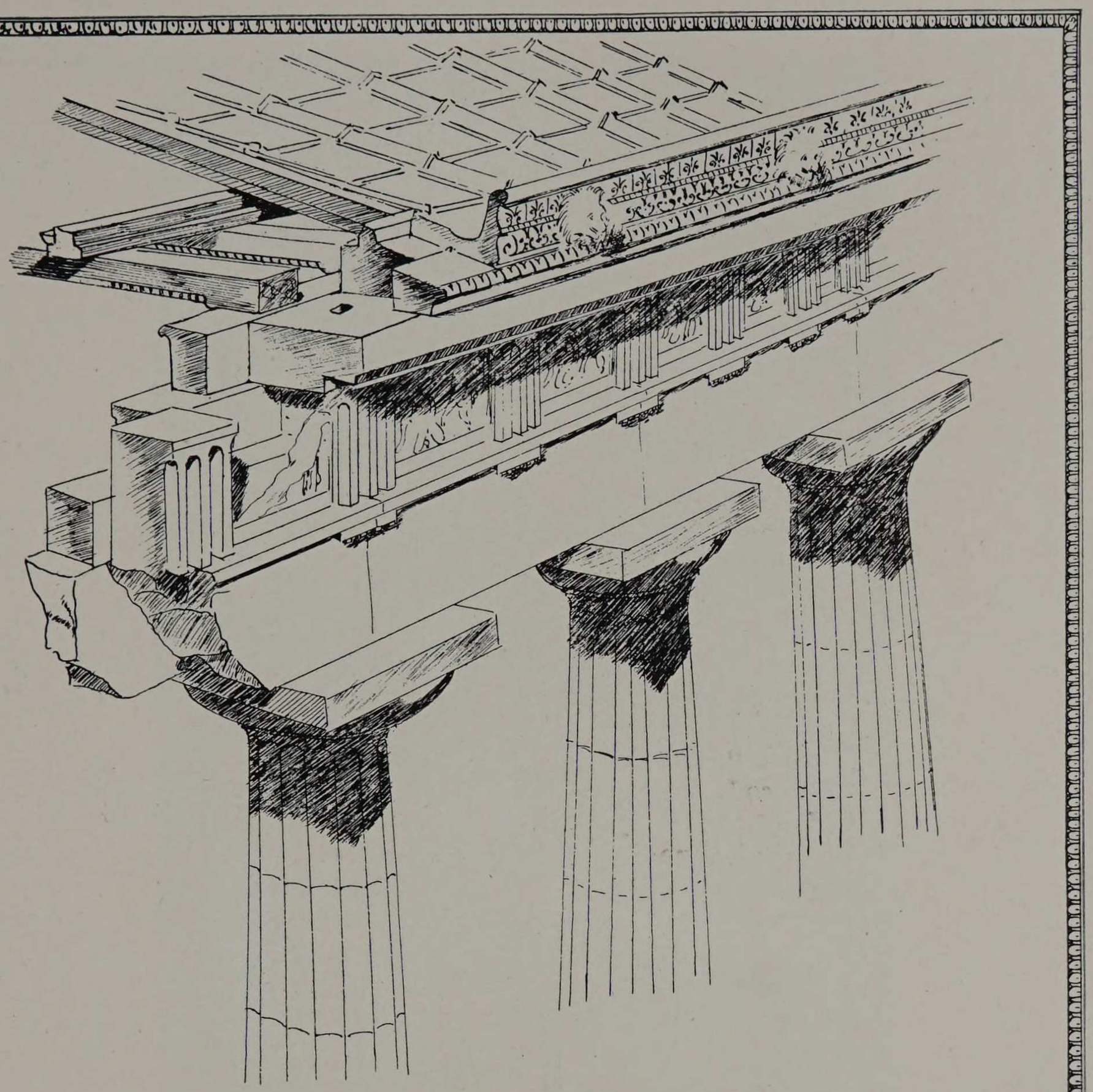
Bannerman, T. W.
Barrett, Dwight O.
Boblett, Kinderman M.
Boughton, Newell J.
Boylston, Arthur W.
Buck, Samuel H.
Chatfield, George C.
Crabbs, Austin
Crowell, Paul C.
Friedlander, Lawrence
Friedman, Ephraim
Glos, Harold V.
Holmes, W. E.
Houghton, Earle W.
Joslyn, Leslie B.
Kruttschnitt, John
Larkin, J. E.
Mackey, Robert W.
Moore, Clayton C.
Morgan, W. C.
Mulloy, George B.
Nadler, Herbert
Odell, Irving
van Pappelendam, Bernard
Parkes, Arden B.
Parry, G. G.
Pettibone, Ira
Pollard, L. E.
Porter, Benjamin W.
Richards, R. J.
Sammons, Gerald H.
Sleeper, Fred
Starin, Louis D.
Stillman, E. H.
Taylor, Charles H.
Thomson, Andrew
Townsend, J. S.

History *of* the Freshman Class

THE History of the Class of '08, covering as it will, an eventful four years, is still in its infancy. This infancy is, however, assured of a speedy and successful maturity by the events that took place on Freshman Tuesday, because these events were important factors in the enhancement of '08's prestige, inasmuch as they revealed the resourcefulness, courage and tenacity of purpose, of the material of which the class is composed. The conduct of the Freshmen during their somewhat informal, to say the least, initiation into college life at Armour certainly is an illustration of what loyalty and enthusiasm will do for a newly organized class, even though it be pitted against an organization whose knowledge of the gentle art of rushing is very practical, because of previous training by the Class of '06.

In order to fully appreciate the skill with which the Freshmen handled themselves in the rush, the fact that they utilized a natural condition of the field of battle to divert the first terrific rush of the Sophomores must be known. This legitimate weapon, with which Nature so kindly assisted '08, was mud. When the ponderous mass of Sophomore hopes reached the Freshman line, the momentum they had gained could not have been resisted by a stone wall, and in order to compensate for this advantage, the Freshman formation quickly fell away, thereby causing the Sophomores to plow into the mud, and lose control of themselves. They reached Dearborn Street before they succeeded in stopping. From this place, '08 quickly drove them back to the Mission. After this exhibition of strategy, and ability to make use of the opportunities presented to them, the Freshmen proceeded to show their strength in hand-to-hand conflict. Every attempt made by the now desperate Sophomores to push the Freshmen back proved unavailing, and as the rush surged back and forth in front of the Mission, the Freshmen responded to "'08 East" as readily as the Japanese to "banzai." Thus the rush progressed until time was called, the end finding the Freshmen still in possession of, and successfully holding, their position.

The very creditable showing of the Class of '08 in athletics, and in all other student activities at Armour, corroborates the statement that '08 history will be such that everyone of its members will be proud that they participated in its making.



DEPARTMENT OF ARCHITECTURE.

©

R. Derrios

Department *of* Architecture

THE ATELIER

Senior Members

EDWIN F. GILLETTE, Massier.

Fritz F. Anderson
Albert D. Becker
Norman W. Cook
Jerome J. Cerny
John L. Fortune
J. Carroll Johnson
Arthur F. Matthes
Solon L. Reily
John B. Travnicek
Orville E. Truesdell

Junior Members

WILLIAM I. KALTER, Massier.

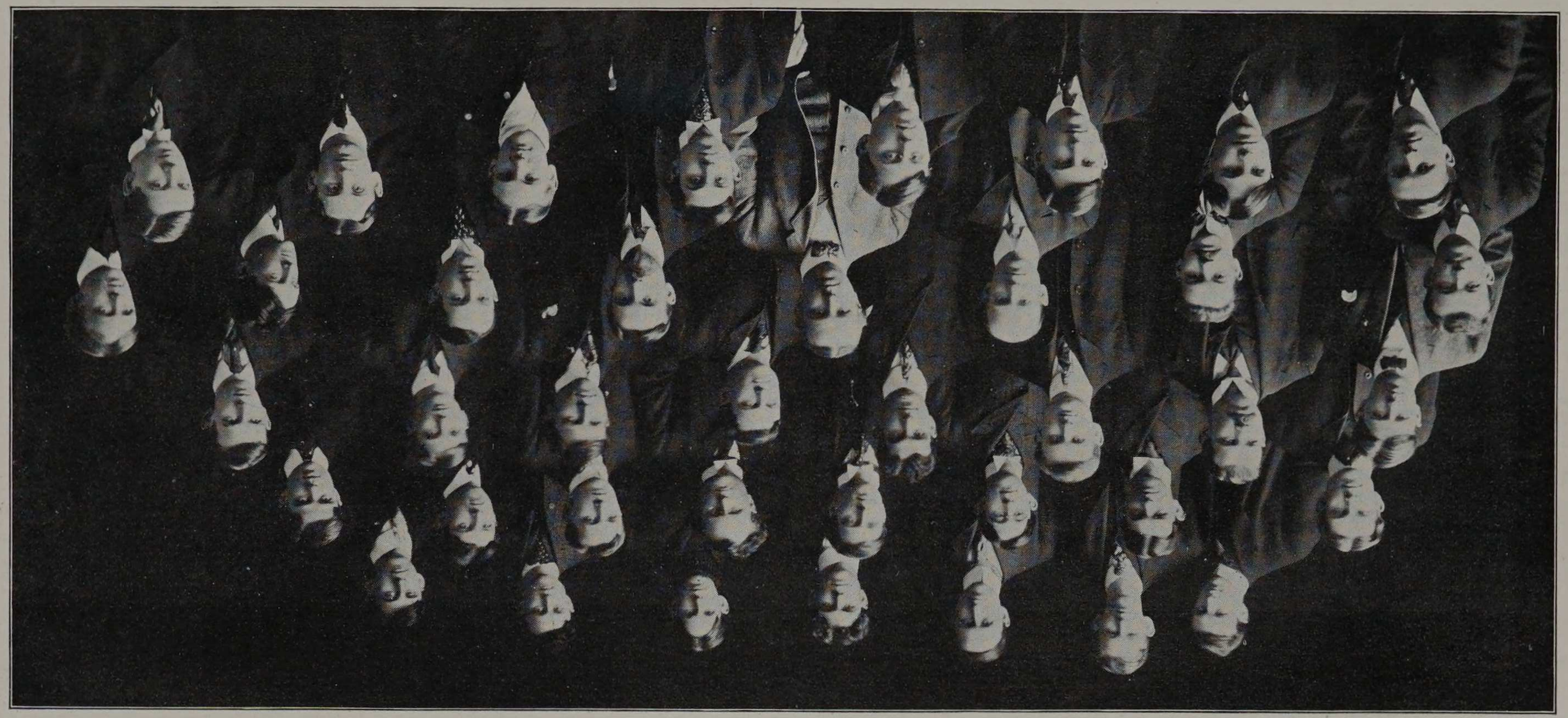
William Banker
Charles W. Bates
Lawrence T. Berger
Norman P. Black
Clarence I. Botteron
Carl Bowman
Olaf L. Broline
Rollo C. Buckley
Robert J. Doerr
H. Chris Hanson
Van Buren Hinsch
Harry V. Lee
George R. Livermore
Robert Ostergren
Harry Rasmussen
Ralph Reed
Charles Schmidt
Carl E. Schulze
Claud K. Smithley
Maynard L. Thompson
George S. Walker
Frederick W. Wells
Adam G. Wickerham
Ole G. Winjar
George F. Wolters
William G. Wuehrman
George R. McEldowney

The Art Institute has co-operated with Armour Institute of Technology during the past few years in the maintenance of the Chicago School of Architecture; but not until the present year has the Architectural course become essentially an Armour Institute course, and this is the excuse for being represented in the pages of the INTEGRAL, if any excuse is necessary.

Suffice it to say, that the Architectural students have formed an organization of their own, and now appear in public, for the first time, under a distinctive title.

The reader is referred to the adjoining group for the satisfying of any proper curiosity in regard to the personal looks of the budding architects. As to their mental characteristics, the anecdote on the page following may give some sort of an idea, although the men should not be judged by the remarks with which they are credited.

Photo by Walinger



A Day at the Atelier

"GOOD morning, men." This from the newly elected "Massier" or "Mace-bearer," as he enters the Atelier about 10:30, and proceeds to start work for the day. His arrival brings assurance that the day is already well along, and that lunch time will soon be there.

"Good morning, Mosseer," "Good morning, Mr. Messiah," are the various return greetings from the aforesaid "men," and the day is commenced.

"Say, who stole my thumb-tack?" shouts Cook, looking around the floor for the precious metal disk, and not forgetting to keep a sharp lookout on the boards of his next door neighbors—"Fritz" Anderson and the "Massier." At this, "Wrinkles," scenting trouble, tugs at his chain, which slips, and he makes for the door, with the evident intention of copying his master, in seeking the society of congenial friends of the fair sex in the basement.

"Say, Cook, who are your friends? Introduce me, will you?" is heard from the corner, where "Dame" Fortune smiles. "Shorty" Truesdell talks parrot talk, "Jerry" Cerny says nothing, J. "Carrie" Johnson "piffles" at anything, and Jack Travnicek sings:

"Katrine, Katrine, you're a picture so fine,
That I couldn't paint it like you are, ain't it,
My sweet Katrine!"

"Orville, oh, Orville! Can't you come over and play in my back yard?" pipes Cookie, in a childish treble. "I'll ask my ma if I can come over and play in your back yard," shrills "Shorty" in reply, and this starts a song and clog dance by "Al" Becker, to the tune of:

"My, but I feel blue,
For I really don't know what to do—"

he having decided to relax for a moment.

"Come and look at my house a minute," calls "Fritz" to Matthes. "Yah, mein freund," exclaims "Shark" Matthes, "du bist ein donner wetternochmalschafskopfseselthier, Du!" which precipitates a wrestling bout between the two, during which a drawing board falls over, to say nothing of an easel or two, and finally one of the stools strikes the floor with a heavy thud. Each one bends industriously over his board as the door opens, and a gentlemanly guard appears, with the reasonable request that "We make a little less noise, as it sounds very loud underneath."

After he goes, all is quiet for a while, and Reily, the "Fighting Conductor," gets another nap; but soon our irrepressible singer, Becker, strikes up again:

"Let's all go up to Maud's,
We'll have a jubilee.
Make love to all her sisters, boys,
But please leave Maud to me."

"One o'clock, boys." It is Professor Shattuck, who has entered, and this is the call to "Construction" class.

"Mr. Rasmussen, what constitutes framing ?" is one of the first questions asked. "Studs and *purloins*," is the answer, at which the class is amused.

"What is the color of Tennessee marble, Mr. Fortune ?"

"I should *imagine* it is white, with black stripes in it," says Fortune, at which the class is convulsed.

"Mr. Travnicek, where do we get limestone ?"

"From the stone-quarry," quoth "Trav," which again brings forth loud guffaws.

"Mr. Ostergren, will you go to the board and draw a section of the plate, showing studding and rafters." Ostergren hesitates, and finally admits that he cannot get the "vertical proyection yust right."

This so discourages Professor Shattuck that the class is dismissed, leaving many questions unanswered, among which are the following: Why does Wolters spend so much time in the library and office ? What does Rasmussen find to admire so much in billboards ? Where did Cerny get that black eye ? Why is Reily always so sleepy ? Why is Bates so proud of his home town ? Why are we all so fond of free-hand drawing under Mr. Phoenix ? Why does "Pa" Shattuck object to Kalter's singing ? Who built the ark ? How could the Reed flirt so openly with the Birdie ? Why is Botteron so popular with the girls of the Art Class ? When did Hinsch escape from the dog show, etc.

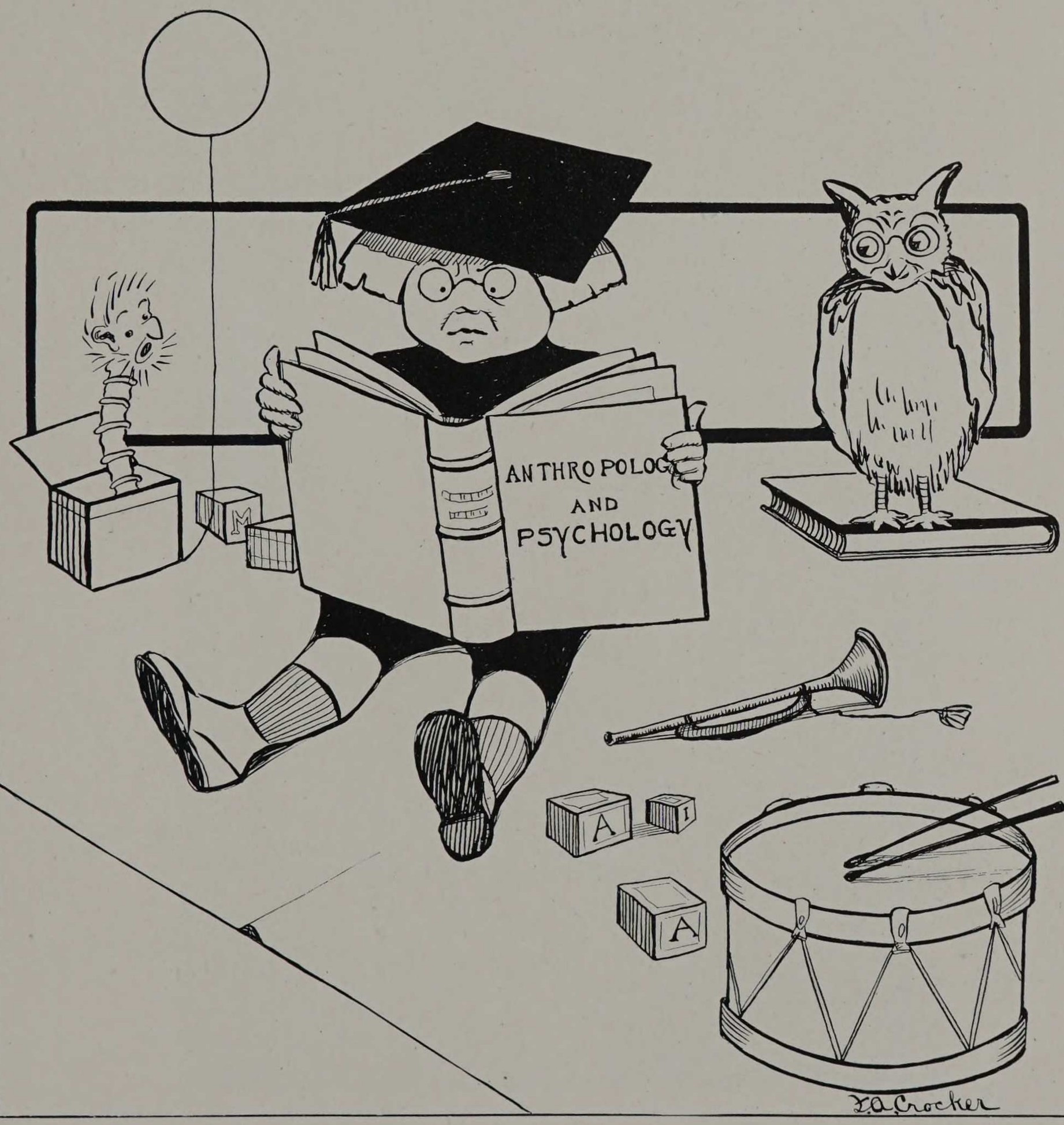
About this time, or later, absolute quiet is insisted on, as "Patron" Von Holst is criticising our designs. Still later, in the basement class rooms, we listen to the explanations of Monsieur Fleury, our water color teacher, "First you make ze perpendicalaire, zen you make ze ozair lines. You must always commence wiz ze cast shadow. Ze cast shadow is ze darrkaist. Zen you make ze couleurs, one, two, zree—"

During Frenchy's temporary absence, and spurred on by the passing of various charmers along the corridor, we are led by our "sweet singer" into warbling:

"Squeezing, squeezing,
I was only squeezing you,
What foh, Babe ?"

Upon our return to the Atelier, our old friend "Punch" appears, and "punches" everybody, right and left, up and down, north and south, regardless, which formality having been gone thro' with, we are made aware that at last another day has ended for the Atelier.

THE ACADEMY.



The Senior Class

OFFICERS

M. E. Healy, *President* — Dean Babcock, *Vice-President*

J. I. Menkin, *Secretary* — D. D. Dick, *Treasurer*

Fulcrum Representatives: Frank Solomon, Robert Gillies, Dean Babcock

Integral Representative: Dean Babcock

Members *of* Class

Axtell, J. M.
Babcock, Dean
Babcock, D. T.
Baldauf, A.
Beifeld, E. L.
Bent, J. L.
Bonfield, P. K.
Burt, J. L.
Cable, F. W.
Chambers, G. A.
Clark, W. F.
Cohen, B. M.
Conlin, W. F.
Crocker, S.
Damisch, F. L.
Deveney, W. F.
Dick, D. D.
Dicks, E. R.
Doerr, W.
Early, F. H.
Ebert, A. A.
Ellett, M.
Evans, R. F.
Field, W. A.
Fisher, A. W.
Foley, R. T.
Ford, C.
Fountain, J. B.
Fredericksen, C. A.
Frisbie, H.
Gillies, R.
Grassby, G. A.
Haglind, B.
Hough, H.
Harrold, H. H.
Healy, M. E.
Hirshfeld, G.
Howard, W. A.
Kelley, T.
Kellner, W. A.
Kinzel, A. J.
Letterman, G. D.
Lockwood, W. E.
Loeb, S.
McCausland, H.
McDonnell, M.
McMahon, J.
Mahler, H.
Menkin, J. I.
Nelson, B.
Oberfelder, W.
Ostergren, H. N.
Parker, R. M.
Rankin, C.
Richards, T. E.
Richards, W. A.
Rosenblatt, A. M.
Rudolph, G. R.
Schwass, W.
Seiler, R. A.
Silberman, D.
Solomon, F.
Sontag, H. J.
Stadeker, G. I.
Straus, M. L.
Sumkowski, A. J.
Swanson, A.
Thompson, R. A.
Wappler, E.
Ward, M. A.
White, L. L.
Wilcox, L. B.
Zanzig, P. C.


Gibson Art Galleries

History *of* '05 Academy

AS THE Academy becomes more and more a strictly preparatory school for the college, it becomes more and more difficult for any Academy class to retain its individuality. This is especially true of the Senior class, which is made up, not only of proper Academy students, but also of men whose work is partly in the Academy and partly in the College ; which contains, moreover, a large number of students taking only the final preparatory work, and new in the school. Considering this confusion of courses and variety of elements, it is surprising how much unity does exist in the present Senior Class.

The students who have brought this about, who have all along formed the nucleus of the class, but who are now in the minority, are those who have been with the organization since its beginning three years ago. For toward the close of the first year, the class was called together by Prof. Brewster, and organized. Mr. Harrold was elected first president, and Mr. Kreutz, as secretary, drew up the constitution, which with few changes has been used ever since. The second year, Mr. Healy received the presidency, which office he has held ever since, for he was re-elected at the beginning of the third year, together with Dean Babcock, vice-president; J. I. Menkin, secretary; and D. D. Dick, treasurer. As to the ordinary events of school life, it is sufficient to say that the class has succeeded in everything it has undertaken.

Owing to changing conditions, the Class of 1905 has been the first to do away with several long-established customs in the Academy, and by breaking the precedents set by other classes, has set the example for those coming after. The omission by this class of the dance usually given by the Juniors to the Seniors practically put an end to society life in the Academy. Furthermore, it was decided, upon the recommendation of the faculty, that there should be no formal graduation exercises at the close of the school year. All the students realized the trouble and expense for everyone con-

nected with the so-called "commencement," the confusion arising from the mingling of courses in the last year, and the real uselessness and lack of significance in the whole proceeding. For, speaking from the standpoint of the majority of the class, its members will not "graduate" in June, but simply pass into a higher division of the school. The Academy is no longer a separate high school, but is an integral part of the Institute of Technology. The Senior year of the Academy is important, because it contains a group of students, not about to leave their Alma Mater, but upon the last of the stepping-stones to the College of Engineering. And, if '05 Academy becomes '09 Tech., bearing with it as much spirit and school interest as has already been developed, the organization will have accomplished its purpose, and its history will have only begun.

ALUMNI



The Alumni Association

THE object of the Alumni Association has been stated so many times in the INTEGRAL as well as other publications at Armour that further comment is unnecessary here. The object is fully accomplished. The good-fellowship among Armour students has been remarked on several times by outsiders, and the same good-fellowship is carried over into the Alumni Association. This is in a large measure due to the banquets, and at the same time business gatherings, which are held twice a year—one in June and one in December. At the June meeting the officers for the ensuing year are elected and the newly graduated Seniors are greeted. It is, naturally, the more important of the two meetings, and a great effort is made by the Alumni living outside of the city to attend. The result is that usually about half of the membership attends, the other half being more than three hundred miles from the city. The December meeting is more of a social gathering than the one in June, and is really a Christmas dinner. Out-of-town men are not expected to be present at this meeting, although of course they are more than welcome, but the fact that there were nearly sixty members of the Association present at the last one, shows the interest among the Alumni. This meeting was held on December 27th of last year. As is customary at the meetings, the members were called on to give accounts of their engineering experiences, or reminiscences of their college life. At this meeting also, the Association gave permission to eleven of its members who reside in or near Pittsburg, to form a branch society at that point. This shows that the Association is in a state of healthy growth, and it is probable that before long other branches will be established in other sections of the country.

The membership is now over two hundred, the members being divided into active and associate, the latter being those who spent two or more years at Armour, but did not graduate. Practically all of the graduates now belong to the Association, and all are very enthusiastic, carrying with them in after life the old Armour spirit they felt in their college days.

At the last June meeting the following officers were elected for the ensuing year:

President, - - - -	C. L. Tarbell, '99.
Vice-President, - - -	A. H. Goodhue, '99.
Treasurer, - - - -	H. S. Powers, '99.
Corresponding Secretary, -	H. L. Nachman, '02.
Recording Secretary, - -	A. H. Anderson, '02.
Master of Ceremonies, - - -	W. T. Dean, '00.

The Honorary Members of the Association are: President F. W. Gunsaulus, Dean H. M. Raymond and Dean L. C. Monin, of Armour Institute, and President Victor C. Alderson, of The Colorado School of Mines.

Register *of* Members

The following abbreviations are used to denote the department in which the graduate received his degree:

I. Civil Engineering.
II. Mechanical Engineering.
III. Electrical Engineering.
IV. Chemical Engineering.
V. Architecture.

* Indicates no reply was received and address given is that of last year.

ACTIVE MEMBERS

Alschuler, Alfred S. (V-'99; M. S.-'04).
Architect with A. K. Adler, 1641 Monadnock Building.
Residence, 567 East Forty-fifth St., Chicago, Ill.

*Anderson, Arthur H. (II-'02).
Fairbanks, Morse & Co.
Residence, 30 Fowler St., Chicago, Ill.

Arnold, Mark H. (III-'01).
Assistant Sales Agent, Ohio Brass Co., Mansfield, Ohio.
Residence, 175 Lexington Ave., Mansfield, Ohio.

Austin, Lula Clarissa (V-'02).
Interior Decorator, Marshall Field & Co., Chicago, Ill.
Residence, 4011 Lake Ave., Chicago, Ill.

Axen, Charles A. V. (II-'01).
General Foreman, Ashland Division Shops, C. & N.-W. Railway, Kaukauna, Wis.

*Babcock, Fred Ripley (III-'03).
Residence, 307 E. Fifty-sixth St., Chicago, Ill.

Baird, Manley Frank (III-'02).
Engineer and Accountant, Baker-Vawter Co., Chicago, Ill.
Residence, 758 Walnut St., Chicago, Ill.

*Baker, Earl Head (II-'01).
National Biscuit Co., 120 Michigan St., Chicago, Ill.
Residence, 443 West 73d St., Chicago, Ill.

Banta, John Sidney (II-'03).
Draftsman and Designer, American Steel and Wire Company, Waukegan, Ill.
Residence, 231 N. Genesee St., Waukegan, Ill.

Battey, Valentine Frederick (III-'03).
Deceased.

Beattys, William Henry (III-'99).
Sales Agent, Cutler Hammer Mfg. Co., 1232 Monadnock Bldg., Chicago, Ill.
Residence, Western Springs, Ill.

Benedict, Allen Boyer (III-'04).
Residence, 4904 Washington Ave., Chicago, Ill.

*Benham, Adelaide Eunice (V-'02).
Architectural Drawing with John Hulla, 84 La Salle St., Chicago, Ill.
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Bernhard, Frank Hugo (III-'01).
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Residence, 1162 E. 56th St., Chicago, Ill.

*Bippus, Sumner Ellis (III-'99).
Manitou Electric Co.
Residence, Manitou, Colorado.

*Blodgett, Edgar Emerson (III-'98).
North British Insurance Co., 159 La Salle St , Chicago, Ill.
Residence, 1112 E. 58th St., Chicago, Ill.

Borst, George William (III-'04).
Residence, Elma, Iowa.

Bradley, Lyford Conrad (II-'00).
Western Electric Co., Chicago, Ill.
Residence, 7017 Normal Ave., Chicago, Ill.

*Briggs, Marion Wallace (III-'02).
Asst. Elec. Eng. F. Bessell Co., 114 St. Clair St., Toledo, Ohio.

*Brimson, Charles Tamlin (I-'03).
Assistant Engineer Iowa and St. Louis Railway, Chicago, Ill.
Residence, 528 W. 62d St., Chicago, Ill.

Buie, Arthur (III-'04).
Residence 535 W. 60th St., Chicago, Ill.

Burr, Arthur James (III-'99).
Teacher, Mechanical Drawing, Manual Training High School, Kansas City, Mo.
Box 313, St. Charles, Ill.

Byrne, Louis James (II-'04).
Residence, 6934 Normal Ave , Chicago, Ill.

*Campbell, Mrs. Mildred W. (I-'00).
Location unknown.

Chapman, Paul Reed (III-'97).
Residence. 1112 N. Clark St., Chicago, Ill.

Charles, Walter T., Ph. B. (IV-'02).
Residence, 448 Elm St., Chicago, Ill.

Church, Edwin Sears (III-'97; M. E.-'03).
Supt. of Machinery, United States Mint, Philadelphia, Pa.

*Cohen, Louis (III-'01).
Graduate Student, Columbia University, New York.
Residence, 716 N. Oakley Ave., Chicago, Ill.

Clausen, Henry W. (I-'04).
Residence, 547 Sunnyside Ave., Chicago, Ill.

Collins, Frederick L. (III-'04).
Residence, 746 E. 70th St., Chicago, Ill.

Collins, Ward Olive (IV-'02).
With R. W. Hunt & Co., 1121 Rookery, Chicago, Ill.
Residence, 1411 Chicago Ave., Evanston, Ill.

*Corey, Sidney Thomas (III'-99).
Residence, 241 W. 70th St., Chicago, Ill.

Coy, Frank Albert (I-'04).
Residence, 5961 Prairie Avenue, Chicago, Ill.

Creelman, Andrew Thompson (III-'00).
Deceased.

Cronin, Frank Howard (II-'03).
Assistant to District Engineer American Steel and Wire Co. Waukegan, Ill.
Residence, 514 Clyton St., Waukegan, Ill.

Davis, Royden Norman (IV-'04).
Residence, 3424 Wabash Ave., Chicago, Ill.

Dean, William Tucker (III-'00).
Supt. Electric Department Illinois Steel Co., South Chicago, Ill.
Residence, 250 E. 76th St., Chicago, Ill.

*Edgecombe, Earl Ezra (II-03).
Residence, 4737 Calumet Ave., Chicago, Ill.

Elliot, Louis (III-'99; E. E.-'03).
With Pratt & Atkins, 1001 Monadnock Building, Chicago.

Eustice, Charles Edward (III-'01).
Chief Engineer, Galena Axle Grease Co., Galena, Ill.
Residence 211 Madison St., Galena, Ill.

Eyer, Benjamin Franklin (III-'02).
Professor Physics and Electrical Engineering, Kansas State Agricultural College, Manhattan, Kan.
Residence, 713 Osage St., Manhattan, Kan.

Fairweather, Malcolm C. (III-'02).
Foreman National Electric Lamp Co., Cleveland, Ohio.

Fairman, Frank (V-'98).
Deceased.

*Felt, Winchester Whipple (IV-'03).
Student Colorado School of Mines, Golden, Colo.

*Fiddyment, Samuel Clarkson (III-'99).
Cosmopolitan Electric Co., 2050 Grove St., Chicago, Ill.
Residence, Lockport, Ill.

*Fisher, Charles Henry (III-'00).
Inspector Texas Inspection Bureau, Dallas, Texas.

*Flanders, Louis Hequembourg (II-'98; M. E.-'02).
Westinghouse Machine Co., E. Pittsburg, Pa.
Residence, 712 Lomas Ave., Wilkensburg, Pa.

Flinn, Melville Stone (II-'04).
Residence, 814 Michigan Ave., Evanston, Ill.

Frary, Don Read (III-'04).
Residence, 7112 Eggleston Ave., Chicago, Ill.

Freeman, Ernest Harrison (III-'02).
Instr. in Electrical Engineering Armour Institute of Technology.
Residence, 908 E. 60th St., Chicago, Ill.

Freeman, Clarence Everett (III-'97; E. E.-'01).
Prof. Electrical Engineering Armour Institute of Technology.
Residence, 908 E. 60th St., Chicago, Ill.

*Gay, Richard H. (III-'98).
Asst. Engineer U. S. Senate, Washington, D. C.
Residence, Conesville, Iowa.

Garcelon, Charles Augustus (II-'00).
Locomotive Foreman Grand Trunk Railway, Toronto, Canada.

Glover, Benjamin Howell (III-'97; E. E.-'01).
Westinghouse Electric and Mfg. Co., Pittsburg, Pa.
Residence, 121 Trenton Ave., Wilkensburg, Pa.

*Gordon, William J. (II-'99; M. E.-'03).
Chief Engineer Illinois State Reformatory, Pontiac, Ill.
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Goodhue, Albert Homer (II-'99).
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Engineering Dept. Westinghouse Electric Co., E. Pittsburg, Pa.
Residence, Box 300, Wilmerding, Pa.

Grover, Earl Waldo (III-'04).
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Hall, F. Benson (II-'97).
With American Mexico Developing Co., 1009 Masonic Temple, Chicago, Ill.
Residence, 360 W. 64th St., Chicago, Ill.

Hamilton, Harold Louis (II-'04).
Residence, 120 33d St., Chicago, Ill.

Hammond, Charles Herrick (V-'04).
Residence, 4627 Greenwood Ave., Chicago, Ill.

*Hanai, George Kojiro (III-'99).
Engineer, H. S. Tanaka & Co., Shimbashi, Tokyo, Japan.

*Hansen, Hans Jorgen (I-'03).
With J. S. Strauss, 805 Chicago Opera House Building, Chicago.
Residence, 289 34th St., Chicago, Ill.

*Harbeck, Henry Russell (I-'02).
Residence, 4144 Prairie Ave., Chicago, Ill.

*Harris, Roscoe Burnett (II-'02).
Asst. Elect. Eng. Mexican Central Ry., Agnes Calientes, Mexico.
Residence, 3321 Armour Ave., Chicago, Ill.

Hart, Harry Asa (I-'04).
Dakota City, Neb.

Harvey, Dean (III-'00).
Engineer, Underwriters' Laboratories, 67 E. 21st St., Chicago, Ill
Residence, 269 W. Adams St., Chicago, Ill.

*Harwood, Edward Thomas (III-'02).
Asst. to Pres., Smeeth Copper & Bronze Co., 33d and Western Ave., Chicago, Ill.
Residence, 6 Oakland Crescent, Chicago, Ill.

*Hausman, Herman (III-'00).
Elect. Eng. Western Electric Co., Chicago, Ill.
Residence, 1741 Sherman Place, Chicago, Ill.

*Hayden, George Fowler (III-'00).
Inspector Ins. Survey Bureau, 315 Dearborn St., Chicago, Ill.
Residence, 7529 Eggleston Ave., Chicago, Ill.

*Heinen, Emil J. (II-'04).
Residence, Danville, Ill.

*Henderson, Roy Manwaring (III-'02).
Elect. Eng. Mexican Central Ry. Co., Aguascalientes, Mexico.
Residence, 22 Colonia Americana, Aguascalientes, Mexico.

Heskett, Roland M. (III-'02).
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Hiller, Edwin Jesse (III-'04).
Inspector Chicago Edison Co.
Residence, 3844 Lake Ave., Chicago, Ill.

Hindert, Edwin George (III-'98).
Chief Eng. Cleveland & Southwestern Traction Co., Elyria, Ohio.
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Huey, Ray Simeon (III-'99).
Elect. Draftsman Illinois Steel Co., South Works, Chicago, Ill.
Residence, 64 Woodlawn Park, Chicago, Ill.

Jackson, Augustus William (III-'04).
Residence, 11212 Church St., Morgan Park, Ill.

*Jamieson, Bertram Gillette (III-'97).
Designer Chicago Edison Co., 139 Adams St., Chicago, Ill.

Jens, Arthur Mark (III-'04).
Agnes Calientes, Mexico.

*Johnson, Ernest Conover (III-'99).
Residence, Ingram, Wis.

*Johnson, Frederick Carter (II-'97).
Instructor Tuskegee Institute, Tuskegee, Ala.
Residence, Tuskegee, Ala.

Kabateck, Max George (III-'03).
Inspector Chicago Underwriters' Association, 159 La Salle St., Chicago, Ill.
Residence, 198 Lewis St., Chicago, Ill.

Kaempfer, Albert (III-'03).
Testing Department, General Electric Co., Schenectady, N. Y.
Residence, 233 S. Washtenaw Ave., Chicago, Ill.

*Kappes, Edward Frederick (III-'03).
Chicago Telephone Co., 203 Washington St., Chicago, Ill.
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Knapp, Morris Jason (III-'04).
Residence, 3415 Wabash Ave., Chicago, Ill.

Lang, William Henry (III-'02).
Engineer, John B. Metcalf Co., 623 The Temple, Chicago, Ill.
Residence, 732 W. 67th St., Chicago, Ill.

*Lanning, John Edward (III-'03).
Lanyon Zinc Co., Iola, Kan.

Larkin, Frederick George (III-'02).
Elect. Eng. S. & S. Co., 45th St. and 1st Ave., New York, N. Y.
Residence, 1821 Topping Ave., New York, N. Y.

Lee, Morris Wisner (II-'99).
Lanyon Zinc Co., 606 Carleton Building., St. Louis, Mo.
(For the summer).
Residence, Iola, Kan.

*Leeper, Edward W. (III-'98; E. E.-04).
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Residence, 3034 Cottage Grove Ave., Chicago, Ill.

Lewis, Chas. Tobias (II-'99).
Order Dept. Link Belt Machinery Co., Chicago, Ill.
Residence, 4623 Vincennes Ave., Chicago, Ill.

Lewis, Walter Irving (II-'01).
Cleveland Chocolate & Cocoa Co., Cleveland, Ohio.
Residence, 24 Collins Place, Cleveland, Ohio.

Lewis, Elijah (III-'02).
Curtis Steam Turbine Testing Department, General Electric Co.,
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Residence, 106 Park Ave., Schenectady, N. Y.

*Libby, Edward Stephen (II-'02).
Asst. Eng., Swift. & Co., National Stock Yards, Chicago, Ill.
Residence, 1413 Bough Ave., E. St. Louis, Ill.

*Lilienfeld, Eugene William (III-'02).
Lilienfeld Bros., 79 Jackson Boulevard, Chicago, Ill.
Residence, 3649 Prairie Ave., Chicago, Ill.

*Lindberg, Fritz A. (III-'01).
George M. Brill, 1134 Marquette Building, Chicago, Ill.
Residence, 5832 Indiana Ave., Chicago, Ill.

Loney, Neil McIntyre (II-'97).
Asst. Master Mechanic, Pennsylvania Co., Fort Wayne, Ind.
Residence, 448 W. Williams Street, Fort Wayne, Ind.

*Longnecker, Charles Sumner (II-'00).
Manager, Delta Electric Light Co., Delta, Ohio.
Residence, Delta, Ohio.

Lundgren, E. Leonard (I-'04).
Residence, 422 E. Erie St., Chicago, Ill.

MacClyment, Harry A. (III-'98).
Mechanical Engineer, C., B. & Q. Railway, Burlington, Iowa.
Residence, 128 S. Central Ave., Burlington, Iowa.

MacKenzie, Donald (III-'98; E. E.-'03).
Supervising Engineer, Swift Refrigerator Line, 46 Ames Bldg., Boston, Mass.

*Mahler, Louis Frank (III-'99).
De Laval Steam Turbine Co., Monadnock Building, Chicago, Ill.

*Mahoney, Gerald (III-'97; E. E.-'01).
Buena Vista Development Co., Buena Vista, E. de Vera Cruz, Mexico.

*Malcolmson, Charles T. (III-'97; E. E.-'02).
Chief Engineer, Lanyon Zinc Co., Iola, Kan.

Manierre, George (II-'04).
Residence, 399 Superior St., Chicago, Ill.

Marienthal, Oscar Bernard (V-'99).
Architectural Draftsman, Nimmons & Fellows, 1733 Marquette Building, Chicago, Ill.
Residence, 3134 Forest Ave., Chicago, Ill.

*Martin, Robert Cloughan (III-'00).
Inspector, Chicago Underwriters' Association, 159 La Salle St., Chicago, Ill.
Residence, 3537 Vincennes Ave., Chicago, Ill.

*Matt, G. Leo (III-'97).
Engineer, Lancaster Electric Light Co., Lancaster, Ohio.
Residence, Lancaster, Ohio.

Mathews, Will D. (III-'99).
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1248 National Life Building, Chicago.
Residence, 174 Oakwood Boulevard, Chicago, Ill.

*Matthews, William Charles (II-'03).
J. Holt Gates, 1460 Monadnock Building, Chicago.
Residence, 2931 Groveland Ave., Chicago, Ill.

McDonald, Clarence Thomas (III-'04).
Residence, Hardin, Ill.

Merry, Earl J. (III-'03).
Engineer, Lanyon Zinc Co., Iola, Kan.
Residence, 210 S. Chestnut St., Iola, Kan.

Miller, Harry Palmer (III-'02).
Engineer, General Electric Co., Schenectady, N. Y.

Miller, Walter Everett (III-'01).
Insurance Survey Bureau, Manhattan Building, Chicago.
Residence, 6710 Stewart Ave., Chicago, Ill.

Morris, George E. (V-'98).
Architect, No. 2 Sherwin Building, Elgin, Ill.

Morse, Charles Sumner (III-'99).
Master Car Builder, W. & L. E. R. R. Co., Ironville Shops, East Toledo, Ohio.
Residence, 2230 Hollywood Ave., Toledo, Ohio.

