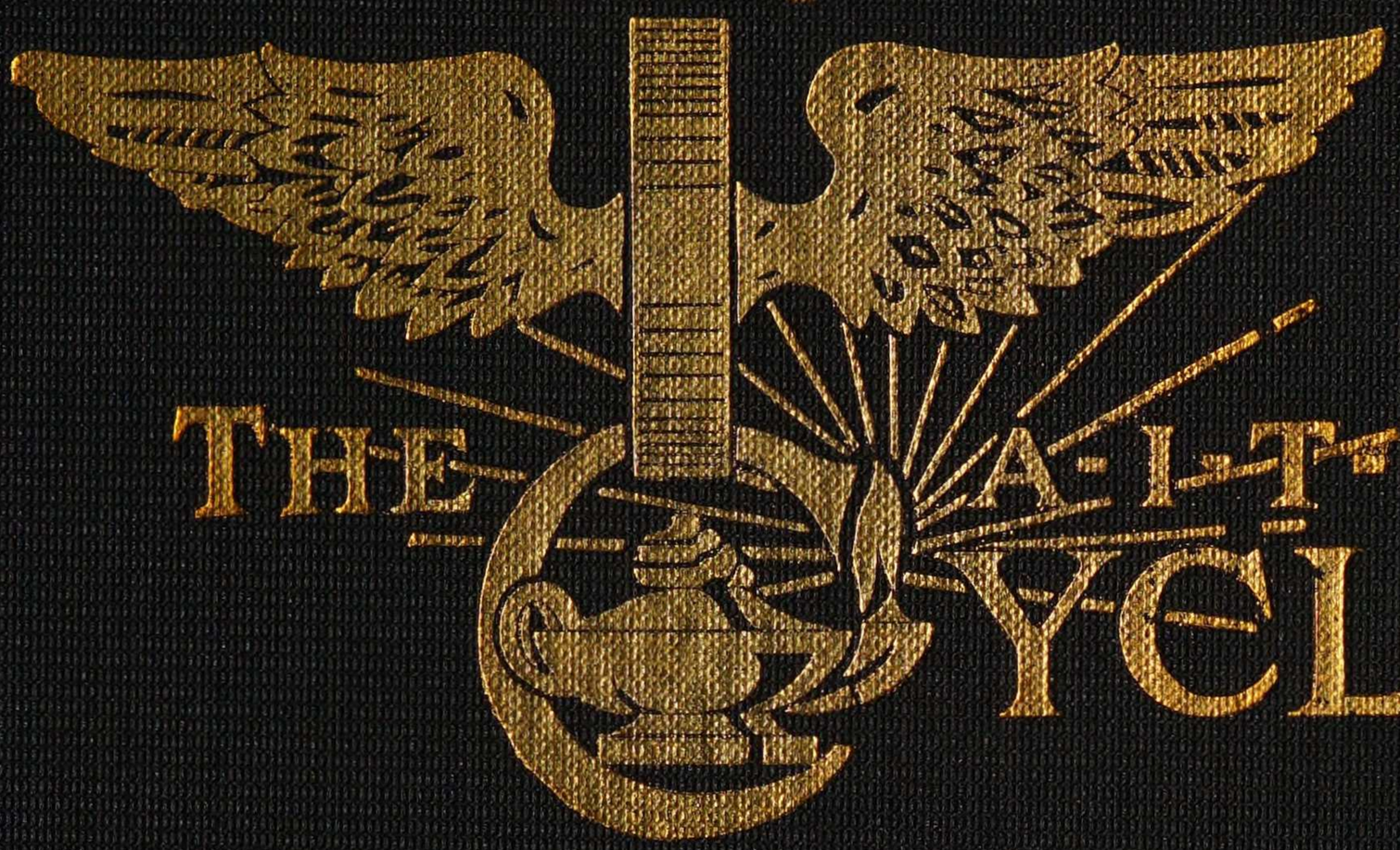
1920



THE A-I-T CYCLE

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THE CYCLE

The Cycle

THE STUDENT
ANNUAL OF

Armour Institute of Technology

CHICAGO
ILLINOIS

Published by the Cycle Board
for the Junior Class
of the College of Engineering

Volume Eight: Nineteen Hundred and Twenty

Robert J. Dunham

Dedication

to

Robert J. Dunham

the citizen
the trustee
the man

In sincere appreciation of his friendship and the interest he is taking in the welfare and progress of the students of the Armour Institute of Technology.

Trustees.

J. Ogden Armour

Mrs. Philip D. Armour

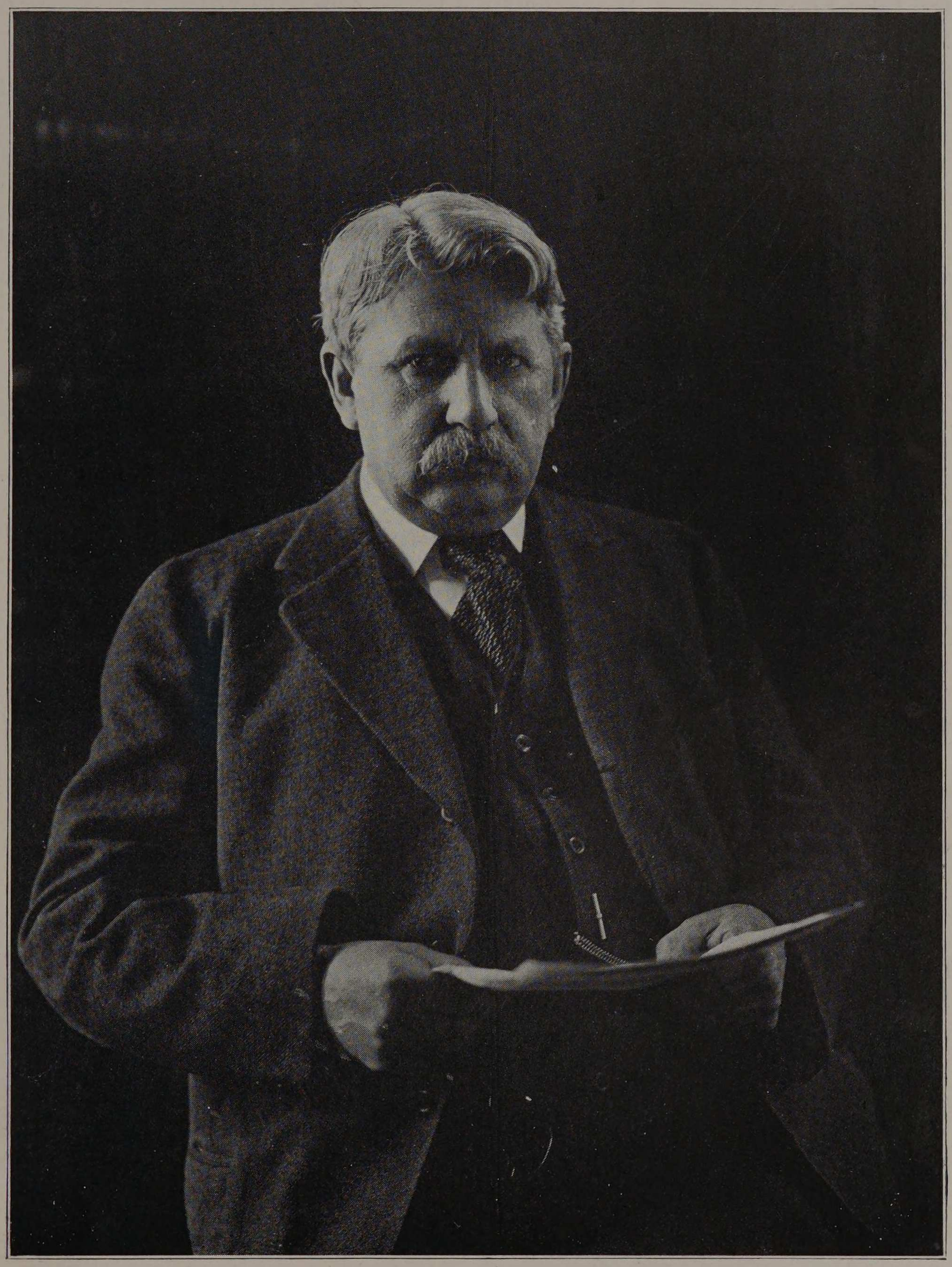
Mrs. J. Ogden Armour

Philip D. Armour

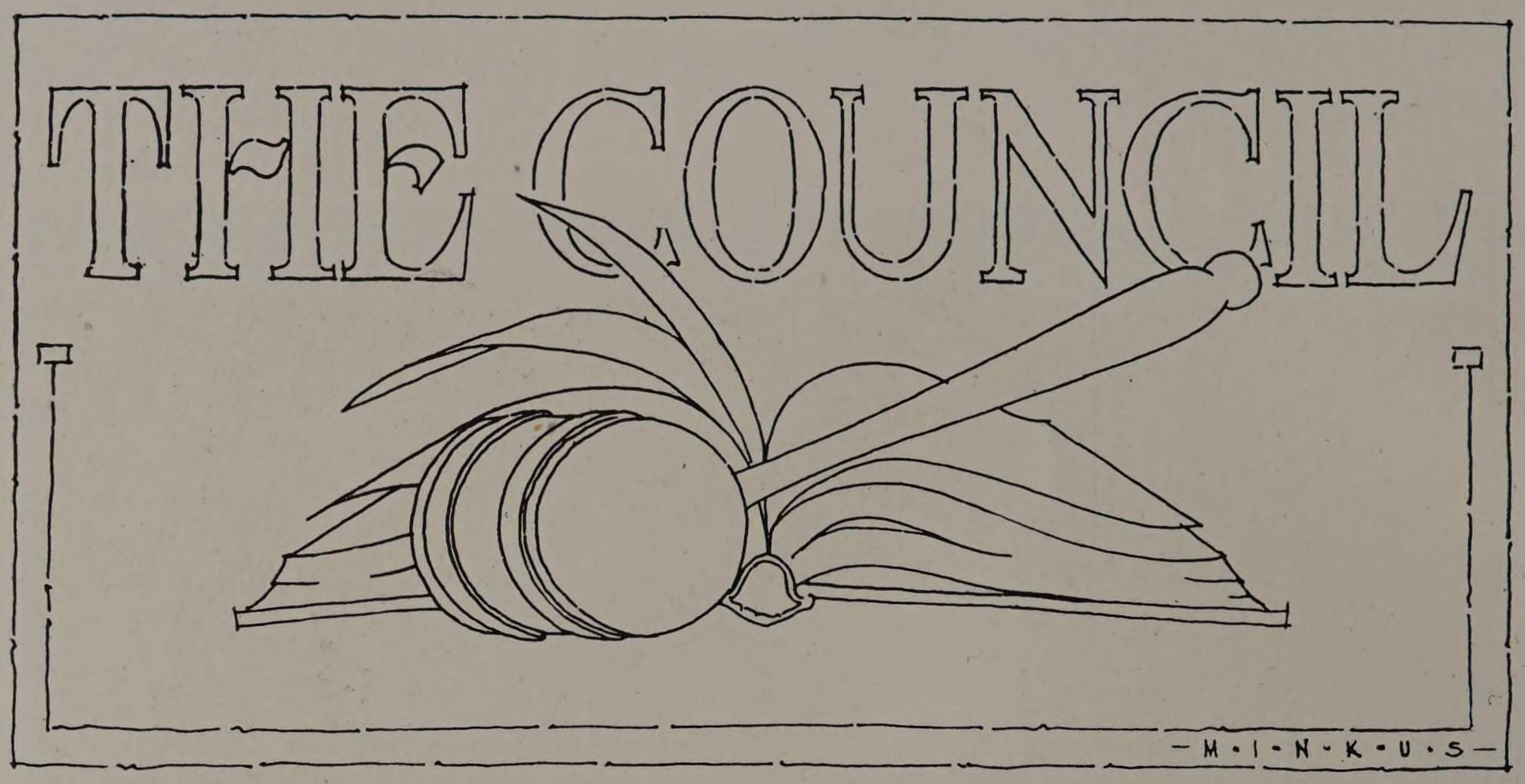
Lolita Armour

Robert J. Dunham

Frank W. Gunsaulus



Dr. F. W. Gunsaulus



The President.

FRANK WAKELEY GUNSAULUS.

Birthplace, Chesterville, Ohio. A. M., Wesleyan University, 1875. D. D., Beloit College, 1895. LL. D., Ohio Wesleyan University, 1906. Beta Theta Pi. Member of American Social Science Society, Academy of Arts and Science, etc. Author of "Phidias and Other Poems," "Song of Night and Day," "Transfiguration of Christ," "Monk and Knight," "Life of William Ewart Gladstone," "Metamorphosis of a Creed," "November at Eastwood," "Loose Leaves of a Song," "The Man of Galilee," "Paths to Power," "Higher Ministries of Recent Poetry," "Paths of the City of God" and "The Minister and the Spiritual Life." Residence, 2919 Prairie Avenue.

The Comptroller.

FREDERICK URLING SMITH.

Birthplace, Manchester, England. Private Schools in England. Boonn University. Identified with Armour and Co. for thirty-four years. Assistant Treasurer and Business Manager of Armour Institute of Technology, 1893. Comptroller, 1902. Residence, 710 East 51st Street.

The Dean of the Cultural Studies.

LOUIS CELESTIN MONIN.

Birthplace, Berne, Switzerland. University of Leipzig, 1878-1879; University of Zurich, 1879-1881. High school teacher in Switzerland and Italy, 1881-1886. University of Heidelberg, 1886-1888. Post-graduate student University of Lake Forest, 1889-1891. Ph. D., University of Lake Forest, 1891. National Secretary of Zofingia (Fraternity) of Switzerland. President of the Department of Technical Education of the National Education Association, 1907-1909. Instructor in Philosophy, University of Chicago, 1891-1893. Assistant Professor of Education (Summer Quarter) University of Chicago, 1897. Professor of Modern Languages and later Professor of Economics and Philosophy and Dean of Cultural Studies, Armour Institute of Technology, 1892. Residence, Hotel Windemere, 56th Street and Cornell Avenue.

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F. U. SMITH F. W. GUNSAULUS H. M. RAYMOND L. C. MONIN

Officers of Administration

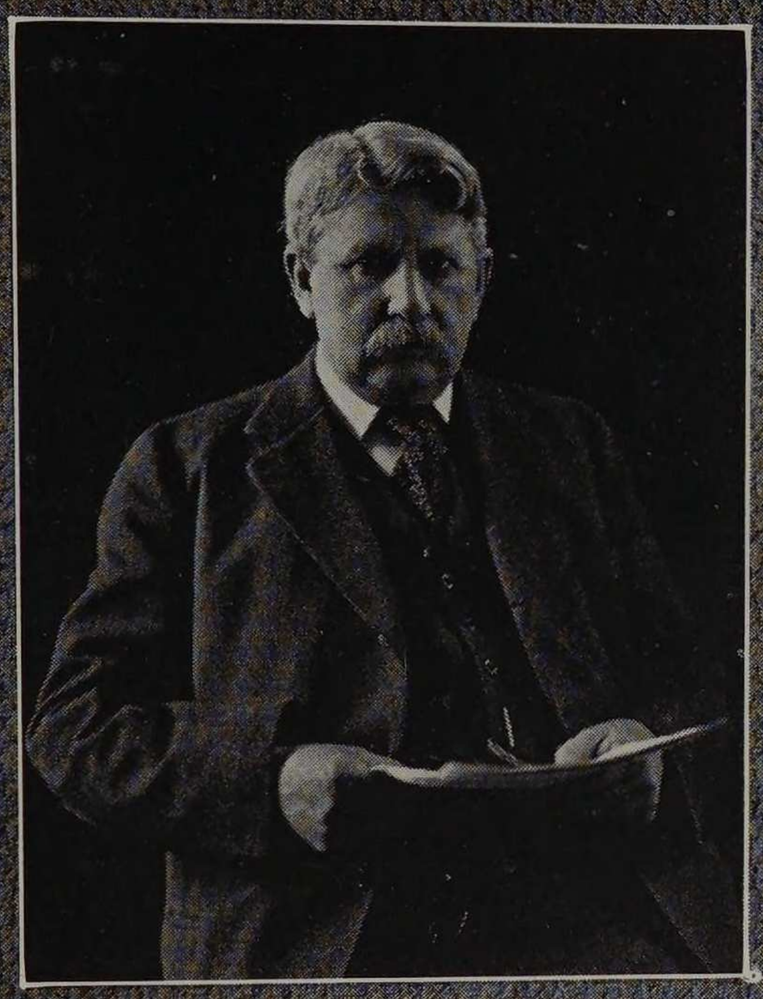
The President
FRANK WAKELEY GUNSAULUS

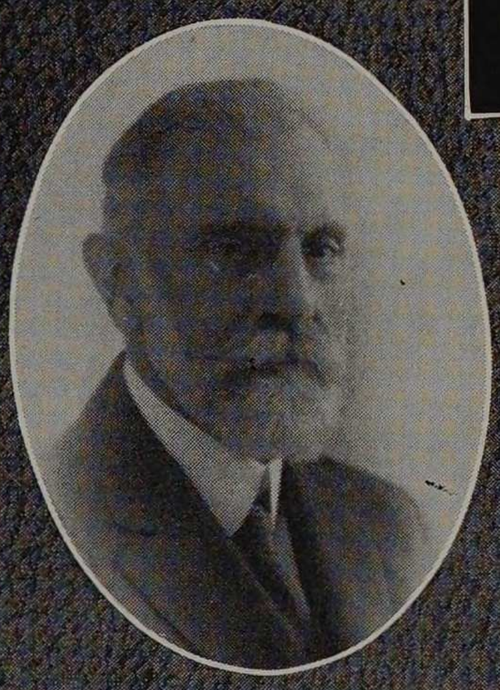
The Comptroller and Secretary
FREDERICK URLING SMITH

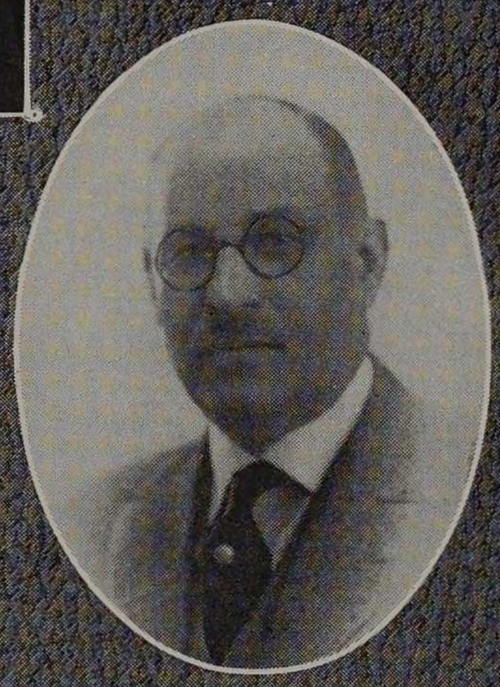
The Dean of the Cultural Studies
LOUIS CELESTIN MONIN

The Dean of the Engineering Studies
HOWARD MONROE RAYMOND

The Registrar
GEORGE SINCLAIR ALLISON







G. S. ALLISON

F. W. GUNSAULUS

F. U. SMITH

L. C. MONIN

H. M. RAYMOND

MR. F. U. SMITH

In the resignation of Mr. Frederick Urling Smith as Comptroller of the Armour Institute of Technology, there comes to mind many evidences of the growth and development of our city, especially in educational lines within the last thirty years.

Mr. Smith was at the right hand of Mr. Philip D. Armour when he was devising means and ways for helping the youth of the middle west by creating the Armour Institute. Mr. Smith met Mr. George W. Childs who had influenced Mr. Drexel of Philadelphia, Mr. Smith's former home, to establish an institution like the Pratt Institute of Brooklyn and the Cooper Institute of New York City. He heard these men discuss the matter of education with Mr. Armour, and he became closely allied with the new institution.

For twenty-five years Mr. Smith has appeared upon the platform at Commencement time with his annual report as Comptroller. He has been a model of courtesy, gentility, wisdom and loyalty in the presence of thousands of students. The Institute itself would feel bereaved if it were not for the fact that he goes to his rest or pleasure as he will, at the close of the current year, and he goes in perfect health of body and mind to enjoy with his good wife many recollections of his labors on the Executive Council of the Institute, and especially the influence he has had and the participation which has been his in the new plans for the Armour Institute of Technology, when its walls shall echo with the tread of the thousands of students and teachers who shall throng its new and larger home at Windsor Park.

DR. F. W. GUNSAULUS.

ALTHOUGH Armour Institute has been in existence only a short time it has a very remarkable and interesting history.

When Mr. Joseph Armour died he left a bequest of one hundred thousand dollars for the purpose of building a Mission in Chicago for church, school, and educational purposes. To this his brother, Philip Danforth Armour, added a large sum to complete and outfit the building. The building was opened in 1886. Ever ready to help those who wished to help themselves, Mr. Armour built at various times, several large flat buildings in the neighborhood of the Mission, the revenue from which served to make it as far as possible self-sustaining. To the religious work, a free dispensary and library were added, the latter in charge of Mrs. Julia A. Beveridge.

Mrs. Beveridge, believing that the usefulness of the Mission might be increased by taking up manual training, organized classes in wood-carving, clay-modeling, tile-making, and drawing for boys, and classes in domestic arts for girls. The success of her endeavors so pleased Mr. Armour that he decided to take up the educational work on a still larger scale than the size of the Mission would permit. Accompanied by Dr. Gunsaulus and Mr. John C. Black, Mr. Armour visited eastern institutions and, on his return to Chicago, decided to organize a school similar to Pratt or Drexel Institute.

A board of Trustees was organized, consisting of the following: Mr. Philip D. Armour, Mr. J. Ogden Armour, Mr. William J. Campbell, Mr. Philip D. Armour, Jr., and Mr. John C. Black. A charter was obtained from the state government and in 1892 the present "main building" was erected. The first classes were organized in 1893.

Dr. Gunsaulus, President, was assisted by a small, very efficient faculty, of which Prof. L. C. Monin, Mr. John E. Snow, and Mr. Edward D. Agle are still associated with the Institute. At the time of its foundation the Institute comprised the Armour Scientific Academy and the Technical College, as at present, and also the Departments of Domestic Arts, Commerce, Music, and Kindergarten Normal Training.

The courses included in the Technical College were: Mechanical and Electrical Engineering, Chemistry, Architecture, and Library Science. Between 1896 and 1901, the courses in Domestic Arts, Commerce and Music were drop-

ped one by one to meet the increasing demand for young men trained in applied science. In 1901 co-education in the Academy was given up, so that the instruction is limited to young men. All the engineering courses have strengthened from year to year. Departments of Chemical Engineering and Fire Protection Engineering have been added to the other engineering departments.

Since 1902, Evening Classes and Summer Course have been offered and much good has been derived from these.

An additional building known as Machinery Hall was erected in 1902, Mrs. P. D. Armour having donated the building, while Mr. J. Ogden Armour bore the expense of providing equipment. Mr. J. Ogden Armour also presented the Institute the ground known as Ogden Field, the opening of which greatly stimulated the interest in Athletics at Armour. The latest addition to the buildings of the Institute is Chapin Hall.

During the summer of 1909, a fire occurred on the third floor of the "main building" in the store-room of the Chemical Department. Quite a loss was suffered, but was fully covered by insurance. The store-room was immediately rebuilt and is now very much better than ever.

THE NEW A. I. T.

THE Armour Institute of Technology, after twenty-five years of adjustment and re-adjustment to opportunities and conditions, has adopted its matured plans for the future and has received a substantial gift of land and money from Mr. J. Ogden Armour, so that it will inaugurate and develop its completed plans.

The difficulty of obtaining a proper location has been great. It has cost one million dollars to find and obtain title to a contiguous parcel of land upon which the institution may stand and develop for all time. It will occupy the entire eighty acres near the lake south of the South Shore Country Club. This tract has been formerly known as the Windsor Park Golf Club. The land has been purchased, and is now turned over to the Armour Institute of Technology.

The Institute has sought the advantage of a situation easily approached by the city and suburban service of the Illinois Central and the Baltimore & Ohio Railways. Near the north portion of the land obtained is the Windsor Park station of the Illinois Central which will be reached in a few minutes from down town, when the railway and the Institute have completed their arrangements. The cross town electric lines at the north of the campus on 75th street are satisfactory. On the south end of the campus at 79th street are electric lines connecting the west and southwest sides with our location satisfactorily. The Baltimore & Ohio almost touches the southwest corner of the eighty acres. The lake is within a few blocks and will furnish opportunity not only for water athletics, but hydraulic engineering and marine engineering, which must be undertaken in time. On the south are the great steel and cement plants of the Calumet district. These are not surpassed in the world for the uses of an institution whose students must visualize engineering processes in maufacture. Modern methods with us require visits to operative industries with which high grade engineering concerns itself.

The tentative plans for our buildings with the accompanying sketch of their arrangement, constitute only a provisional study. They have required a gift of $5,000,000.00 for their erection and extra equipment. The whole scheme which has been worked out after a quarter of a century of experience

in the central west and in Chicago, means serviceableness in architecture as well as beauty and dignity. The buildings will constitute a piece of serious apparatus for the special work which any such institution must do at this time and in this region.

Commodious as the buildings are and large as the location seems to be, the Armour Institute of Technology will limit its number of students to one thousand. The prospects at university foundations for the highest and most necessary research work in pure science are so large and secure that the Armour Institute of Technology will have only its responsibility in the central west for the training of engineers. The high schools of this region, especially the technical high schools, have their large responsibility in the preparation of students who expect in four years to receive our degree of Bachelor of Science in this or that kind of engineering. Our present method so expanded requires large room for apparatus and for safety, as well as the rigid adherence of a program of study and experiment under experts always serving the student to at all reach the ideal in view or to meet the situation in American engineering. These problems are many and difficult. The world's coal problem must be solved by what is most necessary in America—the use of our mighty wasted water power. The civil engineer must be ready to make Chicago, Duluth, Detroit, and perhaps other cities over into Altantic ports, and he must be trained to do his part in the future with those who worked so excellently in the past and bring the lakes and the gulf together by the river system which nature has partially provided.

When the Armour Institute emerged from the enterprise of a coeducational school and based its operations twenty years ago on the expectation of such a war which has come, it had no clearer vision than it has now of the necessities for engineering education of the highest grade in order that the problems of peace may be met and solved. It was a war of engineers when the battle was on, and American engineering greatly figured in winning the war. It is now a war of engineering against primitive and ignorant wastefulness of the forces of nature and the blundering of untrained men in politics which creates the necessity for such education as we assume to offer. One thousand young men fitted for leadership in mind and skill will be our constant and contributory effort in the direction of a better-working civilization.

In the matter of athletics, we shall have soon plenty of room for such games and athletic developments as are not usually part of the physical training of American students. We hope to domesticate and enlarge the educational scope of many of the out-door sports which have been foreign to students or impossible, usually because there was not land enough, and secondly because of the time used upon inside gymnastic exercises. The buildings at present will occupy about eight acres. A large portion of the first forty acres will be left for future developments. The south forty acres of the tract will be devoted to such summer and winter out-door sports as will make out-door men supple and strong for their life work any where.

Mr. Armour's gift has not been unexpected. Mr. Armour and his associates have studied this problem with the valuable help of other educators, especially in more recent years, and has found that the only solution is an immediate and large gift that we may inaugurate here and now a foundation for technical training commensurate with the intention of the Armour friendship for such education and what must be the largest opportunity and duty. Our city is soon to be the greatest engineering city in the world. This work will be commenced and prosecuted as rapidly as possible, in view of our responsibilities in the case.

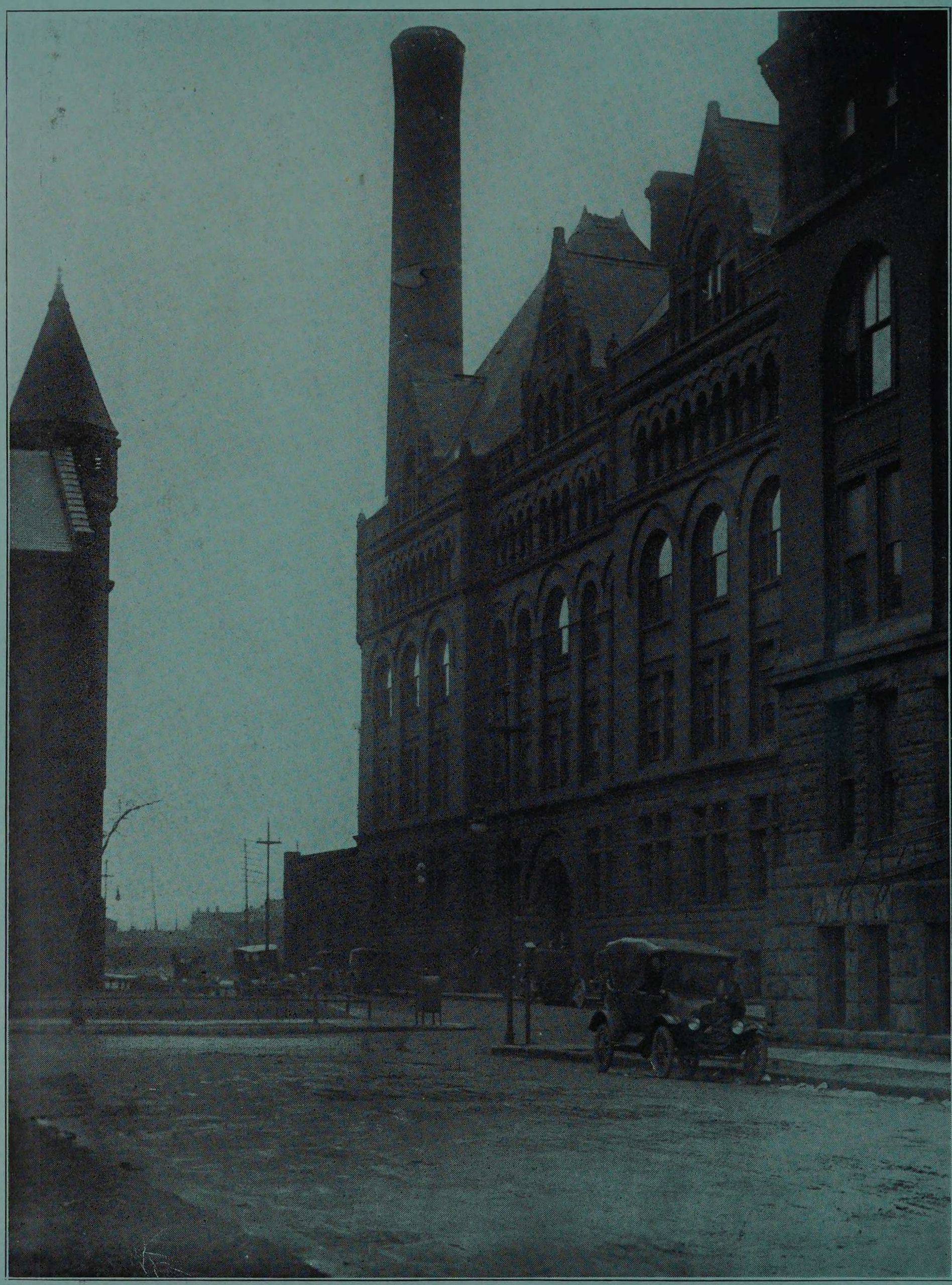
DR. F. W. GUNSAULUS.

SITE OF THE FUTURE A. I. T.

Vespers

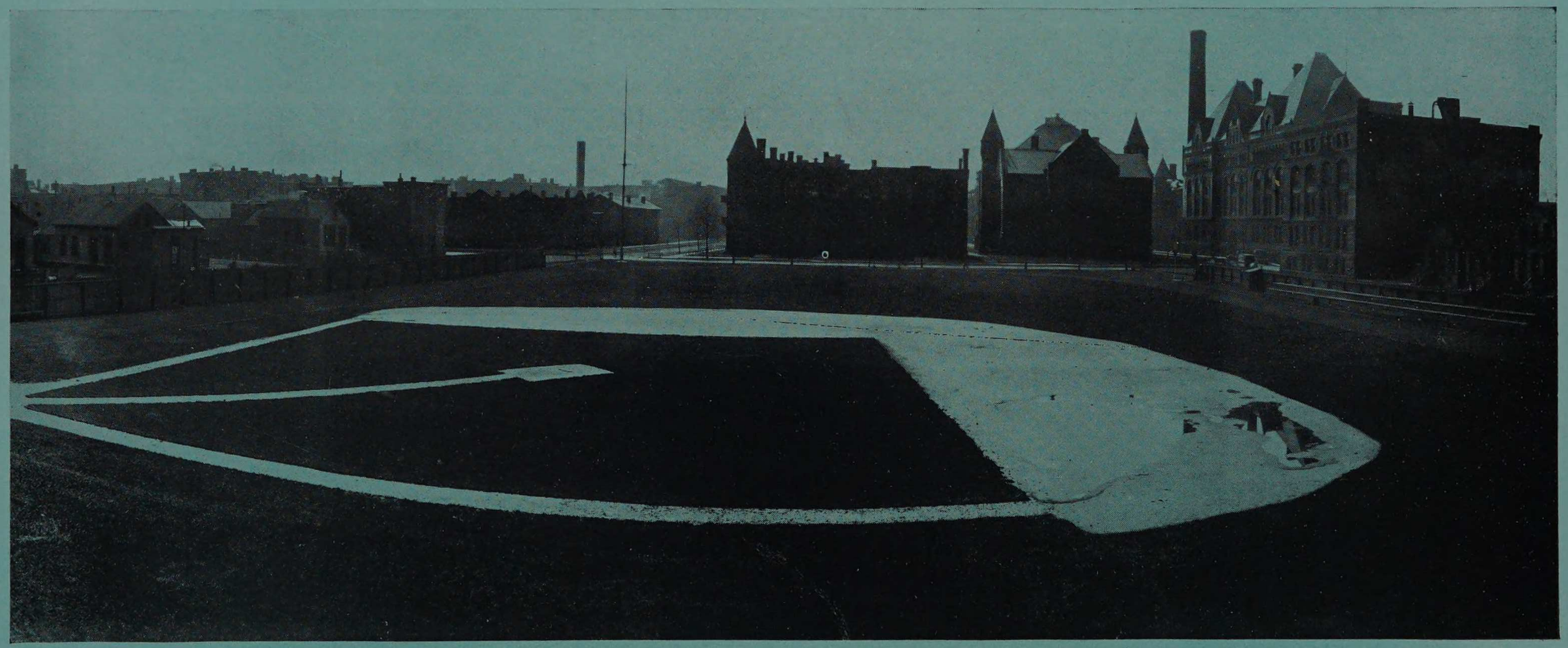
B. J. RYAN, S.J.

THE INSTITUTE—LOOKING WEST ON 33RD STREET

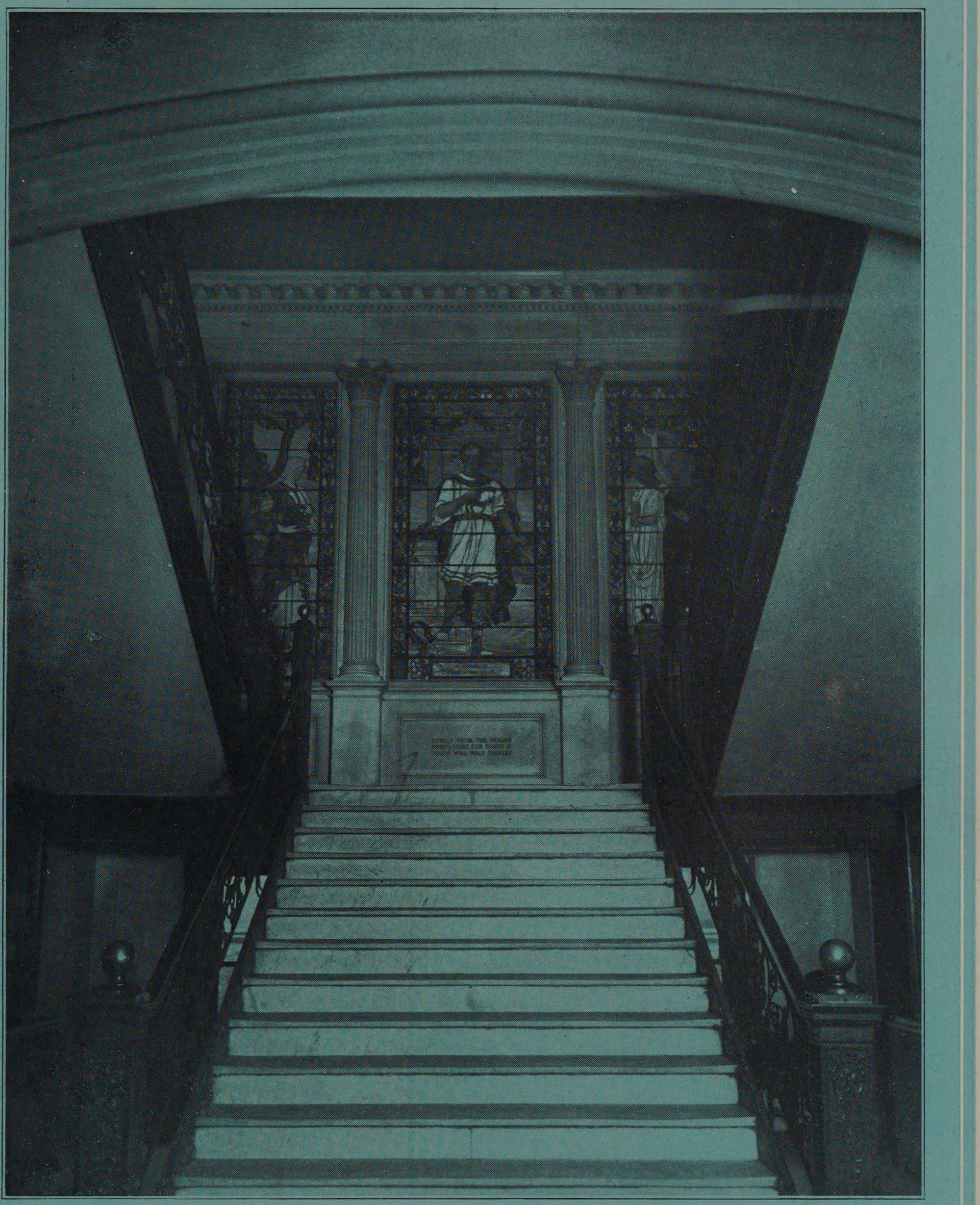


MAIN BUILDING—LOOKING SOUTH ON FEDERAL STREET

THE MISSION

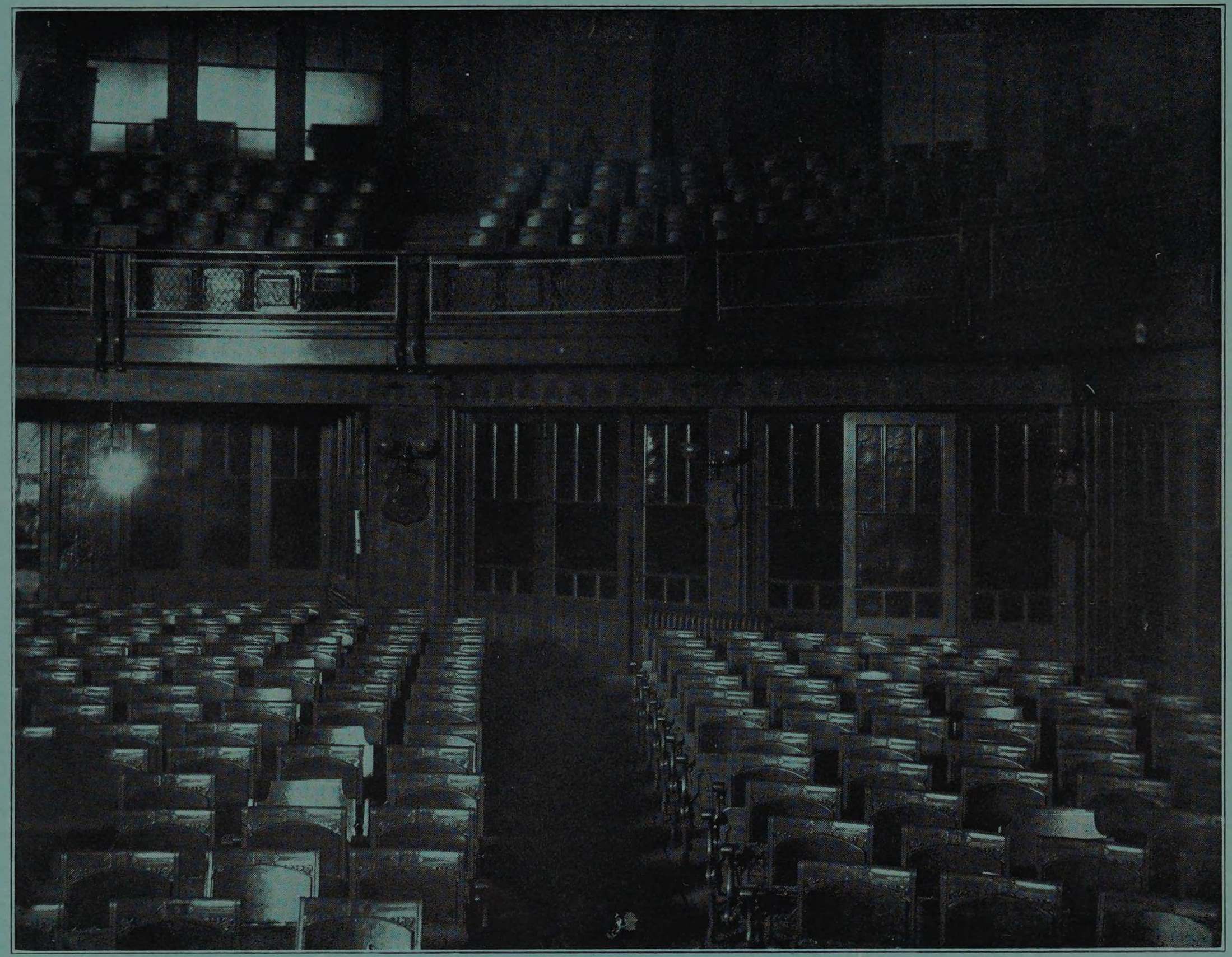


OGDEN FIELD



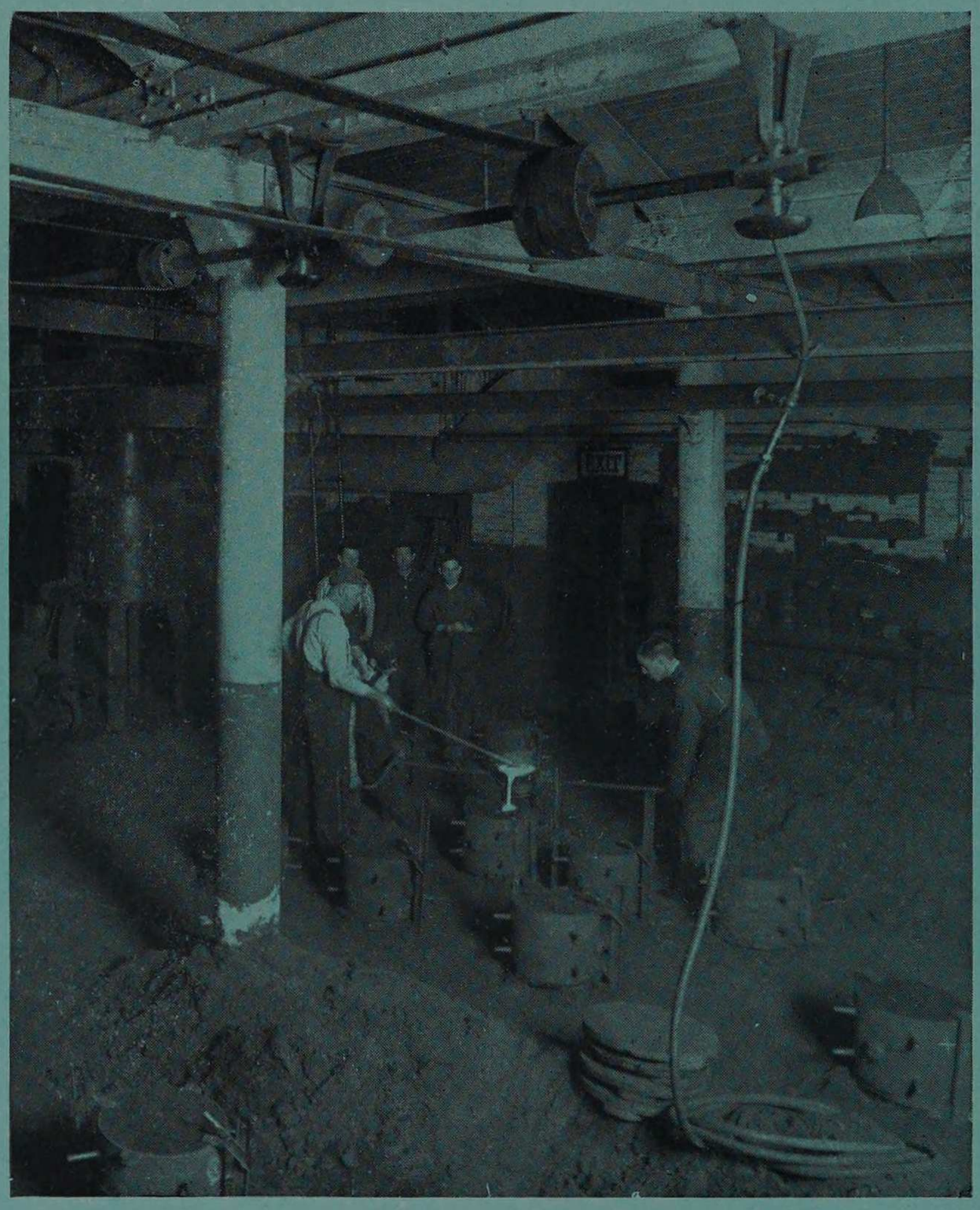
MAIN STAIRWAY

THE LIBRARY

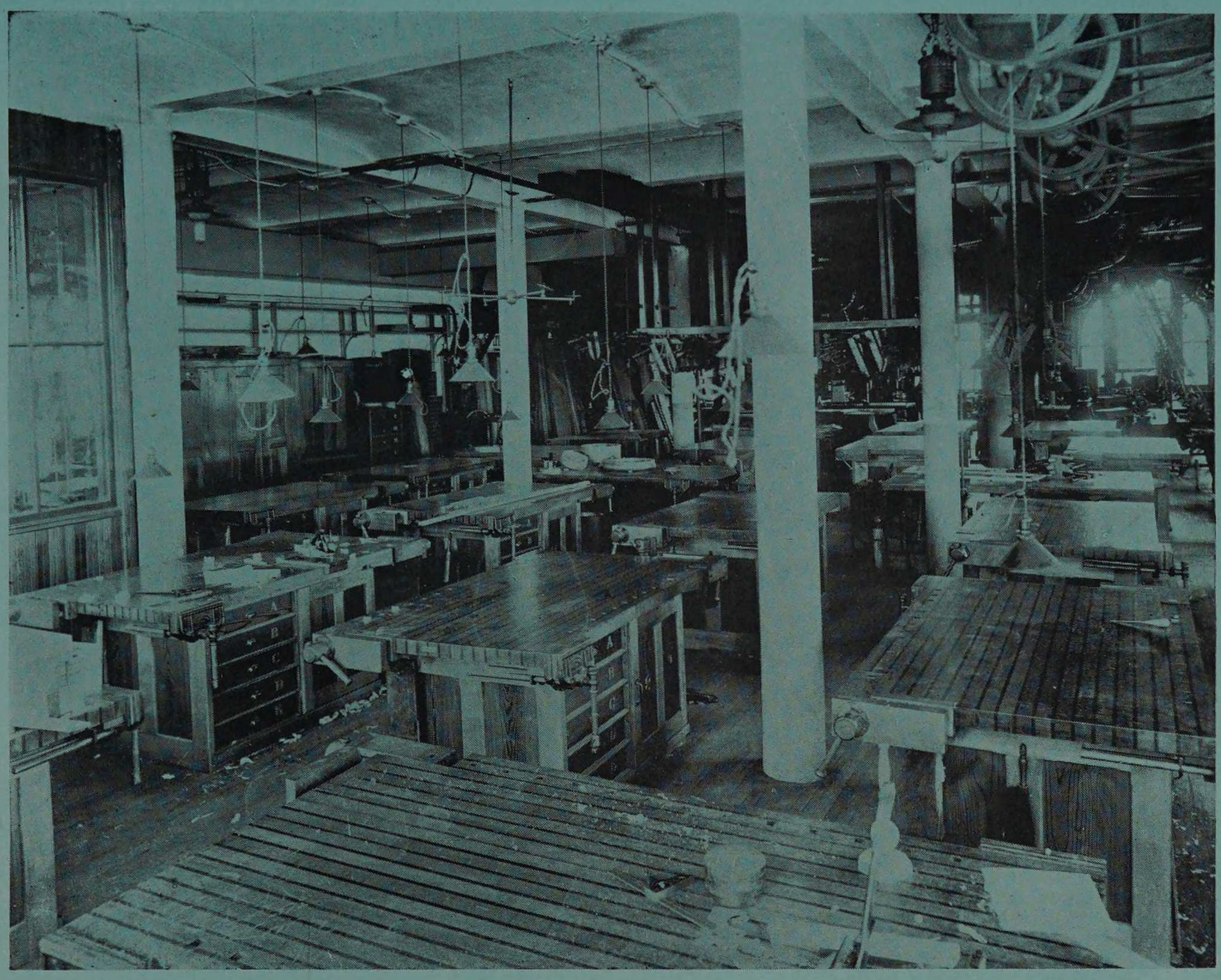


SECTION OF ASSEMBLY HALL

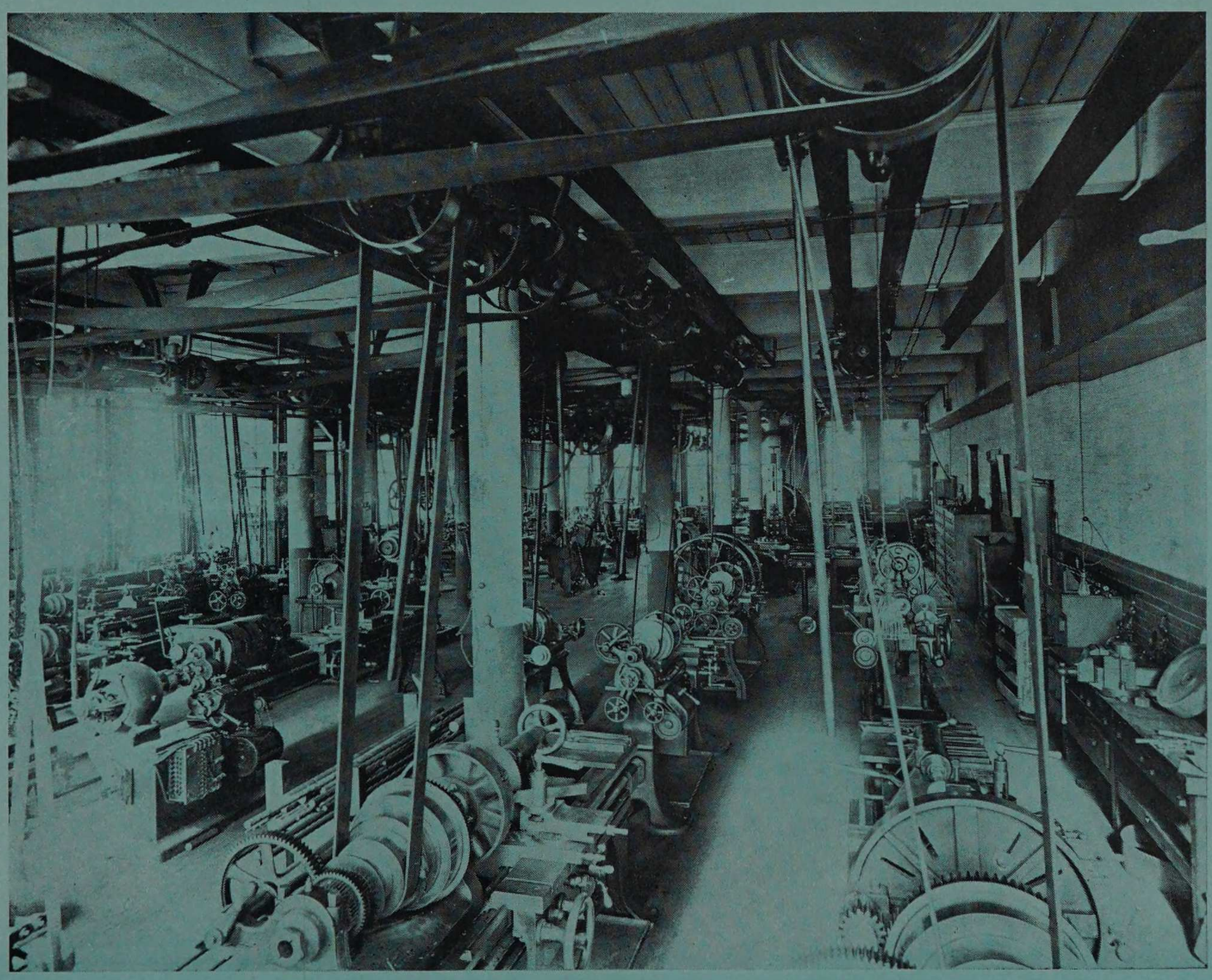
Y. M. C. A. ROOM



FOUNDRY

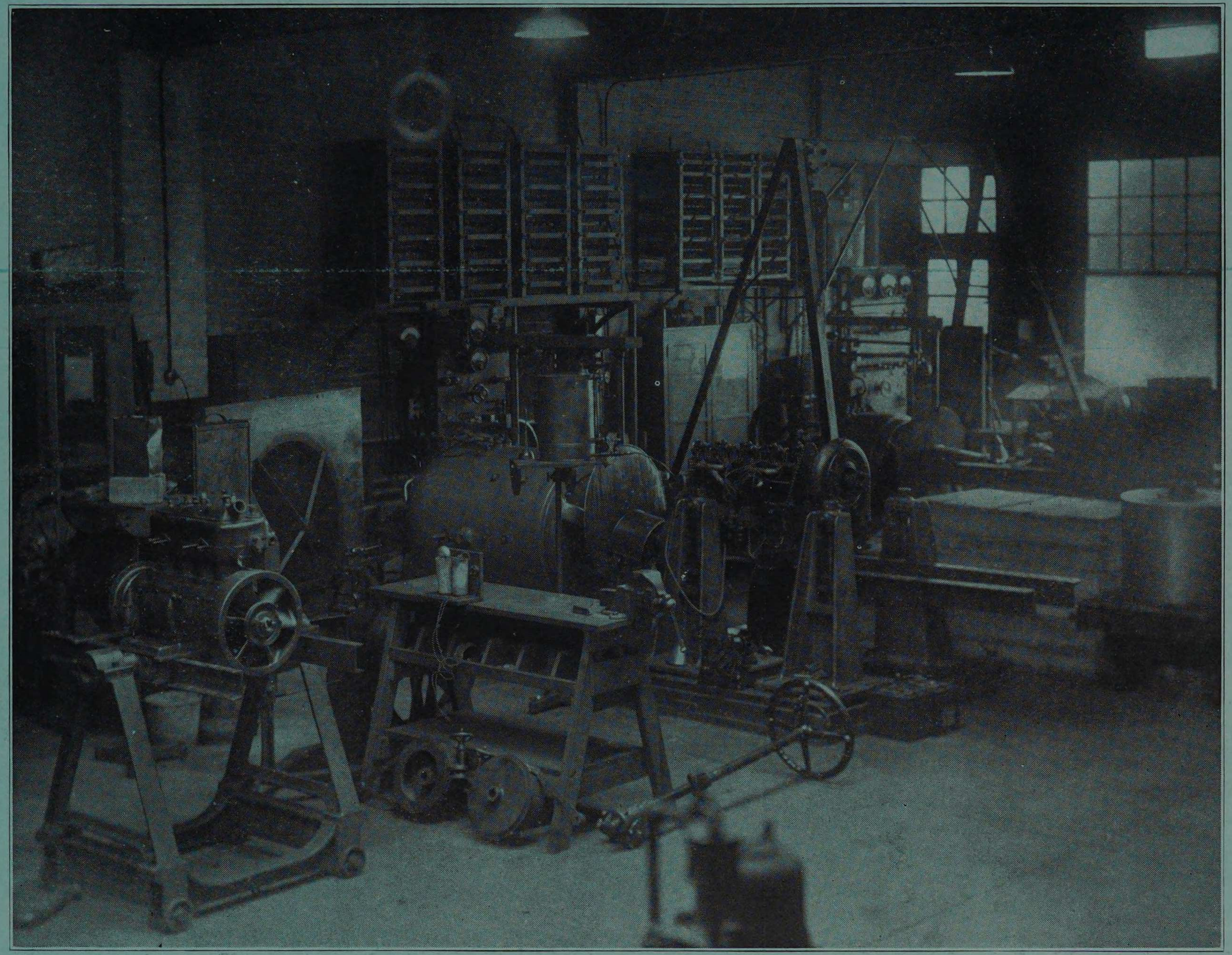


WOOD SHOP

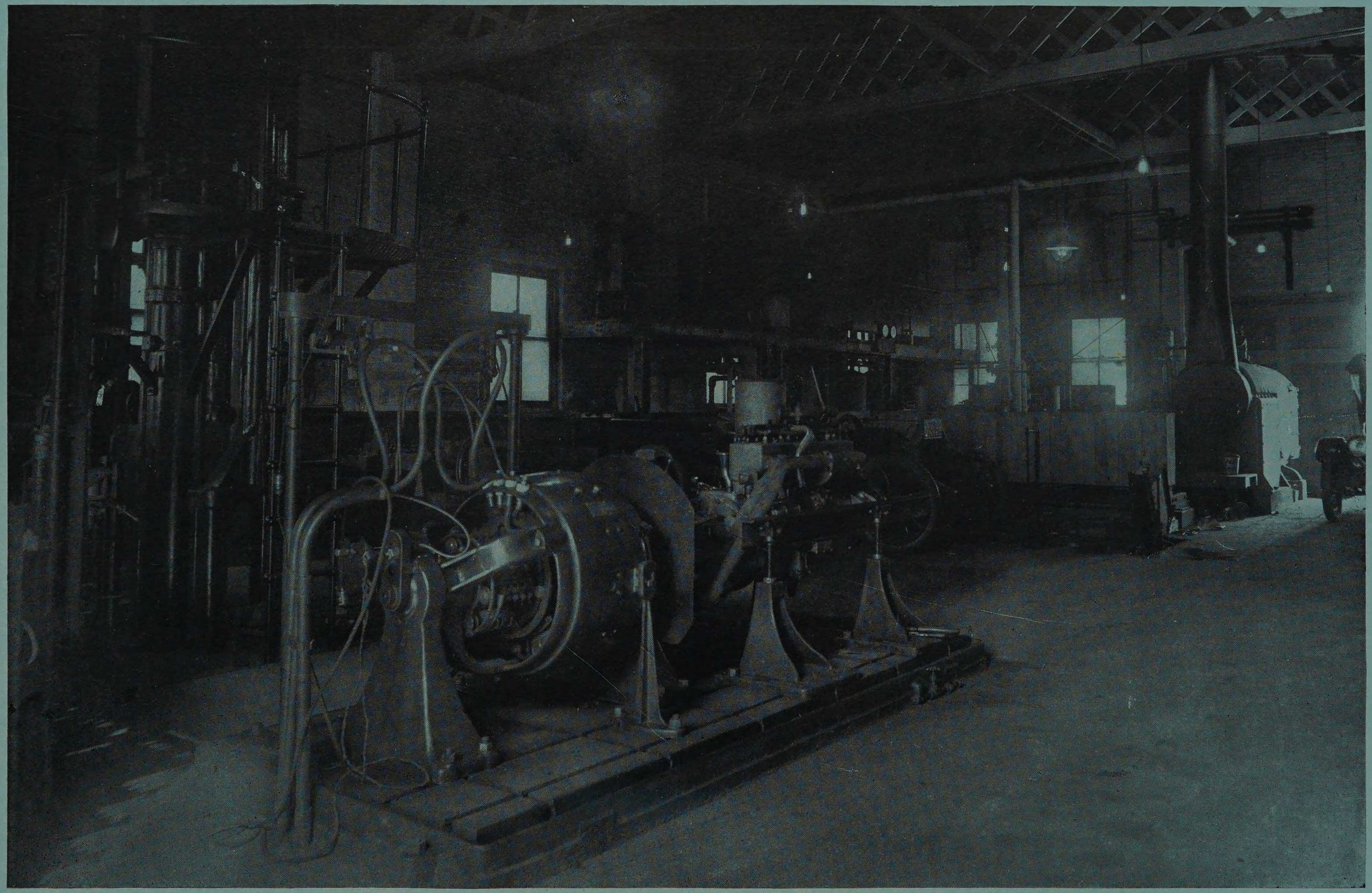


MACHINE SHOP

FORGE SHOP

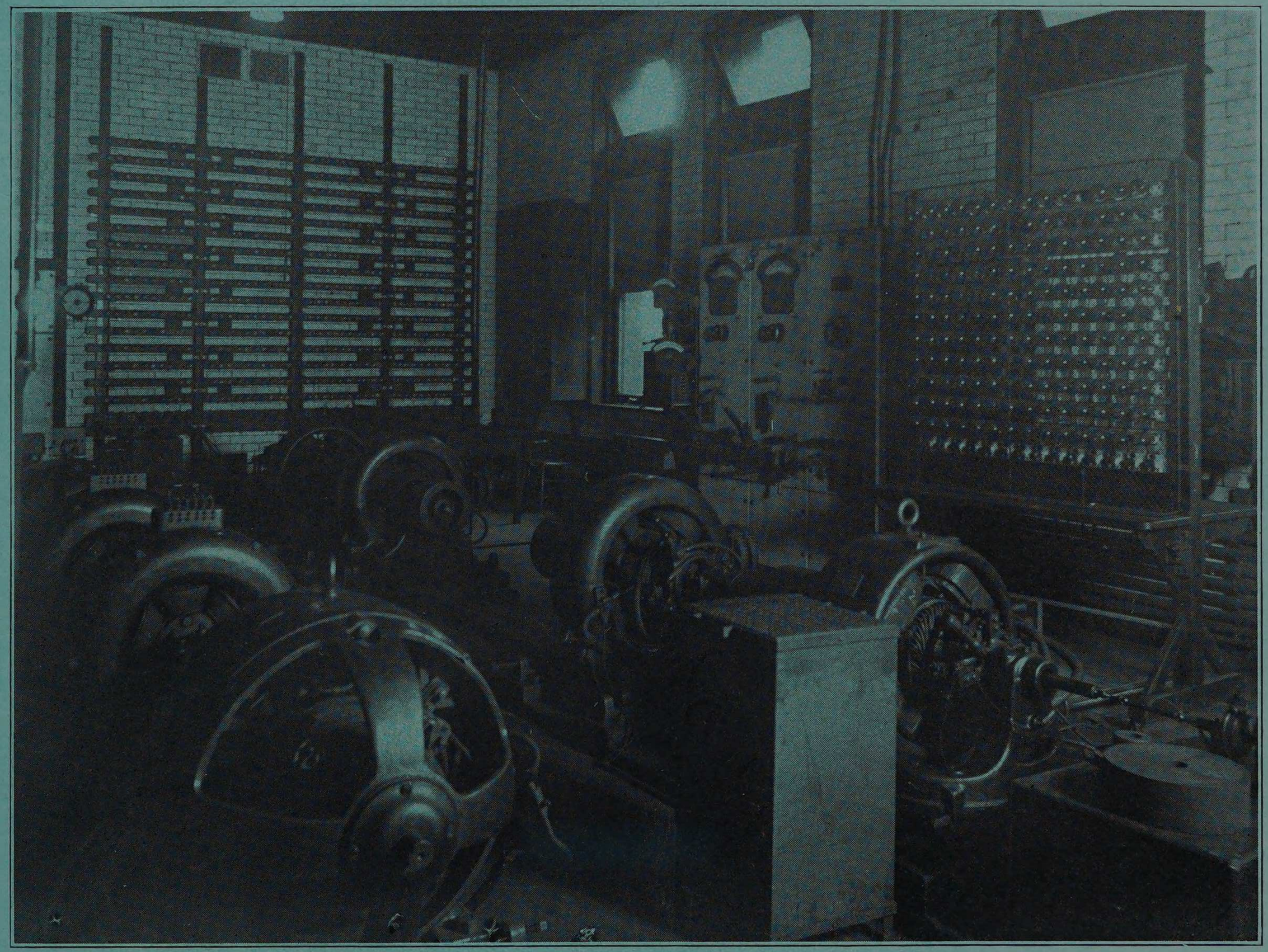


GAS LABORATORY

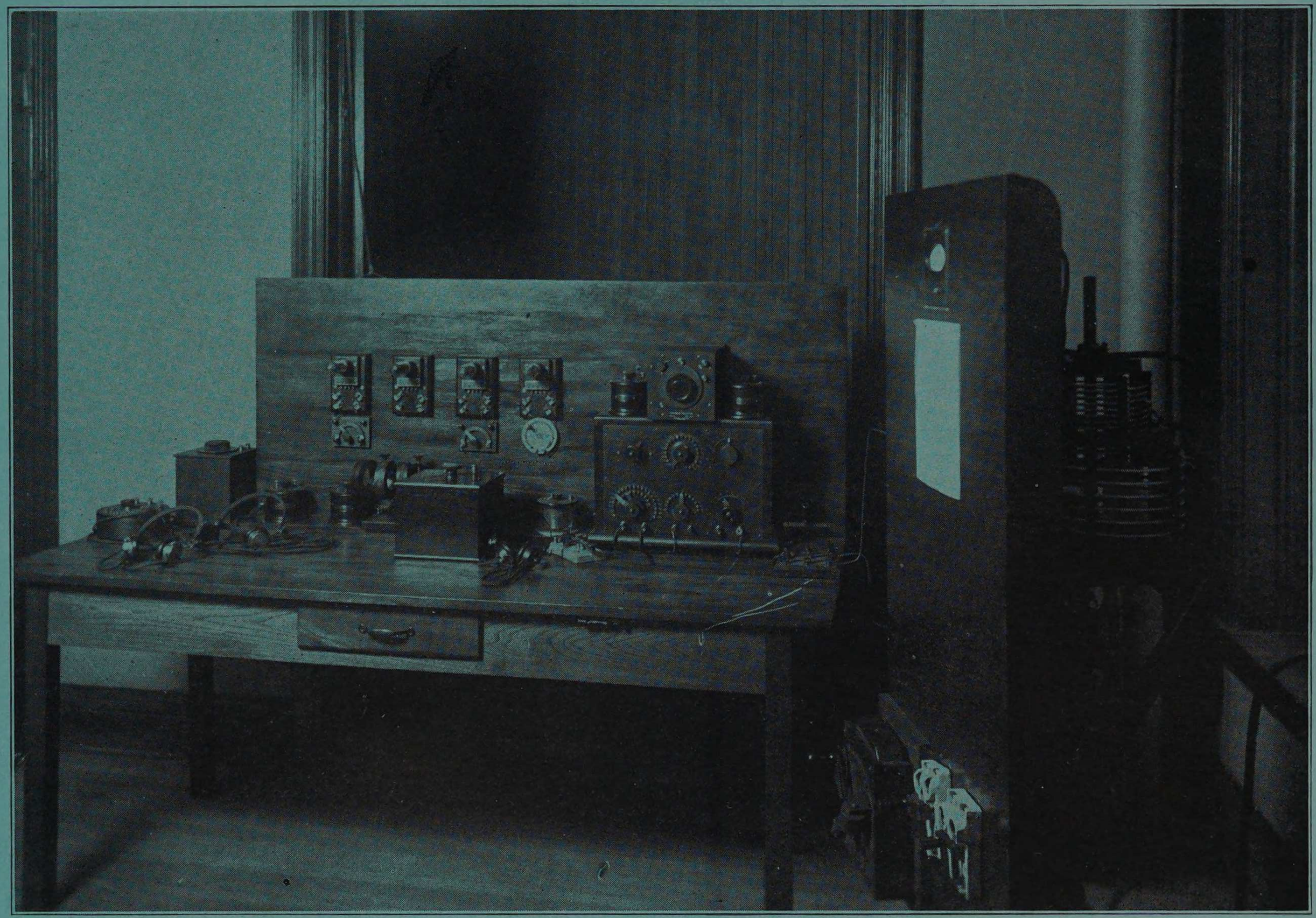


REFRIGERATION LABORATORY

POWER PLANT



DYNAMO LABORATORY



WIRELESS OPERATING ROOM

SECTION OF CHEMICAL LABORATORY

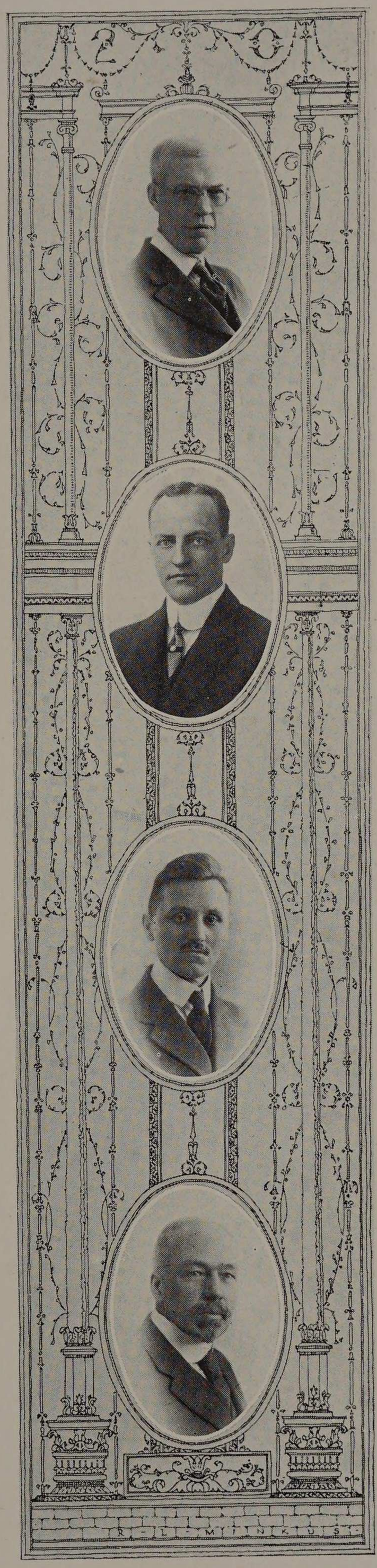
PHYSICS LABORATORY

SCULPTURE ROOM—ART INSTITUTE

SENIOR ROOM—ART INSTITUTE

JUNIOR DRAFTING ROOM—ART INSTITUTE

faculty



ALFRED EDWARD PHILLIPS

Professor of Civil Engineering.
Birthplace, Rouse's Point, N. Y.
A. B. and C. E., Union University, Schenectady, N. Y., 1887; A. M., 1890; Ph. D., 1894.
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Professor of Mechanical Engineering.
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Author of "Physics Laboratory Manual."
Research Work on "Optical Rotary Power of Sugar in Non-Aqueous Solutions."
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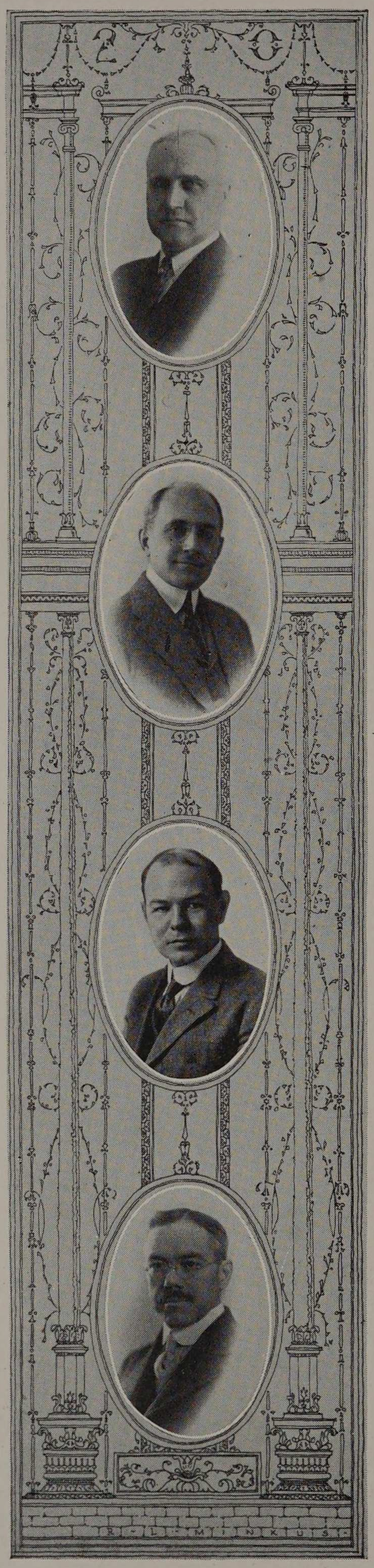

DONALD FRANCIS CAMPBELL

Professor of Mathematics.
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B. A., Dalhousie College, Halifax, Nova Scotia, 1890; B. A., Harvard University, 1893. A. M., 1895; Ph. D., 1898.
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Kappa Sigma; Phi Rho Sigma.
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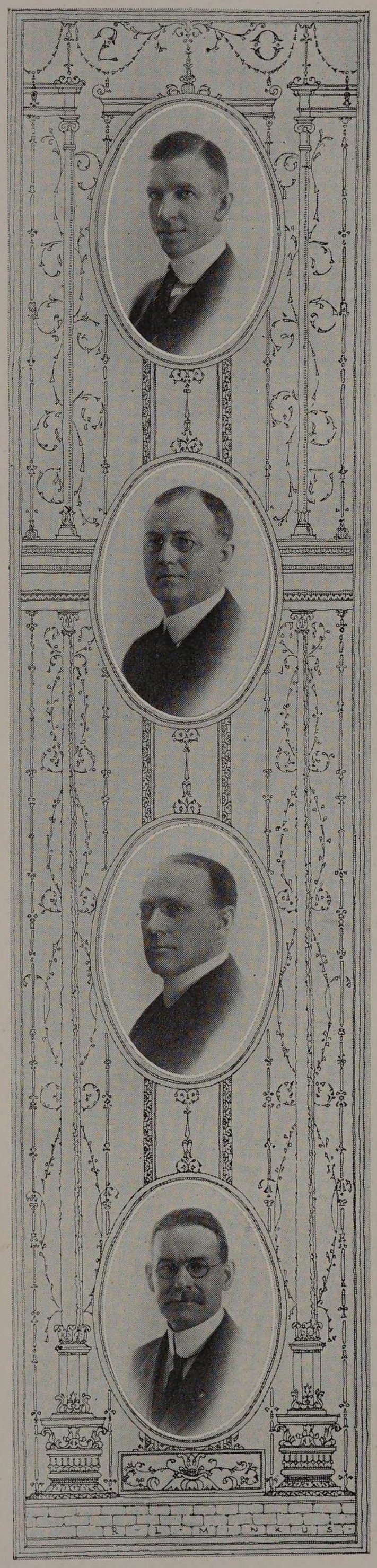

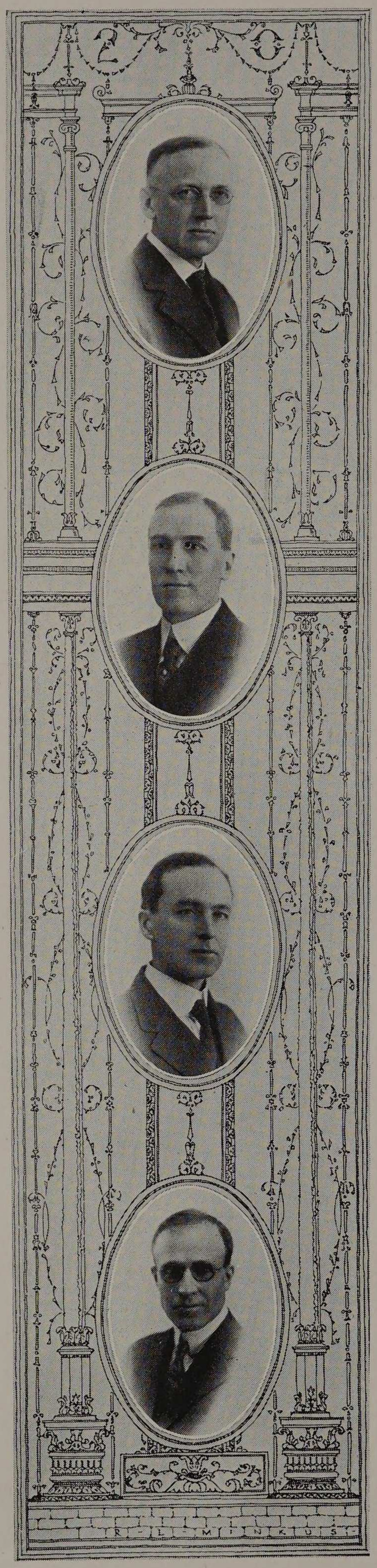

MELVILLE BAKER WELLS

Associate Professor of Bridge and Structural Engineering.
Birthplace, Commiskey, Indiana.
B. C. E., Purdue University, 1894; C. E., 1895.
Phi Delta Theta; Tau Beta Pi.
Member of Western Society of Engineers.
Author of "Steel Bridge Engineering."
Residence 11252 South Oakley Avenue, Chicago, Illinois.

ROBERT VALLETTE PERRY.

Associate Professor of Machine Design.
Birthplace, Hartford, Connecticut.
B. S., Armour Institute of Technology, 1897; M. E., 1902.
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THOMAS EATON DOUBT

Associate Professor of Physics.
Birthplace, Louisville, Kentucky.
B. S., Nebraska Wesleyan University, 1892; M. A., University of Nebraska, 1896; Ph. D., University of Chicago, 1904; Fellowships at University of Nebraska and University of Chicago; Prof, of Physics at University of Washington, Seattle, 1897 to 1902.
Sigma Xi.
Fellow of the American Association for the Advancement of Science; Member of the American Physical Society.
Research Work on Absolute Color Equation, Velocity of Light and Spectrum Analysis. Optical Determination of Organic Compounds, Absorption of Gases by Charcoal.
Residence, 5402 Drexel Avenue.

CHARLES WILBUR LEIGH

Associate Professor of Mechanics.
Birthlplace, Peoria, Illinois.
B. S., University of Illinois, 1897.
Phi Gamma Delta; Tau Beta Pi.
Author of "A Text Book on Trigonometry—Solid Geometry"; "Commercial Arithmetic" for the American School ot Correspondence; Coauthor of a text book on Trigonometry.
Residence, 7320 Lafayette Avenue.

DAVID PENN MORETON

Associate Professor of Electrical Engineering.
Birthplace, Moscow, Ohio.
B. S., Armour Institute of Technology, 1906; E. E., 1910.
Tau Beta Pi.
Associate Member of American Institution of Electrical Engineers.
Author of "Practical Applied Electricity," "Drake's Telephone Handbook," "Electrical Measurements and Meter Testing," "Electrical Equipment of the Motor Car," etc.
Residence, 3813 Michigan Avenue. Chicago.

BENJAMIN BALL FREUD.

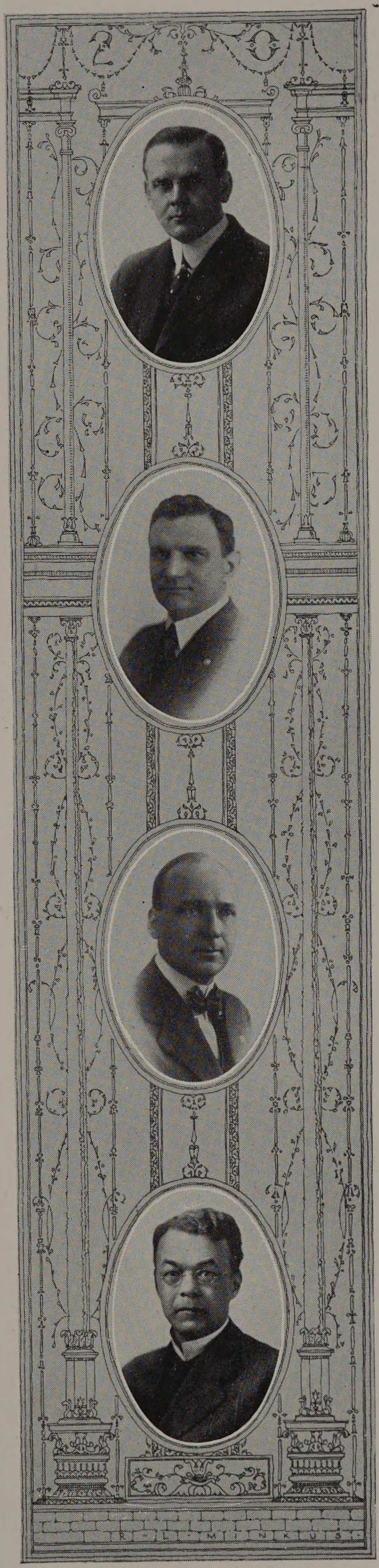
Associate Professor of Organic Chemistry.
Birthplace, Chicago, Illinois.
B. S., University of Chicago, 1904; Ch. E., Armour Institute of Technology.
Phi Beta Kappa; Sigma Xi.
Member of American Chemical Society; American Electro-Chemical Society; American Institute of Mining Engineers.
Associate Member of American Physical Society.
Physico-Organic Research on "Oxidation."
Residence, 3273 Altgeld Street.

CHARLES AUSTIN TIBBALS

Associate Professor of Analytical Chemistry.
Birthplace, New York.
A. B., University of Wisconsin, 1904; A. M., 1906; Ph. D., 1908.
Phi Gamma Delta; Phi Lambda Upsilon; Sigma Xi.
American Chemical Society and American Association for the Advancement of Science. Original Research, "A Study of Tellurides."
Residence, 5203 Woodlawn Avenue.

CLYDE BARNES COOPER

Associate Professor of English.
Birthplace, Prairie City, Illinois.
M. A., University of Iowa; Ph. D., University of Chicago.
Residence, 1126 East 62nd Street.



OLIVER CHARLES CLIFFORD

Associate Professor of Electrical Engineering.
Birthplace, Wadsworth, Ohio.
A. B., Oberlin College, 1893; Ph. D., University of Chicago, 1907.
Sigma Chi.
Member of American Society of Mechanical Engineers.
Research Work on "Susceptibility of Copper and Tin Alloys" and "Study of Heusler Alloys."
Residence, 6053 Woodlawn Avenue.

CLAUDE IRWIN PALMER

Associate Professor of Mathematics.
Birthplace, Michigan.
A. B., University of Michigan, 1903.
Member of the American Association for the Advancement of Science; American Mathematical Society; Mathematical Association of America.
Author of "Arithmetic with Applications," "Geometry with Applications" "Algebra with Applications," "Trigonometry and Logarithms," Co-author of Trigonometry; Co-Author of Plane and Solid Geometry.
Residence, 6440 Greenwood Avenue.

HENRY LEOPOLD NACHMAN

Associate Professor of Thermodyna--mics.
Birthplace, Sommerfeld, Germany.
B. S., Armour Institute of Technology, 1902; M. E., 1905.
Tau Beta Pi; Beta Phi.
Residence, 6049 Eberhart Avenue.

DANIEL ROESCH.

Associate Professor of Gas Engineering.
Birthplace, Aurora, Illinois.
B. S., Armour Institute of Technology, 1904; M. E., 1908.
Tau Beta Pi; Beta Phi.
Member of American Society for Testing Materials; Society of Automotive Engineers, Inc.
Chairman Publication Committee, S. A. E.
Residence, 6230 St. Lawrence Avenue.

HERBERT JULIUS ARMSTRONG

Associate Professor of Railway Engineering.
Birthplace, Sunderland, Mass.
B. S., Massachusetts Agricultural College, 1897..
Phi Sigma Kappa.
Member of American Railway Engineering Association.
Residence, 11353 South Irving Avenue, Morgan Park, Chicago.

EDWIN STEPHEN LIBBY

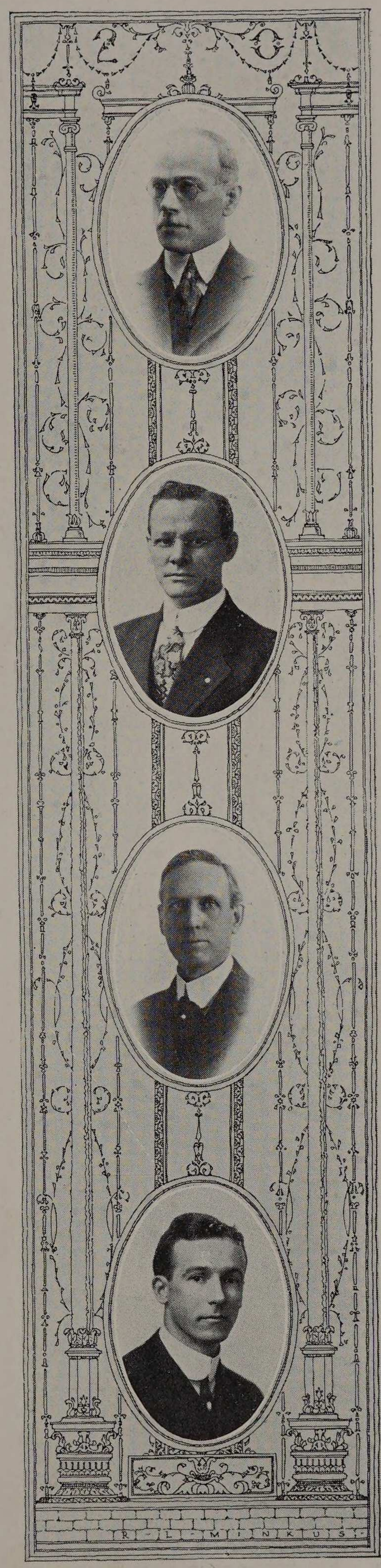
Associate Professor of Experimental Engineering.
Birthplace, Portland, Maine.
B. S., Armour Institute of Technology, 1902; M. E., 1907.
Tau Beta Pi.
Member American Society of Mechanical Engineers.
Residence, 11028 Esmond Street.

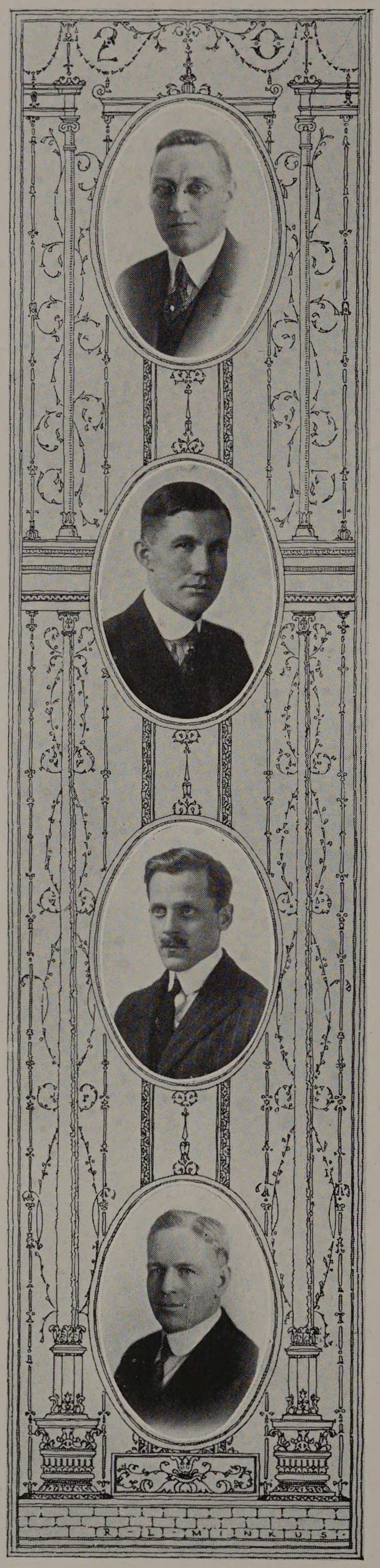
WILLIAM GRISWOLD SMITH

Assistant Professor of Descriptive Geometry and Kinematics.
Birthplace, Toledo, Ohio.
M. E., Cornell University, 1892.
Delta Kappa Epsilon; Sphinx Head; Sigma Kappa Delta.
Author of "Practical Descriptive Geometry."
Residence, 6758 Perry Avenue.

JAMES CLINTON PEEBLES

Assistant Professor of Experimental Engineering.
Birthplace, Dreghorn, Scotland.
B. S., Armour Institute of Technology, 1904; E. E., 1908; M. M. E., Cornell University, 1908.
Gamma Alpha; Sigma Xi; Tau Beta Pi; Sigma Kappa Delta.
Research Work on "An Oscillograph Study of Commutation."
Residence, 436 West 72nd Street.





JOHN CORNELIUS PENN.

Associate Professor in Hydraulic Engineering.
Birthplace, Wetering, Netherlands.
B. S., Armour Institute of Technology, 1905; C. E., 1910.
Tau Beta Pi; Omega Lambda.
Member Western Society of Engineers; Society for the Promotion of Engineering Education.
Residence, 49 West 109th Street.

PHILLIP C. HUNTLY

Associate Professor in Experimental Engineering.
Birthplace, Camden, Arkansas.
B. S., Arkansas University, 1909.
Sigma Chi; Tau Beta Pi.
Member American Society for Testing Materials; Member American Steel Treater's Society.
Residence, 4222 Grand Boulevard.

EARL H. REED, JR.

Associate Professor of Architectural Design.
Birthplace, Norwood Park, Illinois.
S. B., Massachusetts Institute of Technology, 1907; Student Gaston Redon, 1909-1913; Ecole des Beaux Arts, Paris, France.
Delta Kappa Epsilon; Scarab, Illinois Chapter; American Institute of Architects.
Office, 108 N. Dearborn Street.
Residence, 4758 Lake Park Avenue.

EUGENE EDWARD GILL.

Associate Professor of General Chemistry.
Birthplace, Boring, Maryland.
Ph. B., Dickinson College, 1897; Ph. D., Johns Hopkins University, 1909.
Phi Beta Kappa.
Member of American Chemical Society.
Research Work on the "Determination of Osmotic Pressure of Cane Sugar Solutions."
Residence, 5739 Maryland Avenue.

J. E. MANGOLD

Associate Professor of Mechanics.
Birthplace, Waupeton, Iowa.
B. S., Cornell College, 1907; B. E., State University, Iowa, 1911; C. E., 1916.
American Society of Civil Engineers.
Residence, 6617 Kenwood Avenue.

JOHN SIMPSON REID, SR.

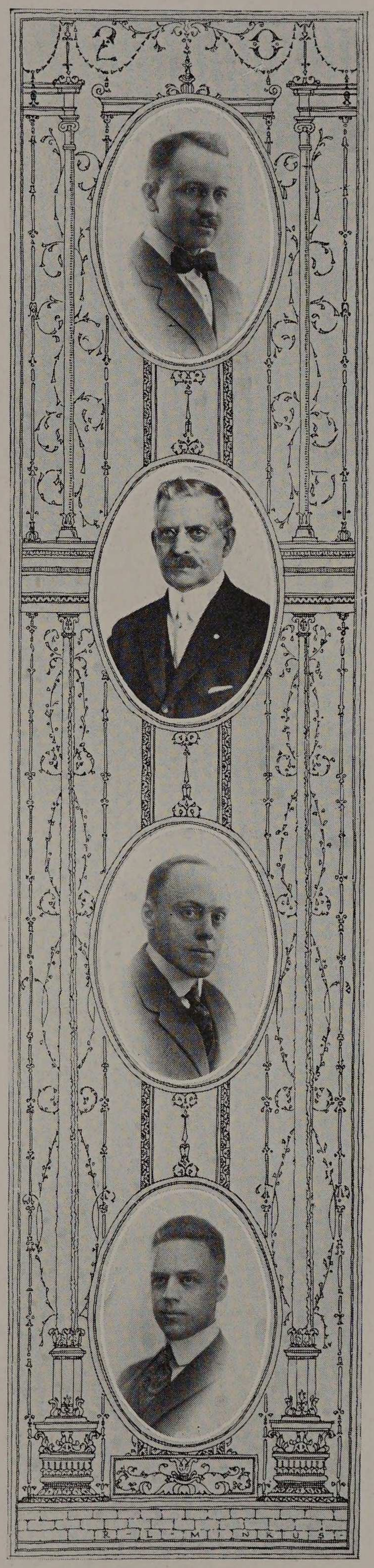
Assistant Professor of Mechanical Drawing and Elementary Machine Drawing.
Birthplace, Kilmarnock, Ayrshire, Scotland.
Irving College, British Government Science and Art Schools, Glasgow, Scotland.
Member of American Society of Mechanical Engineers.
Author of "Mechanical Drawing, Elementary and Advanced," "Drawing and Designing," "Investigations into Drafting Room Conventions in the United States, 1909," "Mechanical Drawing Simplified," "Mechanical Drawing," 1919.
Residence, 6224 Kimbark Avenue, 3rd Apartment, Phone H. P. 1171.

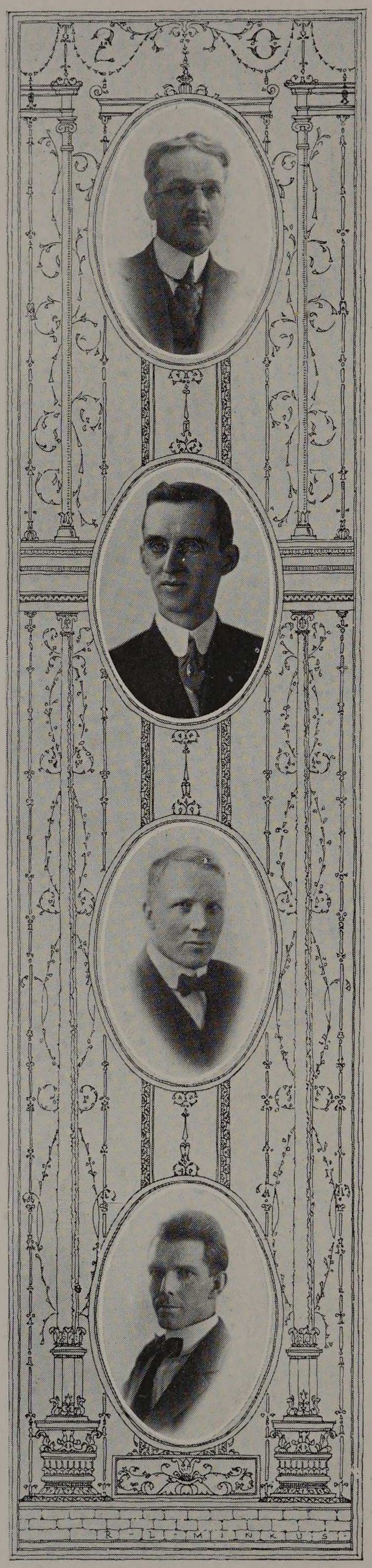
WILLIAM CHARLES KRATHWOHL

Assistant Professor of Mathematics.
Birthplace, Buffalo, New York.
A. B., Harvard College, 1907; M. A., Columbia, 1910; Ph. D., Chicago University, 1913
Research Work on Modular Invariants.
Residence, 6107 Woodlawn Avenue.

WILLIAM H. LAUTZ, JR.

Assistant Professor in Architecture.
Birthplace, Chicago, Illinois.
B. S., Armour Institute of Technology, 1913.
Tau Beta Pi; Sigma Kappa Delta; Scarab.
Residence, 7925 S. Green Street.





ALBERT H. KREHBIEL

Instructor in Freehand Drawing, and Water Color.
Birthplace, Iowa.
Bethel College, Studied at Art Institute and in Paris.
Member of Various Art Societies.
Residence, Park Ridge, Illinois.

CHARLES R. SWINEFORD

Instructor in Descriptive Geometry.
Birthplace, Van Wert, Ohio.
B. S., University of Michigan, 1907-1908.
Residence, 6506 Kimbark Avenue.

AUGUST C. WILMANNS

Assistant Professor of Agricultural Construction.
Birthplace, Chicago, Illinois.
University of Illinois, 1892.
Illinois Society of Architects.
Office, 35 South Dearborn Street.
Residence, 2506 Orchard Street.

HAROLD ROMAINE PHALEN

Instructor in Mathematics.
Birthplace, Acton, Massachusetts.
Tufts College, B. S.
Sigma Tau Alpha.
Residence, 6438 Greenwood Avenue.

CHARLES A. NASH

Assistant Professor of Electrical Engineering.
Birthplace, Elizabeth, Illinois.
B. S., Electrical Engineering, University of Illinois, 1909.
Sigma Xi.
Member of American Institution of Electrical Engineers.
Residence, 4715 North Spaulding Avenue.

WALTER A REINERT

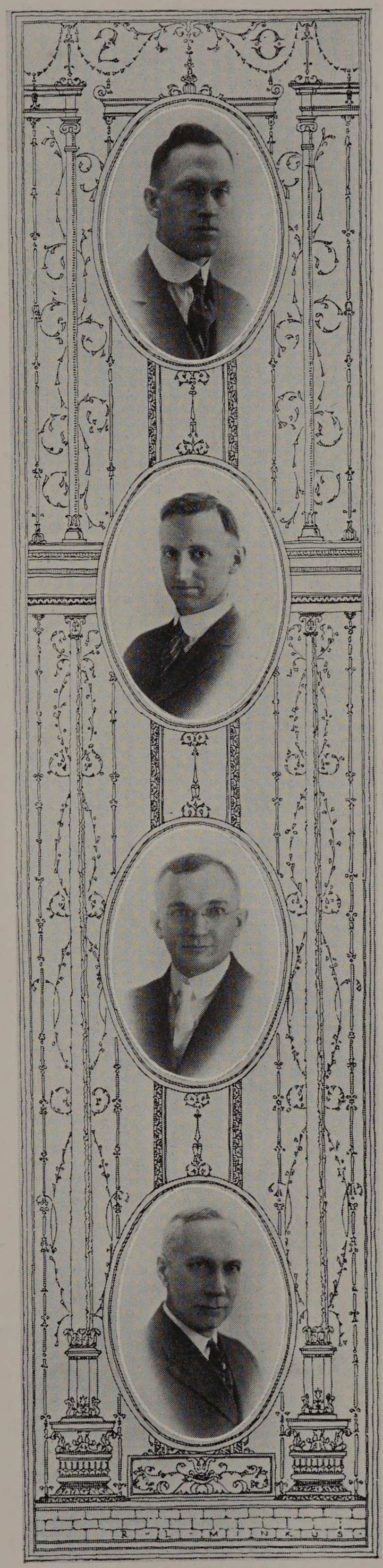
Assistant Professor of Civil Engineering.
Birthplace, Milwaukee, Wis.
B. S., Civil Engineering, University of Wisconsin.
Residence, 5405 Eggleston Avenue, Chicago, Ill.

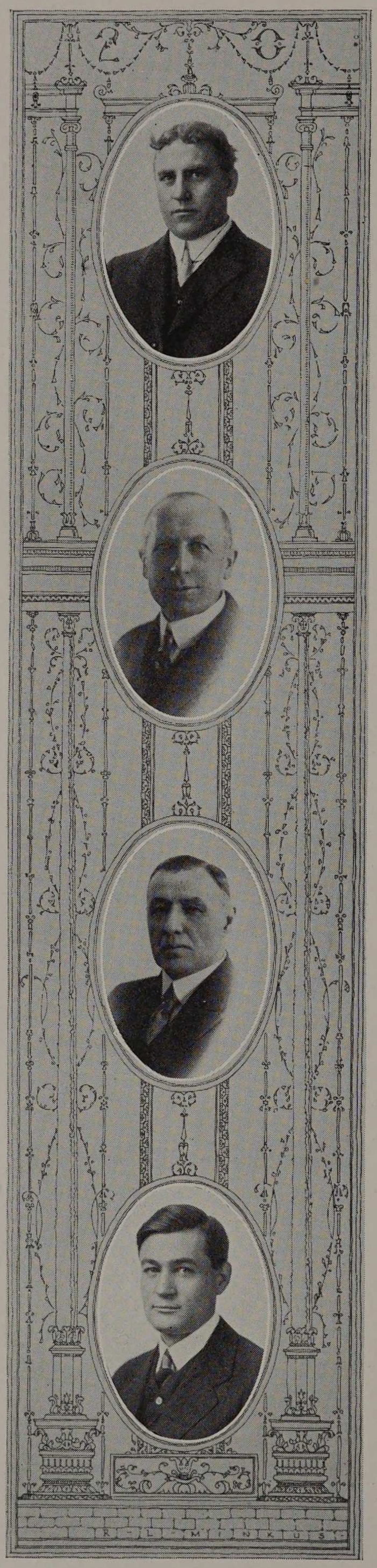
WILSON LEE MISER

Assistant Professor of Mathematics.
Birthplace, Pea Ridge, Arkansas.
B. A., University of Arkansas, 1908; M. A., University of Yale, 1911; Ph. D., University of Chicago, 1913.
Sigma Xi.
Member of American Mathematical Association of America; Member of American Association for Advancement of Science.
Residence, 3840 Roscoe Street.

EDWARD DIEHL AGLE

Superintendent of Shops and Instructor in Machine Tool Work.
Birthplace, Greencastle, Pa.
Residence, 635 East 41st Street.





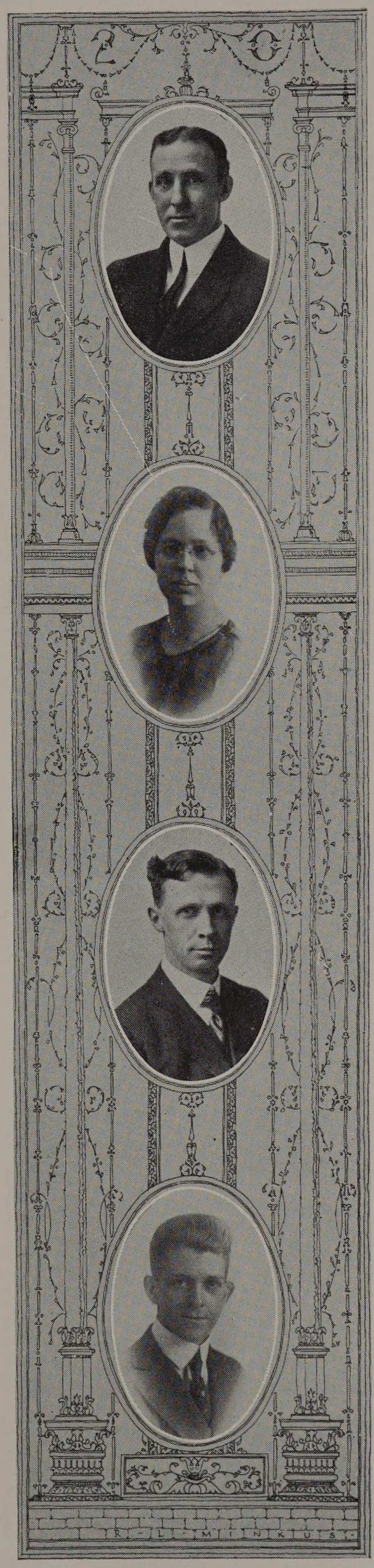
NELS PETER PETERSON
Instructor in Woodworking.
Birthplace, Hoganas, Sweden.
Residence, 1534 North Leavitt Street.

CHARLES HENRY FORNHOF
Instructor in Machine Tool Work.
Birthplace, Chicago, Illinois.
Residence, 1255 Thorndale Avenue.

CHARLES L. LARSEN
Instructor in Founding.
Birthplace, Chicago. Illinois.
Residence, 1101 North Richmond St.

JOHN J. SCHOMMER
Instructor in Industrial Chemistry.
Birthplace, Chicago, Illinois
B. S., University of Chicago, 1909; one year of Research Work in Bacteriology, Yeast and Moulds, 1910.
S. B., in Chemical Engineering, Armour Institute of Technology, 1912.
Phi Kappa Sigma; Owl and Serpent; University Marshal.
Member of American Chemical Society; American Association for the Advancement of Science; American Society for Testing Materials.
Residence, 564 Roscoe Street..

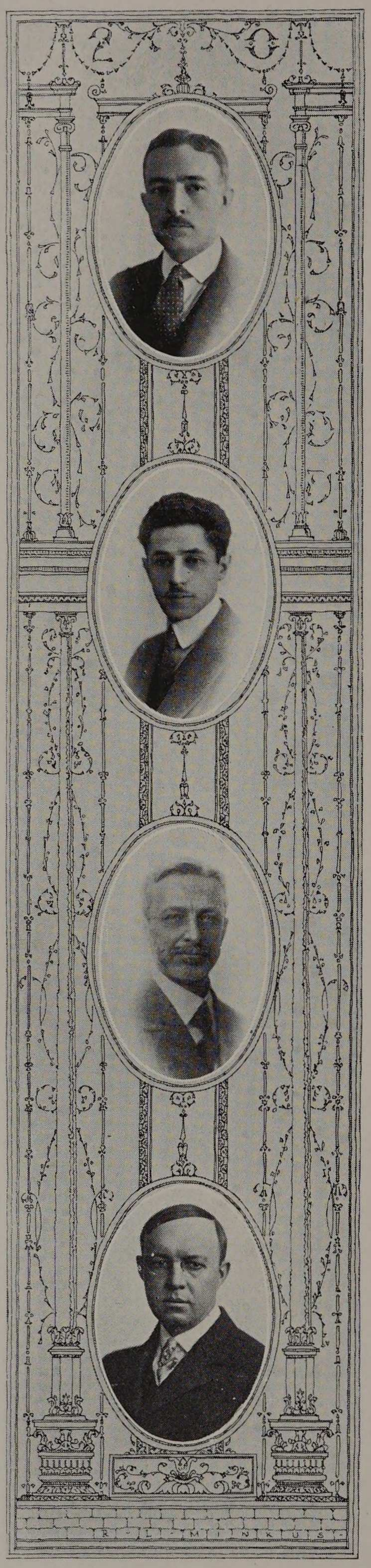
JOSEPH PATRICK KENNEDY
Instructor in Forging.
Birthplace, Chicago, Illinois.
Residence 5621 South Loomis Street.



