



INTEGRAL 1904





THE
BOOK
OF THE
CLASS
OF 1905

The Integral

Published Annually

by the

Junior Class

of the

College of Engineering

Armour Institute

of Technology

Volume Six

Imprinted in Chicago in the year nineteen hundred and four
Pettibone, Sawtell & Co. = = = Printers



EDICATION

To Mrs. Philip Danforth Armour,

a true friend and patron
of our Alma Mater,
do we respectfully dedicate
this book.



1904
 $\int$ **Integral**
1903



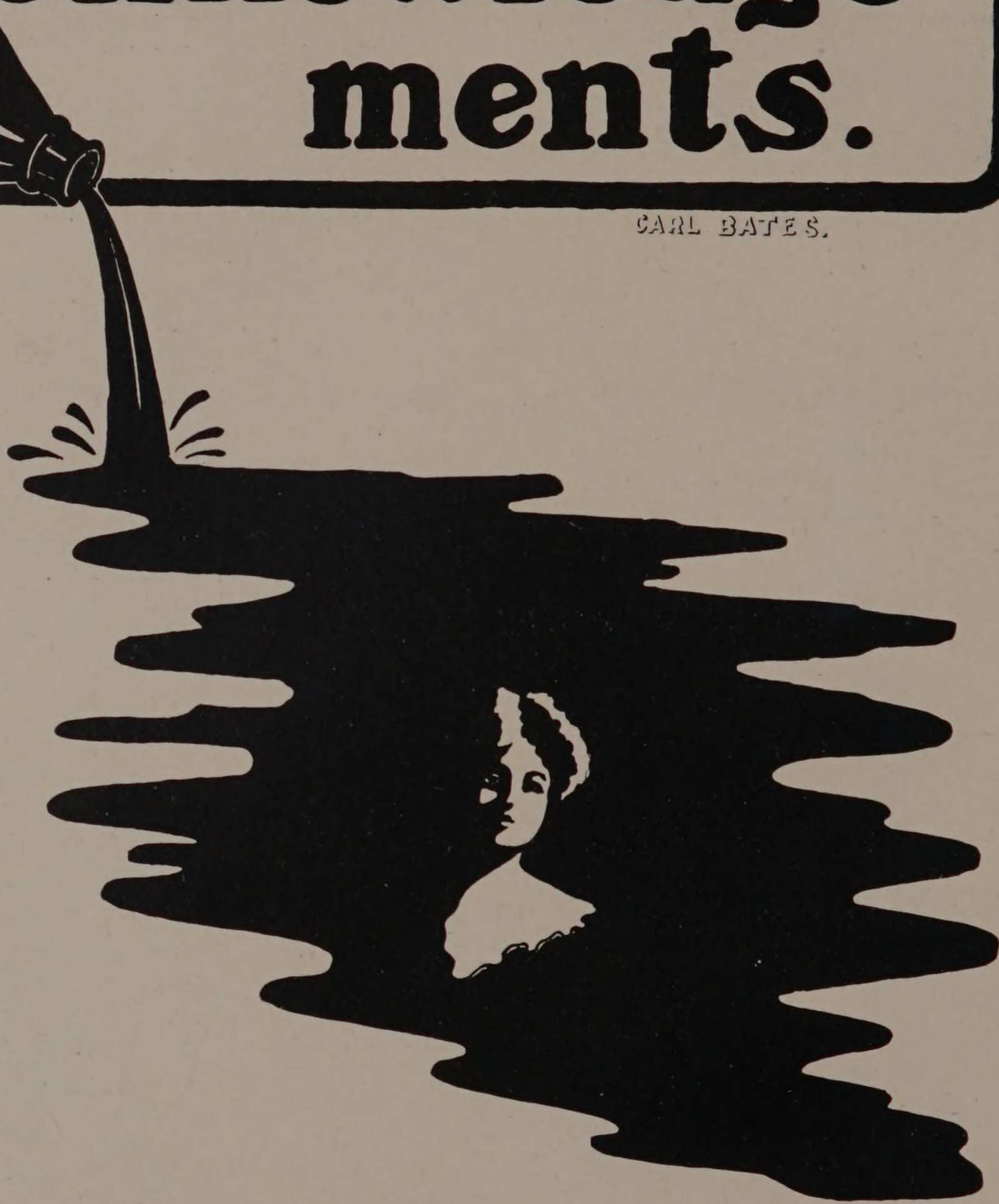
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HEAR YE—

To all friends and men of Armour,
the Class of 1905 presents this book and
trusts that herein may be found a true
Armour History of the College year of
1903-4, to entertain in the present and,
in the future, to recall its joys and
pleasures.

Acknowledge- ments.

CARL BATES.



To the following artists who have so cheerfully volunteered their services to help make this book what it is, the editor wishes to acknowledge his indebtedness, and thanks them for their kindly co-operation :

Harry W. Armstrong	Walter H. Hinton
H. Ralph Badger	A. M. Maris
Carl S. Bates	Sidney Harry Reisenberg
John A. Coughlin	Sarah K. Smith
E. G. Deming	Robert Squire
H. S. Dudley	Fred Stearns
Norman P. Hall	J. A. M. Swanson
R. B. Harper	Frank Zimmer

To all students, organizations and members of the Faculty who have helped us, do we also acknowledge our indebtedness, and especially upon the following men were we dependent :

Dr. Gunsaulus	W. Robert Wilson
J. O. Armour	E. F. Hiller
F. U. Smith	G. W. Borst
Dean Monin	O. R. Prescott
Dean Raymond	L. R. Levings
Prof. McClement	R. S. Spalding
Prof. Tisdell	L. P. Salinger
Dr. Scherger	Clarence Vredenburg
Prof. Shattuck	James C. Peebles
Prof. Rice	Wm. M. Cathrae
Mrs. Beveridge	A. Jens
T. W. Stevens	J. R. Smith
Tom Ellett	F. B. Whitney
Don Frary	C. C. Saner
Louis Byrne	



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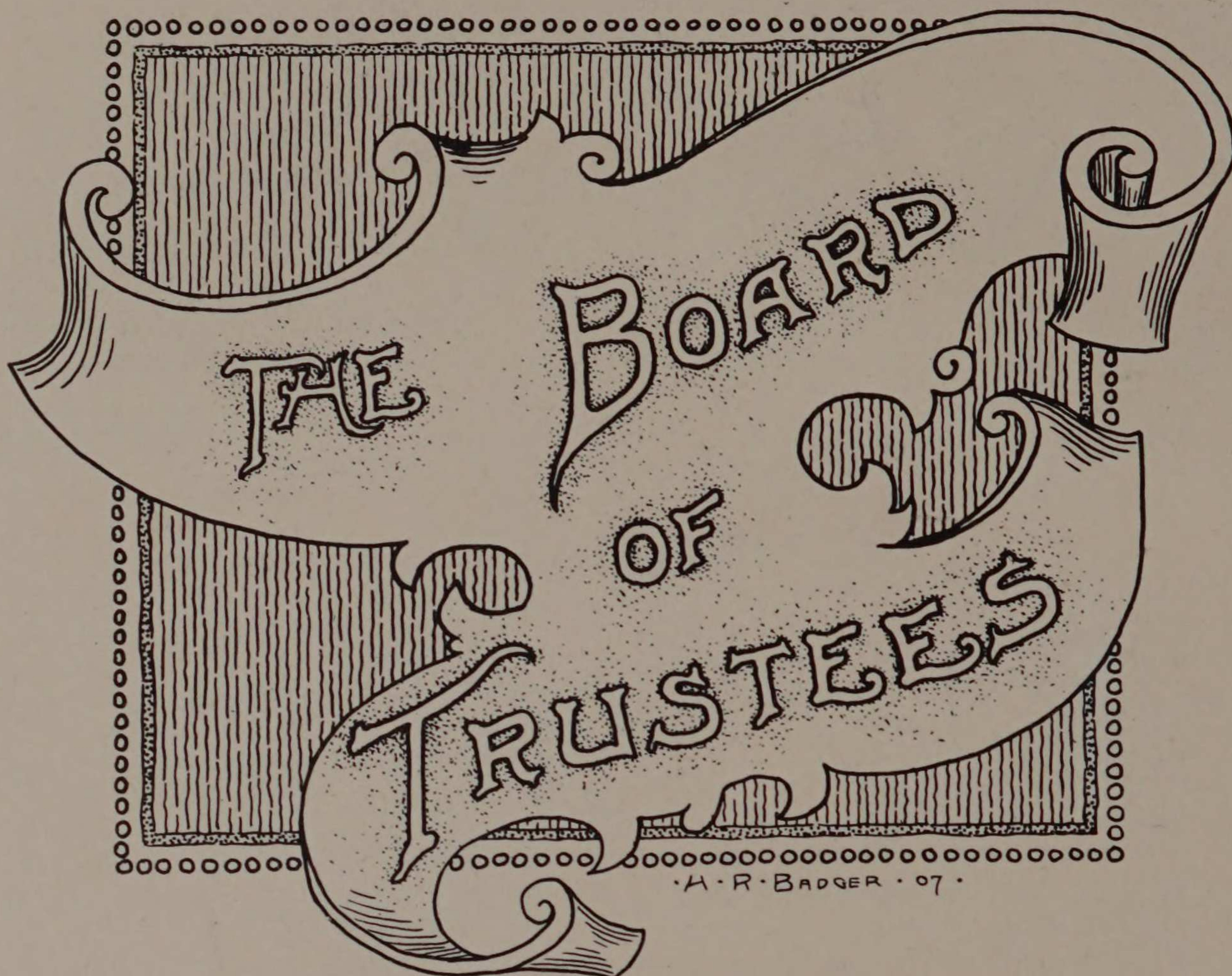
1903-1904

1903

June 22	Monday	-	-	June Entrance Examinations
June 29	Monday	-	-	SUMMER SCHOOL BEGINS
Sept. 10	Thursday	-	-	September Entrance Examinations
Sept. 21	Monday	-	-	REGISTRATION DAY
Sept. 22	Tuesday	-	-	COLLEGE YEAR BEGINS
Nov. 26-27	Thursday and Friday			Thanksgiving Holidays
Dec. 18	Friday	-	-	AUTUMN TERM ENDS

1904

Jan. 4	Monday	-	-	REGISTRATION DAY
Jan. 5	Tuesday	-	-	WINTER TERM BEGINS
Feb. 12	Friday	-	-	Lincoln's Birthday, a Holiday
Feb. 22	Monday	-	-	Washington's Birthday, a Holiday
March 25	Friday	-	-	WINTER TERM ENDS
April 4	Monday	-	-	REGISTRATION DAY
April 5	Tuesday	-	-	SPRING TERM BEGINS
May 30	Monday	-	-	Memorial Day, a Holiday
June 16-17	Thursday and Friday			Commencement Exercises
June 17	Friday	-	-	COLLEGE YEAR ENDS
June 20	Monday	-	-	June Entrance Examinations
June 27	Monday	-	-	SUMMER SCHOOL BEGINS
Sept. 8	Thursday	-	-	September Entrance Examinations
Sept. 19	Monday	-	-	REGISTRATION DAY
Sept. 20	Tuesday	-	-	COLLEGE YEAR BEGINS



J. OGDEN ARMOUR.
MRS. PHILIP D. ARMOUR.
MRS. J. OGDEN ARMOUR.
MRS. P. A. VALENTINE.

JOHN C. BLACK.
FRANK W. GUNSAULUS.
SIMEON B. CHAPIN.
P. A. VALENTINE.

FFICERS
OF

DMINISTRATION

The President,
FRANK WAKELEY GUNSAULUS.

The Dean of The Cultural Studies,
LOUIS CELESTIN MONIN.

The Dean of the Engineering Studies,
HOWARD MONROE RAYMOND.

The Comptroller,
FREDERICK U. SMITH.

The Registrar,
GEORGE F. DIETZ.

The Librarian,
MRS. JULIA BEVERIDGE.

• FACULTY •



• A • I • T •

HINTON.

EXECUTIVE COMMITTEE

C. BATES



The Executive Committee of the Faculty, consisting of the President and the Deans, *ex-officio*, and the following officers :

The Professor of Chemical Engineering,
WILLIAM T. McCLEMENT.

The Professor of Civil Engineering,
ALFRED E. PHILLIPS.

The Professor of English,
FRED MONROE TISDEL.

The Professor of Mathematics,
DONALD FRANCIS CAMPBELL.

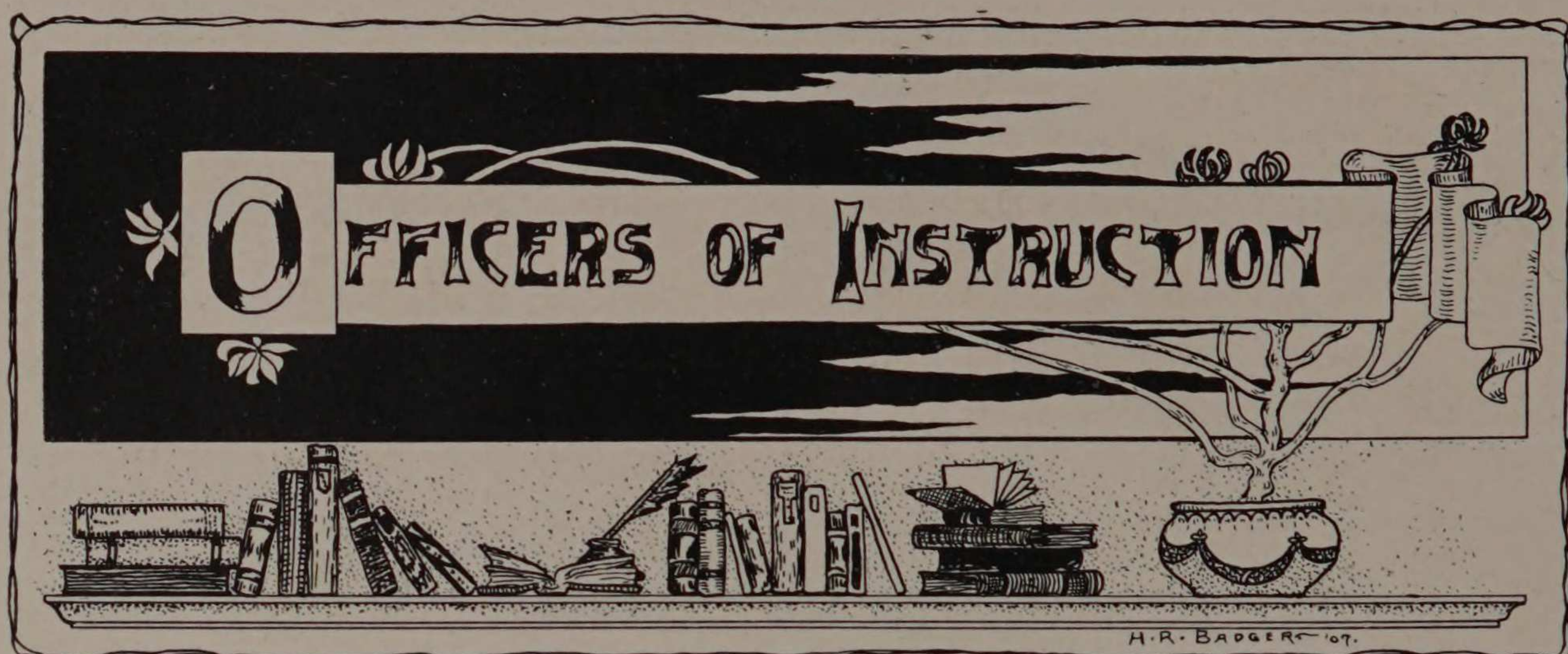
The Professor of Mechanical Engineering,
GEORGE FREDERICK GEBHARDT.

The Professor of Electrical Engineering,
CLARENCE EVERETT FREEMAN.

The Professor of Physics,
GUY MAURICE WILCOX.

The Professor of History,
GEORGE LAWRENCE SCHERGER.





College of Engineering

Frank Wakely Gunsaulus

President

A. M., Ohio Wesleyan, 1875. D. D., Beloit College, 1895. Beta Theta Pi.

Louis Celestial Monin

Dean of the Cultural Studies

Universities of Leipzig, Zurich, Heidelberg. Ph. D., Lake Forest University, 1891.
Zofingia, Natl. Sec. and Treas. of Switzerland.

Howard Monroe Raymond

Dean of the Engineering Studies

B. S. (in E. E.), University of Michigan, 1893. Phi Delta Theta.

William T. McClement

Professor of Chemical Engineering

A. B., Queen's University, Kingston, Canada, 1888. A. M., Queen's University, 1889.

Alfred E. Phillips

Professor of Civil Engineering

A. B. and C. E., Union University, New York, 1887. A. M., Union University, 1890.
Ph. D., Union University, 1894. Phi Delta Theta, Sigma Xi.

Fred Monroe Tisdell

Professor of English

A. B., Northwestern University, 1891. A. M., University of Wisconsin, 1893. A. M.,
Harvard University, 1894. Ph. D., Harvard University, 1900.
Beta Theta Pi. Phi Beta Kappa.

George Frederick Gebhardt

Professor of Mechanical Engineering

A. B., Knox College, 1895. M. E., Cornell University, 1896. A. M., Knox College, 1897.
Phi Delta Theta.

Clarence Everett Freeman

Professor of Electrical Engineering

B. S., Kansas State Agricultural College, 1889. M. S., Kansas State Agricultural
College, 1893. B. S. (in E. E.), Armour Institute, 1897.
E. E., Armour Institute, 1902.

George Lawrence Scherger

Professor of History

A. B., Indiana University, 1895. Ph. D., Cornell University, 1899.

Guy Maurice Wilcox

Professor of Physics

A. B., Carleton College, Minn., 1891. A. M., University of Wisconsin, 1902.



- Donald F. Campbell *Professor in Mathematics*
A. B., Dalhousie College, Halifax, N. S., 1890. A. B., Harvard University, 1894.
A. M., Harvard University, 1895. Ph. D., Harvard University, 1898.
- Walter F. Shattuck *Associate Professor of Architecture*
- John Edwin Snow *Associate Professor of Electrical Engineering*
B. S., Ohio University, 1892. M. S., Ohio University, 1895. E. E., Armour Institute, 1900.
Asso. Member of the A. I. E. E.
- Melville Baker Wells *Associate Professor of Bridge and Structural Engineering*
B. S., Purdue University, 1894. C. E., Purdue University, 1895.
Phi Delta Theta, Tau Beta Pi.
- Raymond Burnham *Associate Professor of Experimental Engineering*
M. E., Cornell University, 1897.
- H. B. MacFarland *Associate Professor of Mechanics*
B. S. Worcester Polytechnic Institute, 1894. M. M. E., Cornell University, 1903. Sigma Alpha Epsilon.
- *Robert W. P. Noble *Assistant Professor of Chemistry*
Ph. B., De Pauw University, Indiana, 1891. A. M., De Pauw University, 1894.
- Robert V. Perry *Assistant Professor of Machine Design*
B. S. (in M. E.), Armour Institute, 1897. M. E., Armour Institute, 1902.
- Norman C. Riggs *Assistant Professor of Mathematics*
B. S., University of Missouri, 1895. M. S., Harvard University, 1898. Phi Beta Kappa.
- Will Miller Sawdon *Assistant Professor of Mechanical Engineering*
B. S., Purdue University, 1898.
- George Walker Wilder *Assistant Professor of Electrical Engineering*
B. S., University of Wisconsin, 1896. Ph. D., University of Zürich, 1900.
- Ralph Herbert Rice *Assistant Professor of Electrical Engineering*
B. S. (in E. E.), Armour Institute, 1897. B. S., University of Chicago, 1901.
Associate Member, A. I. E. E.
- Ansel A. Knowlton *Assistant Professor of Physics*
A. B., Bates College, 1898. A. M., Northwestern University, 1903.
- Edward D. Agle *Supt. of Shops and Instructor in Machine Tool Work*
- Ben E. Holden *Instructor in Water-color rendering*
- James Ritchey *Instructor in Wood Working*
- Henry B. Thomas *Medical Examiner and Director of Physical Culture*
B. S., University of Chicago, 1899. M. D., Northwestern Medical School, 1903.
Kappa Sigma, Phi Sigma.
- Charles Wilder Leigh *Instructor in Mathematics*
B. S., University of Illinois, 1897, Phi Gamma Delta.
- Oscar Anthony Rochlitz *Instructor in Chemistry*
B. S. (in E. E.), Armour Institute, 1901.
- Edgar R. Creamer *Instructor in Forging*

*On leave of absence.



- Ernest Harrison Freeman *Instructor in Electrical Engineering*
B. S., Kansas State Agricultural College, 1895. B. S. (in E. E.), Armour Institute, 1902.
- Walter Thomas Charles *Instructor in Chemistry*
Ph. B., Sheffield Scientific School, 1900. B. S. (in Ch. E.), Armour Institute, 1902.
- Walter K. Smart *Instructor in English*
Ph. B., University of Chicago, 1902.
- Harry C. Coffeen *Instructor in Kinematics*
B. S., University of Illinois, 1898. M. S., University of Illinois, 1899. Phi Gamma Delta.
- H. L. Nachman *Instructor in Descriptive Geometry*
B. S. (in M. E.), Armour Institute, 1902.
- Clinton S. Woolfolk *Instructor in Business Law*
- William T. Howell *Instructor in Founding*
- Frank Hugo Bernhard *Instructor in Electrical Engineering*
B. S. in (E. E.), Armour Institute, 1901.
- Charles Bradford Tibbetts *Instructor in Mechanical and Free Hand Drawing*
- L. Allen Sommer *Instructor in Machine Tool Work*
- Walter J. Risley *Instructor in Mathematics*
B. S., University of Michigan, 1900. Delta Tau Delta.
- Conrad Jacobsen *Instructor in Chemistry*
Ph. B., Beloit College, 1900.
- Claude Irwin Palmer *Instructor in Mathematics*
A. B., University of Michigan, 1902.
- E. C. Briggs *Instructor in Mechanical Drawing*
B. S. (in M. E.), University of Illinois, 1903.
- M. H. Haertel *Instructor in Modern Languages*
B. S., St. Charles College, Mo., 1895. Ph. B., University of Illinois, 1901.
- Thomas Eaton Doubt *Instructor in Physics*
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, 1903-4, Sigma Xi.
- G. M. Chamberlin, Jr. *Instructor in Industrial Chemistry*
Cornell, 1896. Technische Hochschule, Darmstadt, 1898. Schule für Zucker Industrie
zu Braunschweig, 1902. Member American Chemical Society. Membre de
l'association des Chimistes de France. Membre de la Societe Technique
et Chimique—de Sucrierie de Belgique.



Armour Scientific Academy

Faculty :

Louis Celestin Monin, Ph. D.	<i>Dean</i>
Fred M. Tisdell, Ph. D.	<i>Professor of English</i>
George L. Scherger, Ph. D.	<i>Professor of History</i>
Donald F. Campbell, Ph. D.	<i>Professor of Mathematics</i>
*Robert W. P. Noble, A. M.	<i>Assistant Professor of Chemistry</i>
Ansel A. Knowlton, A. M.	<i>Assistant Professor of Physics</i>
Carrie Wright, A. B.	<i>Instructor in Latin</i>
Rosa C. Lang	<i>Instructor in German</i>
William W. Manning	<i>Instructor in English</i>
Henry B. Thomas, B. S., M. D.	<i>Director of Physical Culture</i>
*John A. Brewster, A. B.	<i>Instructor in Mathematics</i>
Charles W. Leigh, B. S.	<i>Instructor in Mathematics</i>
Oscar A. Rochlitz, B. S.	<i>Instructor in Chemistry</i>
Julia A. Beveridge, Librarian	<i>Instructor in Bibliography</i>
Thomas Eaton Doubt, B. Sc., M. A.	<i>Instructor in Physics</i>
M. H. Haertel, B. S., Ph. B.	<i>Instructor in Modern Languages</i>
Charles B. Tibbetts	<i>Instructor in Freehand and Mechanical Drawing</i>
Walter J. Risley, B. S.	<i>Instructor in Mathematics</i>
Claude I. Palmer, A. B.	<i>Instructor in Mathematics</i>
E. C. Briggs, B. S.	<i>Instructor in Mechanical Drawing</i>

*On leave of absence.



Class Organizations

of the

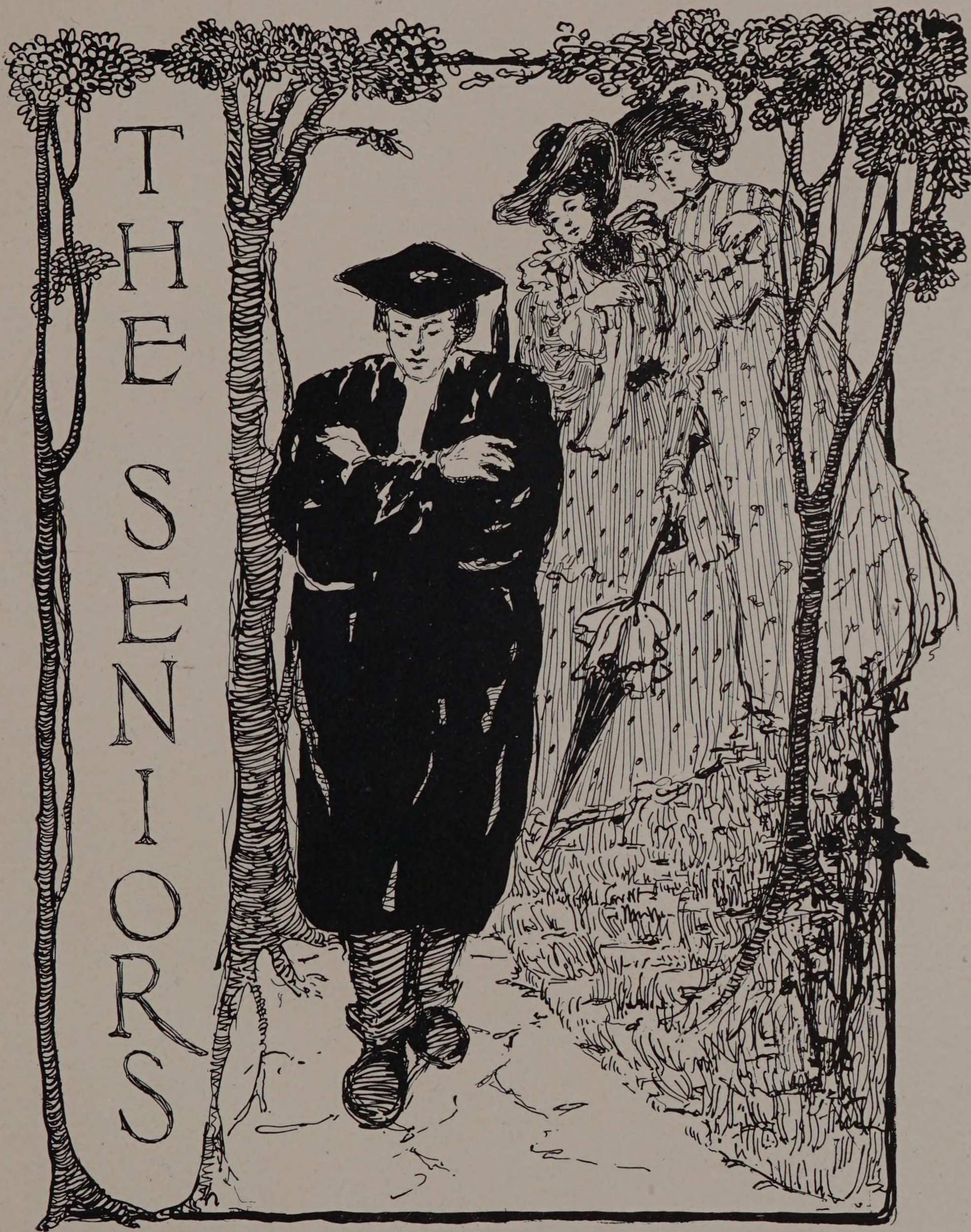
College of Engineering

Colors :

YELLOW AND BLACK.

Yell :

ARCH.—MECH.
CIV.—ELEC.
RAH—RAH—ARMOUR TECH.



The Senior Class

Colors : Scarlet and White.

Yell: Hullabaloo, balla, ballore !
What's the matter with naughty four ?
Raise a racket
Smash and crack it.
We're all right !
Whoop !

OFFICERS :

James C. Peebles, <i>President</i>	Harold L. Hamilton, <i>Vice-President</i>
Daniel Roesch, <i>Secretary</i>	Henry W. Clausen, <i>Treasurer</i>
Louis J. Byrne, <i>Cheer Leader</i>	

BUSINESS COMMITTEE :

Jens, *Chairman*; Borst, Collins, Prescott, Hart

SOCIAL COMMITTEE :

Coy, *Chairman*; Clausen, Strang, Lundgren, Frary

Integral Representatives : Byrne, Frary

Fulcrum Representative : Hamilton

Graduates in Chemical Engineering



Royden N. Davis, Phi Kappa Sigma

Born in Dublin, Ireland, 1882.
Prepared at Elkhart High School.
Charter Member Radical Club.
Member Chemical Engineering Club.

Herbert G. Zuckerman

Born in Texas, 1881.
Prepared at Armour Scientific Academy.
Charter Member Radical Club.
Class Treasurer, '01-'02.
Secretary Chemical Engineering Club.
Manager "Walking Delegate."



Graduate in Architecture

Charles Herrick Hammond

Born in Crown Point, N. Y., 1882.
Chicago Manual Training School.
Hyde Park High School.
Member of Radical Club.
Tennis Champion, 1902-'03.

Graduates in Civil Engineering

Henry W. Clausen, Delta Tau Delta

Born in Chicago, 1882.
Prepared at Hyde Park High School.
Class Treasurer, 1903-'04.

Frank A. Coy, Delta Tau Delta

Born in Belleville, Mich., 1882.
Prepared at Armour Scientific Academy.
Chairman Social Committee, 1903-'04.

Harry A. Hart, Delta Tau Delta

Born in Dakota City, Neb.
Prepared at Dakota City High School.
Sioux City High School.

E. Leonard Lundgren

Born in Chicago, 1883.
Prepared at Armour Scientific Academy.
Lolita Armour Scholarship.
Member Photo Society.
Member "Tech." Basketball Team, 1901-'02-'03-'04.
Finished December 18, 1903.



Emile Silver

Born in Ionia, Mich., 1880.
 Prepared at Ionia High School.
 With Hansell Elcock Steel Co., 1900-'01.
 Member of Orchestra, 1902.

Graduates in Electrical Engineering

Allen B. Benedict

Born in Chicago, 1883.
 Prepared at Hyde Park High School.
 Charter Member Radical Club.
 Vice-President of Class, 1900-'01.
 Leader of Orchestra, 1900-'02-'03.
 Leader of Glee Club, 1901-02.
 Member Armour Branch, A. I. E. E.

George W. Borst

Born in Harvard County, Iowa, 1873.
 Prepared at Epworth Seminary, Iowa.
 Ph.B., Upper Iowa University.
 Principal of Hesper Public Schools, 1900-'01.
 President Armour Department, Y. M. C. A.
 Chairman Board of Directors, Engineering Society.
 Member Armour Branch, A. I. E. E.

Arthur Buie

Born in Bay City, Mich., 1881.
 Prepared at Englewood High School.
 Armour Scientific Academy.

Fred L. Collins

Born in New York, 1882.
 Prepared at Redlands Union High School, Cal.
 Member of Y. M. C. A.
 Member of Technical Society.
 Member of Armour Branch, A. I. E. E.



Don R. Frary, Phi Kappa Sigma

Born in Chicago, 1881.
 Prepared at Calumet High School.
 Charter Member Radical Club.
 Member of Glee Club, 1900-'01-'02.
 Secretary Athletic Board, 1902-'03.
 Member A. I. T. Football Team, 1901-'02.
 Editor Integral, 1903.
 Chairman Junior Prom. Committee.
 Class Representative to Integral.
 Member Executive Committee Armour Branch, A. I. E. E.

Earl W. Grover

Born in Crete, Ill., 1883.
 Prepared at Chicago Heights High School.
 Englewood High School.
 Armour Scientific Academy.

Edwin J. Hiller

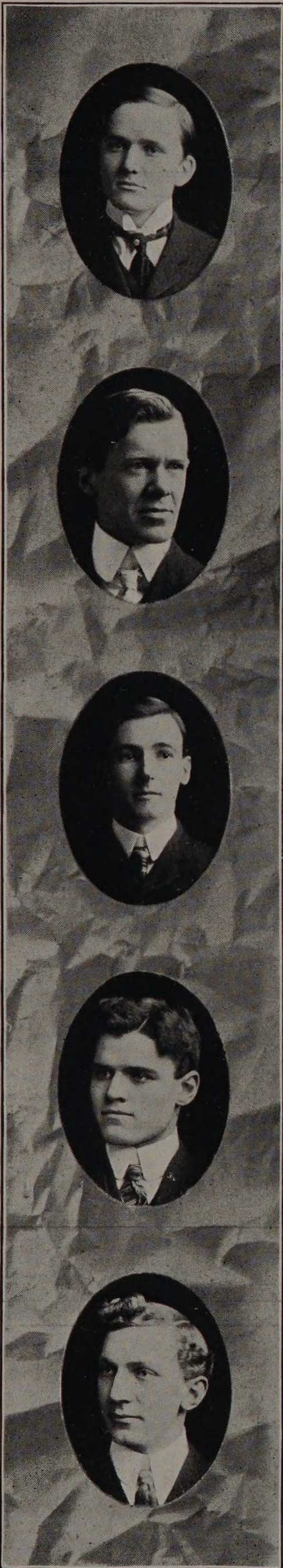
Born in Chicago, 1883.
 Prepared at Armour Scientific Academy.
 Charter Member Radical Club.
 Secretary Armour Branch, A. I. E. E.
 Member of Mandolin Club, 1897 to 1903.
 Treasurer of Class, 1900-'01.
 Member of Orchestra, 1900-'02-'03.

Augustus W. Jackson

Born in Glencoe, Ill., 1880.
 Prepared at Los Angeles High School.
 With Los Angeles Pacific R. R. Co., 1899-1900.

Arthur M. Jens, Phi Kappa Sigma

Born in Rock Island, Ill., 1879.
 Prepared at Rock Island High School.
 Armour Scientific Academy.
 Member Academy Football Team, 1899-1900.
 Captain Academy Football Team, 1899.
 Member Academy Basketball Team, 1898-'99.
 Member Mu Delta Sigma Fraternity.
 Charter Member Radical Club.
 Member of Athletic Board, '99-'00-'01-'02, President '01.
 Member of College Football Team, '98-'01-'02, Captain '01.
 Manager '02 Football Team.
 Member of College Basketball Team, '99-'00-'01-'02-'03-'04.
 President of Class, 1900-'01-'02-'03.
 Business Manager of Integral, 1903.



Morris J. Knapp

Born in Mason City, Iowa, 1882.
Prepared at Iowa College Academy.
Vice-Chairman Armour Branch, A. I. E. E.

Clarence T. McDonald

Born in Hardin, Ill., 1880.
Prepared at Des Moines High School.
With Mutual Telephone Co. of Des Moines, 1900.
Member Executive Committee Armour Branch, A. I. E. E.

James C. Peebles

Born in Dreghorn, Scotland, 1880.
Prepared at Shenandoah High School, Iowa.
Lewis Academy, 1900.
Member A. I. T. Baseball Team, 1902-'03.
President of Class, 1903-'04.

Pierre V. C. See

Born in New Brunswick, N. Y., 1879.
Prepared at Hyde Park High School.
With Western Electric Co.
Member Armour Branch, A. I. E. E.

Rupert H. Strang

Born in Richland Center, Wis., 1880.
Prepared at Richland Center High School.
Member A. I. T. Baseball Team, 1901-'02-'03.
Captain A. I. T. Baseball Team, 1902-'03.
Member Armour Branch, A. I. E. E.
Vice-President of Class, 1903.



Roy E. Williams, Phi Kappa Sigma

Born in Belton, Mo., 1881.
 Prepared at Armour Scientific Academy.
 Member Radical Club.
 Treasurer Photo Society, 1900-'01.
 Member Armour Branch, A. I. E. E.

Graduates in Mechanical Engineering

Louis J. Byrne

Born in New York, N. Y., 1881.
 Prepared at Hyde Park High School.
 Chicago English High School.
 Armour Scientific Academy.
 Charter Member Radical Club.
 Member Academy Water Polo Team, 1899-'00.
 Member Academy Football Team, 1900-'01.
 Captain Academy Track Team, 1899-'00.
 Member A. I. T. Football Team, 1899-'02; Captain, '02.
 Member A. I. T. Water Polo Team, 1900-'02.
 Member Glee Club, 1901-'02.
 Member Orchestra, 1900-'03.
 Member Athletic Board, 1899-'00-'01-'02; President, '02.
 Secretary of Class, 1901-'02.
 Chairman Business Committee, 1900-'01-'02.
 Class Representative to Integral, 1904.

Melville S. Flinn

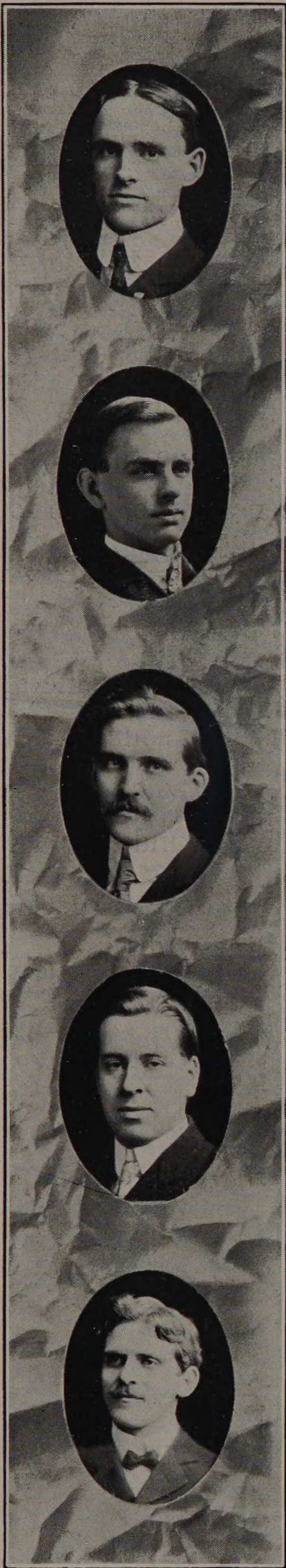
Born in Chicago, 1880.
 Prepared at Armour Scientific Academy.
 Member Mu Delta Sigma Fraternity.
 Captain Academy Baseball Team, 1900.
 Captain Academy Tennis Team, 1900.
 Member Academy Water Polo Team, 1900.
 Member A. I. T. Water Polo Team, 1901.
 Member Radical Club.
 Captain A. I. T. Tennis Team, 1902.
 Manager A. I. T. Tennis Team, 1903.

Harold L. Hamilton

Born in Jersey City, N. J., 1879.
 Prepared at St. Austin's High School, N. Y.
 Blockford College, County Dublin, Ireland.
 Armour Scientific Academy.
 With Brown & Sharpe, R. I., 1899.
 Vice-President of Class, 1901-'02-'03-'04.
 Manager *Engineering Journal*, 1902.
 Manager A. I. T. Baseball Team, 1903.
 Manager A. I. T. Bowling Team, 1904.
 President Technical Society, 1902.

George Manierre, Delta Tau Delta

Born in Chicago, 1876.
 Prepared at Milton Academy.
 Harvard College, 1900.



O. Raymond Prescott

Born in Marengo, Ill., 1881.
Prepared at Marengo High School.
Secretary Technical Society, 1902.
Member Armour Y. M. C. A.

Daniel Roesch

Born in Aurora, Ill., 1882.
Prepared at East Aurora High School.
Secretary of Class, 1903-'04.
President Camera Club.
Member Technical Society.

Charles C. Sampson

Born in Fairfield, Iowa, 1879.
Prepared at Ottumwa High School.
With Ottumwa Iron Works, 1897-1900.
Member Y. M. C. A.; Secretary, 1902.
Member Technical Society; Secretary, 1902.
Member Engineering Society; President, 1904.

James McCombie Watt

Born in Scotland, 1876.
McCombie Manufacturing Co., 1893-'98.
Prepared at P. Y. H. S.
Armour Scientific Academy.

Edward J. Wickersham

Born in Chicago, 1879.
Prepared at Armour Scientific Academy.
With M. C. Bullock Manufacturing Co., 1896-1900.
Member Armour Branch, A. I. E. E.
Member Armour Y. M. C. A.

The History of the Class of 1904

Seems, honestly, like ten years since we, the class of 1904, entered Armour Tech., and it was only four short years ago—short in space of time only, for the experiences that we have left behind us, and the things that have happened to us, have never before, we believe, been crowded into four years. But we have lived through it and now we are Seniors—those that are left of our noble class.

In the fall of 1900 we took courage and entered the sacred precincts of Dean Alderson's office to see if we could gain admission to Armour Institute of Technology. No telling how many tried that year, but when the first hustle was over and we had time to look around, each of us found that there were about ninety-nine other engineering infants who knew as little as he did. However, we began to learn before we had wasted many days, and we are proud to say that we are still at it.

Those were the days of the fair co-ed at Armour, and many are the tales that might be told of the triumphs of certain of our number. Remember the girls, fellows? Sad thing! But we have spent more time on serious affairs since they left, though some of those affairs were serious enough. Anyway—they are only a memory now. The real cause of their leaving is not generally known, but we are now in a position to publicly announce the truth about it. The facts in the case are that the young ladies found it impossible to study beneath the smiles and blandishments of certain of the Beau Brummels of '04, and the faculty considered it necessary to curtail this branch of Freshman activity.

And so they left us one by one,
Our halls are no more gladdened now
By the smile or the laugh of fair young maids,
And the whispered words of the lover's vow.

The first quarter of our brilliant career was lived through in a manner befitting the first class in the Twentieth Century. Armour was a pretty dead place in many ways when we came up the gang plank, and it became our duty to make the good old ship ring with the glad hurrah of lively students.

'03 gathered together enough courage to issue proclamations containing "Rules for the Freshmen," then yielding to the inevitable, they submitted to their fate of obscurity and retired into their shells. We tried to tempt them forth with offers to meet them on the gridiron or in the color rush. Not they—study was their only forte (surrendered on short notice) and they "had no time for nonsense." Consequently we nursed our ambition and sought other fields as an outlet for superfluous energy. At basketball we met all comers and won the inter-class championship. Our men were numerous on the glee and mandolin clubs, the water polo team, the athletic board of control, etc., and in our Freshman year we founded the Radical Club.

With the coming of '05 the spirit of our class met a worthy foe, and there was inaugurated a celebration which has since become a custom. Ours was the first annual Freshman-Sophomore rush and the first annual Freshman-Sophomore football game. These now bid fair to live as regular events in the opening of each school year.

In this year we again won the class basketball championship, we published a good Fulcrum, we gave one of the best leaders to the Glee Club that that organization has ever enjoyed, a Sophomore led the Mandolin Club, a Sophomore captained the football team, a Sophomore captained the basketball team, a Sophomore won the tennis tournament and represented A. I. T. in the Western Inter-collegiate Tennis Association, a Sophomore led the orchestra, and we did other things too numerous to mention.

In our junior year we claimed both college representatives to the Athletic Board of Control, we furnished the captain and the manager of the football team, the captain of the basketball team, we gave a junior prom. which was a credit to our class and to the school, and we did what many people said it was impossible to do again successfully, and what the class before us had not dared to attempt—we published an Integral and made a success of it.

And now we are Seniors and truly we have gained the right to rest upon our laurels. However, we have this year added to our achievements, so recently as to require no mention. It may seem to some that we boast in a loud voice but no true history of the class of 1904 could be written were it not filled with a long list of triumphs, and he who tells the truth without exaggeration is no braggart.

We have enjoyed four well filled years at Armour and it is nearly time for us to go. It is our heartfelt wish that our Alma Mater may live and prosper without us and we hope that she will have pleasant memories of the class of 1904.



JUNIORS

The Junior Class

Colors: Blue and White.

Yell: S-s-s-s-s, Boom, Rah, 05!

OFFICERS:

H. B. Marshall, <i>President</i>	R. H. Robinson, <i>Vice-President</i>
J. R. Smith, <i>Senior Secretary</i>	W. H. Penn, <i>Treasurer</i>
F. C. Heine, <i>Junior Secretary</i>	E. D. Meyer, <i>Sergeant-at-Arms</i>

FINANCE COMMITTEE:

W. H. Penn, *Chairman*; C. R. Snowdon, B. Natkin

SOCIAL COMMITTEE:

J. R. Smith, *Chairman*; D. E. Willard, H. B. Marshall
Fulcrum Representative: J. K. Thompson

Members of Class:

Armstrong, J. R.	Harvey, W. F.	Putt, F. A.
Ash, H. J.	Hein, P. L.	Ratcliff, W. A.
Bates, W. S.	Heine, F. C.	Redman, A. R.
Beamer, B. E.	Hill, W. E.	Robinson, R. H.
de Beer, F. M.	Johnson, W. B.	Rosenheim, B.
Brackett, J. C.	Jones, C. I.	Sharpe, H. M.
Brashares, H. E.	Kadic, J. F.	Smith, J. R.
Carroll, E. J.	Kapelusch, David	Snowdon, C. R.
Culbertson, R. G.	Kretzinger, W. K.	Speers, R. D.
Dean, Stanley	Lennartz, Garfield	St. Clair, O. A.
Durr, H. A.	Lewy, Daniel	Stem, L. H.
Engbloom, J. F. T.	MacMillan, A. W.	Thompson, J. K.
Fash, R. H.	Malcolm, R.	Tyler, A. W.
Fiske, G. W.	Marshall, H. B.	Underwood, B. A.
Goldsmith, F. R.	Meyer, E. D.	Vey, F. E. L.
Hannan, D. E.	Morris, L. E.	Weeks, A. L.
Hansen, A. A.	Natkin, Benjamin	Whitney, F. B.
Hansen, O. S. M.	Payne, J. H.	Willard, D. E.
Harper, R. B.	Penn, J. C.	Wright, M. E.



Edwards & Galloway

The History of the '05 Class

FRIENDS and fellow students, let us depart from the worn path of custom, from the egotistical reviews that appear year after year, and start a new path through the virgin forest of simplicity in class histories, where flattery and bombast are unknown. When you read this we want you to feel that you are not being bored with a lot of self-satisfied admiration and praise. In this we are perhaps departing from the expected, but do it, feeling that originality is a virtue. It is just as Goldsmith so sagely wrote, "The little mind who loves itself, will write and think with the vulgar; but the great mind will be gravely eccentric, and scorn the beaten road, from universal benevolence." So as publishers of this book, which we believe a credit to our institute and class, it would be entirely out of place to even mention the fact that as a class we have proven ourselves the peers of all our contemporaries, both as originators and pushers. While in our first year, notwithstanding our natural bashfulness, an inheritance Freshmen cannot escape, we furnished the majority of the baseball team with Hannan, Hatter, Brashares, Hill and Kretzinger. Then think of basketball without Kretzinger, "Charlie" Herrman, Malcolm or Culbertson. In 1902, the year we had our last and probably most successful football eleven that ever represented Armour, five of the "regulars" were '05 men. This review of college athletics is not merely words, but is the truth, and as a class we are proud of our men who have done so much to make '05 a synonym for achievements and brilliancy.

But it is as originators that we justly feel we have done much to increase college and class spirit. Freshman Tuesday and its accompanying mêlée,

the Freshman-Sophomore football game, the annual Freshman dance, the inter-class bowling tournament every winter term, are monuments to our originality and enterprise. It will be noticed that we have 57 names on our class list. These are all real and individual men, and any one of the 57 can be selected and something distinctive and original found in connection with him. An article of this character would be incomplete without mentioning a few of the better known varieties. First let us consider the man with the flowing mustache, Morris by name, and then consider Morris's little boy, whose age is still reckoned in months. Surely this is an evidence of originality, for where is another class that can have on its list the proud father of a baby born during the school year? Can any class produce a bowler who will roll a ball one-fifth as heavy as he is, and be as consistent and untiring as our own "Johnnie Smith?" From lands afar we have drawn, as would a magnet, the material we wish. From the southern jungles and swamps Thompson and Hill come to us, and from the icy north Goldsmith brings us news of the newest type of locomotive and the pitch of its whistle. Ash, the bashful and brave, represents us in the navy, and Malcolm, tobacco expert, takes care of the army. Only one of the 57 belongs to the fairer sex, and we blush when we mention the name of "Maggie."

"Maggie, Maggie,
Clothes all baggie,
How do your whiskers grow?"

are the introductory lines of a charming little four-act poem, set to music, and sung with great success by our captivating "Manteno tenor," Signor Levere Stem. "Chubby" Harper, and Underwood, "the extended," are varieties that need no sauce, and Brackett and Redman, the "Armour trio"* speak for themselves.

*We believe the third and silent partner is the general manager of the Hot Rooms for the life beyond. Between the three a hot time could naturally be expected at almost any time, as the opportunity presents itself.

Austria's promising young bud, Kapelusch, has faithfully stayed with us although greatly handicapped with a facial disease called "haironias lip-pus." But why say any more; words would soon become inadequate to fully express the facts about our individual members.

But one year more remains, and then we become of the majority who are employed or who employ. Those of us who will return next fall will continue along the line of our past achievements, and be fitted to occupy, next year, the place left for us by the present Seniors. We are in no degree satisfied with ourselves, and will strive to do better next year, and at this point the class of '05 wishes to thank you all for helping us with one of our duties this year, the publication of the Integral.



SOPHOMORES

The Sophomore Class

Colors : Navy Blue and Gold.

Yell : Rixey! Ray! Rah! Rix!!
Armour Tech., '06.

CLASS OFFICERS:

A. C. Newburn, *President*.
E. J. Smith, *Secretary*.

K. R. Slocum, *Vice-President*.
F. J. Flanagan, *Treasurer*.

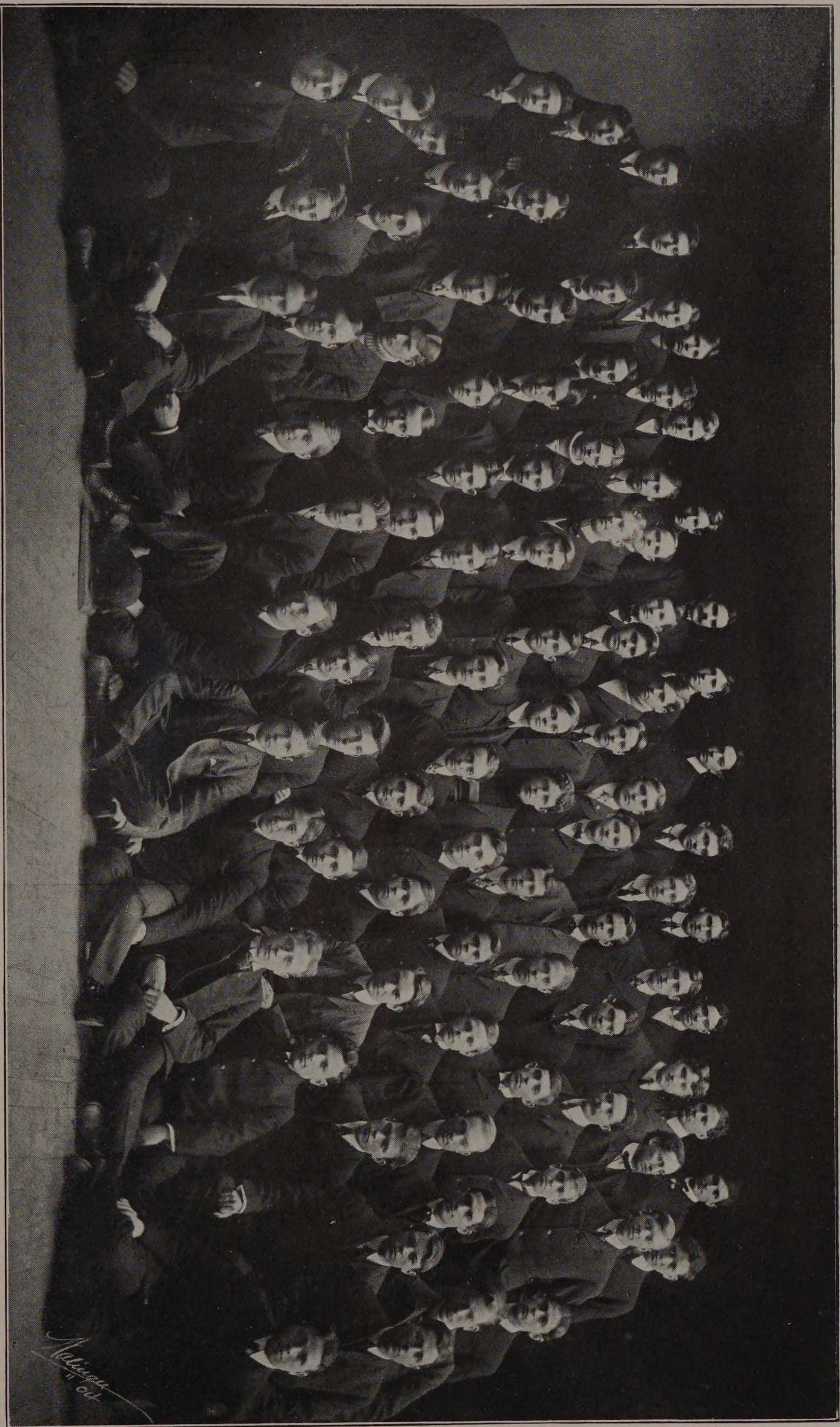
SOCIAL COMMITTEE :

Levings, Clucas

Integral Representatives : Deming, Gridley.

Members of Class:

Allen, O. T.	Edwards, F.	Jens, R. E.
Allyn, A. J.	Elkin, M.	Johnson, A. W.
Baker, Chas.	Ellet, E. H.	Johnson, C. O.
Ballard, E. L.	Enänder, E.	Kanzler, O. C.
Battis, R. J.	Farmer, Wm.	Keith, G.
Beazley, J. G.	Flanagan, F. J.	Kimball, R. W.
Becker, A. D.	Flood, W. H.	Klapper, Chas.
Blumenthal, E. A.	Ford, T. S.	Klein, S.
Bordwell, O. G.	Fry, A. J.	Kuhn, G. W.
Brubaker, W. L.	Goetz, H. L.	Lazear, W. B.
Carpenter, G.	Gookin, J. B.	Leininger, W. G.
Carr, A. L.	Grefenhagen, E. O.	Levings, L. R.
Castle, D. S.	Gridley, G. C.	Liebermann, E.
Chan, Y. H.	Hagelstein, E. L.	Livingston, J. M.
Chandler, F. E.	Haggander, G. A.	McAllister, B.
Clark, F. E.	Harrington, P.	McCrackin, W.
Clucas, G. W.	Hayes, C. E.	Menkin, E. F.
Collins, W. R.	Hepp, A. A.	Michael, M.
Cronk, E. P.	Hicke, T. A.	Miller, L. H.
Cutler, E. W.	Hiller, E. F.	Missigman, L.
Davis, A.	Holcomb, C. S.	Moran, C. E.
Deming, E. G.	Hotchkiss, C. C.	Morrison, R. A.
Edson, V. L.	Houghton, V. A.	Mulholland, A. R.



Neilson, R. A.
Newburn, A. C.
Nicholson, V.
Norris, F. H.
Osinga, J. H.
Paradise, L. A.
Peterson, N. P.
Pierce, F.
Polacheck, B.
Reker, W. H.
Rockwell, A. G.
Roem, O. S.

Ross, L. R.
Sawtell, H. J.
Schmidt, L.
Schumacher, J. H.
Scott, P. J.
Shaedlick, H.
Slocum, K. R.
Smith, E. J. L.
Smith, G. W.
Sollitt, L.
Spalding, R. S.
Stanton, J. M.

Strube, H. L.
Swearinger, R. E.
Thorson, L. M.
Torrance, R. S.
Viehoff, T. C.
Waldenfels,
Wanner, F. H.
Warzewski, F. S.
Wilson, F. A.
Wilson, J. R.
Wilson, W. R.
Woldenberg, M.

History of the Sophomore Class

EVERYTHING must have a beginning. This axiom is of special note when one is studying the progress of an institution or organization of any nature whatsoever.

The fall of 1902 saw the material of the present Sophomore Class, gathered together in an unorganized and hence leaderless crowd of verdant Freshmen. Within a week an organization had been begun which has developed into one of the finest of Armour's class organizations.

Coming as the men did from almost every section of the country they were naturally far from being acquainted with each other and with the rights and privileges of college life. As a class we realize our high degree of development, but rather than appear egotistical and overbearing we will not bear more fully on the subject than a short history demands.

In matters of class discipline did we not win both rushes and added to that the two inter-class games? This is more than any other class has accomplished and should set a standard that it will be hard for any class to equal.

Not content with physical prowess as manifested in the rushes and by our different athletic teams, see what the Fulcrum has become under the management of the present staff. There can be no doubt of the future Integral of 1905 being well taken care of and maintained at an even higher level than has been developed in later years.

The future is still a closed book, and it is far better so. It is still safe to prophesy, however, that the years remaining before we attain the highest point of a college career will be filled with earnest and telling endeavors to further all that is good in college life and its attendant joys and struggles. It is for the classes each year to strive to better the records of their predecessors and set a higher example for the classes coming after.

As a man is judged by what he does, so is a college judged by the men it turns out, and by their records after they have gone into the world of engineering.

Let us close by modestly assuring ourselves and our more unfortunate fellow students and fellow citizens that we consider the class of 1906 has had the most brilliant past and the best prospects for a more scintillating future than any of Armour's far-famed and justly celebrated classes.

FRESHMEN



The Freshman Class

Colors : Scarlet and Blue.

Yell : We're it—by heaven,
Armour Tech. '07.

OFFICERS :

F. Blenkinsopp, *President*
Sydney V. James, *Secretary*

H. R. Shepherd, *Vice-President*
H. A. Gray, Jr., *Treasurer*

SOCIAL COMMITTEE :

Buchanan, Chapman, Hebard

Integral Representatives : H. Ralph Badger and J. L. Ehretsman

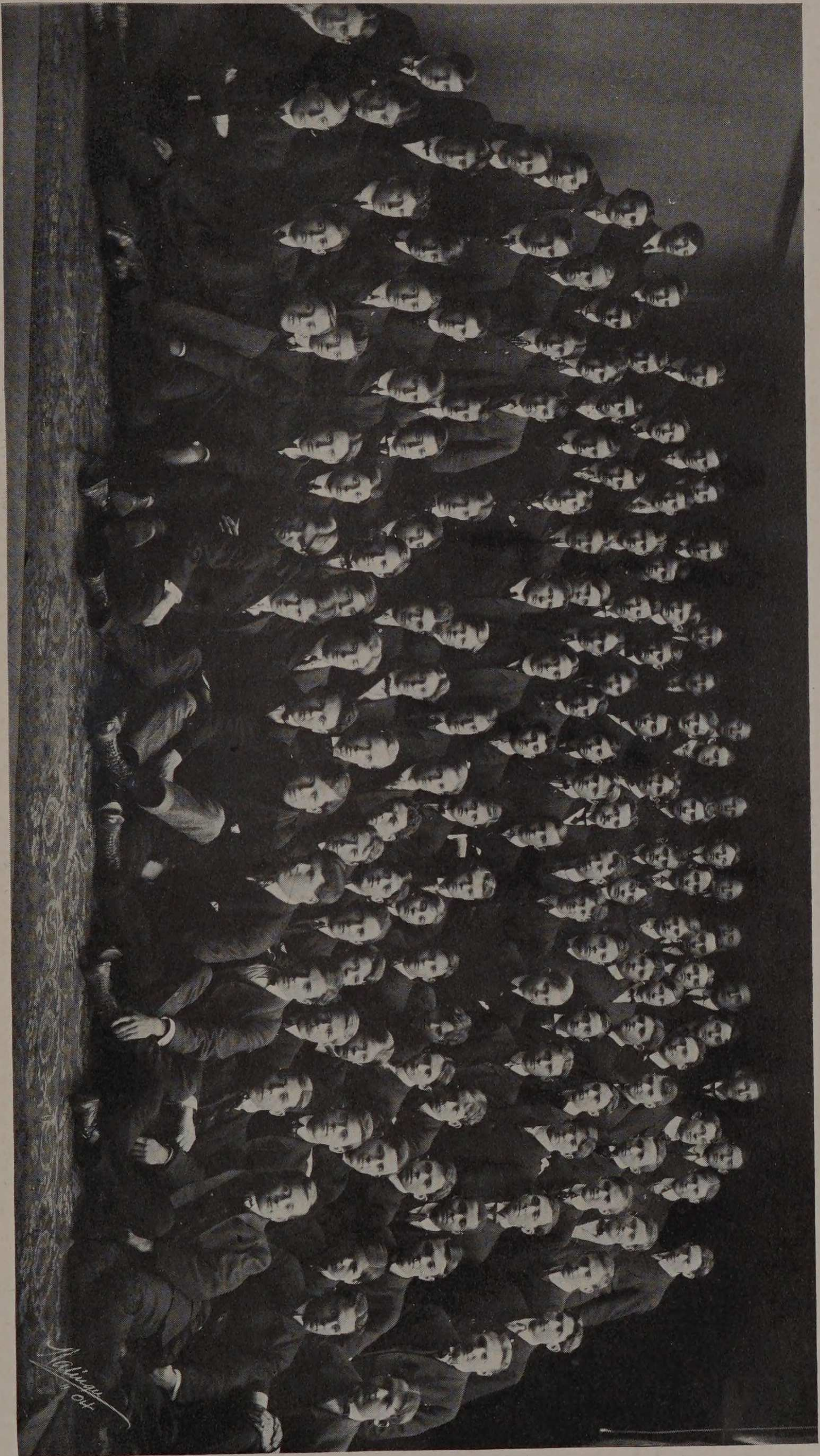
Fulcrum Representative : H. Ralph Badger

Freshmen:

Abel, Felix
Adams, Edgar
Alderson, H. B.
Badger, H. Ralph
Badger, L. H.
Bangs, L. W.
Banning, T. A., Jr.
Beck, R. H.
Benedict, A. T.
Binder, G. A.
Blackwood, R. W.
Blenkinsopp, F.
Boehner, A.
Brooks, R. C.
Brown, G. S.
Buchanan, B. B.
Budd, T. D.
Bunnelle, Paul
Burge, G. C.
Burkholder, F. L.
Busse, C. F.
Caps, A. W.
Castle, D. S.
Chamberlin, J. P.

Chambers, A. W.
Chambers, F. A.
Chapman, C. B.
Clarke, Fred.
Clarke, J. L., Jr.
Clasen, H. G.
Connor, A. A.
Copenhaver, H. K.
Davies, H. C.
Dearborn, A. S.
Dose, George
Dowdell, Charles
Dreffein, C. G.
Dunmore, Glen
Egbert, D. V.
Ehretsman, J. L.
Elliott, Macy E.
Epstein, M.
Eustice, A. L.
Everheart, W.
Flanagan, George
Froom, A. N.
Furry, William
Geist, A. C.

Gilbert, Raymond
Gilmore, Williard
Golden, Charles
Grant, Roy
Gray, H. A., Jr.
Groesbeck, A. J.
Hackett, J. L.
Hail, Joseph
Harmon, A. M.
Harris, H. A.
Harris, H. B.
Hartshorn, K. L.
Hayden, Albert
Hayden, Julian
Haynes, P. E.
Heath, C. S.
Hebard, W. F.
Heimerdinger, C. C.
Heinsen, G. M.
Henning, C. S., Jr.
Hess, E. H.
Heuchling, F. G.
Hewitt, W. F.
Hills, L. P.



Hodges, G. C.	Matchett, J. C.	Singer, S. C.
Hodges, W. B.	Mathews, G. W.	Sleeper, Fred
Hoffman, Balthasar	Mathews, G. F., Jr.	Sleezer, Frank
Hoffman, B., Jr.	Megahy, J. A. E.	Sleezer, Lyle V. O.
Hooper, B. C.	Meyer, O. C.	Smalley, J. S.
Hopkins, R. H.	Michaelis, F. G.	Smith, C. H. W.
Horlock, D. G.	Mitchell, A. J.	Smith, C. U.
Hough, W. B.	Modine, Arthur	Smith, L. B.
Howell, Glenn	Moffat, R. W.	Stagg, W. V.
Jackson, T. F.	Morrill, R. P., Jr.	Stanton, Gustave, Jr.
James, S. V.	Morrison, Rudolph	Steward, R. F.
Jarrow, H. W.	Mulloy, J. B.	Sturgis, Fred
Jones, E. W.	Myres, E.	Teesdale, C. H.
Jones, H. W.	Myres, H. O.	Thompson, Morris
Jones, L. B.	Nichols, H. W.	Tiffany, Ralph
Jones, M. T.	Nind, J. N., Jr.	Tompkins, G. D.
Jorgensen, A.	Olson, Arthur	Townsley, L. R.
Kelkenney, A. A.	Osterbeck, H. A.	Tremaine, H. A.
Kenner, R. A.	Pacyna, Arthur	Truesdell, O. E.
Kilgore, C. E.	Pahlman, P. J.	Turnbull, T. J.
Kimmev, H. B.	Perkins, R. A.	Turner, Mac
Lane, J. M.	Perlstein, Benjamin	Wachs, Theodore
Larkin, C. M.	Porter, L. W.	Walbridge, J. T.
La Salle, G. E.	Quackenbush, A. D.	Waldenfels, Fred
Laubach, G. P.	Raymond, A. B.	Walter, R. C.
Leddy, D.	Rech, Everett	Welch, H. V.
Lehman, W. L.	Reitter, Ivan	Wells, J. B.
Leiren, Martin	Richards, R. J.	Wendell, R. B.
Leyden, T. J.	Rogers, F. G.	Wendt, H. L.
Lichtner, W. O.	Rosenberg, Harry	Weston, F. W.
Luce, T. W.	Roush, L. C.	Wheeler, H. M.
Lurvey, D.	Rowe, H. T.	Wright, R. A.
McConoughey, E. W.	Salsbury, Edward	Williams, Wallace
McCoy, Lloyd	Sanders, Walter	Wilsey, G. H.
McHugh, C. G.	Sartorious, Henry	Wilson, J. R.
McMinn, R. H.	Satterthwaite, Le Roy	Wolfe, E. J.
Maher, L. W.	Saunders, J. E.	Wolff, C. H., Jr.
Main, F. W.	Schermerhorn, W. E.	Wooley, G. G.
Maine, Atwood	Schmidt, J. L.	Yates, G. W.
Manning, Rudolph	Schoger, L. E.	Young, L. B.
Mansfield, William	Shepherd, H. R.	
Maris, A. M.	Sigwalt, E.	