Moss, Charles M'Lean (III-'02).
Switchboard Engineer, Westinghouse Electrical & Mfg. Co Pittsburg, Pa.
Residence, 501 Sheridan St., Pittsburg, Pa.

Mueller, John H. Stacey (III-'03).
Holtzer Cabot Electric Co., 395 Dearborn St., Chicago, Ill.
Residence, 3251 Calumet Ave., Chicago, Ill.

*Nachman, Henry Leopold (II-'02).
Instructor, Armour Institute of Technology, Chicago, Ill.

*Nagelstock, Edward H. (III-'98).
Engineering Dept., General Electric Co., Schenectady, N. Y.

*Niestadt, George William (I-'03).
Vierling, McDowell & Co., Chicago, Ill.
Residence, 430 N. Hoyne Ave., Chicago, Ill.

Nelson, Emil F. (III-'03).
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Residence, Box No. 702, Turtle Creek, Pa.

*Noble, Alden Charles (III-'01).
Inspector, Ins. Survey Bureau, 315 Dearborn St., Chicago, Ill.
Residence, 4744 Kenwood Ave., Chicago, Ill.

*O'Brien, Edward D. (III-'97).
Electric Inspector, Department of Electric, Chicago, Ill.
Residence, 479 Washington Boulevard, Chicago, Ill.

*Olson, Elmer H. (III-'99).
Draftsman, Eastern Oklahoma Railway, Guthrie, Okla.
Residence, 3121 S. Morgan St., Chicago, Ill.

*Parker, John H. (III-'01).
B. G. Emery Grain Co., Rockford, Ill.

*Patten, George H. (III-'98).
Construction Dept., Gen. Elec. Co., Schenectady, N. Y.

Pavey, William B. (II-'99).
Secretary and Treasurer, Economy Engineering Co., 31-33 E. Indiana St., Chicago, Ill.
Residence, 2646 Magnolia Ave., Chicago, Ill.

Pease, Francis G. (III-'01).
Optician, Yerkes Observatory, Williams Bay, Wis.
Residence, Highwood, Ill.

Peebles, James Clinton (III-'04).
Residence, Naperville, Ill.

Perry, Robert V. (II-'97; M. E.-'02).
Asst. Prof. of Machine Design, Armour Institute of Technology.
Residence, 5966 Lowe Ave., Chicago, Ill.

*Persons, Victor S. (I-'02).
Civil Engineer, Noble & Modjeski, Thebes, Ill.
Residence, Berea, Ohio.

*Phillips, William Charles Platt (I-'03).
Residence, 5851 Indiana Ave., Chicago, Ill.

*Pierce, Charles W. (III-'01).
Instructor Electrical Engineer, Tuskegee Institute.
Residence, Tuskegee, Ala.

Porter, Louis I. (III-'99; E. E.-'04).
Draftsman, Engineering Dept., Chicago Edison Co., 139 Adams St., Chicago, Ill.
Residence, 4334 Cottage Grove Ave., Chicago, Ill.

*Postlethwaite, Berkley K. (II-'02).
Asst. Eng., Swift & Co., S. Omaha, Neb.
Residence, 1115 N. 24th St., S. Omaha, Neb.

Powers, Horace S. (V-'99).
Architect, D. H. Burnham Co., 1417 Ry. Exchange, Chicago, Ill.
Residence, 3004 Prairie Ave., Chicago, Ill.

*Prenner, Isidor (III-'97).
Residence, Galva, Iowa.

Prescott, Orson Raymond (II-'04).
Residence, Marengo, Ill.

Quien, E. L. (IV-'03).
Chemist, General Chemical Co., Hegewisch, Ill.
Residence, 13301 Houston Ave., Hegewisch, Ill.

Ransom, Chauncey Owens (III-'99).
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Residence, 69 Kenmore St., Cleveland, Ohio.

Rawson, H. Boyd (III-'03).
Electro-Metallurgist, Lanyon Zinc Co., Le Harpe, Kan.
Residence, 210 S. Chestnut, Iola, Kan.

Reiniger, Robert George (II-'02).
Mech. Eng., Goodman Mfg. Co., Chicago, Ill.
Residence, 3424 Wabash Ave., Chicago, Ill.

Rice, Ralph Herbert (III-'97; E. E.-'04).
Asst. Prof. of Electrical Eng., Armour Institute of Technology
Residence, 5343 Madison Ave., Chicago, Ill.

*Richardson, Erskine (III-'97).
Residence, Riverside, Ill.

*Rimanoczy, Bela (III-'99).
With Siemens & Halske, Budapest, Hungary.
Residence, Kerepesi Ut 21.

*Robinson, George Ben (I-'03).
Residence, 3245 Wabash Ave., Chicago, Ill.

*Rochlitz, Oscar A. (III-'01).
Instructor in Chemistry, Armour Institute of Technology.
Residence, 3328 Armour Ave., Chicago, Ill.

Roesch, Daniel (II-'04).
Residence, 424 34th St., Chicago, Ill.

*Roesch, Charles H. (III-'98).
Real Estate and Building, 1316 G Street, N. W., Washington, D. C.

*Roos, Erle S. (III-'03).
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Residence, 484 E. 42d Place, Chicago, Ill.

Ruegnitz, Walter Raymond (III-'01).
Inspector Ins. Survey Bureau, 315 Dearborn St., Chicago, Ill.
Residence, 221 Perry St., Elgin, Ill.

*Salamson, Max (III-'97).
Rush Medical College, Chicago.
Residence, 350 North Ave., Chicago, Ill.

Sanford, Louis A. (III-'02).
Engineer, with Porter & Berg, 303 Dearborn St., Chicago, Ill.
Residence, 5910 Michigan Ave., Chicago, Ill.

Sampson, Charles Clarke (II-'04).
Residence, 425 34th St., Chicago, Ill.

*Scheidler, Oscar (II-'02).
Secy. and Asst. Mgr., Scheidler Machine Works, Newark, Ohio.
Residence, 243 W. Main St., Newark, Ohio.

*Schroeder, Carl P. (II-'99).
Draftsman, Sargent & Lundy, Chicago, Ill.
Residence, 1296 S. Kedzie Ave., Chicago, Ill.

See, P. V. C. (III-'04).
Residence, 6516 Madison Ave., Chicago, Ill.

Shafer, Samuel E. (II-02).
Draftsman, Chain Belt Co., Milwaukee, Wis.
Residence, 924 National Ave., Milwaukee, Wis.

*Sheibley, Francis D. (III-'97).
Draftsman, Cons. Tel. & Elec. Subway Co., New York, N. Y.
Residence, 131 W. 137th St., N. Y.

Sherman, Stanley B. (III-'03).
Superintendent, Gas Works, Bay City, Mich
Residence, 246 Adams St., Bay City, Mich.

*Shimizu, Hohson Sanjiro (II-'03).
Metcalf Grain Elev. Co., 623 Woman s Temple, Chicago, Ill.
Residence, 5845 Calumet Ave., Chicago, Ill.

Shubart, Benedict (II-'99).
Lindrooth, Shubart & Co., Mining Machinery, Boston Building, Denver, Colo.
Residence, 1216 Race St., Denver, Colo.

Silver, Emile (I-'04).
Residence, Ionia, Mich.

*Sims, William Fargo (III-'97; E. E.-'03).
Chicago Edison Co., 139 Adams St., Chicago, Ill.

*Sklovsky, Max (III-'00).
Master Mechanic, Deere & Co., Moline, Ill.
Residence, 1442 13th St., Moline, Ill.

*Slaker, Harry Joseph (III-'98; E. E.-'02).
Supt. of Refinery, U. S. Mint, Philadelphia, Pa.

Sloan, James Richard (III-'97; E. E.-'02).
Electrician, Motive Power Dept., P. R. R., care of A. W. Gibbs General Supt. Motive Power, Altoona, Pa.
Residence, Altoona, Pa.

*Starkweather, Ed. Vincent (III-'99).
Chief Inspector, Western Assurance Co., Toronto, Canada.

*Stillson, Howard George (III-'03).
Milwaukee Gas Light Co., Milwaukee, Wis.
Residence, 3709½ Park Hill Ave., Milwaukee, Wis.

Strang, Rupert Hurd (III-'04).
Residence, Richland Center, Wis.

Strickler, John Franklin (II-'03).
George Whiting Co., 428 North Halsted St., Chicago, Ill.

*Swift, John B. (III-'01).
Draftsman, Greenlee Bros. Co., 225 W. 12th St., Chicago, Ill.
Residence. 6518 Yale Ave., Chicago, Ill.

Tarbell, Clarence Lyle (II-'99; M. E.-'04).
Foreman, Drop Forge Dept., Whitman & Barnes Mfg. Co., Chicago, Ill.
Residence, 11930 Union Ave., Chicago, Ill.

Taussig, William S. (III-'03).
Testing Dept., Western Electric Co.. Chicago, Ill.
Residence, 4911 Washington Park Place, Chicago, Ill.

Taylor, Fitzhugh (III-'00).
Prof. of Fire Protection Engineering, Armour Institute of Technology.
Residence, 4402 Greenwood Ave., Chicago, Ill.

Terry, Otis N. (II-'99).
Mechanical Dept., C., B. & Q. Ry., La Crosse, Wis.
Residence, La Crosse, Wis.

*Twichell, Frederick W. (III-'99).
Dredge Designer, Webster Mfg. Co., 15th St. and Western Ave., Chicago, Ill.
Residence, 632 S. Kedzie Ave., Chicago, Ill.

Wagner, Arthur (III-'03).
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Residence, Box 702, Turtle Creek, Pa.

Wallace, Ernest L. (III-'03).
Instructor in Elect. Engineering, American School of Correspondence.
Residence, 3211 State St., Chicago, Ill.

Walther, Frederick P. (III-'00).
Inspector, Ins. Survey Bureau, 315 Dearborn St., Chicago, Ill.
Residence, 6436 Lowe Ave., Chicago, Ill.

Warren, William (III-'99).
Deceased.

Watson, Vernon S. (V-'00).
Draftsman, D. H. Burnham & Co., 1142 Rookery Building, Chicago, Ill.
Residence, 5762 Rosalie Court, Chicago, Ill.

Watt, James McCombie (II-'04).
Residence, 2969 Wabash Ave., Chicago, Ill.

Week, John Elmer (II-'02).
Deceased.

*Weber, Eugene Randolph (II-'03).
Latrobe Steel Co., Melrose Park, Ill.
Residence, 1514 Grace St., Chicago, Ill.

Weinsheimer, Warren E. (III-'98).
Manager, Minerallac Co., 76 Market St., Chicago, Ill.
Residence, 3028 Calumet Ave., Chicago, Ill.

*Weisskopf, Maurice Joseph (I-'03).
Residence, 608 Blue Island Ave., Chicago, Ill.

Wendt, Samuel John Wm. (III-'03).
Inspector, Evanston Heating Co., Evanston, Ill.
Residence, 1619 Orrington Ave., Evanston, Ill.

*Wheeler, John J. (II-'97).
Librarian, Carnegie Library, Tuskegee Institute.
Residence, Tuskegee, Ala.

*White, Ernest C. (II-'99).
Reeves & White, Boat Builders, Port Richmond, Staten Island, N. Y.
Residence, 37 Central Ave., Tompkinsville, N. Y.

Wickersham, Edward James (II-'04).
Residence, 6237 Kimbark Ave., Chicago, Ill.

Williams, Roy Edmund (III-'04).
Residence, 3424 Wabash Ave., Chicago, Ill.

Zimmerman, Fred W. (III-'00).
Draftsman, Delaware, Lackawanna & Western R. R., Scranton, Pa.
Residence, 320 Jefferson Ave., Scranton, Pa.

Zuckerman, Herbert Gladstone (IV-'04).
Residence, 77 Bowen Ave., Chicago, Ill.

ASSOCIATE MEMBERS

Consisting of Former College Students of Two Years' Standing in Armour Institute of Technology.

*Baldwin, H. H. ('97).
Chicago Telephone Co., 151 22d St., Chicago, Ill.
Residence, 4160 Ellis Ave., Chicago, Ill.

*Brocksmith, John C. ('99).
Residence, 388 Douglas Boulevard, Chicago, Ill.

Buell, Chas. B. ('97).
Mechanical Eng. & Salesman, Westinghouse Machine Co., 171 La Salle St., Chicago, Ill.
Residence, Winnetka, Ill.

Byrne, W. M. ('03).
Draftsman, Cornish, Curtis & Green Co., Fort Atkinson, Wis.
Residence, Fort Atkinson, Wis.

Calkins, Russell A. ('97).
Special Agent, Berkshire Life Insurance Co., 100 Washington St., Chicago, Ill.
Residence, Wilmette, Ill.

*Derby, W. A. ('97).
C. B. & Q. Ry. Laboratory, Aurora, Ill.

*Feindt, Geo. A. ('00).
Inspector, Insurance Survey Bureau, 315 Dearborn St., Chicago, Ill.

Fry, Robt. T. ('01).
Round House Foreman, C. M. & St. P. Ry., Calmar, Iowa.
Residence, Box 12, Calmar, Iowa.

*Humiston, John M. ('98).
Chicago Telephone Co., 203 Washington St., Chicago, Ill.

*Kendall, D. Roy ('97).
National Live Stock Bank, U. S. Yards, Chicago, Ill.
Residence, 635 W. 62d St., Chicago, Ill.

Krehbiel, Fred A. ('01).
Engineer, Arnold Electric Power Station Co., 1539 Marquette Building, Chicago, Ill.
Residence, 5943 Indiana Ave., Chicago, Ill.

*Low, Frank Y. ('99).
Electric Engineer, Faris & Kesl, Milner, Idaho.

*Lyman, Eugene W. ('99).
Salesman, McKibben, Driscoll & Dorsey, St. Paul, Minn.

Marshall, Lincoln E. ('97).
Chief Inspector, Commonwealth Elect. Co., Southern District, Chicago, Ill.
Residence, 679 W. Adams St., Chicago, Ill.

Miller, I. D. ('02).
Bridge Designer, W. L. Stebbings, 1110 Monadnock Building, Chicago, Ill.
Residence, 6000 Rhodes Ave., Chicago, Ill.

*Neeves, Orlando ('97).
Stationer, 445 W. 63d St., Chicago, Ill.

*Neilson, Edwin L. ('97).
Salesman, American Oak Leather Co., 207 Lake St., Chicago, Ill.
Residence, 439 W. 64th St., Chicago, Ill.

O'Leary, J. W. ('99).
Secretary and Treasurer, Arthur J. O'Leary & Son Co., Lake and Desplaines Sts., Chicago, Ill.
Residence, 4013 Drexel Boulevard, Chicago, Ill.

*Rising, Philip A. ('98).
Salesman, Pfizer & Co., 121 Franklin St., Chicago, Ill.
Residence, 1103 Davis St., Evanston, Ill.

*Stevens, Grafton ('03).
Residence, 3424 Wabash Ave., Chicago, Ill.

*Thompson, George ('97).
Atwood & Pease, Tacoma Building, Chicago, Ill.
Residence, 632 Englewood Ave., Chicago, Ill.

Tousley, J. H. ('00).
Inspector, Chicago Underwriters' Association, 159 La Salle St., Chicago, Ill.
Residence, 5952 Wentworth Ave., Chicago, Ill.

*Tousley, Victor ('97).
Electrical Inspector, City Hall, Chicago, Ill.

*Weinacht, W. N ('98).
Unique Supply Co., Chicago, Ill.
Residence, 4848 Evans Ave., Chicago, Ill.

Wilhoit, Frederick S. ('03).
Asst. Supt. Cutler Hammer Mfg. Co., Milwaukee, Wis.
Residence, 911 State St., Milwaukee, Wis.

*Wood, Leslie D. ('97).
Inspector, Western Factory Ins. Association, 171 La Salle St. Chicago, Ill.
Residence, 4740 Lake Ave., Chicago, Ill.



FRATERNITIES


ΑΖ·ΑΔ·ΑΒ·ΩΧΥΣΠΞΜΚΘΖΔΒ
Α
ΓΕΗΙΛΝΟΡΤΦΨΑΑ·ΑΓΑΕ
MDCCCL
ΦΣ
Κ
STELLIS AEQUUS DURANDO

Dreka, Phila.

Phi Kappa Sigma

Chapter Roll

Alpha—1850	University of Pennsylvania
Delta—1854	Washington and Jefferson College
Epsilon—1854	Dickinson College
Zeta—1854	Franklin and Marshall College
Eta—1854	University of Virginia
Iota—1855	Columbia University
Mu—1858	Tulane University
Rho—1892	University of Illinois
Tau—1872	Randolph-Macon College
Upsilon—1872	Northwestern University
Phi—1873	Richmond College
Alpha Psi—1891	Pennsylvania State College
Alpha Alpha—1894	Washington and Lee University
Alpha Gamma—1896	University of West Virginia
Alpha Delta—1898	University of Maine
Alpha Epsilon—1898	Armour Institute of Technology
Alpha Zeta—1899	University of Maryland
Alpha Eta—1901	College of Charleston
Alpha Theta—1901	University of Wisconsin
Alpha Iota—1902	Vanderbilt University
Alpha Kappa—1903	University of Alabama
Alpha Lambda—1903	University of California
Alpha Mu—1903	Massachusetts Institute of Technology
Alpha Nu—1904	Georgia School of Technology

Alpha Epsilon Chapter

1897

James R. Sloan
William F. Sims
Edwin S. Church
Charles Malcolmson

1898

Harry A. MacClyment
Charles H. Roesch
George H. Patten

1899

Sumner E. Bippus
Ernest C. White
Edd. V. Starkweather
Will D. Mathews
William J. Gordon

1900

George A. Feindt
Frank Y. Lou
Charles A. Garcelon
George F. Hayden
Charles S. Longnecker
Dean Harvey
Earle S. Roos

1901

Robert J. Raley
Walter E. Miller
Robert F. Fry
Alden C. Noble
Thomas W. Stevens

1902

Marion W. Briggs
Henry G. Brown
Ward O. Collins
Rollo M. Heskett
Roy M. Henderson
Robert R. Jones
Fred G. Larkin
R. G. Reiniger, Jr.
S. E. Shafer

1903

Will H. Dunlap
Roswell S. Lander
H. B. Rawson
Fred O. Seymour
Ellis C. Soper
Grafton Stevens

1904

Allen B. Benedict
Arthur P. Bogle
James A. Crawford
Roydan N. Davis
Don R. Frary
Fred W. Indermille
Arthur M. Jens
R. E. Williams

1905

Royal I. Baird
Francis A. Emmons
Clarence P. Hatter
Charles H. Hermann
Clarence I. Jones
Hugh McLennan
Roy T. Pryor
Charles M. Raley
Ruluff L. Slimmer
Roger Culbertson
William K. Kretsinger
William D. Harvey
Frank C. Clark

1906

Norman W. Cook
George N. Crawford
Everett G. Deming
Hugo L. Goetz
Roy E. Jens
Charles W. Stone
Robert O. Walker
L. R. Townsley
Robert A. Neilson
Louis De Cou Kelsey
Lindsay H. Miller
Albert D. Becker

1907

Clarence U. Smith
Lester W. Bangs
Alfred Hayden
Wendel Hebard
Julian Hayden
George S. Laubach
John T. Walbridge

1908

Charles O. Frary
Harry Farmer
Ralph Tuthill
John S. Townsend
Irving Odell
H. Chris Hansen

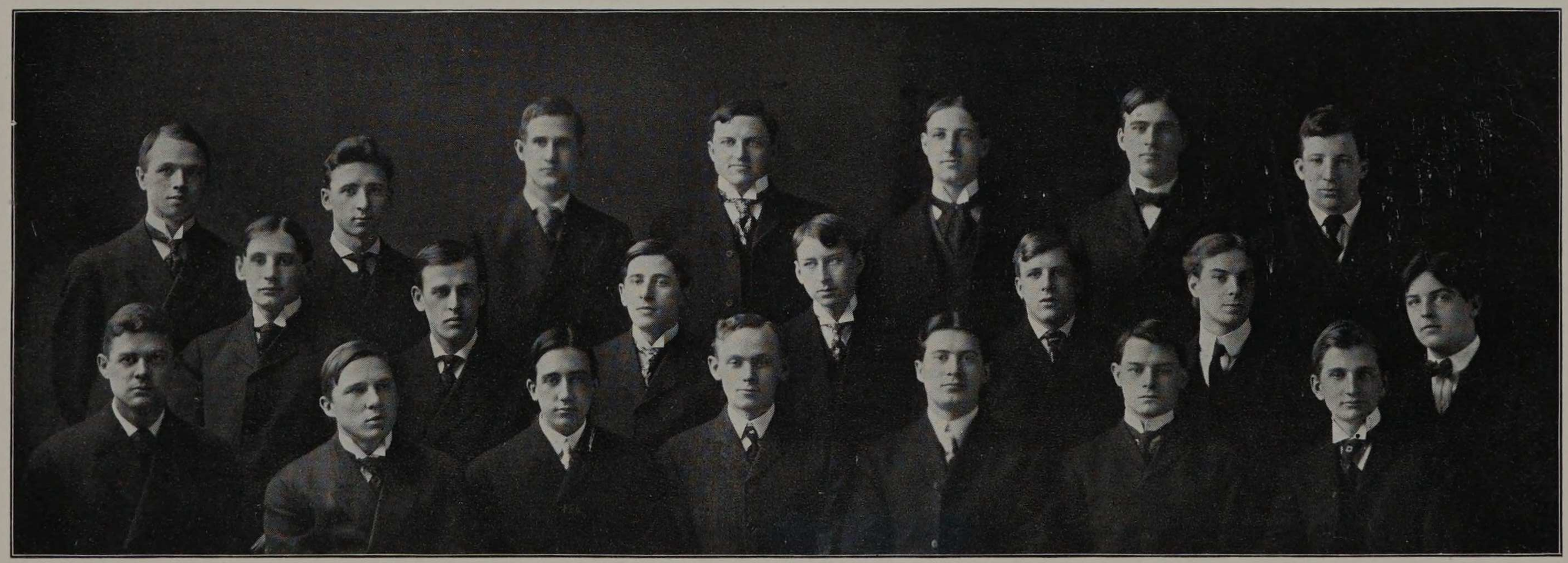
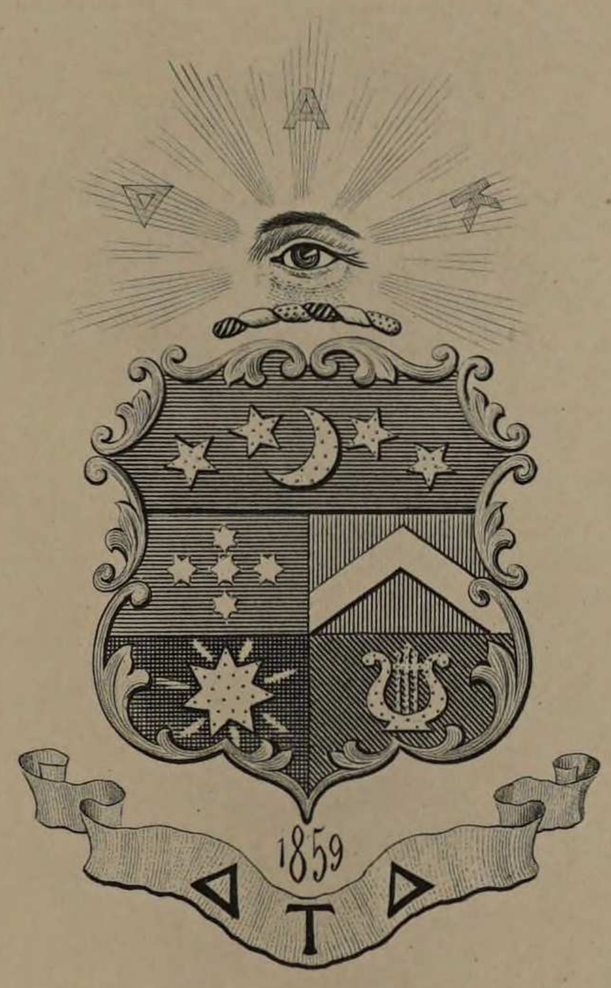


Photo by Walinger



Dreka, Phila.
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1904

The Delta Tau Delta Fraternity

Chapter Roll

SOUTHERN DIVISION

Lambda	Vanderbilt University
Pi	University of Mississippi
Phi	Washington and Lee University
Beta Epsilon	Emory College
Beta Theta	University of the South
Beta Iota	University of Virginia
Beta Xi	Tulane University
Gamma Eta	Columbian University
Gamma Iota	University of Texas

WESTERN DIVISION

Omicron	University of Iowa
Beta Gamma	University of Wisconsin
Beta Eta	University of Minnesota
Beta Kappa	University of Colorado
Beta Pi	Northwestern University
Beta Rho	Leland Stanford Jr. University
Beta Tau	University of Nebraska
Beta Upsilon	University of Illinois
Beta Omega	University of California
Gamma Alpha	University of Chicago
Gamma Beta	Armour Institute of Technology
Gamma Theta	Baker University

NORTHERN DIVISION

Beta	Ohio University
Delta	University of Michigan
Epsilon	Albion College
Zeta	Adelbert College
Kappa	Hillsdale College
Mu	Ohio Wesleyan University
Chi	Kenyon College
Beta Alpha	Indiana University
Beta Beta	De Pauw University
Beta Zeta	Butler College
Beta Phi	Ohio State University
Beta Psi	Wabash College
Gamma Delta	University of West Virginia

EASTERN DIVISION

Alpha	Allegheny College
Gamma	Washington and Jefferson College
Rho	Stevans Institute of Technology
Upsilon	Rensselaer Polytechnic Institute
Omega	University of Pennsylvania
Beta Lambda	Lehigh University
Beta Mu	Tufts College
Beta Nu	Massachusetts Institute of Technology
Beta Omicron	Cornell University
Beta Chi	Brown University
Gamma Gamma	Dartmouth College
Gamma Upsilon	Columbian University
Gamma Zeta	Wesleyan University

Gamma Beta Chapter

(Established May 10, 1901)

Chapter House, 3343 Wabash Avenue

Fratres ex Universitate

Seymour L. Smith, '01, Milwaukee, Wis.
Teacher of Manual Training

Oscar Scheidler, '02, Newark, Ohio
Scheidler Boiler Works

Don Carlos Dyer, '01, Leipzig, Germany
Bonn University

Charles T. Brimson, '03, Youngtown, Mo.
C. B. & Q. R. R.

Earl Ezra Edgecomb, '03, Mo. Valley, Iowa
Valley Mills Co.

John H. S. Mueller, '03, Chicago, Ill.
Holtzer-Cabot Electric Co.

Geo. W. Niestadt, '03, Chicago, Ill.
Vierling-McDowell Co.

J. F. Strickler, '03, Chicago, Ill.
Geo. Whiting Co.

Ray W. Hammond, '04, Fremont, Neb.
Hammond Bros. Printing Co.

Z. M. Marr, '04, Fremont, Neb.
Marr Machinery Co.

A. D. Smith, '04, Omaha, Neb.
Draper Smith Commission Co.

W. C. Matthews, '03, Chicago, Ill.
J. Holt Gates Co.

Eugene Johnson, '04, Ithaca, N. Y.
Cornell University

Otto Kreutzburg, '04, Chicago, Ill.
American Spiral Pipe Co.

H. R. Harbeck, '02, Chicago, Ill,

Kent W. Bartlett, '05, Chicago, Ill.

Victor C. Persons, Persia.

Roy N. Towl, '04, Omaha, Neb.
Paxton-Vierling & Co.

Morgan Wright, Ishpeming, Mich.
Mine Surveyor

Harry L. Mead, '05, New York City, N. Y.
Columbian University

Anthony E. Seyl, '05, Chicago, Ill.
Seyl Watch Supply Co.

Alfred K. Higgins, '06, Chicago, Ill.
Chase & Sanborn Co.

Joe P. Allyn, '06, Delavan, Wis.
Farming

Chas. A. Lawrence, '05, Chicago, Ill.
Lawrence Orchestra

Fred Towl, '06, Omaha, Neb.
Omaha Packing Co.

Arthur E. Ferguson, '05, Ithaca, N. Y.
Cornell University

H. L. Corthell, '05, New York, N. Y.
O'Rourke Construction Co.

H. W. Clausen, '04, Chicago, Ill.
City of Chicago

F. A. Coy, '04, Chicago, Ill.
American Bridge Co.

H. A. Hart, '04, Dakota City, Neb.
Newspaper

J. H. Osinga, '06, Chicago, Ill.
Peerless Automobile Co.

George B. Robinson, '03, Chicago, Ill.

Charles L. Campbell, '03, Chicago, Ill.

G. Manierre, '04, Chicago, Ill.

Fratres in Universitate

1905

W. F. Parker
H. M. Sharp
D. E. Willard
H. A. Durr
W. H. Dean

1906

R. D. Speers
A. J. Allyn
L. R. Levings
R. S. Torrance
E. H. Ellett, Jr.
F. T. Edwards
H. F. Robinson

1907

G. C. Hodges
H. B. Kimmey
L. B. Smith
M. Thompson
B. C. Hooper
A. A. Kelkenney
B. Hoffmann, Jr.
W. E. Schermerhorn

1908

T. W. Smith
A. W. Boylston
H. S. Ellington
T. W. Bannerman



Photo by Walinger

Stray Greeks

John N. Nind, '07	*Phi Kappa Psi*
Walter Wright, '08	*Psi Upsilon*
Van Buren Hinsch, '08	*Phi Delta Theta*
Maynard L. Thompson, '07	*Phi Delta Theta*
Harry W. Jarrow, '07	*Phi Delta Theta*
Stanley Dean, '05	*Beta Theta Pi*
J. Huston Felgar, '05	*Beta Theta Pi*
Claude Robert Alling, '07	*Beta Theta Pi*
James T. Dargan, Special	*Kappa Sigma*
S. D. Lowry, '07	*Kappa Sigma*
H. A. Pegues, '08	*Delta Kappa Epsilon*
Charles A. Riker, '06	*Sigma Nu*
J. L. Schmidt, '06	*Phi Gamma Delta*
G. W. Smith, '07	*Phi Gamma Delta*

Societies

Radical X
Chemical Engineering
A. I. E. E.
'06 Civils
Camera Club
Debating
Senior Mechanical

RADICAL X CLUB



Radical History

THE Radical X Club has been in existence since the spring of 1900. It owes its prominence to the fact that it represents the whole school and not a faction. Prior to the formation of this club, there was but one permanent organization in the school, and those without the circle of its membership began to feel a resentment against all organizations as being self-seeking in their interests, looking upon school offices as blue ribbons to be exhibited by the organization as its trophies.

This feeling resulted, unconsciously at the time, in the drawing together for social purposes of several members of the class of 1904, at that time students merely, and not in any way leaders in the social life of the

'04 RX

H. Hammond
E. J. Hiller
M. S. Flinn
A. B. Benedict
R. N. Davis
F. W. Indermille
J. A. Crawford
W. C. G. Wilson
W. W. Hoops
D. R. Frary
H. G. Zuckerman
A. M. Jens
R. E. Williams
L. J. Byrne
A. C. McArthur
A. H. Lewis
W. H. Dean

'05 RX

D. E. Willard
H. B. Marshall
R. G. Culbertson
F. M. de Beer
H. W. Bryant
D. E. Hannan
C. P. Hatter
M. H. Wright
R. N. Towl
A. E. Seyl
B. H. Sackett
T. H. Ellett
W. K. Kretsinger
Roy Malcolm
W. F. Harvey
R. B. Harper
E. J. Carroll
C. P. Herrman
F. A. Emmons
C. M. Raley
A. E. Fergusen
W. E. Rupe
R. W. Lowenthal



Photo by Walinger

school. These men have since proven themselves to be the best type of social comrades, and the undergraduate body at large, as well as the active members of the Radical Club, recognize in them the typical Armour men.

The Radics originally were a free and frolicsome bunch. Their first exploit was in the line of a little class demonstration. The year before their advent, the block of nickel ore by the Mission had been the stump from which several fiery school speeches had been delivered. It held an affectionate place in the thoughts of Armourites. Therefore it was picked as the center of operations. Careful preparations were made. A stone-cutter was hired and some fire water procured for the copper. Here occurred the hitch. Artie Jens connected with the fire water instead of John. Consequently when John turned the corner and saw a subdued light from a dark lantern, and heard the tap-tap of the stone-mason's hammer as he was starting on the 0 of '04, he immediately started for the crowd. The crowd evidently had urgent business elsewhere. They fled. John pursued. They refused to halt at his command, and he shot, wound-

'06

L. R. Levings	A. G. Rockwell	R. E. Jens
R. O. Walker	G. N. Crawford	K. R. Slocum
E. H. Ellett, Jr.	H. L. Goetz	C. W. Stone
L. H. Miller	Robert Neilson	T. S. Allen
E. F. Hiller	E. G. Deming	C. O. Johnson
L. R. Townsley	Frank Pierce	J. L. Schmidt



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ing one severely in the imagination. The stone-cutter, having been paid in advance, disappeared completely and the gang adjourned to a place where they smashed the midnight closing ordinance into little bits of pieces.

Since then, Radic activities have been of a more quiet order. The original thirteen initiated thirteen new men from each year. Men leaving school may be replaced by the vote of the members of his class. There are now five classes, and about eighty-five total membership. There are three or four banquets each year, and each class meets at the homes of the different members, where they are regaled with smokes and weenies. The whole club is particularly strong on roast pig and rye bread. Every year a dance, the best of all Armour affairs, is given, and each alternate year an opera is produced. Last year it was the "Walking Delegate," pronounced by many who saw it to be the finest amateur production they had ever witnessed.

The organization is purely social. There are no fees and no dues, and the only obligation, an unwritten one, is that any school affair in which a

'07

A. Kelkenney
C. E. Kilgore
W. Hewitt
L. W. Bangs
W. E. Schermerhorn
G. Flanagan
W. F. Hebard
C. U. Smith
B. C. Hooper
J. T. Walbridge
A. Hayden
J. Hayden
H. R. Shepherd
J. N. Nind, Jr.

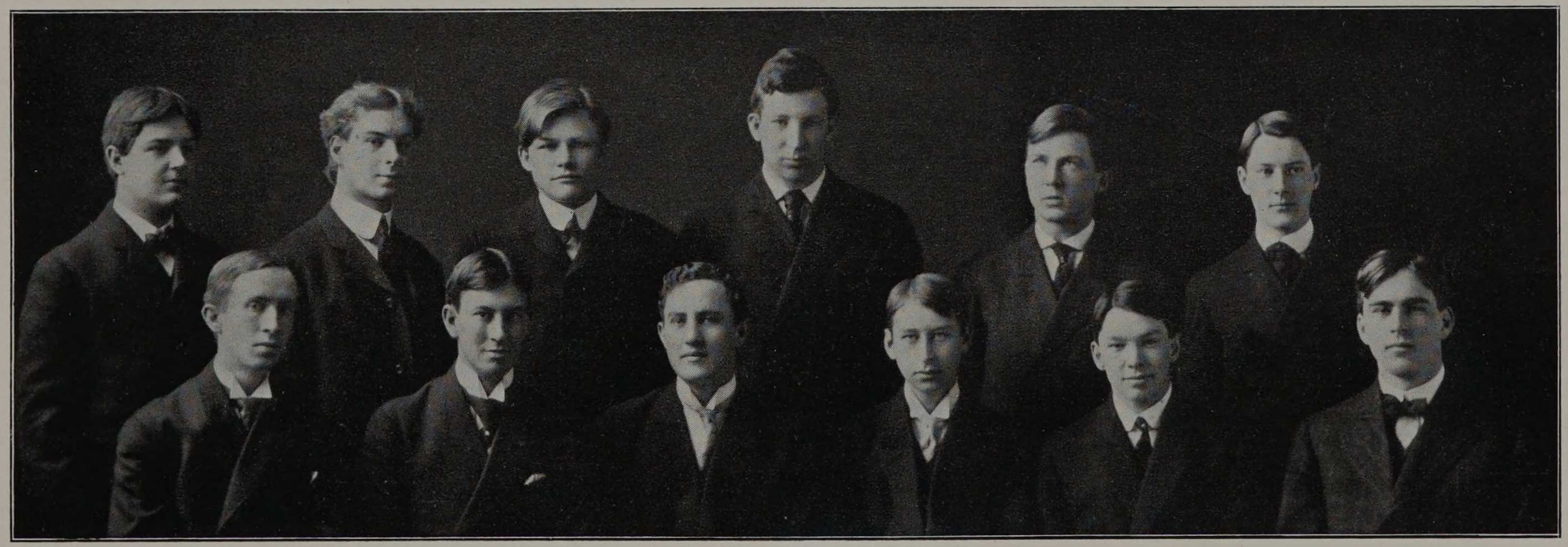


Photo by Walinger

member of the Radical Club is a directing influence *must succeed*, and every member of the club is morally and financially liable for its success.

It is this assurance of faithful performance of duty that has led the school at large to entrust so large a share of their affairs in the hands of Radical Club men, not because they are Radics, but because they are leaders. When a Radic undertakes an office, he is not *expected* to succeed, it is *known* that he *will* succeed.

He is under the immediate influence of fraternity and non-fraternity men, athletes and non-athletes, Radicals and conservatives, social leaders and grinders, and this influence assures that every side of the school body will be representatively dealt with.

The Radical who first represents a faction in the discharge of his duties or fails to fulfill his trust to the school, will be looked down upon as a disappointment and a disgrace to the club.

'08

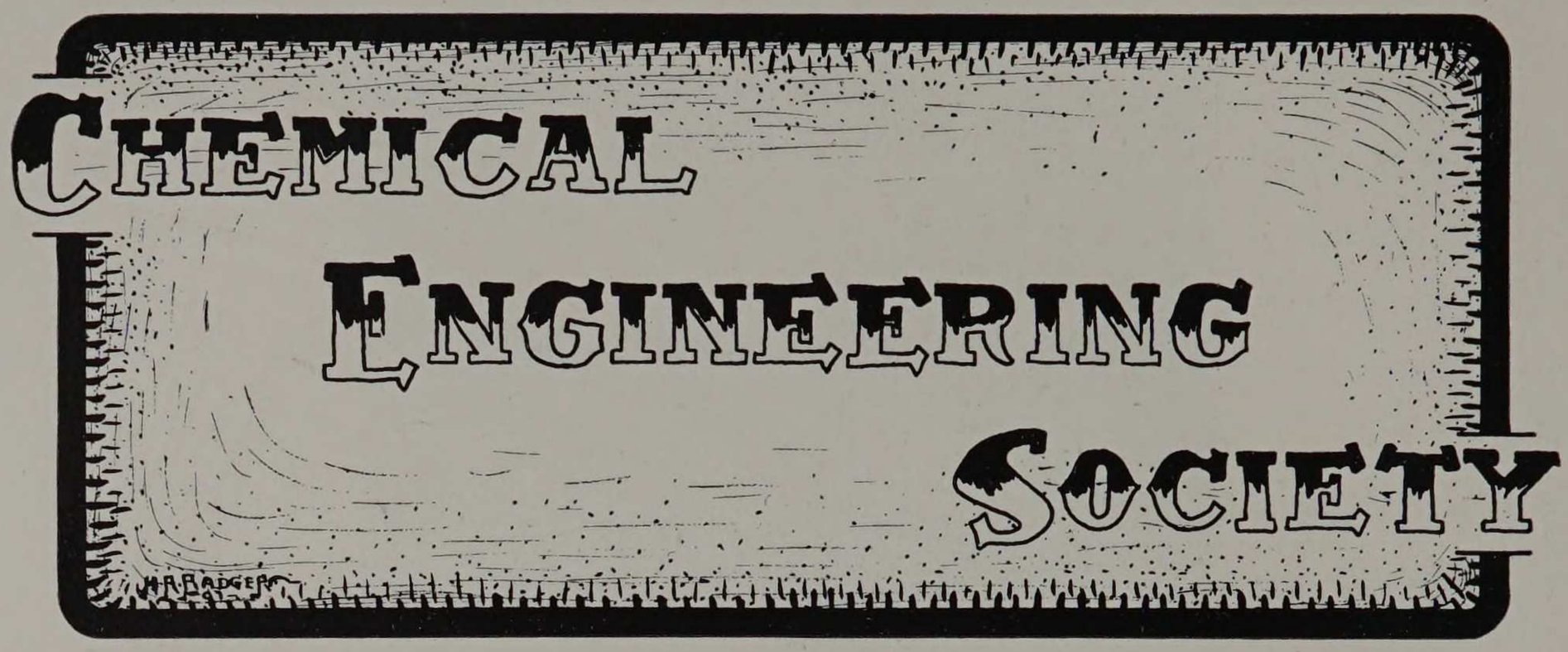
Irving Odell
H. J. Farmer
T. W. Bannerman
T. W. Smith

Austin Crabbs
H. C. Brown
H. C. Hanson
H. S. Ellington
C. O. Frary

H. C. Pegues
J. E. Monahan
J. S. Townsend
R. W. Tuthill



Photo by Walinger



Prof. Wm. T. McClement, *President*
Robert B. Harper, . *Secretary*

IN FEBRUARY, 1903, the organization which has since been known as the Chemical Engineering Society, came into existence. At that time the Chemical Engineering course had been in the college curriculum but a few years. It was early recognized by the heads of the department that the formation of such a club would be of much value to the students of Chemical Engineering. At the organization meeting it was decided that the club needed no constitution, and that no dues would be necessary. The object of the club was to hold meetings about every two weeks and to make these gatherings as beneficial as possible by the reading of papers on Chemical Engineering subjects. In addition to the papers, it was agreed that the club members should make lists of references to articles of interest and value that appear from time to time in the journals and periodicals devoted to theoretical and applied chemistry.

For two years the club has prospered, due to the efforts of the Sophomore, Junior and Senior students in Chemical Engineering who, as active members of the organization, have contributed many papers of interest. The instructors have given some valuable talks and have secured several lectures given by gentlemen not connected with the school.

All students in Chemical Engineering as well as the students in other courses have a standing invitation to attend the meetings.