ABIGAIL E. FISCHER
Librarian.
Birthplace, Geneseo, Illinois.
A. B., University of Illinois, 1915.
Alpha Xi Delta.
Member American Library Association; Member Chicago Library Club.
Residence, 6140 Dorchester Avenue.

ORDEN GRAY SHERMAN
Instructor in Gas Engineering.
Birthplace, Chicago, Illinois.
M. E., Lewis Institute, 1910.
Residence, 3680 Milwaukee Avenue.

LYNN EUGENE DAVIS
Instructor of Experimental Engineering.
Birthplace, Milwaukee, Wisconsin.
B. S., Armour Institute of Technology, 1919.
American Society of Mechanical Engineers.
Residence, 3634 Michigan Avenue.



OTTO LOUIS ROBINSON

Instructor in Fire Protection Engineering.
Birthplace, New Albany, Indiana.
B. S., Purdue University, 1916.
Achcia.
Residence, 1645 E. 67th St., Chicago, Illinois.

CHARLES B. GOODMAN

Director of Athletics.
Birthplace, Chicago, Illinois.
Chicago Seminar of Science.
Residence, 3735 W. 16th Street.

FRANK HALL CHILDS

Lecturer on Business Law.
Birthplace, Findlay, Ohio.
Columbia Law University, Union College of Law, Kent Law School; LL. B., admitted to the Bar, 1884.
Member of the American Bar Association; Illinois State Bar Association; the Chicago Bar Association.
Residence, 2241 Calumet Avenue.

THOMAS EDDY TALLMADGE

Lecturer on History of Architecture,
Birthplace, Washington, D. C.
S. B., Massachusetts Institute of Technology, 1898.
Phi Beta Epsilon.
Member of Illinois Chapter of American Institute of Architects.
Winner of Traveling Scholarship, Chicago Architectural Club, 1904.
Residence, University Club, Evanston, Illinois.

EMIL ROBERT ZETTLER

Instructor in Architectural Sculpture.
Birthplace, Karlsruhe, Germany.
The Art Institute of Chicago; National Academy of Fine Arts, Berlin; Julian Academy, Paris.
Honors; Honorable Mention; American Artists Exhibition, Art Institute, 1913. Medal; Chicago Society of Artists, 1915. Bronze Medal; Panama-Pacific Exposition, 1915. Gold Medal; Potter Palmer Prize; A. I. of C., 1916. Medal; Mr. and Mrs. Frank G. Logan, A. I. of C., 1917.
Represented: Art Collection of the City of Chicago, "French Boy"; Art Institute af Chicago, the Mr. and Mrs. Frank G. Logan Medal. Sculptor Member of the Art Commission of the City of Chicago.
Residence, 4 East Ohio Street, Chicago, Illinois.

EDITH H. FORD

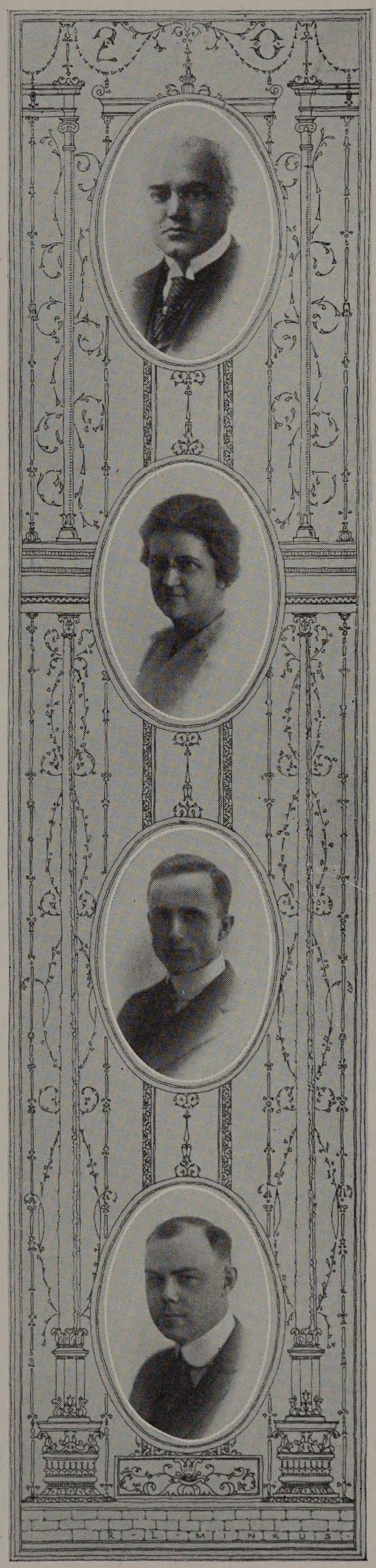
Assistant Librarian.
Birthplace, St. Paul, Minn.
Ph. B., University of Chicago. B. L. S., University of Illinois.
Library School.
American Library Association.
Illinois Library Association.
Chicago Library Club.
Residence, 3814 Rokeby Street.

STANTON EDWIN WINSTON

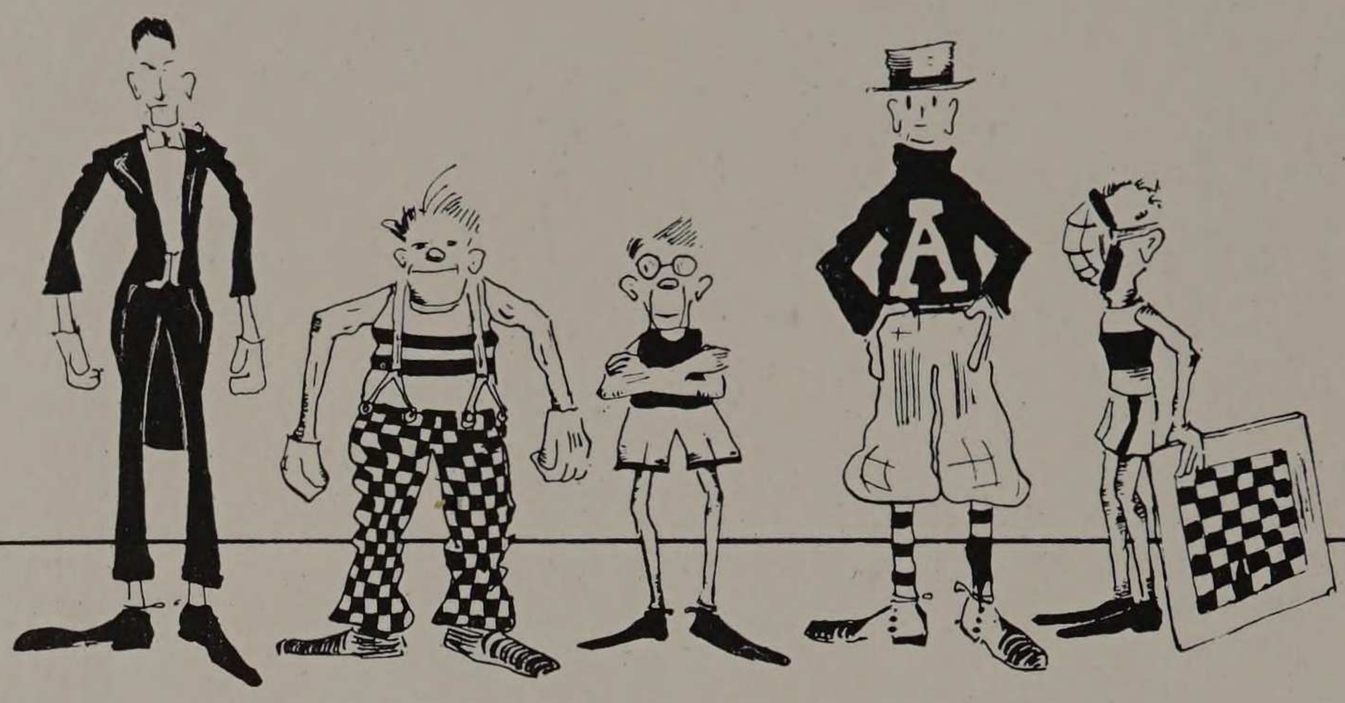
Instructor of Elementary Machine Drawing and Descriptive Geometry.
Birthplace, St. Johns, Mich.
Colorado Schools of Mines.
University of Denver, A. B., 1913.
Residence, 6450 Kimbark Avenue.

FRED C. SMITH

Instructor of Chemistry.
Birthplace, Marion, Ind.
Purdue University, B. S. in Ch. E., 1919.
Tau Beta Pi. Phi Lambda Epsilon.
Residence, 6241 Ellis Avenue.



Alumni
C.S. DAMPORTH '25.



ALUMNI

ARMOUR ALUMNI ASSOCIATION.

OFFICERS.

Sidney James	*President*
J. C. Penn	*Corresponding Secretary*
H. Nachman	*Treasurer*
John J. Schommer	*Secretary*

Board of Managers is as follows:

Grover Keeth	R. Henderson
J. C. Penn	W. J. Baer
M. S. Flinn	B. S. Carr
W. B. Povey	R. R. Harris

G. M. Liebnaber

THE ARMOUR ALUMNI ASSOCIATION.

The Armour Alumni Association held their midyear banquet at the City Club, January 17th.

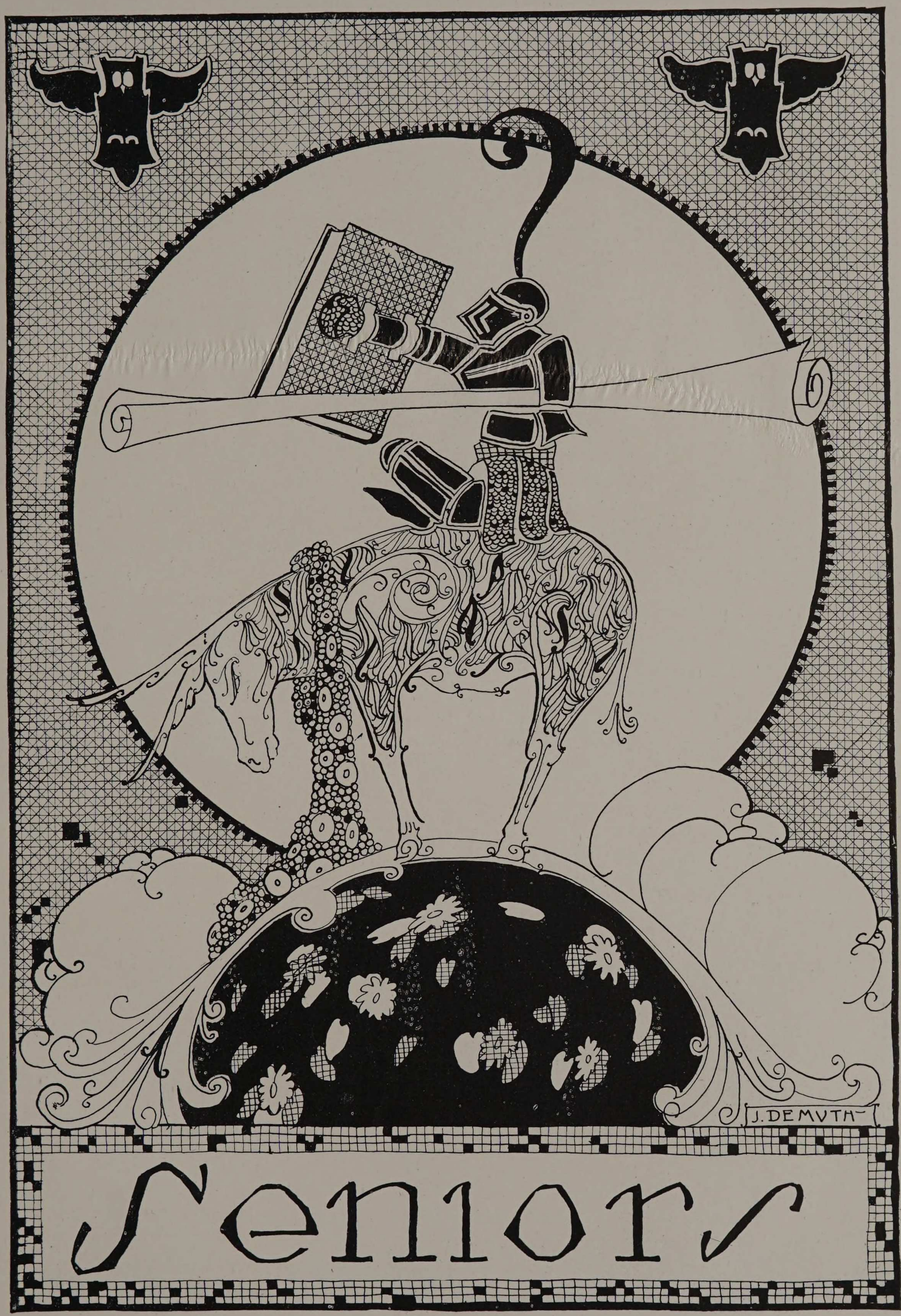
Allen Benedict was toastmaster. He led the singing. into which he put some real spirit.

Mr. W. T. Dean read a paper, prepared by Mr. Franklin de Beers, on "The assistance alumni may give and should give their Alma Mater."

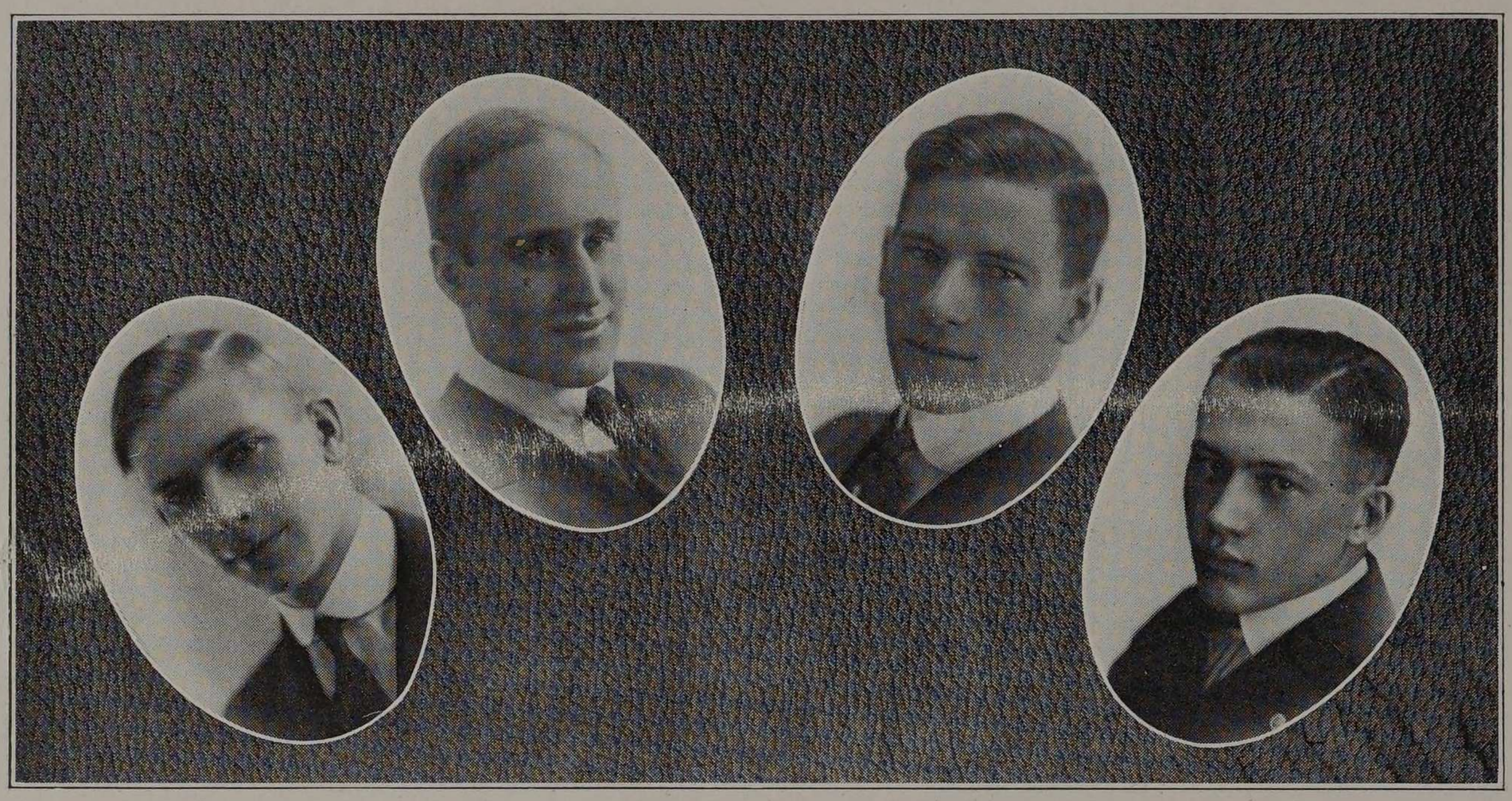
Dr. Frank W. Gunsaulus spoke on the brilliant future of our Alma Mater.

The Alumni Association is anxious to hear from our alumni, concerning their activities since leaving the Institute. Such an organization helps to instill the spirit of cooperation between students and alumni. May it continue to thrive and be a credit to the Institute.

Exshaw
Class
Soeur
Aîné
Junior
Senior



Senior



R. E. REGENSBURGER VOGT BREADY O'CONNOR

Officers of the Class of 1920

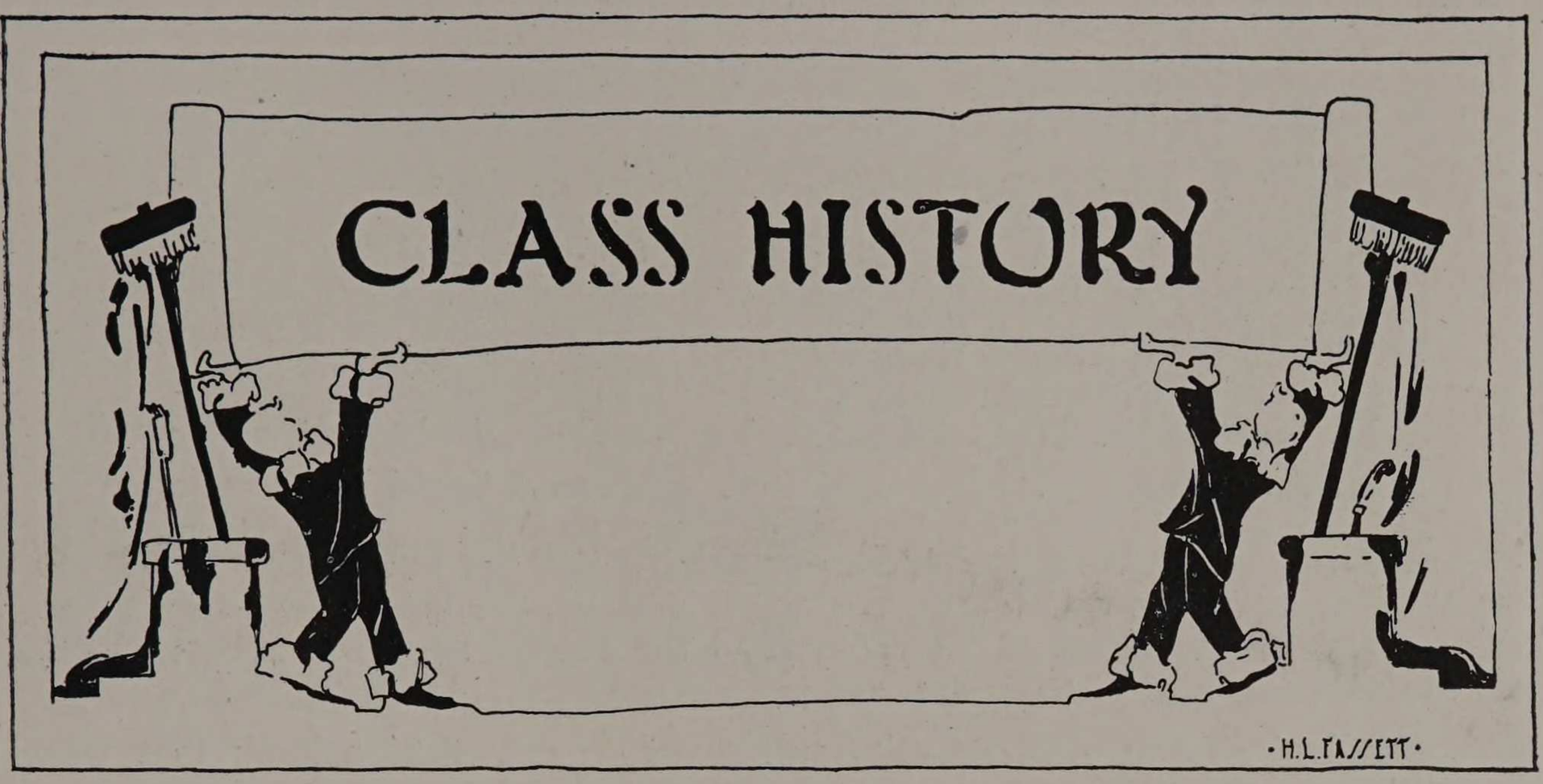
IRA JAMES BREADY . . . . . *President*
EMIL G. VOGT . . . . . *Vice-President*
WM. JOSEPH O'CONNOR . . . . . *Secretary*
RICHARD WILLIAM REGENSBURGER . . . . . *Treasurer*
L. E. JONES . . . . . *Cycle Representative*
WALTER WM. SEYFERLICH . . . . *Athletic Representative*

SOCIAL COMMITTEE

WM. N. ERICKSON, *Chairman*

F. A. HERTWIG R. S. ILLG

P. L. STERN H. E. ANDERSON



Four years ago on a bright September morning, the members of the class of 1920 assembled at Thirty-third and Federal sts., to begin their college careers and fit themselves for the upper positions in life. Totally unconscious of the obstacles that lay in our paths and gazing bewilderdly at the surroundings we timidly entered the portals of the Institute whose name to us now seems immortal. We registered and then work began.

We soon organized as a class and from the very beginning set out to break all records. First came the Freshman Handshake in which the upper classmen assured us that we were as welcome as water on the Sahara; not failing to remind us of the fact that a Freshman-Sophomore sack rush would give us an opportunity of displaying our athletic ability. The Sophomores however, little realized what they were confronting until that good natured scramble took place in a vacant lot near the school. From that time until the end of our career at Armour Institute, we have been feared by the athletes of all classes. Other events of the year were the Freshmen dance at the LaSalle Hotel and the smoker which followed our victorious sack-rush.

After sailing on the high seas for a year, we felt like veterans in September of 1917, when our Sophomore year began. Nevertheless sad to relate, a few of our sailors were ship-wrecked, and remained behind, thereby leaving a smaller crew to guide the "1920 Ship."

The Sophomore class organized and another pleasant year began. Occasionally a mate was stranded, but he managed to pull out all right in the end, and the ship sailed on. The Sophomore dance was held at the Edgewater Beach Hotel, and all who were present had a mighty good time. In athletics we performed the customary act of winning with ease.

The third year was our most important one at the Institute. The first part of it was broken up by the S. A. T. C., and other military works, during which time many of our class mates answered their call to the colors and reflected honor upon the class.

When the military activities ceased we organized the Junior class and earnestly started to make things hum around the school. The following officers were elected.

W. M. Erickson	*President*
A. Lyon	*Vice-President*
R. Illg	*Secretary*
M. D. Gottlieb	*Treasurer*
J. J. Brady	*1st Marshall*
L. E. Jones	*2nd Marshall*
W. M. Seyferlich	*Athletic Manager*
H. Anderson	*Chairman Social Committee*

With men like these to handle our affairs, nothing but success could result. During this year two dances were held by the class, the first at the Edgewater Beach Hotel in February, and the second at the Congress Hotel in May, during Junior Week.

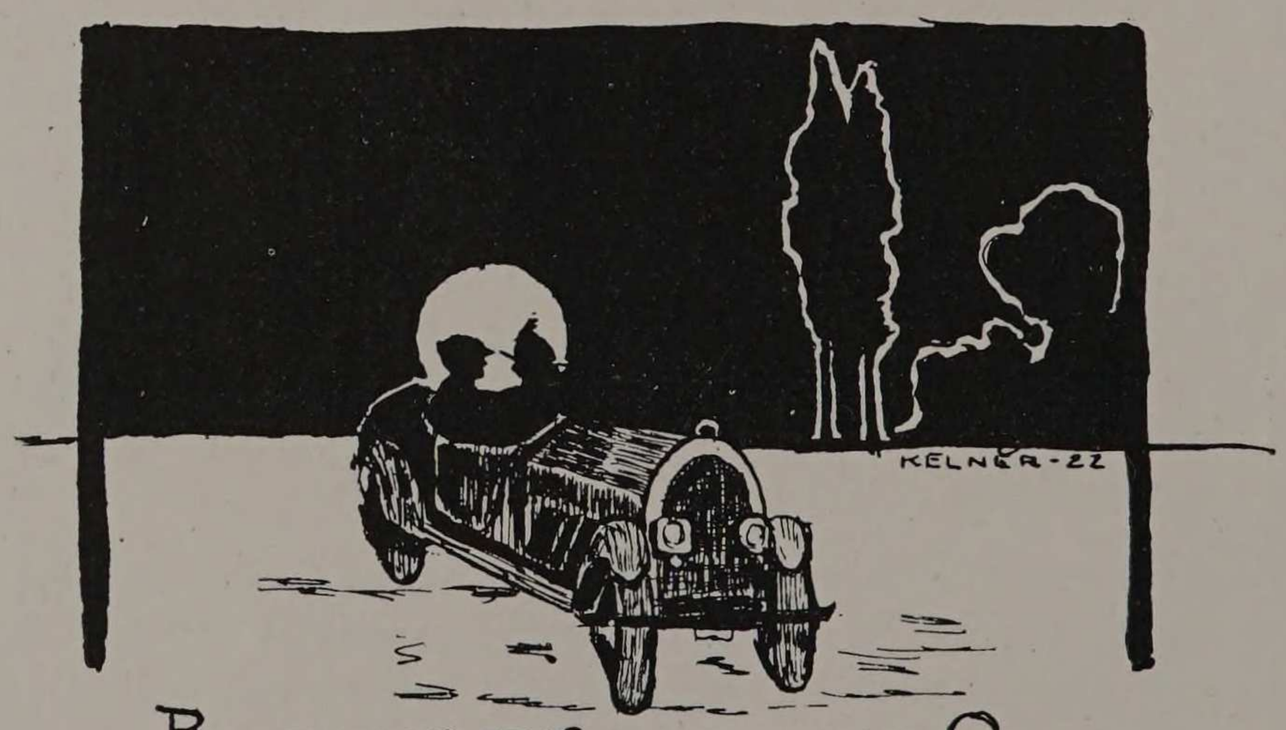
We had charge of the Cycle, and certainly published a book that was worth while, even though our start was a trifle tardy.

Athletics occurred in the usual way, a victory for the class that had yet to meet its Waterloo. During this same year, the class organized a Junior Jazz Band.

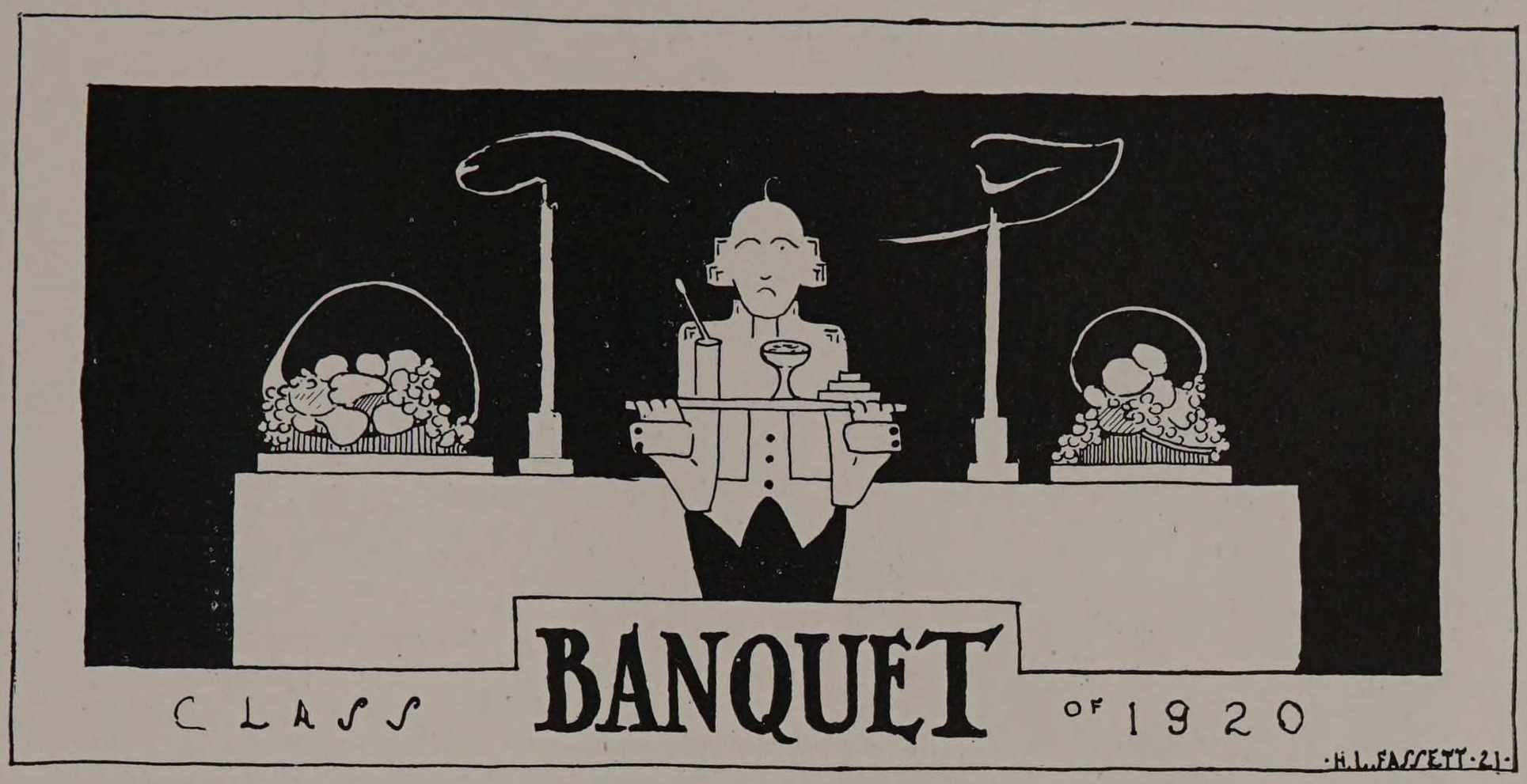
When the Senior year began we felt strong for the last lap. Officers were elected, and in due time the various teams were organized. As usual the class of 1920 was well represented on all school teams. In social activities the usual thing was accomplished this year, namely two Senior dances. Both were successes as heretofore.

And now at least, as we turn the final page in our book, graduation day reveals itself to us. We are satisfied, and know that we have done our share in promoting the various activities of the school and classes. When the class of 1920 passes into the alumni, it will carry with it the honor of being one of the greatest athletic organizations in the history of Armour.

We wish to thank the President, Deans and Faculty for their efforts in our behalf. During the past four years they have all shown themselves to be the friends we need through life. Now ere we part, the Class of 1920 resolves that it will do its share by reflecting credit on our Alma Mater.



BURNING THE MIDNIGHT OIL



The Junior Banquet held by the Class of 1920 at the Chicago Motor Club was a decided success. It was held on May fifth, the first day of Junior week, the most important one in our college career, and one to be long remembered.

Among the notables present as guests of our class were Dean Raymond and Lieut. H. B. Maguire, late of the A. E. F. "Shorties" little tales and songs picked up Somewhere in France were just the kind that made us appreciate what the boys did for us in the mighty struggle.

When all the good things to eat had been stowed away and cigarette smoke began to fill the air, the stories, songs, entertainment and speeches began. The 1920 Jazz Band was on the job as usual, led by M. Gottlieb; and it certainly had the pep. A section of the Glee Club favored us with some good harmony. Bill Erickson acted as Toastmaster for the affair, and every officer of the class was called upon to say a few words and it certainly was a proud moment for the officer to stand in that cozy homelike room and address his fellow classmates.

But oh! How quickly that evening did pass. If it could only have lasted a week instead of a few hours, what a happy bunch we would have been.

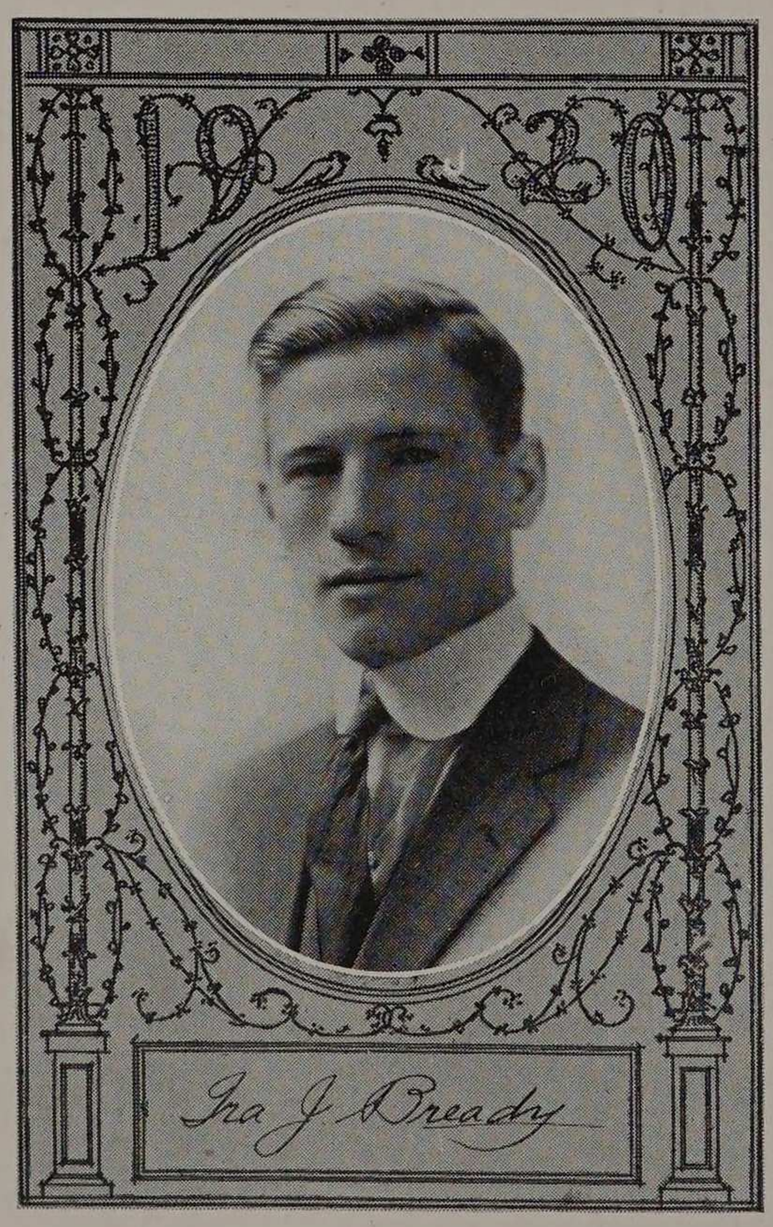
The success of the affair was due to the splendid co-operation of the class and to the untiring efforts of our first Marshall, Mr. Brady. There is little doubt but that the night of May fifth 1919, will long dwell in the memory of every member of the class of 1920.

B. S. in M. E.

PAUL J. ADAM

Born, Feb. 21, 1894. Matteson, Ill.
Chicago Tech., 1916.
Mechanical Engineer.
Performance and efficiency of a Harrington Chain Grate Stoker.
Beta Phi. Tau Beta Pi. A. S. M. E.

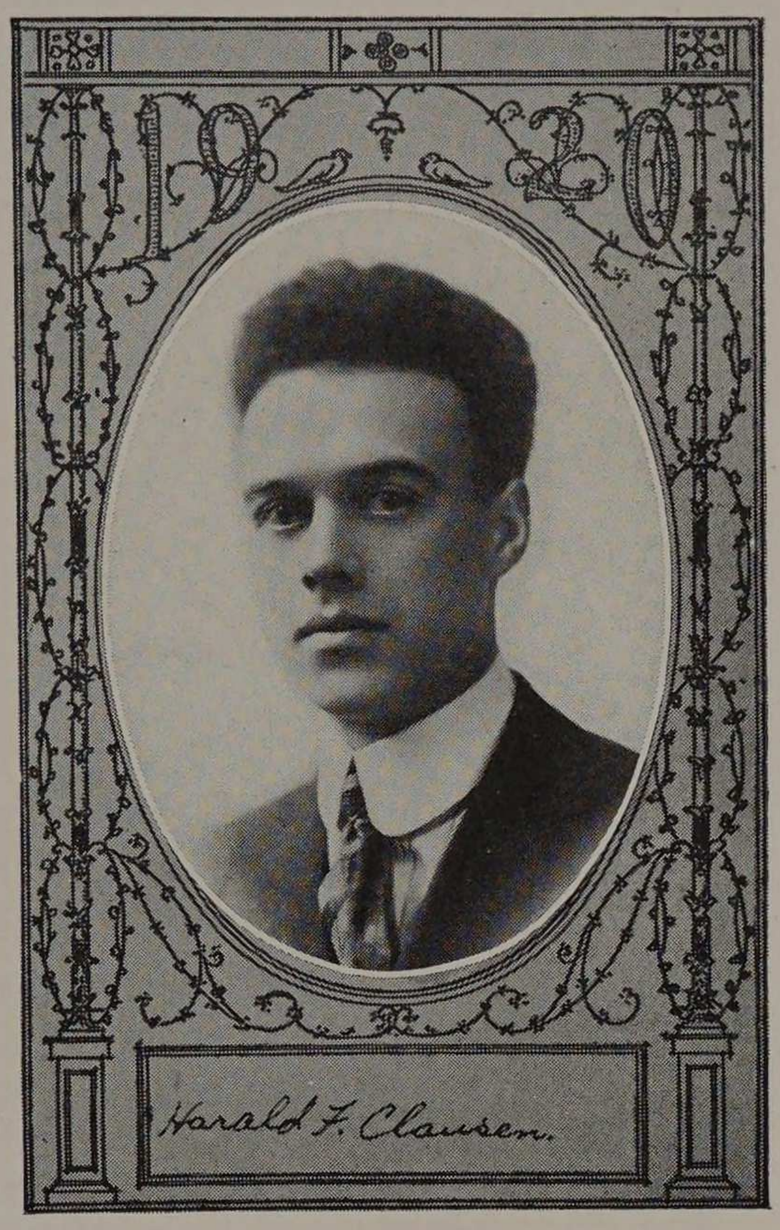
P. J. is one of our most congenial fellows, with a sense of humor that is all his own. He is well known for his mature appreciation of human beings; as a result he is a familiar figure in social circles at Armour, as well as at Matteson.



IRA JAMES BREADY

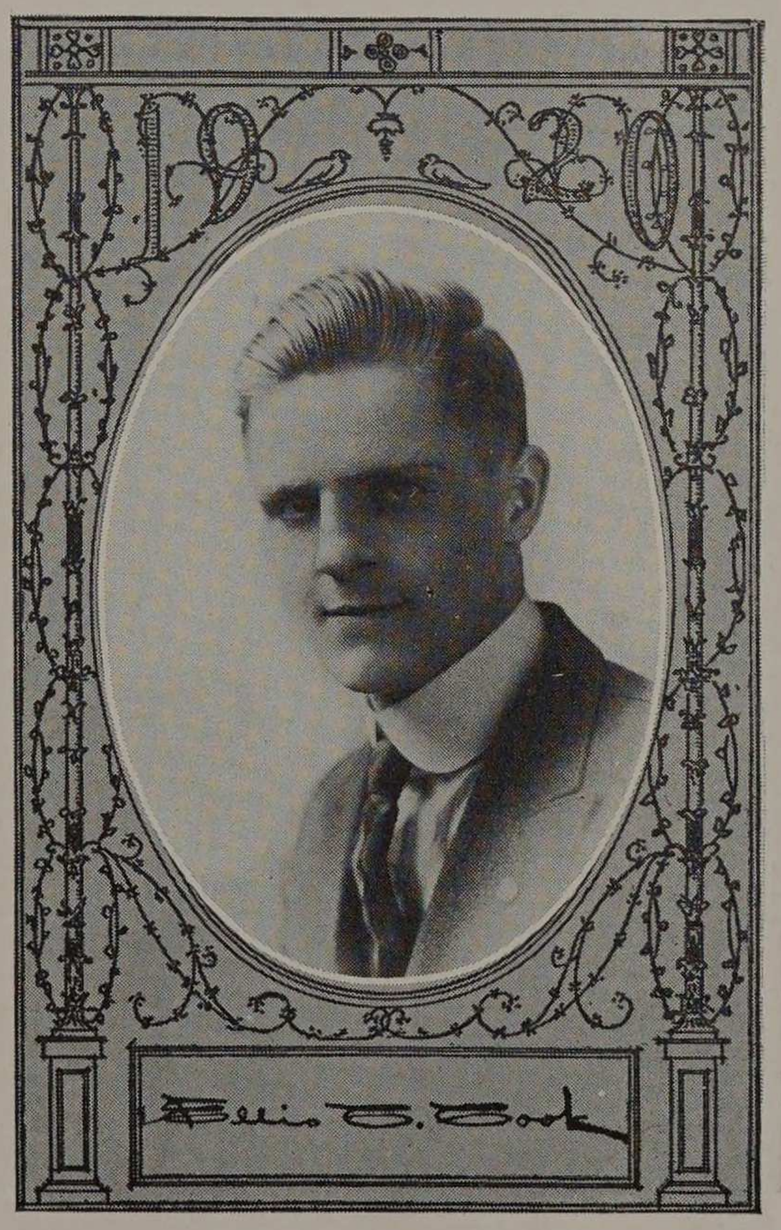
Born July 29, 1898. Chicago, Ill.
Tilden Tech. High School.
Performance and Efficiency Test of a Harrington Chain Grate Stoker.
Beta Phi, A. S. M. E., Honor "A", Varsity Basket Ball, '16-'17--'19--'20, Captain 1919-'20, Interclass Basket Ball from 1916 to 1920. Interclass Baseball from 1916 to 1920. President Senior Class of 1920. 1st. Marshall Junior Week, 1919. Athletic representative 1916-'17-'18. Vice-President A. S. M. E. President Honor "A" Society, 1919-20. Treasurer '19-19.

Ira has that rare ability of combining scholastic, athletic and social activities and has made a record for himself that anyone can envy. He is one of the most active men in the class and is a "Regular Armour Man." The class voiced its opinion of him by electing him president of the Senior Class. Ira has also been one of the mainstays of athletics at Armour and all those who have seen him play basketball know what a lovable disposition he has.



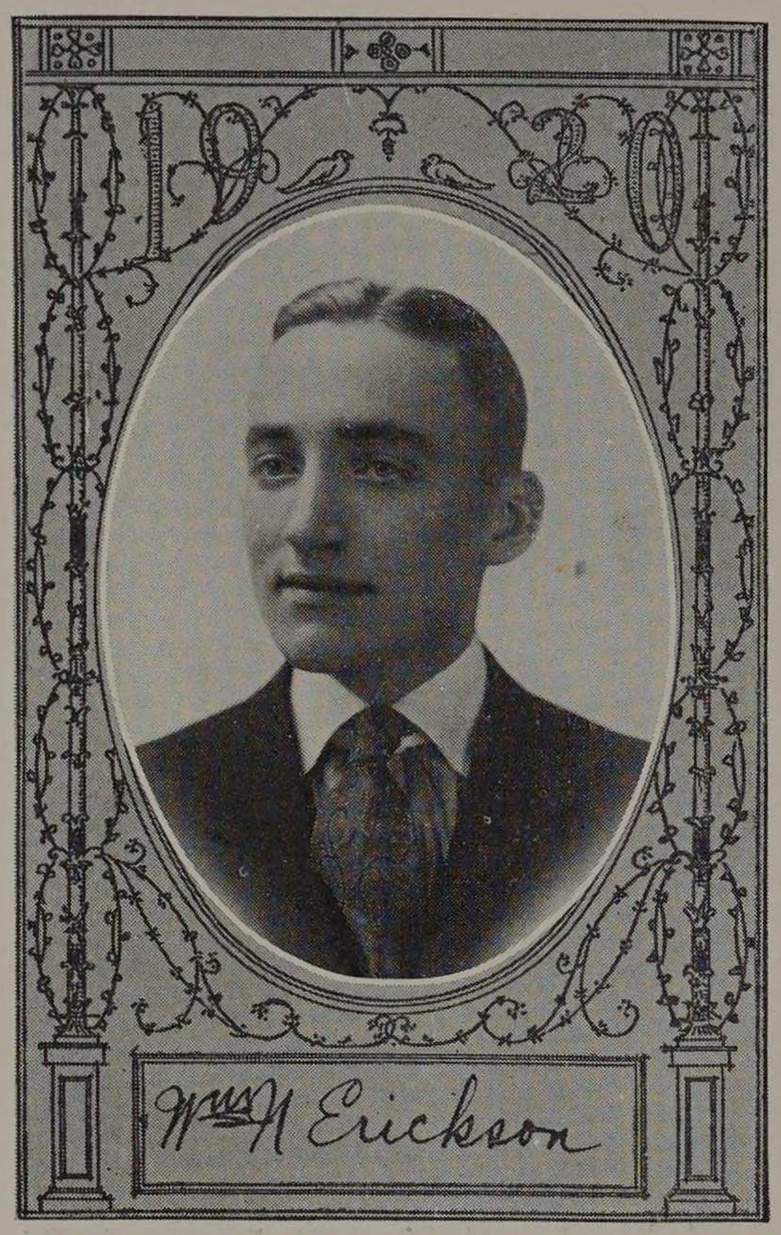
HAROLD F. CLAUSEN

Born December 29, 1892. Neenah, Wis.
Neenah High School.
Mechanical.
Investigation of the Flow of Liquid Through Orifices.
Beta Phi Fraternity, A. S. M. E.
Curly, well known for his dry wit and humor, seems of late to have a great load resting heavily on his shoulders; must be due to leap year. This will not hinder him, however, for it is impossible to hold a man down who possesses ingenuity and tenacious character like his. The folks at Neenah will sit up and take notice when "Curly" comes home in June.



ELLIS C. COOK

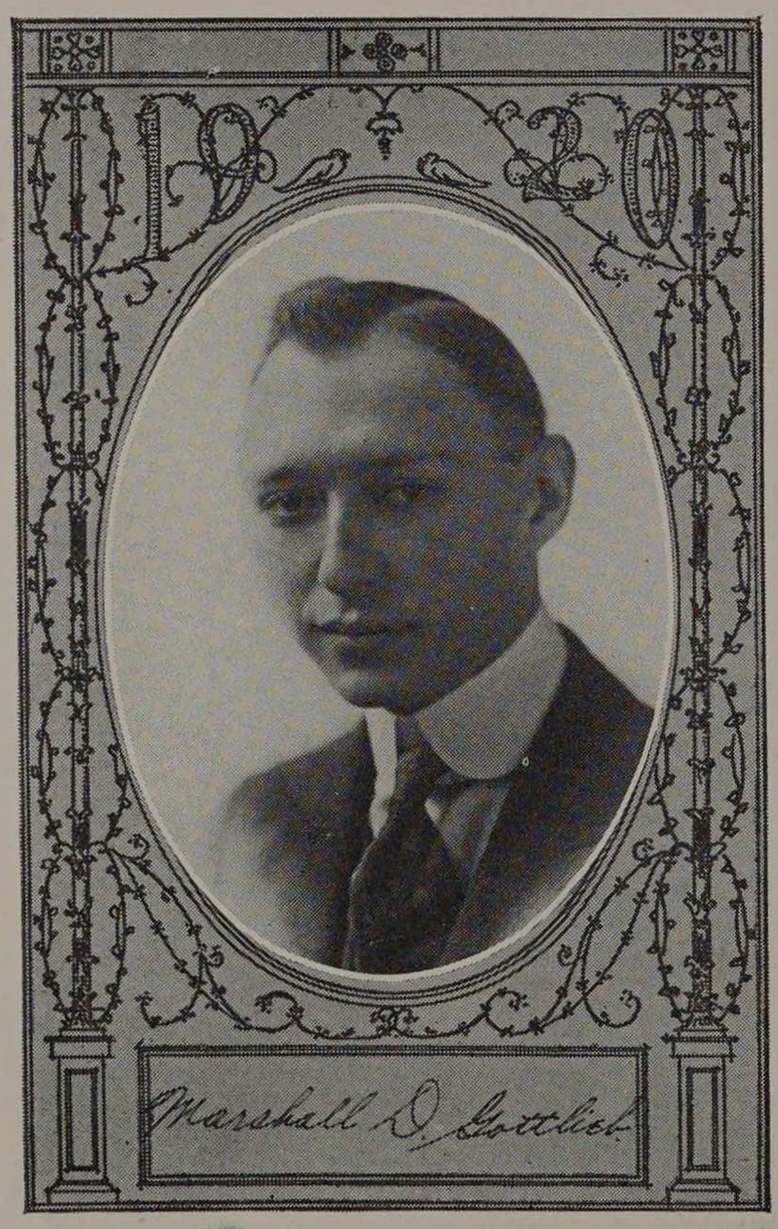
Born January 12, 1899. St. Louis, Missouri.
Parker High School '16.
Mechanical Engineering.
Sigma Kappa Delta; Tau Beta Pi; Sphinx; A. S. M. E.; Y. M. C. A.; Glee Club; Editor-in-Chief, "Cycle" 1919; Editor-in-Chief "Armour Engineer" 1919-20; President A. S. M. E. 1919-20; President Tau Beta Pi, 1919; Interclass Baseball 1917-18.
The imposing character of the list of accomplishments credited to "the berries" can be accounted for by quality and versatility alone. We know we are sage in predicting that his successes at Armour will be repeated in the business world.



WILLIAM NOLING ERICKSON

Born March 26, 1898. Chicago, Ill.
Lane Technical High School.
Mechanical Engineering.
"Performance and Efficiency Test of a Harrington Chain Grate Stocker."
Delta Tau Delta; A. S. M. E.; Sphinx; Honor "A"; Varsity Basketball 1916-'17-'19-'20; Interclass basketball 1916 to 1920; Interclass baseball 1916 to 1920; Captain varsity baseball 1920; Advertising manager 1919 "Cycle"; Business manager "The Armour Engineer" 1919-'20. President Junior class 1919; Vice-President Sophomore class 1918. Chairman picture committee Senior class 1920. Secretary A. S. M. E., 1919-'20; Secretary and Treasurer Honor "A" Society, 1918-'19. Glee Club, 1920.

Bill has no particular hobby, but is rather a headliner in all school activities. This is readily seen from his record as an athlete, a social promoter, and a general all around good fellow. There is no doubt about his ability to do whatever he undertakes. He is another of the regular Armour men; men that meet conditions as they are.



MARSHALL DANIEL GOTTLIEB

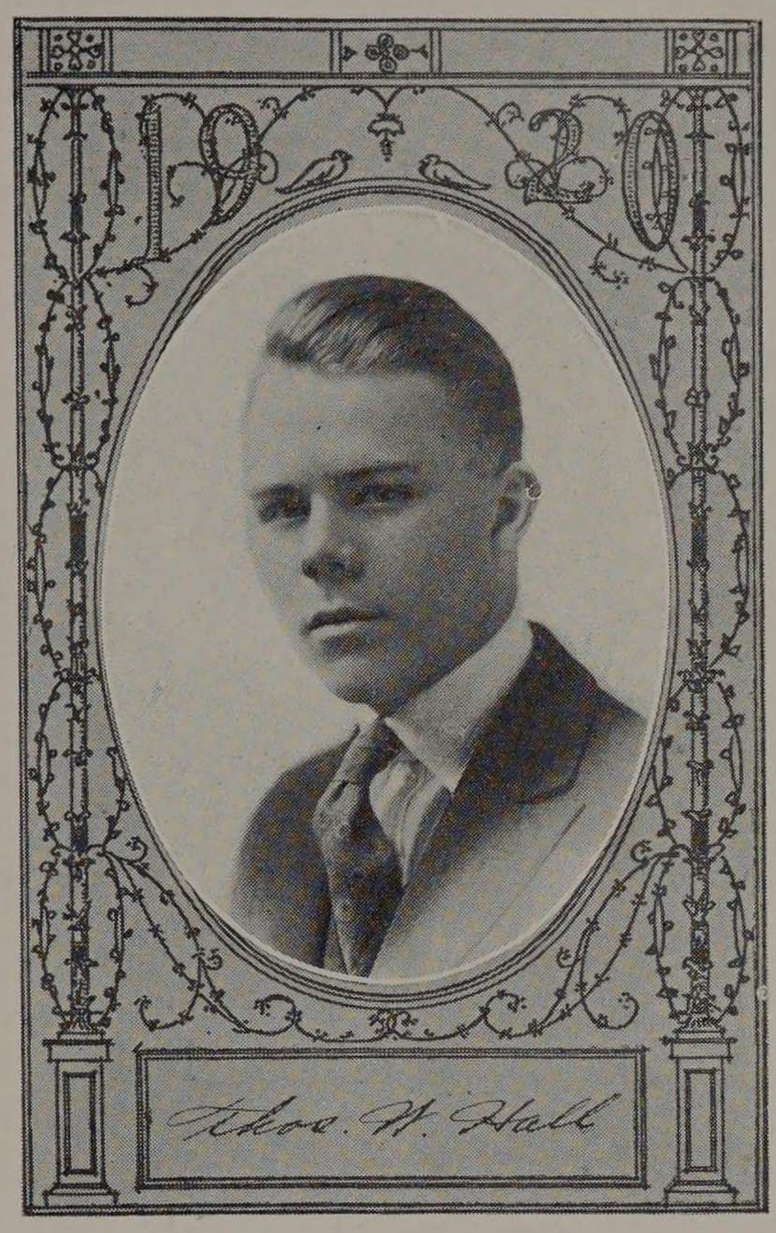
Born Feb. 22, 1898. Indianapolis, Ind.
Crane Technical High School. June 1915.
Mechanical Engineering.
Construction and Re-design of a 10 H. P. Heavy Duty Gas Engine.
A. S. M. E., Class Indoor, 1919. Treasurer of Junior Class, 1919. Member of Glee and Mandolin Club. Leader and violinist of class jazz band. Chairman of cap and gown committee of senior class. Assistant "Cycle" representative of Senior Class, 1920.

"Marsh" took a leading part in many school activities; in fact there are very few in which he did not star, as his record will show. Whether it be engineering, fiddling, athletics or social activities, his work was always well done. Three and one-half years was all the time he needed in which to finish the four years' course, and with a record to be proud of.

If ability to make friends and to play a fiddle will help to make an engineer, we can vouch for his success.

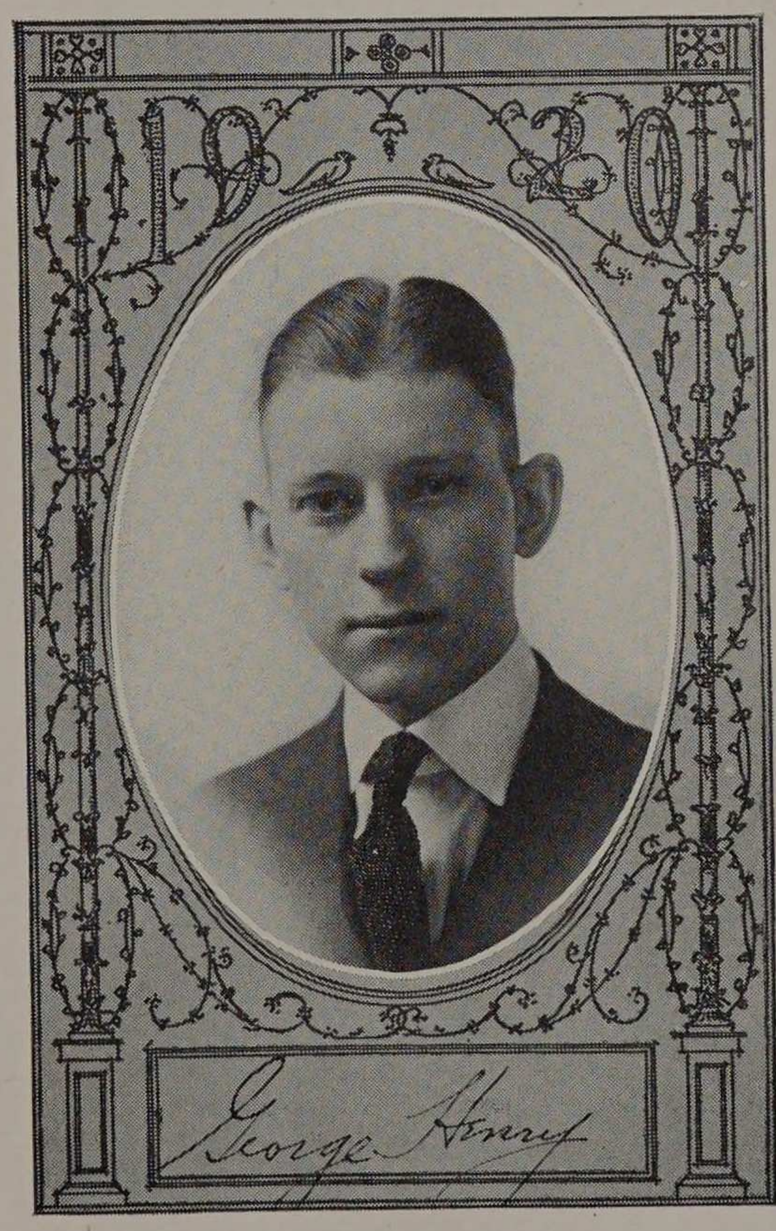
THOMAS WINSLOW HALL

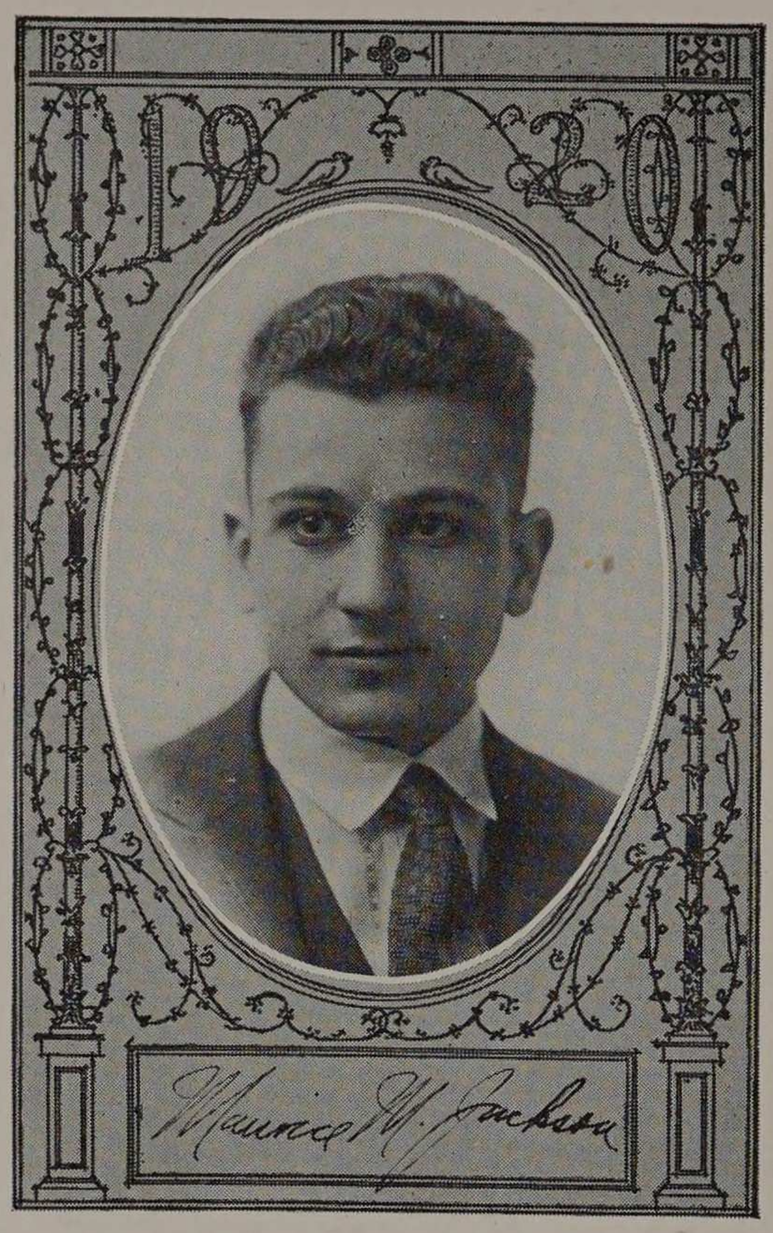
Born January 16, 1899. Decatur, Ala.
Parker High School.
Mechanical Engineering.
An Investigation into the Tensile Properties of Steels at Extreme Temperatures.
Managing Editor "Armour Engineer" '19-'20.
Managing Editor "The Cycle" '18-'19.
Social Committee '19. A. S. M. E., '19-'20.
Glee Club, '19-'20.
"Tommy" was born in the South, but long association with Northerners has obviated that defect. He is a good conscientious worker, but likes his moments of rest too. He is one of the founders of the Adiabatic Order of Dumbbells and at present he still maintains that, "*theoretically* the adiabatic curve in its entirety, is but a ramification of the polytropic law," etc. ad inf. He has friends (especially among the mechanicals and the electricals) who will not forget the quiet afternoons of study spent in the "engineers office."



GEORGE M. HENRY

Born May 29, 1898. Chicago, Ill.
Carl Schurz High School.
Mechanical Engineering.
"Construction and Redesign of a 10 H. P. Heavy Duty Gas Engine."
Sigma Kappa Delta. Class Jazz Band, A. S. M. E., Y. M. C. A.
"Hank" is one of those tall, lean individuals, whose good nature and willingness to give help make him a good friend worth having. His easy going and comfortable ways make one realize how hard it would be to get along without him, when beset by college worries. He is a regular fellow, and claims that Logan Square produces only regular ones. His unusual ability at the piano makes him an active member of the Gottlieb-Henry professional orchestra; in which organization he surely does tickle those keys.





MAURICE MITCHEL JACKSON

Born May 19, 1898. Chicago, Ill.
Wendell Phillips High School.
Mechanical Engineering.
Absorption of Shock by Automobile Tires.
The Ohr; A. S. M. E.; Glee Club, 1919 and 1920. Chairman Program Committee, class 1920; Class indoor, 1919.

"Jack" sure is there when anyone plans a good time, but you may be certain that his good times do not interfere with his studies, in which he stands well. Jack has in him just the right sort of spirit to help himself and the other mechanicals over some of the rough spots of four years at A. I. T.

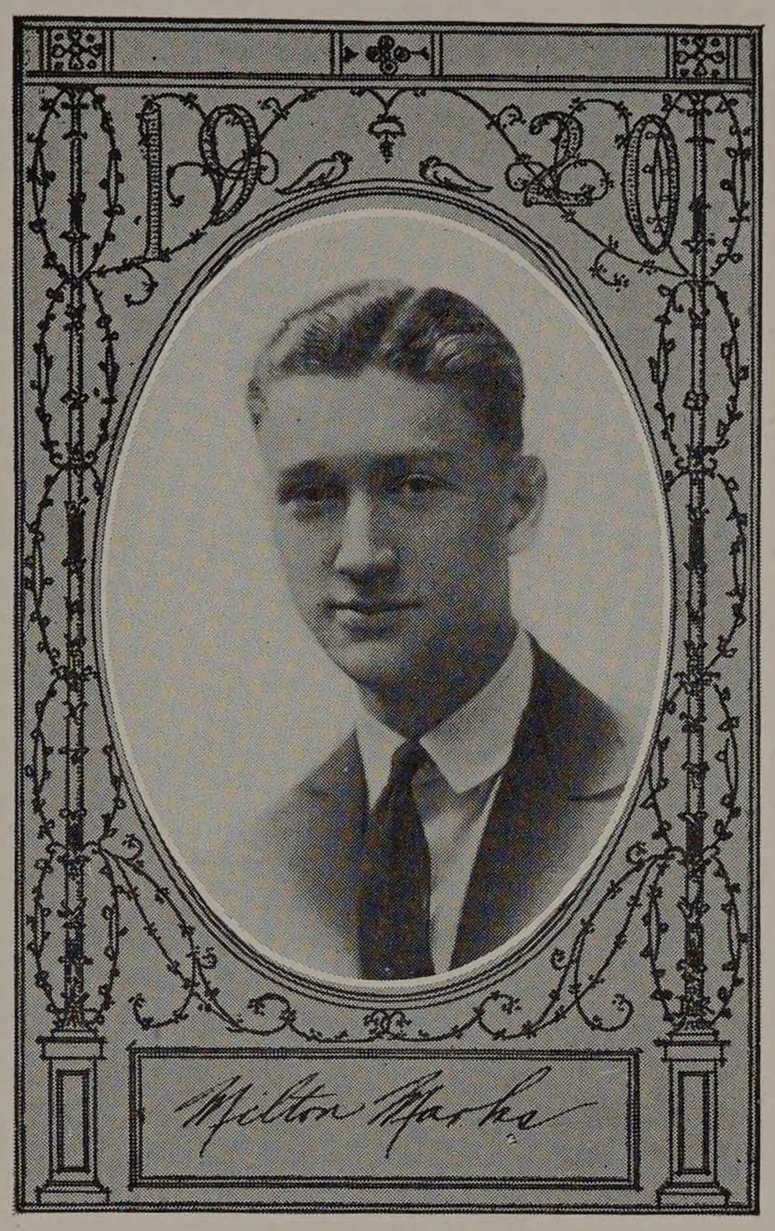
L. E. JONES

Born Dec. 8. 1898. Chicago. Illinois.
Nicholas Senn High School, '16.
Mechanical Engineering.
Thesis; Heat Balance of a HVID Engine.
Phi Kappa Sigma; A. S. M. E.; Glee Club, '17, '18, '19, '20, Mandolin Club, '17, '18.

Eric is one of these congenial fellows with a sense of humor that is all his own. He is also one of the best hearted fellows in the class. His goodness of heart has helped many a fellow out and he would give you the shirt from his back.

L. E. has been the one of the mainstays of the Glee and Mandolin Clubs during his four years at Armour. He sure can warble and he also strokes a neat pick across a banjo or mandolin. And "Oh yes," we almost forgot. When it comes to African golf, Eric certainly shakes a mean hand with the galloping dominoes.

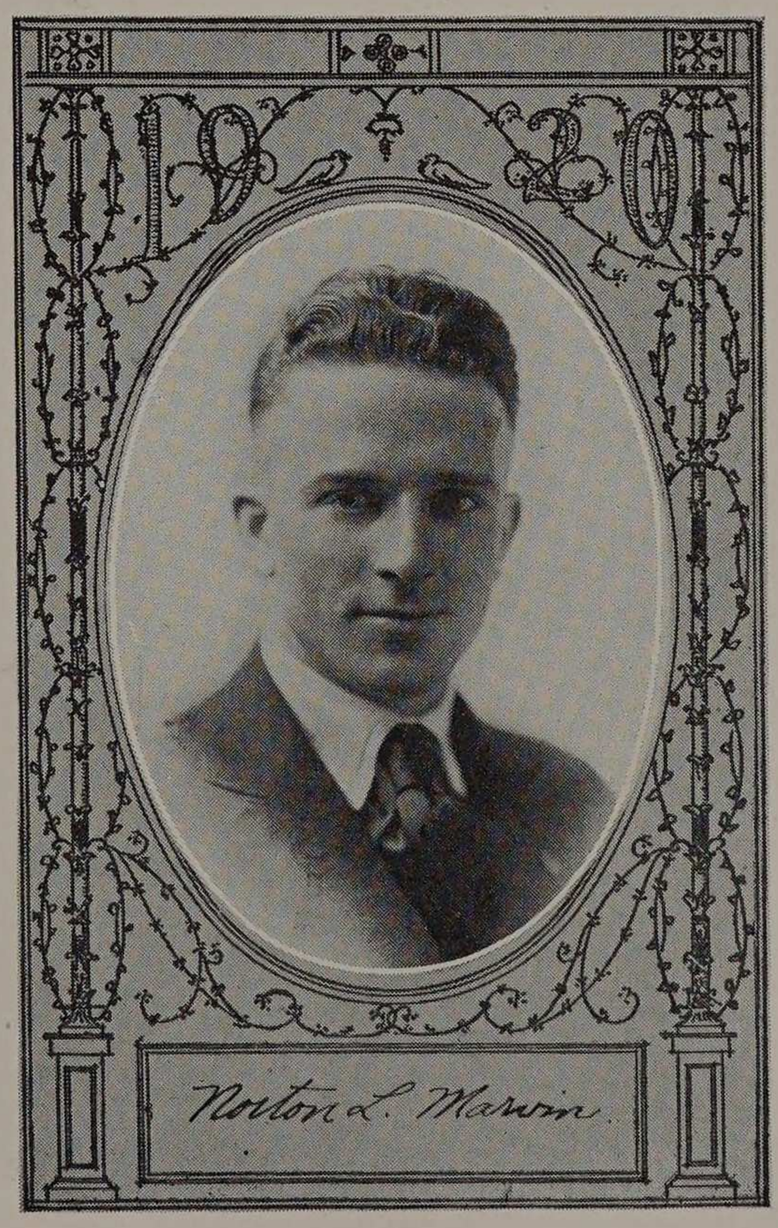
Jones is one of these conscientious fellows that accomplishes everything he undertakes. His hobby is gas engine work and he is the Lord High Endothermal, of the most exalted order, The Adiabatic Isothermals.



MILTON MARKS

Born June 28, 1897. Chicago, Ill.
McKinley High School.
Mechanical Engineering.
An Investigation of the Flow of Liquid Fuel Through Orifices.
A. S. M. E. Glee Club, '18-'19-'20. Chairman Junior Social Committee, 1918. Interclass Basket Ball '18-'19. Varsity basketball, '20.

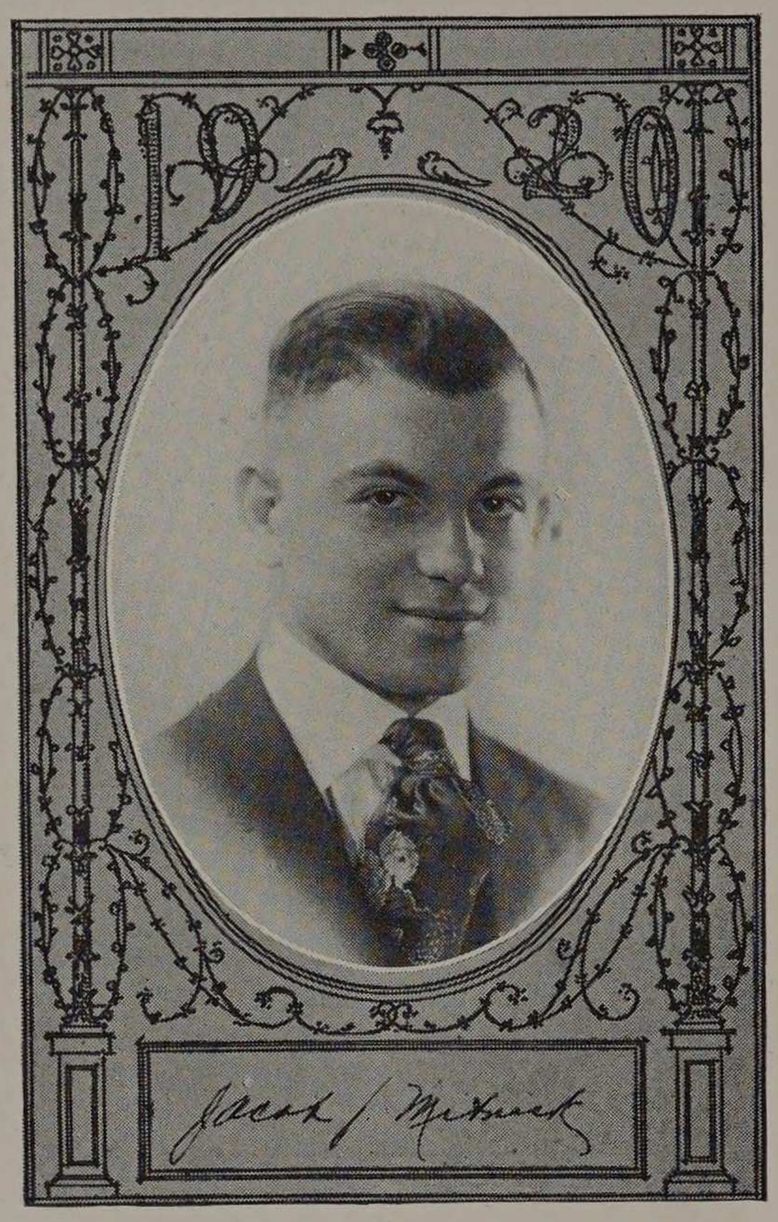
Skinnay not only always makes a hit with the women but also around school. If you want to know who's who and what is going on around school or the latest scandal just ask Milt. There is absolutely no doubt about his being a staunch supporter of college activities. Just ask any of the members of the basketball team. We also understand that Milton, because of his famous "I know you guy", is going to run for alderman in his ward. He will no doubt be elected as he is quite a politician and is up to date and can give advice on all the leading topics and questions of the day. Ask Bill! Besides being a good politician he is also a singer of note and when it comes to dancing, well "he justs shakes a mean foot." Skinnay also holds the record of being the tallest man at Armour. You might not think it but Milt is also a good scholar.



NORTON LE ROY MARVIN

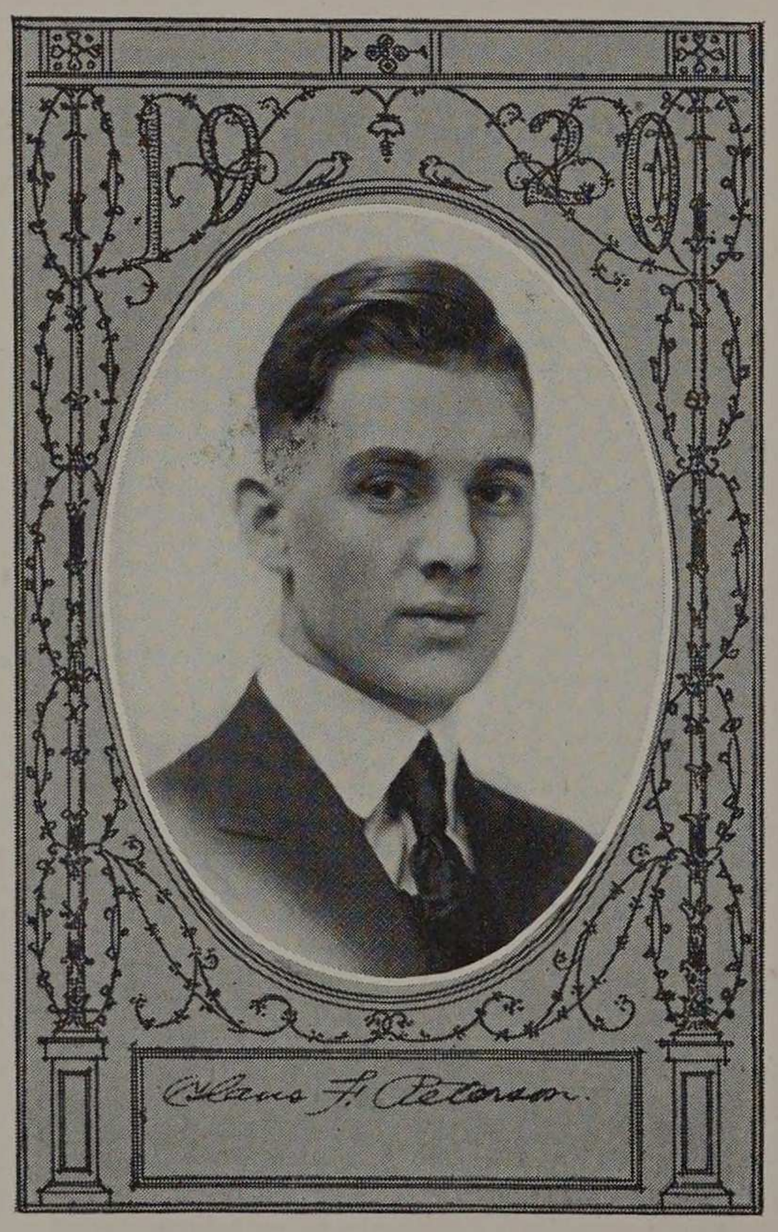
Born April 8, 1899. Chicago, Ill.
Englewood High School.
Mechanical Engineering.
Shock Absorption of Automobile Tires.
Omega Lambda, A. M. S. E., '16-'17-'20. Glee Club, '17. Junior Play, '17.
Remember the attractive young lady, usually located in the heart of the grand stand, at our basket-ball games? And the fellow with her? Yes, that was Norton LeRoy Marvin.

"Nort" has had a lot of hard work since he first appeared at Armour. He came very near "going West" while in the army, and he is to be congratulated on his stick-to-it-iveness." Best of all, "Nort" can smile, and does smile, and this is one of man's greatest assets.



J. J. MITNICK

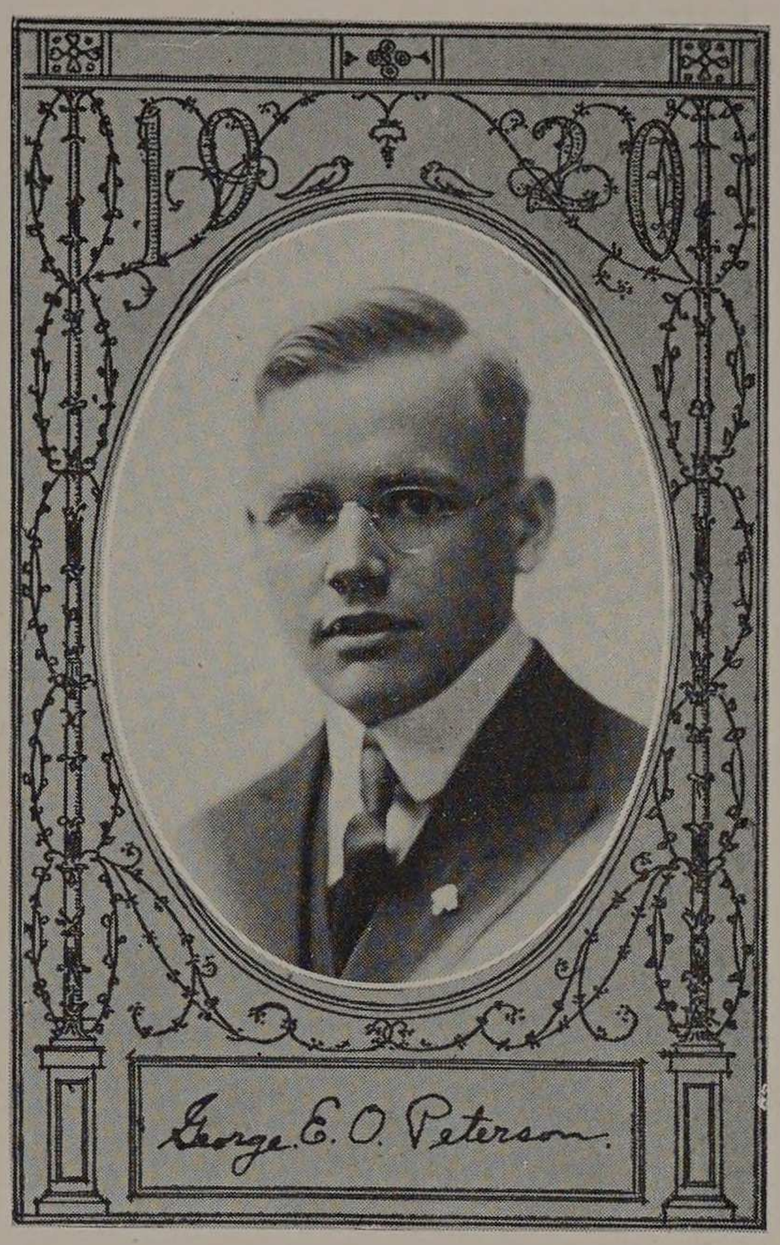
Born Sept. 6, 1899. Chicago, Ill.
Crane Technical High School.
Mechanical Engineering.
"Construction and Redesign of 10 H. P. Gas Engine."
A. S. M. E., Y. M. C. A, Class Jazz Band.
"Mit" is the senior class authority on gas engine and automobile work. Short and chubby; but chuck full of knowledge, and with a record at Armour that will be hard to beat. Always able to cope with a new problem that is set before him, which proves his ability as a coming engineer. His favorite occupation was inviting his enemies out, although when the battles came we were all his friends.



CLAUS F. PETERSON

Born Sept. 4, 1898. Chicago, Ill.
Bowen High School.
Mechanical Engineering.
"Design of 200 H. P. Aeronautical Engine."
A. S. M. E.
"Pete" has made his course in less than four years; which we all know is remarkable. He also has worked while pursuing his course. His extreme ambition is no longer a mystery, for he took unto himself a little girl to love, honor, and obey, the 10th of March, 1920. He is to be depended upon in anything he undertakes, which shows that he has the quality of an engineer.

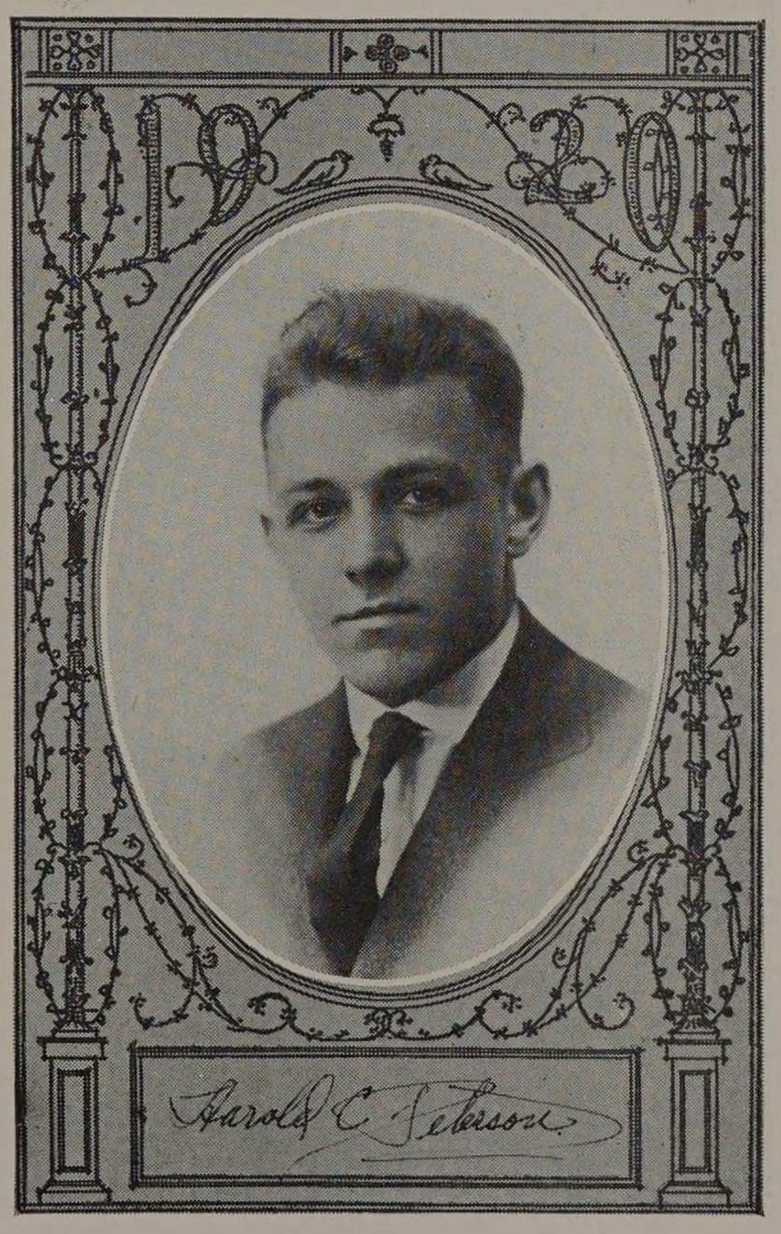
PRIVATE LIBRARY OF
JOHN J. SCHOMMER



GEORGE E. O. PETERSON

Born Oct. 3, 1896. Chicago, Ill.
Tilden High School—formerly Lake High.
Mechanical Engineering.
Design of a Two Hundred Horse Power Aeronautical Engine.
A. S. M. E.

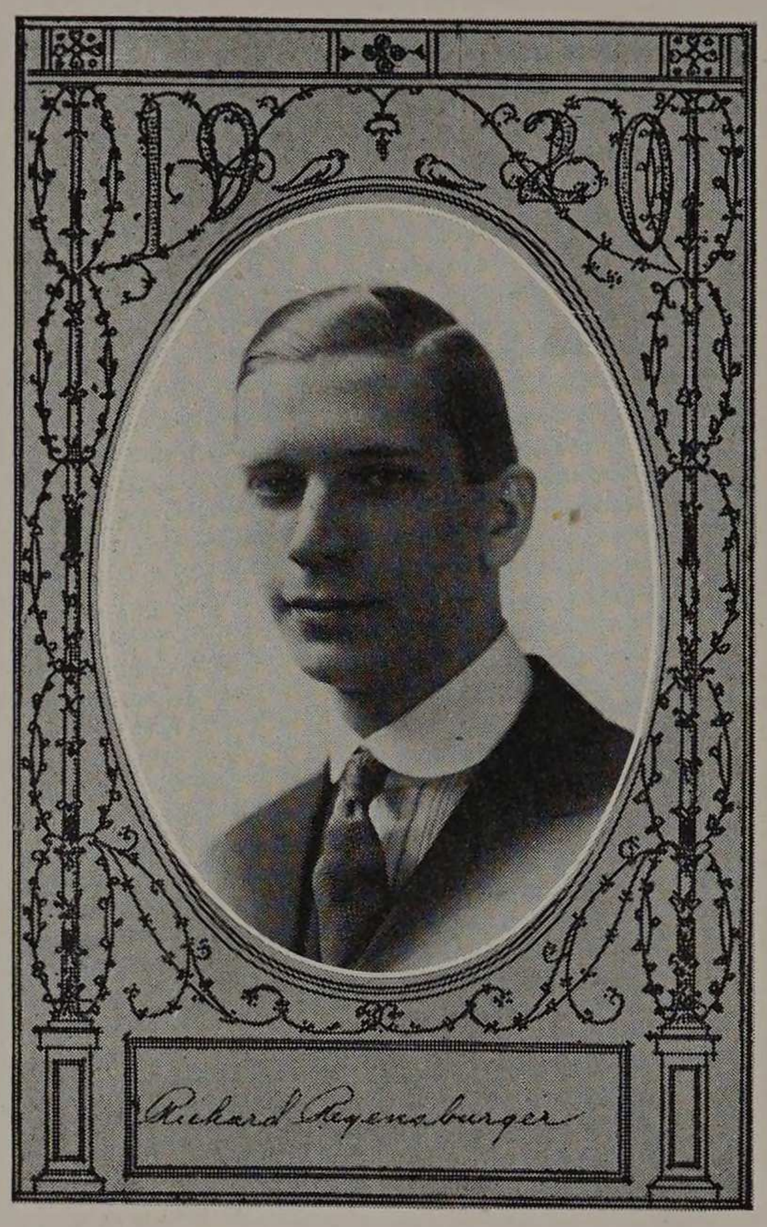
George was not a member of the Glee Club; but he has the ability to sing with the best of them. He has never been seen without his broad smile—we don't know the cause of it, but we have our suspicions. He is a congenial, mature, steady plugger, whose future can spell only success.



HAROLD C. PETERSON

Born Nov. 30, 1897. Joliet, Ill.
Joliet Township High School.
Mechanical Engineering.
An Investigation into the Tensile Properties of Steels at Extreme Temperatures.
Military Editor, 1919 "Cycle." Secretary Y. M. C. A., 1918-1919. Treasurer A. S. M. E., 1919-1920. Glee Club, 1918, 19, 20. Associate Business Manager Engineer, 1919-1920.

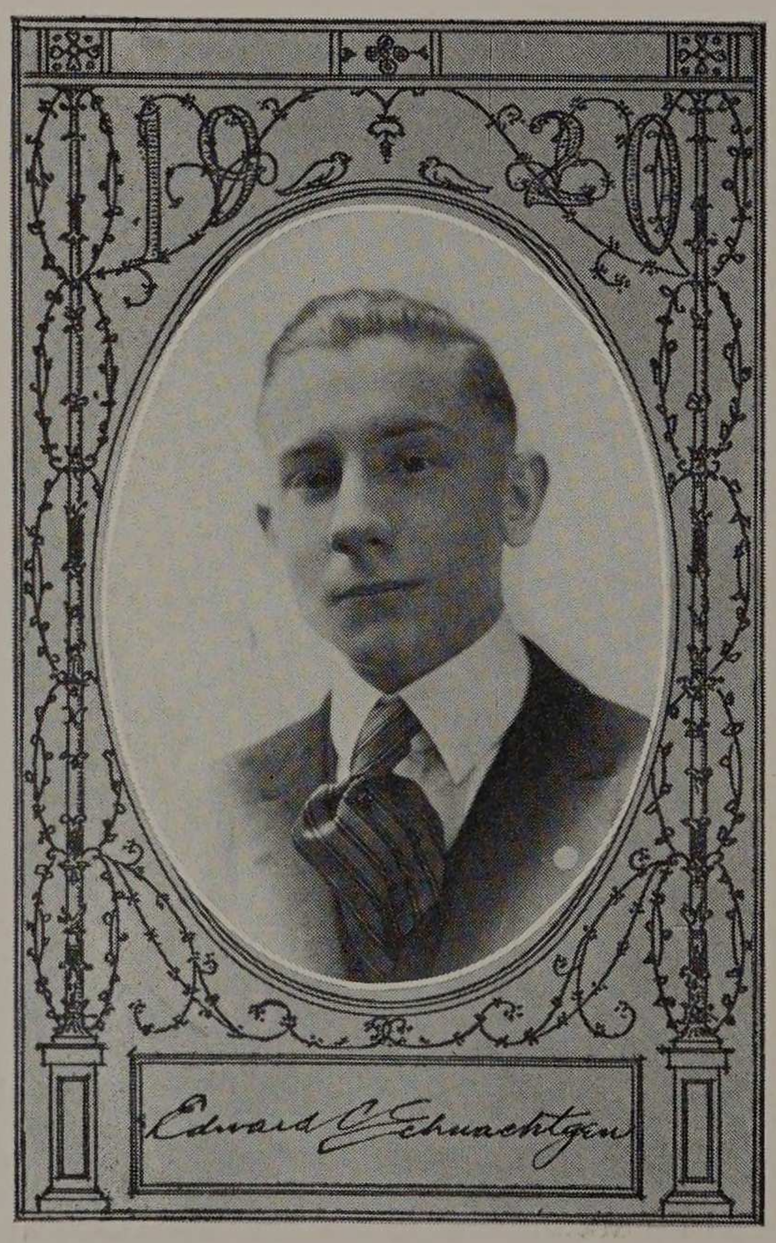
"Pete" H. C." travels between Armour and Joliet twice daily, yet finds time to take an interest and be active in the school activiies, besides showing a surprising capacity for work. We do not know if these characteristics are due to down-state environments but we do know that he seldom gets peeved unless someone prevents him from working at something or other. Judging from his record at Armour, Pete will surely make the sparks fly in his future work, for he can't help but make good. Armour loses a mightly good fellow when he leaves. We're for him.



RICHARD WILLIAM REGENSBURGER

Born April 3, 1899. Chicago, Ill.
Crane Tech. High School. Crane Junior College.
Mechanical Engineering.
Performance and Efficiency Test of Harrington Chain Grate Stoker.
Omega Lambda, A. S. M. E., Treasurer of Senior Class, Tau Beta Pi, President, Regensburger-Stone Corporation.

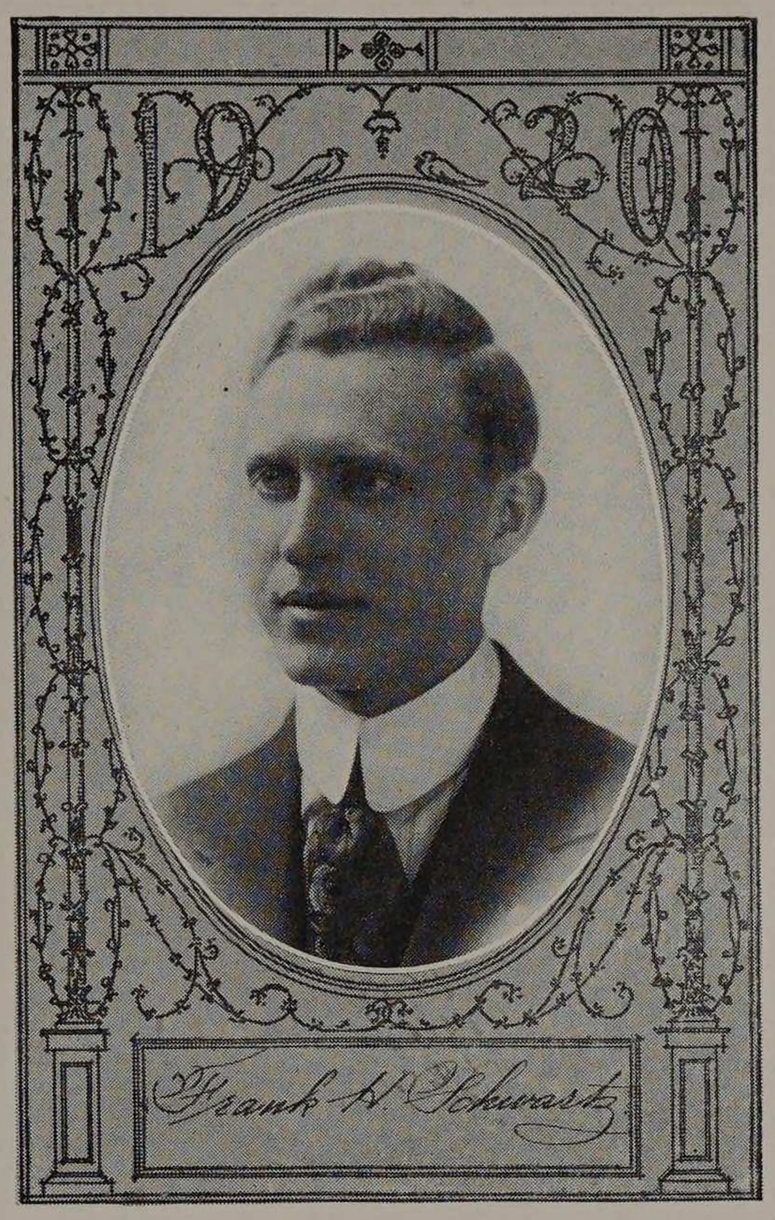
He is a gentleman and a scholar and his name is "Dick." He is very noisy, except when with Stone, and acts as a pressure regulator for the Corporation. Richard came to Armour in 1918—a lamb. At the end of his first year he obtained the Lolita Armour scholarship. He leaves with one of the finest records ever made by a man at Armour—and a lion. We hope he follows his engineering, but even though his heart's call is answered and he takes up statesmanship, we know he will succeed.



EDWARD CHARLES SCHWACHTGEN

Born, July 19, 1898. Chicago, Ill.
Wendell Phillips High School.
Mechanical Engineering.
"Heat Balance of a Hvid Engine."
A.S. M. E.; Sigma Kappa Delta; Baseball, 1919.

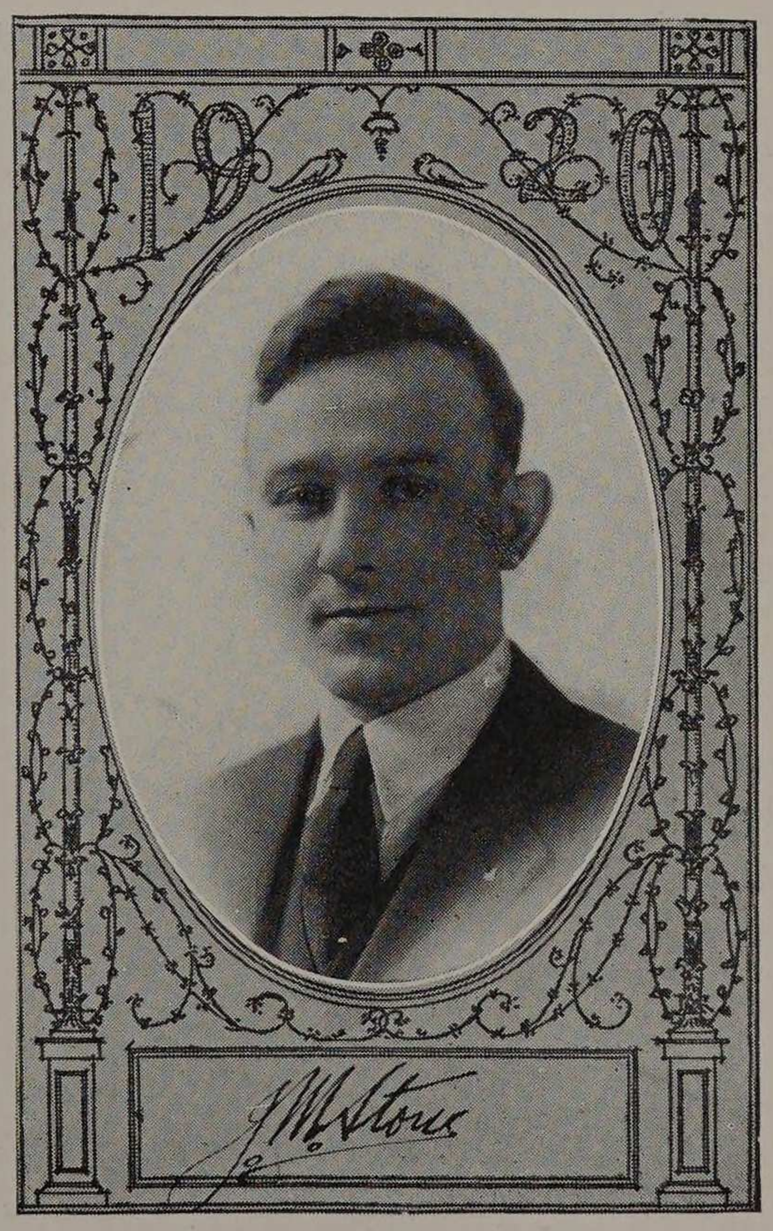
"Swatty" is an ambitious and willing chap, as demonstrated by his making Armour in three years; these qualities, together with his jolly personality make him well liked by all members of his class, and a very desirable friend.



FRANK H. SCHWARTZ

March 9, 1897, Chicago, Illinois.
St. Stanislans' College.
Mechanical Engineering.
"Flow of Heat Through Pipe Covering."
A. S. M. E.

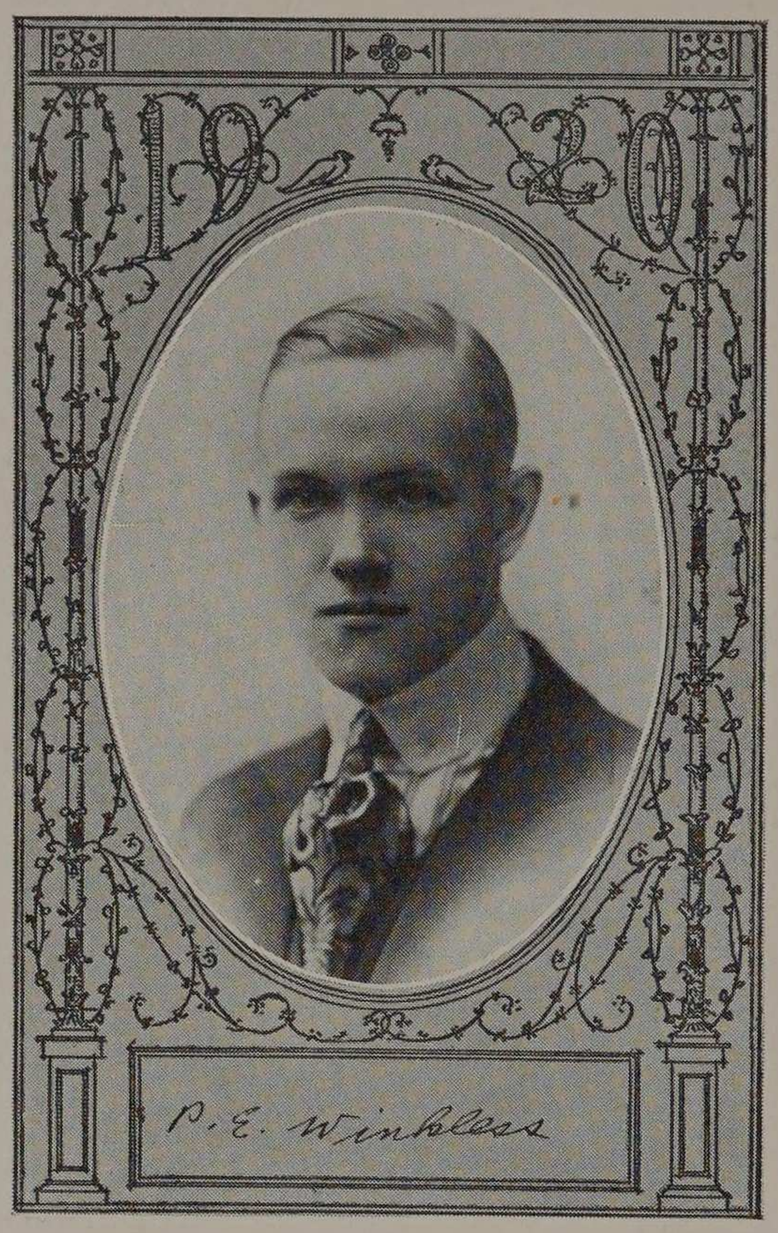
Frank should have graduated with the class of 1918, but due to his activities in the world war, he missed two years. Nine months of that period were spent with the A. E. F. in France, where he derived an education not taught in books nor in colleges. His description of the ruins of Theims and Chateau Thierry are so vivid that those of us who were not there, see them, nevertheless. His success is assured.



JOHN MCWILLIAMS STONE

Born September 11, 1896. Chicago, Ill.
Hyde Park High School.
Mechanical Engineering.
Performance and Efficiency Test of Harrington Chain Grate Stoker.
Omega Lambda, A. S. M. E., Treasurer Freshman Class 1919, President Sophomore Class 1919, Radio Club, Junior Member Regensburger-Stone Corporation.

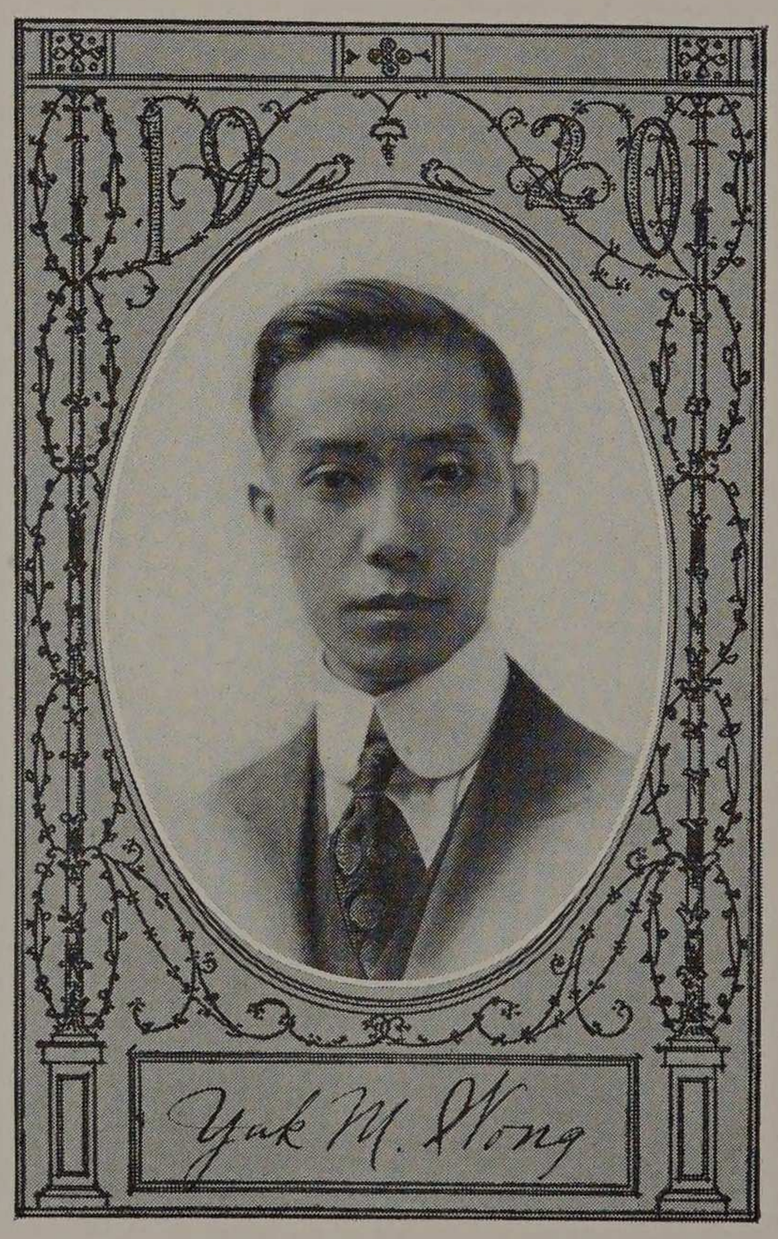
"Mac" possesses an unusual combination of energy and vitality tempered with cool judgment and accompanied by an irresistable personality. His ready conversation enables him to mix with college professor or elevator boy, and like MaCaulay, his "flashes of silence" are soon noticed. His initiative and resourcefulness will win him whatever he sets out for.