Ye Chronicle of the Class of 1907

Public Auction! Going at a great sacrifice! Will have to be gotten rid of! Some 200 odd..... With this loud detonation were we ushered as Freshmen into Armour Tech. Is it a wonder that when we first heard it we trembled slightly and had unwilling thoughts that our end must be untimely near? And yet now, after nearly a year has elapsed, we are still alive, still not auctioned at "a great sacrifice," still not "gotten rid of," still some "200 odd" strong. How is this to be accounted for, when at the beginning of the year the Sophs scattered their yellow literature, announcing the date of our fate, so broadcast? The most probable solution for this is that the would-be auctioneer (the class of '06) lost his nerve, while possibly it may be that a bidder of sufficient means to purchase such a choice, rare, high-priced article as the class of '07 could not be found. At any rate we have prospered marvelously well without paying the slightest heed to those "laws" which the above auctioneer proposed that we should follow.

Though our career has been short it has not been without incident. The night previous to our formal introduction to the Sophs we demonstrated our artistic abilities in a very lasting manner. The huge divers colored '07 with which we emblazoned the corner may still be seen and next fall it will again stand forth, in bold relief, an emblem of our skill. The '07 sign which, in the darkness of the night, we hung high on the mission, was next morning seen by the wondering Sophs, who said with the wisest of looks: "Leave it there, they will get it good and hard for painting on the Mission." It was not until a light breeze moved it that the Sophs perceived how completely they had been fooled. Then came the rush. You well know how, when the Freshmen had once learned the object of the strife and were working in anything like unity, they steadily and rapidly forced the Sophs back from whence they had come. You all know how frightened the Seniors became about this time and how, believing their darling Sophomores about to be utterly routed, they stepped in and with great dignity called

time. It was exceedingly well—for the Sophs—that this was done for before much more time had passed they would have been enjoying a cool dip in Lake Michigan.

Next came the rush after the football game between the Sophs and ourselves, and this coming within a month of the first one and resulting as it did proved conclusively our superiority over our opponents as well as supporting our claim to victory in the former. It was at this game that we marched into and around the grounds escorted by a large band, each man with his colors flying. Without the slightest opposition did the band play throughout the entire game. When it was over we swept over the field one hundred and fifty strong, and my! how hard the Sophs did hit that west fence.

In other lines than these have we also been successful. The Freshman informal we gave proved a most enjoyable social affair as well as a profitable financial undertaking. Toward the last of the winter term, feeling that class spirit was at a standstill, we challenged the Sophomore class to a joint debate, in hopes of reviving the enthusiasm so evident at the first of the year. But of no avail—the Sophomores did not accept it.

We must now draw this to a close although much might still be said of what we have done. After all, this chronicle of the Freshman class must necessarily be more a prophecy than a history; we have as yet hardly passed one year of our existence, while before us we have more than three. We know what the past has brought us, but what does the future hold in store for the class of '07? There is luck in odd numbers and a double amount of it when the number is 7. Surely none but the blindest of eyes and the dullest of intellects can look forward into our future and there perceive other than the most illustrious of achievements by the most illustrious of classes—that of 1907.

ACADEMY



Armour Scientific Academy

Colors: Blue and Gold.

Yell: A. S. A., Rah! Rah!
A. S. A., Rah! Rah!
Hoo-rah, Hoo-rah,
Armour Academy, Rah! rah! rah!

The Senior Class

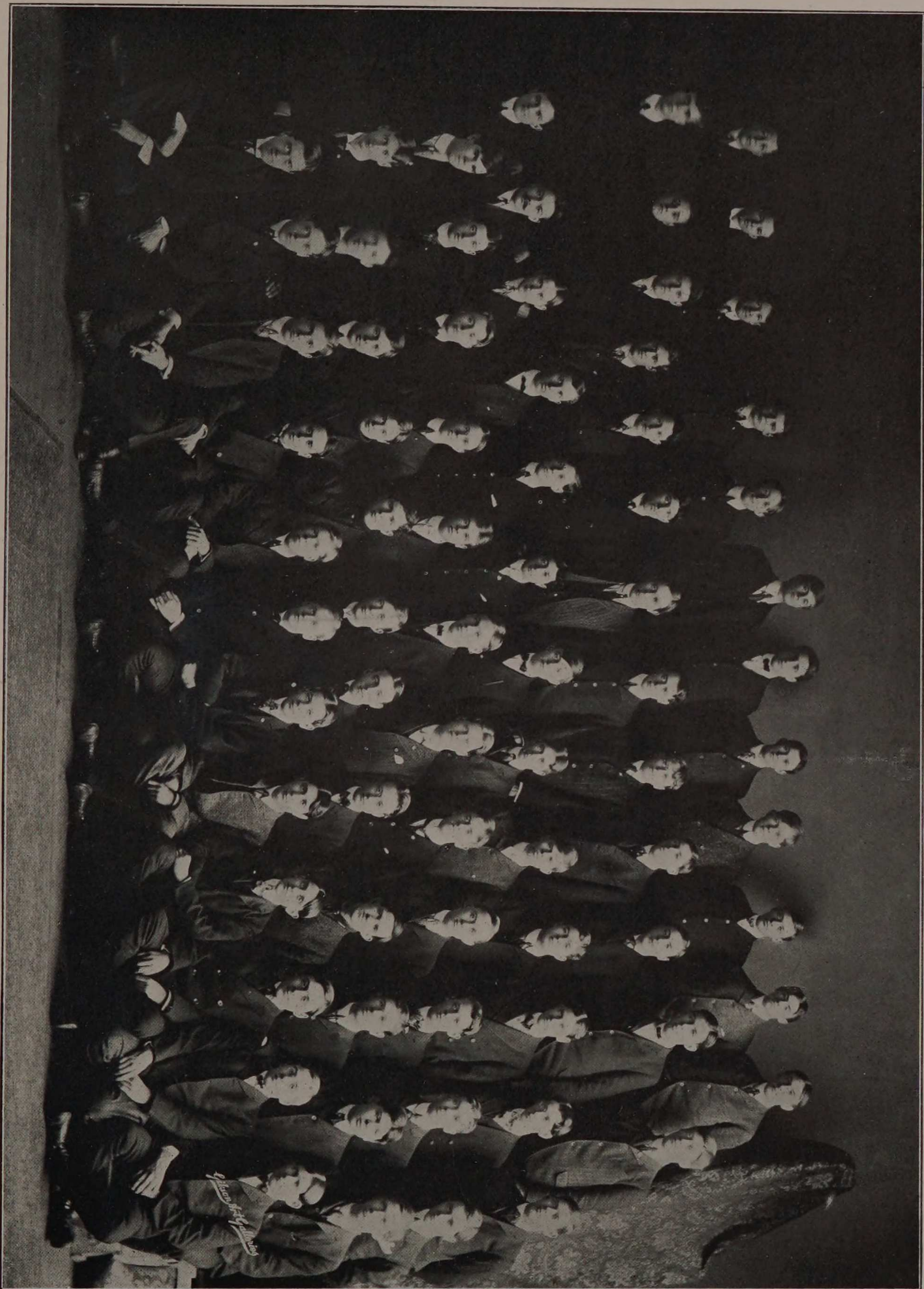
Yell: Hurray, hurroar,
Hurray, hurroar,
One, nine, ought,
And a great big Four.

CLASS OFFICERS:

H. W. Martin, <i>President</i>	Jack A. Benjamine, <i>Vice-President</i>
J. E. Monahan, <i>Secretary</i>	Wm. Trinkaus, <i>Treasurer</i>
<i>Integral Representative:</i> Chas. S. Packer	
<i>Fulcrum Representatives:</i> K. N. Critchfield, F. H. Honberger	

Members of Class:

Atkinson, S. K.	Clarke, E. B.	George, R. H.
Barett,	Cooke, R.	Glos, H. V.
Baird, W.	Critchfield, K. N.	Grace, S. G.
Bayley, R.	Crowell, P. C.	Haglind, B. G.
Bates, C. S.	Cummings, H. M.	Hait, M. F.
Bliss, H. D.	Doerr, R. J.	Holmboe, R.
Beers, L. M.	Dudley, H. S.	Hoard, O. H.
Benjamine, J. A.	Eager, E. C.	Houghton, E. W.
Bingham, R.	Eaton, A. W.	Honberger, F. H.
Boylston, A. W.	Edelsteine, C.	Hull, J. S.
Buehler, M.	Edwards, C.	Irwin, R.
Buell, R. D.	Evans, F. H.	Joyce, M. F.
Cathrae, W. M.	Fitzpatrick, F. J.	Junge, O.
Childs, W. M.	Geist, W. F.	Klotch, H.



Lander, F. J.
Larson, T. B.
Levi, E. H.
Levy, M. S.
Lockwood, W. C.
McCreery, F. D.
McDonnell, M.
Martin, A. C.
Matthay, H. S.
Meyer, G. J.
Monahan, J. E.
Morgan, W. C.
Muryinsky, M. B.
Newman, O. R.
Orschel, H. M.
Ostergren, R.
Packer, C. S.
Perkins, N.

Peterson, J. H.
Peterson, W. F.
Proudfoot, A. C.
Rice, P. H.
Robbins, W.
Resinfeld, V. R.
Sammons, G. H.
Schmick, F. G.
Schrader, O. H.
Schram, O. H.
Slauson, F. G.
Slossen, R.
Simonson, L.
Sontag, H.
Smith, T. W.
Solomon, W.
Souther, S. A.
Spaulding, M.

Stevenson, H. W.
Taylor, A.
Tichnor, O. O.
Trinkaus, W.
Tullgren, S. M.
Tuthill, R. W.
Vanderkloot, M.
Vore, M. P.
Waffle, W.
Walker, S.
Wedge, P. S. P.
Whitehead, J.
Wilsnack, G.
Wilson, H. S.
Wilson, S. S.
Wright, H. J.
Ziesing, H.
Zimmerman, S. L.

The History of the Senior Academy Class

MOST of the present graduating class entered the Armour Scientific Academy in the fall of 1901. About the middle of that school year we organized as a class, owing to the suggestion and kindly assistance of Prof. Brewster, who presided at the first few meetings. It was not long, however, before we were able to stand upon our own feet and to conduct business meetings without the aid of any one outside of the class.

Our Freshman year was uneventful and nothing of importance occurred. Mr. Forsyth was elected president and held that office the entire year. But at the beginning of the second year, class spirit seeming unduly low, Mr. Robbins, after finding that no one seemed to have the authority to call a meeting, called one himself. This proved a lucky move, as it roused the class from its dormant and inert condition, and we at once assumed the lead and became *the* academy class.

As a reward for his interest in our welfare, Mr. Robbins was made President, and a committee of three was chosen to draw up a constitution which would, in a measure, reflect the brilliancy of our awakening. In the wake of this wave of patriotism came an increased interest in athletics, and various interclass team matches were played with the class of 1903. As the last named class are here no more to defend themselves, we feel that we ought not mention the one-sided appearance of the scores and how in every case our boys more than held their own. The chivalry of our class forbids it, so we will refrain from mentioning anything about the results of these contests.

As our financial condition was very satisfactory, we decided to make the Junior Academy reception and dance to the Seniors an annual affair, and so of course had to follow in the footsteps of the 1903 class. A com-

mittee was appointed, and in the latter part of the second term, thanks to their splendid arrangements, the dance happened, and with a good hall, good music, and a happy crowd present, it was impossible to escape having a good time.

In the spring term, while still Juniors, we were represented by a good track team, and our only regret is that our training facilities were not better. So ended the second period of our career.

And now we are Seniors and are on the last lap of the preparatory track. If we are to judge from our successes so far this year, this is destined to be a real 1904 triumph. Early in the term our class officers were elected, and this term the present staff were chosen. Class pins were decided upon last fall and we secured some very pretty little class emblems.

In the third week of the winter term we went down to have our picture taken. Owing to the fact that some of the boys mistook the "Exit" sign for "Entrance," we had quite a little fun and excitement going to town. Nobody was hurt, and the difficulty into which we got with the faculty and the elevated road was finally adjusted to everybody's satisfaction, after a compulsory vacation of a few days. And then, after all this trouble, the pictures were not at all good, and we had to go down again, the result of which you see in this book.

We are now looking forward to a successful graduation. Plans are in progress for various entertainments to make our last days in the Academy a pleasant recollection in the future.

The Junior Class of the Scientific Academy

OFFICERS :

M. E. Healy, *President*

R. Duplissis, *Vice-President*

W. F. Conlin, *Secretary*

B. L. Matthews, *Treasurer*

T. S. Ahern, *Sergeant-at-Arms*

Athletic Manager: A. Benbrook

Fulcrum Representative: D. Babcock

Members of Class:

Ahern, T. S.
Aitchison, R. M.
Allen, H.
Babcock, D.
Beifeld, E. L.
Benbrook, A.
Binz, F.
Boyd, H. R.
Budlong, E. H.
Cable, F. W.
Clark, W. F.
Conlin, W. F.
Corboy, W. J.
Cossitt, H. R.
Crane, B. G.
Crosby, P. A.
Deveny, W. J.
Dick, D. D.
Dicks, E. R.
Dowst, T. S.
Duplissis, R. E.
Farmer, H. J.
Fisher, A. W.
Fountain, J. B.

Fredrickson, C.
Freund, E. O.
Frisbie, H. C.
Gillies, R.
Grassby, G. A.
Harrison, M.
Harrold, H. H.
Hart, C. H.
Hawley, P. G.
Healy, M. E.
Horan, E.
Hough, H. R.
Howard, W. A.
Johnson, F. S.
Kaufman, S. M.
Kellner, O. R.
Kinzel, A. J.
Kloman, R. S.
Mahler, H.
Matthews, B. L.
McCarthy, G. H.
McCausland, H.
Menkin, J. I.
Mueller, C. W.

Nelson, B.
Oberfelder, W.
Oberndorf, J.
Oberndorf, R.
Parker, R. H.
Pollard, L. E.
Rankin, C. S.
Richards, T. E.
Rothschild, M. N.
Rudolph, G. R.
Ryan, J. P.
Schwass, W. J.
Scott, F.
Silberman, D.
Stadaeker, G.
Stewart, R.
Straus, M. L.
Sumkowski, A. J.
Tuttlebaum, M.
Wappler, E.
Ward, M. A.
White, R.
Wilcox, L. B.

ALUMNI



F. STEARNS.

The A. I. T. Alumni Association

SOON after the graduation of the class of 1897, the organization of the Alumni Association was effected. Its aim, as stated by the Constitution, is "the promotion of fellowship and good will among its members; the continuation of the ties formed by them while students; and to keep alive their interest in the affairs of the A. I. T." That these results have been attained is evidenced by the fact that the organization has grown in numbers and in influence, and that interest in the organization has never been lacking.

The membership of the Association is of three classes—active, associate, and honorary. The active members must be graduates of the College of Engineering of A. I. T., and the associate members must have been students in good standing for at least two years in the College of Engineering. Honorary members are nominated and elected by vote. At present the Association has but four honorary members: The President, F. W. Gunsaulus; the Deans, L. C. Monin and H. M. Raymond; and the President of the Colorado School of Mines, V. C. Alderson. The active members on the roll number 164, and the associate 21.

In organization the Association is much like associations and societies of a similar scope. The active work is done by the Executive Committee and specially appointed committees. One of the most important features of the work is the annual publication of a roster of members, giving their residence and business address, and the position they hold. It has been found very helpful to recent graduates to get into touch with the Alumni Association, as through it many advantageous business opportunities have been presented.

The Alumni Association holds two meetings during the year—one just at the close of the school year in June, the other generally the Saturday evening before Christmas. These meetings are held in Chicago and a jolly good time is certain. After a good supper, a smoke furnished by the doctor, and some music, the main events of the evening occur. This frequently takes the form of an experience meeting, and our worthy toastmaster selects a victim renowned for the varied experience which he has undergone, if not for his oratorical ability. His words of advice, warning and cheer always contain helpful hints of what to do or not to do, and prove of value to the inexperienced and therefore more or less timid, untried man.

At the meetings there is usually present some representative of the Institute, who brings to us the latest developments in equipment and plans. At recent meetings encouraging talks have been given by Dr. Gunsaulus and Dean Monin, and Dean Raymond has made a full and interesting statement concerning the new equipment at the School.

The June meeting is the more important of the two, for at this time the members of the graduating class are the guests of the Alumni Association, and their reception into the Association is the chief event of the evening. The attendance at this time is usually very large, the last meeting showing an attendance of about seventy. The midwinter meeting is more in the nature of a reunion of those members in and near Chicago, and while it is very enjoyable, it does not afford as large an opportunity for fellowship as the meeting in June.

The value of an Alumni Association to any educational institution is considerable, as it is the most reliable and convenient channel of communication between the institution and the public, from which it draws its support. The loyal co-operation and services of a wide awake body of alumni is a valuable adjunct to any school. On the other hand, the value of the Alumni Association to the graduate is great and one that he cannot afford to ignore.

The Association extends a cordial greeting to its new members, and endeavors to give them an opportunity to continue their interest in their Alma Mater in a practical and substantial manner. It should be the purpose of every loyal man to ally himself actively with these interests and do his share in upholding and extending the usefulness and standards of the college which so long has been his home and pride.

Present Officers of the Association

W. T. Dean, *President*

C. L. Tarbell, *Vice-President*

R. H. Rice, *Corresponding Secretary*

L. I. Porter, *Recording Secretary*

W. O. Collins, *Treasurer*

E. E. Freeman, *Master of Ceremonies*

Honorary Members:

F. W. Gunsaulus

L. C. Monin

V. C. Alderson

H. M. Raymond

Members of the A. I. T. Alumni Association

ACTIVE AND ASSOCIATE

With Degrees Conferred by the Institute at Time of Graduation

- A. S. Alschuler, '99, B. S. in A.
Architect, A. K. Adler, 1641 Monadnock Building, Chicago.
- A. H. Anderson, '02, B. S. in M. E.
Salesman, Fairbanks, Morse & Co., Chicago.
- P. F. Apfel, '97.
Apfel & Murdoch Co., 82 Lake St., Chicago.
- M. H. Arnold, '01, B. S. in E. E.
Ohio Brass Co., Mansfield, Ohio.
- Miss L. Austin, '02, B. S. in A.
Architect, Chicago.
- C. A. Axen, '01, B. S. in M. E.
Designer, C. & N. W. Ry., Mechanical Engineer's Office, Chicago.
- F. R. Babcock, '03, B. S. in E. E.
Milwaukee Electric Co., Milwaukee, Wis.
- M. F. Baird, '02, B. S. in E. E.
Baker-Vawter Co., Chicago.
- E. H. Baker, '01, B. S. in M. E.
Mechanical Department, National Biscuit Co., Chicago.
- H. H. Baldwin, '97.
Subscribers' Agent, Chicago Telephone Co., 151 22d St.
Residence, 4160 Ellis Av., Flat 25, Chicago.
- J. S. Banta, '03, B. S. in M. E.
American Steel and Wire Co., Waukegan, Ill.
- F. V. Battey, '03, B. S. in E. E.
Deceased.
- W. H. Beattys, '99, B. S. in E. E.
Sales Agent, Cutler-Hammer Manufacturing Co., Chicago.
- Miss A. Benham, '02, B. S. in A.
Architectural Drawing, John Hulla, Chicago.
- F. H. Bernhard, '01, B. S. in E. E.
Instructor in Electrical Engineering, Armour Institute
of Technology.
- S. E. Bippus, '99, B. S. in E. E.
Manitou Electric Co., Colorado.
- E. E. Blodgett, '98, B. S. in E. E.
Special Agent, North British and Mercantile Insurance Co.,
Chicago.
- L. C. Bradley, '00, B. S. in M. E.
Draughtsman, Western Electric Co., Chicago.
- M. W. Briggs, '02, B. S. in E. E.
Assistant Electrical Engineer, F. Bissell Co., Toledo, Ohio.

- C. T. Brimson, '03, B. S. in C. E.
Assistant Engineer, Iowa and St. Louis Railway, St. Louis, Mo.
- J. C. Brocksmith, '98.
Chief Draughtsman, A. J. O'Leary & Son Co., Chicago.
- Chas. H. Buell, '97.
Westinghouse, Church, Kerr & Co., 1223, 171 La Salle St., Chicago.
Residence, Winnetka, Ill.
- A. J. Burr, '99, B. S. in E. E.
Teacher, Mechanical Drawing, Manual Training High School,
Kansas City, Mo.
- W. M. Byrne, '03, B. S. in M. E.
Cornish, Curtis & Green Manufacturing Co., Fort Atkinson, Wis.
- R. A. Calkins, '97.
Special Agent, Berkshire Life Insurance Co., 100 Washington St.
Residence, 5720 Calumet Ave., Chicago.
- Mrs. M. W. Campbell, '00, B. S. in C. E.
Location unknown.
- P. R. Chapman, '97, B. S. in E. E.
Engineering Department, Chicago Edison Co., 139 Adams St.
Residence, 1112 North Clark St., Chicago.
- W. T. Charles, Ph. B., '02, B. S. in Ch. E.
Instructor in Chemistry, Armour Institute of Technology.
- E. S. Church, M. E., '97, B. S. in E. E.
Superintendent of Machinery, United States Mint, Philadelphia.
Residence, 1416 Euclid Ave., Philadelphia, Pa.
- L. Cohen, '01, B. S. in E. E.
Graduate Student, University of Chicago, Chicago.
- W. O. Collins, '02, B. S. in Ch. E.
R. W. Hunt & Co., Engineers, Chicago.
- S. T. Corey, '99, B. S. in E. E.
Draughtsman, American Bridge Co., Chicago.
- A. T. Creelman, '00, B. S. in E. E.
Deceased.
- F. H. Cronin, '03, B. S. in M. E.
American Steel and Wire Co., Waukegan, Ill.
- W. T. Dean, '00, B. S. in E. E.
Chief Electrician, Illinois Steel Works, South Chicago.
- W. A. Derby, '97.
C. B. & Q. Laboratory, Aurora, Ill.
- C. E. Edgecombe, '03, B. S. in M. E.
- L. Elliott, E. E., '99, B. S. in E. E.
Assistant to Pratt & Atkins, Engineers, Chicago.
- C. E. Eustice, '01, B. S. in E. E.
Designer, Webster Manufacturing Co., Chicago.
- B. F. Eyer, '02, B. S. in E. E.
Professor Electrical Engineering, Kansas State Agricultural
College, Manhattan, Kan.
- F. S. Fairman, '98, B. S. in A.
Deceased.
- M. C. Fairweather, '02, B. S. in E. E.
Buckeye Electric Co., Cleveland, Ohio.

- G. A. Feindt, '00.
Inspector, Insurance Survey Bureau, Chicago.
- W. W. Felt, '03, B. S. in Ch. E.
Student, Colorado School of Mines, Golden, Colo.
- S. C. Fiddymment, '99, B. S. in E. E.
Foreman, Cosmopolitan Electric Co., Chicago.
- C. H. Fisher, '00, B. S. in E. E.
Inspector, Texas Inspection Bureau, Dallas, Tex.
- L. F. Flanders, M. E., '98, B. S. in M. E.
Westinghouse Machine Co., E. Pittsburgh, Pa.
- C. E. Freeman, E. E., '97, B. S. in E. E.
Professor in Electrical Engineering, Armour Institute of Technology.
Residence, 908 E. 60th St., Chicago.
- E. H. Freeman, '02, B. S. in E. E.
Instructor in Electrical Engineering, Armour Institute of Technology.
- R. T. Fry, '01.
C., M. & St. P. Shops, W. Milwaukee, Wis.
- C. A. Garcelon, '00, B. S. in M. E.
Graduate Student, Europe.
- R. H. Gay, '98, B. S. in E. E.
Assistant Engineer for U. S. Senate, Washington, D. C.
- B. H. Glover, E. E., '97, B. S. in E. E.
Electrical Engineer, Fuse Wire & Manufacturing Co.,
187 Pratt St., Buffalo, N. Y.
Residence, 970 7th St., Buffalo, N. Y.
- A. H. Goodhue, '99, B. S. in M. E.
Refrigerating Engineer, A. H. Barber Mfg. Co., Chicago.
- W. J. Gordan, M. E., '99, B. S. in M. E.
Chief Engineer, Illinois State Reformatory, Pontiac, Ill.
- H. W. Graff, '00, B. S. in E. E.
Engineering Department, Westinghouse Electric & Manufacturing Co., Wilmerding, Pa.
- F. B. Hall, '97, B. S. in M. E.
Master Mechanic, The International Register Co.
- G. K. Hanai, '99, B. S. in E. E.
Engineer, H. S. Tanaka & Co., Tokio, Japan.
- H. J. Hansen, '03, B. S. in C. E.
Vierling, McDowell & Co., Chicago.
- H. R. Harbeck, '02, B. S. in C. E.
- R. B. Harris, '02, B. S. in M. E.
Assistant Electrical Engineer, Mexican Central Ry., Mexico.
- D. Harvey, '00, B. S. in E. E.
Engineer, Underwriters' Laboratories, Chicago.
- E. T. Harwood, '02, B. S. in E. E.
Superintendent, Smeeth Copper & Bronze Co., Chicago.
- H. Haussman, '00, B. S. in E. E.
Electrical Engineer, Western Electric Co., Chicago.
- G. F. Hayden, '00, B. S. in E. E.
Inspector, Insurance Survey Bureau, Chicago.

- R. M. Henderson, '02, B. S. in E. E.
Clark, Henderson & Co., Engineers, Chicago.
- R. M. Heskett, '02, B. S. in E. E.
Knox Engineering Co., Chicago.
- E. G. Hindert, '98, B. S. in E. E.
Chief Electrical Engineer, Cleveland, Elyria &
Western Traction Co.
- R. S. Huey, '99, B. S. in E. E.
Draughtsman, Illinois Steel Co., Chicago.
- J. M. Humiston.
Chicago Telephone Co., Chicago.
- B. G. Jamieson, '97, B. S. in E. E.
Designer, Chicago Edison Co.
- F. C. Johnson, '97, B. S. in M. E.
Instructor, Tuskegee Normal School, Tuskegee, Ala.
- E. C. Johnson, '99, B. S. in E. E.
McCormick Harvester Machine Co., Chicago.
- M. G. Kabateck, '03, B. S. in E. E.
General Electric Co., Schenectady, N. Y.
- A. Kaempfer, '03, B. S. in E. E.
General Electric Co., Schenectady, N. Y.
- E. F. Kappes, '98, B. S. in E. E.
Chicago Telephone Co., Chicago.
- D. R. Kendall.
National Live Stock Bank, Union Stock Yards, Chicago.
- F. A. Krehbiel, '01.
Arnold Electric Power Station Co., Chicago.
- W. H. Lang, '02, B. S. in E. E.
Engineering Department, Geo. Moulton & Co., Chicago.
- J. E. Lanning, '03, B. S. in E. E.
Lanyon Zinc Co., Iola, Kan.
- F. G. Larkin, '02, B. S. in E. E.
Schwarzschild & Sulzberger Co., New York.
- M. W. Lee, '99, B. S. in M. E.
Engineer, Lanyon Zinc Co., Iola, Kan.
- E. W. Leeper, '98, B. S. in E. E.
Underwriters' Association, Chicago.
- C. T. Lewis, '99, B. S. in M. E.
Draughtsman, Link Belt Machinery Co., Chicago.
- W. I. Lewis, '01, B. S. in M. E.
Jackson Hill Coal Co., Cleveland, Ohio.
- E. Lewis, '02, B. S. in E. E.
General Electric Co., Testing Department, Schenectady, N. Y.
- E. S. Libby, '02, B. S. in M. E.
Assistant Chemical Engineer, Swift & Co., Union Stock Yards, Ill.
- E. N. Lilienfeld, '02, B. S. in E. E.
Lilienfeld Bros. & Co., Chicago.
- F. A. Lindberg, '01, B. S. in E. E.
Draughtsman, G. M. Brill, Consulting Engineer, Chicago.

- C. S. Longnecker, '00, B. S. in E. E.
Manager, Delta Electric Light Co., Delta, Ohio.
- N. M. Loney, '97, B. S. in M. E.
Assistant Master Mechanic, Pennsylvania Lines, West of
Pittsburgh, Ft. Wayne, Ind.
- F. Y. Low, '00, B. S. in E. E.
Electrical Engineer, Faris & Kesl, Milner, Idaho.
- E. W. Lyman, '99.
Salesman, McKibbin, Driscoll & Dorsey, St. Paul, Minn.
- H. A. MacClyment, '98, B. S. in E. E.
Mechanical Engineer, C. B. & Q. Ry., West Burlington, Iowa.
- D. MacKenzie, E. E., '98, B. S. in E. E.
Supervising Engineer, Swift Refrigerator Line, Boston, Mass.
- G. Mahoney, E. E., '97, B. S. in E. E.
Buena Vista Developing Co., Buena Vista, Mexico.
- L. F. Mahler, '99, B. S. in E. E.
District Manager, Bulloch Electric Manufacturing Co.,
St. Louis, Mo.
- C. T. Malcolmson, E. E., '97, B. S. in E. E.
Chief Engineer, Lanyon Zinc Co., Iola, Kan.
- O. B. Marienthal, '99, B. S. in A.
Draughtsman, F. P. Bagley & Co., Chicago.
- L. E. Marshall, '97.
Inspection Department, Commonwealth Electric Co.,
719 West Fifty-fifth St., Chicago.
- R. C. Martin, '00, B. S. in E. E.
Inspector, Chicago Fire Underwriters' Association, Chicago.
- C. L. Matt, '97, B. S. in E. E.
Chief Engineer, Lancaster Electric Light Co., Lancaster, Ohio.
- W. D. Matthews, '99, B. S. in E. E.
Inspector, Fire Insurance Survey Bureau, Chicago.
- W. C. Matthews, '03, B. S. in M. E.
Skinner Engine Co., Chicago.
- E. D. Merry, '03, B. S. in E. E.
Lanyon Zinc Co., Iola, Kan.
- W. E. Miller, '01, B. S. in E. E.
Inspector, Insurance Survey Bureau, Chicago.
- H. P. Miller, '02, B. S. in E. E.
General Electric Co., Schenectady, N. Y.
- I. D. Miller, '02, B. S. in C. E.
Bridge Inspector, Ralph Modjeski, Chicago.
- G. E. Morris, '98, B. S. in A.
Architectural Draughtsman, Handy & Cody, Chicago.
- C. S. Morse, '99, B. S. in E. E.
Master Car Builder, Wheeling & Lake Erie R. R., Toledo, Ohio.
- C. M. Moss, '02, B. S. in E. E.
Engineering Department, Westinghouse Electric & Manufactur-
ing Co., Pittsburgh, Pa.
- J. H. Mueller, '03, B. S. in E. E.
General Electric Co., Schenectady, N. Y.
- H. L. Nachman, '02, B. S. in M. E.
Instructor in Mathematics, Armour Institute of Technology.

- E. H. Nagelstock, '98, B. S. in E. E.
Engineering Department, General Electric Co.,
Schenectady, N. Y.
- O. Neeves, '97.
Stationer, 445 W. Sixty-third St., Chicago.
- E. L. Neilson, '97.
Salesman, American Oak Leather Co., 207 Lake St.
- E. F. Nelson, '03, B. S. in E. E.
Westinghouse Electric & Manufacturing Co., E. Pittsburgh, Pa.
- G. E. Niestadt, '03, B. S. in C. E.
Vierling, McDowell & Co., Chicago.
- A. C. Noble, '01, B. S. in E. E.
Inspector, Insurance Survey Bureau, Chicago.
- E. D. O'Brien, '97, B. S. in E. E.
Superintendent, Third Ward, Chicago.
- J. W. O'Leary, '99.
Secretary, Arthur J. O'Leary & Son Co., Chicago.
- E. H. Olson, '99, B. S. in E. E.
Head Draughtsman, Eastern Oklahoma Ry., Guthrie, Okla.
- J. H. Parker, '01.
Manager, Victor H. Arnold & Co., Rockford, Ill.
- G. H. Patten, '98, B. S. in E. E.
Construction Department, General Electric Co.,
Schenectady, N. Y.
- W. B. Pavey, '99, B. S. in M. E.
Secretary, Davis-Larkin Co., Contractors, Chicago.
- F. G. Pease, '01.
Optician, Yerkes Observatory, Williams Bay, Wis.
- R. V. Perry, M. E., '97, B. S. in M. E.
Assistant Professor of Machine Design, Armour Institute
of Technology.
- V. S. Persons, A. B., '02, B. S. in C. E.
Civil Engineer, Noble & Modjeski, Thebes, Ill.
- W. C. Phillips, '03, B. S. in C. E.
Morava Construction Co., Chicago.
- C. W. Pierce, '01, B. S. in Chem. E.
Electrical Engineering Department, Tuskegee Institute,
Tuskegee, Ala.
- L. I. Porter, '99, B. S. in E. E.
Draughtsman, Engineering Department, Chicago Edison Co.,
Chicago.
- B. K. Postlethwaite, '02, B. S. in M. E.
Assistant Chief Engineer, Swift & Co., South Omaha, Neb.
- H. S. Powers, '99, B. S. in A.
Architect, Nimmons & Fellows, Chicago.
- I. Prenner, '97, B. S. in E. E.
American Carbide Co., Holstein, Iowa.
- E. L. Quien, '03.
General Chemical Co., Hegewisch, Ill.
- C. O. Ransom, '99, B. S. in E. E.
Fidelity & Casualty Co., Cleveland, Ohio.
- H. B. Rawson, '03, B. S. in E. E.
Lanyon Zinc Co., Iola, Kan.
- R. G. Reiniger, Jr., '02, B. S. in M. E.
Ingersoll-Sergeant Drill Co., Easton, Pa.

- W. R. Reugnitz, '01, B. S. in E. E.
Featherstone Foundry & Machinery Co.
- R. H. Rice, '97, B. S. in E. E.
Assistant Professor of Electrical Engineering, Armour Institute of Technology.
- E. Richardson, '97, B. S. in E. E.
Richardson & Co., Grain Merchants, Chicago.
- B. Rimanoczy, '99, B. S. in E. E.
Electrical Engineer, Siemens & Halske Co., Budapest, Hungary.
- P. A. Rising, '98.
Salesman, Chas. Pfizer & Co., Chicago.
- G. B. Robinson, '03, B. S. in C. E.
St. Louis Terminal Railway Association, Chicago.
- O. A. Rochlitz, '01, B. S. in E. E.
Instructor in Chemistry, Armour Institute of Technology.
- C. H. Roesch, '98, B. S. in E. E.
Real Estate and Building, Washington, D. C.
- E. S. Roos, '03, B. S. in E. E.
Western Electric Co., Chicago.
- M. Salamson, '97, B. S. in E. E.
Rush Medical College.
- L. A. Sanford, '02, B. S. in E. E.
Guanajuato Light and Power Co., Zamora, Mexico.
- S. E. Schafer, '02, B. S. in M. E.
Compania Mineral Penoles, Mexico.
- O. Scheidler, '02, B. S. in M. E.
Assistant Manager and Secretary, Scheidler Machine Works Co.
Newark, Ohio.
- C. P. Schroeder, '99, B. S. in E. E.
Draughtsman, Sargent & Lundy, Chicago.
- F. D. Sheibly, '97, B. S. in E. E.
Draughtsman, Consolidated Telegraph and Electric Subway Companies, New York.
- S. B. Sherman, '03, B. S. in E. E.
Pontiac Lighting Co., Jackson, Mich.
- H. S. Shimizer, '03, B. S. in M. E.
- B. Shubart, '99, B. S. in M. E.
Salesman, Link Belt Machinery Co., Chicago.
- W. F. Simms, E. E., '97, B. S. in E. E.
Engineering Department, Chicago Edison Co.
- M. Sklovsky, '00, B. S. in E. E.
Mechanical Engineer, Deere & Co., Moline, Ill.
- H. J. Slaker, E. E., '98, B. S. in E. E.
Superintendent of Refinery, U. S. Mint, Philadelphia, Pa.
- J. R. Sloan, E. E., '97, B. S. in E. E.
Motive Power Department, Pennsylvania Railroad, Altoona, Pa.
- E. V. Starkweather, '99, B. S. in E. E.
Chief Inspector, Western Assurance Co., Toronto, Canada.
- G. Stevens, '03, B. S. in M. E.
- H. G. Stillson, '03, B. S. in E. E.
Milwaukee Gas Light Co., Milwaukee, Wis.
- J. F. Strickler, '03, B. S. in M. E.

- J. B. Swift, '01, B. S. in E. E.
Draughtsman, Greenlee Bros. & Co., Chicago.
- C. L. Tarbell, '99, B. S. in M. E.
Foreman, Drop Forge Department, Whitman & Barnes Manufacturing Co., West Pullman, Ill.
- W. S. Taussig, '03, B. S. in E. E.
Ewing-Merkle Electric Co., St. Louis, Mo.
- F. Taylor, '00, B. S. in E. E.
Engineer, Underwriters' Laboratories, Chicago.
- O. N. Terry, '99, B. S. in M. E.
Locomotive Inspector, C. B. & Q. Ry., Chicago.
- G. Thompson, '97.
Atwood & Pease, Tacoma Building, Chicago.
- V. Tonsley, '97.
Electrical Inspector, City Hall, Chicago.
- J. H. Tonsley, '00, B. S. in E. E.
Inspector, Chicago Underwriters Association.
- F. W. Twitchell, '98, B. S. in E. E.
Dredge Designer, Webster Manufacturing Co., Chicago.
- A. Wagner, '03, B. S. in E. E.
Westinghouse Electric and Manufacturing Co., E. Pittsburgh, Pa.
- E. L. Wallace, '02, B. S. in E. E.
Westinghouse Machine Co., E. Pittsburgh, Pa.
- F. P. Walther, '00, B. S. in E. E.
Inspector, Insurance Survey Bureau, Chicago.
- W. Warren, '99, B. S. in E. E.
Deceased.
- V. S. Watson, '00, B. S. in A.
Architectural Draughtsman, D. H. Burnham & Co., Chicago.
- E. R. Weber, '03, B. S. in M. E.
Latrobe Steel Co., Melrose Park, Ill.
- J. E. Week, '02, B. S. in E. E.
Deceased.
- W. N. Weinacht, '98.
Unique Supply Co., Chicago.
- W. E. Weinsheimer, '98, B. S. in E. E.
Engineering Department, Chicago Edison Co.
- M. J. Weisskopf, '03, B. S. in C. E.
C. B. & Q. R. R., Chicago.
- S. J. Wendt, '03, B. S. in E. E.
Yaryan Heating Co., Evanston, Ill.
- J. J. Wheeler, '97, B. S. in E. E.
Librarian, Carnegie Library, Tuskegee Normal and Industrial School, Tuskegee, Ala.
- E. C. White, '99, B. S. in M. E.
Boat and Engine Builder, Reeves & White, New York.
- F. S. Wilhoit, '98, B. S. in E. E.
Superintendent, Cutler-Hammer Manufacturing Co., Milwaukee, Wis.
- L. D. Wood, '97.
Inspector, Western Factory Insurance Association.
- F. W. Zimmerman, '00, B. S. in E. E.
Mechanical Draughtsman, Delaware, Lackawanna & Western Railroad, Scranton, Pa.



H.N. Armstrong

1904

FRATERNITIES

Phi Kappa Sigma

Delta Tau Delta

Mu Delta Sigma



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
Mu—1858	Tulane University
Rho—1892	University of Illinois
Tau—1872	Randolph-Macon College
Upsilon—1872	Northwestern University
Phi—1873	Richmond College
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

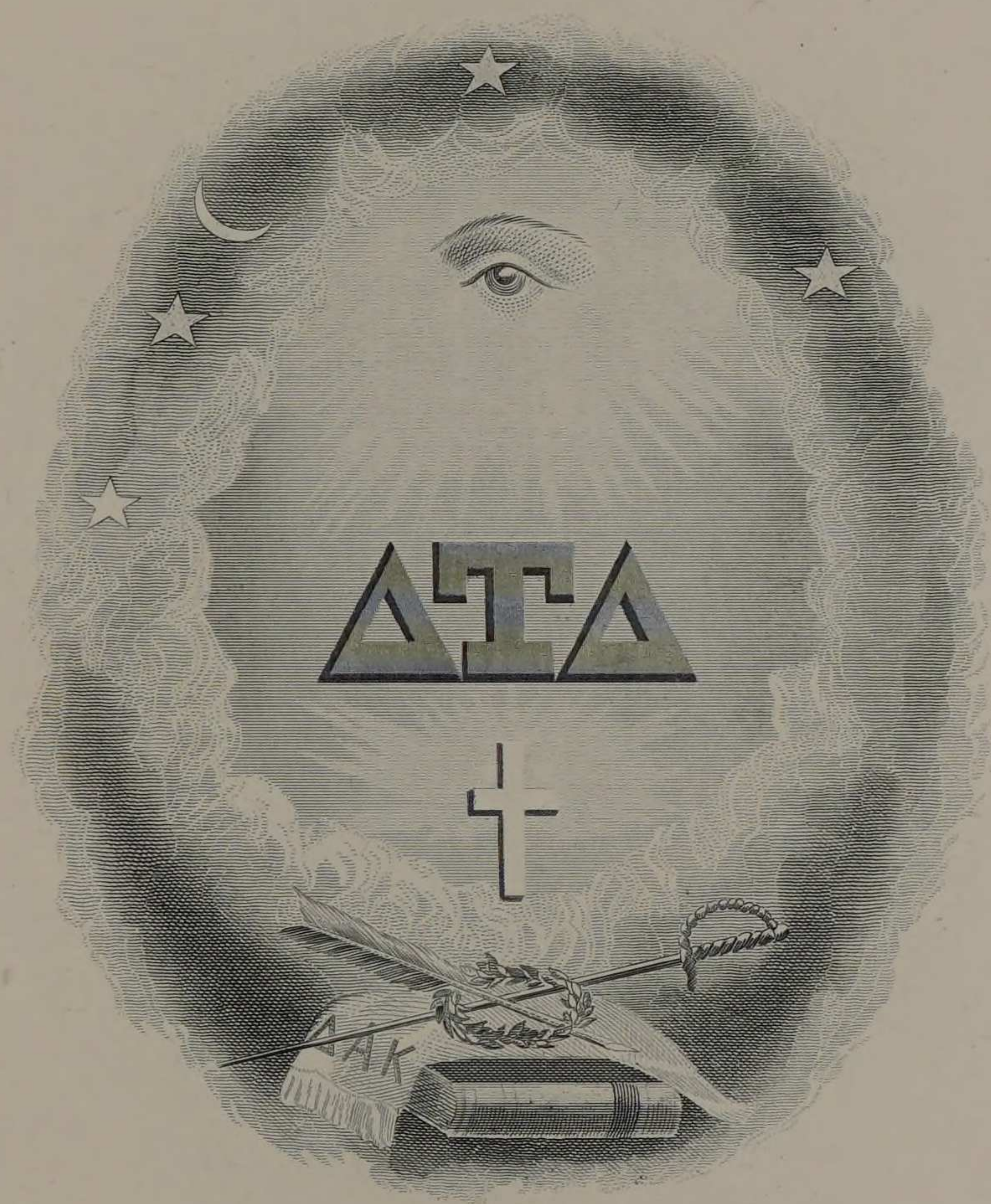
1906

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 Con Kelsey
Lindsay H. Miller

1907

Clarence U. Smith
Lester W. Bangs
Alfred Hayden
Wendel Hebard
Julian Hayden





Dreka Phila.

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

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	Stevens 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 Epsilon	Columbia University
Gamma Zeta	Wesleyan University

Gamma Beta Chapter

(ESTABLISHED MAY 10, 1901)

Chapter House Located at 3343 Wabash Ave.

Colors: Royal Purple, Old Gold and White.

Yell: Rah ! Rah ! Delta,
 Delta Tau Delta,
 Rah ! Rah ! Delta Tau,
 Delta Tau Delta.

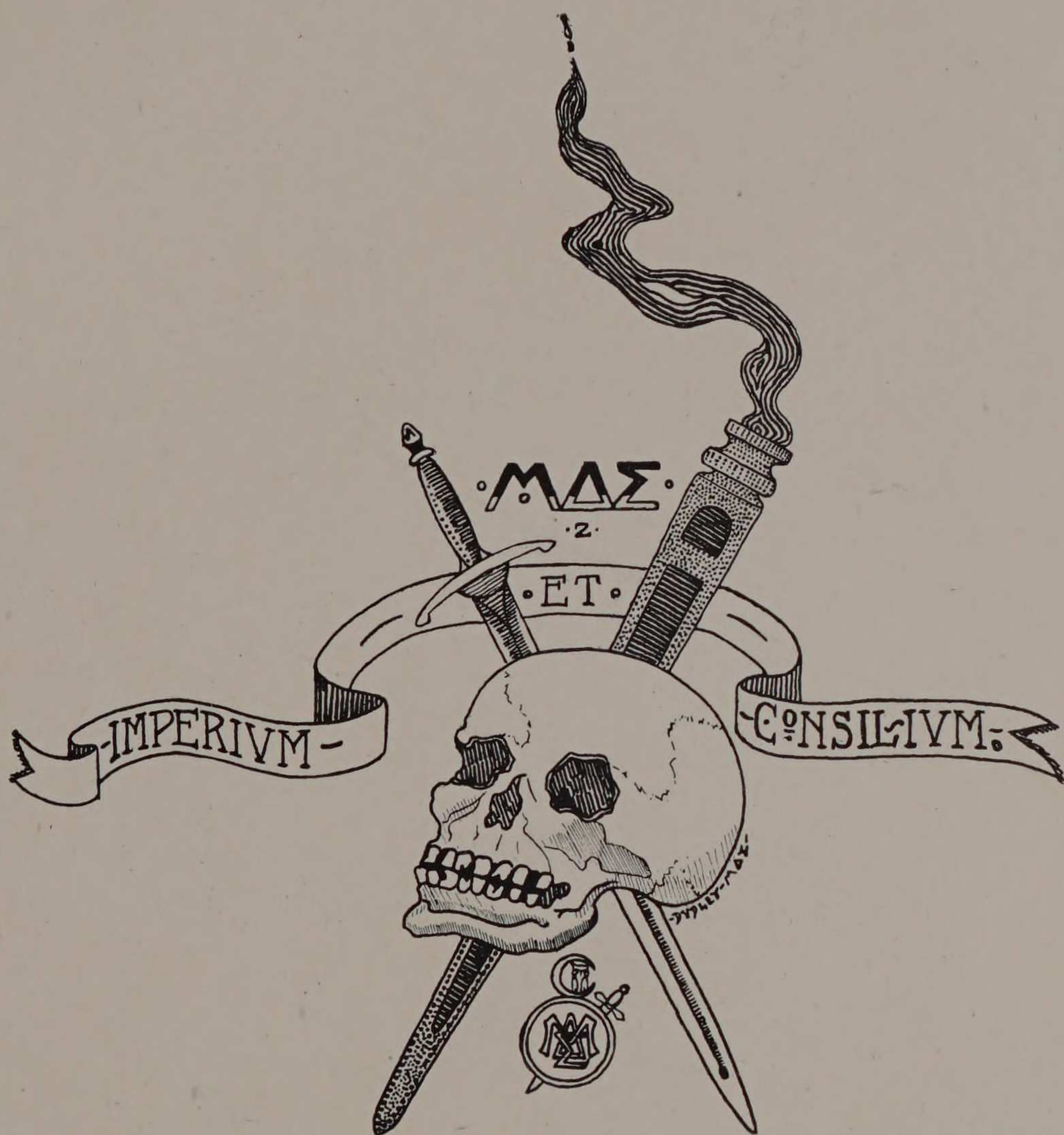
Fratres ex Universitate

Seymour L. Smith, '01, Milwaukee, Wis. Teacher of Manual Training	Eugene Johnson, '04, Ithaca, N. Y. Cornell University
Oscar Scheidler, '02, Newark, Ohio With Scheidler Boiler Works	Otto Kreutzburg, '04, Chicago, Ill. Mech. Eng., American Spiral Pipe Co.
Don Carlos Dyer, '01, Leipzig, Germany In Bonn University	Roy N. Towl, '04, Omaha, Neb. With Paxton, Virling Co.
Charles T. Brimson, '03, Youngtown, Mo. Eng. in charge of Construction, C. B. & Q. R. R.	Morgan Wright, '05, Ishpeming, Mich. Cowboy
Earl Ezra Edgecomb, '03, Mo. Valley, Iowa With Valley Mills Co.	Harry L. Mead, '05, New York City, N. Y. Columbian University
John H. S. Mueller, '03, Chicago, Ill. With Holtzer-Cabot Electric Co.	William H. Dean, '04, Chicago, Ill. With Bates & Rogers Construction Co.
Geo. W. Niestadt, '03, Chicago, Ill. Chief Draughtsman, Vierling-McDowel Co.	Anthony E. Seyl, '05, Chicago, Ill. With Seyl Watch Supply Co.
Geo. Ben Robinson, '03, St. Louis, Mo. With St. Louis Terminal Transfer Co.	Alfred K. Higgins, '06, Chicago, Ill. With Chase & Sanborn Co.
J. F. Strickler, '03, Chicago, Ill. With Geo. Whiting Co.	Joe P. Allyn, '06, Delavan, Wis. Farming
Chas. L. Campbel, '04, St. Louis, Mo. With St. Louis Terminal Transfer Co.	Chas. A. Lawrence, '05, Chicago, Ill. Director, Lawrence Orchestra
Ray W. Hammond, '04, Fremont, Neb. Sec. Hammond Bros. Printing Co.	Fred Towl, '06, Omaha, Neb. With Omaha Packing Co.
Z. M. Marr, '04, Fremont, Neb. With Marr Machinery Co.	Arthur E. Ferguson, '05, Ithaca, N. Y. Cornell University.
A. D. Smith, '04, Omaha, Neb. With Draper Smith Commission Co.	Kent W. Bartlett, '05, Chicago, Ill.
W. C. Matthews, '03, Chicago, Ill. With J. Holt Gates Co.	Harry F. Robinson, '06, Aurora, Ill. Chemist with C. B. & Q. R. R.
H. R. Harbeck, '02, St. Louis, Mo.	H. L. Corthell, '05, New York City, N. Y. With O'Rourke Construction Co.
	Victor C. Persons, '02, Thebes, Ill.

Fratres in Universitate

1904	1906
H. W. Clausen	A. J. Allyn
F. A. Coy	L. R. Levings
H. A. Hart	J. H. Osinga
G. Manierre	R. S. Torrance
W. F. Parker	
1905	1907
H. M. Sharp	L. P. Hills
R. D. Speers	G. C. Hodges
D. E. Willard	B. Hoffman
	H. B. Kimmey
	W. E. Schermerhorn
	L. B. Smith
	M. Thompson





Mu Delta Sigma

Chapter Roll

FOUNDED IN 1884

Alpha	Grand Rapids High School, 1884
Beta	Kalamazoo High School, 1894
Gamma	Milwaukee East Side High School, 1895
Delta	Albany (New York) High School, 1895
Epsilon	Milwaukee West Side High School, 1897
Dormant	Troy (New York) Academy, 1897
Zeta	Armour Academy, 1898
Eta	Milwaukee Academy, 1898
Theta	Muskegon High School
Iota	Madison High School
Kappa	Jackson High School

Zeta Chapter

Colors: Old Gold and Emerald.

Fratres in Acadēmica

L. M. Beers	G. H. McCarthy
K. N. Critchfield	W. Robbins
H. S. Dudley	H. S. Wilson
P. P. Llewellyn	

Fratres in Collegia

D. E. Willard	C. U. Smith
A. M. Jens	M. S. Flinn
J. A. Crawford	R. O. Walker
R. A. Malcolm	H. L. Goetz
B. C. Hooper	

Fratres in Urbe

CLASS OF '98:

C. W. Brooks	R. P. Harlan
H. R. Harbeck	W. Lang

CLASS OF '99:

M. H. Eddy	F. C. Heusner
W. C. Phillips	E. C. Johnson

CLASS OF '00:

F. Walters	F. O. Clisbe
A. Crane	

CLASS OF '01:

C. J. Mayer	B. O. Buchanan
H. M. Beers	C. S. Dexter
A. E. Seyl	C. H. Hermann
E. A. Walters	C. J. Fitzpatrick
A. Goetz	

CLASS OF '02:

C. L. Freeman	G. N. Crawford
R. G. Tiffany	T. E. Merrill

CLASS OF '03:

C. D. Amphlett	E. W. Spencer
A. C. Mower	L. F. Webb
H. A. Miller	W. Wilkins

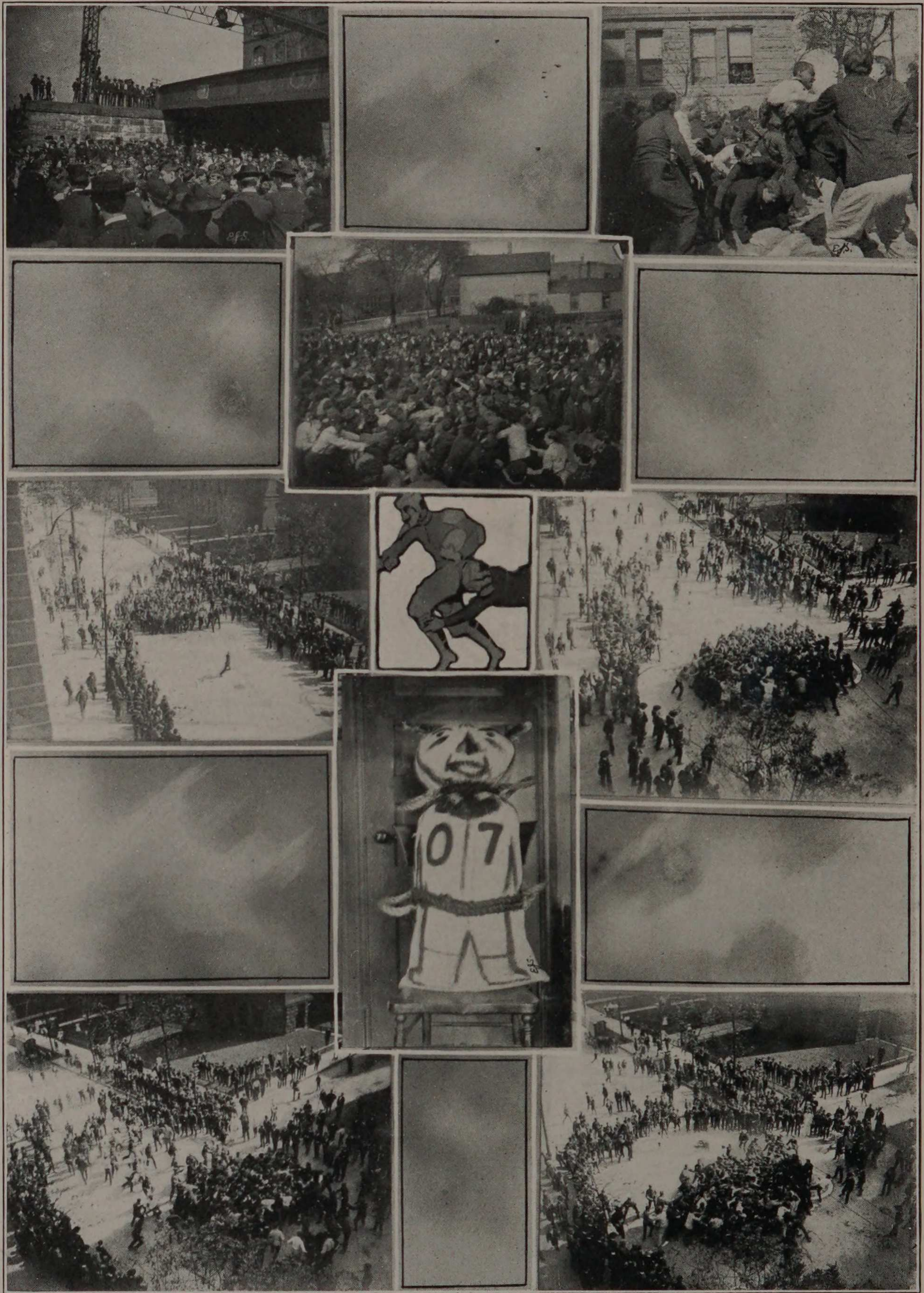
CLASS OF '05:

J. S. Llewellyn

Fratres ex Urbe

C. J. Young, '98	J. Hodgeson, '00
O. A. Schneidler, '98	E. Church, '02
F. F. Kett, '99	J. P. Allyn, '02
J. C. Butterworth, '99	D. Ferry, '03
G. S. Robinson, '99	J. P. Wilson, '03
A. Grossmith, '99	E. B. Lucius, '03
S. S. Holman, '99	A. W. Krowell, '03
G. McGavic, '00	M. Q. Brunton, '04





VIEWS OF THE RUSH

Photos by W. R. Wilson and E. J. Smith

Societies

Radical X Club
Engineering Society
1906 Civil Society
Chemical Engineering Club
A. H. E. E.
Iron and Steel Society
D. M. C. A.
Camera Club
Delta Debating Society



The Radical X Club

THE real history of Armour begins back in 1901, for in this momentous year thirteen honorable, studious (?) members of the glorious class of 1904 assembled at "Indy's." They were trying, earnestly striving, to plan some means of increasing their capacity for learning. They thought that they should be able to do at least twice as much work as they were then accomplishing, and thus prepare themselves twice as completely for the long, earnest struggle of life which was before them. At least, that was their original purpose in meeting.

'04 RADICS:

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



Once together, however, the frivolity which underlies all Freshman characters, no matter how earnestly the Freshman may strive, drove all serious thoughts from beneath their hat bands, and then and there the deservedly famous Radical X Society was born.

Like all other organic bodies it grew and developed. When the new Freshmen came in, thirteen promising buds were added to the thirteen who were by this time nearly full* and pompous Sophomores. The Freshmen were initiated by a banquet at Tom Ellett's. Music was furnished by "Piggy" Byrne and numerous other roisterers. Of course, Benedict and Crawford were silent all evening, watching the scene with ill-concealed disgust. The grand old banquet custom was repeated the following year at the Bismarck, the occasion being the installation of the third thirteen, same being the '06 Radics. Last January the fourth batch of fledgelings took their places around the banquet board of the Union, as we could find no

'05 RADICS:

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

*This, of course, means full-grown, and not intoxicated.



temperance hostelry which could accommodate a bunch of fifty-two rousing, (not carousing), good fellows. The club is now complete, each class has its quota, but next year the good old custom will be renewed, to fill the vacancy left by those departing, and incidentally to give some of the members of the class of '08 a glimpse of real life.

The club to-day is essentially an Armour organization, although there are chances that later on it may not be. The Radical Club, or its members, are to be found at the bottom of every Armour affair, whether it be a class rush, a dance, or a theatrical function. Radics have been the spirit of every class rush ever fought at Armour. Radic banquets and parades are famous all over Chicago. The Radical dances, of which at least one has been held every year, are positive *events*. The last dance, held March 18, at the Colonial Club, was attended by nearly two hundred couples, and was admitted by all to be the best Armour dance ever given.

'06 RADICS:

L. R. Levings
R. O. Walker
E. H. Ellett
L. H. Miller
E. F. Hiller
L. R. Townsley

A. G. Rockwell
G. N. Crawford
H. L. Goetz
Robert Neilson
E. G. Deming
Frank Pierce

R. E. Jens
K. R. Slocum
C. W. Stone
T. S. Allen



Two years ago Benedict and Wilson helped make the Radical Club well-known by offering their comic opera, "Coed's Courageous" to the public through the club, and you all know what a success it was. "Benny" and "Bill" are both Radics, and this year have written another and much better opera entitled, "The Walking Delegate." The club will produce this in May, and from the rehearsals, promises to eclipse all similar attempts by other colleges. More cannot be said now about it, but we feel that it will bring added fame to Armour.

In a word, we have accomplished to a certain degree, the object we have banded together for: The promotion of real college life at Armour, the quickening of class rivalry, and the increasing of social life at the institute. All these are for the purpose of making our strenuous course at the "Tech." seem less burdensome.

'07 RADICS:

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





THE college classes at the Armour Institute of Technology have always borne traits characteristic of other large colleges, in tendering clan-nish feelings toward each other. This is of course a natural tendency, since every man's rank is determined by his superiority or inferiority the world over.

The conditions have been such that a man's individuality has scarcely been known outside his own class. This is not the proper state of affairs in any college, and especially an engineering college, but is a deficiency in the system of training for which the student himself is more or less responsible.

Never in the history of the Institute has this tendency been so vigorously antagonized as in the organization of the Engineering Society of the Armour Institute of Technology. The students themselves came to the realization of the fact that such an organization was needed. Plans were co-operatively laid, the student body of the college assembled, elected their officers and directors indiscriminately, and in the course of only a few days the society was giving results much to the satisfaction of the entire college.

In the perpetration of this work the faculty proved to be awaiting with intense interest, and the assistance which its members were able to render was duly appreciated. The society is not to serve in its greatest

capacity as a mere bond of fellowship; but the greatest events lie in the lecture course it presents throughout the year. It has been decided to have semi-monthly meetings at which papers are to be presented on subjects involving the current engineering problems. A board of directors arrange for the presentation of these papers. Such papers are to be preparations by selected members of the society, or contributions of influential engineers and lecturers.

Either form of program is seen to have its own merits. The genuine training derived from the preparation and presentation of a paper by a



member of the society is of inestimable value to him, while the results of his research in the subject are valuable collections of information for the remainder of the society. When the lecturers from the outside world contribute to the society, the student is placed in direct touch with the current problems and is prevented from living his college life in what is commonly termed "the little world of his own."

During the short history of the society, however, opportunities have been so plentiful for procuring influential men to address the society, that local productions have been momentarily dispensed with.

The first address was given by Prof. McFarland. The subject was "Heat Engines," and the substance of the lecture was derived through research work recently done by him at Sibley College of Engineering, Cornell University. Later on an illustrated lecture was given by Mr. C. G. Y. King, of the Commonwealth Electric Lighting Co., on the subject of steam turbines and the construction of a power plant. At the third regular meeting Prof. Phillips gave an interesting talk on engineering in general and the ethics of the engineering profession. At the same meeting Dr. Wilder discussed problems of telephone engineering. At the last meeting in the winter Mr. W. H. Merrill, who has charge of the underwriters' laboratories in Chicago and is the secretary of the Fire Underwriters' Association, gave a very instructive illustrated lecture on "Lessons to be Learned from the Baltimore and Iroquois Fires." From what he told us there is great promise in the field of fire protection engineering.

The society as yet is only in its infancy. So far, more has been realized from it than was originally expected. We are located here, in the center of a large city, surrounded by manufactories of greatest variation. Through the medium of the society students are brought together with the hundreds of able men of this city who will gladly share their views of engineering problems. Thus the way is being paved by which the graduate can go into the field a thoroughly competent engineer and impress upon the public the merits of a genuine training at the Armour Institute of Technology.

OFFICERS:

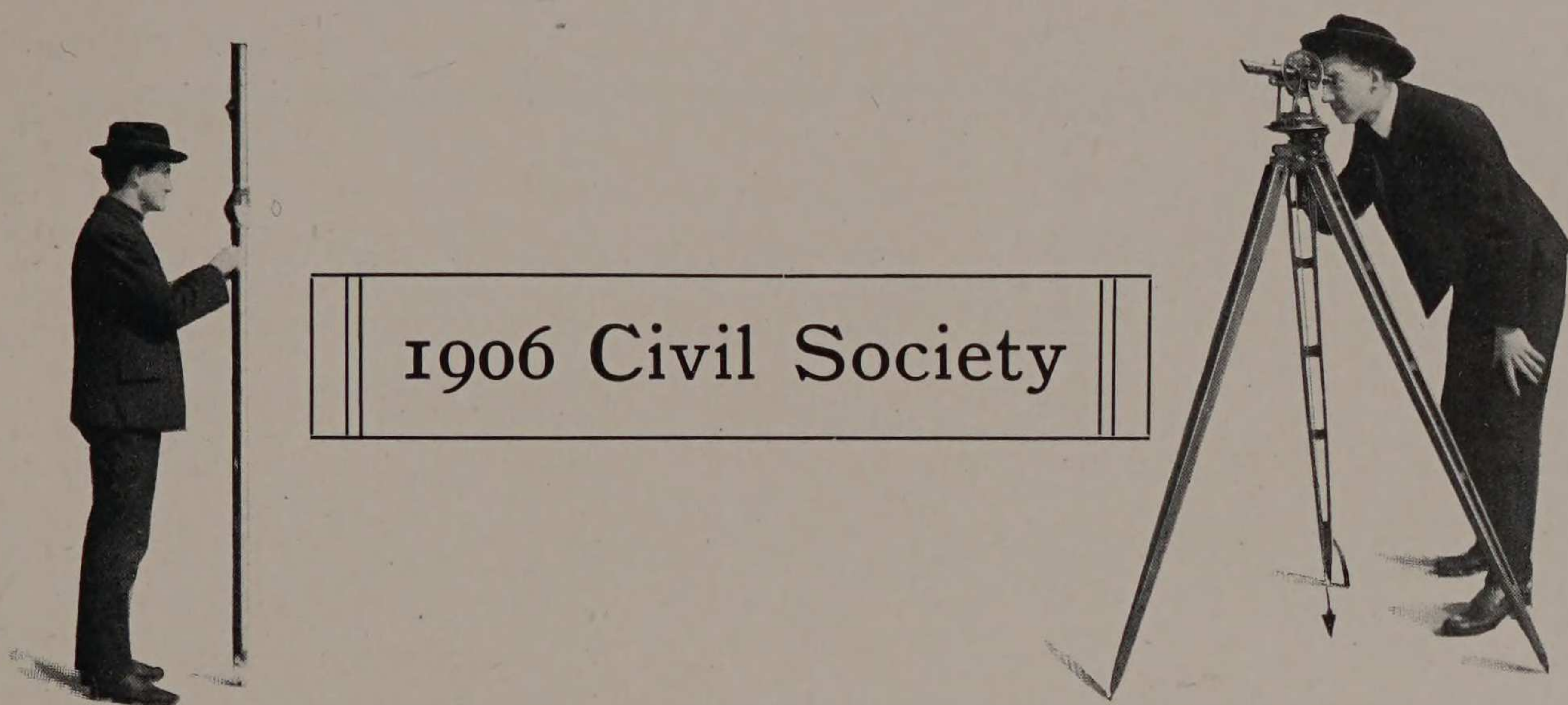
C. C. Sampson, *President*
G. W. Fiske, *Secretary*

Jacob A. Teach, *Vice-President*
R. J. Richards, *Treasurer*

J. R. Smith, *Marshal*

BOARD OF DIRECTORS:

G. W. Borst, *Chairman*; H. E. Brashares, A. L. Weeks



THE Class of 1906 in Civil Engineering, in keeping with its own progressive ideas and the "spirit of the age" at Armour, has organized into a society.