The following list of the papers and lectures given before the Chemical Engineering Society since its organization gives a fair idea of the field of work covered:

1902–1903

Sulphuric Acid by the Contact Process,	Prof. Wm. T. McClement
Coke Making,	E. L. Quein
Electro-chemical Industries of Niagara Falls,	W. W. Felt
Aluminum,	R. N. Davis
Acetylene and Calcium Carbide,	C. P. Hatter
Aniline and Aniline Dyes,	R. H. Fash
Cement,	J. K. Thompson

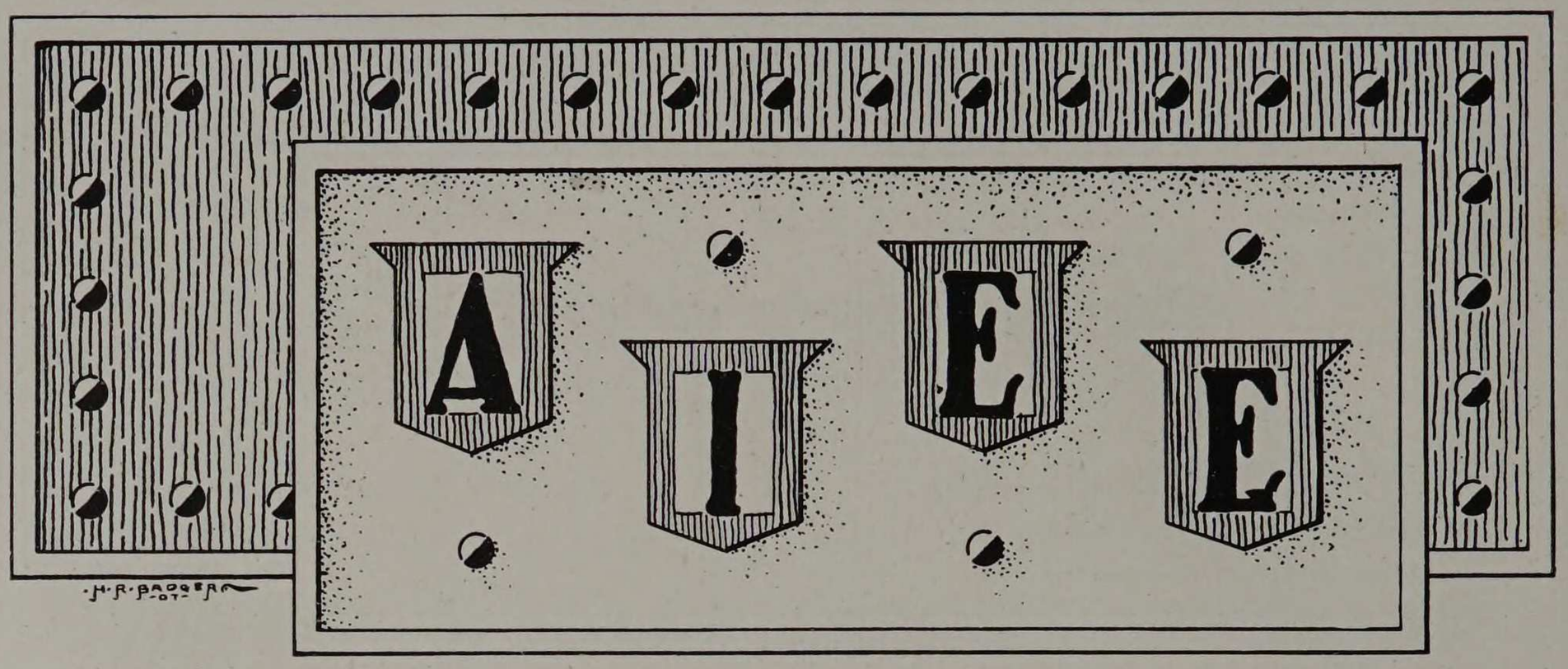
1903–1904

The Theory of Ionization,	Asst. Prof. Rochlitz
The Manufacture of Coal Gas,	H. W. Bryant
Preventable Explosions,	J. B. Gooken
Scientific Disposition of City Garbage,	F. M. deBeer
Platinum,	R. B. Harper
Celluloid,	F. S. Warszewski
Radium,	Prof. Wm. T. McClement
Paraffin and Its Process of Refining,	Chas. F. Cripliver
Oil Extraction by Solvents,	J. K. Thompson
Acetylene, Its History and Development,	Geo. Landis Wilson
Acetylene, From a Commercial View-Point,	Geo. Landis Wilson
Foundry Practice,	John M. Ryan

1904–1905

The Manufacture and Properties of Artificial Silk,	R. H. Fash
Recent Advances in Chemistry,	W. H. Flood
Ozone	H. Quin
The Theory of Gas Mantles,	Mr. Freud
Asphalt,	L. H. Stem
The Chemistry of the Rarer Elements,	F. S. Warszewski
Protective Paints,	E. Myers
The Manufacture and Chemistry of Glue,	R. F. Steward

The papers and references given before the Chemical Engineering Club may be found on file in the Library of the Institute.



THE student branch of the American Institute of Electrical Engineers organized at Armour Institute of Technology, was made possible by a comparatively recent modification of the rules governing membership in the first-named Institution. The governing body of the A. I. E. E. realized the propriety of interesting the young men pursuing an electrical course in the various technical institutions throughout the country in the work of the Institute, as well as the desirability of affording these young men an opportunity to get into closer touch with their more advanced fellow workers, and at the same time of offering them an educational opportunity in presenting them with the Proceedings, and a systematic method of discussing the same. To do this, a regulation governing membership was adopted, whereby anyone who is regularly pursuing electrical studies, and who is not a graduate of a technical school or college, may be enrolled as a "student of the American Institute of Electrical Engineers," upon the payment in advance of a fee of three dollars, which covers all the charges of the ensuing year. Such a student is entitled to receive regular monthly Proceedings, and in addition, may purchase a single bound volume of the Transactions at $3.50 each. It should be added in passing that these Transactions consist of a record of the highest and best achievements in electrical engineering as followed in this country.

The student branch of the A. I. E. E. at Armour at present consists of forty-two active members, who meet once a month to review papers which have been presented before the Institute, and of which the members have been supplied with advance copies. In addition, new matter may be introduced, with the consent of the governing board. In this way an opportunity

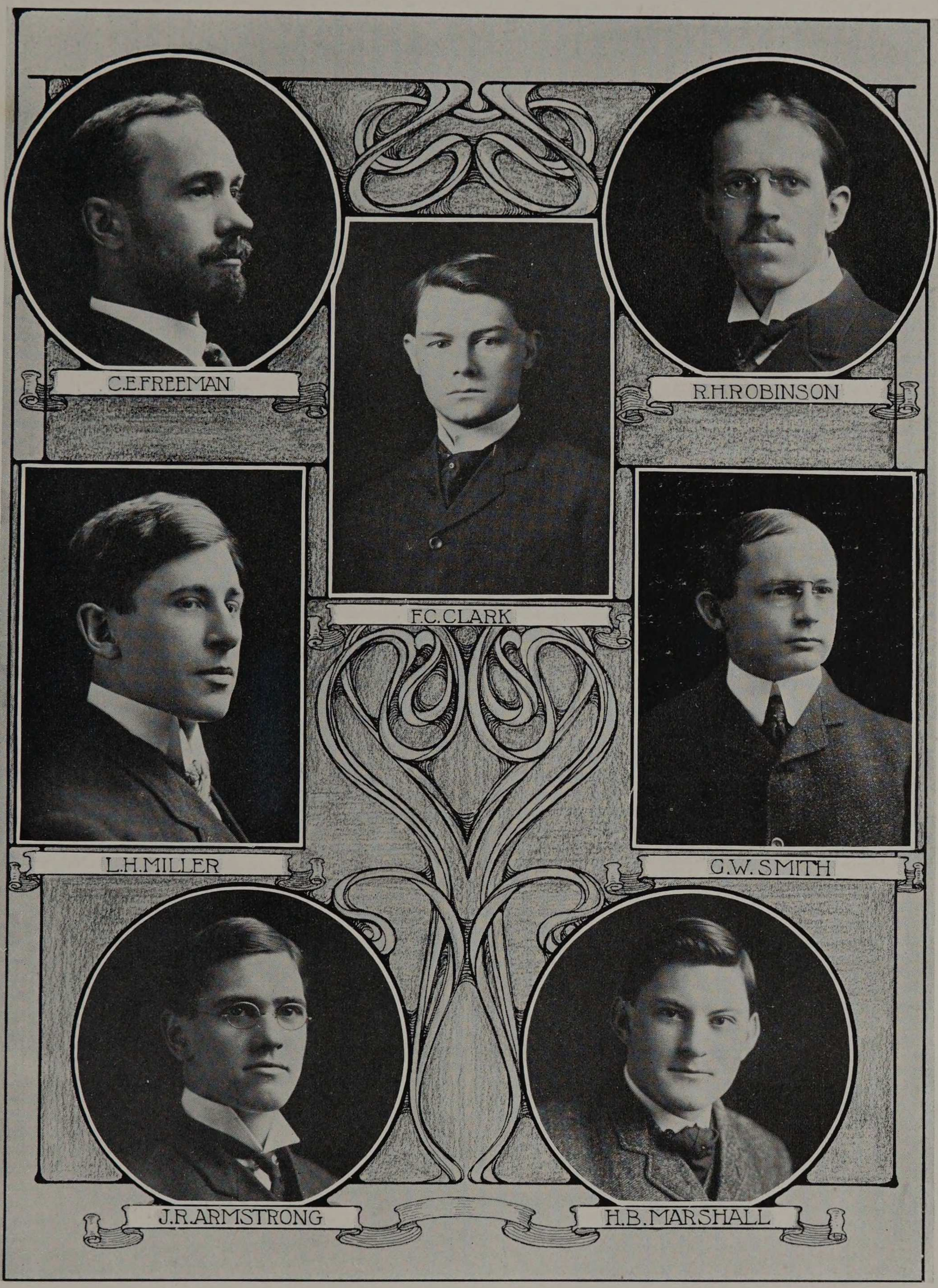


Photo by Walinger

is given the young men to express themselves, and to ask questions, and to exercise every ability in properly conducting a meeting of this sort. In this connection it is proper to state that at Armour, each meeting is placed in charge of a different person, so that the good which may come from experiences of this sort may be distributed. Not the least of an engineer's requirements is the ability to handle himself. As a preliminary practice, the handling of small assemblies of this character is most excellent.

Any student member of the A. I. E. E. is a most welcome visitor to any of its regular meetings. By attending these, he comes in touch with prominent men in his work, and has an opportunity to make acquaintances that will be both pleasant and useful. He will be able to get an idea of standards of excellence—what is to be expected of one who makes a success in his chosen line—and thus shape with more definiteness his aims and ambitions.

The American Institute of Electrical Engineers is an organization that stands at the head of the list of organizations associated with the electrical industry in this country. It represents opportunities that few can afford to disregard. The Student Branch especially commends itself to the Electrical Engineering student because it renders possible a life of endeavor that is of the highest importance and at the same time is within his reach. The work of the Branch at Armour is growing in extent and importance. It enjoys the distinction of being able to draw inspiration from one of the strongest local branches in the country—the Chicago branch of the A. I. E. E. In the midst of such surroundings, there is every reason to predict bright days ahead for the Armour branch.

In Memoriam

✠

THE ENGINEERING SOCIETY

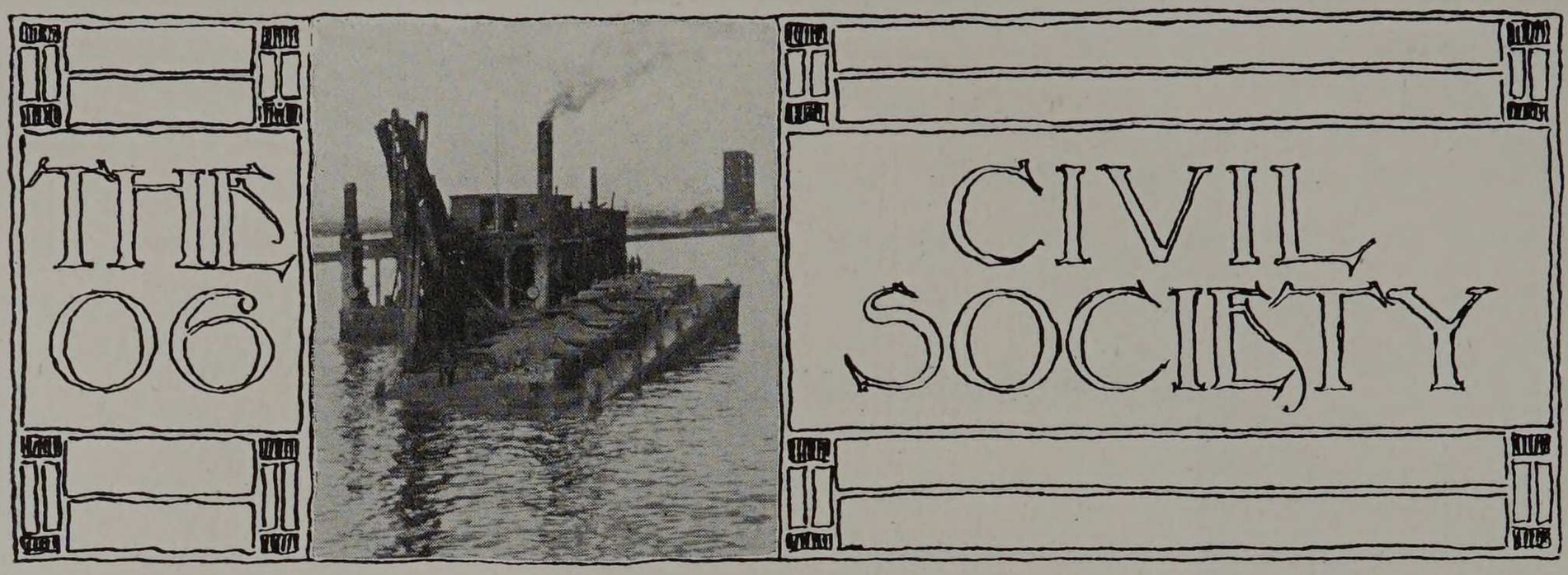
BORN IN THE FALL OF
1903

BEGAN TO DIE IMMEDIATELY
AND FINALLY PETERED OUT
IN THE FALL OF
1904

AGED NEARLY ONE YEAR

✠

It went the way of all mankind,
Altho' it really seemed a shame
That one so young should have to die,
And leave behind so little fame.



THE '06 Civils are an organization of the present Juniors in the Civil Engineering Department. They were organized in the first term of their sophomore year in order to create a closer bond of good fellowship amongst those who would spend nearly three years of their lives together, and to spread a knowledge of engineering works by talks from outsiders and members of the class, and by inspection visits. In promoting friendship the organization has been so successful that it amply repays any void due to the partial failure of our second purpose. The latter is due mainly to lack of time on the part of the members and also on the part of men who would be qualified to give such talks. Several profitable inspection visits have been made in the past year, however, and more are in prospect.

The Executive Committee is :

Frank T. Pierce, *Chairman;* Myron B. Reynolds, Frank J. Flanagan

The members are as follows:

O. T. Allen
E. H. Ellett, Jr.
F. J. Flanagan
T. S. Ford
E. O. Greifenhagen
G. A. Haggander
E. F. Hiller
C. S. Holcomb
C. O. Johnson
Samuel Klein
W. G. Leininger
E. Liebermann
F. T. Pierce
J. H. Purdy
M. B. Reynolds
R. S. Spaulding
Joseph Stanton
C. C. Saner

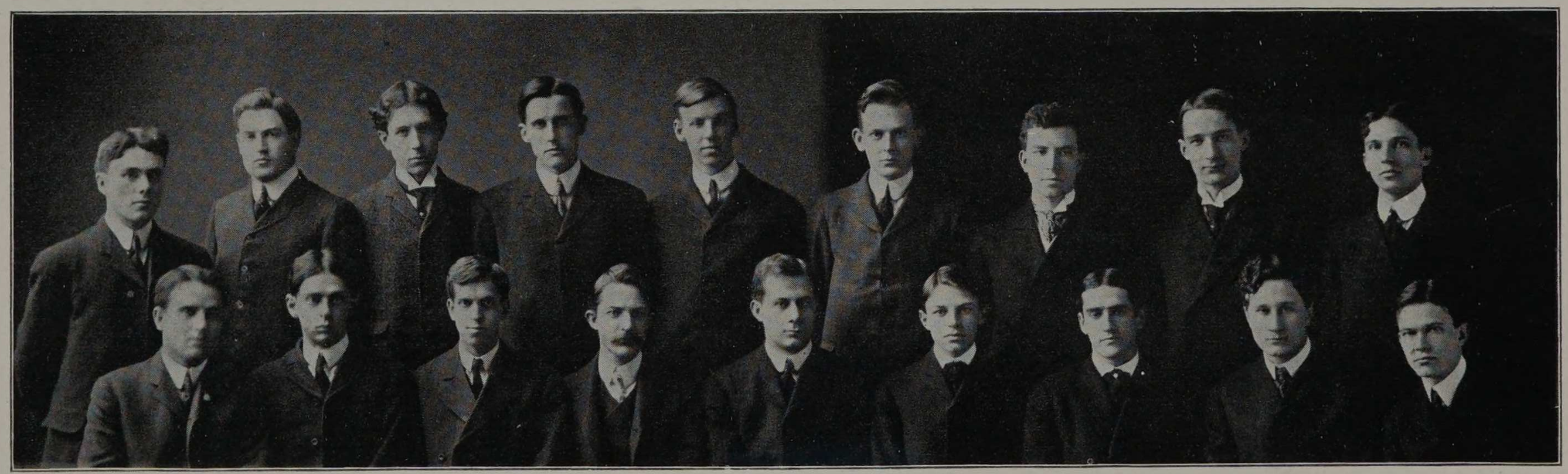


Photo by Walinger



The Camera Club

OFFICERS FOR 1904-1905

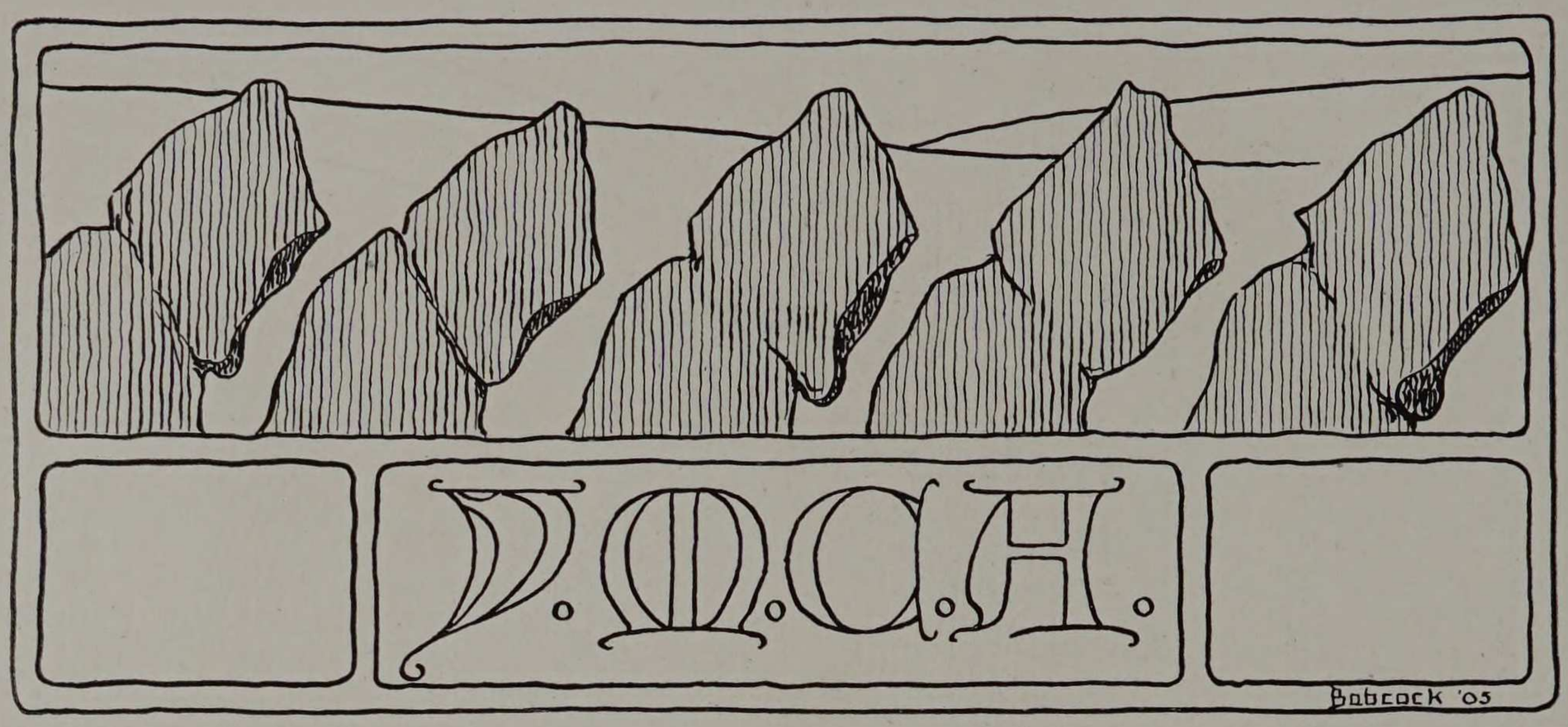
President . . .	E. J. Smith
Vice-President . .	W. R. Wilson
Treasurer . . .	E. F. Hiller
Secretary and Custodian	M. T. Jones, Jr.

THE Camera Club is composed of amateur photographers of Armour Institute, banded together for the purpose of learning more of photography along artistic or technical lines. It has not a single member who does not delight to bask in the blood red rays of the ruby lamp and feel the soothing splash of the cool developer on his finger tips. It is a live organization.

The club-rooms in the Mission are admirably equipped for photographic work of all kinds. Among the special conveniences are : An electric arc for copying, an enlarging-reducing-and-copying camera, and an electric fan for drying negatives. Private lockers are provided for members. The situation of the dark rooms makes them especially convenient for men living in the neighborhood of the Institute.

An annual exhibition of prints is the principal event of the Camera Club year. It marks the progress of the club, and is always looked forward to by our friends. Last year's exhibition comprised more than one hundred prints, and was decidedly successful.

The membership roll is large and increasing, and the Treasurer reports that the club is strong financially. All Armour students are eligible to membership and may join by complying with the rules and regulations of the club.



OFFICERS

William C. Brubaker, *President*

L. H. Badger, *Vice-President*

J. Earl Saunders, *Recording Secretary*

Roy S. Spalding, *Department Secretary*

R. H. Rice, *Treasurer*

COMMITTEE OF MANAGEMENT

Prof. G. L. Scherger, *Chairman*
Prof. W. T. McClement
Mr. F. U. Smith
Prof. C. W. Leigh
Prof. A. E. Phillips
Prof. R. H. Rice
Prof. R. V. Perry
J. E. Saunders
William C. Brubaker
R. S. Spalding

THE Young Men's Christian Association at Armour Institute of Technology was organized in 1899. Its membership has risen to over eighty. The prospects for increased usefulness were never so bright as at present. The necessity for the promotion of the religious life among our students is being realized more and more. The members of the Association are anxious to make its influence felt, and earnestly invite all who are interested in religion to co-operate with them.

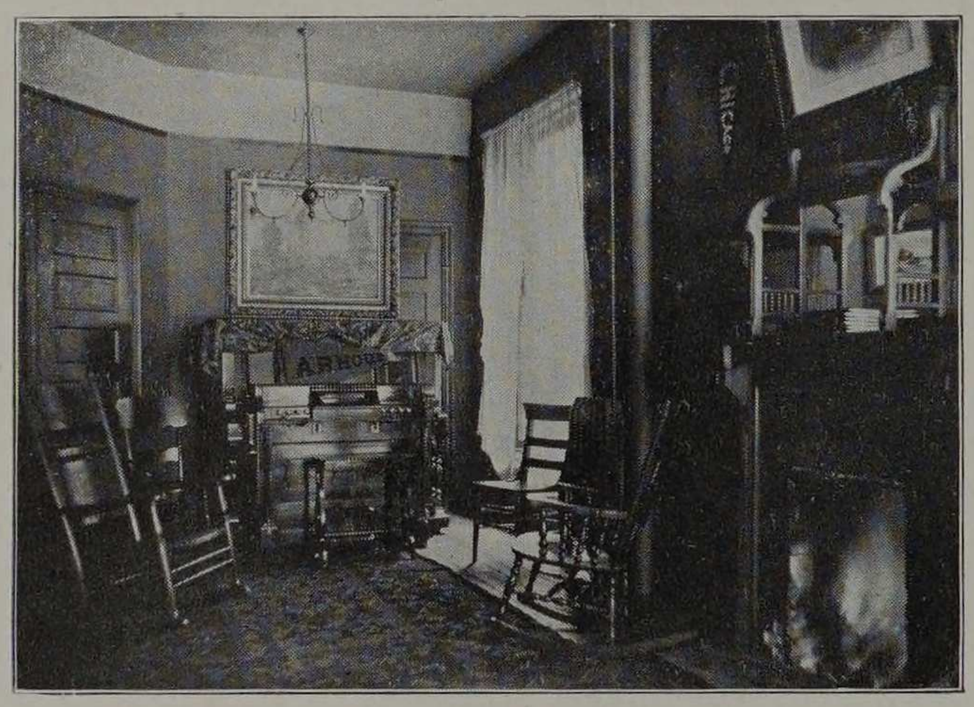
The authorities of the Institute have generously placed at the disposal of the Association a flat on Armour Avenue, where the meetings and social gatherings of the Y. M. C. A. are held. Three Bible classes have been

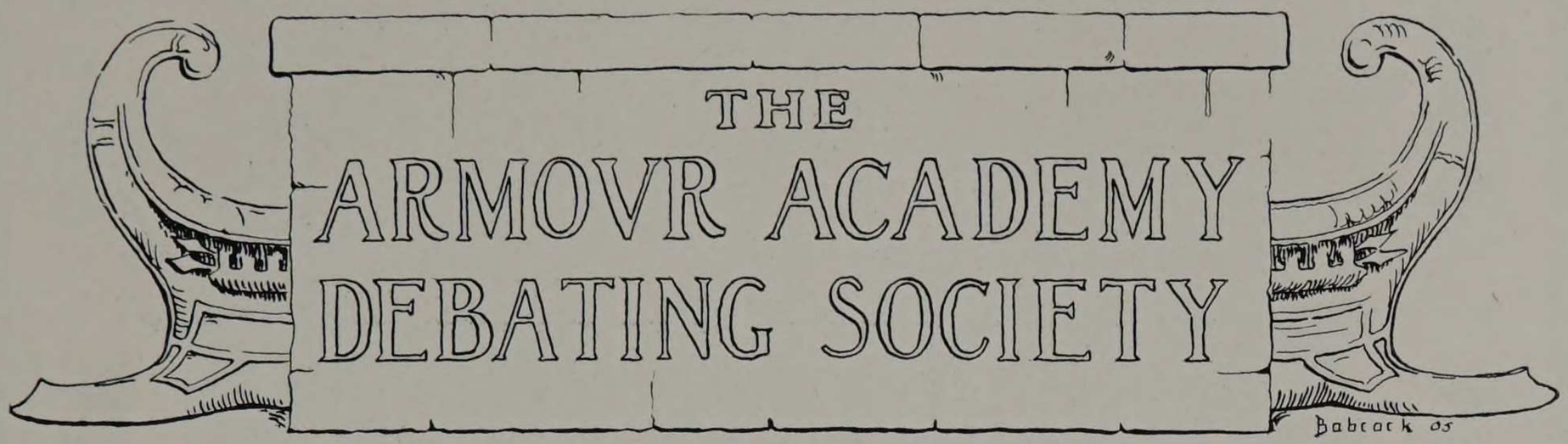


Photo by Walinger

organized. One, conducted by Mr. Charles R. Riker, meets Sundays at 9 a. m., and is engaged in the study of the life of Christ; another, under the leadership of Dr. George L. Scherger, meets Fridays at 5 p. m., while the third, with Mr. Paul C. Foster as leader, convenes on Mondays at 5 p. m., being engaged in the study of Old Testament characters. There is a devotional meeting every Wednesday at 5 p. m.

The Y. M. C. A. has for several years given an Annual Freshman Handshake in the Library, and will in the future hold social gatherings at intervals during the year. The house is open during the day and evening. It is fitted out with many things that furnish enjoyment and recreation. Those who love music, will find not only a piano, but also a pianola at their disposal. A cordial invitation is extended every student of the Armour Institute to join the Y. M. C. A. and enjoy the privileges such membership affords.





Dean Babcock, . . *President*
D. D. Dick, . . *Vice-President*
Frank Solomon, . . *Secretary*
Student Representative to the Inter-Academic League: M. E. Healy
Faculty Representative: Dr. George L. Scherger

AT THE beginning of this year, the Debating Society was practically reorganized. The name was changed from the Delta Debating Society to that at the beginning of this article; a new constitution was drawn up and adopted; and the membership was altogether different. But in spite of the efforts of the officers and supporters of the organization to infuse new interest, their expectations were not altogether realized. On account of the hard courses, outside work and other causes, it was difficult for most of the students to give debating the attention it deserved. Nevertheless, a strong team was chosen, consisting of Messrs. Beifeld, Field and McDonnell, with Mr. Damish as alternate; and prospects looked bright for the Academy.

The three other schools in the Inter-Academic Debating League are the Morgan Park and Northwestern Academies and the University High School. Armour met Morgan Park first, and supported the negative of the question, "Resolved, that the contention of the labor unions, that no nonunion man should work in company with a union man, is justifiable." The Armour team, assisted by the kind and able suggestions of Dr. Scherger and Dr. Colledge, had thoroughly prepared the debate, and presented their side of the question in a dignified and scholarly manner. However, the decision of the judges, given perhaps a little hastily, was in favor of the opposing school. The representatives of the Armour students and faculty who heard the debate were disappointed at this result, and feel that at any rate the members of the team deserve great credit for their excellent work.

It is sincerely hoped that next year the society will produce an equally good team, and one which will meet with greater success; for all would like to see another championship banner in the halls of the Institute.

Senior Mechanical Society

H. R. Badger '07

FOR the last four or five years, the students of the mechanical department have been endeavoring to organize themselves and attempt to obtain student membership in the American Society of Mechanical Engineers. None of the preceding classes succeeded in advancing the project, but it was left to the class of 1905 to take hold of it, and investigate the possibilities of membership thoroughly. A meeting of the Senior Mechanicals was therefore called and immediate action was taken. The outcome of the meeting was the organization of the SENIOR MECHANICAL SOCIETY. According to the constitution, the objects are :—

1. To obtain membership in the American Society of Mechanical Engineers.

2. To maintain an organization of the students of Mechanical Engineering at Armour Institute.

3. To study and discuss subjects pertaining to the science of Mechanical Engineering.

At the first regular meeting the society elected J. H. Felgar as President, and F. R. Goldsmith as Secretary-Treasurer. At the same meeting D. E. Willard and W. A. Ratcliff were elected the standing A. S. M. E. Committee.

The membership of the society is divided into two classes, active and associate. The members of the Senior Mechanical Class are eligible to the former, and the members of the Junior Class who have completed their



Photo by Walinger

winter term's work to the latter. In this manner it is expected to continue the society from one year to another, and make it a permanent organization of the Institute. For the use of the members, the society has a beautifully furnished room in the flats directly across from the college building, which serves as a study room and a meeting place.

The A. S. M. E. considers this society quite favorably, and it is expected that membership will be obtained before the end of the year. After this membership is obtained, it is hoped that the future Senior classes will perpetuate the life of the society, and place Armour Institute in the same light before the A. S. M. E. as other prominent technical schools now stand.

The members:—

H. A. Dreffein
H. A. Durr
J. H. Felgar
G. W. Fiske
F. R. Goldsmith
W. E. Hill
W. G. Hoy
G. Lennartz
E. McBurney
A. W. McMillan
B. Natkin
W. A. Ratcliff
D. E. Willard



MUSIC



DEANE

GLEE & MANDOLIN CLUBS

Manager, - - - F. M. deBeer
Leader Glee Club, - H. B. Marshall
Leader Mandolin Club, R. D. Morrison
Director of Glee Club, Fletcher H. Wheeler
Director Mandolin Club, Corydon D. Smith

The Glee Club

First Tenors	Second Tenors	First Basses	Second Basses
A. J. Cole, 1907	L. H. Stem, 1905	H. B. Marshall, 1905	W. A. Ratcliff, 1905
C. C. Saner, 1906	L. R. Levings, 1906	F. M. deBeer, 1905	J. E. Saunders, 1907
S. S. Wilson, 1908	C. Baker, 1906	H. A. Durr, 1905	J. R. Armstrong, 1905
R. D. Morrison, 1906	E. H. Ellett, Jr., 1906	J. H. Payne, 1905	A. J. Fry, 1906
	C. E. Hayes, 1906	A. F. Wanner, 1906	L. E. Badger, 1907
	F. N. Wilson, 1906	F. G. Rogers, 1907	F. A. Putt, 1905
			A. A. Dittmar, 1908

The Mandolin Club

First Mandolins	Second Mandolins	Third Mandolins	Guitars
R. D. Morrison, 1906	B. E. Beamer, 1905	J. E. Monahan, 1908	L. H. Stem, 1905
F. R. Goldsmith, 1905	A. J. Allyn, 1906	C. R. Morey, 1908	C. C. Chapin, 1906
L. R. Levings, 1906			
D. Babcock, 1905, A			

Cello, . C. E. Hayes, 1906
Flute, . E. H. Ellett, Jr., 1906
Piano, . L. B. Smith, 1907
Violin, . D. D. Dick, 1905, A

Photo by Walinger



THE Glee and Mandolin Clubs this year are the first since the season of 1901-1902. The reasons for their absence are many, the principal one being the time-worn, but none the less powerful one, of lack of time. In addition, the "Walking Delegate," quite an undertaking, was given last year, and those who might otherwise have had time for the Glee and Mandolin Clubs did not have time for both. This year, however, being the off year for the Radical operas, the clubs got an early and vigorous start, and have enjoyed a very successful season.

Both clubs were organized in September, and a temporary manager, Mr. F. M. deBeer, appointed. The appointment was soon made permanent, and H. B. Marshall and R. D. Morrison were elected student leaders of the Glee and Mandolin clubs respectively. Competent directors were secured, and semi-weekly rehearsals instituted.

The home concert was given February 10, in the Mission, and was such a decided success, that for awhile another was contemplated. Each class had decorated a section of the balcony, which was occupied by the members of the class and their friends, and the two fraternities each had a decorated box. Many encores were responded to by the clubs, and the amusing ones of the Glee Club were highly appreciated. The program follows:

PART ONE

1. Top Liners . . . . *Baum*
   Mandolin Club
2. Alma Mater . . . . *Wheeler*
   Glee Club
3. (*a*) The Nun . . . . *Thayer*
   (*b*) In Absence . . . *Buck*
   Glee Club
4. St. Clair's Waltz . *Arr. by Dillebar*
   Mandolin Club
5. "Gas" . . . . *Camp*
   Glee Club
6. A Day in the Cottonfield
   Smith and Zeublin
   Mandolin Club and Quartet

Intermission

PART TWO

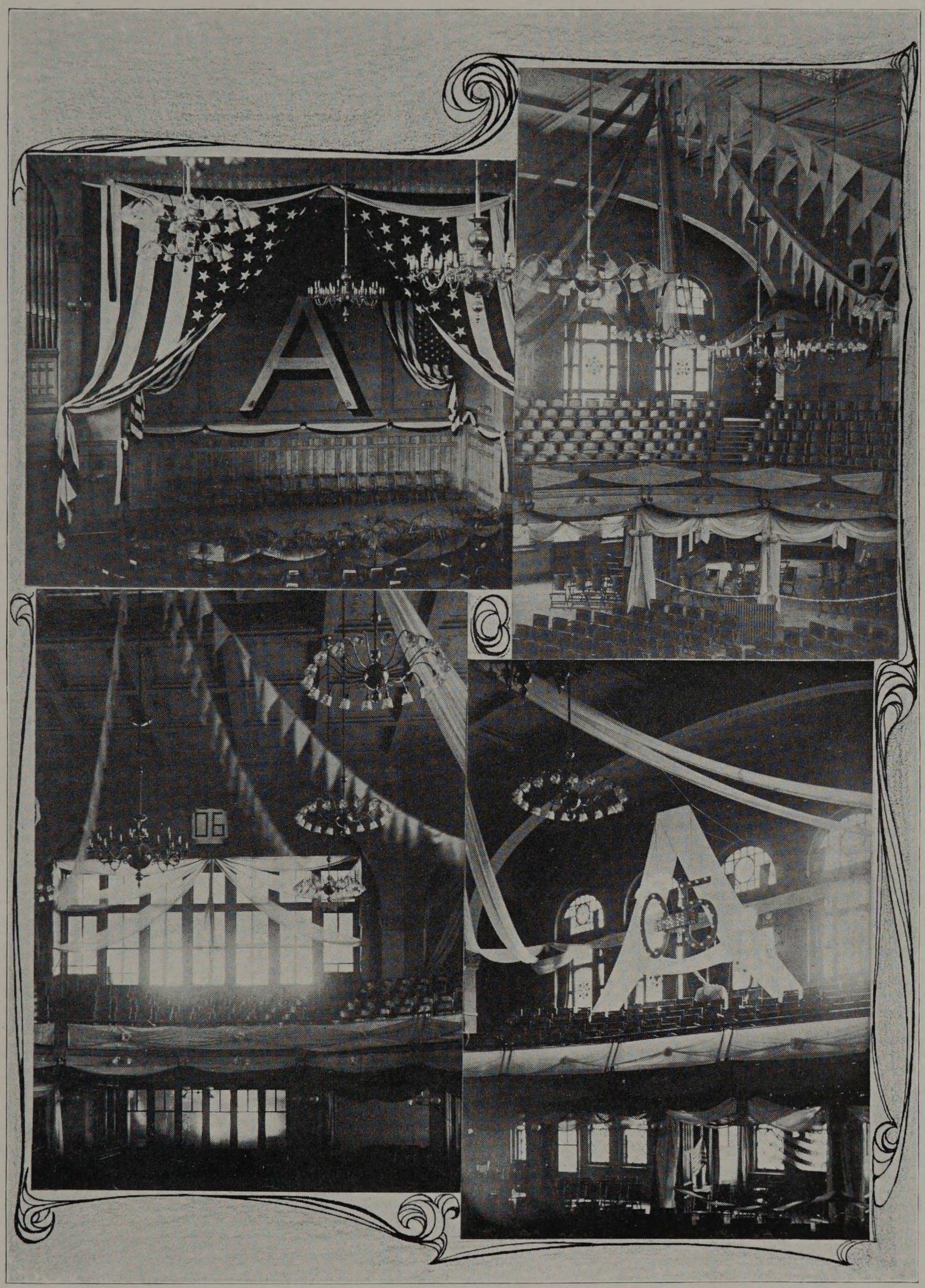
1. (*a*) Pretty as a Picture . *Barth*
   (*b*) University Glee Club *Sherwood*
   Mandolin Club
2. Mulligan Musketeers . . *Atkinson*
   Glee Club
3. My Love's Waitin' . . *Neven*
   Mr. Marshall and Glee Club
4. Dance of the Goblins, *Smith and Zeublin*
   Mandolin Club
5. What Could a Farmer Do? *Sired*
   Glee Club
6. The Sword of Uncle Sam . *Bullard*
   Mr. deBeer, Manager, and Glee Clubs
   Medley of Popular Airs

After the concert, the clubs continued their regular rehearsals, and on March 17th went to Ottawa to give a concert. The attendance here was poor, so that the concert itself was not a success, altho' the trip was greatly enjoyed by the fellows.

The Clubs appear at Ravenswood April 14th, and at Waukegan probably on May 5th. They will give another home concert May 19th, and it is expected that the latter will be a very good close to a successful season.



At Ottawa



The Orchestra

THE Orchestra was organized, through the efforts of Mr. Eugene Hiller, to play at the Freshman Smoker, and its numbers there were greatly appreciated by the crowd. The members, however, enjoyed their weekly rehearsals so much that they decided to keep them up, and have done so all the year.

The members :

Allan B. Benedict, *Leader*

First Violins:

D. D. Dick

S. V. James

Second Violins:

E. F. Hiller

W. C. Roos

Cello: C. E. Hayes

Piano: L. B. Smith

Flute: E. H. Ellett, Jr.

Trombone: G. A. Binder

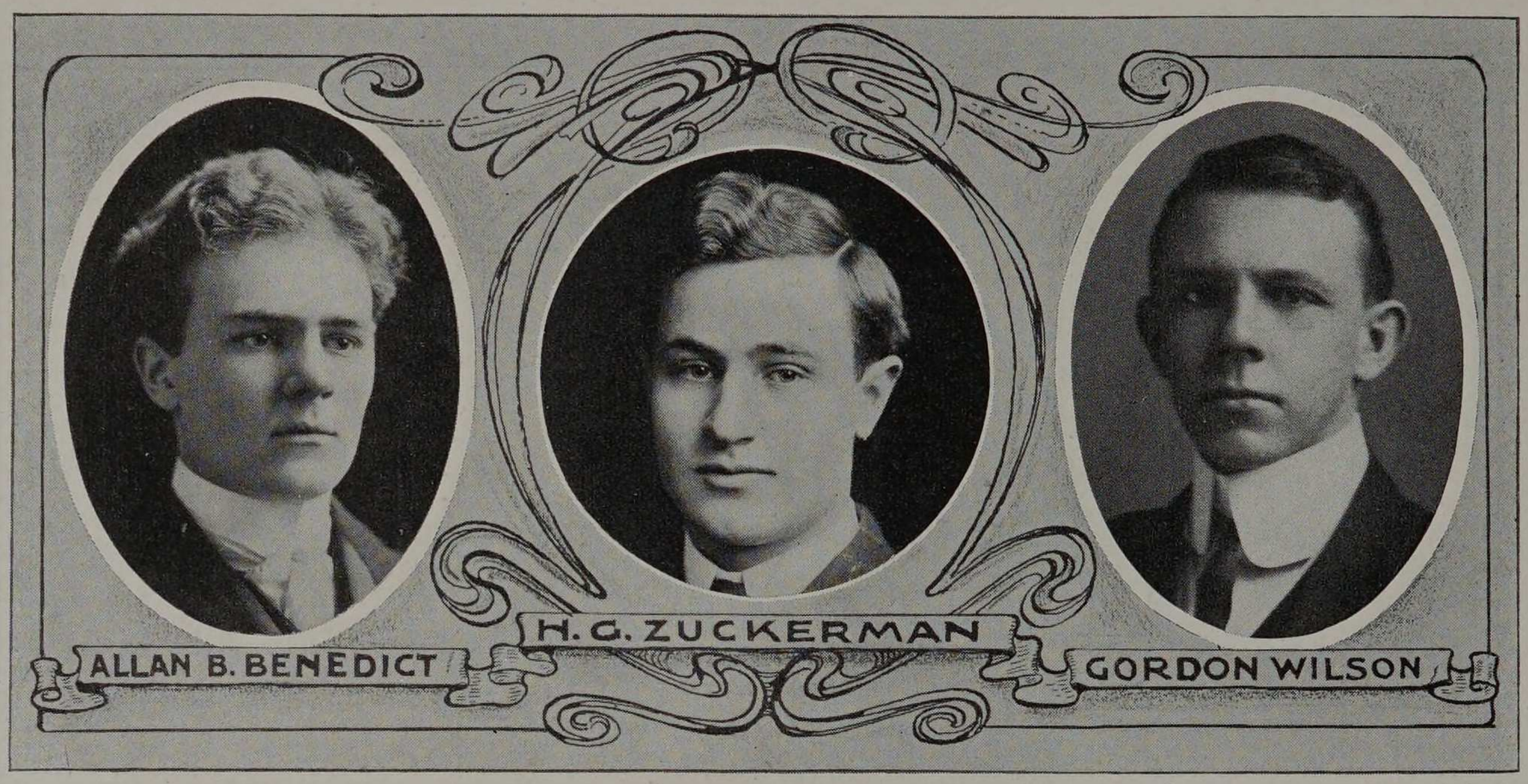
First Cornet: R. W. Moffatt

Second Cornet: J. C. Hackett

Traps: W. O. Lichtner



THE WALKING DELEGATE



Cast *of* Characters

Billy	Ernest Miller
The Royal Grocers' Prentice	
Montague	Will Funkey
Chief of the Benevolent Brotherhood of Hold-ups	
The King of Laboria	Ross Cox
The Royal Chancellor	Ned Kemp
Hi Ball	Alan Wilson
The Royal Barkeeper	
Paddy Finnegan, A. P. A.*	Louis Byrne
Mickey Flannigan, A. P. A.*	Don Frary
Two of the Finest	
Claude	Fred Partridge
The Lieutenant of the Robber Band	
Baron von Kummel	Donn Crane
A Suitor who Does Not Suit	
Sir Montfort Burton-Ale	Roger Townsley
Duc de Chartreuse	Robert Breckenridge
The Laird o' Glenlivet	Frank Eager
Senor Mescal	Charles Witt
Page	Katherin Benedict
Mamie	Lucia Vreeland
Of the Bunjugglers' Union	
Susie	Irene Vreeland
Of the Anvil Chorus	
Violet	Helen Burton
Rose	Mayble C. Decker
Lily	Marjorie Powell
Daisy	Frances Benedict
Members of the Flowergirls' Union	
Pansy	Mary Bridwell
President of the Flowergirls' Union	
The Princess Gwendolyn	Clara Fried

* Amalgamated Policemen's Association.