PAUL EDWARD WINKLESS

Born Jan. 10, 1899. Chicago, Ill.
Bowen High School.
Mechanical Engineering.
"Design of 200 H. P. Aeronautical Engine."
A. S. M. E.

"Wink" (Winkles) is a quiet, bashful sort of a fellow, always choosing the last seat in the last row. Nevertheless, he is always prepared to "deliver the goods" when called upon. He is an authority on Aeronautical Engine work and will be heard of in that line in the near future.

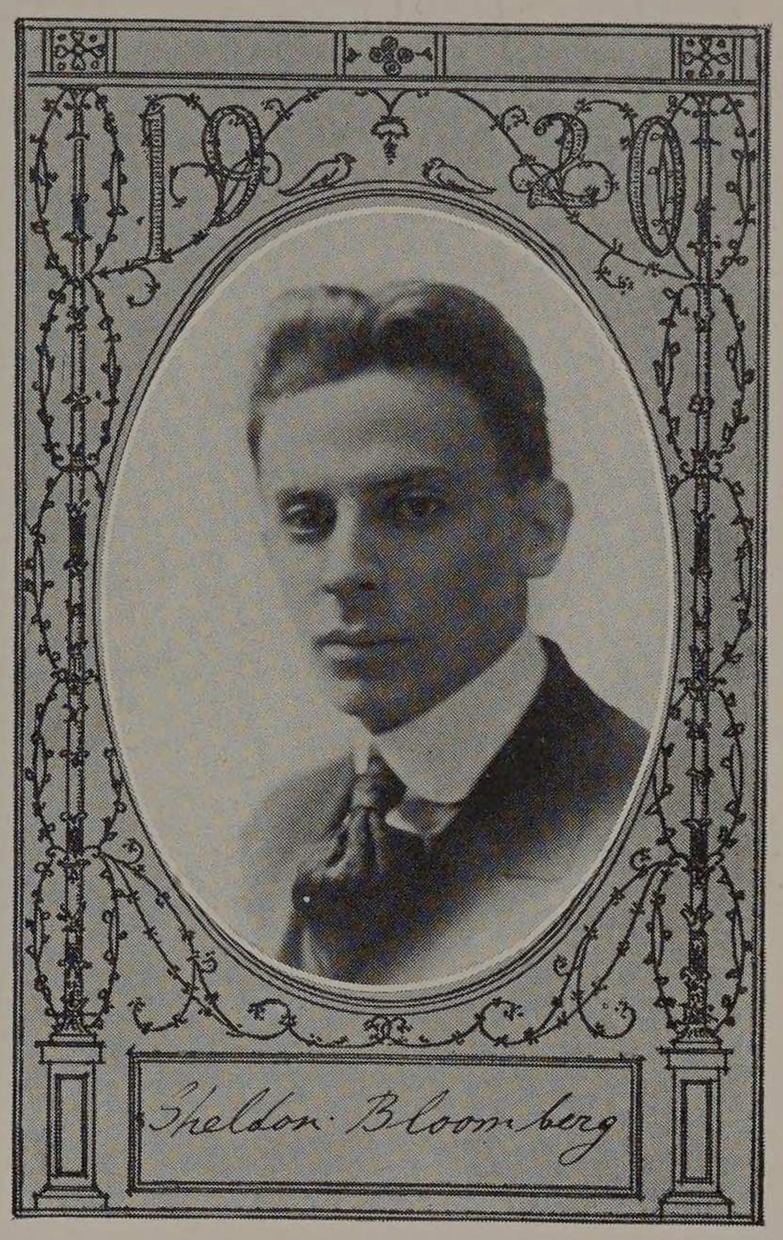


YUK MAN WONG

March 25, 1892. Canton, China.
Polytechnic High School, San Francisco, Calif.
Mechanical Engineering.
Flow of Liquid Through Orifices.
A. S. M. E.

Yuk, the "terrible," is as close to being a regular fellow as they make them, and is the accredited Chinese representative of the Adiabatic Order of Dumbbells. He plans to return to China, where he has a job that pays him 14,000 yen per month. His ambition is to take back a Selco farm lighting outfit with him, to brighten up the old folks. His favorite expression is, "Jones, be at ease."

B. S. in E. E.

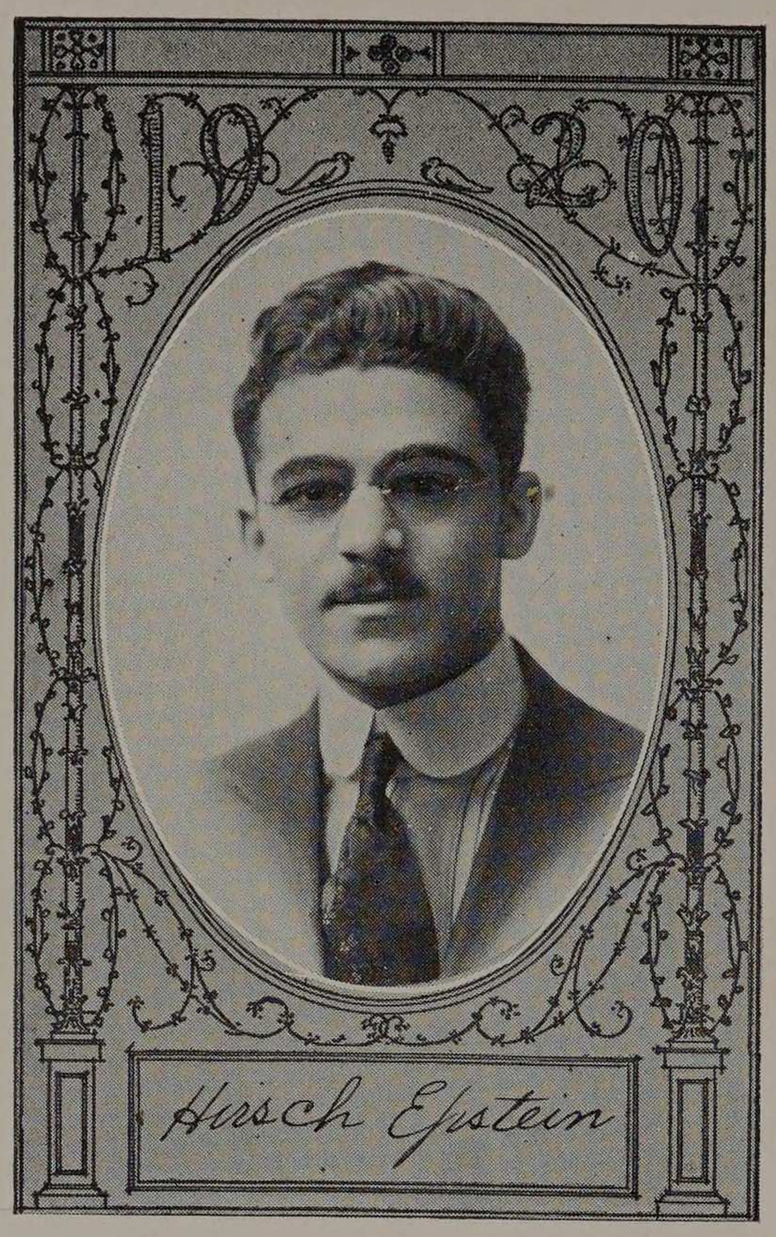


SHELDON BLOOMBERG
Born July 5, 1895. Courland (formerly Russia.)
Lewis Institute Academy.
Electrical Engineering.
Design of 3 Phase 750 Kw. Turbo-Alternator.
Eta Kappa Nu.

Bloomberg came over as a Sophomore from the Lewis Institute and he certainly does not regret he made the change. While here he made a very creditable record. Unlike most of us he has a mathematical mind and often had the electricals wondering at the ease with which he could demonstrate the most difficult propositions in alternating current theory. Always in cheerful humor and willing to help, Bloomberg made many friends, who all predict for him a successful engineering career.

RAYMOND W. BROWN
Born July 11, 1898. Chicago, Ill.
Englewood High and Crane Junior College.
Electrical Engineering.
The Electrification of the Illinois Central Railroad Terminal.
Glee Club. A. I. E. E.

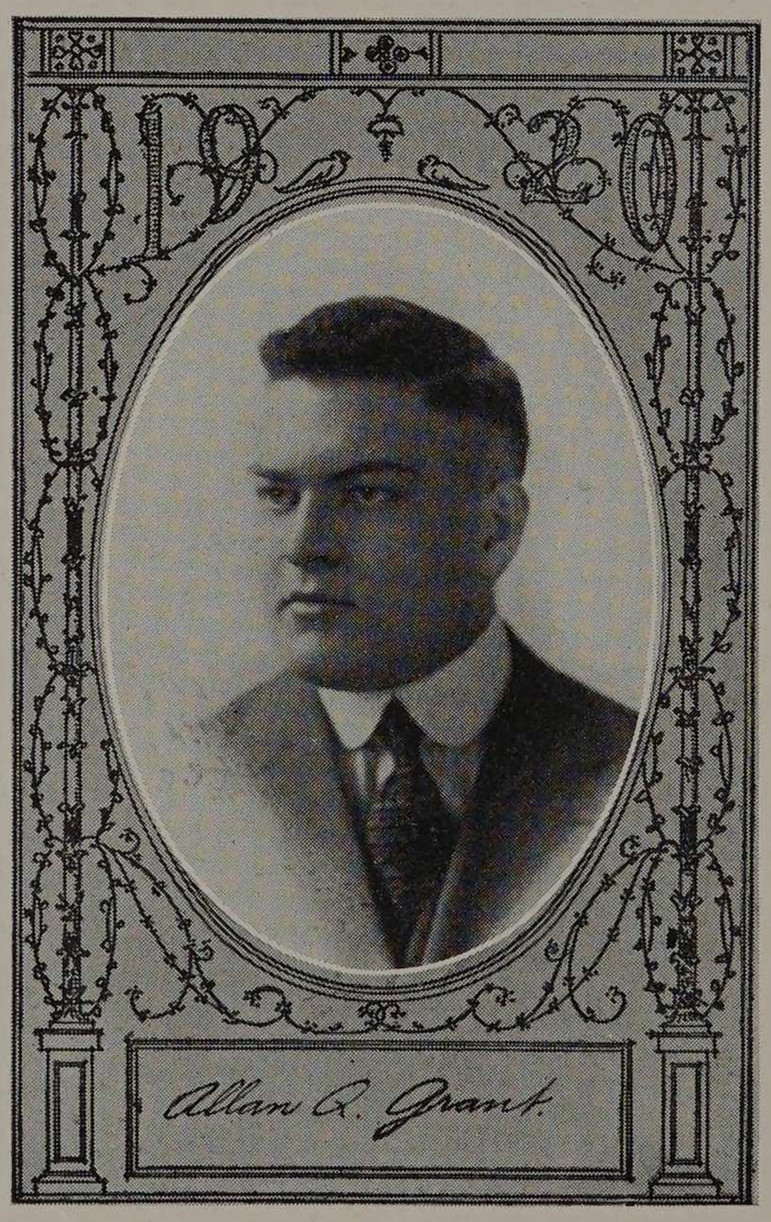
Brown came to us two years ago, and did not make much noise about it. Nobody could ever get him into an argument; a smile was the only comeback. Studies never did bother him much. He was the only one to get through with drawing on time. His industriousness won the respect of the fellows.



HIRSH EPSTEIN

Born Oct. 23, 1897. Chicago, Ill.
Crane Technical High School, 1916.
Electrical Engineering.
"Automobile Headlight Lenses."
A. I. E. E.

"Eppie" is one of the deep thinkers of the class. He does not stop until he gets at the bottom of things. Electricity could be swallowed by him without chewing it. In argumentation he also excels and is always ready to give his views on any subject. He is also known as "Prof." Epstein of the Physics Department. His practical work in physics predicts a successful career.



ALLAN QUARTON GRANT

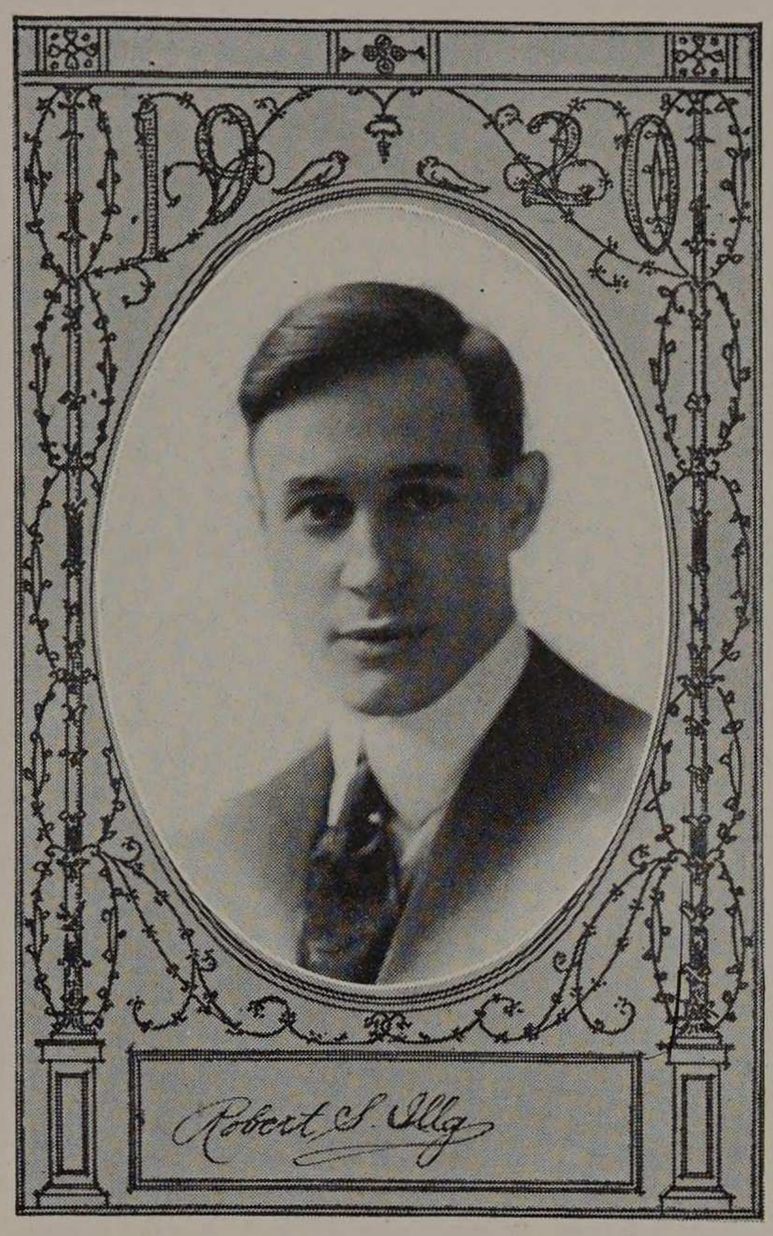
Born July 21, 1898. Chicago, Ill.
John Marshall High School.
Electrical Engineering.
The design of a 15,500 K. W. Generating Station, with a 2,000 K. W., D. C. Railway Substation.
Eta Kappa Nu. A. I. E. E. President Eta Kappa Nu.

A. Q. is a born electrical engineer. He does not care much for fancy theories, but give him the essentials and the practical stuff every time, and he will show you that he is a true disciple of Edison. In his spare time he demonstrated his ability by teaching auto-mechanics in an Evening High School. If you want to tell him something about autos, you have to go some. You can generally find him in the company of his side-kicker, Sugarman. You should hear them ride each other, it's the "best show in town."

ROBERT S. ILLG

Born Nov. 27, 1897. Chicago, Ill.
Electrical Railway Engineering.
Electrification of the Illinois Central Terminal.
Sigma Kappa Delta. Interclass baseball, '18, '19, '20. Eta Kappa Nu. Senior class committee, '20. A. I. E. E., Tech. Basket Ball 1916. Interclass basket ball '16, '17, '18, '19. Junior class secretary, 1918-19..

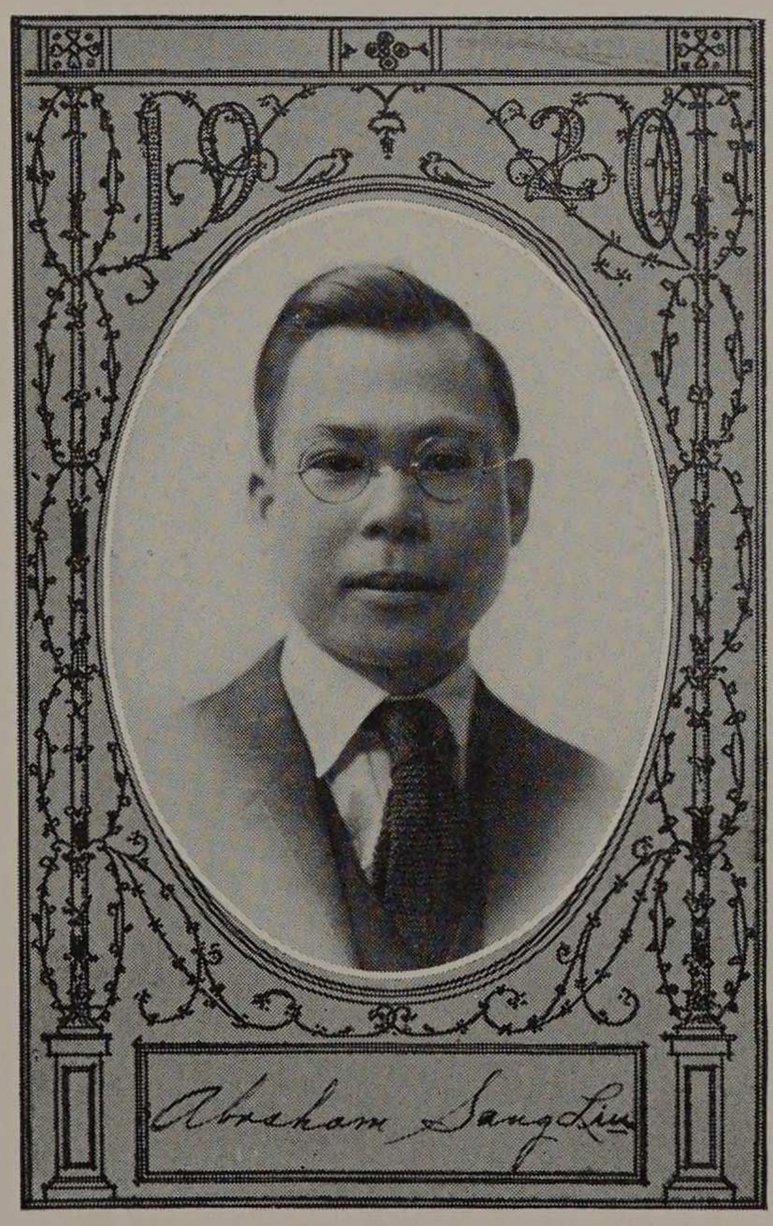
Bob has always been known as one of the "peppery" electricals that were represented in all social, athletic and school activities. One glimpse at Bob's record would lead one to wonder "just how he could find time," but regardless of time, Bob has always produced, and produced well. Whether in a ball game, at a dance ("with the ladies"), in his fraternity affairs, or any other affairs of importance, Bob has never failed to make a "hit." One thing becomes evident from Bob's past record, and that is that no matter what he enters, he should be a headliner" in the field.

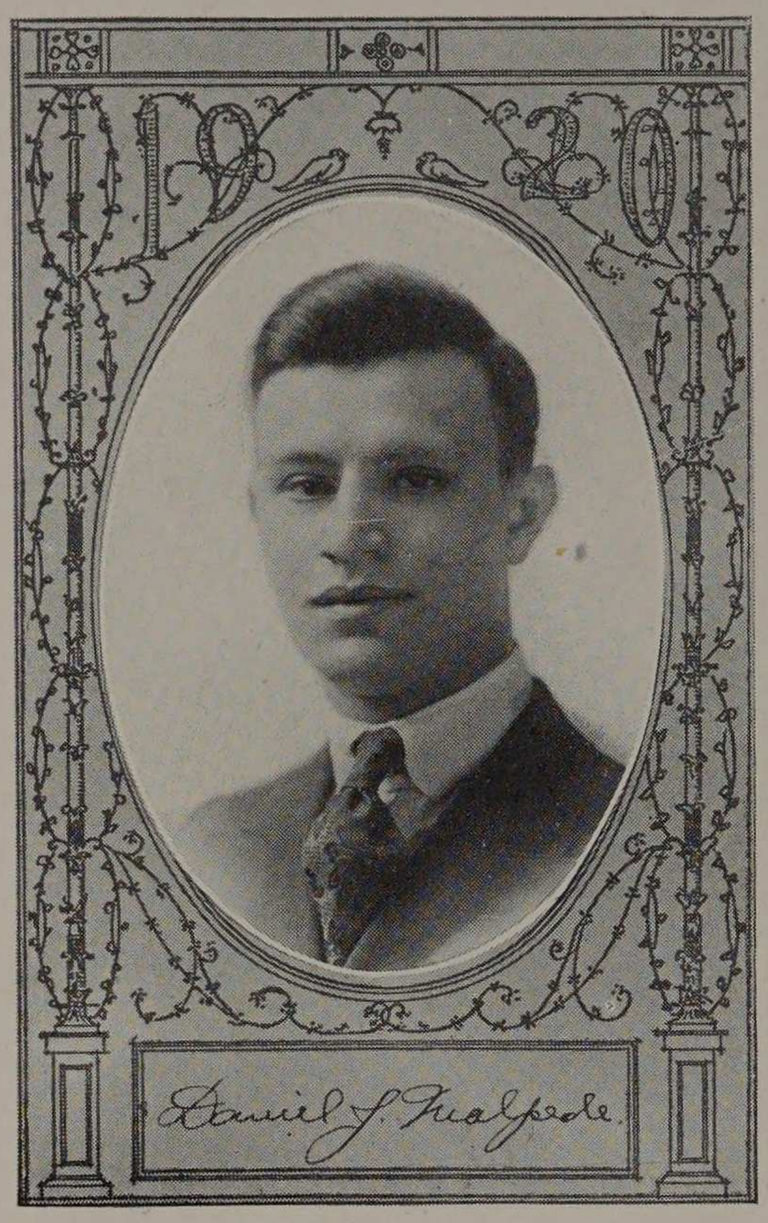


ABRAHAM SANG LIU

Born April 1, 1897. Honolulu, Hawaii.
St. Louis Academy Honolulu.
Electrical Engineering.
Design of a 110,000 Volt, 60 Cycles, Single Phase Shell Type Transformer.
Eta Kappa Nu, A. I. E. E. Interclass baseball, '14, '15. Intercollegiate baseball, '20.

Sang heard the call of the U. S. all the way down to Honolulu. He spent his first year in engineering at Cornell then came to Armour, and after the first semester decided that he liked Armour best. Liu was scheduled for the class of 1919, but was handicapped due to the fact that he answered the call of his military unit in Hawaii, in which he served for six months. However, he came back with a smile, more determined than ever. Besides carrying a double program, he made the Tech team as receiving end of the battery and brought honors to Armour.



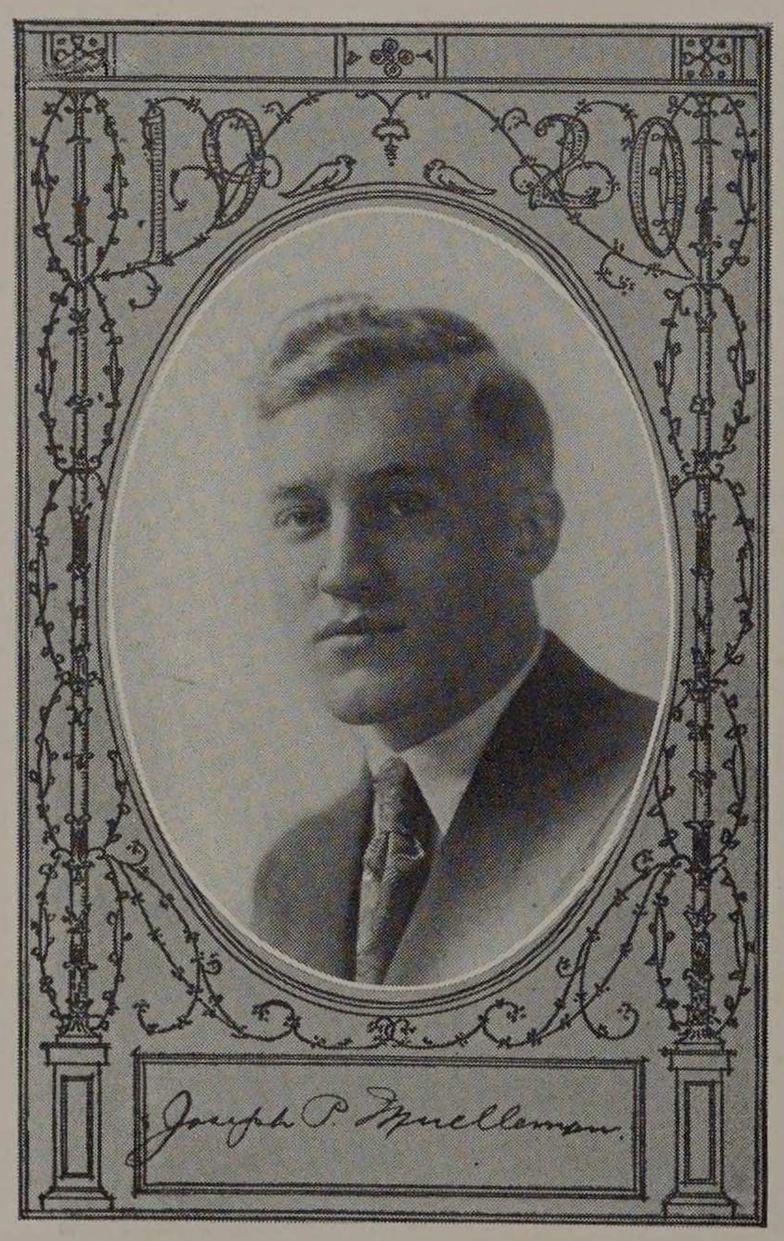


DANIEL JOSEPH MALPEDE

Born December 23, 1896, Chicago, Ill.
De Paul Academy.
Electrical Engineering.
Electrification of the Illinois Central Terminal.
Tau Beta Pi; Eta Kappa Nu; Sigma Kappa Delta; Member of A. I. E. E.; Tech Baseball 1920; First Baseman on Undefeated Baseball Champs, 1916-17, '17-'18, '18-'19 and '20.

Have you ever seen "Dan", when he wasn't smiling?
Have you ever heard him, when he wasn't singing?
Well, that's Dan's nature. He believes in letting everybody know how happy he is, and at the same time, does all he possibly can, to make others happy.

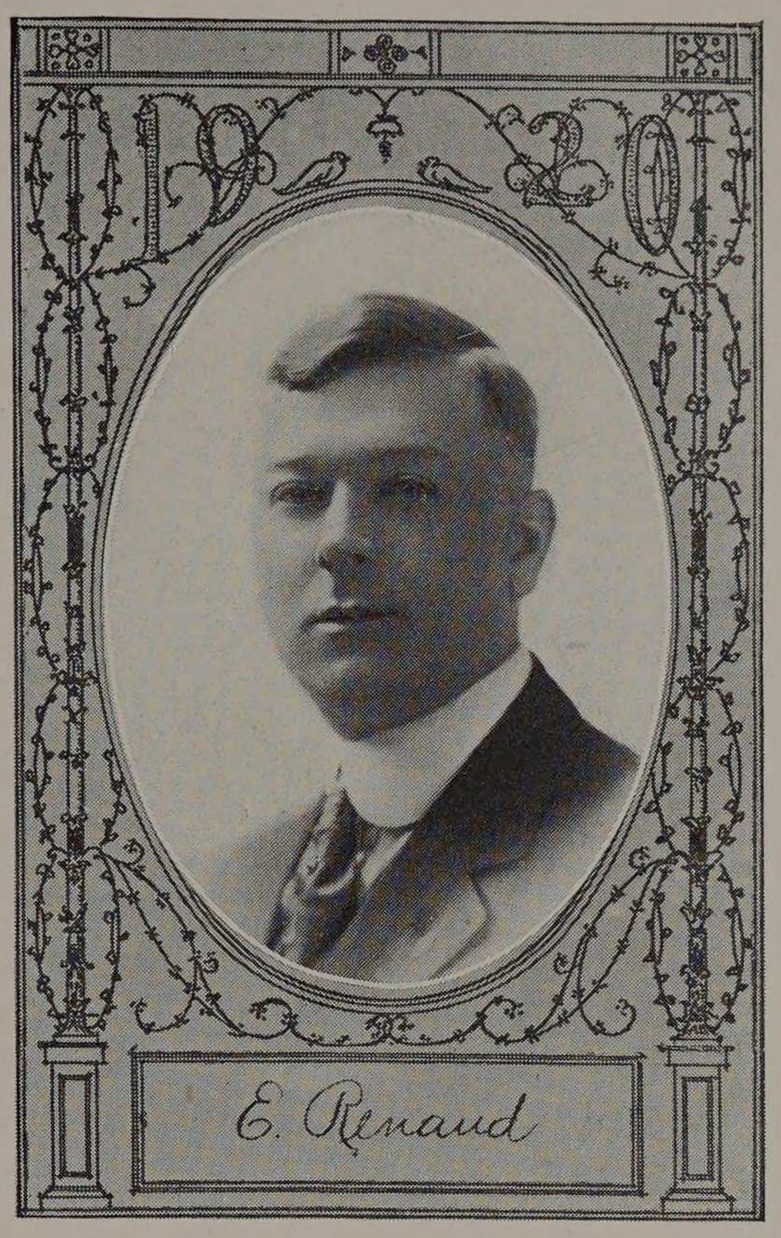
Like "Joe" and "Sey", Dan is out to make his "A" in baseball, and we are positive in stating that from Dan's record in the past, the first-base position will be well taken care of for Armour.



JOSEPH PETER MUELLEMAN

Born August 12, 1898. Chicago, Ill.
Electrical Engineering.
Transient Phenomena of High Circuits and Modes of Prevention, etc.
Sigma Kappa Delta, Treasurer Eta Kappa Nu, Indoor baseball, '19. Associate A. I. E. E. Baseball '17-'18-'19.

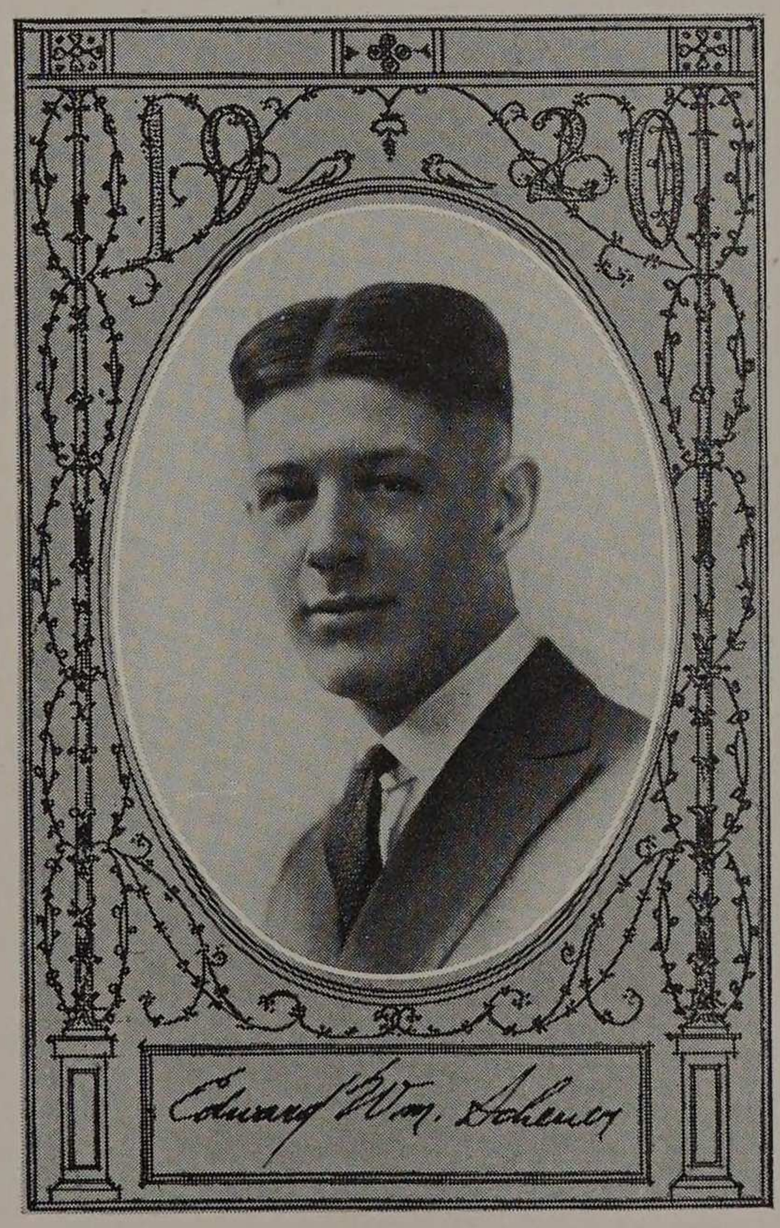
Speaking of "hobbies" a glance at the title of Joe's thesis seems to indicate that he was fond of conversing with such ones as Steinmetz, Peek, etc. During his four and one half years at Armour, "Joe" has maintained an enviable record in scholarship, social relations, and athletics, and always will be remembered as one of those "easy-going" fellows, who is ever-ready to see the humorous side of things, and, yet, never lose sight of the more serious. Joe's fame became more wide-spread when he was No. 3 in the front rank of Corporal "Dan" Malpede's notorious squad of "rebels" who were always ready to take advantage of Czar Geissler, Kaiser Bachman and their staff of militarists.



EUGENE S. RENAUD

Born April 6, 1890. Chicago, Ill.
St. James High School.
Electrical Engineer.
Design of a Turbo-Alternator.
A. I. E. E., Eta Kappa Nu.

"Ed" is one of those fellows whose experience in the commercial world has made him one of the more serious minded and settled men of the class. As a student and "good fellow", as well as an employee of the Sanitary District, "Ed" always has maintained a high standard and we know that if the past indicates anything, Ed will be successful in whatever he undertakes in the future.



EDWARD SCHEUER

Born April 15th, 1897, Green Bay, Wis.
Hyde Park High School.
Electrical Engineering.
Advanced Experiments in Dynamo Laboratory.
Eta Kappa Nu· A. I. E. E., Glee Club, '18-'19; Junior play, '17; Secretary Junior Class; Junior social committee; Cycle Staff, 1917.

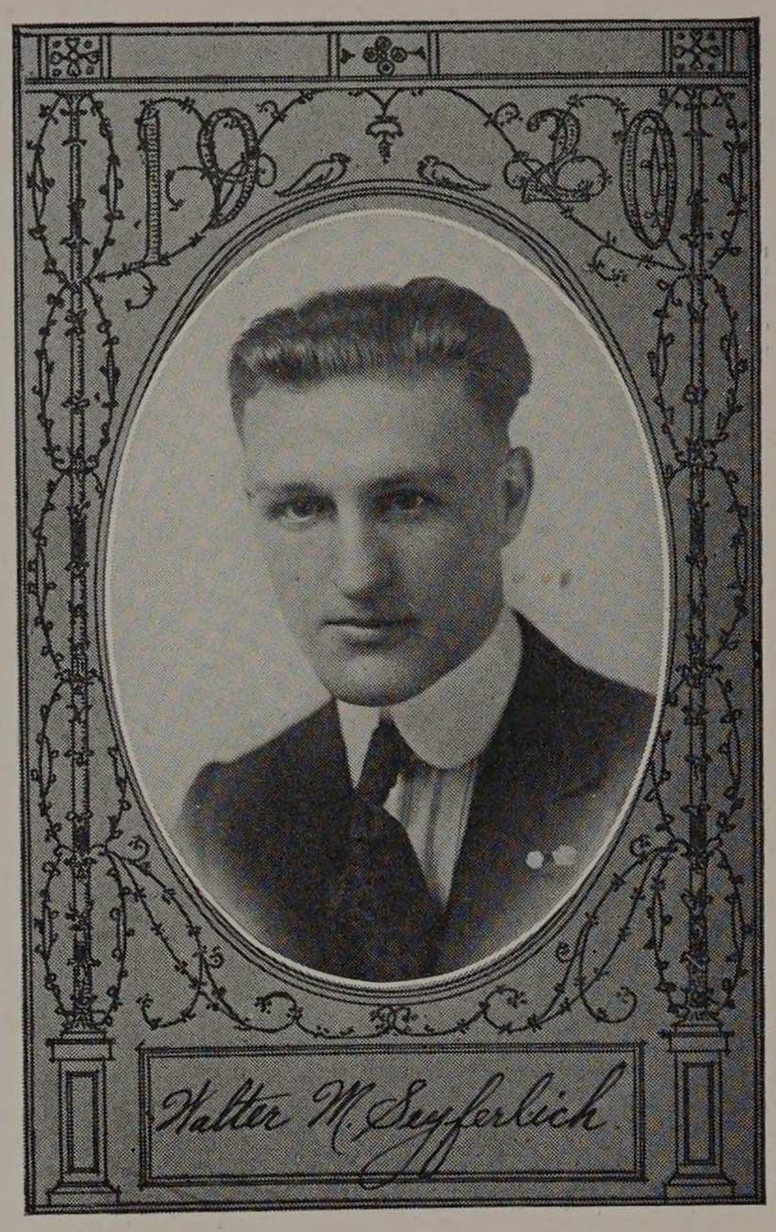
"Eddie" came to Armour a while ago and and his ever ready smile made a host of friends for him. He sure is a fountain of humor and can be funny at any time, even when others wish to be serious.

Scheuer is one student the "Profs." guessed wrong. We know he is a student and feel sure that he will be a success when he leaves school.

When it comes to the opposite sex, Eddie is an A1 man. If anybody doubts this just confer with Marks on the subject.

We know that anybody with Scheuer's will and good nature can easily make a banner success of his life.

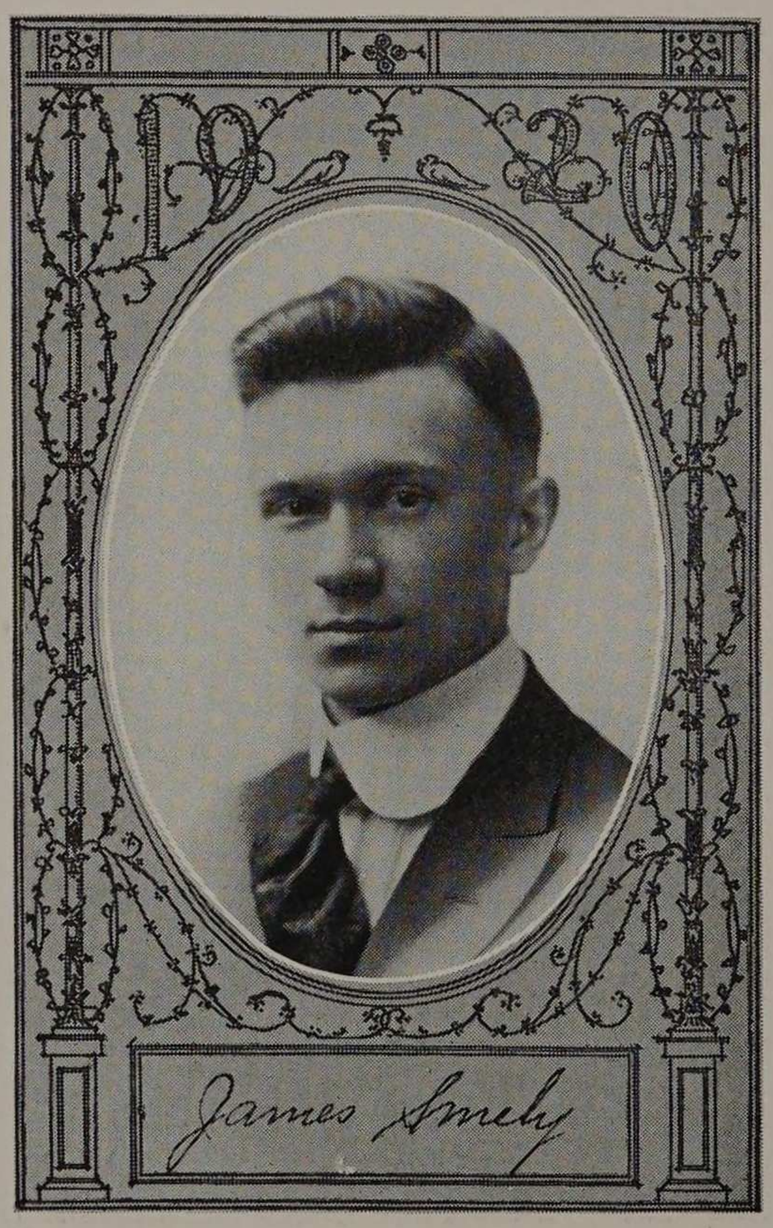
There were no activities that went without Scheuer's support. He was right there all the time whether they were athletics or social events.



WALTER MILTON SEYFERLICH

Born December 17, 1898, Chicago.
Lane Tech. High School, 1916.
Electrical Engineering.
The Developement of a New Electrical Fluid Meter.
Tau Beta Pi; Eta Kappa Nu; Tech Baseball, 1920; Junior and Senior Athletic Manager; Baseball 1917-18; Capt. Senior Indoor Team; 1919; Captain Undefeated Basket Ball Champ's, 1918-19; Captain Undefeated Baseball Champ's, '17-'18; '18-'19 and '20; Assistant Advertising Manager and Associate Editor Cycle 1919; Associate Editor, Cycle and Engineer 1920; Chairman, Armour Branch of the A. I. E. E.

Like his "dad", the late Chief of the Chicago Fire Department, Sey was a "regular" fellow; always ready to do "good-turns" for anybody and everybody. He was surely a "chip-off-the-old-block" in that he would "rather be right than be president", and you can rest assured that what ever Sey "tackled", he did right. As a leader in athletics and other activities, the "big chief" ranks with the best of his day, and his record shows that he was one of the best all-around men seen at Armour in some time. In spite of the fact that time and again, Sey has labored under great difficulties, he has never failed to "come out on top" in his many undertakings.



JAMES SMELY

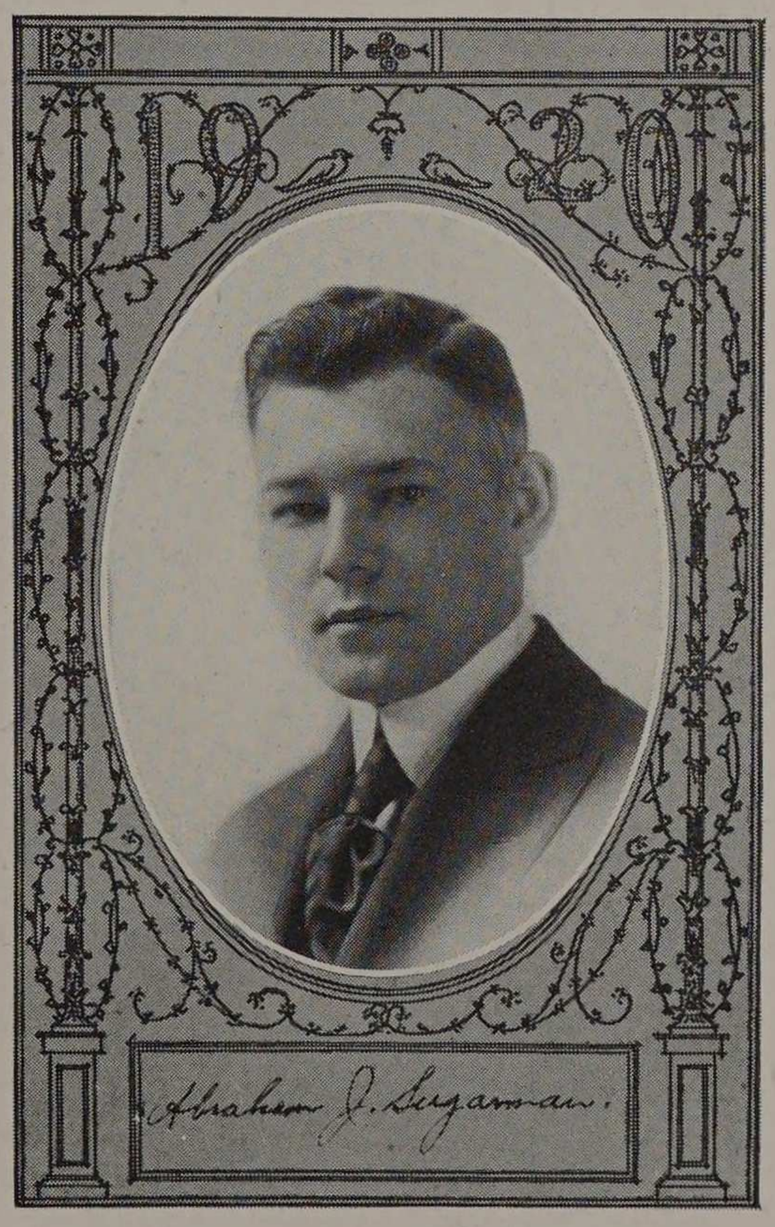
Born November 28, 1894. Mnisek, Bohemia.
Armour Inst. Evening Classes.
Electrical Engineering.
Oscillations, Imputes, and Waves on Transmission Lines.
Eta Kappa Nu, A. I. E. E., Armour Radio Ass'n. Treas. A. I. E. E. 1919-1920.

James is noted for his mathematical work as applied to electricity and physics. He intends to pursue this study in a post-graduate course after leaving Armour. His rare sense of humor and wit has lightened our work and kept the fellows in the best of spirits.

HAROLD DEFOREST STEVERS

Born April 2, 1894. Chicago, Ill.
Carl Schurz High School.
Electrical Engineering.
Design and construction of a Radio Station at Armour Institute of Technology.
Phi Kappa Sigma, Editor Cycle, 1917. Secretary A. I. E. E., 1920. President A. R. A., 1915-1920.

"Steve" is our radio enthusiast and expert. He was a junior at the outbreak of the war. He immediately enlisted in the navy and was commissioned an ensign in two months. In the navy he first taught electricity and wireless at the Harvard U., and later did experimental and research work in radio at New London, Conn. Although he wears no wound stripes he surely has a war record. And the list of his school activities certainly is the best evidence of his good "horse" sense and popularity.



ABRAHAM J. SUGARMAN

Born July 6. 1897. Chicago, Ill.
John Marshall High School, 1916.
Electrical Engineering.
Design of a 15,500 K. W. Generating Station with a 2000 K. W., D. C., Railway Substation.
A. I. E. E.; Vice-President, Eta Kappa Nu.

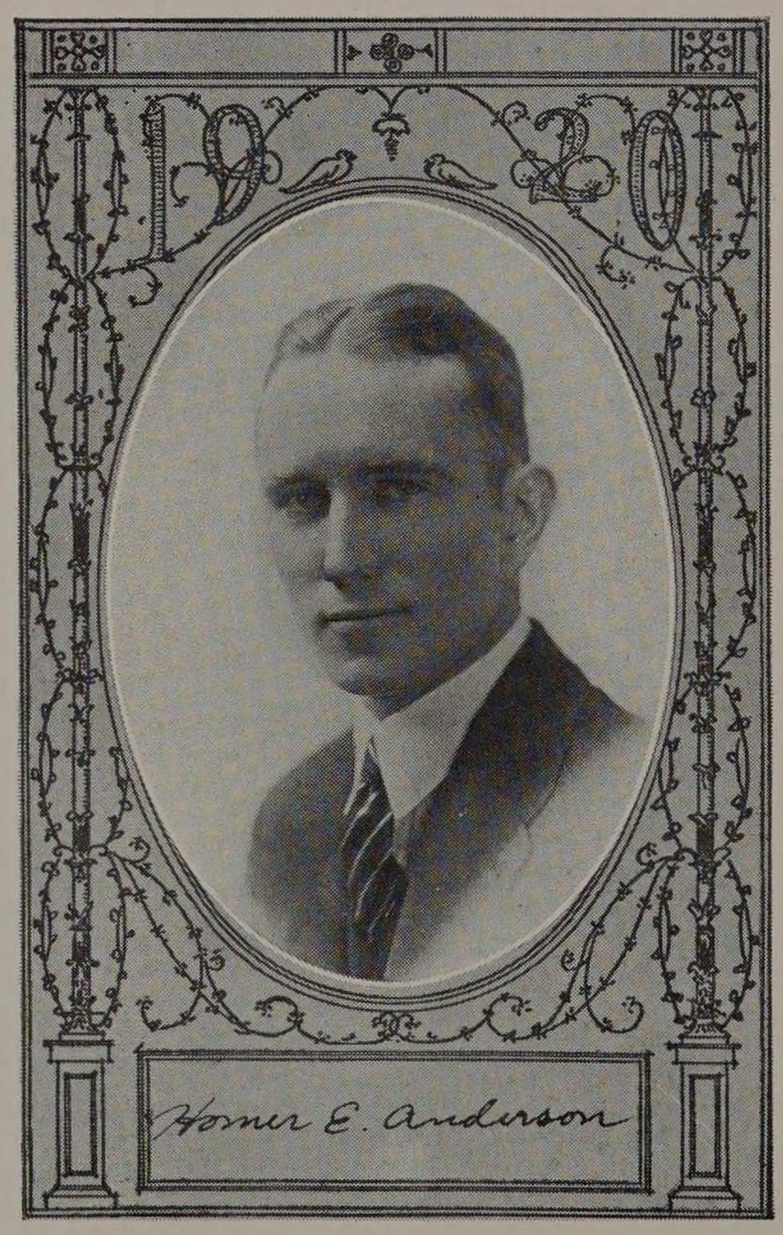
Abe has many of the qualities of a successful engineer. He came to Armour with a scholarship for the first year and after that he earned his tuition working for the Institute. One of his chief delights is to work on a long problem with pencil and paper, accurate to three places, faster than the rest of us can do it with a slide rule; he sure can knock 'em dead. Success and A. J. stand for the same thing.

ALBERT R. THROOP

Born April 3, 1892. Chicago, Ill.
Englewood High School.
Electrical Engineering.
A System of Multiplex Telephony by the Use of Vacuum Tubes.
Sigma Kappa Delta. Eta Kappa Nu. Tau Beta Pi. A. I. E. E., Secretary Tau Beta Pi, Corresponding Secretary of Eta Kappa Nu, Associate Editor of the "Bridge", Eta Kappa Nu.

"Art" is said to be a "walking encyclopedia" for the senior electricians. He seems to have a happy faculty of doing two things at one time without doing any work on either. Despite the fact that he cleared trouble eight hours every evening for the Telephone Company, he has been able to carry away the class honors in scholarship. How he does it, we don't know.

B. S. in C. E.



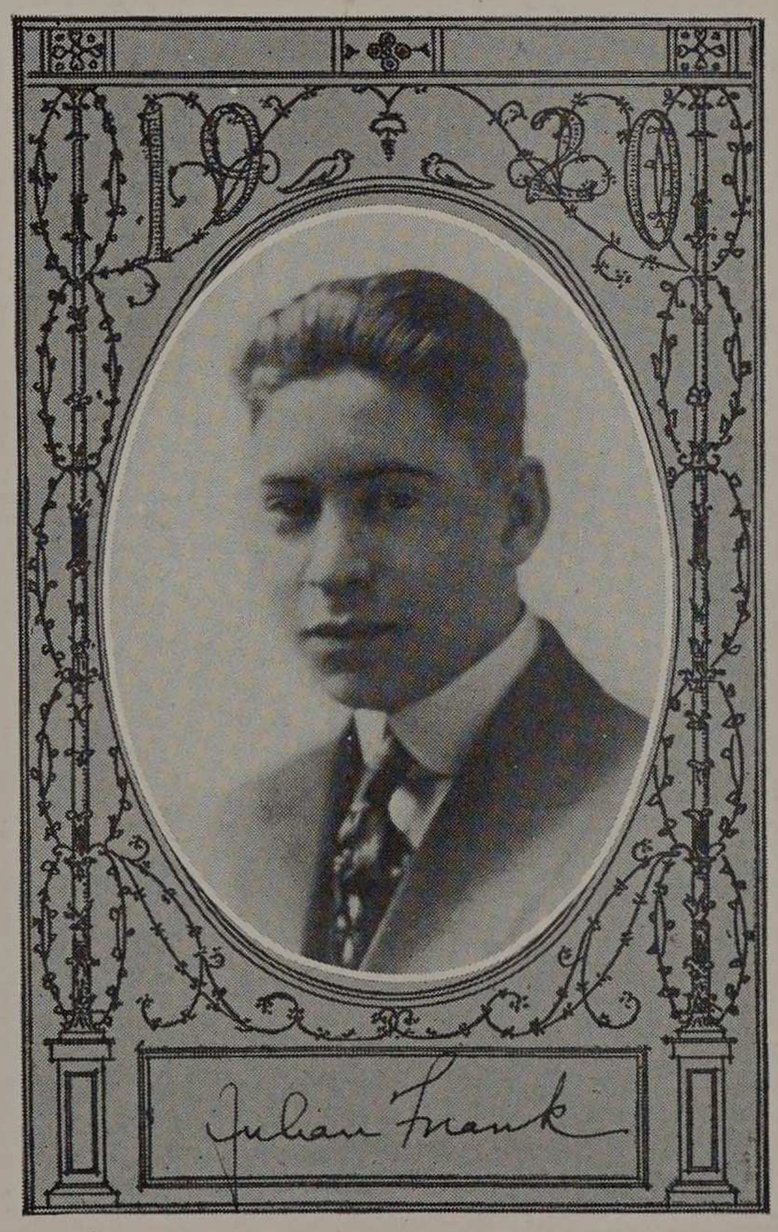
HOMER ELLERY ANDERSON

Born February 8, 1897—Chicago.
Lane Technical High School, 1915.
Civil Engineering.
The Design and Cost of a 24 Foot Concrete Pavement for Skokie Road, Glencoe, Illinois.
Tau Beta Pi; W. S. E.; Y. M. C. A.; Glee Club, 1916-18; 1918-20; Manager Glee Club, 1917-18; 1918-19; Vice President Y. M. C. A. 1916-17; President 1917-18, Chairman Membership Committee 1918-19; Social Committee 1917-18, 1918-1919; 1919-20; President Freshman Class 1916-19; Vice President Armour Branch W. S. E. 1919-20.

"ANDE" is half of the corporation, Anderson and Hertwig, which has had such a successful run since its formation in the fall of 1916. Besides being an excellent student, a keen business man, and a mighty good fellow, he has a way all his own with the fair sex, which bears mentioning, judging from his school career which has been one of the fullest in the class; his future will be one of success and happiness.

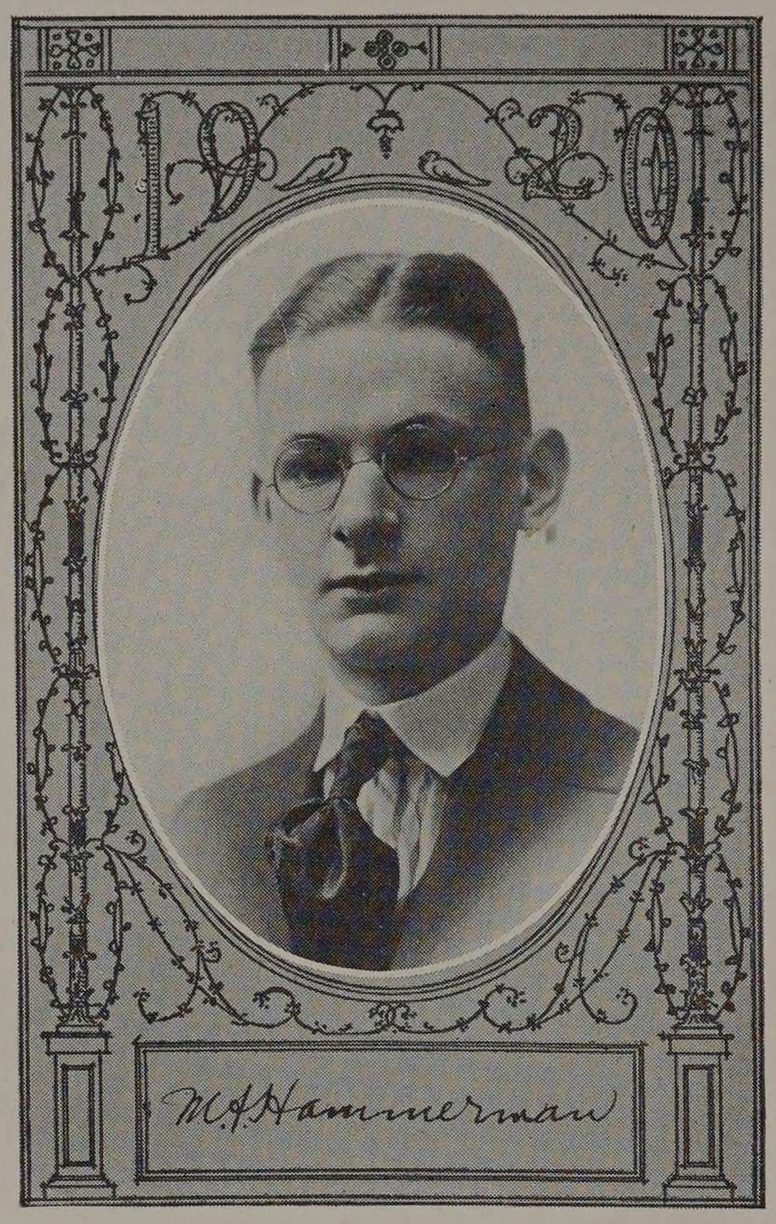
MORRIS FAINSTEIN

Born July 12, 1887 Russia.
Crane Tech. High School.
Civil Engineering.
Method of Measuring Earth Pressures on Vertical and Inclined Retaining Walls.
Western Society of Eng.
Another one of our Crane men "M. F. was the hero of many an inspection trip.



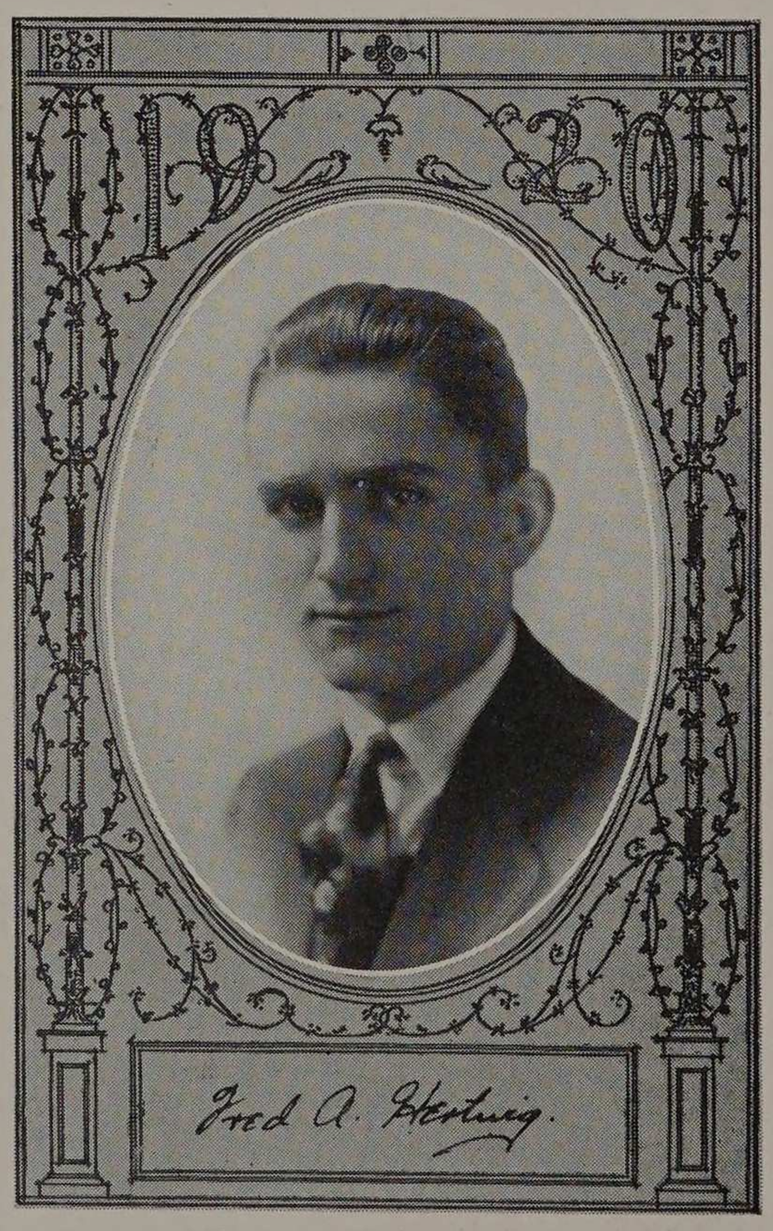
JULIAN FRANK

Born October 5, 1896, Chicago.
John Marshall High School, 1916.
Civil Engineering.
Design of a Cellular, Reinforced Concrete dam for the Kensico Reservoir of the Catskill Water Supply of New York City.
Member Western Society of Engineers.
Treasurer, Armour Branch W. S. E., 1919-20.
Julian—commonly called "Math" for his adeptness at solving unheard of calc problems. He sold his brief case when a freshman, because as soon as he enrolled in a class the Prof. marks an "A" after his name, so there is no use in his studying.



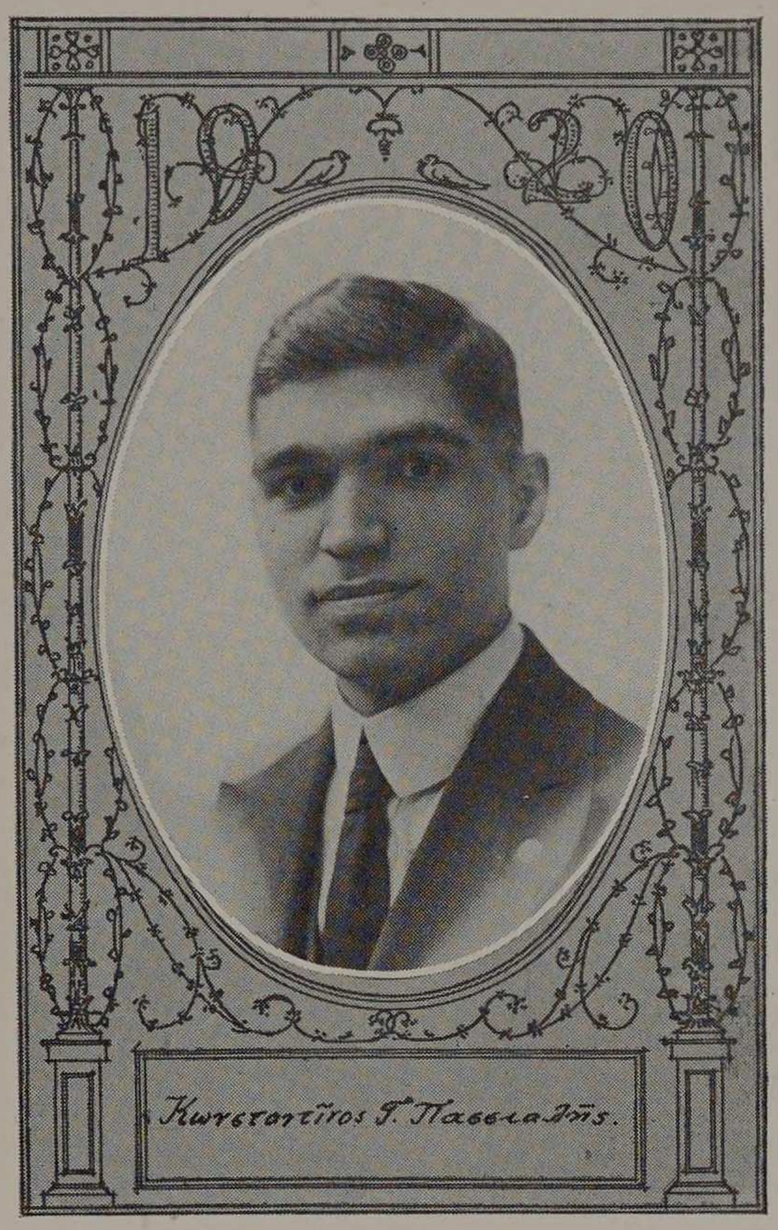
MEYER A. HAMMERMAN

Born October 16, 1898, Chicago.
Crane Tech. High School, 1916.
Civil Engineering.
Collective Data on the Treatment of sewage by the Activitated Sludge Process.
Member Armour Branch Western Society of Engineers 1919-20.
"Ham" came to Armour from Crane Junior College in 1918. He completed his college course in 3½ years. He was liked by all the fellows and made quite a hit with his "dry" wit.



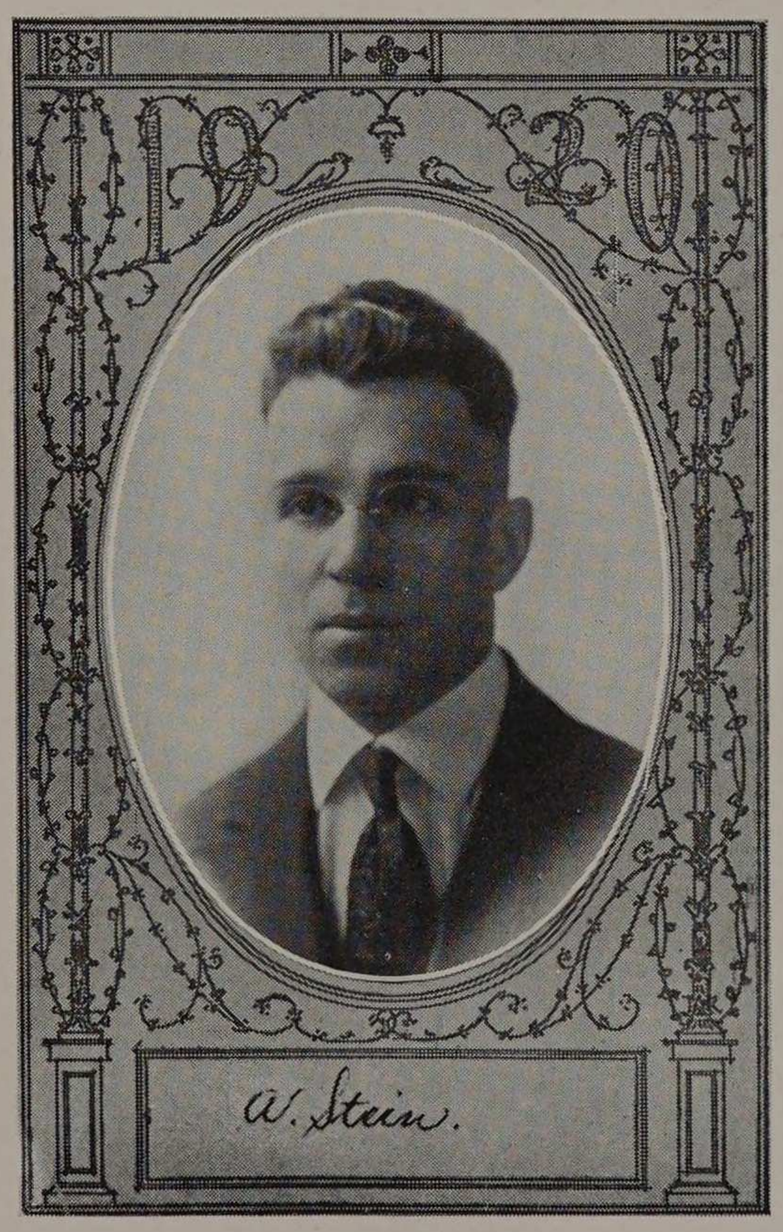
FRED A. HERTWIG

Born January 15, 1898. Germany.
Evanston Academy.
Civil Engineering.
The Design and Cost of a 24 Foot Concrete Pavement for Skokie Road, Glencoe, Ill.
Tau Beta Pi; W. S. E.; Y. M. C. A.; Glee Club 1918-19; Manager 1919-20; Social Committee 1918-19-20; Secretary Y. M. C. A. 1918-19; Humor Editor 1919 Cycle.
Fred the other half of the Hertwig-Anderson corporation is known to all Glee Club first nighters as the second Raymond Hitchcock. Tho a real student, and a leader among men, as is vouched for by his school activities, he has never neglected the many fair damsels who admire his winning smile.



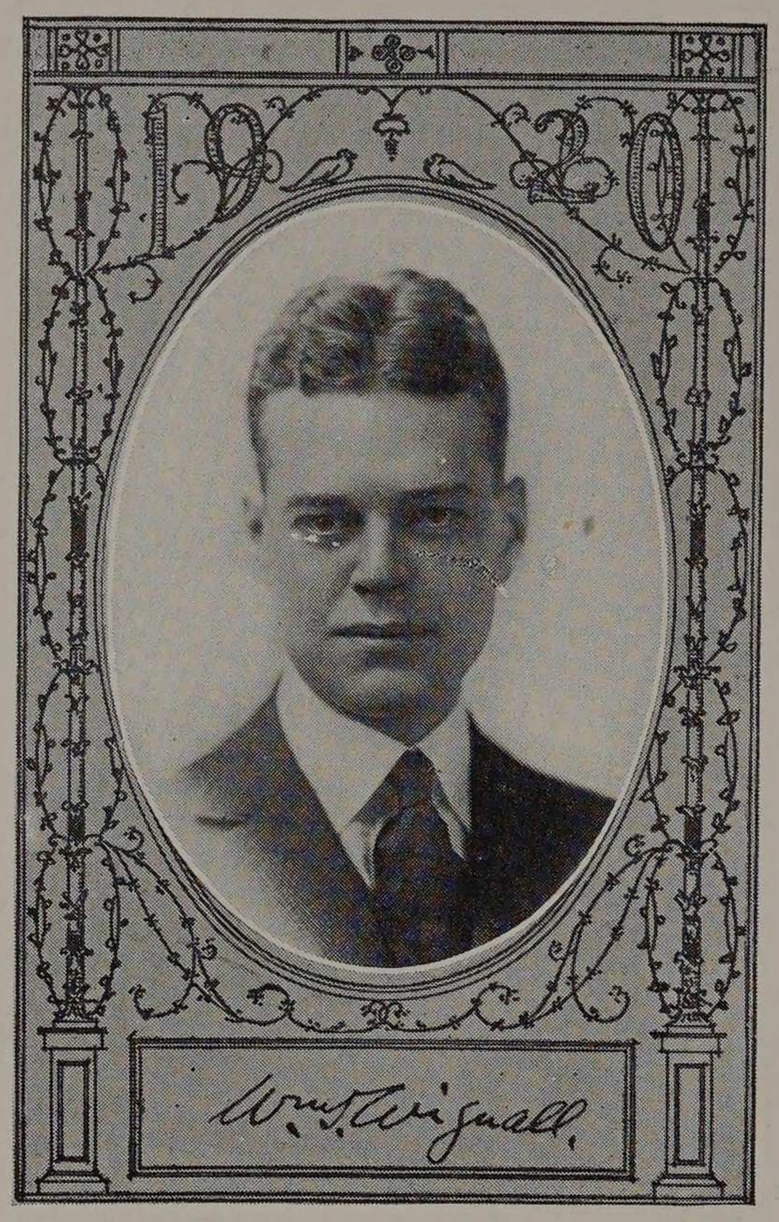
CONSTANTINE PASSIALIS

Born March 25, 1893—Tripolitza of Greece.
American School of Correspondence—Chicago.
Civil Engineering.
Secondary Stresses in Bridges.
Member Y. M. C. A., W. S. E.
"PASS" is our third Greek to graduate from Armour Institute. Watch the number grow.



AARON STEIN

Born February 1, 1890. Russia.
Crane Tech. High School.
Civil Engineering.
Secondary Stresses in Bridges.
Member Y. M. C. A Western Society of Engineers.
Judging from the great aptitude that Aaron has shown to his studies, he is a man that the class of '20 will be proud of in after years.

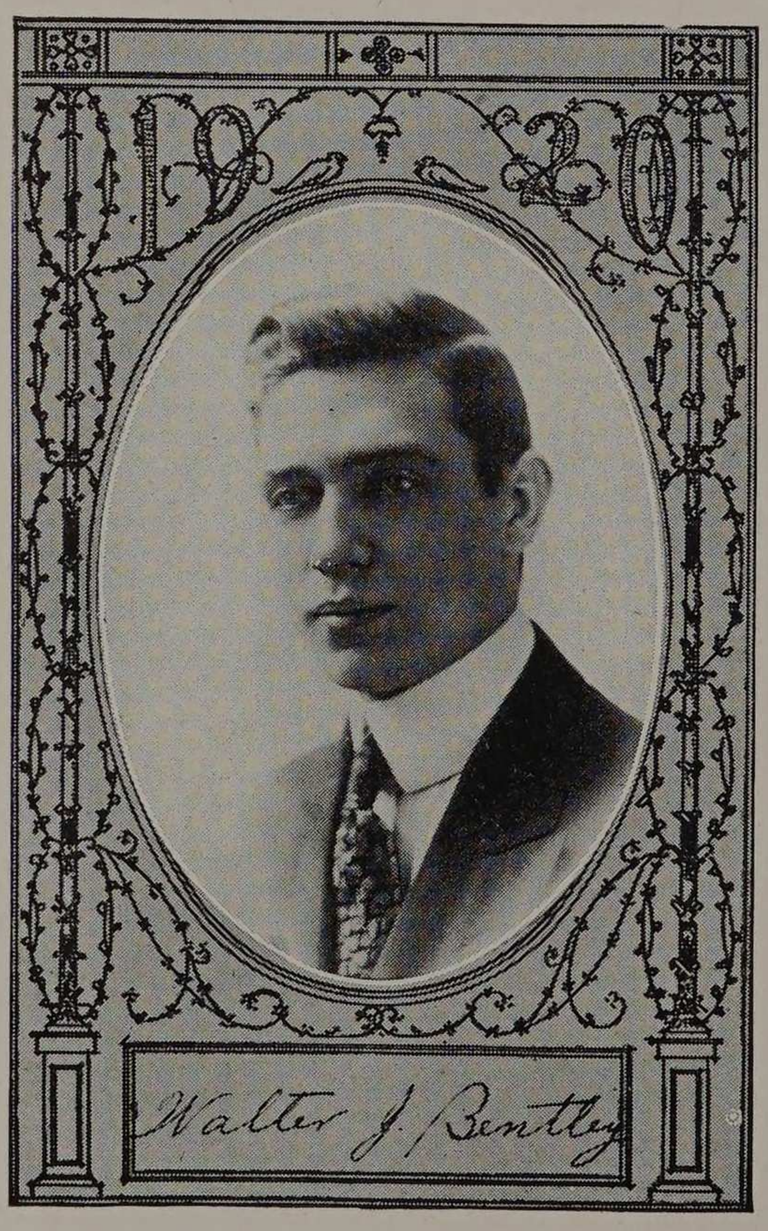


WILLIAM JAMES WIGNALL

Born May 19, 1893, Streator, Ill.
Springfield High School 1914.
Civil Engineering.
Hydraulic Development, White River, Canada.
Delta Tau Delta. A. B. W. S. E. Radical X, Class Basket Ball '15. Chairman Social Committee '16-'19. Member '15 Third Junior Marshall '17. Assistant Editor of Cycle '17. Glee Club '15-'16-'17. President of A. B. W. S. E. '19. Senior Picture Committee '20.

Bill is one of the old line men in the class. Originally a class of '18 man, we are very glad to have him back from service, and in the class of '20. An active member of the class with a very likeable personality.

B. S. In Ch. E.



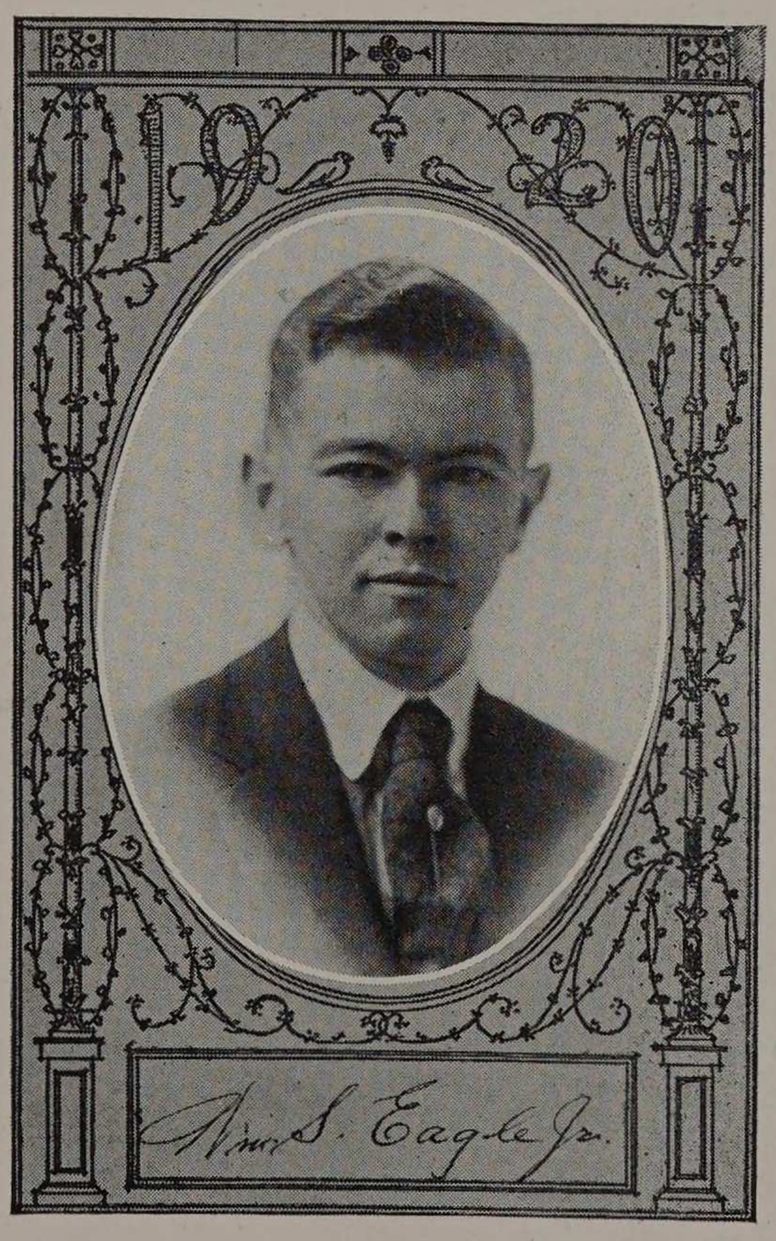
WALTER J. BENTLEY

Born April 28, 1897, Chicago.
University of Notre Dame, Loyola Academy.
Chemical Engineering.
Investigation of the Alloy System—Zinc-Zinc Nitride.
American Chemical Society; A. Ch. E. S.; Secretary A. Ch. E. S. 1919-20.

Walter came to us three years ago from Loyola, and took as many subjects in these three years as the others do in four, and incidentally made an enviable scholastic record. A true friend, quiet and unassuming, always trying to do some one a favor. With his pleasing personality and love for work he cannot help making good.

JOSEPH M. BERNSTEIN

Born October 18, 1896, Chicago.
R. T. Crane Tech. High School.
Chemical Engineering.
A Study of Resorcinol Production.
Armour Institute Chemical Society.
Joe is one of those rare persons who knows how to work hard when they work and to play hard when they play. With his versatile disposition he is a regular all around man, Suffice it to say he is as conscientious socially as he is scholastically and as successful. A hard and consistent worker, he is never satisfied with any but the best results and his reports have been complete and exhaustive summaries of the subjects. All this joined with ambition to be the first of the foremost will add another name to the long line of successful Armour men. Good Luck! Joe—and may your progress be fast.



WM. S. EAGLE JR.

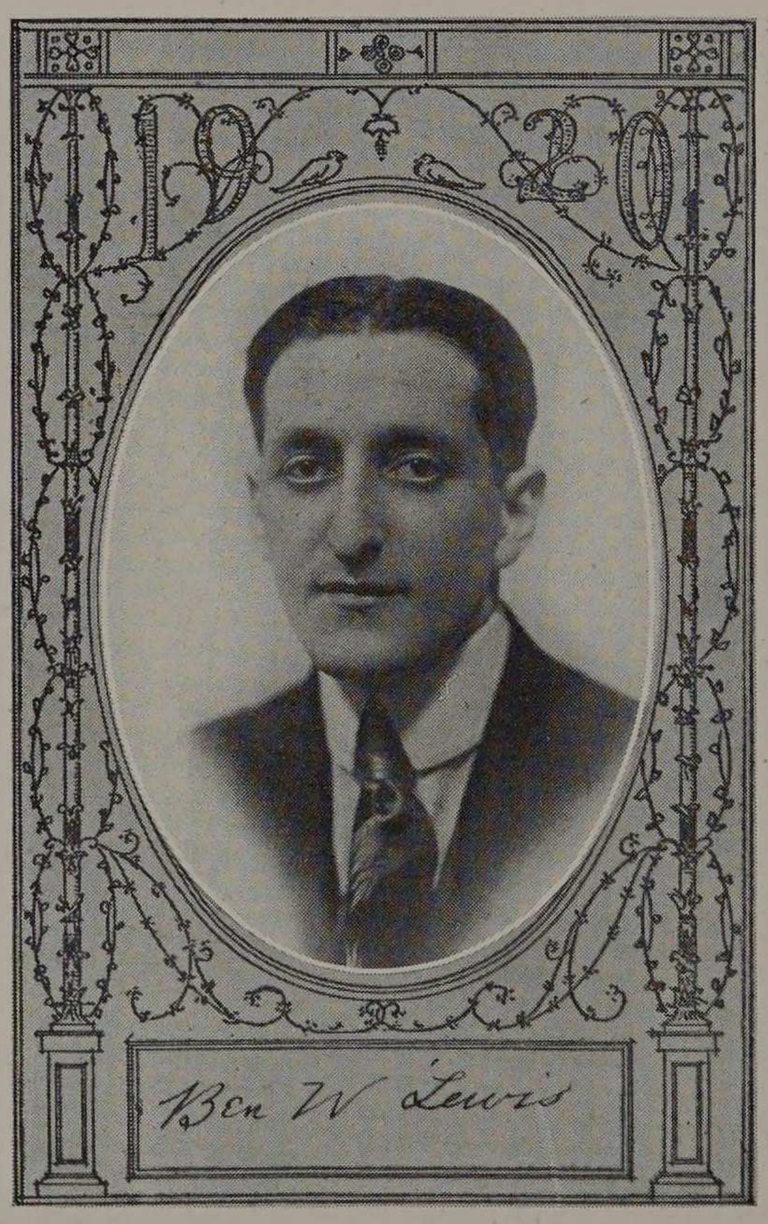
Born July 15, 1895, Chicago, Illinois.
Hyde Park High School.
Chemical Engineering.
Chemical Oxidation of O-Nitro Toulene to O-Nitro Benzoic Acid.
Omega Lambda.
Tau Beta Pi.
Armour Chemical Society.
Golf Team, '16 and '20.
"Bill" is a rare combination of studiousness and quietness, coupled with a personality that lends charm. He is chary of speech, because he does not need to be otherwise—when he does speak, he makes it worth while. His constant cheerfulness and quiet, forceful personality will win him friends and success.

"Serene and resolute and still
and calm and self-possessed."

HENRY F. KLEMM

Born February 2, 1896, Chicago, Ill.
Lane Tech. High School.
Chemical Engineering.
The Chemical Oxidation of Ortho-nitro-toluene.
A. S. Ch. E.

Henry is not the sort of chap that puts himself out to meet the other fellow, but if the other fellow is a smart enough judge of human nature to come half-way he will find himself repaid a thousand fold by the hearty geniality and honest friendship of one of those steadfast, four-square man whose acquaintanceship is a joy and whose friendship is a rock to hold to in times of turmoil.



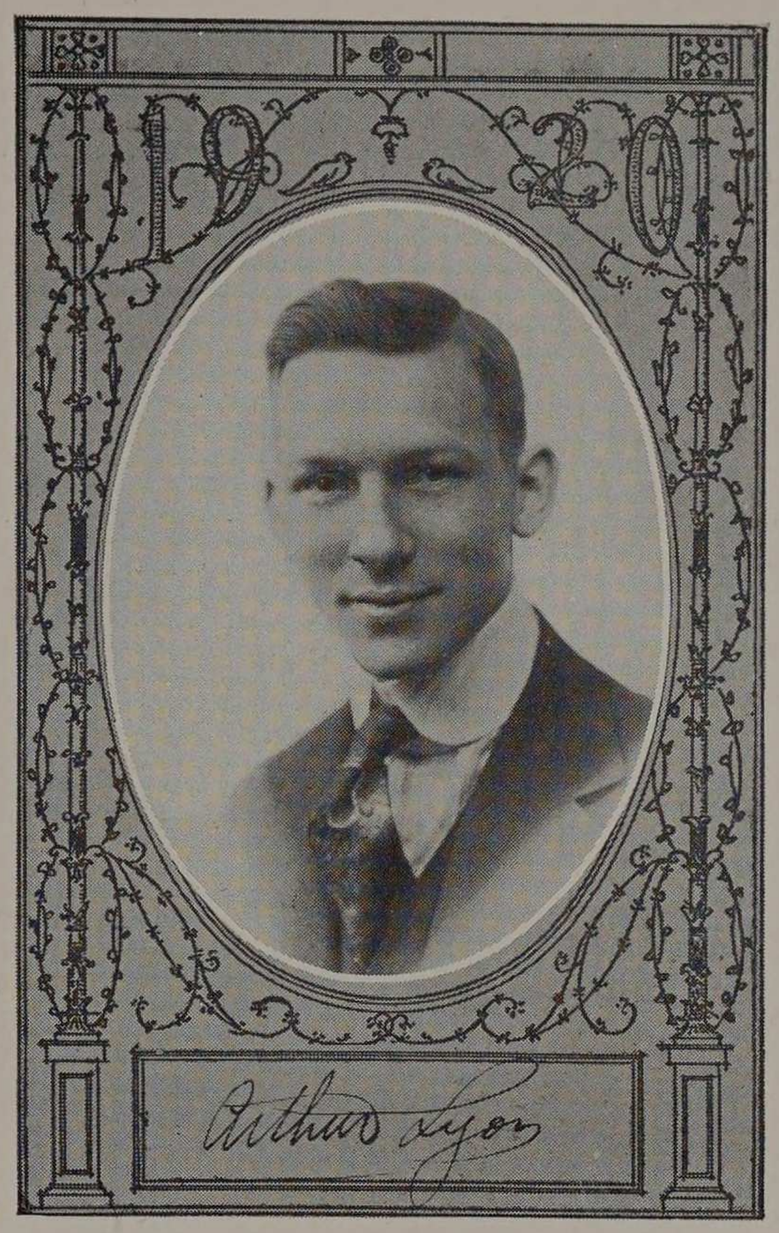
BENJAMIN WOLF LEWIS

Born June 10, 1897—Chicago.
Wendell Phillips High School—Lane Junior College.
Chemical Engineering.
Preparation of Salycylic Acid from Sodium Phenate.
Armour Chemical Engineering Society.
American Chemical Society.

Ben is the fourth member of the Lewis to graduate from Armour, having upheld the family reputation for excellence in scholarship and being all-round good fellows. He is never content if he is not doing someone a favor and is consequently well liked and admired by his classmates. He will undoubtedly be one of the most successful of this year's graduates.

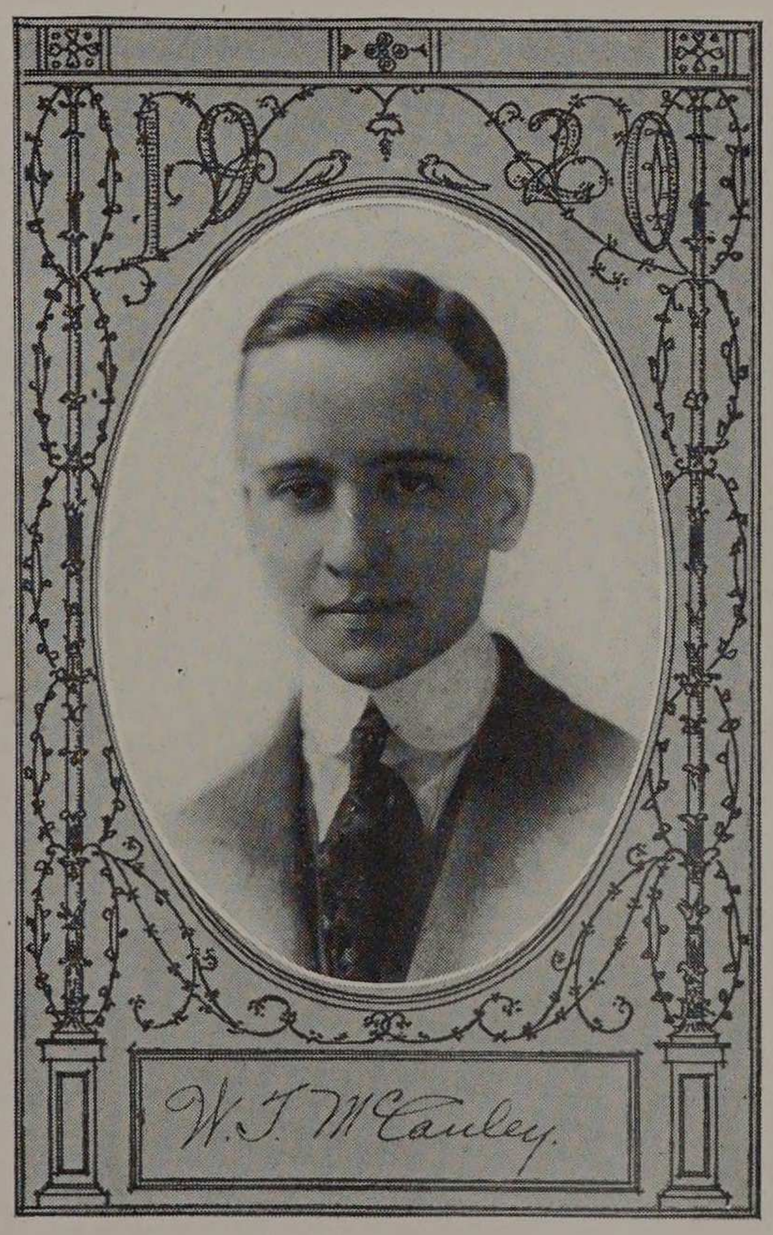
ARTHUR LEROY LYON

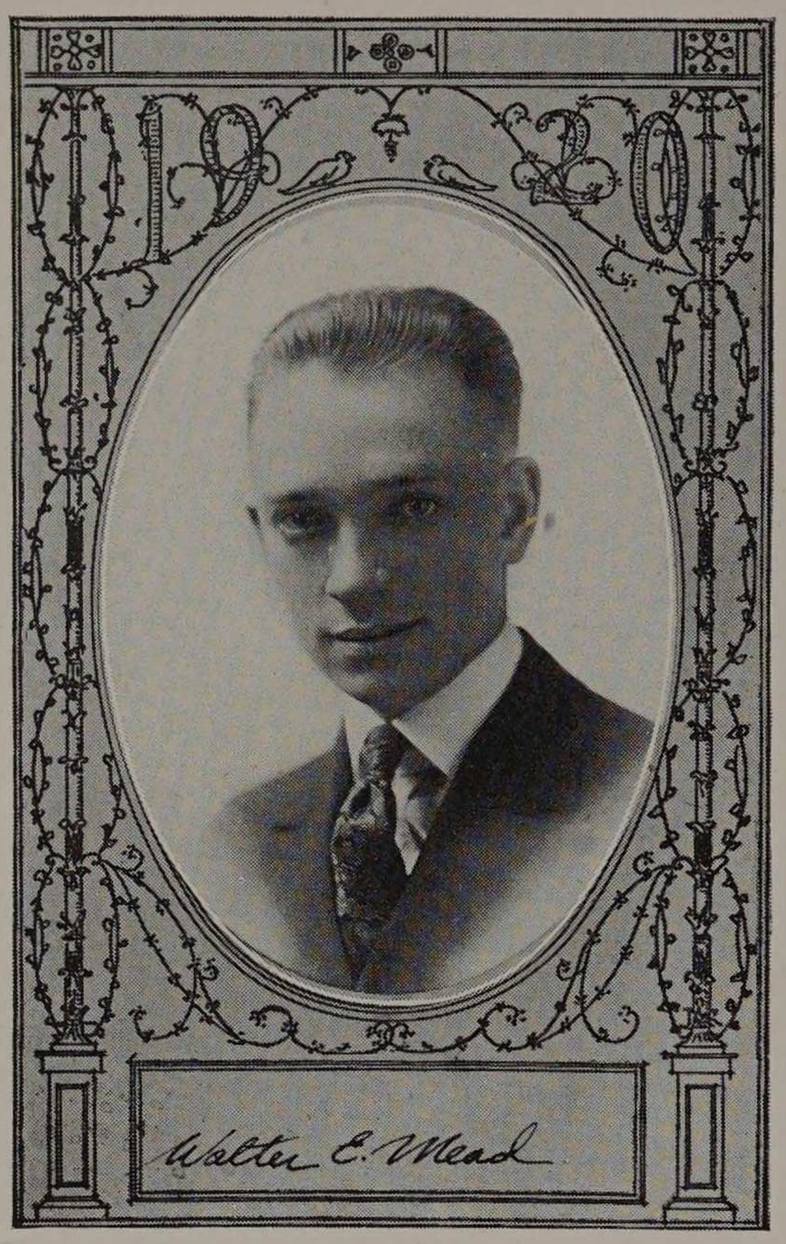
Born January 29, 1897—Chicago.
Wendell Phillips High School.
Chemical Engineering.
The Commercial oxidation of geraniol to geranial.
Phi Kappa Sigma, Armour Chemical Engineering Society, Vice President of Junior Class '18-'19, Interclass baseball '16-'17-'18—'19.
Like to meet a fine fellow? "Art's" one. In addition to having an agreeable disposition, he has plenty of experience stored away in his head. Like most of us, he has been in the army. Being an engineer, he enlisted in the Engineers Reserves, and saw active duty in the 19th Engineers at Ft. Sheridan. Here he learned how to build bridges, hike innumerable miles, eat a little more than was good for him, then go to bed early only to have a pleasant night spoiled, by having to get up before daylight. After making good at camp, he came back to Armour and helped to train our raw recruits for a few months. But all wars come to an end, and so did this one.



WILLIAM TAYLOR MCCAULEY

Born March 25, 1898, Chicago, Ill.
Quanah High School, Quanah, Texas, '14.
Mt. Vernon High School, Mt. Vernon, N. J. '13.
Graduated from Central High School, St. Joseph, Mo. '15-'16.
Chemical Engineering.
Determination of Benzine and its Compounds and Admixtures with Paraffin Hydrocarbons.
Beta Phi, Tau Beta Pi, Armour Chemical Engineering Society, Secretary A. Ch. E. S.
Mack is one of the best liked fellows of the class, also one of the best students. Although he is a "shark" in his studies, he has a way of getting things done without the accompaniment of a brass band; and we are sure that he will be as successful a chemical engineer as he was a student.





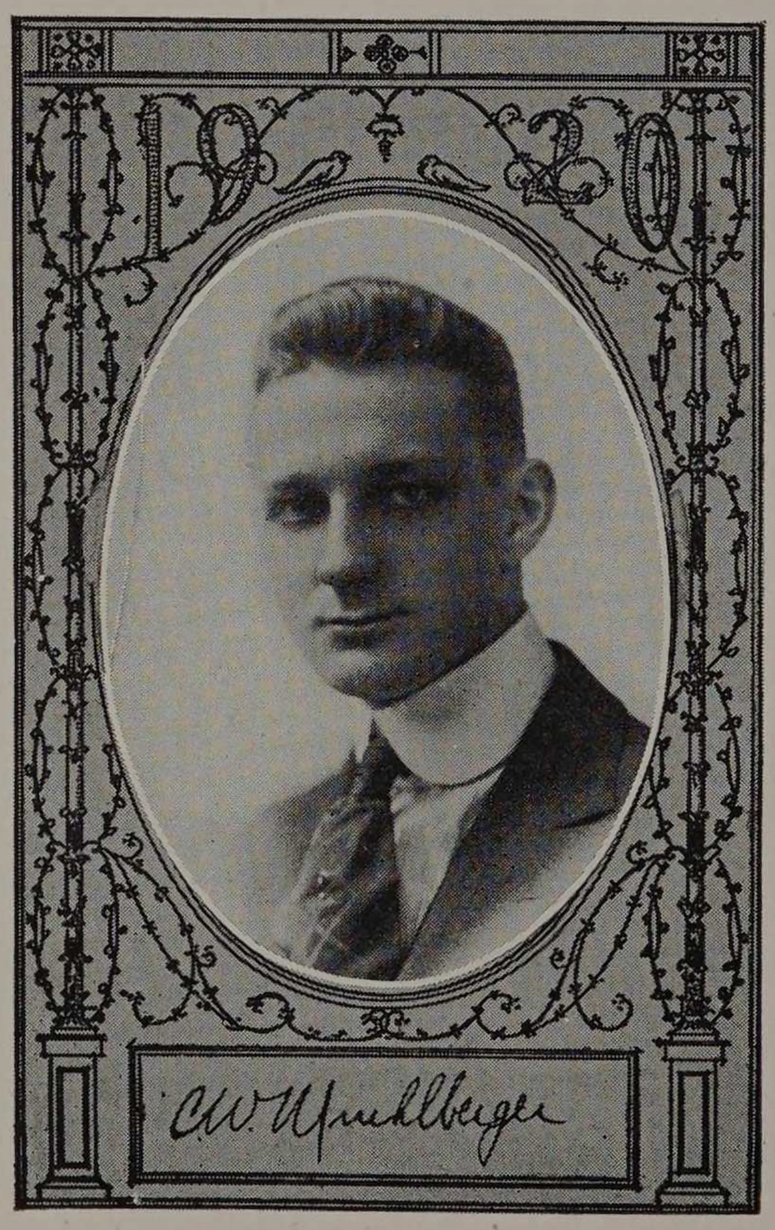
WALTER ELWOOD MEAD

Born August 25, 1896, Berwyn, Ill.
Howe School, Howe, Indiana.
Chemical Engineering.
The Preparation of Anthrarufine.
Delta Tau Delta, A. Ch. E. S., Freshman Social Committee.

If you want to know anything about Berwyn, just ask Walt. He is familiar with everybody and everything out home. As Walt would say, "It takes a lot of ambition to take the 'Q' from out home everyday to come to "Armour,"

But Walt has plenty of ambition and is one of the mainstays of the Chemicals. Because of his easy going ways and goodness of heart, he has all friends and no enemies. He also has a new story to tell you every time he sees you.

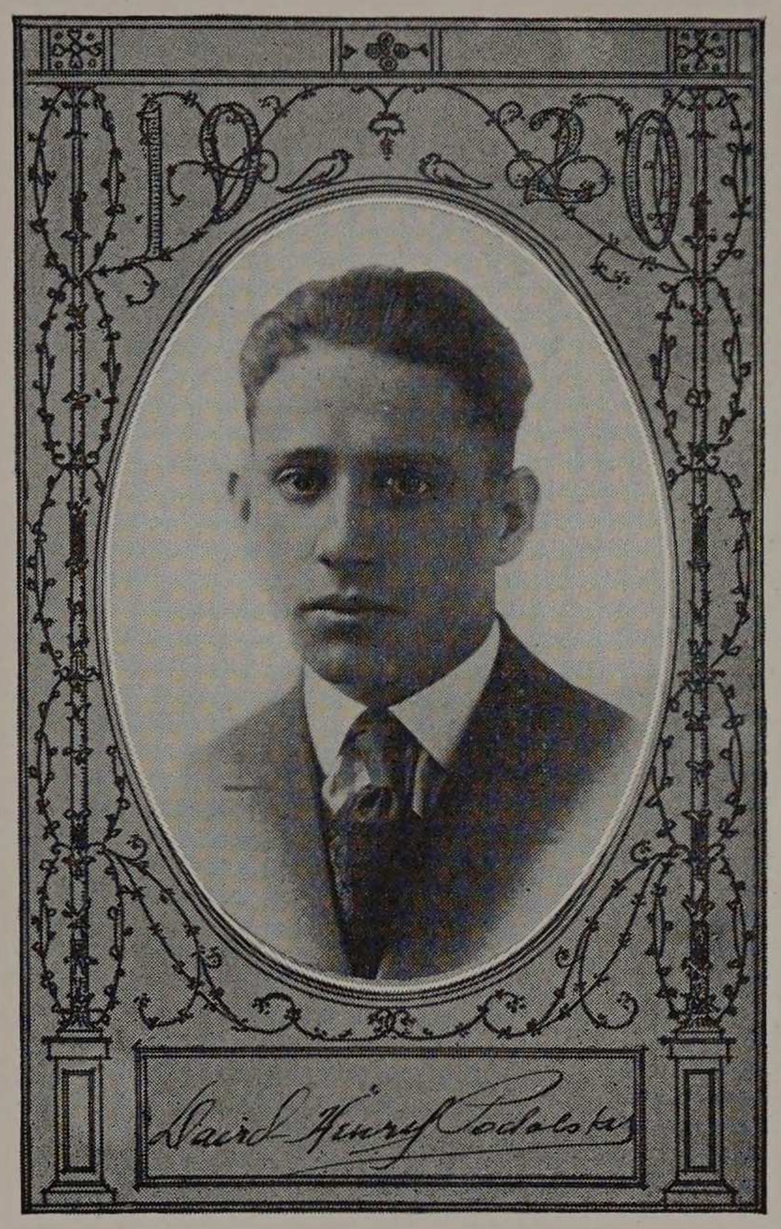
Walt is an artist at jerking sodas as some of his friends know. Walt's favorite saying is "Gimme a cigarette."



CLARENCE WEINERT MUEHLBERGER

Born July 16, 1896. Chicago, Ill.
Hammond High School. Hammond, Ind.
Chemical Engineering.
"The Electrolytic Oxidation of Ortho Nitrotoluene."
Sigma Kappa Delta. Tau Beta Phi. A. Ch. E. S., American Chemical Society, American Electrochemical Society, Vice-President, A. Ch. E. S., 1918.