The organization is intended for the common advantage of its members. It will attempt to acquaint the members with their chosen profession and advance their interests in school affairs. Realizing how little most technical students know of the actual, definite requirements of the business they are entering, this society will try to get men in the profession to speak on the practical side of engineering. The members themselves also will be called upon to investigate the progress and achievements of Civil Engineering and read papers before the class.

The Civil Society has adopted a constitution, elected officers, and held several profitable meetings, which, if continued, assure the success of the movement.

EXECUTIVE COMMITTEE:

E. F. HILLER, *Chairman.*

W. G. LEININGER,

J. H. PURDY, Jr.

Members:

O. T. Allen

E. H. Ellett

G. Flanagan

T. S. Ford

E. O. Greifenhagen

G. A. Haggander

C. S. Holcomb

E. F. Hiller

W. G. Leininger

E. Liebermann

L. D. Kelsey

T. E. Lynch

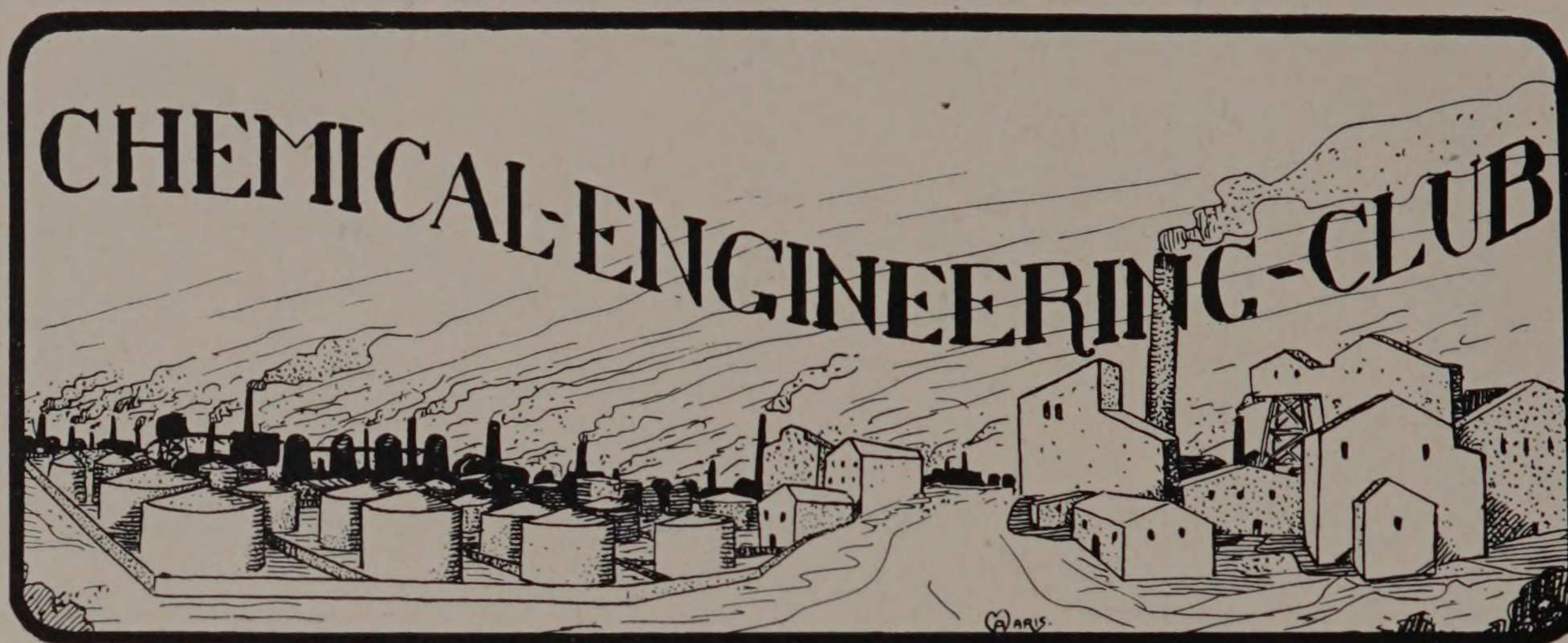
Samuel Klein

J. H. Purdy

Frank Pierce

J. M. Stanton

R. S. Spalding



Prof. W. T. McClement, *President.*

Herbert Zuckerman, *Secretary.*

THE Chemical Club was formally organized in February, 1903, and since that time has met about every two weeks, and those present can testify as to the success of the meetings. The active members of this society are the Sophomores, Junior and Senior students of Chemical Engineering. Having no constitution or by-laws, and no dues, the meetings are very informal, and no time is wasted in discussing parliamentary procedure and other troubles arising from those causes. The meetings are open to Armourites, and all students are invited and welcome.

The object of the society is to collect and discuss subjects of special interest to students of Chemical Engineering, and to systematically review current literature, noting, for reference purposes, those articles that could be useful to them in the Chemical Engineering field.

The active members collect these references and prepare the papers, and at each meeting, after a few references have been given, one paper is read.

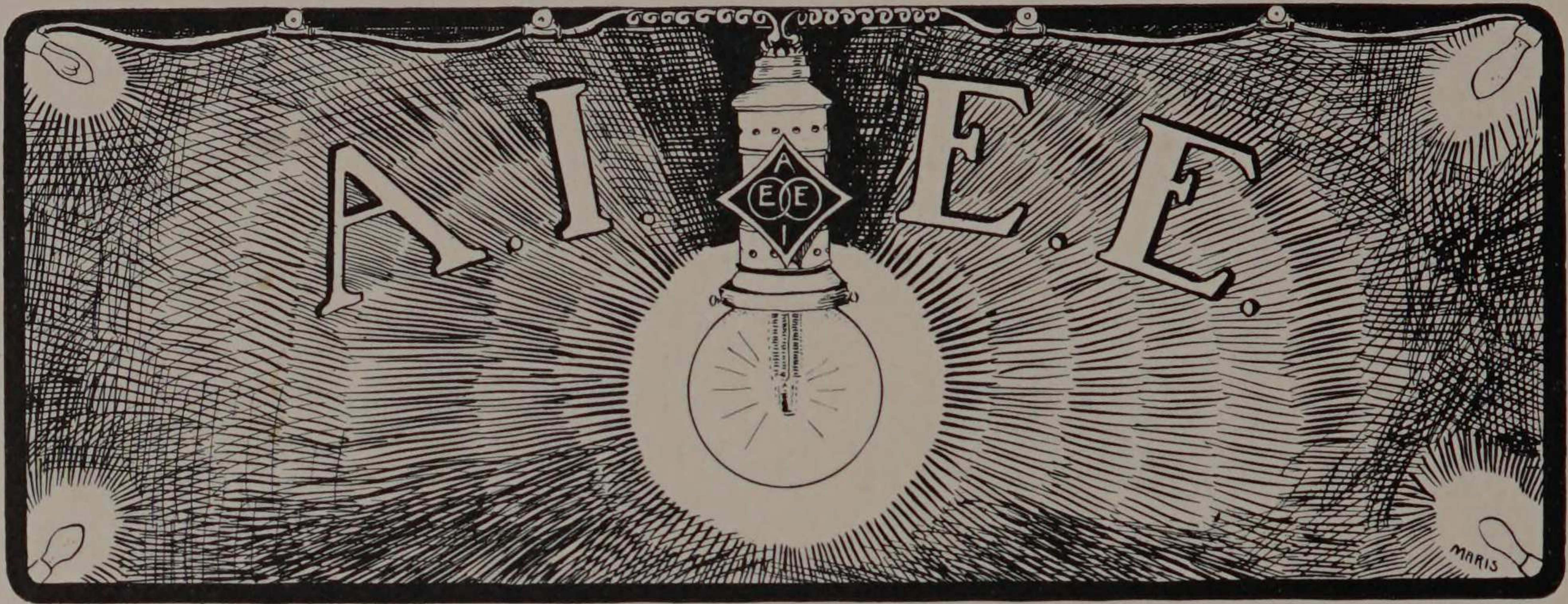
Papers Read Before the Society

The following is a list of the papers read before the society in the past year, copies of which are on file in the library.

Sulphuric Acid by the Contact Process	PROF. McCLEMENT
Coke Making	E. L. QUIEN
Electro-Chemical Industries at Niagara Falls	W. W. FELT
Aluminum	R. N. DAVIS
Acetyline and Calcium Carbide	CLARENCE P. HATTER
Aniline and Aniline Dyes	R. H. FASH
Cement	J. K. THOMPSON
Scientific Disposition of City Garbage.	F. M. DE BEER
Platinum	R. B. HARPER
Radium	PROF. McCLEMENT
The Theory of Ionization	MR. ROCHLITZ
Celluloid	F. S. WARSZEWSKI
Paraffin	C. CRIPLIVER
Extraction of Oils by Solvents	J. K. THOMPSON
Foundry Practice	J. RYAN

And the following are on the program for the Spring Term of 1904 :

April 5	Acetyline: Its History and Development	GEORGE LANDIS WILSON
April 12	Acetyline, from a Commercial View Point	GEORGE LANDIS WILSON
April 19	Advance of Chemistry	W. H. FLOOD
April 26	Artificial Silk	R. H. FASH
May 10	Ozone	H. W. BRYANT
May 24	Preventable Explosions	J. B. GOOKIN
June 7	Chemistry of the Rarer Elements	F. S. WARSZEWSKI



The Armour Branch of the American Institute of Electrical Engineers

A YEAR ago, the American Institute of Electrical Engineers offered to students of electrical engineering in technical schools the privileges of student membership. By this means they hoped to get in touch with the student element and have them keep in touch by receiving the literature of the society and attend the various meetings.

Perceiving the advantages to be obtained by accepting such inducements, some of the members of the senior class decided to form themselves into an Armour Branch and asked the juniors to join them. They conferred with Mr. Damon, chairman of the executive committee of the Chicago branch, and he heartily endorsed the movement, offering his assistance.

During the fall term, meetings were held and the matter put before the senior and junior classes of the electrical department. The result was the appointment of an organizing committee who drew up a constitution. This

constitution was accepted by the society at the first meeting of the winter term and according to it, officers were elected for the remainder of the school year. They are as follows:

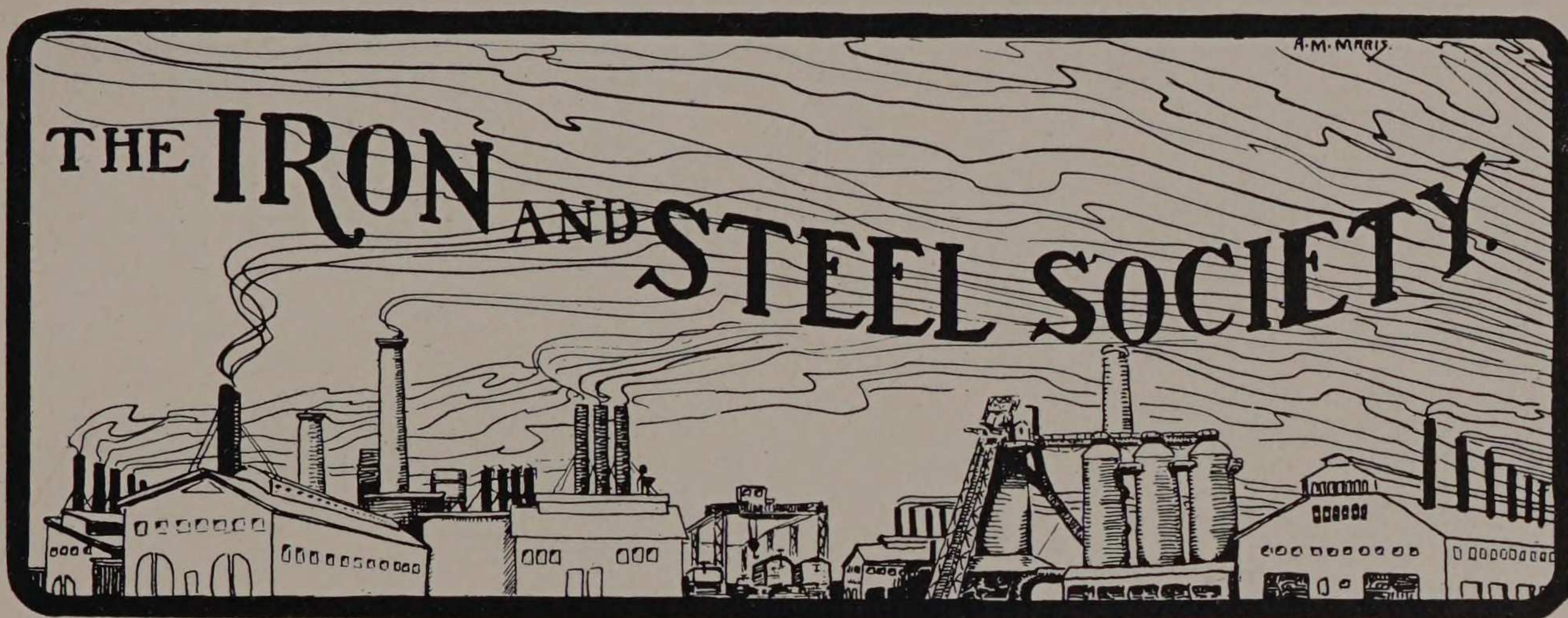
Chairman of Executive Committee	.	.	Prof. C. E. Freeman
Vice-Chairman	.	.	M. J. Knapp
Secretary	.	.	E. J. Hiller
Members of Executive Committee	.	.	{ Messrs. Frary, McDonald, Armstrong and Carrol

The work of the society will consist principally of the reading and discussion of the papers published by the American Institute of Electrical Engineers, although we hope to have, outside of this routine work, talks and lectures by men of recognized standing in the electrical profession and also by members of the parent society.

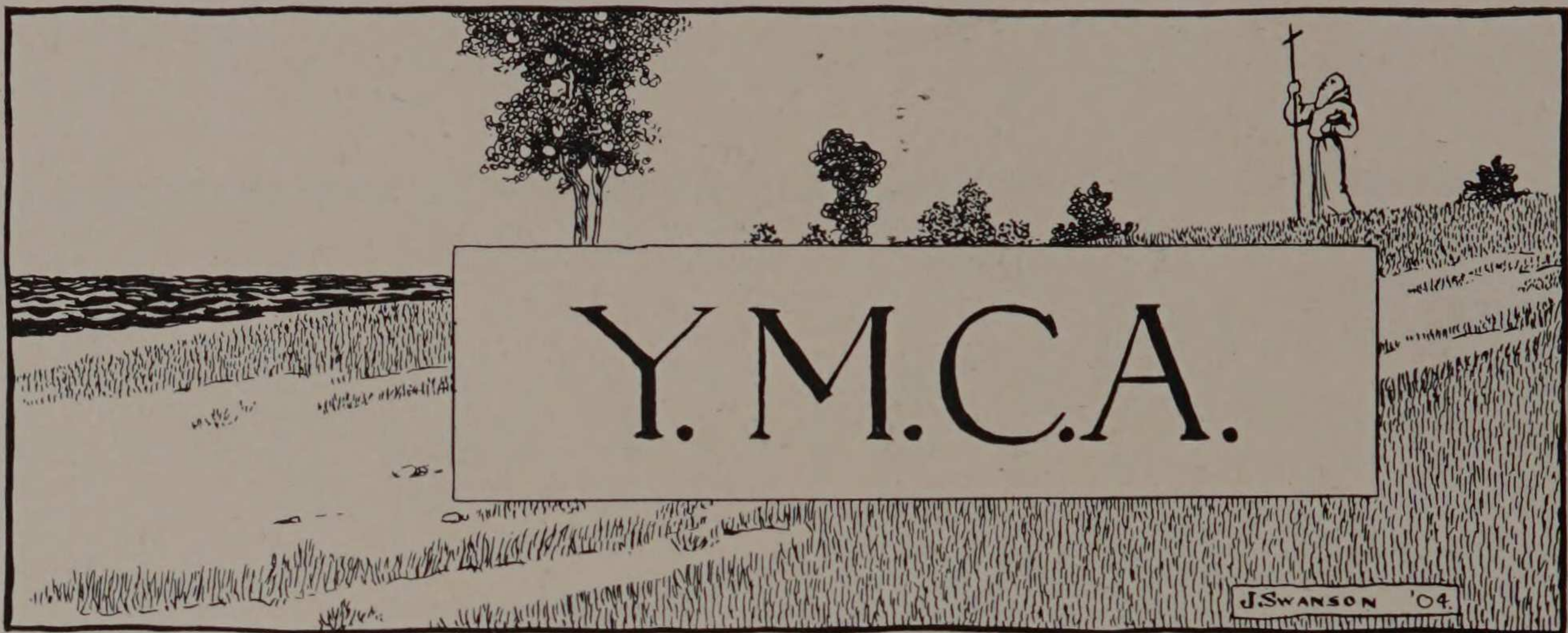
In order that the Branch might have a representative on the executive committee of the Chicago branch, Prof. Freeman was appointed a member of that body.

The first regular meeting was held February 26, when Mr. G. A. Damon, manager of the B. J. Arnold Power Station Co., gave a very interesting as well as instructive talk on the subject of "The Commercial Considerations in the Design of a Power Plant." By such talks as this we hope to produce a lively interest in the society and establish a society of which the American Institute of Electrical Engineers may be proud.

[ED. NOTE :—On this page we have gathered together all the information about the literary society that was launched last Fall. It is evident that something need be done to make it a success.]



THE first meeting of the Iron and Steel Society was held December 1, 1903. The purpose was here stated, as follows: To collect and systematically arrange articles of interest to the worker in iron and steel, which appear in magazines, and to have, at intervals, talks on shop practice and theory in iron and steel work, by experts, and to have papers by members of the society on pertinent subjects. At this meeting Mr. Cramer was elected president and Mr. Levings, secretary. Meetings are held about every three weeks, and every one interested in the subject is a member, and there are no dues. Papers have been read and talks given on such subjects as "Thermit Welding," "The Manufacture of Pig Iron," "The Theory of Welding," and "Electric Welding." Several talks have been given by experts in their line, which were largely attended. The society seems to be on the high road to success.



Armour Branch

The officers elected for the year of 1904 are:

R. H. Robinson, <i>President</i>	W. C. Brubacker, <i>Vice-President</i>
J. E. Saunders, <i>Recording Secretary</i>	Prof. Chas. W. Leigh, <i>Treasurer</i>
R. S. Spalding, <i>Department Secretary</i>	

COMMITTEE OF MANAGEMENT:

Prof. W. T. McClement, *Chairman*

Dr. F. W. Gunsaulus
Dr. Geo. L. Scherger
Prof. Chas. W. Leigh
Prof. A. E. Phillips
R. H. Rice

Dean Harvey
J. E. Saunders
R. H. Robinson
R. S. Spalding

THE Young Men's Christian Association of Armour Institute of Technology has been, and always will be, as long as the Institute exists, one of the most useful and helpful societies for the students. To the incoming Freshman, the boarding house lists and directory for desirable rooms, is invaluable. To the members, the Friday afternoon Bible class conducted by Prof. George L. Scherger, the Sunday morning Bible class, and also the regular Wednesday afternoon meetings have proven to be interesting and useful.

The Association also offers many amusements during the year, such as the Annual Freshman Handshake, occurring at the beginning of the school year; "lunches" at regular intervals, and various other social functions which take place occasionally.

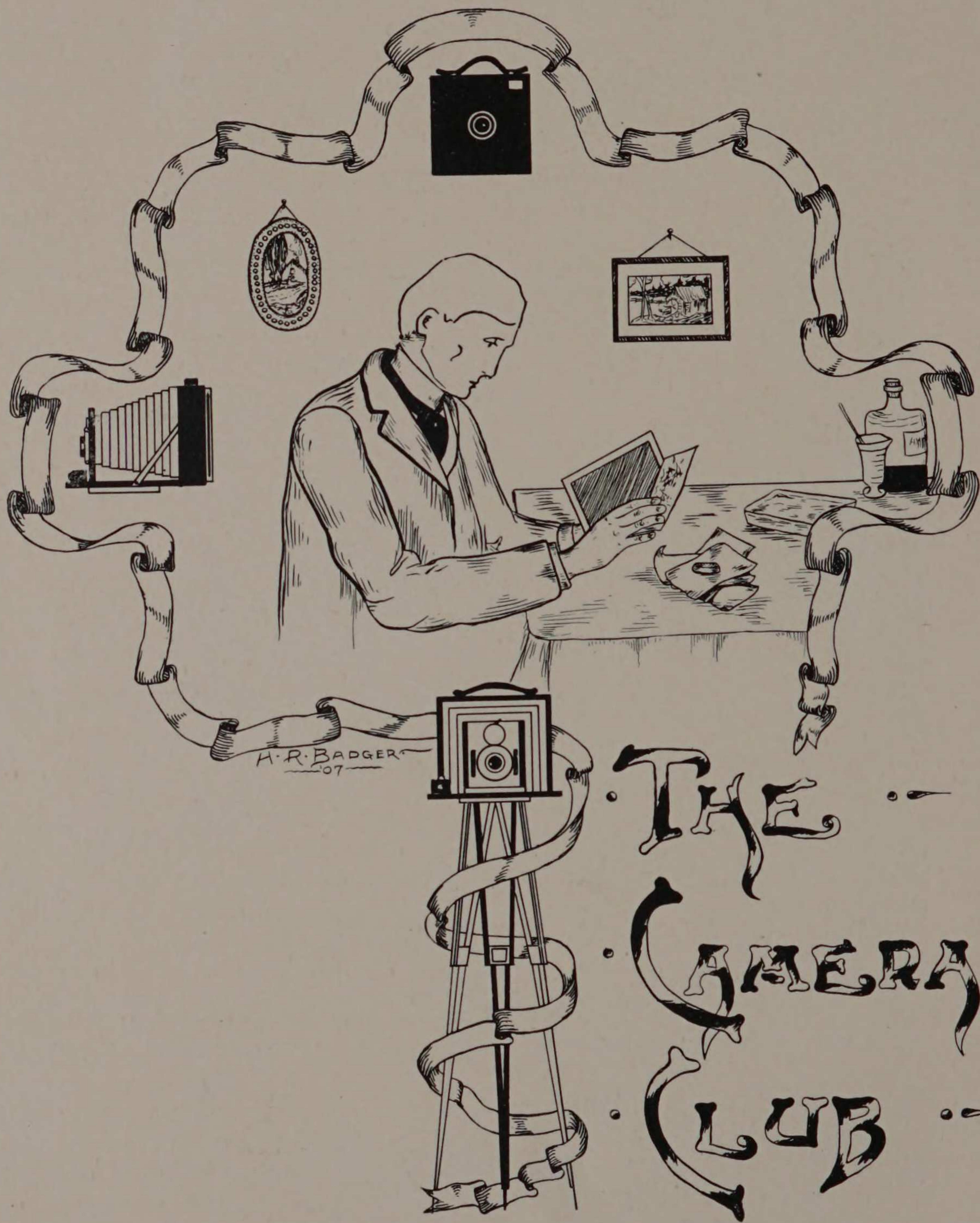
The House, situated at 3312 Dearborn Street, has rooms furnished for reading, and games of different kinds. There are also boarding accommodations for members of the faculty and students; this was started in September, and is meeting with success.

The membership of the Association is steadily increasing, until now, the membership is nearly ninety.

That the Association is progressing is evident, and if the developments still continue in the future as the many undertakings have been accomplished in the past, no fear need be entertained but that the Association will continue to be a popular society among the students.

O. RAYMOND PRESCOTT, '04.





The Camera Club

THE Camera Club is composed of amateur photographers of the Institute. It has been in existence for many years, and during that time has undoubtedly aided much in broadening the minds of young men, by interesting them in the art of natural beauty, either as depicted in people, animals or in scenery, the three great classes into which photography is naturally divided. At the last exhibition of the club, in May, 1903, the instance of a fourth class, one closely allied to engineering work, and now growing rapidly, was shown by a few such pictures as of railroad bridges and dredging machinery. Many railroads are to-day instituting departments of photography, by the aid of which a complete record of all important works may be kept for the instruction of engineers and other employees of the roads. It is for these two reasons, therefore, that photography broadens the mind generally and that it is assuming such an important part in engineering that a camera club is a necessity, and as such ought to be loyally supported by the student body in a technical school.

The club occupies rooms in the Mission, equipped with electric arc and incandescent lights, running water, and lockers for the private use of the members. The equipment includes also an enlarging camera, purchased during the past year, a fan motor for drying plates, and such necessities as trays, wash boxes, chemicals, etc., used in enlarging and contact printing.

The last annual exhibit, held in the main corridor of the building was, in the words of one of the judges, "a decided improvement in the general quality over those submitted the year before." Let us hope for more improvement in that direction. The winners of that contest were W. R. Wilson, first prize, whose beautiful portrait work is deserving of much praise; B. R. Sugg, second, who submitted several fine animal photographs, and E. J. Smith, third.

All students and members of the faculty of A. I. T. interested in photography are invited to join the club.



Jack A. Benjamin, *President*
M. L. Levy, *Secretary*

T. D. McCreary, *Vice-President*
F. F. Fitch, *Treasurer*

Student Representative to the Inter-Academic Debating League: Arthur Manheimer

Faculty Representative: Professor George Lawrence Scherger

THIS is the fourth year that the Delta Debating Society has been in existence. During this time it has furnished the debaters who have represented Armour Academy in the Inter-Academic Debating League contests. The other members of the league are the Northwestern and Morgan Park Academies and the University High School.

The trials for the debating team were held in Science Hall on November 6, last. About fifteen entered and after the arguments of all had been presented Mr. Benjamin, Mr. Reisenfelt, and Mr. Manheimer, with Mr. Fitch as alternate were chosen by Dean Monin, Professor Tisdell and Prof. Scherger, the judges. Later, Mr. Fitch took Mr. Reisenfelt's place as the latter was forced to leave the team on account of trouble with his eyes. Preparation was at once begun for the first debate, which was to be with the University High School on January 8. The team worked very hard for nearly two months, and gave up their Christmas

holidays in studying their question, which was: "Resolved, that Joseph Chamberlain's tariff proposals should be adopted by the British government." Of this proposition Armour had the negative, the University High School the affirmative. The appointed time soon came and the two teams met in Kent Theater of the Chicago University. Armour was well supported by an enthusiastic crowd of rooters which certainly rivaled in cheering capacity, if not in size, the rooters of the University High School. Professor Chandler presided, while Judge Tuthill, Alderman Alling and Colonel Waterman acted as judges. After a spirited and well contested debate in which Armour had the better of it all the way through, the judges awarded the decision to the University High School by a vote of two to one. The decision was a surprise to nearly every one present, and even some of University High's staunchest friends admitted that in their opinion Armour deserved the victory. Nevertheless Armour put up an excellent fight, and won the debate if not the decision. Professors Scherger and Tisdell, and Leo F. Wormser, '01, A. S. A., assisted the team greatly, while it was preparing for the debate.

A little over two months later, on March 11, 1904, Northwestern Academy, which had defeated Morgan Park in the preliminaries, and the University High School, met in Armour Mission. The former upheld the negative of the same question as was debated in the preliminaries, while the latter kept its same side, the affirmative. The decision of the judges was justly unanimous in favor of Northwestern.

Next year we meet Morgan Park first. She is an old rival of ours, and we hope to defeat her. If we do this we will further hope to again win the championship of the league, as the banner which hangs in the lower hall attests that we did last year.

INTEGRAL

1904

CARL S. BATES.



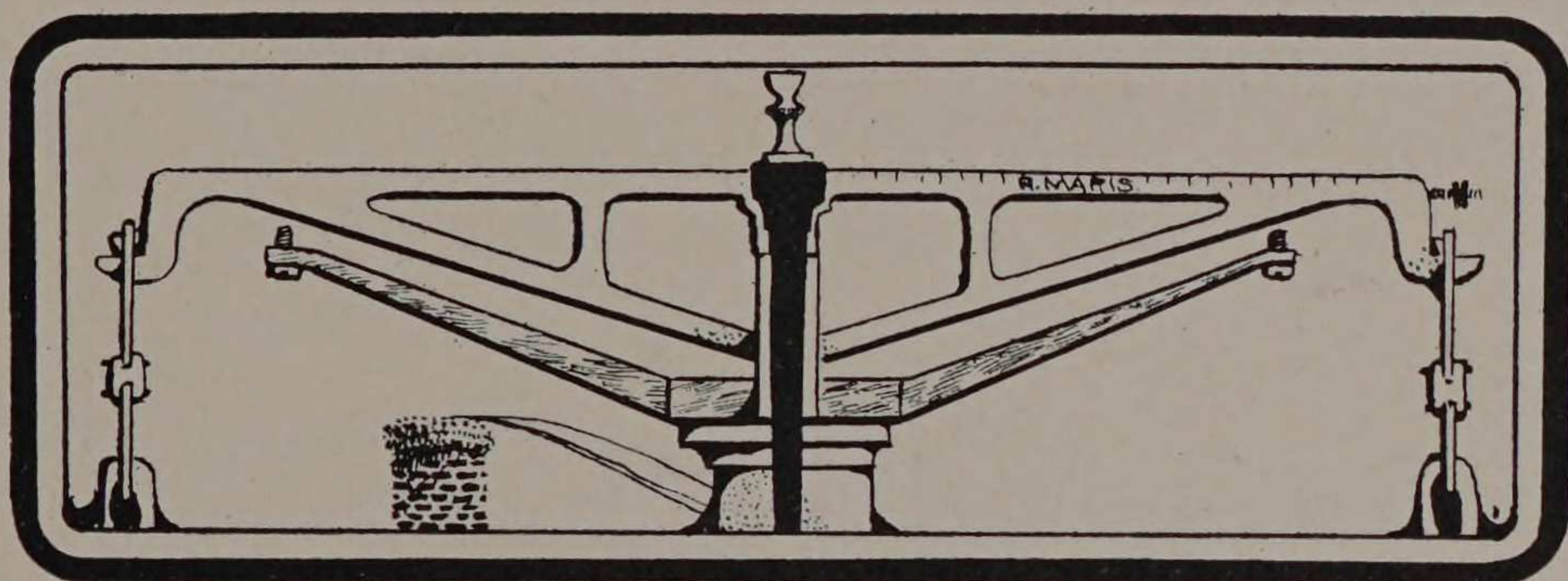
The Integral Board

Editor-in-chief,	J. M. de Beer
Associate Editor,	W. K. Kretsinger
Assistant Editor,	D. E. Willard
Business Manager,	H. B. Marshall
Asso. Business Mgr.,	W. J. Harvey

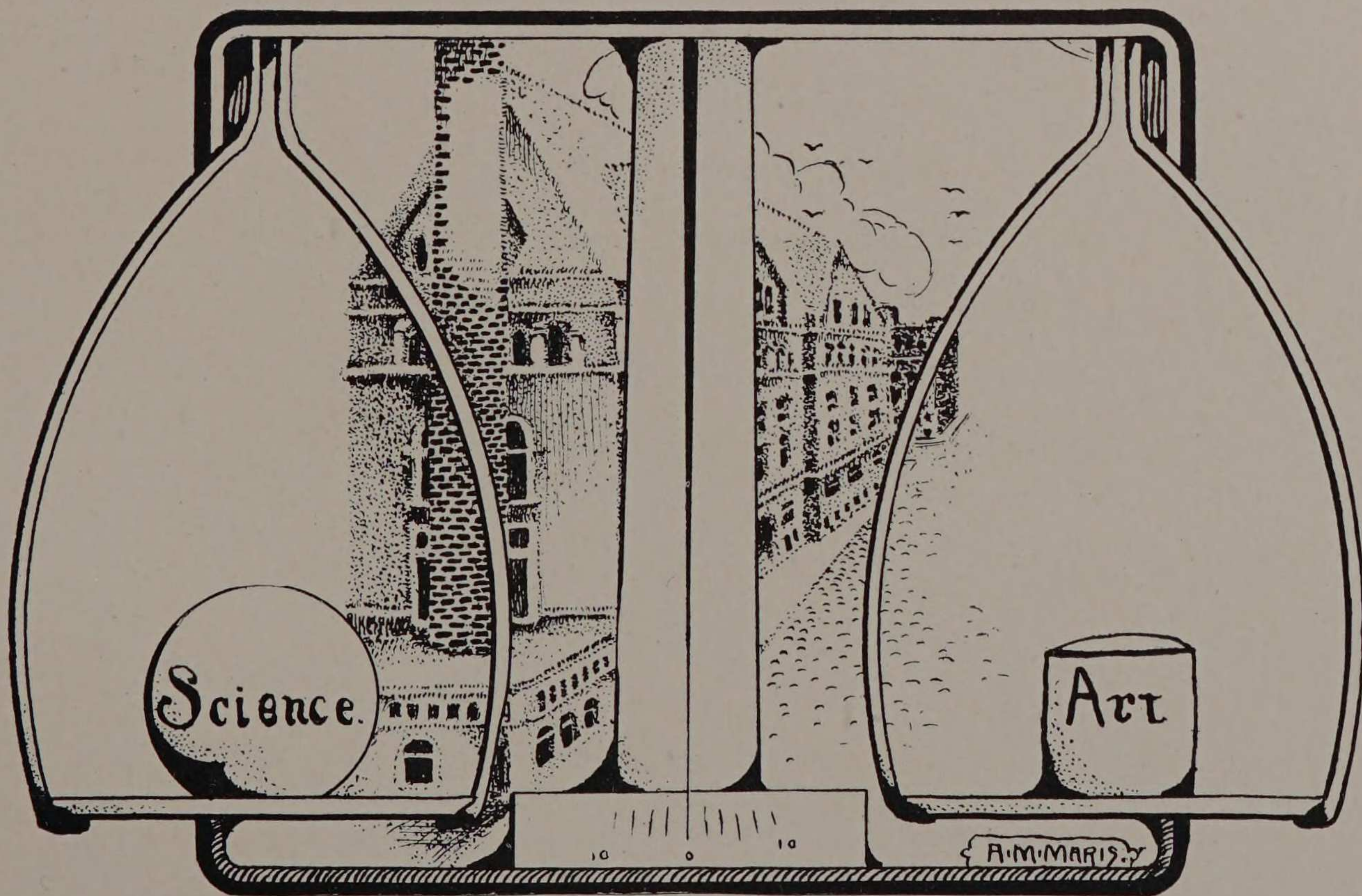
Alumni Representative,	Ralph B. Rice
Senior Representatives,	Frary, Byrne
Sophomore Representatives,	Deming, Gridley
Freshmen Representatives,	Badger, Ebretsman
Academy Representative,	Packer



THE FULCRUM



A.I.T.



The Fulcrum

EDITORIAL STAFF

W. Robert Wilson, *Editor-in-Chief.*

L. R. Levings, *Associate Editor.*

R. E. Jens, *Business Manager.*

G. C. Gridley, *Assistant Business Manager.*

F. T. Pierce, *Josh Editor.*

R. N. Neilson, *Social Editor.*

J. E. Monahan, *Academy Editor.*

G. W. Smith, *Mailing Manager.*

H. L. Hamilton, *Senior Representative.*

J. K. Thompson, *Junior Representative.*

H. R. Badger, *Freshman Representative.*



This Year's Fulcrum

THE Fulcrum for the present college year embodied a number of innovations in college publication. The college paper of to-day has fallen into the rut of cut-and-dried news, with a bare sprinkling of solid matter. The news is put in a windy form; the illustrations are space filling; the josh is largely exchange; the editorials are light and trivial. The aim this year has been to remedy this condition as much as possible. Where one solid article has been the rule, the Fulcrum has maintained an average of from three to five; the josh has been largely original; while editorially the paper has made it its object to supply real food in short, crisp form—to help the college man in his troubles, to sympathize with him in his trials, and to rejoice with him in his real pleasures. In its news nothing but condensed reporting has been admitted. For our solid articles the paper is grateful to the Faculty for their unreserved support, and heartily thanks many of the students and their friends who, though their time has been largely occupied, have given their co-operation.

The form necessarily sets off the material to advantage or not. Here again a radical change was made from the thin, large, unwieldy college pamphlet to a small, neat booklet expressing some worthiness and permanence. This change was made with some misgivings, but its reception from the fellows has been extremely encouraging. Timely illustrations, new cover designs and changes in color have lent additional attractions to the efforts.

The power of the press is a large one, and it is hoped that just a hint of an example may be passed on to succeeding Sophomores that our paper may not “go the way of all the world.”

W. ROBERT WILSON.



HWA Armstrong '04

The Glee and Mandolin Clubs (?)

TIME was when the gentle zephyrs playing about our would-be Campus, wafted the soft cadences of the tuneful college lyric to the careworn brain of the studious youth, filling his soul with peace and restfulness; when the merry twang of the guitar seemed to loose him from his troubles and bring a smile of joy to his face.

Those were the days when the A. I. T. Glee and Mandolin Clubs were known both near and far, and brought fame to themselves and honor to their Alma Mater. More's the pity we may not say "these are the days." Indeed, the lack of our musical clubs has been greatly felt this year, and perhaps a word of explanation may be in order as to why these erstwhile strong organizations have ceased to be.

Several reasons may be advanced, chief of which is the difficulty of securing engagements for concerts. These are necessary for the financial success of the clubs as well as for stimulating interest in the members. Last fall a call was issued for candidates for the Mandolin Club and so few responded that the idea of having a club was abandoned. At the beginning of the school year, last fall, there was neither a leader or a manager for either club, and nothing was attempted until the middle of November. Then some of the old members got together and elected L. J. Byrne to lead the Glee Club. There were no engagements booked and none in view, and as rehearsals for the comic opera were to begin soon it was thought advisable to leave matters as they were for this year. It is to be hoped, however, that next year both clubs may again receive an early and encouraging start and resume their old-time place in our college life.

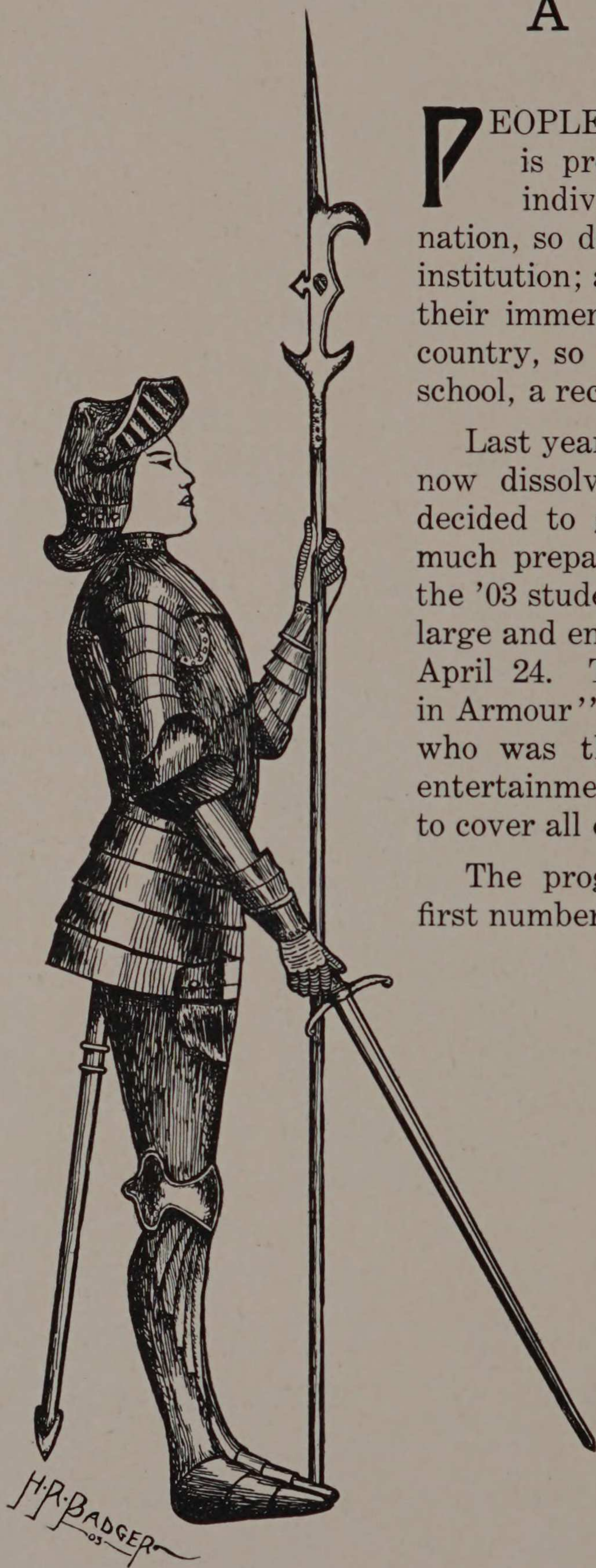
The '05 Trio

ARMOUR Institute had at one time a good sized mandolin and glee club. This, however, gradually dropped out of existence. At a Y. M. C. A. handshake, in the fall of this school year, another one was started. This club furnished the music at the Freshman smoker. In time the interest abated and the members withdrew, until only three juniors remained. They



have adopted the name of "The '05 Trio." So far their main object has been to practice merely for amusement, but now a few dates are appearing upon the pages of its "big" ledger. Watch for us next year, for we will be in evidence, as it is going to be our last chance to represent Armour.

A Night in Armour



PEOPLE come and go; remembrance of them is proportional merely to their deeds. As individual personages make the history of a nation, so does one man form the history of an institution; as a group of men by their actions leave their immemorable print upon the growth of a country, so does a class leave in the annals of its school, a record of its work.

Last year the graduating class of the academy, now dissolved as a class, but united in spirit, decided to give a dramatic presentation. After much preparation, involving constant rehearsals, the '03 students appeared in the Mission before a large and enthusiastic audience on Friday evening, April 24. The indisputable success of "A Night in Armour" is still fresh in the minds of every one who was there. Aside from its success as an entertainment, the proceeds were more than enough to cover all expenses.

The program itself was in eight parts. The first number was a sketch called "Twenty Minutes in a College Room," composed of (1) the Armour Mandolin Club; (2) Hooper and Smith in an extremely well received sketch called "An Up-to-Date Jonah;" and (3) a negro sketch by Jocelyn and Sayre. And then our own Sidney James and his violin accomplished all that was expected of them, which is saying much. After Mr. James' pleasing effort, Mr. Vredenburg's "A Phantom Fantasy," was presented, an operetta in one act, consisting of good dialogue, excellent monologue, and "catchy" music. Of the latter, one in particular, "Armour Chansonettes," a dig at the

faculty, was very clever. The audience was so demonstrative that the stock of verses prepared was not extensive enough to respond to the calls.

Miss Gaither then gave two selections on the piano, one by Paderewski and the other by Schumann. This ended the first half of the program.



The second part started with the "Tessie Octet," probably the best received number on the program. The octet consisted of four Hyde Park girls, Misses Crocker, Burton, Pain and Benedict; three



Armour boys, Hooper, Ferry and Osborne, and Pruyn, a Hyde Parker at present. Throughout this song colored lights were thrown upon the stage, making a very effective and pretty picture. The clever amateurs were called before the curtain several times and Mr. Frank Baum stated that the singing and dancing equaled that of the average professional. Miss Weisenbach then sang Bartlett's "A Dream," and proved that music has its charm, which was in this instance coupled with a pleasing personality. The next to the last number on the pro-



gram was a tramp sketch by Levings and Robinson. It seems they looked for "Trouble" and found it, and the audience seemed to enjoy it. The entertainment was brought to a very appropriate close by a musicale finale entitled "College Days." Every one was in this, and the spirit with which Lorraine's song was given made one realize what the title actually meant.



That the performance was a success is undeniable, and a great part of the credit should go to Mr. Osborne. Because of his activity in this

work, together with Mr. Benedict's untiring efforts in our behalf, the show was a success. The executive staff consisted of Townsley, Badger, Torrance, Spencer and Salinger.

Although no longer united in actuality, the '03 A. S. A. class has shown what it could accomplish. It has ever been a well organized class and ever will be anxious for the welfare of Armour.

L. P. SALINGER.



The Radical Opera

THE show which the Radical X Club presents this year is "The Walking Delegate," a comic opera in three acts. Book and lyrics by Gordon Wilson and music by Allan Benedict. The date and place are May 6 and 13, at Steinway Hall.

The scene of the play is laid in the Kingdom of Laboria. The people of this country are without exception members of labor unions. The king is the proud possessor of a beautiful daughter and an incurable thirst. He is assisted in the government of the kingdom by a royal chancellor, who suffers from a compound dislocation of his vocabulary, and the royal barkeeper, who says nothing but tends strictly to business.

The plot is developed by the Princess Gwendolyn, the beautiful daughter aforesaid; Billy, the apprentice to the royal grocer; Pansy, the lady president of the Flower Girls' Union; and Montague, chieftain of the robber band, a model young man, who is only wicked professionally. Other members of the cast are Finnigan and Flannigan of the royal police; Claude, a robber lieutenant, and robbers, suitors for the princess, bankers and flower girls galore.

During the progress of the action many and terrible are the complications that occur, including the abduction of the royal barkeep by the robbers, the narrow escape of Billy from a death on the gallows, the arrest of the princess as a thief, etc., etc.

At the finish everything turns out beautifully, the complications are untangled, the king's barkeep is restored, Billy turns out to be the "Walking Delegate" of the robbers' union, and in that capacity wins the princess; Montague gets Pansy, etc., to the dismay and confusion of the heavy villian and the gratification of every one else.

The authors have done excellent work on this production, and all is said when we tell you quietly that it is even better than "Co-eds Courageous."

AIMLESS LESLIE.



Prize Winners in the Integral Landscape Photographic Contest. Photos by Hiller, '07.



SOCIAL EVENTS

Dances

PHI KAPPA SIGMA,	Colonial Club, April 17, 1903
JUNIOR PROM.,	Colonial Club, May 29, 1903
MU DELTA SIGMA,	Chicago Beach Hotel, June 10, 1903
SENIOR INFORMAL,	Rosalie Hall, December 11, 1903
SOPHOMORE,	Rosalie Hall, January 8, 1904
FRESHMAN INFORMAL,	Rosalie Hall, January 29, 1904
JUNIOR,	Unity Club House, February 26, 1904
RADICAL X,	Colonial Club, March 18, 1904

Banquets

DELTA TAU DELTA	.	.	.	.	May 9, 1903
FRESHMAN	.	.	.	.	June 5, 1903
ALUMNI	.	.	.	.	June 17, 1903
RADICAL X	.	.	.	.	October 30, 1903
SENIOR CIVILS	.	.	.	.	November 13, 1903
ALUMNI	.	.	.	.	December 19, 1903
RADICAL X	.	.	.	.	January 22, 1904
DELTA TAU DELTA	.	.	.	.	February 22, 1904

Other Happenings

“A NIGHT IN ARMOUR” . . . April 24, 1903

Given by the '03 Class, A. S. A., in the Mission.

Y. M. C. A. HANDSHAKE . . . September 25, 1903

Library, A. I. T.

FRESHMAN SMOKER . . . November 6, 1903

South Side Turner Hall.

“THE WALKING DELEGATE” . . . May 6 and 13, 1904

Given by the Radical X Club at Steinway Theater.

The '04 Junior Prom.

MAY 29, 1903

THE class of 1902 gave a Junior Prom. and likewise the class of 1904. That of the latter class was given at the Colonial Club, and was enjoyed by about sixty couples. Dancing began at nine o'clock, and the last strains of the fine music furnished by Green's Orchestra died out about one o'clock. The entire club was thrown open to the guests and they wandered as they pleased over the premises. From a social view point the dance was all that could be asked, and though it was not as large a party as its predecessor it was a thoroughly enjoyable affair.

Mu Delta Sigma Dance

THE first formal dance ever given by the Zeta Chapter of the Mu Delta Sigma Fraternity occurred on the evening of June the tenth, nineteen hundred and three, at the Chicago Beach Hotel. While for years the Mu Delta Sigmas have been a most important factor in Armour Academy affairs, they never before attempted to give a formal party. But last spring they carried out a wish they had cherished for some time, and their most sanguine hopes were fulfilled. Their dance was a success in every way and was one of the finest social functions ever given by an Armour society. One of the praiseworthy features was the decorating of the hall; some hundred and fifty banners, alternating gold letters on green cloth and green letters on gold, enhanced the natural beauty of the place. The programs, of green leather and stamped in gold, were very rich and effective. Surely it is dances of this character that reflect favorably upon Armour.

Freshman Banquet

THE annual "Freshman Banquet," as given by the class of 1906, on June the fifth, at the Union Restaurant, was, to say the least, a decided success, but its date is comparatively too remote to permit of more than a general summary being given.

Menu

Celery	Blue Points	Olives
	Consommé	
Baked Whitefish, á la Union		Fillet of Beef, Mashed Potatoes
	Head Lettuce, French Dressing	
	Ice Cream	
Brie	Coffee	Crackers

Toasts

Toastmaster, L. R. LEVINGS

"The Institute," PROF. V. C. ALDERSON

"The Class," CHARLES W. STONE

"The Faculty," PROF. W. T. MCCLEMENT

"Athletics," R. E. JENS

"Student Life," PROF. L. C. MONIN

"Can an Armour Professor Afford to Get Married?" MR. C. W. LEIGH

"Stories I Have Heard," MR. H. C. COFFEEN

Y. M. C. A. Handshake

THE indebtedness of all Freshman classes to our Y. M. C. A. is probably more keenly felt immediately after their annual handshake than at any other time. This idea is a good one and requires good people to carry it out, and the manner in which the one on the twenty-third of last September was conducted shows that our Y. M. C. A. are "all right," in the language of the street.

A large number of Armour men turned out to greet the *children* entrusted to their care and the children very quickly got acquainted with each other. Whether it is one of the objects of these handshakes to make the Freshmen acquainted with each other, and so make them able to single out the "Sophs" in the rush that comes so soon after, is not known, but nevertheless, such is the result. As Dr. Gunsaulus was unable to be present, Dean Monin addressed the assemblage and extended the hand of fellowship to the Freshmen and gave them words of advice from our President. Dr. Scherger favored the boys with piano and vocal selections, and a trio, Messrs. Barlow, Beamer and Stem, rendered several selections on the mandolin and guitar. After the applause had subsided, Mr. Spalding quietly announced that refreshments would be served in the other room. The effect was instantaneous, and it is enough if we say that little remained of the "feed" provided, and that no time was wasted in preliminaries, and so it ended. Friendships were started that will ripen into a close companionship in the years at college, and all due to this first function of the year, the Freshmen Handshake.

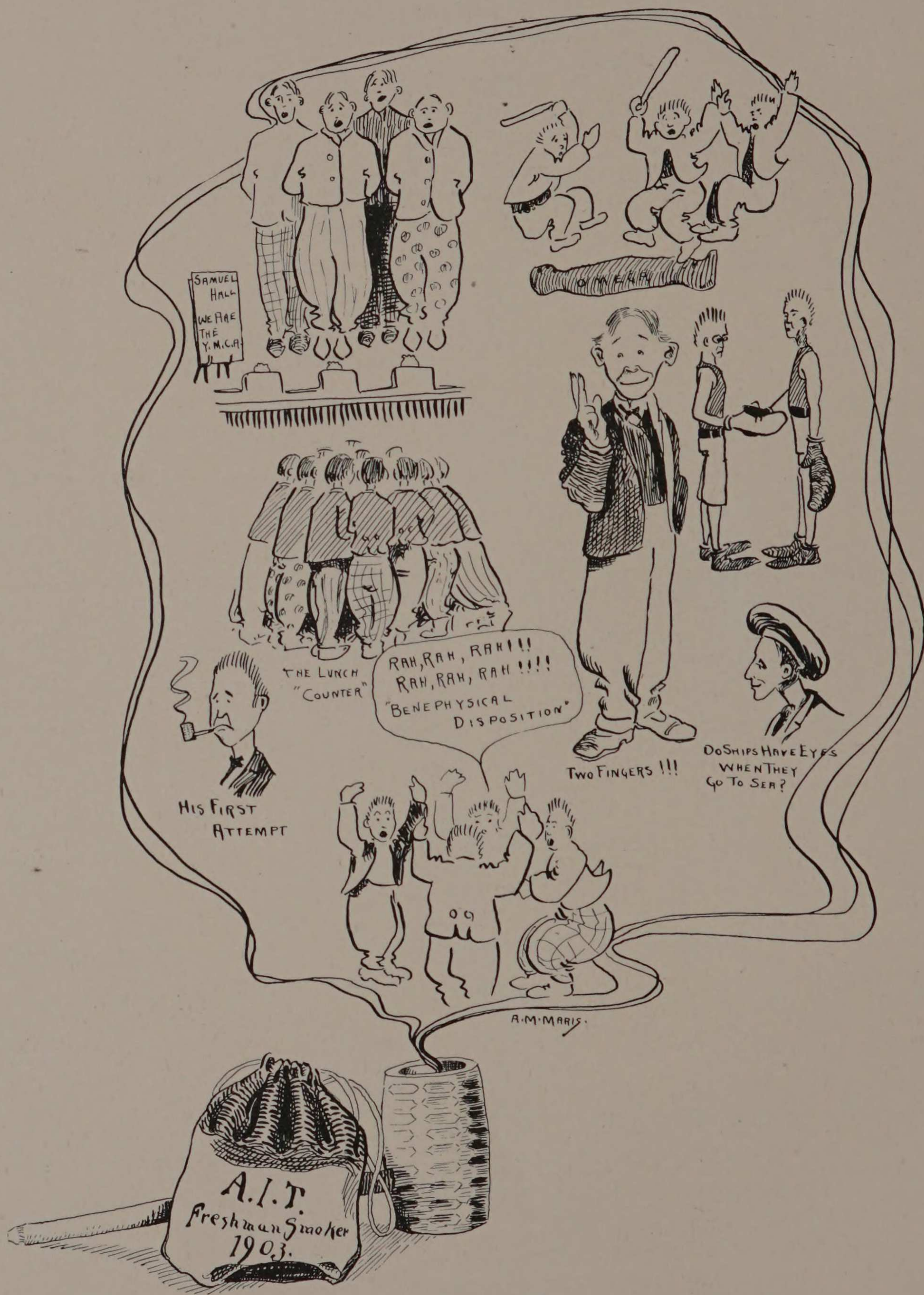
Last Fall's Radical Banquet

ON the ninth of October, 1903, the Radical X Club started the ball (high-ball barred) rolling by having a banquet at the Union. We all know how "Zuck," chief promoter and chairman of the Spoils Committee, failed to show up at the appointed time, and as he had the velvet, his presence was eagerly—yea, hungrily—looked for. He came, but not until after "Benny" and the "Hiller Brothers" had tried in vain to convince the hirelings officiating as the orchestra that our talent at Armour could play a few themselves. Well, the feed was fine. Some few ordered Bavarian lemonade. Toasts were responded to by any one the majority saw fit to call upon. "Pants" told a few stories, and our old favorite Mr. Lowenthal, ex. '05, cleared up several perplexing problems. After the supper was over, while cigars were being ruined, plans for the comic opera by Benedict and Wilson were submitted to the club, and "Herb." Zuckerman was appointed manager. Every good thing has an end and all were sorry when they had to go.

The Sophomore Dance

ABOUT sixty couple met at Rosalie Hall on January 8 and helped each other have a good time. Of course there was plenty of room, so the orchestra were arranged in one corner of the hall. Another reason for this was the fact that in accordance with our new city ordinance, the stage had been entirely removed. The orchestra consisted of five pieces, assisted at times by a supplementary one of three pieces which helped emphasize the loud notes by gently striking the balcony railing, where they were situated, with a chair or cane. The decorations were simple but effective, and consisted principally of hand-painted placards, tastefully decorated, and bearing the word "Exit." These were hung conspicuously over every opening in the hall and added considerably to the general tone of the decorations.

But the dance was an enjoyable affair, nevertheless, and the small attendance in no way marred the pleasure of those who did attend.



The Freshman Smoker

THE fourth annual Freshman Smoker occurred on November 6, 1903, at the Turner Hall, and as far as attendance and enthusiasm are concerned, had 'em all beat. Over four hundred answered the call to smoke with the upper class men, and of these some two hundred were freshmen. Some of the faculty came to see the "boys in action" (removed from the decorum of the class room), namely, Dr. Gunsaulus, Profs. Monin, Raymond, Freeman, Campbell, Phillips, MacFarland, Dr. Scherger, Messrs. Leigh, Perry, Coffeen, Agle, Sommers, Howell, Creamer, Tibbets, and of course our comptroller, Mr. Smith.

The success of this smoker was due to a large extent to the able management of Mr. Frary. Among the new and distinctive features of this smoker were the tobacco bags given every one with his corncob pipe. They were of yellow and black cloth and made splendid souvenirs. The first part of the evening was of course devoted to a short program. The audience was very appreciative and occasionally volunteered timely suggestions. After the Mandolin club had played twice, Prof. Monin welcomed the freshmen in a short address, to which Blinkensopp very cleverly replied. "Doc." and Prof. Raymond were then called upon and each talked for a short time, assisted by hints from the '06 Rah-rah boys and some Omega's in the corner. Prof. Leigh sang a few songs and Mr. Mulvey played some on the flute, both being accompanied by Dr. Scherger. Then a freshman comedy team, Hooper and Smith, showed the crowd what life on the sea taught young boys. And then came Mr. Coffeen and his stories, and he claimed that they were true, too! The idea of serving mule pie is a little more than we could swallow. Things were then cleared from the stage and two three-round boxing matches were fought, Referee Jens declaring them both "draws." Sollet and Menken were the principals in the first bout, and Gookin and Hotchkiss did the clinching act in the second one. Between the two matches, a hastily formed glee club, with "Looie" at the agony box, gave a number of the old favorites. The rest of the evening was spent in eating the lunch in the next room and in numerous impromptu songs, dances, etc.

Smoker Committees

SENIORS:

D. H. Frary
E. Lundgren
A. Jens

JUNIORS:

F. M. de Beer
R. Malcolm
D. Harvey
W. Johnson

SOPHOMORES:

C. Baker
L. A. Paradise
R. Kimball

The Radical Banquet

THE annual initiation of the Freshmen 13 into the Radical Club took place on January 22, 1904. The event was celebrated in the *unusual* manner customary to that bunch of livelies “zum beispiel,” a QUIET little dinner at the Union, and afterward—well afterward—a—a—a—well accounts are slightly mixed. But the dinner was the event of the evening. It was served in a long hall, on one very lengthy table; so lengthy that megaphones were used for long distance communication between the end men. “Dinni” was at the head and “Jimmy” at the foot (or vice versa), and they both got to telling different stories at the same time, and each got sore because the people at the other end always seemed to laugh at the wrong time, and were only appeased when the whole crowd happened to laugh together, and there were a bunch of laughs.

For the first time were there gathered together members from the four classes; but class feeling was entirely submerged in the general feeling of good fellowship. The high and mighty Senior descended from his perch while the giddy Freshman tried to act the “man;” the Juniors quit mimicking the Seniors, and the Sophs forgot to play the fool—for awhile. Songs were sung, speeches were spooched and smokes were smoked while the merry tinkling of the glasses (water), beat time for the ever-increasing joyfulness. Some of the waiters were visibly affected and brought in steins filled with suds, or something.

A little later some one in the next room opened the door cautiously and looked in. Pandemonium broke loose and with scared faces, pausing only long enough to secure their hats and coats, that dinner party took to the street. The fellows then knew they were upholding the dear old Armour standard and redoubled their efforts.

But stomachs, be they ever so large, cannot be stuffed to excess with impunity (or anything else for that matter), and after every one had grafted as many cigars as his modesty (and pockets) would permit, the bunch went to Mussey’s and bowled and bowl we did. No matter if the alleys *were* long and had queer curves, and the gutters seem to cross each other about half way down, such trifles mattered not. Frequently two or three pins were knocked over with one ball, and the crowd would shout lustily, “Hoch! *Hic!* Hoch!”

But “tempus” does “fugit,” and in the “wee sma’” hours of the morning, the crowd broke up, and so ended another good time.

The Freshman Informal

TO the Freshmen belongs the honor of having the largest attendance of any of the class dances given this year. Over one hundred couple danced to Green's fine music at Rosalie hall on the 29th of January, and even the weather favored the committee in making the affair a great success. Very few left before the full complement of dances was completed, and in this way you can see that every one just felt like having a good time. And one of the wonderful features of the dance was the fact that it was self-supporting, and the class treasurer was not called upon. If the success of this dance is in any way a criterion of what the Freshmen are bringing to the school, it means that the social future of Armour is a happy one.

The committee in charge of the dance consisted of the following:

B. B. BUCHANAN, *Chairman.*

W. A. HEBARD.

C. B. CHAPMAN.

The Junior Dance

THE Junior "Prom.," the formal affair usually given by the Junior class, was so poorly attended last year that the class this year decided to have the "Prom." an informal dance, and as such it was given. On the twenty-sixth of February the Unity Clubhouse was filled with men of Armour and their lassies, enjoying the inviting music of Lawrence's orchestra. While at first glance this place resembles a church, that was soon forgotten, and the neat blue and white programs were timecards that contained the schedule of good times and when to expect them. In departing from the custom of making this dance a formal affair, the Junior Class followed the only course left them outside of bankruptcy. We feel that the idea of having this party formal is the correct idea if you can get the boys to attend, but we believe that such a dance would not have been attended or welcomed this year. We hope to see the old custom revived again as soon as the student body show they will support it, as Armour is certainly large enough to have a real "Prom." once a year and can do so as soon as they realize that Armour *is* a college. The Junior "Prom." committee in charge of this dance consisted of Messrs. Kretsinger (chairman), Carroll, Culbertson, Jones and Goldsmith.

The Radical X Dance

RAIN and mud seemed to have no effect upon the attendance of the Radic dance this year, for when all noses were counted it was found that over one hundred and seventy-five couple had braved the elements to come to this annual affair. It was at the Colonial Club of course, and happened on the eighteenth of March, and for numbers and enthusiasm had all other dances of the year beat by a good margin. Although the crowd was large, there was no excessive jam on the floor, for the Colonial Club is, as you know, a large hall. Greene's orchestra furnished the music and was all that could be wished for. The whole club was at our disposal and we used it, too. One of the objects of this dance was to announce to the public the fact that the Club was to give an opera in May at the Steinway Theater, and from the way in which the crowd turned out, it would seem that the Radics had friends in abundance. As a dance it was fine and a fitting climax to the series of Armour dances given during the winter, and may be taken as a criterion of the social awakening that has come over our school.

Civic Federation

AND ITS PROPOSED INDUSTRIAL BUREAU

Senator Marcus A. Hanna

In his introduction Senator Hanna extolled the technical educational systems of this country, saying :

The greatest possible advantage for business is obtained by a combination of science and technical education. After all the college education there is something more to learn. This training is a fine foundation, but it is not available without sterling integrity, for that is the best of the fundamental equipments. My first test of men is their character—without strength in that, even if they are bright and efficient, they go. With these things in my heart I have come to this city. My mission is to promote the Civic Federation.

Its object is to bring together the best minds of the country to discuss industrial questions. It is necessary for the employer, from the standpoint of his higher intelligence and greater experience, to meet his employees more than half way. The underlying principles of the proposed Industrial Bureau of the Civic Federation are opposed to anything un-American. They are opposed to drastic measures on the one hand, as they are opposed to Socialism on the other, both being un-American. They seek to advance, not the interests of labor, but the interests of capital and labor.

In undertaking the work of the Civic Federation the difficulties presented by the necessity of overcoming the prejudices of one class and of bringing the other to believe that they could treat with capital on equal terms, seemed almost insurmountable. Yet, whenever the men engaged from motives of pure patriotism in this work have attempted to bring employer and employes together, they have never failed.

We look to young men of energy and education for growth and reform. It is not to be expected that the large alien element coming daily to our shores, wholly unused to liberty as we know it, can be easily assimilated. It is for the men of education to study carefully the conditions under which these men live and the influences leading them to action. It is necessary for the employer, from his standpoint of greater experience and higher intelligence, to make use of his advantages, or, as I like to say, meet his men more than half way. I try to practice what I preach. In thirty years I have not had a strike, and I have never found a time when my men were not ready to meet me half way if I approached them in the right spirit.

The Race Problem

Booker T. Washington

ONE of the heartiest receptions accorded any visitor to the Institute was given to Principal Booker T. Washington, of the Tuskegee Institute, Tuskegee, Alabama, at an assembly held in the Mission, on Monday, May 11, 1903. "The people of the United States must learn to judge the negro by the highest and most useful types and not by the lowest and most slothful." These words were the basis of the appeal made by Mr. Washington before the students; he was warmly welcomed. He thanked the students for their hearty reception and pointed out the great progress made by the Tuskegee Institute in the last few yers. "From a shanty and hen house we have grown into an institution of twenty-five buildings and 1,418 students."

But it was not for his college he pleaded; it was for the working out of the race problem. "As American citizens, you young engineers have an interest in working out this great problem, for while it concerns 10,000,000 negroes, it also concerns 65,000,000 white people. This problem can only be solved by making the negro of use to the community. If a negro carpenter can do better work than a white man, the color line will disappear. We, then, aim to make the negro a man with a home, with an occupation and a taxpayer. This can only be accomplished by honest, sturdy effort."

Hon. Grover Cleveland

On October fifteenth, ex-President Cleveland delivered a short address before the students, as follows :

Ladies and Gentlemen :

Many incidents have occurred since I have been in this city to make me feel at home; but, somehow, I think that the most emphatic were the noises I heard when I entered this hall. Such noises are very familiar to me, living in a university town, and I never get tired of hearing them. Of course, my surroundings at home are such and my associations with other men closely connected with college work, that I have something to do with the management of a university, which we call great, and I must not be disloyal, nor will I be. I am a great stickler for higher education—the best that can be acquired; but I cannot refrain from telling you one thing—I don't believe that anything appeals so strongly to me as the opportunities now being offered in our country, here and there, for our young men to get a practical and industrial education.