Maidens *of* Modern Society

Sara Richards — Edna L. Simpson — Lucia Vreeland — Ethel Indermille

Guards

A. M. Jens — C. U. Smith



Robbers

H. R. Badger, alias	Regdab the Terror
M. A. Buehler, alias	The Dutch Demon
Geo. B. Carpenter, alias	Shotgun George
R. E. Duplissis, alias	Bobby the Bite
E. H. Ellett, Jr., alias	Teddy the Tough
E. F. Hiller, alias	Gentle Gene
Louis Levings, alias	Louis the Red
L. W. Maher, alias	Lucas the Looter
R. E. Morrison, alias	Rawdog Ralph
H. D. Roos, alias	Hungry Herb
H. H. Snyder, alias	Murderous Mick
A. F. Wanner, Jr., alias	Firewater Frank

Union Men

H. R. Badger
M. A. Buehler
George B. Carpenter
R. E. Duplissis
E. H. Ellett, Jr.
H. E. Hanson
Eugene F. Hiller
Fred W. Indermille
A. M. Jens
Louis R. Levings
R. D. Morrison
L. W. Maher
B. H. Rich
H. D. Roos
C. U. Smith
H. H. Snyder
A. F. Wanner, Jr.

Union Girls

Helen Henderson
Kathleen Burnham
Mamie Baldwin
Florence Crocker
Mildred Deane
Esther Hannan
Swann Indermille
Rhea Jacobson
Sara Richards
Rebecca Robertson
Rose Reinhard
Florence Ruckheim
Jessie Robb
Edna Louise Simpson
Evelyn Schmitz
Marie Schobel
Lucia Vreeland
Irene Vreeland

Synopsis *of* the Scene

NOTE.—The landscapes of the Kingdom of Laboria are as thoroughly unionized as the other constituent parts of that favored land. This accounts for the similarity of the widely separated scenes shown during the action of the piece.

ACT I.

The Market Square in the City of Laboria.

ACT II.

In the Gardens of the Palace.

ACT III.

A Forest Glade, near the Robber's Castle.

Musical Numbers

ACT I.

Opening Chorus
"Pansy" . . . . . Pansy, Flower Girls and Union Girls
"To My Lady" . . . . . Billy
"In Dear Old London Town" . . . . Baron von Kummel and Chorus
Entrance of Suitors . . . . . Suitors, King, Chancellor and Chorus
"It all Depends upon the Point of View" . King, Chancellor, Pansy and von Kummel
"I Will be True" . . . . . The Princess Gwendolyn
"Gwendolyn" . . . . . Billy and Gwendolyn
Finale

ACT II.

Opening Chorus
"My, O My!" . . . . . Chancellor and Pansy
"I am a Sorrowful Man" . . . . Montague, Chancellor and King
"As I Dream of Thee" . . . . . Montague and Pansy
"You can Learn all About it by Mail" . . . . Finnegan and Flannigan
Finale

ACT III.

Opening Chorus . . . . . Montague and Robbers
Flowergirls' Dance
"The Maiden of Modern Society" . . . . Gwendolyn and Society Girls
"Where has my Black Man Gone?" . . . . . King
"I am the Walking Delegate" . . . . . Billy and Chorus
Closing Chorus

Book and Lyrics by Gordon Wilson
Music by Allan Benedict

Executive Staff

Herbert Zuckerman . . . . . *General Manager*
Roger Townsley . . . . . *Stage Manager*
Guy Pierce . . . . . *Musical Director*
D. E. Willard . . . . . *Property Man*
Robert Walker . . . . . *Assistant Property Man*
Edwin Hiller . . . . . *Electrician*
Satan J. Lucifer . . . . . *Fireman*

Costumes designed by Miss Ethel Indermille. Wigs by Heppner. Scenery by Chance.
Dances arranged by Guy Pierce.

Program Notes

The exits of this theatre are plainly marked by red lights. They also have the word "Exit" over them in large letters, in order that the red lights may not be misunderstood.



The exits are to be used only in case of fire, or some other accident. Use of the exits at other times will be regarded as a personal affront by the comedians.

The curtain of this theatre is absolutely fire-proof. We mention this to show how useless it is to fire things at the actors.

This is a union show, but it will not be necessary to inquire if the orchestra wear union suits. That glittering little bon-mot has been sprung several times already.

The audience will be permitted to laugh boisterously whenever a joke is sprung, and they will be allowed to weep softly during the sentimental passages; but any person reversing the above order will be regarded with disfavor by the management.

The dressing-room accommodations back of the stage consist of two small rooms and a flight of stairs. We respectfully request that the audience overlook any loud bumps or sincere profanity that they may hear during the performance, as up to date, some of our cast have not had much experience in dressing on a flight of steps.

There is no regular side-show connected with this performance, but the Freshman Class may be seen gratis at Armour Institute, 33d Street and Armour Avenue, five days in every week.



The lady members of our chorus request us to announce that booze handled by the Royal Barkeeper is *mostly* counterfeit. Therefore, it will not be of any use for gentlemen to throw bouquets at *him*.

Testimonials

"It was a bum show. P. S. I am jealous."—*Dave Lewis.*

"The jokes made 'Ivan the Terrible' look like a farce."—*Dicky Mansfield.*

"I am convinced from the anti-union tone of the show that the author must be a capitalist."—*William Randolph Hearst.**

"The show is very much to the sandpaper, but the composer is a dream."—*Aimless Leslie.*

"I will not be able to produce 'The Walking Delegate.' I have a conscience."—*Dan'l Frohman.*

"Rotten! The villain didn't get blowed up once."—*Swipsey* (*vender of newspapers by profession*).

"If the hero had only died it would have been perfect."—*Matinee Girl.*

"If the comedian had died it would not have been so bad."—*Her Pa.*





"O, they are simply beautiful! And so full of expression! No, not the musical numbers! I mean Benedict's eyes."—*Ex-Academy Coed.*

"We like it a lot better than 'Coeds Courageous.'"—*Alderson and Raymond.*

"Gee! Dat King was a peach."—Sophomore.

"It was not like zat dear 'Coeds Courageous.' Zere were no boxing glove scenes.—*Monin.*

"Why did ye no borrow me kiltie for the Laird of Glenlivet?"—*Doctor Campbell.*

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* Mr. Hearst is not personally acquainted with the author.

CHICAGO BOY KILLED IN WEST.

Louis R. Levings, Armour Institute Student, Meets Death by Fall in Colorado Mountains.

Loveland, Colo., Aug. 4.—[Special.]—Louis R. Levings, a student at Armour institute, was killed yesterday afternoon by falling from the summit of Mount Upsilon in Estes park. The young man fell 400 feet to the bottom of a narrow, inaccessible ravine. where the body still lies. During the descent Levings struck projecting rocks several times. It may take two days to recover the body.

CHICAGO BOY FALLS TO DEATH

Louis R. Levings Goes Over a 400-Foot Cliff in Colorado.

Loveland, Col., Aug. 5.—Louis R. Levings, a student at Armour institute, Chicago, son of Charles Levings, who lives at 6430 Yale avenue, was killed Thursday afternoon by falling from the summit of Mount Ypsilon in Estes park. The distance from which the unfortunate young man fell to the bottom of a narrow ravine where the body still lies was about 400 feet. During the descent he struck projecting rocks several times and was dead long before the bottom was reached.

Levings stepped on a rock and, thinking it secure, put all his weight on it, when the bowlder gave way and he was hurled to his death.

The body was found in a narrow ravine where no horse could reach. It is in such a position that it will have to be rolled out of the ravine and this may take two days.

CANNOT SECURE LEVINGS' BODY

Climbers Abandon Mountain Victim. Though Expense Was Not Limited.

[SPECIAL TO THE RECORD-HERALD.]

ESTES PARK. Colo., Aug. 5.—Although no limit has been placed on expense, all efforts to recover the body of Louis R. Levings, the Chicago youth who fell from Mount Ypsilen 400 feet to his death, have been unsuccessful, and the party which has been at work since Thursday has abandoned the effort.

The body lies on the banks of what is believed to be a bottomless lake. Several of the rescuers have been injured by being dashed against sharp rocks while being lowered to reach the body. In all probability the young man will remain forever in his natural grave.

Dr. James was lowered by a rope to-day and examined the body. He found that every bone was broken. A live man, by pushing himself free from the rocks, can reach the place where the body lies, but rescuers say it is absolutely impossible to bring it to the upper level.

[Louis Levings was the son of Charles Levings, a civil engineer, living at 6430 Yale avenue. He was 20 years old and for the last five years has been taking the civil engineering course in the Armour Institute. He was well known in Englewood and stood high in his classes.]

1905

THE INTEGRAL

A. J. WARD

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Photo by Walinger


THE FULCRVM OVT FRIDAY.
MECHANICAL NUMBER
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OCTOBER ~ OUT WEDNESDAY
OCT. 26. 1904
The Fulcrum.
THE FULCRUM
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1904
NOVEMBER 1904
THE FULCRUM
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SPECIAL Christmas NUMBER of THE FULCRUM
TUESDAY - DECEMBER 13, 1904.
THE FULCRUM FOR FEBRUARY
ELECTRICAL
NUMBER
OUT
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THE FULCRUM
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1905
MECHANICAL NUMBER
OUT
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CIVIL NUMBER
THE FULCRUM
MARCH 1905

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'04 - '05

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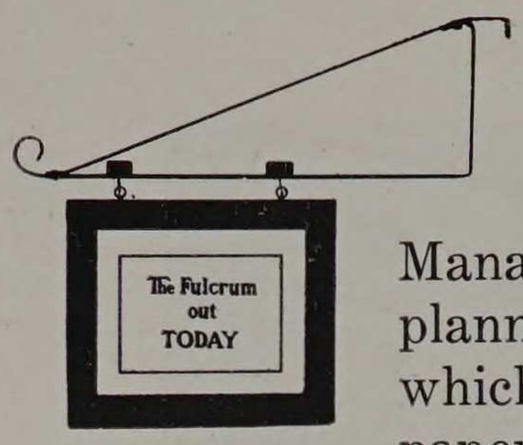
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IN THE fall of 1897 the Class of 1901, then freshmen, decided that Armour needed a college paper; whereupon they elected an Editor-in-Chief and a Business Manager. After considerable preliminary discussion and planning, these men produced the first issue of THE FULCRUM, which came from the press in November, '97. That the new paper might be insured of a good beginning this same class, then as sophomores, guided it through its second volume. Since then THE FULCRUM has been edited and managed by a staff chosen from each succeeding class, as it came to its sophomore year.

During the comparatively short existence of THE FULCRUM it has varied very greatly in its make-up. It has passed through several sizes and thicknesses, from a sixteen-page paper, ten by twelve inches, in Volume I, to a forty-eight-page pamphlet, four and a half by six and a half inches, in Volume VII. The present volume was made the size that it is, namely six by nine inches, partly from precedent—as four of the eight volumes are of that size—but mostly from the fact that for its purposes that size has proved the most satisfactory.

THE FULCRUM in the past has had two functions to fulfill, one that of a magazine, the other that of a newspaper. In the current volume we have striven to carry out both of these as best possible. As a magazine we have presented much solid material, both technical and literary. Commencing with the fifth issue we presented a series of numbers, each one of which was for one of the departments of the Institute. For many of the articles in this series we are greatly indebted to members of the faculty. Editorially we have endeavored to deal fairly and impartially with such problems as came before the student. As a newspaper we have given reported accounts of the various happenings—athletic, social and musical, coming into the student life. We have conducted an Alumni Department, and under "College Items and Exchange," we have given notes of interesting happenings at other colleges. Along artistic lines we have sought to add attractiveness to the paper by means of various illustrations, color plates, and a new cover design with each issue.

Altogether we have put increased effort and expense in the make-up and publishing of THE FULCRUM, first that we might produce a paper of technical excellence in itself, and second that it might be a paper truly representative of Armour Institute, both College and Academy. Thus have we endeavored, and the hearty reception that our efforts have received, from both faculty and students, assures us that we have succeeded. To what degree we have succeeded is not for us to say. We merely point to Volume VIII of THE FULCRUM and allow it to speak for itself.

H. RALPH BADGER.

SOCIAL EVENTS



The Events

Phi Kappa Sigma Dance,	Germania Club, April 17, 1904
The Radical Opera,	Steinway Hall, May 6, 13 and 20, 1904
Alumni Banquet,	June 20, 1904

Freshman Handshake,	Library, Sept. 30, 1904
Freshman Smoker,	Turner Hall, Nov. 4, 1904
Senior Dance,	Forum, Dec. 2, 1904
Academy Football Dance,	Unity Club, Dec. 2, 1904
Alumni Banquet,	Albion, Dec. 27, 1904
Senior Smoker,	Lunch Room, Feb. 3, 1905
Glee and Mandolin Club Concert,	Mission, Feb. 10, 1905
Radical Pig,	Ellett's, Jan. 27, 1905
Freshman Dance,	Colonial Club, Feb. 24, 1905
Junior Dance,	Forum, March 3, 1905
Radical Initiation Banquet,	Tip Top Inn, March 11, 1905
Radical Dance,	Waupanseh Club, April 7, 1905

Phi Kappa Sigma Dance

THE evening of April 17 of last year saw a number of carriages and one or two autos headed for the Germania Club, which is somewhere between the City Hall and Milwaukee, but nearer the latter, judging by the length of the drive. On arriving, however, the guests found Hugo Goetz already enjoying himself, and proceeded to mingle in. The hall was tastefully decorated with the red and white banners of the fraternity; the floor was fine, and the music superb, and all these added to the enjoyment of the limited number who were privileged to attend. When at last the arrival of the "wee, sma'" forced the dancers to leave Hugo again alone in his glory, it was not mere politeness that made all declare that they had had a good time.

The Radical Opera

SINCE the Radical Opera is well described on pages 151-157 of this book, no further description is necessary here.

The '06 Radics

THE '06 Radics have executed so many live stunts, and have held up their end of the joyous Armour life so well, that some mention of them is not out of place, although a detailed account is not necessary. They have smoked at Hiller's, Ellett's, Levings' and Pierce's in the last year and dined at the College Inn and the Baltimore besides attending the regular Radic functions in a body. "If you want a thing well done, let the '06 Radics do it."

The Freshman Handshake

THE Y. M. C. A. followed their well established and very pleasant custom last year and gave us an opportunity to swap signatures with the Freshmen and the Faculty on September 30. A musical program was rendered by Mr. Leigh, Mr. Lewis, Mr. Dick, the '05 Trio and Mr. Krum; and Dr. Gunsaulus, Dr. Colledge, Mr. Foster and Mr. McLean spoke. After the program, light refreshments and non-intoxicating beverages were served. The fraternities made hay all the time the lights shone, and took quite a number of the Freshmen over to smokers when the handshake broke up, which it did after the refreshments had disappeared.

The Freshman Smoker

THE Annual Freshman Smoker, held November 4 this year, started with a yell and ended with a roar. The latter was long drawn out, as there was no definite time of ending. Both yells and roars were freely interspersed throughout the program, which was varied somewhat from those of previous years. The opening address was by Dr. Gunsaulus, who was followed by the Orchestra, which gave a well received number. Each of the Deans then spoke to us, and next came a selection by the Mandolin Club.

Mr. Swager and Mr. Warren then gave us some fine clogging and ragtime. Remember "Navaho"? Our own Moffat was called on unexpectedly for a cornet solo, and responded with some double or triple or multiple tonguing or whatever it was. Mr. Delmore gave a clever character monologue. The Orchestra followed him, and then Professor Coffeen renewed the life of his famous cheese story, and sprung a few new ones. Next came the Mandolin Club, Frary of the Freshmen, Rochlitz and Risley in order. The Orchestra then closed the program with a third number. The conduct of the whole affair was very creditable to the committee, especially to Chairman deBeer.

The Sophs played a little game in the rear of the hall called "lobster." Many of the faculty were drawn in and initiated by members of the club, and seemed to enjoy it after it was all over. Many of the Freshmen took their nerve in their hands and tackled a brand new pipe filled with strong tobacco, which they soon found was not the way to learn to smoke. Quite a few of the "ex's" and alumni were present and kept the genial dispenser of the amber fluid below stairs busy.

Nobody was killed or even seriously injured during the performance and the general good manners of the bunch furnished a guarantee that we will be able to get the hall again next year, unless we wish and can secure a larger one.

The Senior Dance

TO THE joyous strains of Lawrence's Orchestra, about seventy-five couples tripped the light fantastic toe, and occasionally themselves, at the Forum on December 2, when the Senior dance was held. The weather man had provided an exceptional evening—an exception from the usual good weather at that time of the year—and the crowd was an exceptionally jolly one. Altogether the dancers had an exceptionally good time. Kretz furnished the idea for the programs, which were accordingly very tasty. The Committee, Kretzinger, Carroll and Durr spread themselves to make the dance a success, and succeeded even better than they had anticipated. The decorations were small and unique, and a box of Nabisco Wafers discovered in the hall made very pleasing refreshments. The dance was one of the last affairs, if not the last, that Kretz took part in before deciding to sever his connection with the school, and as such should be remembered by all loyal sons of '05.

Academy Football Dance

THROUGH some inadvertence, the members of the Academy football team arranged to give a dance on the same night as the Senior dance, December 2d. Naturally all the College men attended the Senior dance and all the Academy men the football dance. It made no great difference, however, and the football dance drew a good crowd. The hall of the Unity Club looked very pretty, decorated as it was in the Academy colors, blue and gold. Dancing started about nine o'clock and continued until 12:30, when supper was served. After supper the dancing continued until about 1:30, and then the merry party broke up. All of the football men who had been kept out of the game by injuries found that they had recovered sufficiently to dance, and took an active part in the affair. It was afterward commented on by some of the Seniors that the Academy "kids" showed more of a tendency to late hours than they did, their dance having been over by 1:00. However, everyone enjoyed themselves, so that there is no complaint to be made.

The Alumni Banquets

THE Alumni Association holds two regular banquets each year—one in June, when the graduating Seniors are greeted, and one in December, which is the annual Christmas re-union. The June banquet was on June 20 last year, and the December one on December 27. No particulars are available about the former, but it was certainly an enthusiastic Armour affair, especially as the Class of '04 was then enrolled. The December banquet was held at the Albion, and was attended by about forty members of the association. A good banquet was of course stowed away by the "ancients," and then the "real" (?) business of the evening, the toast list, proceeded with. This was unusually good at this banquet, as President Tarbell was in the chair, and W. T. Dean was Master of Ceremonies. The next banquet of the association will be to welcome the Class of '05.

The Senior Smoker

THE Seniors started a very commendable custom on February 3 by giving themselves a smoker. Also, they very cordially invited the Faculty Club, forgetting that the entire faculty did not belong to the club. The whole Senior class was there, as well as the aforementioned members of the Faculty Club, and everyone smoked except Jimmy Marshall, who was afraid he would ruin his matchless voice for the concert a week later. It might have been also because he don't use the filthy weed. However, Jimmy more than made up for it when the food was passed, although pressed hard for first place by a number of the fellows. The lunch room was decorated almost as well as the Forum had been for the Senior dance, but no one seemed to miss that part. The stirring eloquence of the speakers called forth rounds of cheers, and the Seniors all felt that they had not had sufficient time for self-congratulation when they broke up some time between 12:00 and 2:00.

The Concerts

THE Glee and Mandolin Clubs have arisen from the dead this year, and are more or less fully discussed on pages 146-149. It is sufficient to state here that the home concert on February 10th was a decided success. The clubs journeyed to Ottawa on the 17th of March and to Ravenswood on the 14th of April. Plans are under way for a concert at Waukegan May 5th and another home concert will be given May 19th in the Mission. The latter will be at least as good as the first one and should be even better attended.

The Radical Banquets

THE Radical Banquets are very important and interesting to the members of the club, but the only interest they have for outsiders is when they (the outsiders) hear some of the happenings. These are always decidedly interesting. There have been two important feeds this year, the pig at Ellett's and the initiation banquet at the Albion, or the Pullman, or the Tip-Top Inn, whichever it may be. Tom said it was all right when we threw nuts at Gentle Gene in the case of the pig, and it was in Tom's basement, so it *was* all right. Gene found no more peanuts, though. The initiation banquet was remarkable for the unanimous attendance of the Freshmen and the decimated appearance of the Seniors. The grub was good, the cigars were good, the speeches were good, the Sophomores (except Cornie) were good, and the whole time was good. It was even rumored that after the banquet some of the fellows played a good hand of poker, but this cannot be verified. Tom arrived soon enough to show that he could buy ginger ale for Teddie from the proceeds of his new job, and the real "Piggie" came in just late enough to say "It's all right" with the rest of us as we left the hall.

The Freshman Dance

THE committee and twenty-two other Freshmen attended the Annual Freshman Dance. The committee, Pegues, Odell and Townsend, worked hard and faithfully to make the dance a success, even going so far as to extend financial aid to the class to pay for it. Their part was well done—the Colonial Club is one of the best halls in the city, Ballou's Orchestra of eight pieces furnished fine music, and the programs were decidedly neat. The only trouble with the dance was the lack of Freshmen. By actual count, the Sophomores present outnumbered the Freshmen, and the Juniors and Seniors were not far behind. It was right and proper, considering the attendance of the Freshmen, that the dance should be a financial failure, but it is not right that the committee and the few members of the class who are not ossified should be made to bear the burden. It is a shame that those so young in Armour affairs should show such tame spirit, and it is to be hoped that when the class give their Sophomore dance they will make it as much of a success in all ways as their Freshman dance was in a few.

The Junior Dance

AFTER long and serious discussion in class meetings, the Juniors decided that the fellows here run more to overalls than to dress suits, and that there were not enough of the latter in Tech to warrant the giving of a formal party, so an informal dance was given. The committee, Wilson, Rockwell and Carr, secured the Forum for the evening of March 3, and Goldsmith's Orchestra of five pieces to furnish the music. The floor, of course, was in good condition, and the blue and gold decorations were quite noticeable. Wilson said the programs were the best he had ever seen, and he ought to know. Sixty couple attended, and made merry until 1:00, when they declared the evening well spent. Sufficient evidence of the financial success is furnished by the fact that Rockwell was able to quit school about a week later and form an alliance with the Chicago Edison Company.

The Radical Dance

THE Radical Dance this year was rather an innovation, in that it was an invitation dance. Judging from the attendance of last year, it was figured that there would be over two hundred couple at this dance, and it would be necessary to get a very large hall, probably one down town. It was therefore decided that the number of tickets should be limited. The Colonial Club being already engaged for April 7, the Waupanseh Club hall and parlors were finally secured by a special dispensation of the club directors. One hundred and twenty-five tickets were issued and all sold, comfortably filling the hall. The dance more than fulfilled the anticipations of those who attended, and enhanced the fame of the Radics as splendid entertainers. Practically all the Radic Alumni in the city were there, and the committee received many expressions of regret from those out of town. Goldsmith furnished the best kind of music, and the large parlors of the club allowed many cosy corner opportunities for those who decided that they did not want to dance.



1904

Sept. 20th. Dedication of Ogden Field.

Dr. F. W. Gunsaulus.

Oct. 26th. Sir Walter Raleigh.

Rev. W. J. Dawson, D. D., London, England.

Oct. 27th. Savanarola.

Rev. W. J. Dawson, D. D.

1905

Jan. 30th. More Taffy and Less Epitaphy.

Rev. H. W. Seers, D. D., Decatur, Illinois.

Feb. 13th. Aspects of Modern Education.

President Hadley, Yale University.

Feb. 24th. Technical Education in Germany and America.

President Pritchett, Massachusetts Institute of Technology.

The ATHLETE



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Assistant Professor H. C. Coffeen

Student Representatives from College,

L. R. Levings
L. P. Hills

Student Representatives from Academy,

W. F. Clark
R. Gillies



Photo by Walinger

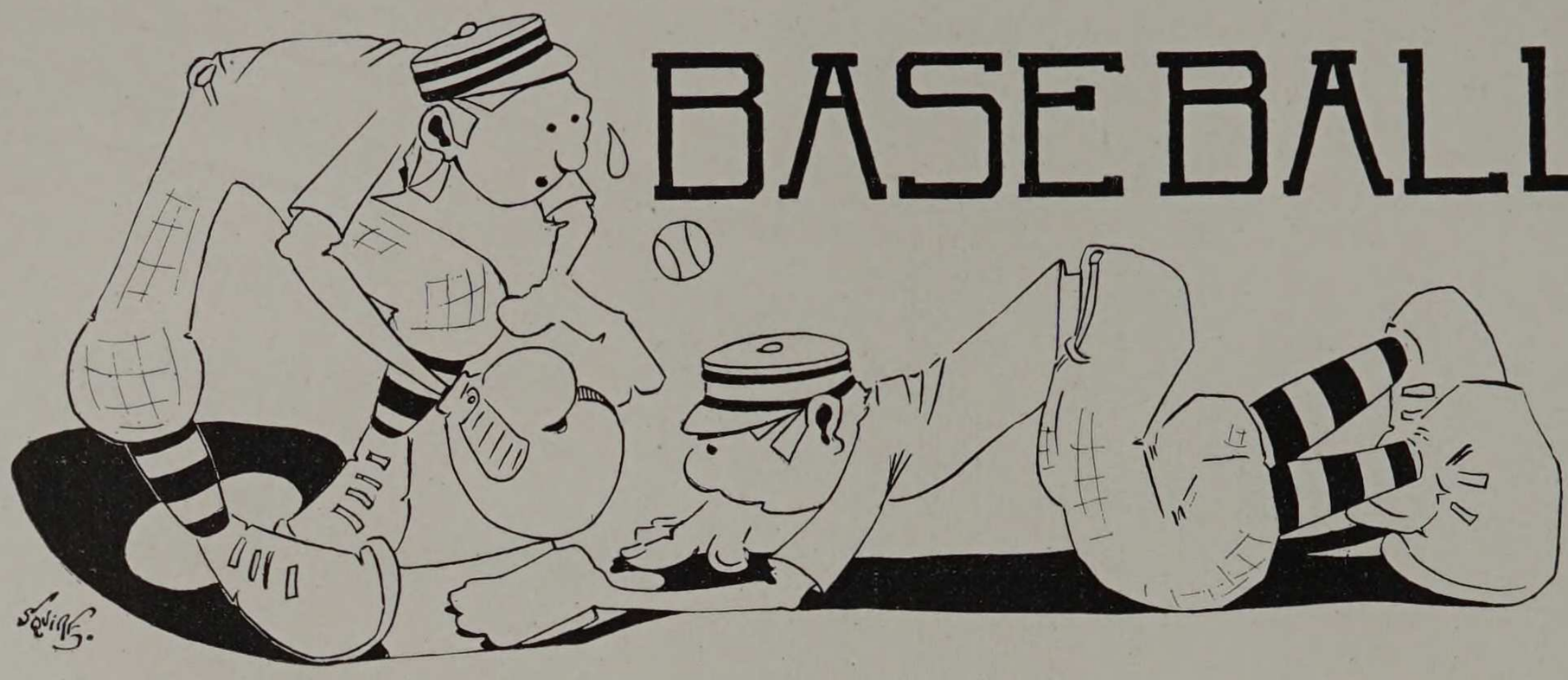
Our New Athletics

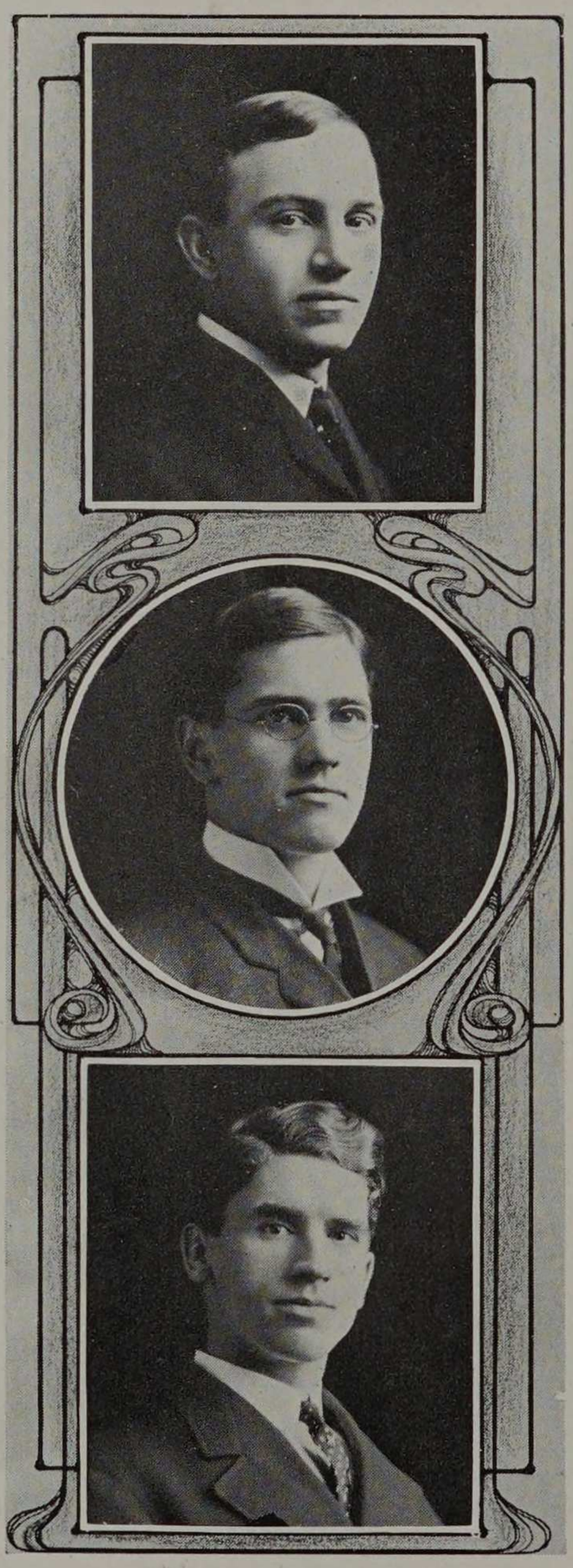
SEPTEMBER 20, 1904, was a significant day in the athletic situation at Armour. On that date Ogden Field was formally opened. The acceptance of Mr. Armour's latest gift made it incumbent on the Institute to thoroughly reorganize athletics and bring them on a plane where there would be no uncertainty about them. The new field brought with it obligations on the school to see that athletics prospered. On this account, there was an entire revision of the Athletic Board, and the rules of the Athletic Association. Athletic control was made an Institute matter, and the organization of the Board included in the year book as part of the government of the Institute. In order that there might be sufficient funds for the supporting of the various teams in the manner demanded by the new regime, a fee of one dollar per term was added to the regular tuition as an athletic deposit. Having thus sufficient money at their disposal, the Athletic Board, or more properly speaking, the Board of Athletic Control, was enabled to furnish coaches for all the teams, and to provide materials for them in a manner entirely unprecedented at the Institute. When the field was first constructed, a football gridiron and a five lap running track were put in it, and plans were started in the winter term for the construction of a baseball diamond. That the students thoroughly appreciate the work of the Athletic Board is shown by the increase in the number of candidates for the various teams. This year is of course an experimental year, and the Athletic Board is learning many things about the management of College Athletics. The students also are learning, and it seems not improbable that in a few years Armour will assume the position in Western College Athletics to which her name and fame rightly entitle her.



Photo by Prof. Phillips

BASEBALL



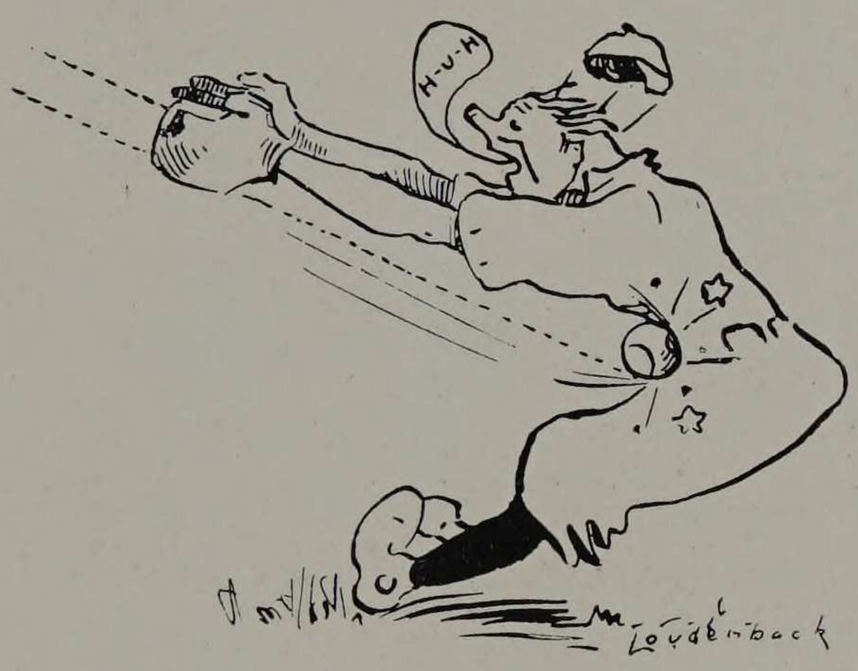


THE manager of the baseball team of 1904 made a very material advance toward pulling the team out of the ruts of previous years. Mr. Armstrong came to a very proper conclusion that the team of a school of Armour's standing should not confine their attention to teams of high schools and business houses, and accordingly arranged his schedule to include games with quite a few of the minor colleges in the neighborhood of the city, and attempted to schedule games with the members of the "Big Nine." Of these, he could only arrange to play Chicago and Illinois, but even this was a great advance over the schedule of the previous years. With such an advance in the quality of teams played, it could hardly be expected that the team could win as many games as it had the season before, but it was not only this change that caused the fellows to lose the first five games played. It was mainly because they did not get into the game and play the ball they were capable of playing. It is true that only four candidates of promise were left after the Dean's office had finished with the eligible list. It is true also, that this necessitated constant shifts of the players to new positions, breaking up the team work, and that the team had no coach

and but little time to practice. Nevertheless, the way the team played ball a little later showed that the fellows had it in them to put up a good game.

This year the manager has arranged a good schedule, and the team has elected an energetic captain. There will be a diamond in Ogden Field, and "Jimmy" Cook, of Illinois, will coach the team. Some of the old men are back, and there are a few good new men, but on the whole the material this year is not very good. Games have been scheduled with Chicago, Illinois and Northwestern Universities and with Culver, St. Viateur's and Northwestern Colleges. Michigan, Notre Dame, Oberlin, Beloit, Indiana and Wheaton have been asked for games.

The great need in this department is support from the students. The faculty has given its support most loyally, which has made our debut into higher athletics possible. If we will all take hold and boost Armour into the front rank of secondary colleges we will be in a position to raise our standard to that of the "Big Nine." Then we can boast that our "Alma Mater" is in the front rank both in science and in athletics.



The Schedule:

A. I. T.,	3;	St. Ignatius, 4.
"	2;	Illinois Second, 7.
"	6;	Lake Forest, 7.
"	4;	Oak Lees, 21.
"	10;	Wheaton, 4.
"	12;	Culver, 5.
"	11;	Northwestern College, 9.
"	3;	St. Viateur's, 7.
"	0;	Illinois, 12.

The Line-up:

K. R. Slocum, '06, catcher and pitcher
W. F. Parker, '05, pitcher and second base
R. H. Strang, '04, first base
G. B. Carpenter, '06, second base and catcher
W. E. Hill, '05, shortstop
J. C. Peebles, '04, third base
W. K. Kretsinger, '05, right field
L. P. Hills, '07, center field and pitcher
H. L. Strube, '06, left field and pitcher
W. Farmer, '06, substitute
E. J. Carroll, '05, substitute
E. Everheart, '06, substitute
W. Everheart, '07, substitute

Senior-Faculty and Freshman-Sophomore Baseball Games

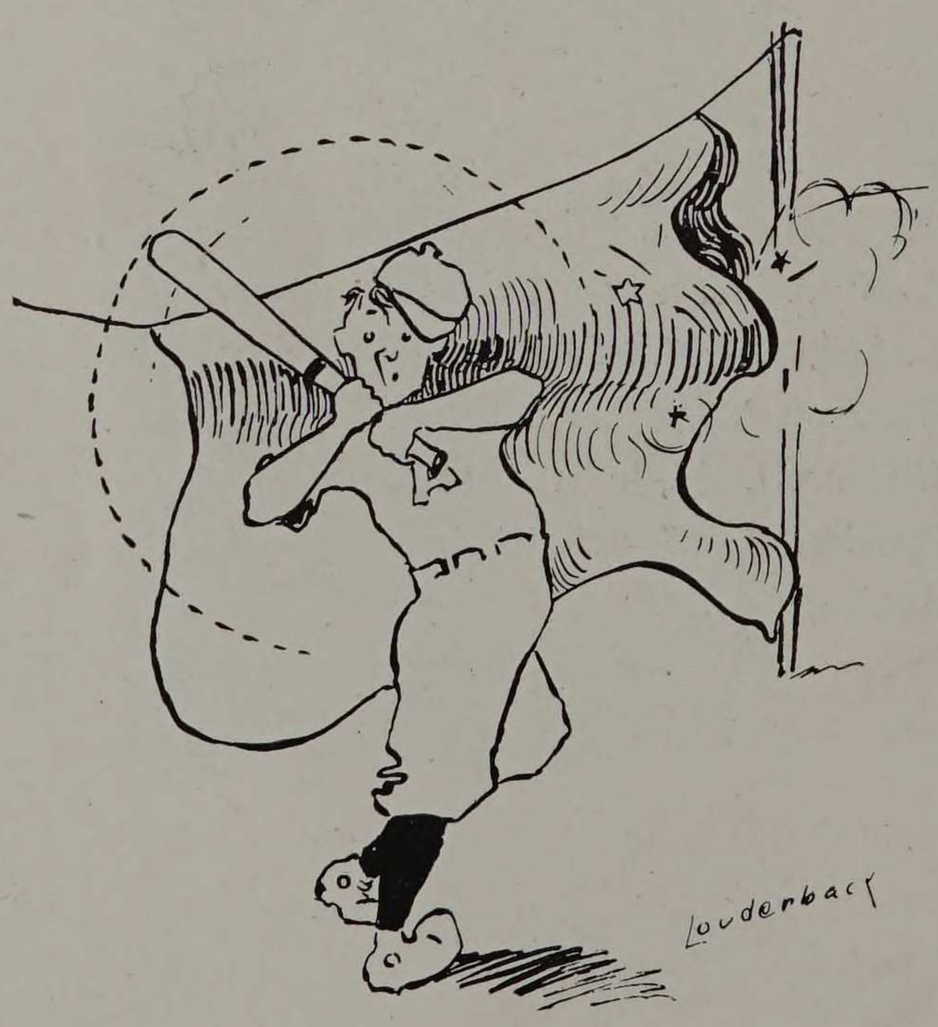
THE annual school games were brought off on the same day last year in order to arouse more enthusiasm and bring out better support for the teams. The plan was highly successful, and from one to five o'clock of May 27, '04, the American League Ball Grounds were filled with a howling mob of rooters. The costumes, playing and mannerisms of the participants were provocative of not a little good natured joshing. Among the many celebrities were "The White Crow," "Malta Vita Did It," "The Illinois Flat Foot," etc.

The Freshman-Sophomore game was played first, and resulted in an overwhelming victory for '06, which showed the effects of their regular practice. '07 did not seem to know the object of the game, their antics around second base being especially funny. The final score was 18 to 3.