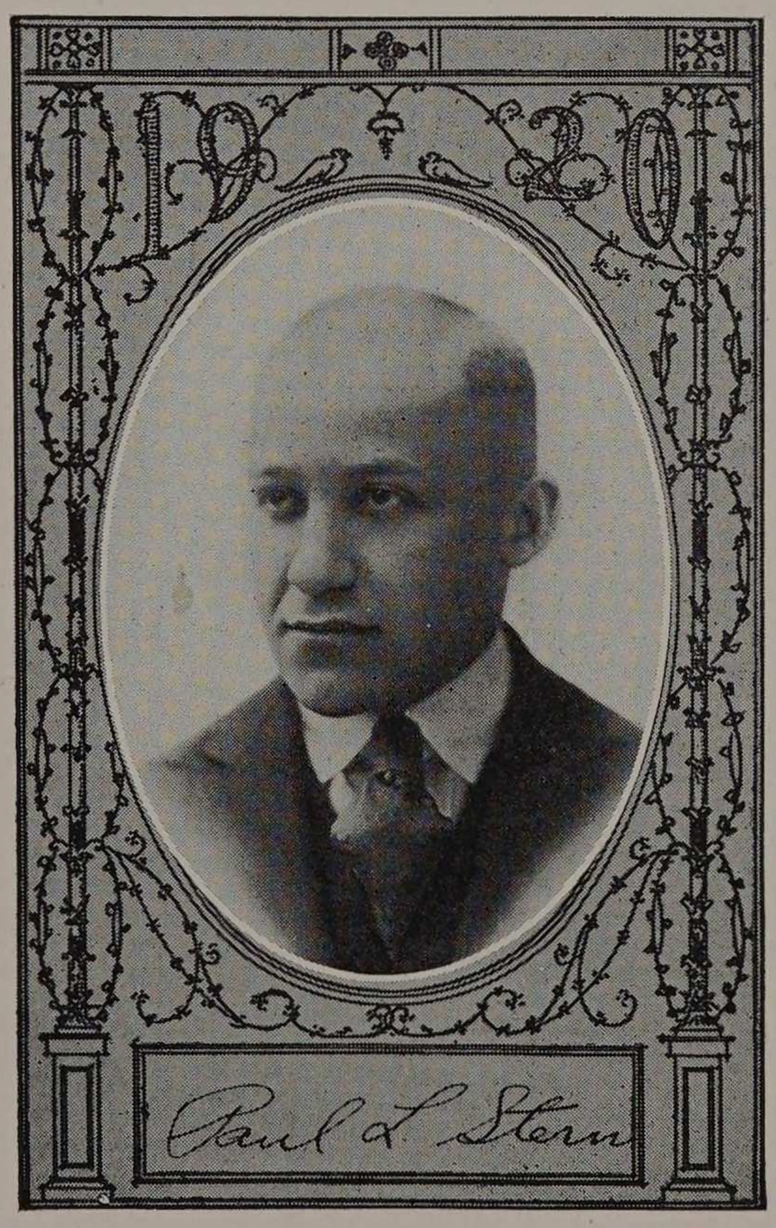
"Clarence,' more commonly known as "ambition personified," will go out into the world just a year later than he would ordinarily, due to the fact that his Uncle Sam needed his services for that year. He always went after anything with great vim and vigor, and got results in a hurry. Some day we may expect to see a new corporation in Hammond, known as the "Muehlberger Chemical Company." The main product will be ortho nitrobenzoic acid, produced by oxidation of ortho nitrotoluene. We might say here that they will also do the chemical analysis for any Armour Freshman. Clarence has done these so often that he surely must have standard methods by this time.



DAVID HENRY PODOLSKY

Born Sept. 17, 1896. Russia.
Crane Junior College.
Chemical Engineering.
Manufacture of Anthrarufin.
American Chemical Society. Armour Chemical Engineering Society.

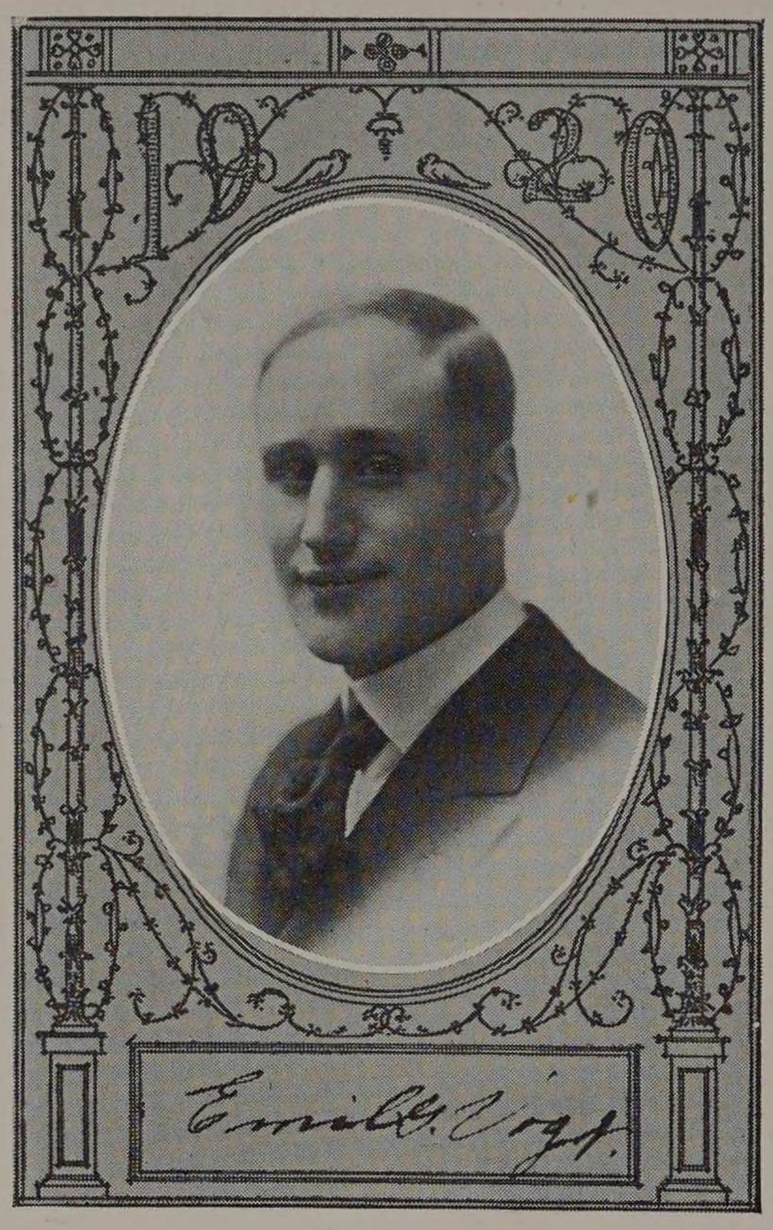
David is another Crane man, who never lets us forget how far it excels all other schools, but Armour. An intensive worker, who never tires. He has found it easily possible to combine study, work, and pleasure. As a "Beau Brummell" and devotee of cupid, he is said to be beyond comparison. His bright, cheerful disposition joined with his almost uncanny business ability will win him a quick success. Good luck, David, and leave something for the rest of us.



PAUL L. STERN

Born January 25, 1899. Budapest, Austria-Hungaria.
R. A. Waller High School,
Chemical Engineering,
Investigation of the Alloy System Zinc-Zinc Nitride.
Armour Chemical Engineering Society; Treasurer Armour Chemical Engineering Society, 1919—20; Senior Social Committee, 1919—20.

Paul is a universal favorite and always likes to keep things lively. Better still he can appreciate a joke on himself and not get "peeved" as do some of our illustrious classmates. He has been the most faithful "rooter" the teams have had and likewise a follower of the social activities. With all he has kept a fine standing in the class without apparent effort. We predict he will follow in the long line of Armour men who have made good.

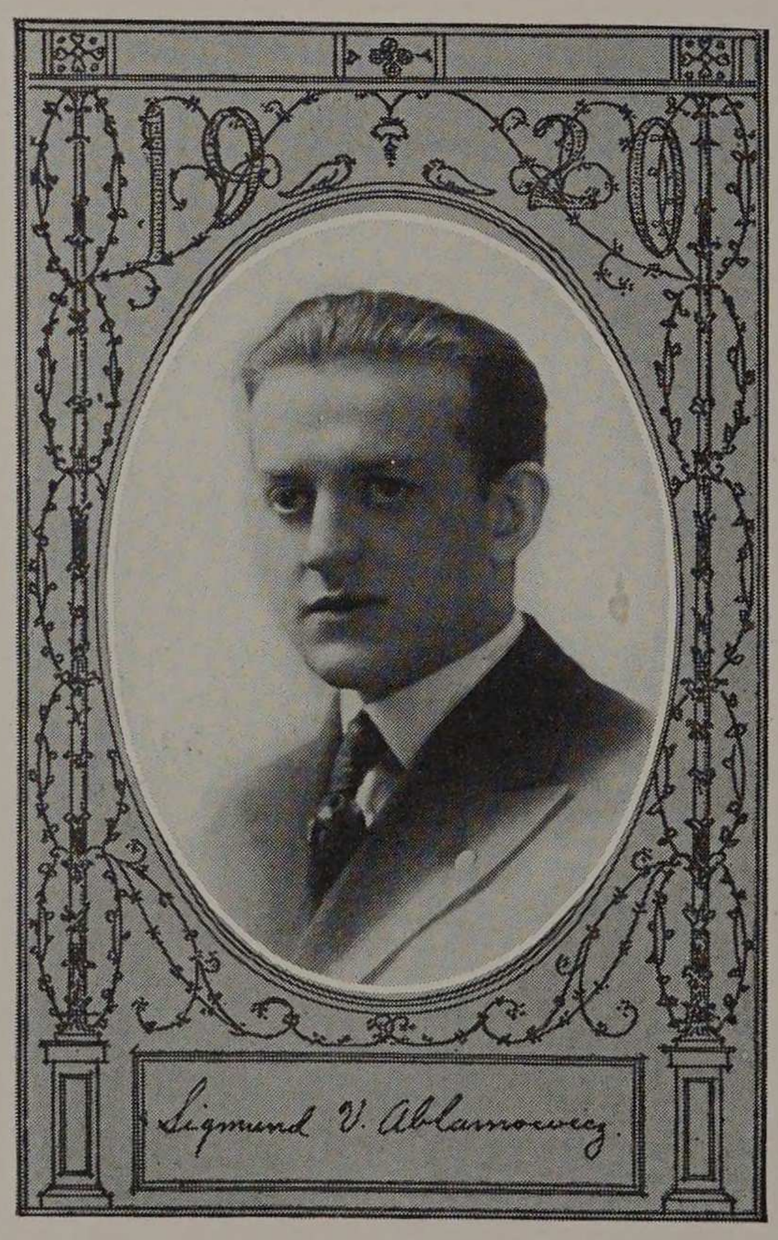


EMIL C. VOGT

Born January 3, 1890. Chicago.
R. A. Waller High School.
Chemical Engineering.
A Study of Resorcinal Production.
Beta Phi; Y. M. C. A.; A. Ch. E. S. Interclass Basketball 1916-1919; President A. Ch. E. S. Vice President Senior Class. Cap and Gown Committee.

Emil, although out of school for quite a few years, came to Armour and made a splendid record in scholarship and all-round activities. He was one of the best liked fellows in the class, always good natured and full of fun. A man who can be top sergeant and still be well-liked by every man in the company, is a man whose friendship is well worth having. The excellent quality of his work and his pleasing personality will no doubt bring him to the front in the chemical world.

B. S. in A.



SIGMUND VINCENT ABLAMOWITZ

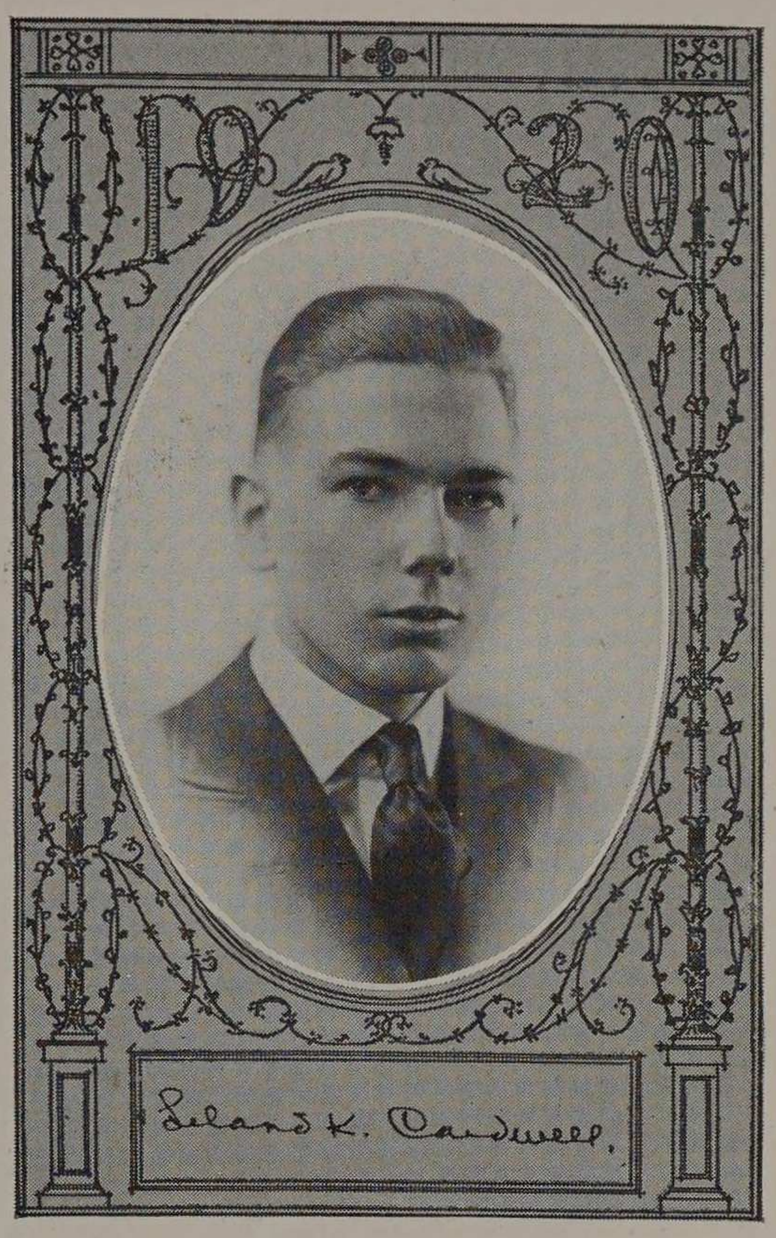
Born March 25, 1892. Canton, China.
Lane Technical High School.
Architectural Course.
A Summer Home for the President of the United States.
A. A. S.

"Ziggy." The strong man of the Ecole. Although Ziggy is proficient as bouncer in the Life Class, his qualifications do not end there. He has acquired the reputation of arriving at results more quickly than most of us less fortunates. Zig's life was model until the dark days of the S. A. T. C., when he contracted both the flu and a belated affection for the fair ones. We cannot praise his merits too highly.

LELAND KING CARDWELL

Born November 23, 1897. Johnson City, Tenn.
Johnson City High School.
Architectural.
A public Library in a Small City.
Phi Kappa Sigma, Tau Beta Pi, Scarab, Atelier '16-'17—A. A. S. '17-20, 1916-17.
Y. M. C. A. Art. Ed. Cycle 1919.

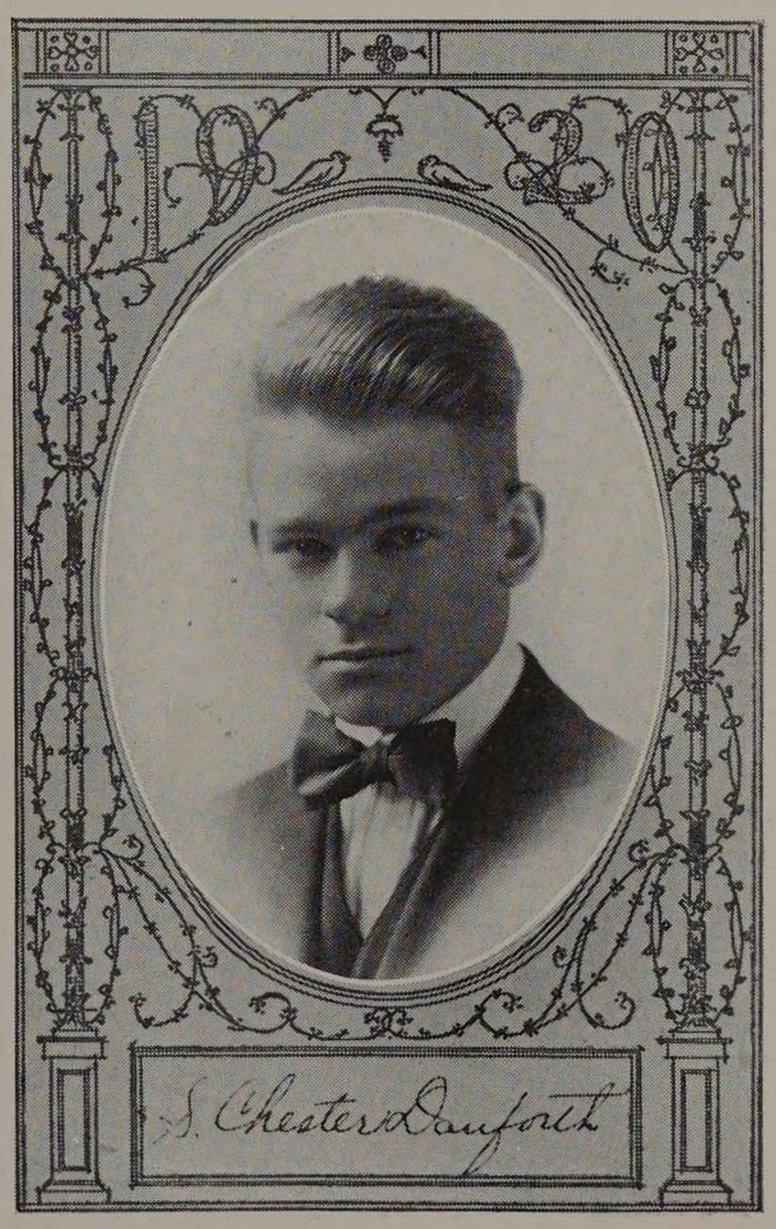
"Lee Cardee." We can't say too much for him or of him. Cardwell is the kind of fellow we have all been proud to know and come in contact with. Besides being one of the highest scholarship men in the class, he has always found time to be interested in all the activities at Armour, The Art Institute or at any other place which afforded amusement, "Columbia" not exempted. Because of the high standing Lee was awarded a scholarship for his Senior Year. We feel confident that a continuation of his past work will lend to a very promising future in the architectural profession.

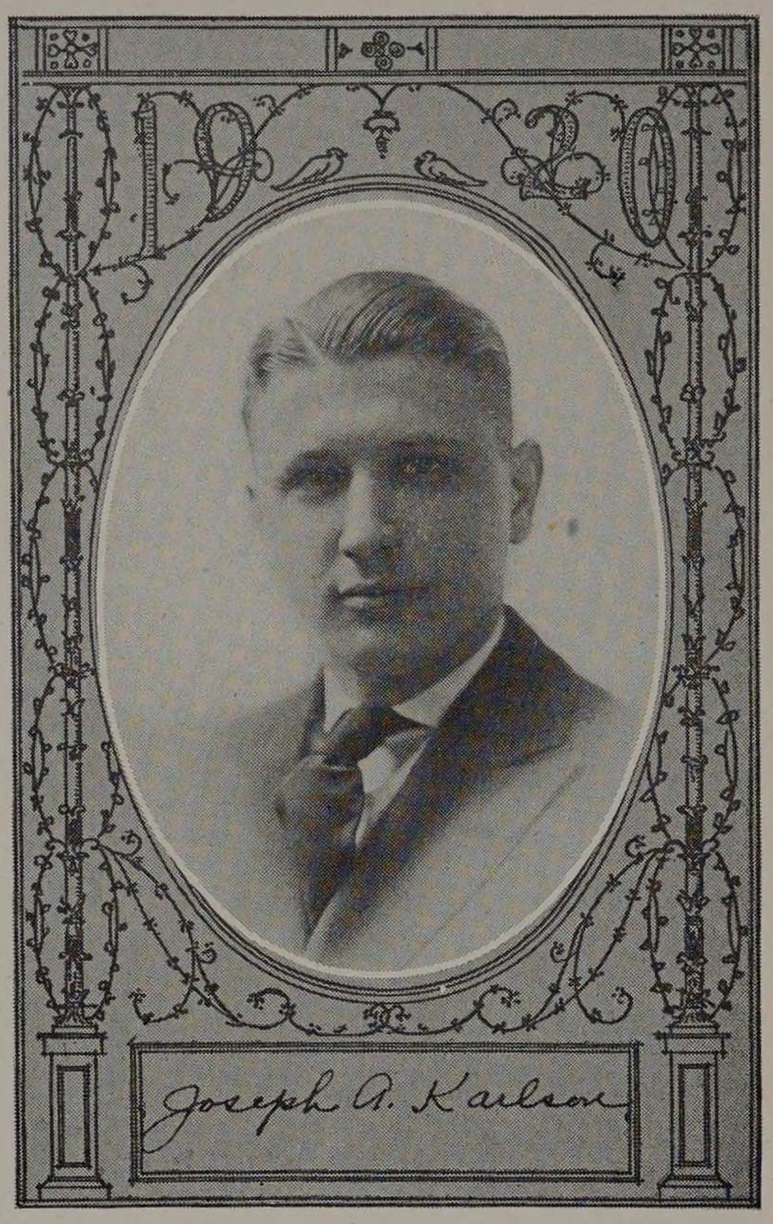


S. CHESTER DANFORTH

Born August 31, 1896. Ithaca, N. Y.
Howe School. Kenyon College.
Architectural.
A Chapel for a Boys' School.
A. A. S., Beta Phi. Fraternity, Massier Junior Class, 1918.

"Danny"—"Hot Clutch Danny" is a name well earned. Danny is by far one of our most clever artists and as such certainly has the "Ecole" sitting up and taking notice, especially during the competition. Although Danny "stalls" well he can also concentrate as readily for the production of good work.

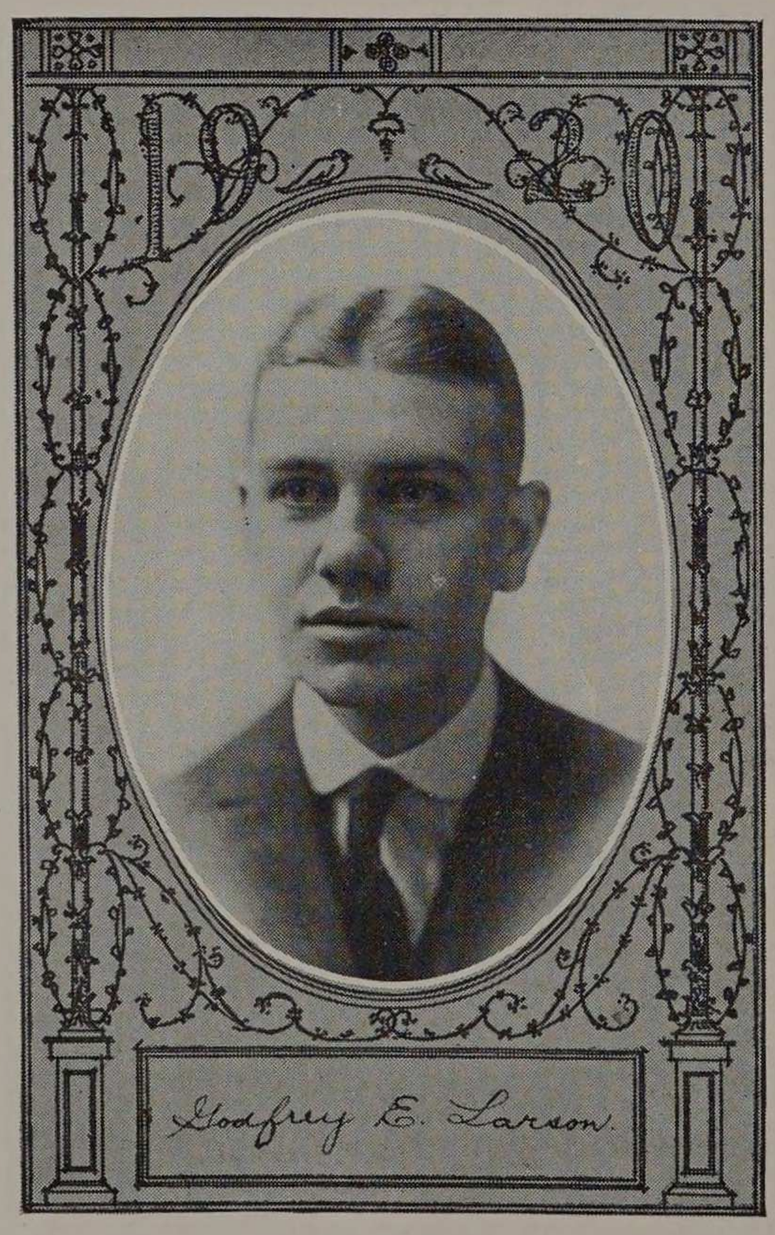




JOSEPH A. KARLSON

Born July 13. 1898. Chicago, Ill.
Hyde Park High School.
Architectural.
A Small Country Club.
Phi Kappa Sigma, Tau Beta Pi, Scarab, Atelier, 1916-'17. Armour Arch. Society, 1917-'20. Indoor class baseball, 1917-'18. Interclass Basketball, 1917-'18-'19-'20. Tennis tournament, 1918-'19. Golf Tournament, 1918-'19. Interclass baseball, '19. Secretary Armour Architectural Society, '20.

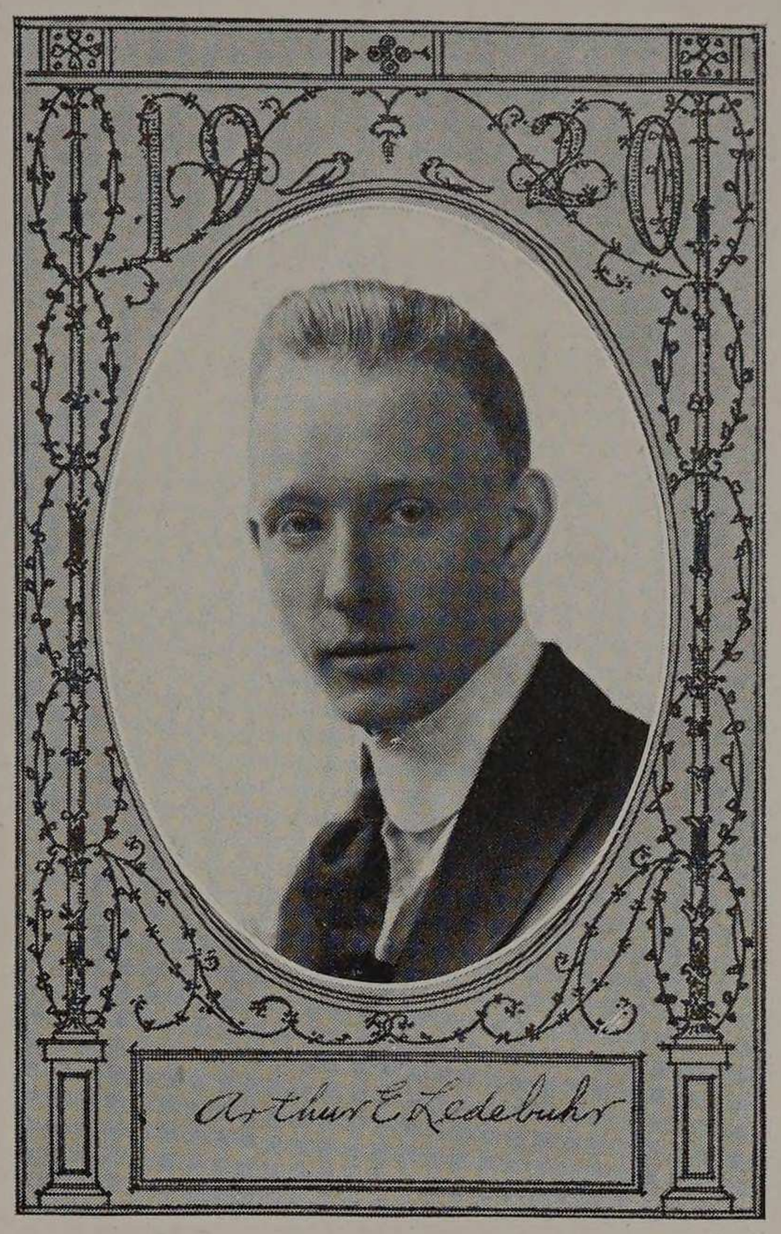
"Joe"!! His beauty is a source of envy to us all. Although Joe is quite a man with the ladies his activity in athletics has been a source of pride to the Eutroe "Ecole." When not engaged in dashing off 1st mentions, Joe varies his time in tickling a banjo and organizing various other frolicksome methods of disturbing the faculty.



GODFREY E. LARSON

Born May 9, 1897. Chicago, Ill.
Lane Tech. High School.
Architectural.
A Colonial Residence in a Suburb of Chicago.
Atelier, 1916-17. Architectural Society, 1917-20. Treasurer of Architectural Society, 1919-20.

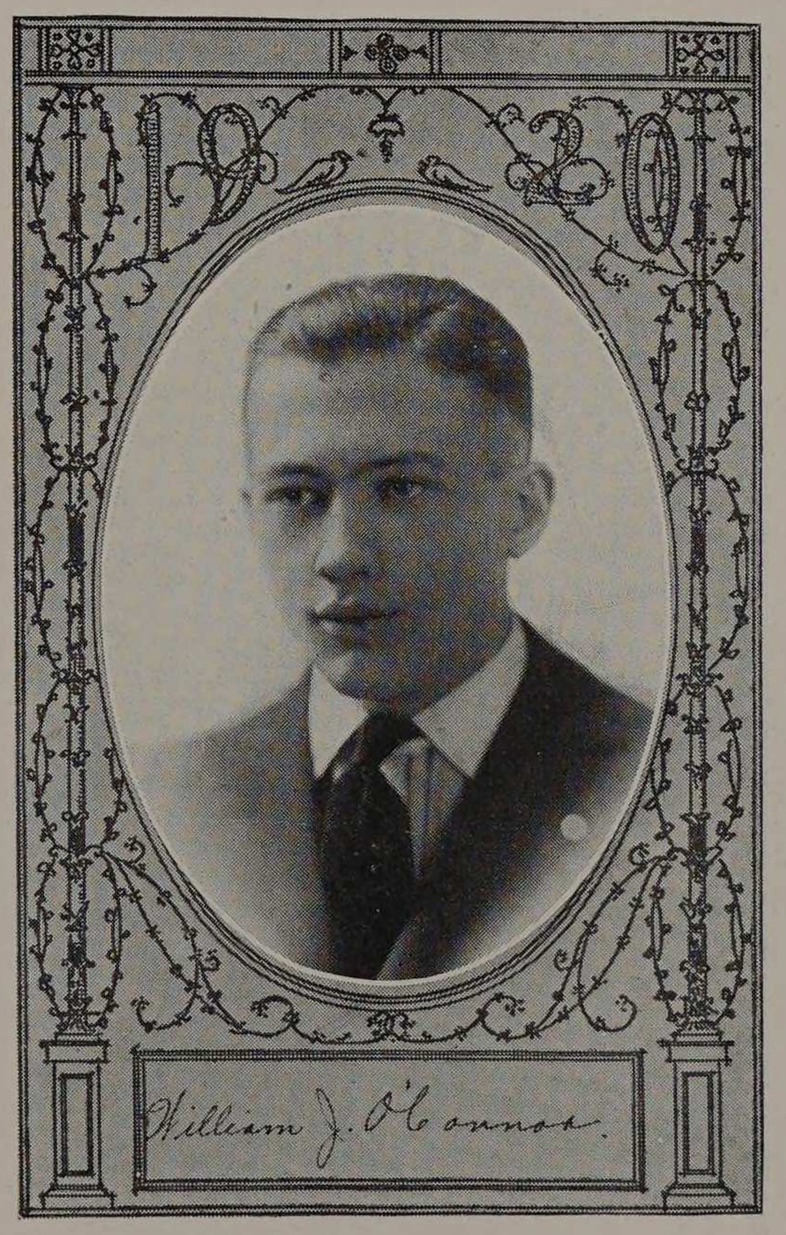
"Jeff", "Joffre" (one of the Oney's). "Lars", although the biggest fellow of the class, is by no means the most useless. During the late Billy Sunday regime we were seriously concerned whether Jeff's love of architecture would prove greater than his desire to reform the entire "Ecole." We are happy to announce that he has proven true to both. Although Jeff didn't go to France we understand that he is well acquainted with a number of charming French nurses. (Oh! These quiet Swedes.)



ARTHUR E. LEDEBUHR

Born August 15, 1899. Chicago, Ill.
Hyde Park High School.
Architectural.
A Country Club.
Atelier 1916-17. Architectural Society 1917-20.

"Lede," The Original Oney. Besides being the youngest member of the class, Oney is fast acquiring the reputation of being the most hard working. Of course we approve of continuing one's Architectural studies outside of school, and he has taken up quite an extensive study of architecture at one of our famous cities — White City — Saturday nights. He doesn't say very much but when he starts in to speak, you'd be surprised——



WILLIAM JOSEPH O'CONNOR

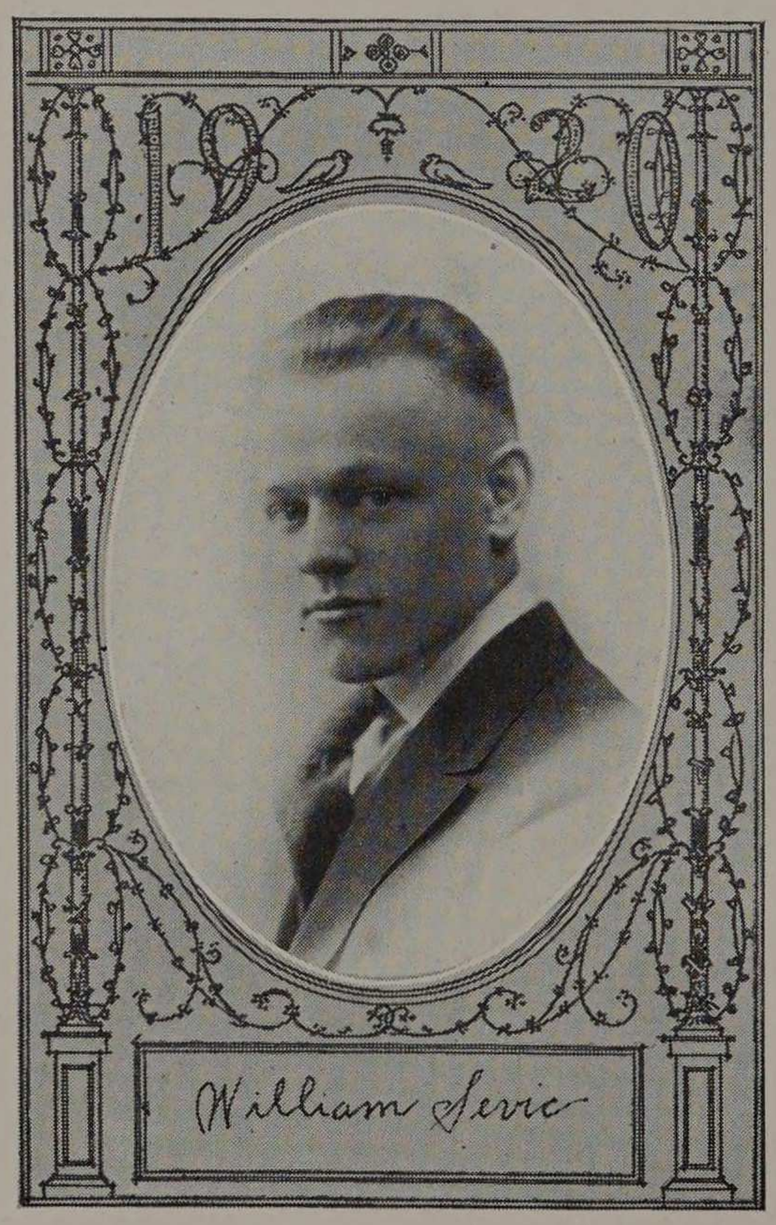
Born August 5, 1898. Chicago, Ill.
St. Ignatius High School.
Architectural.
A Priate Estate on a Small Island.
Phi Kappa Sigma, Scarab-Atelier, 1916-17. Mandolin Club, 1918. Junior Massier, 1919. Secretary Senior Class 1920. A. A. S., Press Representative, 1920.

"Willie" (Musty). Although Bill can raise coin with the best of us, his work can be pointed to with pride. Bill's efforts seem to be well rewarded in the "Ecole" or (?) in the club room. Besides being active in all the social events at Armour, Bill sure did pick a mean banjo in the 1918 Mandolin Club. Bill's efforts haven't been entirely concentrated at the Art Institute. He is the secretary of the class and we are proud to have him represent us. He is also one of the Architects Misery Four.

JACOB POPKIN

Born Jan. 25, 1898. Petrograd, Pa.
Lane Tech. High School.
Architectural.
A Synagogue in a Large City.
The Ohr. Atelier, 1916-1917. Armour Architectural Society, '18-'19-'20. Y. M. C. A., '20. Mandolin Club, 1919-1920. Senior P. A., '20.

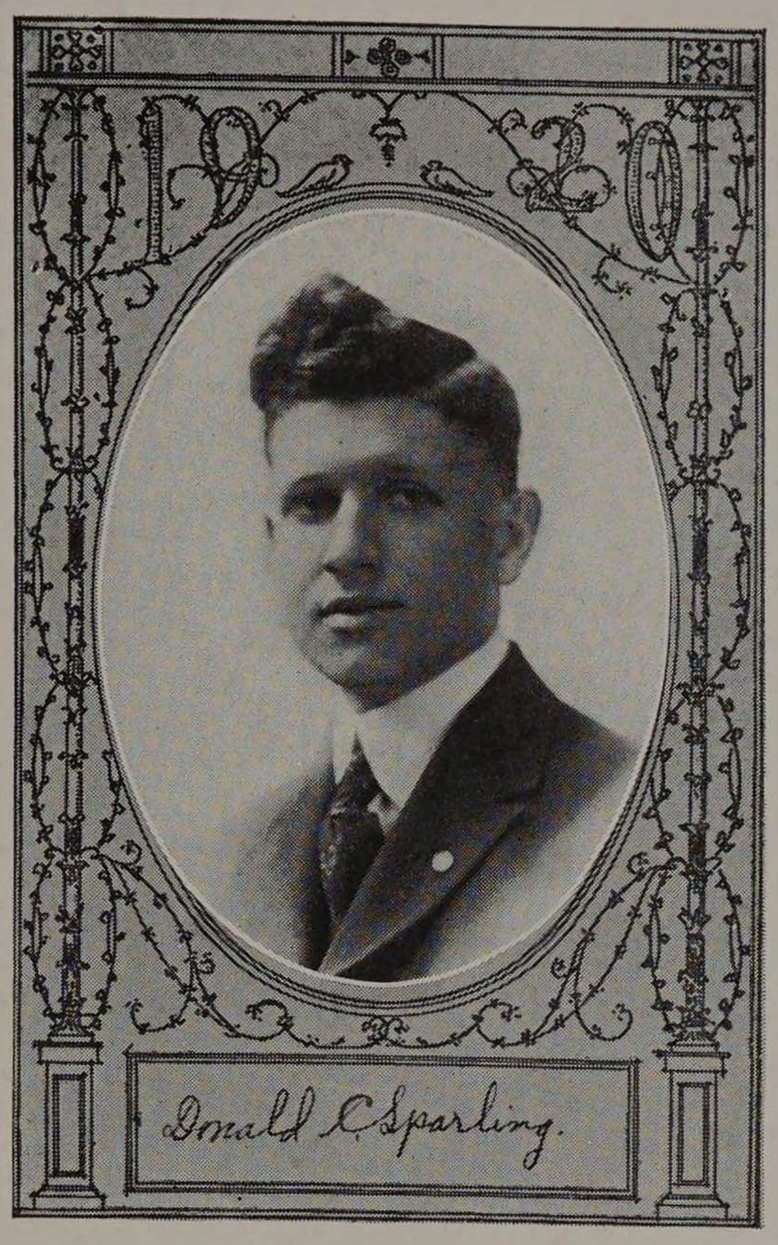
When "Jake" dragged his T Square into Armour, everyone thought he wanted to study Architecture only, but as the days passed and his ties of friendship strengthened among his fellow students, he seemed to have enlarged his curriculum to include music and high finance, when he took up the banjo and was elected P. A. "Jake" has a delightful disposition, which makes his companionship a pleasure on all occasions. Even though he has been one of the faithful workers in the Ald Ecole, he has never missed an afternoon class at the Palace or been too busy to serve as one of the celebrities of the Architects Misery quartette.



WILLIAM SEVIC

Born August 4, 1898. Chicago, Ill.
Joseph Medill High School.
Architectural.
A Railroad Station.
Baseball Class Team, Champions, 1918-19. Arch. Society, '17-'18-'19-'20.

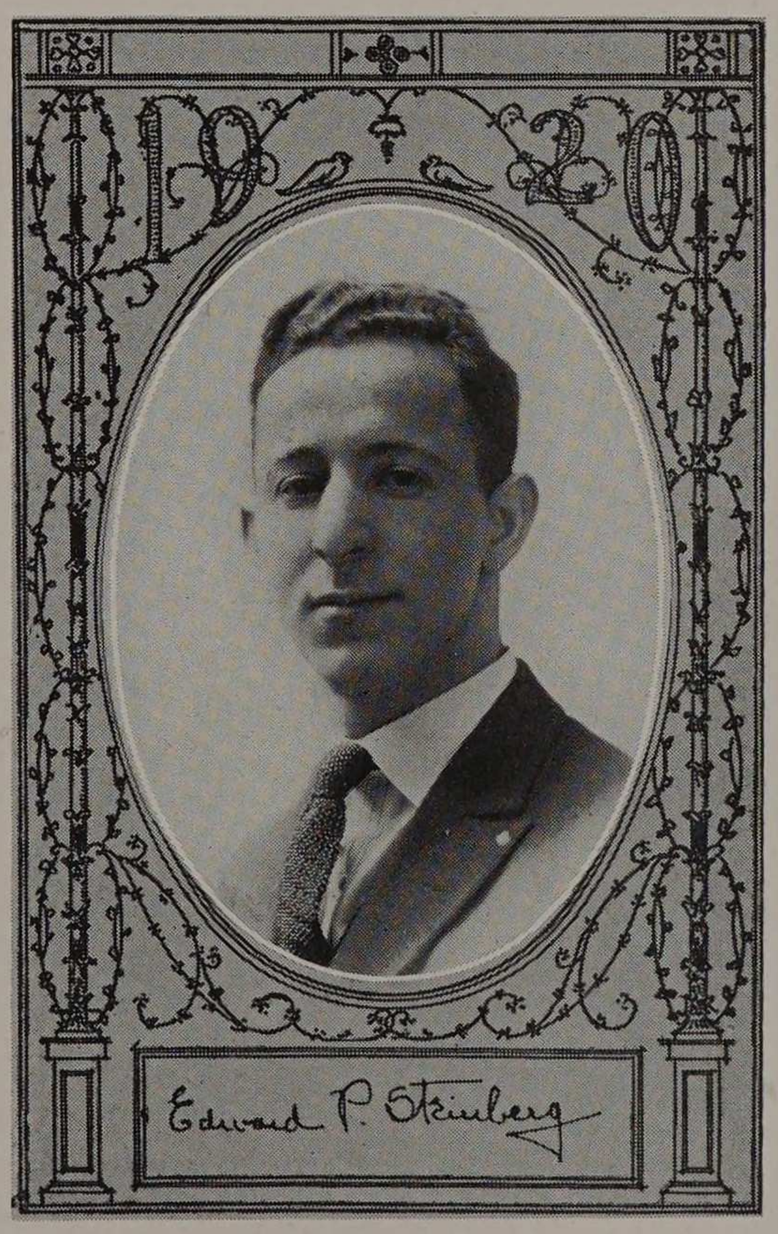
"Bill", "Willie." One of the Oney's. Bill, better known as foul ball Oney, is another of the Arch. bright lights. Besides chasing balls on the diamond, he has found much success in capturing good sound architectural principles. While temporarily employed by Uncle Sam to save the nation, Bill was appointed window-washer-in-chief at the Mandel Mansion, his wishes not being consulted. We are sure of Bill's ultimate success. A. E. D.



DONALD CARL SPARLING

Born May 16, 1892. Chicago, Ill.
Hammond High School.
Architectural.
A Shrine Temple A. A. O. N. M. S. for a Suburb of Chicago.
Atelier 1914-17. Armour Architectural Society 17-20.
Band Sergeant M. D. U. S. A. March 1918-Sept. 1919.

Don—"Darling"—Although Don lost quite a bit of time due to his two years' service in the army, he has come back strong, and besides producing architecturally has "charmed" the Art Institute with his sweet melody rendered first on the trombone and now agonized on the saxaphone. He is a member of the famous Architects' Misery Quartette. "Pop", "Joe", "Musty", and "Don."

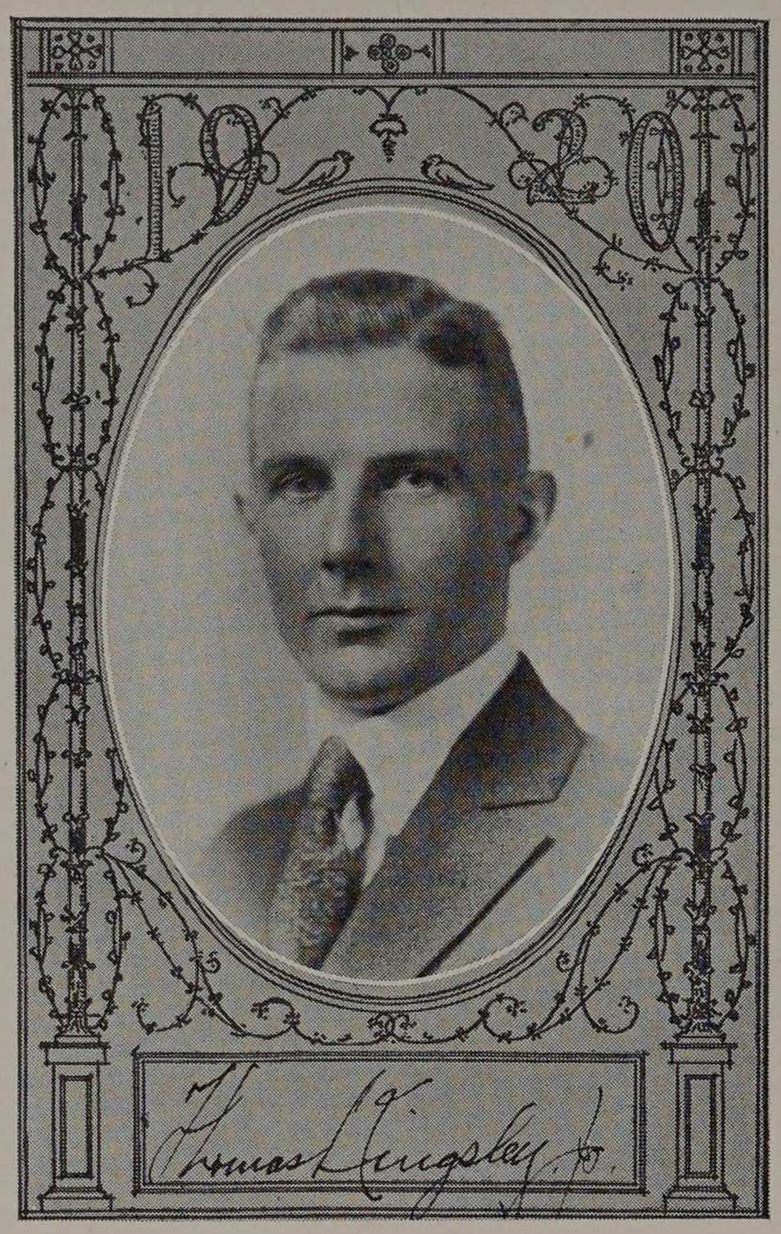


EDWARD PERRY STEINBERG

Born July 13, 1896, New York City.
Lane Tech. High School.
Architectural.
A Golf Club.
Ohr A. A. S.—President of A. A. S. 1919-20.

Pat started with the class of 1920 but left school for a year to help win the war as an ensign in the navy. As president of the A. A. S., Chief "razzer" of the senior Arch. class; and head keeper of the "art gallery," Pat attained great renown with Ye architects. He will be long remembered for his unfailing wit and good humor.

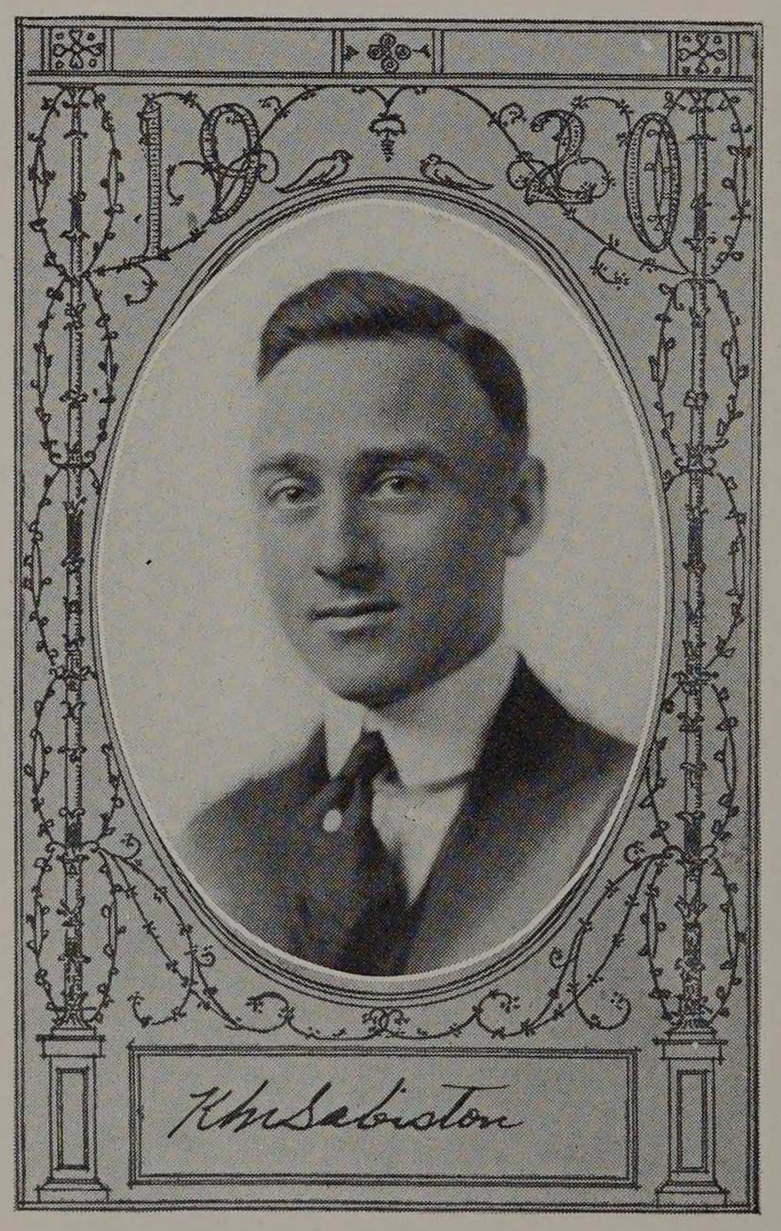
B. S. in F. P. E.



THOMAS KINGSLEY, Jr.

Born July 21, 1895. Cascade, Iowa.
Davenport and Monticello High Schools.
Fire Protection Engineering.
Investigation into the Best Means of Measuring Sprinkler Distribution.
Omega Lambda. Inter-class base-ball and Track, '14-'15-'16. Track Squad, '16.

Kingsley, after attending in Davenport and Monticello High Schools came to Chicago to battle his way through Armour. How well he enjoyed it may be seen from the fact that in April 1917, he enlisted in Uncle Sam's Field Artillery, and in the latter part of the same year he was battling away at the Hun line. 'Apris a guerre' he returned none the worse for a "blesse" and started on the last lap of Armour in September.



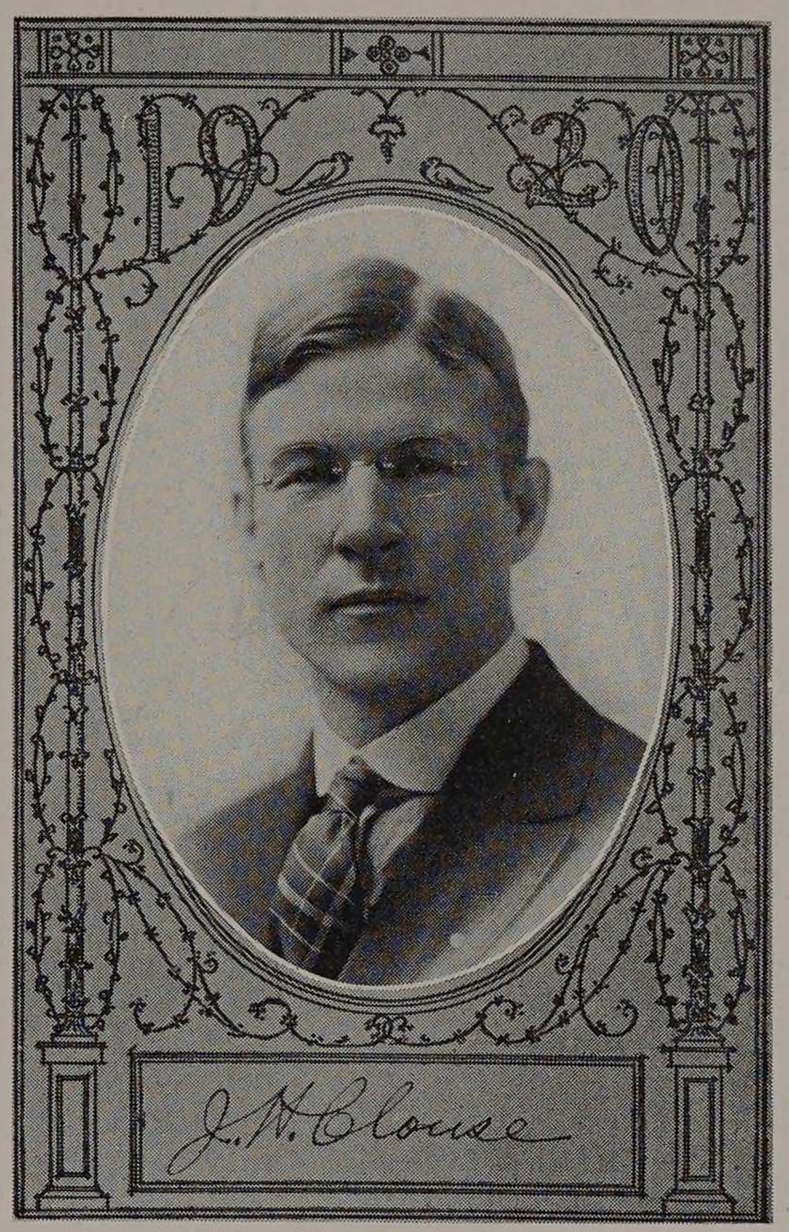
KENNETH MCLEOD SABISTON

Born, Aug. 16, 1893, Montreal, P. Q., Canada.
Perth Collegiate Institute.
Fire Protection Engineering.
Investigation as to the best Means of Measuring Sprinkler Distribution.
Omega Lambda, Tau Beta Pi.

Sabiston came to Chicago from the wilds of Canada in September 1914, to study Fire Prevention. He interrupted his studies at Armour in April 1917 to go abroad with the Canadian Artillery in order to study the best means of stopping the onward sweep of KULTUR. Incidentally he claims to have had a hard time trying to persuade his horses to give their attention to the pulling of an 18 Pounder rather than to flying pieces of scrap iron.

He returned to Armour last September to resume his studies, glad to get back, but also glad that he had been across.

B. S. of I. A.



JOHN HENRY CLOUSE

Born April 22nd, 1888, Somerset, Ohio.
Junction City High School.
Industrial Arts.

John Henry is the sole representative of our Industrial Arts Course. He is a regular patron of the notorious Armour Beanery. This in itself is a tribute to his courage and constitution. Clouse will no doubt be a dietition due to his daily training at our Hash House.

FAMOUS SENIOR CORPORATION

BIRDS OF A FEATHER

Adam—Clausen
Anderson—Hertwig
Bready—Seyferlich
Fainstein—Hammerman
Gottlieb—Henry
Illg—Malpede
Jones—Hall
Mitnick—Epstein
Regensburger—Stone
Scheuer—Jackson
Steinberg—Popkin
Sugarman—Grant
Vogt—McCauley

MOVIES

WHEN DREAMS COME TRUE

TITLE BY JERRY LOEBL

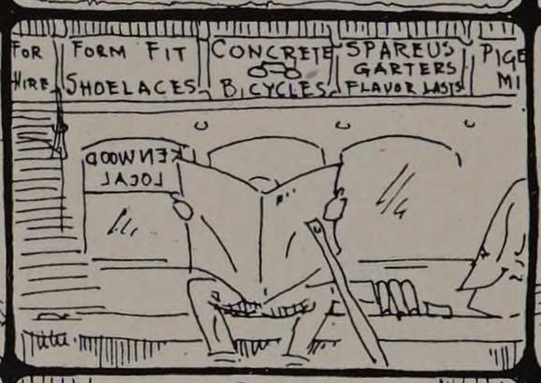
SCENARIO BY RED SCHLOSSMAN

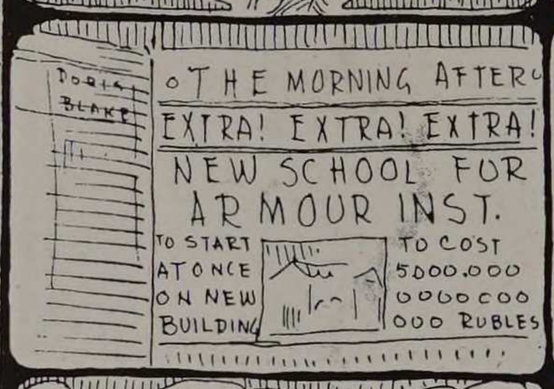
DIRECTED BY SIM LEVI

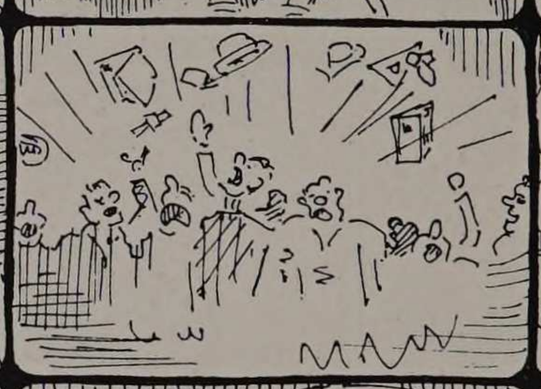
PHOTOGRAPHED BY BOB MINKUS

MONDAY A.M.

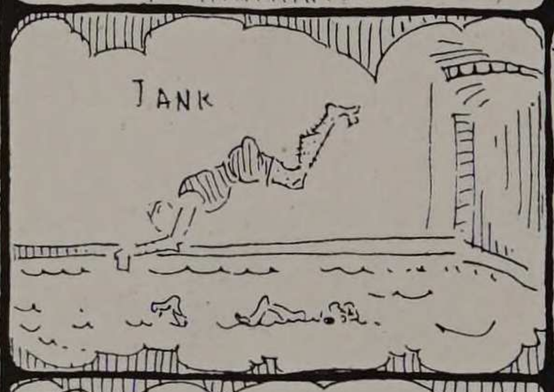
OUR HERO DRAGS HIS WEARY FRAME TO YE TEMPLE OF WISDOM

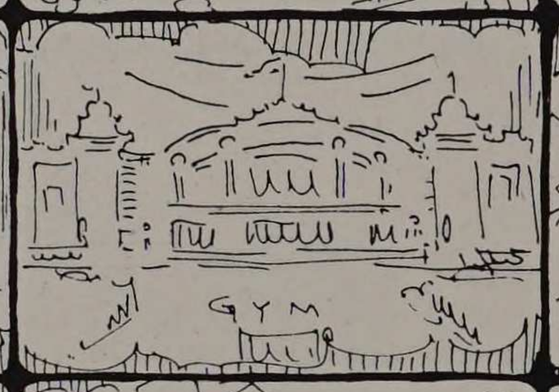


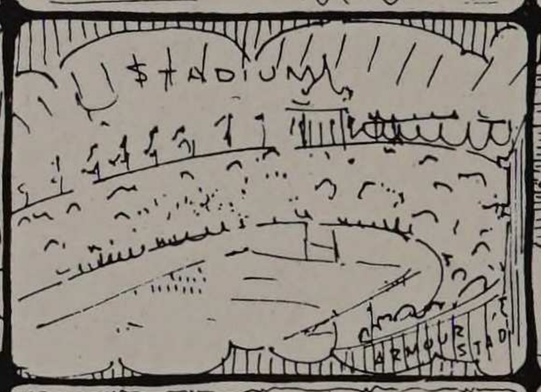


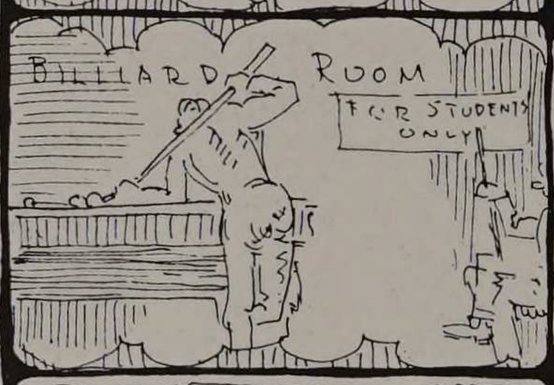


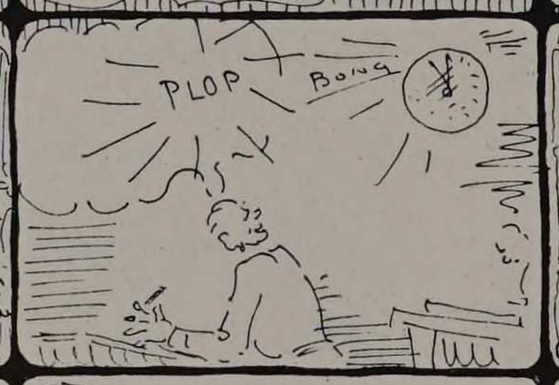
DREAMS OF THE FUTURE

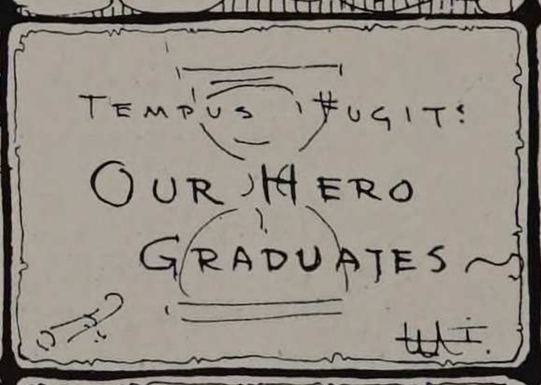


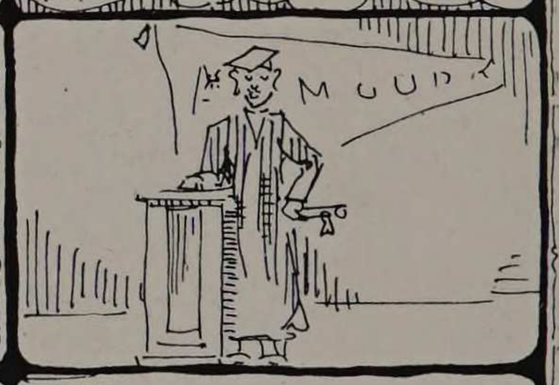








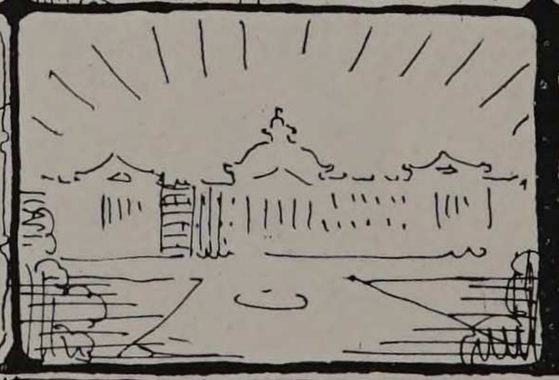




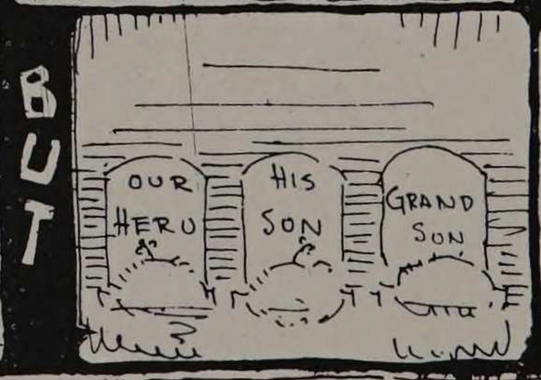
OUR HEROS SON GRADUATES

GRANDSON

AT LAST!
THE NEW SCHOOL

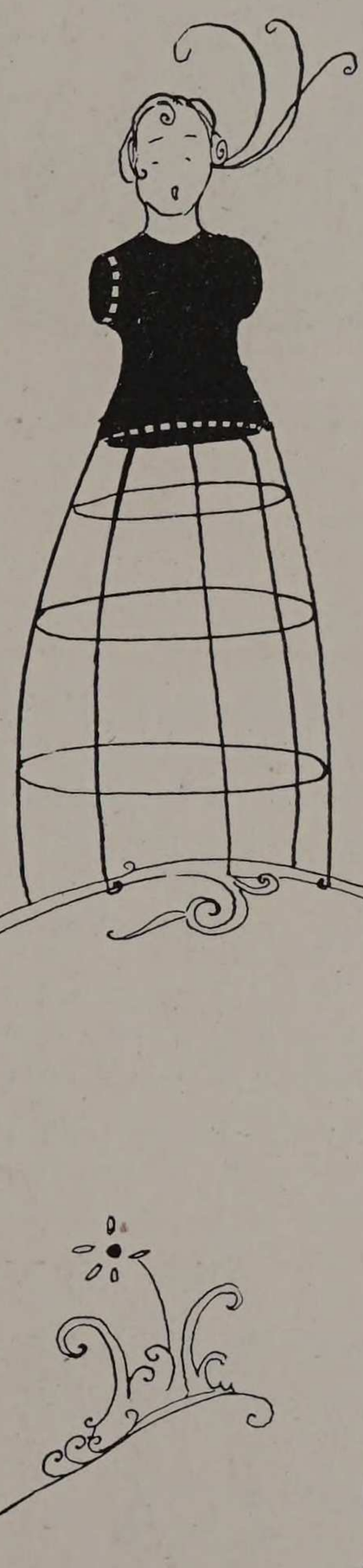


BUT

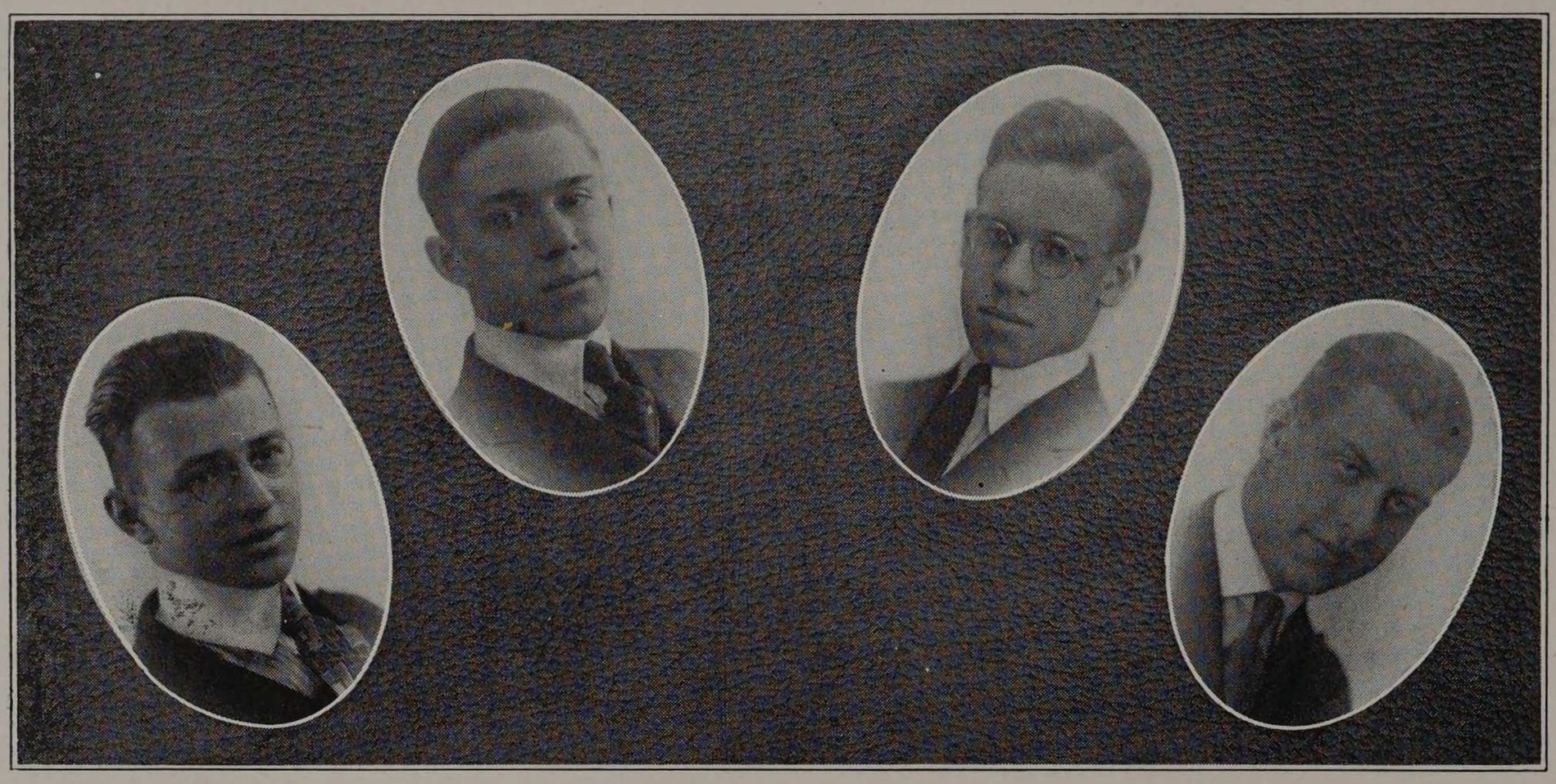


THE END

Juniors



J. DEMUTH



SEDGEWICK WINTER SANGER HAYDEN

Officers of the Class of 1921

EMIL WINTER . . . . . *President*
THEODORE C. SEDGEWICK . . . . . *Vice President*
JOHN P. SANGER . . . . . *Secretary*
FLETCHER E. HAYDEN . . . . . *Treasurer*
G. M. DOWSE . . . . . *Sergeant-at-Arms*
EDWARD M. NUDELMAN . . . . *Athletic Representative*

SOCIAL COMMITTEE

G. W. PETERSON, *Chairman*

L. C. SCOTFORD
E. W. PFAFFLIN
A. F. SPITZGLASS
C. SIPPEL

JUNIOR CLASS HISTORY

The following letter, written by an Armour Junior to an old friend, seems to include about all of the class history. It has pleased us so well in fact, that we are substituting it in place of the usual formal statement of events.

April, 1920
Armour "Tech".
Chicago, Ills.

Dear Jim:

Well, old boy, I've just heard where you're located after leaving Armour last spring and I'm writing you "immejittly." So you're a regular business man, eh? Fine stuff, altho it's too bad in a way, for we'd have had some glorious times together as we did in the old days.

Do you remember that hot morning back in September '17 when we first entered the old school as Freshmen? Proud? Well I'll say we were! And will you ever forget that first Freshman Handshake when Dr. Gunsaulus and Professor Wilcox gave us those talks on Armour Spirit. We learned "Upward and Onward" then too, and first rapped out "Arch Mech."

Some time later we elected good old Bell president, and he served us right well, too. We gave our dance that year at the Hyde Park Hotel, and 'twas some affair. The baseball team didn't turn out so well, tho, for we were trimmed by all the other classes. We really worked as Freshmen, and many was the afternoon when we slowly circled around Professor Read's stronghold, and many was the night we perspired over Algebra and "Analyt." But we pulled thru somehow, didn't we?

So the first year came to an end, and during the summer, Uncle Sam decided to establish the S. A. T. C. at Armour. Glory be, Jim, but will you ever forget the excitement of that first month; the talks with Captain Kannally, the physical exams, and the final enlistment on October 1st. Dr. Gunsaulus gave us a mighty inspiring talk that day, and for about twenty-four hours, the army life seemed fine. But when we began to drill, and the Sergeants put us to scrubbing floors, and we had inspections and injections:—well, Jim, I'll say we sang another song. It wasn't really so bad, tho, and the regular hours and meals, to say nothing of the exercise, did us a lot of good.

We thought we were surely going overseas until the Huns finally gave up and we had Armistice day. We'll remember it forever, I guess. The cars were going Loopward at two o'clock in the morning and by nine Captain Kannally and the Deans had relented, and we had our time to ourselves. We went downtown together, Jim, and had a regular debauch. Free meal and everything. After all, tho, things slackened up a bit as we knew we'd never get overseas, and we were finally discharged on December 12. Gee, what a "grand and glorious feelin'" that was. You didn't have to salute a soul, you could sleep till P. X. if you wished, and best of all, you could climb back into your beloved civies.

Well, at the beginning of the year, we had elections and Tom Michels, our beloved sergeant, became president. We held our dance at the Edgewater Beach Hotel in the Black Cat room sometime in March. Our baseball team was fair, for we beat the Frosh twice, but somehow, the Juniors were too much for us. May 23 came none too soon for we were all rather tired after the general melee caused by the S. A. T. C.

Then, Jim, you left us, and you can jolly well be sorry, for we've had the best year ever. For one thing, you missed a Junior's privilege of riding on the elevator, which is a right sight better than climbing stairs.

Then you might have saved us a beating or two in the Indoor Baseball tournament, which the lowly Freshmen won. We came out better in basketball tho, and with the aid of Max May, Spence Havlick, and Cornie Sipple, we won out. These same fellows made the first Armour team we've had in three years, and added to its success.

Early in the year we elected Emil Winters, another sergeant. (Funny how we love our sergeants, isn't it?) president, and he's been fine. The coal strike and bad luck almost ruined our Junior dance, but we finally held it in February at the Morrison Hotel.

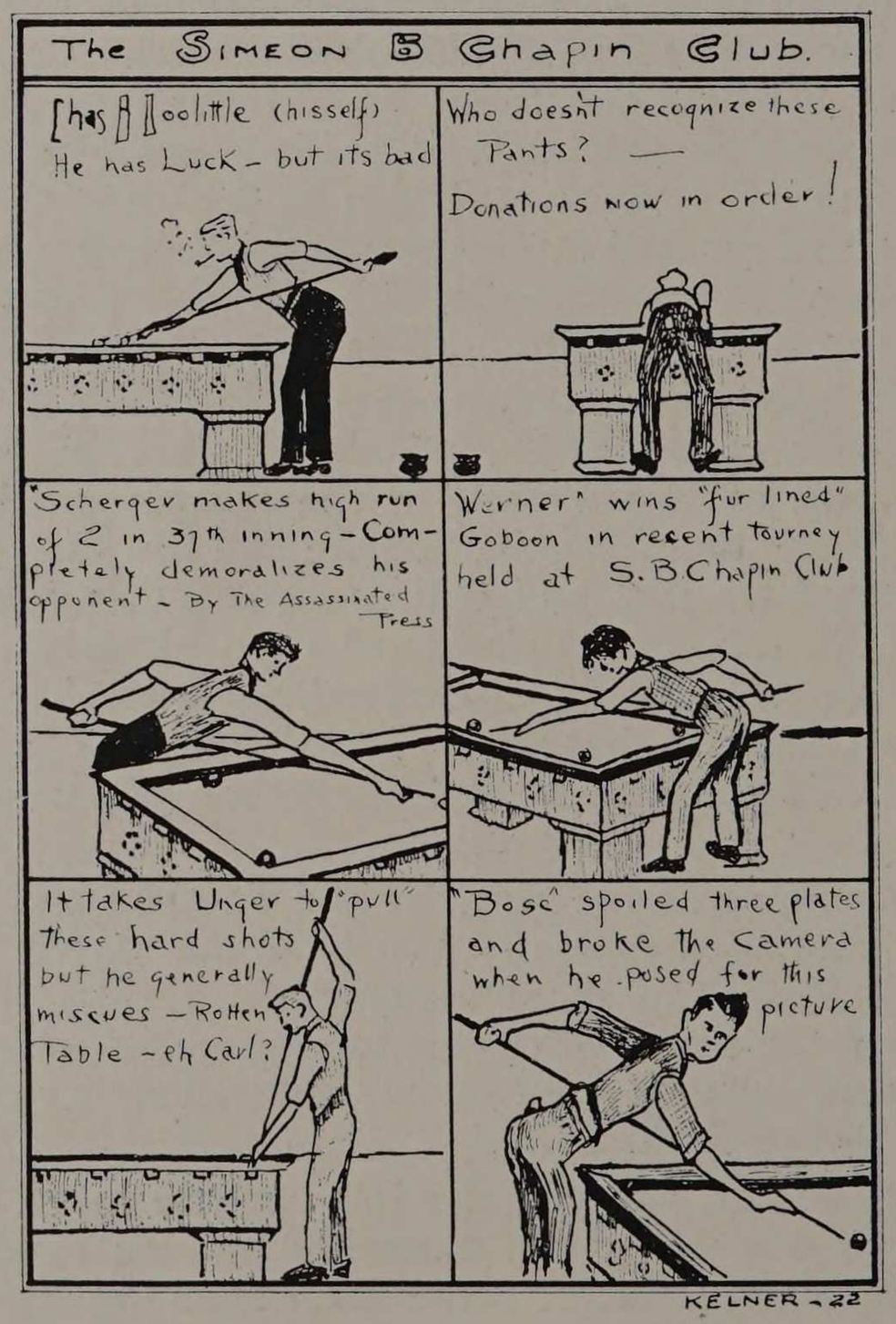
And now, Jim, for what we're going to do. Bob Van Valzah is our First Marshall, and he's surely planning a real Junior week. The Junior Prom and Banquet are to be given as of old, and in addition we're staging, the "Lucky Seventh" a musical comedy. Everet Quinn, the author and an old Armour man, is directing us, and Bill Lyon, Al Spitzglass and Fred Anderson are the leading characters. A regular Circus Day is planned, too, with field events, parade, and mustache contest.

And Jim, we're putting out a better Cycle than ever before. Maranz is our Editor-in-Chief, Walter, Business Manager and Loebl, Advertising Manager.

Yes, Jim, the old Armour pep is coming back for fair. Good luck to you, and here's hoping we may see you back next fall.

Your old pal,

JACK.



CLASS OF 1921

CLASS OF 1921.

MECHANICAL ENGINEERS.

Barce, S. H.
Bird, H. W.
Doolittle, C. B.
Duennes, F.
Grey, P. C.
Grossman, S. W.
Havlick, S. N.
Heitner, W. A.
Hovan, A. C.
Maranz, L. S.
May, M. F.
Newman, L. B.
Nudelman, E. M.
Nurczyk, F.
Plocar, J. J.
Quinlan, F. D.
Rumley, M. A.
Sanger, J. P.
Schurman, I. L.
Sedwick, T. C.
Spitzglass, A. F.
Steiner, A. J.
Tabachnick, A.
VanValzah, R. W.
Walter, C. T.
Webster, S. H.
Wolgemuth, B. E.

ELECTRICAL ENGINEERS.

Albee, T. L.
Anderson, F. A.
Bloom, L. S.
Doberstein, S. A.
Erlandson, N. H.
Ewin, E. R.
Grabendike, C. A.
Grant, R. J.
Grill, M. J.
Gross, M.
Hayden, F. E.
Horman, H. H.
Kihlstrom, H. C.
Klenze, R. O.
Knotek, R.
Malwitz, R. C.
Mehrhof, A. R.
Miller, D. W.
Muramoto, D. K.
Naiman, J. M.
O'Rourke, J. J.
Pearce, W. W. Jr.
Rosendahl, D. L.
Schreiber, H. F.
Silverberg, S.
Thompson, J. B.
Tripp, J. A.
Walworth, R. H.
Welch, T. L.
Zahrobshy, G. J.

CIVIL ENGINEERS.

Applebaum, A.
Burke, S. J.
Carson, J. C.
Chase, D. S.
Douglas, W. A.
Eierdam, E. C.
Grammas, P.
Kumbera, G. C.
Lochow, G. W.
Lyon, W. K., Jr.
Mann, M. F.
Michels, T.
Mundt, E.
Olesky, J. J.
Orton, P. A., Jr.
Petersen, G. W.
Rosback, L. H.
Scotford, L. C.
Wenner, A. T.
Woods, H. L.

CHEMICAL ENGINEERS.

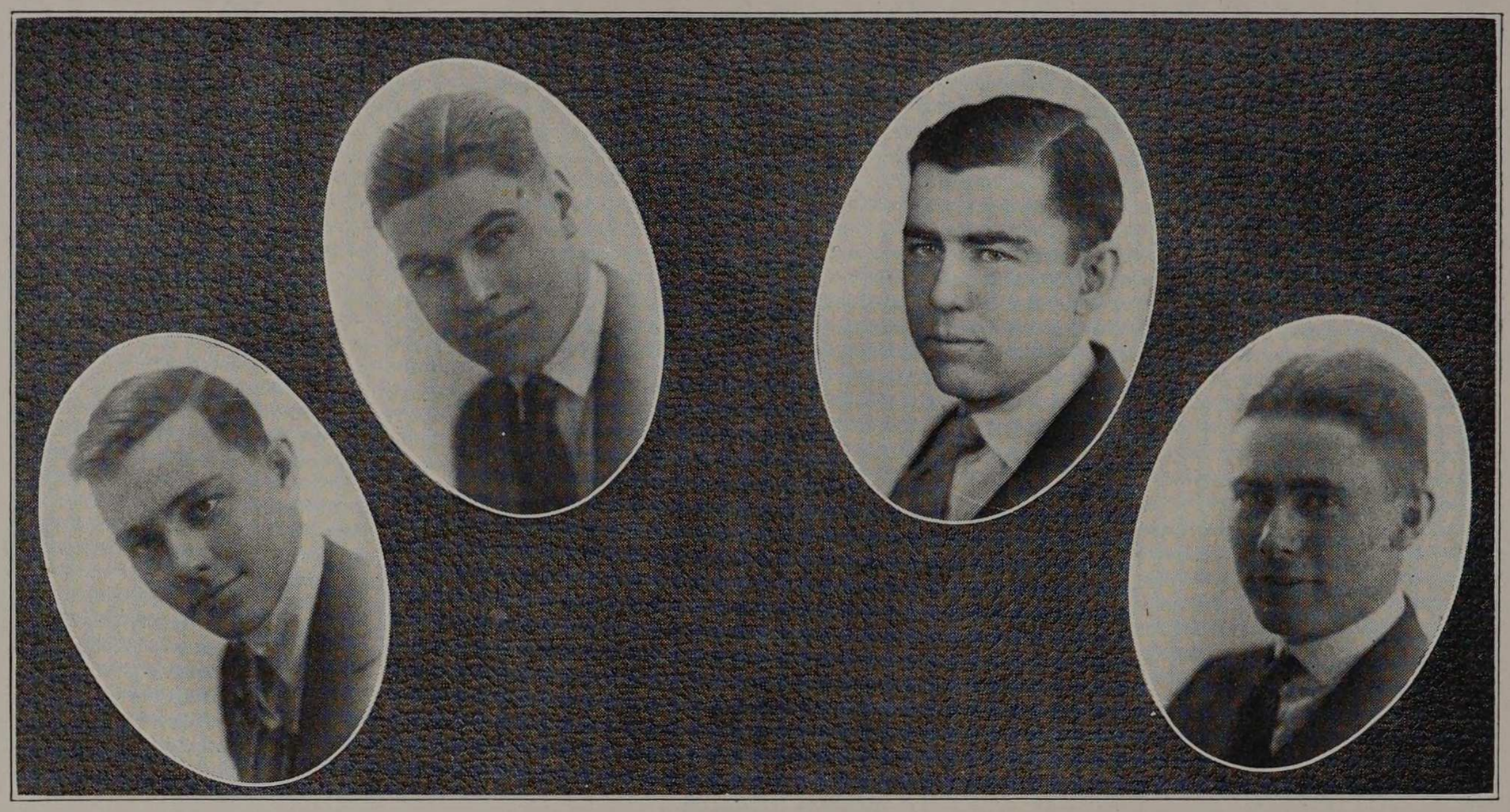
Anderson, W. J.
Brueckner, M. O.
Dowse, G. M.
Edwards, A.R.
Judson, L. D.
Kaplon, H.
Little, J. H.
Paskow, A.
Perlis, A. L.
Pfafflin, E. W.
Porter, E. S.
Rudd, E. B.
Savoye, W. J.
Scherger, R. K.
Schiffman, H. M.
Silver, F. V. C.
Sippel, C. Jr.
Thompson, A. J.
Veit, L. L.
Vorsheim, G. H.

ARCHITECTURAL ENGINEERS.

Baldwin, F. M.
Browdie, A. M.
Brown, D. R E.
Cerny, O. T.
Cenner, G. D.
Fassett, H. L.
Harman, E. R.
Hofmeester, T. M.
Levi, S. C.
Loebl, I. J.
Minkus, R. L.
Olesky, W. J.
Rabito, G.
Ryan, E. J.
Schlossman, N. J.
Schoening, A. J.
Silverman, J. M.
Sponholz, W. C.
Winiarski, M. F.

Sophomore

J.DEMVTH



KELLEY MAGUIRE BURNS McKAFFREY

Officers of the Class of 1922

R. P. Burns . . . . . *President*
R. R. Maguire . . . . . *Vice President*
G. H. Kelley . . . . . *Secretary*
J. W. McCaffrey . . . . . *Treasurer*
C. A. Herbst . . . . . *Sergeant-at-Arms*
W. M. Baker . . . . . *Cycle Representative*
O. Kuehn . . . . . *Athletic Representative*

SOCIAL COMMITTEE

T. Walker, *Chairman*

F. G. Hochrien
H. A. Peterson
H. E. Heyns
S. B. Williams

Sophomore Class History

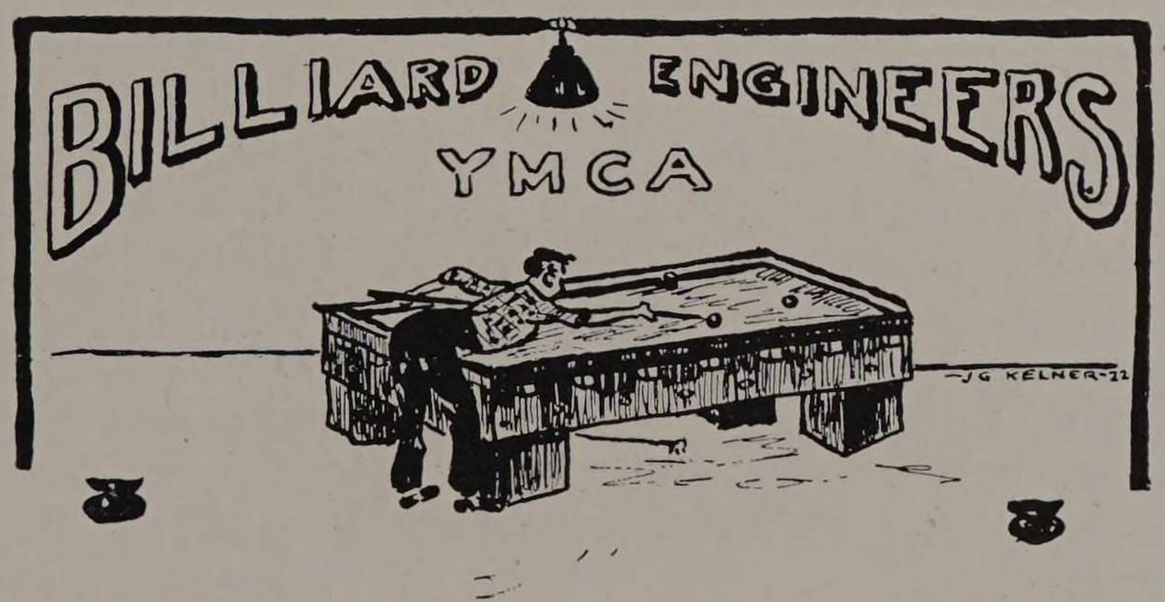
WITH pep raised to the nth degree, and ambition still undaunted, the Soph class of '22 emerges from another year of battle for the cerebrial retainment of facts, formulae, figures and functions, with exceedingly small casualties and only a little the worse for mental wear.

On the taking of inventory, we find that the shelves of knowledge, athletics, and social functions, were well supplied. The walls of Science Hall will long re-echo the masterful, powerful, persuasive speeches of our classmate rivals of Daniel Webster. Our excellent juggling of parliamentary rules will never be surpassed. Conforming to popular demand and custom, the first quiz in the art of cavorting about the polished place was held January 9, 1920, in the Louis XVI room of the Hotel LaSalle. Kinetic friction accompanied by rythmic accelerated and retarded motion were the pleasant problems considered.

Our second dance was held at the old pre-war favorite, the Old Colonial Club, now known as the Hyde Park American Club, on April 23, 1920. This was truly the dance of dances, one of the type that keeps up the high Armour standard.

When it came to chasing the inflated sphere about in Charley's Health Emporium, we were almost compelled to accept the interclass championship, but the kindly Juniors relieved us of the burden in the last round. Likewise, after showing the Juniors and Seniors how to play outdoor indoor baseball, we showed our love for downtrodden humanity by giving the Fresh a chance to see how their class numerals looked in Black and Gold. However, next year may not find us so obliging.

Such is the history of the Soph Class of '22. As a true student of history, gaze upon it, accept it as a fact, and marvel at the enlightened mob that next year will grace the haunts of the Juniors.



Class of 1922

Mechanical Engineers

Anderson, W. J.
Bissell, W.
Bloom, W. C.
Bockman, C. H.
Broad, R. E.
Bursik, F. J.
Carlson, J. C.
Corydon, J.
Eisenstein, S.
Erickson, W. E.
Finkelberg, .P
Georgevich, E.
Grove, R. B.
Hagen, H. E.
Jennings, D. S.
Juraska, J. B.
Kuehn, O.
Lammert, R. F.
Loewe, R. P.
Manske, F. A.
Meyer, D. M.
Mullaney, P. L.
Nicholson, H. E.
Olson, M. R.
Paque, W. W.
Pawlowski, W. S.
Rieger, E. C.
Rodman, M. J.
Rowe, T. J.
Rupprecht, P. J.
Dudunsky, S.
Sevin, S.
Sugarman, M. C.
Swenson, M. H.
Tarrant, W. J.
Vickers, W. H.
Walker, E. G.
Walker, M. S.
Wenclik, A. G.
Wetherbee, G. D.
Wittenmeier, F. G.

Electrical Engineers

Adler, G. H.
Apostolos, S. D.
Burns, R. P.
Busbey, F. E.
Desmond, W. F.
Diefenbach, A. J.
Elman, M. A.
Erby, P. H.
Ernberg, A. R.
Fisher, R. D.
Gayhart, R. C.
Goodnow, E. A.
Herskovitz, E.
Hocriem, F. G.
Hultgren, H. I.
Keene, C. L.
Kelley, G. H.
Kelner, J. G.
Kenrick, R. S.
Kramer, J.
Mason, E. B.
Miles, R. O.
Mueser, E. B.
Mullen, J. K.
O'Connell, J. B.
Senelick, S. B.
Shay, F. G.
Sloan, A. H.
Trowbridge, W. S.
Waver, F. H.
Weston, H.
Wing, H. R.

Chemical Engineers

Ahlbeck, H. W.
August, C. M.
Baker, W. M.
Bernstein, J.
Blum, P. B.
Crane, G. D.
Davis, A. A.
Dhus, E. F.
Erlandson, L. E.
Fishman, L. J.
Garrity, E. D.
Gerstein, H. H.
Gilbertson, G. A.
Gray, W. T.
Herbst, C. A.
Herbst, H. W.
Holeceh, F.
Kirkhuff, C. M.
McCaffrey, J. W.
McCormick, J. T.
Marine, M. H.
Nowakowski, B. Z.
Nutt, B. V.
Rosenzweig, B. R.
Ruwaldt, R. H.
Skolnick, E.
Slobod, E.
Soltis, J. P.
Spielman, L. D.
Taffe, J. W.
Van Ryn, L. D.
Williams, S. R.

Civil Engineers

Auerbach, H. A.
Barrett, L. J.
Bernstein, J.
Bose, P. H.
Cooley, V. L.
Delevitt, S.
Gamball, J. J.
Hague, A. T.
Hamacek, V.
Heyns, H. E.
Holmes, L. M.
Hyde, D. R.
Isaacson, S.
Jenkins, O. J.
Koch, M.
Miller, D. F.
Miller, H. F.
Myers, M.
Olson, A. T.
Peterson, H. A.
Seaberg, E. M.
Tichy, C. H.
Vaaler, J. C.
Wallace, J. J.
Watt, J. H.
Zelenka, A. J.

Architectural Engineers

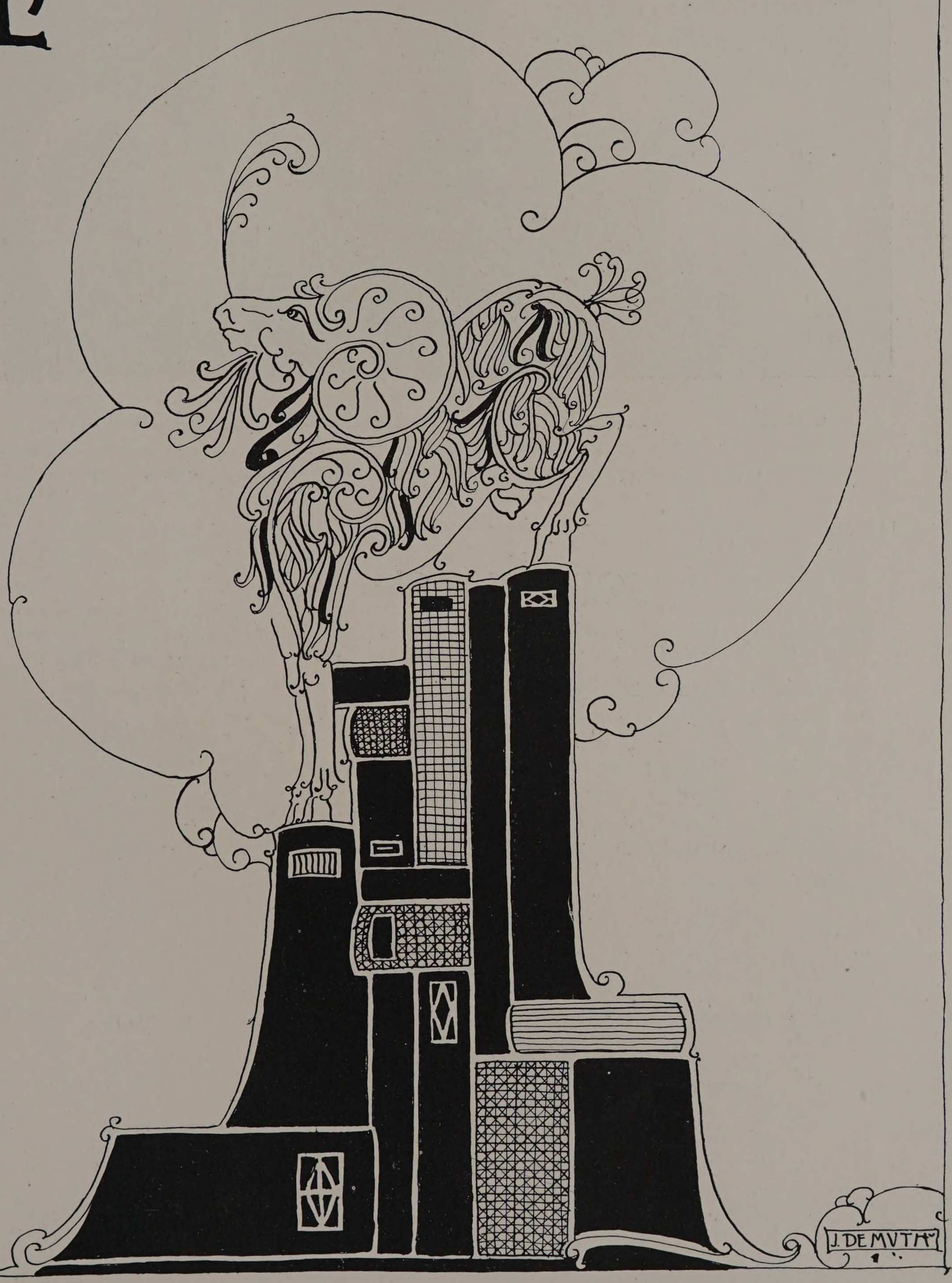
Bieg, H. K.
Brennenwasser, S.
Cauley, F. W.
Demuth, J. J.
Kimball, E.
Lewin, A. J.
Nedved, R. J.
Sommer, L. H.
Starr, B.
Tobin, S. N.
Trow, R. C.
Welshon, R. S.
Yerkes, W .F.

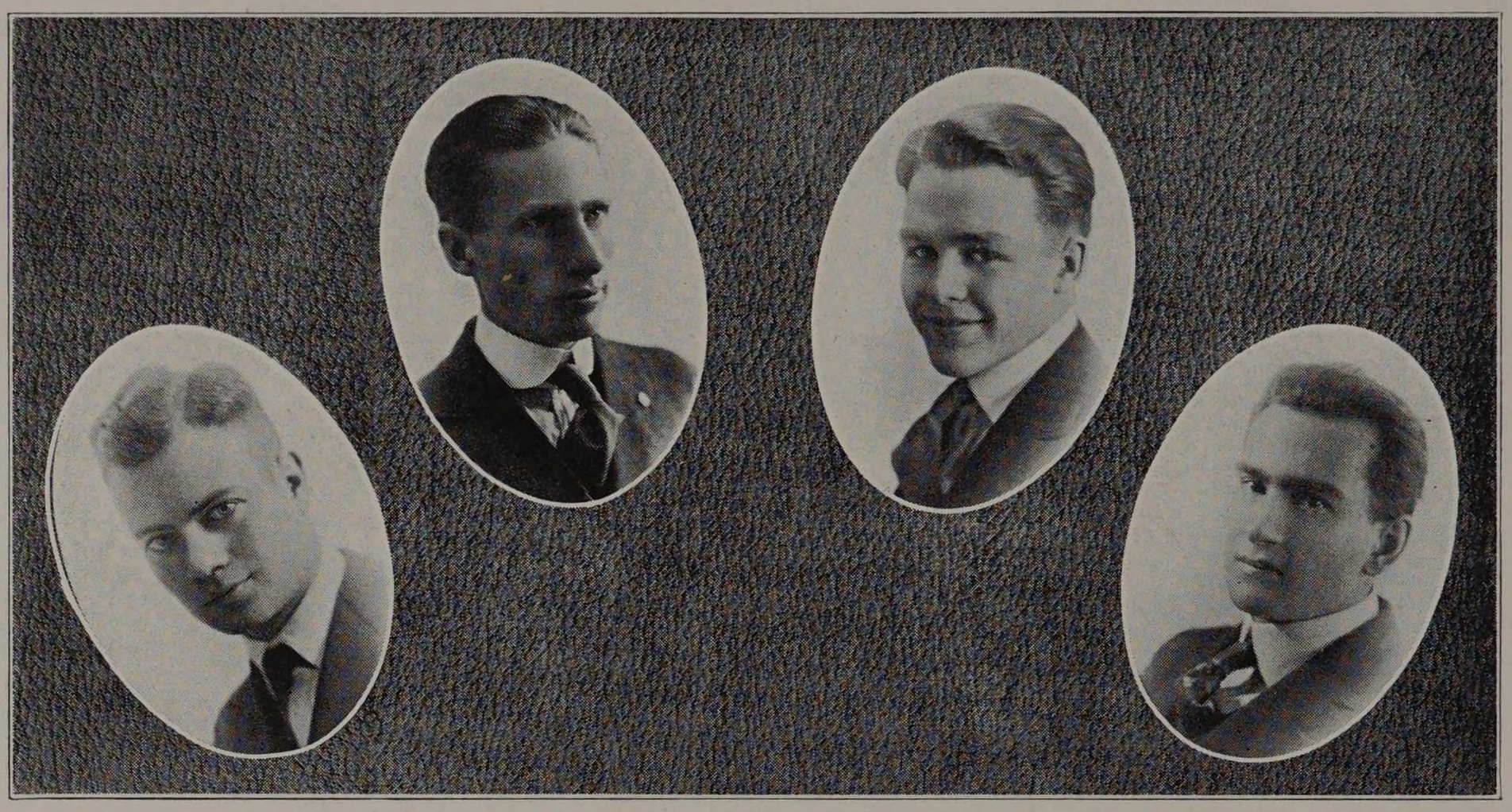
Fire Protection Engineers

Geisler, E. W.
Kingsley, W. E.
Maguire, R. R.
Oake, W. W.
Roddick, J. W.

CLASS OF 1922

Fremmen





CARR BROOKE BRADLEY PAYSON

Officers of the Class of 1923

R. O. BRADLEY . . . . . *President*
S. S. CARR . . . . . *Vice-President*
E. B. PAYSON . . . . . *Secretary*
H. L. BROOKE . . . . . *Treasurer*
C. B. STANTIAL . . . . . *Cycle Representative*
G. SCHUMACHER . . . . . *Athletic Representative*

SOCIAL COMMITTEE

F. W. HILLICKER, *Chairman*

J. CROWE L. GRUBE
M. NUTT C. NICKLIN M. HIX

Freshmen Class History

ON September the eighth, some two hundred and sixty-two men enrolled as Freshmen in the Institute, some of whom had recently graduated from the neighboring High Schools, while others had just returned from active military service. The first chance we had to become acquainted with each other and the upper classmen was at the annual Freshmen Hand-shake held at the Hyde Park Y. M. C. A., on the evening of September 26th. Here we were received royally by the upper-classmen. After several speeches urging the Freshmen to cooperate with the Y. M. C. A., Prof. Scherger gave us an inspiring welcome and a bit of friendly advice. This was followed by a swimming meet, where a few stars were uncovered, after which refreshments were served.

The class was organized on October 8th. After a few words of advice by Dean Monin, Bill Erickson presided until Bob Bradley, a man well chosen, was elected as President. Subsequently Hunt was elected Vice-President; Decker, Secretary; and Nemoyer, Treasurer. After the President appointed several committees, the meeting was adjourned.

The Fresh indoor team got away with a good start and only lost one game during the race for the pennant, which they captured by playing a superior brand of ball, unknown to the upper-classmen. By a class vote the players were awarded numerals. The Freshmen had a well-balanced basket-ball team and deserved far more credit than the scores would seem to indicate. Several Freshmen made the squad and Shumacher received his letter. The Freshmen had a good delegation out for baseball, and we are certain that there is much good track material, and hope that this branch of athletics will come in again next year.

At the opening of the second semester it was necessary to hold an election to fill the vacancies caused by the fact that several officers had failed to return to school. At this election Carr was elected Vice-President; Payson, Secretary; and Brooke, Treasurer. These men fulfilled the duties of their various offices satisfactorily and it is hoped that their stay in the Institute will be more permanent.

The Annual Freshmen Prom was held in the Ball Room of the Auditorium Hotel on Friday evening, April the 9th. The Saxophone King, Paul Biese, and his jazz orchestra furnished their usual line of syncopation for this most enjoyable occasion. Much credit is due to Hillicker and the social committee whose untiring efforts made this affair a huge success.

Big things may be expected from the Class of Twenty-three as upper-classmen, as there has been a fine spirit of cooperation in all of their undertakings.

THE CLASS YELL.

HAREM, SCARE 'EM,
RIP 'EM, TEAR 'EM,
SHOVE 'EM UP A TREE!
SLAM 'EM, BANG 'EM,
KILL 'EM, HANG 'EM,
NINETEEN TWENTY THREE.

Class of 1923

Mechanical Engineers

Arentz, E. A.
Arkema, H. P.
Baker, F. L.
Blaufuss, W. B.
Brueckner, K. E.
Case, J. A.
Christensen, E. H.
Coatsworth, A .
Daniels, H. C.
Eagle, F. J.
Eickelberg, H
Etel, O. K.
Faboy, S.
Farwell, R. I.
Fischer, A. Jr.
Ford, J. H.
Fulton, J. W.
Garland, Benj.
Garland, Bernard
Goldman, E. A.
Goldstein, J
Gordon, S
Hammar, H. G.
Harwood, H. R.
Hauth, C. W.
Hayn, C. N.
Heller, D. L.
Hilliker, F. W.
Isenberg, F.
Jacobs, S. H.
Jensen, R. P.
Johnson, G. L.
Johnston, W. S.
Kaye, L. A.
Kilbey, G. P.
Kilbourne, F. E.
Kinsman, G. C.
Kline, W. W.
Loutenbach, E. E.
Lizars, J. V.
Lucas, J. F.
McCormick, M. K.
Mac Eachem, C. S.
Maltsoff, W.
Matas, W.
Miller, L. G.
Mills, P. R.
Needleman, L.
Newberg, R. J.
Nicklin C. G.
Niksch, H. E.
Overend, L. P.
Phillips, G. H.
Pillath, W., Jr.
Pinkowitz, M. D.
Pollan, H. T.
Reichmer, L. L.
Rilling, W. R.
Sang, P. D.
Scherger, M. H.
Scribano, J. F.
Selensky, F. B.
Seun, R. W.
Sorensen, E. H.
Staehle, T. R.
Stangle, J.
Stantial, G. B.
Stoker, J. C.
Sweeney, W. J.
Upjohn, H .L.
Van Dyke, H. J.
Verplank, A. J.
Weiter, V. I.
Werner, R., Jr.
Wilson, A. E.
Wollin, M.
Zeitter, A. L.