I have said that I believe I would rather my boy would grow up to be competent to build and plan a bridge like the Brooklyn bridge than to see him in any place of honor that his fellow citizens could bestow upon him. There is to me something admirable in these things, perhaps, because they are incomprehensible to me. I never could understand how they could be done; but when I come to an institution like this, and see the eager faces of those who have come to master the technical problems, I think I have a glimmering idea of how it is done, and at this time, when every indication points to industrial and commercial advancement, what a wide door is open for our young men. I hate to hear a man talk with reference to the chances for young men, and say that the times are past when a man can get on in life. They are not gone. There is always room, and always will be room on top, and those who fit themselves for the places will always find them.

Now, then, its a very old story, I suppose for you to be told how important it is to take advantage of all opportunities for study, etc., that are set before you, and the regret and remorse you will suffer, if you neglect these opportunities. I want to repeat these things in closing, and my concluding words are these: Let me enjoin upon you the importance of these words, and let them be given emphasis from coming from a man who knows.

Mr. Chas. F. Hart

Vice-President of the National Association of Stationary Engineers, Chicago

On the twenty-sixth of October, 1903, Dr. Gunsaulus introduced Mr. Hart, part of whose address is here given.

Dr. Gunsaulus and Students of Armour Institute:

Perhaps the thing which has caused me the keenest regret is the fact that I never had an opportunity to get a thorough technical education. Twenty years ago, when I was in a position to take advantage of such an opportunity, none was open to me, except at a tremendous expense, which I could not afford, or thought that I could not. But perhaps I am a little closer to this matter of technical education than any one might think. For a number of years the Association of which I am a member has conducted examinations for stationary engineers in the City of Chicago, and there has been considerable feeling among many of the applicants because Armour Institute graduates have walked off with all the highest honors.

We had an examination some three years ago for a stationary engineer of the fifth grade for a pumping station. The two leaders in that examination were comparative boys and graduates of Armour Institute of less than one year. That shows you what it is possible to do. There were, taking that examination, twenty engineers of more than ordinary ability, and ten who to my mind were very fine operating engineers; but they had never reasoned on the basis of cause and effect. There was an effect produced—they knew that, but they did not know the cause of it. They also had never had the training in English which would enable them to express themselves intelligently and well.

It has been truly said that ability without opportunity is lost. While going through the various departments of your splendid institution my mind was taken back ten or fifteen years, to a young man of seventeen or eighteen, who had a wonderful aptitude for engineering, but had no opportunity to develop that talent; and perhaps no one appreciates Armour Institute more than I do, because I realize the fine opportunity it affords to earnest young men with ability and ambition.

Our organization, the National Association of Stationary Engineers, was started twenty-one years ago yesterday—October 25, 1882—with no other end in view than to educate the engineers, not simply from a technical or a professional standpoint, but to bring their knowledge up to the rank of professional men.

Now, Armour Institute gives us just such practical opportunities as are needed to make the stationary engineer a professional man. Disabuse your mind of the idea that the stationary engineer is rather the “under dog,” so to speak. I say to you, look out for the stationary engineer. There is more under his hat than you have any idea of. He has been through a line of work that called for close judgment. There is a saying that it is not what you know, but what you make the other fellow think you know, that counts. If a man

goes out, faces the world, and makes money by what he knows, that is nothing. But a man who does not know a "blooming" thing, but goes out and makes the world think he does, he is the man for me. That has practically been the case with the stationary engineer during the past twenty-five years.

My early conception or idea of a college was a beautiful place out on a picturesque hill, with a stream of water flowing by. These things are all fine and beautiful, and have their value, but they do not bring in the money. It is the coal, iron, steel, the vulgar things of the world, so to speak, that have the greatest practical value. Your situation here in the midst of a manufacturing district, is an ideal one for you. As you go to and from your class room, you can step into a plant and see the practical applications of what you are studying. This is of vast importance to you, and could not be had if the college were situated out in the beautiful country.

In closing, Mr. Hart gave a most hearty invitation to the students to visit the Record-Herald Building, of which he is chief engineer, and inspect the new machinery which is in successful operation there.

Mr. George B. Williams' Recital

ON February third, in Assembly Hall, Mr. George B. Williams, of London, gave a dramatic recital of Shakespeare's "King Henry the Fourth, Part I." Mr. Williams has won an enviable reputation in both England and America, and it was a great treat to listen to so distinguished a reader. For two hours he entertained the college delightfully. All poetry to be perfectly appreciated should be read aloud. Dramatic poetry should not only be read aloud, it should also be read in character, as Mr. Williams' reading amply demonstrates. Of course, a dramatic reader can never give an adequate substitute for the staged play, especially if it be an "acting play" and not a "closet drama;" yet Mr. Williams' interpretation was unusually effective. Indeed, it was illuminating and vital. The principal characters, with the possible exception of Hotspur, were well individualized, and enough of the play was read to bring out the plot movement effectively.

The interpretation of Falstaff was especially felicitous; it is unquestionably Mr. Williams' role. Falstaff's wealth of "avoirduois," his poverty of conscience, his marvelous gift of lying, his matchless affrontery, his keen and brilliant wit, his valorous discretion, were all realized. Mr. Williams is certainly one of the few satisfactory interpreters of Shakespeare's greatest comic character. His work is a stimulus to the study of Shakespeare.

It is strange that the colleges do not lay more emphasis on vocal interpretation in the study of literature, especially in the study of poetry and drama. Emotional qualities are certainly best brought out in this way and verse is ridiculous as an appeal to the eye. The critical lecture is important, and the libraries are very properly filled with works of criticism easily accessible. But these do not quite realize literature for the student. That can best be done through the art of reading aloud.

Gladstone, the Man

Doctor Gunsaulus

IF Sir John Gladstone's son, William Ewart, had been only a perfectly sphered ivory or beryl ball of conservatism, brilliant and sufficiently pure, the gift of heaven might have been kept securely and comprehensively enough in a golden box, but no hope would have gone out in any proposed planting of such an unresponsive thing in our world's rich soil. But unfortunately for Toryism, and fortunately for Liberalism, he was a vital seed, not a cold gem, and, granted sun and rainfall, he could not, and he did not, remain ever an understandable, manageable, erubescant and dead item of human life's equation, but he was, instead, an ever wondrous and perhaps to the dull-eyed, a too eager and elusive reality into whose career the life and hope of this planet ran for succor, and from whose being and action there went forth a revealment of God in the form of humanity. Three score and ten years had passed since Tennyson and he talked of the future they dreamed for Arthur Henry Hallam. Fifty years ago, death silenced Hallam and each of those years had given Gladstone an opportunity to embody in himself the prophecy made of the other :

“A life with civic action warm,
A soul on highest mission sent,
A potent voice of Parliament,
A pillar steadfast in the storm.”

These words of Tennyson came to many a heart on that May day when the silent crowd vanished from the Abbey. Yonder, by the side of Robert Browning and in front of the Chaucer monument, lay the poet who wrote the prefatory sonnet for Gladstone's heart-searching appeal for Montenegro; now and hither had been borne the remains of the statesman to be buried next to the dust of William Pitt and close to the bust of Lord Beaconsfield,

which would still be the finest memorial of Gladstone's most brilliant rival, had it not been that Gladstone himself made by his speech on the death of Beaconsfield, as Sir Stafford Northcote said: "A more enduring monument than could be carved out of stone."

It was not in keeping with the hour to compare the values of the public services of poet and statesman. Gladstone had already awarded the palm to Tennyson in lustrous and stately phrase, for he was sufficiently poetic to perceive that the poet is the true prophet of civilization. On the other hand, Tennyson himself spoke of Gladstone as the loftiest of English statesmen. The very method which Gladstone had often adopted and for the adoption of which he was most often and bitterly reproached—that of the steersman, who seeking to reach a given point and finding two channels possible, one with a cataract ahead, the other more circuitous but with no fatal difficulty, chooses the bend as his course—this, his friend, the singer, urged upon him, for the reason that Tennyson knew that a Gladstone, by endowment of genius, is accountable, not for himself alone, but also and more especially for himself as a leader and commander of men. Men said he yielded enough to his theory of eloquence and the orator. He said: "It is an influence principally received from his audience (so to speak) in vapor, which he pours back upon them in a flood. The sympathy and concurrence of his time, is, with his own mind, joint parent of his work. He cannot follow nor frame ideals; his choice is to be what his age will have him, what it requires in order to be moved by him or else not to be at all." But this must be balanced by the equally strong opinion of others that he was too attached to lofty ideals, and fought too far in front of his army. Bright called him a sunflower ever turning to the sun; but he was more, for he wooed all else sunward.

The question of questions to be asked concerning a man like Gladstone is not, Did he succeed in being popular? Did he reach the highest seat of power? Was he always of the opinion of his ancestors or of himself on some yesterday? It is this rather, granted that he had much to renounce

and to forget, and that, therefore, he must have had to move out of one set of opinions and methods and to enter into another, did he grow, with that healthfulness of soul and that soundness of conscience, which, always, in the process of his development kept him true to his own personality and to the integrity of the laws of human thought by which other equally true minds necessarily came into alliance with him? It is competent, in short, to ask how far did his transforming intelligence normally transform the nation he most influenced, toward permanent grandeur and good fame? The answers to these questions, it is believed, will be increasingly favorable to the name and to the honor of Gladstone. From first to last, by force of a lively intelligence, predestined to love and to seek increasing light and hope, he was in process of evolution. So also, but less swiftly, was England.

His inconsistencies are proof of the truth of Emerson's work: "Consistency is the hobgoblin of little minds." Times there were when any partial view could only say, as he was contemplated:

"Things are in process still; the segment ends are these
Within the plane upturned to-day. The perfect circles round but slow."

The verdict of all times, however, will be returned as the world, ever advancing toward the goal he dreamed of, perceives the whole range and the entire import of the influences he helped to create, to guard and to guide, and then with the names of Alfred and Hampden, William the silent and Lincoln, will be found written the resplendent name of William Ewart Gladstone.

The Engineer as a Business Man

President Humphreys of Stevens' Institute

I PROPOSE to speak to you more particularly from my experience as an engineer and industrial manager and as the employer and post-graduate trainer of many cadet engineers.

I had found that the cadet engineers who came to me for employment were not only deficient in knowledge of business methods, but they generally found it difficult to believe that the engineer required that knowledge, and some were unwilling to so believe even under pressure. Some few were only convinced when they found themselves outstripped by their fellows of a more open mind. I have in mind a number of able fellows who lost from one to five years in this way.

In a single talk like this I cannot expect to give you any real instruction, but if I can, speaking from own experiences, mind you, induce you to believe that the engineer to be commercially successful must be mindful of commercial conditions and limitations and be familiar with business methods, I shall be satisfied, because I shall know I have been of real service to you. I beg of you to believe that I shall speak only of that I know. * *

I include in my course the principles of accounting, depreciation of plant, shop cost, analysis of data and statistics, and commercial law—especially as to contracts.

In connection with work along these lines I weave in as far as possible hints as to business methods in general, and especially I try to show the great desirability of an engineer making his communications, specifications, etc., self-explanatory and of keeping them free from ambiguity. I then try to show that this last means that the engineer must have a good working command of his mother tongue. I also point out that the experienced and fair man who does succeed in making his papers clearly and fully express his real meaning has but little use for lawyers and the courts. Now, how can I convince you that a knowledge of these matters is of importance to the engineer? * * * * *

The engineer who is prepared to be satisfied with a subordinate position will find that he can be of much greater value to his employer if he is able to appreciate the bearing of commercial conditions upon engineering problems, and so will generally be able to secure a higher wage.

If I say you should at least understand the theory of accounts you may reply, as one of my classmates did. He said he did not propose to bother with bookkeeping; he could hire a bookkeeper for \$1,200 a year to do all that work for him. If this were true, why not also claim that engineers need

receive no training in the use of tools or the other practical features of their profession; they can hire mechanics at \$2.50, \$3 and \$4 a day to do that class of work for them.

An engineer does not need to be a bookkeeper any more than he needs to be a skilled mechanic in the several trades, but he does need to know the principles of accounting so that he can control and direct the keeping of the records of results as obtained in his work as an engineer, just as he needs to know how to direct the mechanic to obtain those results.

Certainly the engineer, if he is to advance in the line of industrial management, and that is what most of our competent engineers are now doing, must be capable of at least understanding the value of a system for correctly keeping shop costs. Without such a system the works manager is at sea. Records correctly kept determine along what lines to develop. I have in my examinations of industrial properties repeatedly discovered as the cause of loss, and sometimes of failure, a more or less complete deficiency in this direction. Sometimes companies which know in a general way as to the cost of production do not know the cost in detail, and so are unable, through an examination of their records, to determine the weak spots in their system. To decrease the cost of manufacture we must have correct records of cost for comparison, especially when different processes are being tried against each other. This fact is now coming to be well recognized, and there are a number of engineer accountants who make a business of working out systems of shop management, including the keeping of accurate shop costs, and who go farther, and from the records so obtained, locate the weaknesses in the shop itself. This calls for unusual ability, for unless the work is controlled by well-balanced men, men of sound common sense, red tape will be overdeveloped. Books are kept for the business; business is not run for the sake of bookkeeping. That is quite true, but it is also true that if we keep our book records with accuracy and prepare therefrom simple, comparative statements, we can often improve upon our shop methods. And so the bookkeeping becomes more than the simple recording of the results obtained—it becomes an active coadjutor in developing improved methods of manufacture and management. You may be disposed to acknowledge that the keeping of shop cost is of vital importance in securing efficient management, but you say why not use the service of these specialists—engineer accountants? I reply, the manager has no right to trust blindly to any one; he should at least be able to follow the adviser in the steps and methods he advises.

Furthermore, the specialist to do his work most efficiently must draw upon some one connected with the management of the works for information as to local and special conditions. What security can the manager feel in acting upon the comparisons furnished by a system of shop cost records if he is ignorant of the principles upon which that system depends?

There is a lot of nonsense taught to young men about the relative importance and dignity of being men of detail or broad gauged men of affairs. I have generally found in my experience—and it has been a wide one—that the man who boasts that he takes a broad view of affairs, leaving the details to others (who by implication are small in stature compared to him), is generally a man whose early training has been sadly neglected, and as he

is entirely ignorant of the details of any business, the only thing left for him is to disparage a knowledge of details and claim he is a man of such breadth as to be superior to such trivialities. Let me advise you that after you have graduated from Armour Institute it will still remain for you to learn the details of some one branch of the engineering profession. * *

The ability to analyze and fairly value data and statistics is of the utmost importance to the engineer. The engineer is almost sure to have referred to him questions as to the relative efficiency of different processes. Continually are wrong decisions arrived at and large losses of time and money made because conclusions have been drawn from isolated portions of the data obtained or obtainable.

When we remember how complex are most of the questions of relative efficiency we can readily understand that by failing to keep all the elements equally in view we can easily arrive at a wrong conclusion, while believing that we have a complete demonstration in hand of the wisdom of our choice.

In this connection let me especially recommend you to read an article by Mr. Walter McFarland, which appeared in *Cassier's Magazine* for January last, entitled "The Commercial Side of Engineering."

At Stevens we try to make our students understand that to be efficient as engineers they must be equally well equipped in the theory and the practice of their profession, and that it is not sufficient that they shall be practical in the shop and in the field, they must also be practical in their ability to meet commercial conditions and limitations.

ATHLETICS



Athletic Board of Control

1903-1904

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Parade—Feb. 23, 1904.
Commemorating J. Ogden Armour's Gift of an Athletic Field.

Ogden Field

WHEN the next school year opens a new chapter will be started in the athletic section of the history of Armour Institute. Ogden Field, for that is the name of our new athletic field and a just tribute to the man who made it possible for us to have such an addition to our college, includes all the property between Dearborn Street and Armour Avenue, and extending north of Thirty-third Street for about three-quarters of a block. This will be all cleared of buildings by next fall and surrounded by a fence, while inside will be a running track, baseball diamond, football field, tennis courts, and space for field events of various kinds. We understand that one of the buildings is to be remodeled and placed at the extreme northern end of the field, there to be fitted up as a clubhouse with large veranda and shower baths on the ground floor. Surely this is more than any of us had ever dreamed of a year ago.

In view of the fact that our future looms up so promising, we will forget the past year and its accompanying lack of interest. The athletic association had no money, and so the football team had to be abandoned. Next year, however, membership in the athletic association will be compulsory, and every one of the students will pay his annual dues, to be used as the board sees fit. This means a coach for each one of our teams. With the boys practicing so near the Institute, more spirit will undoubtedly be the result, and with more spirit we will have better teams. College spirit and enthusiasm is the tonic that helps a great deal to bring out the good athlete, and to encourage him to do his best. The prospect of athletics at Armour is a bright one, and due wholly to the fact that one man was generous—J. Ogden Armour.

BASE BALL

CARL S. BATES.



Tech. Baseball



THE baseball team of 1903 will long be remembered as one of the best and most successful in the history of Armour athletics. Early practice was rendered almost impossible on account of the wet spring, but when good weather finally arrived the team rapidly rounded into shape.

The first game was played with Hahnemann Medical College, at Washington Park, and resulted in a victory for the Tech. by a score of 11 to 6.

Following this came a game with the Oak Park High School; the weather was better suited for football than baseball, but in spite of the cold the boys played good ball and won the game by a score of 11 to 4.

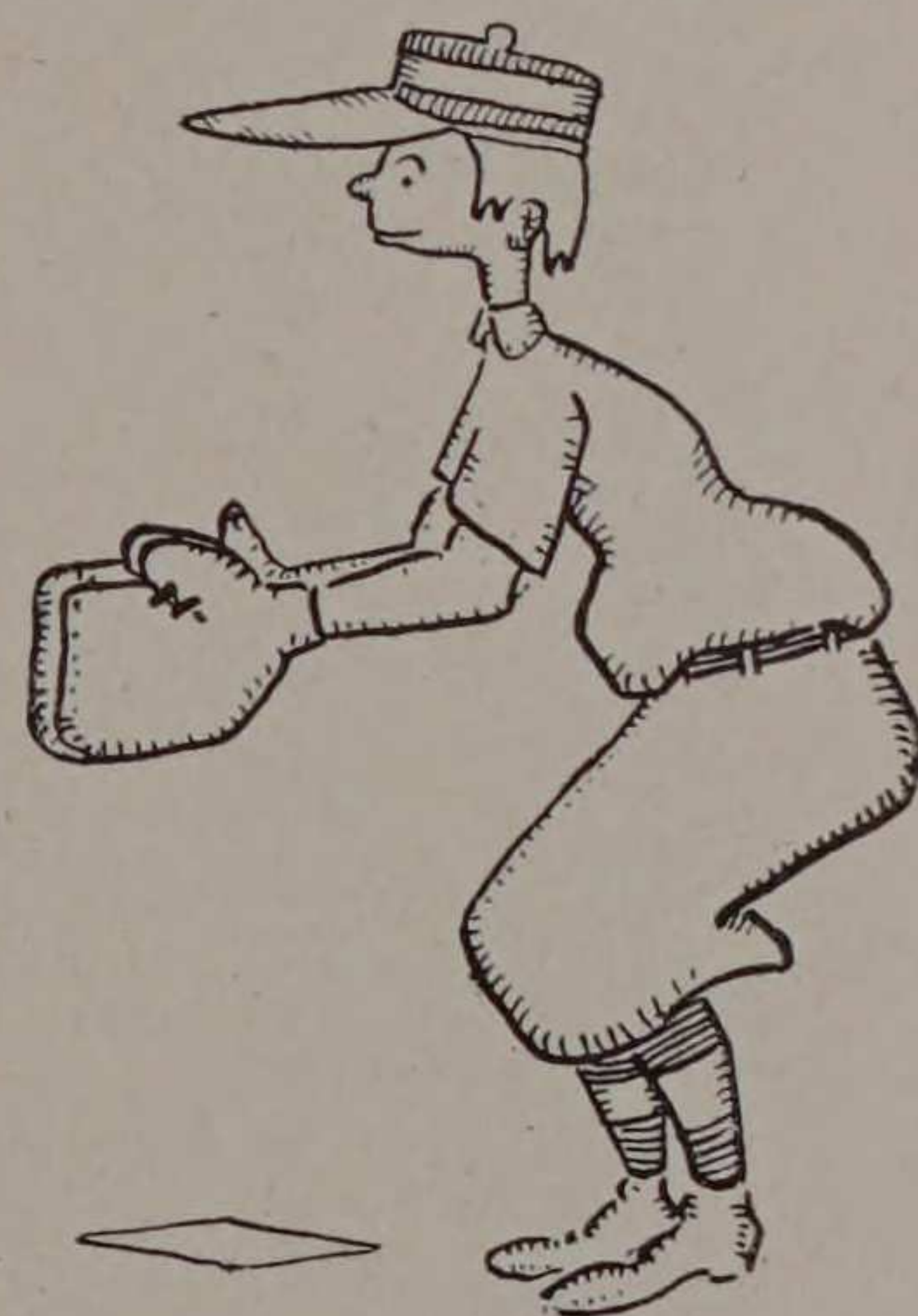
By this time the team had hit its stride and continued to win steadily, playing the entire schedule without a defeat. One of the finest games of the season, from an Armour standpoint, was played against St. Vincent's College; for five innings neither side was able to score; in the sixth inning the Armour boys solved the delivery of Gorman, the opposing pitcher, and runs were scored in every inning after the fifth, the final score being 11 to 0. Parker pitched gilt-edged ball, giving the opposing team but one hit, a Texas leaguer over second base.

On May 20, came the game with our old rival, Lewis Institute. At the end of nine hard fought innings the score stood 2 to 2; in the tenth inning two singles and a sacrifice scored one run for Armour, which was enough to win, as the Lewis men were unable to score in their half of the tenth inning. Two weeks later the second Lewis game was played at American League Ball Park, and again Armour was victorious, the score

being 7 to 3. This was the first time in our history that Armour had defeated Lewis in baseball, and these two victories were enough to make the season a successful one in the eyes of the students and the team.

The most exciting game of the season was played against St. Viateur's College, at Kankakee. It was the final game of the season and the boys were out to win, as the schedule showed a clean string of victories and the final game must be won. The game was close all the way, Armour finally winning by the score of 6 to 5. One of the prettiest plays of the season occurred in this game. One of the St. Viateur's batsmen drove a hard liner over second base, which looked like a sure hit; Hill was determined to take a chance at it, however, and leaped in the air as the ball flew past. The sphere struck his gloved hand and stuck there and the batsman was out. It was a beautiful play and won a hearty round of applause from the St. Viateur's students. In the ninth inning Captain Strang saved the day by scooping up a low throw at first base and retiring the side, with two runners on the bases waiting to score if the ball went past him. But "Fuzzy" was there; the ball didn't get past him, and the game was won.

This game proved a fitting climax for a season that was remarkable in many ways. Not a game was lost throughout the entire schedule, and best of all, the yellow and black of Armour waived in triumph over the Lewis Institute blue.



Schedule

April 14.—Tech., 11; Hahnemann Medical College, 6.
 April 21.— “ 11; Oak Park High School, 4.
 May 2.— “ 20; U. of C. Freshmen, 12.
 May 6.— “ 11; Northwestern College of Liberal Arts, 6.
 May 7.— “ 19; St. Ignatius College, 12.
 May 9.— “ 9; Oak Leas, 7.
 May 13.— “ 11; St. Vincent's College, 0.
 May 16.— “ 11; Valparaiso College, 1.
 May 20.— “ 3; Lewis Institute, 2 (10 innings).
 May 27.— “ 15; Northwestern Medical College, 6.
 June 3.— “ 7; Lewis Institute, 3.
 June 10.— “ 6; St. Viateur's College, 5.

Tech. Baseball Team, 1903

C., Slocum, Carpenter.	S. S., Burdick.
P., Parker.	3d base, Peebles.
1st base, Strang.	L. F., W. Everhart.
2d base, Hill.	C. F., E. Everhart.
R. F., Farmer.	



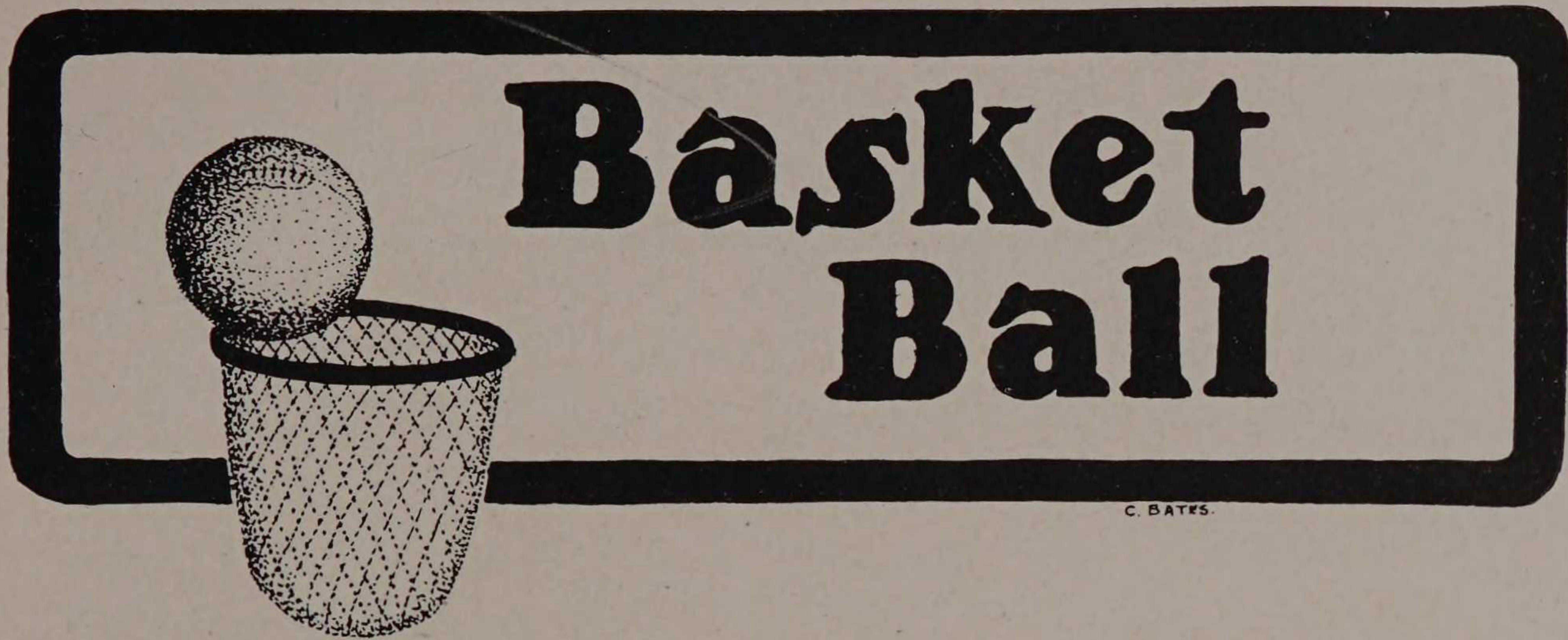
Senior-Faculty Game

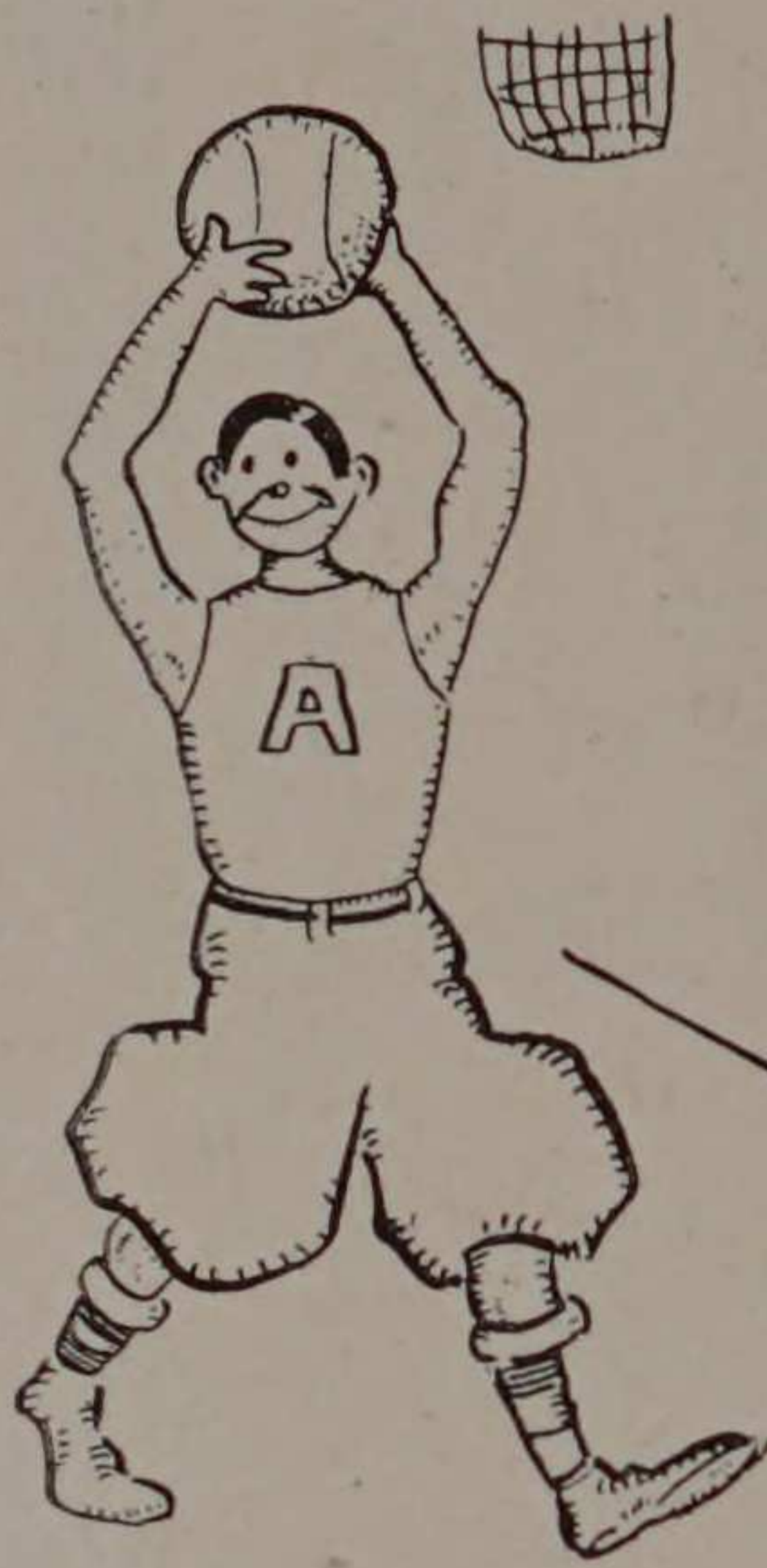
ON the fifth day of June, about a year ago, those who were then Seniors, and the Faculty, each selected from among their numbers nine brawny athletes to represent them in the annual Senior-Faculty baseball game. Being about the last chance for either party to meet, either on the field or in the class room, both sides had prepared carefully for the contest. Lanning, Sherman, Rawson, Edgecombe, Matthews, Strickler, Niestadt, Taussig, and others of the class of '03 were out daily limbering up their right arms. The professors were not idle, for all the while they would secretly hie themselves off to some secluded corner lot and proceed to lash the atmosphere and chase balls. This is not verified, but developments later on pointed to some careful preparation of this kind. The game itself was spectacular to say the least. Although the Seniors tried hard to escape the inevitable, their efforts were of no avail, and the final score was 15-11 in favor of the Professors. The line-up of the teams was carefully destroyed after the game, so that they will have to be omitted from this article. The reason for this is not known unless there were "ringers" on both teams. The crowd that had gathered on account of this plausible excuse to "cut" classes, were kept in a jolly mood by the relaxation for once of the terrible dignity that surrounds our guides in the search of knowledge.



Official Score:

		Total	Hits	Errors
Faculty	1-0-5-2-0-0-3-4-x	15	6	38
Seniors	3-1-0-3-1-0-2-0-0	10	9	49

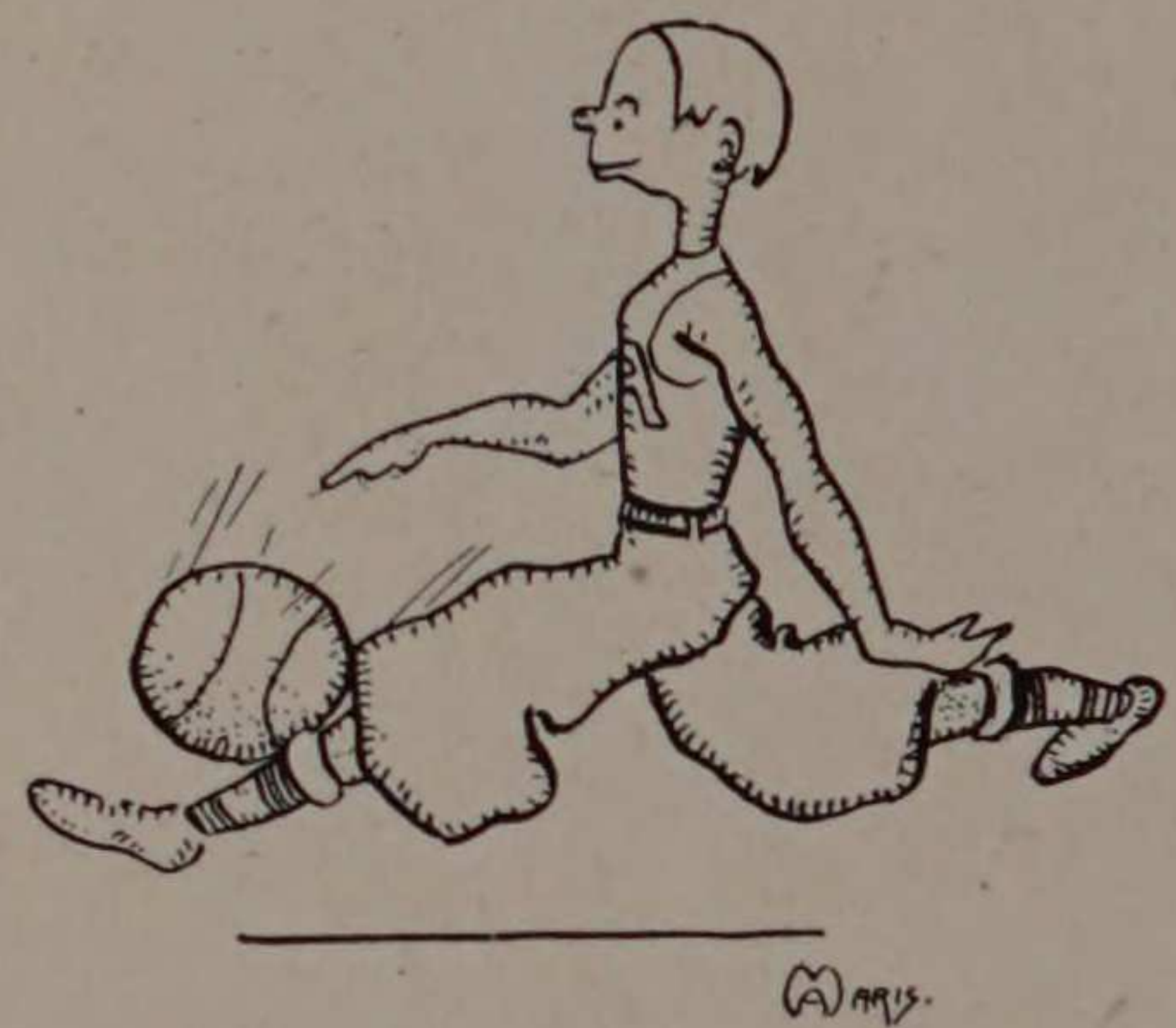




Tech. Basketball

THE 1903-1904 basketball season did not develop all it promised to become at the beginning of the year. In contrast to the usual late start, the first week in October saw the men already beginning on their preliminary endurance and general training exercises under the new coach, B. G. Maris, and with most of the old men back; bright times seemed in store for us. Our first game was with the Central Y. M. C. A., and resulting as it did in a defeat, it had a discouraging effect on the team. Through the absence of the two forwards, the next game was also lost to Wheaton College, and then seemed to start a series of injuries, absences and misunderstandings in which every man was more or less involved, which extended throughout the season.

In spite of all this, however, we won both games from Lewis, 67-33 and 33-27; the Crescent Five and Elgin Y. M. C. A. were similarly treated, while through unpardonable partiality on the part of the officials, did we lose by only a few points to the Haskell Indians, Monmouth and Purdue. In the last game at Lafayette, Armour received by far the worst treatment any of our basketball teams has ever received.



Individually we had a good team. Kretsinger as captain and right guard proved himself an excellent leader, and prevented many of the opponents from scoring. In this respect he was almost equaled by Leininger, a new man on the team, and a decidedly aggressive player. Jens at center was usually good for the jump off, and made good use of his ability to cover ground. Battis and Carpenter, the two forwards, played similar games, being fast passers and sure goal throwers. The work at times was fast, and when we had to win, was at times brilliant.

LINE-UP:

Right forward, Carpenter, manager
 Left forward, Battis
 Center, A. Jens
 Right guard, Kretsinger, captain
 Left guard, Leininger
 Subs., Liebermann, Johnson, Lundgren





Academy Basketball

THE academy basketball team has undoubtedly had a most successful season. The team developed an ability far in excess of the fondest hopes of the coach, and has upheld and even advanced the position of the academy in the basketball circles around Chicago. But one of last year's "point a minute team" remained, and Benbrook was made captain and proved himself a good leader. At times, the future of the team looked dark, through the enforced retirement of some one player, but in every case, some new star appeared on the horizon and saved the day.

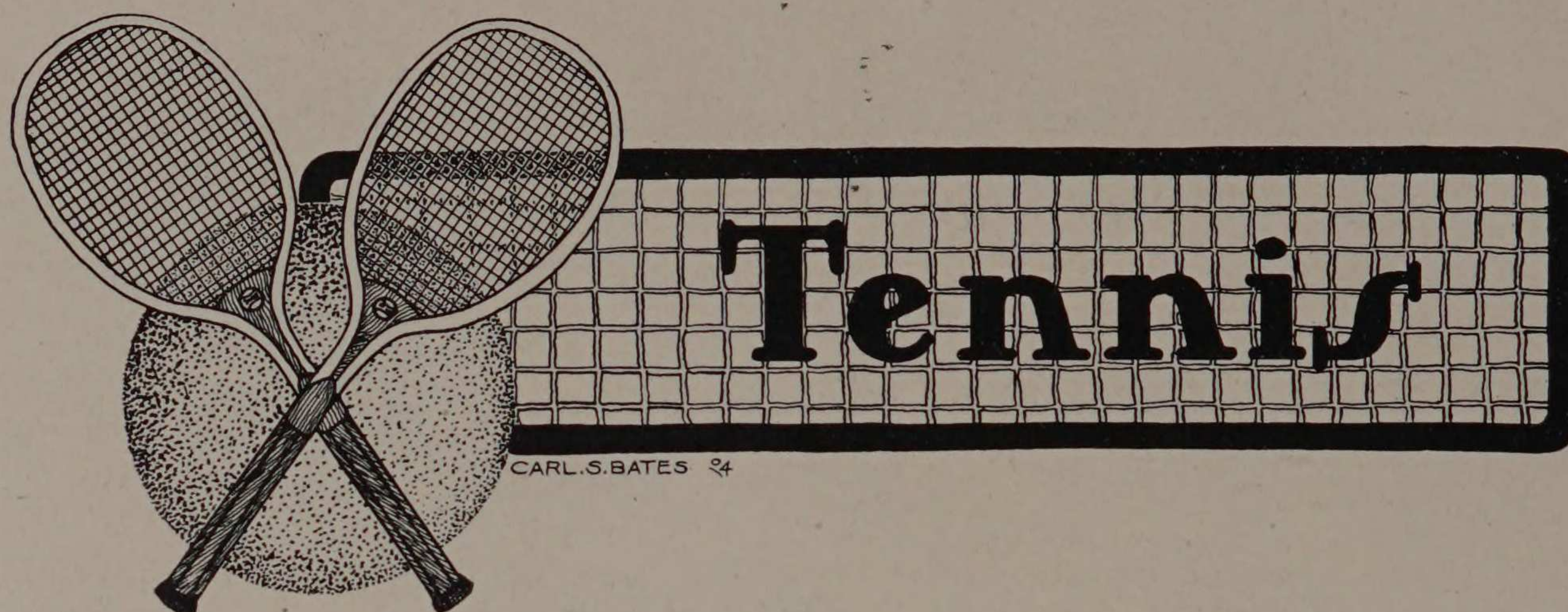
LINE-UP:

Right Forward, Edelstein
Left Forward, Martin
Center, Benbrook (Captain), True
Right Guard, Cooke
Left Guard, Trinkhaus, Bristol

Schedule :

A. S. A.—54, Hyde Park High School,	15
“ —34, Lake “ “	27
“ —48, Calumet “ “	30
“ —29, Hyde Park “ “	35
“ —13, Joliet “ “	28
“ —31, English “ “	41
“ —55, New Trier “ “	4
“ —28, C. Y. M. C. A. (Intermediate,)	17
“ —23, Lake View High School,	22
“ —27, English “ “	18
“ —32, Lake “ “	27
“ —23, Englewood “ “	26
“ —26, Lake “ “	28





Tech. Tennis Tournament

THE annual tennis tournament of the College was held at the Kenwood Country Club on the 20th, 21st, 22d of May, and on the 2d and 3d of June, 1903. The fine clay courts of this club were again placed at our disposal, and no doubt had much to do with the large number of entries. About forty-five men were entered in the singles and doubles, and a large assortment of prizes was secured through the efforts of Hatter and de Beer who had the tournament in charge, and we might add that it was ably managed. It rained while the first two rounds of the singles were being played, but this did not seem to dampen the enthusiasm. The contest in the singles narrowed down to Hatter, Cronk, Polychuck, Allen and Fergusen. Hatter and Cronk were forced to play an extra match to see who would remain in the semi-finals, and Hatter won after a hard-fought battle. The tournament resulted in Hatter securing first honors, with Allen next. The matches in doubles narrowed down to Hatter and Cronk against Strickler and Allen, and the first-named pair proved the better.

RESULTS IN SINGLES:

Hatter	—	Hatter	—	Hatter	—	Hatter
Cronk	—		—		—	
		Polychuck	—		—	
			—		—	
		Fergusen	—	Allen	—	
		Allen	—		—	

As the college is a member of the Western Intercollegiate Association, we had representatives at their annual tournament. Mr. Flynn was manager of the team which consisted of Hammond and Lucius in both singles and doubles. In the doubles they qualified for the semi-finals, but were put out by Danforth and St. John, of Michigan. In the singles Hammond failed to survive the first round, and Lucius succumbed at the third.

Hammond '04, secured permanent ownership to the silver loving cup trophy by winning it two years' in succession. He defeated Hatter in the championship round only after playing some good tennis. All in all, it was a very successful tournament.

Tennis in the Academy

The academy tournament was not quite the success that the college tournament was. But twenty-six entered, which is small, considering the number who could play if they wished. Notwithstanding this, however, a good team was selected and successfully represented Armour Academy in various team matches with high schools and academies around the city. The men on the team were Lucius, considered the best academic player in the city, Lepman, Cathrae, Wilkins and Henry as substitute. The first match was played against Morgan Park Academy, and our boys played all around the suburbanites, beating them three matches to one.

The Academy of Northwestern next assayed to show the team how tennis should be played, but lost five straight matches. Englewood High School was next and was also defeated in handy fashion. South Division forfeited, and the team went through the season without a defeat, which is virtually equal to a championship. The conditions point to a very successful season this year.

Results of the Team Matches

A. S. A. vs. MORGAN PARK.

Lucius won from Weldon, 6—2, 6—1.
Lepman won from Tracey, 6—1, 6—2.
Wilkins won from Dawson, 6—3, 5—7, 6—4.
Cathrae lost to Lyon, 3—6, 4—6.

A. S. A. vs. N. A.

Lucius won from Pherry, 6—1, 8—6.
Lepman won from Cobell, 6—1, 6—2.
Wilkins won from Bissell, 6—0, 5—3.
Cathrae won from Leslie, 6—4, 6—1.
Henry won from Thompson, 6—1, 6—0.

A. S. A. vs. E. H. S.

Lucius won from Stein, 6—2, 6—4.
Lepman won from Johnson, 6—4, 6—1.
Cathrae lost to Shorts, 3—6, 7—5, 3—6.
Wilkins won match by default.

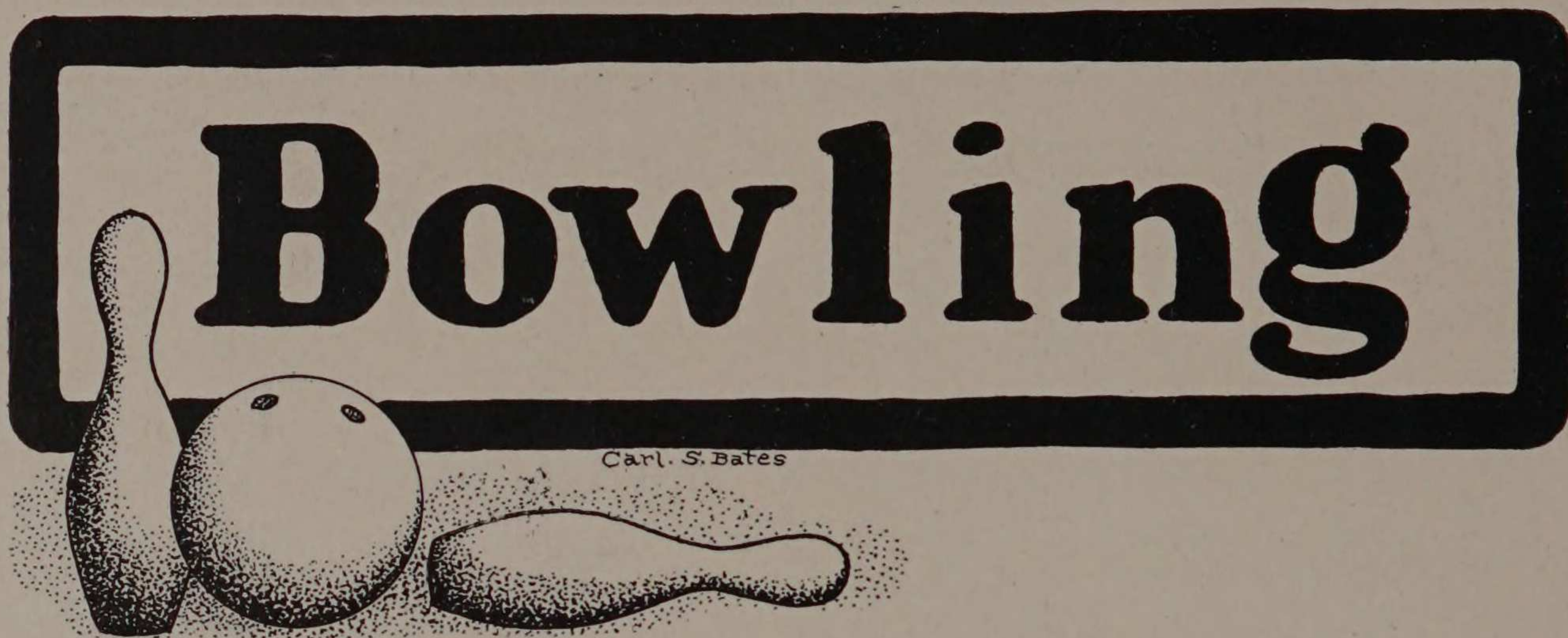
Golf

GOLF, goff or gowff has from old times been the heritage of Scotland, and is usually referred to as “The Royal and Ancient game of Goff.”

There is still some uncertainty in regard to the correct name and proper pronunciation of it. An elderly Scotch gentleman, whom I know, being extremely sensitive on this point; and if he hears any one pronounce it “Golf,” the unfortunate person will be regarded with looks of scorn and contempt by the irascible Highlander. Anyway, so far as we are concerned, Goff and gowff have been relegated to the rear and golf has come to stay.

It was only last spring that the game become popular at Armour in the Academy. There were a number of contestants and several good matches resulted. A team was chosen by open competition, which consisted of E. W. Spenser, W. Robbins, A. C. Rockwell, W. M. Cathrae, L. C. Brintwall and W. Lowenstein, the first named being the captain. A tournament is due again this year, and we are positive of a large entry list. Although there are only two left of last year's team there is still sufficient material to draw upon for a good team. Let us hope that our golf team this year will prove strong enough to win the inter-academy championship for Armour.

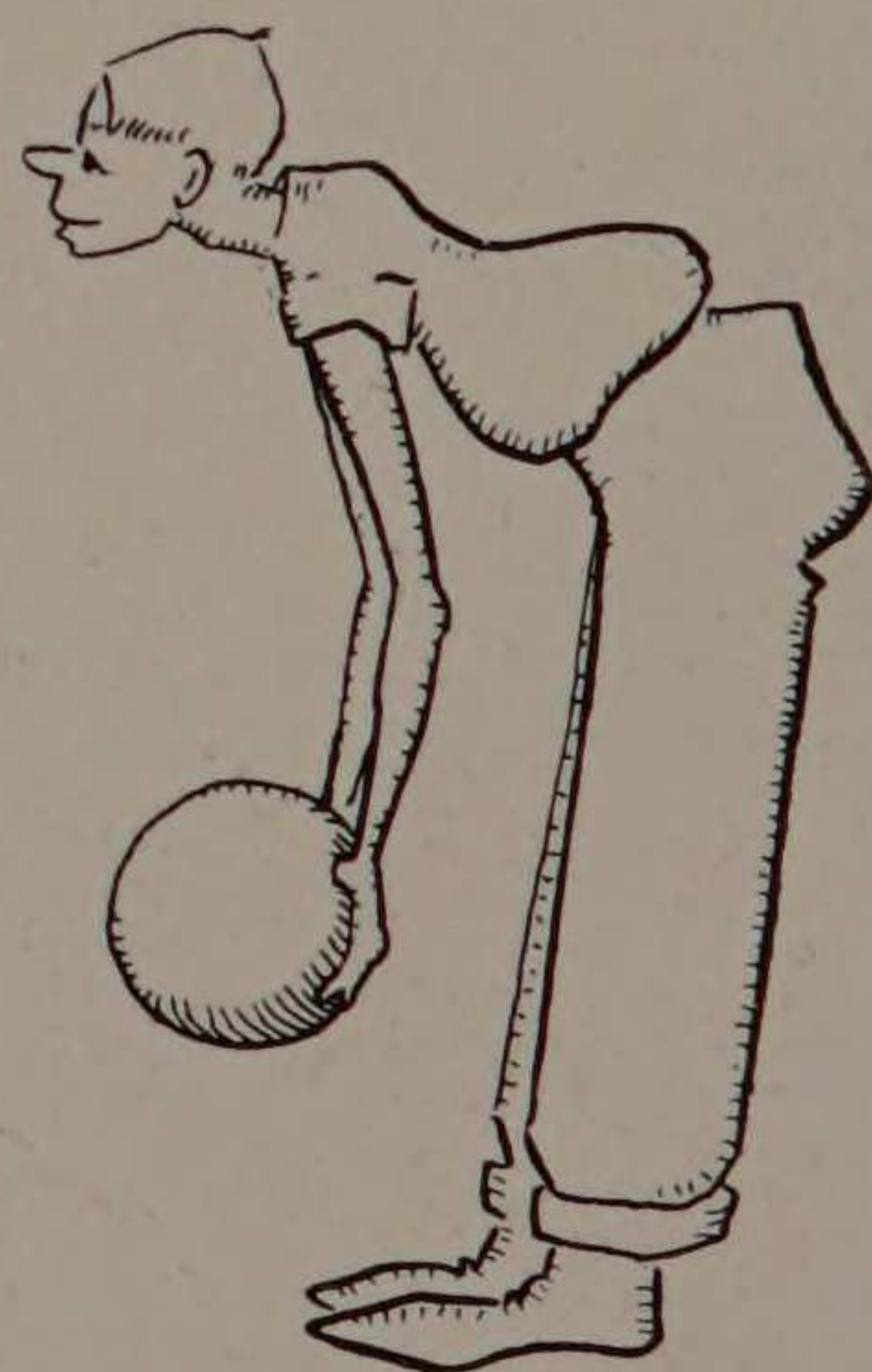
WM. M. CATHRAE.

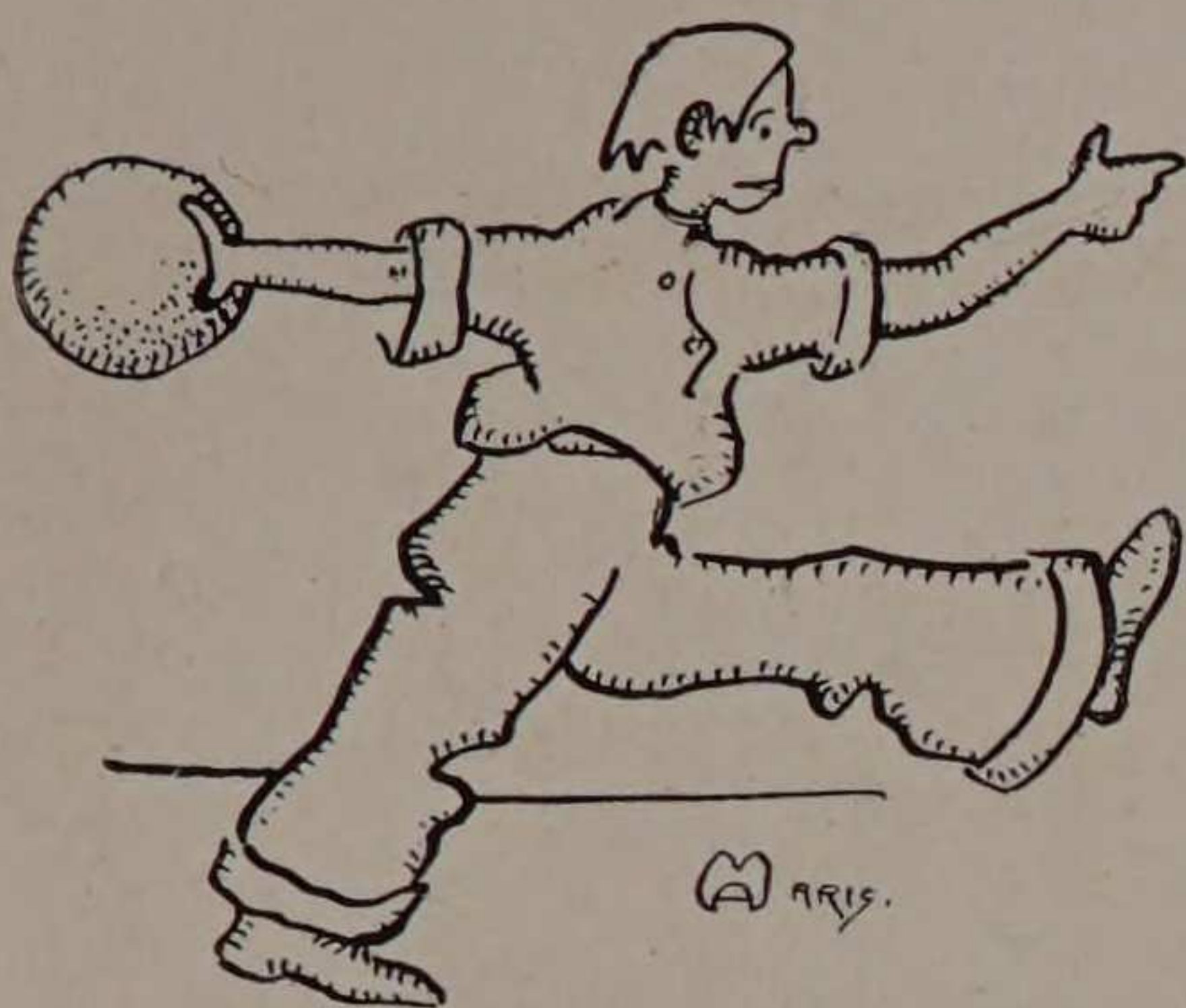


Tech. Bowling Tournament

THE bowling season of 1904 proved to be the most successful one since this sport has taken such a firm hold on Armour, as regards inter-class contests. The interest shown this year was far in excess of that shown at any time in the past. Last year after the tournament was over, the five high average men were selected to represent Armour against a picked five from Lewis, and had no trouble at all in taking three straight, winning by over 300 pins.

Last year the tournament was all '06, but not so this year. The Juniors jumped into the lead from the start by winning three from the Freshmen while the Seniors took the odd from the Sophomores. The relative standing of the teams remained unchanged until near the end of the schedule when the Seniors forged ahead and won out. The only unpleasant feature of the tournament was the forfeiting of three





games to the Seniors by the Sophomores at a critical stage in the game. While this was probably unavoidable, yet it was unfortunate coming when it did, although it should not be said that through this means the Seniors won out. The best team won and the average put up by the '04 team was by far the best of them all. The Seniors are to be congratulated not only on the success of their bowling team, but also on the fact that they have taken so much interest in everything pertaining to school life during their last year. This interest in college affairs stands forth in marked contrast to that shown by their two predecessors, and in view of this fact, the other classes rejoice to know that the winning team this year are being compensated in a small measure for the spirit of good fellowship which they have displayed since their connection with the Institute.

The twenty-seven games each team had to play, took the whole month of February and a little more, still it was not considered too late to have a two-man tournament. This was held at the First Regiment Armory and much better bowling resulted than was expected, some high-class averages being chalked up. Prizes were donated to the first three teams, five games, total pins to count. For individual high average, a bowling ball was put up and was carried off by Peebles, '04.



Results in College Tournament

STANDING OF THE TEAMS.

	Won.	Lost.	Percentage.	Average.
'04 . .	20	7	.741	794
'05 . .	16	11	.592	757
'06 . .	11	16	.408	748
'07 . .	7	20	.259	715

Individual Averages:

	Games	High	Low	Average
Peebles, '04, . . .	27	232	128	$181\frac{2}{3}$
Lewy, '05, . . .	27	256	123	167
Ellett, '06, . . .	27	197	120	$164\frac{1}{3}$
Hoy, '04, . . .	27	215	124	$164\frac{1}{3}$
Hess, '07, . . .	24	222	127	$162\frac{3}{4}$

High team average for three games, '04, $857\frac{2}{3}$.

High team game, '04, 938.

High individual average for three games, Peebles '04, 207.

High individual score, Lewy '05, 256.

Make-up of Teams:

'04.	'05.	'06.	'07.
Hoy	Smith	Goetz	Maher
Hamilton	Beamer	Haggander	Brown
Frary	de Beer	Strube	Hess
Peebles	Malcolm	Mulholland	Nind
Jens	Lewy	Ellett	Clark
*Wickersham	*Kadic	*Levings	*Budd
*Strang		*Slocum	

*Substitutes.

The managers of the teams were the following: Hamilton, '04; Smith, '05; Ellett, '06, and C. U. Smith, '07.

Results in the Two-Man Tournament:

Frary {	1813	Smith {	1655
Goetz }		Lewy }	
Manning {	1735	Nind {	1645
Maher }		Hess }	
Wickersham {	1731	Jens {	1607
Peebles }		Hoy }	
Beamer {	1690	Brown {	1606
Malcolm }		Clark }	
de Beer {	1664	Ellett {	1530
Mulholland }		Hamilton }	
		Strube {	1498
		Haggander }	

High individual average, Peebles, $198\frac{1}{3}$.

High individual game, Manning, 251.



This Year's Champions.

Football

Carl S Bates. '04

THE football team of the Academy met with varying successes. With the support and co-operation of the academy students they would have ranked among the best preparatory school teams, as the players who did turn out had had football experience and knew the game. The few who did play worked hard and, notwithstanding their poor backing by the student body, made a very creditable showing. Following is a line-up of the team and the scores of the games :

LINE-UP:

L. E.—Flanagan.	R. T.—McDonald.
L. T.—Hewitt.	R. E.—Duplissis.
L. G.—Carruthers.	Q. B.—Spaulding, Capt.
C.—Orschel.	L. H. B.—Stevenson, Mgr.
R. G.—Benbrook.	R. H. B.—Ahern.
F. B.—Eaton.	

SCORES:

A. S. A.—2; Joliet H. S.—33.
A. S. A.—22; Oxford A.C.—0.
A. S. A.—0; Northwestern M. A.—34.
A. S. A.—0; University H.—11.