The Line-up:

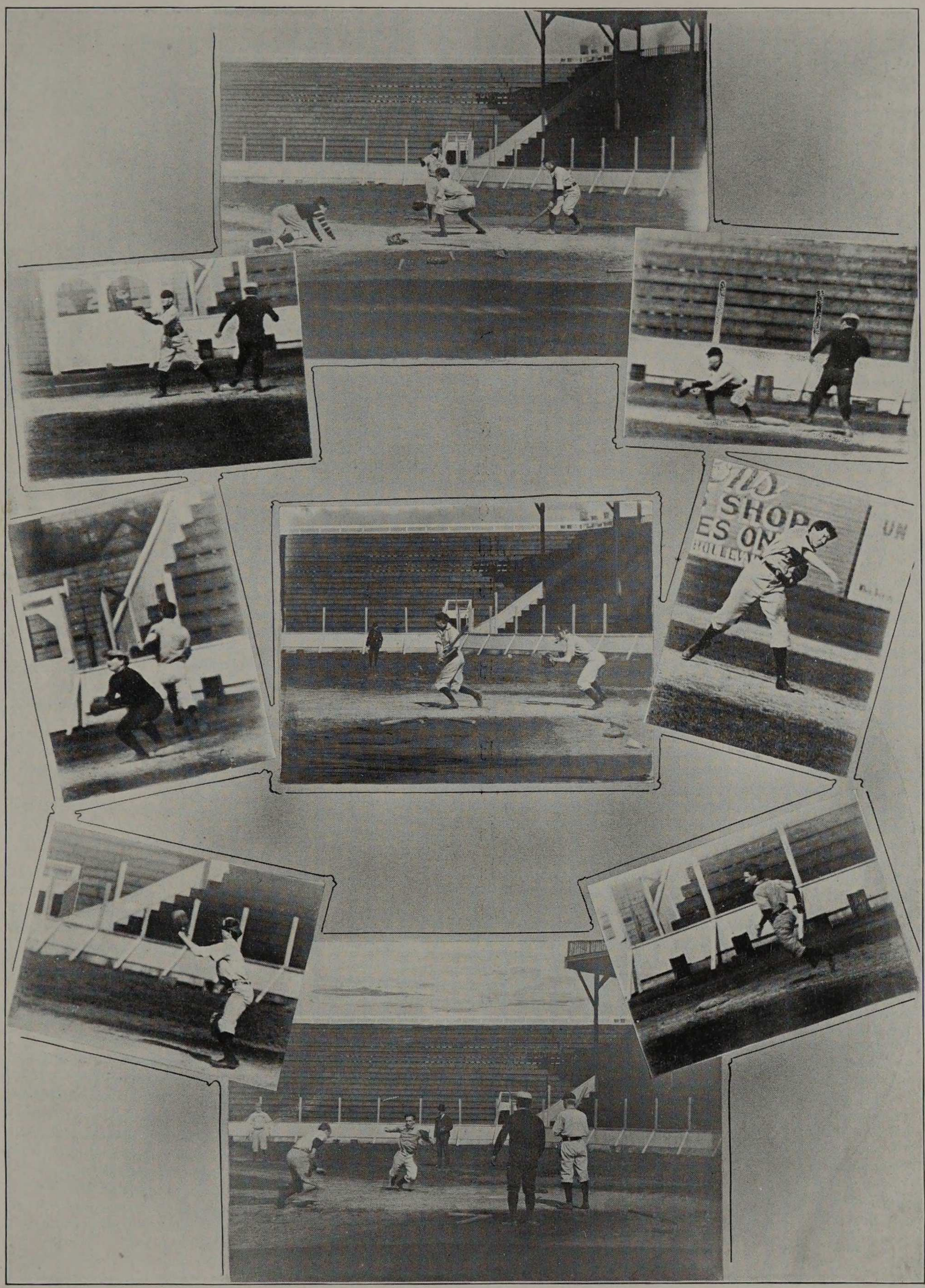
Sophomores		Freshmen
Carpenter	Catcher	Busse
Strube	Pitcher	Hills
Ellett	1st base	Shepherd
Carr	2d base	Clark
Slocum	3d base	Everheart
Harrington	Short stop	Mathews
Leininger	Left field	Jones
Pierce	Center field	C. H. W. Smith
Houghton	Right field	Beck

The game was cut short to allow the Faculty and Seniors to settle their question of supremacy. The Seniors broke a precedent of four years' standing by beating the Faculty. The Chemical Department furnished the stars for the latter, Charles, Rochlitz and Jacobson shining resplendently. Flynn for the Seniors played faultless ball, vying with Prof. Perry in this respect, while the many brilliant plays on both sides gave the fans great opportunities to display their powers.

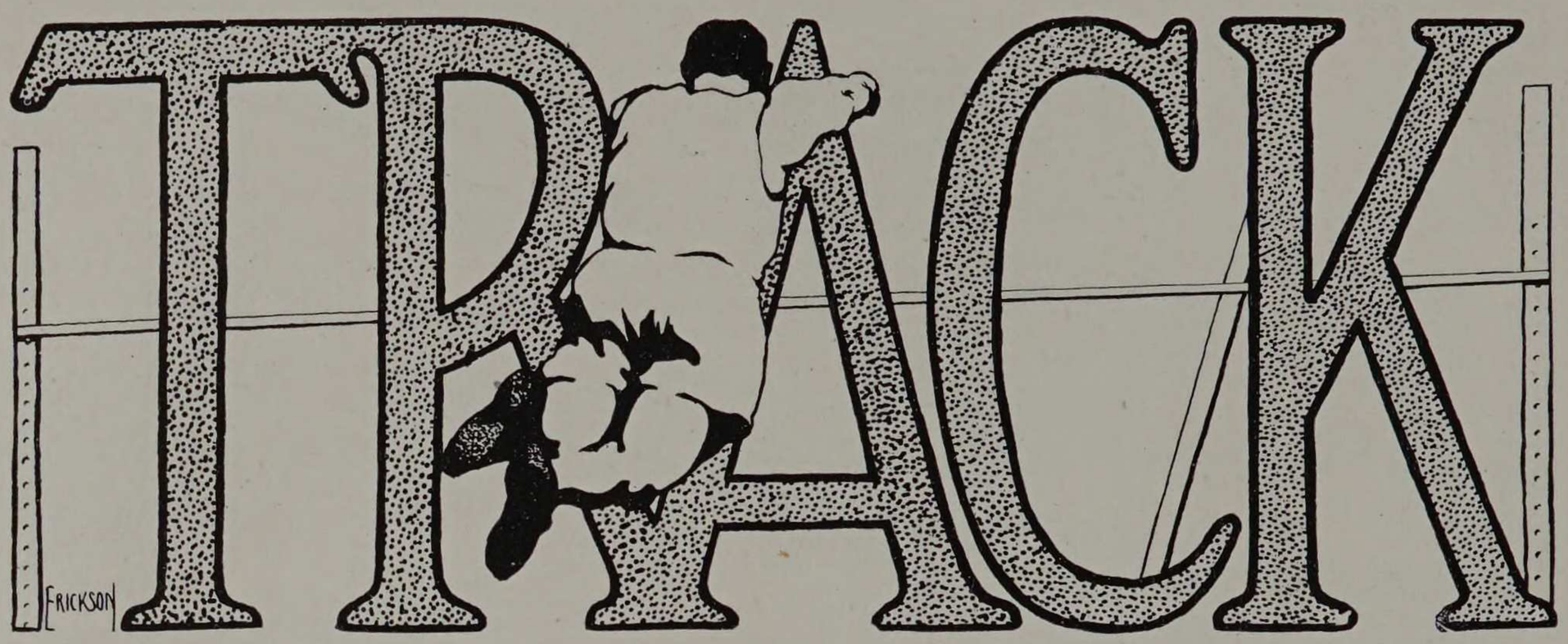


The Line-up:

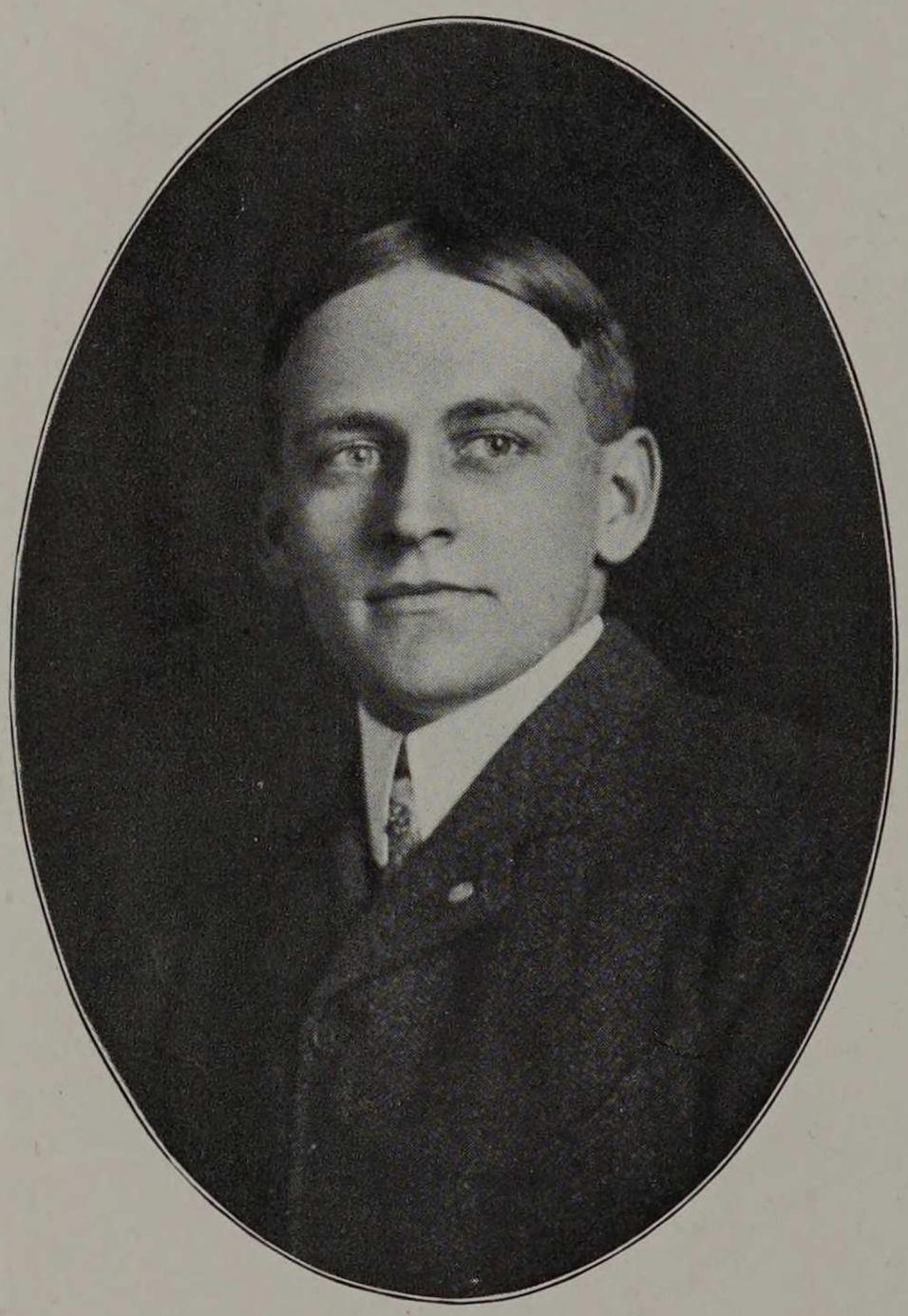
Faculty		Seniors
Leigh	Catcher	Prescott
Knowlton, Jacobson	Pitcher	Peebles
Rochlitz	1st base	Strang
Charles	2d base	Jens
Coffeen	3d base	Frary
Jacobson, Knowlton	Shortstop	Flynn
Risley	Left field	Hamilton
Crow	Center field	Borst
Perry, Wilcox	Right field	Collins



Photos by M. T. Jones, Jr.



The Tech Track Team



THE spring of 1905 marks a revival of track life at Armour. With a new track and field at our disposal, together with hearty support from the faculty and students, we have a bright outlook for a successful season. We have been very fortunate in securing Charles E. Dvorak, the world's champion pole-vaulter as our coach. Our schedule will contain some of the best known colleges in the West, with good track records to their credit. The probable schedule will be found on the following page.

H. J. SAWTELL, Manager.



Schedule

April 29. Class Meet.

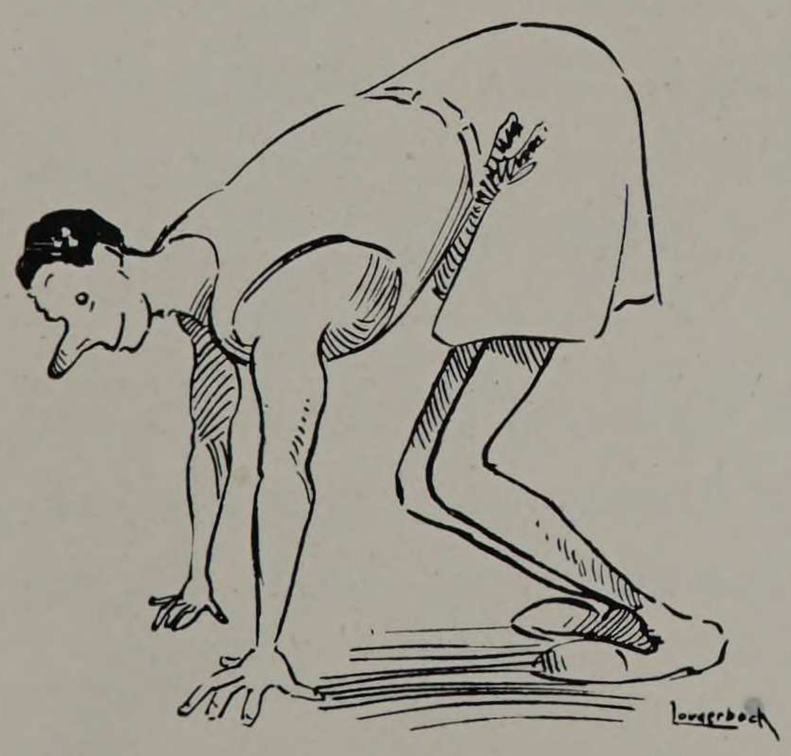
May 6, 29. Armour *vs.* Michigan Agricultural College, at Lansing, Michigan.

May 13. Armour *vs.* Lake Forest, at Ogden Field.

May 20. Armour *vs.* Northwestern College at Naperville.

June 3. Knox College, at Ogden Field.

June 10. Handicap Meet.

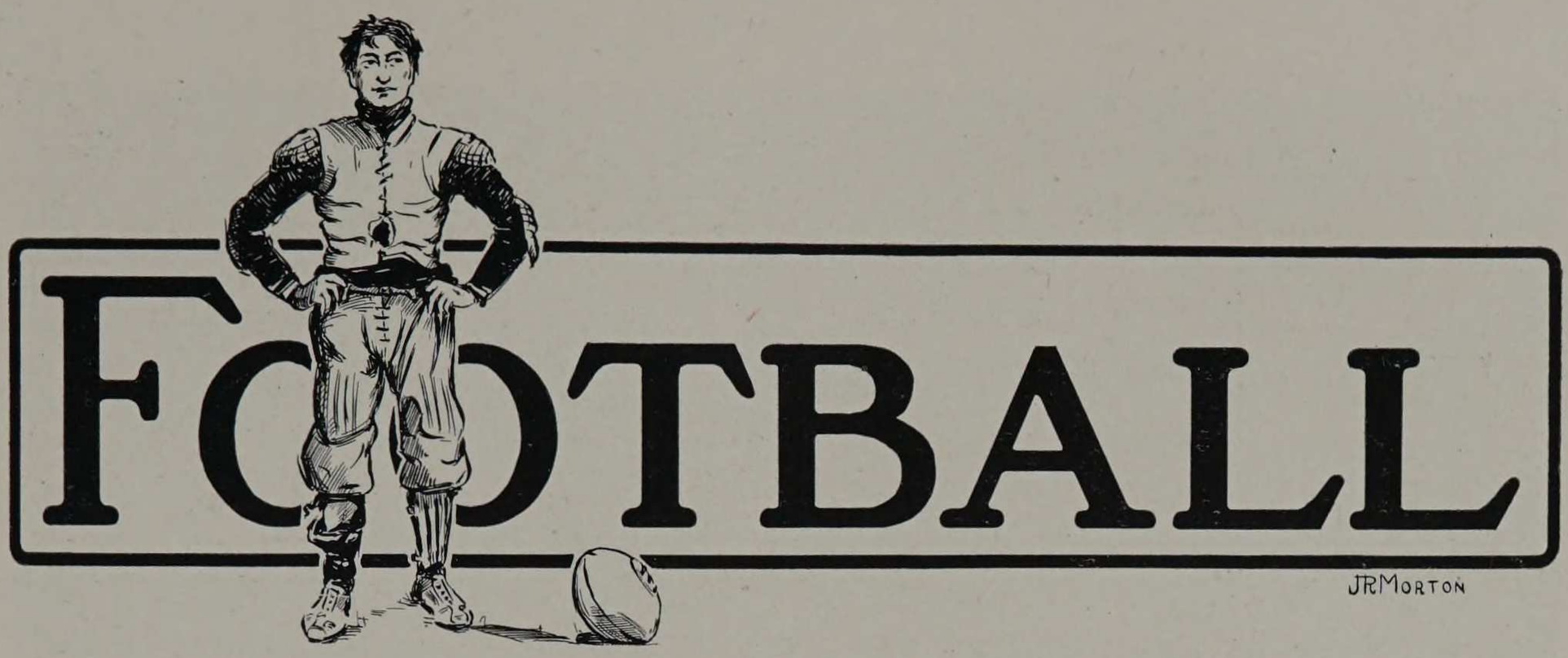


The 1904 Academy Track Team

THIRTY candidates reported for the try-out meet of the Academy track team last spring, and from these the following squad was chosen : Junge, captain ; True, Smith, Bristol, Cook, McCarthy, Bettles, McCausland, Flanagan, Stanton, Sonntag and Rice. Sonntag was manager of the team, but was able to secure only three meets, these being with South Division High School, Lake View High School, and the Inter-Academic meet. The reason given for the usual failure of the meets is the very good one, that there was no place to hold them, and practically no place to train. The First Regiment Armory was opened for training, but not for meets. The U. of C. gymnasium was open for a while, but soon after the South Division meet, which was held there, it was closed to all preparatory schools.

In spite of these disadvantages, the team made a fairly good showing. The meet with South Division, the first one of the year, was won by the score of 52 to 35, Armour taking first place in all events but the fifty yard dash, the low hurdles and the mile run. The men who did the best work were Smith, Bristol, Bettles, McCausland and True. The meet with Lake View was lost because a number of men in the weight events and the dashes did not compete, practically forfeiting their events. In the Inter-Academic meet, the Academy made the best showing it has ever made, having a total of twelve points. These are due to Smith, 1 first ; Trinkaus, 1 second ; Cook, 3 thirds ; and Bettles, 1 third.

With the new track, giving a chance to train and to hold meets, and with a coach, it is almost certain that Armour Academy can take the position in Academy track athletics to which she is entitled, but which she has never held.



THE college football season of 1904 was fully as successful as could well be expected under the circumstances. There had been no team in 1903, and consequently the new material required considerable elementary work, and was correspondingly longer in putting up a finished game. On the basis of games won and lost, the season was an even break. The first game was tied, then three were lost by close scores, and then three were won. The scores show a balance well in Armour's favor, and a constant improvement.

The season was started by a practice game with Englewood High School, which, as stated, was a tie, the score being 5 to 5. The week following, the team played Northwestern College, which had held Illinois down to 11 to 0. It was their overwhelming advantage of brawn which alone beat us, 12 to 0, as they averaged over twenty pounds more to the man. This hard game bruised up the team considerably, and we were in poor condition when we met Lake Forest only four days later on their own grounds. Here we were defeated 6 to 0 in a very slow game. Ten days later, at Culver, we were nosed out of a victory by a narrow score. Three excellent opportunities to profit by kicks failed of result, and Culver won, 6 to 5.



There the hoodoo left us. On our own grounds we defeated the American College of Medicine and Surgery 11 to 5, and the Woodlawn Country Club 11 to 0. Then, as a fitting finish, we trod on the Northwestern Medics to the tune of 15 to 0.

The Season's Record

October 8.	A. I. T., 5;	E. H. S., 5.
October 15.	A. I. T., 0;	N. W. C., 12.
October 19.	A. I. T., 0;	L. F. C., 6.
October 29.	A. I. T., 5;	C. M. A., 6.
November 5.	A. I. T., 11;	A. C. M. S., 5.
November 12.	A. I. T., 11;	W. C. C., 0.
November 19.	A. I. T., 15;	N. W. M., 0.



The Line-up

Right End,	Wilson, Ellett.
Right Tackle,	Shepherd.
Right Guard,	Pierce.
Center,	Flanagan.
Left Guard,	Jones.
Left Tackle,	A. Hayden, Rasmussen.
Left End,	Cohen.
Quarter Back,	Dowdell, Mathews.
Right Half,	Pegues, Capt.
Full Back,	Davis, Hebard.
Left Half,	Frary.

L. R. LEVINGS, Manager.
J. P. SPRAGUE, Coach.

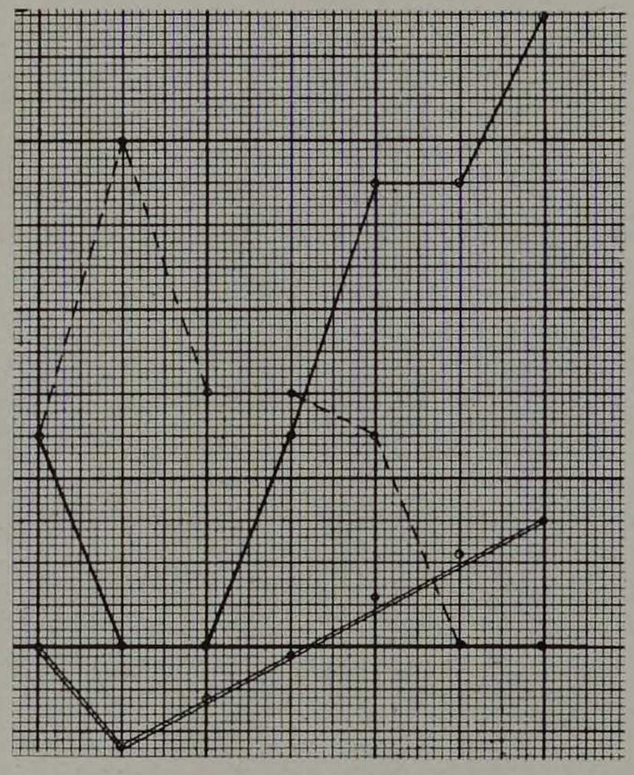


Photo by Walinger



THE following plots show graphically the ups and downs of the team. The solid line shows the scores of Armour, the dotted line those of the opponents, and the double line shows the algebraic sum of the scores, considering Armour's as positive and the opponents as negative. The upward trend of this last line shows the consistent improvement made by the team. Had the second game not been against opponents so much heavier than we were, we would surely have won the next two, as the teams we played then were in no way superior to the last three we played.

The scale for the single line curves is $\frac{1}{8}'' = 1$, and for the double line curve, $\frac{1}{20}'' = 1$.



Academy Football

ACADEMY football last fall was rather a disappointment to the students. When the team first started out to practice, there was enough material to make a strong team, and, with a coach, there was certainly a good chance of getting it. Favoritism soon showed, however, the coach lost interest in the team, and the players lost interest in the game, so that before the season was very far advanced, the team was shattered. Team work was of course impossible under these circumstances. The team played seven games during the season, winning only the first one of the series. Nearly all the players were in the game merely for what they could get out of it, and with such spirit it is no wonder that the team made such a poor showing. A few of the men stuck to the team faithfully and worked hard for it, and they should be highly commended, but as for the rest—well, the less said, the better. Let us hope that next year the Academy students will show more real spirit.

The Schedule:

October 5.	A. S. A.,	12;	Wendell Phillips, 8.
October 12.	A. S. A.,	0;	Lake Forest Academy, 22.
October 19.	A. S. A.,	0;	University High, 4.
November 2.	A. S. A.,	0;	Morgan Park Academy, 41.
November 5.	A. S. A.,	0;	Joliet High School, 18.
November 12.	A. S. A.,	0;	Culver Military Academy, 44.
November 16.	A. S. A.,	6;	Northwestern Academy, 20.

The Line-up:

Left End,	Gillespie.
Left Tackle,	Pridmore.
Left Guard,	Silberman.
Center,	Walker.
Right Guard,	Orschel, Hale.
Right Tackle,	MacDonnell.
Right End,	Flinn.
Quarter,	Duplessis.
Left Half,	Keeler, Jardine.
Right Half,	True.
Full,	McCarthy.

Freshman-Sophomore Football Game

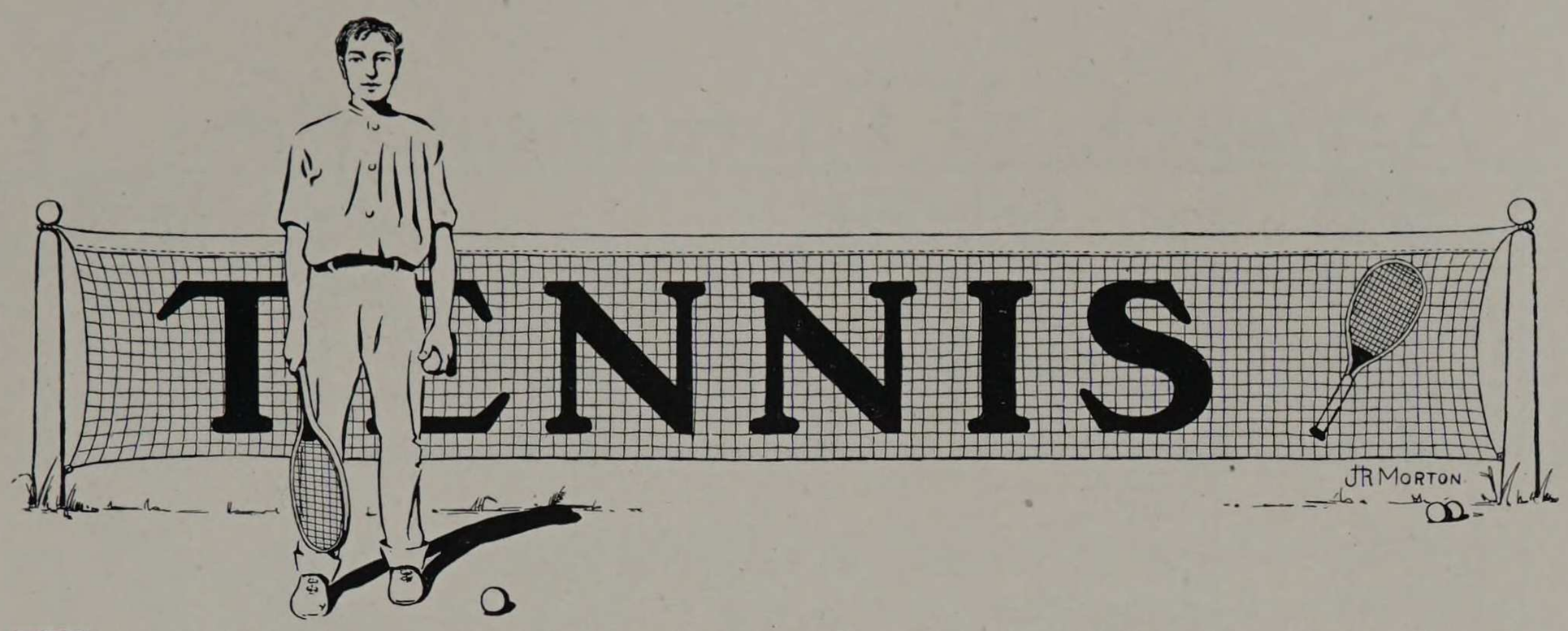
THE rush this year was not as fierce as it could have been, and even the fierceness there displayed died out between September 27th and October 28th, so that the Freshman-Sophomore game was listless, at least as far as the Freshman part went. The Sophomores knew what the game meant, and practiced for it, but the Freshmen did not, and worked when they felt like it. Consequently they had neither the physical condition nor the team work of the Sophomores when the two teams met. The inevitable result followed. The Sophomores won 6 to 0, and although their scoring was not easy, their own goal was not in danger at any period of the game. Throughout practically the entire game, the ball was in Freshman territory, and the Freshmen had to work hard to defend their goal. At times, however the Freshmen showed that they did have some idea of football, and played the Sophs to a standstill, but such flashes of brilliancy were rare. The Sophomores really earned 12 points instead of 6, as they had the ball on the line when time was called.

On the side lines, too, the Sophomores carried off most of the honors. Their cheering was more consistent, and in the few slight rumpuses which occurred, they managed to more than hold their own against the Freshmen. The day was rather cold, which necessitated fires being built, and several Indian war-dances were executed around these. Compared with the two previous games, however, the whole affair was tame.

The results and line-up:—

SOPHOMORES		FRESHMEN
Stanton	L. E.	Kean
Wooley	L. T.	Wilson
Clarke	L. G.	Cornell
Hayden	C.	Smith
Hooper	R. G.	Manthei
Chapman	R. T.	Rasmussen
Dwan	R. E.	Odell
Tompkins	Q. B.	Hansen
Hills	L. H.	Hotchkin
Walbridge	R. H.	Hagerup
Mansfield	F. B.	Eigesberg

Score—Sophomores, 6; Freshmen, 0. Touchdown, Mansfield. Goal, Mansfield.
Referee—Byrne. Umpire, Levings. Linesmen, Ellett and Rockwell.
Time of halves—20 and 15 minutes.



BY THE courtesy of the Kenwood Country Club, the Tech Tennis Tournament last spring was played on their courts at Forty-Seventh St. and Ellis Ave. Of the twenty-seven entries there were but few matches lost by default. Hammond, the champion, again asserted his right to the title, and as it was the second consecutive year that he had won, the cup was given to him permanently. The weather was fine throughout, and most of the matches were brisk.

Smith / Polacheck	Polacheck, default	Polacheck, 6-2; 6-3			
Fash / Collins	Fash, default				
Cronk / Manning	Manning, 6-4; 5-7; 9-7	Manning, bye	Polacheck, 6-4; 6-3		
de Beer / Durr	Durr, 6-3; 6-2	Hammond, 6-4; 6-0		Hammond, 6-2; 6-3	
Brown / Hammond	Hammond, 6-0; 6-1		Hammond, 6-1; 6-0		
Hess / Moffatt	Moffatt, 4-6; 6-8; 6-3	Moffatt, 6-2; 6-2			
Payne	Payne, bye				Hammond, 6-3; 6-3
Parker	Parker, bye	Elkin, default			
Flinn / Elkin	Elkin, default		Elkin, 2-6; 6-2; 6-1		
Redman / Lehman	Lehman, 6-0; 6-2	Harper, 6-4; 4-6; 6-3			
Harper / Kimmey	Harper, 6-1; 6-1			Elkin, 9-7; 6-3	
Carpenter / See	Carpenter, default	Allyn, 4-6; 6-1; 6-2			
Allyn / Wickersham	Allyn, 6-0; 6-0		Allyn, 6-1; 6-1		
Benedict / Hill	Hill, 8-6; 6-2	Hill, 6-4; 10-8			
Maher	Maher, bye				

Armour Golf Tournament

Fall 1904



	Hdcp.						
Harper	sc.	Harper 2 up					
Perry	9						
Leigh	12	Leigh 7 up - 6		Harper 1 up - 19 holes			
Maher	10						
Buhmann	10	Knowlton default					
Knowlton	7			Knowlton default			
Campbell	10	Campbell 5 up - 3					
Hess	13						
Frisbie	10	Frisbie 2 up - 1					
Bruce	3			Tibbetts 4 up - 3			
Coffeen	13	Tibbetts default					
Tibbetts	12						
Phillips	16	Rockwell 3 up - 1					
Rockwell	16			Rockwell 4 up - 2			
de Beer	18	Cossett 4 up - 3					
Cossett	9						
Bettles	4	Bettles 2 up					
Manning	10			Bettles 4 up - 3			
Biefield	9	Holmboe default					
Holmboe	13						
Vyne	14	Foster 3 up - 2					
Foster	3			Riggs 1 up - 19 holes			
Wickersham	8	Riggs 4 up - 3					
Riggs	12						
Cronk	14	MacCracken 5 up - 4					
MacCracken	8			Risley 3 up - 2			
Riley	12	Risley 6 up - 5					
Risley	9						
Wilcox	8						
MacFarland	9			Wilcox 4 up - 2			

Knowlton 4 up - 3

Rockwell 3 up - 1

Rockwell 3 up - 2

Riggs 1 up - 22 holes

Risley 1 up - 19 holes

Risley 5 up - 4

Rockwell 3 up - 2



THE gymnasium season just over has been a remarkably heavy one for the basket-ball men. The first week in October saw the squad out on the track taking long runs for endurance, followed by a half hour's practice in the gym. This continued until cold weather prevented, when the full hour was devoted, indoors, to passing, basket throwing and general team practice. The number of candidates was small, but hard work by the few showed results when West Side Y. M. C. A. was held 22 to 16 on their own floor—a very promising start.

But with the schedule just begun, the team received a blow from which it did not recover, in the loss of Kretzinger, right guard, who left school at Christmas. His position was filled by three different men, Rockwell, Davies and Kilgore—Davies receiving the preference for a majority of the games, though superseded by Kilgore toward the end of the season. The rest of the team remained intact, however, and contained no new faces. Carpenter, the captain and right forward, found an able team mate in Leininger, who covered left forward and will be remembered as one of last year's guards. The jump-off was well taken care of by Johnson, while Liebermann, the manager and left defense man, needs no introduction at Armour. Miller served in both forward and guard positions, although only in the first part of the season.

Shortly after the West Side game, Naperville was beaten 31 to 26. Beloit won from Armour by a narrow margin, Carpenter being kept out of the game by a dislocated knee. Then Lake Forest was beaten a few days later 54–24. Passing a few unimportant games, we notice that for the first time in three years the yellow and black was downed by Lewis, and the season would have had a gloomy close had not a rally of swift team work and clever basket throwing held Central Y. M. C. A., the western champions, to a score of 32 to 21—certainly a praiseworthy finish for a hitherto weak team.

The year's work has demonstrated clearly a number of facts :—

1. If Armour is to maintain its high basket-ball standing, more large men must be available. A team composed of small men, no matter how fast they may become, cannot hope to compete successfully with present day teams.

2. The entire school must contribute, and not leave one class ('06) to furnish, with one exception, the whole team.

3. A good coach should be secured whose business is basket-ball and who knows his business.

Give us these three things, and next year's team will be a winner.

Schedule of Games:

Dec. 3—	A. I. T., 31;	Naperville . . 26
Dec. 9—	A. I. T., 30;	Elgin Y. M. C. A. . 16
Jan. 14—	A. I. T., 27;	Elgin Y. M. C. A. . 26
Jan. 20—	A. I. T., 14;	Crescent Five . 20
Jan. 27—	A. I. T., 19;	Beloit . . . 25
Feb. 4—	A. I. T., 54;	Lake Forest . . 24
Feb. 21—	A. I. T., 18;	Lewis . . . 52
Mar. 7—	A. I. T., 15;	Lewis . . . 40
Mar. 10—	A. I. T., 21;	Central Y. M. C. A., 32

The Line-up:



Right Forward, Carpenter
Left Forward, Leininger
Center, Johnson
Right Guard, Kilgore and Davies
Left Guard, Liebermann
Substitutes, Rockwell and Miller



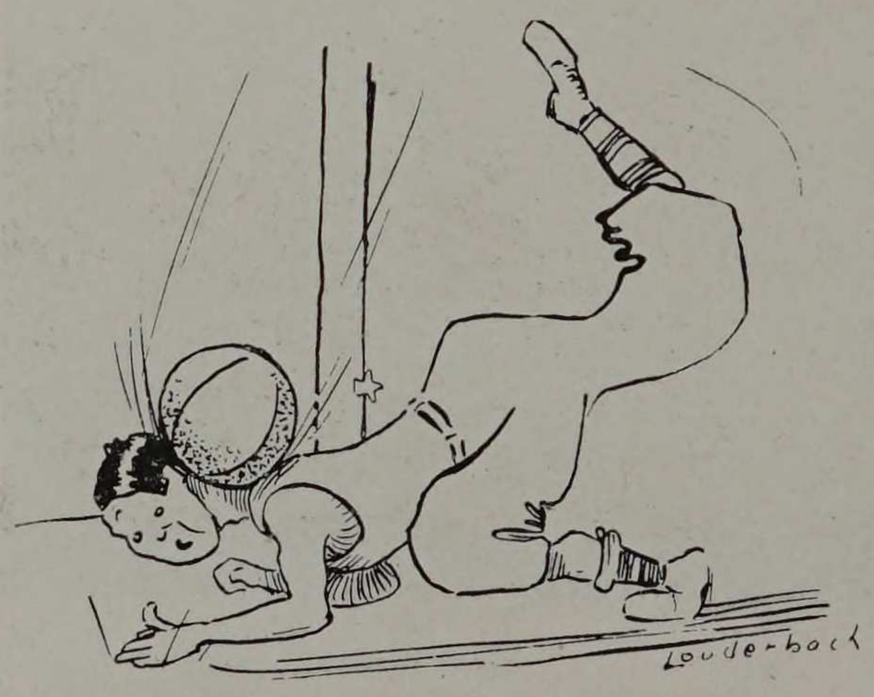
Photo by Walinger

Academy Basketball

THE Academy Basketball Team had a very successful season during the past winter. They played eleven games and won every one of them, almost equaling the record of the famous "point a minute" team of some years ago. Mr. Bristol made an excellent captain, and ran the team very well, always doing his share of the work. Edelstein was the star forward, although Urson pressed him hard for first place. Every man on the team played good ball, and the team work was much better than is usually expected from an Academy or high school team.

The Schedule:

A. S. A., 39; Wendell Phillips, 25
A. S. A., 48; Wendell Phillips, 22
A. S. A., 43; Calumet, 7
A. S. A., 46; R. T. Crane, 31
A. S. A., 29; Wendell Phillips, 9
A. S. A., 54; Morgan Park, 11
A. S. A., 38; Hinsdale, 32
A. S. A., 38; R. T. Crane, 32
A. S. A., 38; Englewood, 25
A. S. A., 28; Morgan Park, 27
A. S. A., 56; Joliet, 19

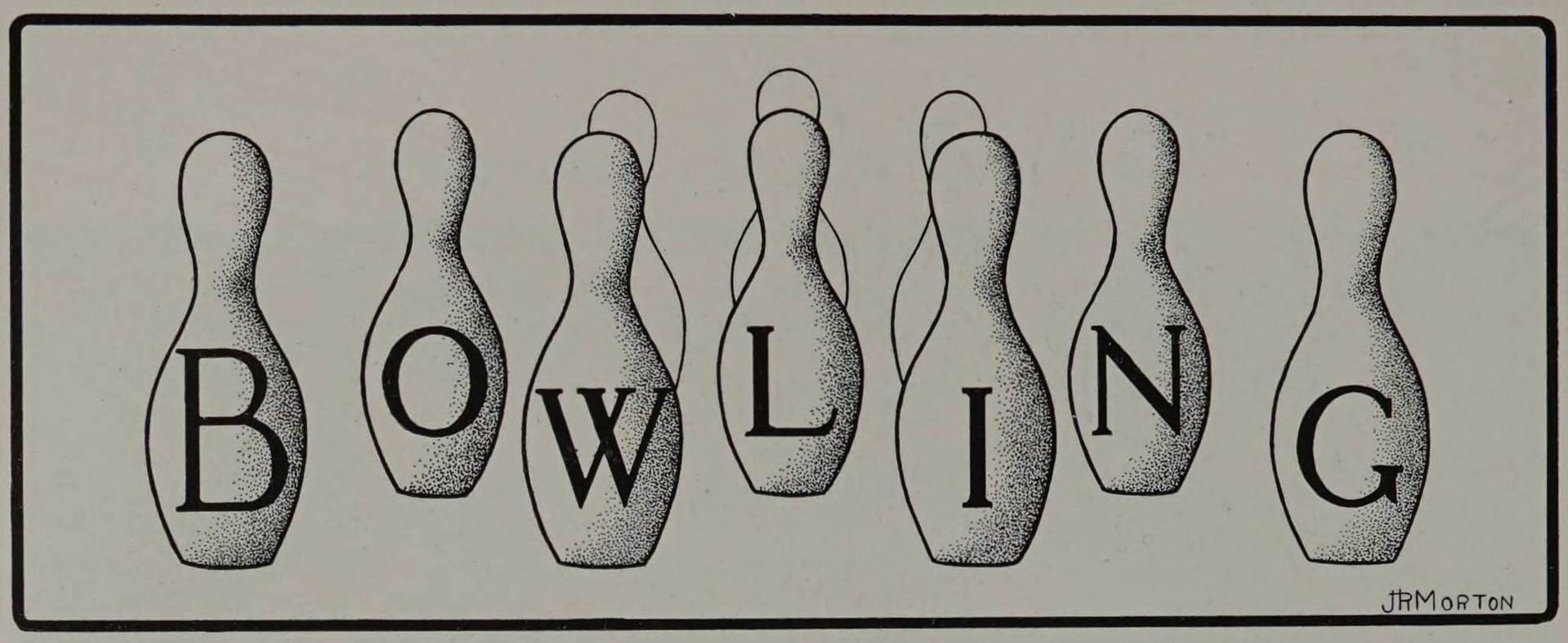


The Line-up:

Urson, Right Forward
Edelstein, Left Forward
Gillies, Center
Trinkaus, Right Guard
Bristol, Captain, Left Guard
Manager, E. L. Biefeld

Photo by Walinger



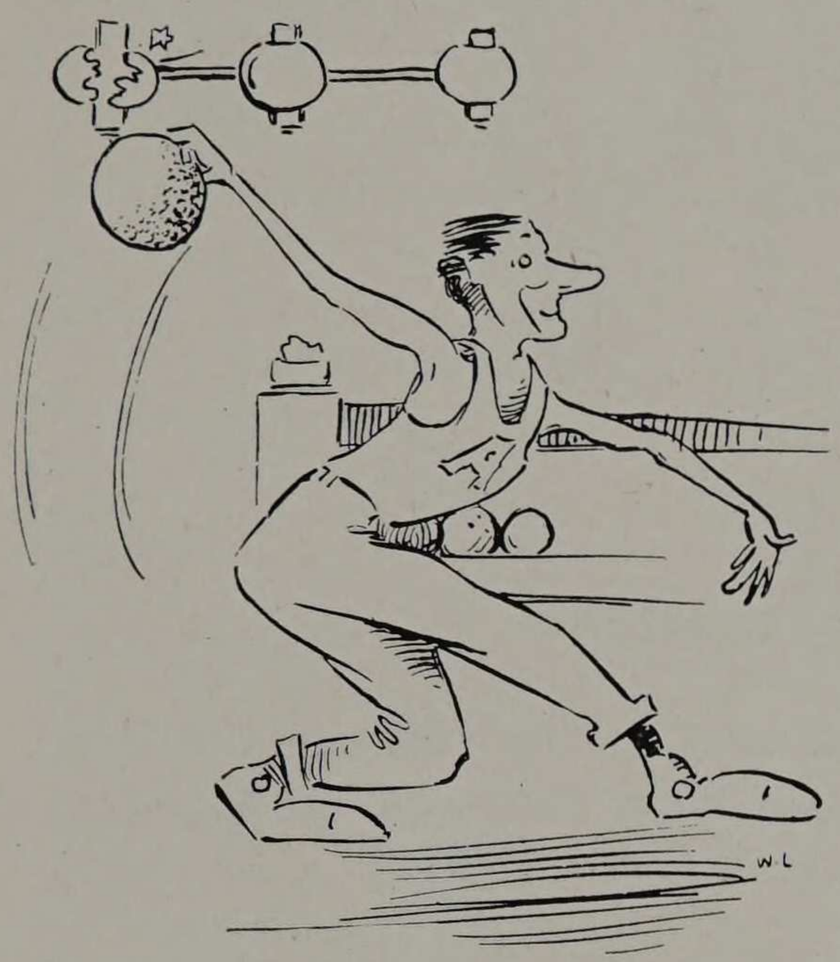


ALTHOUGH there are no bowling alleys on Ogden Field up to the present time, nevertheless, bowling is one of the most popular sports at Armour. For several years there had been haphazard bowling matches, when in the spring of 1903, representatives of the four classes got together and organized the first regular tournament. This was a great success, the classes turning out fairly well as rooters, especially the men of '06, whose team walked away with the cup. Last year, the Seniors, '04, won first place by a magnificent finish, and this year the honors went to '07.