Electrical Engineers

Bennett, P. A.
Biever, E. J.
Boyd, B. H.
Colby, D. C.
Condee, V. E.
Coultrip, R. L.
Crane, W. O.
Crowe, J. V.
Darnell, M.
Duerinck, P. J.
Eckhardt, E. F.
Falconer, J. W.
Farrington, T. R.
Friedman, H. C.
Gamer, C. W.
Grube, L. E.
Grueb, A. C.
Hardy, R. F.
Hayes, J. D.
Hesson, W. G.
Johnson, M. S.
Keslensky, E.
Krebs, M.
Levin, M. R.
Lindberg, F. A.
Lowden, V. E.
Lueth, I. B.
Marschall, P. J.
Michel, R. F.
Moran, E. L.
Oboler, Max
O'Brien, W. Aloysius
Olchoff, M.
Raphling, J. J.
Rauscher, F. A.
Schumacher, G. N.
Seeberg, E.
Singer, M.
Slick, D. T.
Spector, M.
Spenslig, J. W.
Tang, T. P. K.
Temple, R. A.
Warshawsky, M.
Wehmhoff, E. B.
West, P. B.
Wheeler, R. L.
Whiting, F. F.
Wise, F. D.
Zalewski, A. A.
Zimmerman, G. H.

Civil Engineers

Brand, J.
Brooke, H. L.
Burkey, M. G.
Busch, J.
Callard, E. G.
Carlson, C. W.
Carr, S. S.
Cunningham, G. T.
Diogot, E.
Edidin, L.
Frink, C. S., Jr.
Genet, J.
Goldhart, G.
Goldberg, D. B.
Hardwicke, L. C.
Hedges, H. M.
Hess, F. A.
Indovina, A. V.
Jacobzah, S.
Johnson, H. W.
Judd, E. E.
Karstens, H. H.
Kanders, T. J.
Lemm, W. R.
Levy, S. F.
Libman, S.
Linden, J. H.
Lindstrom, W. N.
McHugh, T. J.
Mandel, D.
Matucoff, W. C.
Mayo, R. S.
Mooney, F. J.
Nelle, F. R.
Niederhofer, E. L.
Niemaun, A. C.
Pettit, F. A.
Prentiss, E. W.
Reimaun, E. C.
Rotberg, S.
Rutherford, W.
Smith, O. G.
Spitz, H. L.
Stalzer, J. P.
Suhl, H.
Syverson, H.
Unger, C. M.
Walk, E.
Wells, M. M.
White, C. H.
Wickell, R. O.
Wiener, E.

Chemical Engineers

Beilin, E.
Bernstein, J.
Block, A. M.
Bradley, R. O.
Buchsbaum, C. W.
Butz, P. W.
Chiappe, C. F.
Citta, J.
Cohen, M.
Downs, F. C.
Dropinski, A.
Epstein, I. M.
Feldon, B. W.
Gapinski, J.
Hahn, L. E.
Henjum, N. P.
Hill, A.
Hix, M. H.
Lawson, H. H.
Martin, B. F.
Morgan, G. A.
Nutt, M. C.
Payson, E. B.
Pelta, C. P.
Price, M. H.
Pritikin A.
Prochaska, J. R.
Rabichow, J.
Read, G. R.
Roberts, W. P.
Rumely, R. L.
Sites, B. L.
Unger, P. R.
Vater, D. F.
Vest, J. W.
Wegner, E. G.
Wilson, J. R.

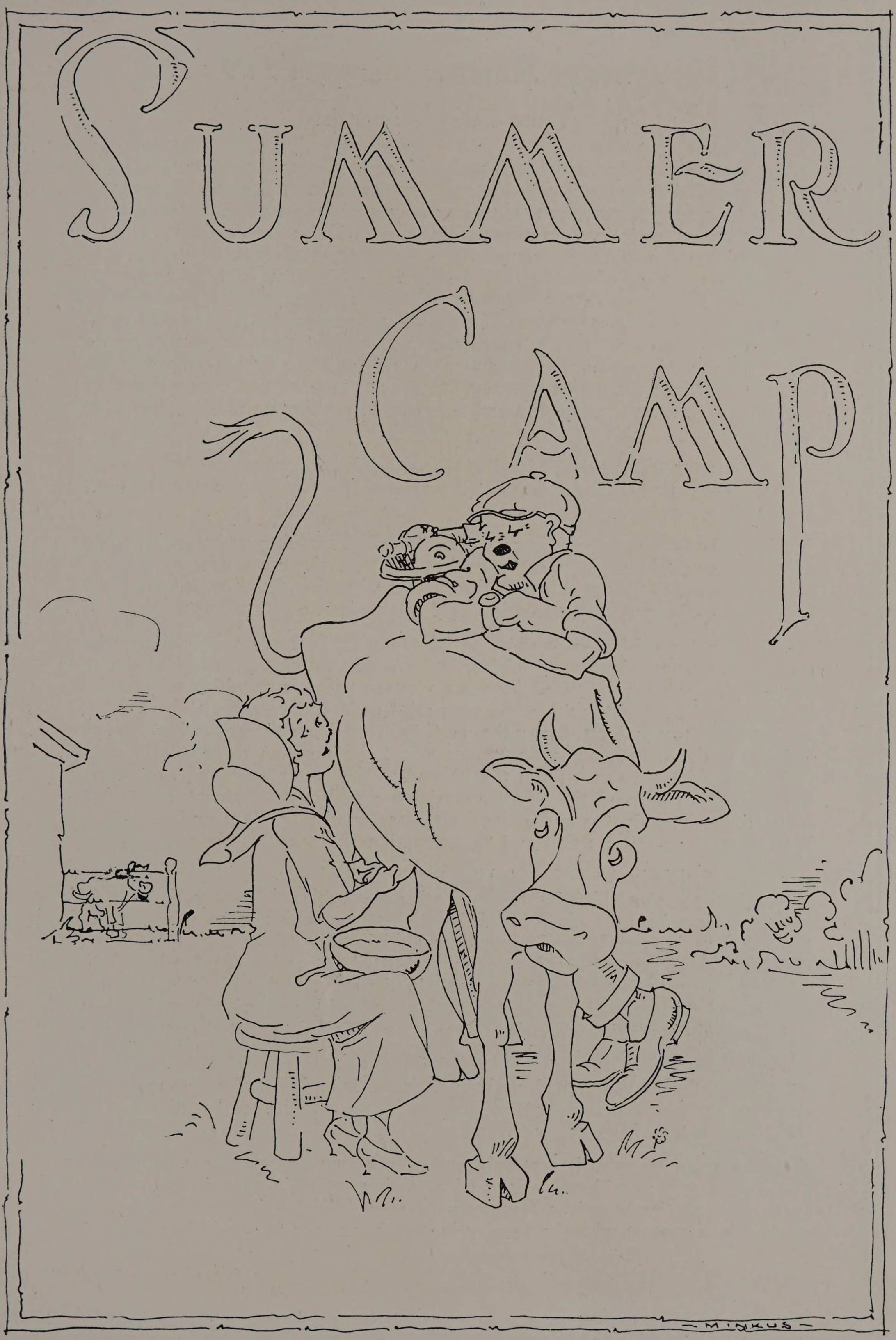
Architectural Engineers

Allen, J. B.
Browne, F. T.
Catlin, F. E., Jr.
Clark, A. C.
Fuhrer, E.
Ginsburg, R. P.
Haumann, G.
Hauser, A. R.
Houlihan, R. F.
Hurst, E. S.
Johnson, E. A.
MacFarlane, P.
Montgomery, F. H.
Muir, M. F.
Newhouse, K. H.
Pope, Chas. F., Jr.
Prendergast, R. W.
Proetz, V. H.
Searles, W. L.
Siebel, W. F.
Smith, L. T.
Suter, W. L.
Wilson, E. L.
Wilson, Miss U. F.
Wright, E. M.
Zoethout, D.

Special Students

Brennan, J. P.
Cook, G. M.
Frederick, A.
Johnson, A. E.
Konkel, J. R.
Middaugh, R. B.
Morris, B. M.
Nieland, P. C.
Reischman, J. A.
Schulze, M. C.
Unger, A. P.
Begrow, W. E.
Holmes, L. D .
Sloan, F. E.
Trow, R. C.
Conick, J. T.
Kilby, R. T.
Matson, R. O.
Resckle, E. F.
Donovan, L. H.
Jaspar, W.
Wiel, E. M.
Montague, P. J.

CLASS OF 1923


SUMMER
CAMP
—MINKUS—

Armour Summer Camp, 1919

Trout Lake, Wisconsin

It was a strangely uncivil-looking bunch of engineers that started out upon that wild and sleepless northward journey on the night of June sixth, with their queer boxes, mackinaws, army outfits and—yes, we must admit it—smattering of stiff collars and ties. However, those who knew better than to try to soothe the native wilds with the refined accouterments of civilization soon made themselves quite comfortable and weathered the storm in true backwoods fashion by sleeping until transferred to Charlie's tender care, whereupon that pastime became altogether impossible to all except our doughty sailors of the S. A. T. C. regime who, of course, were accustomed to the ocean-going motion. Even these gentlemen, however, were more than overjoyed when time came to pull into the grand terminal station at State House, and nobody lost any time in getting to the camp and satisfactorily filling an aching void in his anatomy.

This latter trifling detail having been attended to, we proceeded to match up room- and tent-mates and spent the rest of the day in pitching tents, and arranging camp.

Everybody was out bright and early the next morning and the instruction in surveying field practice was begun immediately. In the course of the summer we were duly initiated into the mysteries of taping, leveling, topographical surveying, railway surveys, location, and triangulation.

This latter subject calls to mind Montague's Tower, an imposing edifice erected at a tremendous cost of labor and a minimum cost of material, for the purpose of elevating the theodolites to a vantage point from which any point in the surrounding country might be seen with comparative ease. The tower is composed of two independent units, each built up from the ground so that the motion of the instrument man cannot affect the position of the instrument. It is fully thirty-five feet from the ground to the instrument and considering the materials used and the adverse working conditions the structure is really a credit to the industry and resourcefullness of the builders and notably to Montague, the guiding spirit and "construction engineer" of the project.

Time fled indeed too fast during the period of our stay but never a day passed without some high light to make it memorable. The arrival of "Peri" Grammas was hailed with delightful anticipations which were soon justified when he, with true Hellenic maritime skill, fashioned a bold Pirate craft which provided several evenings of unparalleled entertainment for those who were adventurous enough to fare forth in the craft under his able guidance, but several cruises of ill-advised duration and with well-nigh disastrous results, caused those responsible for our safety such anxiety that it was necessary to curb the activities of the craft.

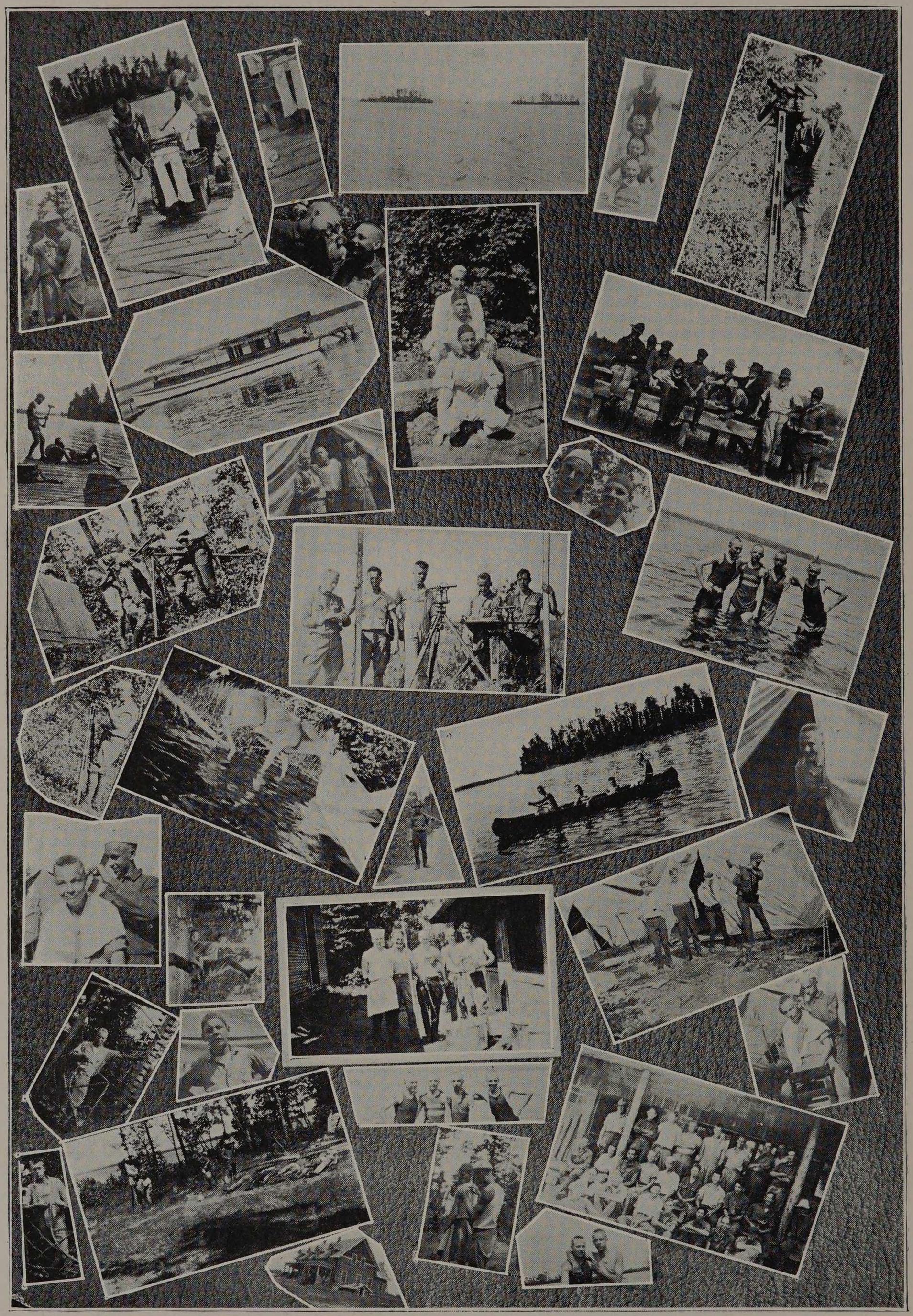
When things threatened to become dull, friend Kumbera succeeded in arousing considerable dormant enthusiasm by means of liberal applications of "ambition-water" from the well.

The summer camp is certainly one of the supreme successes of Armour Institute, for it provides a means of attaining valuable experience in actual surveying practice in only a few weeks, under skillful guidance; it brings the student into contact with the faculty in such a manner as would be impossible

under normal school conditions, presenting a personal side of the situation which brings out the good points of all the persons concerned, magnifying them for analysis, and minimizing the discordant points by producing an understanding of one another and by sinking them in the spirit of mutual helpfulness which pervades the whole atmosphere; it helps to produce a type of college man experienced in matters outside of the heart of civilization, strong, virile and eager to accomplish, and instills in him an appreciation of nature and the great outdoors. Indeed it is an attainment and an innovation in instruction of which our college may be justly proud.

Those in evidence at meal times were Professors Phillips and Penn, without whose perennial attendance the camp would be considered by all as a dismal affair, Professor Armstrong who made his debut, as it were, and many times made us appreciate how fortunate we were to have happened upon a year when we might be given the added advantage of his experience in our guidance, and the following reckless invaders of the field of Civil Engineering knowledge:

HAMACEK
MILES
WATT
DOUGLAS MILLER
DOUGLAS
SEABERG
KOCH
VAALER
MONTAGUE
HAMMERMAN
STEIN
FRANK
LOCHOW
LYON
MICHELS
H. PETERSEN
MULLEN
FAINSTEIN
TICHY
WAVER
HERSKOVITZ
MASON
AUERBACH
H. F. MILLER
KUMBERA
HEYNS
MANCHEE



ATHLETICS

BASKET—
BALL
CHAMP—
ION-
SHIP
CHICAGO
FOOTBALL
1921
BASE BALL
CHAMPION—
ION-
SHIP
TRACK
CHAMPION-
SHIP
SOMETHING TO LOOK FOR-
WARD TO!
JOSEPH-A-KARLSON—'20

ATHLETICS

Athletics in the Armour Institute were re-established on a very favorable basis, that is to say, intercollegiate activities had received the support of the general student body. When national affairs became normal again, the Executive Council, acting with the aid of the Board of Athletic Control, unanimously endorsed a system of athletics which would interest even the most unconcerned individual, which system proved remarkably successful. The system was of such a character that the students who did not actually participate in atheletics, were accorded an opportunity of offering suggestions which would promote the work of that department. Home game admission tickets were provided for distribution, and with the kindly aid of a squadron of students, many of them were sold. The holders of these tickets attended each of the home games, thereby standing by and sticking with the basketball team.

The intercollegiate basketball tournament was most successfully carried on, although the Institute had severed its connections with the Little Five Conference. The series of tournament games were played on a free lance basis without regard to any ironclad athletic arrangements with other colleges. Our conduct was thus free from the critical observation of any western organizations to which we would have been bound under different circumstances.

In order to pick the varsity team, an interclass tournament was arranged. The men who played on the various class teams were eligible to try out for the varsity basketball team. Our mighty Seniors, who had won every interclass tournament since their entrance into the Institute, were defeated twice in this tournament. All the teams were evenly matched, thus making the games much more interesting. The Juniors won the tournament with three victories and one defeat. These games made it possible for our coach, Mr. Volz, to pick the varsity basketball team for the year 1919-1920.

The Board of Athletic Control of the Armour Institute of Technology

1919-1920

OFFICERS.

PROF. J. J. SCHOMMER . . . . . *President*
MR. F. U. SMITH . . . . . *Treasurer*
MR. C. B. GOODMAN . . . . . *Secretary of the Board*

EXECUTIVE OFFICERS.

PROF. H. M. RAYMOND — PROF. L. C. MONIN

FACULTY REPRESENTATIVES.

PROF. W. K. SMART — PROF. C. W. LEIGH

STUDENT REPRESENTATIVES.

W. SEYFERLICH — O. KUEHN
E. NUDELMAN — G. SCHUMACHER

UNIVERSITY IN HARD CONTEST

Armour Institute Quin
Buffalo Here for Sa
day Court Game

U. of D. Tigers are
their big go with Arm
nical Institute of Chicag
the local
Jefferson
day eve
formida
been c
The
Detro
prom
inter
feat
earl
ma
gre
an
ca
In Fr
pivot ma
Havlic
the
v

BASKETBALL

HANDICAPPED by the los
three regulars, Armour
dropped a 25 to 21 g
Forest college at A
Lake Forest's forwards, Ba
sistent in their
by the Armour g
Lake Forest [25].
Eddy, rf....4 3
Manning, lf....2 0
Russell, c....2 0
Auberg, lg....1 0
Hale, lg....0 0
Free throws mi
[2], Schumacher.
Lineups:
DETROIT.
McElwee.....R. F.....
Gerken.....L. F.....
Voss.....C.....
Whitman.....R. G.....
Maher.....

ILLINOIS STEEL FIVES WIN.

Gary, Ind., Feb. 14.—Illinois Steel company basketball teams of this city won two games from Chicago opponents today. The heavy- drubbed Armour institute of

ARMOUR BEATS MONMOUTH 5

Armour Institute's basketball team defeated Monmouth on the winners' team work

Four Tossers Slip Chicago Tech Trimming

Chicago Tech college could not ap- ich the team work of Armour itute, and the latter won by a e-sided count on its home floor. 9, Erickson, Bready and Ahl- uding the loser's guards for goals. There were frequent hard guarding on both

Chi. Tech. [19]	B	F	P	T
Kreiel, rf	0	4	0	4
Sundstrom, lf	1	0	1	2
Dick, c	0	1	0	1
Brashier, rg	1	0	1	2
Miller, lg	0	0	0	0
Wolte, lg	0	0	0	0
Howell, rf	0	0	0	0
Suarr, lg	0	0	0	0

Bready, rf....
Ahlbeck, lf....
Erickson, c....
Havlick, rg....
May, lg....
Schumacher, rf....
Kuehn, rg....
McCaffery, lg....

TRIMS WHEATON

Armour Tech defeated Wheaton gym
College, 33-23, at the Armour gym
yesterday. The lineup:

ARMOUR (33)	B	F	P	T
Bready, rf	3	0	1	6
Ahlbeck, lf	2	0	0	4
Jackson, c	3	0	1	6
Havlick, rg	1	0	0	2
May, lg	1	0	0	2
Schumacher, rf	1	0	0	2
Kuehn, rg	1	0	0	2
McCaffery, lg	0	0	0	0

WHEATON (23)	B	F	P	T
Conley, lg	0	3	1	1
Smith, rg	0	1	1	1
Newberry, c	1	0	4	2
Davis, lf	1	0	1	2
Polk, rf	1	0	1	2
Coleman, rf	0	0	0	0
Peterson, rg	0	0	0	0
Fenton, lg	0	0	0	0

VALPY, 19; ARMOUR TECH, 15.

Valparaiso university five defeated Armour Tech., 19 to 15, in a hard fought contes at Armour. Honors were even until t last three minutes, when two baskets Gilbert put the Valparaiso five on e street. Lineup:

Valparaiso [19]	B	F	P	T
Bradley, rf	0	5	1	5
Hass, lf	3	0	0	6
Conlay, c	0	0	2	0
Dandelet, rg	0	0	1	0
Goheen, lg	0	0	1	0
Gilbert, lf	4	0	0	8

Free throws, Armour [15]
[2], Schumacher.

Armour [15]
Bready, rf....1
Ahlbeck, lf....0
Erickson, c....
rg....

ARMOUR, 33; WHEATON, 23.

Armour institute and Wheaton col.
played a slam-bang basket
yesterday on the former's
winning, 33 to 23.
ended 13-13.

U. OF D. TO TACKLE CRACK CHICAGO FIVE

Battles Armour Tec ferson Avenue

University of Detroit t
team strikes a tough pro
the Armour Technical In
the U. of D. gymnasium
Whitman and Gerken, th
sity's regular forwards
out of the game with
be back in the game
Chicago qui
mmary.

DETROIT.
Elwee .....
ken .....
.....

I. A. C., 33; ARMOUR TECH., 26.

Johnny Dixon, with ten baskets, led Illinois A. C. heavies to victory over Armour institute, 33 to 26, at the Tricolor club. Armour put up a good scrap and held every player put the elusive I. A. C. captain. Line-

ARMOUR SQUAD STRONG FOEMEN

Terrible Swedes May Meet Their Match in Burroing Against Chicago Tonight.

ARMOUR TRIMS WHEATON

Armour Tech defeated Wheaton gym
College, 33-23, at the Armour gym
yesterday. The lineup:

ARMOUR (33)	B	F	P	T
Bready, rf	3	0	1	6
Ahlbeck, lf	2	0	0	4
Erickson, c	3	0	1	6
Havlick, rg	1	0	0	2
May, lg	1	0	0	2
Schumacher, rf	1	0	0	2
Kuehn, rg	1	0	0	2
McCaffery, lg	0	0	0	0

WHEATON (23)	B	F	P	T
Conley, lg	0	3	1	1
Smith, rg	0	1	1	1
Newberry, c	1	0	4	2
Davis, lf	1	0	1	2
Polk, rf	1	0	1	2
Coleman, rf	0	0	0	0
Peterson, rg	0	0	0	0
Fenton, lg	0	0	0	0

Naperville Collegians Down Armour, 25-11

Naperville, Ill., Feb. 14.—Northwestern college added another victory to its long list when it walked away with Armour Institute of Chicago

Augie's p
speaks for
Armour comes
spect for the mooted

BASKET BALL.

PRIVATE LIBRARY OF
JOHN J. SCHOMMER

NORMAN VOLZ, Coach.

Mr. Volz's versatility has gained for him a prominent place in athletic circles throughout the country. His experiences in every branch of sport, all the way from Basketball to Fencing, may be traced to Cincinnati, where he played with the finest aggregations in those parts. Mr. Volz was picked for the Cincinnati All Star Football and Basketball teams 1914-15, and was Captain of Cincinnati All Star Basketball team 1916. His success with the Armour Institute of Technology is hardly measurable.

BREADY

Focus your goggles upon Armour's captain and most versatile athlete. As an all star sportsman Ira lifts the lid. In athletic circles everywhere, the name of this player is more than a password, and Bready's accomplishments furnish interesting material for a conversation. His natural knack for sinking baskets is a personal quality derived from years of hard experience. He never fails to register high in every game. Persons who understand basketball will attest to the statement that his movements are unlike those of a player who has had mechanical gestures drilled into him. We are indeed proud of a fellow like Ira when we recall how hard he has fought to uphold the athletic standard of the Institute, in his four years of association with the Tech teams. Here's wishing him a bucket of luck; may it pour out volumes of happiness and great success.

ERICKSON

Come forth, ye good old men, and shake hands with our own Bill! Bill Erickson has gained for himself the admiration of the general student body of the Institute principally because of his spirit of fair play at all times and everywhere. It can be said that William's clean cut playing was a mark of athletic quality found only in one whose own personality is clean cut. In the four years of Bill's connection with the Institute teams, he has built up a reputation of the strongest character. As a man and a player he toes the mark. His careful and accurate playing in basketball will remain impressed upon our minds as long as we exist. We shall never for a moment lose the thought of his enthusiastic support of the college team in its every activity. Bill never flinched; he always fought hard and true.

HAVLICK

"Spence", an athlete of no little value, played his part. In every game where careful, untiring playing was an important requisite, Havlick never failed to fill the job. At times when a close game caused our score to quiver, this fellow with his teeth gritted just tore through the lines giving added impetus to the other men. "Spence" Havlick has earned his reputation as the Institute's "guarding guard," who never retired, no matter how much exhaustion drained his strength to go on. He went on—he always won.

MAY

Max's square, broad shoulders, and wealth of heaviness, have identified him as the proper person in the guard position. Yea, boy, when Max stuck to his man, and any man tried to stick to Max, what a shameful spill came to view and "all the king's horses couldn't get humpty-dumpty together again." We verily believe that many years will need to pass before Max's equal will come to the Institute's attention. Max was more than a standing fixture on the Tech Team, endeavoring always to put into every game all that was in him—careful playing, determination, and manlike handling of his opponents despite Max's large built. We trust that next year the Institute may again enjoy his sportsmanlike association.

AHLBECK

It is said in the pedagogy that "a student of human nature is a student of himself." It goes without question that Harry knows all about himself, as the most terrific flooring does not in the least affect his fine playing. He is a remarkably self-composed player, whose chief aim in a game is to guard his man. Slam-bangs have no existence in Ahlbeck's life, and regardless of pretentiously brutal playing by our opponents in certain instances, Harry's ability to play straight through the game without being in the least disturbed, has added greater strength to our team. Harry has won his first letter; we are confident that the future holds another one for him if he does not stay away from college next year, as he contemplates doing. We trust that he will again be with us when our basketball season opens in 1921.

KUEHN

Awaken to the fact that Otto played the game —he played it from start to finish without weakening in the least. Authorities throughout the country measure a player's ability by only one means—the mode of playing. Kuehn's style of playing indicates much practice. His "scientifically practical" way of shooting for the basket ofttimes kept our opponents on the run. It has been estimated by many who have seen him play that Kuehn will have little difficulty copping off an important position on next season's team after a good season's training. We are confident in our belief that Otto's fine forward playing has far outclassed that of his predecessors. Here's hoping he stays with us to play for us again.

SCHUMACHER

"Shoefly," say not aye, aye; 'tis our little Schumacher, with an eagle's eye." Schumacher, the lightest player on the team, piled up a score of baskets for Armour. All will agree with us that "Jerry" was a conspicuous figure in intercollegiate basketball. Schumacher certainly knew how to start the ball off. He could drive through a well arranged defense, dribbling in criss-cross style, and making his shoes stick. We are certain of this player's appearance with the team next year. Schumacher, being a Freshman, will probably play with the team for three more years.

McCAFFREY

A human tornado, with a dynamo's power, was "Mac." The dynamo never weakened; it was always chock full of juice. "Mac" spurted about the floor like wildfire, and it took more than human strength to guard him well. Oft times the juice seemed to have been gone, but McCaffery stood the test without twitch or twain. We are hopeful of his return to athletics next year, as Mac's value to the Institute is hardly measurable.

SIPPEL

Refinement in a player makes for refined playing, you will all agree, and "Sip" was made up of that material. Sippel understood the game well; his original tactics proved that fact. He was never bored by the thought of having to substitute in a game when a fresh man was needed. He played basketball hard and right. "Sip" was accorded all the credit of which he was deserving, and his quick pass work had a striking effect upon those on the side lines. We have no doubt but that Sippel will again play with the Institute team. We shall welcome him, he may be assured.

Basketball

When the basketball season opened the Tech. Team was in sound condition for competition in that sport. Our coach, Mr. Volz, had molded into shape a most formidable team. Much time had been devoted to coaching the players in their pass work and criss-cross dribbling, as well as short, careful shooting through unobstructed space. The latter playing was made possible when our forwards eluded their persistent guards in such a manner that basket shooting was accomplished without much difficulty.

The game of basketball is scientific in its nature, but our experience this year, as in former years, has proved that victories are attained only because the players are practical in their movements. During the entire tournament, our boys, although equipped with a knowledge of the theory of the game, were able to sink baskets only after they had played a practical game. It is of no effect for a player to recall whether the science of the game requires that he shoot only when the floor is clear, or whether he should pass the ball to a player who is near him even though he is directly in front of the basket,but not close enough to make it. Such deliberation might break up a strong offensive drive. The theory of the game is applicable only when the opponents are so slow that their inactivity permits of such playing. Not frequently have we opposed a team that has proved so inactive. Most of our games necessitated the utilization of stunts unfamiliar to the theorist.

As a fitting example of a practical player one needed only to observe Bready's skillful spurts throughout the tournament. Although fully cognizant of the requirements of the game, Ira is more practical than scientific in most all of his movements. The Institute has had the pleasure of his athletic connections during its association with the Little Five Colleges. When a critical point was reached in a game, and it seemed that our opponents were forging toward our basket with Father Fortune by their side, Bready proved his mettle to the extent that his long, sure shots never failed to turn the tide. We are indeed regretful to know that we must lose Ira upon his graduation from the Institute. We only trust that next year will produce as good a man and as astute a player as he was.

We find among the other players on the team, a fellow, "Bill" Erickson, who is a veteran in the game, and whose past association with the Institute in basketball has brought his name to the attention of the general student body. When "Bill" offered his services to the team, our coach quickly recognized in him the qualities usually sought for in a basketball player. The coach immediately took "Bill" under his feathers for the season's training; his mode of shooting was developed to a point where Erickson could sink a basket without scraping the net. His tall, player-like stature marked him as a splendid center for the team. "Bill's" method of careful jumping gave our team the tip-off in almost every instance. It may be well stated that Erickson's low record of personal fouls is indicative of clean sportsmanship.

In every basketball tournament, it is essential that the team have on its roll a man who will unflinchingly play the game through. Our "Spence" Havlick lacked no quality in measuring up to the standard required of such a player. His aggressive and persistent playing gained for him the enthusiastic support of his fellow students. When basketball reopens next year, observant persons in the athletic circles of the Institute say that Havlick will outclass any guard against whom he may need to compete for a berth on the Tech. Team. We are confident that "Spence" will continue next year to work with the same high zealousness that marked his playing this year.

Out of a mass of first year students, there appeared two very able players, namely, Kuehn and Schumacher. These youthful forwards broke into College athletics with only past experiences to offer as proof of their unknown abilities. As time sped by, our boys, Otto and "Gerry," displayed a penchant for making baskets. Our coach, Mr. Volz, took them into hand, removed the rough edges of their own style of playing, and prepared them for forward positions on the team. And when the tournament began, Kuehn and Schumacher registered basket upon basket in every game in which they participated. They were soon looked upon as invaluable players whose sure-shots often tipped the scale of points against our most difficult opponents. In the course of training for work with the College team, two students presented themselves to the coach as material for basketball. McCaffrey and Sipple acknowledged their candidacy and immediately submitted themselves to the coach for proper preparation and training. We do not hesitate to say that "Mac" and "Sip" proved important players whenever it became necessary to call upon fresh, hearty men for assistance in a hot game.

It has been said by men who understood "basketball" that the player in a guard position needs to know how to control himself. Unless a guard is able to do this, he should not be permitted to serve in that capacity. Among the players on the Tech Team could be found a man whose self-composure in any game—rough or otherwise—was clearly evinced. Harry Ahlbeck was so constituted that brutal and pretentiously rough handling by our opponents had no effect to curtail his swift, aggressive playing. Harry truly played basketball in accordance with the Gospel, in that he "offered his other cheek." At certain periods of the game it often appeared as though Ahlbeck's very soul had been crushed, but this determined player just "picked himself together" for further hard playing. His clean-cut playing had a pungent effect upon all who admired him. We know that the College will regret the loss of a sterling fellow as well as a real athlete in the person of Harry, if he fails to return next year, as the situation may be.

We had a Goliath on our squad. Max May, a stalwart personage with an athletic frame, appeared in the limelight of the College. May's preliminary training in basketball was thought at first to be insufficient for a berth on the Tech Team. However after a well spent season of training under the tutelage of our coach, Max became a regular guard for Armour Tech. And as the work of the team progressed, Max disclosed certain essential characteristics which next year will undoubtedly cause amazement among athletic circles, and assure him a position on the team.

When our schedule had almost reached the point of completion, a newcomer offered himself as an utility man. Milton Marks crept into College basketball full of enthusiasm—he poured all of it out too—and we are highly grateful to Marks for his kindly services with the Tech Team.

The intercollegiate basketball schedule for the year 1919-1920 was as follows:

Hillsdale College at Armour, December 12, 1919.
Monmouth College at Monmouth, December 19, 1919.
Valparaiso University at Valparaiso, January 3, 1920.
Monmouth College at Armour, January 9, 1920.
Valparaiso University at Armour, January 12, 1920.
Wheaton College at Armour, January 14, 1920.

Lake Forest College at Armour, January 23, 1920.
Augustana College at Augustana, January 30, 1920.
Northwestern College at Northwestern, February 3, 1920.
Illinois Athletic Club at I. A. C., February 19, 1920.
Northwestern College at Armour, February 26, 1920.
Hillsdale College at Hillsdale, February 27, 1920.
University of Detroit at Detroit, February 28, 1920.
Lake Forest College at Lake Forest, March 2, 1920.
Chicago Technical College at Armour, March 5, 1920.

The line-ups, and scores as registered, were as follows:

Armour vs. Hillsdale at Armour

The first game of the intercollegiate tournament brought Hillsdale to Armour, December 12, 1919. Although Armour was outplayed, our boys fought to the end, led by Bready and Ahlbeck.

The Line-up:

Armour (25)	*Position*	Hillsdale (42)
Bready (Capt.), Sipple	R. F.	Taylor, Martindale
Schumacher, Kuehn	L. F.	Greine
Erickson	C.	Ely
Ahlbeck, Havlick	R. G.	Kerk, Taylor
May	L. G.	Beard

Baskets: Greine (7), Ahlbeck (5), Taylor, Beard (4), Bready, Ely (3), Erickson, Schumacher, Sipple. Free throws: Ely (6), Bready (3). Referee, Roy.

Armour vs. Monmouth at Monmouth

This game resulted in a run-a-way for Armour. We completely outclassed our hard-working opponents, by shooting baskets from all angels of the floor. The game was featured by the close guarding of May and Havlick.

The Line-up:

Armour (41)	Position.	Monmouth (14)
Bready (Capt.), McCaffrey	R. F.	Lawrence
Ahlbeck, Schumacher	L. F.	Wallace, Anderson
Erickson	C.	Axline, Buchanan, Bear
May, Kuehn	R. G.	Gillespie, Cook
Havlick	L. G.	Bear, Smith, Blick

Baskets: Bready (8), Erickson, Ahlbeck (4), Kuehn (3), May, Bear, Gillespie, Buchanan, Lawrence. Free throws: Gillespie (4), Bready, Bear.

Armour vs. Valparaiso at Armour

The best game of the season was played at Armour on January 12, 1920. This game was full of pep from start to finish. At the end of the first half Valparaiso led 11 to 10. From then on each team took a turn at holding the

lead. The last minute of play decided in favor of Valparaiso. Havlick led Armour with three baskets while Gilbert led Valparaiso with four markers. Bready played a stellar game at forward. May was continually flooring the Valparaiso men, while Erickson and Ahlbeck featured by their team work.

The Line-up:

Armour (15)	Position.	Valparaiso (19)
Bready (Capt.), Schumacher	R. F.	Bradley (Capt.)
Ahlbeck	L. F.	Gilbert, Hass
Erickson	C.	Conley
Havlick	R. G.	Dandelet
May	L. G.	Goheen

Baskets: Gilbert (4), Havlick, Hass (3), Bready, Erickson. Free throws: Bradley (5), Bready, Ahlbeck (2), Erickson.

Armour vs. Monmouth at Armour

On January 9, 1920, Monmouth traveled to Armour and were defeated to the tune of 22 to 13. At half time the score was 12 to 8, but during the last half, our subs were enough to beat Monmouth. The game was rough, but our speed boys took the jump right at the start and kept it. May featured with three baskets.

The Line-up:

Armour (22)	Position.	Monmouth (13)
Bready, Schumacher	R. F.	Lawrence
Ahlbeck, Kuehn	L. F.	Wallace
Erickson	C.	Blick, Sunley
May	R. G.	Bear
Havlick, Zalewski	L. G.	Gillespie

Baskets: May(3), Ahlbeck, Erickson, Havlick, Lawrence (2), Bready, Wallace, Bear, Gillespie. Free throws: Gillespie, Breadyet,ehtoficMtaoi

Armour vs. Wheaton at Armour

On January 14, 1920, Wheaton basket tossers were beaten at 33rd and Federal Streets. This was the roughest game of the tournament, but due to our superior playing and roughness we subdued them 33 to 23. The score at half time was 13 to 13. After about two minutes of play, Havlick was ruled out of the game, for no reason at all (as per his claim). Bready, our speed boy, featured with three baskets and four free throws. Erickson caged three baskets while Ahlbeck, May and Kuehn held Wreaton down to three baskets in the second half.

The Line-up:

Armour (33)	Position.	Wheaton (23)
Bready, Schumacher	R. F.	Polk, Eckwell, Vining
Ahlbeck	L. F.	Davis
Erickson	C.	Newburry, Sykes
Havlick, Kuehn	R. G.	Smith, Vining
May, McCaffrey	L. G.	Conley, Coleman, Peterson

Baskets: Bready, Erickson, Polk (3), Ahlbeck, Vining (2), Havlick, Schumacher, May, Kuehn, Smith, Newberry. Free throws: Bready (5), Ahlbeck, Conley (4).

Armour vs. I. A. C.

On Feburary 18, 1920, Armour played the I. A. C. and gave them a run for their money. Although we outscored them in the second half, the I. A. C. nosed us out, the final score being 33 to 26. Bready starred for Armour, scoring 5 baskets. Dixon scored 10 baskets for the I. A. C.

The Line-up:

Armour (26)	Position	I. A. C. (33)
Bready, Schumacher	R. F.	Stillwell
Kuehn, Ahlbeck	L. F.	O'Connor, Huber
Erickson	C.	Freiney
May	R. G.	Dixon
Havlick	L. G.	Sacks

Baskets: Dixon (10), Bready (5), Stillwell (3), Erickson (2), Kuehn, Ahlbeck, May, Havlick, Huber, Sacks, Freiney. Free throws: Bready (4), Dixon.

Armour vs. Northwestern College at Armour

On February 26, 1920, Armour beat Northwestern College at Armour, 35 to 27. Northwestern College was outclassed from start to finish. The score at the end of the first half was 22 to 10 in our favor. All our men played well and Bready did most of the scoring while May and Havlick kept the Northwestern men from scoring.

The Line-up:

Armour (35)	Position	Northwestern (27)
Bready	R. F.	Rippberger
Schumacher, Kuehn	L. F.	Stenger, Norenberg
Erickson	C.	Bauemferd
Havlick, McCaffery	R. G.	Kluckholm
May, Ahlbeck	L. G.	Ritan, Grantman

Baskets: Bready (10), Rippberger (5), Ahlbeck (3), Havlick (2), Schumacher, Erickson, Kluckholm, Baumferd, Stenger. Free throws: Rippberger (10), Bready (3).

Armour vs. Lake Forest at Armour

On March 2, 1920, Armour trimmed Lake Forest 50 to 33. The game was one-sided, nevertheless exciting. All our men starred in this game, Bready leading the scorers with 6 baskets, Kuehn and Ahlbeck were second with 4 baskets each. In the matter of field and foul goals, and defense, Armour showed to marked advantage. Lake Forest did not give up the game without a fight, and the closing minutes were not of pink tea mildness. Players ran into and charged each other with reckless abandon. T'was here that May showed up very well.

The Line-up:

Armour (50)	Position	Lake Forest (33)
Bready, Schumacher	R. F.	Kunz, Coleman
Kuehn	L. F.	Manning
Erickson	C.	Russell
May, Sipple	R. G.	Sumner
Ahlbeck, McCaffrey	L. G.	Eddy, Sumner

Baskets: Coleman (8), Bready (6), Kuehn, Ahlbeck (4), Schumacher, Manning (3), Erickson, Sumner (2), May, Kunz. Free throws: Bready (6), Eddy (3), Erickson, Coleman (2).

Armour vs. Chicago Tech at Armour

The last game of our intercollegiate tournament resulted in a one-sided victory for our boys. Chicago Tech was held without a field score until the last few minutes of play when Brashier and Sundstrom each scored one basket. At half time the score was 21 to 3. In the second half Chicago Tech gave us a little competition while our stalwart guards held to the very end. The final score was 30 to 9. The feature of the game was the large attendance of rooters for Armour and Chicago Tech. Erickson starred.

The Line-up:

Armour (30)	Position	Chicago Tech. (9)
Bready, Kuehn	R. F.	Krijci, Howell
Ahlbeck, Schumacher	L. F.	Sundstrom
Erickson, McCaffrey	C.	Pick
May	R. G.	Brashier
Havlick	L. G.	Miller, Suarr, Wolfe

Baskets: Bready (4), Ahlbeck, Erickson (3), May, Havlick, Sundstrom, Brashier. Free throws: Bready (8), Krijci (4), Dick.

The closing of the basketball season was celebrated by a mass meeting conducted for the purpose of distributing sweaters and "A's" to the team. The following men received sweaters and "A's": Captain Bready, Erickson, Havlick, May, Ahlbeck, Kuehn and Schumacher.

A-Men

BREADY
Basketball '17, '20

ERICKSON
Basketball '17, '20

HAVLICK
Basketball, '20

MAY
Basketball, '20

KUEHN
Basketball, '20

AHLBECK
Basketball, '20

SCHUMACHER
Basketball, '20

GOODMAN KUEHN HAVLICK MAY MARKS ERICKSON SIPPEL VOLZ
BREADY AHLBECK McCAFFREY SCHUMACHER

On Nov. 3, 1919, the Seniors defeated the Freshmen 21 to 14. At half time the score was 7 to 5 for the Seniors. Erickson starred for the Seniors and Schumacher was chief scorer for the Freshmen.

The Line-up:

Seniors (21)	Position	Freshmen (14)
Schumacher	R. F.	Karlson
Butz	L. F.	Bready
Christianson	C.	Erickson
Lawson, Bradley	R. G.	Vogt
Zalewski, Prendergast	L. G.	Illg

Baskets: Erickson (5), Schumacher (4), Bready (3), Illg, Butz, Christianson.

Free throws: Erickson (2), Bready, Lawton, Butz.

On Nov. 5, 1919, the Juniors met the Sophomores and a real game of basketball was the result of the meeting. The Sophomores won, 23 to 22. The score at half was 12 to 8 in favor of the Sophomores. The Juniors outscored the Sophs in the second half. Havlick and Kuehn featured with 5 baskets each.

The Line-up:

Sophomores (23)	Position.	Juniors (22)
Kuehn	R. F.	Sipple
Juraska, Rieger	L. F.	Nudelman, Ewin
Rupprecht, Wittenmier	C.	May
Ahlbeck	R. G.	Havlick
Vickers, Walker, McCaffrey	L. G.	Meilinger

Baskets: Kuehn, Havlick (5), Nudelman, Ahlbeck (3), Sipple, Wittenmeier (2), Juraska, May. Free throw: Kuehn.

On Nov. 10, 1919, the Seniors met their waterloo for the first time in their history. The Juniors were the victors. This was the best game of the interclass tournament. Sipple did the scoring, while Havlick and Meilinger kept the Seniors from scoring. Bready and Erickson featured for the Seniors.

The Line-up:

Juniors (16)	Position.	Seniors (10)
Sipple	R. F.	Karlson
Ewin, Lyon	L. F.	Bready
May	C.	Erickson
Havlick	R. G.	Seyferlich
Meilinger	L. G.	Illg

Baskets: Sipple (3), Bready, Ewin, Erickson (3), Havlick (2), Illg.

Free throws: Havlick (2).

On Nov. 12, the Seniors were again defeated but this time the Sophomores brought the bacon home. The final score was 16 to 14. Erickson featured with three baskets, while Wittenmeier, Kuehn and Bready caged 2 baskets each.

The Line-up:

Sophomores (16)	Position.	Seniors (14)
Juraska, Vickers	R. F.	Bready
Walker, Finkelberg	L. F.	Vogt
Rupprecht, Wittenmier	C.	Erickson
Kuehn	R. G.	Illg
Ahlbeck	L. G.	Seyferlich

Baskets: Erickson (3), Kuehn, Wittenmier (2), Seyferlich, Illg, Ahlbeck, Vickers.

The Juniors and Freshmen met on Nov. 14, 1919. The Freshmen were nosed out 15 to 14 after leading at half time 10 to 9. Nudelman scored 3 baskets for the Juniors while Schumacher scored 2 for the Frosh team. The guarding of both teams was excellent.

The Line-up:

Juniors (15)	Position.	Freshman (14)
Sipple	R. F.	Christensen
Nudelman, Ewin	L. F.	Schumacher
May	C.	Johnson
Havlick	R. G.	Zalewski, Butz
Meilinger	L. G.	Lawson

Baskets: Nudelman (3), Sipple, Johnson, Schumacher (2), Butz, Christenson, May, Havlick. Free throw: Nudelman.

On Nov. 17, 1919, the undefeated Sophomores were defeated by the Freshmen to the tune of 18 to 17. Schumacher and Wittenmeier featured, each scoring 3 baskets. At half time the Frosh led, 8 to 7.

The Line-up:

Freshman (18)	Position.	Sophomores, (17)
Christensen, Butz	R. F.	Kuehn
Schumacher	L. F.	Wittenmeier
Johnson, Christensen	C.	Rupprecht, Rieger
Lawson, Johnson	R. G.	Vickers, Walker
Rotberg	L .G.	Juraska, Finkelberg

Baskets: Schumacher, Wittenmeier (3), Butz, Rieger, Kuehn, Christenson (2), Johnson, Rotberg. Free throw: Wittenmeier.

The championship game was played between the Juniors and Sophomores on Nov. 21, 1919. John Schommer refereed this game, but it was one-sided, the Juniors winning 29 to 13. May, Havlick, Nudelman and Sipple each scored three baskets, while Kuehn and Rupprecht featured for the Sophs. This was a hard fought game and the scrapping Sophs battled to the end. The interclass tournament thus ended with the Juniors as champions.

Candidates for the Tech. Team were immediately called for and practice was held five times a week and before our intercollegiate tournament opened, Volz arranged practice games with the U. of C. and the Y. M. C. A. college.

The Line-up of the Junior-Sophomore Game.

Juniors (29)	Position.	Sophomores (13)
Sipple	R. F.	Juraska, Finkelberg
Ewin, Nudelman	L. F.	Kuehn
May	C.	Wittenmeier, Rupprecht
Havlick	R. G.	Walker, McCafferey
Meilinger, Lyon, Schurman	L. G.	Vickers, Rieger

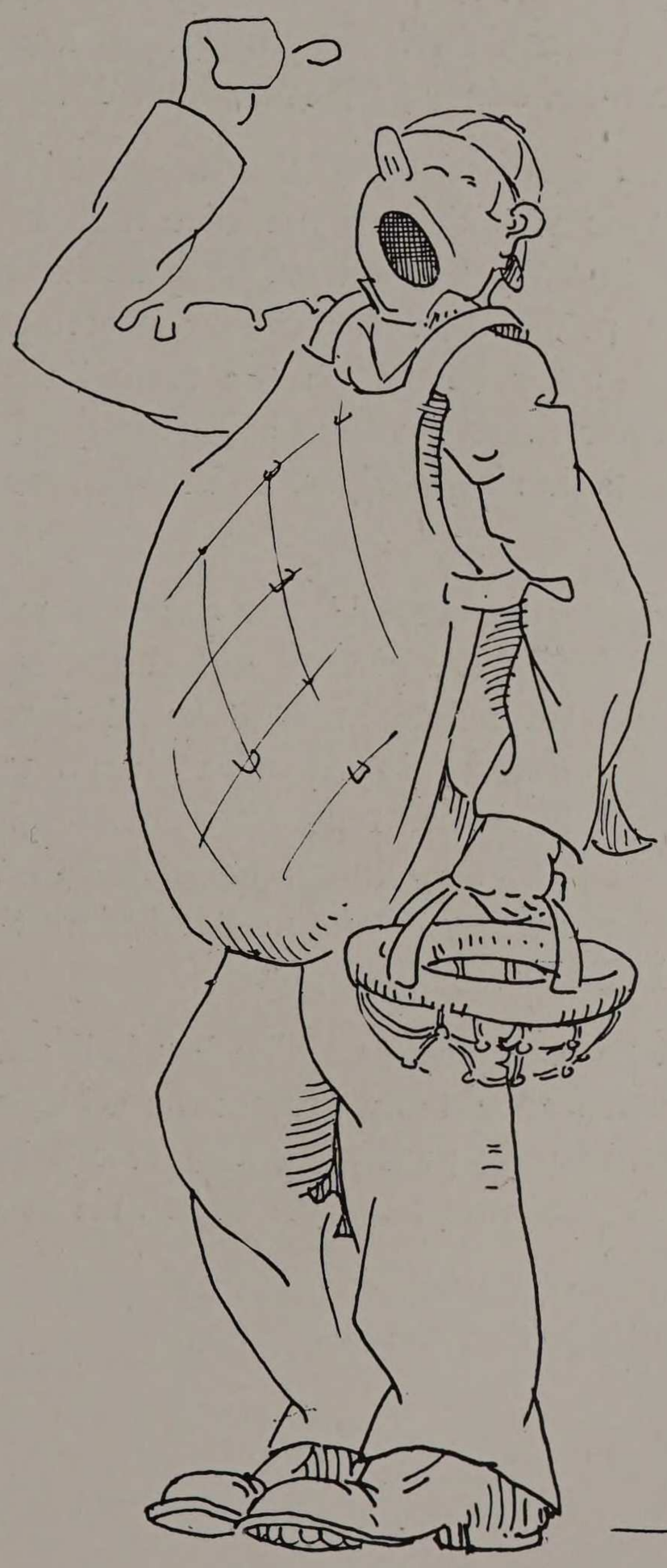
Baskets: Sipple, May, Havlick, Nudelman (3), Kuehn, Rupprecht, Ewin (2), Wittenmeier, Vickers. Free throws: Wittenmeier, Nudelman.

GRANT SCHURMAN LYONS PFAFFLIN

HAVLICK NUDELMAN SIPPEL

WINTER MAY

BASEBALL



-MINKUS-

Baseball

The baseball season of 1920 opened up with a heap of prospects in store for us.

The weather man has not been able to satisfactorily control the elements, hence keeping our men off the diamond, and rebuking even an attempt to invade the outfield. At certain periods of the dark, damp weather which prevailed throughout the entire training season, it seemed as though clouds would make a way for the sun to shine. But our conclusions were naught as we looked on and saw the heavy, careless rain pounding our field out of shape. And so our baseball recruits submitted themselves to a wet-like training, in the face of loose water and hard water, snow and sleet, darkness and thunder, storm and calm, and every conceivable, climatic disadvantage included in the weather-man's repertoire. With a dark sky full of all kinds of happenings that take the heart out of a man, our boys just buckled down to indoor work.

A good many fellows have dodged the attempt to get them out for indoor calisthenics. This was due to the fact that students who have played baseball with local institutions and organizations, registered a laugh when confronted with the proposition for indoor practice. Too many of these self-satisfied candidates for berths on the team have allowed an opportunity to slip through their fingers, which opportunity if taken advantage of would have rounded out their rough edges, and made more humming players of them.

When the first fair weather "occurred," our cleats were immediately dug into the clay. Our men just kissed the ground and almost sprang out of their shoes with joy. And friend Columbus in 1492 could not have manifested greater satisfaction upon his landing in America than our boys had upon their landing in Ogden Field in A. D. 1920. The writer has added to the previous statement the letters A. D. out of his belief that readers should always be given a clear understanding of the matter before them. Therefore, A. D. means ANXIETY DISPLAYED.

Now, we may as well become serious. The baseball material at hand is promising of a team that will undoubtedly protect the athletic standard of the Institute. We have no hesitancy in predicting a more successful season than the baseball traditions of the institute have yet been able to disclose.

The writer takes this opportunity of expressing the sentiment of the general student body in its hopes that the Tech Teams carry on without even a lone defeat.

Yea, Armour!

Squad

Erickson, Capt.	Liu	Grueb
Nudelman, Mgr.	Mooney	Plocar
Bready	Malpede	Zingheim
Van Dyke	Schumacher	Sevick
Desmond	Illg	Gilbertson

The baseball season has made its debut. At this writing, a large number of candidates for positions on the Tech. Team are being drilled in the practical points of the game, as well as running calisthenics and other strenuous physical exercises.

The baseball program has been already formulated, and a list of the games is given below:

Concordia College at Armour, April 13, 1920.
Hillsdale College at Armour, April 16, 1920.
Lake Forest College at Armour, April 17, 1920.
Valparaiso University at Armour, April 19, 1920.
Augustana College at Armour, April 24, 1920.
Valparaiso University at Valparaiso, April 27, 1920.
Lake Forest College at Lake Forest, April 30, 1920.
Michigan Aggies at Michigan, May 3, 1920.
Hillsdale College at Hillsdale, May 4, 1920.
Michigan Aggies at Armour, May 6, 1920.
Knox College at Knox, May 8, 1920.
Beloit College at Armour, May 13, 1920.
Knox College at Armour, May 15, 1920.
Concordia College at Concordia, May 17, 1920.
Augustana College at Augustana, May 19, 1920.
Beloit College at Beloit, May 22, 1920.

We are looking forward to a most successful season in baseball. Our material is promising of a splendid team. The raw material is being rounded into shape for active baseball work during the year Nineteen Hundred Twenty. We trust that Athletics next year will receive the same warm support of the general student body as they had this year.

The Institute closes its books for this season, fully confident that it has kept its record in a manner not susceptible of the least criticism.

On Friday, April 25th, Coach Volz called a meeting of the baseball team for the purpose of electing a captain for the year 1920. The crowd elected "Bill" Erickson unanimously, which showed that the team used very good judgment. The school wishes Bill and his team a successful season.

On the 5th of April, 1920, the Athletic Board met and elected Edward M. Nudelman, who was junior athletic representative, to manage the baseball team for the season of 1920.

The 1919-1920 basketball team elected Spenser Havlick, star guard, to captain next year's basket tossers. The school wishes Manager Nudelman and the baseball team, and Captain Havlick and the basketball team much success.

CAMPUS SCENES

Inter-Class Baseball '19

First Game.

After three days of strenuous training under the direction of "Cap" Seyferlich and Ira Bready, the peppery Junior team felt as though they were ready to face the other three teams in the Inter-Class Baseball Championship Series of 1919. With practically the same men that won the baseball title in both 1917 and '18, and upheld a record of being undefeated, Sey had little trouble in placing them in their most appropriate positions in the line-up and batting order. As most of the men had participated in the inter-class and other basket-ball games, the team, in general, was in first class condition, physically, and, after a most thorough drilling, both in the field and in the art of "swinging the war-club," Sey felt well prepared for his latest undertaking.

The healthy Sophomores were the first victims on the schedule, and in spite of the fact that the Junior sluggers did not hit true to form, and besides, gave their pitcher anything but good support, the Sophs fell before Sey and his mates, 7 to 3.

"Red" Michels started on the mound for the Sophs, but later was relieved by Woods. The Juniors were comparatively slow in getting started, but as the game progressed, it became more and more evident that the "Old heads" would eventually win out.

Sevic and Muelleman led the hitters of the day, with two good wallops each. "Joe" clouted the longest drive of the afternoon when he drove one to deep left-center for two bases.

The hitting in this particular game was 9 to 5, with the Juniors on the long end, while the fielding of both teams was very inconsistent, and was about even.

Second Game.

Ira Bready, the other Junior mainstay, twirled excellent ball in the second Junior victory, which resulted in a score of 13 to 5. After a rather poor start, Ira settled down in the third round and held the Freshman sluggers practically helpless for the remainder of the game.

The Juniors displayed excellent team-work in this game, for besides playing errorless ball, they completed two fast double-plays that prevented further scoring, and hit to the man in the pinches.

Out of the four hits made by the Frosh, three were bunched in the first two innings, and these, together with several walks, produced four of their five runs.

The hard-hitting Juniors wasted neither time nor hits in this game, and demonstrated from the very outset that they were out to win.

Sevic opened the game with a sharp line-drive over the infield, for a clean single. He then stole second, and went to third on Malpede's infield hit. Erickson produced a clean single to center, scoring Sevic and sending Malpede to third. Sey sent a long fly to center, and Dan scored after the catch, making the Junior total two for the inning.

With two gone in the first half of the second, "Shorty" Sevic hit another sizzling liner, for his second single of the day. "Dangerous Dan" Malpede stepped into one of Shea's fast ones and sent the elusive pill on a long journey, scoring Sevic ahead of himself, and putting the Juniors three runs to the good. However, the Frosh refused to be outdone and in their half of the inning, mixed several walks with a hit or two for three runs, tying the count at four all.

The third proved to be the fatal round for Shea and his followers, for, before the smoke cleared away, seven fighting Juniors had crossed the plate, and with Bready getting better as the game went on, all doubt was removed as to the outcome.

In this inning, Sey started "things" with a vicious liner that almost took one of Shea's legs with it, and when the Frosh recovered the ball, Sey was resting on second. Ira was patient, and allowed four wide ones to pass. "Marsh" Gottlieb then made his first hit of the game, in the form a scorching line-drive to deep left-center, whereupon Sey and Ira romped home, while Gottlieb halted at third. "Art" Lyons then followed with a double, sending Gottlieb home. "Joe" Muelleman got his first hit of the game in the form of a clean single. "Swatty" Schwachtgen flied out, but Sevic was there in the pinch as usual, with a clean single, scoring Lyons. "Dangerous Dan", whose homer scored two in the second, leaned on another and sent it to the same region as before, for his second home run of the day, swelling the Junior total to eleven.

As stated above, from that time on there was little doubt as to the outcome, but, just to boost his batting average, Sevic slammed a long triple with two men on the sacks, in the fifth, making the final score thirteen for the Juniors.

In all, the Juniors collected twelve hits, half of which were good for extra bases, while the Frosh, as indicated before, could solve Bready's delivery only four times. In this game the fielding for both sides was of "big-league" caliber. The box-score by innings follows:

	1	2	3	4	5	6	7	R.	H.	E.
Juniors	2	2	7	0	2	0	0	13	12	0
Freshman	1	3	0	0	0	1	0	5	4	2

Two base hits: Lyons, Seyferlich.
Three base hits: Gottlieb, Sevic and Kelner.
Home Runs: Malpede (2).

Third Game.

Having eliminated the Freshman from the Championship race in a close game, 5 to 4, the Sophs made a desperate attempt to come back strong, against the Junior Champs. As the noted Seniors were unable to compete in the series, the third straight and final victory for the Juniors gave them the undisputed championship of the league and school.

On this occasion, Sey and his fighting crew took the confident Sophs into camp to the tune of 14 to 0. The Sophs were helpless before Sey and his two battery-mates, Muelleman and Bready, who handled his fast ones and benders cleverly. Only two hits were made off Sey's delivery, one of them being of the scratch variety, and, as a matter of interest, an accurate account of the game shows that but two balls were hit out of the infield, one of these being a fly that Erick captured after a long run towards the infield. Sey also established several unique records, in that he whiffed fourteen in the seven innings, and on two different occasions retired the entire side by the strike-out route—once on nine pitched balls.

At the start, Mehroff, the first man up for the Sophs, walked and later

went to second on a wild-pitch. "Andy" Anderson followed with a Cincinnati-hit" and Mehrhoff went to third. Right here Sey managed to pull himself out of a hole, when on an attempted "Squeeze play" he fielded Michels' bunt with his bare-hand and threw to the plate in time to retire Mehrhoff. This proved to be the Soph's only chance for a run, for Sey put on "full steam" and whiffed the next two Soph batsmen in order. After that the Sophs did not have a chance, and in spite of the fact that Sey was wild at times, he always had the necessary control in the pinch, and with the high-grade support that he received, retired the Sophs in order before another runner reached second base.

With Ira Bready doing the receiving in the sixth and seventh, Sey put victims on nine pitched balls in the sixth.

The hitting of the Juniors was the hardest and most consistent seen at Armour in some time, for out of their eighteen hits, six were doubles, four were triples, and three were home runs, making a total of twenty-three extra bases out of a total base sum of forty-one.

Out of the three homers made by the Juniors, "Home-Run" Dan Malpede combed two, making his total four for the three games, a record that should stand for some time. Not only did Dan lead in home-runs and total extra-bases, but his timely hits produced over one-third of the Junior runs in the second and third games. Two of his home-runs were made with a pair of Junior runners on base, and another came with one on, so that his homers alone, were responsible for nine runs. Besides these, Dan made two singles and a double at opportune moments in the series, and played a "whizz" of a game at first base.

Neither team could score in the first, and with Sey and Woods going strong, it appeared as though the game were going to be one of those long drawn-out affairs.

However, certain things occurred in the last half of the second and third that would have convinced even the most skeptical that the Juniors were in a class by themselves.

With Malpede out of the way in the second, Woods became a trifle' "shaky" and walked Bready. Sey signalled Ira for the hit-and-run, and sent the first ball pitched to right-center for two bases, Ira stopping at third. Gottlieb scored both runners with a pretty line-drive to left-center, also a double, but Marsh tried to make third on the hit and was out.

In the third, Joe Muelleman started the "ball-a-rolling" with a line to left for three bases. "Bobby" Illg walked, and immediately stole second. Sevic and Erick could not produce this time, but "Home-Run" Dan lived up to his name, and knocked the ball far over the left-fielder's head for a home-run, scoring Muelleman and Illg ahead of himself.

With the Sophs fighting harder than ever, the Juniors came right back in the fourth with three more runs. Sey, the first man up, slammed his second double to center. Gottlieb again came through in the pinch and lined one over second for a single, Sey scoring on the hit. "Art" Lyons caught a hold on one, and sent it in the neighborhood of Malpede's home-run "garden," and before the Soph outfielders could recover the ball, Art circled the bases and headed for the ice-water.

There wasn't much "doing" in the fifth, except Malpede's fourth home-run of the series, which, as far as we know, wasn't any shorter than any of the other three that disappeared from view.

In the first half of the sixth, Bready donned the mask and chest-protector in order to hurry things a little, and Sey put on "full-steam" on the rubber. Exactly nine balls were pitched, and each one seemed to stay shy of the bat, for before any of the Sophs could connect, the side was retired by the strike-out route.

The Juniors "cut loose" with their final terrific dive in the home sixth. Gottlieb doubled and so did Lyons. Muelleman grounded to short, who threw wild to first, Lyons scoring and Joe going to second. "Bobby" Illg sent a scorching line-drive to right-center for three bases, sending Joe in. Sevic was retired, pitcher to first, but "Big Bill" Erickson met one square on the "nose" for another triple, scoring Illg. "Home-Run" Dan Malpede, who wasn't satisfied with the damage already inflicted, slammed a double over third, scoring Erick. Ira payed his final respects of the season with a line-drive straight at the pitcher's head. Sey then put an end to the catastrophe by sending the ball straight up to the clouds, ending the inning, and the scoring for the day as well as the series.

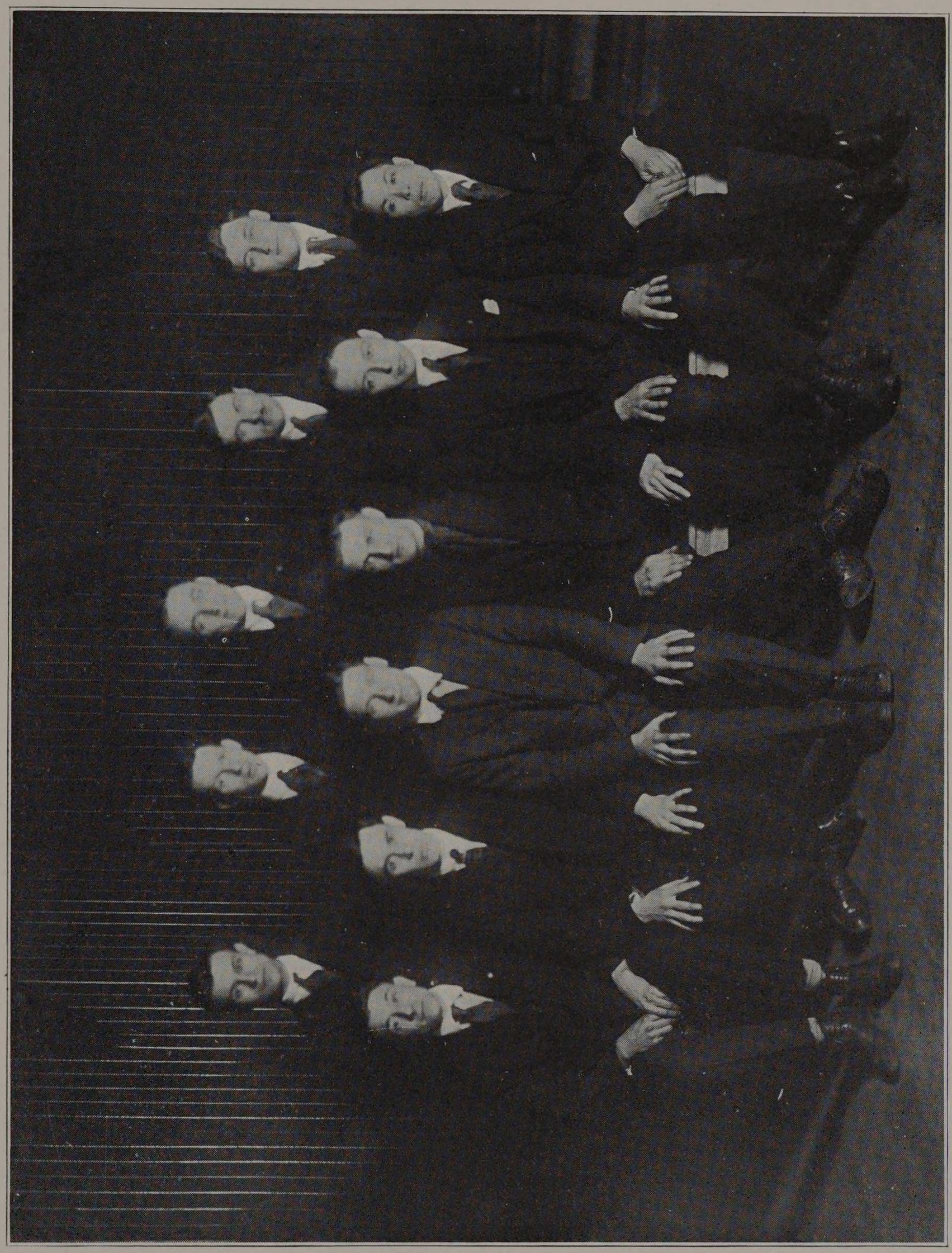
The Soph's last stand was more or less a repetition of their sixth, as three men fell victims of Sey's quick delivery, in spite of the fact that the first man up walked and the second singled. Thus, one of the most interesting and decisive games ever seen on the campus ended with one of the best batteries even seen in such a series playing the leading role, and supported by one of the hardest hitting aggregations ever seen at Armour. The box-score:

Third and Final Game.

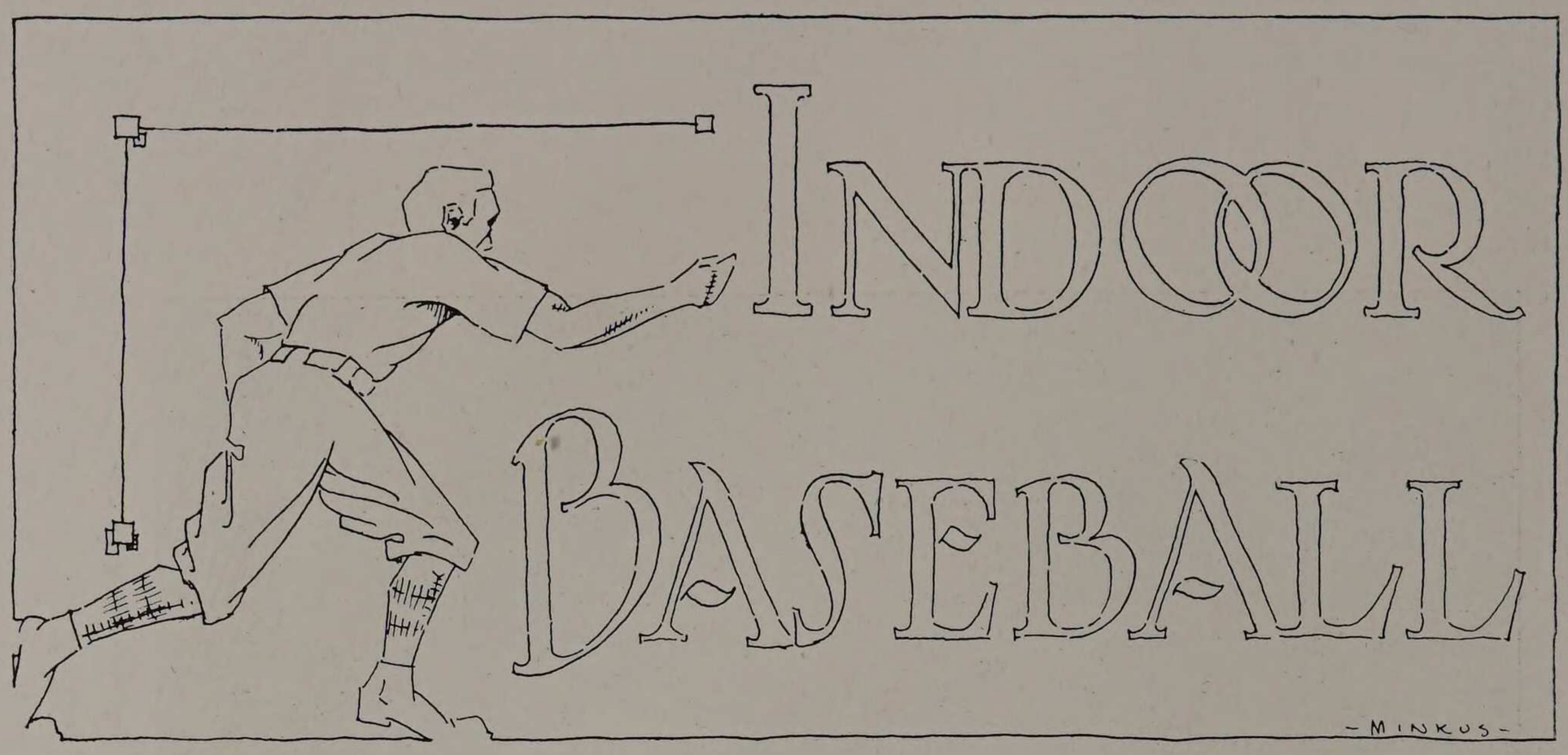
Sophomores—	AB.	R.	H.	E.	*Juniors*—	AB.	R.	H.	E.
Mehrhoff, cf.	2	0	0	0	Illg, rf.	3	2	1	0
Anderson, c.	3	0	1	0	Sevic, ss.	4	0	2	2
Michels, 2b.	4	0	0	0	Erickson, cf.	4	1	1	0
Plocar, 1b.	4	0	0	1	Malpede, 1b.	4	2	3	0
Burke, lf.	3	0	0	1	Bready, 3b. & c.	3	1	2	0
Woods, p.	3	0	1	0	Seyferlich, p.	3	2	2	0
Sipple, 3b.	3	0	0	1	Gottlieb, 2b.	4	2	3	0
Van Valzah, ss.	3	0	0	1	Lyons, lf.	4	2	3	0
Isaacs, rf.	1	0	0	1	Schwachtgen, lf.	0	0	0	0
Strehlow, rf.	1	0	0	0	Muelleman, c. & 3b.	3	1	1	0
Totals	27	0	2	5	Totals	32	14	18	2

	1	2	3	4	5	6	7	R.	H.	E.
Sophomores	0	0	0	0	0	0	0—	0	2	5
Juniors	0	2	3	3	1	5	x—	14	18	2

Two-Base Hits: Malpede, Seyferlich (2), Gottlieb (2), Lyons.
Three-Base Hits: Sevic, Illg, Erickson, Muelleman.
Home Runs: Malpede (2), Lyons.
Struck Out: By Seyferlich, 14; by Woods, 4.
Bases on Balls: Off Seyferlich, 5; off Woods, 3.
Time of Game: 1 hour and ten minutes.
Umpire, Kuehn.



MALPEDE LYON ERICKSON STEVERS MUELLEMAN
SCHWACHTGEN ILLG BREADY SEYFERLICH GOTTLIEB LIU



INDOOR BASEBALL, 1919.

In the first outdoor indoor baseball tournament held at Armour for years, the Freshmen, after a hard and interesting fight, captured the honors, and received the championship awards in the form of numerals.

Although the Freshmen fell before Nudelman and his Juniors in the first game of the series, they came back strong in the remaining games with a clear slate. For once the Seniors were outdone, and although several of the games were played under the most peculiar circumstances (rain, etc.), the Freshmen nevertheless should be accredited with all the honors due them.

In their second victory over the Seniors, the Freshmen played one of the strongest defensive games of the series. With the fighting Seniors extending themselves to the limit of their ability, the Freshmen time and again pulled their hurler out of a hole. In one particular instance two long drives were captured by Frosh outfielders, off the bats of Seyferlich and Bready, with two men on the sacks. The final score of this battle was 5 to 4, and the game was not over until the last man as out.

In the final game of the series, the one that gave the Freshmen the title, two extra innings were required before a decision was reached. With Van Dyke on the mound for the Frosh and going in great style, the Sophs were unable to penetrate the Frosh defense and until the eighth inning no Sophomore had reached first. Diefenbach likewise was going strong, for, although he was not effective as Van Dyke, yet he found himself in the pinches, and managed to hold the Frosh sluggers at bay.

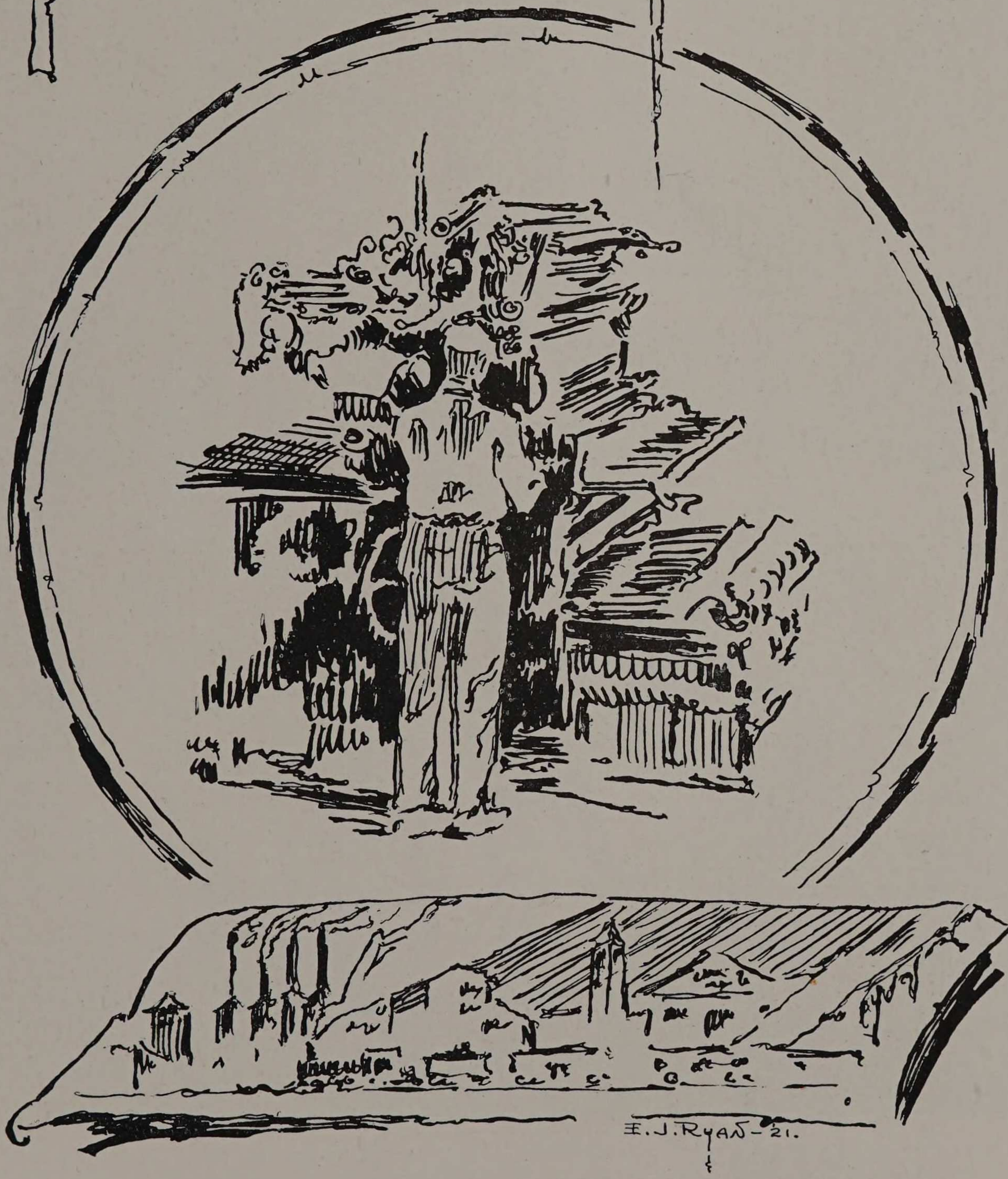
Neither side had scored until the ninth, when in the first half two walks and a single by Desmond of the Sophs produced their lone tally of the afternoon.

However, the Frosh came right back in their half, with the aid of a walk, a single and a two-bagger by Van Dyke, the score was tied and the ump was signalled for a further extension of time.

After retiring the Sophs in short order in their half of the tenth, the Frosh sluggers, led by Kelner, put the finishing touches to the game. Kelner's single, immediately followed by a walk, and a timely hit by Schumacher, combined with an error by "Muffem Snodgrass" Walker, resulted in the deciding run for the Freshmen, and brought the "bacon" home to the Frosh for the first time since 1916.

VAN DYKE — STANTIAL — O'BRIEN — ARKEMA
MOONEY — DELEVITT — MORGAN — LIBMAN
KELNER — BRADLEY — SCHUMACHER — ROTHBERG

PUBLICATIONS



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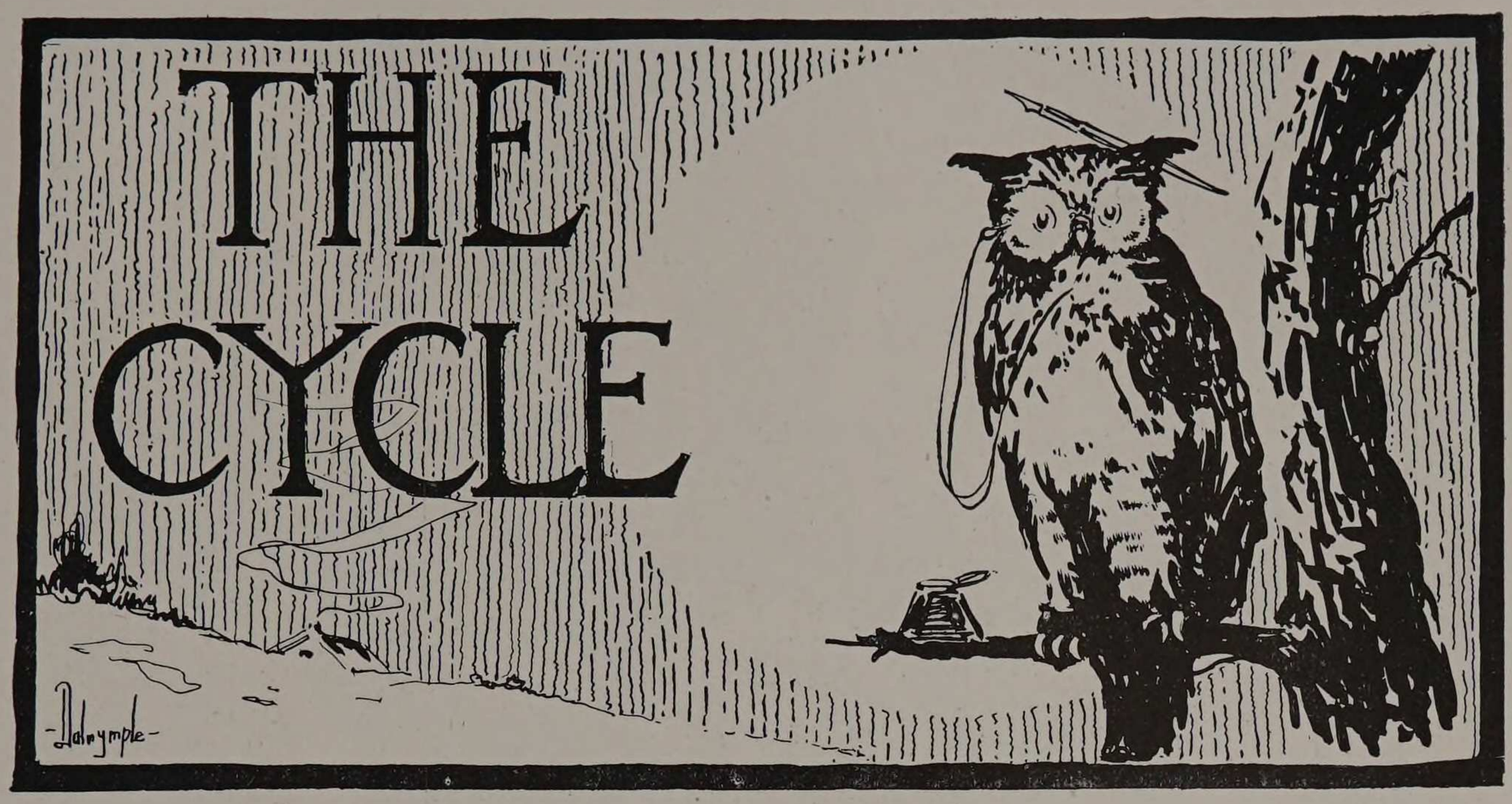

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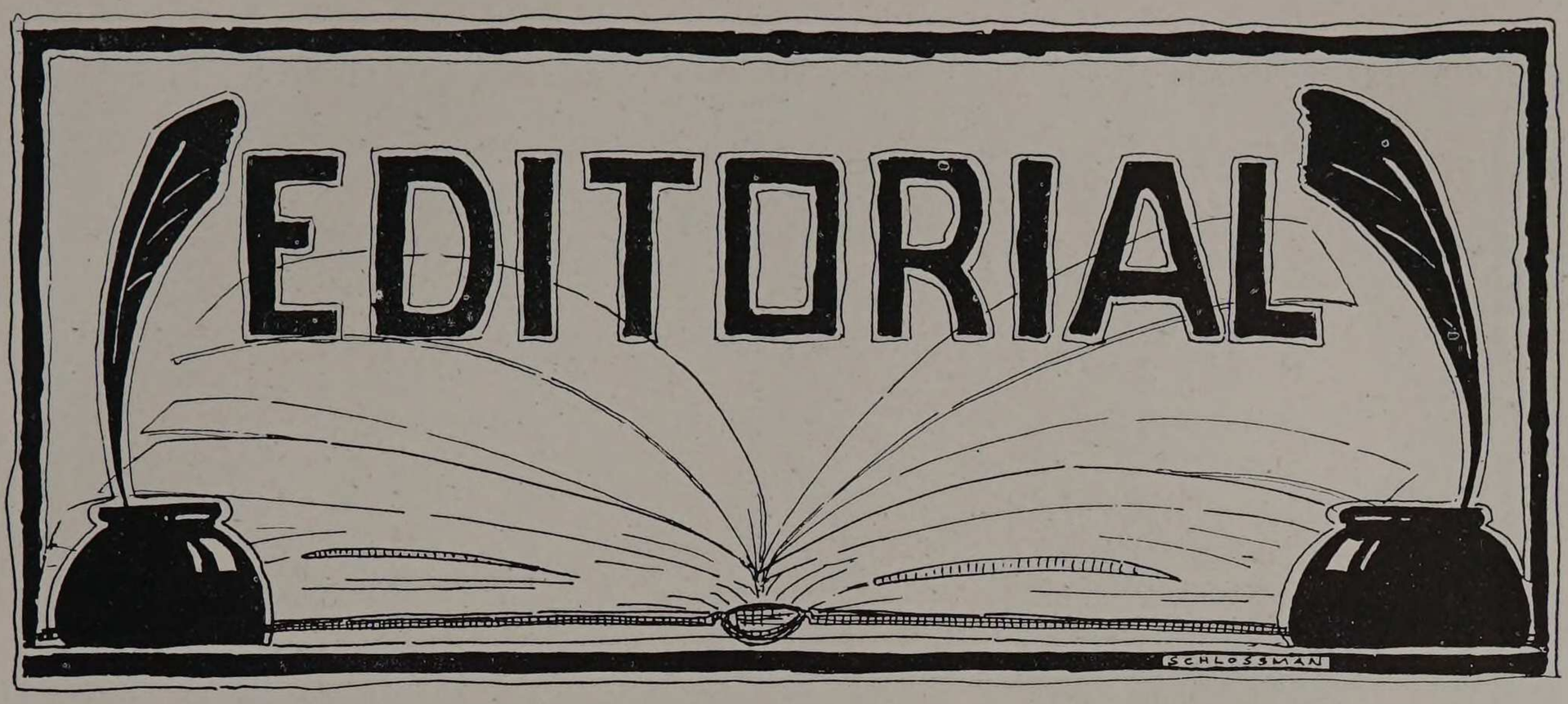

OUR aim in the 1920 Cycle was to make this edition a complete record of the events of life at Armour Institute during our Junior year.

We have tried to depict all phases of activities about the Institute which would be of interest to all; to recall and fix in the minds of Faculty and students the passing events of the year; to keep the Alumni informed of the progress of their Alma Mater, and bring back to them the memories of other years; and to picture to our friends everywhere the more intimate life of the school.

We wish to expresss our indebtedness to the Bloom Studio, the Jahn & Ollier Engraving Co., and The Severinghaus Co. for their efforts in making the success of this book possible. To the Cycle Board, we wish to extend our hearty thanks for the pride and interest they have taken in making this book.

To the following, the 1920 Cycle staff wish to express their sincere appreciation for the interest they have shown and the encouragement they have given:

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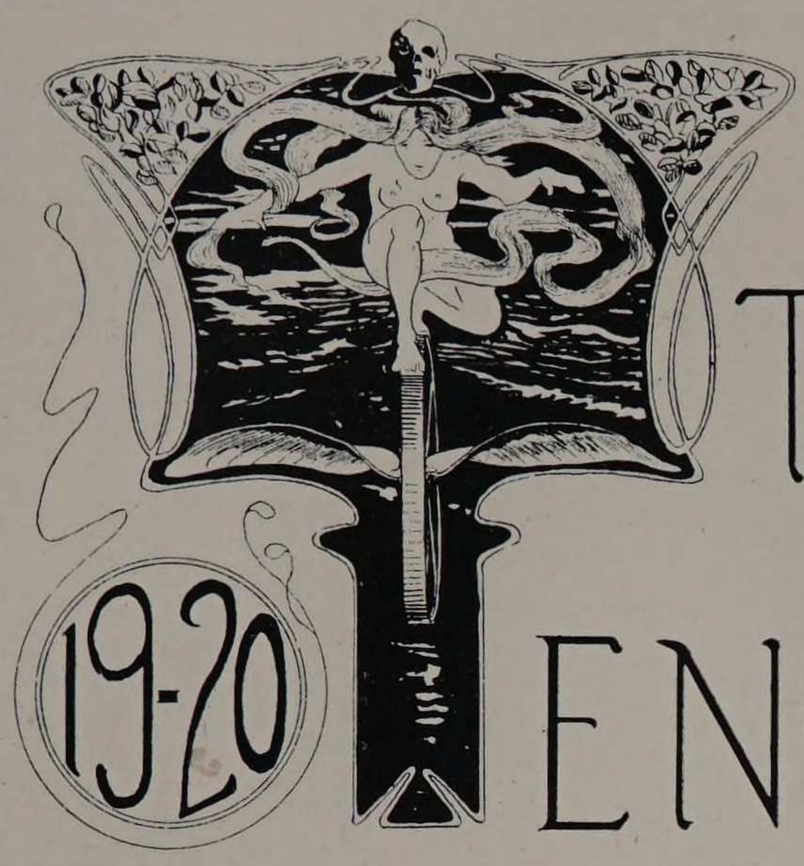

The Armour Engineer

1919-1920

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With the arrival of normal conditions of affairs, the year 1919 sees again the publication of the Armour Engineer, after a lapse of one year during which time publication was suspended in order to give way to more important military matters of the day. The May, 1920, issue will complete Volume XI of the Armour Engineer and the omission will be noticeable in the sequence of yearly dates but not in the volume numbers. With the success and influence built up by previous issues in mind, the present staff undertook to maintain and uphold the established standards and precedents of the journal, and to take up the work where it was laid down by the previous staff.

In bringing the Armour Engineer back to its former status among engineering publications, the staff realized the hearty co-operation extended by the Alumni, the faculty, the students of the Institute. The aim has been to bring the Alumni into closer relationship with the Institute activities and with one another, and at the same time to form concrete ideas for the students of the work successfully engaged in by the Armour graduates. The Alumni section acts as a news agency among the graduates of the Institute. Here are listed the various activities and pursuits of the Armour Alumni. The College Activities section keeps the readers in touch with the events occurring on the campus and is of a "newsy" nature.

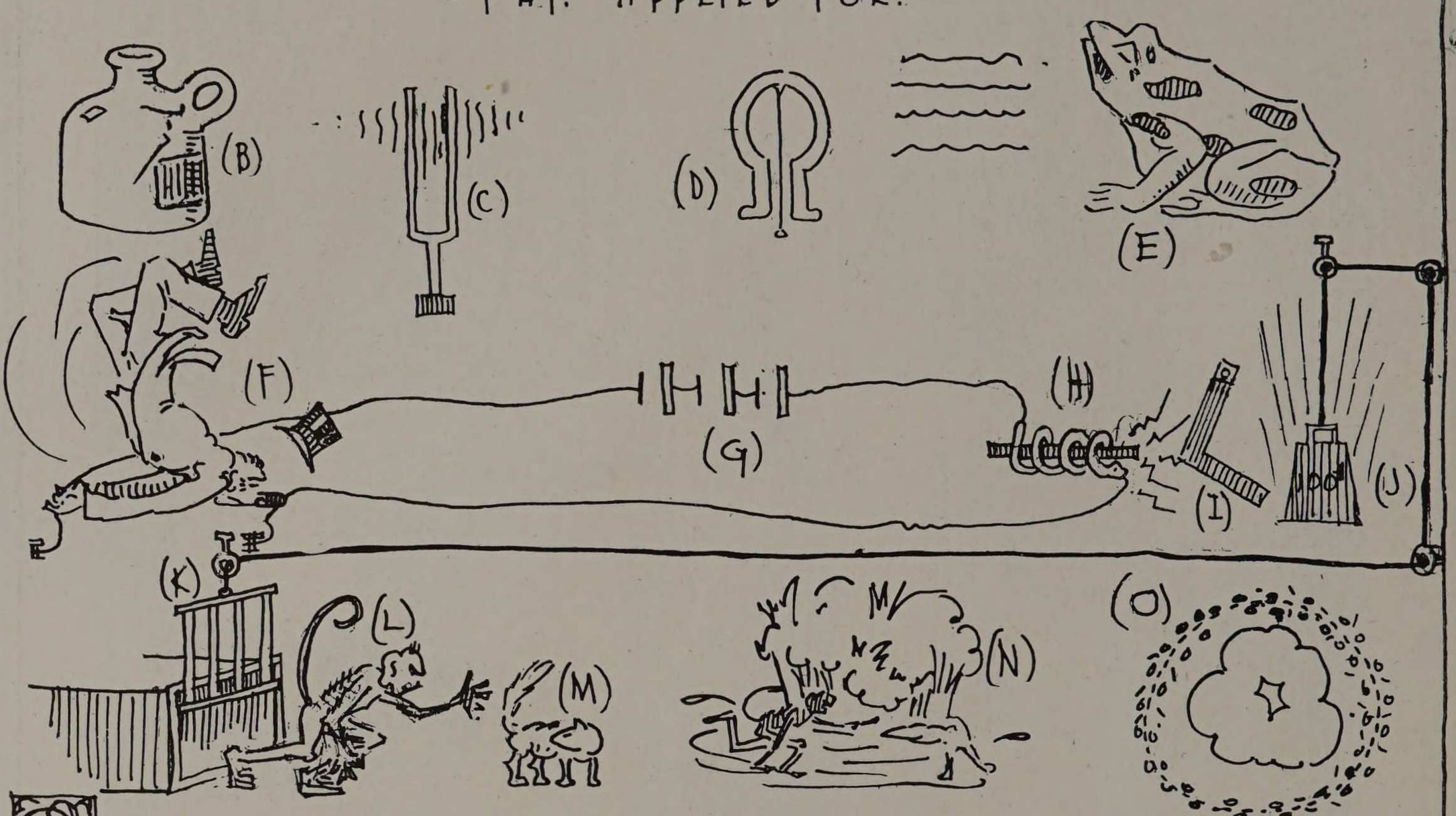
The editors of Vol. XI wish to express their deep appreciation for the many valuable suggestions received from Dean Monin and Dean Raymond; and for the support and contributions tendered by the Alumni, faculty, and students of Armour Institute.

· MODERN · INVENTIONS ·

WITH PROFUSE APOLGIES TO - GOLDBERG

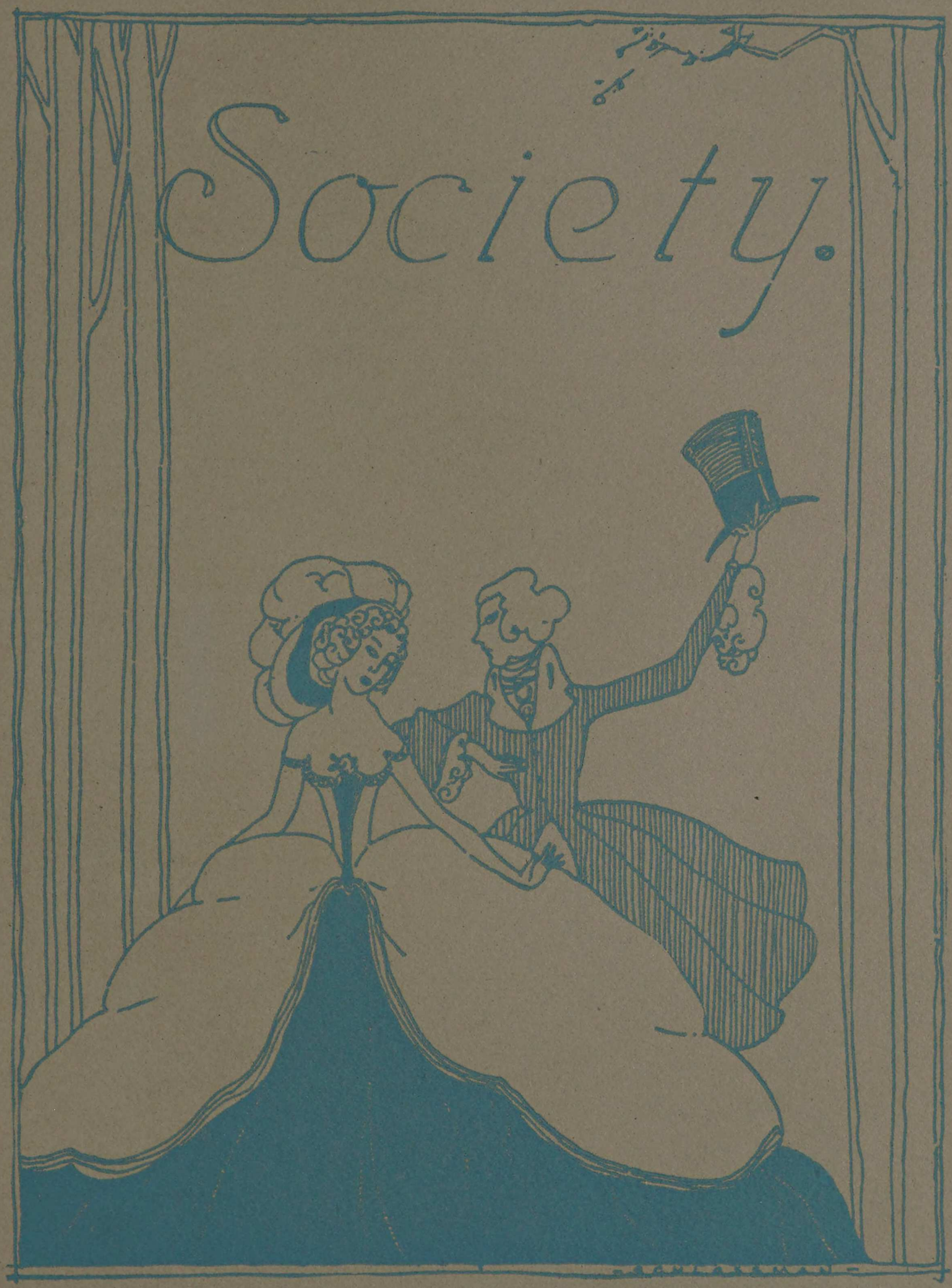
- HOW TO DRAW A CIRCLE ACCURATELY -

- PAT. APPLIED FOR. -



DROP RAISIN (A) INTO BOTTLE OF SWEET CIDER (B) CIDER GETS HARD AND PICKS FIGHT WITH TUNING FORK (C) WHICH IN FEAR VIBRATES. VIBRATIONS SET UP ARE TAKEN UP SYMPATHETICALLY BY JEWS HARP (D). FROG (E) HEARS SAD MUSIC AND CROAKS. UNDERTAKER (F) RUSHING TO SCENE TRIPS OVER STRING AND COMPLETES CIRCUIT (G) FISHWORM IS ELECTROCUTED AND IN ITS AGONY COILS ITSELF AROUND IRON CORE FORMING SOLENOID (H) SOLENOID ATTRACTS SUPPORT (I) ALLOWING WEIGHT (J) TO FALL, WHICH LIFTS GATE (K) ALLOWING MONKEY (L) TO ESCAPE. MONKEY SPIES WEASEL (M) AND CHASES IT AROUND MULBERRY BUSH (N) BY DRAWING A SMOOTH CURVE THROUGH FOOTPRINTS (O) A PERFECT CIRCLE IS FORMED. — LITTLE + SCHLOSSMAN + MINKU-

Society.



SOCIAL CALENDAR

Sept. 1	Ohr Banquet—Great Northern Hotel.
3-4-5-6	Beta Phi Convention—LaSalle Hotel.
5	Beta Phi Theater Party and Dance—Morrison Hotel.
6	Beta Phi Alumni Smoker—LaSalle Hotel.
8	First semester begins.
12	Delta Tau Delta Reception Smoker.
19	Freshman Handshake.
	Omega Lambda Smoker.
26	Sigma Kappa Delta Smoker.
	Phi Kappa Sigma Dinner Party—Mandarin Inn.
30	A. Ch. E. S. Smoker.
Oct. 1	Mass Meeting.
3	Delta Tau Delta Dance.
4	Sigma Kappa Delta Dance.
10	Tau Beta Pi Smoker.
	Omega Lambda Dance.
14	Eta Kappa Nu Dinner and Smoker.
	Beta Phi Holloween Party.
17	Phi Kappa Sigma Dance.
21	Ohr Pledge Smoker.
24	Sigma Kappa Delta Dance.
31	Eta Kappa Nu Halloween Party—Hamilton Park.
	Omega Lambda Pledge Smoker.
	Delta Tau Delta Theater Party.
	Phi Kappa Sigma Dinner Party—Mandarin Inn.
Nov. 1	Delta Tau Delta Pledging Smoker.
7	Senior Dance—Edgewater Beach Hotel.
12	Ohr Theater Party.
12-13	Sigma Kappa Delta Initiation and Banquet.
	Omega Lambda Initiation and Banquet.
14-15	Eta Kappa Nu Initiation and Banquet.
21	Delta Tau Delta Thanksgiving House Dance.
	Sigma Kappa Delta Thanksgiving House Dance.
22	Tau Beta Pi Initiation and Banquet.
	Eta Kappa Nu Theater Party.
23	A. A. S. Initiation and Smoker.
Dec. 1	Beta Phi Smoker.
12-13	Ohr Initiation and Banquet.
12	Delta Tau Delta Dance.
	A. A. S. Smoker.
31	Eta Kappa Nu Halloween Party—Hamilton Park.
19	Phi Kappa Sigma Dinner Dance.
20	Ohr Dance—Blackstone Hotel.
Jan. 9	Sophomore Dance—LaSalle Hotel.
	Delta Tau Delta Annual Prom—Blackstone Hotel.
15	A. A. S. Theater Party.
23	Ohr Smoker—Great Northern Hotel.
24	Phi Kappa Sigma Smoker.
28	Eta Kappa Nu Theater Party.
30	Ohr Smoker—Great Northern Hotel.
	Omega Lambda Smoker.
	Sigma Kappa Delta Smoker.

Feb. 7	Junior Dance—Morrison Hotel.
12	Tau Beta Pi Alumni Banquet—Morrison Hotel.
13	Delta Tau Delta Faculty Smoker.
15	Eta Kappa Nu Card Party.
21	Omega Lambda County Fair Party.
22-23	Initiation and Banquet.
	Conference Smoker and Banquet.
28	A. T. A. Dance—Aviation Club.
Mar. 2	Tau Beta Pi Smoker.
3	Eta Kappa Nu Pledge Dinner and Smoker.
4	Beta Phi Smoker.
5	Ohr Banquet.
5-6	Omega Lambda Initiation and Banquet.
12-13	Sigma Kappa Delta Initiation and Banquet.
16	Tau Beta Pi Smoker.
17	Tau Beta Pi Banquet—Great Northern.
19	Sigma Delta St. Patrick's Party.
20	Beta Phi Initiation.
26	Senior Dance—LaSalle Hotel.
April 1	Sigma Kappa Delta Dance.
3	Omega Lambda Dinner Dance—Stratford Hotel.
4	Delta Tau Delta Easter Tea.
6-7	Glee and Mandolin Club Concert—Central Music Hall.
7	Delta Tau Delta Dance.
8	A. A. S. Annual Mardi Gras—Art Institute.
9	Freshman Dance—Auditorium Hotel.
	Phi Kappa Sigma Formal Dance—Blackstone.
9-10	Eta Kappa Nu Convention—Columbus, Ohio.
16	Omega Lambda Faculty Smoker.
	Sigma Kappa Delta Faculty Smoker.
23	Sophomore Dance—Hyde Park American Club.
	A. A. S. Dinner and Smoker.
30	Phi Kappa Sigma Dance.
May 3	Junior Banquet—Aviation Club.
4-5	"Lucky Seventh" Junior Play—Central Music Hall.
6	Circus Day—Ogden Field.
7	Junior Prom—Congress Hotel.
13	A. I. E. E. Smoker.
14	Sigma Kappa Delta Initiation.
15	Ohr Dinner Dance—Stratford Hotel.
15	Sigma Kappa Delta Alumni Banquet—Great Northern.
	Phi Kappa Sigma Smoker.
16	Delta Tau Delta Reception.
21	Ohr Initiation and Banquet.
	Sigma Kappa Delta Annual Dance—Cooper Carlton.
	Eta Kappa Nu Card Party and Smoker.
22	Phi Kappa Sigma Smoker.
	Delta Tau Delta Formal Dinner Dance—Beverly Hills Country Club.
23	Baccalaureate Sermon.
25	Eta Kappa Nu Farewell Banquet.
26	A. I. E. E. Banquet.
27	Commencement Exercises.
29	Second Semester Ends.