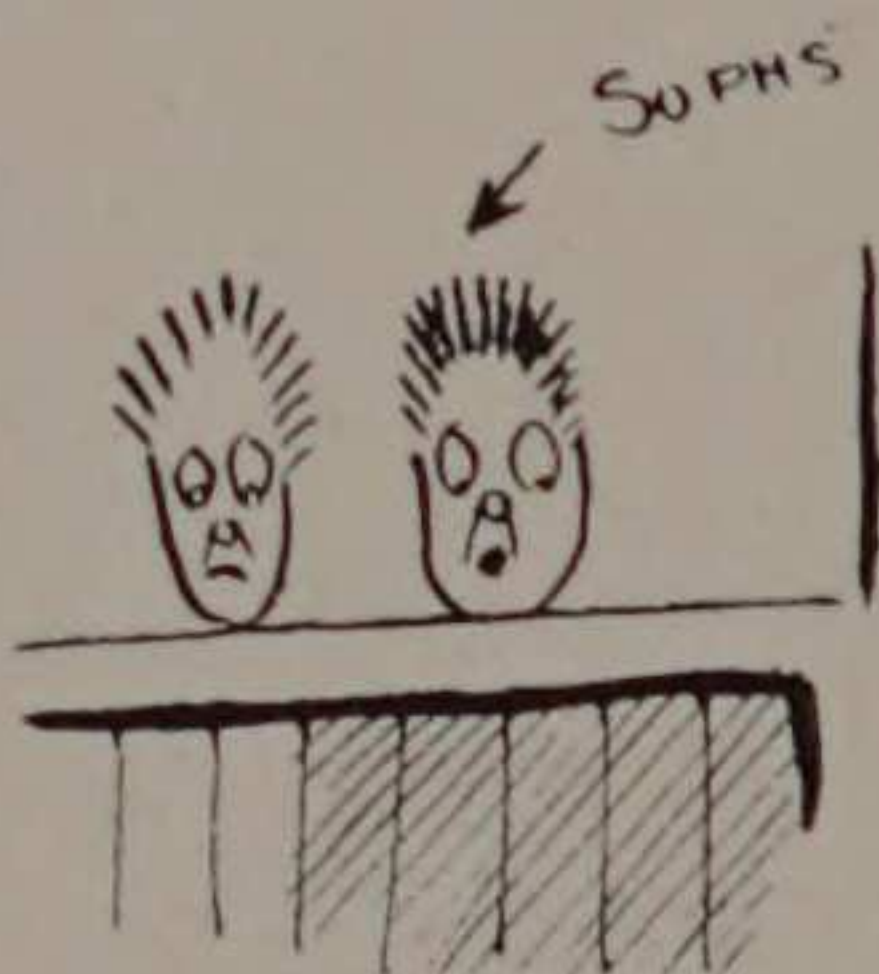
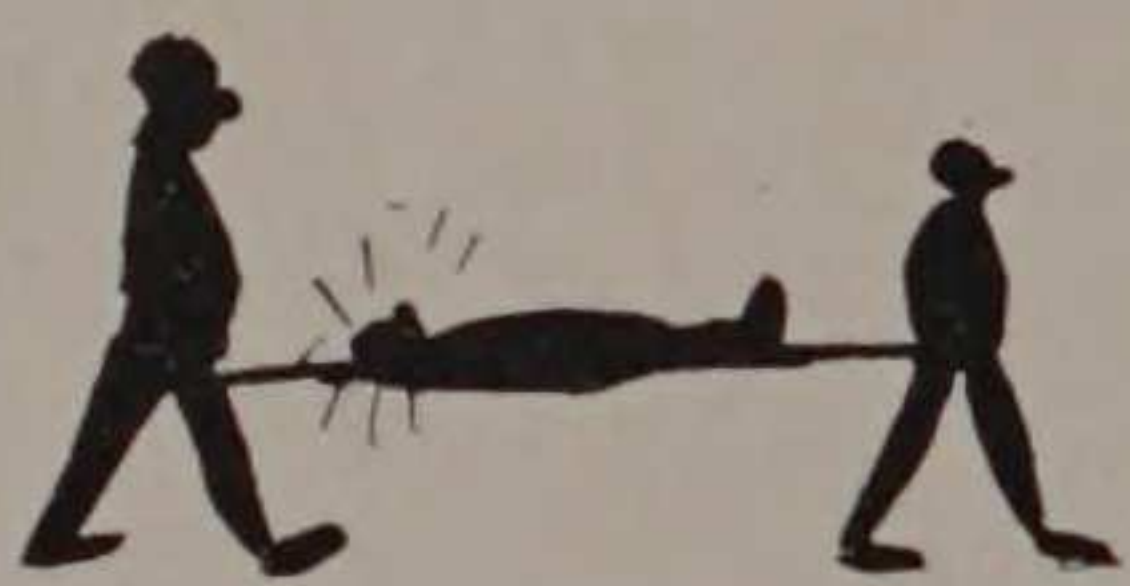
TWO FRESHMEN



A SOPH AFTER THE FIRST ENCOUNTER

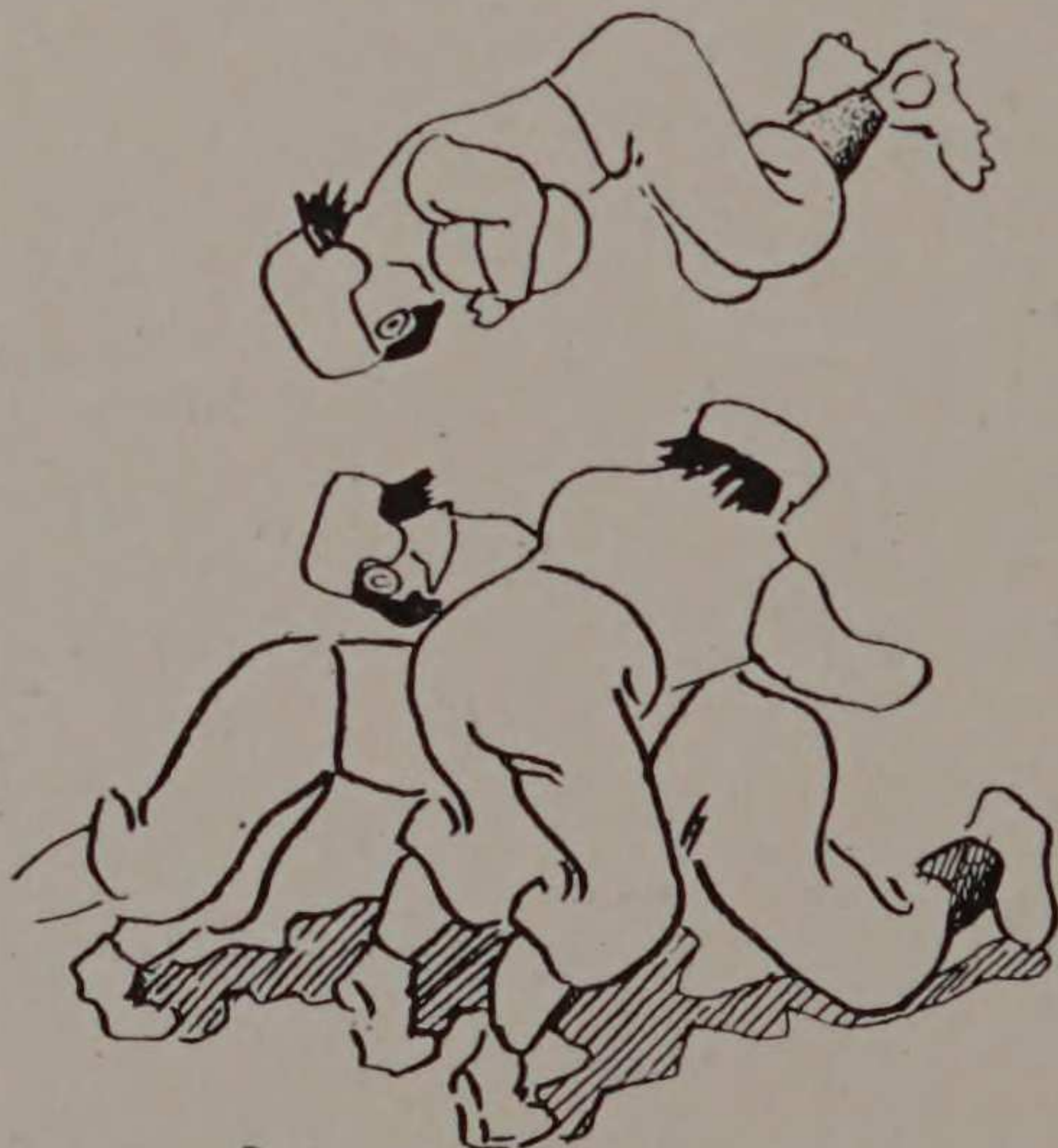


THE SECOND

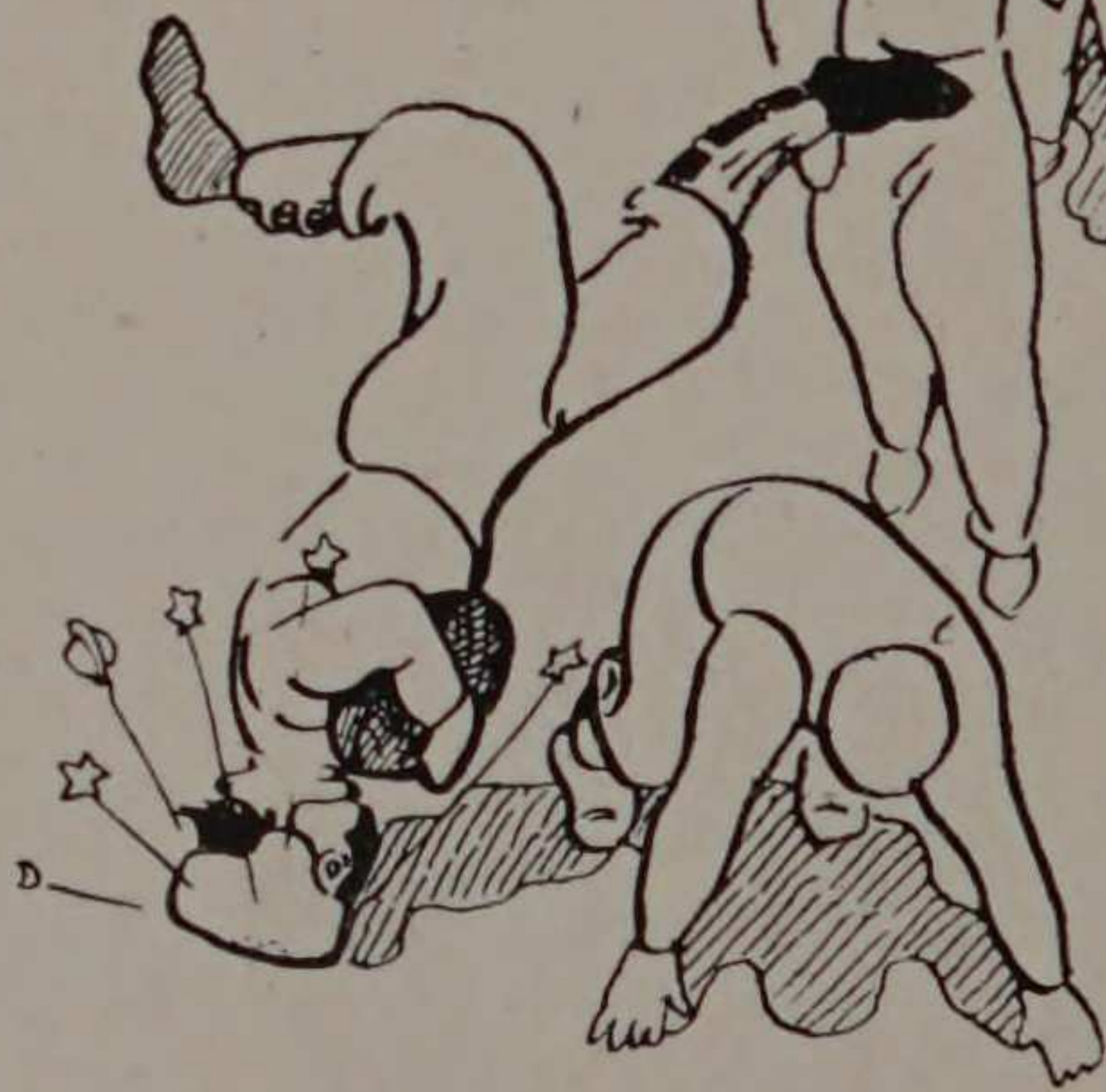


WE'RE IT BY HEAVEN ARMOURTECH' 07!!!

ALSO SOME FRESHMEN



SOME HURDLING WAS SEEN DURING THE GAME



ALSO SOME GOOD TACKLING

Freshman-Sophomore Football Game

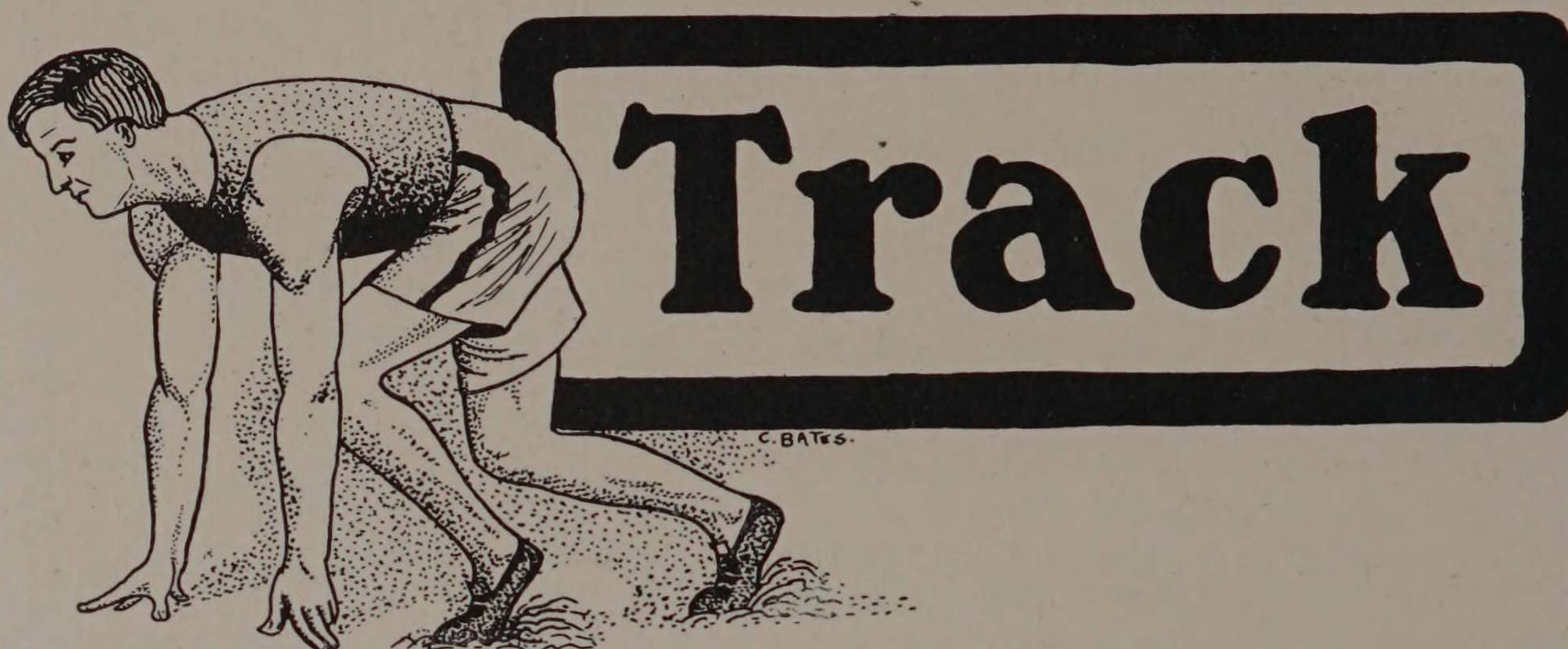
THE exception to the rule happened in the Freshman-Sophomore football game last fall. The Sophs won a well deserved victory, due mainly to the fact that they were carefully trained and prepared for a hard struggle, and did not possess too much self-confidence. The Freshmen put up a good game, and Prof. Leigh's coaching did wonders, but '06 were not to be denied, and deserved the victory. The better team won.

On the side-lines, however, '07 were just about the whole thing. Led by their brass band, they marched on the field and although Peg Woldenberg occasionally managed to make the '06 tin horns heard, the whole complexion of the field was decidedly Freshman. The spirit shown by the class so early in their college career was commendable, and the crimson and blue were everywhere predominant and remained so for the afternoon.

But the game was all '06 and ended with the score, 12-0, in their favor. By good, earnest, concentrated work, and by successfully blocking an attempted punt, the Sophs soon had the ball on their three-yard line and Johnson was pushed over for a touchdown. Fine tackling by W. Everhart prevented them from scoring again in the first half, although Jens and Miller made large gains at times. In the second half the Sophs got together, and by a slow, but steady march, Johnson again placed the ball between the goal posts. Rockwell kicked both goals. Time only prevented them from scoring again, as they had the ball most all the time. Almost every man on the '06 team played his position well, and so, for the stars, consider their line-up:

'07:		'06:
Hebard	R. E.	Miller, Reker
Chapman	R. T.	R. Jens
Shepard	R. G.	Pierce
Blinkensopp	C.	F. J. Flanagan
Wooley	L. G.	Rockwell
Hewett	L. T.	E. Everhart
W. Everhart	L. E.	Lynch
Faulkner	Q. B.	Levings
Chamberlain	R. H. B.	Slocum, Miller
Walbridge	L. H. B.	Wilson
Mansfield	F. B.	C. Johnson
SUBS:		
Kenney		Leininger, Lieberman
G. Flanagan		Newburn, Sawtell
Referees—Byrne, Parker		
Timers—A. Jens, Frary		

The attendance was very good and a few ladies helped grace the throng. The game put up by the two teams shows that the material was in school for a tech. team, which, with proper coaching, could have accomplished something. And so was finished the only college football game with '06 on top.



The 1903 Academy Track Team

THE 1903 Academy Track Team made a very poor showing, due to spiritless leaders, and to the lack of interest displayed by the school. There were but few candidates, and almost no support was given the team by the student body.

Armour competed in only three meets, one against Morgan Park Academy, one against South Side Academy, and one against Northwestern Academy, being defeated in each one.

The score of the first meet was, Armour, 33; Morgan Park, 57. Armour's points were as follows:

1-Mile Run,	Dexter, third,	1
Pole Vault,	Stevenson, Cook and	
	Loewenstein (by default),	9
440-Yard Run,	Sonntag, third,	1
High Jump,	Ellett, first,	5
	Krowell, third,	1
40-Yard Low Hurdles,	Foss, third,	1
220-Yard Dash,	Maher, first,	5
880-Yard Run,	Lee, first,	5
Broad Jump,	Maher, second,	3
	Ellett, third,	1
	Total,	33



The second meet, South Side scored 20 points, Armour 12, as follows :

35-Yard Dash,	Munson, second,	3
440-Yard Run,	Cook, third,	1
1-Mile Run,	Jung, first,	5
	Lee, second,	3
	Dexter, third,	1
	Total,	<u>13</u>

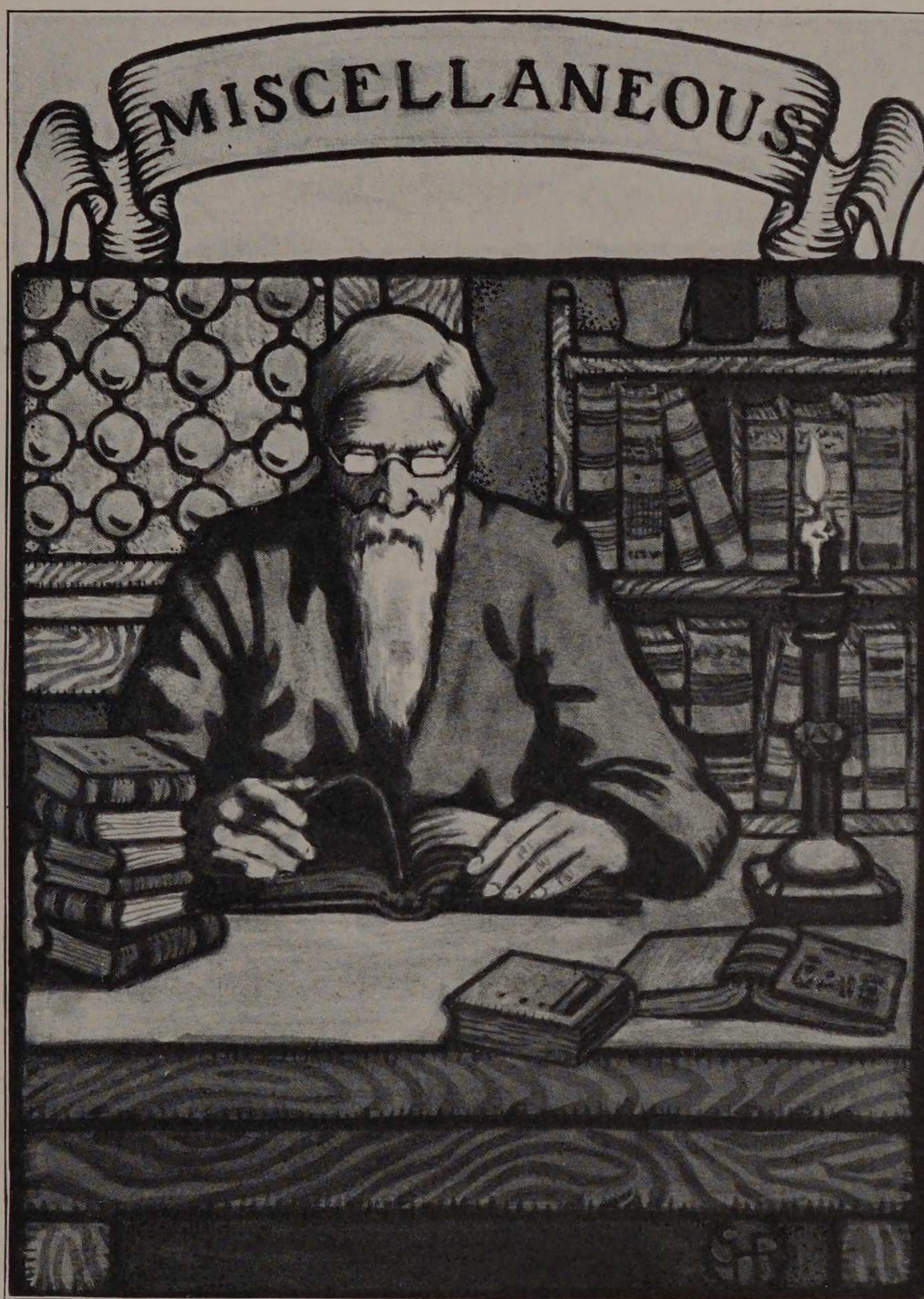
One point was disregarded by the officials, bringing Armour's score to 12. If we had won the relay the meet would have been ours, but the fourth man, who had been sent off with a good lead, collapsed when half around.

The third and last meet resulted in a score of Northwestern 72, Armour 24. Armour's points were as follows :

35-Yard Dash,	Ellett, second,	3
880-Yard Run,	Stanton, second,	3
	Dexter, third,	1
440-Yard Run,	Critchfield, second,	3
High Jump,	Ellett, first,	5
1-Mile Run,	Jung, first,	5
	Dexter, second,	3
Broad Jump,	Ellett, third,	1
	Total,	<u>24</u>

There were no outdoor meets at all last spring. At the end of the indoor season, Ellett was elected captain and A. Maris retained as manager. Outdoor training was at once begun, but soon ceased owing to the illness of the captain.

May the record of the '03 team keep succeeding teams from falling into the same rut. And yet the few men who "stuck" with the team deserve more credit than they received.



For 'tis Truth that does knowledge and happiness bring,
While Fiction to sad hearts and glad hearts does sing.

The Institute

THE prosperity and substantial growth of the Institute during the past two years is worthy of particular mention. The erection of Machinery Hall in 1902 marked the beginning of a new era in the history of the Institute. With the added equipment came added stimulus, and new life began to permeate the atmosphere of the entire school. At the opening of the school in September of that year there came to us a Freshman class the size of which was unprecedented in our history. It was larger than the



total enrollment of the College only three years before, but our new shops and lecture rooms made it possible to accommodate all the students conveniently. This increase in the number of students necessitated an increase in the teaching personnel and also in our laboratory equipment. The good attendance has continued during the current

year, and at the present time we have the largest enrollment in the history of the Institute. The total enrollment of the present year is summarized as follows:

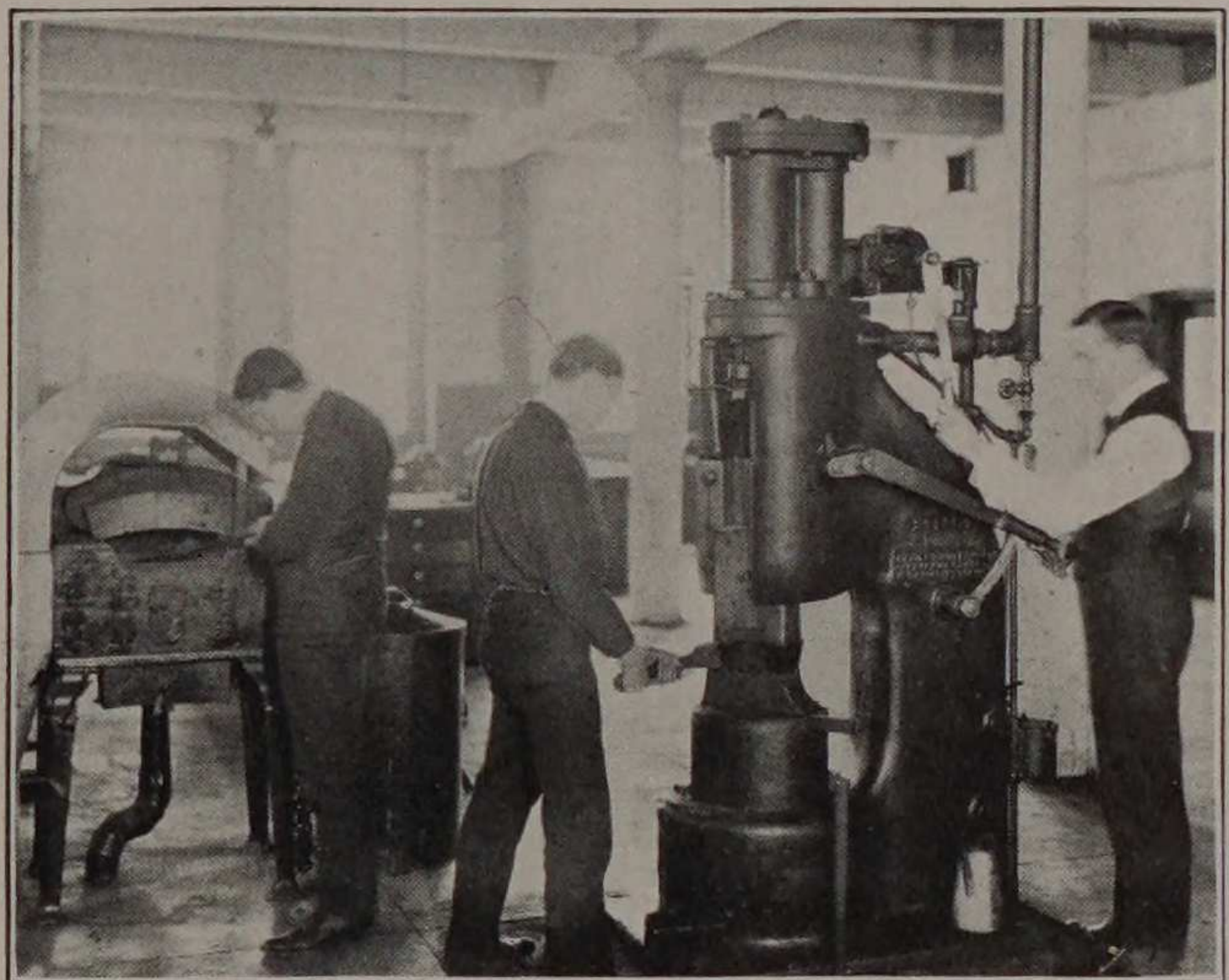
College of Engineering:—

Seniors	33
Juniors	76
Sophomores	138
Freshmen	235
Special Students	4
Total	486
Scientific Academy	333
Evening Classes	491
Total	1310

Of the 486 students enrolled in the College of Engineering, 227 are non-residents of Chicago and represent 25 States and 9 foreign countries. The local constituency of the Scientific Academy is represented by 209 students, leaving 124 nonresident students from 16 States and 6 foreign countries. We believe the above facts to be significant of the reputation of the Institute and the esteem in which it is held throughout the country.

It is unnecessary in this article to mention the details of the new equipment which has been provided the past year, as they have already been presented to the student body in different issues of the Fulcrum, but a general résumé of the improvements made in the different shops and laboratories may be instructive at this time.

Chief among these advances in this direction are the installation of the new Allis-Chalmers Corliss Engine, the Westinghouse Gas Engine, various machines in the shops, and the complete equipment of the Testing, Hydraulic, Cement and Oil-testing laboratories offer opportunities for study in the Mechanical Engineering Department such as were not dreamed of at the opening of the Institute ten years ago.

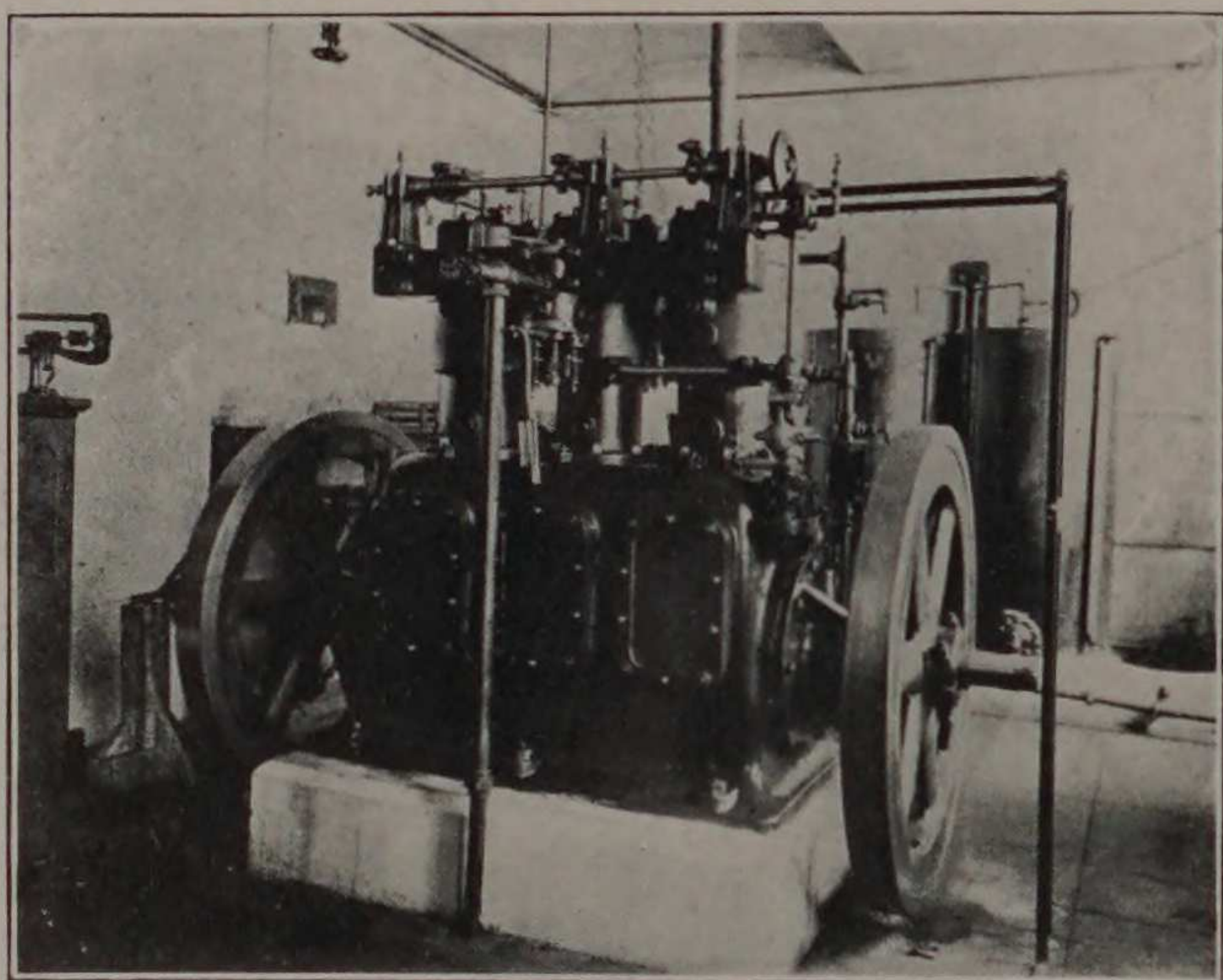


While many important changes have been made and new pieces of apparatus have been added to the already fine equipment of the Electrical Engineering Department, the coming year promises an era of greater expansion than ever before. A four years' course in Telephone Engineering, under the direction of Dr. Wilder, will be added, and at the opening of school in September we shall have installed a complete outfit for practical work in this subject. The Institute has every reason to congratulate itself

upon this step and upon the prospect which opens before it for the training of men in this new and important branch of modern engineering. The lunch room on the first floor will be removed to another building and this space occupied by the Dynamo Laboratory. This will give us a most perfect and, at the same time, one of the most practical of laboratories.

The increase in the number of students in the Civil Engineering Department has made it necessary to provide larger and more commodious quarters, and for the coming year the large room on the second floor of the Mission Building will be fitted up as a draughting room for this department.

The most important advance in the Chemical Engineering Department is in the study of Industrial Chemistry. Special effort has been made to enrich the instruction in this subject and to increase its effectiveness. Mr. G. M. Chamberlin, of the Bay City Beet Sugar Company, was engaged to give a three months' course in sugar making and sugar chemistry. The results are highly satisfactory, and the

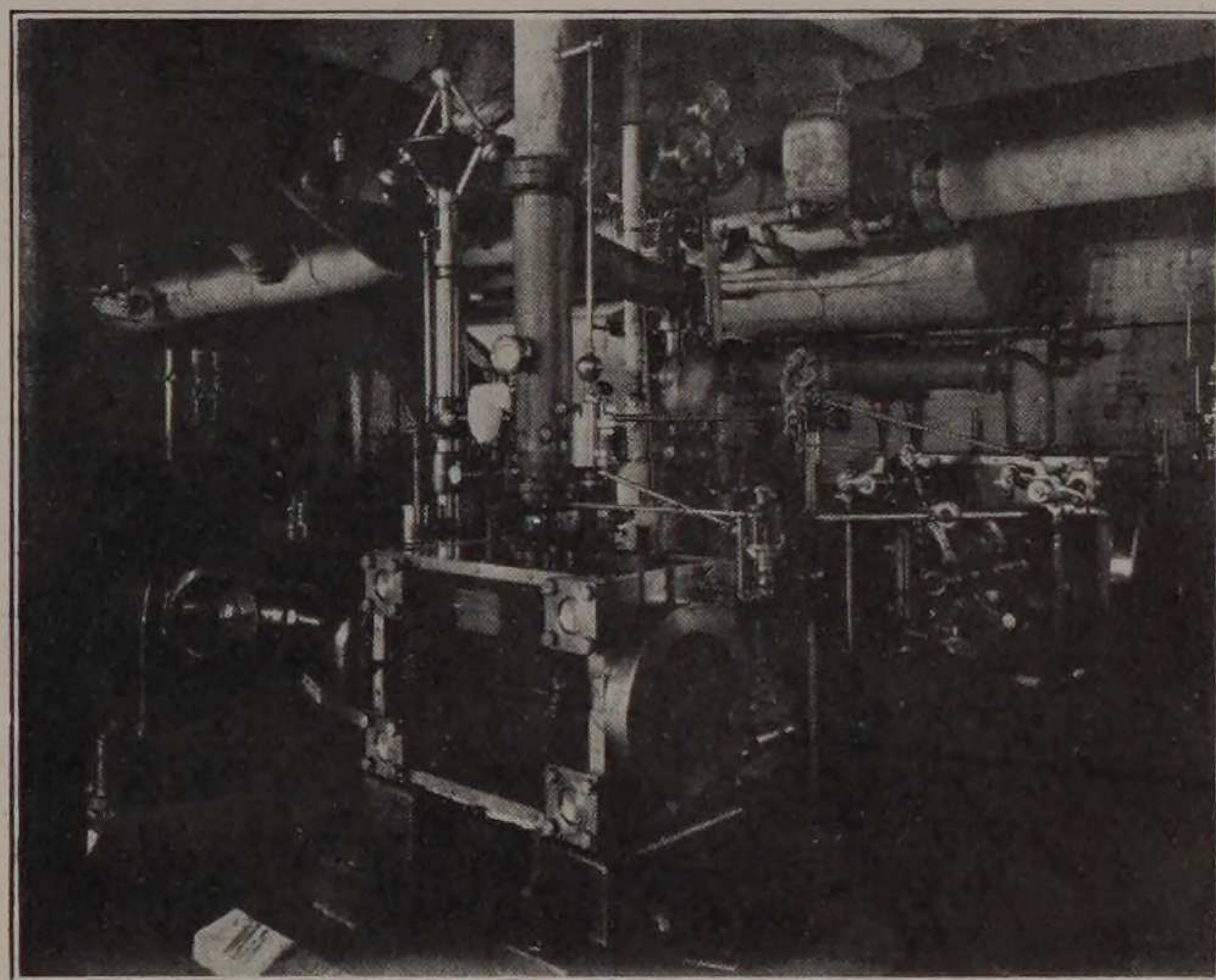


course will be repeated each year. Notwithstanding the expansion of laboratory facilities during the past year, involving adequate provision for the Freshman class of 235 students, there is an imperative need of additional space if the department is to maintain its efficiency, and therefore, next year a new laboratory will be fitted up in what is now the Civil Engineering draughting room. This will amply provide for the increase in the classes in Chemistry for the coming year.

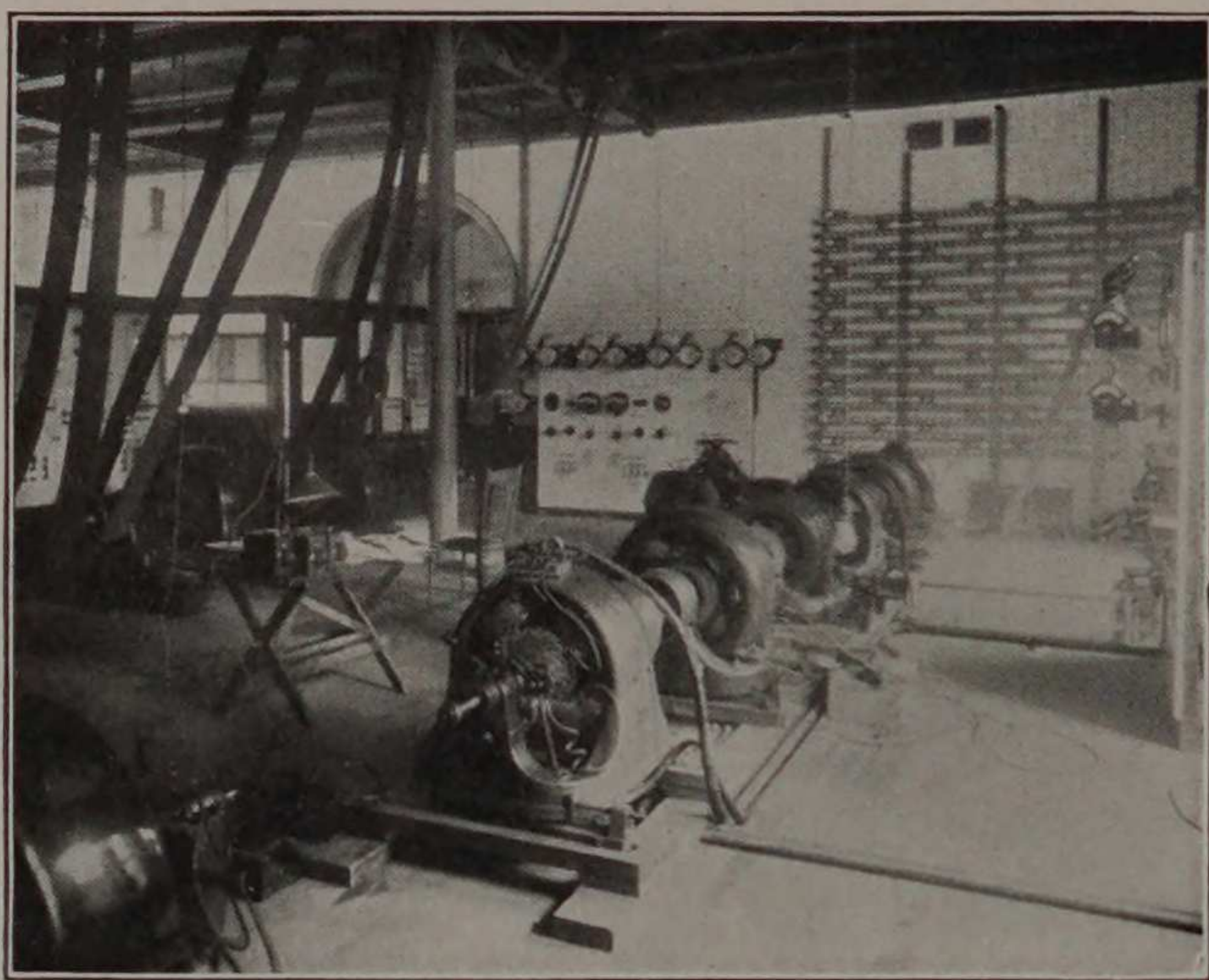
It is believed that the course in Fire Protection Engineering, established in September, 1903, will cause a more thorough and intelligent treat-

ment of the problems of safeguarding property against damage by fire. It will furnish to municipal building departments, underwriting organizations, architects, fire insurance companies and large property owners, men trained to recognize the conditions of necessary or unavoidable fire hazard, and to apply all known safeguards where such conditions must exist.

Chicago is the ideal place for the development of this branch of engineering, not only because its extensive and varied manufacturing interests present opportunities for detailed study of the hazards of factories, warehouses, department stores, and the like, but also because it has the only research station in the world for the comprehensive experimental investigation of fire protection and fire hazards as they apply to devices and materials introduced for general use. The Underwriters' Laboratories, unique in the character and extent of the work to which they are exclusively devoted, will be utilized by the Institute for the practical demonstration of the principles underlying fire protection and causes of fires, and for the experimental study of problems connected therewith.



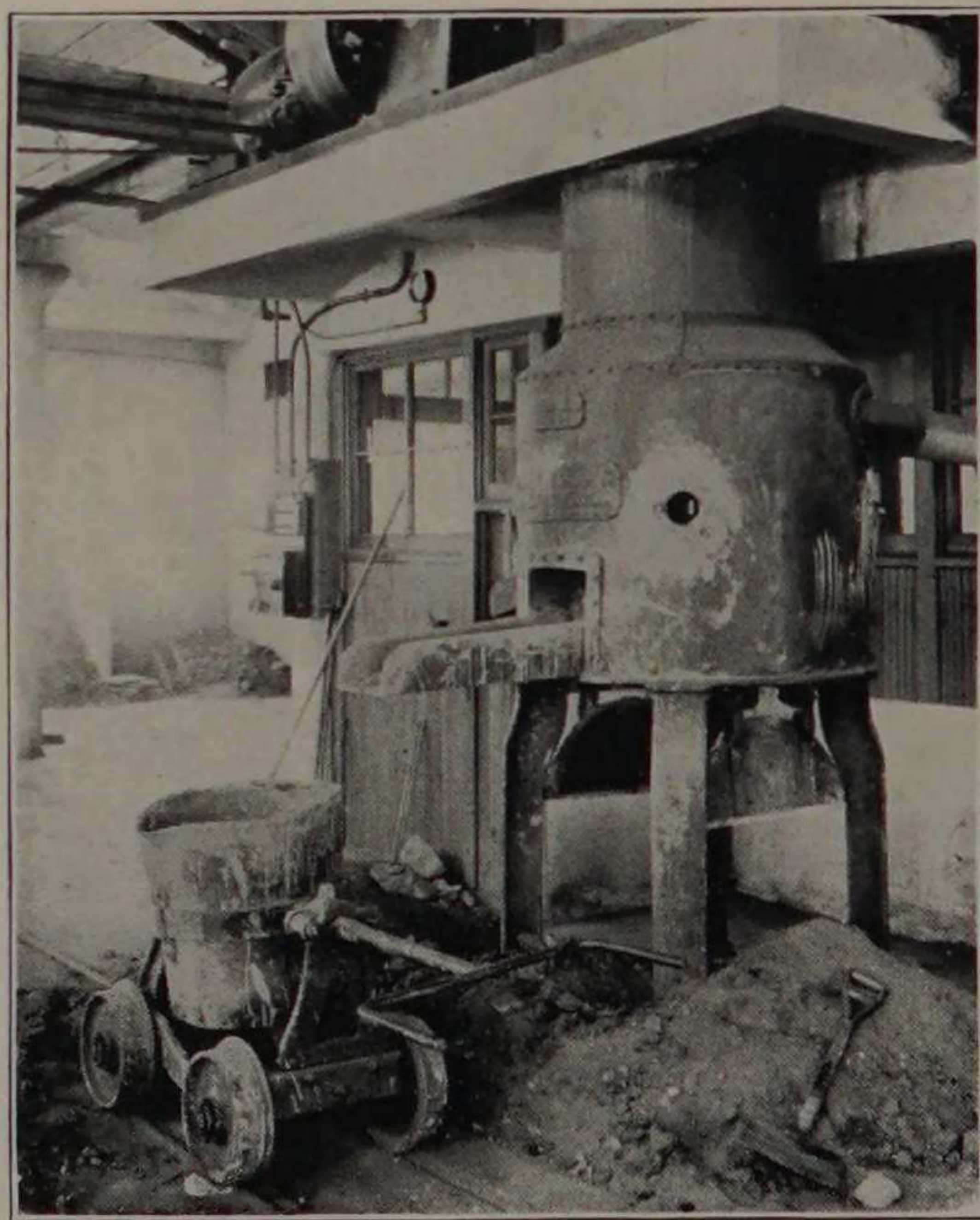
This article would be incomplete if no mention were made of our Alumni and the success they have achieved in the engineering world. Graduates of our institution are now found in all parts of the country holding important positions of trust; large amounts of capital are invested on their judgment and reports; they are continually finding new ways and new means of accomplishing ends, so that to-day, by contributing their intelligence and learning in the practice of their profession, by helping to decrease the cost of commodities and to increase the wage of the laborer, they are contributing largely to the prosperity of the country.



In speaking of the improvements for the coming year, there are none which approach in importance or are so significant of the future of the Institute as the recent donation of land for an athletic field made by Mr. J. Ogden Armour. No previous gift was ever hailed with more enthusiasm and satisfaction by the students. This act of generosity

has created such a feeling of interest and loyalty among our students as cannot possibly be excelled. The importance of this donation pertains not only to the future of athletics by providing ground for outdoor sports and games of all kinds, but for what will eventually be found necessary in the way of new buildings.

The new athletic field will occupy the ground bounded by Thirty-third Street on the south, Dearborn Street on the east, Armour Avenue on the west, and extending north three hundred and eighty-five feet. One of the brick residences on the north side of the grounds will be remodeled and used as a refectory. Adjacent to this will be erected an athletic clubhouse, with a large veranda, and provided with lockers, dressing rooms and shower baths. On the athletic field there will be a football field, a running track, and a baseball diamond. Several tennis courts will also be laid out in the center of the field. An iron fence is to be placed about the grounds and trees planted around the outer edge.



Not only will the Institute feel the inspiration of its new environments, but the new campus will lend an attractiveness to the entire neighborhood.

Never before in the history of this country has there been recorded so large an individual gift for such a purpose. Upon the Faculty, the students and the Alumni of Armour Institute of Technology rests a great responsibility. Let us preserve and further extend and perfect that which has been so well built upon the noble benefactions of Mr. P. D. Armour, and carried on so magnanimously by his wife and son.

HOWARD M. RAYMOND.

Library

THE Armour Institute Library was opened September, 1893, with a Library Training Class occupying part of the room. As conditions changed, it became evident that the Department of Library Science could not meet its requirements without more space, and in the fall of 1897 this department was transferred to the University of Illinois, and became the Illinois State Library School.

In 1893, there were about 5,000 volumes in the library; at the present time we have nearly 20,000 volumes on the shelves, including bound volumes on scientific subjects. The additions have been largely technical material. The past year has been marked by an increased usefulness—a wider opening



of the door of opportunity. Free access to the shelves is allowed to all students, a privilege thoroughly appreciated by them. The broadest spirit of hospitality is offered to all.

For the last three years, Armour Institute of Technology has offered an elective course in Bibliography of one hour per week throughout the year. It is practical in its nature and aims to familiarize the student with the best bibliographies.

The object of College work has been defined as "The systematic and liberal education of young men." How is the Library related to the object? The machine is in its place, but the student, with rare exceptions, knows very little of its use. Shall he be taught systematically, or shall he grope in a haphazard manner? The instruction in Bibliography is intended to supply this need and is the best means of studying the literature of special subjects.

Commencement Poem.

Class of '03 A. S. A.

I.

Now bloodless wanes the west of yon gray sky
Whence whose translucent light the royal sun,
With regal red and dazzling shafts, defies
The gath'ring hosts of shrouded shades. Undone,
Its hues, grown dim, dull mottle the falling dusk
While upward deeper blends the twilight's gloom.
New mown, the stubble scented fields breathe musk,
In rows, the sterner weavings of great Nature's loom.
Faint drowsy tinklings waft from yonder town,
Whose spires in dim perspective distant rise,
And stud the crest of all pervading brown
With jutting peaks and stacks in blurred guise.
The work of day is o'er and weary swains,
From honest toil that satisfaction brings,
Turn homeward hand in hand while ought remains
Of dusk to sooth the flushed cheek. Whisp'rings
Soft lull the throbbing pulse and quiet waits
Until the tones of yonder bell steal kind
Unto the heart, with sobbed farewells and gates
Of wholesome thought bright ope to famished mind.

II.

Also, for us, the gray creeps low and sun
Has set on halcyon day. Its golden haze
No more for us shall glow except to run
In thought—remind us of blissful student days.
Our path lies yon, for far behind there rise
The spires of a peopled past, and near
Our feet the gathered sheaves of labor lie.
And fainter sounds the distant bell to ear
With mingling voices in the last good-bye.
What gifted one shall show the future's store
Or now with eagle eye full well decry
The dim elusive distance and its lore?
And yet the way is plain and easy found
For rings the bell, its message and its tone
So that wherever on high or lowly ground
Our feet shall tread, there will remain alone
Their words. And ours to be a sacred way
To character, to hope, our symphony
The symphony of charity, alway
Of cheer, let this then be our prophecy.

CLARENCE VREDENBURG, '03.

(NOTE.—The Class of '03 A. S. A. left as a memorial, a water color picture by Hendrick Valkenburg, the celebrated Dutch artist. When Mr. Vredenburg wrote his commencement poem, it was from this picture that he drew his inspiration.)



Victor Clifton Alderson

PRESIDENT OF THE COLORADO SCHOOL OF MINES

LAST spring witnessed the departure of the Dean of our College of Engineering, Victor C. Alderson, to Colorado, to accept the position of President of their School of Mines. A good friend of the boys and of the school, Dr. Alderson took with him the good will of the faculty and the students as a body, and although we realize we have lost a man who is a man, we congratulate him upon his good fortune, which was no more than a just reward to a man of exceptional ability. Graduating from Harvard in 1885, he has since been a diligent worker along educational lines. A man of action at all times, he is eminently fitted for the engineering profession, and we know that in his new position he will more than fulfill the expectations of those who placed him there.

When Philip D. Armour founded the Armour Institute, Victor C. Alderson was already recognized as an able man, and he was appointed to fill the chair of Professor in Mathematics. This position he held until, at the death of Dean Roney, he was called upon to bear the responsibilities of the Dean of the College of Engineering. Always just in his dealings with the students, he won their respect, and as he could be one of the boys, he secured their friendship and held it. The manner in which he conducted the business of his position was not only a credit to the Institute, but to himself.

Not long after his departure to the West, the authorities of the Institute conferred upon him the degree of "Doctor of Science," and a portion of a letter from Dr. Gunsaulus to Dr. Alderson can well be inserted here.

It was with the greatest pleasure that the authorities of the institution conferred upon you the degree of Doctor of Science. I need not tell you that the degree will not be offered to another whose wearing of its glory does not reflect honor upon yourself in association with him. We think we have started well in our experience of giving honorary degrees, and we shall pause for a long while until we find in our hearts equal joy and satisfaction in presenting it to another.

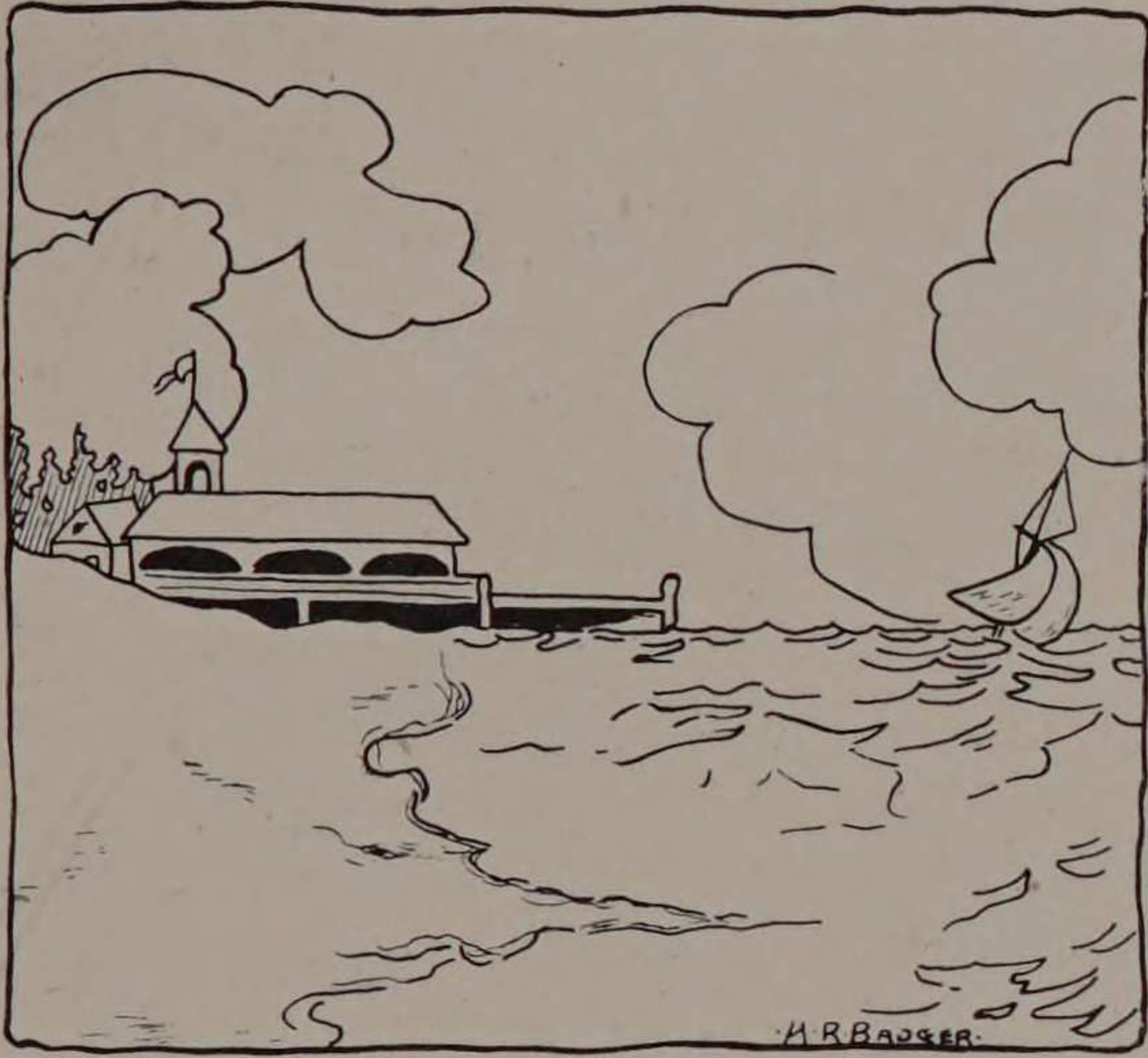
Upon the acceptance of his new office with the Colorado School of Mines, the Board of Trustees of our Institute sent the following letter to the new President, which is heartily seconded by the boys of the college.

WHEREAS, Our Dean, Prof. Victor C. Alderson, has been called to the Presidency of the Colorado School of Mines at Golden, Colorado; and,

WHEREAS, We, his friends, in recognition of the exalted position and its evident importance during his occupancy, have acceded to his request to be relieved from the duties as Dean of the Armour Institute of Technology; therefore, be it

Resolved, That we hereby affirm those sentiments of friendship and admiration which have grown with the years of his association with us in the work of the Armour Institute of Technology, and make record of his valuable services to that beloved institution. Coming to us at the very beginning of the enterprise, his spirit and faithful character have pervaded its counsels and immeasurably assisted toward gaining and holding the position which Armour Institute of Technology has in the world of education.

Resolved, That we hereby congratulate the State of Colorado and the whole West, especially the Colorado School of Mines, that a man so fine in character, well equipped in scholarship and wise in method has accepted the presidency of that institution. We hereby express our hearty salutations, and we prophesy for the institution, under his guidance, a supreme place and a most wholesome and wide influence.



The Cry of the Wage Worker

Clarence Vredenburg

Grind, grind, grind, Oh men
 In your offices close and bare;
 But Oh, for a breath of the free, fresh air,
 A damp on my cheek of the watery air
 From the breast of the laughing sea.
 For none shall know,
 Though my face be gay,
 The sorrow deep
 In my heart to-day.



Rush, rush, rush, Oh men
 In the markets where gold is won;
 But Oh, for the light of the springtime sun,
 The soothing caress of the sweet, rural sun
 In the lane near the gurgling brook.
 For none shall know,
 Though my face be gay,
 The sorrow deep
 In my heart to-day.



Die, die, die, Oh men
 By your hoards of golden things;
 But Oh, I would rest where the wild larks sing
 And sleep to the lullaby meadow winds sing,
 'Neath the shade of the old oak tree.
 For none shall know,
 Though my face be gay,
 The sorrow deep
 In my heart to-day.

Frederick Valentine Battey

Frederick Valentine Battey, eldest son of Colonel and Mrs. F. A. Battey, was born in Chicago, Feb. 14, 1878. While still in grammar school, his parents moved to Englewood, and upon graduating, he was one of the three to receive Foster diplomas. He prepared for college at the Englewood High School, graduating from there in 1899, having been compelled to stay out of school for two years on account of his eyes. During this time he was employed by Pettibone, Sawtell and Company, of Chicago.

In September, '99, he entered the University of Chicago for a collegiate course, but upon the advice of his father, decided to take up electrical engineering and enrolled in the Armour Institute in January, 1900. From the latter institution he graduated June 19, 1903, with the degree of B. S. in electrical engineering, being president of his class.

With the assistance of Dr. Gunsaulus, he secured a position with the McCormick Harvesting Company and entered upon his duties June 25. On the afternoon of July 17, he came home ill, the sickness proving to be typhoid fever, and after an illness of three weeks, he died, August 6, at the home of his parents, 6530 Parnell Avenue, Chicago. Services were held in the Pilgrim Congregational Church of Englewood, the Rev. Frederick E. Hopkins, D. D., whom Fred had known intimately as his pastor, officiating. The sermon was a beautiful tribute to the memory of his young friend with whom he had been so closely associated. The day before he passed away he said, pointing upward, "There is another crown up there."

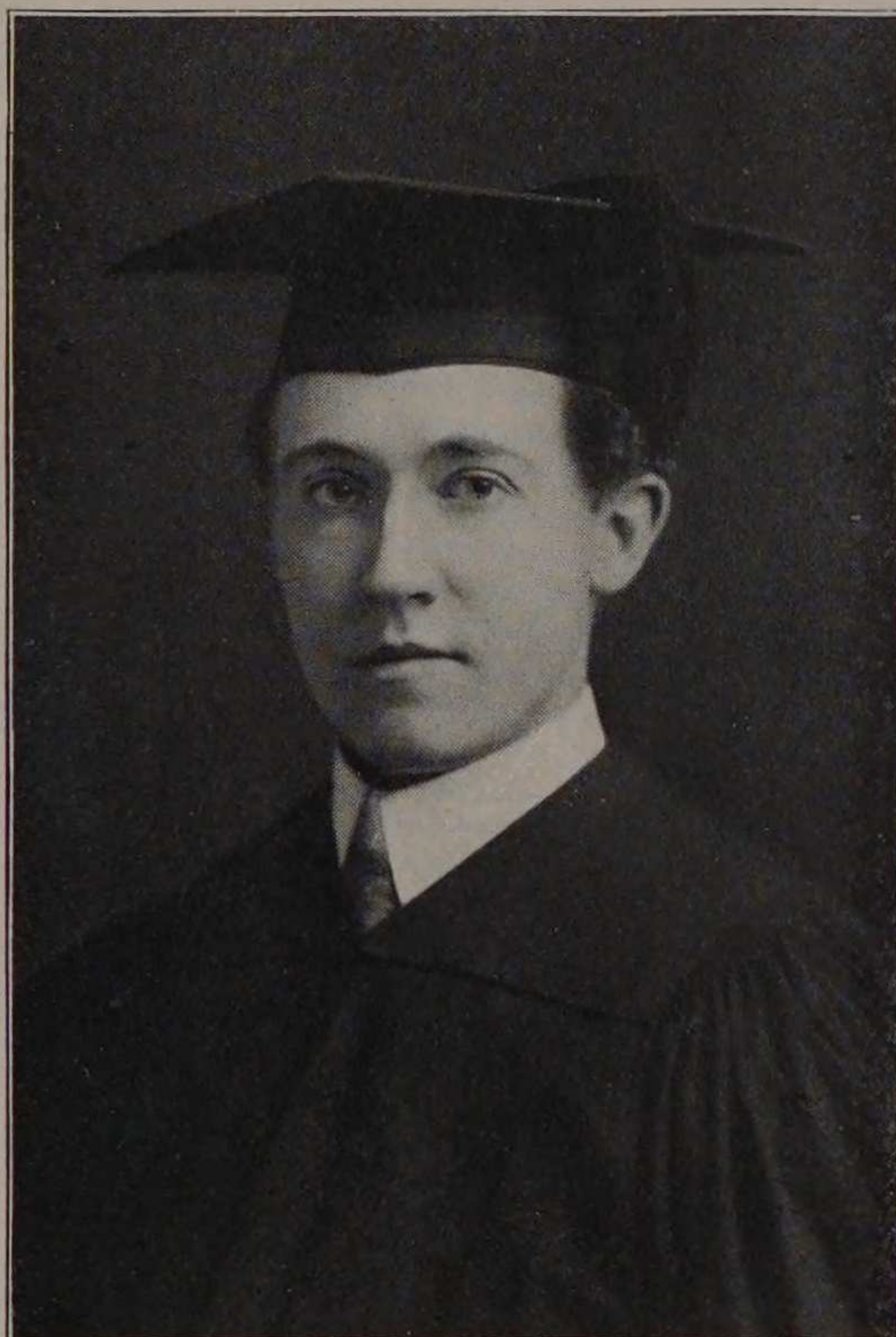
Throughout his school life, Fred was deeply interested in and closely connected with movements for the benefit of his fellow students. He was a member of the Young Men's Christian Association, having helped to found the Armour Branch, and was president of that branch in 1900, and again in 1902. He was also a member of the Technical Society. Fred was always prominent in Church work, taking an active interest in it. He was a member and officer of the Young People's Society of Christian Endeavor, and for some time he was editor of the Church paper, *Pilgrims' Progress*. It seemed a pleasure to him to work in the interest of Christianity.

His life was fairness and sincerity. He would not enter upon anything until he believed it thoroughly right, but was very loyal to what he accepted. With his bright record as a student, his high ideals in life and his confidence in the Christian faith, he leaves a shining example as an incentive to noble living and to better appreciation of the real life.

In Memoriam

BY A CLASSMATE.

To appreciate the sterling qualities of our friend and classmate is to realize with what a shock we heard of his sudden and, to us, untimely end. Only a few short weeks after graduation, with its hopes for the future, its regrets at the severance of our friendships and intimacies, we were brought to a sudden halt at the news of his death. They were weeks of busy preparation for what we believed was best for us; weeks of adjustment to



Frederick Valentine Battey

conditions with which we were unfamiliar; weeks on which so much depended, when we were really making our humble beginnings. Was he so nearly prepared that none further was necessary? Was he in such sympathy with the plans of the Great Arbitrator that no adjustment was needed? How little we realized all this when last we felt the pressure of his friendly hand and said our last farewells?

Quiet, persevering, humble throughout nearly four years of intimacy, such as is engendered in class room and lecture hall, he impressed those with whom he came in contact with the strength of his character and the high

quality of his life. As a student he was unsurpassed in application and persistence. He was observant beyond the average; and gave every promise of entering on a life of usefulness and success. His was not of the meteoric type of intellect that flashes suddenly above the horizon and is consumed of its own misdirected efforts; rather more was it typified by the quiet, unobtrusive, never changing progress of the planet, creating no disturbance, attracting attention more by the majesty of its orbit.

But it is not as a student that we remember him, though as such he was pre-eminent; nor do we recall him as the head of certain movements or organizations, though in this his record is rarely equaled; but as a friend hearty and true, a friend in the sunshine, in the shade, in prosperity, in adversity.

“ Commend me to the friend that comes
When I am sad and lone,
And makes the anguish of my heart
The suffering of his own;
Who coldly shuns the glittering throng
At pleasure’s gay levee,
And comes to gild a somber hour
And give his heart to me.”

“ He flies not with the flitting stork
That seeks a southern sky,
But lingers where the wounded bird
Hath laid him down to die.
Oh, such a friend ! He is in truth
Whate’er his lot may be,
A rainbow on the storm of life,
An anchor on its sea.”

Francis W. Stewart

Francis W. Stewart, whose life was so suddenly ended last summer, was born in Chicago, August 13, 1884. His school life began at the Holden School, but he finished his grammar school course at the Yale School. Enrolling in the Englewood High School he satisfactorily completed the regular four years' course in three years.

He seemed to possess a fondness for mechanical and electrical subjects when still quite young, and in his spare moments often made devices to carry out his ideas. Frank's father, noting this tendency and knowing that his son's ambition was to become an electrical engineer, sent him to Armour Institute, and he entered the college with the class of '05.

His classmates well know how he made use of this opportunity. He worked hard at his studies and won the respect of all with whom he came in contact. In February, 1903, owing to his mother's illness and death, he was kept out of school for several weeks, and so missed a great deal of work, but nevertheless, he finished with all of his studies well up to grade at the end of the term. This shows of what material Frank Stewart was made.

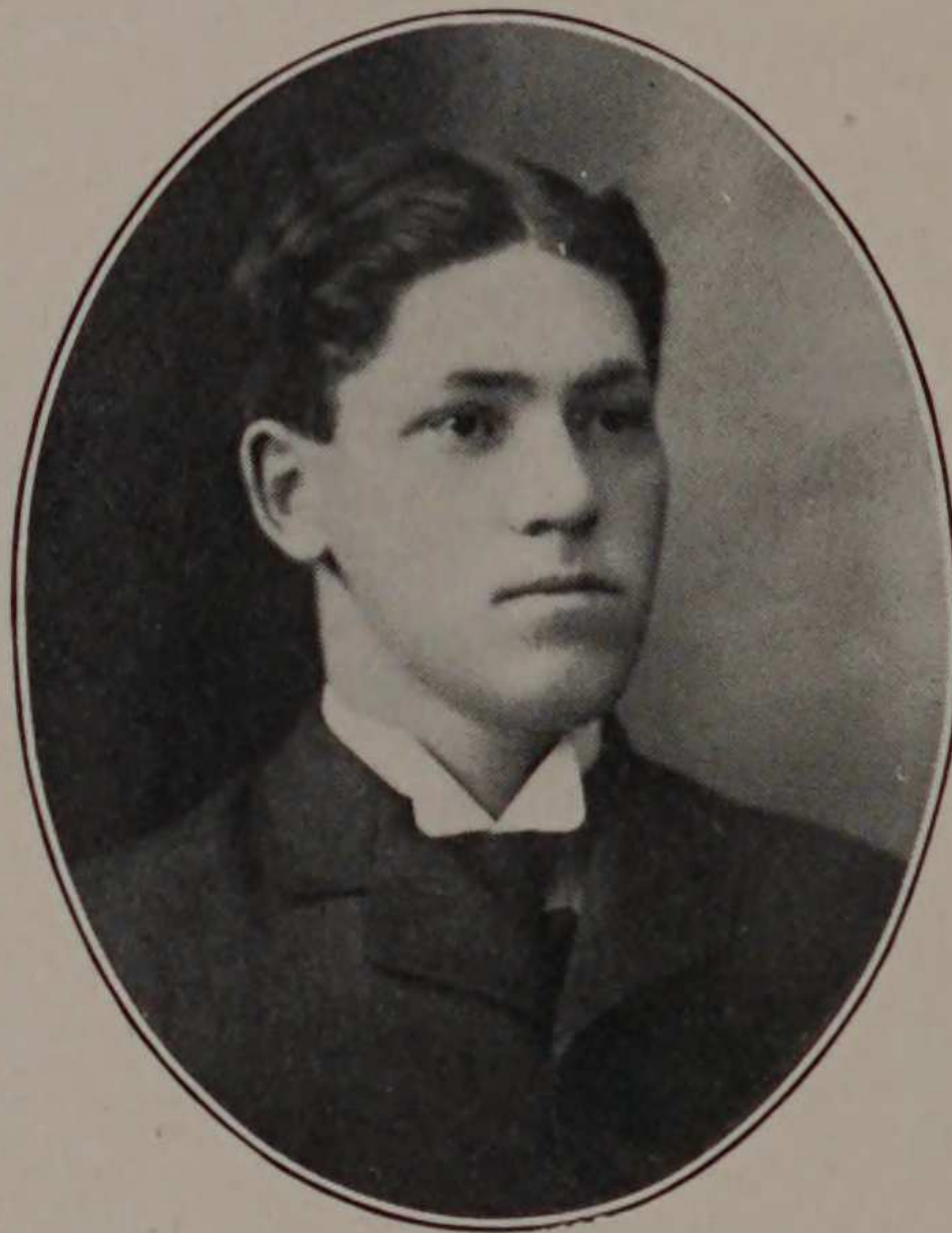
It was necessary for him to work during the summer vacations, and it was while working that he was killed. He was filling the place of a statement clerk for the Chicago City Railroad Company at its Sixty-first Street barns. On the morning of August the eighth, 1903, Frank had finished his work and was just about to leave, when the bandits entered and killed him and another, besides robbing the place. Murdered without provocation, he had no chance to save himself. The man's worth is well illustrated when it is known that he had been planning to hold his position until November 1, the date when the regular clerk was to return. His plan was to attend school during the day, and to start work at six o'clock in the evening and work until ten. Surely Armour has lost a man who would be a credit to any institution.

Carl Emil Peterson

“A loving heart has ceased to beat—a great soul has passed into the fathomless beyond.”