Hitherto, we have been deemed too youthful and innocent a bunch to be allowed to hold our tournaments where the night is brightened by the intermittent flashes of the colored signs, but this year, the tournament was allowed, by special permission, to be rolled at the Schiller. Here we had good alleys, fairly good balls, and speedy pin boys—speedy when they weren't too tired. The tournament started Saturday, January 21st, and ran through the better part of February, ending on the 18th. All the way through it was the most hotly contested tournament so far in the history of bowling, between the two leaders at least. From the first, the Seniors had very little chance of winning the cups, and it soon became an impossibility for them to do so. They stuck to the game, however, and showed true sporting blood in playing where they had no chance to win. The Freshmen, too, cut little figure in the championship possibilities, except as they were able to take games from the Juniors, and so boost the Sophomores. The Juniors started out with a big lead, and seemed almost certain of winning, but the Sophomores, taking advantage of all of their opportunities, and the occasional poor bowling of the Juniors, managed to win out in the last series, by taking all the games from their opponents. If the Juniors had won two of their last six games, instead of losing all six of them, they would have won the tournament. The Sophomores, however, deserved to

win, and also should get a good deal of credit for the way in which they kept plugging. None of the high scores of last year were raised, but the general showing of the teams was better, and the tournament as a whole was very satisfactory.

Team	Won	Lost	%	High	Low	Average
'07	19	8	.704	889	667	$798\frac{10}{27}$
'06	16	11	.592	876	658	$793\frac{12}{27}$
'08	14	13	.518	884	645	$749\frac{9}{27}$
'05	5	22	.185	834	583	$722\frac{11}{27}$



	'07	'06	'08	'05	Won
'07		5	7	7	19
'06	4		3	9	16
'08	2	6		6	14
'05	2	0	3		5
Lost	8	11	13	22	54

Individual Averages:

NAME	Games	High	Low	Average
Strube, '06	27	229	107	$171\frac{2}{3}$
Hess, '07	25	212	110	$165\frac{17}{25}$
Edwards, '06	27	211	104	$161\frac{14}{27}$
Manning, '07	27	202	123	$160\frac{2}{3}$
Hoy, '05	27	193	132	$160\frac{1}{3}$

The Teams:

Seniors	Juniors	Sophomores	Freshmen
Hoy	Edwards	Hess	Dittmar
Beamer	Strube	Manning	Townsend
Robinson	Levings	Clarke	Livermore
Jones	Woldenberg	Maher	Bremer
de Beer	Haggander	Nind	Buhman
Sharp	Leininger	Weston	Frary
			Schmick

Handicap Tournament

The individual handicap tournament was held at Abram's alleys soon after the two-man tournament. The handicapping, carefully done, evened things up very well, although the limit men, by going crazy secured the first three places. Twenty men rolled, their handicaps running up to twenty-five pins. The leaders were:

1	Weston	167 2/5	20	187 2/5
2	Haggander	163 2/5	20	183 2/5
3	Kadic	162 2/5	20	182 2/5
4	Manning	173 2/5	5	178 2/5
5	Meyers	157 2/5	15	172 2/5

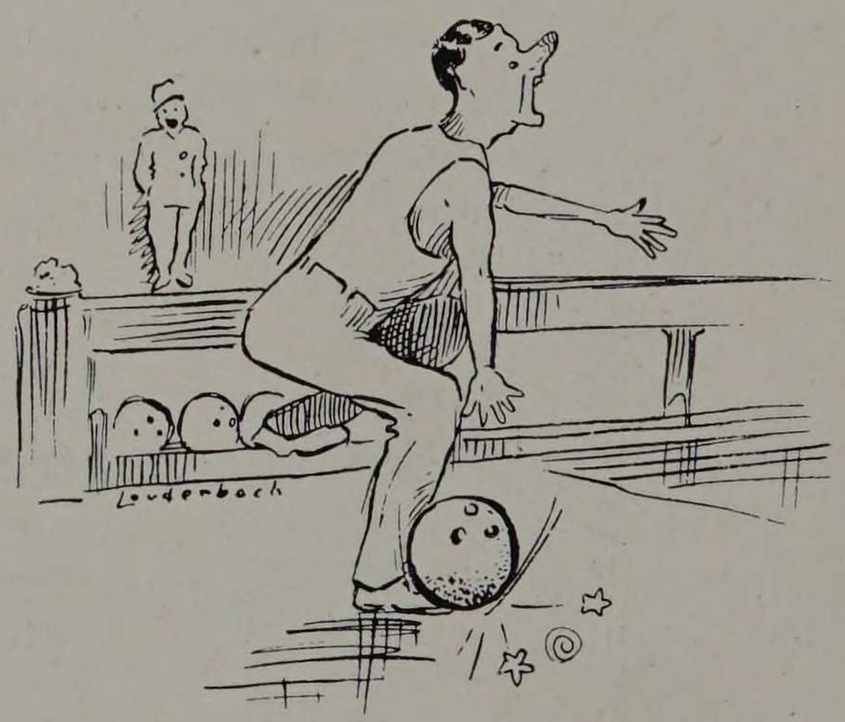
The Two-man Tournament

Ten teams entered the two-man tournament at the Kenwood Alleys. Hess and Clarke turned in the high scores, and were followed by Edwards and Schmick. Five games were rolled by each team, total pins to count. The winners' scores were:

Hess 887	
Clarke 808	1695
Edwards 839	
Schmick 814	1653

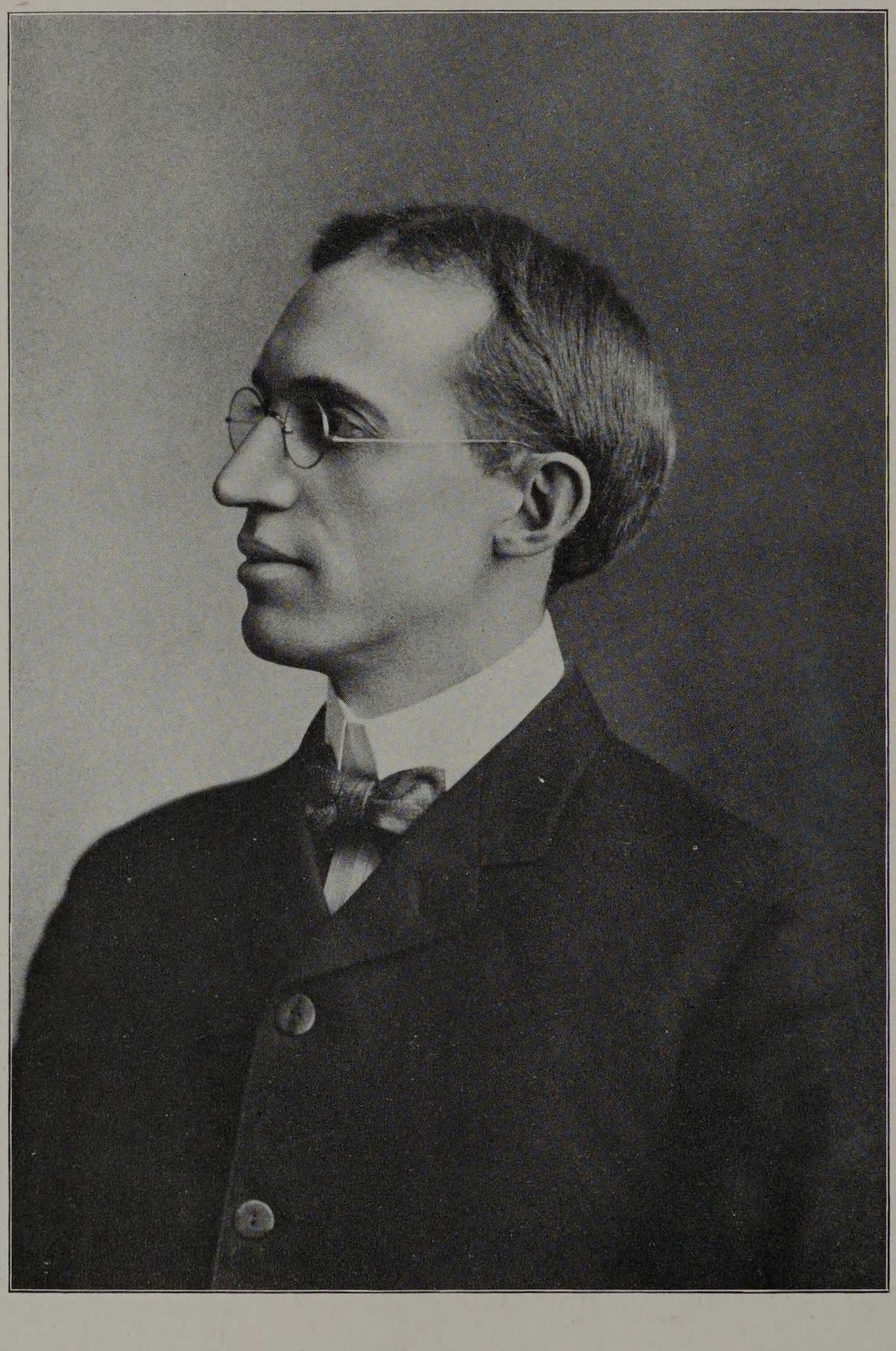
The high average men were:—

		Total.	Average
1	Hess	887	177 2/5
2	Levings	863	172 3/5
3	Jones	843	168 3/5
4	Hoy	842	168 2/5
5	Edwards	839	167 4/5



The EDITOR





Frederick Monroe Tisdel

President of the University of Wyoming

A LITTLE over a year after Professor Alderson was called to the Presidency of the Colorado School of Mines, Professor Frederick Monroe Tisdel was called to fill the same position at the University of Wyoming. Professor Tisdel is pre-eminently the man for the place. The University of Wyoming is a young and growing institution, and Professor Tisdel has the executive ability, the strength of character, and the "push" to bring it in the foremost rank of Western Universities.

Those students who had the privilege of working under the guidance of Professor Tisdel know his sterling worth, and can fully appreciate the loss which the Institute has sustained. The officers of the Institute did not like to see Professor Tisdel go any more than the students, but the whole Institute unites in congratulating Professor Tisdel on his appointment, and the University of Wyoming on securing such a man for their president.

The following extract is from the "Wyoming School Journal" for January, 1905: "Frederick Monroe Tisdel was elected president of the University at a special meeting of the Board of Trustees last July. Though not a native of Wyoming, he came to the State at three years of age, his parents having moved there largely on account of the climate. His father was for many years assistant superintendent of the coal department of the Union Pacific, and the family resided at Rock Springs. After completing the course of study in the Rock Springs school, the boy was sent to the Northwestern Academy at Evanston, Illinois, and later to the Northwestern University. He was graduated from Northwestern with the degree of A.B. in 1891, receiving, at the same time, a diploma from the Northwestern School of Oratory. In the fall of the same year, he began his career as a teacher in the faculty of the University of Wisconsin, which, two years later, conferred upon him the degree of Master of Arts. In the fall of 1893 he resigned his position for the purpose of doing graduate work at Harvard University. After two years of study at Harvard, he was appointed Associate Professor at Oberlin College, where he remained for three years, and then returned to Harvard to complete his studies. At Harvard he was elected to a Morgan Fellowship, and in 1900 the degree of Doctor of Philosophy was conferred upon him. In the fall of 1900 he accepted a position as Professor and head of the department of English at Armour Institute of Technology, and remained there until he was called to the Presidency of the University of Wyoming." Professor Tisdel was born at Belvidere, Illinois, January 7, 1869.

Editorials

Further Acknowledgments.

THE editors desire to acknowledge their indebtedness to Walter S. Louderbach, Miss A. J. Ward, and Miss Sarah Mack, beside those artists to whom acknowledgment has already been made. Their work was received after the first form had been set up, so that the addition of their names could not be made.

To Mr. Carl Werntz, of the Academy of Fine Arts, we are especially grateful, as he enabled us to secure much work from the students of his school.

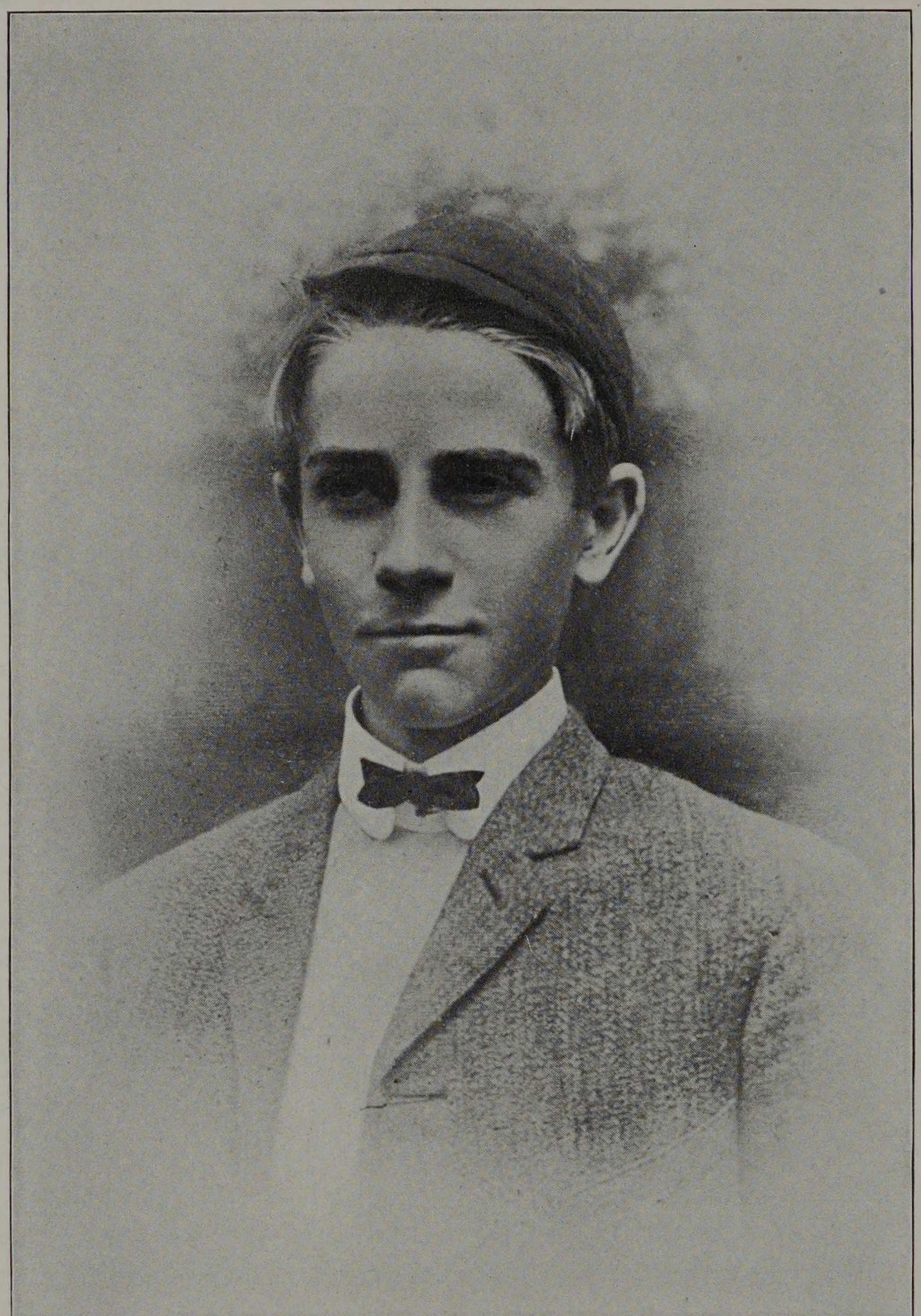
Practically all the photographs, including those of the Seniors, were made by Walinger.

Editorials are fully as often knocks as they are boosts, which gives authority for this one. As fellows, we rather like most of the Armour students, but as helpers and assistants—well, the compositor being a gentleman cannot set up what we think, and we being gentlemen, cannot think it. To get out a book like this is a job, as we have said a good many times to our friends. There are eight men now in the school who really appreciate this fact, and they are the present board, and that of last year. Of these eight, the editors are the only ones who know what "Integrating" till two o'clock every night for a couple of weeks means, and they are the only ones who appreciate how much assistance a man can give—*if he will.* We recollect having asked six men in one day to do something for us, and giving ideas to four of them. We recall that all of them promised faithfully to write something for us inside of a week, and we have no difficulty in remembering that we are still waiting for their copy. That is what makes the editor's hair gray. We claim, and can prove, that of the 288 pages in this book, not more than thirty-five, excepting of course, drawings and ads, were furnished by men not on the board, and of these thirty-five, about fifteen were given to us by men *not now in school.* "Well," you say, "what is the editor for?" The opinion of the school is evident, but is it the proper one? It is perfectly true that one or two men *can* make a book. It has been done, and will probably be done again, although for the sake of those who follow us, we hope not. But most certainly it is not right. On our bended knees, we beseech you to help the editor of next year's INTEGRAL. Poor devil, he will need it.

The INTEGRAL this year offered over fifty dollars in prizes for all kinds of work, and called for copy by February 15th. The date came, but entirely unaccompanied by any contributions. About a week later, one man came to us with a handful of josh material, and asked if it were too late. We embraced him. It was the first copy we had seen. As it happened, it was also the last submitted in the competition, and we were unable to use any of that. Now, there are plenty of men in the school who have ability, so there remained but one natural conclusion—Armour men did not want money. We therefore revised our prize list, offering it all for art work, and sent it to schools not connected with Armour. The results were very gratifying, but there were no prizes awarded to Armour students.

Apropos of the date when copy was to be turned in, we submit the following: At the beginning of the Winter term, we asked that all copy be handed to us by February 15th. On February 24th we received the first, and by constant begging, succeeded in getting most of the stuff by March 20th. This was all, however, of a serious nature. The very few lighter things we received came between then and April 12th, when the last was handed to us. Although nearly two months after our date for copy, we blessed the giver, at the same time cursing him because he did not give more. Can you wonder that we got mad when you asked, "When's the INTEGRAL coming out?"

Many will probably say that we copied previous INTEGRALS. We deny the imputation. We followed their general plan, but we think we have improved on it in many ways. The decision to follow the plan used came after a study of college annuals extending over a month and a half, and embracing about forty annuals from fifteen different colleges and universities. During the study, we found that each publication had its own distinctive style, developed gradually, and followed each year by the editors. The adoption of this idea accounts for the similarity in outline between this and last year's, and in fact all the previous years' INTEGRALS. Beyond this, we think that no comment is necessary. We have done our best.



Charles E. Yandell

In the death of Charles E. Yandell the school lost a good student and a brilliant young mind. He was born in St. Louis, February 3, 1886 and died of peritonitis, at the West Side Hospital, October 5, 1904, at the age of nineteen years.

When he was still quite young his parents moved to Chicago, and he attended the Marquette School, from which he graduated at the age of thirteen years. He started at the English High School the following fall, and graduated there in June, 1902, entering Armour in the September after his graduation. He was a member of the Third Presbyterian Church, and had the enviable record of not having missed a day at Sunday School for five years. He was always active in church work, and was a prominent member of the West Side Y. M. C. A. He was a good athlete, and played for several years on the "Midget" basketball team of the Y. M. C. A. His size alone prevented him from playing on the Institute team, as his ability was unquestioned.

Yandell's circle of friends at the Institute was not large, but he was very dear to those with whom he was associated, and his death was a severe blow to them. The Junior class sent flowers and resolutions of condolence to his parents, but these formal expressions of sympathy could not convey the real feelings of the ones who knew "Charlie," for those who knew him best liked him best.

Senior Theses

Chemical Engineering

Fash, R. H., and
Harper, R. B.
An Investigation of the Tar By-product of the Water Gas Industry.

de Beer, F. M., and
Thompson, J. R.
A Comparison of the Chemical and Physical Properties of Vitrified Bricks.

Stem, L. H.
An Engineering Study of the Coals of the Chicago Market.

Civil Engineering

Whitney, F. B.
A Comparison of Concrete made with Screenings and with Sand.

Penn, J. C., and
Dean, Stanley.
Design of a Reinforced Concrete Arch Bridge.

Sharp, H. M.
Design of a Sewage Disposal Plant for a Town of 5,000 Population.

Hein, P. L.
Design of a 207-foot Two-hinged Steel Arch.

Vey, F. E.
Design of a Filtration Plant.

Dean, W. H.
Tests upon Reinforced Concrete.

Jones, C. I., and
Harvey, W. F.
Plans for System of Street Grades and Paving for Valparaiso, Ind.

Electrical Engineering

Ash, H. J., and
Croskey, P.
Study of a Single Phase Induction Motor.

Brackett, J. C., and
Redman, A. R.
A study of the Influence of Wave Form on the Performance of Induction Motors.

Armstrong, J. R., and
Brashares, H. E.
An Investigation of the Relation of Current Density and Wave Form on the Efficiency of Arc Lamps.

Clarke, F. C.
Certain Computation Phenomena associated with the Operation of Direct Current Machines.

Carroll, E. J., and
Payne, J. C.
The Efficiency of Air-cooling Devices for Static Transformers.

Parker, W. F., and
Wickersham, E. J.
A Study of Certain Types of Fan Motors.

Robinson, R. H., and
Hutchins, L. B.
The Dielectric Strength of Oils.

Snowdon, C. R., and
St. Clair, O. A.
The Relation of Physical and Magnetic Hardness in Carbon Steels.

Heine, P. L.
Study of Strains in Long Span Transmission Systems.

Putt, F. A., and
Beamer, B. A.
An Investigation of the Effect of Iron Conduit on Instrument Leads.

Kadic, J. F.
Design, Construction and Test of a 5 K. W. 1,000 ampere Transformer.

Mechanical Engineering

Dreffein, H. A., and
McBurney, E., Jr.
Calibration of Pitot Tubes and a Study of the Flow of Gases in Pipes.

MacMillan, A. W.,
Natkin, B., and
Goldsmith, F. R.
Effect of Oil Injection into the Mixture of a Westinghouse Gas Engine.

Lennartz, G. P.
Plans for a Proposed Central Power Plant for the Armour Institute of Technology.

Fiske, G. W.
Design and Construction of a Reducing Motion for an 8x10, 3-cycle Westinghouse Gas Engine.

Ratcliff, W. A., and
Hill, W. E.
Design of a Mechanical Plant for an 18-story Office Building.

Willard, D. E., and
Durr, H. A.,
The Efficiency of Automobile Engines.

Felgar, J. H.
The Determination of Furnace Temperature by the Clay Ball Calorimeter.



ALUMNI

This was submitted
and was too good to keep

"'By the sad sea waves,' I'll sing," said he,
To the maid he held so dear.
"Yes, do," she said, "for it's far away
And won't disturb us here."

To ride a pony is a crime,
The Profs, claim, to my knowledge;
And yet I think I'm safe to say
It's just the same old stunt that they
Used freely in the ancient day
When they, too, went to college.

The Romance *of* the Melodious Whistle

HE WAS tall and good to look upon, in the words of the up-to-date novelist, and having successfully passed through two strenuous years at Tech, His idea of His own importance was exaggerated, to say the least. It so happened that in his Junior year, He was inflicted with that most terrible of all woes, an 8:30 class every morning, and it also happened that in going to and from the car line He had to pass a certain flat building, which struggled under the euphonious name of "Irma."

Now, some time during the summer previous to His Junior year, He had attended a performance of "Babes in Toyland," and having a musical ear (He sang in the Glee Club), He was struck with the "Toyland" song. It might be added in this connection, that, having also an eye for beauty, He was as much struck by the beauty of the singer as by the song. However this may be, there is one certain fact, and that is, that He adopted the song as His own, and whistled it on all occasions.

So much for the preliminaries. It came to pass that in the early part of September a new family moved into the "Irma" and were firmly established when He began His regular morning journey to the street car line. On several successive mornings as He went by the newly occupied flat He noticed that some vigorous personage in it was performing runs, scales, and arpeggios on a clear toned piano in a manner which indicated at least a desire to learn. Not being particularly keen for this sort of amusement, and being still rather fond of "Toyland," He started to whistle it in competition, on the fourth morning of the practice. He was very particular to put in all the trills and quavers that he knew, in order to show there was no hard feeling, and flattered himself that He made a very good job of it. The same program occurred for nearly a week, He whistling "Toyland," and the personage at the piano playing the scales. Then, one morning, the scales suddenly stopped, and He caught a fleeting vision of a girl looking out of the window. After that the personage became She.

Time passed, and every morning as He came into view, the piano stopped for an instant, and then began again—with "Toyland." On His part, the trills and quavers became more numerous with constant practice, so that, to His mind at least, the duet became very pleasing. Winter wore on, and still the duet continued. He did not even try to change the tune,

and She evidently had no intention of forgetting Her part. One thing only worried him—She of course knew him well, by sight, at least, while He had not yet caught a glimpse of Her, and He spent many an hour when He should have been studying Mechanics thinking how He could meet Her. For the duet had affected him deeply.

The Senior Dance came along, December 2nd, and of course He was there. Fondly imagining that He could dance, He brought a young lady whom He thought could dance very well, and was willing to have her program monopolized. Of course, He let a few dances go to intimate friends, but only when He knew that He would thus secure a good dancer, and His partner would do the same. Consequently, when Billy came around and wanted to swap the ninth dance, because, he said, his partner especially wanted to dance with Him, He had to consult some time with His partner before deciding to swap. Even then, it was more a concession to Billy and Vanity than because He thought that He would enjoy the dance.

He did not meet Billy's partner until the ninth dance, and was quite agreeably surprised, because He knew that Billy was not a good dancer and thought that he would have a partner to match. The orchestra had just started to play "Toyland," and His first disappointment at missing a good dance soon vanished when He found that His favorite waltz was to be with such a good dancer and good looking girl as Billy's partner proved to be.

"Do you know," He said, by way of starting things, "That this is my favorite piece."

"Yes," she said, "It's mine, too."

"Gee," He thought, "She's got a nice voice. I pretty near like this. But how does she know about my favorite piece."

"Do you know," she continued, "I learned it from an Armour boy who whistled it to me,"—she was looking up at him and laughing,—"and now he whistles it to me every time he—"

"You're not the 'Toyland' girl, are you?" He almost shouted, and both laughed when she answered,

"Yes."



Billy didn't take Her to the Glee Club Concert, or the Junior Dance. There was a new man in the race, and He was forever whistling "Toyland."

The Romance of the Disappointed Freshman

WHEN the Freshman returned in the fall and started to make out his program, he found that he was still a Freshman. Being young, however, and having a sufficiency of worldly goods, as well as plenty of time, he was not worried, and allowed himself a goodly number of hours for "rest and recreation," planning to finish up all his freshman work in the two years. Being fond of ease and luxury, the Freshman secured a third story room on Wabash, which had a nicely upholstered window seat in front, and soon became so enamoured of the combination of soft cushions and his pipe that he spent most of his study hours in that one spot.

Naturally, having so many vacant periods, the Freshman was often visible in his window seat, and he soon noticed a female face in the second story of the house across the street, which was on duty as much, or more than he was. After noticing the lady every day for a week, he made bold to wave his hand, and was duly elated when the signal was returned. From then on, he never sought his nook and pipe without glancing across the street to see if his "girl" as he familiarly spoke of her to visitors, was there, and greeting her with a wave. She always acknowledged his salute, and he grew to think himself quite intimate with her.

It so happened that one day, a bright warm day in Indian summer, the Freshman felt in need of exercise. The young kids of the block were kicking a football about in the street below, so he went down and joined them. The day was so exceedingly pleasant that nearly all the windows in the neighborhood, including also those of the "girl" across the street, were open. He saw her leaning on the window sill, and wished for some excuse to go up close and see what she looked like. Finally it came. Some one kicked the ball right under her window, and of course he started after it.

He had to push over two youngsters to obtain the right to chase it, but that didn't matter to him. He was under her window at last, and looked up. He saw only one thing—her eyes. Then he grabbed the ball and ran. "Whew," he murmured as he ran, "She is so cross-eyed she could look into her own eyes without any trouble."



City—"Why are you beating that cow so?"

Country—"Ma's going to have company and she wants some whipped cream."



A De-railed Idyll

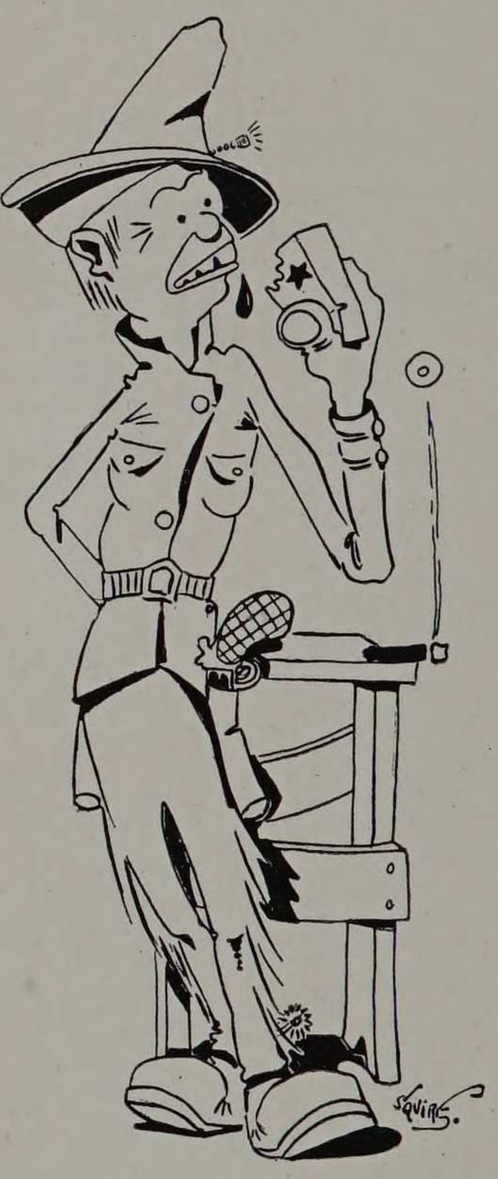
The av'rage man is meek an' mild,
  An' grovels in the dust;
He mostly hesitates to shoot
  Unless he sees he must;
But when his character's involved—
  Well, somethin' has to bust.

We was camped one Sunday ev'nin'
  In the Crimson Front Cafay,
An' the usooal frivolities
  Was gettin' under way;
But a sort o' Sabbath stillness
  Seemed to hang around us all,
So there wasn't any cussin'
  An' our drinks was weak an' small.

The dancers wasn't whoopin' up
  No "Maid o' Monterey";
The fiddle softly sighed a waltz
  That fitted with the day:
An' our thoughts was like the music—
  Kinder soft an' sweet an' low,
For we dreamed of other Sundays
  We had known of long ago.

Ol' Peter Henderson remarks,
With somethin' like a sigh,
"It is shorely gettin' civilized
This town o' Bloody Eye;
An' I offers even money,
An' I plays it large an' free,
That this quietood suits no one,
Half so thoroughly as me."

At this Buck Martin straighten's up,
An' rassels off a chaw,
Then says to Peter Henderson,
Protroodin' of his jaw,
"I takes that bet for any sum
You cares to nommynate,
Fer fightin' an' dissension
Is a thing I shorely hate."



"An' I rises here to mention
That I loathes all vain disputes,
An' I shore despise a gent
Who doesn't think before he shoots:
Which the same's my reputation,
Fer I'm peaceful as a lamb,
An' I deems them claims of Henderson's
Ain't worth a tinker's damn."

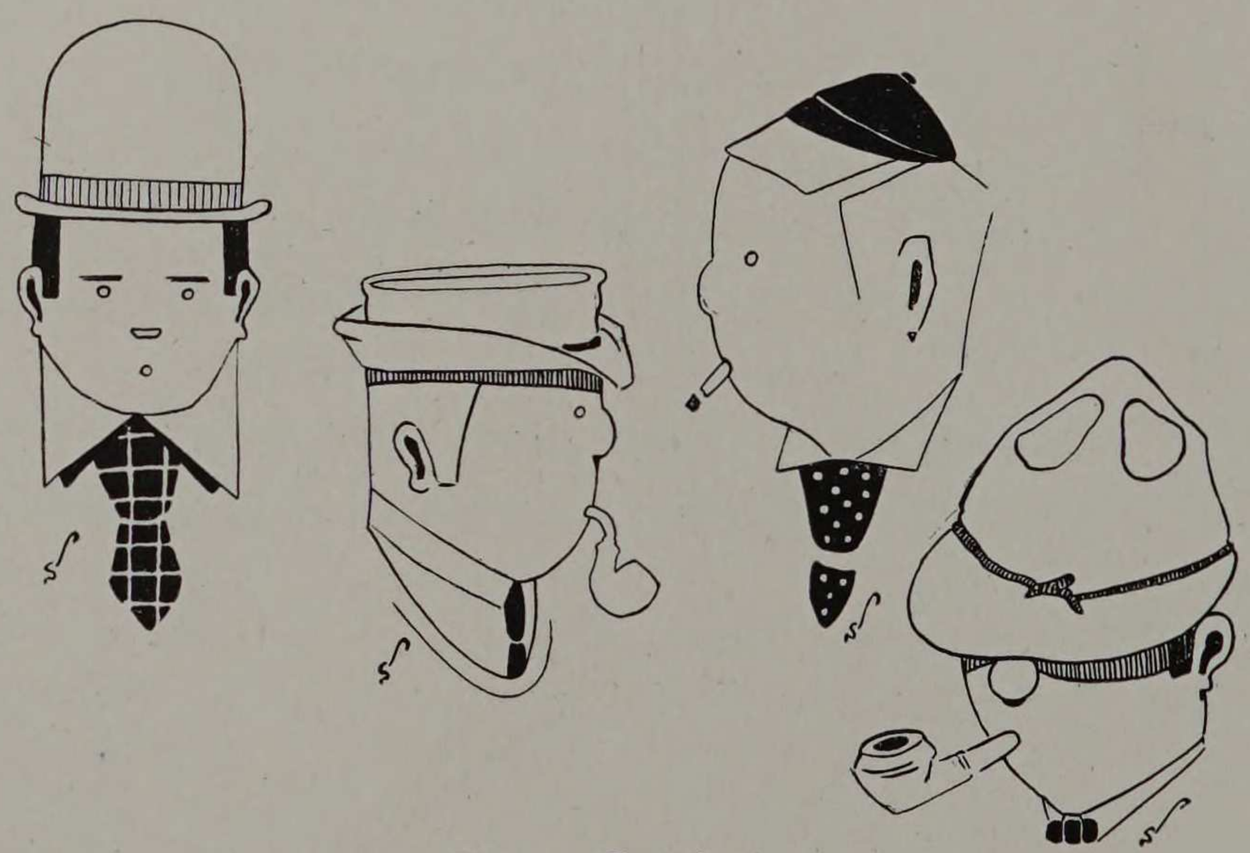
An' gentle Peace, she hits the trail
Fer foreign parts right yere,
Fer Peter trims his features
With the semblance of a sneer;
An' allows that, while he's peaceful
From his Stetson to his boots,
He can't endoor hypocricy—
An', tharupon, they shoots.



The smoke clears off, an' shows 'em both
A-lyin' on the floor;
But Peter's started down the trail
Whence folks returns no more,
While Buck, before he cashes in,
Has time to say, "You must
Confess that I was peacablest—
Pete pulled his trigger fust."



Some Profs



Some Students

The Daily Assassin

TRUST MAGNATES WILL UNITE

THEIR UNIVERSITIES.

ROCKEFELLER AND ARMOUR TO JOIN

THEIR PRIVATE INSTITUTIONS.

It was definitely announced yesterday to a special reporter of the Assassin that Armour's Institute, the preparatory school for the packing house, and the University of Chicago, John D. Rockefeller's private institution, had finally fixed upon terms of consolidation. This is regarded among labor leaders as the last step in finally crushing the Unions. The workingmen are powerless in the mercenary grasp of the huge corporations, but they can and will fight such a union to the bitter end.

The terms of consolidation have not been announced as yet, but it is generally understood that Mr. Armour drove one of his customary hard bargains. It is rumored that the terms are as follows: The University of Chicago is to pay $4,000,000 for the present buildings and grounds of the Armour Institute. They will also put up a $10,000,000 building on the golf links of Jackson Park for the use of the school. The Institute will still be the property of Mr. Armour, who is to receive a yearly salary of $500,000 for the use of his name in connection with the school. The University agrees to double the present equipment of the Institute, which is already the largest in the country, and will guarantee an attendance of 1,000 for the first year of the affiliation. Furthermore, the Institute will still use their own letter heads, while the University of course will have to have new stationery announcing its affiliation. In return for the above, the Institute allows the University to make free use of its name, stating always that the University is an affiliated institution.

Several changes will be made in the government of the Institute. It will continue to allow the students to smoke and wear their hats in the halls and class rooms. This is not allowed at the University on account of the co-eds. The University will begin new janitor service at the Institute, washing the windows at least once a week, and scrubbing the whole building thoroughly every night. This will be a decided improvement. The tuition fee is to be raised to $120 per term, and the labora-

tory fees to $25. Each student must pay an athletic deposit of $5 per term, out of which the President of the Athletic Board will be paid a salary of $5,000 per year, and the shop deposits will be $10 per term. Students will be required to buy all their supplies at the Registrar's office, at an increase of 14 per cent over the prices obtainable elsewhere. Every student will be required to carry at least 42 hours per week actual work. There will be recitations on Saturday as on other week days, and special laboratory sections will be held on Sunday. Students will, however, be excused from the latter to attend Central Church. Six hours per week reference work in the library will be required and attendance will be marked there as elsewhere. Laboratory reports must be handed in two days after the experiment is performed, and must contain an affidavit showing that at least 15 hours have been spent on them. Each student will be required to take four laboratory periods each week. Quizzes will be held every second period in every subject, and these will count 90 per cent of the final grade. Attendance, recitations, problems, and the final examination will make up the other ten per cent. The "good behavior" pledge which the students now sign will be made more stringent, making it a criminal offense to even look at a glass of beer, and a civil crime to call on any young lady twice in the same week. Members of the faculty, of course, will not have to sign this pledge.

These changes will cause the students some slight inconvenience, and in order to compensate them for this, a new Student's Club, similar to the present Faculty Club is to be built. It will front on the South Pond, where all kinds of boats will be at the disposal of the members. Meals will be served by Kinsley at a merely nominal cost. The clubhouse will be luxuriously furnished and all the favorite brands of smoking tobacco will always be on the tables. Cards, poker chips, and magazines will be plentiful, and the latest novels will be on the shelves. Further than that, the club will have a large dance hall and theater, a fine gymnasium and a huge swimming tank. The billiard room will contain five billiard and seven pool tables, and there will be ten regulation bowling alleys in the basement. "I have achieved my ambition now, and shall do all in my power to make my new students happy," said John D. Rockefeller yesterday.

INTERVIEWS

"It has been my lifelong ambition to affiliate with the Armour Institute, and now that the munificence of Mr. Rockefeller has made it possible, I am more than gratified. I shall interfere in no way with the work of the Institute, which I hold very highly, except perhaps in one particular. I have noticed that the young Armour engineers show a decided lack of Scriptural knowledge, and are extremely irreverent. I shall therefore endeavor to instill into them some of the piousness and reverence of my own divinity students."

WILLIAM R. HARPER.

"Present location of my Institute not good. Costs too much to expand. Good offer from John D. Rockefeller, so sold out. Don't care much for Standard Oil, would rather have wheat myself. That's all I have to say."

J. OGDEN ARMOUR.

"I regard the combination of two such giant industrial Universities as one of the greatest possible menaces to the common people. I and my papers have done all that was possible to prevent such a union, but with the Republican party in power, and the present corrupt condition of the Senate, prevention was impossible. I hope, however, to soon be able to present to my readers a detailed account of the manner in which such a combination was effected. It will undoubtedly be of use in preventing any similar ones in the future."

WILLIAM RANDOLPH HEARST.

"Well, I guess we pretty near laid it over old U. of C. that time. They always tried to put through a big bluff, but we knew they didn't fill on a two card draw, so it was dead easy to raise 'em off the board, especially when we were sitting back with a pat hand. Those fellows want to take a few lessons before they try to crawl up on an Armour man."

PROMINENT ARMOUR STUDENT.

"I really do not know why President Harper and Mr. Rockefeller should be, to use a vulgar expression, so keen to affiliate with Armour. I suppose that it is a rather good engineering school, but in my personal opinion, the fellows who attend it are not really high class. They are very much addicted to the use of slang, and smoke strong, bad-smelling pipes, instead of nice, light cigarettes. They wear rough clothes, and really seem to enjoy getting dirty. I really cannot say that they appeal to me."

PROMINENT CHICAGO STUDENT.



BIFF—I tell you the house was moved at his word.

BANG—Who was he?

BIFF—A contractor.



MRS. SLATS—How did Jones' house catch fire?

MRS. BATS—He and his wife got into a heated argument.

Love Sonnets

The river's very dry,
    At St. Louis;
But *sometimes* it flows right by,
    Dear St. Louis;
Its banks are very musty,
Its surface very crusty,
And it's always very dusty,
    At St. Louis.