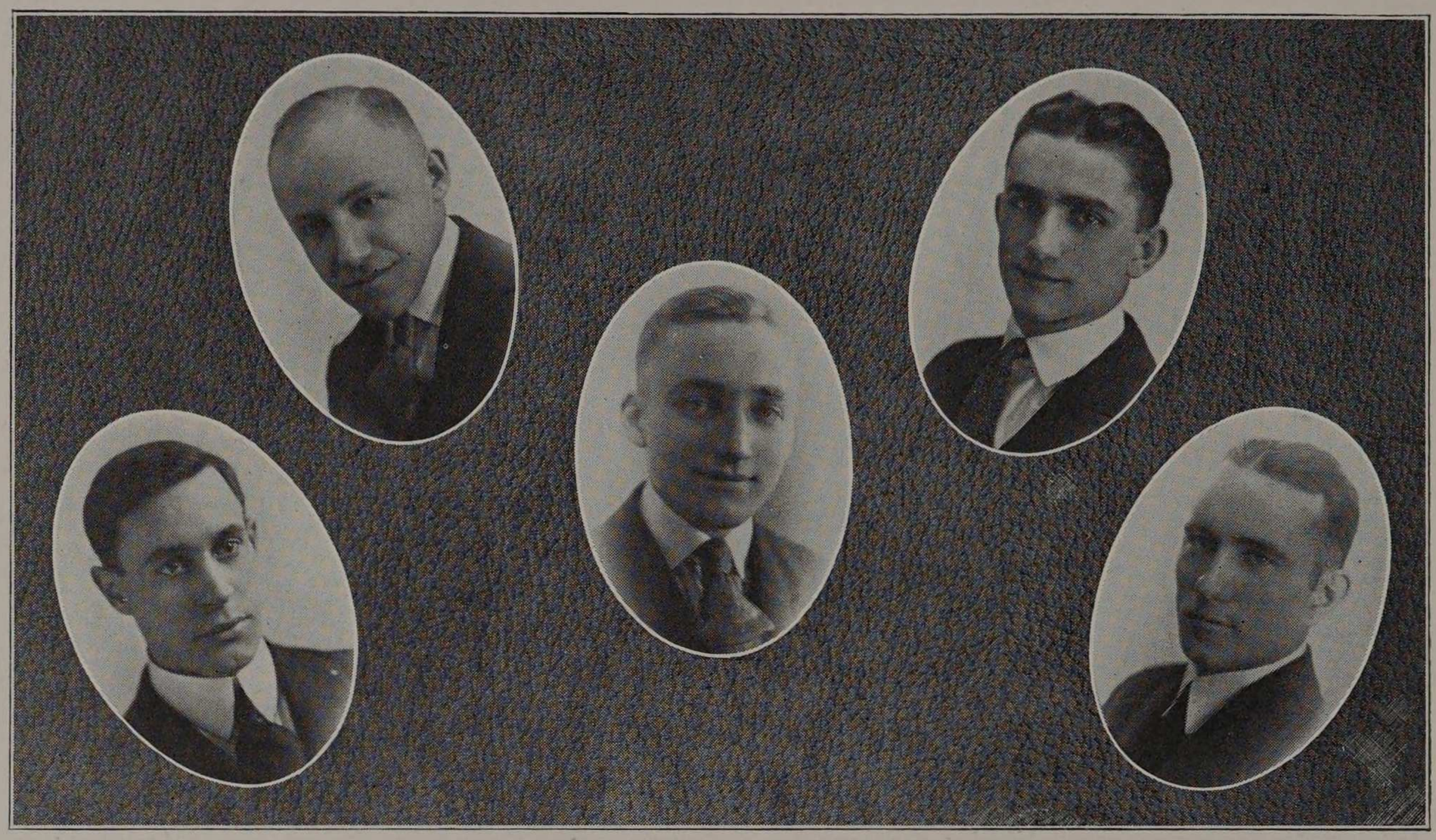
INSTITUTE CALENDAR

1919

June 23	Monday . . .	Summer Session Begins.
August 1	Friday . . .	Summer Session Ends.
September 4	Thursday . .	Entrance Examinations.
September 8	Monday . . .	First Semester of the College Year 1919-1920 Begins; Registration Day.
October 6	Monday	Evening Classes (First Term) Begins.
Nov. 27 and 28	Thursday and Friday	Thanksgiving Holidays.
December 12	Friday . . .	Evening Classes (First Term) End.
December 15	Monday . . .	Evening Classes (Second Term) Begin.
Dec. 22, 1919 to January 3, 1920, inclusive	. . .	Midwinter Recess.

1920

January 24	Saturday . . .	First Semester Ends.
January 26	Monday . . .	Second Semester Begins.
February 12	Thursday . .	Lincoln's Birthday, a Holiday.
March 5	Friday . . .	Evening Classes (Second Term) End.
March 8	Monday . . .	Evening Classes (Third Term) Begin.
April 2	Friday . . .	Good Friday, a Holiday.
May 14	Friday . . .	Evening Classes (Third Term) End.
May 23	Sunday . . .	Baccalaureate Sermon.
May 27	Thursday . .	Commencement Exercises.
May 29	Saturday . . .	Second Semester Ends.
June 21	Monday . . .	Summer Session Begins.
July 30	Friday . . .	Summer Session Ends. Entrance Examination.
September 9	Thursday . .	First Semester of the College Year
September 13	Monday . . .	1920-1921 Begins; Registration Day.



STERN HERTWIG

ILLG ERICKSON ANDERSON

Senior Dances

The social season at Armour had an auspicious opening on the evening of November 7, when the Senior Class held its first dance in the Colonial Room at the Edgewater Beach Hotel. The dance was very well attended and the Colonial Room was filled with a happy throng of Armourites. The orchestra furnished good music and altogether it was a most enjoyable affair.

The Seniors not being satisfied with one dance decided to give another. Therefore on March 26th, a second dance was held in the Gold Room at the LaSalle Hotel.

This dance surely was a congenial and wonderful party, due to good music and to lack of crowding on the floor. If you should ask any of those fortunate enough to attend, "Which has been the best dance of the year"? the answer will invariably be, "The Senior dance at the LaSalle."

Thus the Senior class gave its last dance, still living up to the reputation it has established during its four year career at Armour, of giving wonderful dances. Special credit is due Messrs. Erickson, Hertwig, Anderson, Stern and Illg, who compose the Social Committee, and who by their efforts added much to the success of the final social effort of the class of 1920.

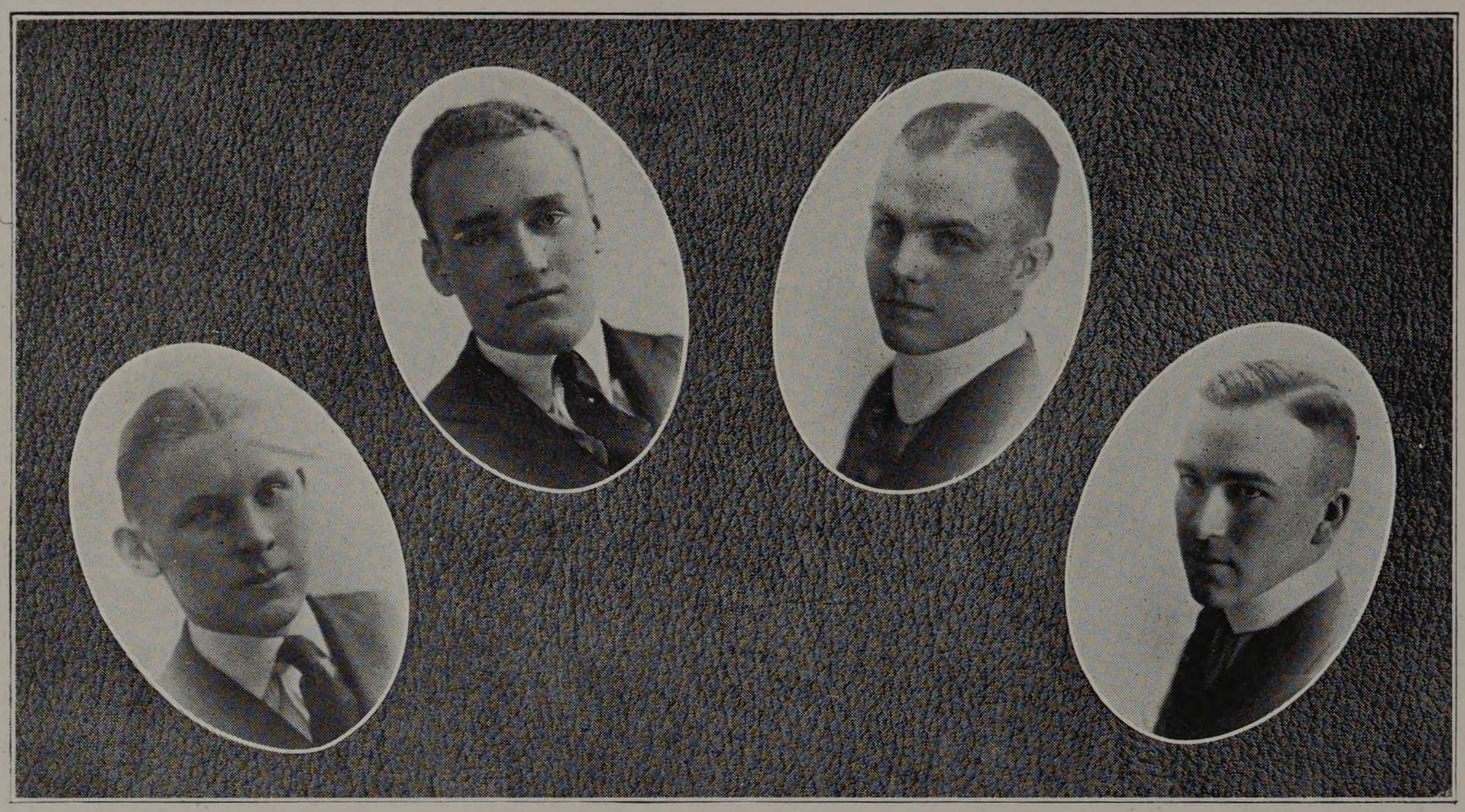
PFAFFLIN
SCOTFORD
PETERSEN
SPITZGLASS
SIPPEL

Junior Dance

Of course, in view of the fact that the class of '21 was the sponsor of the dance held at the Morrison, on Feb. 7, 1920, that's nuf sed. But for the enlightment of those poor unfortunates whose evil genii brot to pass that woeful state of affairs culminating in an inability to attend, I will say they missed some time!

"Pete" put it over in true Armour fashion in spite of the trouble the Juniors had in getting a date. "Spitz" got the band, and some band! Jazz from them. Harry's songs, the girls, the place, everything went to make the Junior Dance a social triumph.

Messrs. Peterson, Spitzglass, Pfafflin, Scotford, and Sipple, the social committe, were responsible for the good time, and deserve much praise for their efforts, but promise to outdo themselves at their next crawl, the Junior Prom.



PETERSON HEYNS WALKER HOCHRIEN

Sophomore Dances

The past season was an ambitious one for the Sophs, who extended their activities to running two dances.

Their first venture was held on the evening of Jan. 9, 1920 in the Louis XVI Room, in the Hotel LaSalle. Jimmy Carson and his band were the source of inspiration to the dancers, and made everybody sorry that the ever-inevitable strains of "Home Sweet Home" should have to put an end to the gay evening.

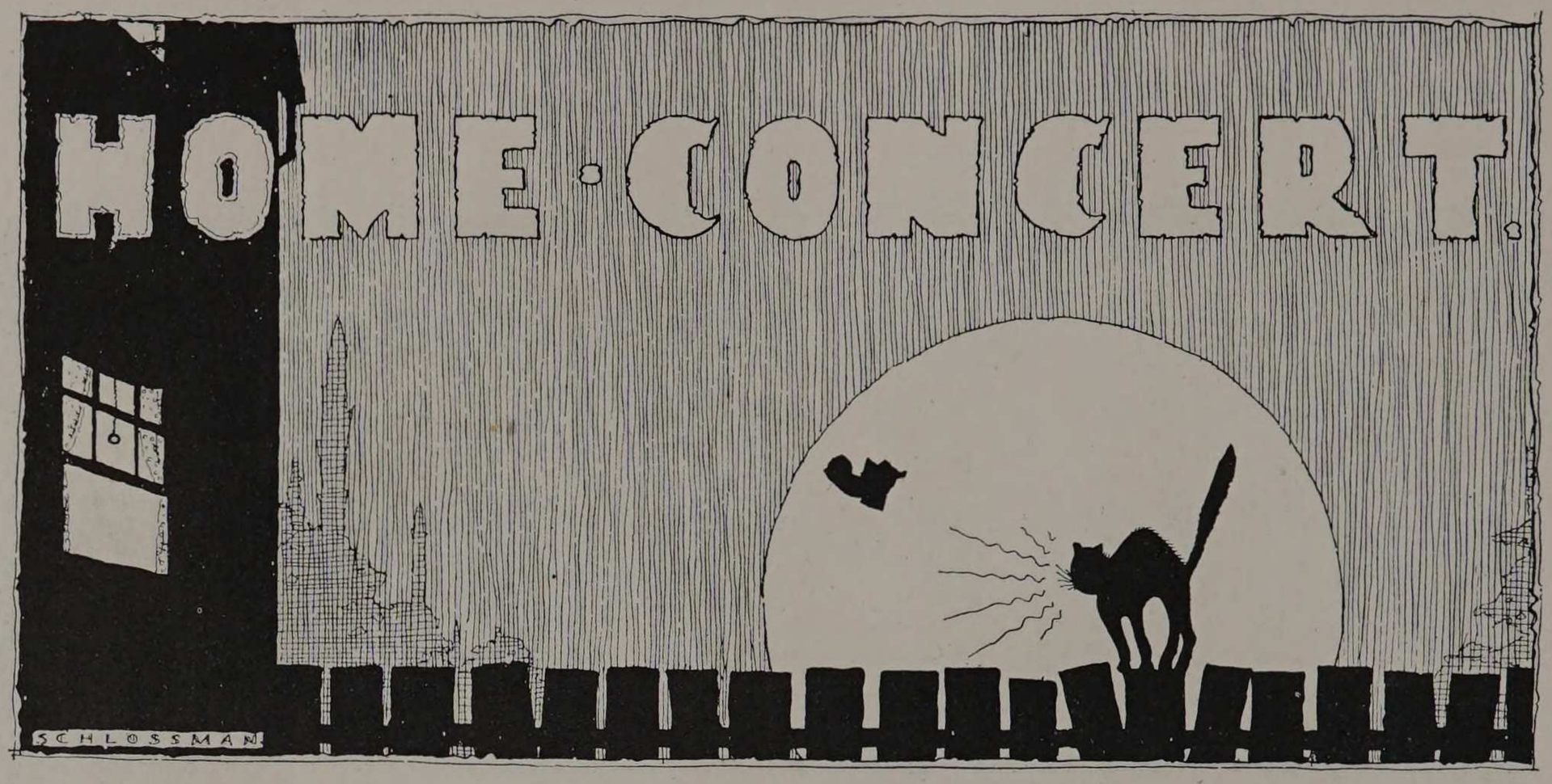
The Old Colonial Club, now known as the Hyde Park American Club, was the scene of the second Soph dance. Everybody remembers this hall as a favorite spot for our dances in pre-war times, and on April 23, 1920, Armourites renewed their acquaintance, in one of the social successes of the year. Messrs. T. Walker, Hochrien, H. A. Peterson, Heyns, and Williams, the social committee.

The success of the dances is due in great measure to the good work of

NUTT HIX HILLIKER CROWE GRUBE

Armour Freshman Prom

One of the big social hits of the season was the Armour Freshman Prom, which was given at the Auditorium Hotel, the ninth of April. The Freshmen tried to be a little more original in the manner in which they ran their dance, and had two main features. They not only had dancing until one o'clock, but they had music by Paul Biese's Novelty Orchestra. Paul Biese, who is considered the best saxophone player in the city of Chicago, was the big hit of the evening. Much credit must be given to our president, Bob Bradley, for securing the music for us, which was, no doubt, the cause of the success of the dance. The following men of the Freshman class are on the social committee: Chairman, Fred W. Hilliker, John Crowe, Merle Nutt, Lester Grube, Maurice Hix, Clarence Nicklin.



AFTER many weeks of constant practice the Clubs were ready for the big event of the year, the "Home Concert." The Concert was given at the Central Music Hall on Tuesday and Wednesday nights, April 6th and 7th. At first it was decided to give the concert on Wednesday night only but the demand for seats was so pronounced that it was given on Tuesday and Wednesday nights, April 6th and 7th. The concert was a great success and speaks well for the work of both clubs and its leaders.

The Glee Club opened the program with "America Triumphant" and then sang "Upward and Onward Armour," the old campus song of A. I. T. The Syncopators then took a hand in the program and gave one of their usual good selections. The quintette, Messrs. Smith, Lowe, Kirkhuff, Busbey and Geisler, entertained next and they surely made what is termed "a hit." The Glee Club sang "Wake, Miss Lindy" and were immediately followed by Messrs. Jones, Hall and Peterson with their Antique Banjo Lyrics. This number on the program was a very great success and the boys were quite exhausted from giving encores. The Syncopators played again and had the audience wishing for a dance floor, so effective was their music. The first part of the program ended with H. E. Anderson starring, and assisted by the Glee Club singing "Leap for a Man, Girls, It's Leap Year."

The Glee Club sang "On the Road to Mandalay" as a starter for the second half of the evening's entertainment. Mr. Thompson and Miss Krumhaar gave a variety of selections which were heartily applauded by the audience. The next number was a colored sketch by Messrs. Marks and Erickson which had the spectators literally lying out in the aisles. The syncopators entertained next with a bundle of music that was beyond comparision, and then came the "Broadway Trio", Michels, Hertwig and Spitzglass, which alone was well worth the price of admission. Tho not professionals they have their ways, as will be vouched for by all those who were there to see and hear them, and they would have favored the audience with another number had it not been, as Michels said, the Tribune reporter wanted a write-up of the act.

The evening's entertainment was concluded with both clubs on the stage, singing and playing some popular songs.

The Freshman Handshake

THIS year's Annual Event—"THE FRESHMAN HANDSHAKE"—was beyond a doubt, the most successful one the Armour Y. M. C. A. has ever given. This was made possible by the large number of Freshmen who availed themselves of the opportunity to become acquainted with their fellow classmen, and also to the many upperclassmen who, by their presence, demonstrated the spirit of comaraderie which is so prevalent at the Institute. This was the first social event of the college year and was held at the Hyde Park Y. M. C. A. rooms on Sept. 19, 1919.

The event commenced promptly at 7:30 P. M. and, after much hand-pumping, a few games of checkers and pool, the whole assembly entered the Auditorium. The program commenced with the singing of the Star Spangled Banner by the entire assembly. Then Chairman Jones, after a few opening remarks, called upon the Glee Club for some selections which, of course, contained our old college song, "Upward and Onward Armour." Then Mr. Jones sprang a great surprise, for he had somehow procured the famous vaudeville star—(our own Tom Michels), who amused the audience by singing "S'Long Boy."

The first speaker of the evening was our esteemed Dr. Scherger who honored us with one of his highly interesting talks, and what a pleasure it was to give him our undivided attention without having to jot it down in our notes! Dr. Scherger was one of the two men who, eighteen years ago, were instrumental in installing a "Y" branch at this Institute, and he cited many historical incidents which helped to make the organization what it is today. He touched upon the wide scope of the Student Arm of the organization and recounted an experience at the Students' Convention held at Madison, Wisconsin. Here Dr. Scherger was billeted in a tent with a Hindu Chief. Dr. Scherger said he felt perfectly safe because this Hindu was a member of the Y. M. C. A. but, of course, we are sure that anyone who possessed Dr. Scherger's personality, together with his extensive knowledge of human nature, would be safe anywhere. Dr. Scherger closed his address by explaining the cooperation between the faculty and students and bidding the Freshmen a hearty welcome in our midst.

Mr. Hollister of the Central Y. M. C. A. then gave a brief address in which he kindly offered his help to the student body. He said he would gladly lend his assistance in carrying out any suggestions offered during the year which would improve our branch.

Professor Wilcox stated the fundamental purpose of the Association; namely, that the Y. M. C. A. at Armour helps to form friendships. He urged all to join and so make the most of our spare moments between classes.

Owing to the fact that the "Gym" was being decorated, the Basket Ball game had to be dropped from the program. This, however, lent prominence to the Swimming Meet, which proved very successful. The most exciting event was the 40 Yard Crawl in which Ray Scherger won a hard fought victory over Bachman. Fancy Diving exhibitions were given by Rupprecht, Corydon and Karlson, in which many original forms were executed. Rupprecht, who is a life guard during his vacation, excelled in this tournament.

After the Swimming Meet refreshments were served consisting of an abundant supply of doughnuts and chocolate. These were served—" A la Help Yourself."

All present appreciated the services rendered by the officers of the Armour "Y," especially those of its president, Raymond Scherger, whose pleasing personality won many a new member.

Y. M. C. A. Swimming Meet

100-YD. CRAWL

1.—Wittenmeier.
2.—Karlson.
3.—Unger.

40 YD. CRAWL.

1.—Scherger.
2.—Bochman.
3.—Rupprecht.

40 YD. BACK.

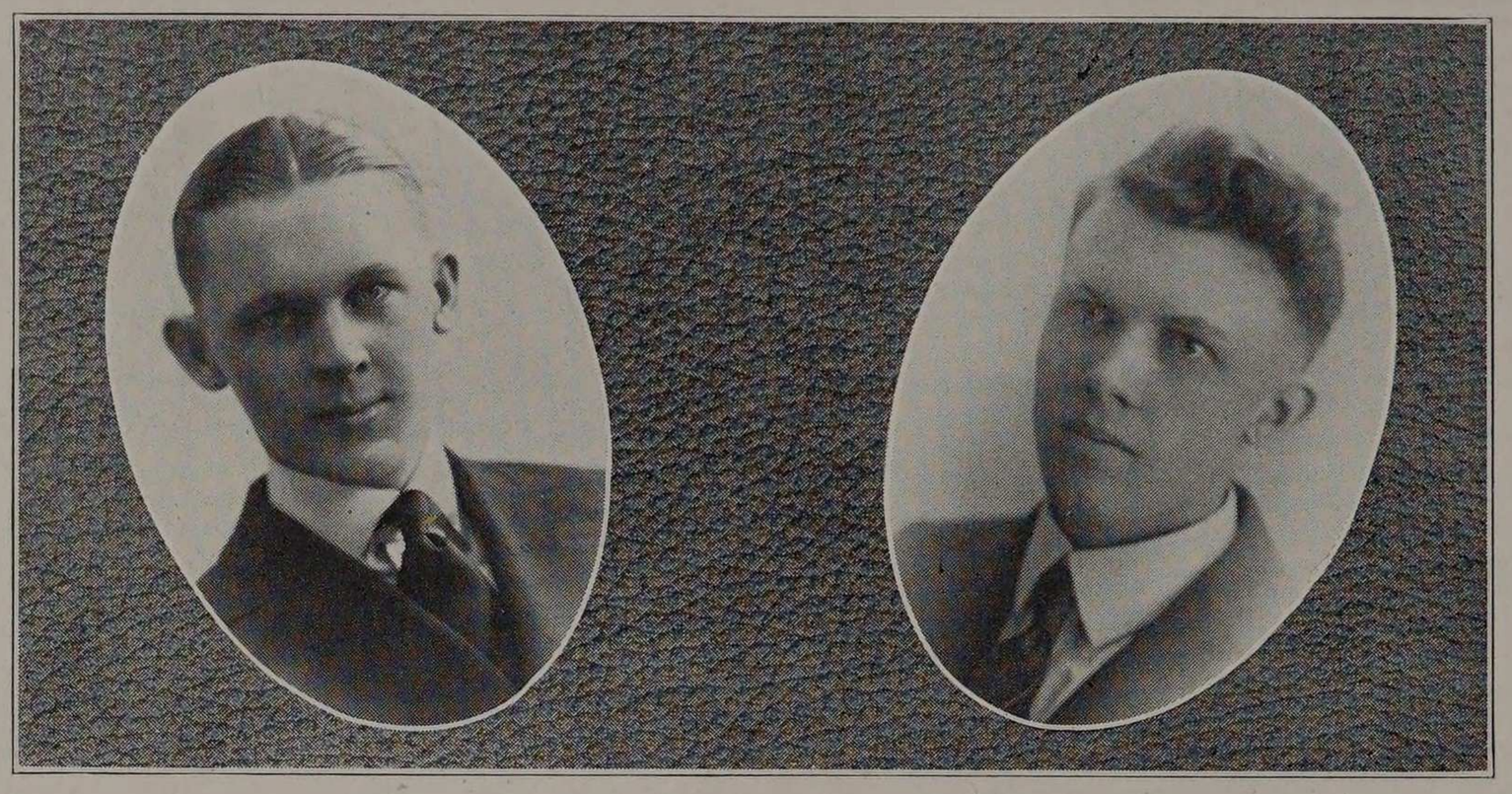
1.—Matis.
2.—Camfield.
3.—Corydon.

FANCY DIVING

1.—Rupprecht.
2.—Corydon.
3.—Karlson.

JUNIOR-WEEK

—O'CONNOR—



Junior Week Program

Monday, May 3rd—Inter-class baseball finals.
Tuesday, May 4th—Junior Play.
Wednesday, May 5th—Junior Play.
Thursday, May 6th—Circus Day and Banquet, and Cycle issued.
Friday, May 7th—Junior Prom.

Junior Banquet

Just after the strenuous "Circus Day" afternoon the Juniors will wend their way down the Aviation Club of Chicago for the Annual Junior Banquet. Everybody must be on deck at seven o'clock to indulge in an evening of "Eat, drink and be merry." What do you mean drink?

The banquet is to be one of those full course affairs and believe me what that angry mob of Juniors won't do to a square meal isn't worth mentioning. Remember the Aviation Club has a "rep" of giving you a real feed (meaning good food and plenty of it.) Suffice it to say that if the fellows cannot eat all that's set before them, they will carry what's left away in their pockets.

The speakers of the evening will be the class officers and several members of the faculty. Each spokesman will be feeling good after a hearty repast and be capable of rendering short snappy talks. Stories on an occasion like this come without seeking, so here's looking forward to some real clever ones. Oh, yes, they must be nice but not naughty. The co-eds in our class will censor anything out of the way.

Then the Junior class also boasts of some well known musicians who will favor the party with a few selections. Please take notice that the music will not play while we eat. Why? Oh, because soup will be the first course. Speaking of noise, that Junior class will sure let people know who they are with their

Son-of-gun

SON-OF-GUN

1—9—2—1

The evening will certainly be one grand and glorious blowout for all those who attend.

JUNIOR PLAY

The Junior Play

On May 4th and 5th the annual Junior Play, presented at Central Music Hall by the Class of 1920, was enthusiastically received by large and demonstrative audiences. "The Lucky Seventh", a clever three-act musical comedy which was written by Everett F. Quinn and Royal A. Chappell of the Class of '18, and presented by them back in the pre-war days of 1917, was the instrument with which the Juniors proposed to uphold the honor of their class against the long succession of histrionic achievements recorded in the archives of A. I. T., and be it said to their credit that their play more than held its own among its many worthy predecessors.

Fortunately for the class, Everett Quinn came out to coach the boys and spent a great deal of hard work putting them through their steps. But that his work was rewarded by the success deserving of such labor, is evident from the way the melodies and caperings of the dainty chorus were received by the onlookers.

The audiences were delighted with the antics of Albert Spitzglass, Emil Pfafflin, and Rudolph Werner, the fine acting of Derwood S. Chase, Sheldon H. Webster and William Lyon in the principal male parts; and they were pleased beyond expression with the charming portrayal of the female roles by Fred A. Anderson, Mynhart O. Brueckner, George M. Douse, and Leo. S. Maranz. Added to this was the captivating music of a dozen tinkling tunes rendered by the principals and assisted by a chorus whose middle name was "Pep." Taken all in all the performances left nothing to be desired and their success was loudly acclaimed by the enthusiastic audiences.

"Bigger and better than ever" the Juniors had promised us in regard to their play, and "bigger and better than ever" it was.

The Class of 1921

"THE LUCKY SEVENTH"

An Original Musical Comedy

Book and Lyrics by Everett F. Quinn, '18

Music by Royal A. Chappell, '18, and Everett F. Quinn, '18.

CHARACTERS.

(*As you meet them*)

Tom O'Keefe, Theatrical Manager ..... William Lyon, Jr.
Susie Steppe, An Actress ..... Marcy Douse
Hamilton Hamme, An Actor ..... John Thompson
John Morgan, Impresario ..... Derwood Chase
Blanche Morgan, His Daughter ..... Mynhart Brueckner
Ruth Morgan, His Daughter ..... Fred Anderson
Lord Winbourne, Duke of Horwickshire ..... Rudolph Werner
Jack Lane ..... Albert Spitzglass
Bob Higgins, His Chum ..... Emil Pfafflin

Al Keys, Hotel Clerk.....George Vorsheim
Ed Lake .....Emil Winter
George Rivers..... George Peterson
Helen Stream .....William Heitner
Bill Brooks .....Harlan Bird
Lottie Poole .....Paul Sang
Harry Pond .....Fletcher Hayden
Reverend John Frothingham.....Seldon Webster
Martha Frothingham, His Wife.....Leo Maranz
"Melody of Love Company, Hotel Guests, Piano Movers.

Personnelle of Chorus.

H. W. Bird, G. M. Douse, J. Goldstein, F. E. Hayden, W. A. Heitner, J. A. Kelner, R. P. Loewe, S. W. Grossman, L. S. Maranz, L. B. Newman, E. M. Nudelman, C. Pelta, H. A. Peterson, G. W. Peterson, C. Pope, J. P. Sanger, R. M. Singer, P. D. Sang, J. B. Thompson, E. F. Winter.
Act One—Office of the Morgan Producing Company, New York.
Act Two—Lobby, Hotel Frontenac, Raybrook, N. Y.
Act Three—Scene One: Terrace adjoining Ball-room, Hotel Frontenac. *Scene Two*: The Same, That Night.

Synopsis of Musical Numbers

Act One.

"Dance Some More".....O'Keefe and Chorus
"Summer in the Catskills".....O'Keefe, Blanche, Ruth, Morgan
"On To Broadway".....Morgan and Chorus

Act Two.

"Hospitality" .....Entire Chorus
"Watchful Waiting" .....Bob
"Little Miss Rip Van Winkle" .....Jack, Ruth and Chorus

Act Three, Scene One.

"Honeymooning In the Skies"..Hamilton, Hamme and Chorus
"Knights of the Baby Grand".....Piano Movers Chorus
"Dance Away the Blues"...Bob, Blanche, Ruth, Jack and Chorus

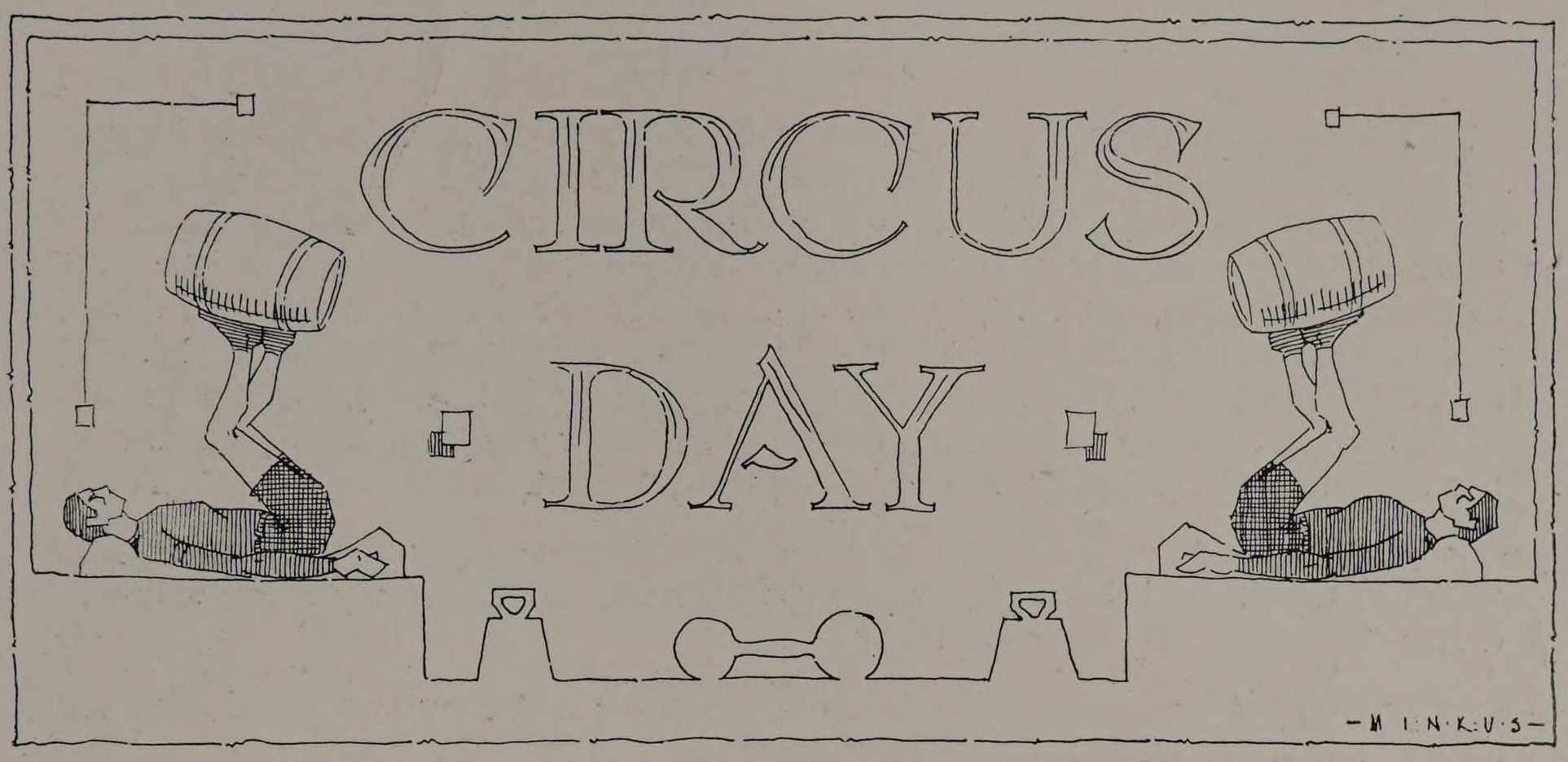
Scene Two.

"Life is a Honeymoon" .....Bob, Blanche and Chorus
"THE LUCKY SEVENTH" (Finale) .....Entire Ensemble

———

Stage Manager .....Everett F. Quinn
Properties .....Lee Rosbach
Electrician .....Edward Steinberg
General Manager .....G. W. Peterson

Webster, Thompson, Peterson, Winter, Maranz, Brueckner, Pfaffin, Hayden, Dowse, Douglas, Chase, Lyons
Anderson, Spitzglass, Werner.



CIRCUS DAY, CLASS 1921.

Let the bells ring out for circus day!

What's that? You say we won't have one? Well of all the impertinence! Who ever heard of a real live class like that of 1921 not having a circus day? That's right, nobody. The school is actually going to witness a regular old fashioned circus day this year on May 6.

The big show will arrive in town on Thursday morning and be ready to start from the word go in the afternoon. The gates to the Ogden Field Circus Emporium will be opened at one o'clock. You had better come early in order to avoid the mad rush. All those who take part in the circus will be admitted free. A prize of invaluable mention will be given to the one who best acts out the part of the circus character he represents. What about the fairer sex? Oh, they'll be there too, to take part in the program. You know a circus is not complete without a feminine touch to it.

At three o'clock the big show will start but don't forget to visit the menagerie first. Here you will see real live animals trained so well that they do not need to be kept in cages. Of interest will be the bears, giraffes, baby elephants, and some of the rest of the ferocious verbrates of the jungle. The wild pledges of the fraternities will make excellent monkeys and squirrels. Due caution will be taken to keep the people from feeding these animals but I suppose there will be a few loose nuts around anyway. However old Doc Yak is scheduled to be there in case any of the animals are taken sick.

Now for the big three-ring circus performance. Buy your popcorn, peanuts, chewing gum, and candy on the way into the large tent. Look at your program and you will find a list of the following events for the remainder of the afternoon.

1. Inter-Fraternity Pageant.
2. Brass Band Serenade.
3. Inter-Fraternity Relay.
4. Inter Class Relay.
5. Inter Class Tugs of War.
6. Three ways of Getting Thru College.
7. Mustache Contest.
8. Baseball Game.
9. Circus Parade.
10. All other stunts that comprise a circus.

Junior Prom

The most successful social season that the Institute has known in years was brought to a fitting end with the Junior Prom of the class of '21. The happiest throng that ever met in the Florentine Room, Congress Hotel, was there on the evening of May 7th, 1920, on the last day of Junior Week. True to their word the committee had even excelled their efforts in the first dances, and had made this last prom a "humdinger" in every sense of the word. The room, the programs, the music, the girls, and the girls! Well, we had the time of our lives and the only thing that came to mar the evening's pleasure was the sound of the peppery band playing the waltz at one o'clock.

Once more "Spitz's Band" supplied the incentive to our feet, and anybody who has ever heard them play will vouch for the fact that they made it hard to dance according to Hoyle all the time.

Armour is beginning to recognize Peterson's endeavors as social successes, and this was one of his topnotchers.

Circus Day at Armour – 1919

Junior Week at Armour had been a thing of the past for a number of years during the war, until the Class of 1920 decided to revive it. Under the able supervision of Marshalls Bready and Jones, great things of fun and mischief were planned for and as a result class work became a thing of secondary importance in the minds of the Juniors.

The chief event scheduled and which really did occur was the mustache contest. This was the talk of the season at Armour. The conditions were as follows: Juniors and Seniors—physically fit—were eligible to raise a mustache for one month, and at the end of that time, judges composed of students not competing and also faculty members, were to decide on the winner and his closest competitor. First prize was to be a silver loving cup, and booby prize, a cigarette holder.

But sad to say both foul play and hard luck conspired to make the contest a failure. First of all the Junior dance came along just before the end of the contest, and the cup chasers who were at first very fond of their "crop" suddenly changed in disposition for fear they might lose their standing with the ladies on dance night, and so, several good contenders fell by the wayside. Prominent among these gentlemen were Henry, Schurman and Mitnick.

But pluck still remained and the race went on just as usual with those that did not care to drop out, and all was well until foul play came in. The Juniors had two good contenders, Maranz and Singer, while the leader of the Senior contingent was Gottlieb. He wanted the cup, fair or foul. And so it was decided among the Seniors that both Maranz and Singer be ambushed and half of their mustaches be removed. The wrecking squad consisted of Gottlieb, Mitnick, Erickson, Bready, Jones and Lindstrom. This sextette was all set for its joyful mission. As soon as the judges were aware of this fact, the contest came to a close, undecided.

A cup, however, should have been presented to Maranz and Gottlieb for maintaining their mustachiors during the nights of the Junior and Senior dances—also to the ladies that were with them who suffered terribly.

List of Assemblies

October 1, 1919

Address to student body,

Dr. F. W. Gunsaulus

November 5, 1919

"The Future Engineer,"

Dr. Steinmetz

December 19, 1919

"The Spirit of America,"

Dr. Shannon

April 1, 1920

Presentation of Letters,

Mr. Goodman

Welcome to Student Body

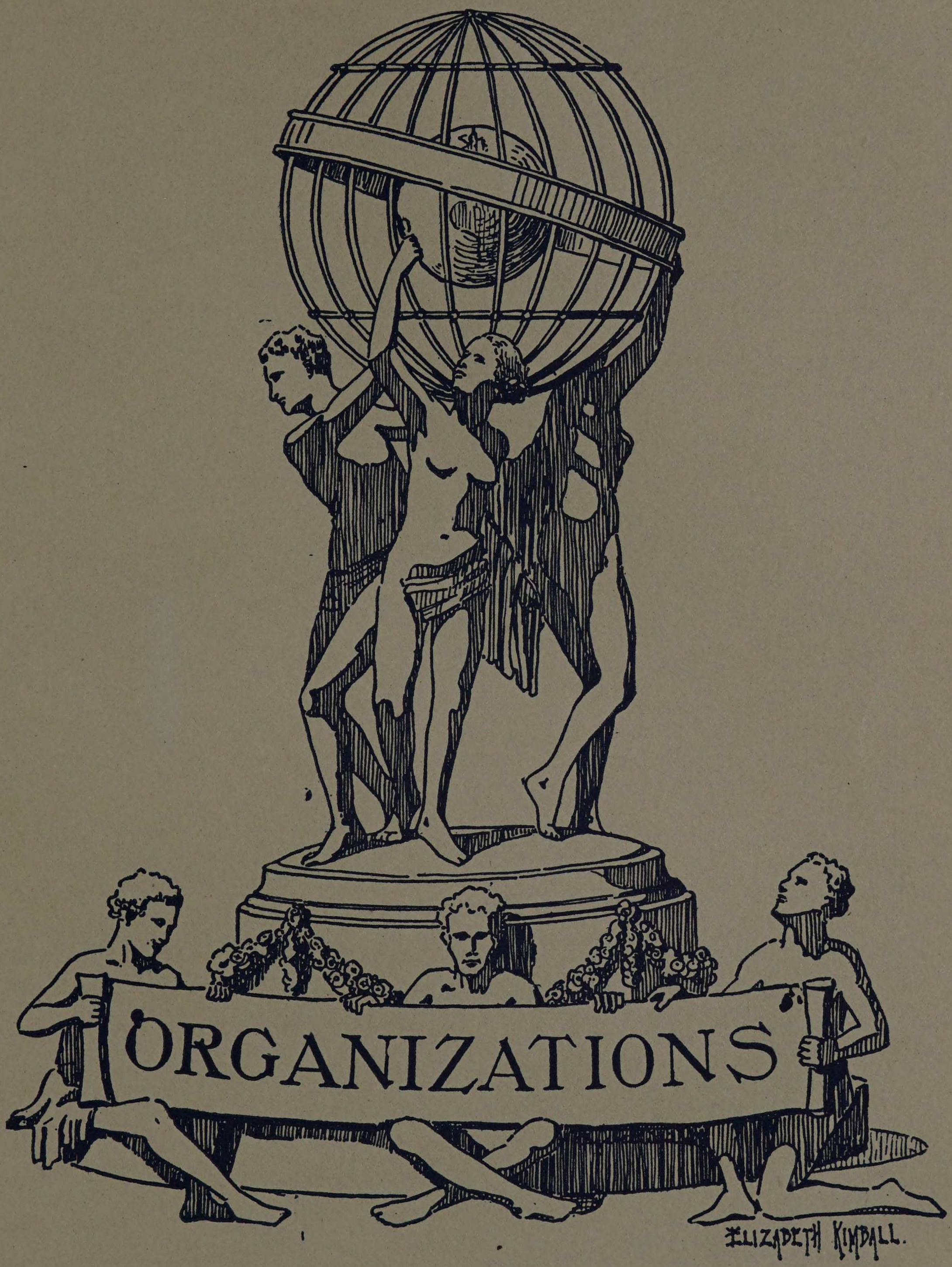
On October 1, 1919, Dr. F. W. Gunsaulus addressed the general student body of the Institute, which had assembled in the Armour Mission. The national anthem was sung in Chorus, while Professor Scherger played the organ.

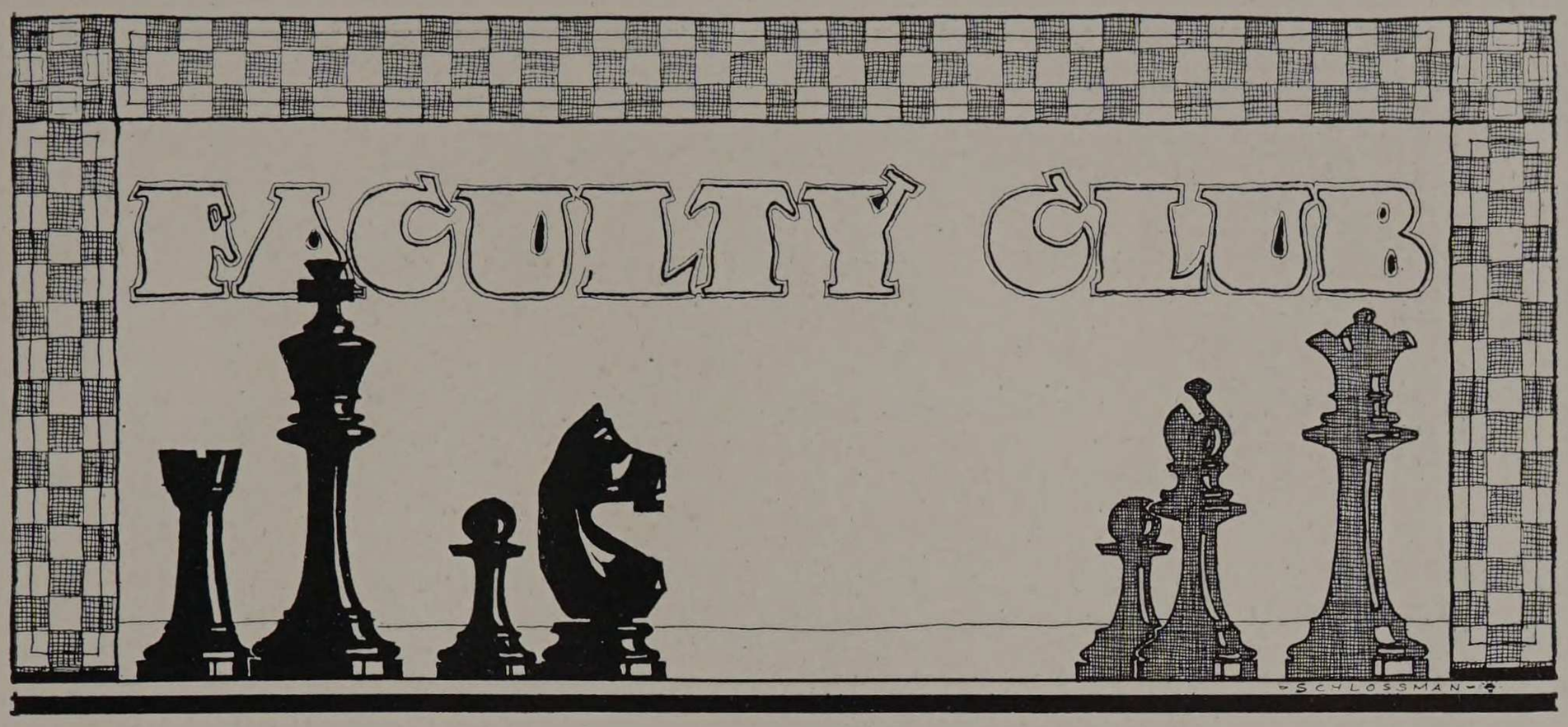
Dr. Gunsaulus began his address in words that accorded the general student body a warm welcome. The opportunities for educational advancement along engineering lines in the Institute, were presented in a common sense manner. The steps leading to success in engineering were explained clearly for every student to understand.

The speaker told of the growth of the Institute since the year 1891, when Mr. P. D. Armour, whose son J. Ogden Armour now is the benefactor, gave to Dr. Gunsaulus the sum of $1,000,000 to be put into an institution where young men could be trained to become American patriots. The incentive to go on with such an enterprise was received from Cooper's Institute, Mr. Cooper himself being a close friend of Dr. Gunsaulus. Our President journeyed to Europe, visiting the principal countries in quest of newly improved educational systems. Many European systems were brought home to be modeled after, with the result that an engineering college was built in the form of the Armour Institute of Technology.

During the world war, the engineer, as the speaker asserted, was an essential cog in the great works of the various military units. Military engineering was the basis of America's strength in that international conflict. Great structures of wood and iron sprang up every where on what was known as no man's land, only because of the engineer's skillful participation in the war.

Dr. Gunsaulus concluded his address with an appeal to the general student body to "Carry on" the principles of the engineering profession; to serve the world with a spirit of good will and faithfulness consistent with the ethics of their profession.


ORGANIZATIONS
ELIZABETH KIMBALL.



The Armour Faculty Club

OFFICERS.

MR. F. U. SMITH . . . . . *Honorary President*

HARRY MCCORMACK . . . . . *President*

CIGAR COMMITTEE.

WALTER K. SMART . . . . . *Chairman*

CLAUDE I. PALMER — R. C. HUNTLEY

HOUSE COMMITTEE.

F. U. SMITH . . . . . *Chairman*

H. R. PHALEN — C. B. COOPER

MEMBERSHIP COMITTEE.

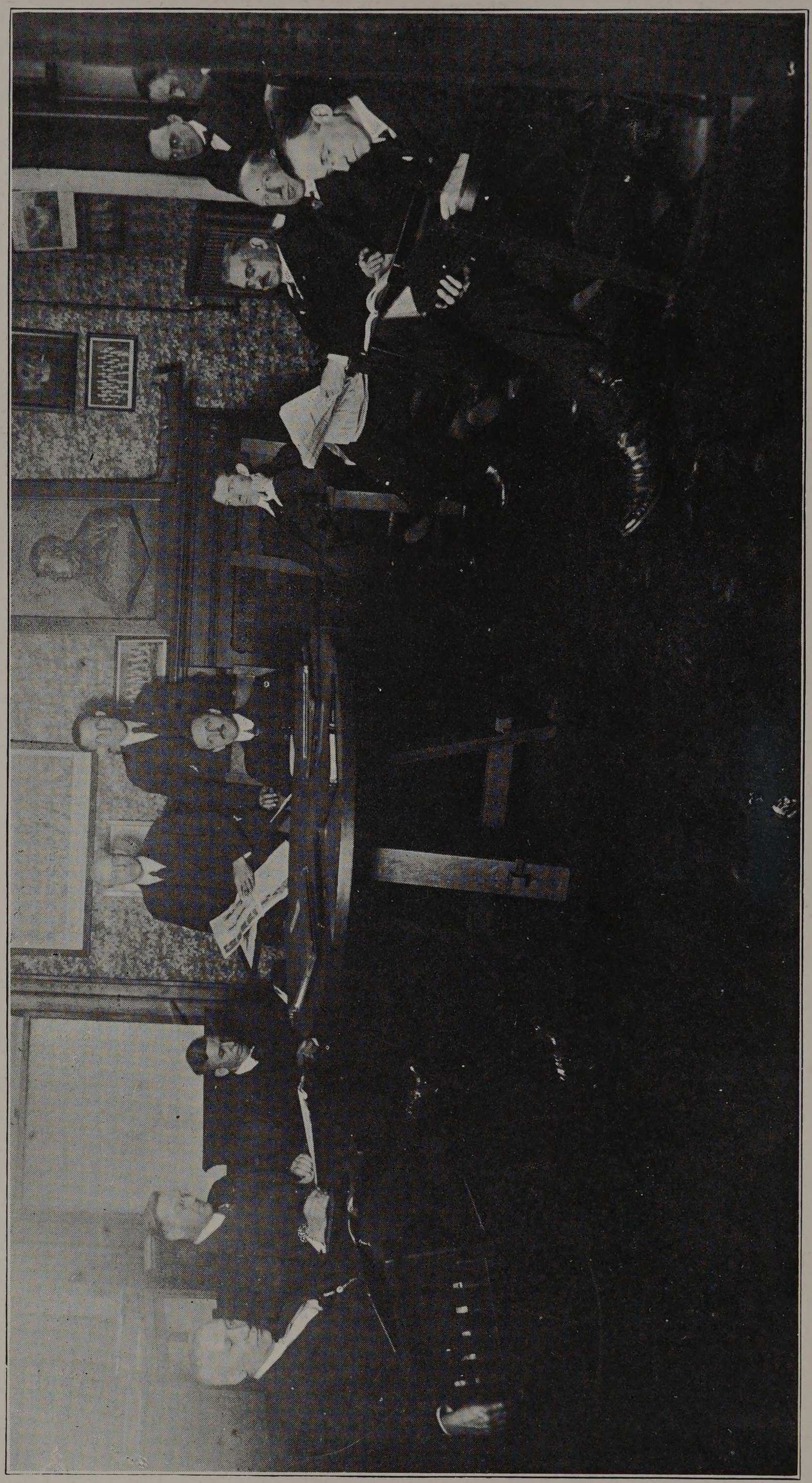
J. C. PEEBLES . . . . . *Chairman*

W. G. SMITH — O. C. CLIFFORD

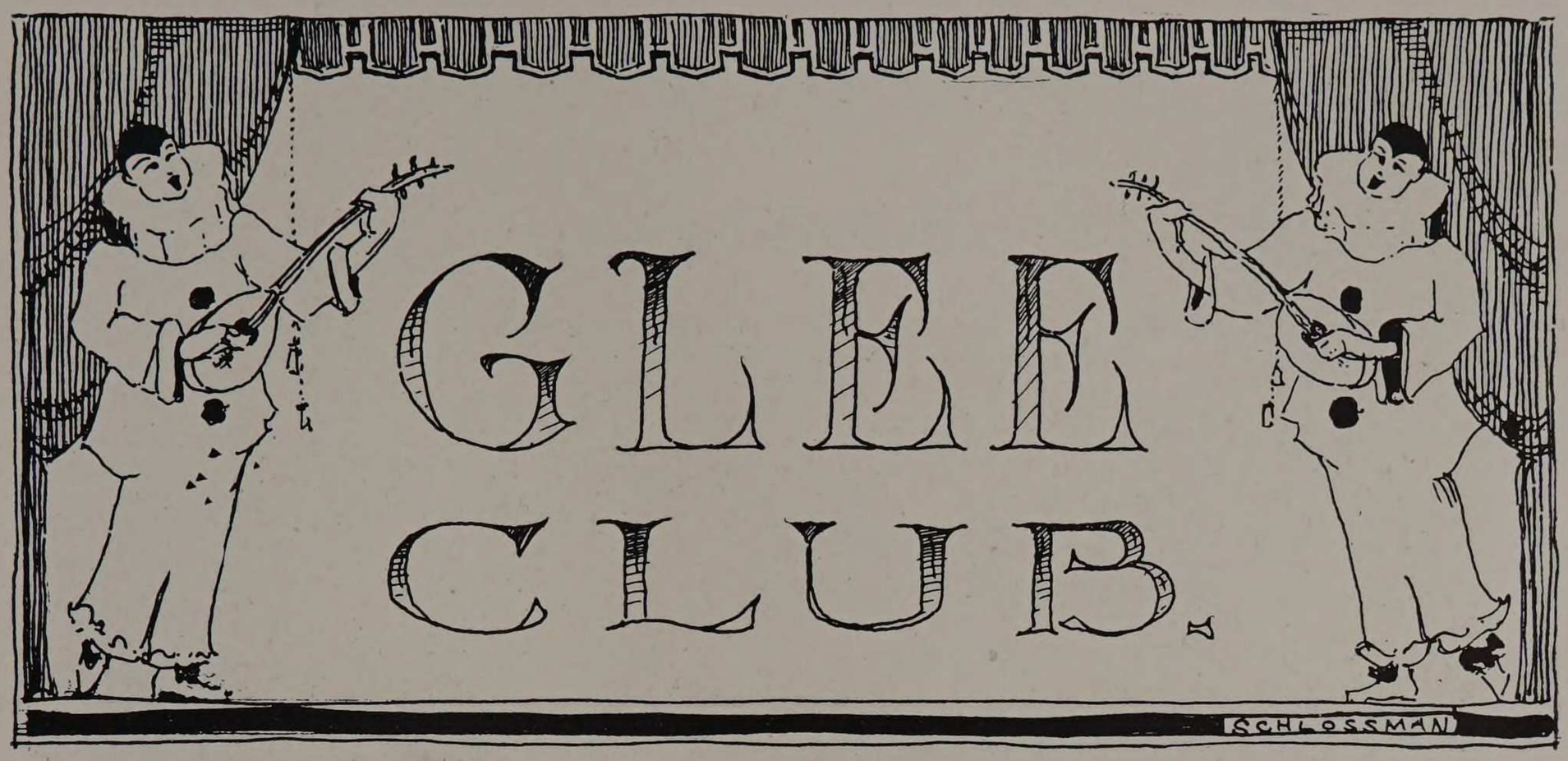
If on a balmy spring afternoon, one would peek through the smoke laden windows of the Armour Faculty Club, he would behold leaning over the billiard table, such notables as Dean Raymond, Prof. Leigh, Mr. F. U. Smith, Prof. W. G. Smith, and other expert cue artists.

It is not for us plebiscite students to delve into the proceedings of such an austere body of Professors, but we have it from good authority that all the National and American League Problems are thoroughly thrashed out behind the great doors of the Club.

However, the faculty rooms perform a great service for humanity by affording an excellent recreation centre, where our overworked Professors can read and play at their pleasure.



FACULTY CLUB ROOM



Glee and Mandolin Club

The Glee and Mandolin Clubs had an early start this year and the call for new men was promptly answered by the best material seen at Armour for many a year. Most of the men of last year's club were back and with the added new talent a very strong musical organization was formed. The individual stars on the Glee Club were many and as for the Jazz Band, each man is a superb master of the art of music. The achievements of the clubs this year cannot be too highly praised.

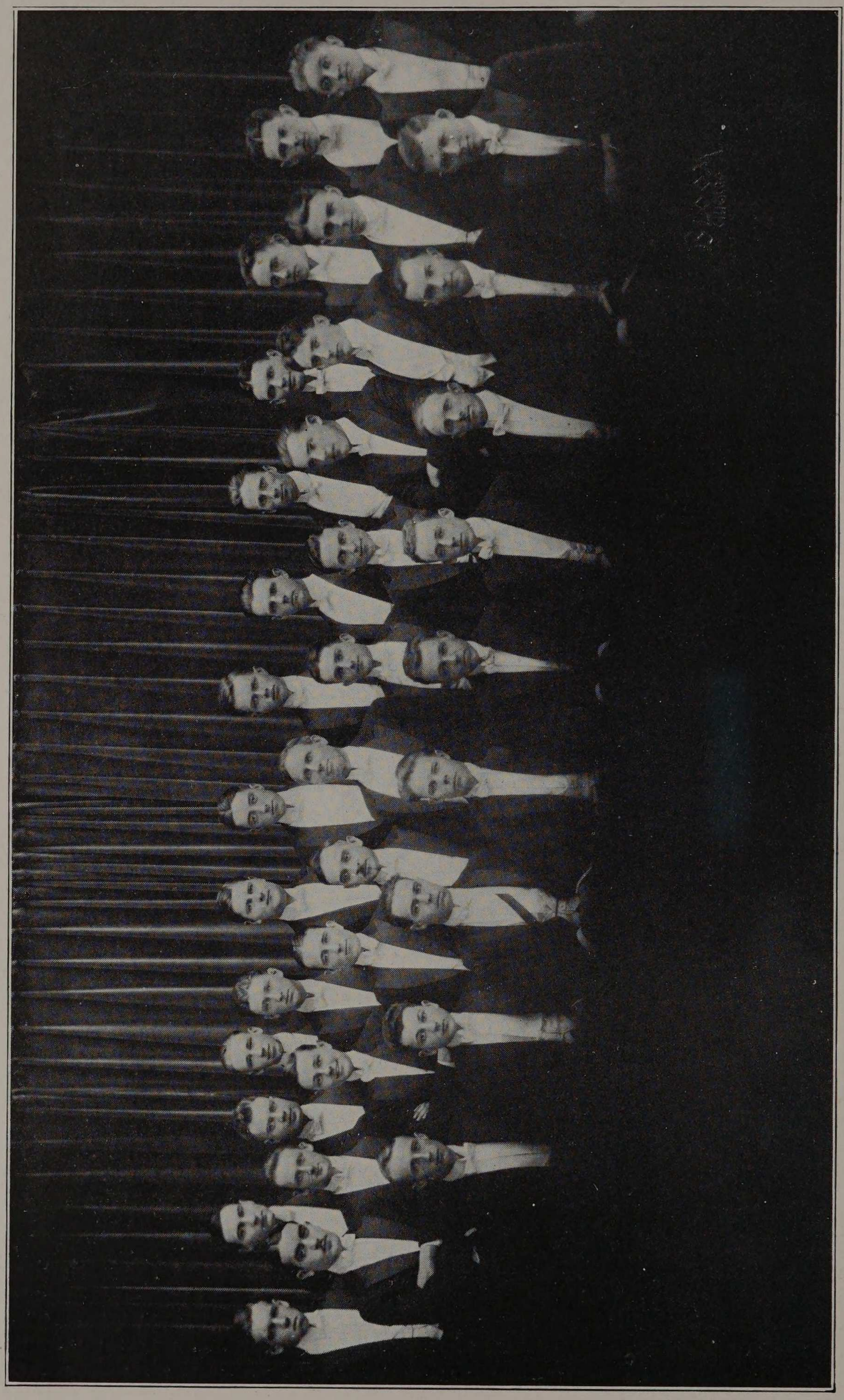
Prof. W. G. Smith again accepted the directorship of the Glee Club and his untiring effort did much toward making the success of the Club a reality. Mr. Fred A. Hertwig was elected as the business manager of the clubs and is deserving of much credit for making the Clubs a success financially. Mr. H. E. Anderson was his able assistant. Tom Michels was elected leader of the Glee Club and Mr. A. Spitzglass was elected leader of the Mandolin Club.

The Clubs were in great demand and performed at many social gatherings, among which were the following:

Tau Beta Pi Alumni Banquet given at the Morrison Hotel, February 12, 1920, where the boys had the opportunity of meeting some of the prominent engineers in the city. The boys enjoyed a good banquet and smokes and had a good time generally.

Another pleasant evening was spent in performing for the members of the well known Chicago Aviation Club. The boys were heartily welcomed and after the entertainment the Mandolin Club played for several dances which were enjoyed by all present.

One of the most interesting dates the boys had was at the 47th Street Army Hospital located at 47th and Drexel where they had the pleasant opportunity of entertaining some of the boys wounded in the World War. These wounded fellows were indeed very happy to have the Glee and Mandolin Clubs entertain them and surely showed their appreciation by their loud applause.



MANDOLIN CLUB

PROF. WM. GRISWOLD SMITH
DIRECTOR

THOMAS MICHELS, LEADER

FIRST TENOR

PROF. W. G. SMITH
P. GRAMMAS — G. D. WETHERBEE
J. B. THOMPSON — S. W. GROSSMAN

SECOND TENOR

T. MICHELS
T. W. HALL
R. WERNER
H. C. PETERSON
G. H. KELLEY
G. S. CARR
JEFF CORYDON, JR.
H. E. NICHOLSON
S. A. SEVIN

FIRST BASE

L. E. JONES
H. L. BROOKE
F. E. BUSBEY
F. A. HERTWIG
H. E. ANDERSON
V. E. LOWDEN
MILTON MARKS
WM. ERICKSON
M. M. JACKSON
J. G. KELNER
E. A. GOODNOW
B. NOWAKOWSKI

SECOND BASE

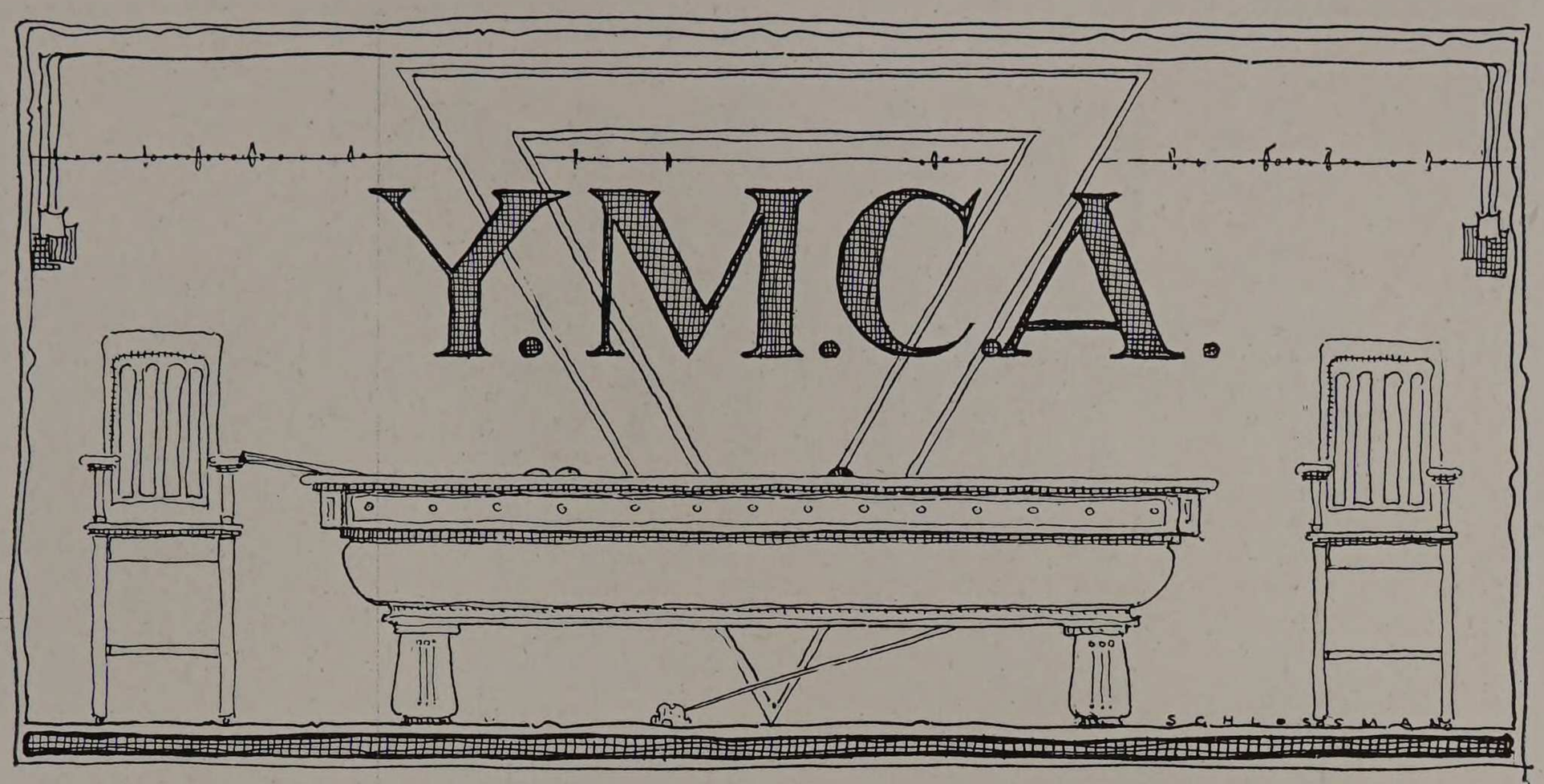
J. P. SANGER
E. W. GEISLER
R. E. R. BROAD
C. M. KIRKHUFF
A. J. VERPLANK
R. K. SCHERGER
R. W. BROWN
P. H. BOSE

MANDOLIN CLUB
A. SPITZGLASS, LEADER

T. C. SEDGWICK
R. P. LOEWE
T. MICHELS

C. UNGER
S. LEVI
BILL HIX

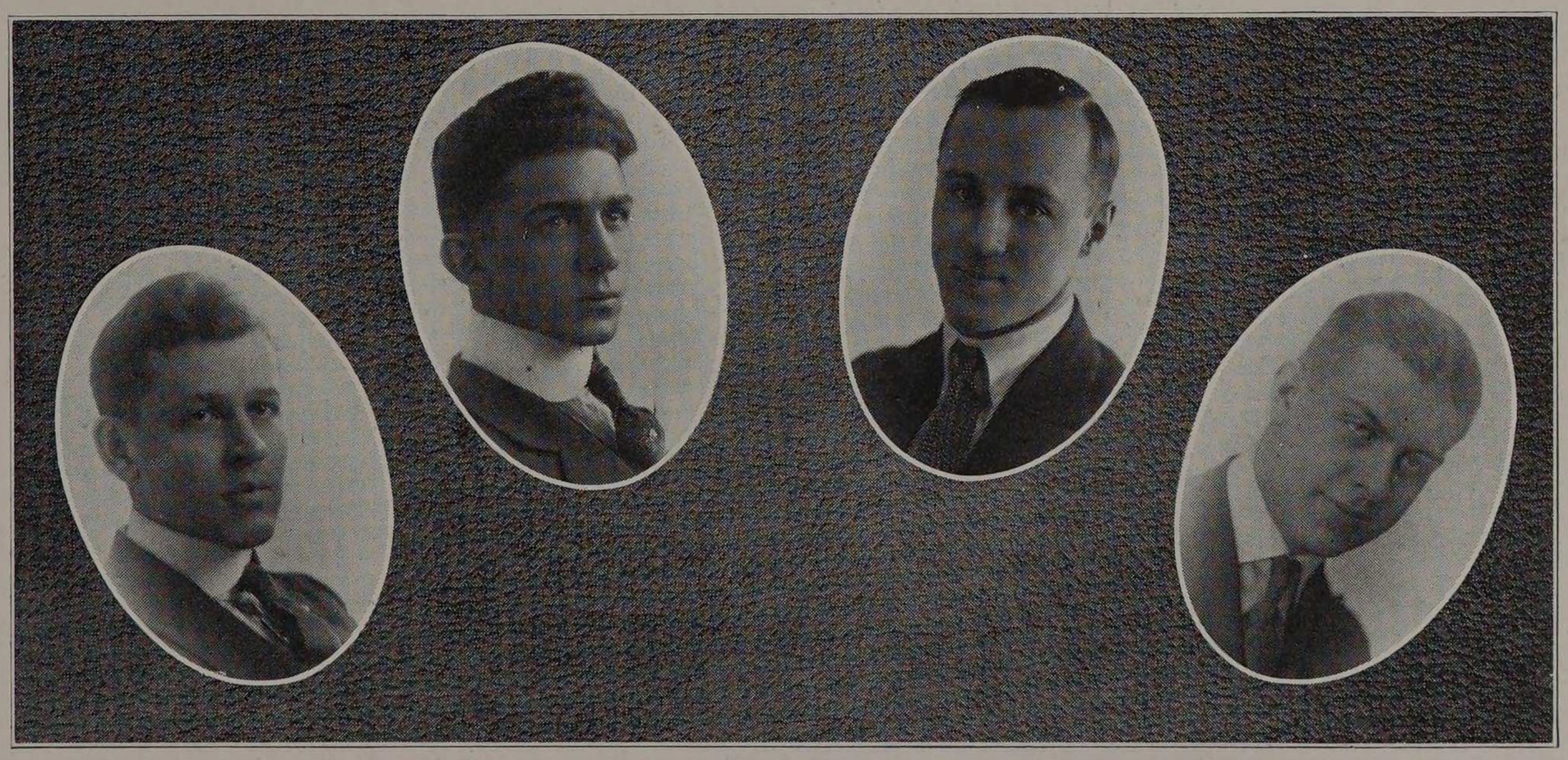
M. GOTTLIEB
J. POPKIN
B. NOWAKOWSKI



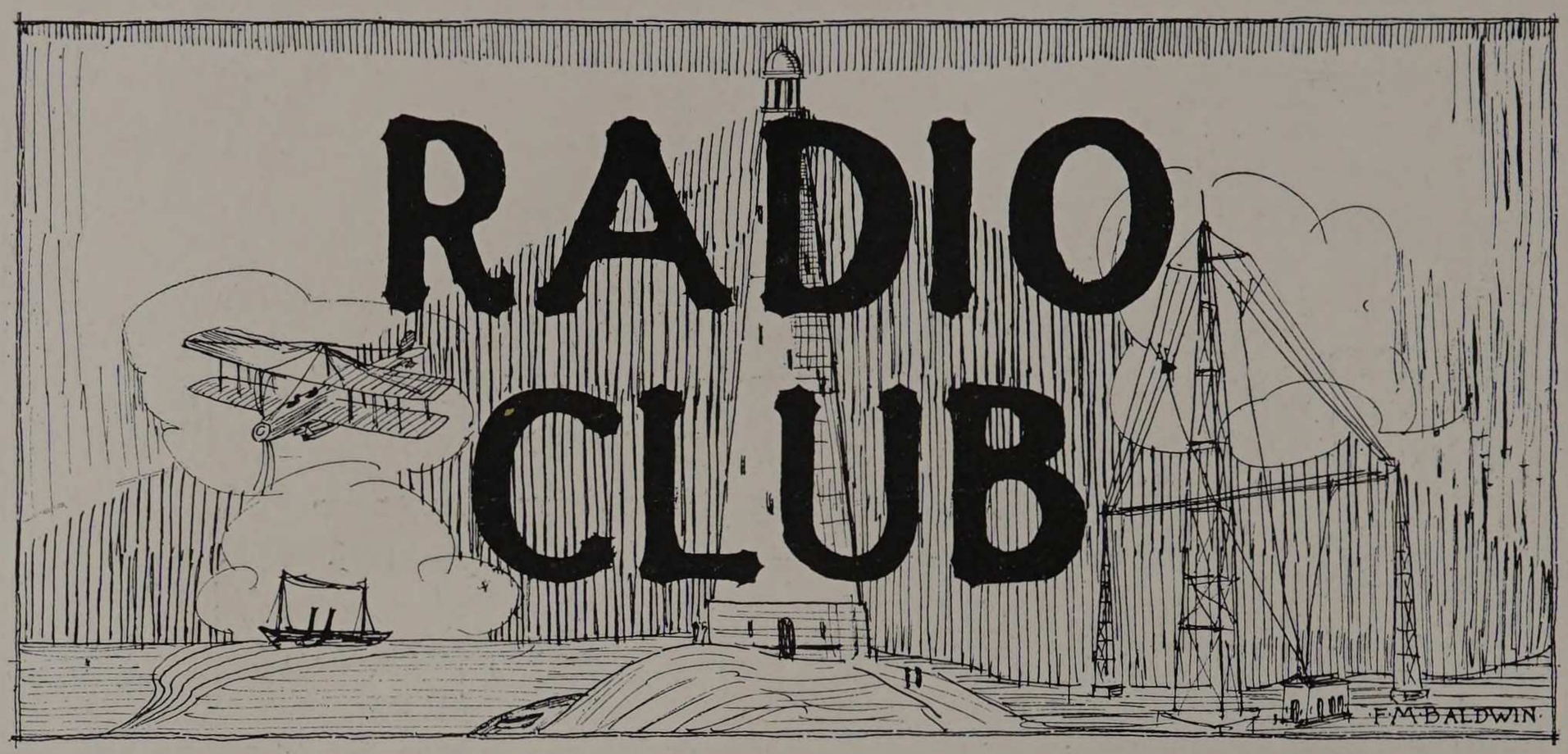
The Armour Y. M. C. A. is one of the departments of the Illinois Y. M. C. A. The object of the Y. M. C. A. is to provide a place of recreation and study, and to raise the standard of morals of the student body. Any student may join, for the Association is not denominational. A membership in this department entitles the holder to the house privileges at any of the city departments, and those of other cities. The membership also gives the students reduced rates when joining any of the city departments.

The affairs of the department are controlled by a Board of Managers, composed of seven faculty and three student members. The fourth officer, the Executive Secretary, is appointed by the Board of Managers. The President, Recording Secretary and the Executive Secretary compose the three student members of the Board of Managers.

The Association occupies rooms on the third floor of Chapin Hall, 3321 Federal Street. These rooms are nicely furnished and decorated. They are for the use of student members desiring a place for study and recreation.



BOSE HAVLICK SCHERGER HAYDEN



Armour Radio Association

The A. R. A. has come back to stay at Armour. The first formal meeting was held on October 16, 1919. And the old "Ham" spirit was very much present. The following officers were elected for the ensuing year:

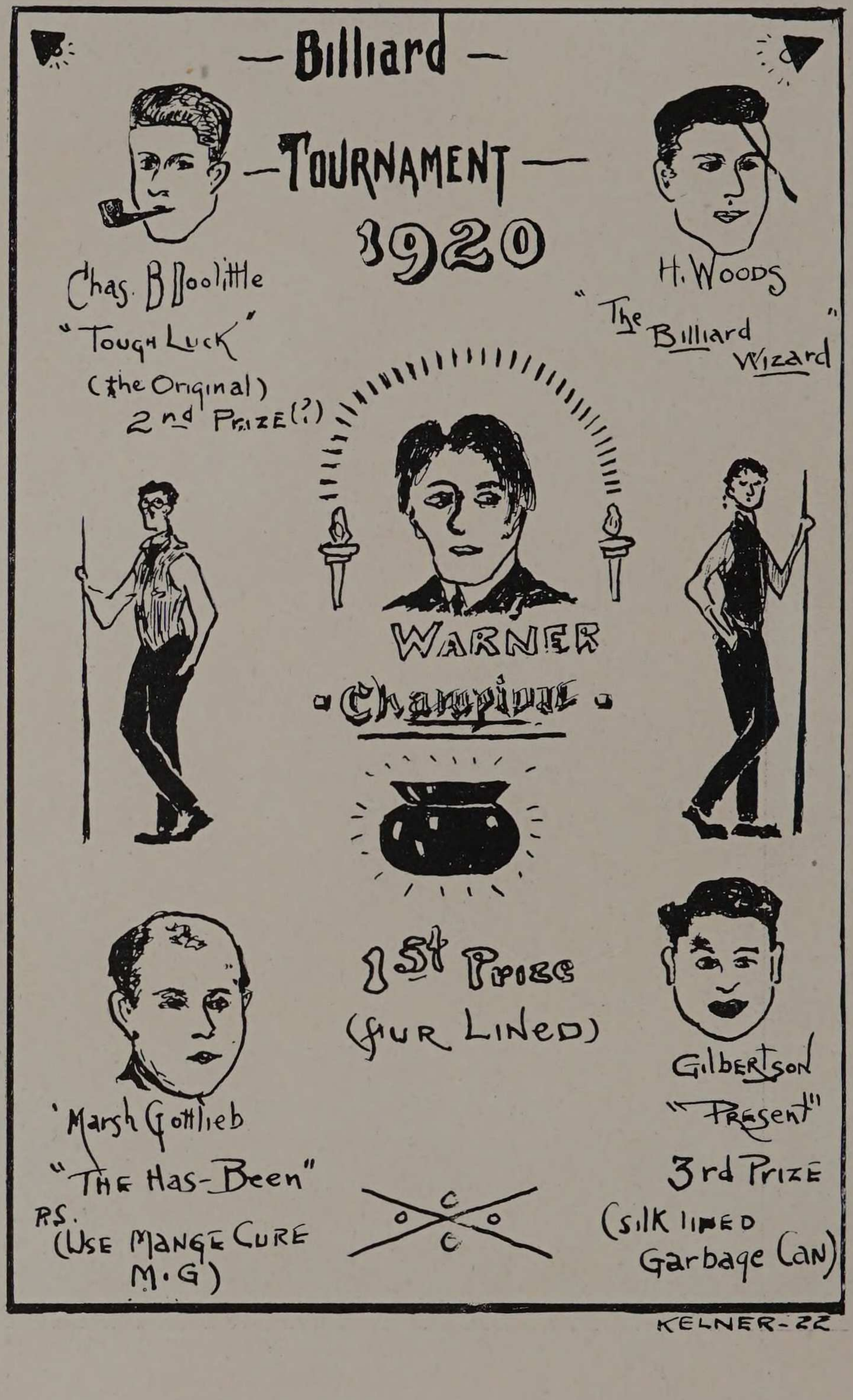
H. D. Stevers . . . . . *President*
V. L. Cooley . . . . . *Vice-President*
A. R. Mehrhof . . . . . *Chief Operator*
R. J. Grant. . . . . *Secretary*

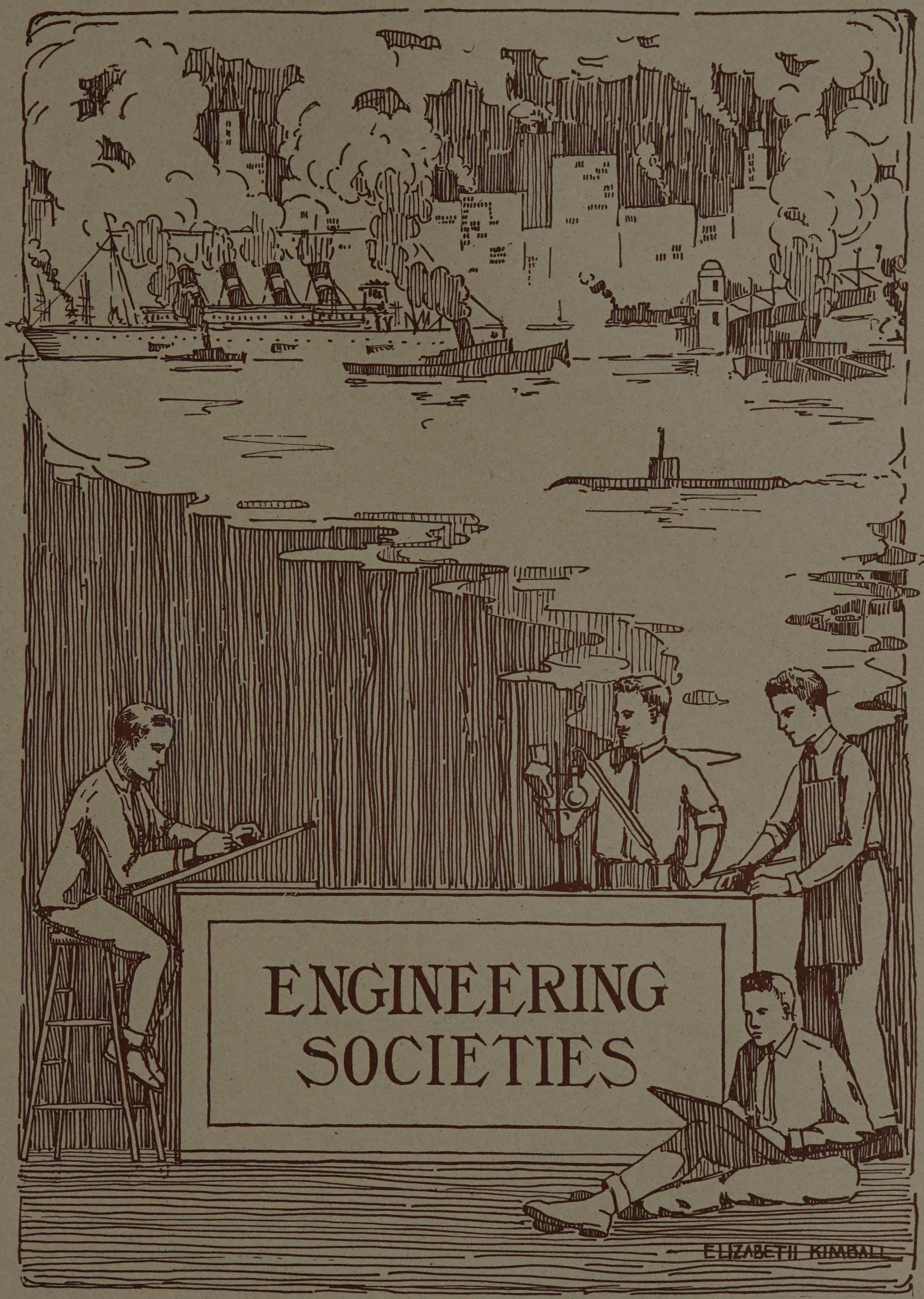
There were many obstacles that presented themselves when it came to erecting a suitable Radio Station, which by its efficiency of design and workmanship would be a credit to Armour. In the first place the men were hard put to find a suitable location for the wireless room, and secondly it was difficult to obtain materials for the station. At last a room was obtained in the Physics Laboratory on the second floor of Chapin Hall. This location is a good one, both for access to the roof of the building and to a ground connection below; it also precluded the proper location of the antenae—the roof of Chapin Hall.

A thirty-foot mast on the south end of the building, fully guyed in accordance with both electrical and mechanical principles supports one end of a four-wire aerial of eighty-foot span. The opposite end is supported by the dome of the Mission Building. This is the short-wave antennae which is used for transmitting purposes and for reception of amateur stations. A second antennae for long-wave reception has also been erected. A short-wave transmitting outfit of 1 K. W. capacity, and receiving apparatus of the highest efficiency complete the present Radio Station. ,

Much has been done, but more still is yet to be accomplished. The ambitions of the men are unlimited, however, and with the usual energy of radio "Bugs," the Armour Radio Association is going forward steadily to make a name for Armour Institute in Radio circles.

KENRICK
MEHRHOFF
GRABENDIKE
STEVERS
CONDEE
GRANT


— Billiard —
— Tournament —
1920
Chas. B Doolittle
"Tough Luck"
(the Original)
2nd Prize (?)
H. Woods
"The Billiard Wizard"
Warner
Champion
1st Prize
(Fur Lined)
Marsh Gottlieb
"The Has-Been"
P.S.
(Use Mange Cure
M.G)
Gilbertson
"Present"
3rd Prize
(Silk lined
Garbage Can)
KELNER-22


ENGINEERING
SOCIETIES
ELIZABETH KIMBALL

Engineering Societies

A. S. M. E.

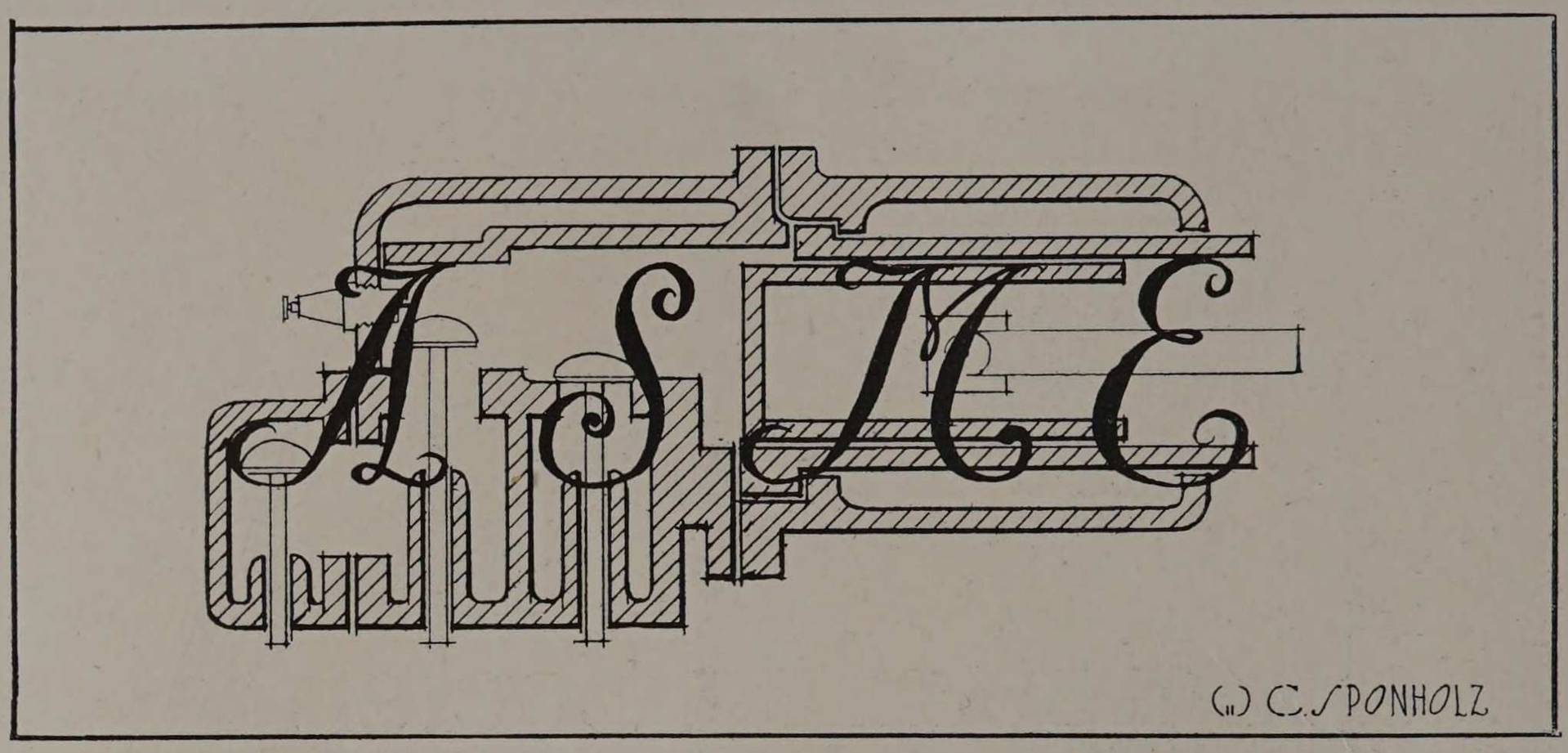
A. S. M. E., Jr.

A. I. E. E.

W. S. E.

A. Ch. E. S.

A. A. S.



American Society of Mechanical Engineers

Prof. G. F. Gebhardt	*Honorary Chairman*
E. C. Cook	*President*
I. J. Bready	*Vice-President*
H. C. Peterson	*Treasurer*
W. N. Erickson	*Secretary*

The A. S. M. E. has had a very successful year due to the policy it adopted for conducting meetings. At the suggestion of Prof. Gebhardt, the society decided its policy for the year would be to have the President call upon the members for extemporaneous talks upon subjects of their own choice. This policy gives the members an opportunity of talking without previous preparation and develops ready thought and speech.

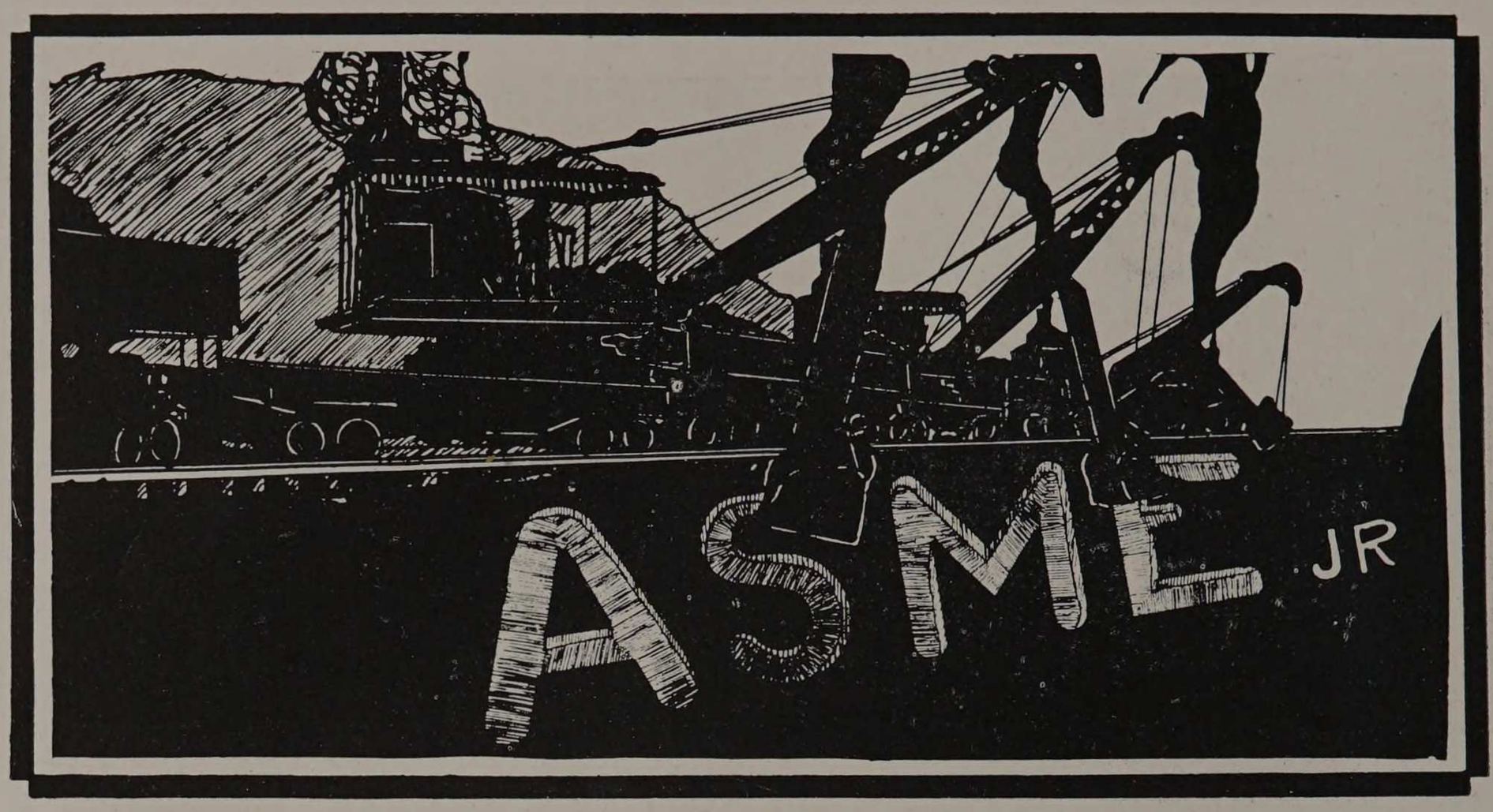
Due to the interest shown in the society by the Freshmen and Sophomores, it was decided that an amendment be made to the constitution whereby the Freshmen and Sophomores of the Mechanical Engineering course might organize as associate members of the A. S. M. E., with their own staff of officers. During the course of the year, the Freshmen-Sophomore branch of the society organized and has been conducting its meetings with remarkable success.

The society held its annual smoker on October 22. The smoker was well attended by the Freshmen and Sophomores, who had been invited as guests of the society. Prof. Gebhardt gave a very interesting talk on the values derived from the A. S. M. E.

Among the speakers and subjects presented during the course of the year, were the following: Mr. I. J. Bready, "Water Purification by Zeolite Process;" Mr. J. M. Stone, "Turbine Driven Marine Units;" Mr. C. T. Walters, "Motor Car Spring Suspension;" Mr. M. M. Jackson, "Absorption of Shock by Automobile Tires," and also "Measurement of Air in Automobile Tires;" Mr. R. Regensburger, "Still Engine;" Mr. Sanger, "Gas Turbines;" Mr. F. Quinlan, "Heat Value of Gas;" Mr. Hoven, "Motor Car Suspension;" Mr. P. C. Gray, "Motion Picture Machinery;" Mr. T. C. Sedgwick, "Rotary Steam Engines;" Mr. W. A. Heitner, "Automobile Tire Pumps."

Wm. N. Erickson,
Secretary.

MAY MARKS HAVLICK PETERSON ERICKSON HALL PETERSON WONG
JONES JACKSON STEINER GROSS HEITNER ZEMKE COOK
DOOLITTLE MARVIN STONE QUINLAN WEBSTER GRAY GOTTLIEB
SCHWACHTGEN SPITZGLASS GROSSMAN MARANZ NUDELMAN GAIL HENRY
REGENSBURGER NEWMAN



Freshman-Sophomore A. S. M. E.

JEFF CORYDON, JR. . . . . *President*
OTTO KUEHN. . . . . *Vice-President*
G. D. WETHERBEE . . . . . *Secretary*

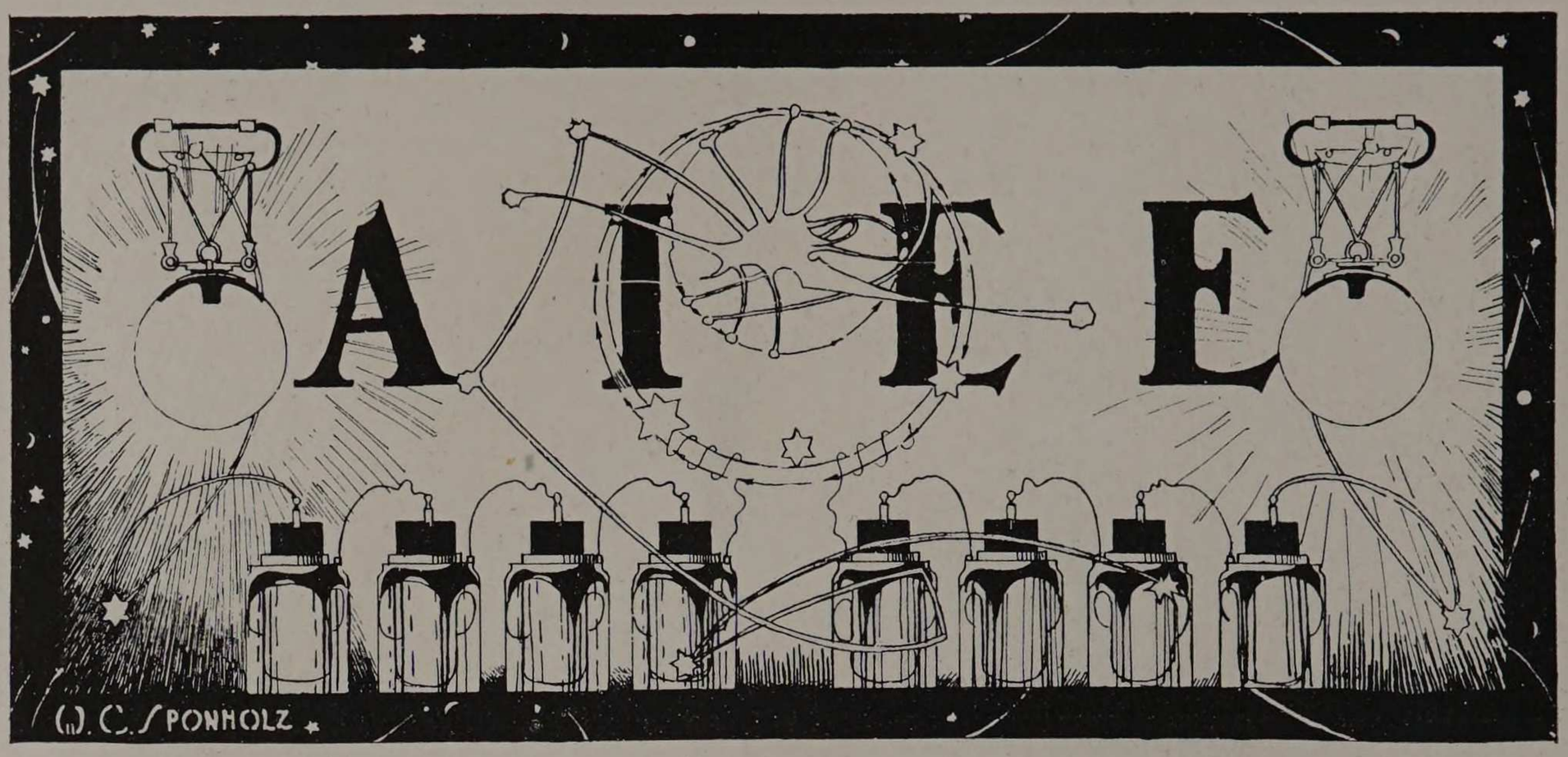
This year a new society made its appearance at Armour and had a very successful season. It is the Freshman-Sophomore A. S. M. E., and all Mechanicals in the lower classes are invited to become members. The meetings have been well attended but we expect even more out when the fellows learn what they are missing by not coming.

In former years, membership was limited to Juniors and Seniors, and there was no organization in which under-classmen could take an active part. Therefore, a suggestion was made at a meeting of the Junior-Senior society that a new society be formed. This met the approval of those present, and Mr. Jeff Corydon was appointed temporary chairman.

The first meeting, held November 14, was for the purpose of organization and there was no other program. Officers were elected, and after a short talk by the president on the purposes and aims of A. S. M. E., the meeting was adjourned. The policy for the present will be to have the president call on members for extemporaneous talks on any subject they wish to discuss, thus giving them practice in the valuable accomplishment of being able to present a subject to a body of men in a clear manner without getting stage fright. And as Professor Gebhardt says, it is often well to be able to talk when you have nothing to say. The first regular meeting was held January 9, 1920. The speakers were Mr. Rupprecht, Mr. Wenclick, Mr. Erickson, Mr. Seben, Mr. Juraska, Mr. Manske. Most of the talks were short, but the material and delivery were quite good.

On March 16, we were fortunate enough to have Professor Gebhardt talk to us. He impressed on us the importance of our Engineering Society and said no subject was more important than these meetings. As an illustration, he pointed out that nearly all of the most successful Armour graduates had been active in their Engineering Society while at school. He emphasized the importance of being able to talk to an assemblage of men. The hour was closed by a very interesting talk by Mr. Werner on refrigeration machines and their use in Australia.

Hilliker Eagle Eitel Wittenmeier Verplank Farwell Trowbridge Weatherbee Rieger Broad
Corydon Juraska Kuehn Mullaney Jennings Reihmer Miller Mansky



Armour Institute of Technology Branch of the American Institure of Electrical Engineers

Walter M. Seyferlich	*Chairman*
H. De Forest Stevers	*Secretary*
James Smely	*Treasurer*

The Armour Institute of Technology Branch of the American Institute of Electrical Engineers was organized on February 26, 1903. The main purpose of the organization, as provided by the Institute, is to gain a proper perspective of engineering work, by enabling one to become acquainted with the personnel and the problems of those engaged in it.

Among the chief advantages which result from the student's relationship with the Institute are the folowing: The honor, benefit, and stimulation which necessarily result from participation in the various activities for and of the Institute, as well as from direct relationship with the national organization and association with those prominent in the electrical industry.

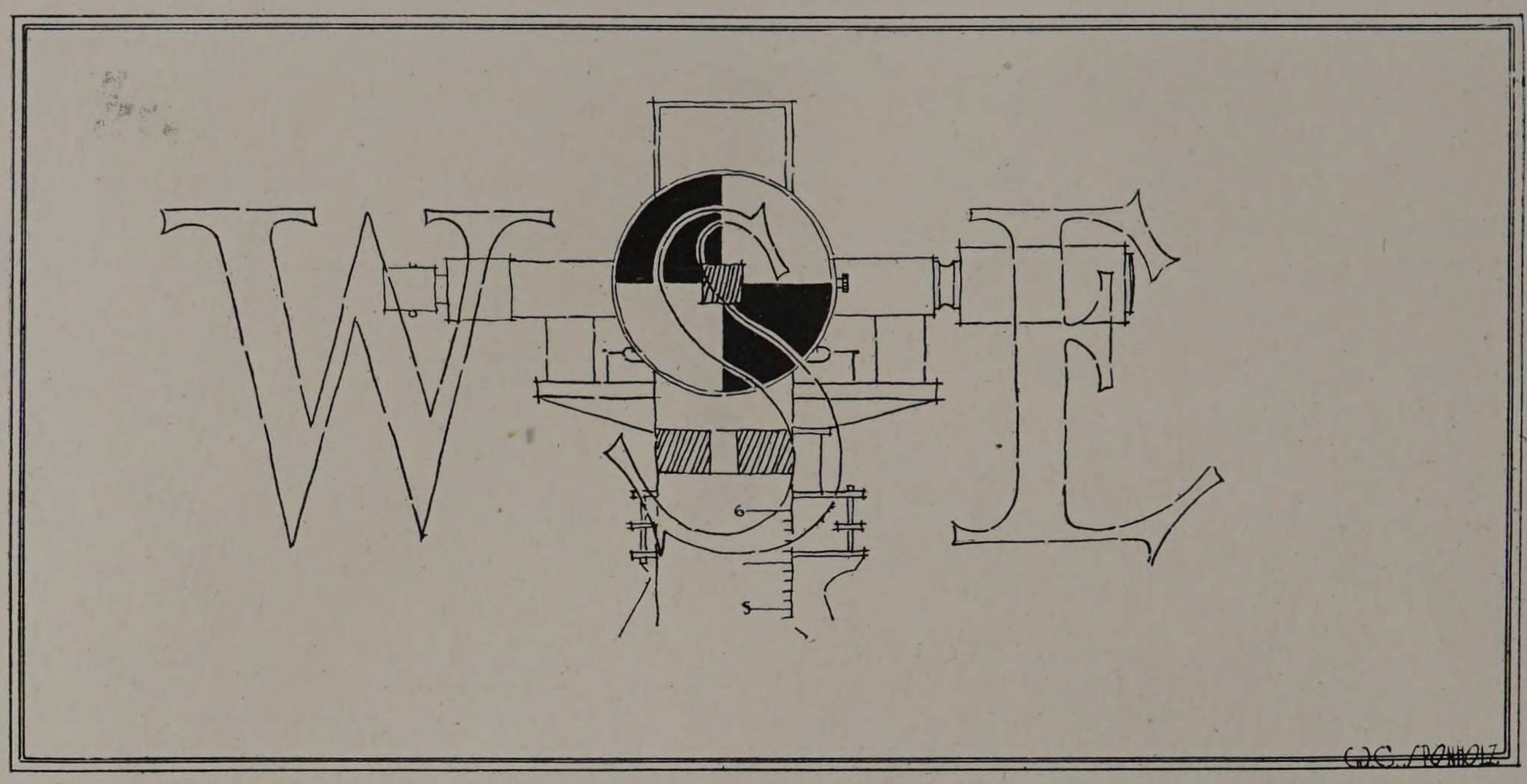
THE INSTITUTE is a national body representing the highest standards of the engineering profession. The badge gives you recognition everywhere as a progressive engineer, and you are therefore enabled to increase your contact and relations with the leaders of the electrical industry.

In order to enable the student to obtain and enjoy to a greater extent, the advantages and privileges of the Institute, the general plan adopted by the Executive Branch was to attend as much as possible the meetings of the Chicago Section, held jointly with the Electrical Section of the W. S. E.. mainly for the purpose of hearing and becoming acquainted with those more prominent in the Engineering and Industrial development of the world; and then for the further development of the student's initiative and ability to speak in public. The speakers for the Local Branch meetings were in general, either local members or members of the Alumni.

For the first time in the history of Armour, the student body, as well as the Local Branch, had the opportunity of hearing and making the acquaintance of Dr. Charles Proteus Steinmetz, prominent Consulting Engineer and Professor in Electrical Engineering.

The Branch and its officers wish to take this opportunity to thank President Gunsaulus, Deans Monin and Raymond, Professors Freeman and Snow, and all others, whose hearty co-operation gained the presence of the eminent Dr. Steinmetz.