Pneumonia, that most dreadful specter to modern medical science has claimed a victim from among our ranks. After an illness of eight days, Carl Emil Peterson, of the Sophomore class, succumbed to that disease at the Continental Hospital on the morning of February 2, 1904.

Mr. Peterson's home was in Elgin. He was born in Lamont, Cook County, on July 7, 1876. With his parents, now deceased, he moved to Elgin in 1882. He attended the public schools in that city and in 1891 was confirmed in the Swedish Lutheran Church, of which he was a member up to the time of his death. After leaving the Elgin High School, he took up the machinists' trade and later worked three years in Aurora. At the break-out of the Spanish-American War, he joined Company E of the third Regiment, Illinois National Guards, and with his regiment served through the campaign in Porto Rico. he entered the Fresh-mour Institute of Chicago his home from that time on. Mr. Peterson's was a life obliged to work his way through college paper route, he yet found time to usher at the Auditorium and to read and assimilate a vast amount of classical and historical literature. It was the opinion of the attending physicians, that his extremely active life had so undermined his constitution that the disease found his reserve force almost exhausted, and an easy conquest was the inevitable result.



To be remembered in years to come only with love and as a noble man is the greatest eulogy that can be paid to any one. Words seem empty in an article of this kind. But Mr. Peterson will always remain in the memory of his friends as one whose influences conduced for those things only that were noble and good.

John Clarke Crowell



John Clarke Crowell, whose life was so prematurely ended, was a young man who was greatly beloved by his fellow students, and was himself a student of more than ordinary promise. He was born in Chicago, October 19, 1886, and died on March 9, 1904.

His early education was obtained in the Ogden School and at Oak Ridge, where he graduated in 1902. As an instance of his brightness may be mentioned that at the age of fourteen he gained a valuable prize in a reporting competition for the *Inter-Ocean*.

In September, 1902, he entered the Armour Scientific Academy, where he was noted for diligent and conscientious application to his studies. Though slightly inclined to be quiet and reserved, yet he was full of boyish enthusiasm for sport and amusement, his disposition being such as to endear him to all who knew him well. His last illness was brief but painful, and at the sad closing scene his affectionate disposition was well illustrated by his last words, which were addressed to his mother and were expressive of great love for her and of appreciation of her devotion to him.

He was buried on the eleventh of March in Oakwoods Cemetery, his classmates turning out in full and sending as a token of their feeling a floral wreath. Mr. Crowell was a member of the Washington Park Congregational Church, and was a favorite there also. The Academy adopted resolutions of sympathy, but aside from this official token of condolence, his classmates feel that they have lost a friend and a good friend.

Senior Theses

L. J. Byrne—(1) Design of power plant in modern office building ; (2) Investigation of the Junker gas calorimeter.

Melville S. Flinn—(1) Design of a compressed air power plant for supplying air for raising water by means of the air lift ; (2) Calibration of Pilot tubes and investigation of the centrifugal blower.

C. C. Sampson and D. Roesch—(1) Design of a combined air lift pumping station and electric lighting plant for the village of Riverside, Ill. ; (2) Study of steam calorimeters with view of obtaining correct samples of steam.

W. G. Hoy—(1) Design of a power plant for an apartment house building ; (2) Comparison of the Carpenter & Parr calorimeters with the Malher Bomb.

O. Raymond Prescott—(1) Design of a 750 K. W. power plant for an electric interurban railway ; (2) An investigation of the errors of steam engine indicators.

H. A. Hart—Complete plans and specifications for sewer system for Franklin, Ind.

J. M. Watt—(1) Design of a power plant in a modern office building ; (2) Comparative test for the leakage of steam post engine valves, with saturated and superheated steam.

G. Manierre—(1) Design of a belt testing machine ; (2) Comparative test for the leakage of steam post engine valves with saturated and superheated steam.

E. J. Wickersham—(1) Design of a power plant for the I. C. R. R. suburban service ; (2) Investigation of Junker calorimeter.

F. C. Clark—Commutation.

Emile Silver—Design of railroad draw span steel structure ; complete general drawings and estimate of cost.

H. L. Hamilton—(1) Design of a 1,500 K. W. street railroad power plant ; (2) Comparison of the Carpenter & Parr calorimeters with the Malher Bomb.

A. Buie and E. W. Graves—Design and construction of a unipolar generator.

A. N. Jackson, G. W. Borst, M. J. Knapp—A comparison of two types of induction motors.

F. L. Collins and P. V. C. See—Breakdown tests on all kinds of insulation.

R. N. Davis, H. G. Zuckerman, A. B. Benedict and E. J. Hiller—A chemical and electrical study of transformer oils.

Jens, Frary and Williams—Motor speed control and its effect on efficiency.

Strang, McDonald and Peebles—Comparative tests of single phase and three phase transformers.

H. W. Clausen—A 256-foot single track draw bridge.

F. L. Travis—A 207-foot steel arch, single track.

F. A. Coy—Design of 550-foot reinforced concrete viaduct across the Vermillion River at Main Street, Streator, Ill.

I Wonder

There are lots of things I'd like to know, and lots I'd like to see.
There are others that I know I'd like to do.
If I only had the ruling of the things that are to be,
I'd make this world all over, bright and new.

I'd like to know where Freeman got his Herculean build.
I wonder if McFarland has a soul,
Does Agle own the atmosphere as well as all the earth?
Does Rochlitz walk on legs, or does he roll?

Did the Chemical Department ever have the Charley-horse?
Will Perry ever get to be sixteen?
Where can I get a dollar to get Wilcox a shave?
(It would make a bully wig for friend Coffeen.)

How did Campbell ever learn about the maximum safe load?
Did he get it from Milwaukee in a case?
Was Wilder tamer when they caught him, or just about the same?
Was Tibbetts raised on earth-worms in a vase?

I'd like to know if Phillips thinks this world is all a dream.
If I fell into Wells would I get drowned?
Does Snow go North in summer, or does he stay at home,
And get melted from the heat, and then run down?

These brain perplexing problems have crept into my head
Like spiders creep into an empty bin.
I really wish that some one would answer this for me,
"Am I turned inside out, or outside in?"



Senior O'Donahue

Thos. S. Pierce



IT is with the risk of dire peril to myself that I set down what is to follow : The Senior in question has threatened to take summary vengeance on me, and that means something when you consider the thirty pounds advantage he has over me in muscle. But I was ever a believer in truth for her own sweet sake, so I shall speak out at all hazards.

Of course I dare not give his name, but there's a strain of French blood running in him, so we will call him O'Donahue for short. Then there are the two girls—we can take them in chronological order and call them Miss Alpha and Miss Omega. Miss Alpha, of course, he met first—away back in the dim, half-forgotten prep. school days. He never was much of a hand with the fairies, so he only knew her to speak to, or to play a couple of games of tennis with.

But prep. school dragged into college, and as he rose to the dignity of a Sophomore he yearned for the companionship of petticoats. So the first Sunday in every month found him in Miss Alpha's front parlor, his face polished, almost a clean shave, and his hair a little less like quills upon the fretful porcupine. And toward the end of that winter he was even known to call as often as three times in two months. We who knew him sat aside and wondered.

The summer between his Sophomore and Junior years what desperate flirtations in the park over an ostensible game of tennis! Their trips together sometimes came once a week. We must pass quickly over the following winter—suffice it that he took her to as many as four dances—dances which cost him a cold, hard dollar a piece. And then came spring—and golf—and Miss Omega, the Queen of Clubs.



O'Donahue was well into his Junior year—his self-confidence was amazing. The exams. which gave him the rank of Senior made him even more so, however. Each day he and Miss Omega were on the links together; often they lunched at the German House. Her picture rested on his desk, another one in his pocket. Through it all she smiled upon him, till fall came, and frost closed the links and opened the skating house. The chill some how seemed to creep into her smiles for him, finally to such an extent that even he became aware of it. Desperate, he took desperate chances.

Miss Alpha was ice crazy—a diminutive whirlwind on skates; likewise a feather on the dance floor. The latter claimed them every Friday night, the former at least once a week besides. And still Miss Omega did not relent—nothing could make her jealous; however, it must be said that it was not all strategy which held him to Miss Alpha; there was a charm, he admitted, in holding her hand while they slipped over the ice. And it was there he met his Nemesis.

The Christmas vacation—you remember it—was a succession of glorious moonlight nights, and almost every evening saw them skating. The Friday night before college opened was the most brilliant of all, and they were slowly moving among the shadows around the south end of the Wooded Island. She was sculling backward, he pushing her, when her skate caught in a crack and she fell, her head striking heavily. He could not turn, but succeeded in alighting on his hands and knees so that his face was directly over hers, as she lay on her back, and only a few inches from it. She lay as though stunned for a moment, then a quiver of the lips, as if she were about to cry. He told me the whole story afterward.

“She looked so pretty while she lay there in the moonlight,” he said, “I had hard enough trouble before, but when I thought she was going to cry I couldn’t resist, and bent down, with my arm underneath her head, and—kissed her.”

“ And she,” I cried, “ what under the canopy did Alpha do ? ”

“ She—she just put her arms around my neck and did the same ! ”

Touching, did you say ? Heart-moving if you see it with my eyes ; the quiet faith she has that they are as good as engaged, the torture he goes through two or three times a week. For now, as though by inspiration, Miss Omega has relented, and wants him by her side continually. She—Alpha—has only hinted about the ring as yet ; he has a month before he will be in close quarters over it. And his total capital is fifty cents, which he borrowed yesterday from me. Assets—\$0,000—carry them as far as you wish.

So, classmates—his and mine—let’s all drop a tear for the sad fate of Senior O’Donahue—for there can be but one finish—and hope that we will all have better luck. And now your hands—a long good-bye. For he will learn of this, in time, and then—Hic jacet.

A Few of Our New Books

“ The Sign of the Two,” by Harry Chesterfield Coffeen.

“ Eight Years Under One Flag,” by H. Zuckerman.

“ Valuable Hints on How to Manage a Dance,” by W. Parker.

“ Goats : Their Habits and Peculiarities.”—Norman Riggs.

The Dairy Fairy.

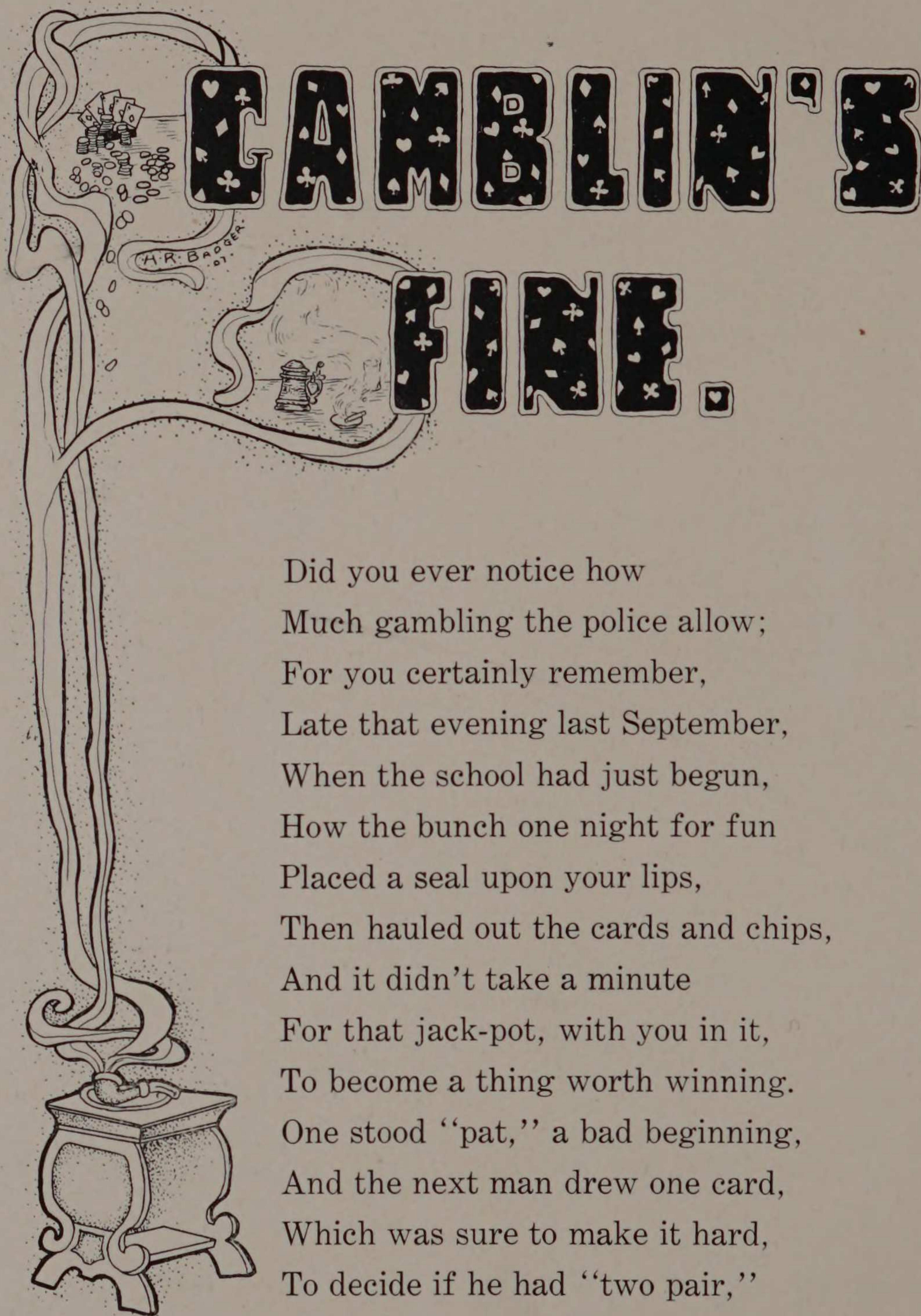
A most bewitching young fairy
Fell in love with poor Dinny Frary;
 When she'd see him she'd sigh
 And then she would cry,
So he hit the high spots for the prairie.

Her attentions then she did turn
To handsome Louie J. Byrne;
 But he had no Hart,
 So he got a good start,
And climbed up the leaf of a fern.

She next tried to round up A. Jens;
He escaped 'twixt the barn and the pens;
 He fell over a rake
 And made the earth quake,
And frightened to death forty hens.

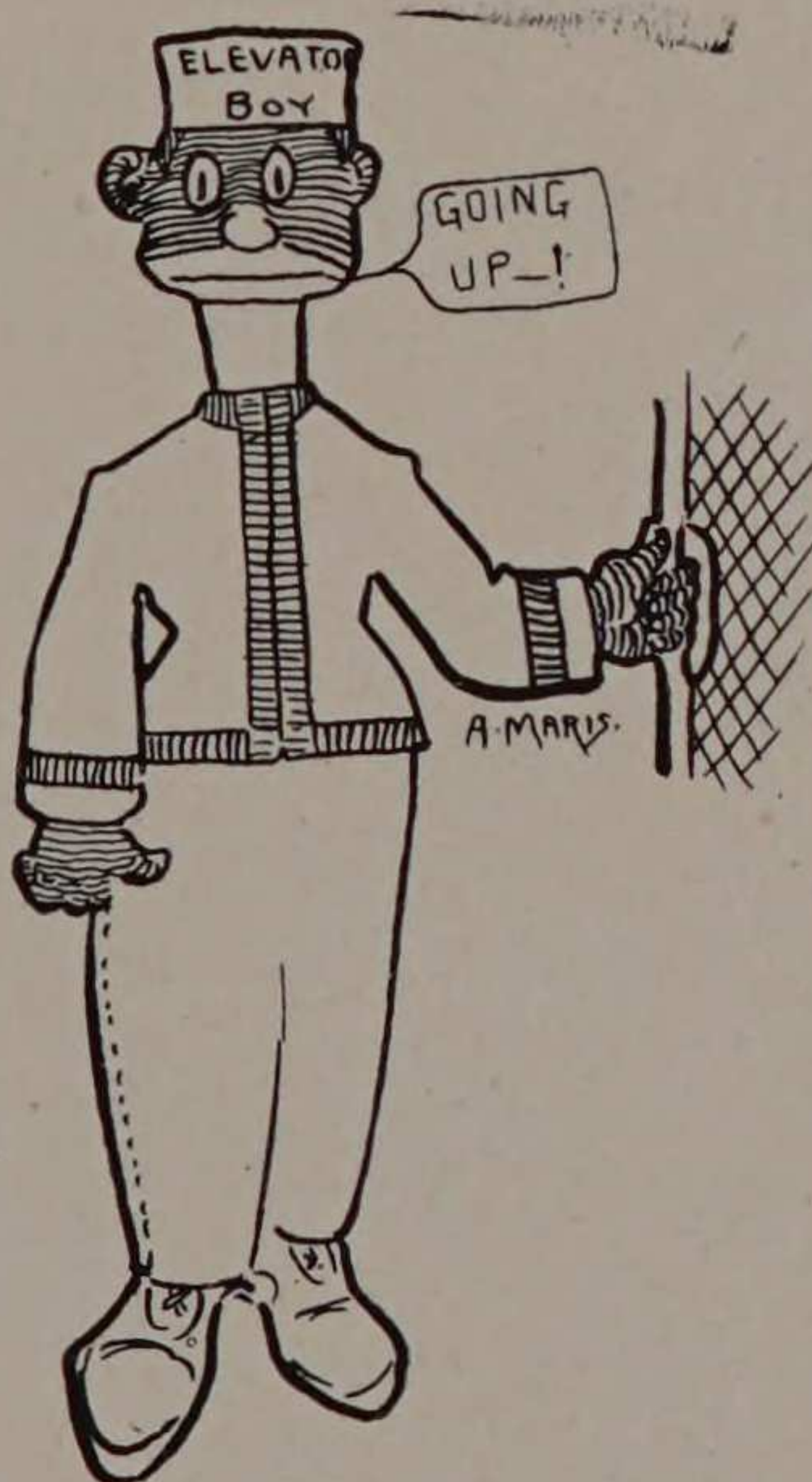
Benny saw her coming and ran,
Together with Herb Zuckerman;
 They sloped for the door,
 But she got there before,
And they hid 'neath a large coat—of tan.

This damsel never did marry,
She lived out her days in a dairy;
 She stirred up the cream
 With a twisted sunbeam.
Her name? Oh! 'twas "Pickle-Boat Carrie."



Did you ever notice how
Much gambling the police allow;
For you certainly remember,
Late that evening last September,
When the school had just begun,
How the bunch one night for fun
Placed a seal upon your lips,
Then hauled out the cards and chips,
And it didn't take a minute
For that jack-pot, with you in it,
To become a thing worth winning.
One stood "pat," a bad beginning,
And the next man drew one card,
Which was sure to make it hard,
To decide if he had "two pair,"

Or a “flush” or “straight” were there.
“Two !” the next man loudly cried;
Had he a “pair,” or did “three’s” abide ?
“I’ll take three,” your neighbor said,
As he rested on the bed,
With a pair of aces, maybe.
Then the dealer cried “Now say be
Sure to discard first”; you did
As you were told, and bid
Like crazy when your turn came,
As four you held were all the same.
Two you “held” and two you “drew,”
And so they all “cashed in” to you.
“Gamblin’s fine” no doubt you thought,
But how about the boys who bought ?



Modern Ascension Robes.



Sports

(A few answers received to our inquiry as to what constitutes a true sport.)

“One who is there at the finish and knows he is there.”

—*Knapp, '04.*

“The King of Nicovar.”

—*Jimmy Crawford.*

“The man with a dress-suit; all the others are ringers.”

—*Clausen, '04.*

“The man behind the pipe.”

—*Ratcliff, '05.*

—*Hamilton, '04.*

“To live content with no society; to seek knowledge, not enjoyment; work, not recreation. Such is a true sport.”

—*Teach, '05.*

“Creamer is a real sport.”

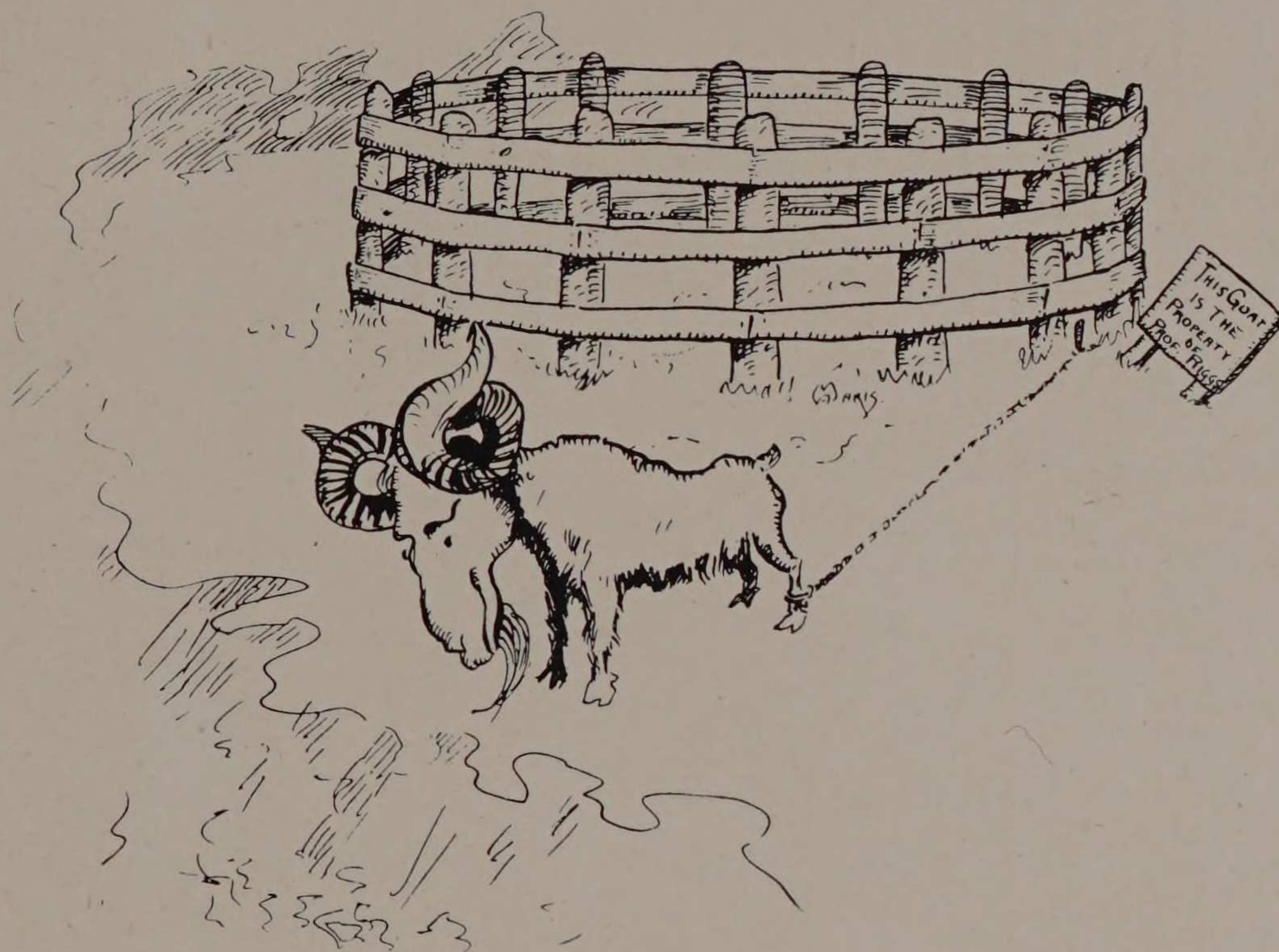
—*Agle.*

“Agle is a genuine sport.”

—*Creamer.*

“Ein real sport lives py der Nort' Side.”

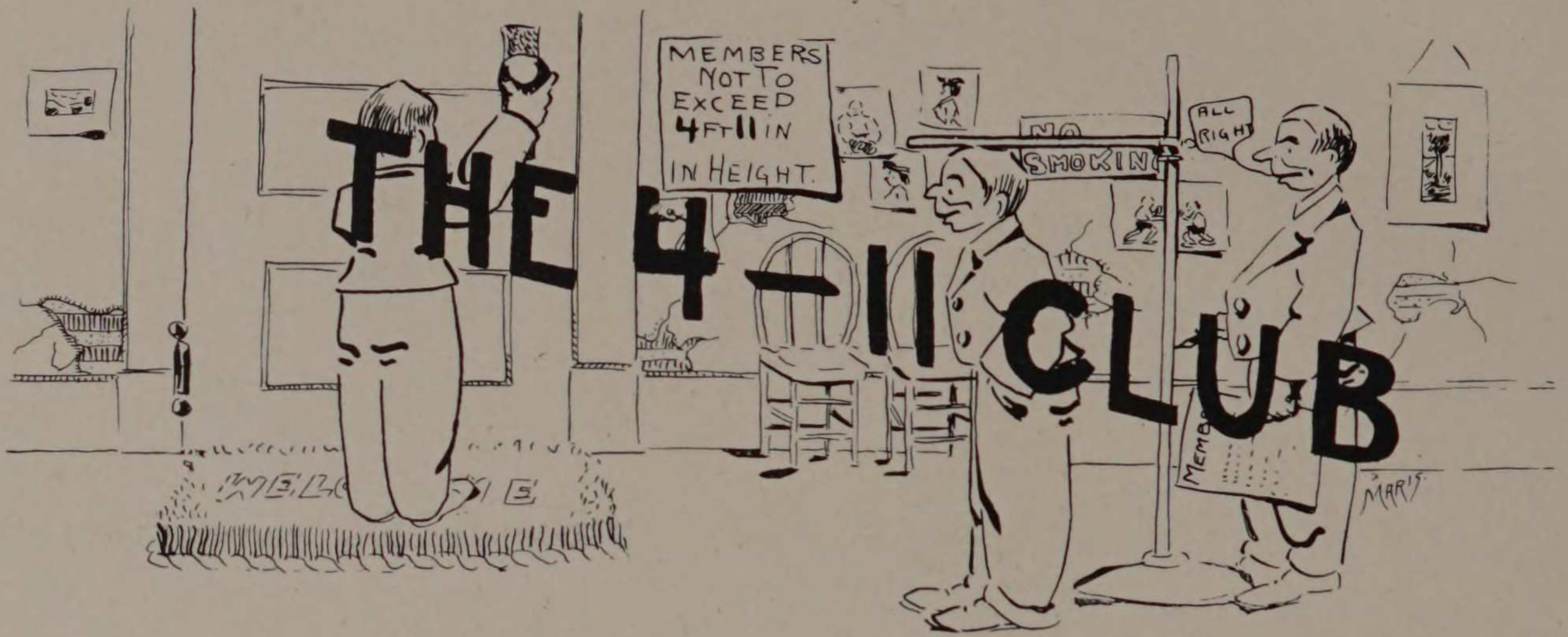
—*Goetz.*



A goat there was and he came to school,
Even as you and I,
He came and stayed, though against the rule,
Not exactly like you and I.
But a Prof. it was who brought him there,
And so, you see, we didn't dare
To kick at him or we'd lose our hair,
Even you and I.

The goat was long and lank and thin,
Even as you and I,
But he butted so hard we let him in,
Even as you and I;
When we had him tight we let him play,
The Prof. kicked hard, but we had our way.
So Riggs' goat has come to stay,
Even as you and I.

L. R. L.



Grand Master of the Short Horns,	Beazley
Head Sawed-off,	John R. Smith
Chief Brevity,	Goldsmith
Main Hammered Down,	Gray, Jr.
Dispenser of Short Change,	Dietz
Short Stops,	Hough, Levings, "Cupid" Levin
Faculty Essence,	Freeman
Most Exalted Wee-wee,	Hebard

ORNERY MEMBERS: Stem, C. H. W. Smith, Willard, Clasen, Ryan, Sawtell.

CHIEF STUNT: Yet to be stunted.

We all use baking powder;
We eat it by the quart;
What for? Oh, just because, you know,
It helps to keep us short.

MOTTO: Lay low.

ADV.—Eat Thompson's Shortcake.—ADV.

A. I. T. 2,000,000 Club

President, Hamilton; weight, 2,000,000 grams.

1st Vice-President, Underwood; length, 2,000,000 millimeters.

2d Vice-President, Meyer; runs gas engine at 2,000,000 lbs. pressure.

3d Vice-President, Schaedlick; used 2,000,000 bottles "Danderine."

Secretary, Heine, sold 2,000,000 tickets on raffle of gas engine.

Treasurer, Walker; went to sleep 2,000,000 times in class.

Honorary Members :

Knapp, capacity, 2,000,000 gals.

Integral Board, lost \$2,000,000 on Integral.

Peebles, made 2,000,000 strikes in bowling contest.

Coffeen, room for 2,000,000 hairs.

Borst, converted 2,000,000 souls.

Copenhaver, went to 2,000,000 dances in one year.

13—Moustache Club—13

Peterson

Tompkins

Speers

Prescott

Hoffman

Fletcher

McConaughy

Morris

Sampson

Clasen

Kapelusch

Wickersham

See



Colors : Black and Blue.
 Grip : Any old grip.

Chief Guyye	E. L. J. Dempsy
Lord High Selector of Victims	Pink McDonald
Head Beguiler and Enticer	Blondy Duplissis
Grand Pipe Dreamer	Cloudy Malcolm
Remover of Broken Furniture	Oom Paul
Underwriter, Collector and Spender	Son Beazley
First Husky	La Belle Orschell
First Trusty	Wild Wooly
Bouncer	Chicken Geist

PAST OFFICERS : Pink Mitchell, Sy Walker, Rattle Bone Fitzpatric, Dutch Spaulding, Sartoras, Meeker, Malloy, Mansfield.

The meeting place of this honorable organization is in the elegantly furnished smoking room of Mr. Dempsy's, although the meetings frequently expand to the street and elsewhere, via doors, windows, chimney or any other promising opening. It is a curious fact that the interior of the clubhouse needs remodeling very often as the members are very fastidious in their likes and dislikes.

A Magic Class Pin

IT was a cold Sunday evening in December, 1910, when I thought to myself, "Here it is, only 5 o'clock, and nothing to do. Guess I'll go to that lowest drawer in my desk and throw out some of the trash." No sooner said than done. I went to the desk and the first thing I pulled out of that drawer was an old cardboard box. Looking into it what should I see but my dear old Armour class pin. Yes, there it was, the same old pin with an owl holding the "nought" in one hand and the "one" in the other. "My," I said, half aloud, "I wonder what some of those chums I had those nine long years ago are doing now."

No sooner had I said that than the lights in my room began slowly to grow dimmer and fade away. Notwithstanding that it became totally dark, I could still see my pin as plain as day, and I was also conscious of the fact that I became paralyzed, unable to move a hand or foot. Then it seemed as if the owl and pin began to grow larger. They continued to grow until the owl became almost life-size. Then it stepped off the pin and said in a solemn and even voice, "Take the 1 to your ear and listen. Take the 0 to your eyes and look through it, but ask not a single question."

Spellbound, I did as I was ordered, and almost instantly there appeared before my eyes a house; a young and beautiful woman with a little girl at her side stood by the open door. Then a man came in sight and the woman ran down to meet him. "Hello, Jack, my dear," she said, as she kissed him. "My God!" I thought, "it's Jack, my most intimate chum while I was at Armour." He had become married to this beautiful woman and had the blessing of a child. It was right and fair that he should have these joys. He deserved them. He had always resisted the temptations to which the rest of his friends had bowed. Yes, it was heavenly justice, and

as he went into the house surrounded by his happy family, and the picture faded away, I believed more in God and His justice than ever before.

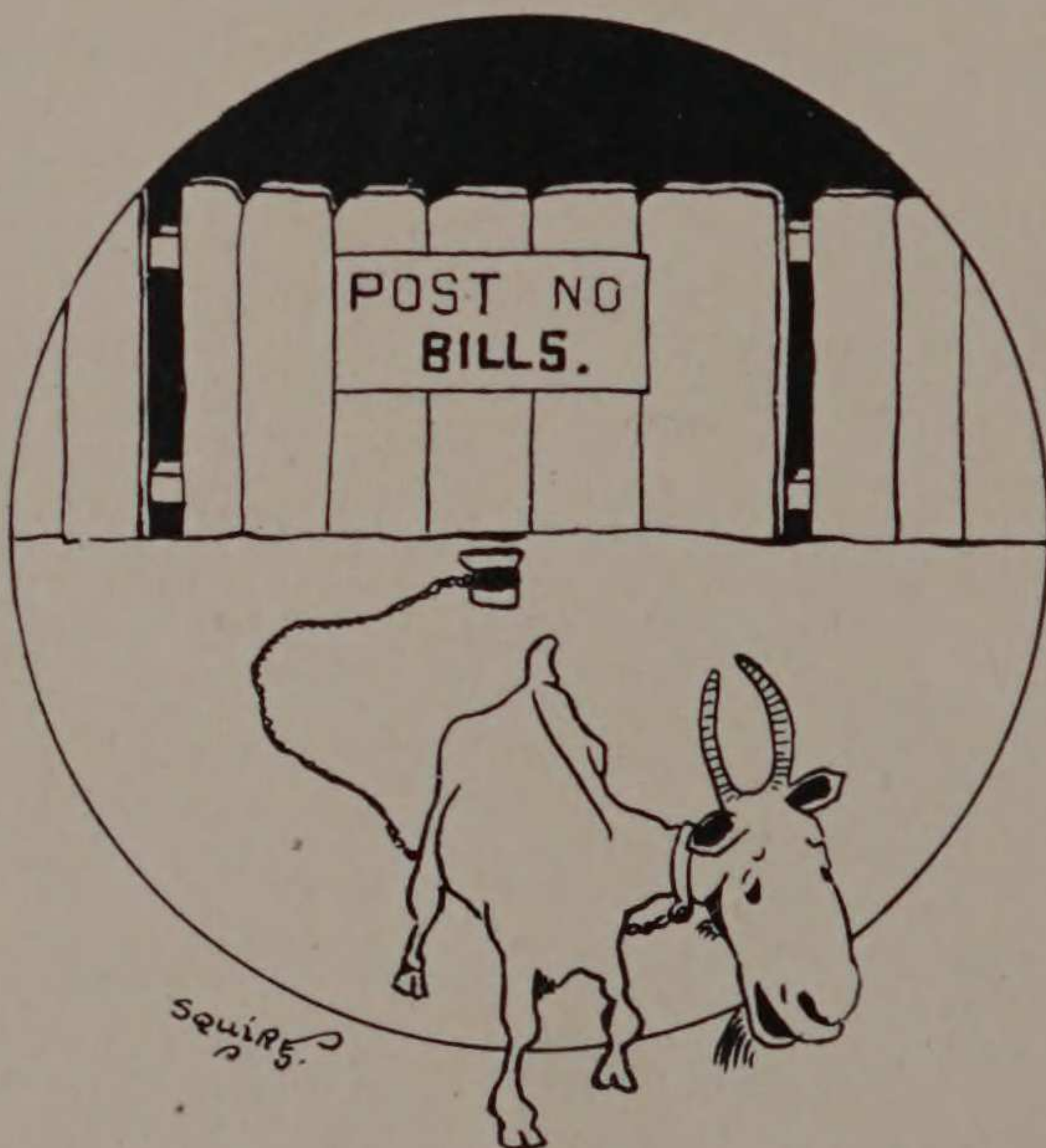
Then I beheld another picture. It was a large office and before a desk sat John Avery, another graduate of '01, and at one time a close friend of mine. It was the office of the largest railway company in the country, and he was at the head of it. This was a great achievement for Avery, and I knew he had worked hard for it. Turning to the owl I said, "How long has he been manager here? Does"—

Bang!—there was a crash. I heard something fall, and the next moment found myself gazing at the contents of the box strewn on the floor.

"But ask not a single question," I said to myself as I picked the things up.

F. NIWER.

Well Posted



Phœbe and Apollo.

There was a young man from Duluth,
Had a terrible pain in his tuth;
 He ripped out his hair,
 Then replaced it with cair,
And it made him look very uncuth.

His name was Aminadat-Towne-
Chatfield-Chatfield-James-Ellett-Greene-Browne;
 He tried once to spell it,
 Breathed his last on the Ellett,
Then took the first car that went downe.

His sweetheart, a beautiful mayed,
Had a face that was sorry it stayed;
 It looked and it felt
 Like an underdone smelt
(She kept it on ice in the shayed).

It was fed upon hen's milk and ink,
With a sandwich twice daily to drink.
 (If you have one like it,
 I advise you to hike it
To Niagara. Drop it over the brink.)

When she learned what her lover had trighed
And succumbed to, she got up and sighed;
 She took out her face,
 Put it in a glass case,
Then crawled under the carpet and dighed.

REQUIEM.

The man who wrote this was insane,
He just left on the nine o'clock trane,
 To take up a course
 (They took him by fourse)
In a nut college (Dunning) in Spane.

PERPETRATED BY W. K. K.



Ryme

To English thrice a week he goes,
And at English he's a hummer,
But with the girls he forgets his words
And all he can say is "Um-um-er."

Found

She lost her head when he proposed,
But he, a trifle bolder,
Made search for it distractedly,
And found it on his shoulder.

D — — — — — n

The Senior wears an awful frown,
(Dean Monin jollies him.)
The Junior gets called up, then down,
(Dean Monin watches him.)
The Sophomore thinks he owns the place,
(Dean Monin pities him.)
The Freshman mocks the Sophomore's face.
(Dean Monin weeps for him.)

Mary had a little lamb
Which she thought she'd send to Armour,
But the lamb got wise and away he ran
To the nearest vegetarian farmer.



'Twas not a Panama

A small young man with auburn locks,
For so the story does run,
Took his straw hat down
Somewhere near the town,
And called on "Uncle" to secure some rocks.
But the man was wise
And did scrutinize
It well, and then said, "Py Heavings
De straw iss all yellow,
It's old and it's mellow,
Why you must have been out in the sun!"
But this was enough for L. Levings.



What's the use of all this fuss,
For wouldn't it be
A calamity
If we could see
Ourselves as others see us?

Some Freshmen Twins

Theo and Gustave, free lunch experts.
Professor Hebard and Wally, ex-supers, house roughers and EATERS.
Alex and Sig, extremely well known as the mammoth and the pigmy.
Geist and Shep., M. M. (Masters of Math.), past exalted rulers of the local order of the
A. A. A. of M. S.
Hop and Irish, parlez-vous français artists, descript. wizards, etc., etc.

The Wise Man and the Fool

A Troubadour's Story

CLARENCE VREDENBURG

IN the court of Germaine there was a wise man and a fool. And the wise man was held in great repute as an astrologer and a sage, insomuch that he sat at the councils of King Germaine and his vassals, and advised both in war and peace. But the fool was a clownish fellow who entertained the king and his court at their revels with buffoonery and sang the old bards' songs to the music of a guitar.

It so happened that, one day in the latter part of the winter, the king decided to go hunting in the Black Forest. And, to this purpose, he set out with a great concourse of dukes and men-at-arms clad in their woolen hunting cloaks and armed with spears and bows and arrows. Near the king rode the wise man and the fool.

"Thou, Rudolph, shall ride by my side," said the king to the wise man, "but thou, knave Taric, shall ride behind," he said to the fool.

And Taric with his bauble and bells bowed his head submissively as was his habit and rode quietly a few paces behind the king. When the party came to the edge of the forest, they tethered their horses to the trees and went down into the ravine. On through the narrow defiles and snow-choked glens they tramped all day, but no sign of game rewarded their search. At length toward evening, the king with the wise man and the fool became separated from the party and wandered about in the deepest part of the forest where the trees were thick and tall and the crevices deep and yawning. Suddenly, out of a jungle dark and tangled, rushed a wild boar and struck the king to the ground where he lay stunned. Above him, the ferocious beast arched his grizzly neck, preparing to gore the prostrate

ruler with his ugly tusk. The wise man, white and trembling, screamed and fled, but the fool cast himself before the boar and, grasping with his powerful hands the animal's tusk and forefeet, threw the beast dexterously upon its back and, drawing a short dirk from his leather doublets, he stabbed the boar to the heart. Then he helped King Germaine to rise. The wise man, now shamefaced, came slowly back.

“Rudolph,” said the king gravely, “why did'st thou run?”

“My noble lord,” said the wise man feebly, “I am infirm, for in my youth I was kept in luxury, and when I became a man I studied long over my books of astrology and gained no strength.”

“And how, churl, is it that thou art so strong?”

“My liege,” quoth Taric, whose muscles were still swollen, for he was a big man and broad of chest, “when I was a boy I wandered on the hills in the sunlight and became strong, and when I entered my lord's castle to become his jester I saw that I might lose my strength, but, as I knew that my liege would need me some time to fight for him in the wars, I exercised in the armory every day. I fenced with the knights, wrestled, forged heavy pieces of armor before the furnace so that, instead of becoming weak I became stronger year by year. At the same time I made merry jests and laughed in the king's throne room, hour after hour, which made me hale and hearty, for it is known, oh king, that a cheerful disposition maketh a stout body.”

The king pondered long. Then he spoke slowly—

“Rudolph, henceforth thou shall be the fool, for with too much astrology thou hast failed to keep thy body, which is the temple of the mind, and thou, Taric, shall sit at my right hand as chief counselor for he and he only, who prepares for the future, is wise.”

Entrance Examination

Civil Engineering Department

GEOGRAPHY :—

- (1)—Where is Goose Island and why?
- (2)—In what country is Rosalie Hall? Name States and territories traversed in a trip from Armour Institute to Rosalie Hall.
- (3)—What is a straight? A low straight? A high straight?

GRAMMAR: —

- (1)—Decline “to drink.” If you are unable to do that try “to flunk.”
- (2)—Correct the following sentences.
 - (a)—Descriptive geometry is very easy and does not require any study.
 - (b)—Building a bonfire of surplus wearing apparel in your neighbor's back yard, is a modern way of expressing love and affection.

ARITHMETIC :

- (1)—A man should sleep seven hours each day. If Jones does 31 hours' work each day, how much sleep will he get in a week?
- (2)— $2+2=?$
- (3)—Which is luckier, 7 or 11?
- (4)—What is the cost of $8\frac{1}{4}$ tons of radium?

BIOLOGY :

- (1)—What is a bob-tailed flush?
- (2)—Why does a fly-wheel?
- (3)—Describe and give number of leaves in a pamphlet. Are they dense or can you see through them easily without any preparation?

GEOLOGY :

- (1)—How is rock-candy formed?
- (2)—Explain the existence of sand in sugar?

CHEMISTRY :

- (1)—What is the principal use for a flask?
- (2)—What is the Pacific gravity of water?
- (3)—Name one thing that radium cannot supplant or cure or accomplish.

NAVIGATION :

- (1)—Name, locate and describe bars on both sides of State Street from Thirty-third Street to Thirty-fifth Street with your eyes shut.
- (2)—Can a schooner pass Blue Island? Give reasons for your answer.

The '05 Yacht Club

Captain of the Head		Bilgewater Ash
Sharpener of the Port Tack		Foc'sle Croskey
Tie-er of the Port Bow		Dead-Ahead Carroll
Washer of the Jib Sheet		Tarry Thompson
Winder of the Dog Watch		Main-Brace Marshall
Keepers of the Red Light		{ Barnacle Brackett
		{ Deep-Sea Johnson
Keepers of the Green Light		{ Gospel St. Clair
		{ Water-Wagon Bates
Gunner's Mate		Liquid Lewy
Guardian of the Oar-lock Key		Fish-eye Meyer

MOTTO: If its nailed down, get a claw hammer.
YELL: All the time.



SILAS—How is Hank getting on at college?
HIRAM—Fine. I guess it must rain the hull time, fer he takes a shower bath each day. By hen, the next time it rains I'm going ter try it.

A Problem in Graphics.

Draw movement diagram and curve of a boozer.
CONDITIONS :—Two supports. Light load, constant load, variable load, no load, maximum load. After the elastic limit has been passed, a very slight increase in the load causes a relatively large strain, so that the reactions at the two supports can no longer be relied upon.

Editorial Page

LITERARY SOCIETIES

When the subject was brought up last fall for a literary society, or for two societies, the project was received very favorably by enough of the boys to form two strong organizations, but nevertheless it fell through. Several reasons can be advanced for this, but they all narrow down to one principal reason, viz., nobody interested himself in it sufficiently to work for it. There was no particular individual who would assume the responsibility of an organizer. Everybody waited for some one else to call a meeting, and if the person who would do it could put enough life into the idea so that it would have a promising appearance, then and then only would the attendance be good.

Armour should have two rival literary societies and once a year there should be an oratorical contest between them. To be a member of either of the contesting teams would be an honor that would be eagerly sought after, and to be on the winning team—well, you know what that would mean. The names of the two societies should be suggestive of Armour and the membership should be open to any student of the College of Engineering. As the Sophomore and Senior classes are always sympathetic bodies, why not have one society contain only Seniors and Sophomores, and the other society only Juniors and Freshmen? In this way the natural class rivalry would add to the spirit of the annual contest. This could be accomplished by having one society consist of men who would graduate in the “even” years, and the other society have as members those who would finish in the “odd” years. Thus members of the classes of '04, '06, '08, '10, etc., could belong to one society, and those from '05, '07, '09, etc., would be eligible to the other society. This is but a suggestion, and our only hope is that it may cause a discussion on the subject of literary societies. May the coming year see them launched, for after they are once afloat we have no doubt they will flourish.

ATHLETICS

We now have in the process of regeneration, ground for an athletic field. By next fall the place will be all fixed up for our use and then it is up to us to use it. Why should we not be ranked athletically as well as educationally, among other institutions, colleges and universities which are of about our own size. We are promised coaches for the various teams next fall, and it is the duty of those fitted to come out and try for places, and for those not fitted, to come to the games and make the men feel they were doing something for an appreciative school. Armour has simply been dormant, but with the new stand taken by the faculty and the trustees, we should become thoroughly awake to our own abilities and possibilities.

THE INTEGRAL

The Integral this year will no doubt be criticised by many. We realize that our literary department is sadly deficient. It was the intention of the editor to have this department twice as large as it is, and to instill some interest in the matter and to show those who were inclined to be literary that we wished their co-operation, the Integral board offered a lot of prizes for work of this kind. We did not expect that the money value of the prizes would cause the desired result, although they were all cash prizes and summed up to thirty-five dollars, but simply thought that they would cause active competition, and so we would have excellent material for that part of our book. We say simply, for the result would seem to indicate that the idea originated in a very simple-minded and imaginative individual, as it was everything but a success. No interest at all was shown and only one short poem was submitted which the judges considered was even worse than some of those we have included in this book. We are not complaining but rather explaining, and this is not to be considered as an excuse.

Pictorial History of our New Athletic Field

Giving Color Changes for Each Epoch



Red

100 years ago to-day.

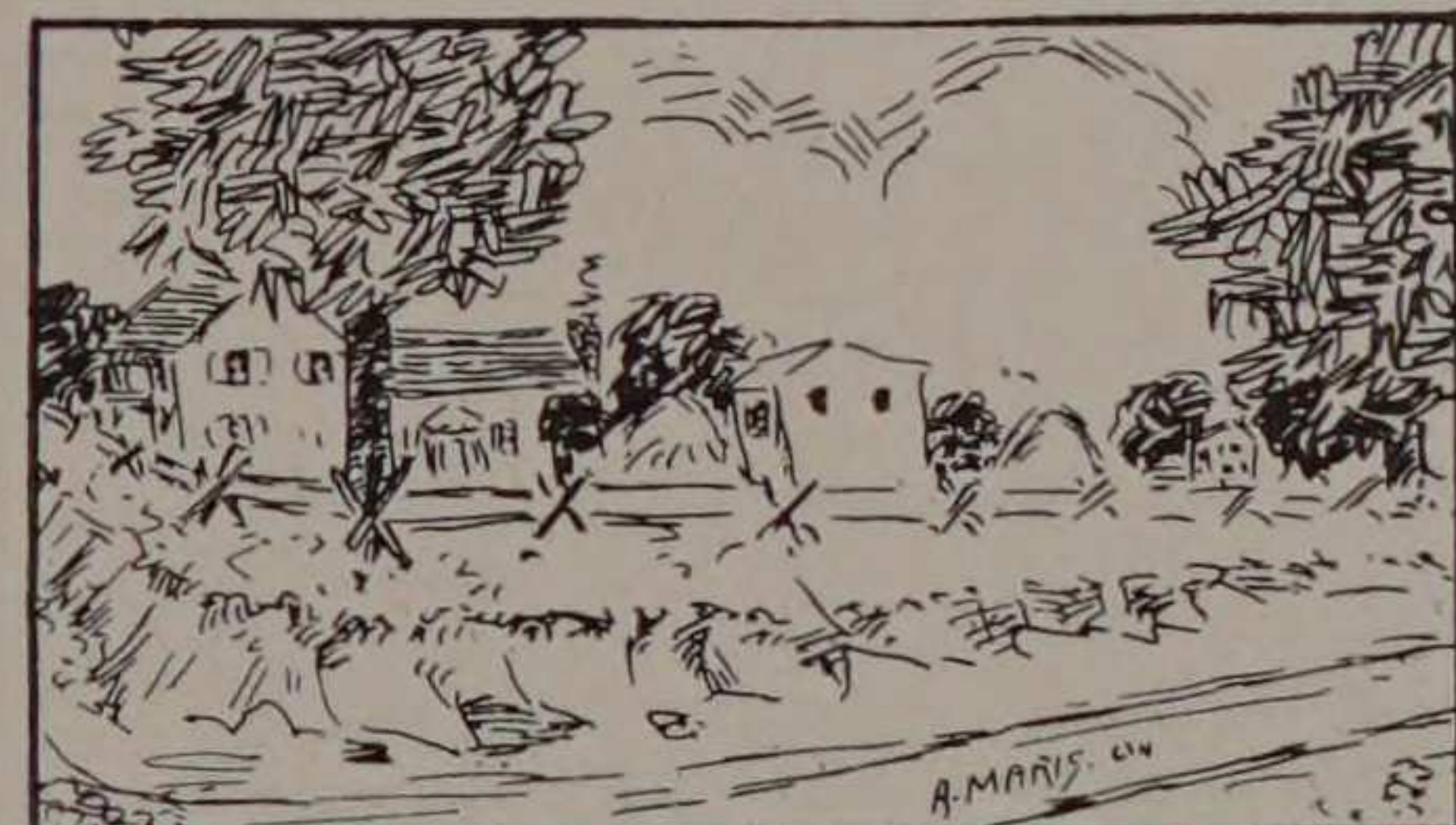
Red and White



75 years ago to-day.

White

50 years ago to-day.



White and Black



25 years ago to-day.



Black

As it appeared before we started clearing it off
for use as an Athletic Field.

COLLEGE CALENDAR





Sept. 21, 1903—Registration day. Kretsinger disguised with a light tan beard acquired during the summer. Initial appearance of pledges resented by our C. A. N. Club and others.



Sept. 22—Krets' beard died a natural death; thus kind fate spoiled the plans of the Barber's Aid Society, hastily formed in the Junior Class.

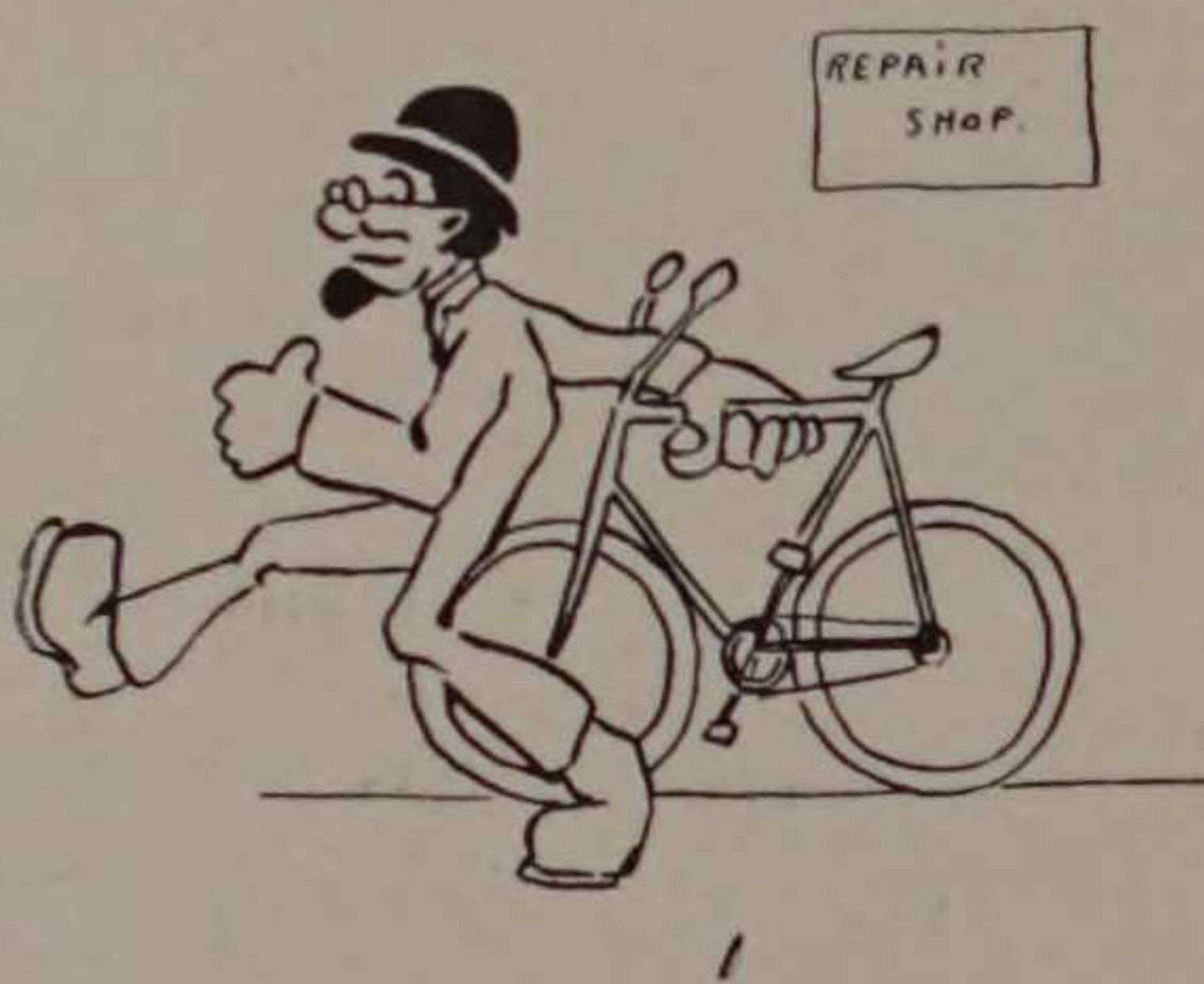
Sept. 23—Benedict late for class for the first time this year. Freshmen told how to try to be men. Some one noticed that Prof. Wilcox found a new set of whiskers somewhere.

Sept. 25—Freshman Handshake. Crowd were hungry, and so the Y. M. C. A. did not have a luncheon the next day.



Sept. 28—Yellow posters and painted numerals over everything. Sophs. seen to gather occasionally, whisper a few words and scatter again. Probably the calm before the storm.

Sept. 29—Freshman Tuesday. Promptly at noon the inevitable happened, and but for the interference of the Seniors, would probably be going yet. No decision. After it was all over and every one was cheered (including the ladies), Congressman Boutel spoke for a few minutes.



Sept. 30—Senior Class elect officers. Machine slipped a cog and reformers put through their ticket.

Oct. 1—Nice day. Mr. Ritchey seen walking to school, i. e., bicycle in repair shop.

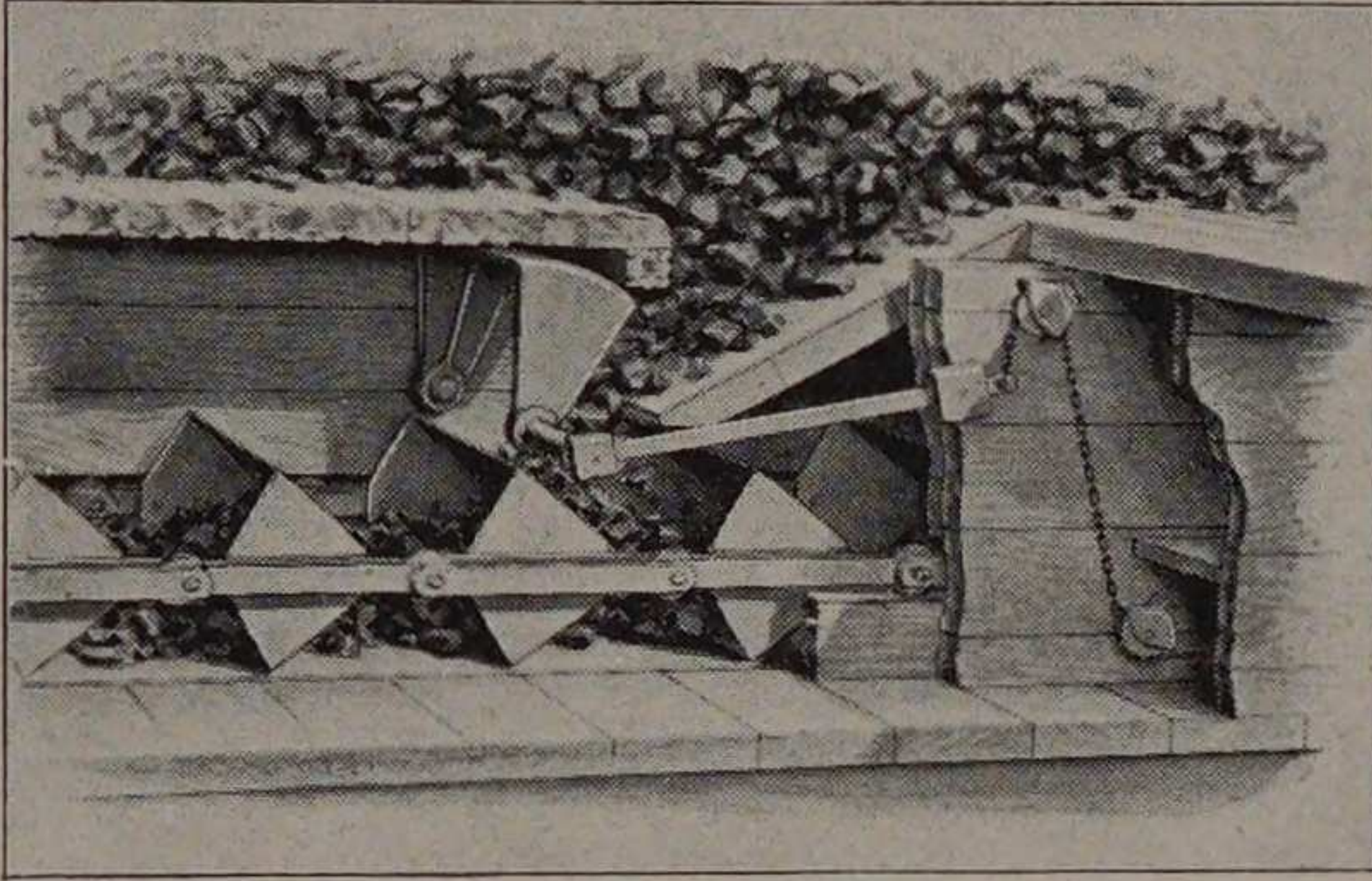


Oct. 2—Juniors and Freshmen hold meetings. Delta Tau Deltas and Phi Kappa Sigmas hold inspection smokers in the evening.

Oct. 5—Senior Mechanicals defeat Senior Electricals at bowling.

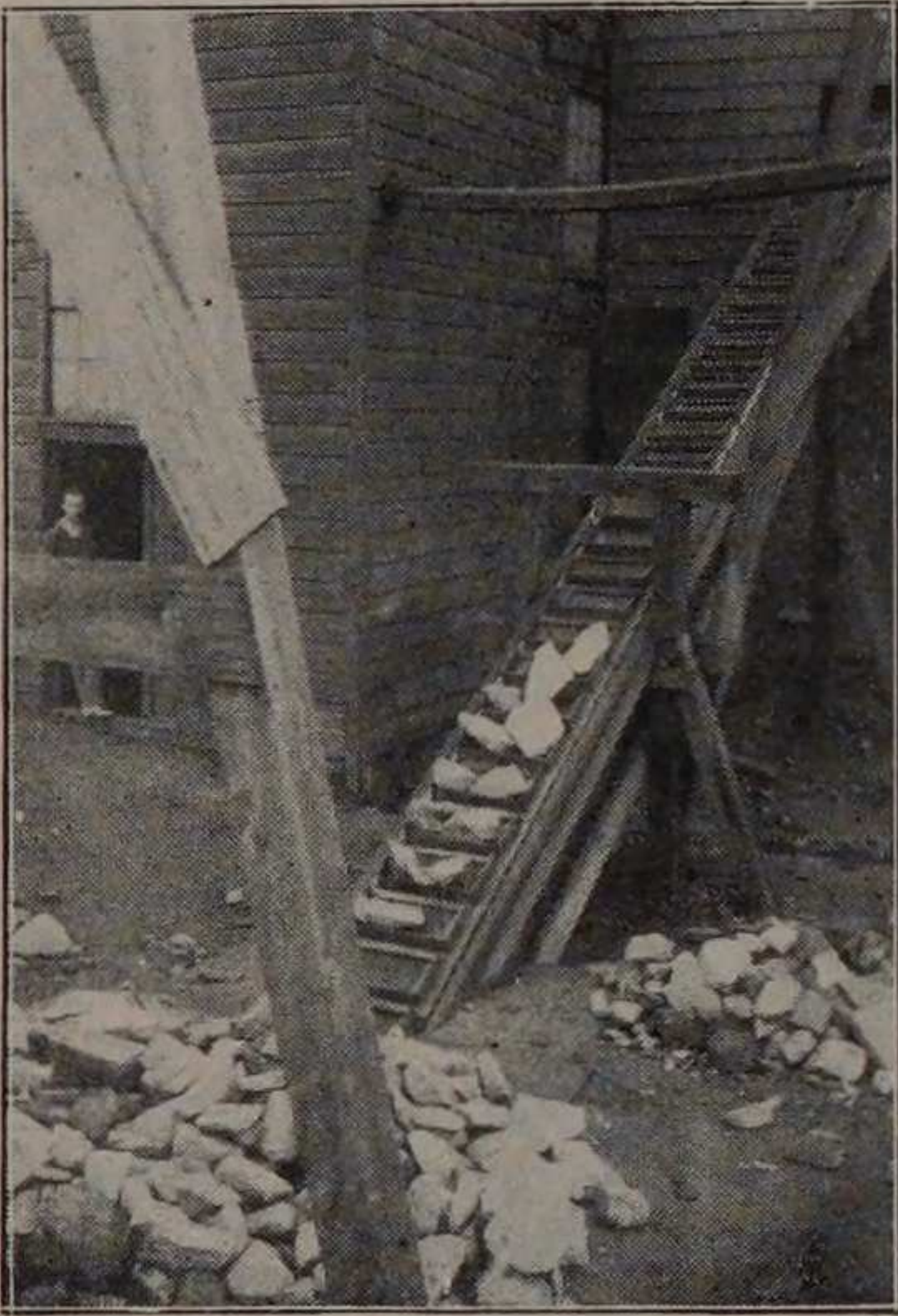
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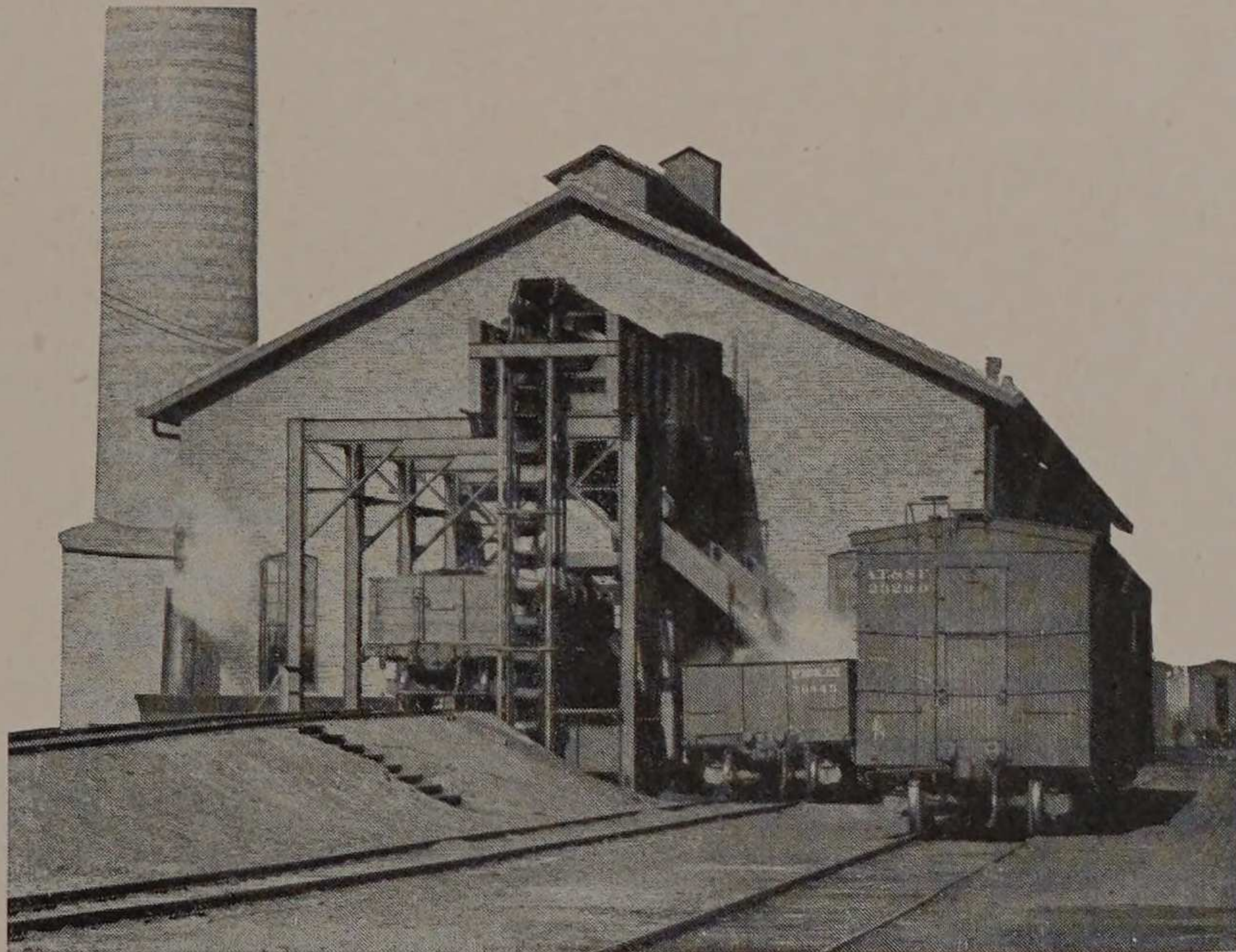
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AND
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IN
BOILER
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CHICAGO



Oct. 6—Annual Fall meeting of the Athletic Association. Three or four empty seats. Although strenuous efforts were put forth by Seniors, they failed to land a candidate.