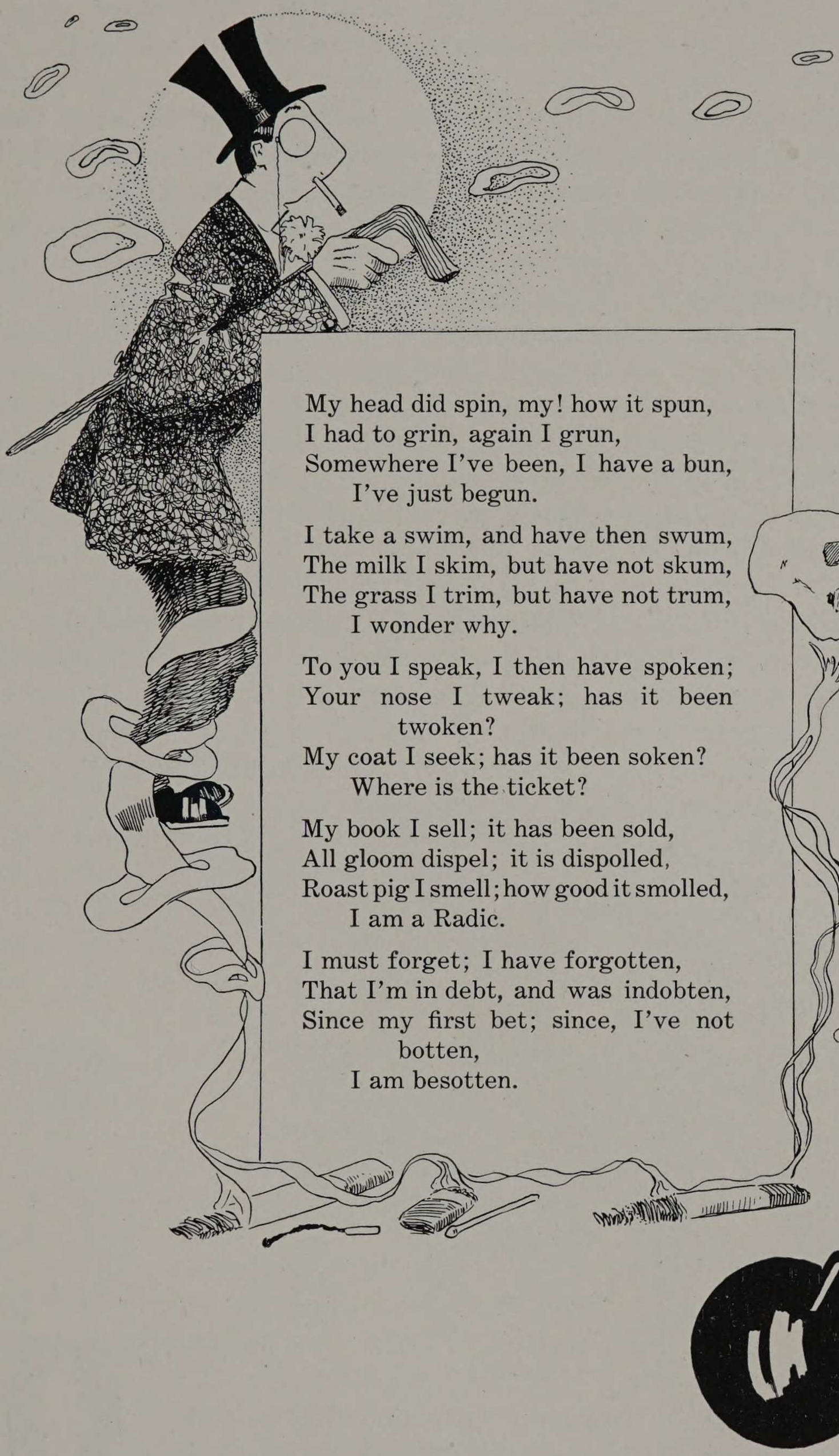
The grass is very green,
    In Chicago;
And the streets are very clean,
    In Chicago;
That's where to have the fun,
That's where to spend the mon,
That's where you're always done,
    In Chicago.

All intoxicants are barred,
    In Evanston;
Which is very, very hard,
    On Evanston;
If you want to get a drink,
Don't stop too long to think;
Give the druggist clerk the wink,
    In Evanston.

The girls are very fair,
    In Ann Arbor;
They are also very rare,
    In Ann Arbor;
They turn in at the toes,
And they turn up at the nose,
They wear parti-colored hose,
    In Ann Arbor.

The men are very round,
    In Milwaukee;
And they walk close to the ground,
    In Milwaukee;
They eat limburger cheese,
And when they bend their knees,
They do it by degrees,
    In Milwaukee.

W. K. K.



My head did spin, my! how it spun,
I had to grin, again I grun,
Somewhere I've been, I have a bun,
I've just begun.

I take a swim, and have then swum,
The milk I skim, but have not skum,
The grass I trim, but have not trum,
I wonder why.

To you I speak, I then have spoken;
Your nose I tweak; has it been twoken?
My coat I seek; has it been soken?
Where is the ticket?

My book I sell; it has been sold,
All gloom dispel; it is dispolled,
Roast pig I smell; how good it smolled,
I am a Radic.

I must forget; I have forgotten,
That I'm in debt, and was indobten,
Since my first bet; since, I've not botten,
I am besotten.

The Ottawa Trip

BY THE MASCOT

IT WAS a Cole day when de Glee Club took me to Ottawa to bring 'em good luck. De Porter on the Carr was an awful Sleeper, and didn't Roush around to do nottin' for us. We t'ought onse dere wus goin' to be a Flood, and we'd have to Ford it, but we got to town safe, dough, and t'ought it wus a Darling. De guys wus all Eager to go for de Beer, but de Fineman of de bunch Hurd 'em, so dey all had to Hoard dere money and stick to de Lemon. Some of de guys went to de Barber, an' one went to de Banker to deposit his Fortune. De Clark of de hotel wus de Alderson of a Leddy, an' a Meeker man I never met. He knew de guys wus good Walkers, so he put 'em on de top floor. Some luckless Wight had to go in by himself, an' he says, "O d'ell! I'd like to trun a Stone at him."



By dis time, de bunch wus Kean for supper, so we all flowed into de dining-room. De Steward of de hotel wus Green, an' de Miller and de Baker of de town wus rotten, an' de Cook wus poor, so de grub wus no good. De water come from some bum Wells near de town, and de chicken tasted like Crow. Some guy started to say Grace, but we couldn't stand it and started Eaton.

After supper, we got into our Klooz, an' started for de Opera House. Every Singer wus feelin' fine, an' wanted to be de Bannerman. De clubs had bot' had a good Trainor, an' de Opera House wus small, so we t'ought we could Packer, but when de bunch saw de crowd dat wus dere, dey got wild and Wooley, and den Wilder, an' wanted to Lynch de whole town. De main Berger of de town wus dere, an' an old guy wit' a Whitehead, who looked like a Farmer. De boys couldn't Pierce de gloom of dat audience at all, but even at dat, de stage Carpenter said dat it wus a good show. Dey might a' Dunmore if de Mandolin Club had had more pieces wit' Bangs in 'em. One old gal wus dere wit' her son, dat she called "Petty," and when de Popp came in de "Good Little Boy" song, de small Fry yelled. Jimmy went out an' says, "Madam, Urson an' his noise annoys us." "Oh, it doth, Douthitt?" she says, an' she Anderson gets up an' goes out. "Dargan," says Jimmy, "I'd like to see Horlocked up." De guys noticed dat de first tenor stood Twining his fingers 'round each other, and Starin at de



box. Finally he went out an' Conversed wit' de goil. She wus too Young for me, dough.

After de concert, some of de guys wanted to go to de Mick ball, but dey didn't have no goils, so finally dey decided to Stagg it. Some of de Saner ones went to see de Parkes. De rest started to Hooper up an' get Furry, so dey went to Dante's Inferno, which looked more like Paradise to 'em den. Dey ran into an old chap who had met a cheap bunch on his way to town, an' he t'ought dis wus de bunch. One of de guys started to buy a drink, an' found dat he didn't have enough money, so de old guy says, "Dis Speers to me dat I met you on de fust Hill out of town, or maybe it wus a Hiller two farder on de Vey." After dat dey started back to de hotel raising de dickens. De town Marshall came down on 'em, an' some of 'em stood still, but Moran. Dey all got back to de hotel safe, dough. Purty soon in comes a guy wit' a nose dat wus a Beamer. He started to yarn about his goil, an' when we jollied him, he says, "Ash all right—Hicks,—she's my Scharmer." If de Deans could a' seen him den, dey would a' been in Doubt whether to lock him in a telephone Booth, or hang him on a Brackett to dry, 'cause he wus pretty well soaked.

De way back wus uninterestin', but some of de guys felt like stickin' deir heads in a Pool.



In our exams 'tis ever thus,
That he who'll pass without a fuss
Is not the one who seems most able;
'Tis he who has the largest stable.

The Development of an Armourite

FRESHMAN YEAR



First Term



Second Term

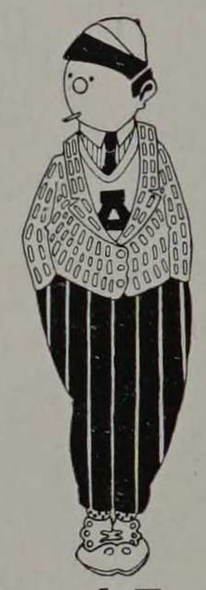


Third Term

SOPHOMORE YEAR



First Term



Second Term



Third Term

Old Samson's hair was long and straight
And he was wondrous strong;
Perhaps that's why the football men
Let their hair grow so long.

The Mutual Admiration Society

Organized for the benefit of all onlookers.

Purpose—To raise the other fellow in everybody's estimation, while not belittling yourself.

President—H. B. Marshall, ex officio.

Private Secretary to the President—F. M. de Beer.

Vice-President—The Private Secretary to the President.

Secretary—The society being always in session, minutes of the previous meeting can never be read, and no secretary is required.

Treasurer—There is not enough money in the society to need a treasurer.

The members—

H. B. Marshall
F. M. de Beer
The Editor of the '04 Integral
The Manager of the '04 Integral
The President of '05
The Manager of the Glee and Mandolin Clubs
The Leader of the Glee Club
The Soloists of the Glee Club

In an interview, Mr. de Beer stated the object of the society in the following manner:—"To love Jimmy more than myself, and that's going some." Mr. Marshall gave it thus:—"To love Frank at any cost, even to losing my presidency cinch."

My Weekly Theme

THE English Department has long been skilled in the art of asking catch questions. One of their leaders of late has been, "How do you write your weekly theme?" Well, how do I write my weekly theme? It is, at least, no trade secret. It's a cinch. Ask any of the Profs if it isn't. "Pipe," says one. "Child's play," says the other. "Nothing to it," says the reader.

The first thing to be considered is upon what the theme must be written. "Invariably upon theme paper," says the English Department. "Fifteen cents per pad," says the Registrar's office—and there you have it, with no chance for original color effects.

But with what subject must it deal? "That all depends," says the English Department.

"On whom?"

"Well," says the E. D., "your theme this week must bear more or less remotely upon one of the following subjects, to-wit:

"The use of cork legs in aerial navigation."

"The effect of sun spots on the wheat market."

"The classification of American breakfast foods."

"How shall I treat it?" I ask. "As a joke?"

"Not on your life," says the E. D.

"Wouldn't you just as soon have some dope upon communal ragtime?" I ask.

"Don't get gay," says the E. D. "You will treat one of the above subjects in an expository manner in 450 words—no more, no less."

"But," I say, "the library is deficient upon those topics."

"Go down to the Public Library," says the E. D.

"I would, but the seventeenth place in Descript is due Friday, and I am liable to get canned out of the class if I default."

"We sympathize deeply with you," says the E. D., "but our work must be done. Try the last topic."

I sit down in the quietude of my chamber and begin to think. What is expository writing? Newspaper style, I suppose. I get an American, and try to imitate the style, but it is too much. "Any theme to be good, must have a proper headline," says the E. D. I'll try this:

30,000 BABIES KILLED

BY IMPROPER FEEDING.

"Mrs. Ranter and Marion Haviland agree that each year the above number of babies die from lack of proper diet."

First Paragraph. "We have it upon eminent authority that the baby teeth of the entire land are in a state of decay because of the prevalent use of soggy breakfast foods. The evolutionists say that the way to make strong teeth is to feed them strong foods. "Feed 'em Grape Nuts," says the advertising man, seizing his opportunity. "Not by a jugful," responds Elbert Kubbard. "Feed 'em Beesum, the new Battle Creek belly timber. Sold only in ten pound bales. Children cry for it." "And after it," says the manufacturer of Flaked Corncobs. But I am digressing.

"Classify them according to their effect on babies' teeth. Make an outline," says my conscience, and I start again.

OUTLINE

Introduction.

Mrs. Ranter and Marion Haviland agree that the decay of baby teeth is due to the use of improper breakfast foods.

Body.

I. Effect of breakfast foods upon babies' teeth
   (a) Before baby has any teeth.
   (b) After baby gets some.
   (c) After baby uses them.

II. Anecdote.
   (a) Sad case where baby's teeth became unduly sharp from eating "Grits."
      (1) He bit his thumb off.
      (2) What mamma did when she came in.

III. Plans of dentists for saving the teeth.
   (a) Pulling them before they are cut, and
   (b) Replacing them with sets of false.

Conclusion.

All breakfast foods are injurious to babies' teeth. Teeth of future generations sadly impaired, unless corrective measures are adopted.

When the theme comes back after about a week, it is beautifully hand illuminated. The reader says on it "Verbose," "Revise," "Punk-tuation again," "Cult-ure not hyphenated."

"Too brief," says he.

"Count 'em," says I.

"Unity?" says he.

"No. Trinity," says I, and he marks it "D." Not every one can get their original manuscripts illuminated so cheaply, though, which is a small consolation.

M. T. JONES, JR.

The Tale *of* the Nigger Barber

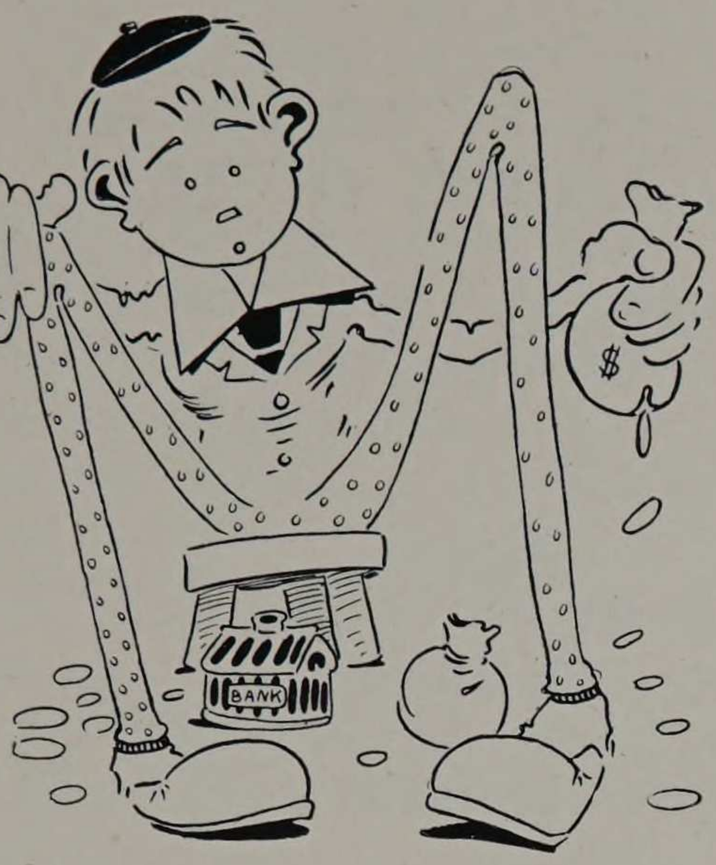
SOME years ago, I spent the winter cruising about the coast of Florida. Being very fond of the water, and being in pleasant company, it is needless to say that I had a good time. However, when we were anchored off Lemon City one day, I announced my intention of getting shore leave, and purchasing a shave. The captain looked at me and laughed. "Don't," he said, "I did—once." I scented a story, so said, " Go on."

"Well," said he, "we blew in here one day from a two weeks' cruise, and my chin whiskers were numerous, and of a fine healthy growth. I rolled ashore, and discovered two barber shops on the one street of the town. One didn't look any better than the other, and I therefor entered the first one I came to. The barber was the blackest nigger I ever saw in my life, and I began to have qualms, and when he began to lather me with laundry soap, I knew that I had begun to climb the wrong tree. I let him go on, however, and he stropped his razor on the upper of a shoe. He took one swipe at my face, and got all of the whiskers, and most of the skin. 'Good Lord!' I yelled, 'why don't you hone that razor?'

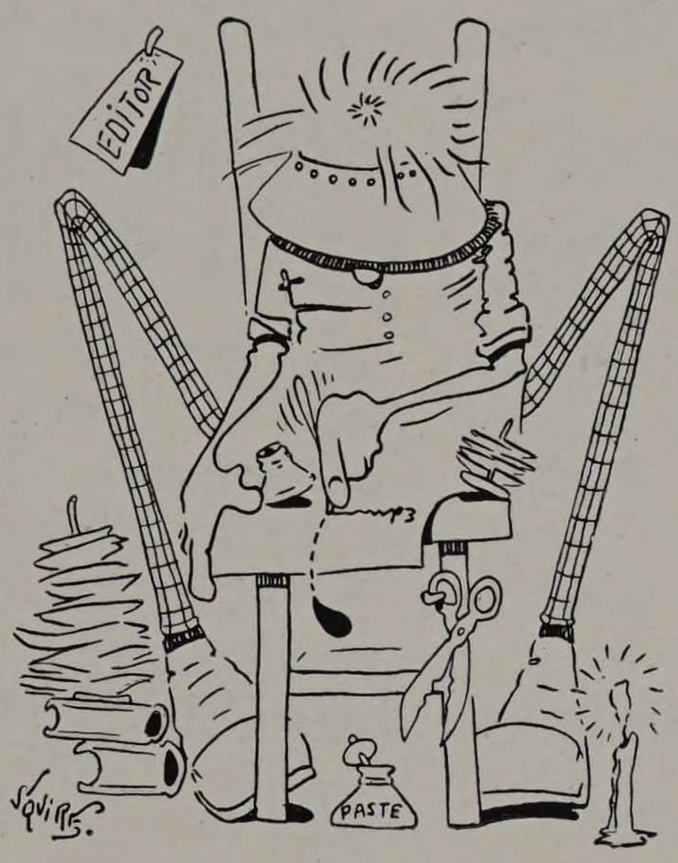


"'Well, yo' see boss' says the nigger, 'dat niggah barbah 'cross the street, him and me ust to be in partnership, an' we done broke up, an' when we was dissolutionized, I took the bresh and razah, an' he done took de glass an' whetrock, so's I can't sharpen mah razah no moh.'

"I let him wipe the soap off my face and left. I found out afterward," went on the captain with a twinkle in his eye, "that the old nigger was quite a character in the town. You know that most of the southern gentlemen are rather sallow, and their faces are rather hard to shave. They used to go to this nigger. He would put his thumb in their cheek, and hold it out while he shaved it with his other hand. It was all right until a new man came to town one day. Now this man was afflicted with a very thin skin. In due time he called at the nigger's to get shaved. The barber put his thumb into the man's cheek in the usual manner, but the man's skin was so thin that he cut the end of his thumb off, and he has not shaved any one that way since."











"INTEGRAL BORED"

"*The* Long and the Short of it"

THE DEADLY PARALLEL

The Large	The Man	The Small
Feet	COFFEEN	Hair
Goatish Tendency	MORRISON	Intellect
Religion	BRUBAKER	Profanity
Smile	BROCK	Himself
Trousers	WANNER	Hat
Nose	ELLINGTON	Booze Capacity
Gambling Proclivities	HEBARD	Money he makes
Push	KELKENNEY	Pull
Girth	KIMMEY	Nothing small about him
Appetite	WALBRIDGE	Eyes
The time he takes	ALLYN	What he says
Chances for Baskets	CARPENTER	Baskets he makes
What he thinks he knows	BANNING	What he does know
His Girl	COLLINS	Collins
Brains	GREIFENHAGEN	Brawn
Cello	HAYES	Inches
Last Year's Editorials	WILSON, W. R.	Readers of the same
Largest and Coolest in the City	de BEER	Small one for me
Nerve	BRACKETT	Everything else

The Tale *of* the Panatellas

IT WAS New Year's Eve, and the Alumnus and the Junior had taken their girls to the theater, meeting afterward for a little supper. It was one day in a year, and so the meal was rather elaborate, including, among other things, a bottle of St. Julien, '72, of which the ladies, of course, did not partake. The ice cream was nearly finished when the Alumnus said.

"Say, Kid, I could stand a Bock Panatella very nicely. How about you?"

"Suits me," said the Junior, and turning to his friend, he inquired, "May I have one?" knowing that she was rather keen on the tobacco question.

"Why, I don't care what you drink, just as long as you get me home safely. I don't want to take you home, though," she said.

"Oh, I guess he can stand it," said the Alumnus, winking at the Junior. "You see, I know his capacity. Waiter, bring us a couple of Bock Panatellas."

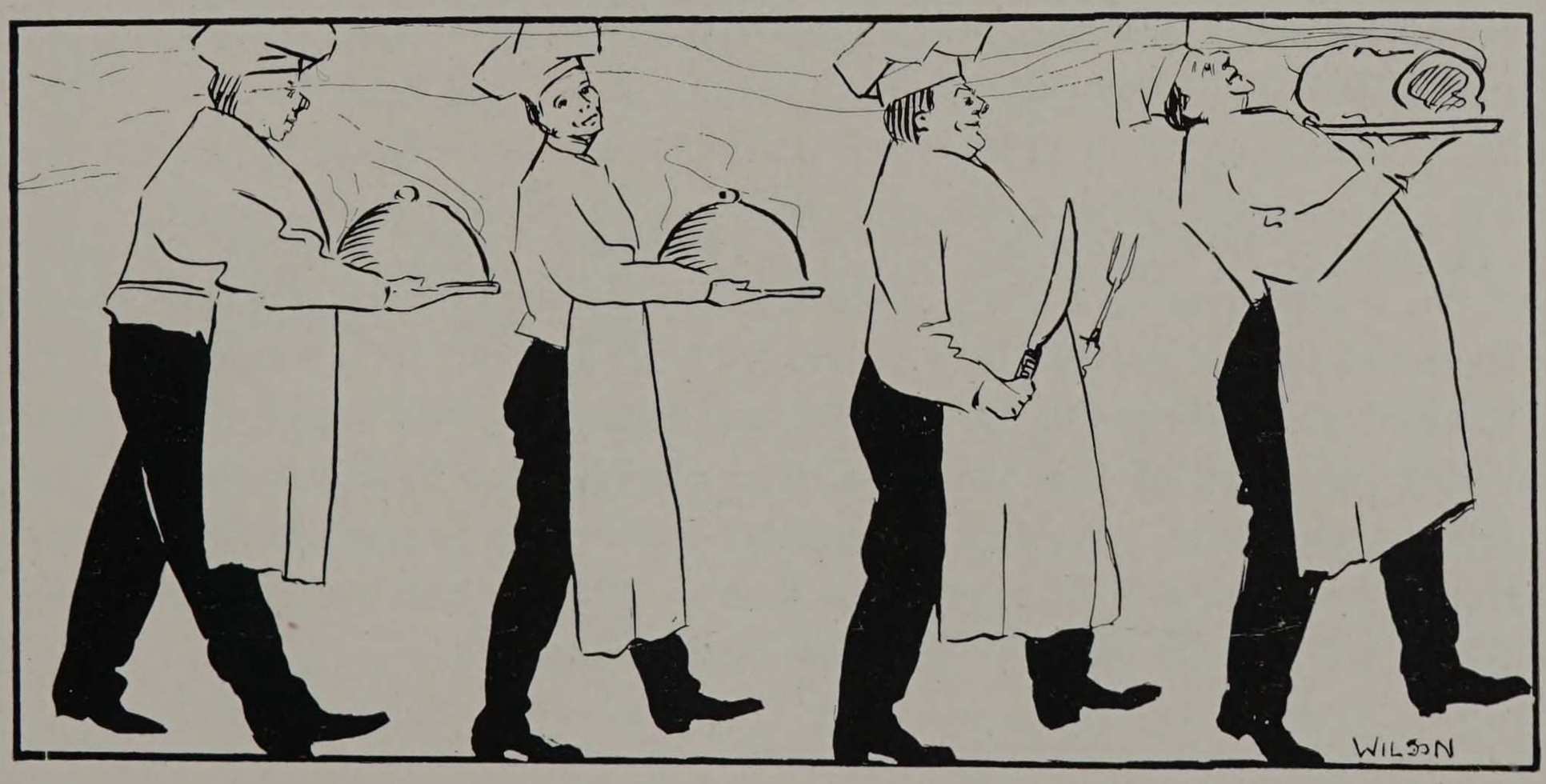
The cigars arrived, were calmly lit, and had been enjoyed for several minutes before the lady spoke again.

"Well, where are your Panatellas? It's nearly two, and I want to get home."

"We are enjoying our Panatellas very much," said the Junior, blowing a beautiful ring.

Then she came to.

"Oh, you—," but the Junior ducked, and came up, still "drinking" his Panatella.



What They Say

MONIN—"I think before going on with the next chapter, we will have a little discussion on the salary question. When you get out, when you graduate, you will go to a man and say, 'I know my Mechanics, I know my Calculus, and I know my—my, and so forth. I want a job. I will take $2,000 per year to start.' 'Why,' he will say, 'you don't know anything yet. You go and get a little experience and then come back to me and perhaps I will give you $900 per year.' 'O—oh,' you say, '$900 per year! Why, I couldn't work for that! Why, I have to buy my clothes, and pay my board and room, and get cigars and tobacco, and go to the theater, and so forth, and so forth, and why, I simply couldn't do it.' But don't you see that you will have to cut down on your theaters, and you will have to stay at home instead of going to the Freshman dance? Now, you should make out a budget at the beginning of each year, and you will be surprised how things count up. I did this one year,—"

WILDER—sitting with his feet on the desk—to Miller: "No, I can't go down to have my picture taken to-day. I am very busy, very busy. I'll go to-morrow."

Next day. "Did I say I was going to-day? No, I can't go to-day. I am very busy, very busy. I'll go to-morrow."

Next day. Ditto.

AGLE—"Now–ahem–let me show you–ahem–ahem. You see, when we start–ahem–on a piece of work–ahem–a piece of work like this–ahem–there are several points–ahem–which we must look out for–ahem–ahem. In the first place–ahem–but let me show you about this, first–ahem. Now–a–in laying out work of this kind, we must always start by first–ahem–by first finding our center. We find the center—just wait a moment till I see what this fellow wants." (Ten minutes later.) "Now–ahem–let me see–ahem–where was I? Oh, yes!"—(Start at beginning again.)

WILCOX—"I don't see anything there to laugh about. I can see a joke as soon as anybody, but I don't see anything there to laugh about. Now, this is a very important point, and I want you all to pay very strict attention, so as to be sure to get it. Suppose, now, we let A equal B, —no, let me see—yes, that's right—let A equal B." (Loud crash in rear of room.) (Sorrowfully): "Somebody is responsible for that. I don't know who it is, and I don't care to know. I thought you were all gentlemen in this class, but I see you are not. I don't want to, but I suppose I will have to, use strict measures, unless you can behave in a more gentlemanly manner. Now, let A equal B—"

GEBHARDT—"The trouble with you fellows is that you can't add and multiply. I got answers all the way from .5 to 379,873. (Laughter.) Another thing, you don't get the right method of attack. That's the thing in any problem, particularly in these governor problems. Get the right method of attack, and if your arithmetic is all right, you come out with the right answer—."

"Now at the South Side L—"

"If there should be an accident to the governor, such as the breaking of the belt, and there was no auxiliary stop, or safety mechanism, the engine would begin to speed up and would race to destruction."

MACFARLAND—Rises from his stool, and opens window three inches, returns and sits down. Question from the rear, "If the vertical component of the force was O, then the force would be horizontal, wouldn't it?" Rises, closes window to one inch, sits down again, then says, "Well I hardly like to commit myself definitely on that point. It depends on a good many things. For instance—"

The Farmer Club

Boss of the Gang Plow	Harry Farmer
Chief Hay-rakers	Hans Schaedlich George Kuhn
Minder of the Chicken Coop	Roger Townsley
Scarecrow	Fuzzy Focht
Shover of the Automobile	Professor Creamer
Shoer of the Chickens	Little Brock
Shoer of the Horses	China Wooley
Hoer of the Onion Patch	Fred Norwood Wilson
Scratcher of the Pig's Bristles	Ned Deming
Weed Commissioner	Weedy Hebard
Farmer's Eldest Daughter	Mag Myers
Farmer's Little Boy	Austin Crabbs
Hired Girl	Howard Krum
Wielders of the Pitch Fork	Townsend Scott Saner
Tender of the Blind Pig	Burton Beamer
Jackass	Swell-head Pollard

Advertisements

Symptoms

I started out one summer's night;
  The same was dark and still;
I looked above and saw a cat
  Upon a window sill.

The cat was long and thin and green,
  And had two yellow eyes;
I threw an oyster rake at it;
  It looked down in surprise.

I traveled farther down the street;
  The walk was broad and black;
I saw a man upon the roofs,
  A-riding in a hack.

The moon above was large and round,
  And was a brilliant pink;
I nodded at the man on it,
  And then I saw him wink.

Two bullocks flew across my path;
  Their feet were made of straw;
I looked again, and saw that they
  Were only beefsteak, raw.

I tried to climb a lamppost then,
  To light my cigarette;
The lamp turned out to be a brook;
  I fell in and got wet.

The trees across the street began
  To nod and creep and crawl;
I turned about and ran full tilt
  Against a garden wall.

I hit the wall upon the head,
  And then gave it the slip;
I hurried home to find that I'd
Been boning on Descrip.

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Electrical Engineering — Telephone Engineering
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These courses are each four years in length & lead to the degree of Bachelor of Science

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COMMERCIAL TESTS. The Institute offers facilities for the testing of boilers and engine plants, pumping stations, dynamos, motors and materials of construction; for the calibration of pressure gauges and electrical instruments; for chemical analysis of engineering materials and for special tests and investigations.

THE SCIENTIFIC ACADEMY prepares students for admission to the College of Engineering or to the leading colleges or universities.

THE EVENING CLASSES provide courses in engineering and kindred subjects, for those who are employed during the day.

Summer Term, June 26 to August 4, 1905

The Institute Year Book, the Circular describing the Evening Classes, or the Announcement of the Summer Session, will be sent upon application

A few Rules for the Benefit *of* Students

DO NOT lay on your necks in math classes, especially Campbell's.

Do not throw away a half smoked cigarette when the Dean comes. It is not economical.

Do not leave the drafting room before the Prof goes. He will probably leave to play golf about three anyway.

Always say "Good morning" to the Profs, especially the Deans.

Never hit an indicator with a hammer. It is liable to knock off some of the nickel plate.

In order to be economical, use both sides and the edges of paper before throwing it away.

Do not bring intoxicating beverages into the buildings, either externally or internally.

Do not sign for material from the Chemical store room if you can possibly avoid it.

It is not considered etiquette to enter a saloon when a Prof is passing—without offering to take him in and buy him a drink.

Never drop a surveying instrument. It is liable to injure the threads so that it cannot be screwed to the tripod.

Do not try the experiment of connecting two terminals with your fingers instead of a wire. Electric terminals become very hot at times.

Never call on the Profs at the Faculty club. They are liable to entice you into a card game and take all your money.

Do not throw chalk at any of the Profs, no matter how much you want to. It makes more work for Frank.

Never buy any ink for drawing. Your neighbor will almost always have some. This also applies to lettering pens.

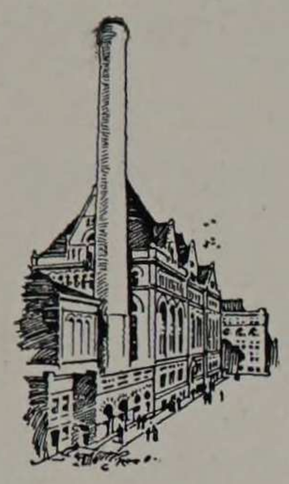
There is no use copying math problems. Get the man you copy from to use carbon paper. If necessary, buy it for him.

Do not swear at a Prof when he is on duty, unless you are a good deal bigger man than he is.

Never carry a pony to an exam, as it might buck and throw you. Always sit next to a good man.

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PROP. F. E. TURNEAURE, University of Wisconsin
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PROF. W. H. LAWRENCE, Mass. Institute of Technology
PROF. A. E. PHILLIPS, Armour Institute of Technology
PROF. A. MARSTON, Iowa State College
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PROF. C. L. GRIFFIN, formerly Pennsylvania State College
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The only publication in the English language devoted exclusively to this field.

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McGraw Publishing Co.

The Engineering Building NEW YORK CITY

Do not play catch with voltmeters, ammeters, etc., as you might drop them and break the glass front.

Always wear a derby to school. The fellows can have more fun with a derby than they can with a soft hat.

Do not kick if you get an exam every week. Even an exam is sometimes less tiresome than the Prof's lecture.

Never work Physics lab experiments yourself. Always do them by the absorption method.

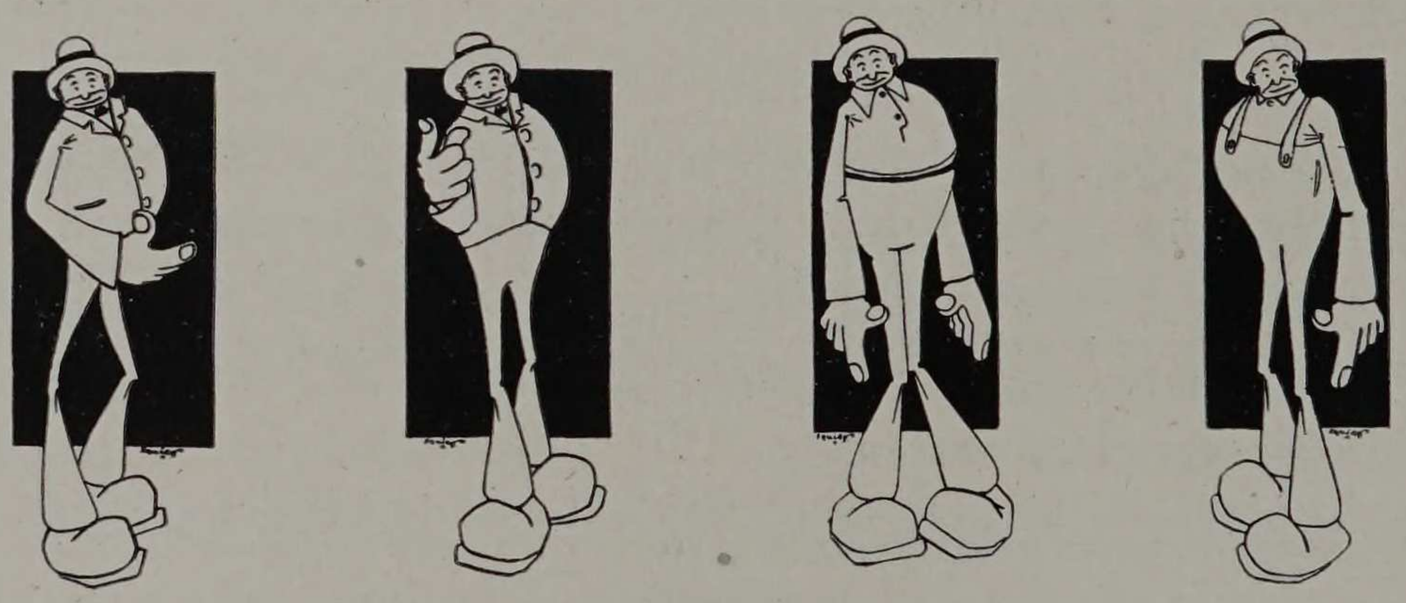
Do not think that you can get all your work by absent treatment. You must attend classes at least once a week.

Never go out for an athletic team. You might have to go into training.

Never wear a red flannel shirt to school. It is very hard on the other fellow's eyes.

Do not bring cigars to a Prof who has conditioned you. It has been tried before and does no good.

Above all, do not hand any of your work to the editors of any of the publications. They would rather use their own work anyway.



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Some Characteristic Academy Sayings

BEIFELD—"Who said automobiles ?"
DAMISH—"I didn't get my English, by Heck."
CONLIN—"Say, Dick, what are we going to do with that money."
MAHLER—"I can't see through that bloomin' thing."
MENKIN—"Now, let me tell you what I think about it."
FOLEY—"I don't know."
STADEKER—(Slowly and distinctly.) "Let x equal the amount of water that flows in one pipe. Let y equal the amount that flows out."
DICK—"Here, McCausland, I want to see you a minute."
CLARK—"Come away Mac, he wants class dues."
HEALY AND DICK—"Where's Babcock ?"
DICK AND BABCOCK—"Where's Healy ?"
BABCOCK AND HEALY—"Where's Dick ?"



"What is it," asks Professor Brown,
"What is it pains you now ?"
"Why, I fell down and strained my milk,"
Replies the troubled cow.

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See Miller ('06) and Harvey ('09)
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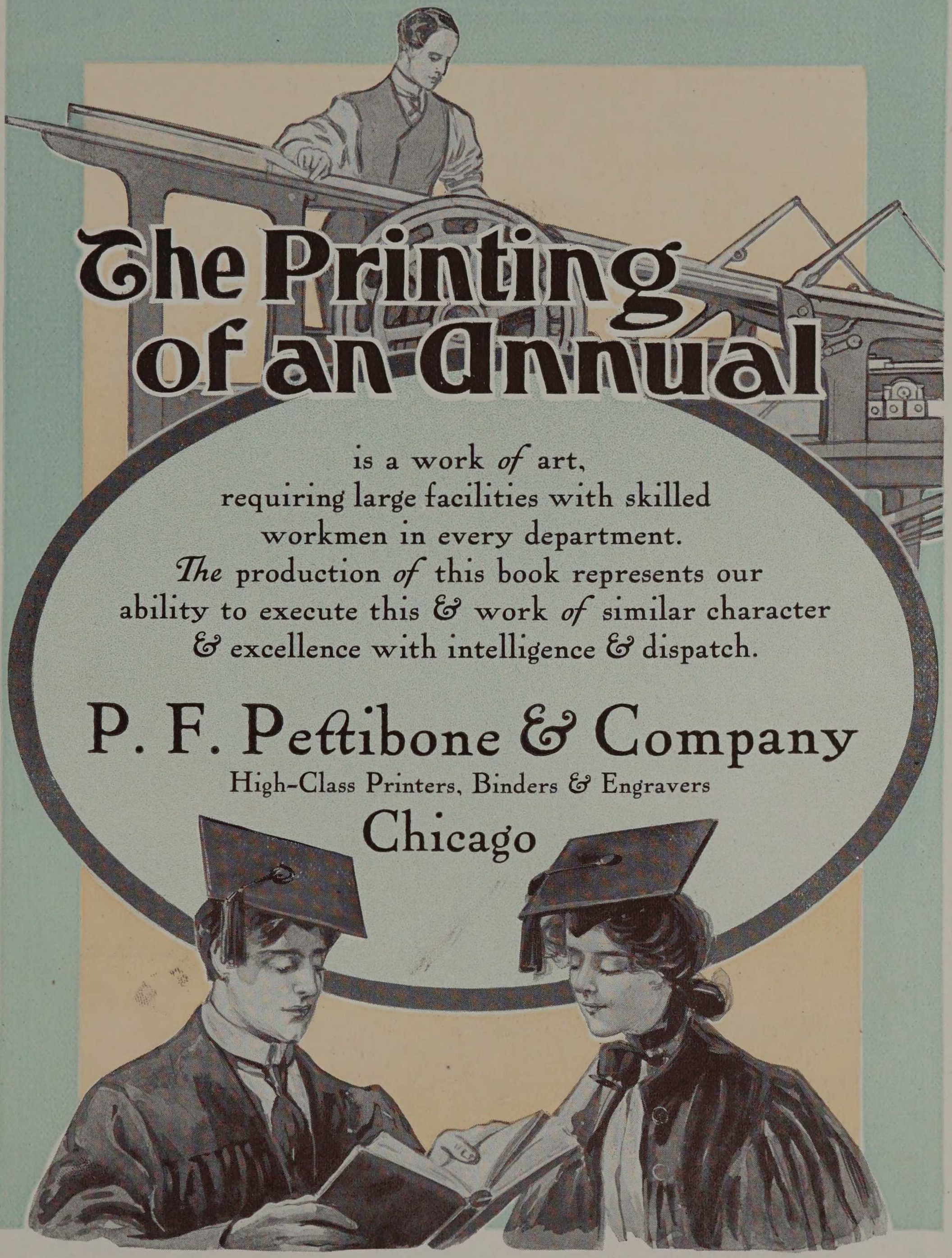
Excelsior! You bet ye!

The shades below were gathering fast
As through their midst a porter passed,
Bearing aloft on a cake of ice
A package sent from Paradise,
of Excelsior;
You bet ye!

Straight to the throne the porter made
And, never stopping to kid a shade,
Until to Old Nick he had come,
He said, "I guess this will help some;
'Tis Excelsior;
You bet ye!"

"They told me above that your fires were low,
And needed something to make them glow;
So I hiked all over the bloomin' spot,
And picked this up in a vacant lot;
This Excelsior;
You bet ye!

"Say, Sate! Have your boarders made any kicks?
I started all right, but got stuck in the Styx;
I lost my balance up there on the brink,
And, trying to find it, dropped this in the drink,
This Excelsior;
You bet ye!"



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Then Satan was hot and roasted him good,
And said to the man, "What do I want with wood?
Do you think I'm running a steam-heated flat,
That you bring me down a parcel of that
Bum Excelsior?
You bet ye!

"Just chase this right back and get me some coke,
And kick up the dust, too—Why! Holy Smoke!
Does this look to you like Palm Beach, U. S. A.?
What use have I got for that cartload of hay!??
That Excelsior!!??
You bet ye!!"

The porter just made one long jump for the door,
And ran like—well, like he had never before;
He cleared the threshold and vanished from view,
And after him, out into space, came a "WHEW!!
Ugh!! Excelsior!!
You bet ye!!"

W. K. K.

Eta Nu Pi

Chapter Roll

Alpha Armour
Beta Armour Institute
Gamma A. I. T.

Officers of Good Capacity

Ever Hungry Hess . . . . *Chief Disher*
Four Cut Woldenberg . . . *Collector of Coin*
Ice Cream Manning . . . *Suit-case Guardian*
Apple Pie Davies . . . . *Notifier*
On Hand Rogers . . . . *Door Tender*
Always Looser Maher . . . . *Stock Buyer*

Constitution

The object of this fraternity shall be to investigate Pie.