ERLANDSON HOLMES GOODNOW MICHEL THOMPSON ROSENDAL MULLEN HORMAN MILES
OBOLER CHASE PEARCE GRANT SCHEUER DOUGLAS HAYDEN MALPEDE NAIMAN
REIMANN FALCONER MUELLEMAN STEVERS LIU THROOP ILLG SUGARMAN
ANDERSON KNOTEK SEYFERLICH ERNBERG VAALER SEABERG KELNER GRILL



Armour Branch Western Society of Engineers

The upper classmen and faculty of the civil engineering department began their activities on October 13, 1919, by reorganizing the old Armour Civil Engineering Society. There was an election of officers and an appointment of a committee to draw up a constitution and set of by-laws which were to be submitted to the Western Society of Engineers, with an application for affiliation as a branch of that society. The energetic manner in which our officers pushed the matter is evidenced in the fact that by November 17, 1919, we had been established as a branch and had held our first meeting as such, electing officers for the year 1919 as follows: W. J. Wignall, President; H. E. Anderson, Vice-President; J. Frank, Treasurer; E. Dasing, Secretary; W. K. Lyon, Jr., Assistant Secretary.

During the remainder of the year we held regular meetings and enjoyed very interesting and instructive talks by well known engineers, faculty and student members.

At the meeting of February 2, officers were elected for the year 1920. The following were chosen to guide us through the calendar year: R. M. Singer, President; G. Kumbera, Vice-President; G. W. Peterson, Treasurer; W. K. Lyon, Jr., Secretary. During the meetings following we were very fortunate in securing the services of Mr. E. E. Perkins and Mr. T. L. Condron as speakers and profited by their instruction as given by practical examples from their long experience. D. S. Chase gave a very interesting talk on his experiences in concrete construction and the obstacles to be overcome in this line of work.

The activities of our organization will inevitably continue to be up to the standard set by its first year, for as a branch of the Western Society of Engineers we now enjoy all of the privileges of this well known society and they stand ready at all times to cooperate with us and to assist us in every possible way. We have at our own disposal a list of prominent engineers, any one of whom we may call upon to address our society. The board of managers feels that the present arrangement has been, and will continue to be, very beneficial and it is hoped that the members that follow will recognize the invaluable privileges that are being presented.

Chase Lyon Matson Callard Mundt Burke Anderson
Morrison G. W. Peterson Rosback Fainstein Mann Grammas Passialis Isaacson Scotford Hammerman
H. A. Peterson Wignall Prof. Reinert Prof. Phillips Prof. Armstrong Prof. Penn Singer Stein
Kumbera Seaberg Vaaler Oleksy Hertwig Frank Appelbaum

Armour Chemical Engineering Society

EMIL G. VOGT . . . . . *President*
EMIL F. WINTER . . . . . *Vice-President*
WALTER J. BENTLEY . . . . . *Secretary*
PAUL L. STERN . . . . . *Treasurer*

The Armour Chemical Engineering Society was organized as a means of bringing the student body into closer relations with the ideas of men prominent in their Profession. Added to this was the desire to have members address the Society at frequent intervals and thus acquire confidence and facility of speech so valuable in professional life. The Society limits its membership to Juniors and Seniors but encourages the attendance of Sophomores and Freshman at the meetings.

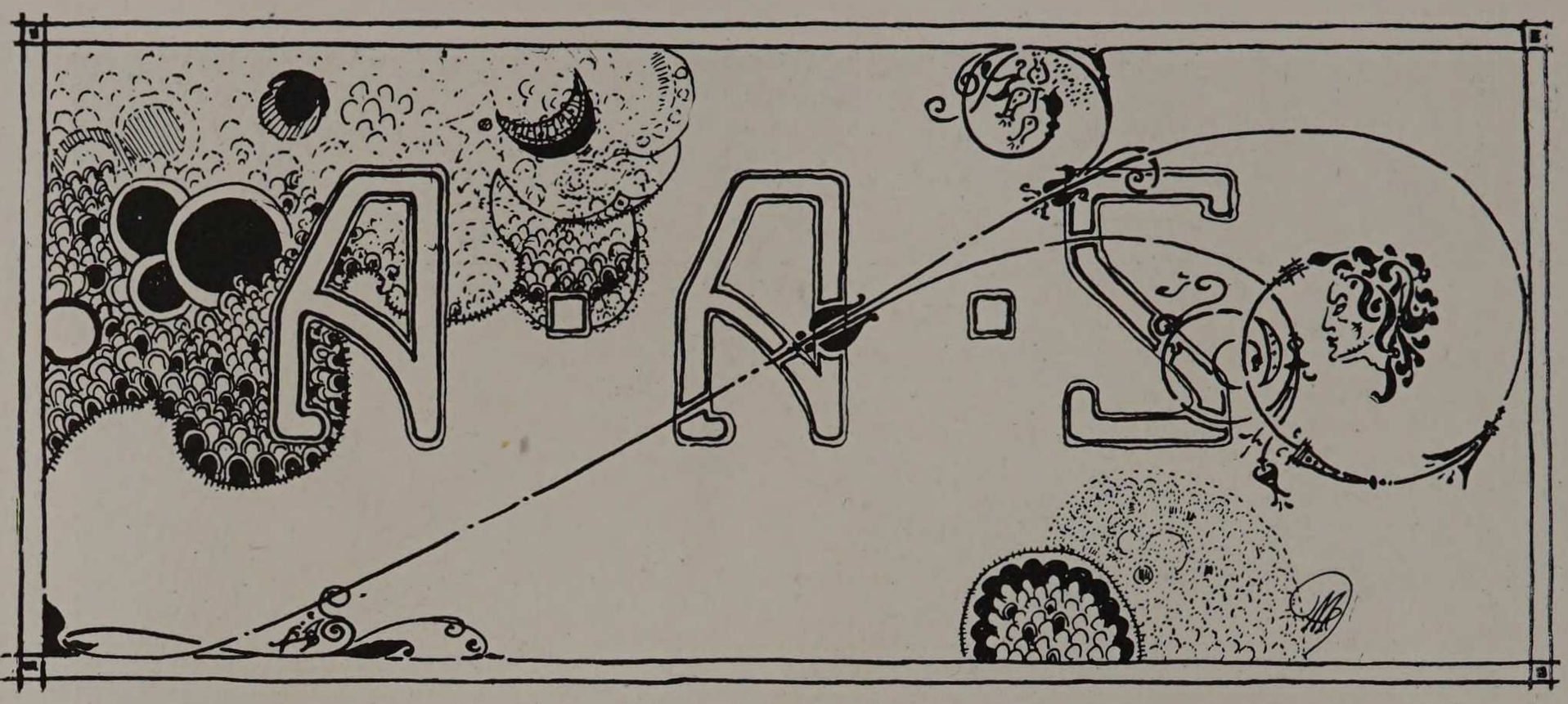
The A. C. E. S. held its first meeting and annual election on September 30th. The meetings have been held, on an average, three weeks apart and have been better attended than usual for many years back. The Freshmen and Sophomores have shown a growing interest in the Society and it is hoped that this can be fostered. We have been very fortunate this year in obtaining talks from men well known in the Chemical Profession. The meetings have proven very interesting and we believe all the members have profited greatly. A few of the more popular lectures were: "What We Expect of the Young Technical Graduate," by Prof. H. McCormack; "The Business Side of Chemistry," by Mr. Eisenschimel; "Colloid Chemistry and its Application," by Mr. R. H. Coleman.

Several other noted chemists have also honored us by consenting to appear before the society at a future date.

The Society wishes to extend its thanks to the Faculty and Speakers for their generous aid in making this one the most successful year the Society has seen.

WALTER J. BENTLEY,
Secretary.

PROCHASKA KLEMM LYON VOGT McCAULEY STERN
BENTLEY VEIT PFAFFLIN LITTLE EAGLE
KAPLON DOWSE VORSHEIM PODOLSKY



OFFICERS.

EDWARD PERRY STEINBERG . . . . . *President*
JOSEPH A. KARLSON . . . . . *Secretary*
GODFREY E. LARSON . . . . . *Treasurer*
JACOB POPKIN . . . . . *Purchasing Agent*
W. J. O'CONNOR . . . . . *Press Representative*

The A. A. S., under the able leadership of its president, Pat Steinberg, started out to make the year of 1920 a banner one insofar as the architects were concerned.

Before starting our campaign in earnest however, a transfusion of new blood into the society was effected when the peppy Freshman were initiated into the society with the usual pomp and arduous ceremonies on November the 23rd.

The interim was well filled with smokers, dinners, lectures, dances and theater parties and ended with the famous Mardi Gras held April the 8th.

Pat and his able lieutenants with the assistance of the boys did their best to add a little interest and excitement to Prof. Campbell's uneventful scholastic regime. In fact they succeeded so well that Mr. Campbell found it necessary to acknowledge their endeavors by holding a number of conferences, with the result that Mr. Campbell, as well as being quite a force in the architectural world, has imbibed numerous capabilities along the Chatauqua line, and the boys have come to the conclusion that studying architecture once in a while is not such a bad idea after all. The misery quartet consisting of Popkin, Karlson, Sparling and O'Connor helps to inspire the boys once in a while in their architectural pursuits by their symphony and jazz melodies. In fact their reputation reached such a height that even the faculty became impressed. As a result the Miserites forget and leave their instruments of shimmy fame home once in a while. Professor Campbell thinks that architecture is a noble art.

The annual Prize Competition in Design was finished in the usual form on the night of March 23rd. The prize was awarded to William J. O'Connor, 2nd place going to Jacob Popkin.

The old Ecole looks with pride upon the scholastic record made by the boys this year, and knows beyond doubt that if they make as much progress in the future as they have in the past their success in the architectural world is assured.

WILLIAM J. O'CONNOR,
Press Representative.

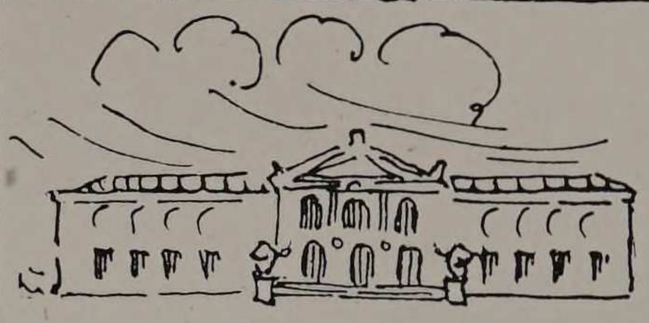
1st Place—Designed by W. O'Connor

SUBJECT: CATHOLIC SEMINARY FOR PRIESTHOOD

2nd Place—Designed by J. Popkin

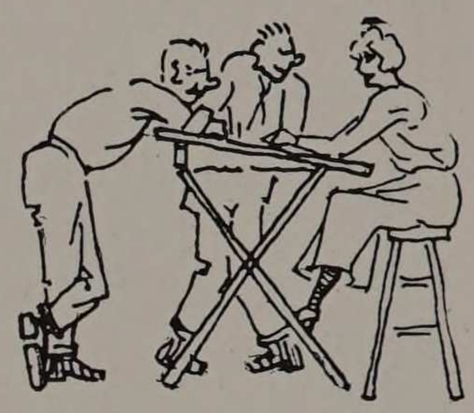
YE-ARCHS.

"FREE HAND"



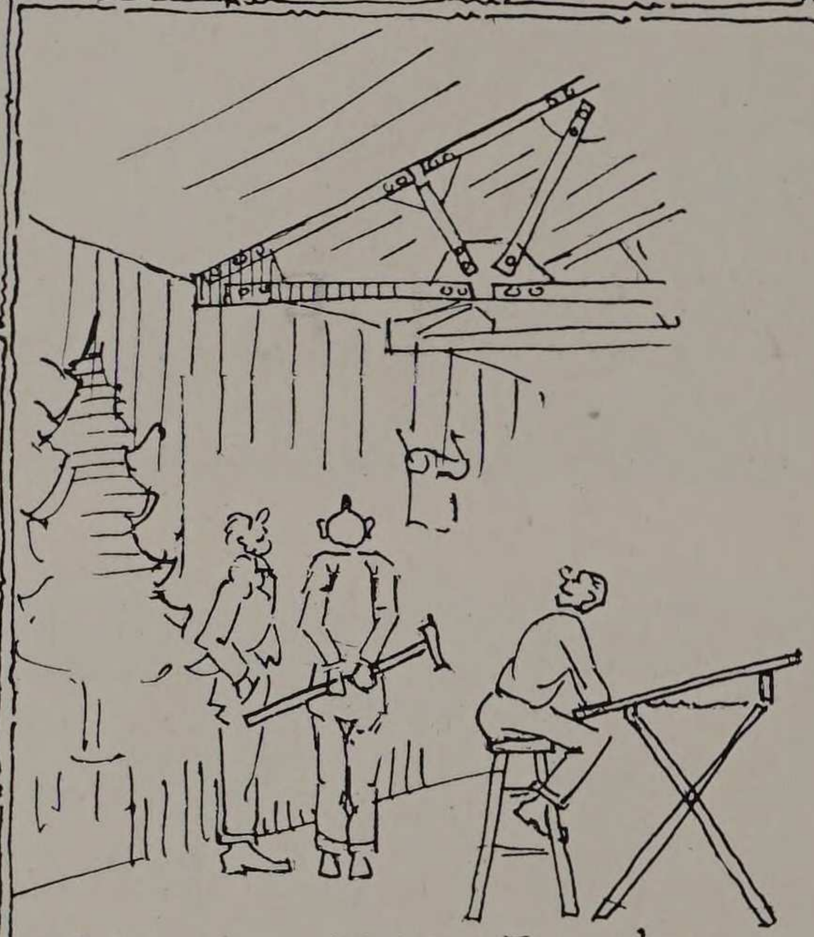
OH ART! WHAT CRIMES ARE COMMITTED IN THY NAME

"CO-EDS"



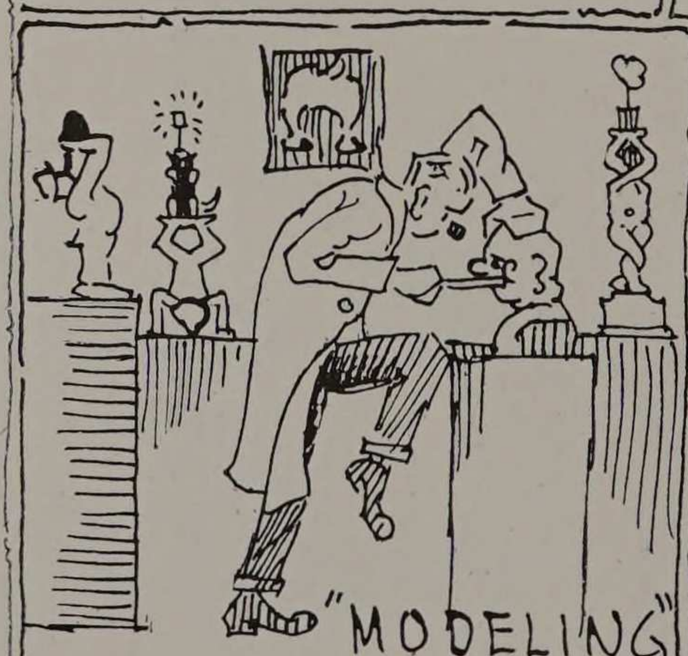
NOW DONT YOU WISH YOU WERE AN ARCHITECT

"CLUBROOM"



WONDER WHAT THEY'RE LOOKING AT?
SH! I ASK THE ARCHITECTS.

"ART INST. LUNCH ROOM"



"MODELING"

"JUNIORS - V.S. - SENIORS"

LITERATURE

IF!

If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you
But make allowance for their doubting, too;
If you can wait and not be tired by waiting,
Or being lied about don't deal in lies,
Or being hated don't give way to hating,
And yet don't look too good or talk too wise.

If you can dream and not make dreams your master;
If you can think—and not make thoughts your aim;
If you can meet with triumph and disaster
And treat those two impostors just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools
Or watch the things you gave your life to, broken,
And stoop and build 'em up again with worn-out tools.

If you can make one heap of all your winnings
And risk it on one turn of pitch and toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;
If you can force your heart, and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the will which says to them: "Hold on".

If you can talk with crowds and keep your virtue,
Or walk with kings—nor lose the common touch.
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;
If you can fill each unforgiving minute
With sixty seconds worth of distance run,
Yours is the earth and everything that's in it,
And—which is more—you'll be a MAN, my son!

Kipling.

Sunbeams

A Report by the Eminent Prof. G. Howie Raves before the Assinian Society of Utopian Engineers.

Mr. Chairman and Fellow Assinians:

It pleases me to be able to give much of the credit for the following theory to the late lamented Prof. Ima Knutt. In his celebrated Almanac, Prof. Knutt proves definitely that within the next twenty years there is certain to occur in that part of the United States north of the Ohio River a most sudden drop of temperature. This will probably take place during the months of January or February, and may be as much as from plus 40° to minus 40° F. Such an occurrence would be accompanied by most serious consequences. If it occurred within the space of 30 seconds, as Prof. Knutt seems to believe, the beautiful clouds now floating peaceably above, would suddenly congeal and fall enmasse upon our heads. The damage wrought in rural districts would be a minimum, but in the great cities, much loss of life and property would inevitably result.

For example the weight of but one cloud can be calculated as follows:

Approximate dimensions =

3000 x 5000 x 50

Volume = 750,000,000 cu. ft.

Density of water vapor = .0005 lbs. per cu. ft.

Weight of cloud =

750,000,000 x .0005 = 37,500 lbs.

Now the velocity acquired in a fall of one miles and the kinetic energy gained thereby may be found.

$$V^2 = 2gh$$

$$V = 584 \text{ ft. per sec.}$$

$$\text{K. E.} = \tfrac{1}{2} MV^2$$

$$= 200{,}000{,}000 \text{ ft. lbs.}$$

This energy, if released at one time, as would here be the case, would be sufficient to destroy the entire loop district of Chicago. If three or four such clouds should fall together, the damage inflicted could scarcely be imagined.

It is with the prevention of such a calamity that the author wishes to deal. It is obviously impossible to develop a protective system for the whole region involved, as the outlay necessary would not be justified. It is perfectly possible, however, to protect our great cities. There are two methods available. The first, and most easily conceived, would be to support the clouds upon a frame-work of steel or concrete covering the metropolis under consideration. Manifestly, there are disadvantages to this method. The cost would primarily be excessive. The labor involved would render other building impossible at the time, and it is doubtful if there is sufficient material in the world. Then too, such a structure would cut off the source of light of a large part of the surrounding country.

From this reasoning it is quite easily seen that a structure of steel or concrete beams is out of the question. There is left, then, as a sole preventive

of such a calamity, the pride of the author's nimble brain—a structure composed of—

SUNBEAMS!

The natural advantages of such a construction are obvious. Sunbeams are plentiful; they would cut off no light from the surrounding country—nay, they would add to it. Prof. Einstein has recently proved that they have weight, whence it is quite possible to use them to support the clouds, the sun itself being one support, and a high spot on the earth the other. Of course some research work would first have to be gone into. The following possibilities are suggested:

The mass of a sunbeam could be accurately measured by exposing a light absorbing substance of known weight to a beam of light of known cross section for a known length of time. It could then be weighed again, and the gain would represent the weight of the sunbeam. Multiplying the time by the velocity of light would give the length of the beam, and as the sectional area is known, the volume could easily be calculated. The weight divided by this volume would give the density of the sunbeam under consideration.

The deflection of a sunbeam due to the elements could easily be computed. The formula for the deflection of a simple beam reads as follows:

$$\text{Deflection} = \frac{KWL^3}{EI}$$

All of these quantities are either known or can be determined. K is a constant depending on the nature of the beam. W is the mass of the clouds to be supported. L is the distance from the sun to the earth. I is the moment of inertia of the beam (easily found from its dimensions). E is the modulus of elasticity of light, the determination of which is discussed in the next paragraph. This deflection must be considered in determining the height of the structure supporting the beams upon the earth.

The modulus of elasticity of light could best be determined by photomicrography. A beam of light of known dimensions could be supported on suitable foundations in the laboratory dark room and a modern motion picture camera, operating at about 500 exposures per second, could be set up in front of it. A drop of water of known weight could be placed upon the center of the beam, and the camera operated. From the photographic record thus obtained, the deflection could be measured. As the other values in the above formula are known, the modulus of elasticity could easily be calculated.

Other factors will probably enter the problem of sun beam study, and should be taken up in due time. Among these are the effect of moisture upon the strength of a sun beam (particularly of thundershowers); the effect of the friction of the atmosphere upon the velocity of light (in view of the Einstein theory); the factors of safety to be allowed; the probable effect of electric storms upon beams exposed to them; and the loss in the density of light due to its passing through a rainy day. All of these factors must be studied in detail before the problem can be solved.

We shall now consider the practical side of the problem. As explained before, the proposition is to support the clouds upon sunbeams, one end of

which rests upon the sun, and the other upon the earth. As this framework is to cover the cities only, it might be well to erect a supporting wall on the north side of all towns north of the Tropic of Cancer. This wall should be of the height of the clouds and should extend in a semicircle about the city, to take into account the fact that the sun travels across the horizon and is in the East in the morning and in the West in the afternoon. To avoid unnecessary expense, it is suggested that a semicircular railway track be built about the city, and that a wall of sufficient width to support beams covering the metropolis, be mounted upon it. This structure would then be moved from West to East as the sun moves from East to West, in order to support the beams covering the city.

As to the structure of the wall itself, the author is somewhat in doubt. A wall one mile high, made of concrete, might be of too great weight to be supported by ordinary steel rails. A steel structure on the order of the Eiffel Tower might serve the purpose better. The top of the wall must, however, present enough friction surface to prevent the sunbeams from sliding off. To aid in the prevention of such an accident, it is suggested that the sunbeams be fastened to the wall by means of thunderbolts. As the number of these in captivity is comparatively small, the alternative of electric sparks, such as are used in wireless, is possible. The difference in shearing strength between the spark and the thunderbolt is not enough to cause serious difficulty, if enough sparks are used. The spacing should not be less than .0001 inch, as the sunbeams are rarely wider than that.

The above method should work excellently in the daytime, but as we all know, sunbeams are conspicuous by their absence at night, and the tensile strength of moonbeams is not sufficient for the purpose in view. As the nights are always colder than the days, the danger of the calamity described in the first paragraph is increased fourfold. The author has, however, a scheme which will circumvent this difficulty. He suggests that gigantic searchlights be mounted upon the wall, and that between sunset and sunrise, their beams be cast beneath the clouds. The effect produced will be that of a cantilever, which will of necessity increase the strain upon the wall. Care must be taken to secure the searchlight firmly in the wall, and to encase the incandescent filament in material strong enough to prevent it being torn out by the terrific strain imposed. The current used for the lights would have to be generated by special dynamoes, as they would be in service at the time when the city lights would also be in use. It might be possible to store up enough current during the daytime in storage batteries for use in the night. This would save much of the installation cost, as such large dynamoes would not be necessary.

Such is the theory of the use of sunbeams as outlined by the author. He does not intend it to be at all comprehensive, but merely as an outline for future scientific development. He believes that his basic principles are sound, and sincerely hopes that his idea will be taken up and developed to its full extent.

Note: Any mathematical or scientific errors in the above article will kindly be excused, as the library at Dunning contains no books on those subjects.—Editor.

Does your Engineering Society Mean Anything to You?

Have you ever pictured in a technical way, the meaning of your Student Engineering Society?

On the following page we have the author's conception of the importance of the A. I. E. E., as it appears from the student point of view. He has drawn and arranged in logical order the various parts of an alternating-current lighting circuit representing the successive steps taken by the student of electricity, on the road to success in his chosen profession. Not only has the progress of the individual been portrayed, but an attempt has been made to show also the advancement of the industry itself. Do you think the comparison a good one, and the parts properly arranged?

In order to understand more fully the author's mode of reasoning, let us carefully analyze the diagram.

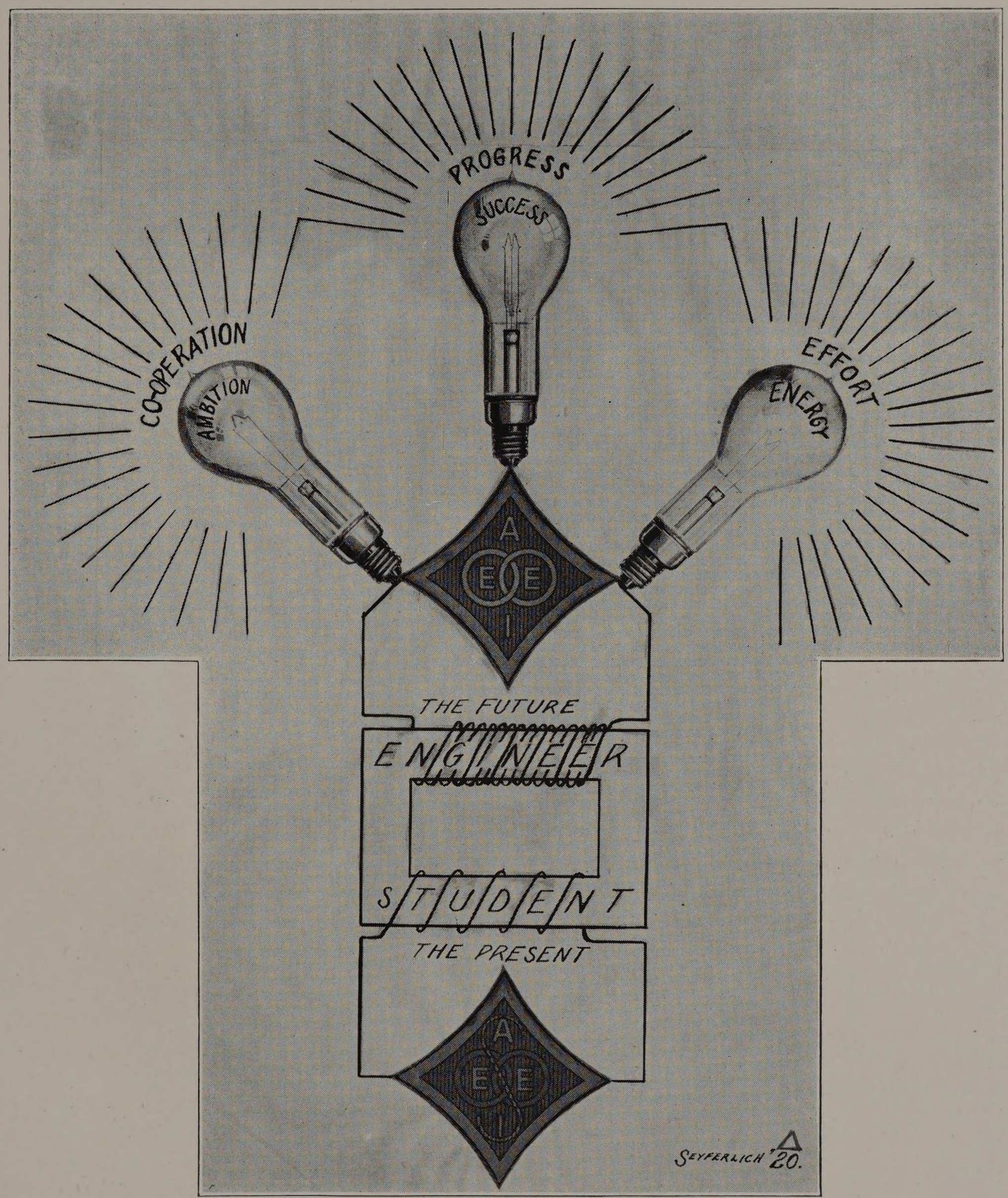
First, we have the Student Badge of the A. I. E. E., representing the source of energy, for the symbol is generally used to designate an alternating-current generator. Analogous to the source of energy is the electrical circuit, or in other words the generator, we have a source of successful engineers, the Student Branch of the A. I. E. E. In order to utilize properly this generated energy, a step-up transformer is provided, by means of which the power generated at comparatively low voltage, may be transformed or converted into power of sufficiently high voltage to maintain the lights of Ambition, Energy, and Success, and to keep them burning *brightly*. Thus we have represented by the transformer the transcending of the individual from student to engineer; the primary circuit depicting the present, and the secondary symbolizing the future.

As the center of distribution for this power in the secondary, there is the badge of the Institute itself, which is representative of the importance of the national organization in the electrical world. The two interlocking rings or circles, which appear on the national A. I. E. E. Badge, are symbolical of an alternating-current machine, and in the circuit under discussion may be thought of as an additional source of energy, to be resorted to in the event that our primary source "break down," or otherwise as a synchronous machine provided for the betterment of conditions in the secondary. In this manner, should the Student Branch, or Branches prove to be a failure in supplying material for developing successful engineers, the national A. I. E. E., may be resorted to. Therefore, figuratively speaking, the Institute is the heart of the entire circuit, and is by far the most necessary adjunct for the satisfactory operation of the lamps of Ambition, Energy, and Success.

As indicated in the diagram the three lights, Ambition, Energy, and Success, are necessarily operated in series, for without Ambition and Energy, Success is impossible. Likewise, when referring to the industry itself, Progress is impossible without Co-operation and Effort. Having carefully considered the equation,

$$\text{Success} = \frac{\text{Ambition}}{\text{Energy}}$$

in which all quantities have finite values, it was concluded that such a series circuit would be the most appropriate to show the relationship existing between these quantities. Should any one of the three lights burn out it is evident that an open circuit exists, and hence the others will remain out. The degree of illumination for each lamp would necessarily depend upon the amount of Ambition and Energy possessed by the individual. In this manner with a constant voltage in the primary and secondary, and operating under other ideal


PROGRESS
SUCCESS
CO-OPERATION
AMBITION
EFFORT
ENERGY
A
E E
I
THE FUTURE
ENGINEER
STUDENT
THE PRESENT
A
E E
I
SEYFERLICH '20.

conditions, the amount of Ambition, Energy, and Success of any individual, would depend solely on the resistance of the respective lamps, or in other words Energy and Ambition are measured by resistance. In a similar way the entire system may be analyzed with respect to the industry and the progress made therein.

Referring once more to the individual, it is the aim of the Institute to produce and develop qualified engineers.

Dr. Mann has compiled from replies of seven thousand engineers, the following list of qualities and their respective weights, the summation of which total one hundred per cent. This list is considered a standard by the greater proportion of successful engineers.

1. Character 24.00%
   - Personality.
   - Responsibility
   - Physique and Neatness.
   - Honesty.
   - Decision.
   - Originality
   - Tact.
   - Initiative.
   - Resourcefulness.
   - Enthusiasm.
   - Reliability.
   - Attitude.

2. Judgment 19.50%
   - Common Sense.
   - Scientific Attitude
   - Open-mindedness.
   - Perspective.

3. Efficiency 16.50%
   - Thoroughness.
   - Accuracy.
   - Industry.
   - System.
   - Analysis.

4. Understanding of men 15.00%
   - Executive ability.
   - Practical Psychology.
   - Open-mindedness.

5. Knowledge 15.00%
   - Knowledge of fundamentals of engineering science.
   - English.
   - Ability to express one's self.
   - Ability to impart knowledge.

6. Technique 10.00%
   - Execution in business and in practice.
   - Technical ability.

100.00%

It is sincerely hoped that after careful consideration on the reader's part, this article will aid him in appreciating and understanding to the fullest extent, the benefits derived from affiliation with such an organization.

WALTER M. SEYFERLICH.

The R. O. S. and S. P.

This college life sure is the "berries." A few wise "birds" in the senior Mechanical Department have just decided that things were sailing too smoothly, so they ups and decides to initiate some of their fellow students into the R. O. S. & S. P. Local No. 1 (That R. O. S. & S. P. is not some jerk water railroad but means Royal Order of Shoe and Sock Pullers.)

You see the way the royal order started was like this. One of the boys happened to have on a pair of dazzling white socks. These same pedal envelopes were quite inconspicuous until we hit our 9:30 lecture. Now this class usually has a decided lethargic effect on its members. However on this day all apathy was gone. Even the room seemed brighter. Of course, such a state of affairs was pretty bad as the boys in the back row could not concentrate on their hydraulics, while the boobs in the first row could not get interested in volts and amperes as they were dealt out without concern by the prof. The royal order must have started by spirits (not C_2H_5OH) because at the end of the hour there was a High Muck-a-Muck and a willing band of disciples.

The white socks with their owner inside them, following the schedule made for them by the deans, proceeded across the campus, which consists of 60 ft. of asphalt boarded on each side by twelve feet of sidewalk. No sooner did the socks gain entrance to Machinery Hall than did they meet the High Muck-a-Muck of the R. O. S. & S. P. along with his whole band. In the next few minutes the Royal Order of Shoe and Sock Pullers lived up to the title of their organization to the extent of one sock. This trophy was exhibited with pride on the radiator during the next lecture and afterward was allowed to return to its fold around its owner's left foot.

The next victim of the R. O. S. & S. P. was a tough Junior who during one of Chas. Goodman's celebrated assemblies in the Mission disregarded all the traditions of that hall by ensconcing himself in the Senior section.

Nothing was done until the close of the assembly when with a whoop and a yell the bloodthirsty, no, I mean sock thirsty, crew descended on the unsuspecting Junior and de-fested him of both shoes and socks and took them across the street. They were then exhibited with pride to the baseball cups. And to get back to our de-feated Junior the poor old thing had to go across our campus barefooted, and then proceed to the Dean's Office for His Shoes and Socks.

Moral: Go slow and easy, or the R. O. S. & S. P. will get you if you don't watch out.

Exp. No. L-1

*First life experience.

A Mechanical Analysis of an Armour Student in his Four Years at School.

Object: To make a complete analysis of the attitude and accomplishments of an Armour Student in Four Years.

Apparatus: Armour Institute of Technology; an Armour Student.

Operation: Upon the completion of his High School course, the young lad mechanically inclined turned his thoughts upon going to a technical school. Naturally Armour, being in a class by itself, became his choice.

His first experience came in his interview with the Deans one week before he commenced his college course. Here he became acquainted with the higher elements of the school and was rather highly impressed with the college air abounding. He went home that night and talked things over with the folks and they decided that it would be necessary for him to cease his midnight adventures along purely recreation lines.

And so he became a Freshman. His first experience on the opening day was a four-hour wait to see Dean Raymond and have his High School credits checked and his new course laid out.

On the next day he was formally introduced to the professors teaching in the Freshman department. Lessons were assigned and he was determined to buckle down to business.

For the first year his time was actively engaged in combating the stiff elements in the Freshman course. His attitude is clearly shown on the curve accompanying this article.

During the second year he was occupied with calculus, mechanics, and physics. These kept him fairly busy and no outside connections did he make this year.

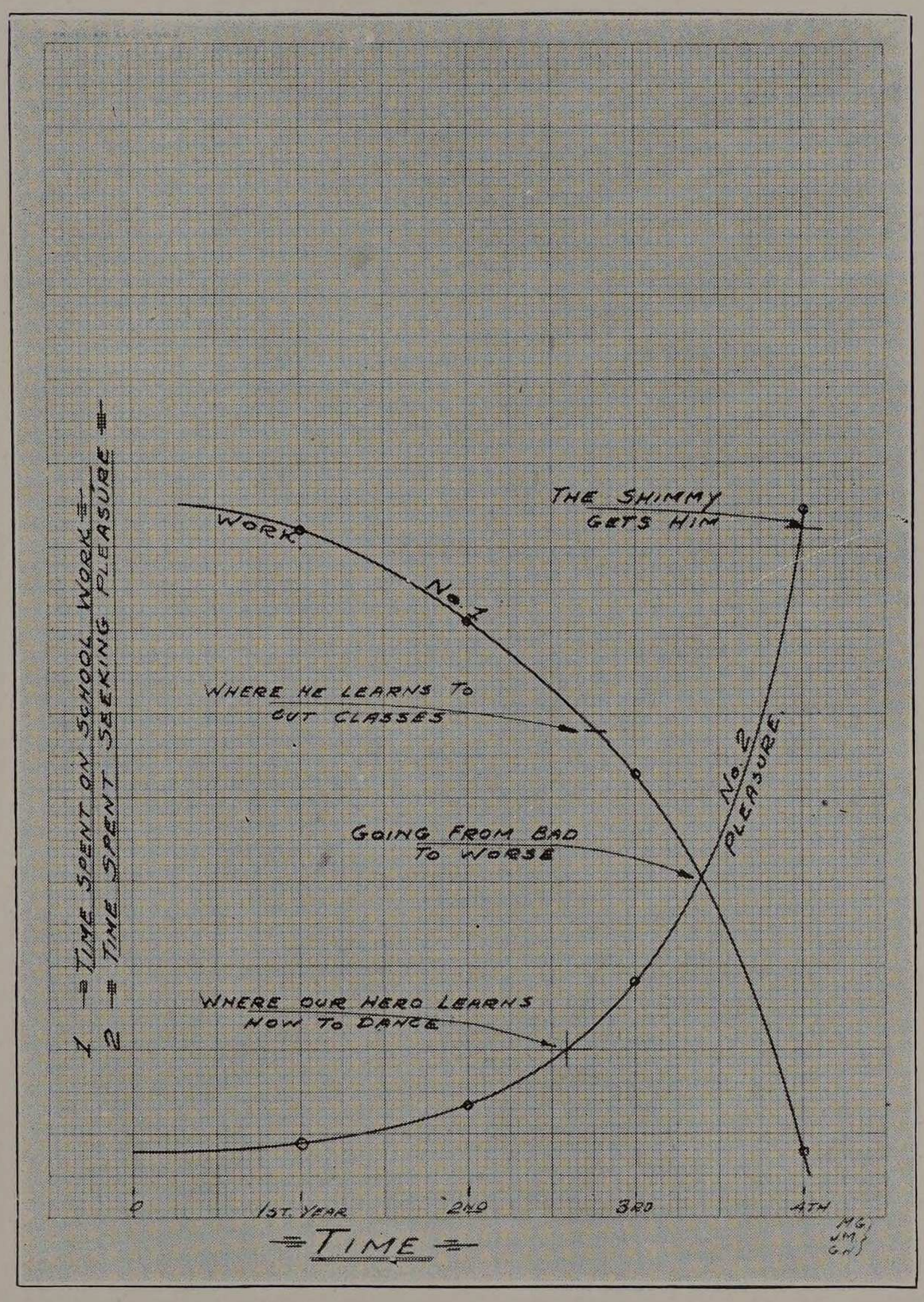
The third year however marked a change in his attitude towards things. Dances given by the school together with various other school activities began to creep into his wayward mind and displace his zeal for pure school work.

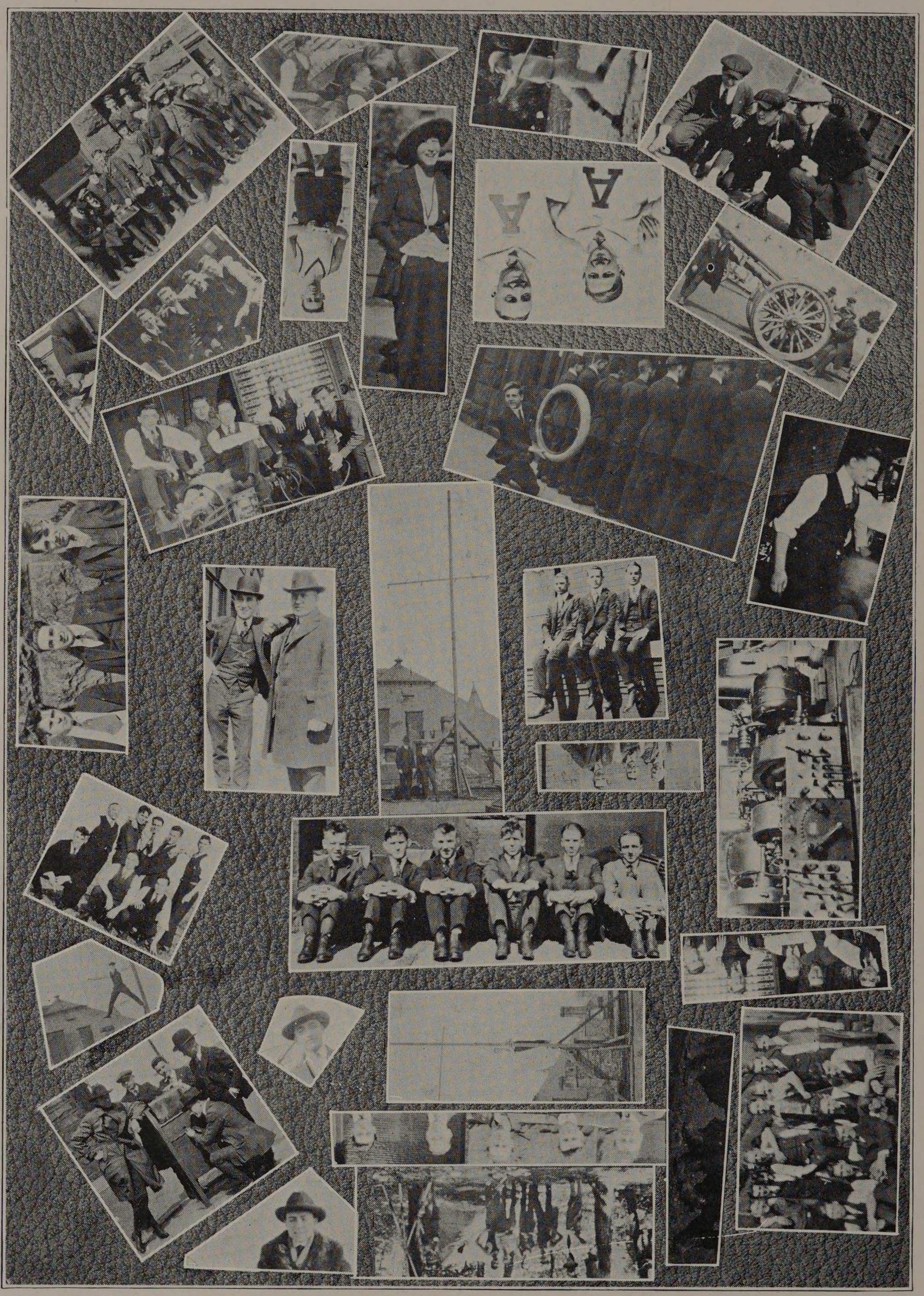
Valve Gears and Dynamics no longer did he crave for. He skipped from the Junior drawing room whenever a chance presented itself, and in "History of Heat Engines" he either slept or wrote a letter to his sweetheart if there was enough light creeping in thru a hole in the window shade. At times the professor talked too loud and so sleeping was rather hard.

He now came upon his fourth year and the last lap. He was determined to buckle down to business but this determination did not last long, and it was not long before he was absent twice a week from Thermodynamics and slept thru the other three periods.

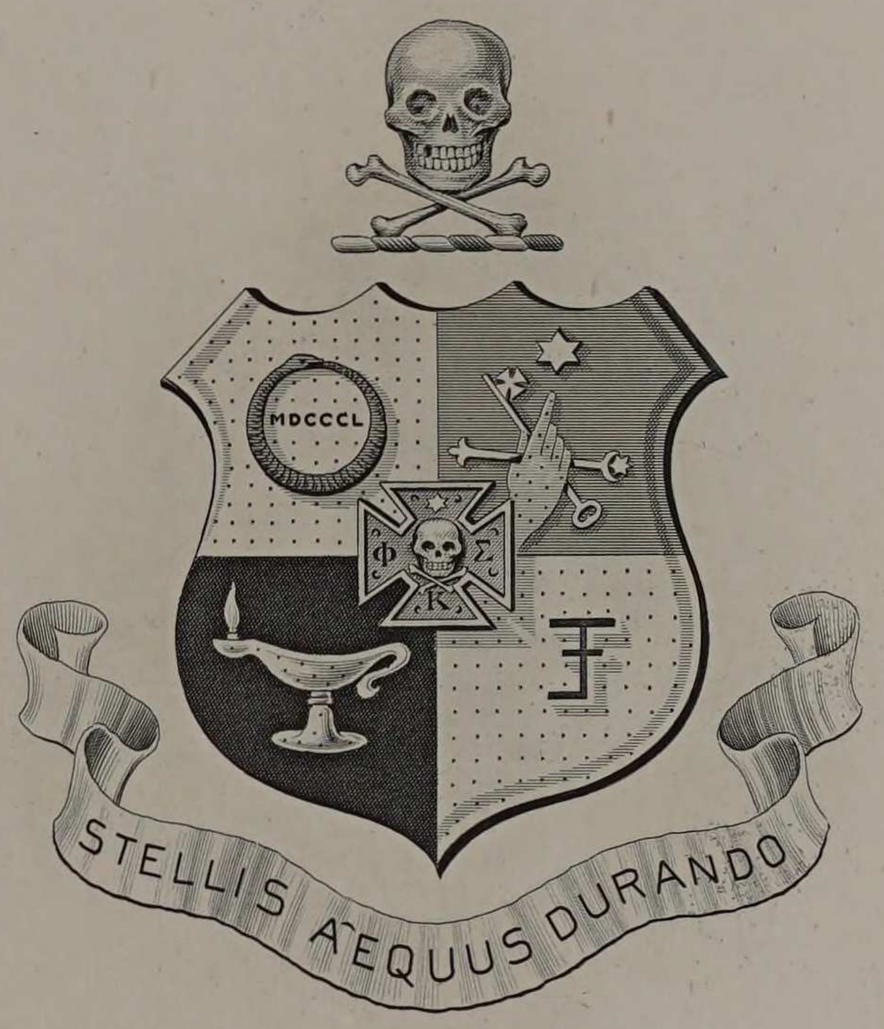
His zeal crept lower and lower as is indicated by the accompanying curve until, near the time of commencement, he struck the bottom, and if it weren't for the fact that the course is only four years long he would have gone below the zero line.

Conclusion: They say that all is well that ends well, but if that were the case the conclusions herewith derived would indicate no sense in taking more than a two year course; but in behalf of the students of Armour Tech, we have made one exception to this old proverb—viz., the Armour graduate.


X = TIME SPENT ON SCHOOL WORK
Y = TIME SPENT SEEKING PLEASURE
WORK
No. 1
THE SHIMMY GETS HIM
WHERE HE LEARNS TO CUT CLASSES
No. 2 PLEASURE
GOING FROM BAD TO WORSE
WHERE OUR HERO LEARNS HOW TO DANCE
0
1ST. YEAR
2ND
3RD
4TH
TIME
M.G.
J.M.J.
C.M.J.



FRATERNITIES



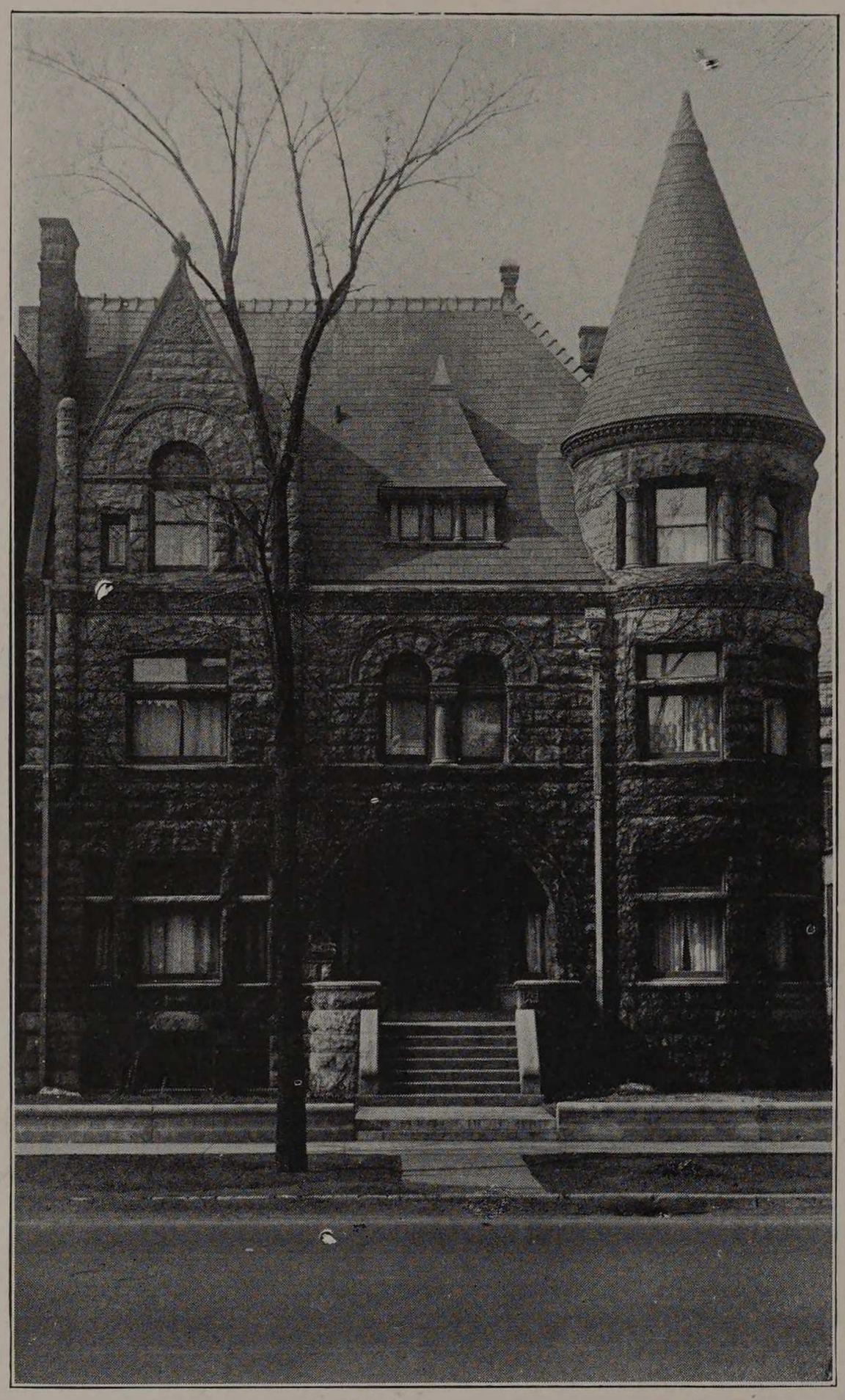
Dreka, Phila.
Design Patent applied for

Phi Kappa Sigma

CHAPTER ROLL.

Founded at the University of Pennsylvania, 1850.

Alpha 1850 . . . . . WASHINGTON AND JEFFERSON COLLEGE
Delta 1854 . . . . . DICKINSON COLLEGE
Epsilon 1854 . . . . . FRANKLIN AND MARSHALL COLLEGE
Zeta 1854 . . . . . UNIVERSITY OF VIRGINIA
Eta 1854 . . . . . COLUMBIA UNIVERSITY
Iota 1855 . . . . . TULANE UNIVERSITY
Mu 1858 . . . . . UNIVERSITY OE ILLINOIS
Rho 1892 . . . . . RANDOLPH-MACON COLLEGE
Tau 1872 . . . . . NORTHWESTERN UNIVERSITY
Upsilon 1872 . . . . . UNIVERSITY OF PENNSYLVANIA
Phi 1873 . . . . . RICHMOND COLLEGE
Psi 1890 . . . . . 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 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 INSTITUE OF TEGHNOLOGY
Alpha Nu 1904 . . . . . GEORGIA SCHOOL OF TECHNOLOGY
Alpha Xi 1905 . . . . . PURDUE UNIVERSITY
Alpha Omicron 1905 . . . . . UNIVERSITY OF MICHIGAN
Alpha Pi 1906 . . . . . UNIVERSITY OF CHICAGO
Alpha Rho 1911 . . . . . CORNELL UNIVERSITY
Alpha Sigma 1915 . . . . . UNIVERSITY OF MINNESOTA
Alpha Tau 1915 . . . . . LELAND STANFORD JUNIOR UNIVERSITY
Alpha Upsilon 1919 . . . . . UNIVERSITY OF WASHINGTON



Phi Kappa Sigma

ALPHA EPSILON CHAPTER

Chartered June 8th 1898

Faculty

JOHN J. SCHOMMER,
Chicago, '10.

1920

LELAND KING CARDWELL
LENO ERIC JONES
JOSEPH ALBERT KARLSON
ARTHUR LEROY LYON
WILLIAM JOSEPH O'CONNOR
HAROLD DEFORREST STEVERS

1921

NELS HAROLD ERLANDSON
MILTON JACOB GRILL
HOPE HENRY HORMAN
EUGENE MATHIAS MATSON
THEODORE COLBURN SEDGWICK

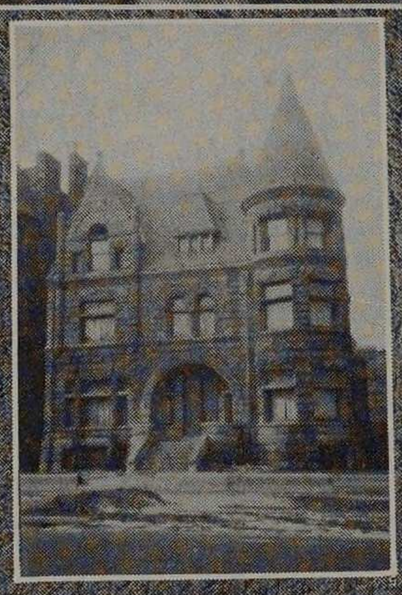
1922

CHARLES HENRY BOCKMAN
FRED ERNST BUSBEY
EDWARD WALTER GEISLER
STUART ROLFE WILLIAMS
WILLIAM JOHN TARRANT
WILLIAM COLE ZINGHEIM

1923

CARL HYDE CONRAD
NELS PETTIGREW HENJUM
EUGENE SANFORD HURST
GEORGE ROBERT READ
WILLIAM PROCTOR ROBERTS
FRED EMERSON SLOAN

ERLANDSON TARRANT HURST HORMAN HENJUN GRILL LAWSON
CONRAD ROBERTS LYON O'CONNOR CARDWELL KARLSON SLOAN
STEVERS BOCKMAN GEISLER ZINGHEIM MATSON BUSBEY JONES SEDGEWICK



ON
50

Copyrighted by
Frank F. Rogers
1908

Dreka, Phila.

Delta Tau Delta

Founded at Bethany College in 1859

Chapters

SOUTHERN DIVISION

VANDERBILT UNIVERSITY
WASHINGTON AND LEE UNIVERSITY
UNIVERSITY OF GEORGIA
EMORY COLLEGE
UNIVERSITY OF THE SOUTH
UNIVERSITY OF VIRGINIA
TULANE UNIVERSITY
GEORGE WASHINGTON UNIVERSITY
UNIVERSITY OF TEXAS

WESTERN DIVISION

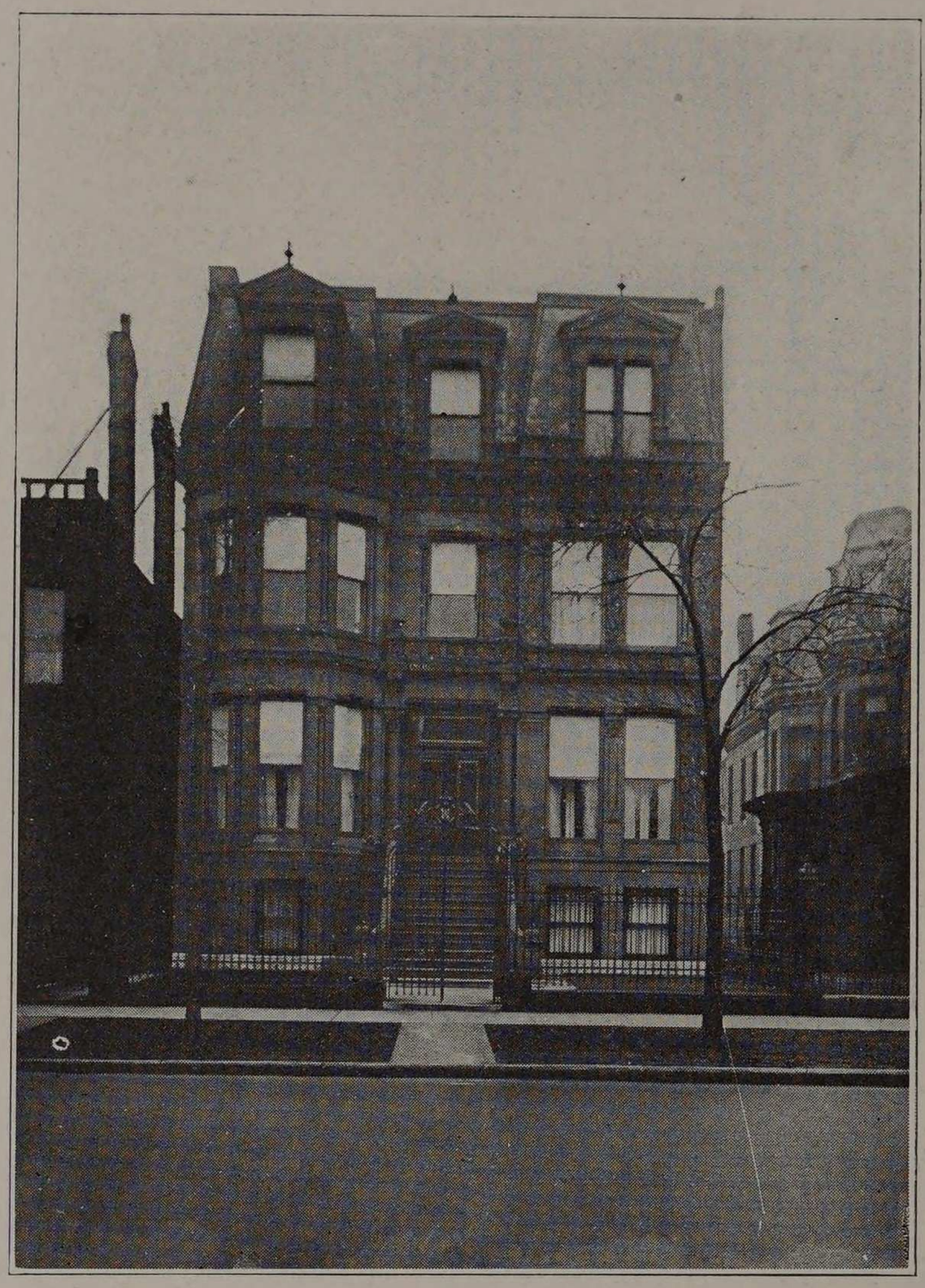
UNIVERSITY OF IOWA
UNIVERSITY OF WISCONSIN
UNIVERSITY OF MINNESOTA
UNIVERSITY OF COLORADO
NORTHWESTERN UNIVERSITY
LELAND STANFORD, JR. UNIVERSITY
UNIVERSITY OF NEBRASKA
UNIVERSITY OF ILLINOIS
UNIVERSITY OF CALIFORNIA
UNIVERSITY OF CHICAGO
ARMOUR INSTITUTE OF TECHNOLOGY
BAKER UNIVERSITY
UNIVERSITY OF MISSOURI
UNIVERSITY OF WASHINGTON
IOWA STATE COLLEGE
UNIVERSITY OF OREGON
UNIVERSITY OF KANSAS

NORTHERN DIVISION

OHIO UNIVERSITY
UNIVERSITY OF MICHIGAN
ALBION COLLEGE
WESTERN RESERVE UNIVERSITY
HILLSDALE COLLEGE
OHIO WESLEYAN UNIVERSITY
KENYON COLLEGE
INDIANA UNIVERSITY
DE PAW UNIVERSITY
BUTLER COLLEGE
OHIO UNIVERSITY
WABASH COLLEGE
WEST VIRGINIA UNIVERSITY
PURDUE UNIVERSITY
UNIVERSITY OF CINCINNATI
MIAMI UNIVERSITY

EASTERN DIVISION

ALLEGHENY COLLEGE
WASHINGTON AND JEFFERSON COLLEGE
LAFAYETTE COLLEGE
STEVENS INSTITUTE OF TECHNOLOGY
PENN STATE COLLEGE
RENSSELAER POLYTECHNIC INSTITUTE
UNIVERSITY OF PENNSYLVANIA
LEHIGH UNIVERSITY
TUFTS COLLEGE
MASSACHUSETTES INSTITUTE OF TECH.
CORNELL UNIVERITY
BROWN UNIVERSITY
DARTMOUTH COLLEGE
COLUMBIA UNIVERSITY
UNIVERSITY OF MAINE
SYRACUSE UNIVERSITY
UNIVERSITY OF PITTSBURGH
WESLEYAN UNIVERSITY
AMHERST COLLEGE



Delta Tau Delta

GAMMA BETA CHAPTER.

Chartered May 10, 1901

1920

WILLIAM NOLING ERICKSON

WALTER E. MEAD

WILLIAM JAMES WIGNALL

1921

WOODBRIDGE BISSELL
JAMES CARDWELL CARSON
WILLIAM KIMBALL LYON
EMIL WILLIAM PFAFFLIN
THOMAS J. ROWE
CHARLES TAYLOR WALTER
EMIL FRANK WINTER
ALFRED TINSLEY WENNER
HAROLD LOUIS WOODS

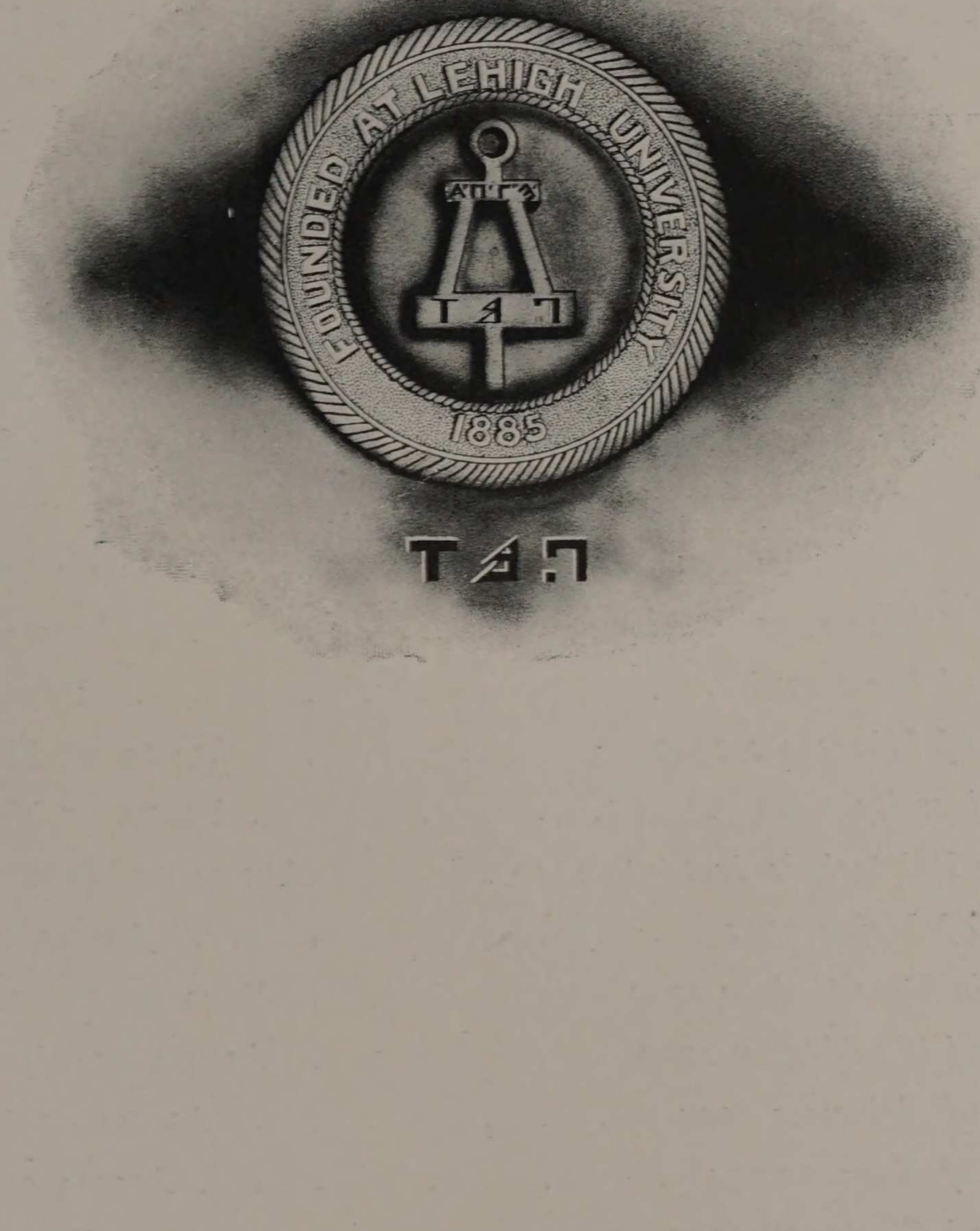
1922

WALLACE TAYLOR GRAY
ALFRED ALBERTUS DAVIS
ROBERT REGINALD MAGUIRE
EDWIN GEORGE WALKER

1923

FRANK EDWARD CATLIN
RUSSELL BROWN GROVE
HARLIN RALPH HARWOOD
WILSON WELLINGTON KLINE
PAUL WAYNE BUTZ
CLARENCE GREGORY NICKLIN
MERILE CARO NUTT
GEORGE BROWNLEE STANTIAL
ROBERT OWEN BRADLEY
MORSE MARSHALL WELLS

ERICKSON NUTT WELLS STANTIAL
CATLIN MAGUIRE WIGNALL PFAFFLIN WALTER WINTER WALKER
GROVE KLINE BISSELL ROWE WENNER CARSON LYON MEADE
DAVIS BUTZ HILLIKER BRADLEY NICKLIN HARWOOD


FOUNDED AT LEHIGH UNIVERSITY
1885

Tau Beta Pi

Founded at Lehigh University in 1885

CHAPTER ROLL

Lehigh University 1885 . . . . . Alpha of Pennsylvania
Michigan Agricultural College 1892 . . . . . Alpha of Michigan
Purdue University 1893 . . . . . Alpha of Indiana
Stevens Institute of Technology 1896 . . . . Alpha of New Jersey
University of Illinois 1897 . . . . . Alpha of Illinois
University of Wisconsin 1899 . . . . . Alpha of Wisconsin
Case School of Applied Science 1900 . . . . . Alpha of Ohio
University of Kentucky 1902 . . . . . Alpha of Kentucky
Columbia University 1902. . . . . . Alpha of New York
University of Missouri 1902 . . . . . Alpha of Missouri
Michigan College of Mines 1904 . . . . . Beta of Michigan
Colorado School of Mines 1905 . . . . . Alpha of Colorado
University of Colorado 1905 . . . . . Beta of Colorado
Armour Institute of Technology 1906 . . . . . Beta of Illinois
Syracuse University 1906 . . . . . Beta of New York
University of Michigan 1906 . . . . . Gamma of Michigan
Missouri School of Mines 1906 . . . . . Beta of Missouri
University of California 1906 . . . . . Alpha of California
Iowa State College 1907 . . . . . Alpha of Iowa
University of Iowa 1908 . . . . . Beta of Iowa
University of Minnesota 1909 . . . . . Alpha of Minnesota
Cornell University 1910 . . . . . Delta of New York
Worchester Polytechnic Institute 1910 . . . . Alpha of Massachusetts
University of Maine 1911 . . . . . Alpha of Maine
Pennsylvania State College 1912 . . . . . Beta of Pennsylvania
University of Washington 1912 . . . . . Alpha of Washington
University of Arkansas 1914 . . . . . Alpha of Arkansas
University of Kansas VT14 . . . . . Alpha of Kansas
University of Cincinnati 1915 . . . . . Beta of Ohio
Carnegie Institute of Technology 1916 . . . . Gamma of Pennsylvania

"Engineering students in the second semester of their Junior year, whose rank in scholarship is in the best one-fourth of their class and who have completed at least one year of work in this Institute are eligible. From these are elected, by the active members of the chapter, such men as are considered worthy by reason of their personality and good fellowship."

Tau Beta Pi

BETA CHAPTER OF ILLINOIS

Chartered April 6th, 1906

Faculty Members

E. H. Freeman, Armour, '02
P. C. Huntley, Arkansas, '10
W. H. Lautz, Armour, '13
C. W. Leigh, Illinois, '87
E. S. Libby, Armour, '02
D. P. Moreton, *Armour*, '06
M. B. Wells, Purdue, '94
J. C. Peebles, Armour, '04
J. C. Penn, Armour, '05
R. V. Perry, Armour, '97
J. V. Richards, Illinois, '10
Daniel Roesch, Armour, '04
K. H. Read, Lehigh, '15
Fred C. Smith, *Purdue*
H. L. Nachman, Armour, '02

Honorary

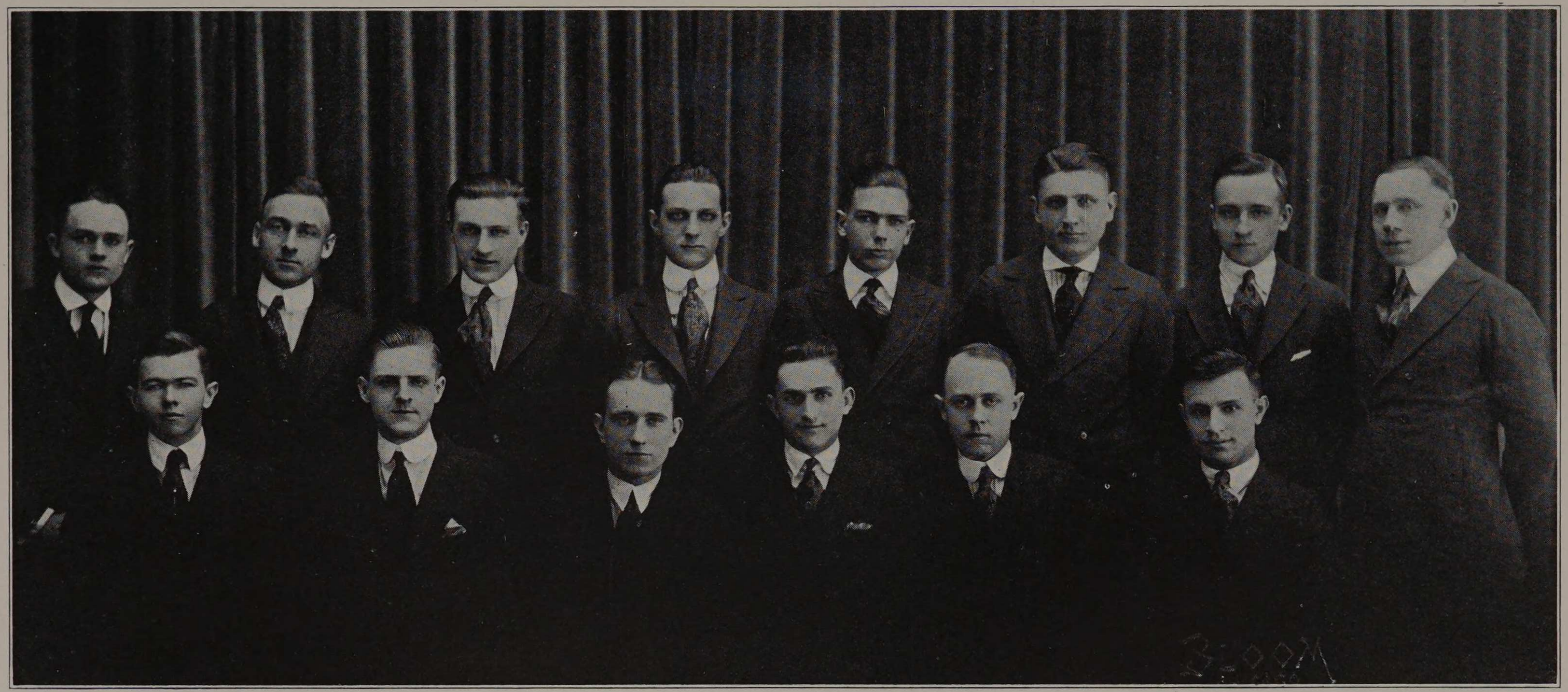
H. M. Raymond, Dean of the Engineering Studies
A. E. Phillips, Professor of Civil Engineering
G. F. Gebhardt, Professor of Mechanical Engineering
Harry McCormack, Professor of Chemical Engineering

1920

P. J. Adam
H. E. Anderson
L. Cardwell
Ellis C. Cook
W. S. Eagle
J. A. Hertwig
W. K. McCauley
C. W. Muehlberger
K. M. Sabiston
W. M. Seyferlich
A. R. Throop
J. A. Karlson
D. G. Malpede

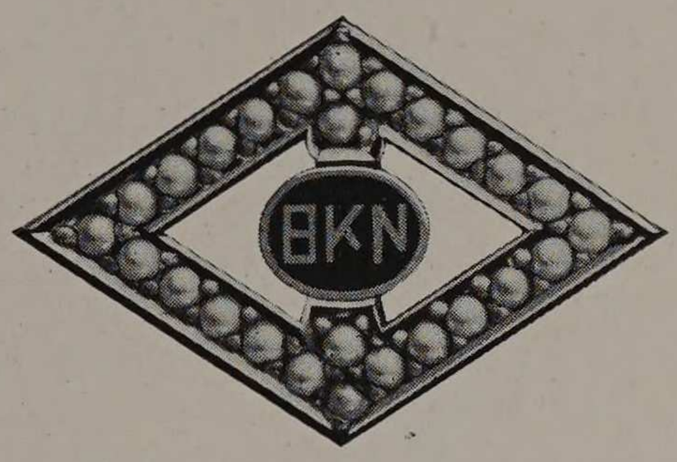
1921

J. P. Sanger
D. S. Chase
R. Regensberger
S. N. Havlick
T. L. Albee
E. F. Winter
B. E. Wolgemuth
W. J. Anderson
S. H. Barce



CHASE SABISTON SEYFERLICH MUEHLBERGER CARDWELL KARLSON McCAULEY ADAM

EAGLE COOK ANDERSON HERTWIG THROOP MALPEDE


BKN

Eta Kappa Nu

Honorary Electrical

Founded at the University of Illinois, 1904

CHAPTER ROLL

Alpha . . . . . University of Illinois, Urbana, Ill.
Beta . . . . . Purdue University, Lafayette, Ind.
Gamma . . . . . Ohio State University, Columbus, Ohio
Delta . . . . . Armour Institute of Technology, Chicago, Ill.
Epsilon . . . . . Pennsylvania State College, State College, Pa.
Zeta . . . . . Case School of Applied Science, Cleveland, O.
Theta . . . . . University of Wisconsin, Madison, Wis.
Iota . . . . . University of Missouri, Columbus, Mo.
Kappa . . . . . Cornell University, Ithaca, New York
Lambda . . . . . University of Pennsylvania, Philadelphia, Pa.
Mu . . . . . University of California, Berkeley, Cal.

ALUMNI CHAPTERS

PITTSBURG . . . . . Pittsburg, Pa.
CHICAGO . . . . . Chicago, Ill.
NEW YORK . . . . . New York, N. Y.
SCHENECTADY . . . . . Schenectady, N. Y.
ST. LOUIS . . . . . St. Louis, Mo.
MILWAUKEE . . . . . Milwaukee, Wis.
PHILADELPHIA . . . . . Philadelphia, Pa.

Eta Kappa Nu

By Walter M. Seyferlich, '20

Eta Kappa Nu is an honorary, electrical engineering fraternity. It was founded at the University of Illinois, (Urbana, Illinois), October 28, 1904, for the closer co-operation among, and the mutual benefits to, students and others in the profession, who, by their attainments, either in college or in practice, manifest exceptional interest and marked ability in Electrical Engineering.

In the comparatively few years since its founding, the fraternity has made such rapid progress, that it has become the most highly esteemed, and well-known organization of its kind. There are now eleven active Chapters of Eta Kappa Nu, located in as many different Universities or Engineering Schools of recognized standing, and, which offer an Electrical Engineering Course of established merit.

The value of these chapters to the students, colleges, and alumni, becomes more evident when one considers the fact that every active chapter that Eta Kappa Nu has established, has always remained *active;* and, that in certain cases, members of the alumni, after having left school and gained actual practice and experience in the profession, have continued their activities in the Fraternity, and have extended their interest in it by establishing alumni chapters, which are located in seven of the largest cities in the United States.

Not only is Eta Kappa Nu an honorary fraternity, organized for the recognition of merit, but it also embodies a spirit of brotherly-love and helpfulness, such as that found only in those Organizations, whose members strive for a full understanding of each other, in order that mutual benefit may be derived from their association. Besides having a high scholarship standing, the H. K. N. Man is recognized nationally, as one possessing that desirable type of personality, as well as other good qualities, that will make him a dependable citizen, of whom both his Alma Mater and his Chosen Profession may well be proud.

Delta Chapter was chartered at the Armour Institute of Technology in 1909, and having been located in a great city, has always maintained a high standard in activities. Its members are selected from the Junior and Senior classes, and its membership includes those whose ability and zeal, shown in the pursuance of their studies, marks them as the men most likely to reach the top in their chosen profession.

Our Chapter has lived up to its high standard in social traditions during the past year, and since the initiation of last spring, has given social functions on the average of two per school month, many of which were given in conjunction with affairs of the Chicago Alumni Chapter. Besides these social functions, the local Chapter holds regular business meetings in the Chapter rooms every Wednesday, and also sends two delegates to the National Convention of Eta Kappa Nu, each year.

In closing, it may be of great interest to state that the motto and "WAR CRY" of Eta Kappa Nu is "LET'S GO", and after looking at the calender of the more important events of the year, you may rest assured that the Delta Boys lived up to it.

ETTA KAPPA NU

Honorary Electrical

DELTA CHAPTER

Chartered 1909

Honorary Member

PROFESSOR ERNEST H. FREEMAN

Active Members

1920

GRANT, A. Q.
ILLG, R. S.
LIU, A. S.
MALPEDE, D. J.
MUELLMAN, J. P.
SCHEUER, E.
SEYFERLICH, W. M.
SMELY, J.
STEVERS, H. D.
SUGARMAN, A. J.
THROOP, A. R.

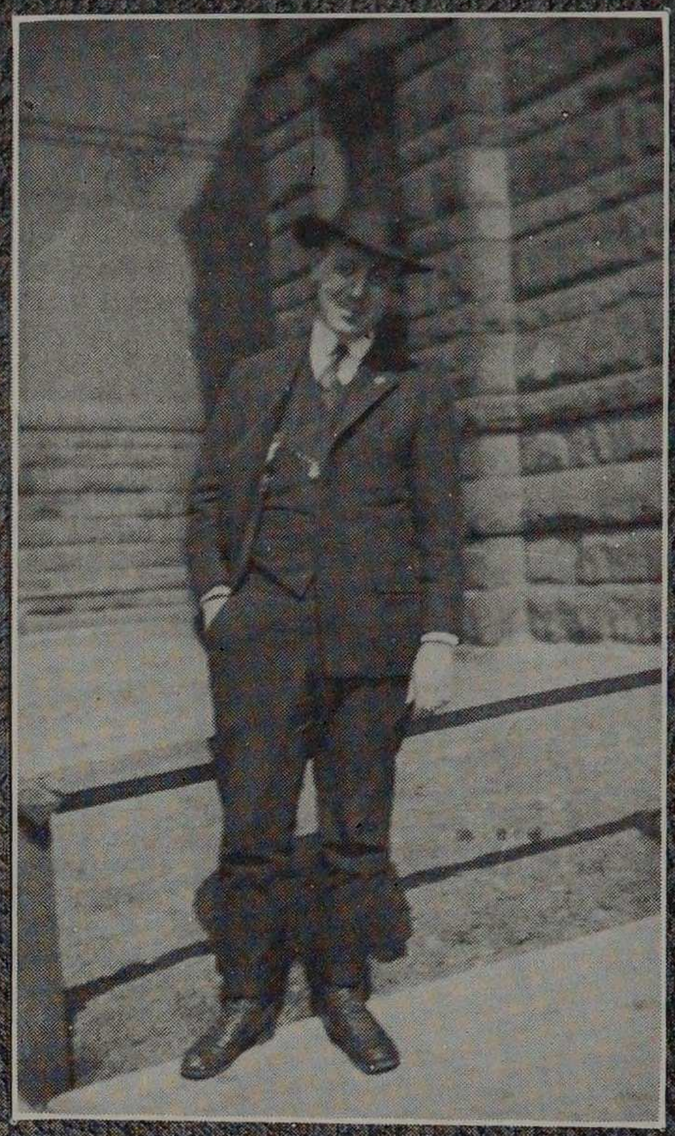
1921

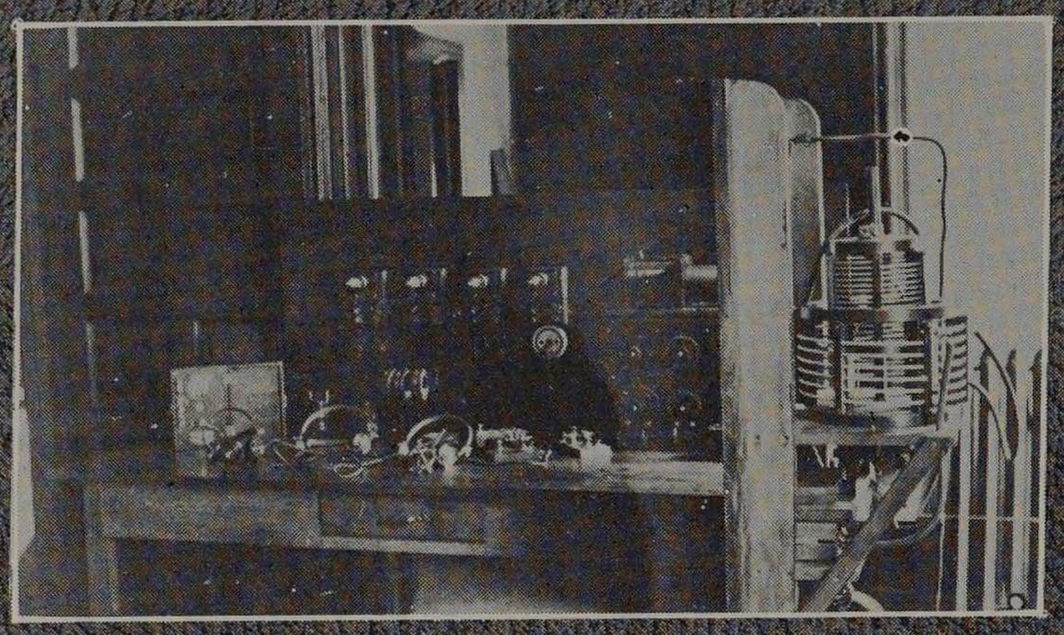
DOUGLAS, W. A.
HAYDEN, F. E.
KUMBERA, G. C.
PEARCE, W. W.

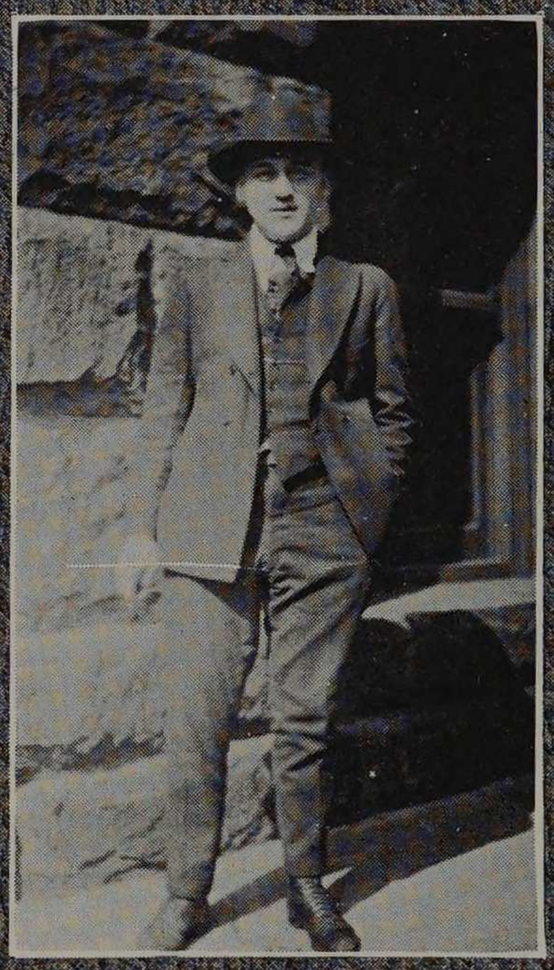
Pledges

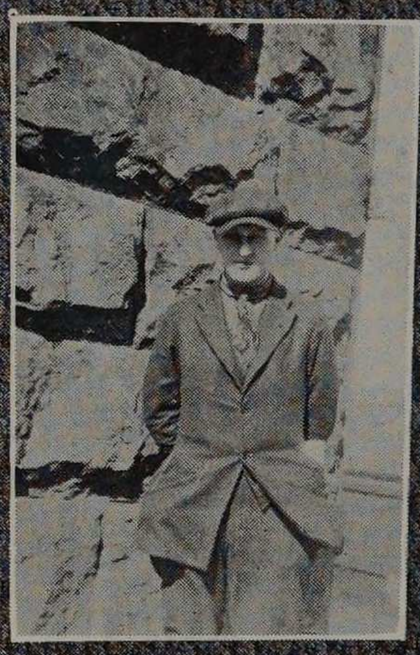
ALBEE, T. L., '21
ANDERSON, F. A., '21
BLOOMBERG, S., '20
GRILL, M. J., '21
MALWITZ, R. C., '21
O'ROURKE, J. J., '21
RENAUD, E. S., '20

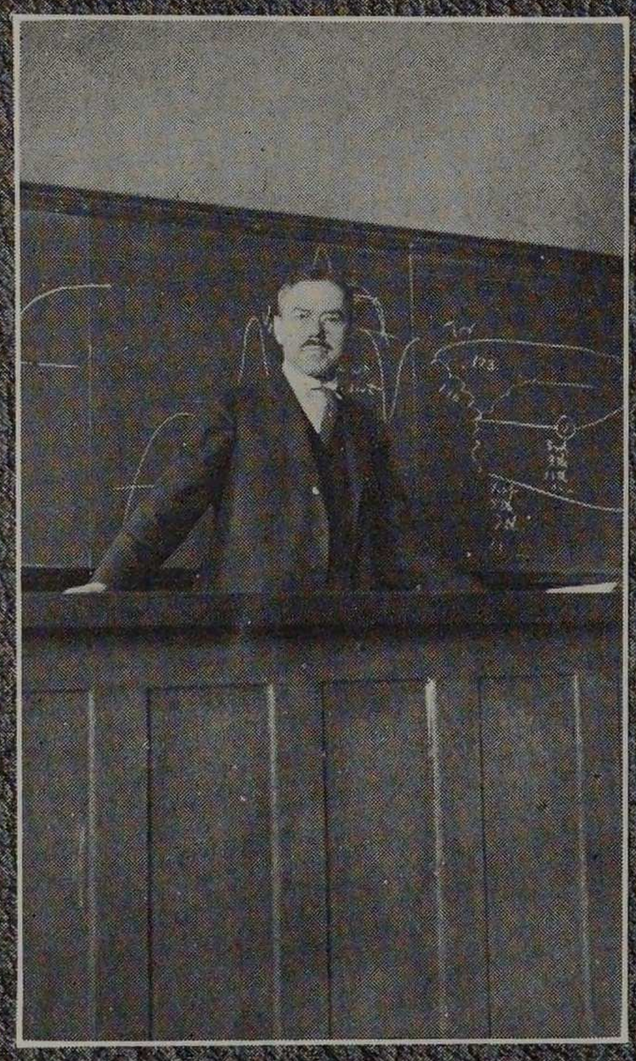
PEARCE SEYFERLICH SCHEUER DOUGLAS SMELY HAYDEN GRANT MALPEDE
MUELLMAN STEVERS LIU THROOP ILLG SUGARMAN

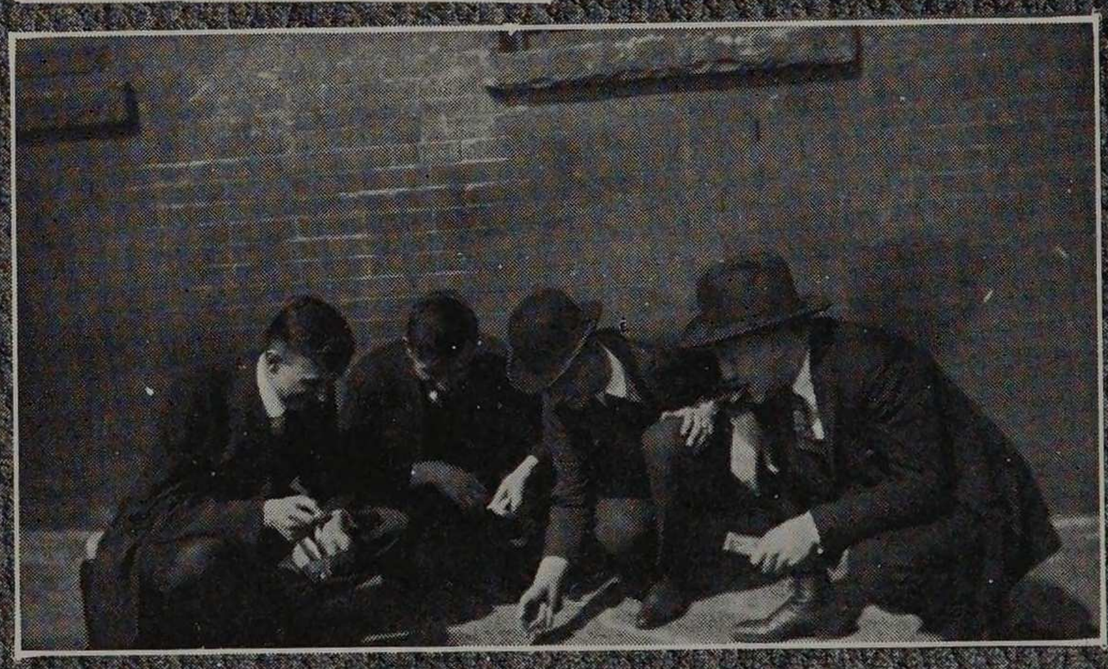


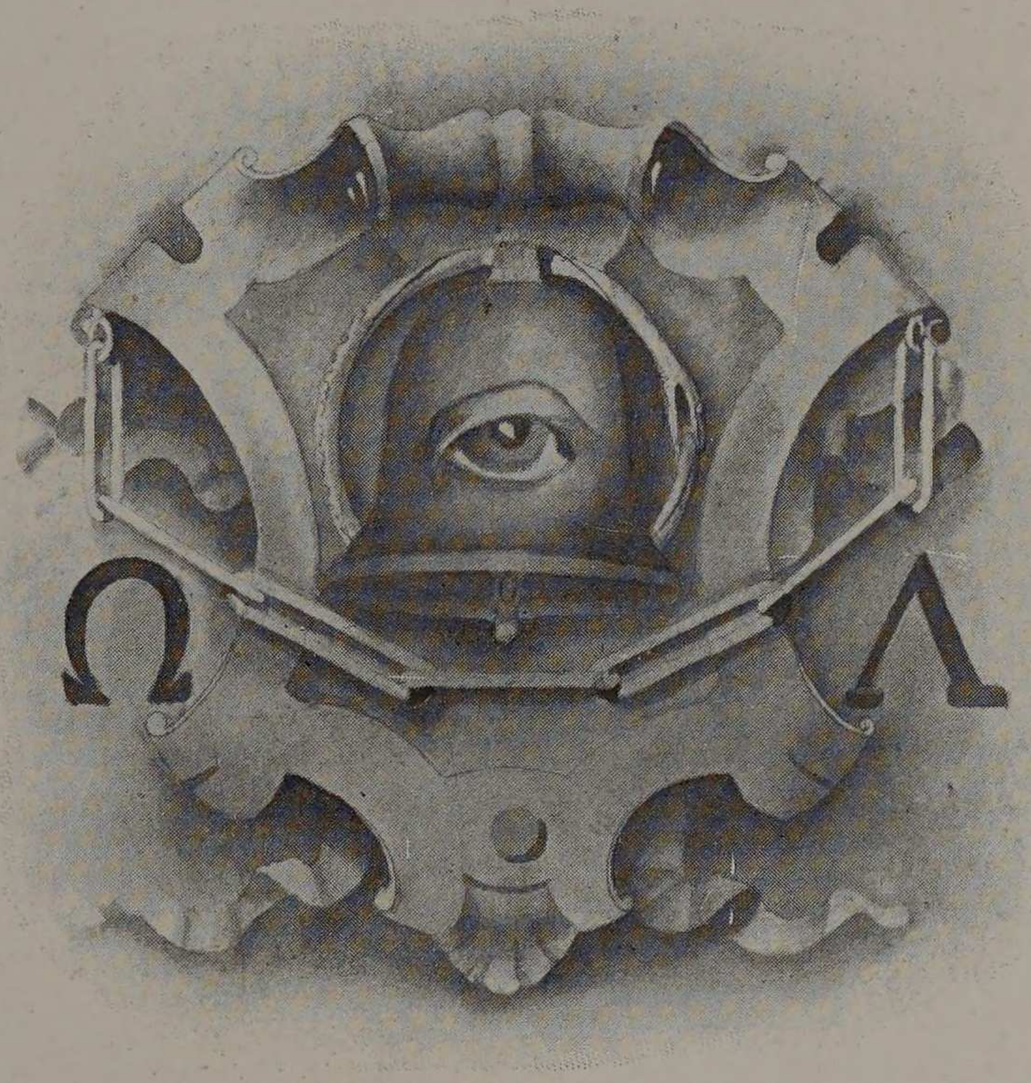


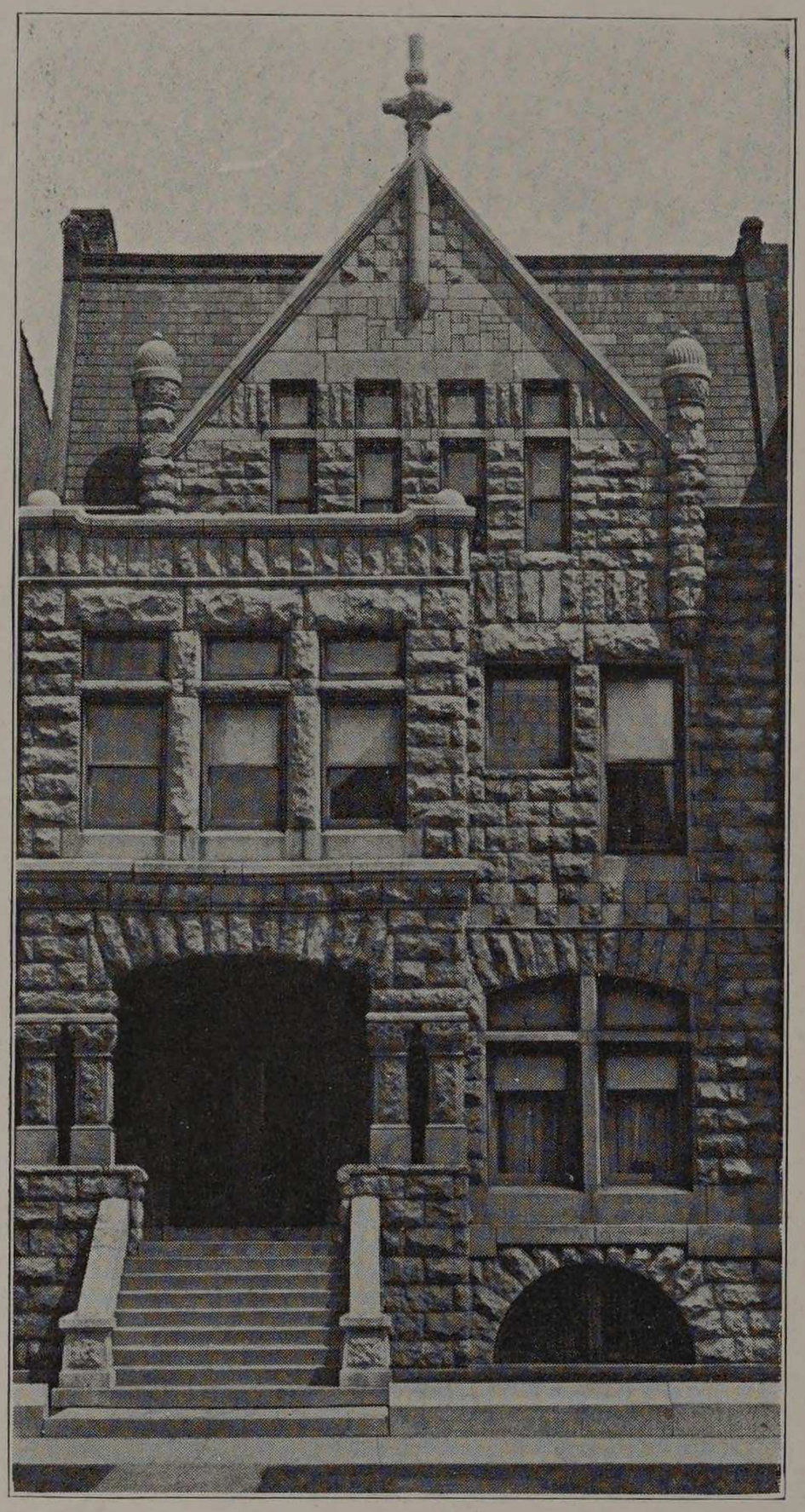












Omega Lambda

LOCAL

Organized October 21, 1908

Faculty Members

ROBERT V. PERRY, Armour, '97
JOHN C. PENN, Armour, '05

1920

WILLIAM S. EAGLE
THOMAS KINGSLEY, Jr.
RICHARD W. REGENSBURGER
KENNETH M. SABISTON
J. McWILLIAMS STONE
PERICLES GRAMMES
NORTON L. MARVIN

1921

FRED A. ANDERSON
DERWOOD S. CHASE
ELMER C. EIDERDAM
FLETCHER E. HAYDEN
FRANK D. QUINLAN
JOHN B. THOMPSON
MYNHART O. BRUECKNER
GEORGE M. DOWSE
ALEXANDER R. MEHRHOF
PROBY C. GREY
GEORGE W. LOCHOW
GEORGE W. PETERSON
DELMAR L. ROSENDAL
SHELDON H. WEBSTER

1922

WILLIAM L. DALRYMPLE
LEONARD M. HOLMES
JOHN K. MULLEN
VINCENT D. SHEARIN
JOHN J. DEMUTH
WILLIAM E. KINGSLEY
HAROLD A. PETERSON
WALLACE F. YERKES

1923

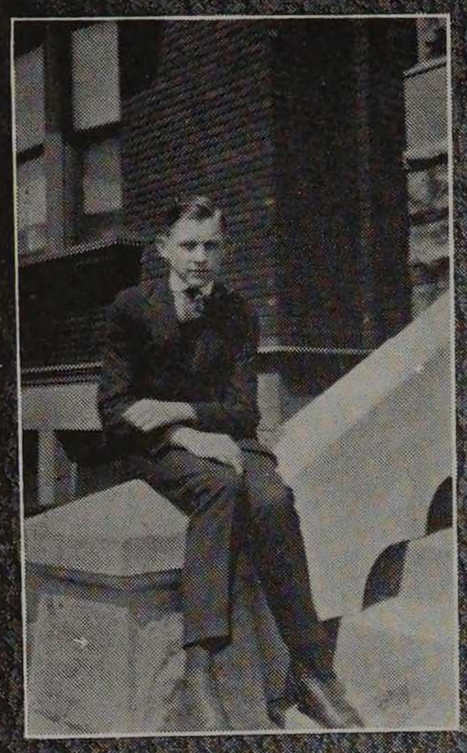
KURT E. BRUECKNER
CHESTER W. HAUTH
WILLIAM F. SEIBEL
RALPH D. FISHER
MYRON H. PRICE
EUGENE M. WRIGHT

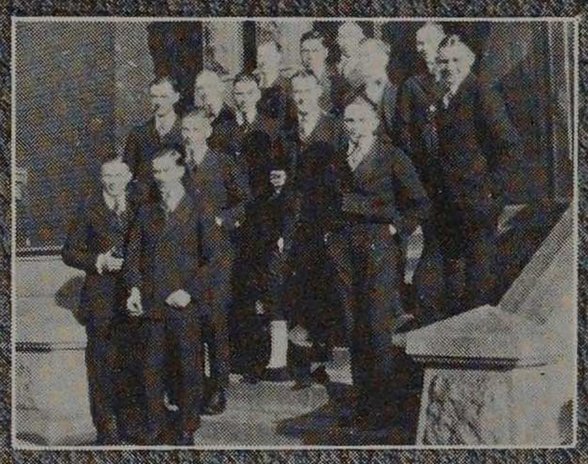
Pledges

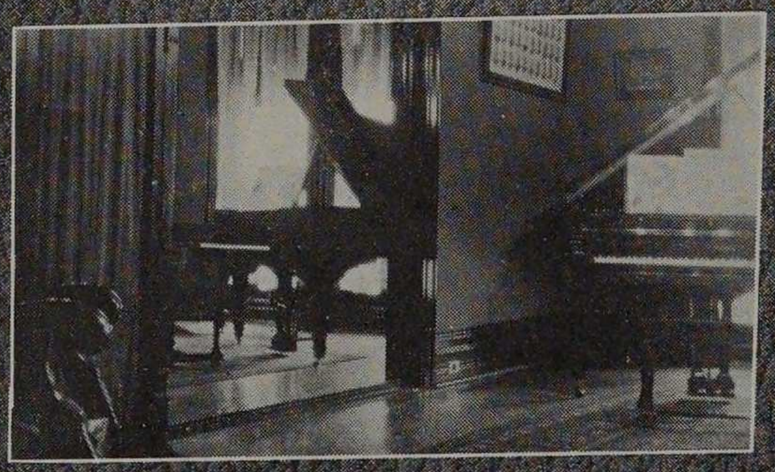
REX F. HADLEY, ROBERT A. TEMPLE, JUSTICE C. STOKER, CHARLES F. POPE.

PRIVATE LIBRARY OF
JOHN J. SCHOMMER

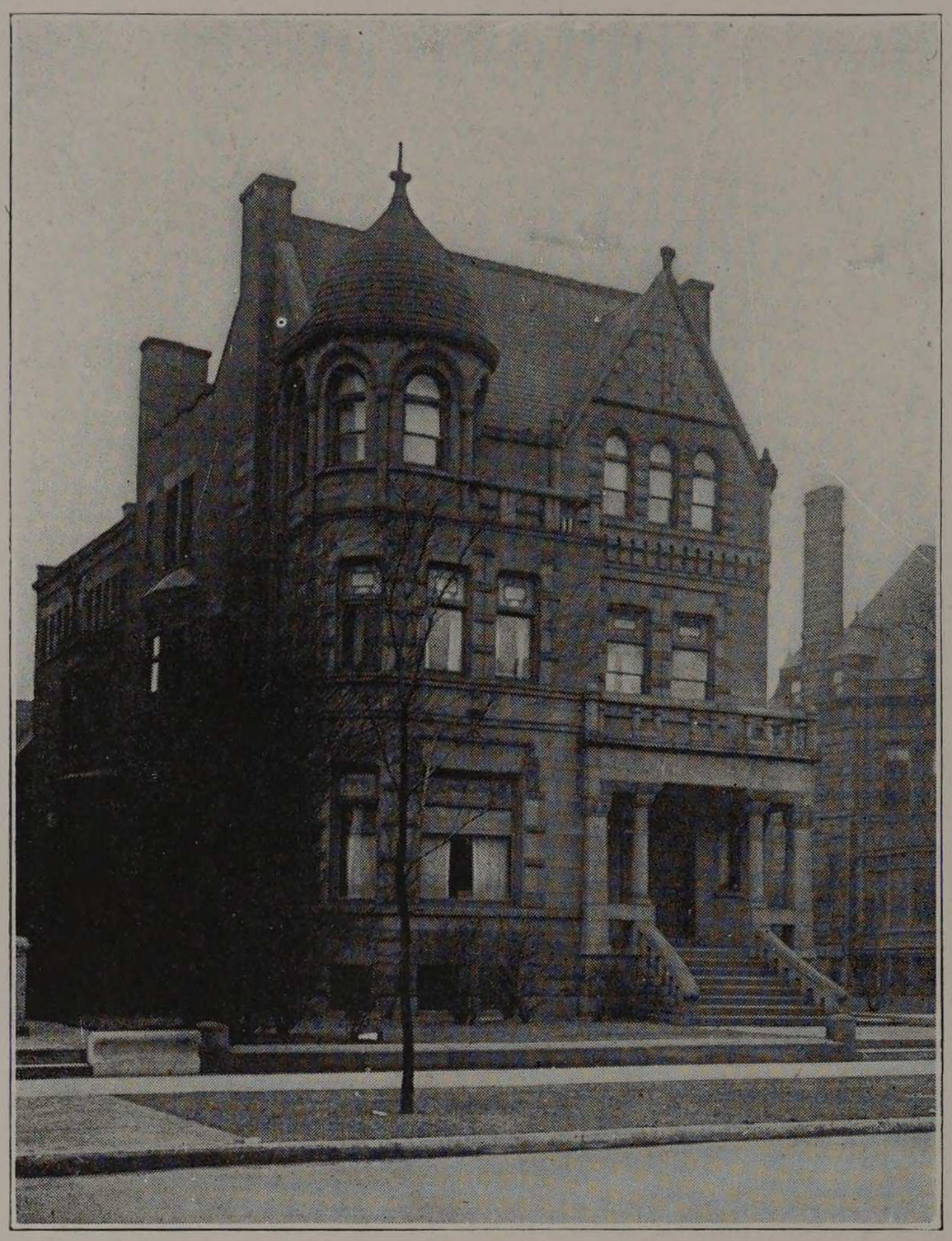
MULLEN ROSENDAL TEMPLE EIERDAM
R HAYDEN SABISTON EAGLE THOMPSON
INLAN DALYRIMPLE ANDERSON BRUE[illegible] STONE REGENSBURGER
NGSLEY SIEBLE BRUECKNER FISHER ERSEN WEBSTER MARVIN QUIN[illegible]
OW DOWSE PRICE HAUTH KING
GHT
ETERSEN
WRIGH
HOLMES GRAY PET[illegible]
HARDY PETER[illegible]
LOCHOW







SIGMA KAPPA DELTA



Sigma Kappa Delta

ALPHA CHAPTER

Organized September 20, 1912

Faculty Members

JAMES C. PEEBLES,
Armour, '04.