Oct. 7—After a talk with the “Doc,” Artie decides that football is not good for him.

Oct. 8—Mandolin Club organized with Stem, '05, responsible.



Oct. 9—Chicago Day. Several celebrate. Delts have another smoker.

Oct. 12—Noticeable increase in building and paving activities. New sidewalk begun from Institute to Mission. All traffic blocked—partially.



Oct. 13—Inspection visit to see practical construction of a sidewalk. All classes excused, 12:30–1:00, and interesting talks upon cement and cement making were given by our most learned profs.



Oct. 14—Junior class in Fire Protection Engineering viewed fire of Standard Varnish Works. He was glad that the opportunity came so early in his course. Several others skipped classes also.

Oct. 15—Ex-President Cleveland lectured to college and academy. Dr. Frost mistaken for the president and cheered while entering.



Oct. 16—Prof. Leigh and Freshman football team are defeated by the Sophs., at the American League Park. Freshmen make a hit with their band and prove themselves good side-line artists.

Oct. 17—Academy walloped by Joliet football team 33-2.

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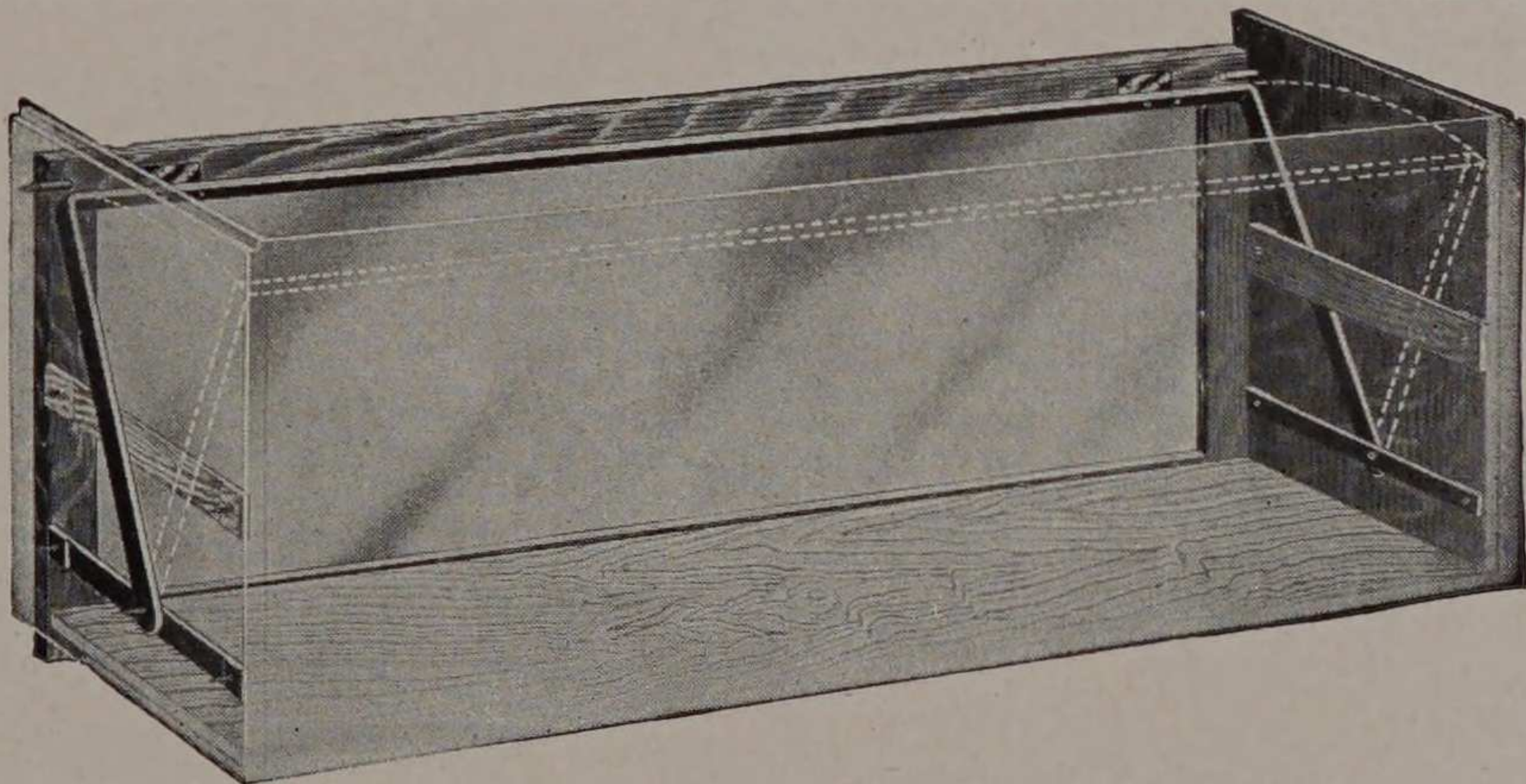
130 TO 168 FULTON STREET
63 TO 75 NORTH HALSTED STREET
67 TO 105 WAYMAN STREET

::

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Oct. 19—Blue Monday. Present Integral Board elected. Telegrams and messages of sympathy from King Edward, Pres. Roosevelt, Dr. Dowie, etc., etc.

Oct. 20—Sophomore Class appoint an auditing committee to lay bare the boodle charges against the three class smoker committees. Roberts' Rules of Order consulted. Committee died from inaction.

Oct. 21—First issue of *Fulcrum*. Phillistine outdone. Editor Wilson blames delay to printer's strike, mills not being able to supply paper, ink frozen, etc., but as we have been through the same trouble, we accept his apologies.

Oct. 22—Junior Class in Fire Protection raises a mustache; we predict a great future for this class, and have heard encouraging reports about the healthy appearance of that upper lip.

Oct. 23—Quite a few Armour lads and lassies went to Parker's dance.

Oct. 24—6 A. M. Deming gets home from dance, having traveled forty-six miles.

Oct. 26—Assembly. Mr. Chas. F. Hart and Mr. Stone, of the Nat'l. Assn. of Sta. Eng'rs., gave boys some good advice from the practical engineer. While Mr. Hart spoke of his bright future behind him, the boys felt that there ought to be much in store for him.

Oct. 27—Car strike begun. Johnson, Brackett and Redman threaten to run cars and thereby break strike, but at last reports they were still alive.

Oct. 28—Car strike still on. Boys quick to invent new excuses. Thompson, Hill, and Darling, the South Chicago trinity, have started a cross-country club. College starts basketball, A. I. T. 35—Englewood 13.

Oct. 29—Walking still good. Several Profs. on waiting list of Country Club. Prof. McClement talked on "Radium" before Chemical Club. What is it?

Oct. 30—Radical Club has banquet at the Union. Some uneasiness felt over late appearance of "Herb." Opera launched. Deltas give another smoker.

Oct. 31—Northwestern Military Academy take Armour Academy into camp in football.

MOTORS

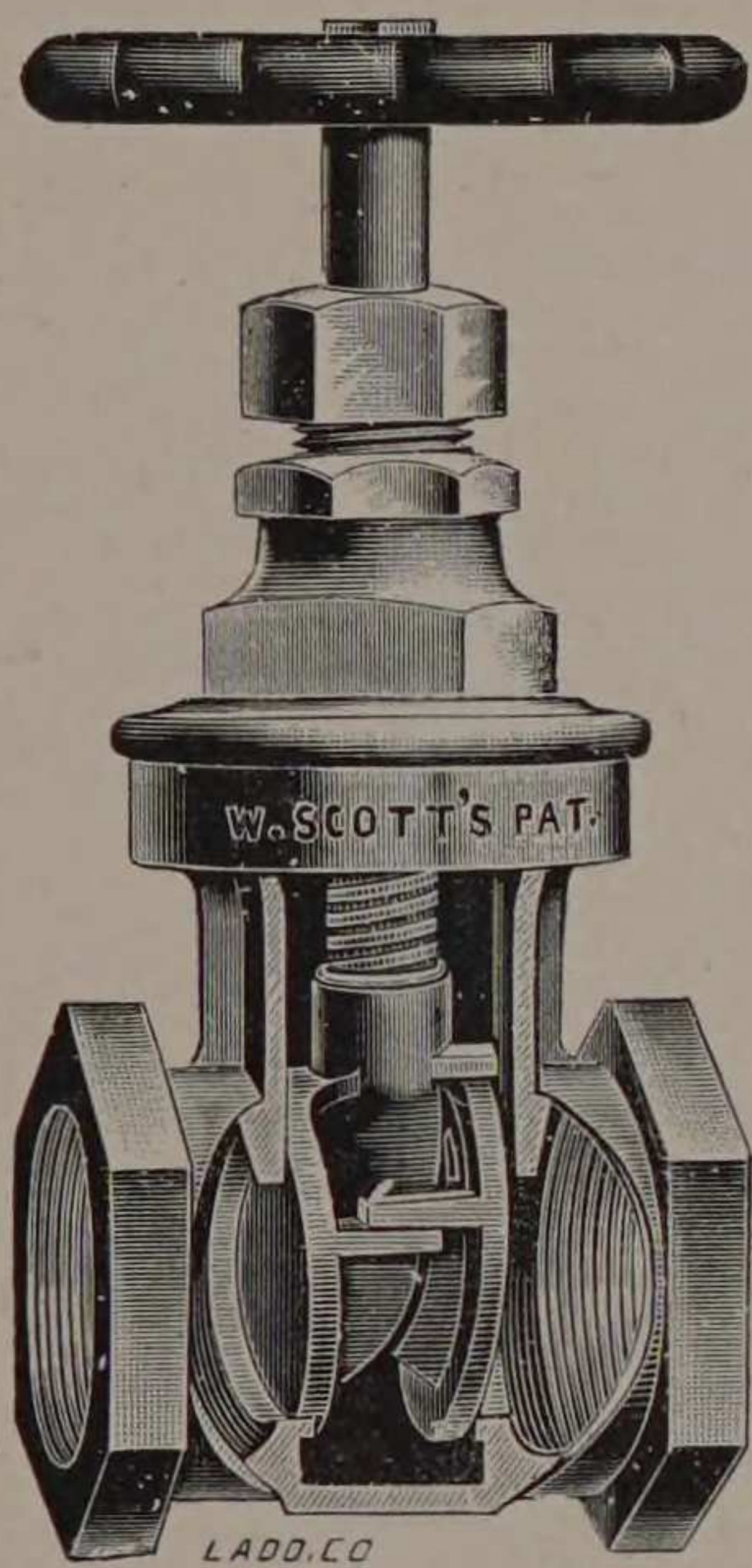
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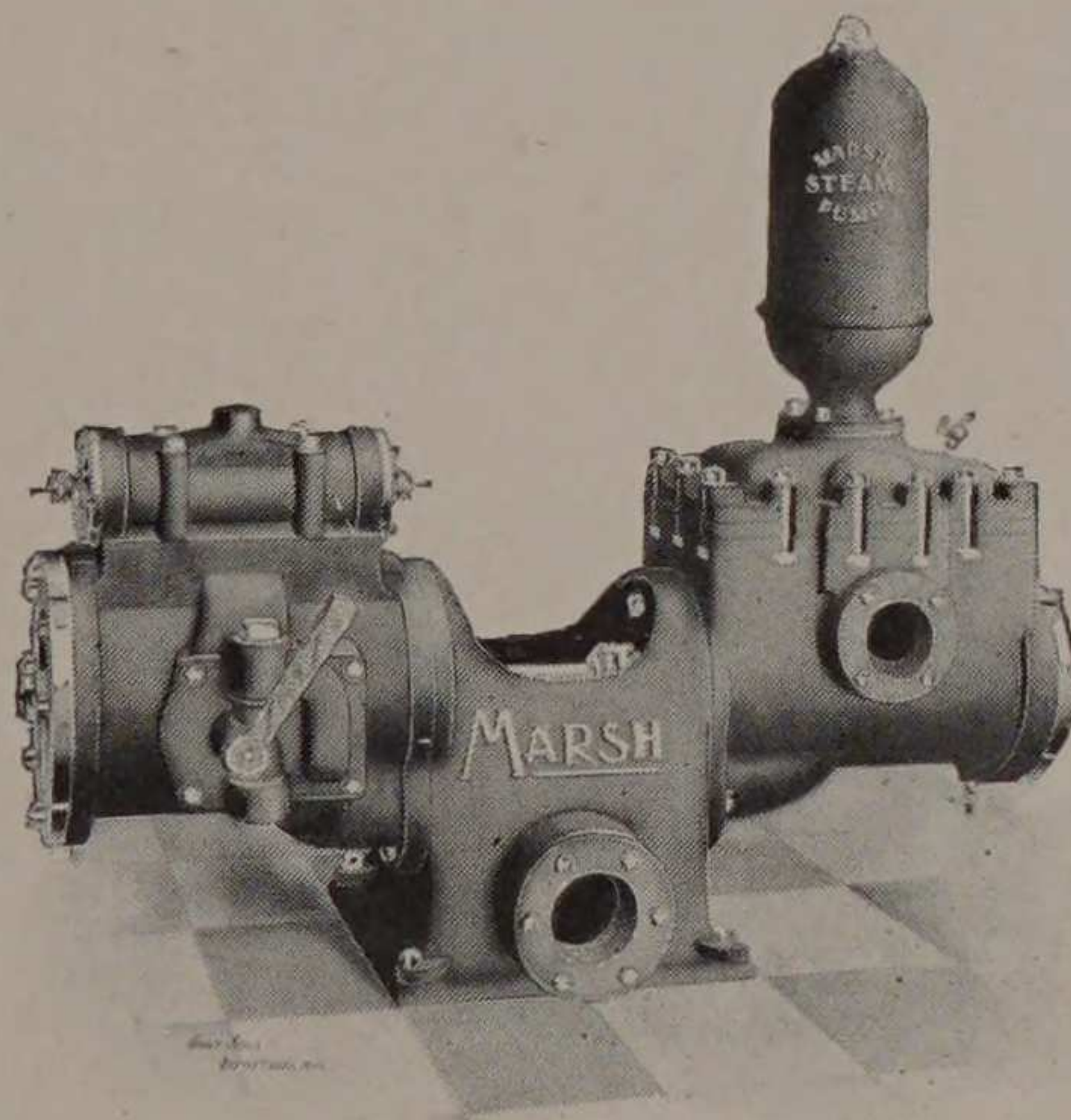
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CHICAGO



Nov. 2—Thompson in Mechanics, referring to Church, "He mentions it but leaves it out." Bright lad, he.

Nov. 3—Bryant got a new pair of shoes. Best on earth. From Ithaca of course.



Nov. 4—Young lady visitor in school while being shown around, innocently inquired, "Is that good looking young man a Freshman?" She was referring to Prof. Perry. We have printed this not knowing whether it is a compliment or not.

Nov. 5—Riggs's goat born. Incidentally another issue of the *Fulcrum*.



Nov. 6—Delta debating team chosen. Freshmen smoker in evening. Great success. '06 Rah-rah boys, make a hit. Omegas torture a victim.

Nov. 9—Ford, '06, is convinced that on one point he may be mistaken. Great rejoicing.



Nov. 10—First meeting of Glee Club. As usual, first tenors show up missing.

Nov. 11—Forging class with Mr. Creamer visit shops in South Chicago. Social committees meet Dr. Gunsaulus and arrange for year's output of surplus coin.



Nov. 12—Car strike still on. A few boys from the neighborhood of Normal Park have just arrived for last Wednesday's classes.

Nov. 13—Freshmen entertained at Art Institute by the "Doc." Senior Civils entertain their "Profs." at a banquet, and later see Ezra Kendal in the "Vinegar Buyer."

The Continental National Bank of Chicago

Statement at Close of Business March 28, 1904:

RESOURCES:

Loans and Discounts.....	\$26,139,086.69	
Stocks and Bonds.....	1,255,628.21	
		\$27,394,714.90
U. S. Bonds to secure circulation.....		50,000.00
Overdrafts.....		29,075.11
Real Estate.....		11,073.12
Due from Banks and U. S. Treasurer, \$	6,813,934.60	
Cash	8,216,699.51	15,030,634.11
Total		\$42,515,497.24

LIABILITIES:

Capital Stock Paid In.....	\$ 3,000,000.00
Surplus Fund	1,000,000.00
Undivided Profits	449,619.48
Circulation.....	49,500.00
Deposits	38,016,377.76
Total	\$42,515,497.24

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Nov. 16—First meeting of the Ladies' Aid. Mamie Buie chosen President and Margaret Meyer, '05, selected as Sec. and Treas.

Nov. 17—Badger (Regdab), had but seven articles in the *Fulcrum* on account of writer's cramp. Fash invented a device enabling one to study while walking to and from school. No serious danger as demand is small.



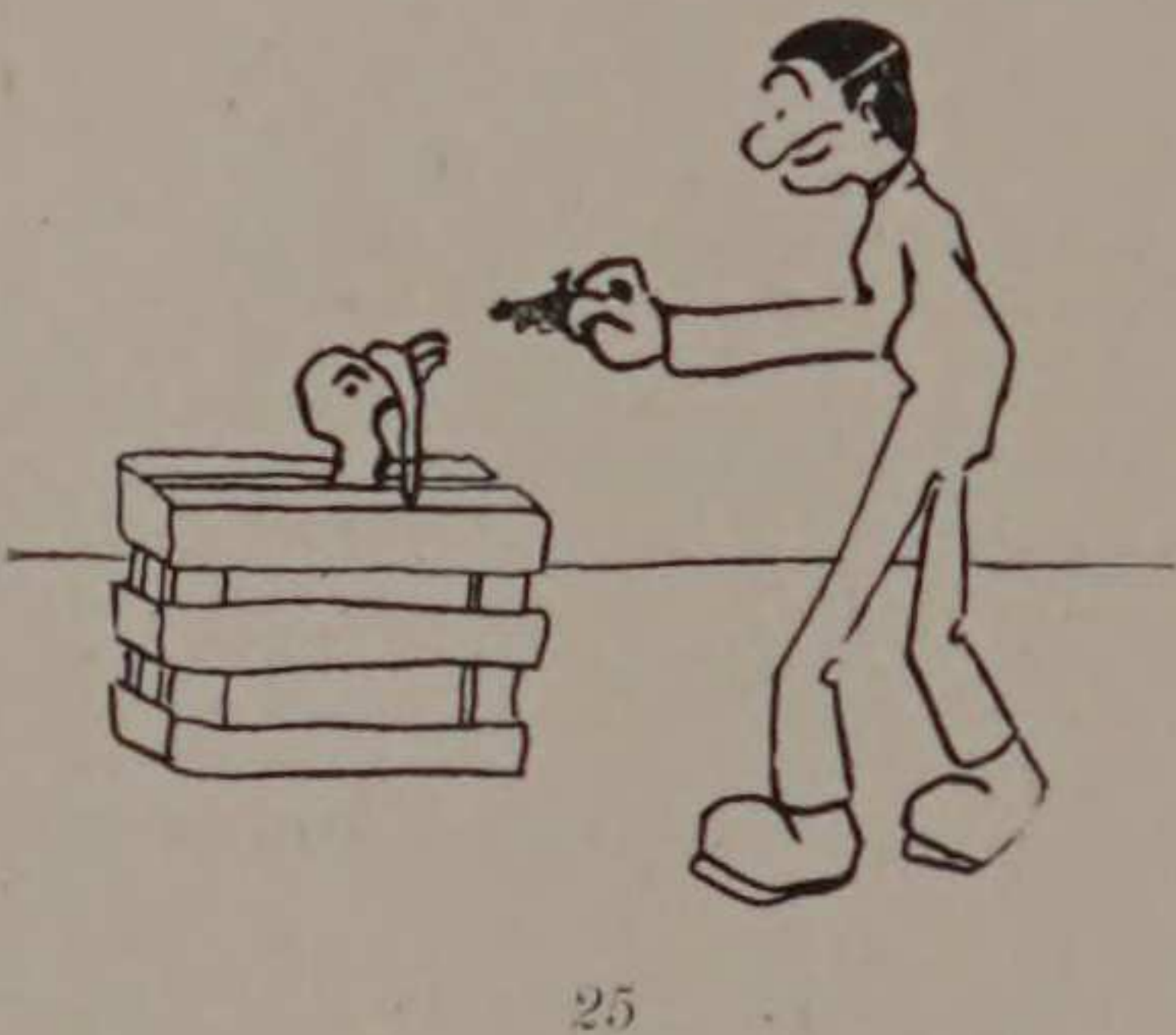
Nov. 18—Snowed. Nothing else.

Nov. 19—Secretary posts notice on bulletin board for meeting of Chemical Eng. Club on Nov. 26. As most of those interested decided they would not forego the pleasure of having Thanksgiving a holiday, the secretary was obliged to change date. Academy win a game from Oxford A. C.



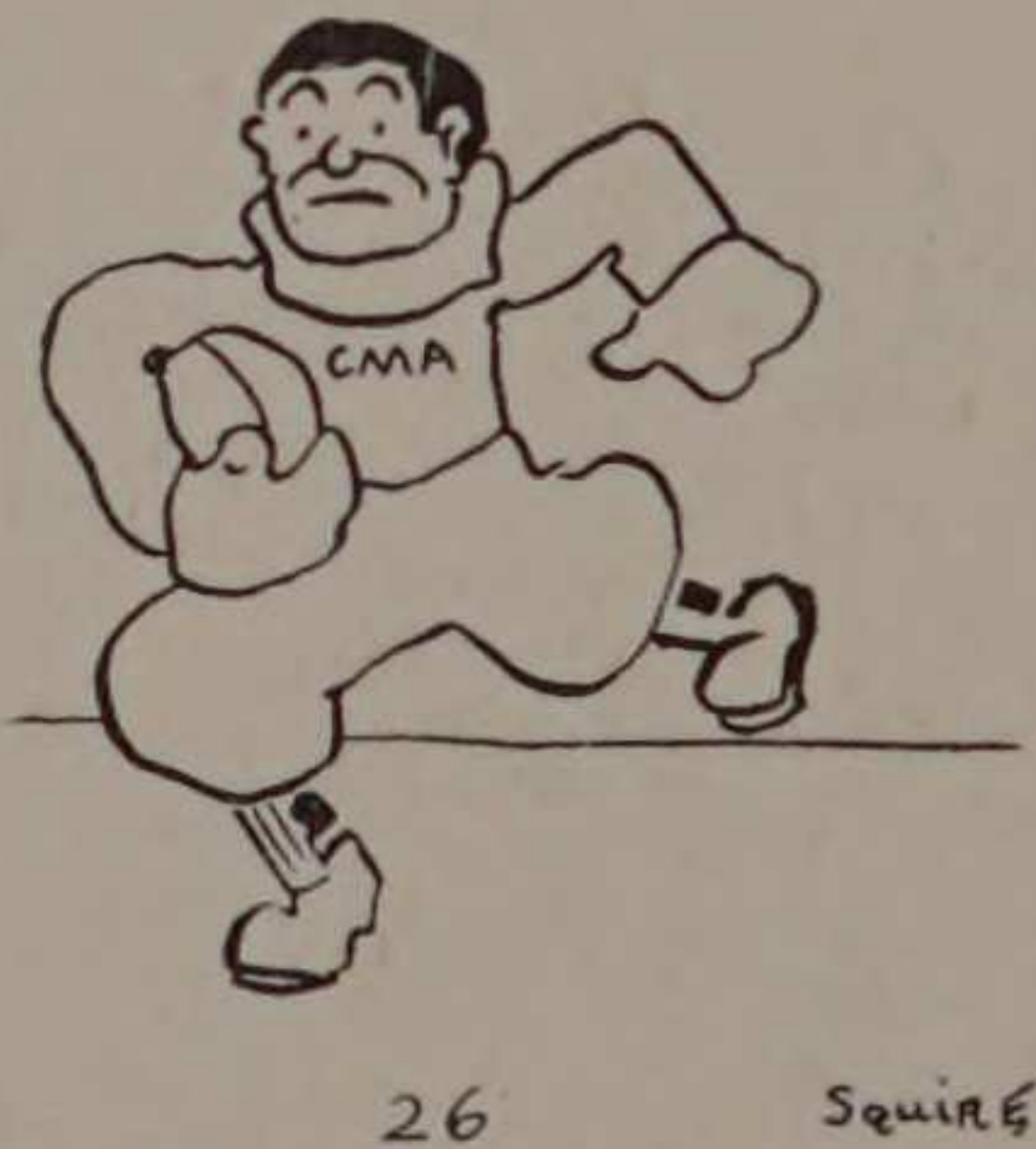
Nov. 20—Y. M. C. A. luncheon. Seniors entertained by Doctor Gunsaulus and find him an excellent host.

Nov. 23—Megaphone concert in Junior Lab. Harper has at last found his calling.



Nov. 24—Quiet day. Library crowded.

Nov. 25—Chemical Club meeting. Mr. Polychuck told about Phosphorescence and Fluorescence and other big words. Freshman arrested for shooting a turkey on State Street, but released on plea that he forgot he was in the city.



Nov. 26—Thanksgiving holidays. A hastily formed football team was lost in a heavy snowstorm at the Culver Military Academy's grounds. Awful result.

Nov. 28—Battis and Carpenter stay home, and Wheaton beats boys at basketball by a score of 47-20.



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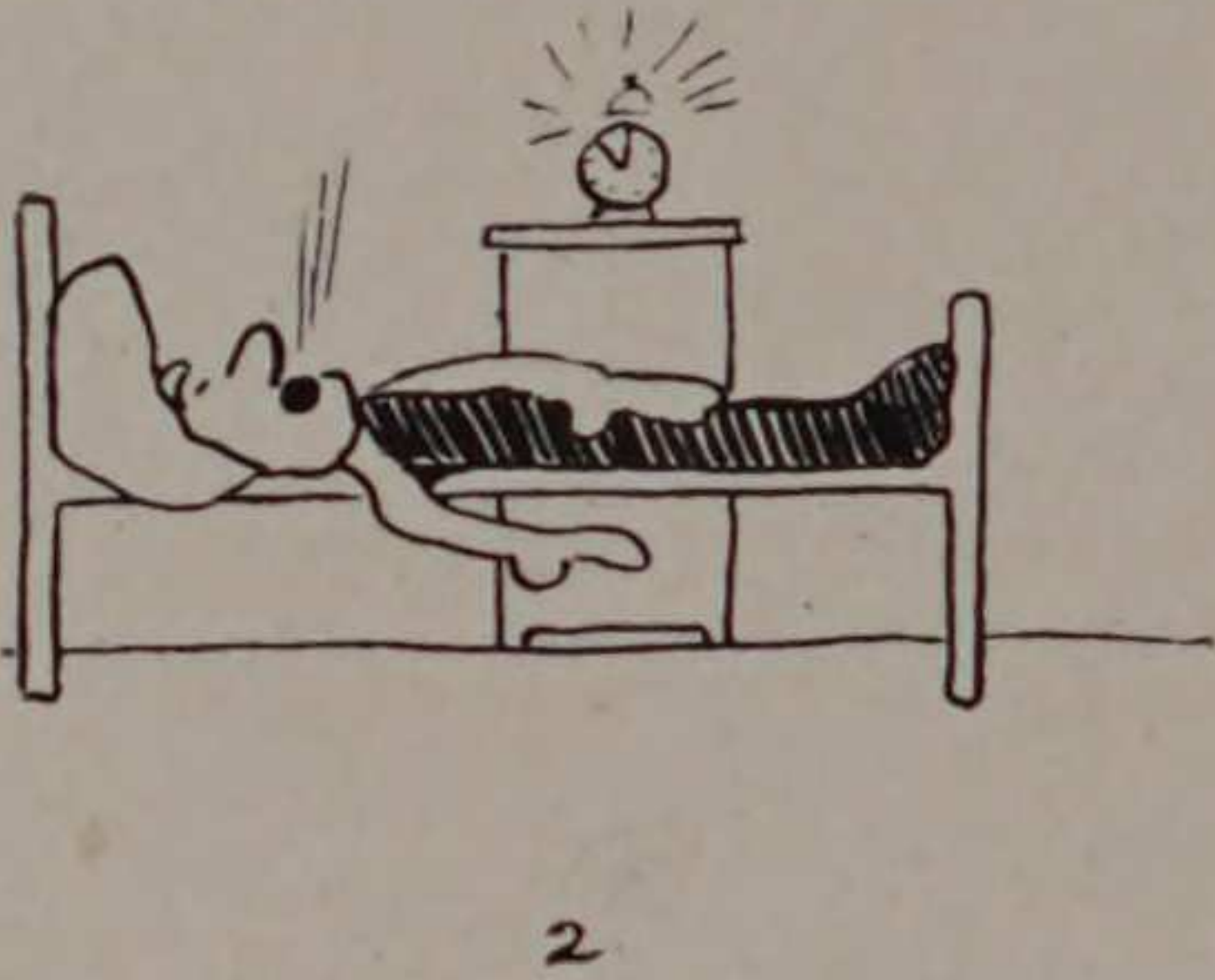
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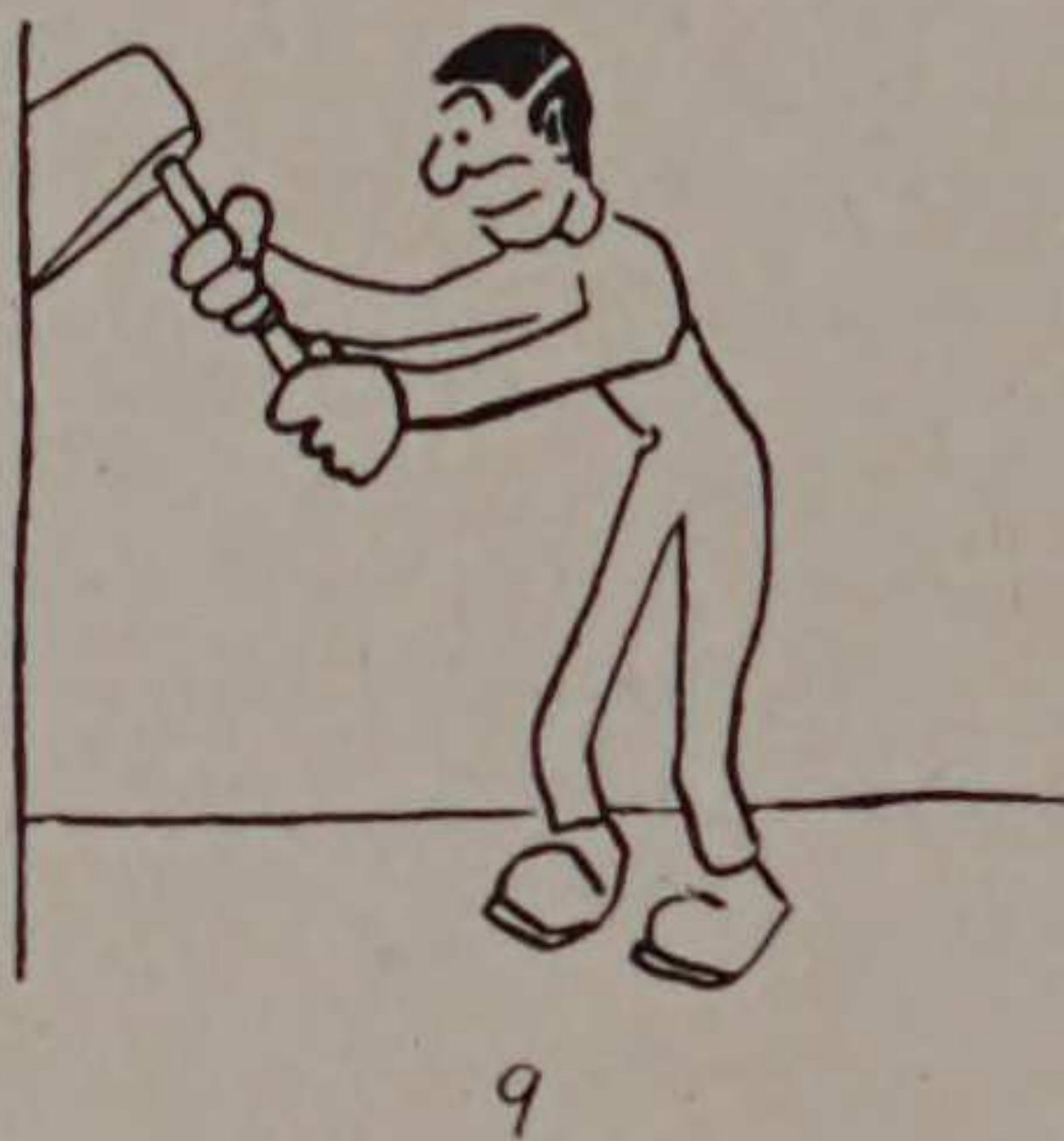


Nov. 30—Lindsay, just returned from Waukegan, forgot to tell any one about his credit account and how tiresome it was to tear off coupons and write checks.



Dec. 1—Iron and Steel Society organized. Mr. Creamer happy. We learn that Mr. Agle is going to start a society of his own.

Dec. 2—Heavy fog. Prof. Leigh arrived about 9:15 for his 8:30 class; excuse, elevated broke down. Good excuse but rather shopworn. He was probably lost in fog, or it was so dark he forgot to get up.



Dec. 3—"Sapho" discovered talking to a girl of the flats about 5:30 P. M.

Dec. 4—Girl turns out to be one of the Correspondence School ladies and "Culbie" is still interested in correspondence by mail and receives another lesson (we suppose) from the same teacher as last night.

Dec 7—Goetz works until quite late in the foundry. He likes work—and polo.

Dec. 8—Assembly, Doctor Gunsaulus on "Gladstone."

Dec. 9—Pete is locked up in his dressing room. Not to be denied, our gallant janitor chops his way out. Foiled again, ye Seniors.



Dec. 10—Senior Class meeting to discuss means of paying for broken glass.

Dec. 11—Dance at Rosalie Hall. Problem of paying for glass solved.

Dec 14—Freshmen begin to realize that it takes time to make up "descrip." plates.

Dec. 15—Walker found asleep in class. His name makes him tired.

Dec. 16—Exams.

Dec. 17—More Exams. Jens' brothers compare their chances as to number of flunks.

Dec. 18—Finish. Some few are in until to-morrow. Zuckerman entertains Senior Radics.



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5

Jan. 4—Registration day. Nothing exciting. Several Freshmen start a "Bachelors' Club," vowing to remain single even if asked to do otherwise this year.

Jan. 5.—Trouble begins. Box arrived at Registrar's office labeled "Wine" and sent to Mr. F. U. Smith. Evidently Mr. Smith did not have to sign the "pledge" when leaving his name and address with the Dean.



6

Jan. 6—Croskey seen to wander aimlessly about the streets from two o'clock until five as theatres are all closed, and so no Wednesday matinee.

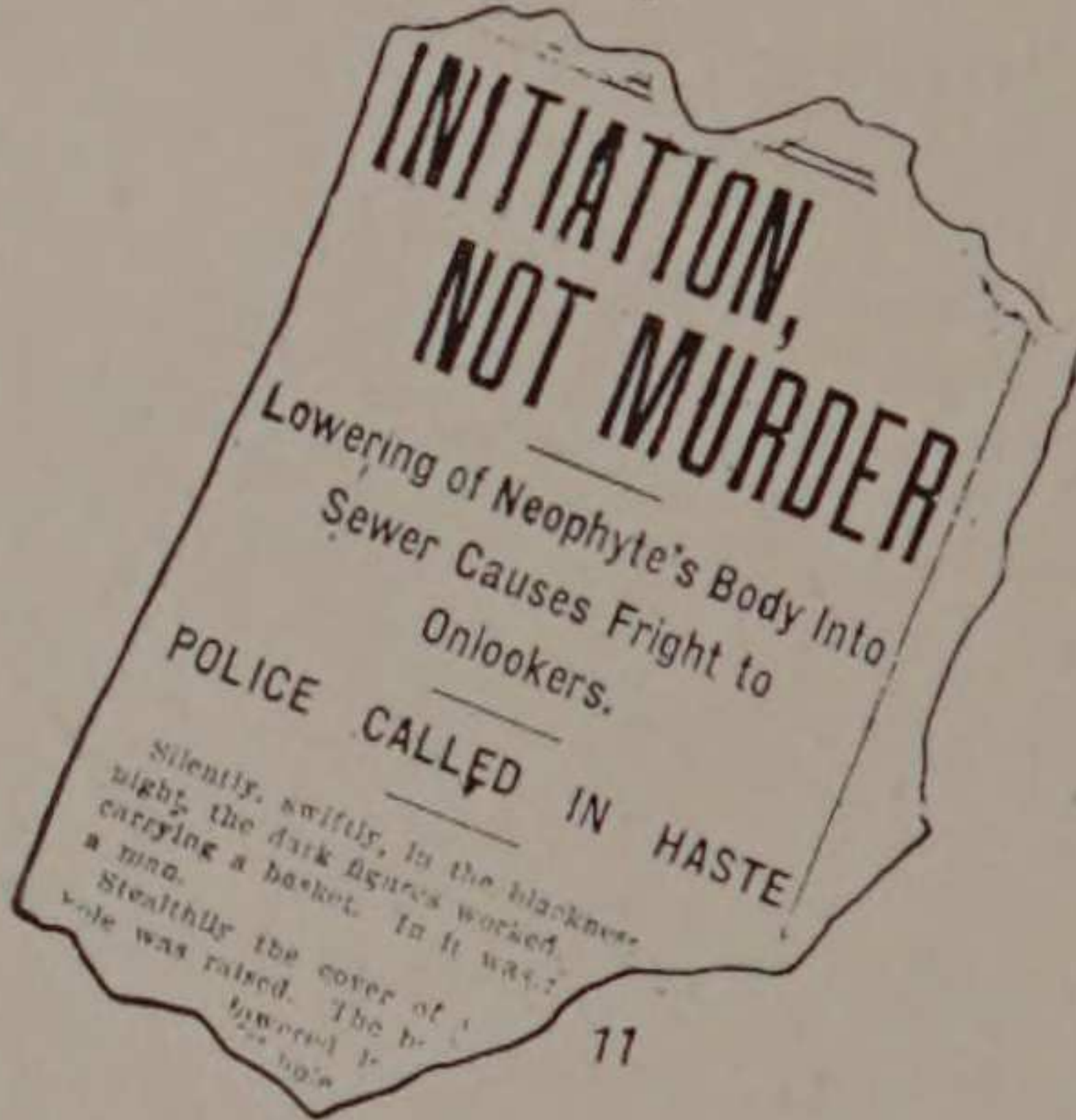
Jan. 7—Earliest (?) known date on which Roy Jens told his famous "Mrs. Yonson, he say" story.



8

Jan. 8—Sophomore informal out at Rosalie Hall. All doors, windows, transoms, etc., marked "exit" in large letters. No stage, but we all had a good time.

Jan. 11—Harper goes to see dentist. Good skating. (Bobbie lives three blocks from the park.) Phi Kapp's initiate Herbert Bangs and are nearly arrested for manslaughter. Still a mystery how person who saw tragedy found a policeman.



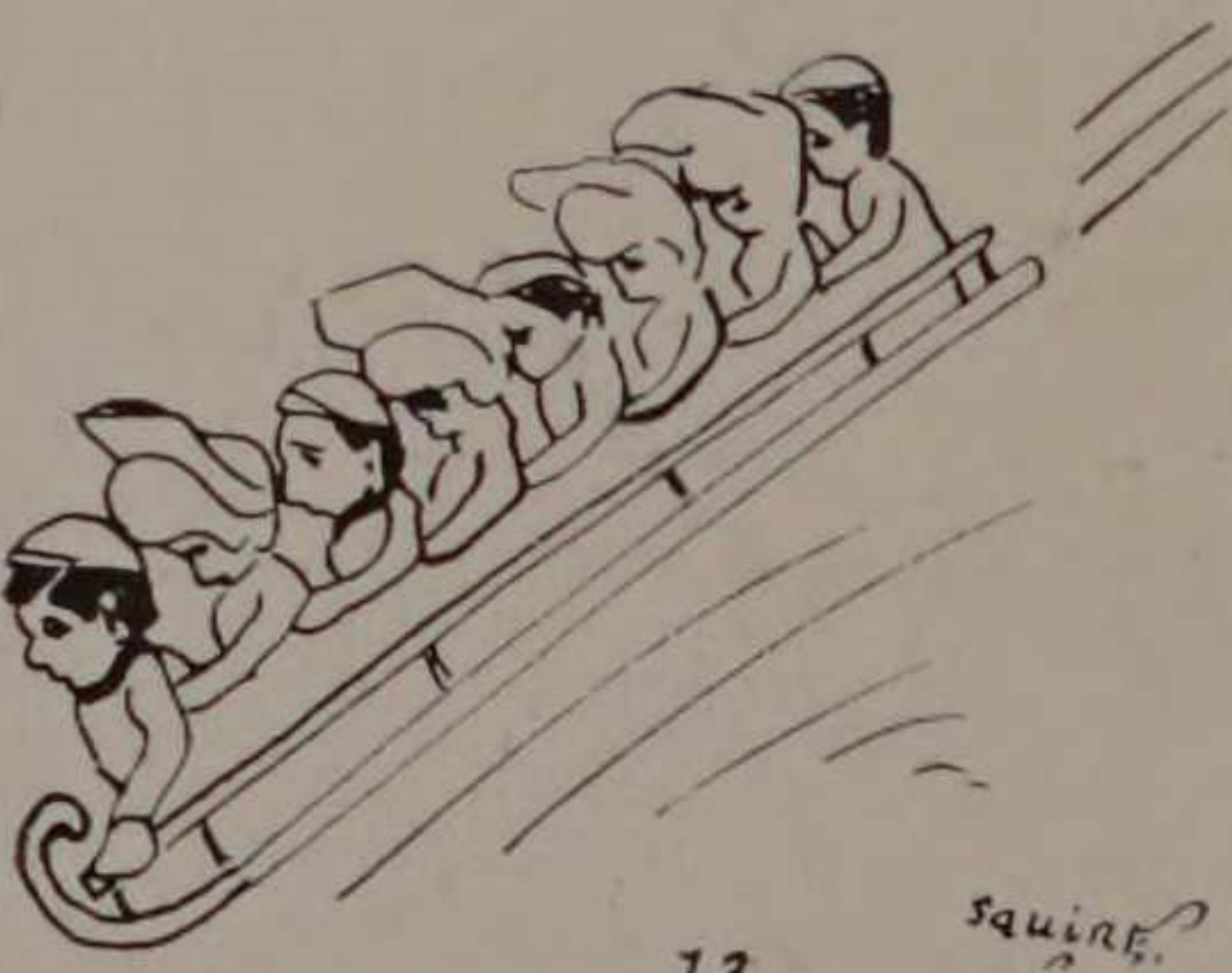
11

Jan. 12 —A correspondent school student visits chemical lab. and is made acquainted with college life. "Prof." Morris and "Comptroller of the Platinum Ware" Jens instruct him on the ethics of everything. Is last seen placing his application with Mr. Smith for membership in one of our "frats."

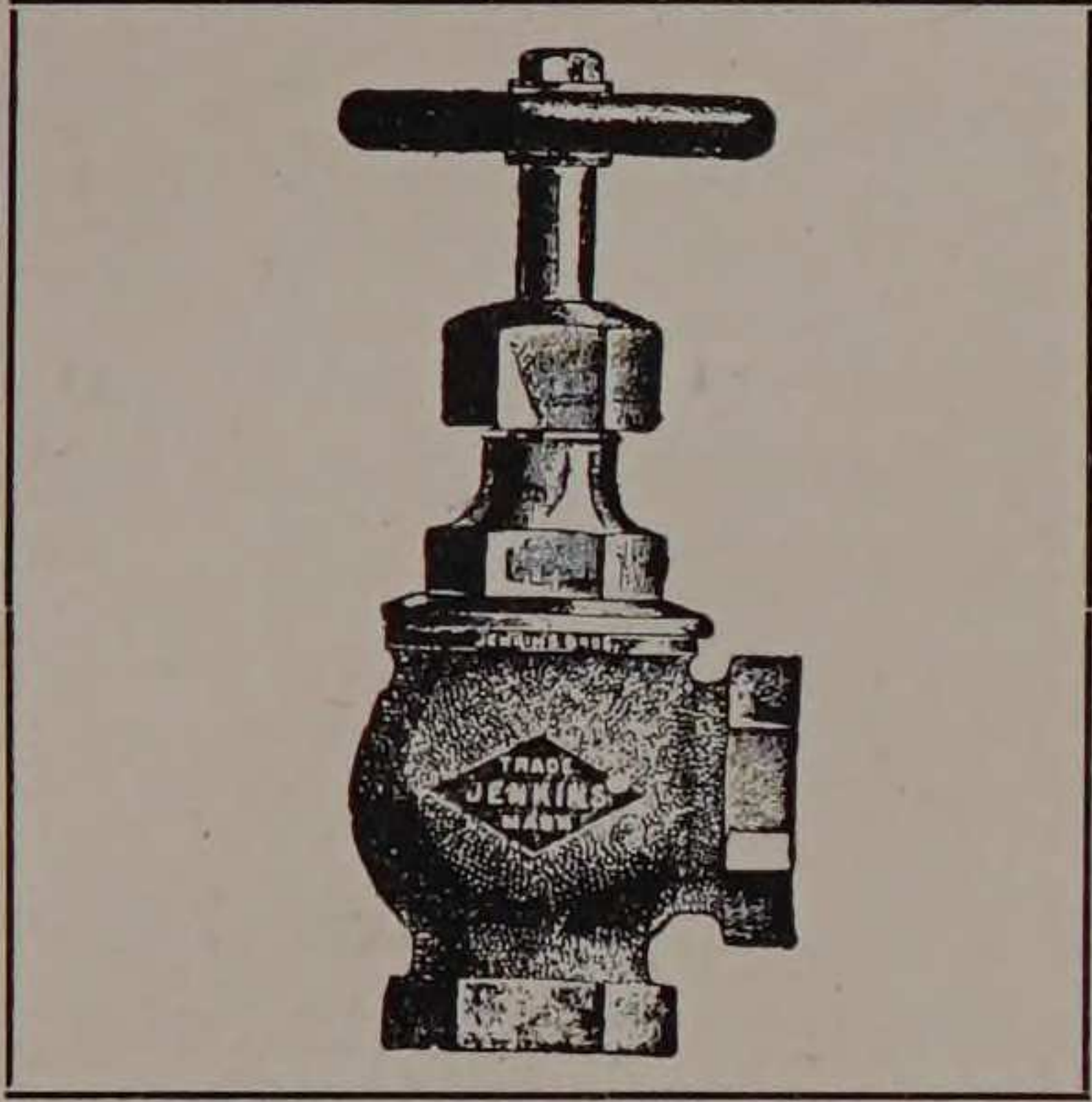
Jan. 13—Four Armour men of the flats go down tobogganing at the park. They rent a sled and soon there were eight.

Jan. 14—Two men, artistically inclined, find editor of this book and offer services.

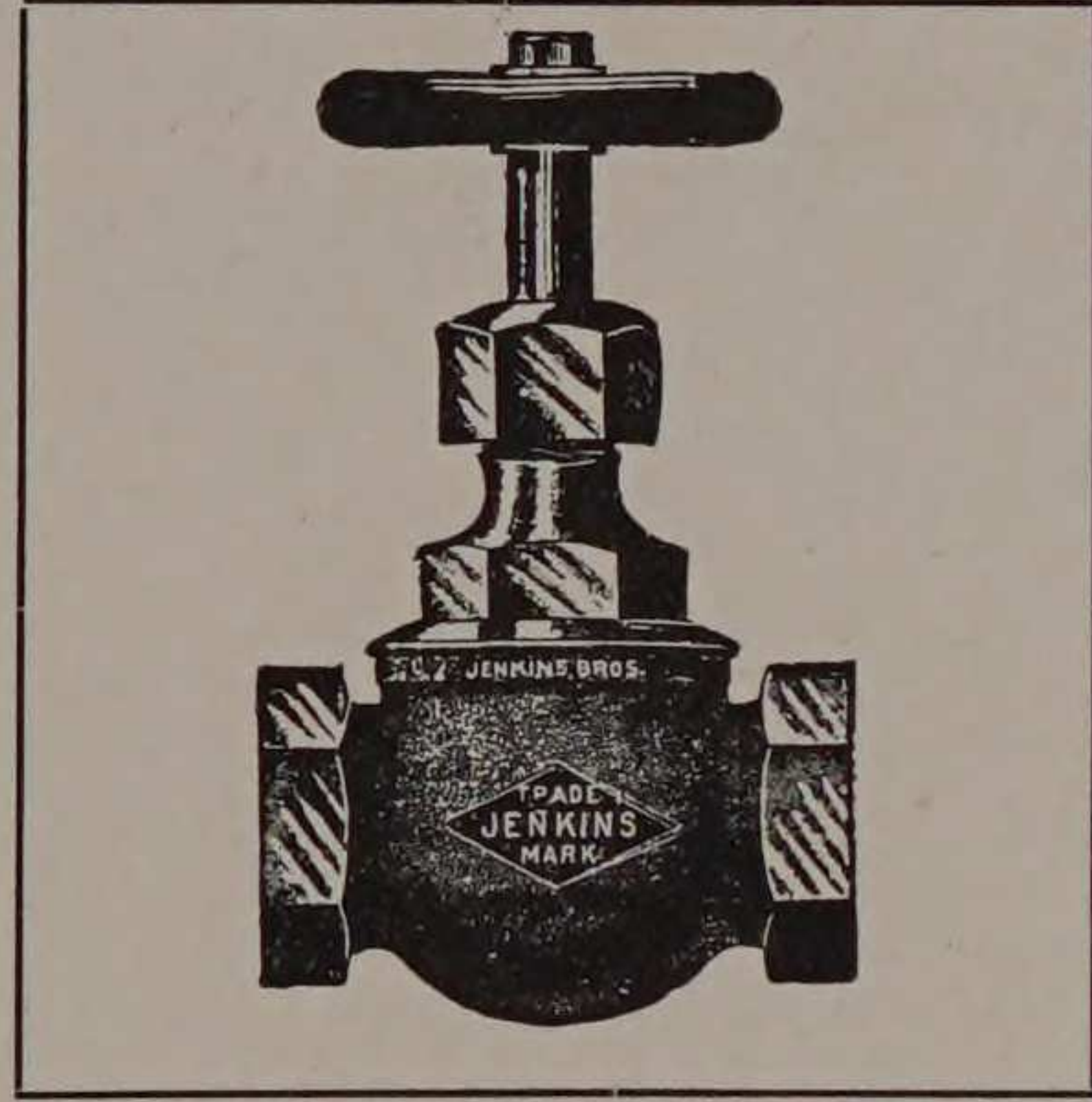
Jan. 15—A. I. E. E.'s meet, and after the usual wrangle adopt a constitution.



13



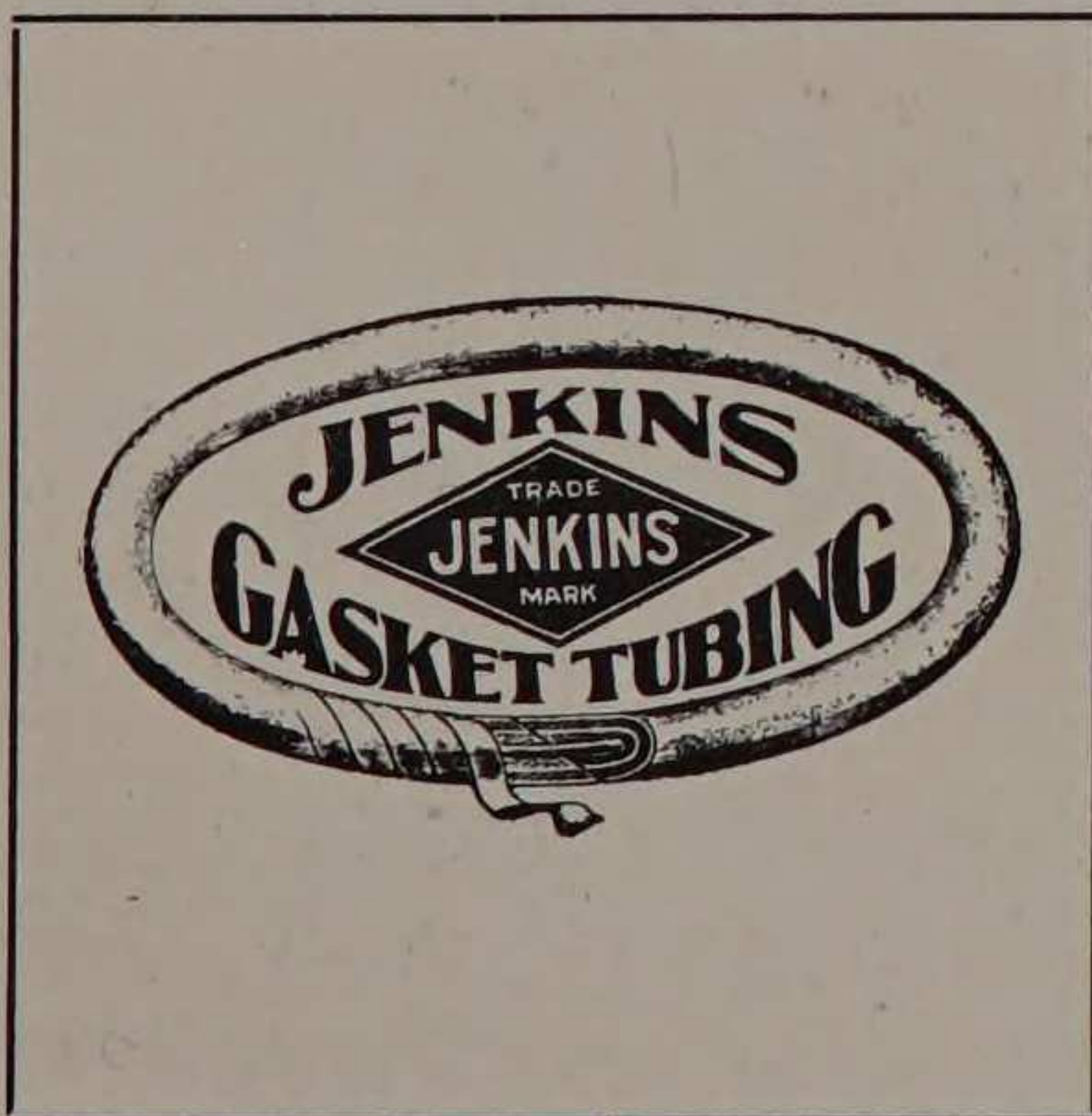
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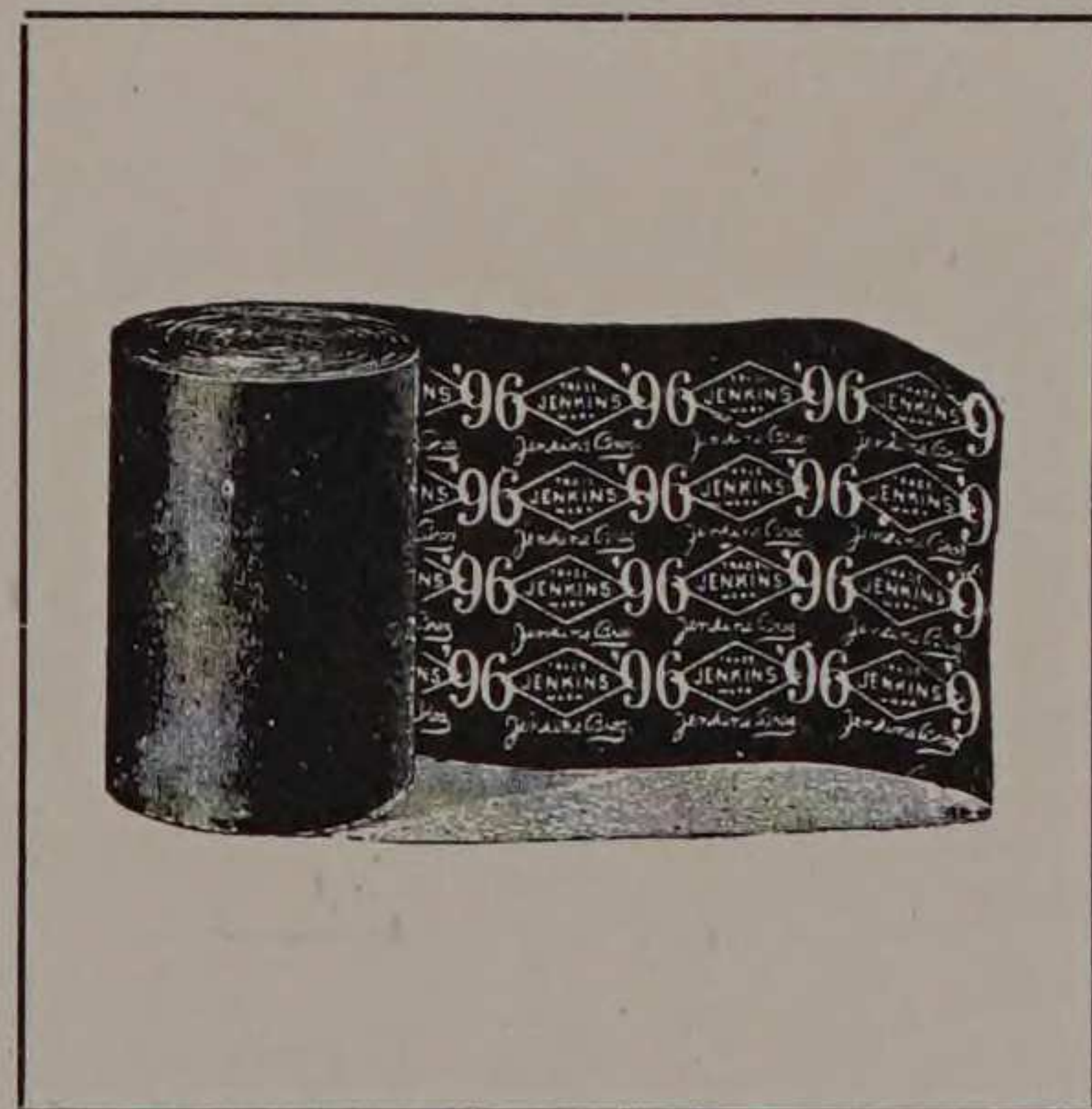
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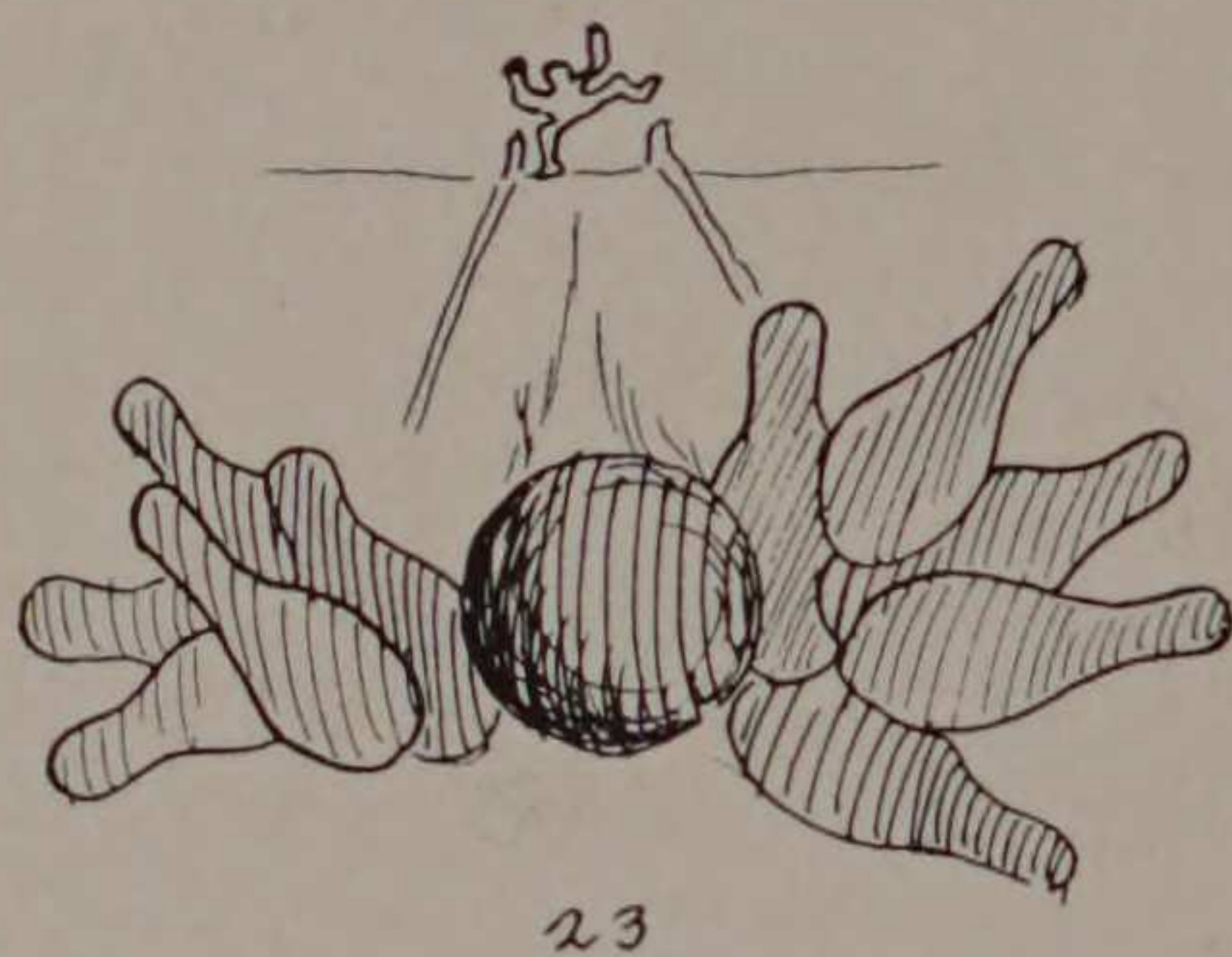




Jan. 18—Chan flunks in machine design.

Jan. 19—Chan fails to recite in physics.

Jan. 20—An Engineering Society is organized to succeed the old Technical Society. Prof. MacFarland gave a short talk on "The Utilization of Heat Energy in a Power Plant."



Jan. 21—Senior Academy Class go to city to have their picture taken. All, except two or three, enter elevated station through wrong door and cause quite a commotion.

Jan. 22—Senior Academy Class suspended indefinitely, owing to protests of Elevated Road. Radical X hold banquet at Union and entertain new Freshmen members. Some one relieves Jim Crawford of thirty cents and three cigars, maybe.



Jan. 23—"Tech." bowling tournament starts, the Juniors and Seniors both winning their matches. Lewy negotiates 256.

Jan. 25—So cold that nothing happened.



Jan. 26—Chemical Club meets and listens to talk on "Celluloid." In the evening the first team win from the Elgin Y. M. C. A. and second team loses. Academy reinstated.

Jan. 27—Engineering Society elect officers. Decided to have its scope broad and including all branches of engineering. All officers, but one, are mechanicals. Juniors and Seniors again win at bowling.

Jan. 28—Freshman Class meeting. All promise to be good if they can go to town for pictures.

Jan. 29—Freshman dance at Rosalie. Big crowd and class treasurer is not called upon.



Jan. 30—Sophs and Freshies battle for tail-end honors in bowling tournament. Seniors win from Juniors and so a tie results for first place. "Jimmy" Peebles averages $207\frac{1}{3}$.



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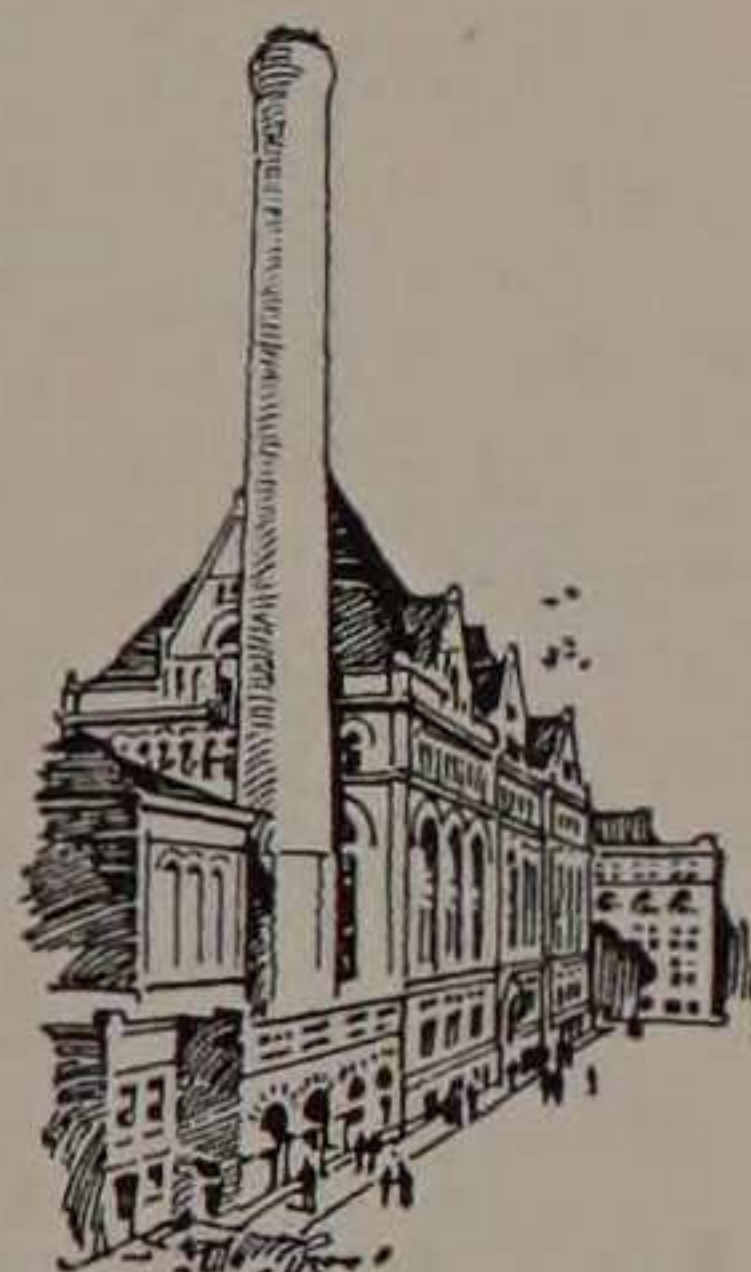
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Feb. 1—"Bill" Farmer wears a collar. (Class picture taken.)
English High beats Academy at basketball.