ARTICLE I

DUTIES OF OFFICERS:

Sec. I. The duty of the Chief Disher will be to see that there is no misdeal.
Sec. II. The duty of the Collector of Coin shall be to gather in the nickels.
Sec. III. The duty of the Suit-case Guardian shall be to watch the pies just previous to meetings.
Sec. IV. The duty of the Notifier shall be to inform the members of the approach of a new pie.
Sec. V. The duty of the Door Tender shall be to see that none of the faculty are admitted.
Sec. VI. The duty of the Stock Buyer shall be to run to the bakery, and also to see that all members are fed as soon as possible.

ARTICLE II

Sec. I. A meeting shall be held whenever pies are at hand.
Sec. II. Only students of Armour Institute are eligible for membership.

ARTICLE III

Sec. I. The motto of this fraternity shall be "A half for a nickel."

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An Evening

A maid divine, with eyes sublime,
A table set for two;
A quiet time, a little wine,
No hurry to get through.

A silly joke, a clever stroke,
You think you've made a hit;
She knows one, too, it's fairly new,
You overflow with wit.

Her cheeks burn red, you lose your head,
And things don't seem the same;
Her ruby lips, long to be kissed,
But then, you're not to blame.

You soon draw near, and call her dear,
The sweetest girl you know;
Try to caress, and then confess,
You always loved her so.

She knows you well, and will not tell,
And this you do deplore;
You're where you're at, when you said that,
A hundred times before.

MORAL.

Do not allure, this maid demure,
No matter what you know;
To maiden dear, it is quite clear,
How far a girl should go.

—A. J. A.

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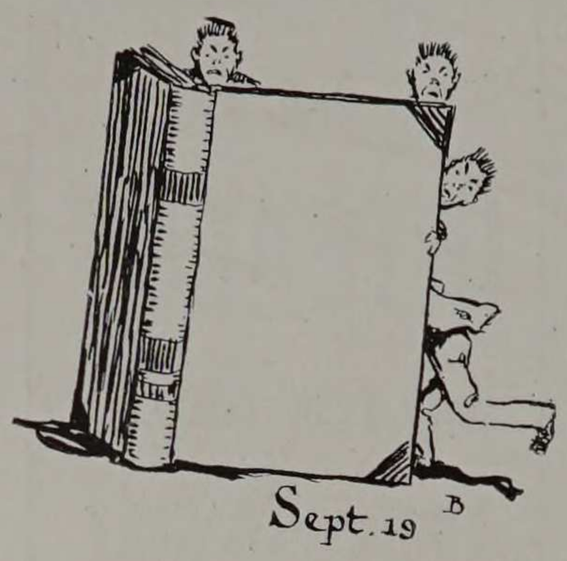
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HARVEY C. VERNON, Ass't Cash. — H. E. SMITH, Ass't Cash. & Auditor — WM. T. BRUCKNER Ass't Cashier
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James H. Eckels



The Daily Record

Sept. 19, 1904—Registration Day. de Beer sports an extra eyebrow 'twixt his nose and his mouth. '08 noted exceptionally timid. Fulcrum staff on deck, all right, all right.



Sept. 20—Freshmen receive ideas of school spirit from Dr. Gunsaulus and the rival classes in the Mission. Ogden Field presented to the students. "Rah, Rah, Rah! Green grass."

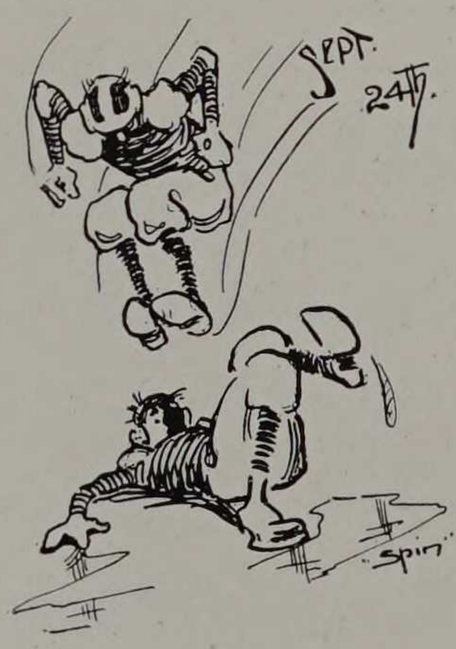
Sept. 21—Football and basketball candidates called for.



Sept. 22—Almost ten football men respond. Considered very encouraging. Glee Club organizes.

Sept. 23—Eleven men show up for football practice. Juniors and Freshmen hold class meetings. Phi Kaps have smoker.

Sept. 24—Football practice but no football. Ogden Field rather dam-p.



Sept. 26—Sundry class meetings. Yellow posters appear.

Sept. 27—Annual class rush again a "draw."

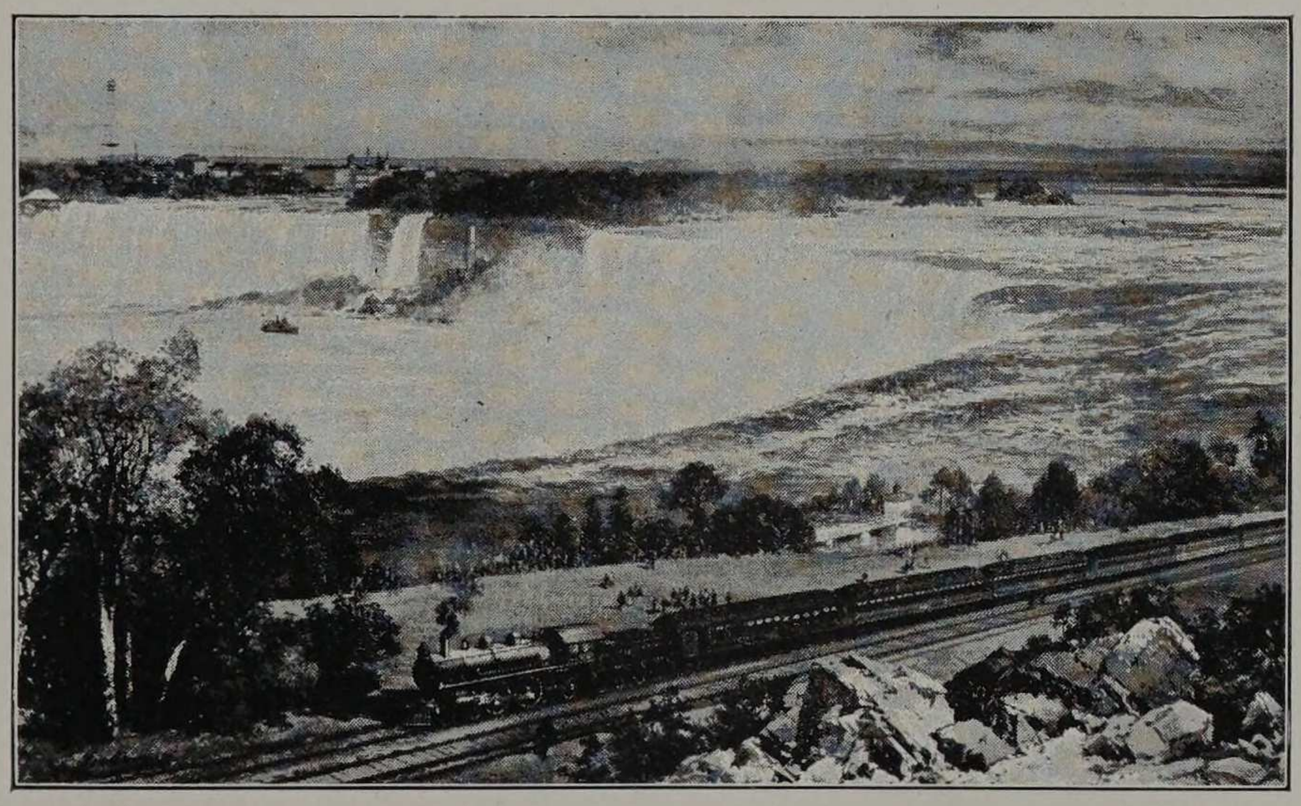
Sept. 28—Pious appearance and demeanor of the Civils explained. Their life in the Mission has its effect.

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Sept. 29—Jimmy elected again to the presidency of the Senior class. He has the habit now. Integral Board elected. Alas, the day.

Sept. 30—First issue of the "Fulcrum" comes out. Freshman Handshake in the evening.



Oct. 3—First Glee Club rehearsal.

Oct. 4—Cold weather does not prevent basket-ball candidates from running on the track in breezy costume, to the great delight of the onlooking small boy.

Oct. 5—Academy football team played Wendell Phillips and won their only victory of the season.

Oct. 6—Hard scrimmage for the football team.

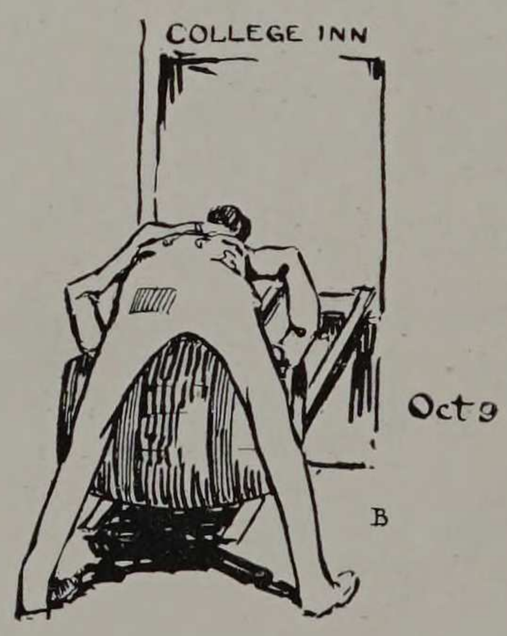


Oct. 7—Weedy tries to sell his gloves.

Oct. 8—Practice game. A. I. T., 5—E. H. S., 5.

Oct. 9—'06 Radic's banquet at the College Inn.

Oct. 10—Booklet with title "A. I. T. Songs," appears.



Oct. 11—First orchestra rehearsal.

Oct. 12—A. S. A. vs. Lake Forest. Score better forgotten.

Oct. 13—Freebowdy forgets to remove his curl papers before coming to class.

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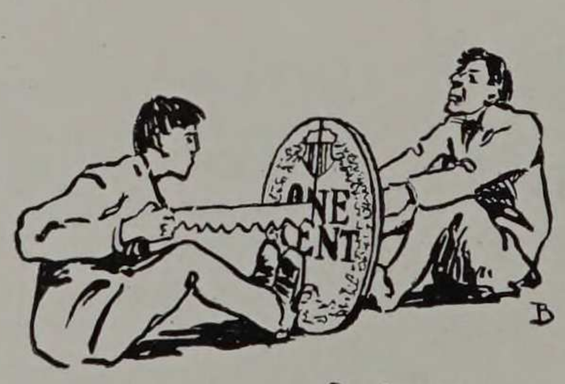
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Oct. 21

Oct. 14—First Mandolin Club rehearsal.

Oct. 15—'06 Radics meet at Rockwell's. Armour loses to Northwestern College.

Oct. 17—Riggs apologizes for being unable to recite. Class magnanimously accepts his apology, and hopes he will be prepared next day.

Oct. 18—Kretz gets jiggers on "Armour Songs."

Oct. 19—Tech loses close game to Lake Forest.

Oct. 20—Kretz "walks the carpet" for songs. Sentence suspended one week.

Oct. 21—First Integral Board meeting. Division of proceeds discussed.

Oct. 22—Radic banquet at Union. "Hoo-hic-ray."

Oct. 24—Kretz looks worried.

Oct. 25—Academy beats '07 at football. First dope on big game. Kretz appears very worried. Reports loss of fifteen pounds in weight.

Oct. 26—Kretz cheerful again. Fired. Interesting talk on Raleigh by Rev. Dawson.

Oct. 27—Rev. Dawson speaks again, this time on Savonarola. Very enjoyable.

Oct. 28—'07—6, '08—0. 'Nough said.

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Oct. 29—Tech loses game to Culver. This is the last lost game.

Oct. 31—Weedy still trying to sell his gloves.



Nov. 1—Mandolin Club assists in program for "Sweet Charity" at Steinway. Kretz reappears, looking fine after his vacation.

Nov. 2—Junior Civils start a monopoly—the Spanish Class.

Nov. 3—Some one monkeys with Laubach's alarm clock, and he gets to school at 7:30.



Nov. 4—Freshman Smoker.

Nov. 5—6 a.m. Last stragglers get in from the Smoker. In the afternoon, the Tech licks the Doctors, 11—5.

Nov. 7—Weedy still looking for a purchaser.

Nov. 8—Man mentioned to editor that he *might* be able to write something for the book before next term. Editor weeps.



Nov. 9—Mandolin Club practices a new piece. It now has a repertoire of two.

Nov. 10—Glee Club has an interview with our old friend "Annie Laurie." Annie is as spry as ever.

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Nov. 11—Dark for football practice. Bemis, lost without his glasses, playfully shoves Flanagan into Coach Sprague, and don't know it.

Nov. 12—Rockwell wins Golf Tournament. Tech beats Woodlawn Country Club.

Nov. 14—Weedy finally succeeds in soaking a Freshman.

Nov. 15—Bill Chappell brings his father down to address his Y. M. C. A.

Nov. 16—Academy forgets how to play, and Northwestern Military takes them into camp.

Nov. 17—Glee Club practice temporarily abandoned. de Beer announces the possibility of trip to California in April.

Nov. 18—Another Fulcrum. Cover design visible seventeen blocks.

Nov. 19—Tech romps with Northwestern Medics. 15—0.

Nov. 20—Mr. Tibbetts expostulates earnestly with a Freshman in drafting room who is making his chair squeak like a freight train.

Nov. 22—Pierce keen on riding in elevator. Arrives late to Economics, and says Willie threw him out.

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Nov. 23—Light business in lunch room. Inference, everybody training for to-morrow.

Nov. 24—Thanksgiving. Oh, joy!

Nov. 25—Convalescing. Now we know what they gave us this holiday for.



Nov. 28—Highly excited, Brubaker says, "I'll be hanged!"

Nov. 29—Weedy unable to sell his second pair of gloves.

Nov. 30—Leininger clean shaven. Inference, he is going out to-night.



Dec. 1—Leininger hesitant in recitations. Inference of yesterday assumed correct.

Dec. 2—Senior Dance. Academy football dance. Lecture in Mission. Try out for Academy debating team. That's going some.

Dec. 3—Civils unable to survey on account of cold. Must have been an awfully cold day.

Dec. 5—Exhibition of strength, breaking up crossing from Institute to Mission.

Dec. 6—Bemis doesn't like Willie. Thrown out of elevator again.

Dec. 7—Two Mandolin Club men wait for half an hour for others to show up, forgetting that practice is discontinued.

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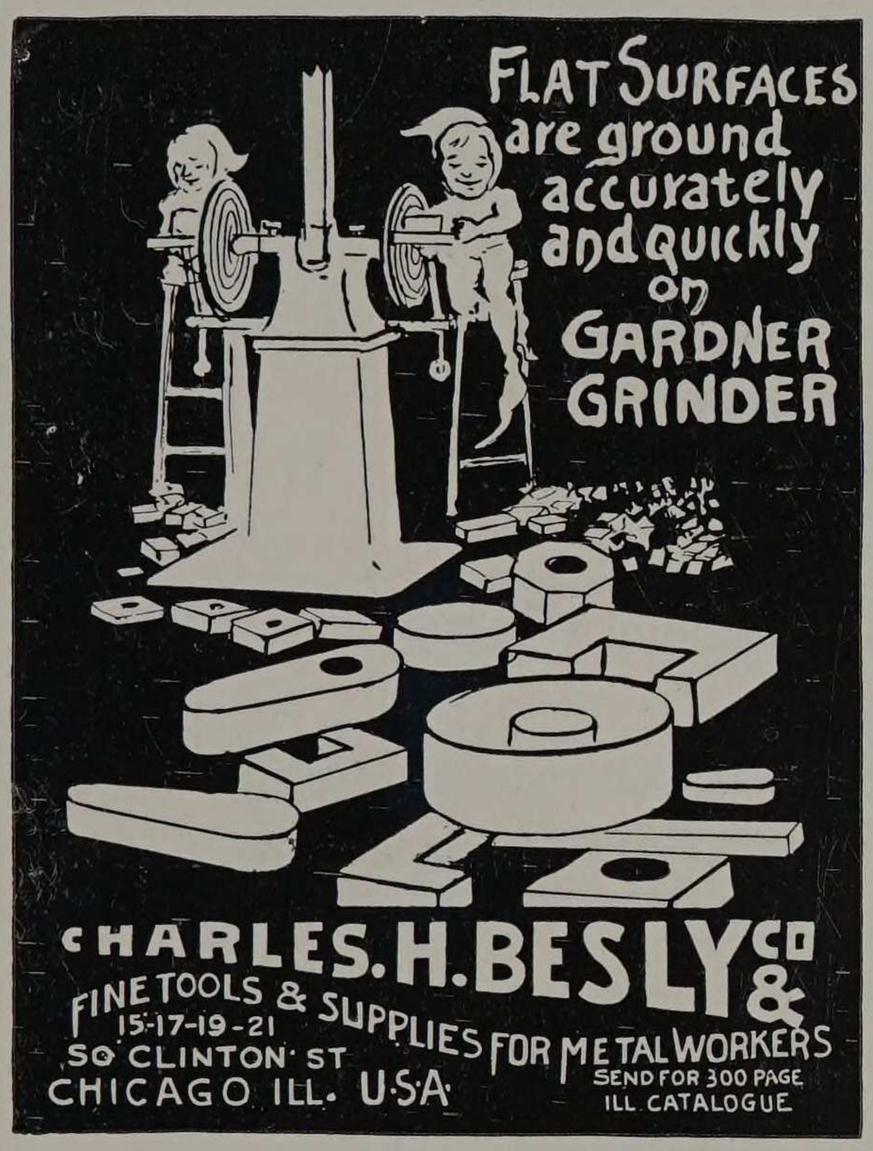
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Dec. 8—Drafting room beginning to become densely populated.

Dec. 9—Shep much embarrassed by comments from forge shop.

Dec. 12—Drafting rooms never were so popular.

Dec. 13—Fulcrum gets out a good Christmas number.

Dec. 14—The calm before the storm. *First contribution to the Integral.*

Dec. 15—Exams. That's all. That's enough.

Dec. 16—More than enough.

Dec. 17—Some of them still at it.

Dec. 19-January 1—Christmas vacation. Editor gets up every morning, determined to go to work next day.

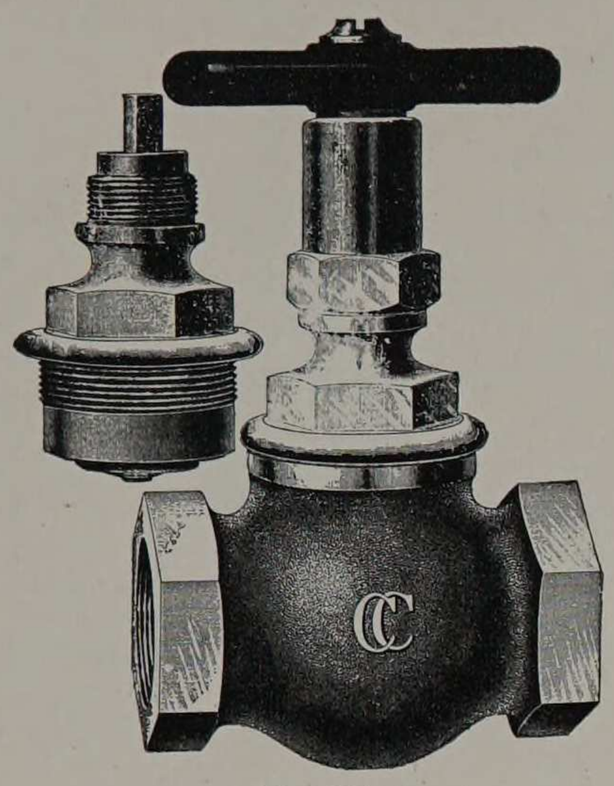
Jan. 2—Registration day again. No beards. Two weeks is too short.

Jan. 3—Paddy Carroll laughs uproariously at joke of getting school spirits in bottles.

Jan. 4—Mandolin Club resumes rehearsals.

Jan. 5—Glee Club ditto.

Jan. 6—"Chop Suey" Hodges takes out naturalization papers.



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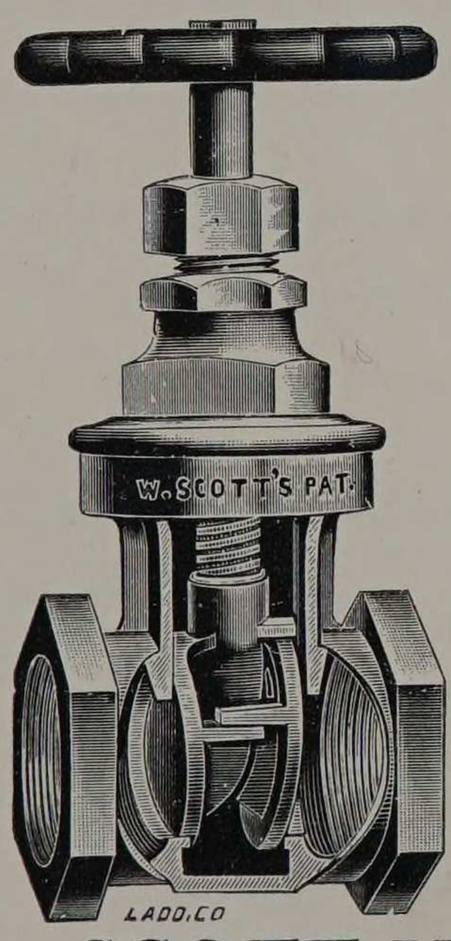
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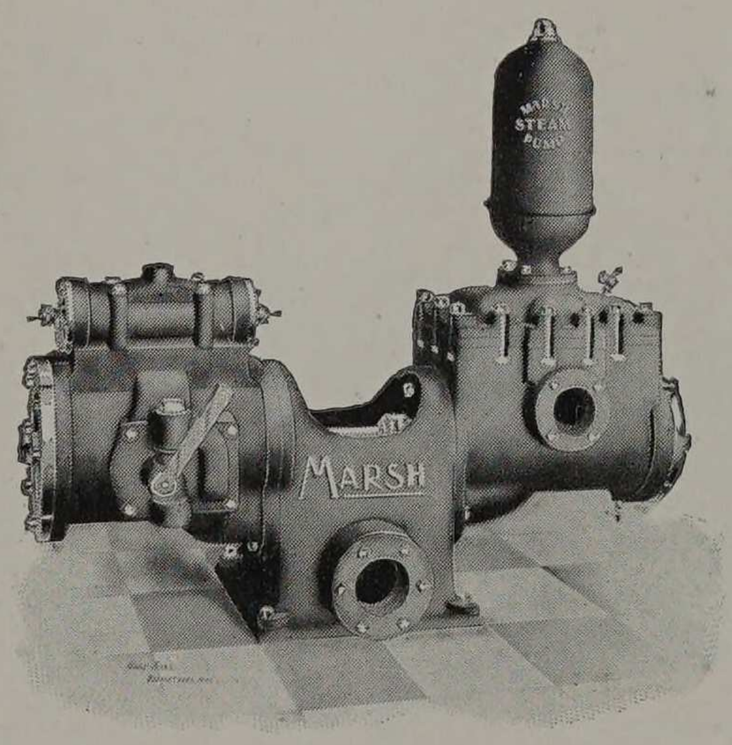
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Jan. 8—Editor has long session, and works out plan of part of the book.

Jan. 9—Prof. Wilcox says that of 14 times he performed an experiment, 7 times it came one way, and 8 times the other.

Jan. 10—Orchestra resumes practice.



Jan. 11—Kilgore says he cannot change to 8:30 class because it would interfere with his breakfast.

Jan. 12—Carr was seen unaccompanied by Carpenter. Can it be possible they have quarreled ?

Jan. 13—Large consignment of frigidity from Medicine Hat. Question of yesterday satisfactorily explained, but editor forgot explanation.



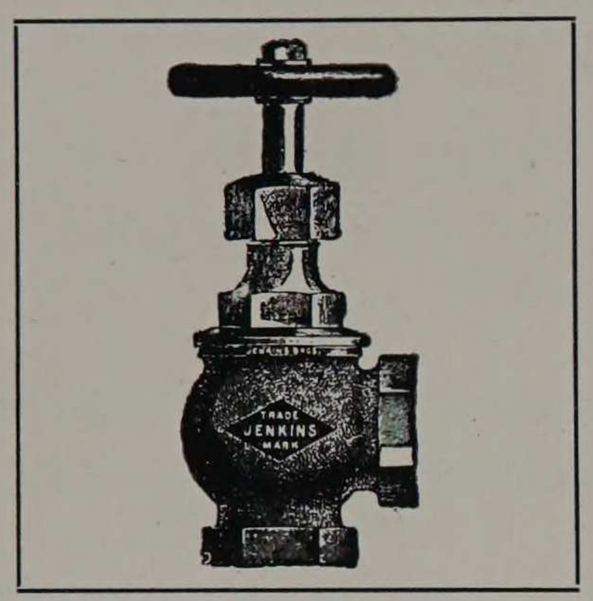
Jan. 14—First photos taken for Integral. Annual photo contest on, with Miller, Ellett and Levings entered.

Jan. 15—'06 Radics feed themselves at the Baltimore.

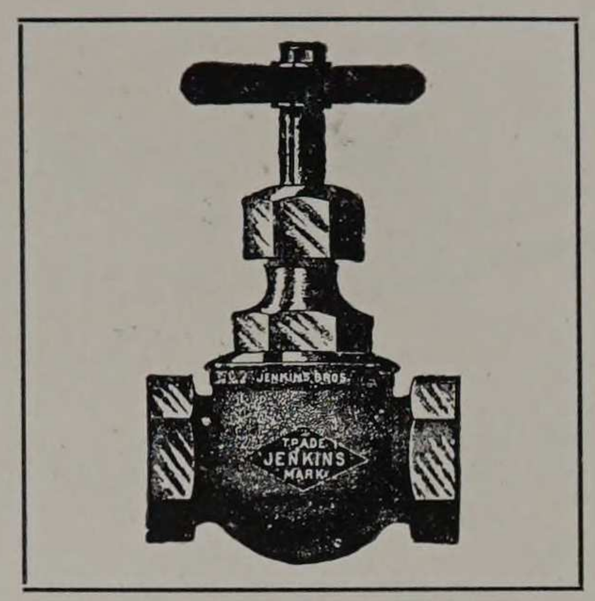


Jan. 16—Forty-two inch T-square taken from rack in drafting room. Owner uses up many periods in unsuccessful attempt at its recovery.

Jan. 18—Another Fulcrum. Badger starts uproar with comparison of courses.



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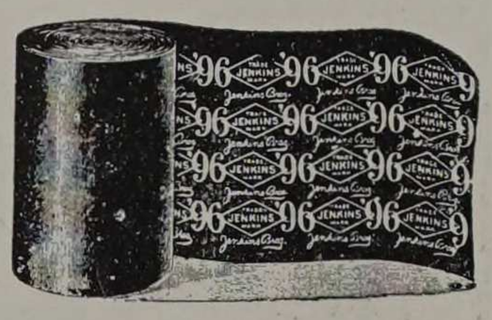
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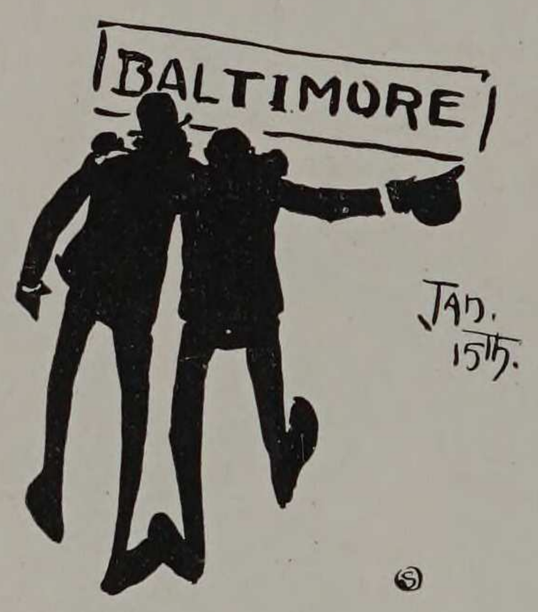
Jan. 19—Uproar continues. Every Prof says his school is harder.

Jan. 20—Freshman picture taken. No score.



Jan. 21—Bowling tournament starts. Basketball teams have their pictures taken. Score, Miller, 1.

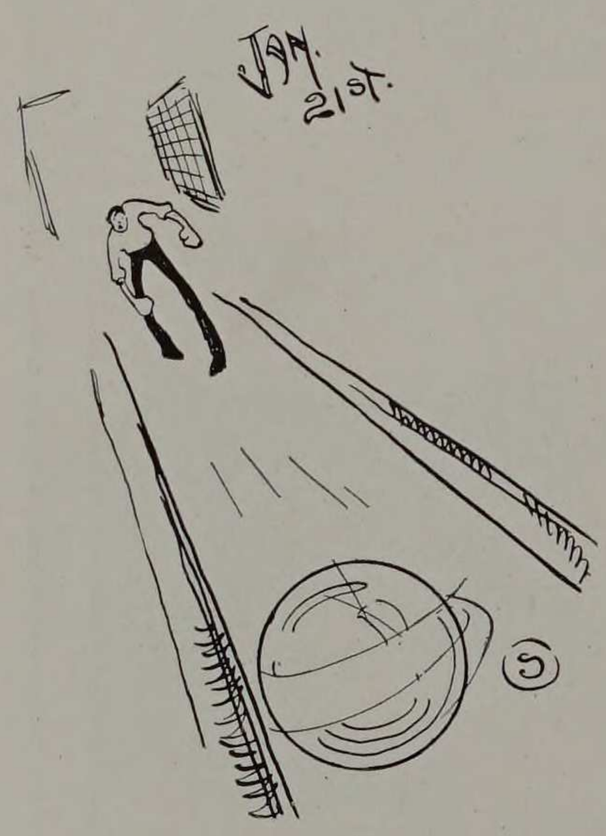
Jan. 22—Walinger has busy day. '06 Radics, Phi Kaps, '06 Civils, Delts, and Miller all have picture taken. Score now stands Miller—5, Ellett—3, Levings—2.



Jan. 23—Board works hard to have all pictures taken soon.

Jan. 24—First appearance of F. N. Wilson's red flannel shirt and red necktie.

Jan. 25—Weedy finally disposes of his last pair of gloves, having had them on sale since November 29.



Jan. 26—Junior picture taken. Each contestant advances one.

Jan. 27—Radic pig at Ellett's. "It's all right."

Jan. 30—Another assembly to hear Rev. Sears.

Jan. 31—Nothing but work.

Feb. 1—Everbody gloomy on account of work.

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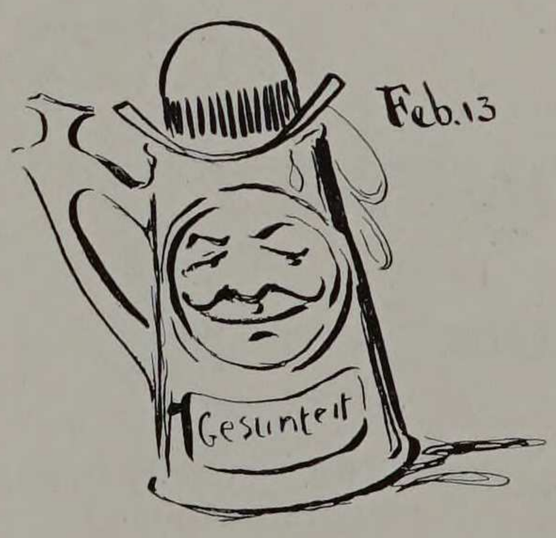
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Feb. 2—Gloom deepens.

Feb. 3—Seniors lighten their gloom with smoker.

Feb. 4—Y. M. C. A., football, '07 class and '07 Radic pictures taken, Ellett and Levings pick up one. Contest is becoming close.

Feb. 5—Levings has individual taken, tying Miller for first. Score now is Miller—6, Levings—6, Ellett—5.

Feb. 7—'08 Radic picture. No count.

Feb. 8—Glee and Mandolin Clubs begin to put in overtime.

Feb. 9—G. and M. C. practice from 8:30 a. m. to 12:00 p. m.

Feb. 10—Glee Club concert in Mission great success. Senior Electricals in evidence.

Feb. 11—Ellett has individual picture taken. Score now a tie at 6. de Beer announces that the Clubs may go to Denver.

Feb. 13—de Beer has new hat and overcoat, i. e., Glee Club concert a financial success.

Feb. 15—Sophs tie Juniors for first place in the bowling tournament.

Feb. 16—Architect's picture taken.

Feb. 17—Delts give smoker to Pan-Hellenes.

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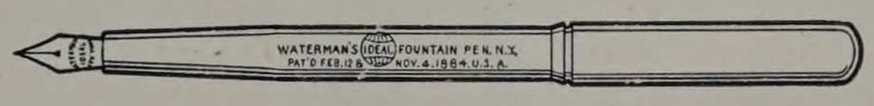
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Feb. 18—Bowling tournament ends with Sophomores on top.

Feb. 19—Glee Club trip cut down to St. Louis.

Feb. 20—'06—22, '08—14. No use crowing. Last faculty picture taken.

Feb. 21—Senior Mechanical Society has picture taken. Lewis beats Armour at basketball.

Feb. 22—Washington's Birthday. Glee Club has picture taken, making Ellett and Levings tied for first place. Assistance given to young lady 'phoning. Clarke and Hess win in two-man tournament.

Feb. 23—Delts celebrate Speer's birthday.

Feb. 24—Mandolin Club plays at Y. M. C. A. Freshmen give a dance but don't go to it themselves.

Feb. 25—Art work all in (?). That is, it should have been in.

Feb. 27—Prof. Phillips believes in advertising. He solemnly makes and reiterates the statement, "Here is where you get the Pi."

March 1—Brubaker, vexed in the drafting room, says "Gosh."

March 2—Definitely announced that Glee Club is to go to Ottawa, eighty-five miles. Hurrah for de Beer.

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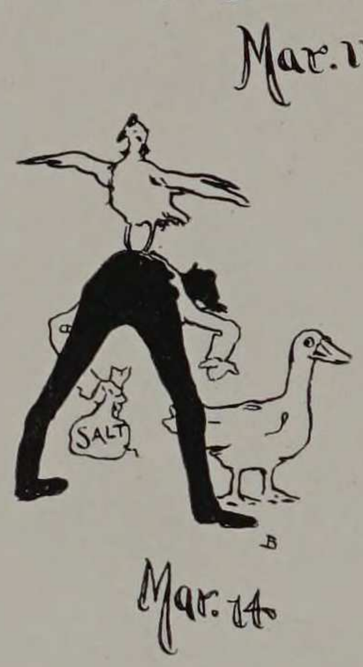
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March 3—Juniors give a dance.

March 4—Brubaker breaks a thermometer in Physics Lab., and says "D—n." High hopes are entertained of his total reformation.

March 6-9—Nothing doing.



March 10—'06 Radics at Pierce's.

March 11—Radical Club initiates new men at the Tip Top Inn.

March 14—Somebody states that Townsley was seen in the building. He was probably mistaken.



March 15—Fulcrum out to-day.

March 16—Coffeen, calling roll, "Moffat." No answer. Coffeen, "Moffat, did you speak?"

March 17—First glimpse of green. Glee Club at Ottawa.



March 21—Townsend's Ingersoll half hour fast, and he arrives at 8:10 for an 8:30 class. Problem—how late would he have been if his clock had been 10 minutes slow ?

March 22—Same as December 15.

March 23—Worse and more of it.

March 24—Everybody finishes. So does this.

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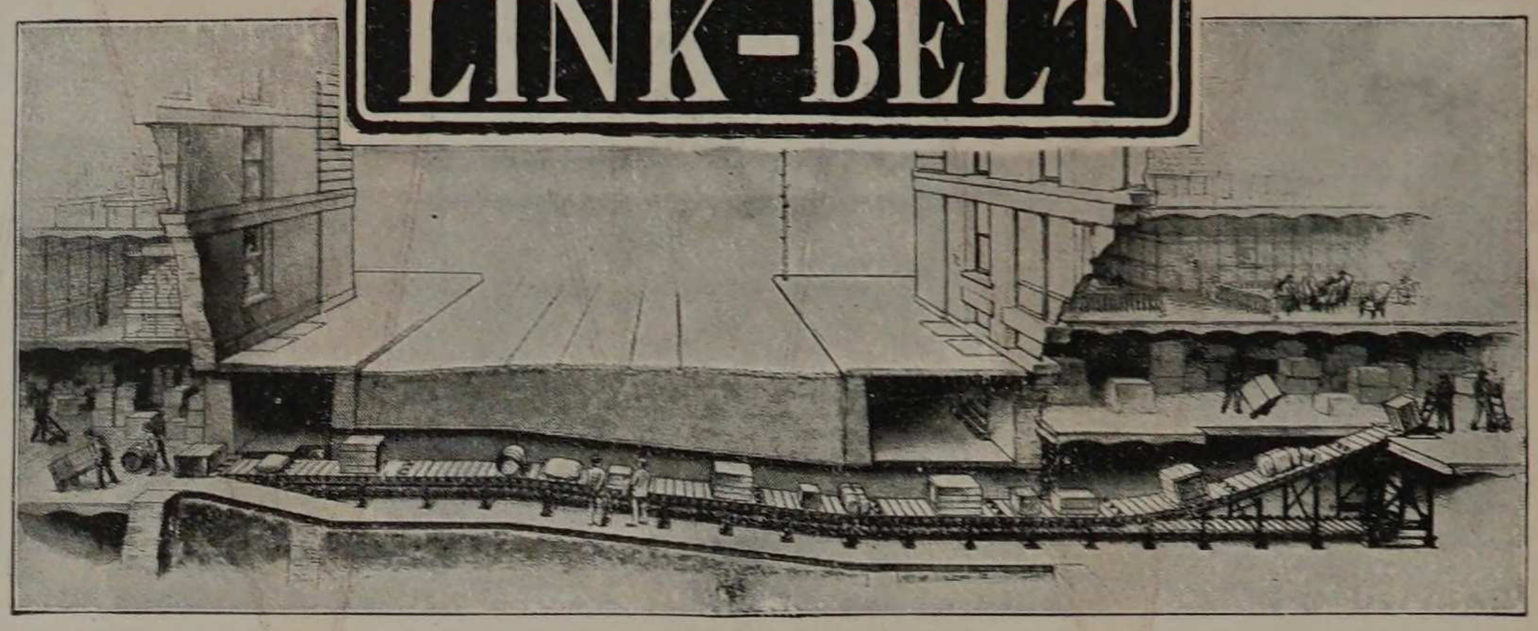
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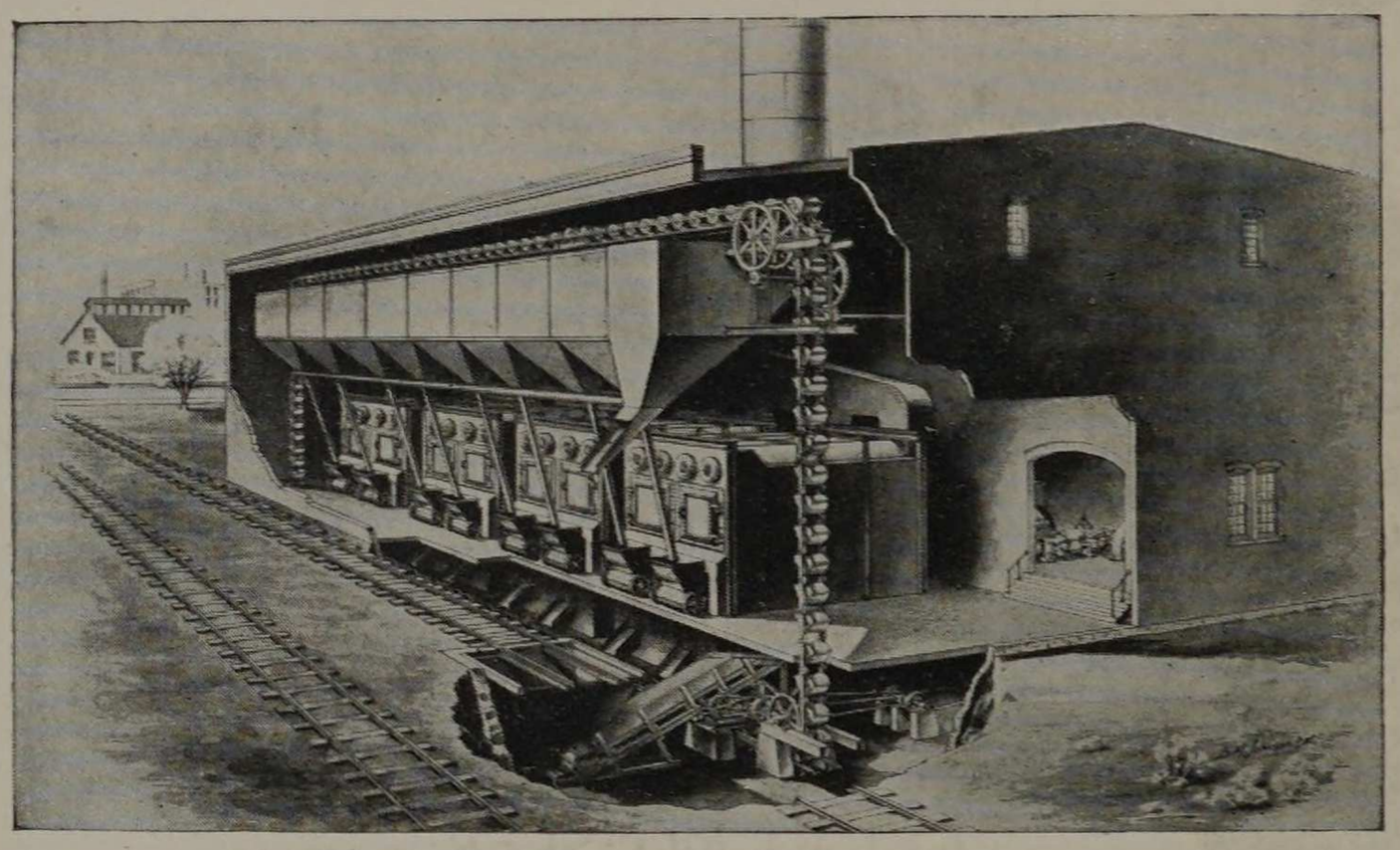
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Thank
heaven
it's
over