Feb. 2—All classes excused at 4 p. m. to see Haskel Indians take scalps of our best team, 33-18.

Feb. 3—Mr. Williams read Henry IV. to college and academy in the Mission. As Falstaff he was fine. *Juniors* again assume undisputed hold on first place by winning three games from the Freshmen.



Feb. 4—First signs of coming opera. Notices on board requesting singers, etc.

Feb. 5—Lundgren threw a basket in a game with the academy.



Feb. 6—Sophs go crazy, but only once, when they total 936. '05 and '04 win their series.

Feb. 8—Brubaker, under strong excitement, says "Gosh!"

Feb. 9—Talk on turbines by Engineering Society.



Feb. 10—Kretsinger gets his picture taken for Integral (3d time). Meets Frary waiting to sit for his 3d time. Juniors take two from Seniors, and Freshmen at last win a series in bowling tournament.

Feb. 11—Frary assumes lead in photo contest, to-day's sitting making his total score—4.



Feb 12—Lincoln's birthday. Rosenheim takes a party of six tobogganing, and has hard luck with center of gravity problem, as the C. of G. is continually leaving sled and scattering over the ice.

Feb. 13—Sophs lay down to Seniors in tournament.

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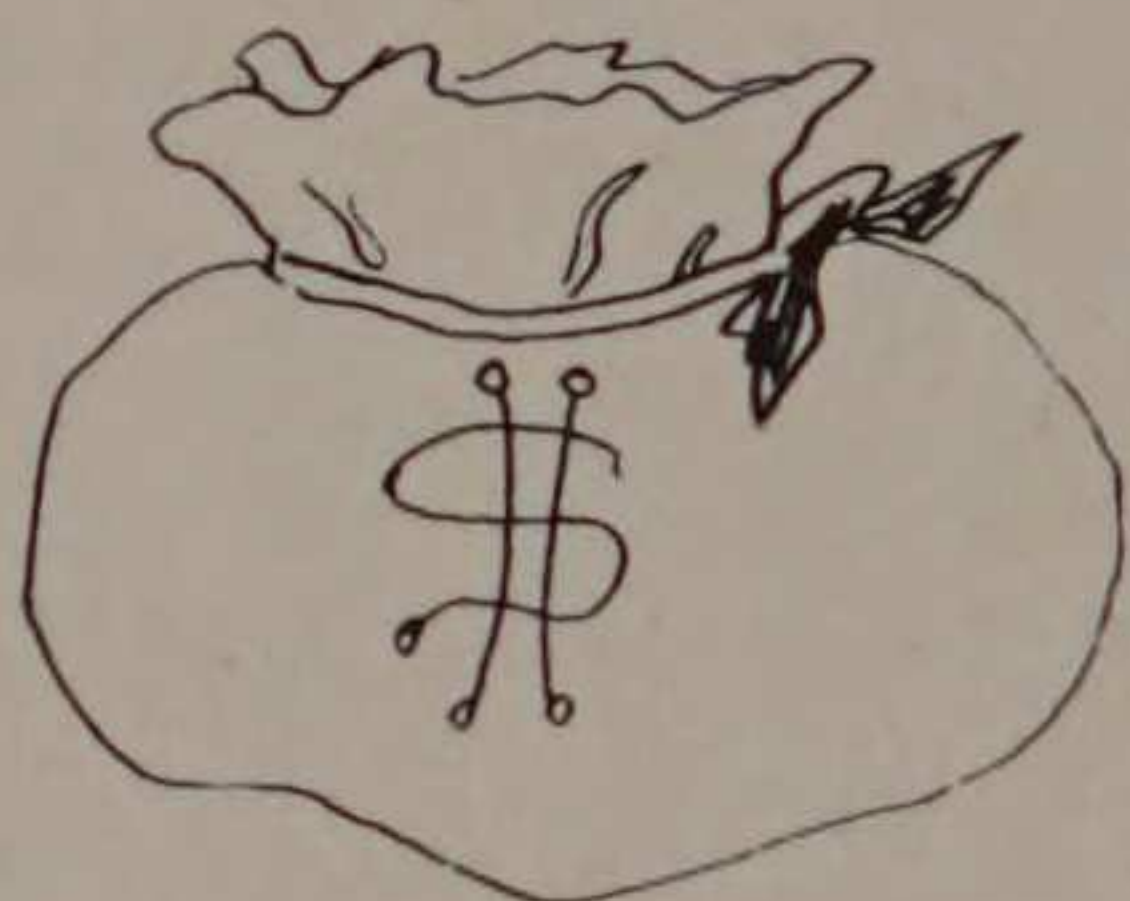
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16

Feb. 15—Juniors have faces taken. Carroll and Redman entertain a large and appreciative audience with some "curling iron" stunts. Krets is now tied for first in photo contest.



19

Feb. 16—Freshmen pose before camera. As building is to be torn down, bunch were welcomed as "every little helps." Basketball picture taken. Krets, 5; Frary, 4.

Feb. 17—66-37. That's what our team did to Lewis. Seniors take lead in tournament.

Feb. 18—A new musical instrument discovered in Junior Lab., the great "Bottleascope." Prof. McClement interrupts the printing of an attractive sign and promoters are forced to abandon scheme.



20

Feb. 19—Public announcement made of Mr. Armour's fine gift to the Institute of \$250,000 in the form of an athletic field.

Feb. 20—Bowling tournament ends with Seniors on top and Juniors second. Seniors roll high score of tournament.

Feb. 22—A holiday.



23

Feb. 23—Hon. Elihu Root gave an address in Mission. Celebrated Mr. Armour's recent gift in the evening with fireworks, parade, etc. Doctor, J. Ogden, and also the U. of C. were visited. Red fire, rooster and night-shirts much in evidence.

Feb. 24—Prof. Perry forced to omit his daily consultation with Carpenter.



25

SQUIRE

Feb. 25—Clasen, '07, occasionally known as "Prof.," is sincere in his effort to wear "mutton-chops." At first it was belived he only needed a shave. He must be in love.

Feb. 26—A. I. E. E. hold meeting and find out that three phase generators are relics of the past and also that turbines are *the* thing. Junior "Prom." well attended at Unity Club House.

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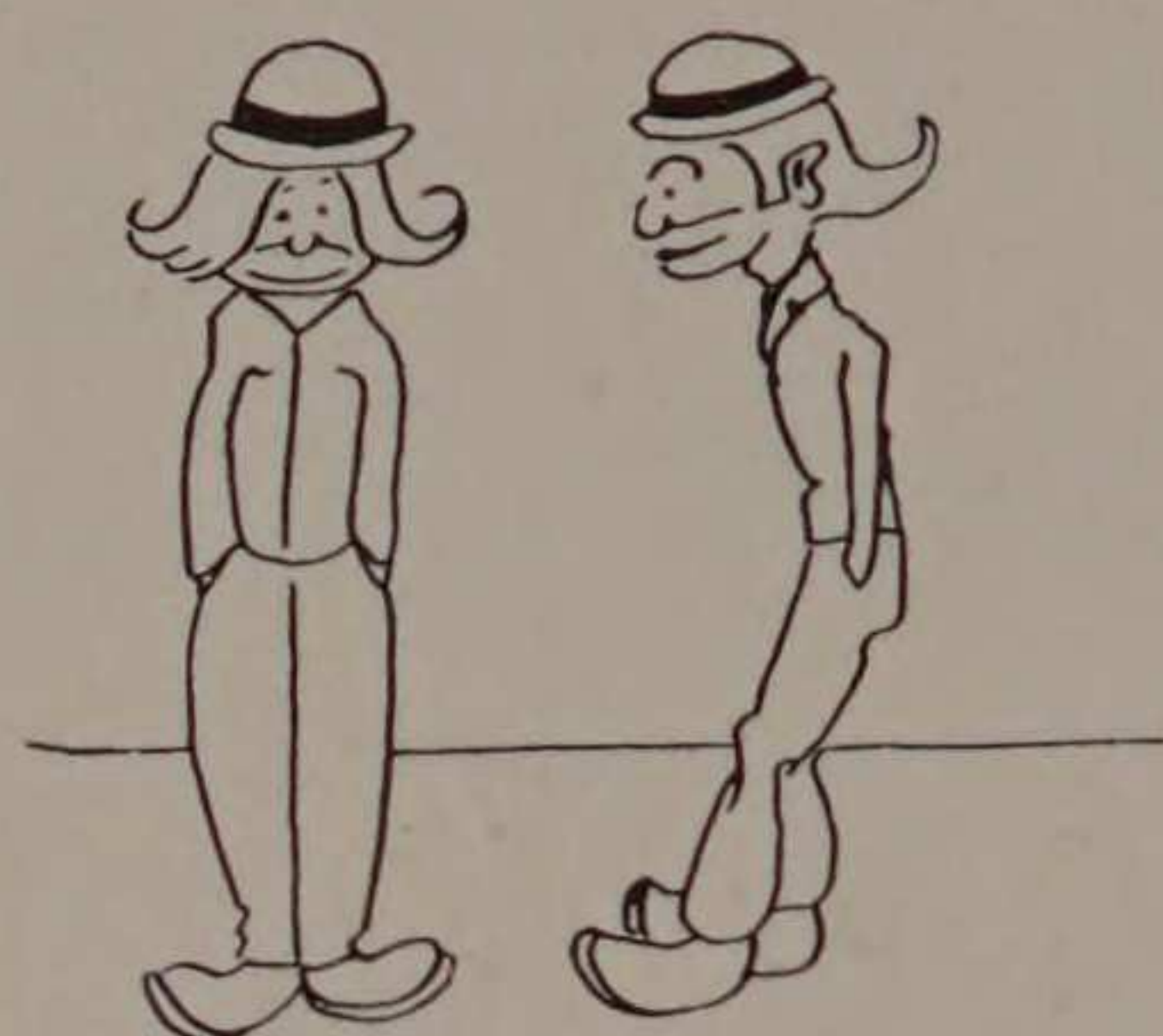
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3

Feb. 29—Academy and College both find easy picking in two high school teams.

March 1—One man hurt for remarking it looked a little like spring. Mr. Levings (not Louis, but his papa) relates a few things to the Sophomore Civil Society.



4

March 2—Malcolm visits class in theoretical mechanics.

March 3—Focht and Schaedlick announce that as soon as the weather moderates a bit, they will have their hair cut.

March 4—Mr. McColloch tells upper class men about negligence. Mr. Robert Draper, late of Armour, visits the Institute, and after being sold tickets and subscriptions to everything, eats dinner with us. From his bill of fare, we judge that, during Lent, he has denied himself almost everything.



8

March 5—Two-man bowling tournament at the Armory. Frary and Goetz are the winning combination, with Peebles right there with an individual average of 198 for five games. He was certainly after the ball and he got it, too.

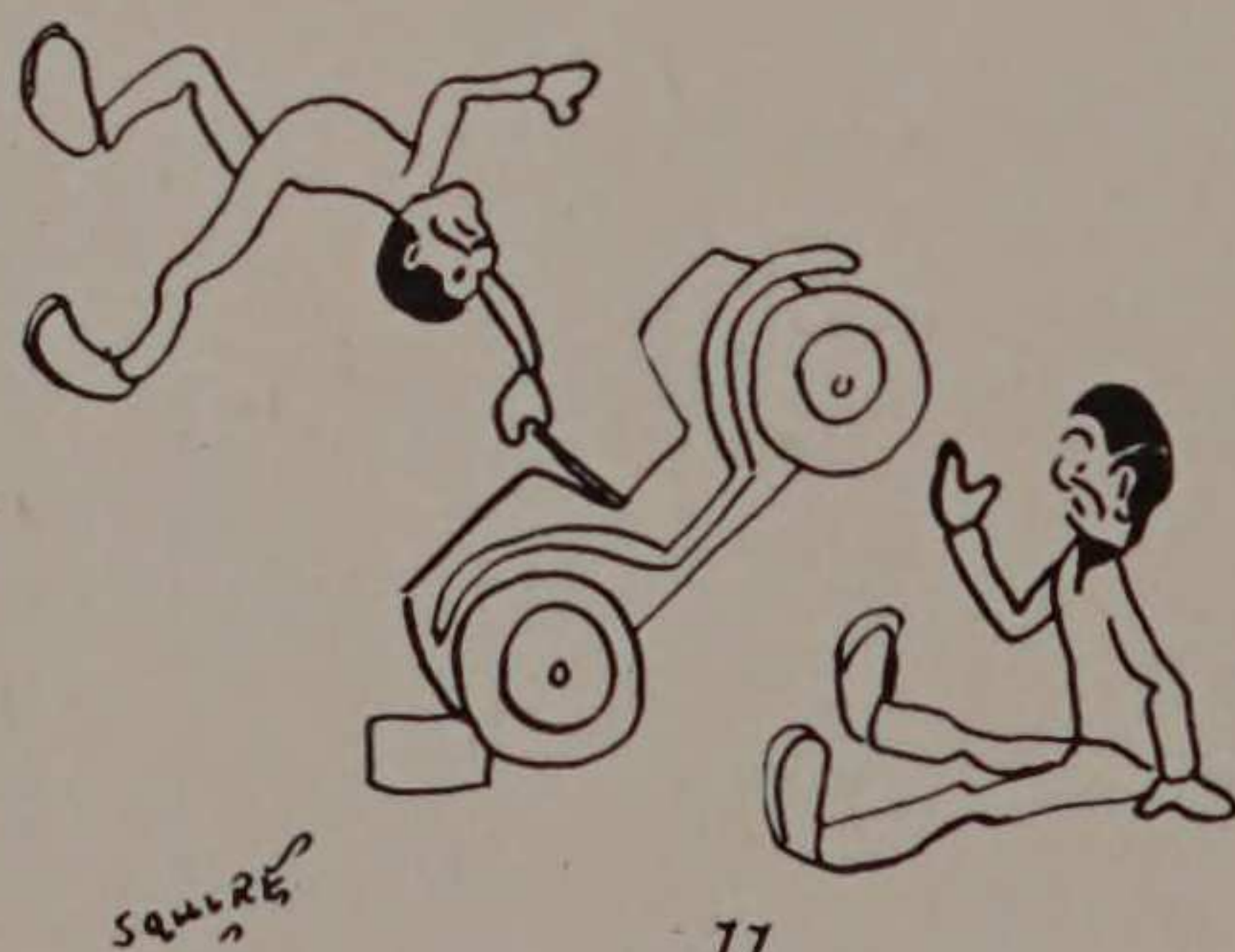


9

March 7—Freshmen placard laboratories with signs having a sweet appearance. No causalities.

March 8—Brock omits his daily smile.

March 9—Underwood gets "called down," while talking of John Smith, '05. Why don't they install a long distance telephone?



17.

March 10—Messigman arrives at machine design fifteen minutes late instead of ten.

March 11—Willard and Torrance, automobile experts, try to get to town. After breaking two machines they decide to wait until Monday.

Armour Institute of Technology Chicago

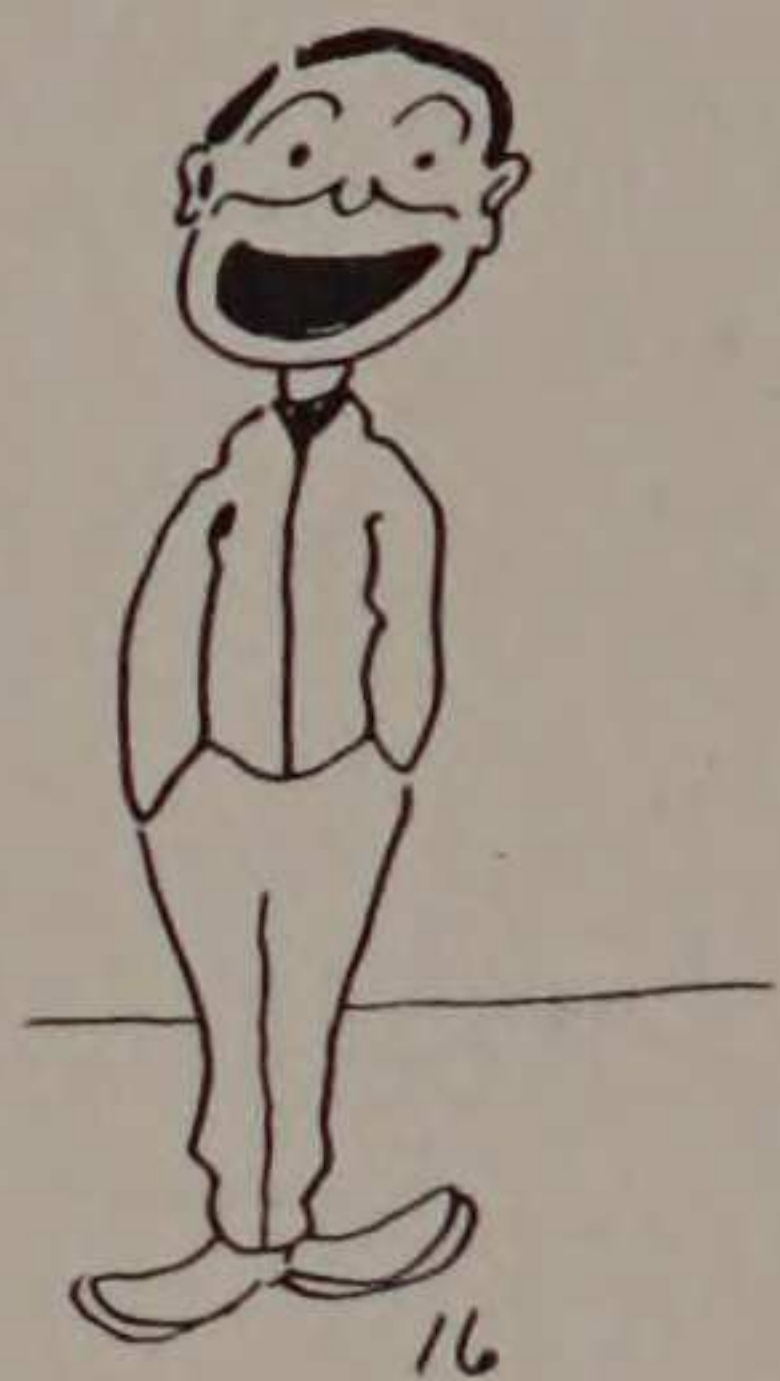
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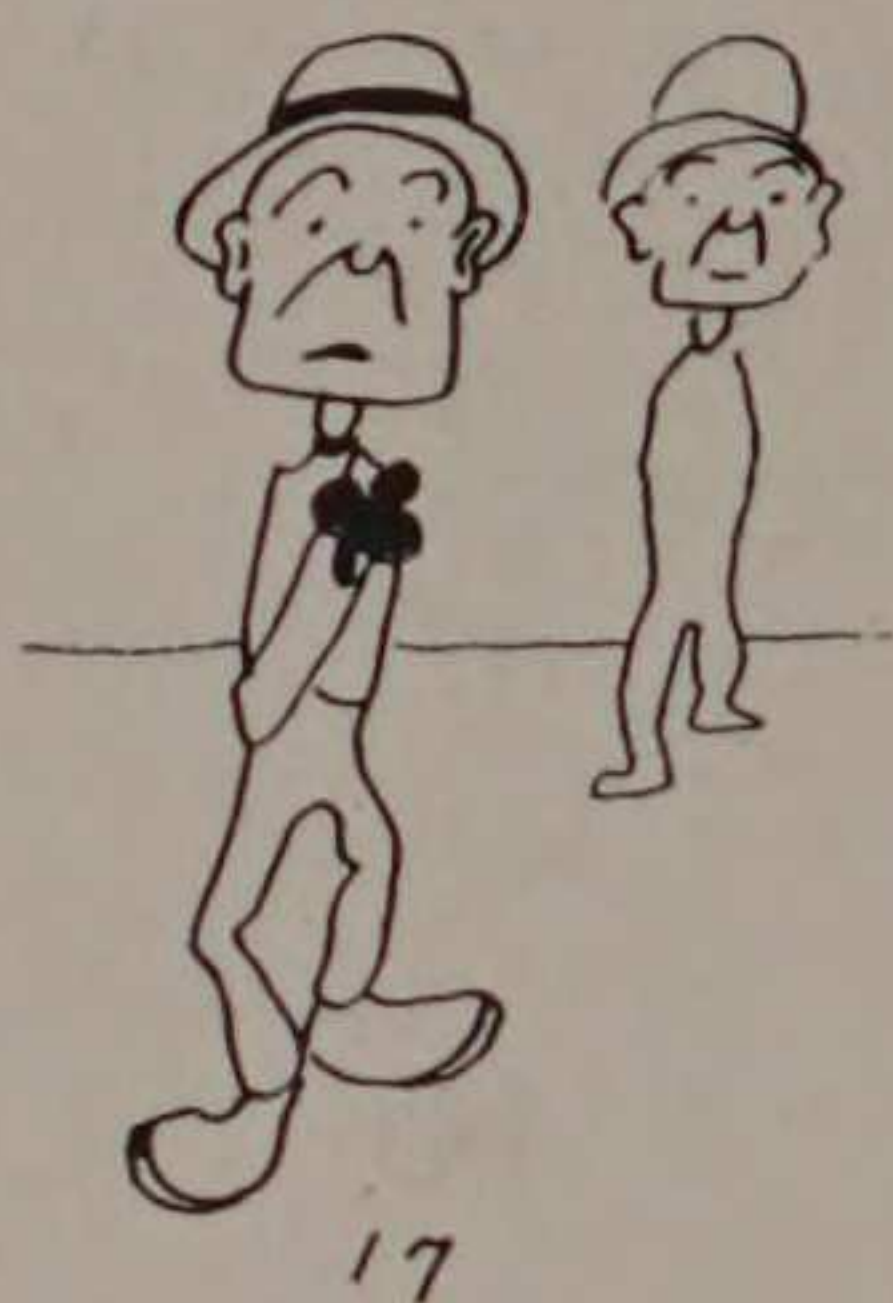
The Institute Year Book, the Circular of the Evening Classes or the Circular of the Summer School will be sent upon application.



March 14—Heavy snowstorm. Gaylor soils his hands.

March 15—Iroquois and Baltimore fires discussed from an underwriter's view point by Mr. Merrill, of the Chicago Underwriters Assn.

March 16—Keith tells a good joke.



March 17—"Brite and fare." Morrison's bluff works. Byrne, McBurney, Flanagan, Murphy, Kilkenny and others excused early.

March 18—Radical dance at the Colonial Club enjoyed by 175 couples. Zuckerman entertains a small party after dance.



March 21—Houghton wakes up long enough to talk back.

March 22—Spring really in evidence. Baseball candidates called together.



March 23—Ex's begin. Frank and "Billy" carry chairs to the top floor. Pres. Humphreys, of Stevens' Institute, talks to College on the "Business Side of Engineering."

March 24—Worse and more of it.

March 25—Ditto. A quartette entertains in main hall and also in "gymn." History "exam." benefited.

March 26—Morris becomes a papa. Nine pounds.



March 27—Sunday—A good day to stop.

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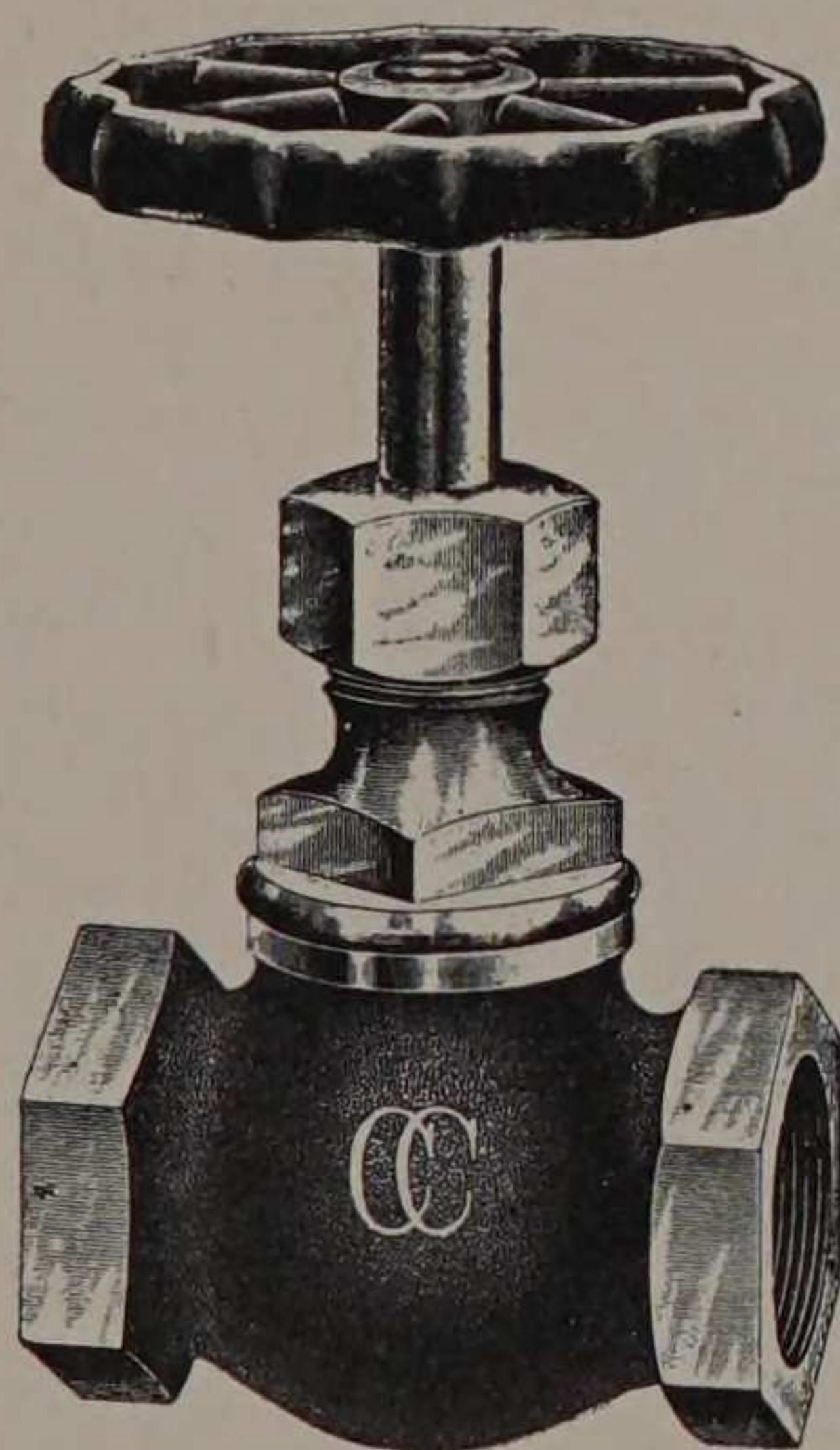
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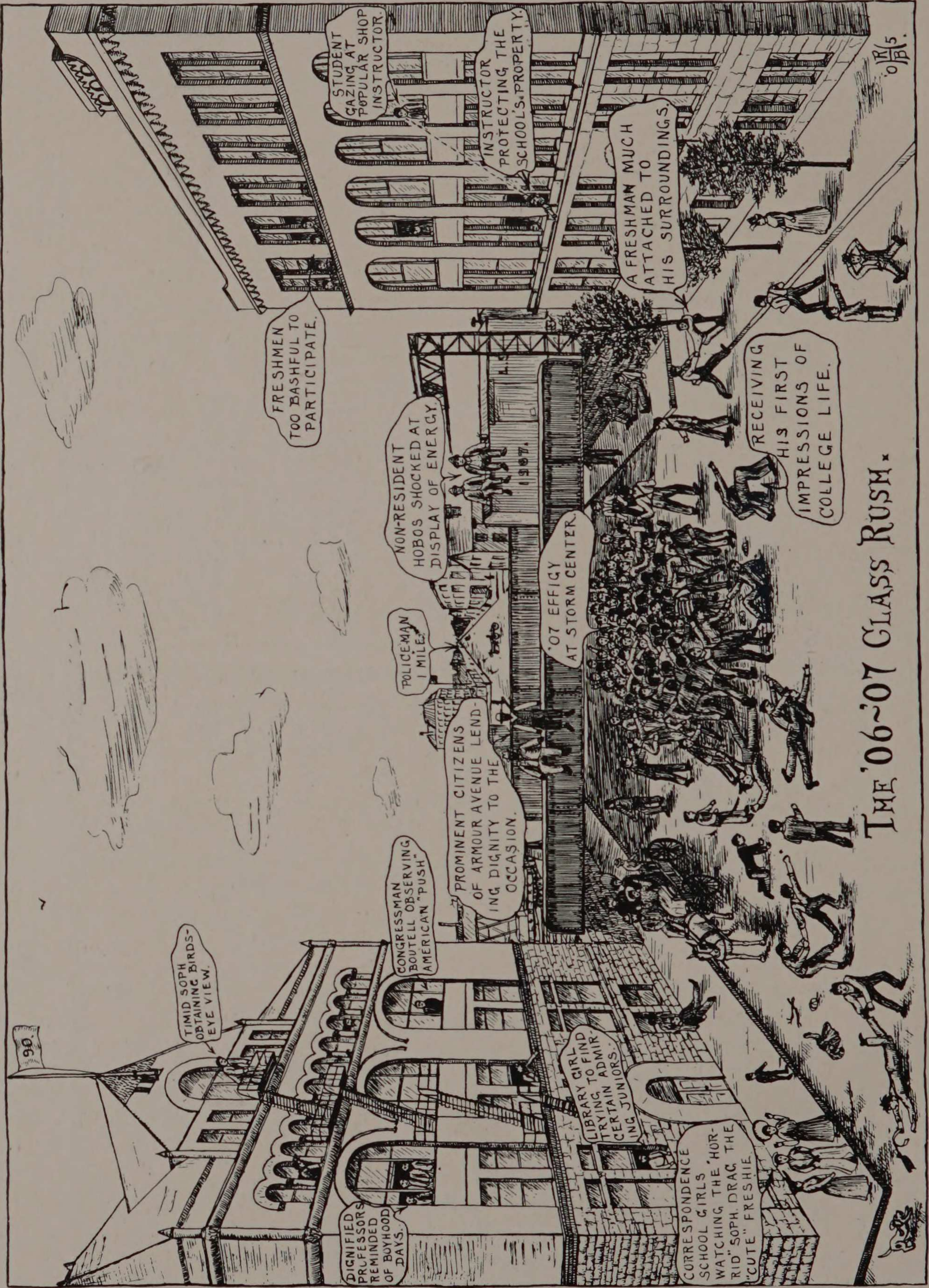
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J. L. Nind, Jr.—Recruiting agent for the Illinois Naval Reserve.

Clasen, '07.—That explains our pull with the office.

“Gray, Morgan & Rockefeller,” Brokers.—Speaks well for the '07 treasury.

B. Hoff, Jr., Balt. Hoff. Which is Balthassar?

Artie and Hplar, together, “Wheat cakes on two.”

Lucas W., the “chorous maid.”

Nickols, “Manufacturer of Dynamos, Motors and all kinds of Electrical Apparatus.” Office, 3d floor, Machinery Hall.

Tommy L., “I’ll match you for the pie; heads I eat it, tails you pay for it.”

Richards, R. J.—Treasurer of the Engineering Society and Manager of Hearst’s *Chicago American*.

Jones, Jones, H. W., Jones, L. B., M. T.; Smith, C. U., C. H. W., Smith, Smith. Brown, Gerard—ye gods be praised, there is but one.

Geist, the bard, Kilgore’s only rival in yarn spinning.

Ask Chapman to see her picture.

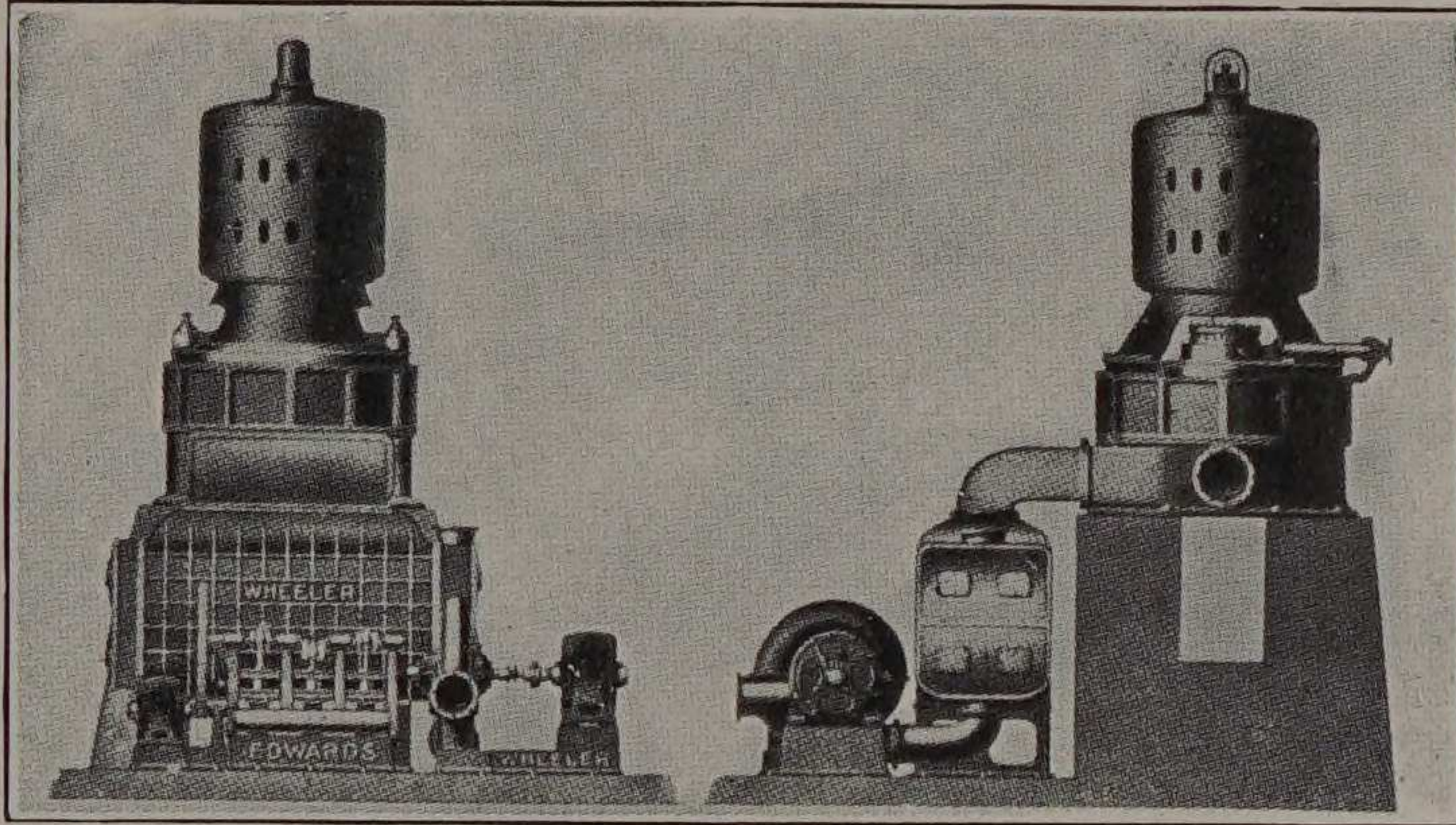
Grand prize offered to he who can fill the fathomless depth of Hebard’s stomach.

Blake, thoughtfully: “Dance Thursday night, carriage \$6. Dance Saturday night, flowers and wagon, \$9. Tuesday, Friday and Saturday nights of next week, dances, \$12. Oh! for Gray’s job for a week.”

Regdab, the founder of the “Little Ballot.”

Sixty-five A’s in the Academy were not enough for Johnny; he’s getting a few more gross this year.

C. U. is taking a reading course in French literature. Can any one explain his chief interest in it?



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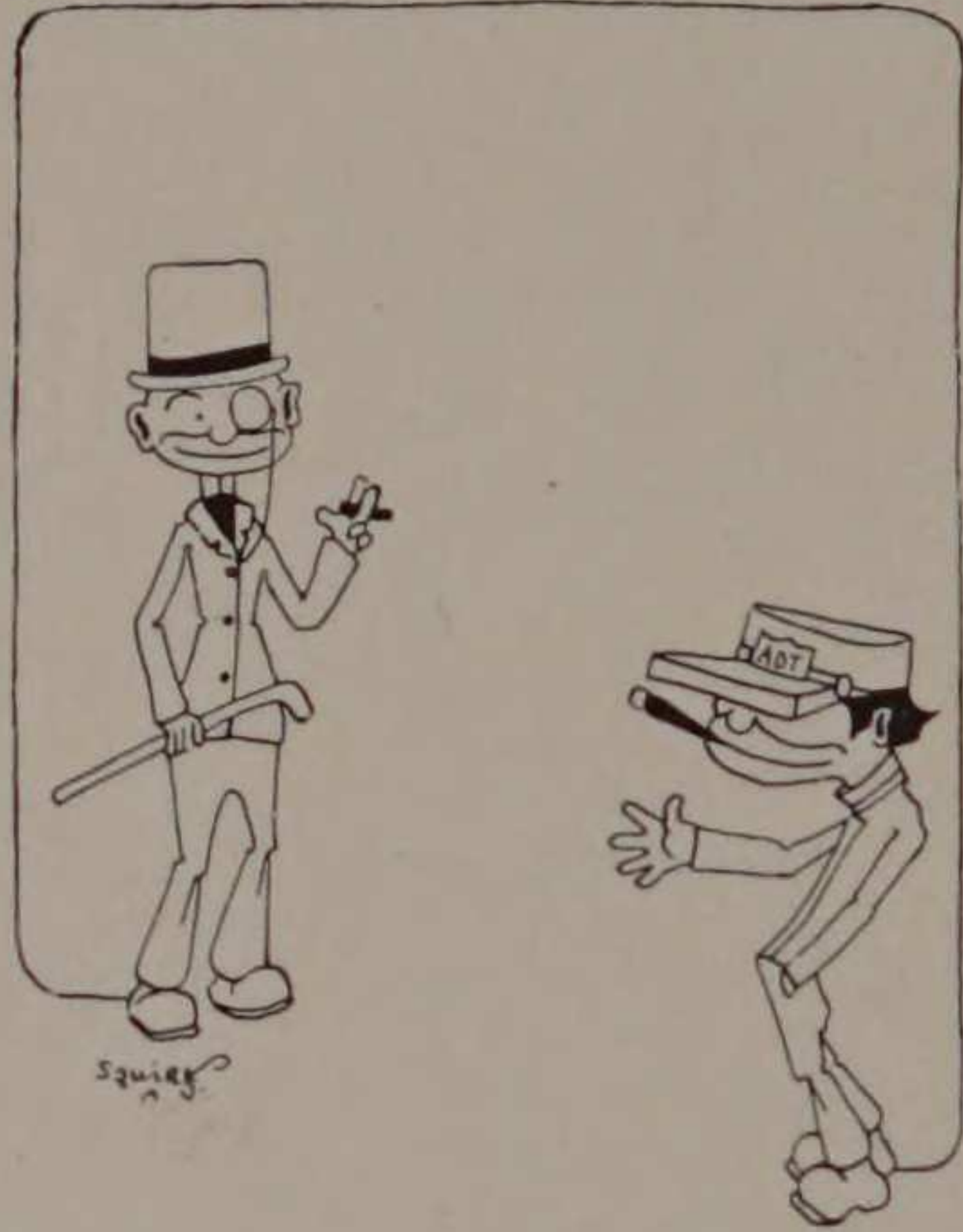
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A Few Tough Kids



Cholly—My, what a queer young fellah.

Kid—Come off, it's a sure ting I don't get queered half as much as yer do. See!



Old Gent—My little man how could you catch so many fish as that on the sabbath?

Kid—Dead cinch, ole man. I caught dem on me own 'cord.



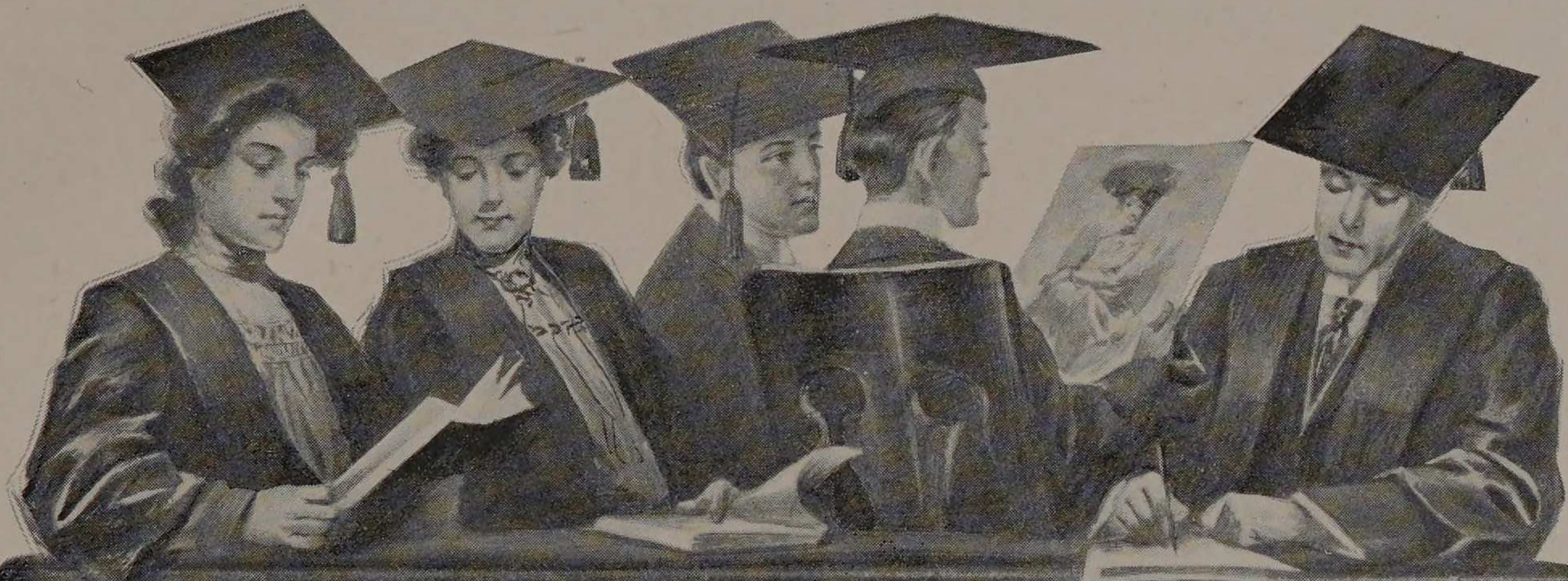
Lady—My little man where did you get that nasty cigar?

Kid—Nasty noting. Why mum dat's a swell cigar; de dean of de college just trew dat away.



Farmer (who has lost his wife in the city)—Say, young fellow, yer didn't see anything of Nancy Jones about here, have yer?

Kid—Extree all about it.



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An illustration of a man in a vest and shirt operating a large printing press. The press has a large hand-cranked wheel and various mechanical components. The background is a solid yellow color.

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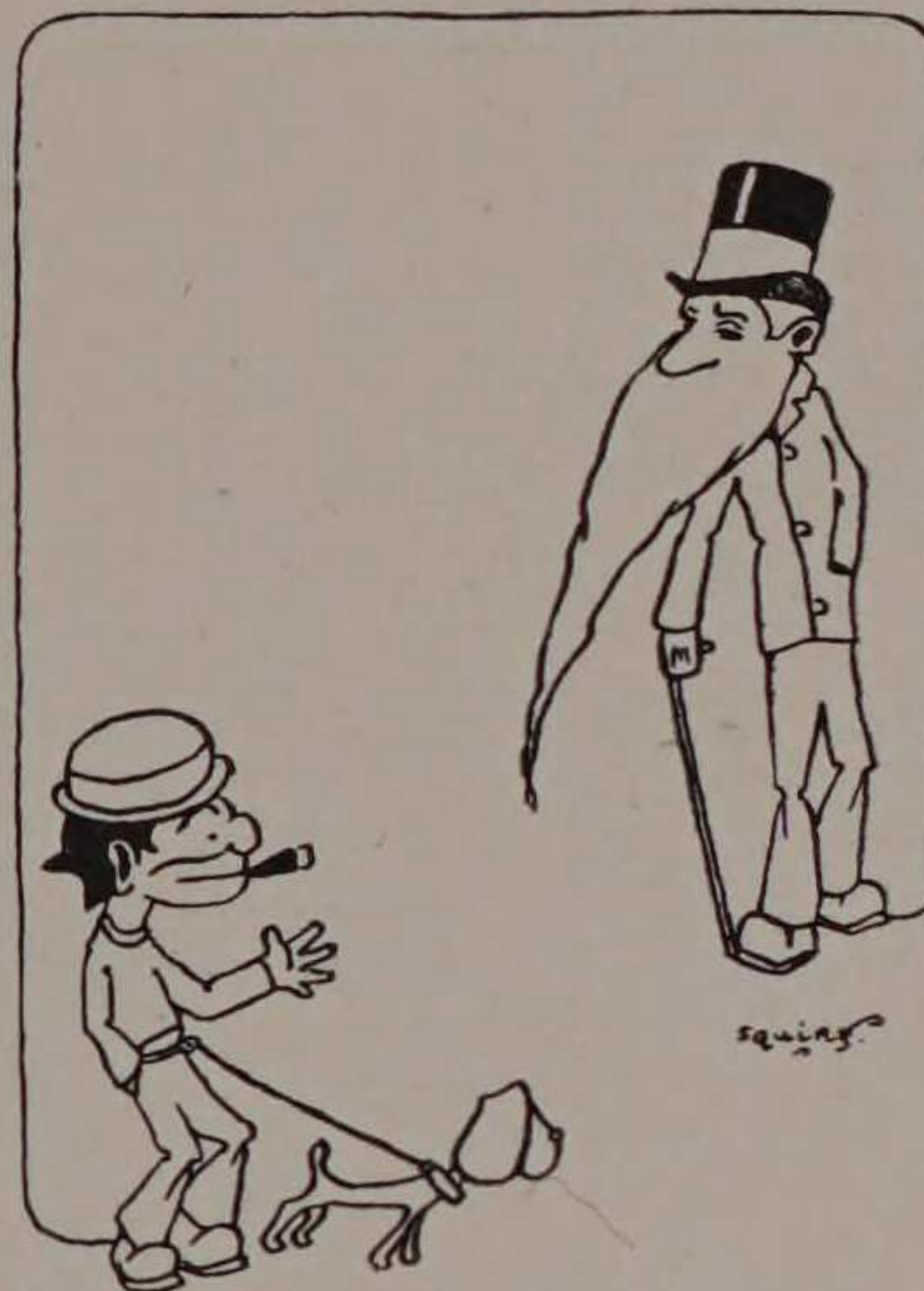


Some More Tough Kids



Gent—That's the way they did when I was a boy.

Kid—Keep on, ole man, an' I will have enough wind to fly my kite.



“Say, old sport, give us a ‘comp’ to de side show.”



Man—Who won, boy?

Kid—Which, de game or de scrap?



Lady—May I ask, my little man, why you are carrying that heavy suitcase?

Kid—Just fer de change, mum.

From the Academy

Benjamin—"I got 'B' in drawing because I didn't want a scholarship."

Mabetch—"That last lunch girl was a peach."

Deveney—"If two triangles look alike they're equal."

Geist—"Never did like geometry, anyhow."

Fisher—"Heads I win, tails you lose."

Fitch—"Don't think you know more than you know you know, just because a wise man knows he knows more than he thinks he knows."

Wright—"Never too much to eat."

Singer—"I'm P. D.'s rival when it comes to sausage making."

Sontag—"How could *I* get any more contests? I never was a manager before."

With a Few of Their Side-Show Artists

Rudolph, the Norwegian giant, 19 ft. 2 in. high.

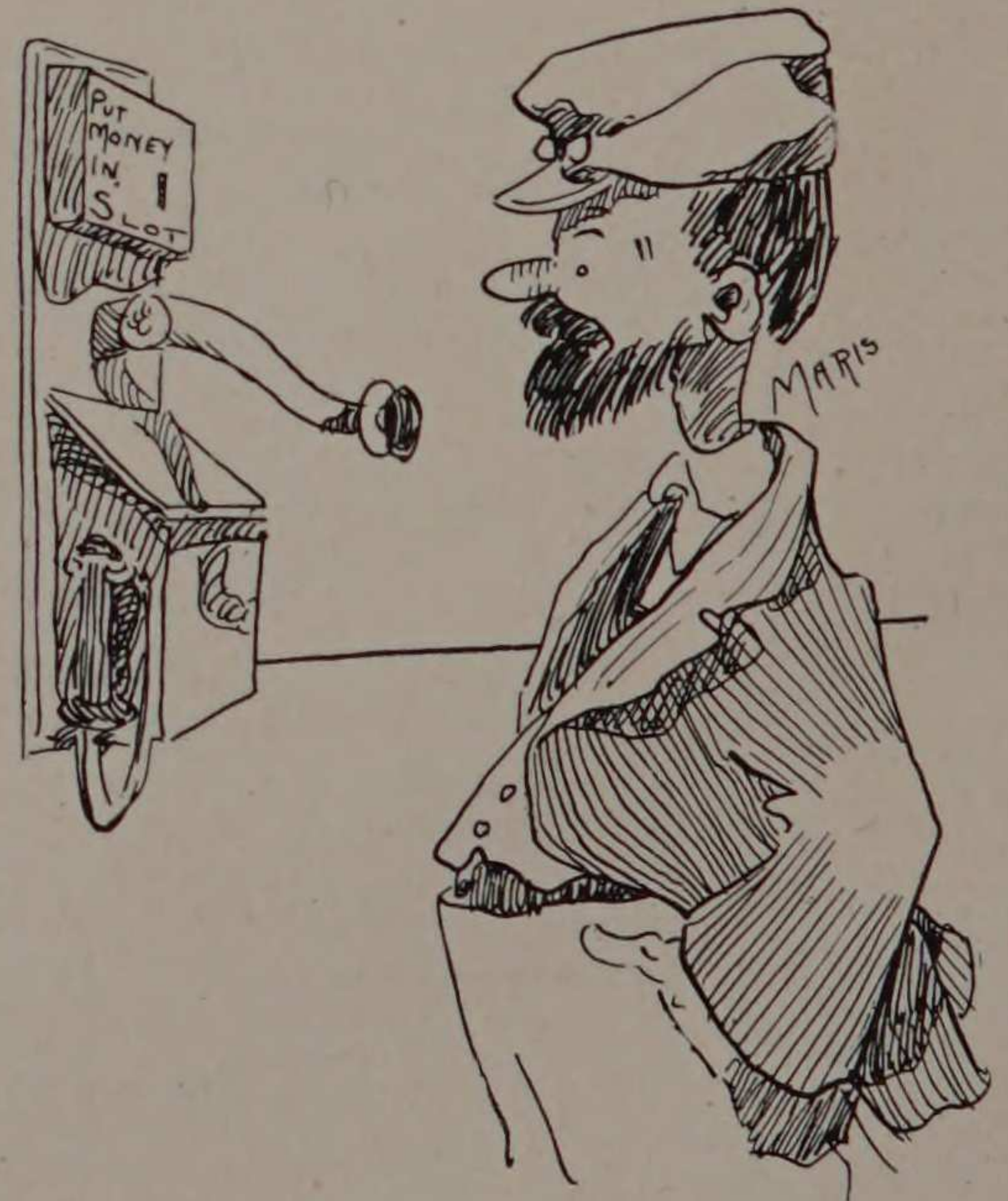
Benbrook, the Bermuda dwarf, only 1 ft. 7 in. high.

Buell, the fat lady, waist measures 14 ft. in the shade.

Ostrogen, the bearded boy; only one in America.

Rankin, lightning artist, a wonder. Has been with us since the World's Fair.

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PETE (alias Frowsy Fred)—So de jay set de dorg on yer?

RUMMEY 'RED—Worse dan dat. He tole me to jump in de lake.

—
This is an incident in the trip of Hatter Levings, Jens and others, last summer. The farmer evidently knew they came from Chicago.

CLAUSEN :

“The mind ought sometimes to be amused that it may better return to thought and to itself.”

—*Phaedrus.*

BADGER :

“’Tis pleasant to see one’s name in print.”

—*Byron.*

Perpetual Motion

WILSON :

“None but an editor knows an editor’s cares.”

—*Cowper.*



REGGIE—Bertie has a clock that will go for eight days without winding.

CLARENCE—How long will it go if you wind it?

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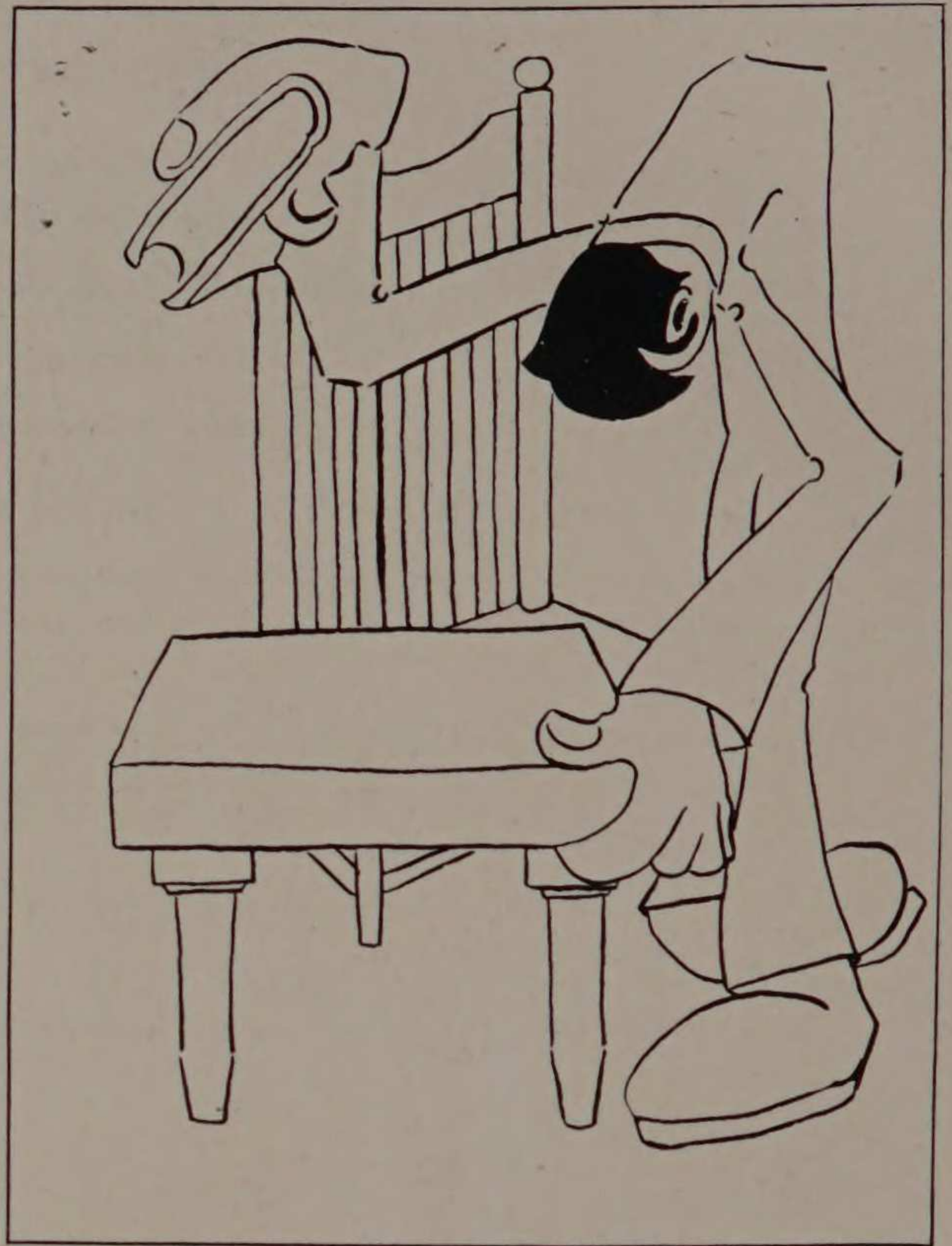
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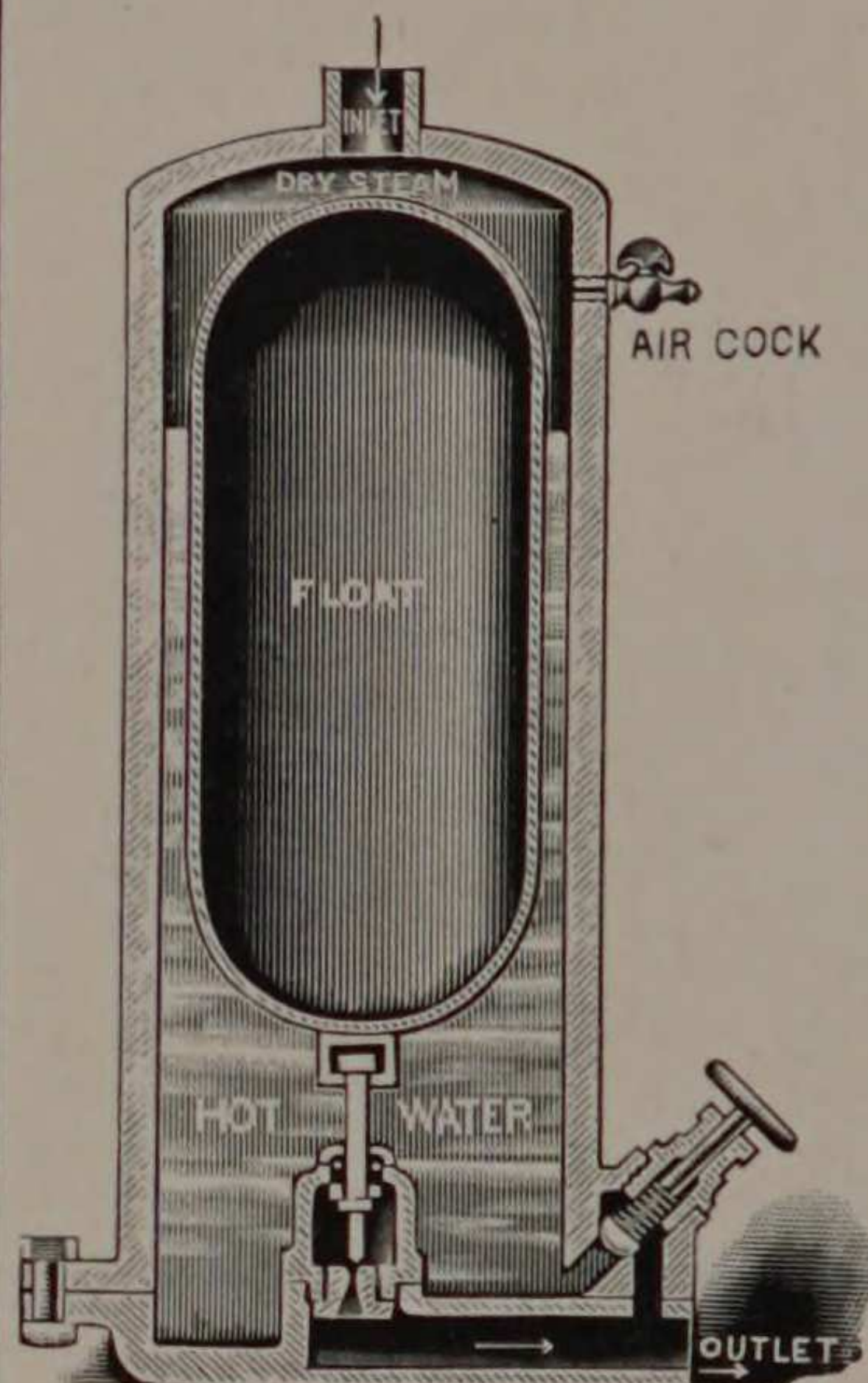
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(Parody on "Just Kiss Yourself Good-bye.")

A lazy jay
Got a note one day
 From his nibs, de dean.
It was very t'in
But dere was lots wid'in
 Which was very mean.
It said to dis lad
Dat his marks were bad,
An' he'd have to hunch
To stick wid' de bunch;
Dey wouldn't listen to his tale of woe,
Just opened de door and said :

CHORUS—

“ We've told you before dat you'd have to go
Out wid de guys who are way below,
If you don't take a brace
You're out of de race,
 Oh-h-h-h my !
Round de class you ain't a bit of good;
You never tried to study, wouldn't do de best you could,
So you needn't try to reason,
You're excuse is out of season,
Just kiss yourself good-bye.”

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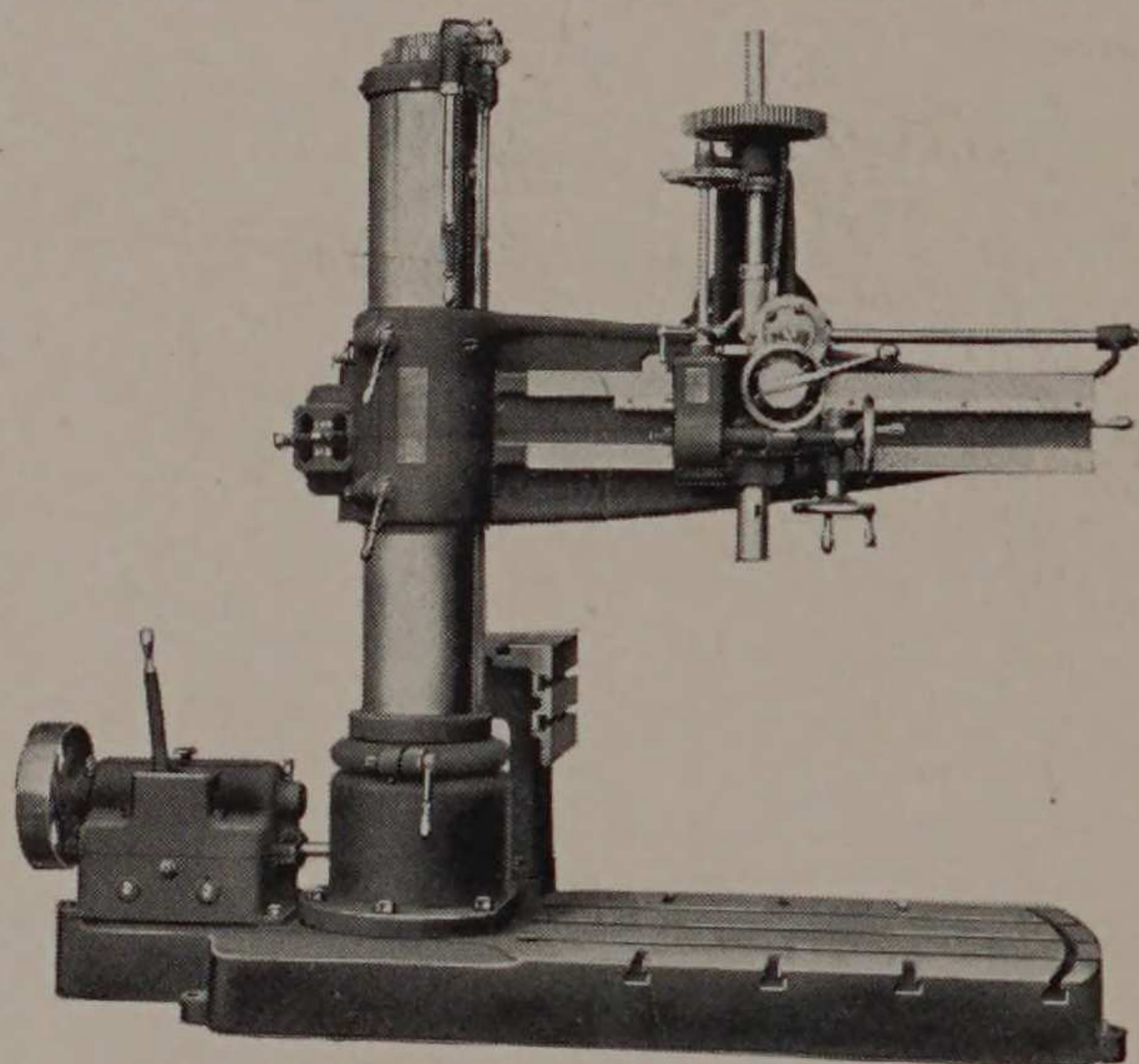
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JUST THINK A MINUTE

⁶⁶KEEP to the broad highways of Hope and Cheerfulness. Expect to succeed. Think success and you will succeed. Keep out of the back alleys of gloom and pessimism. Join the procession of the Cheerful, the willing and the hopeful. Be sanguine. Know the pleasures of living. Enjoy the sunshine of hope. Keep away from the scavengers and ragpickers who infest the back alleys of life. Your pessimist is your scavenger, your ragpicker. He may be a necessary evil—a boil as it were, on the body social—but too much of him is fatal. He never gave the world a smile. He never contributed to the good cheer of any human being. He never lifted the gloom from any distressed soul. He is the antithesis of progress. He is the polly-wog which in the evolution of life is continually dragging backward toward the slimy past, resisting the progress of development which must go on with or without him. Beware of the encroachments of the carping, pessimistic spirit. It is a hardy plant. It takes root easily in the mind and like the thistle when once it gains a foothold it is well nigh impossible to uproot. But it cannot live in an atmosphere of sunshine and cheerfulness. Therefore, keep to the highways. Keep out of the back alleys." Keep your home insured in the GLENS FALLS and you will be happy.

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