WILLIAM G. SMITH,
Cornell, '92

WILLIAM H. LAUTZ,
Armour, '13.

1920

DANIEL J. MALPEDE
ARTHUR N. GAIL
E. C. SCHWACHTGEN
J. P. MULLEMAN
ELLIS C. COOK
ROBERT S. ILLG
C. W. MUEHLBERGER
A. R. THROOP
GEORGE HENRY

1921

C. B. DOOLITTLE
W. J. SAVOYE
LEE H. ROSBACK
R. W. VAN VALZAH
WM. A. DOUGLAS
A. R. EDWARDS
L. D. JUDSON

1922

W. S. TROWBRIDGE
H. E. NICHOLSON
H. F. MILLER
JEFF CORYDON, JR.
J. C. E. VAALER
J. B. O'CONNELL
A. T. OLSON
C. M. KIRKHUFF
H. W. HERBST
F. G. HOCHRIEM
J. H. WATT
E. B. MASON
G. D. WEATHERBEE
E. M. SEABERG
D. S. JENNINGS
R. O. MILES
C. A. HERBST
H. E. HAGEN

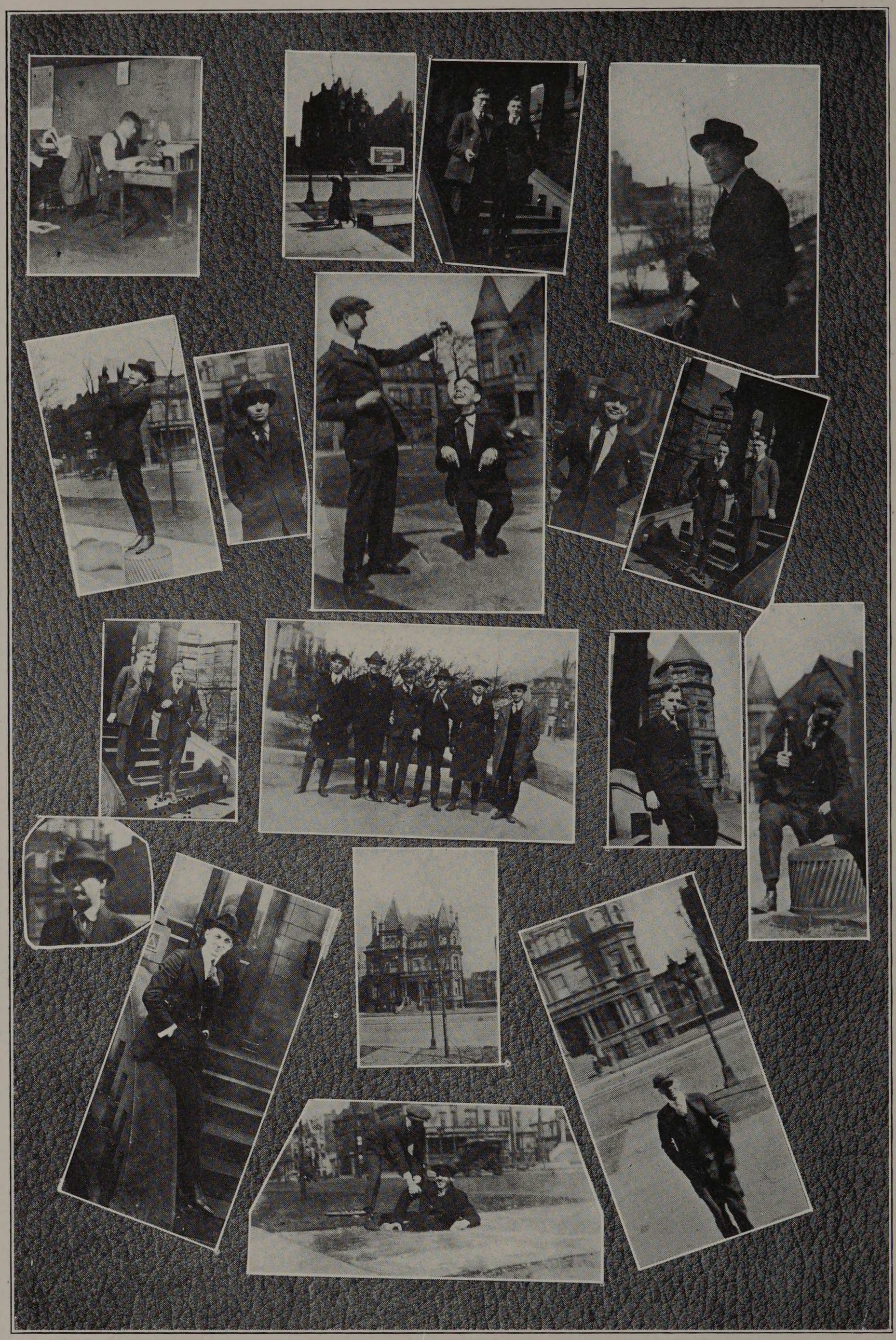
1923

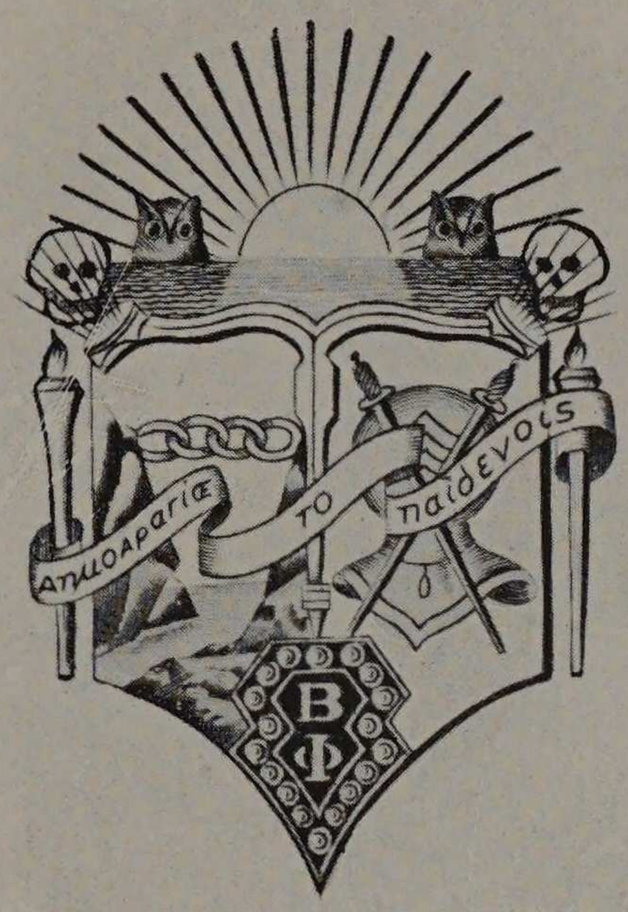
E. C. REIMANN
J. W. FALCONER

Pledges

R. I. FARWELL
S. N. HAVLICK
L. G. MILLER
L. L. REIHMER
R. F. MICHEL
W. RUTHERFORD
H. M. SWENSON
R. WERNER
R. L. WHEELER

MANSKE KIRKHOFF ROSBACK DHUS EDWARDS MILES TROWBRIDGE GAIL SEABERG
HOCHRIEM MUEHLBERGER REIMANN FALCONER HAGEN OLSON HOVEN SAVOYE JUDSON
DOUGLAS MALPEDE COOK TRROOP ILLG NICHOLSON CORYDON SCHWACHTGEN HENRY WATT
VAALER WERNER HAVLICK WHEELER MILLER RHEIMER MICHEL




ΑΠΛΟΑΡΙΑΣ
ΤΟ
ΠΑΙΔΕΥΟΥΣ
Β
Φ

Beta Phi

GAMMA CHAPTER

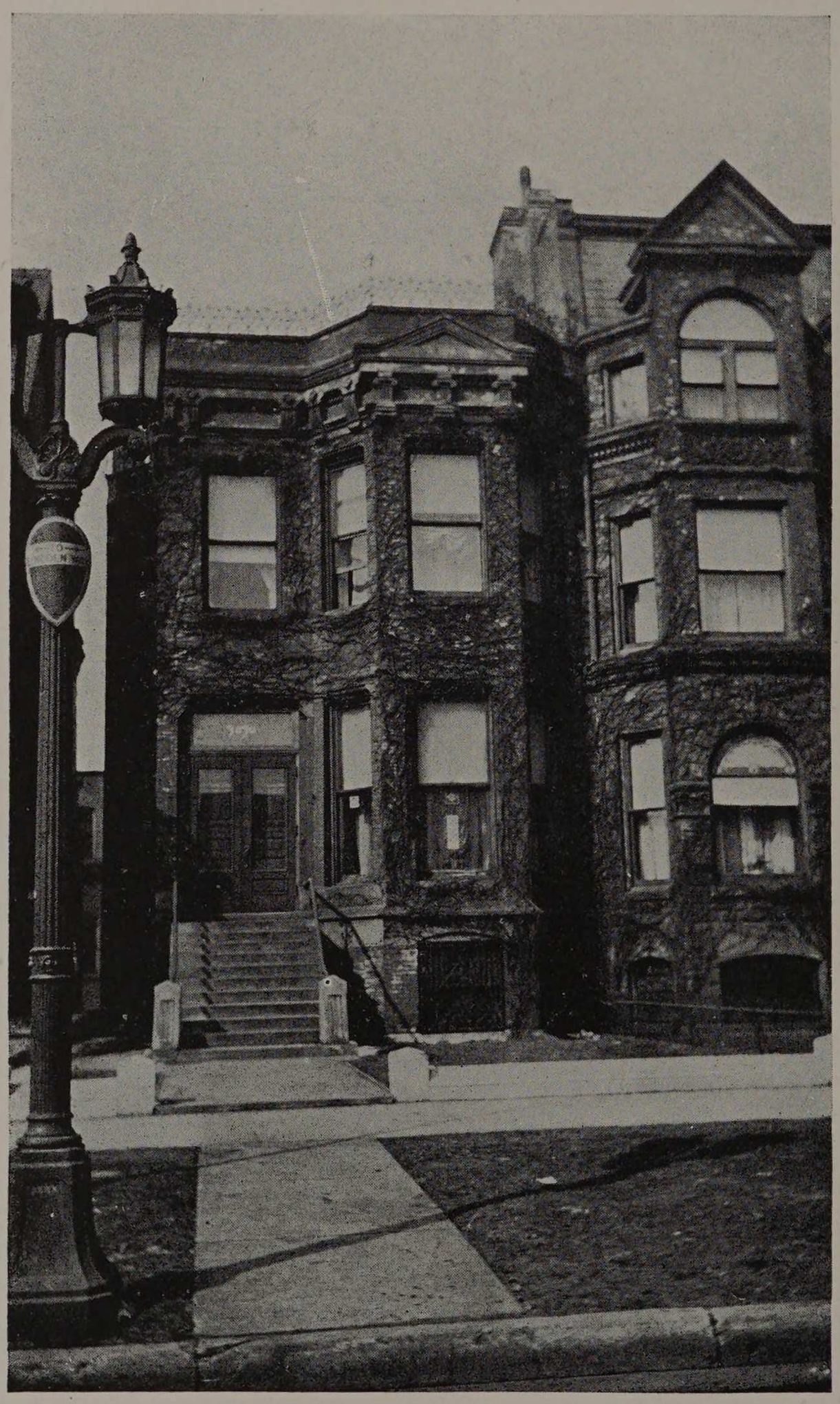
Founded at the University of Chicago 1911 Chartered March, 1913

Faculty

H. L. NACHMAN, Armour, '03 DANIEL ROESCH, Armour, '04

CHAPTER ROLL

Alpha . . . . . UNIVERSITY OF CHICAGO
Beta . . . . . NORTHWESTERN UNIVERSITY
Gamma . . . . . ARMOUR INSTITUTE OF TECHNOLOGY
Delta . . . . . UNIVERSITY OF ILLINOIS
Epsilon . . . . . UNIVERSITY OF IOWA
Zeta . . . . . UNIVERSITY OF MICHIGAN
Eta . . . . . DE PAUW UNIVERSITY
Theta . . . . . ROSE POLYTECHNICAL INSTITUTE



1920

W. T. MCCAULEY
H. F. CLAUSEN
J. I. BREADY
E. G. VOGT
P. J. ADAMS

1921

C. A. GRABENDIKE
H. C. KIHLSTROM
R. O. KLENZE
G. C. KUMBERA
L. C. SCOTFORD
E. MUNDT
E. R. EWIN
R. J. GRANT
R. C. MALWITZ
R. K. SCHERGER
M. F. MAY
P. ORTON
H. WESTON
A. THOMPSON
R. M. SINGER

1922

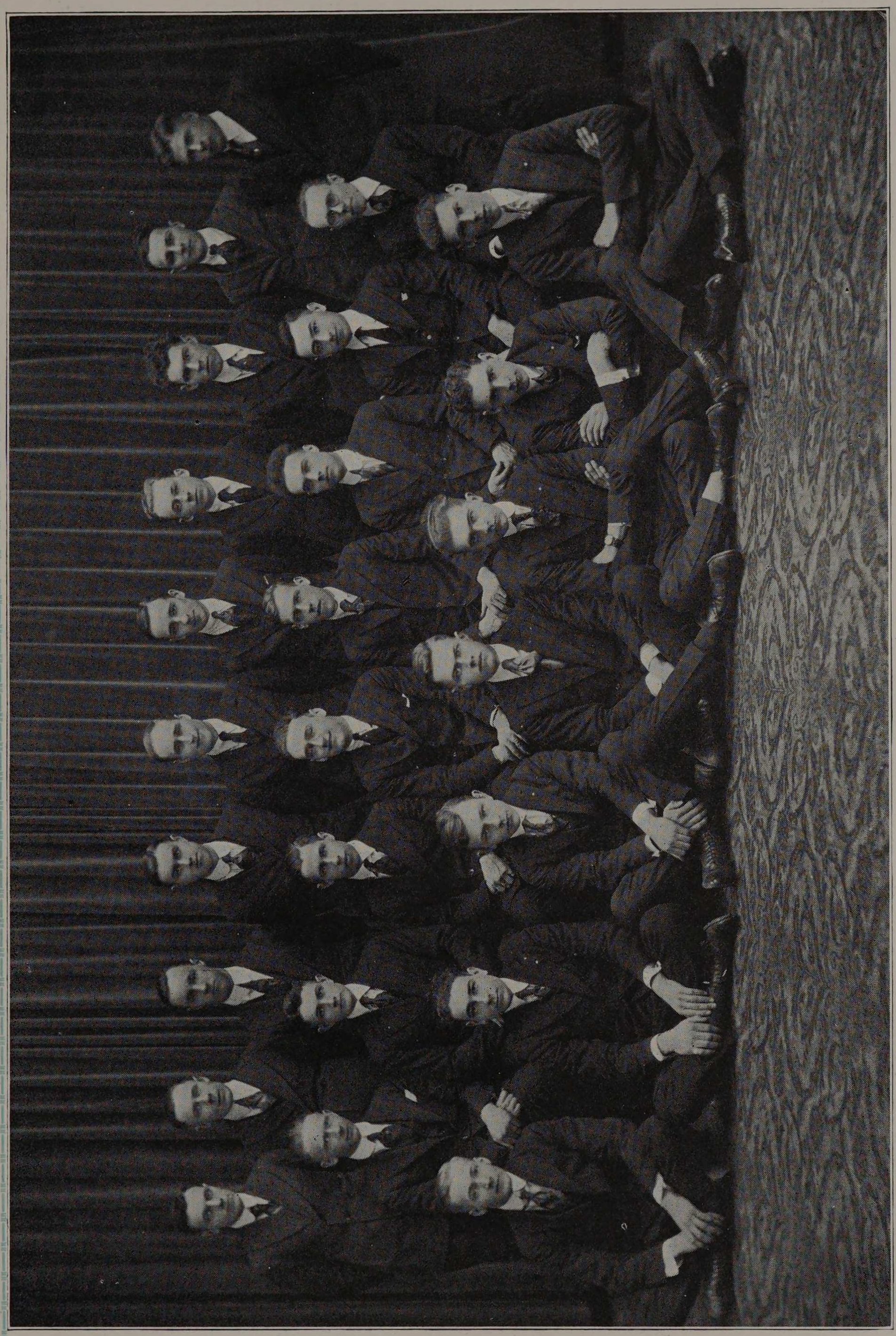
W. A. ALLAN
R. E. R. BBOAD
H. E. HEYNES
O. KUEHN
V. L. COOLEY
V. HAMACEK
J. B. JURASKA
M. R. OLSEN

1923

J. CITTA
C. O. EITEL
G SCHMACHER
V. CONDEE
A. J. VERPLANK

Pledged

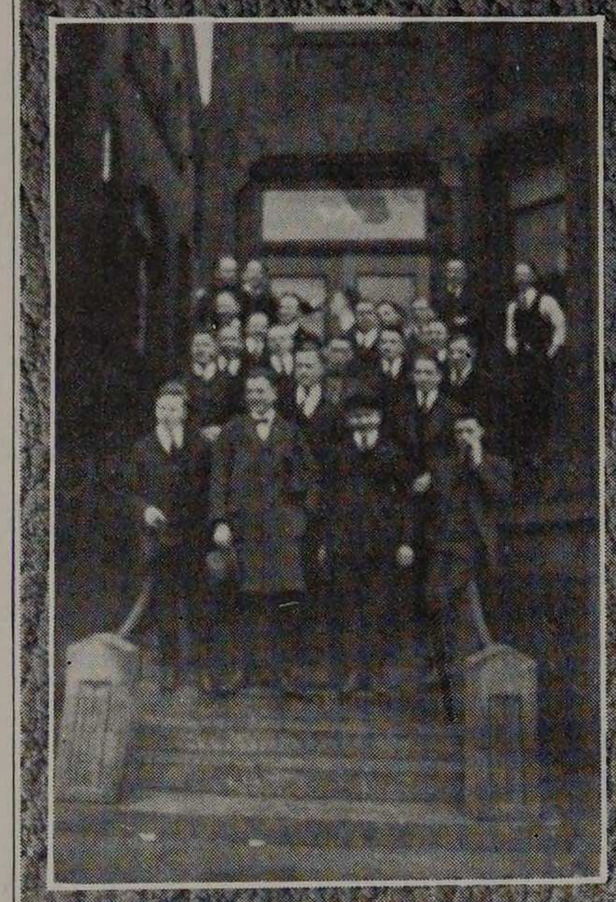
G. A. MORGAN
H. NIKSCH

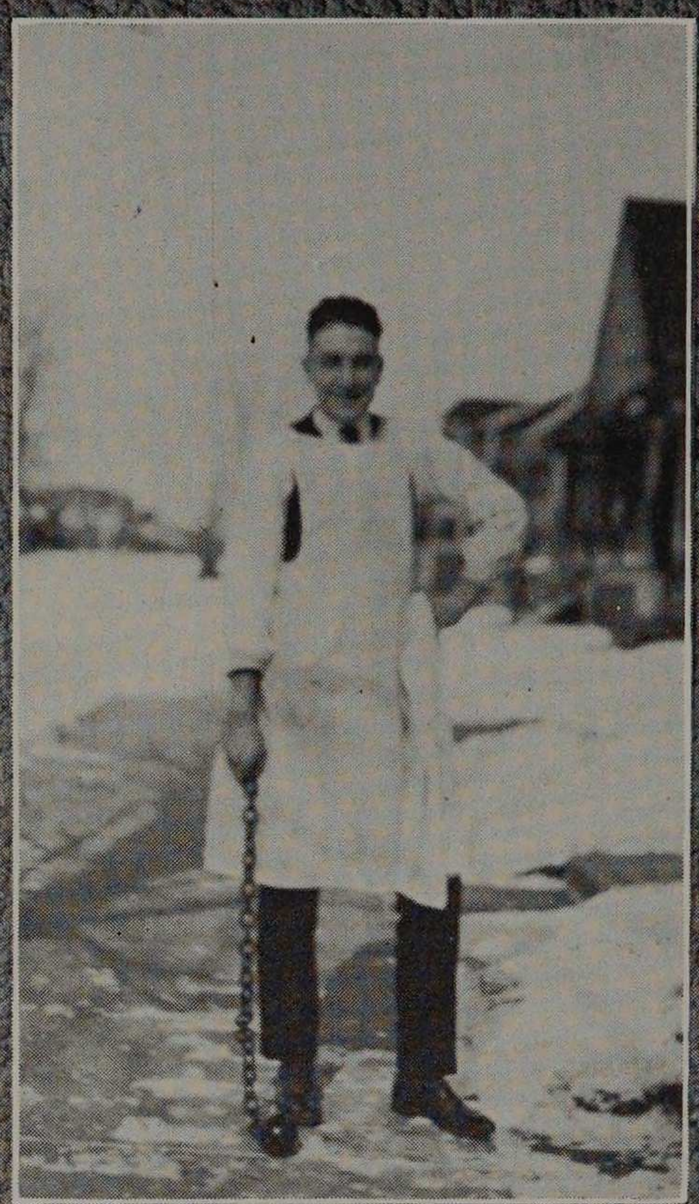


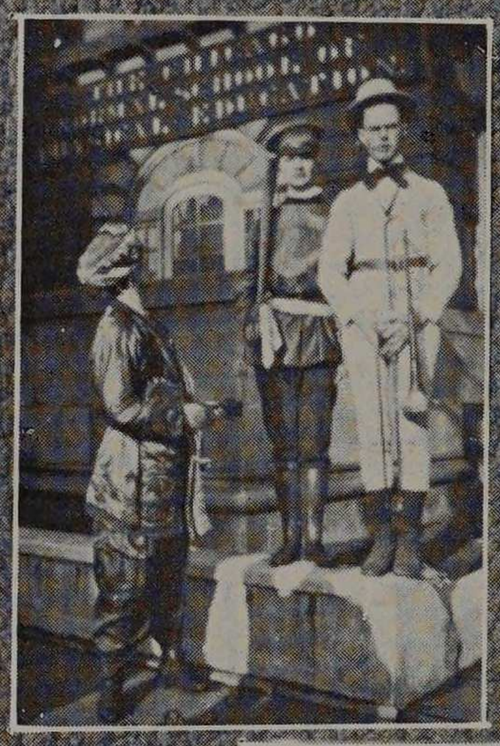
McCAULEY BROAD MALWITZ COOLEY SCOTFORD
ZAMMACEK CLAUSEN SINGER KLENZIE
VERPLANK CONDEE MORGAN NIKSCH

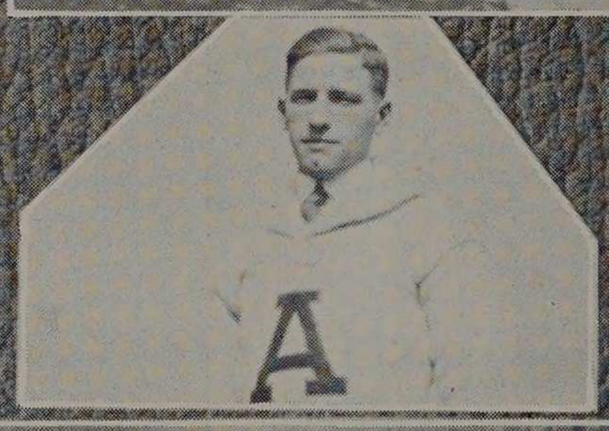
SCHERGER MUNDT VOGT McC
ASKA OLSON HEYNES HAM
SCHUMACKER CITTA VE

ORTON ADAM SC
WESTON JURASH
KIHLSTROM





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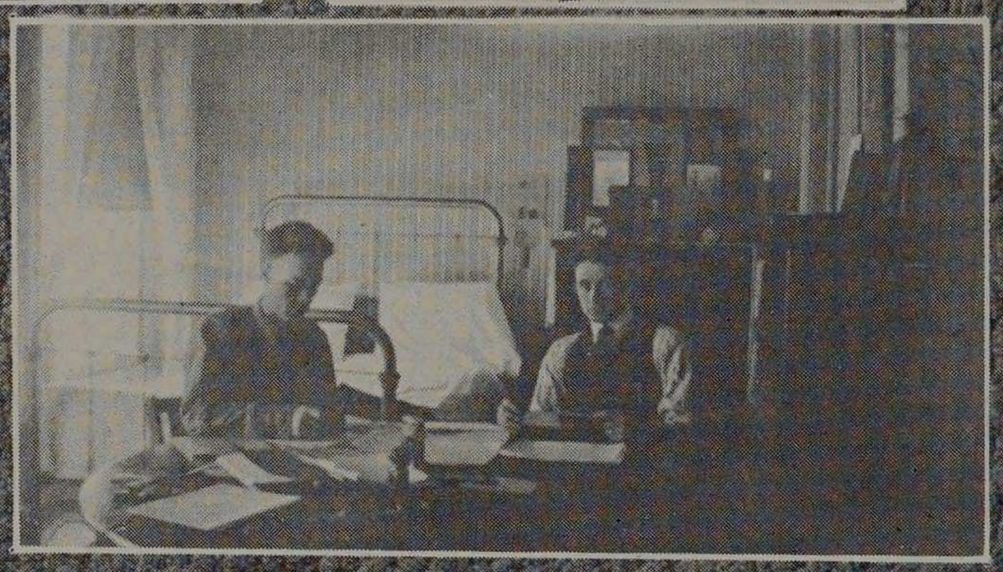


SCARAB

Scarab

Honorary Architectural

Founded at the University of Illinois, 1909

TEMPLE ROLL

Karnak . . . . . University of Illinois
Edfour . . . . . Armour Institute of Technology
Ipsimboule . . . . . Washington University
Thebes . . . . . Pennsylvania State University

EDFOU TEMPLE

Chartered 1915

Honorary

Louis H. Sullivan

Faculty

Earl H. Reed, Jr. William H. Lautz, Jr.

1920

Leland K. Cardwell Joseph A. Karlson
William J. O'Connor

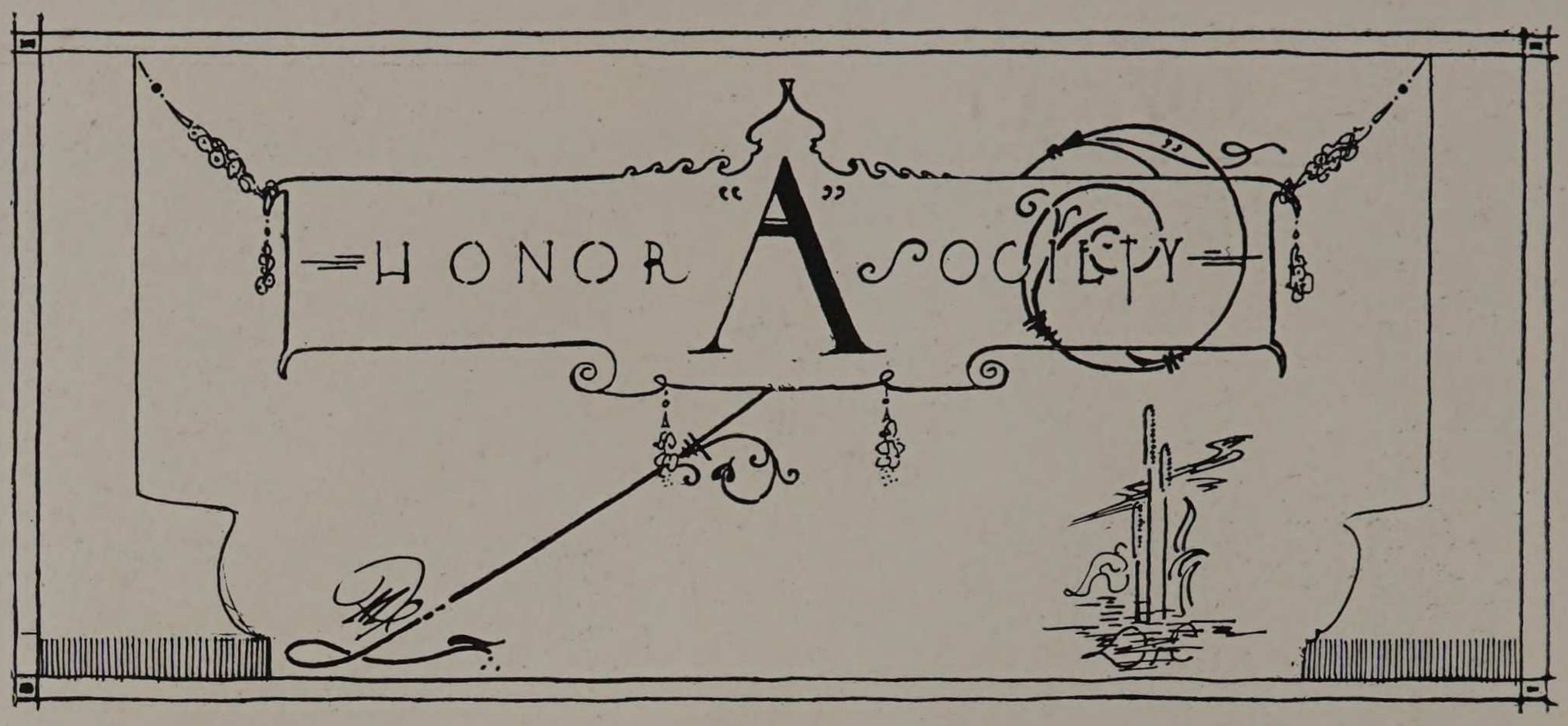
1921

George D. Connor Theodorus M. Hofmeester

1922

William L. Dalrymple Wallace F. Yerkes
John J. Demuth Frank W. Cauley

LAUTZ — HOFMEESTER
DALRYMPLE — DE MUTH
KARLSON — O'CONNOR
CONNER
CAULEY — YERKES
CARDWELL — K...



Honorary Members

JOHN J. SCHOMMER — DR. H. B. THOMAS

Members in College

IRA J. BREADY . . . . . *President*
WM. N. ERICKSON . . . . . *Secretary and Treasurer*
S. HAVLICK . . . . . *Statistician*

WM. N. ERICKSON — IRA J. BREADY
M. MAY — S. HAVLICK
H. ALBECK — O. KUEHN
G. SCHUMACKER

The honor "A" Society was organized in the spring of 1914 by the active athletes of Armour. The purpose of the society is the improvement of athletics and the promotion of good fellowship at Armour. An organization of this kind also aids in bringing out available material and hence in stimulating competition for the various places on the teams.

With the hearthy co-operation of the Executive Council and Faculty, this society was very active up to the spring of 1917. At that time the Executive Council as a war measure, temporarily abolished inter-collegiate athletics. That sounded like a death knell for the Honor "A" Society, as no more eligible members could be taken in until athletics were again revived. As each succeeding class graduated, the active membership of the society decreased until at the opening of the present school year there were only two members, Bill Erickson and Ira Bready, in school.

With the revival of athletics this year, the society resumed its activities. At the close of the basketball season, Spencer Havlick, Maxmillian May, Harry Albeck, Otto Kuehn and Gerald Schumacker were admitted to membership in the "A" society. With its increased membership, the society is now working hard to attain the purpose and ideals for which it was organized.

A few of the most important articles in the constitution read as follows:

Art. 2, Sec. 1. The society is to serve as a working unit for all "A" men in the discussion of athletic questions and (Sec. 2) to secure and preserve all records of athletic teams.

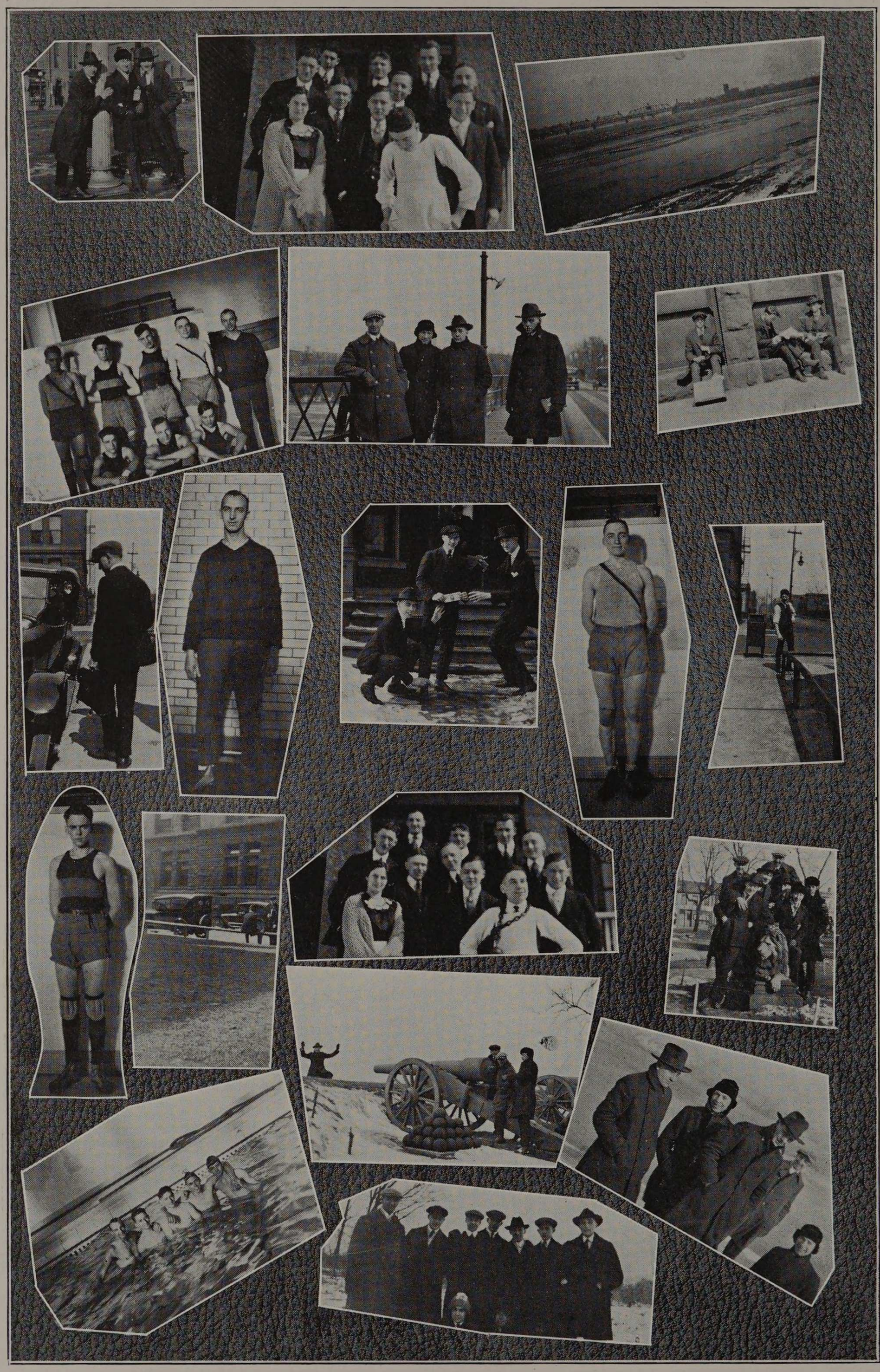
Art. 3, Sec. 1. Any student of Armour Institute who has won a letter in any of the three major sports, (basket-ball, base-ball, or track) is eligible for membership.

BREADY

KUEHN HAVLICK

ERICKSON THOMAS SCHOMMER MAY

SCHUMACHER AHLBACH



A T

SPHINX

OFFICERS

ELLIS C. COOK . . . . . *President*

WM. N. ERICKSON . . . . . *Secretary-Treasurer*

Faculty Member

DEAN L. C. MONIN

MEMBERS IN COLLEGE

1920	*1921*
H. D. STEVERS	LEO S. MARANZ
ELLIS C. COOK	C. T. WALTER
WM. N. ERICKSON	I. JERRY LOEBL
H. C. PETERSON	F. HAYDEN

T. W. HALL

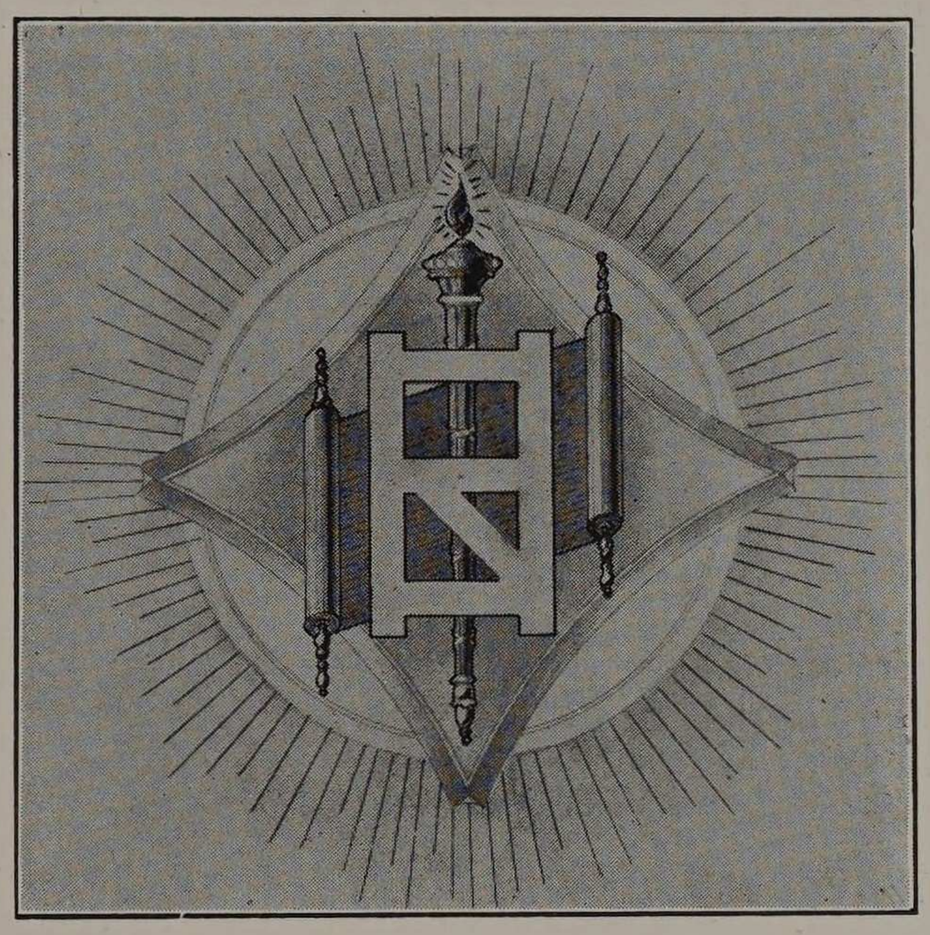
HALL
ERICKSON
PETERSON
STEVERS
COOK
MARANZ
WALTER

The Sphinx Society

THE Sphinx Society, the honorary literary society of the Armour Institute of Technology was organized with the object stated as follows:—

"*Object.*—First, to constitute a board, well fitted by experience, to advise and in a general way supervise all student publications of the Armour Institute of Technology; particularly to arbitrate such questions as may arise, between them and outside parties. Second, to constitute an honor society, providing a means of just recognition for services—such as are herein specified—rendered on student publications. Third, as a representative body of men of the college, to lend actively its influence and aid to every student enterprise or movement which is conducive to the best interests and welfare of the Institute.

"*Members.*—Each member of the College who has held, or who at any time holds, a position as an executive head (Editor-in-Chief, Advertising Manager, Business Manager, or the equivalent of any of these) on any of the recognized student publications of the Institute—such men shall be entitled to membership in this organization. Further, by a unanimous vote of these men, any man not having held an executive position, but who has served for at least one year on any of the student publications, may be elected to membership, until the number of such elected men is not in excess of half the number of entitled members."



The Ohr

Organized November 16, 1914

1920

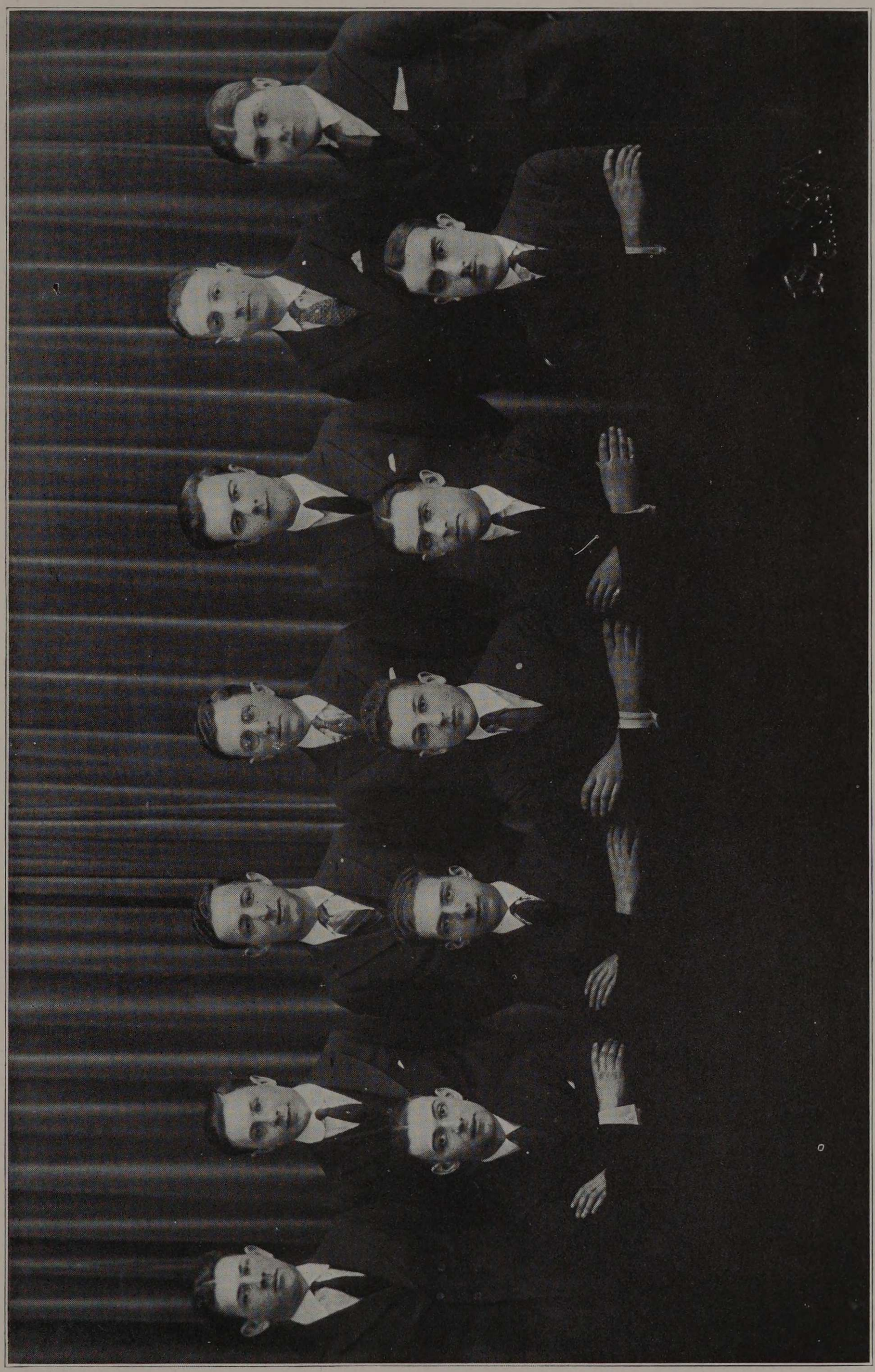
MAURICE M. JACKSON
JACOB POPKIN
EDWARD STIENBERG

1921

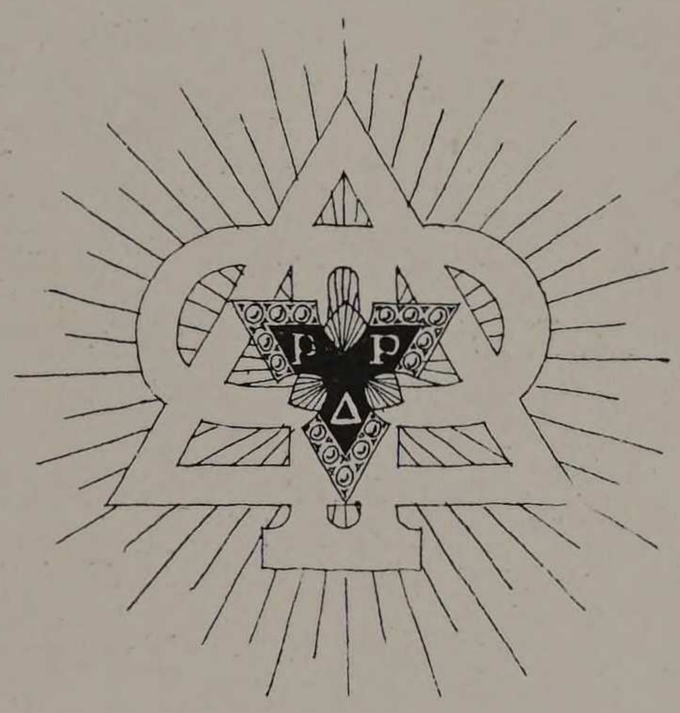
SIDNEY W. GROSSMAN
IRVING J. LOEBL
LEO S. MARANZ
LOUIS B. NEWMAN
NORMAN J. SCHLOSSMAN
ISADORE L. SCHURMAN
ALBERT F. SPITZGLASS
ALBERT J. STEINER
EDWARD M. NUDELMAN

Pledges.

AL. LEWIN, '22
PHILIP SANG, '23
H. T. POLLAN, '23
CARL UNGER, '22
SIDNEY JACOBS, '23
C. PAUL PELTA, '23
JEROME GOLDSTEIN, '23



SPITZGLASS STEINER STEINBERG POPKIN LOEBL SCHLOSSMAN SCHURMAN
MARANZ NEWMAN NUDELMAN GROSSMAN



Rho Delta Rho

Organized February 10, 1920.

CHAPTER ROLL.

ARMOUR INSTITUTE OF TECHNOLOGY.

UNIVERSITY OF CHICAGO.

1921

AARON M. BROWDE

SAMUEL ISSACSON

ROBERT L. MINKUS

1922

JACOB BERNSTEIN

HYMAN G. GERSTEIN

SAMUEL EISENSTEIN

EMANUEL SKOLNICK

MORRIS C. SUGERMAN

1923

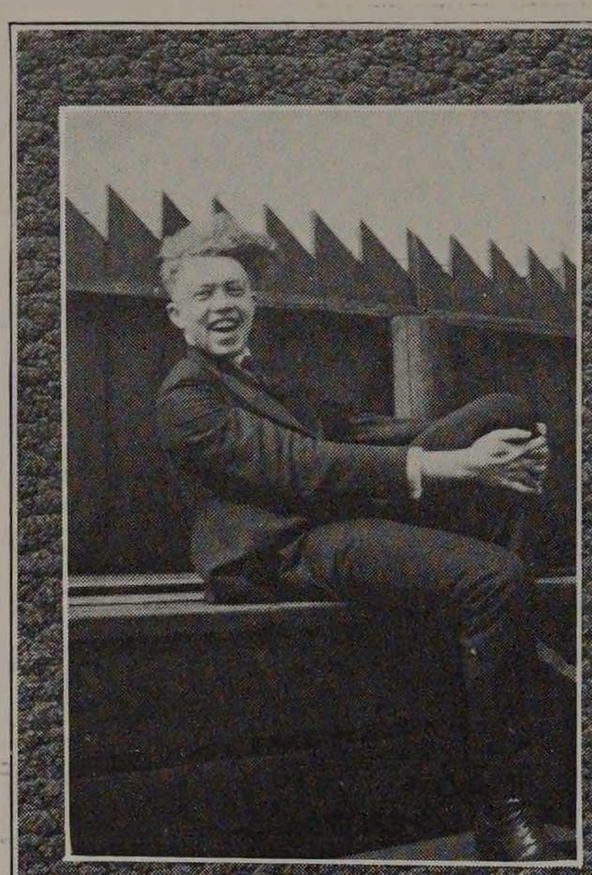
SAMUEL DELEVITT

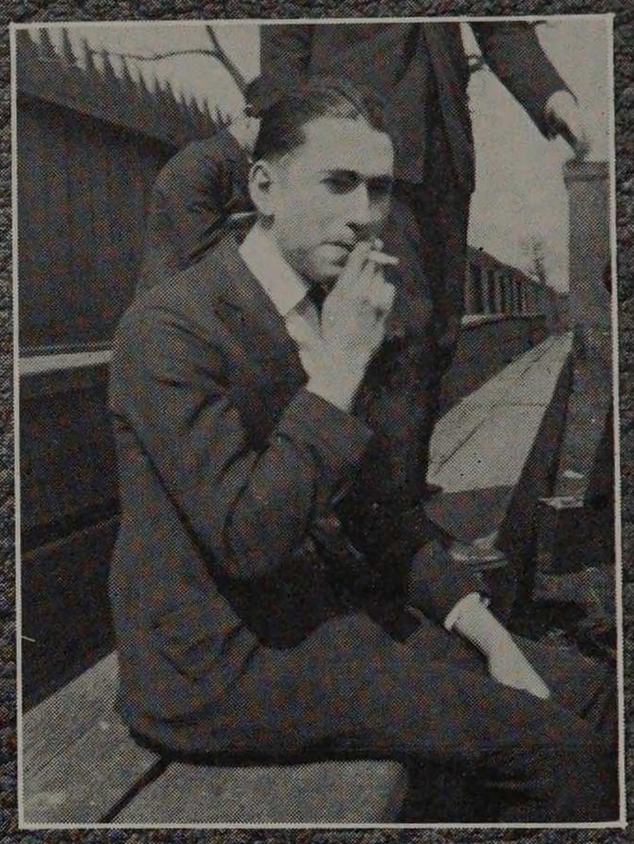
Pledges

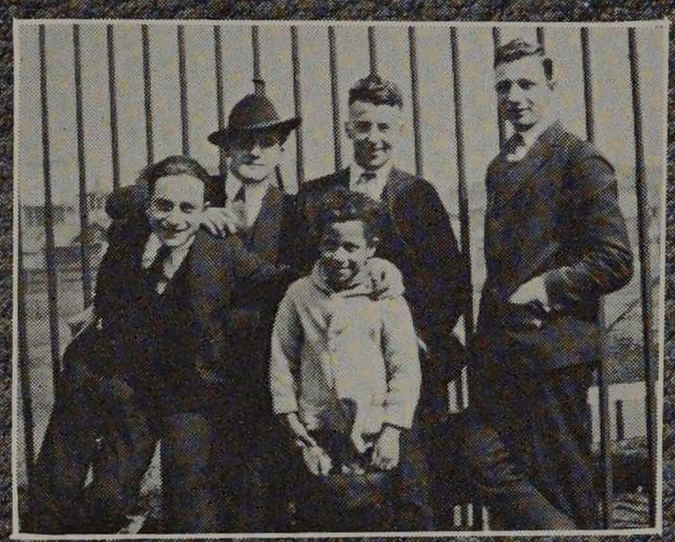
ABE SUGERMAN, '20

MORRIS WOLLIN, '23

SKOLNICK MINKUS SUGARMAN ISSACSON
EISENSTEIN BROWDE DELEVITT GERSTEIN
BERNSTEIN







PRIVATE LIBRARY OF
JOHN J. SCHONMEB

FUNNY

MINKUS

TO MY LITTLE PAL

I.

Real true friends are Oh! so few,
Gee! I'm glad that I have you
Pearls and Diamonds they say are rare
But with you, dear girl, they can't compare.

II.

You've been a pal thru all these years
Yes, you've chased away my fears;
Without you, goodness only knows
Optimism I could not have chose.

III.

We've had our spats,
Our cries and chats;
If friendship were a grain of sand
Our's would cover all this land.

IV.

Little girl, I could say more
But will keep the rest in store;
And in the many years to come,
Sweet, I'll always be your chum.

ALONE WITH MY THOUGHTS

I.

Alone with my thoughts, they wander far
Can't tell what they all are
Of things I have done, of things I have said
Even of little things I've read.

II.

Alone with my thoughts, I think of him
Just when shadows are growing dim
Why he comes into my mind,
Is something I cannot define.

III.

Alone with my thoughts, it sure is funny,
To think of the people I've called honey,
Forgotten so many I have met,
Couldn't forget some on a bet.

IV.

Alone with my thoughts, whatever they be,
There's always one, more vivid to me,
A love much greater than any other;
Because its for my wonderful Mother.

P. FERGUSON.

SO LOVE CAN REIGN.

Lyrics by *Walter Seyferlich* Music by *Oscar Gardner*

Come gentle Spring with your showers and sunshine;
Hurry and bring all the flowers of may-time;
Your joyous greetings
Make our heart's beating,
Quicken its pace into love's shrine.

CHORUS.

Springtime bring songs of ringtime with tunes divine;
June time rings out the chimes that will make you mine;
Soon dear, We'll be seen strolling in lover's lane,
True lovers welcome the springtime
So love can reign.

Cold winter snows are all disappearing,
Soft south wind blows and springtime is nearing.
Skies that were tearful
Now look so cheerful
Loves message you'll soon be hearing.

CHINKY MOON.

Lyrics: *Walter M. Seyferlich* Music: *Oscar Gardner*

You'll remember Sung Fong Lou,
In the "Chinese Blues."
She was loved by Fan Tan Man,
And how she loved him too.
At evening when his work was done,
They loved to bill and coo;
There they'd sing to their Yellow King,
As he rose into their view.

CHORUS.

Chinky Moon! Chinky Moon!
Please don't bother us tonight,
Hide your face and dim your light,
Won't you give us a chance to love and spoon.
Oh! Chinky Moon!
Cries the pretty little China girl.
Oh! Chinky Moon!
Go and shine upon some other world.
She cries at him,
What's the matter with you?
Let's hope those Melicans shoot that
Big Chinky-man-in-the-moon.

Later on in "Fan Tan Man,"
The Chinese married life,
Lured our little China-man
So he made Loki his wife.
They bought a Chinese bungalow,
Down near the Golden Gate,
And now when Fan Tan Man comes home,
This song he will relate.

Copright 1920,
Seyferlich and Gardner.

CALIFORNIA BLUES.

Lyrics by *Walter M. Seyferlich* Music by *Oscar Gardner*

My thoughts take me all thro' the day,
About two thousand miles away;
To a quaint old bungalow
In that balmy, tropical clime.
There's were it's summer all o'the time,
And the Sunkist oranges grow.
I've heard the calling of my dear old home,
And now I'm bound to go;

CHORUS.

My train goes back on the track that'll take me to Frisco,
Back to the state with the beautiful orange groves,
I can hardly wait to see that Golden Gate,
And you surely can believe me,
I'll make a call just as soon as I reach there,
A call on my all,—yes,—my all of a peach there
I'm going back to my California home.

I can picture things as they were
About the time I went away,
Arourd the house the old grape vines
Entwine themselves, forever to stay.
How I long to see all the folks
Who wish that I were back.
'Just received a letter from my dear old dad,
So I guess I'd better pack.

CHORUS.

SAN

Oriental Fox Trot

Words and Music by McPhail& Michels

King San of Senegal,
Sat on the shore at Bulahmay
Singing a sad refrain,
To his dear queen, who'd gone away,
This was his lay:

CHORUS

Oh, sweetheart Lona, my darling Lona
Why have you gone away,
You said you loved me, but if
You loved me, why did you act this way?
If I had ever been untrue to you
What you have done would be the thing to do,
But my heart aches, dear,
And it will break dear,
If you don't come back home again to San!

One day the queen came home,
Saw San in sadness on the shore,
Told him she'd no more roam
Only her San would she adore
Then came this lore:

NOTIONS

As edited by So Crates

Note (to gentle reader): If you haven't found what you want elsewhere take a pike in here. If it aint here, it aint.

---

2 and 3 isn't always 5—sometimes it's 23.

In the state of Mass. there lived a lass,
I love to go N. C.;
No other Miss. can e're I Wis., half so dear to Me.
R. I. is blue and her cheeks the hue of shells where waters swash
On her pink-white phiz. There Nev. Ariz the least complexion Wash.
La.' could I win the heart of Minn. I'd ask for nothing more,
But I'd only dream upon the theme and Conn. it o'er and Ore.
Why is it, pray, I can't Ala. this love that makes me Ill.?
N. Y., O., Wy. Kan. Nev.Ver. I propose to her my will?
I shun the task 'twould be to ask this gentle maid to wed.
And so to press my suit, I guess Alaska Pa. instead.

SPECIAL SALE. Ice cream and underwear. (Want ad.).

Repartee is any remark which is so clever that it makes the listener wish he had said it himself.

O I C

I'm in a 10der mood today
& feel poetic, 2;
4 fun I'll just —- off a line
& send it off 2 U.

I'm sorry you've been 6 o long;
Don't B disconsol8;
But bear your ills with 42de,
& they won't seem so gr8.

You tell them, Goldfish, you've been around the globe.

It's all right to take things as they come, but
It's better to go after them.

Do you know what I wish I was?
I wish I was a clam!
'Cause then, no matter what went on,
I wouldn't give a damn!

CONVERSATION—The art of keeping someone else talking when you have nothing to say yourself.

Michaels—"The church on the next block is on fire. Look at the dense black clouds of smoke rolling up."

Spitzglass—"Holy Smoke."

Irate Male—"I wish you would stop pestering the president."

Suffering Suffragette—"Well, we were told to picket him."

Havelick—"Did you go to see the basket-ball game?"

Bird—"No, I dislike those horrible gym-jams."

Did you ever hear the joke about the trap?"

"No!"

"Spring it."

PLUCK

Pluck wins. It always wins,
Though days be slow and nights be dark,
'Twixt days that come and go.
Still pluck will win;
Its average is sure,
He wins the fight who can the most endure;
Who faces issues, he who never shirks,
Who waits and watches, AND
Who Always Works.

My parents told me not to smoke;
I don't.
Or listen to a naughty joke;
I don't.
They made it clear I must not wink
At pretty girls, or even think
About intoxicating drink: (How could I?)
I don't.

To dance or flirt is very wrong:
I don't.
Wild youths chase women, wine, and song:
I don't.
I kiss no girls,—not even one—
I do not know how it is done;
You wouldn't think I'd have much fun:
I DON'T.

"I love you, my lord!"
Was all that she said—
What a dissonant chord,
"I love you, my lord!"
Ah' how I abhored
That sarcastic maid!—
"I love you??" MY LORD!"
Was all that she said.

Here's to the whole world, for fear some darn fool will be sore because he's left out.

E. W. G.

THE LAST HITCH, OR SPLICED FOR LIFE.

"Wilt thou, ————————, have this woman to be thy wedded wife, to live together in so far as the Bureau of Navigation will allow? Wilt thou love her, comfort her, honor and keep her, take her to the movies, bring home plenty of commissary stores, and come regularly on the 4:30 boat?"

"I will."

"Wilt thou, ————————, have this sailor to be thy wedded husband, bearing in mind liberty hours, boat schedules, watches, sudden moves, uncertain mail communication, and all other penalties of Navy life? Wilt thou obey him and serve him, love, honor and wait for him, keep his socks darned, and let him smoke 'Navy Plug' in the house?"

"I will."

"I, ————————, take thee, ————————, to be my wedded wife, from 4:30 P. M. until 7:30 A. M. as far as permitted by the Commanding Officer, liberty subject to change without notice, for better, for worse, for ealier, for later, to love and to cherish, and I promise to write thee a censored letter when my ship leaves port."

"I, ————————, take thee, ————————, to be my wedded husband, subject to the whims of the Commanding Officer, changing residence whenever the ship moves, to have, to hold, just as long as my allotment comes in regularly, and therefore, I give thee my troth."

Employer—"I have to give you this dirty bill, Rastus. It may have germs on it."

Employee—"Oh, that's all right, boss; no insect could live on my salary."

A singer and a surgeon, I say,
Betray no distant relation,
For one yearns for grand opera,
And for grand operation.

Do a Senior a favor and he may be grateful;

Do him several favors and he will think you owe them to him.

How dear to our heart is the cash subscription,
When gen'rous student presents it to view;
But the man who won't buy we refrain from description,
For perhaps gentle reader, that man might be you.

THE SOB OF ANOTHER STRIPE.

I've braved the dangers of the Battalion of Death,
And even braved the Flu.
I've stuck to my post under a barrage of grouch,
But the stripe didn't come through.

I've saluted my superiors in regular style,
As a trick Ensign should,
And said "Sir" when I meant "go plumb to Hell,"
And wish b'God they would.

Where, O, where is that slim stripe of gilt,
That band of glittering gold,
My sleeves are worn, shiny and bare,
My lonely stripe is old.

Where, O, where is that forty per month
That goes with another stripe,
The Commander said I would get it sure,
He should have said I might.

Where, O, where is the graft they pull,
That adds that little band,
It's worked on sleeves that were old or new,
Some that were second hand.

I've done my worst with paper, pen and ink,
To land that extra lace,
And now I'm the sole surviving Ensign left,
In the whole darn place.

The title of Lieutenant is not for me,
The stripe has gone t'hell,
No N. C.'s or D. S. O.'s behind my name,
Just plain Ensign S. O. L.

Now I've lost my hope for higher rank,
Just a one-striper I'll be,
The two in the Navy who can go no higher,
Are Admiral Sims and Me.

Times are changing.

Men are patronizing the women's dry goods stores because they still have that barred effect.

Why and where is the bar room still?

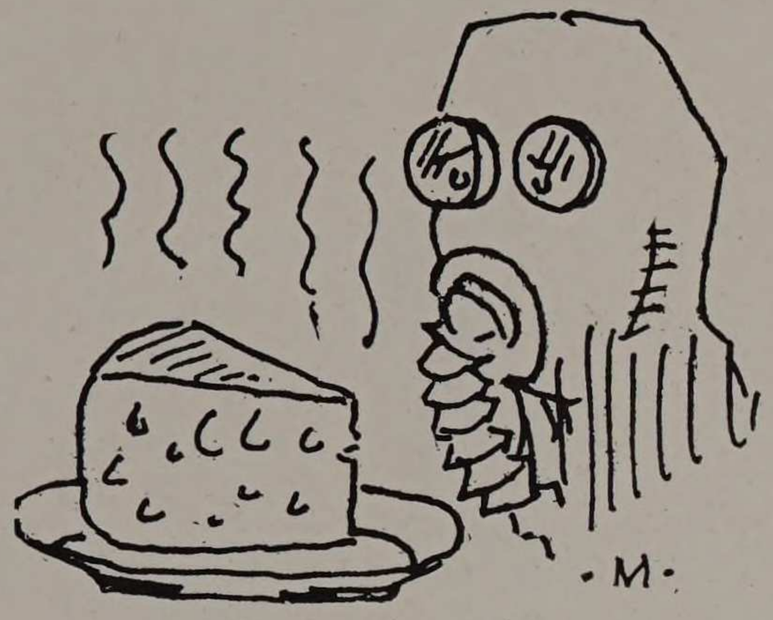
She—"You seem worn."

He—"Yes, indeed, I went to the Mutes' dance, and swung dumb belles around all evening."

JOKES.

Wood(s) and Stone were standing on the corner of 33rd and State when a good-looking girl passed by.

Wood(s) turned to Stone and Stone turned to Wood(s) and they both turned to rubber.



Christie—"Why is this cheese so full of holes?"

Kelly—"That's all right. It needs all the ventilation it can get."

Veit—"Why don't you ever wash your face; it's dirty as can be."

Rudd—"Well, if it ain't clean it ought to be. . I just washed it in the basement toilet room.

Mr. Dean informs us that when steel gets real hot, an addition of tungsten will keep it from losing its temper.

'Nuf sed for steel, but what would you give a baby?

Kelly—"What kind of electricity is in an eel? Is it static?"

Sponholtz—"No, you poor fish, it's eel-lectricity."

You can push a pen but a pencil must be lead.

There will be a meeting of all fellows who never used a pony, in the telephone booth at the corner drug store tomorrow.

Lizzars—"I wonder where these buns came from."

Brooks—"From a-bun-dance, you poor simp."

Skinny Marks—"What makes the Tower of Pisa 'lean'?"

Fat Olexey—"I wish I knew, brother."

Prof. Doubt—"Your reports should be written in such a manner that even the most ignorant can understand them."

Winter—"Well, Professor, what part of it don't you understand?"

In church:—

Excited lady—"Somebody's occupewing my pie."

Fussed Usher—"That's all right lady, just come this way and I'll sew you to a sheet."

"Have an operation?"

"Yes, I just had things squared around a little so a round steak will fit in a square meal."

"Is molasses good for a cough."

"I guess so. It's sold for consumption."

Musical Man.

He's a sharp witted major, acts natural and has two flat feet.

Which Is Correct?

The yolks of eggs is white or the yolks of eggs are white.

We can make cold ice from cold water
and
Raw ice from raw water,
But we cannot make,
Hot ice from hot water.

Since wearing his new suit, Dowse no longer takes his breath in short pants.

Hertwig—"Skinny Marks' folks don't want him any longer."

Quinlan—"Why."

Hertwig—"Because he's long enough."

WHEN YOU CALL ON HER.

Assure her all the girls in France,
With her would never stand a chance
And tell her since you've been away,
You've thought about her night and
day
You mustn't get to talking fast,
(For if you do, you may forget,
And call her darling Antoinette.)

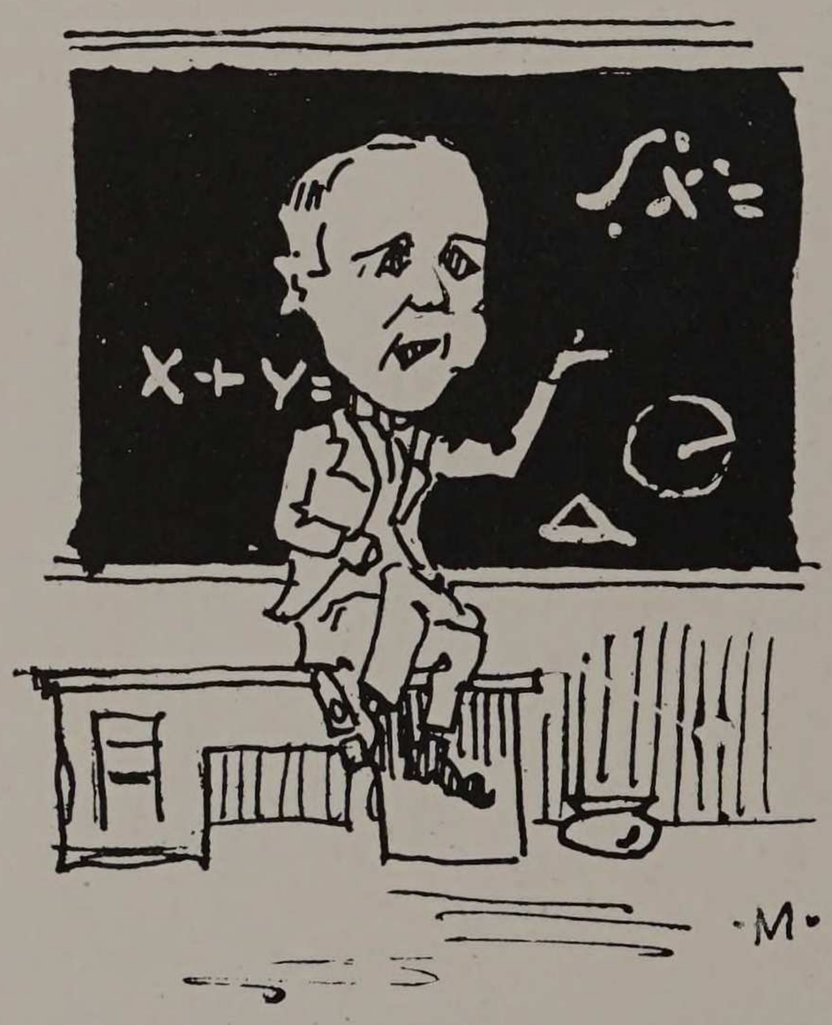
Inform her that you didn't care,
To meet the ladies "over there"
And you had not time to flirt
(They kept you busy shoveling dirt)
Oh, even though it makes you sick,
Just lay on and spread it thick.
(But all the time, it's just as well
If you don't call her "Gabrielle.)

Sam—"Ah done heerd dat dey fin' Columbus's bones."

Ezzra—"Lawd! Ah, never knew dat he was a gamblin' man."

Vorsheim—"I was reading in the Bible where Sarah was fleeing across the desert when she was turned into a pillar of salt."

Brueckner—"That's nothing to what I saw. I was watching a woman walk down the street the other day and she turned into a grocery store,"



Prof. Campbell—"Mullaney, explain how you got your answer."

Mullaney says absolutely nothing and then sits down.

Prof. Campbell—"Did the class follow Mullaney's explanation?"

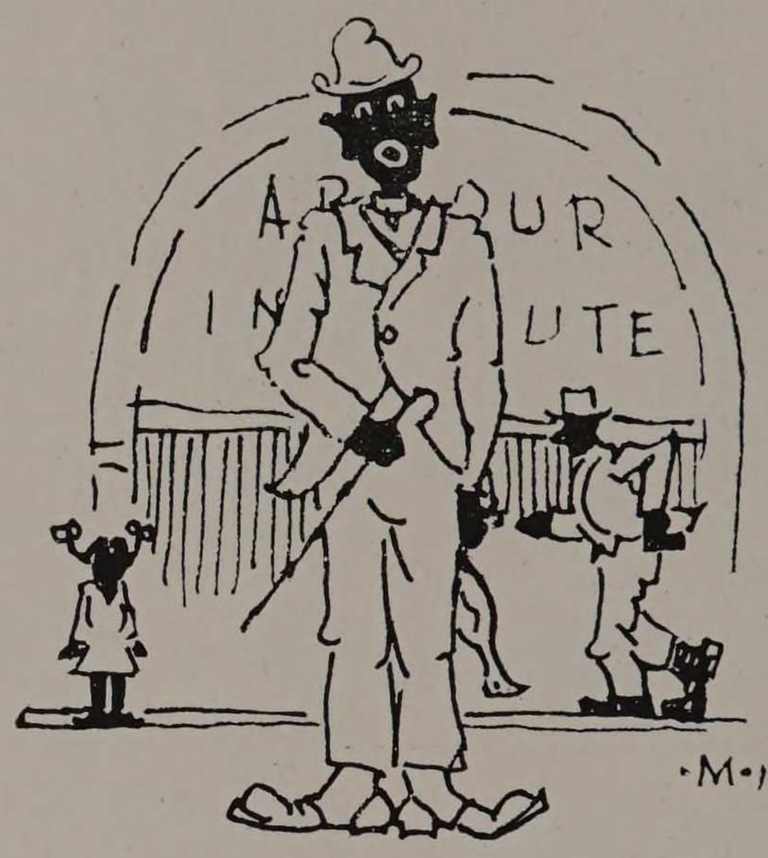
Sid—"Was it a quiet place where you kissed her?"

Lee—"No, I kissed her on the mouth."

Rastus—"I see a young lady wot's engaged to be married had a bath yesterday."

Sambo—"Is dat a fact?"

Rastus—"Yep. Dis newspaper say's her friends gave her a shower."



Grubbe—"This neighborhood reminds me of trigonometry."

Kinsman—"Why."

Grubbe—"Because there are so many tan-gents in it."

Can Woods see the joke? No, of co—secant.

How Are You Feeling?

"Tip Top," said Ward.

"Tough," said the steak.

"Out of sight," said the invisible hair pin.

"Paris" said the Garter.

"First rate," said the freight agent.

"Fare," said the conductor.

"Well," said the water-man.

"Fine," said the judge.

"Fresh," said the bread.

"Bum," said the tramp.

"Grate," said the furnace.

"With my fingers," said the wise guy.

Lyons—"Vogt made quite a long speach before the Chemical Society last night."

Bently—"What did he talk about?"

Lyons—"He didn't say."

Many a deep thought never comes to the surface.

She—"Did you know that sheep were the most stupid things in the world?"

He—"Yes, my lamb."

Prof. Palmer—"Bisect that line."

Student—"Where do you want me to bisect it?"

Naiman—"Professor Swineford, I'm indebted to you for what I know about descriptive geometry."

Prof. Swineford—"Don't mention it. It's just a trifle."

Prof. Krathwohl (at end of period)—"This is the worst recitation I ever heard. I've made it nearly all myself."

Talk and the Juniors talk with you; think and you think alone.

Eater—"This coffee is nothing but mud."

Eatee—"Yes, it was ground this morning."

Students subscribing for the Cycle can bear in mind that it is a "cycle-logical" act.

Lindstrom and Doolittle have worked off their condition in Billiard Engineering.

Gotlieb paging Little—

"Man wants Little here below."

Conductor—"Your fare, sir?"

Porter— (flattered): "Well, people always did say I was good looking."

He—"I'd like to take you to the theater tonight, but I know you won't be comfortable in the seats."

She—"What makes you think so?"

He—"The government put tax on them."

She—"But didn't you tell me that iron was good for the system?"

Hayden—"Want to buy two dollar and a half tickets?"

Bradley—"What for? Junior Dance?"

Hayden—"No, for three dollars."

What a friend we have in Monin,
All our tales of woe to hear,
When we're peeved and very angry
Encumbered with a load of care.
When our friends despised, forsake us,
He will all our troubles share;
And suggest some bright idea
So, "We should worry," "We should care."

Schommer—"A fool can ask more questions than a wise man can answer."

Kaplon—"Well, I suppose that is why so many of us flunk."

Showman—"Quick, take this rifle?"

He (at circus): What for?"

Showman—"A leopard has escaped; shoot him on the spot."

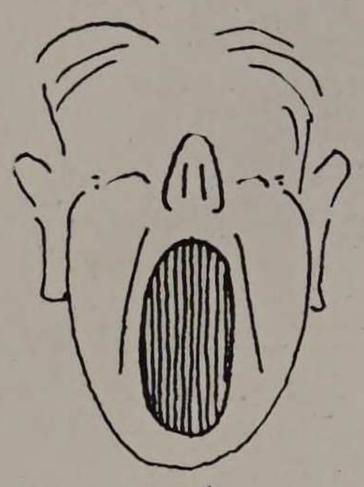
He—"Which sp-spot?"

Physics !??!

PRETTY DEEP

SOMEBODY MUST HAVE SOAKED THIS BIRD WITH A RUBBER BAND.

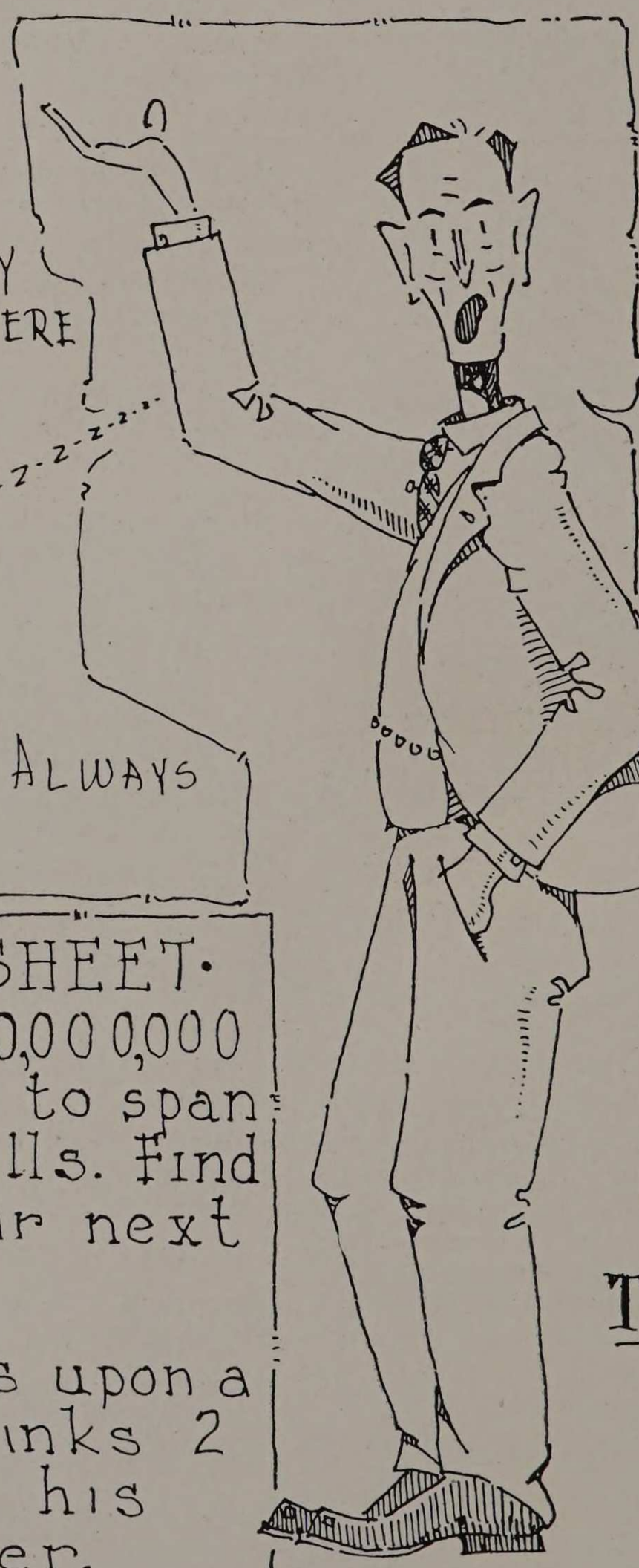
OH, IS THIS INTERESTING



NOT THE COMPANY ITS THE ATMOSPHERE

THE GUYS IN THE BACK SEATS ARE ALWAYS THE LUCKIEST

YOU JUST GOTTA LAUGH AT THE PROFS. JOKES



THE HYPOTHETICAL HYPOTHESIS OF THE AVOGADRO RULE LEADS TO THE ANTIDISESTABLISHMENTARIANISM OF ACIDULATED LIMBURGER CHEESE

·PROBLEM·SHEET·

1 If it takes 10,000,000 pork-sausages to span the Niagra Falls. Find who will be our next president.

2. A man steps upon a barge and it sinks 2 inches. Find his house number.

THE HONORABLE PROF

·M·I·N·K·U·S·

A SAILOR'S PRAYER.

Now I lay me down to sleep,
I pray the Lord my soul to keep.
Grant no other sailor take
My shoes and socks before I wake.

Please, Lord, guard me in my slumber;
Keep my hammock on it's number.
May no clews or lashes break
And smash my nut before I wake.

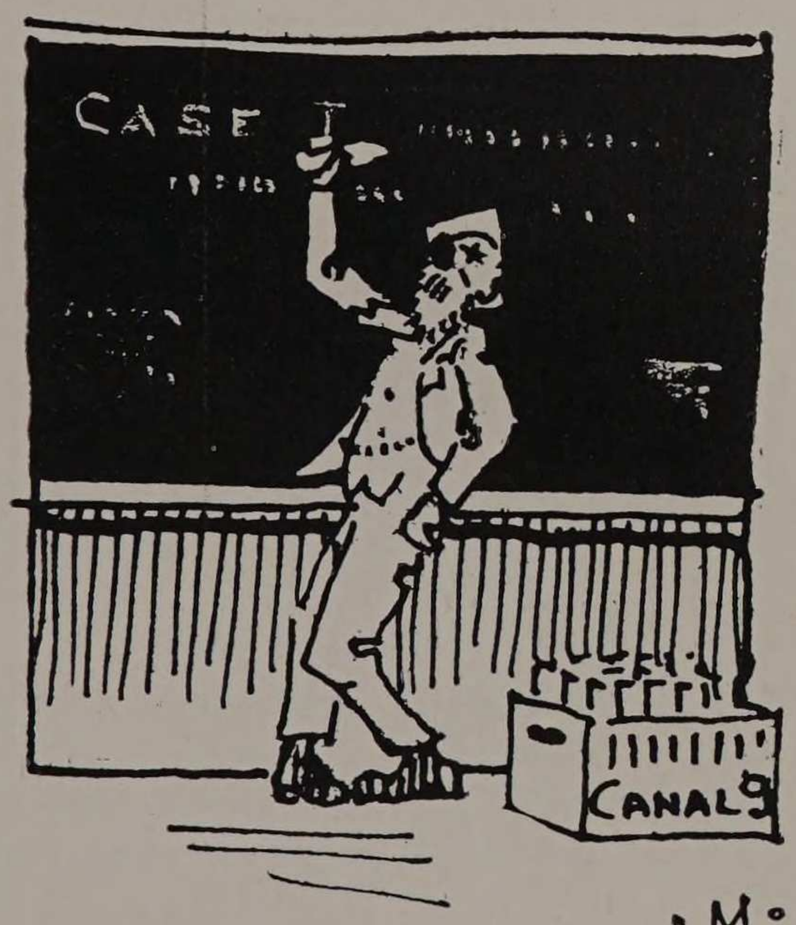
Keep me safely in Thy sight;
Grant no fire drills here tonight.
And in the morning let me wake
'Mid haunting smells of sirloin steak.

Lord, protect me in my dreams;
Make things better than they seem.
Grant four years may quickly fly,
And all hardships pass me by.

Oh! that billowy feather bed
Where I long to rest my head
Far from all the hellish scenes
And the smell of half-baked beans.

Take me back to solid land,
Where they scrub no decks with sand.
Where no demon typhoon blows
And the women wash the clothes.

Lord, Thou knowest all my woes,
Kindly cure my sun-burned nose.
Take me home to a field of clover
And I'll promise I'll not ship-over.
AMEN!



Anti-Prohibition.

Prof. Childs—

"Tomorrow we shall finish the second case. Come prepared."

Prof. Freud—"How do you manage to make so much noise in this laboratory?

Fishman—"Well, just you try breaking four beakers and a condenser without making any noise."

Nutt—"Do you notice anything funny on my nose."

Nutt's brother—"Yes, your face."

"Maids are so dishonest nowadays. Mine, suddenly left the other day and took my beautiful pearl necklace.

"That's too bad," sympathized the friend. "Which one was it?"

"That pretty one I got away with at the department store last spring."

Quick action.

Jack (gallantly)—"Betty dear, anything you say, goes."

Betty (quickly)—"Jack."

Davis—"Did you go through analytics last term?"

Fishman—"Yes, about two months before the final."

Following the line of least resistance is what makes streams and men crooked.

"This clock will last a life time," said the jeweler as he handed the timepiece to the customer.

"Nonsense," retorted the other. "Can't I see for myself that it's hours are numbered."

Too much booze will make a mental wreck and too much soda-water will make a fizzical wreck.

Experienced Jeweler.

Customer—"I—ah—er—um."

Jeweler (to assistant)—"Bring that tray of engagement-rings here, Harry."

Loebl—"Your knees must be going some place."

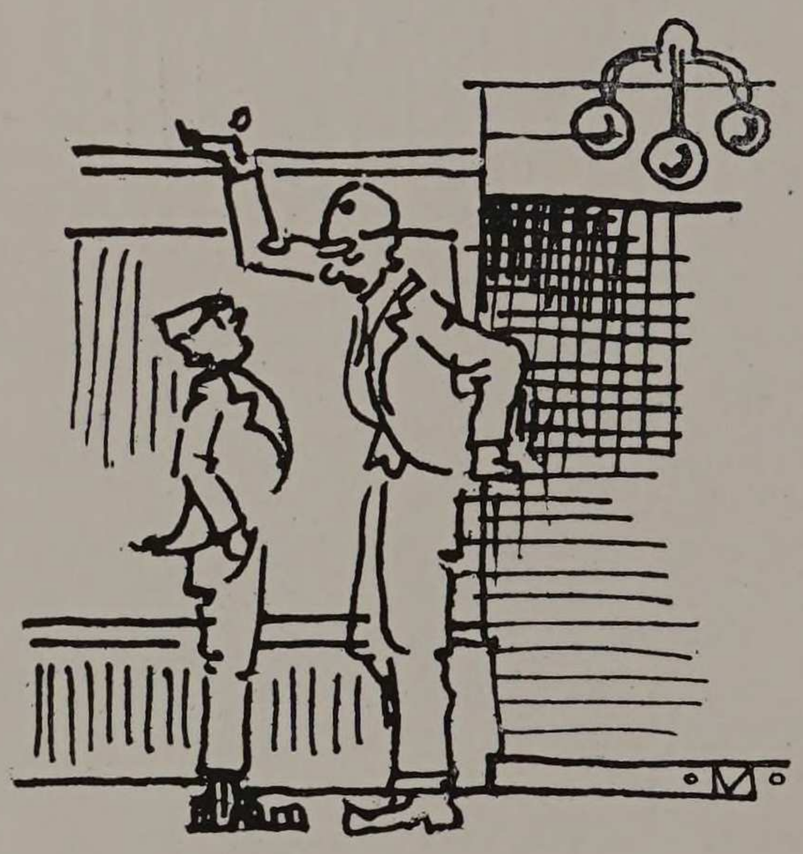
Minkus—"Well, they have their caps on."

Praise a wife but remain a bachelor.

In offering assistance to a young lady leaving a car:

He—"May I help you to alight?"

She—"Thank you; I don't smoke."



Scherger—"What do you suppose makes my clothes so wet?"

Bernstein—"Well? I suppose there's so much due on them."

The Wonders of Watchmaking.

Our watchmaker layed off a couple of hands and then the hour struck.

Speaking about the Income Tax, Winter says that they haven't taxed him as yet for getting in at 3 A. M. His memory probably was taxed.

"She has the prettiest mouth in the world."

"Oh, I don't know; I'd put mine up against it any time."

Doolittle—"I'm smoking a terrible lot of cigars lately."

Grossmar—"If that's one of them, I would say that they are a terrible lot."

Scherger—"I lost my head entirely, yesterday, when Prof. Wilcox had me reciting."

Corydon—"Don't let that worry you; it won't be of any use to anyone, so you'll get it back."

"Give this man a pass into heaven."

Quick lunch waiter—"Make it two."

"We do all of our cooking by electricity here."

Customer—"Take this egg out and give it another shock."

Porter—"I can say one thing. I'm a self-made man."

Kaplon—"Were you boasting or apologizing."

Overheard in a studio.

Photographer—"Do you want a large or small picture?"

Max May—"I guess a small one."

Photogropher—"Well then, close your mouth."

Hayden—"So you call this town dry."

Peterson—"Dry? Well, I should guess it is. They don't even allow the carpenters to use spirit-levels."

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* * *

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CLASS OF 1920

Name	*Nickname*	*Favorite Saying*
Ablamowicz	Siggie	Let's go to the Art Institute.
Adam	P. J.	Wake me up after this class.
Anderson	Andy	Come on little Eva.
Bentley	Walter	Your Teckniue is awful.
Bernstein	Joe	The sooner we get started, the sooner we will get thru.
Blumberg	Shell	Did anybody see Renaud today?
Bready	Ira	You ain't so funny.
Brown	Brown	We'll coast for 800 feet.
Cardwell	Cardy	Come on yous guys.
Clausen	Curly	How about a smoke, Mister.
Cook	Kochh	Are you the berries?
Danforth	Ches	I don't know about that.
Eagle	Bill	Get the Idea?
Eifler	Eif	When I was at Sherwin-Williams.
Epstein	Eppie	Theoretically but not practically.
Erickson	Bill	Wana buy a dog?
Fainstein	Consulting Engineer	My Eye.
Frank	Julian	A nickle open fellows.
Gail	Art	Going over to the house, Ed?
Gottlieb	Marsh	Oh! boy; but that Nash can step.
Grant	Dainty Marie	Joe, did you get me my cigar?
Hall	Tom	Yes, Yes, go on.
Hammerman	Hamm	Whata you can do, when you gotta have to?
Henry	Hank	Let's go to the corner and get a drink.
Hertwig	Freddy	Anybody want to buy a concert ticket?
Illg	Bob	Hello punko
Jackson	Jack	Who wants more invitations?
Jones	L. E.	Hello old soup-hound.
Karlson	Karly	How do you get that way?
Kingsley	King	Hello Mac, old kid.
Klemm	Hank	Hold 'em.
Larson	Lars	What answer did you get, Poppy?
Ledebuhr	Leddy	Hello Sevic, how's the boy?
Liu	Luk	You can't get anything of dem fellows.
Lewis	Benneh	Oh Dear, I dropped another stitch.
Lyon	Art	What does this smell like?
McCarley	Bill	Oh Shuks.
Malpede	Dangerous Dan	Quit it now.
Marks	Skinney	I know guy.
Marvin	Nort	Come on Jack, let's get busy.
Mead	H. H. D.	Lemme have the report next.
Mitnick	Mit	I guess I'll go to see Martha.
Morgan	Bob	Don't put anything over.
Muehlberger	Clarence	Now if I were doing it.
Muelleman	Joe	Ah! What did I tell you.
O'Connor	Musty	I forgot the minutes of last meeting.
Passialis	Paas	Fainstein, gimme a cigarette.
Peterson	Claus	I'll see what my wife says.
Peterson	G. E. O.	What can I trace now, Wink?
Peterson, H.	Pete	Oh! you're not so good.
Podolsky	Patootie	Some queen, I had out last night.
Popkin	Jake	We architects have to work.
Regensburger	Dick	Good morning, Mac.
Renaud	Hugh	Blumberg, where haveyou been.
Sabiston	Kenneth	Gee that was some quiz.
Scheuer	Ed	Did you ever hear this one before?
Schwachtgen	Muggins	Is this right, Professor?
Schwartz	Paul	When I was in France.
Sevic	Sevy	How's the old wing today?
Seyferlich	Sey	Coming out to practice tonight?
Smely	Smaltz	I'll tell you what fellows.
Sparling	Donald	Hello fellows.

A Message to the Graduates and Under Graduates of the Armour Institute of Technology

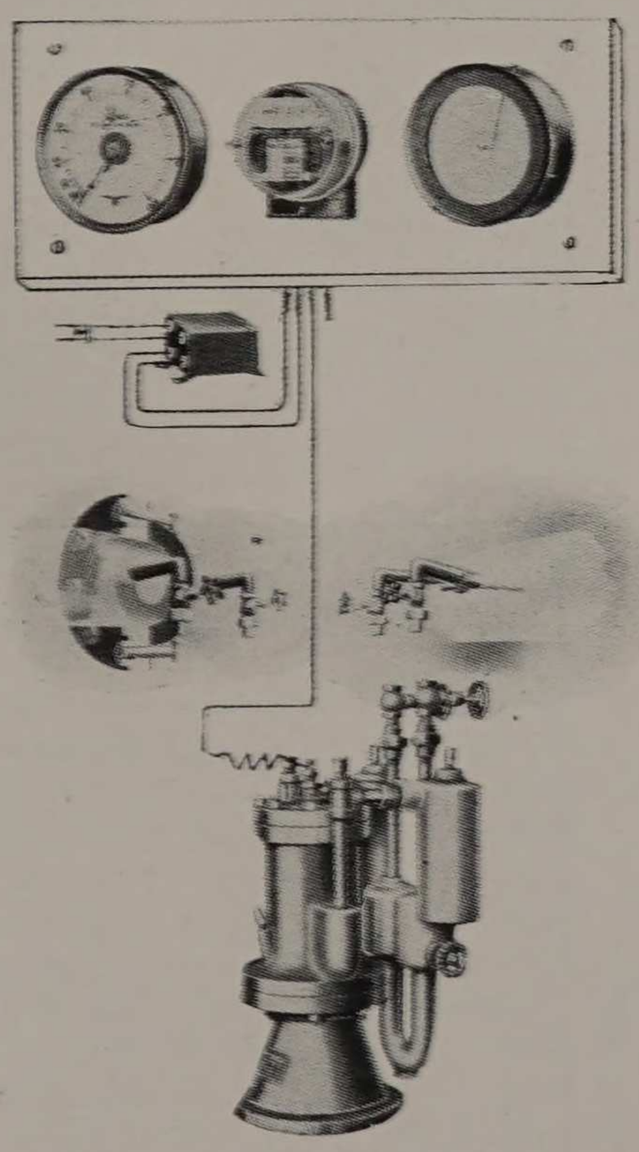
Gentlemen:—

Your Alma Mater, The Armour Institute of Technology, deserves the credit of originating the first and most successful fluid measuring device or Flow Meter.

The experimental work, conducted in the Mechanical Department, under the supervision of Prof. G. F. Gebhardt, was continued by graduates of the Institute until a meter was developed that in its accuracy, reliability and convenience competes with any scientific device that was ever applied for this purpose.

In order to show our indebtedness and appreciation to the Institute, we extend to all graduates, the privilege of calling upon us whenever confronted with any problems involving the flow of fluids, or in determining sizes of pipes, etc. Our new factory located at 2240 Diversey Blvd., Chicago, employs a staff of Armour Graduates who are waiting to give you, cheerfully, the necessary information.

Sincerely yours,
REPUBLIC FLOW METERS CO.,
J. M. Spitzglass, Class '09.



REPUBLIC FLOW METER

Name	*Nickname*	*Favorite Saying*
Stein	Aaron	Well, in this case.
Steinberg	Pat	Can't get away with that in the Navy.
Stern	Kernel Kootie	That's hoi palloi.
Stevers	Mr.	Listen here men.
Stone	Mac	Whose socks go off today?
Sugarman	Abe	Oh Grant, come on.
Throop	Art	How can the Chicago Telephone Co. pay their employes?
Vogt	Voget	Here's one I just heard.
Wignall	Bill	Oh! Is that right?
Winkless	Wink	What's he talking about?
Wong	Yuk	Herbert Taryton's for me.
Zemke	Art	I guess you are right.

CLASS OF 1921

Name	*Nickname*	*Hobby*
Albee	Abler	Magnetic Fields
Anderson	Andy	Baseball
Appelbaum	App	African Golf
Baldwin	Baldy	Shimmy Shaking
Barce	Stan	Running Woodshop
Bird	Sparrow	Rose of China
Browde	Indian	Shaking Shimmy
Brown	Cartouche	Sculptorian
Brueckner	Breck	Ravenswood
Burke	Slow	Getting on time
Carson	Dizz	Hitting the drums
Chase	Hydro	Staying out nights?
Cerny	Carrots	Take gas
Conner	Oh George	The hammer throw
Doberstein	Dopy	Billiards
Doolittle	Tom	His pipe and billiards
Douglas	Doug	Parlor Jokes
Dowse	Pee Wee	Cubs
Duernes	Steinmetz	Physics Lab.
Edwards	Al	Nursing boils
Eierdam	Al	Speel!
Erlandson	Swede	Dodging Cops
Ewin	Slim	Sleep
Fassett	Appleblossom	Eating peanuts
Grabendike	Ducky	Jazz
Grammas	Perry	Chasing Skunks
Grant	Dick	Wiring Diagrams
Grey	Tribly	Table etiquette
Grill	Doc	Buicks
Gross	Skinny	Drawing
Grossman	Sid	Mustache
Havlick	Spense	The Nurse
Hayden	Fletch	Collecting Dues
Heitner	Bill	Gassing
Hofmeester	Ted	Excuse youself
Horman	Hopeless	Minnesota
Judson	Jud	Day dreaming
Kaplon	Jazz	Sleeping
Kihlstrom	Harry	Moosic
Klenze	Bob	The log-log rule
Knotek	Relentless	Tiddledewinks
Kumbera	Swede	C. K. C. Girls
Levi	Sim	12 hr. sketches
Little	Hale	Goldberg Stuff
Lochow	Loco	Calculus
Loebl	Inertia	Midday dancing

Wm. L. Koehne

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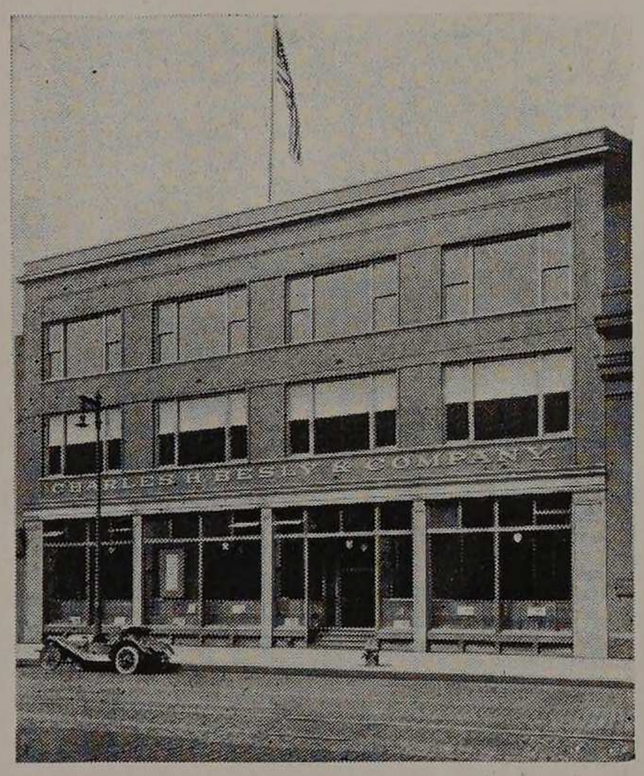

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Name	*Nickname*	*Hobby*
Lyon	Klutz	Chasing rainbows
Malwitz	Ray	Electric railway
Mann	Herbie	Moosic
Maranz	Lee	Finding Lou
May	Max	Smashing furniture
Mehrhof	Merry	Wireless
Michels	Mick	Hydraulics
Minkus	Mink	Changing posters into cartoons
Mundt	Ed	Eats
Naiman	Aristopheles	Math.
Newman	Lou	Finding Lee
Nudelman	Noodles	Work??
Nurczyk	Frank	Working problems
Oleksy	Lazy	Dams
O'Rourke	Rookie	Baseball
Orton	Filo	Rest
Pearce	Bill	Mach. Dr.
Perlis	Perlie	Titration
Peterson	Big Pete	Woman
Pfafflin	Pfaff	Quail hounding
Plocar	Shorty	Baseball
Quinlan	Quinn	B. T. U.
Rabito	Rabits	Falling upstairs
Rosback	Tinnie	Home-brew
Rosendahl	Rose	Tickling carburetors
Rudd	Gold Dust No. 1	Hydraulics
Rumley	Mark	Parlor Jokes
Ryan	Red	Dropping physics
Sanger	Johnny	Larfing
Savoye	Savvy	Chess
Scherger	Ray	Chem. Lab.
Schiffman	Skiff	Cathetometer
Schlossman	Red	Smoking 10 cent cigars
Schoening	Fat	Campbell's little office
Schreiber	Prunes	Eating them
Schurman	Izz	Attending classes????
Scotford	Scottie	Junior Prom
Silverberg	Hezeka	E = IR
Silverman	Frisco	Imitating a good singer
Sippel	Cornie	Basketball
Spitzglass	Spitz	Tickling the ivories
Sponholtz	Lil' Willie	His pipe
Steiner	Infinity	Fixing footlights
Tabachnick	Tubby	Argumentation
Thompson (A. J.)	Al	Calculus
VanValzah	Van	Caring for children
Veit	Gold Dust No. 2	Hydraulics
Vorsheim	Vor	Loafing
Walter	Chick	Inventing
Webster	Weby	Dancing
Wenner	Tins	Being hard boiled
Winiarski	Weannie	Matching pennies
Winter	Emil	H_2SO_4
Wolgemuth	Volge	The Kid
Woods	Satin	Billiards
Zahrobsky	Zazza	Poker

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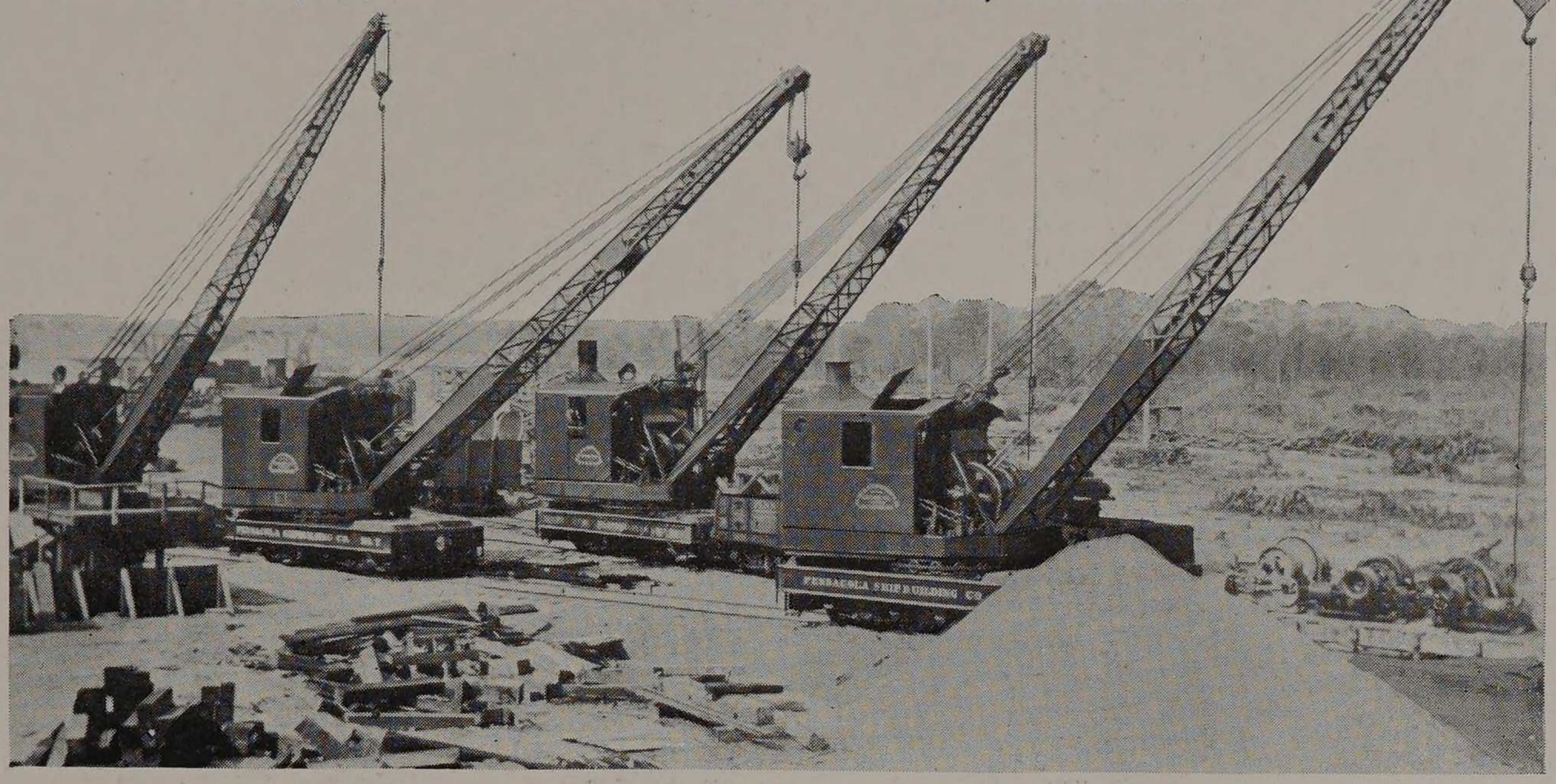

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Armour Institute

Boys

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Class of 1922

Name	*Nickname*	*Hobby*
Adler	Jake	Doping out E. E. experiments
Ahlbeck	Al	Sleeping
Anderson	Wes	Math.
Apostolos	Roast Beef	Grece
Auerbach	Heinie	Physics?
August	July	English Literature
Baker	Bake	The "Monschabuschers"
Barrett	Spuds and Gravy	Nursing a sore arm
Bernstein	Jake	Selling Hats
Bernstein	Josh	Giving details concerning moonshine
Bieg	Work	Stalling
Bissell	Wood	Doing physics for amusement
Bloom	Win	Physics
Blum	Lead (Pb)	Playing billiards to raise his marks
Bochman	Court Jester	Pulling bum gags in Calc class
Bose	Paul	Golf
Brennewasser	Brenny	Checkmatinf freshmen
Broad	Deacon	Reading Scherger's references
Burns	Bobbie	Calculus?
Bursick	Burs	Speeding
Busbey	Fred	The Bassoon
Carlson	Carl	Egyptian Hierogliphics
Cauley	Cauliflower	Tennis
Cooley	Vin	Grand Beach!
Crane	Cupid	You'd be surprised
Corydon	Jeff	Running across the alley
Davis	Al	Looking blue
Delevitt	Sam	Calculus of concrete construction
Demuth	Johnny	Chief of corporation
Desmond	Desperate	Chasing Heroines
Dhus	Deuce	Oak Park, Ill.
Deifenbach	Defendumb	Currents
Eisenstein	Sam	Sanskirt
Elman	Mischa	Violin
Erby	Phil	Pewicks
Erickson	Erick	Talking too much
Erlandson	L. E.	Making himself known
Ernberg	Kentucky	Prof. Nash
Finkelberg	Fink	Taking home cast iron from the Soph drafting room
Fisher	Ralph	English IV.
Fishman	Fish	Trying to get free theater tickets
Gambal	Gamble	Poker
Garrity	Ed	Higher Math
Gayhart	Bob	Mental telepathy
Georgevich	Georgaqitch	Himself
Geisler	Sergeant	The phrase "What's your name"
Gerstein	Gers	Basketball during organic lab.
Gilbertson	Gil	Physics?
Goodnow	Ed	Attempting to get to physics (8:30) on time
Gray	Taylor	W. T. Gray
Grove	Russ	Burning the midnight oil (see cartoon elsewhere)
Hagen	Whitey	Collecting medals for track work
Hague	Pickles	Automobiles
Hamacek	Ham	Swimming in the Lake in December
Herbst	Hoibst 1	Piano
Herbst	Hoibst 2	Violin
Herskovitz	Eef	Tennis in zero weather
Heyns	Hugo	Figuring when he will have a million

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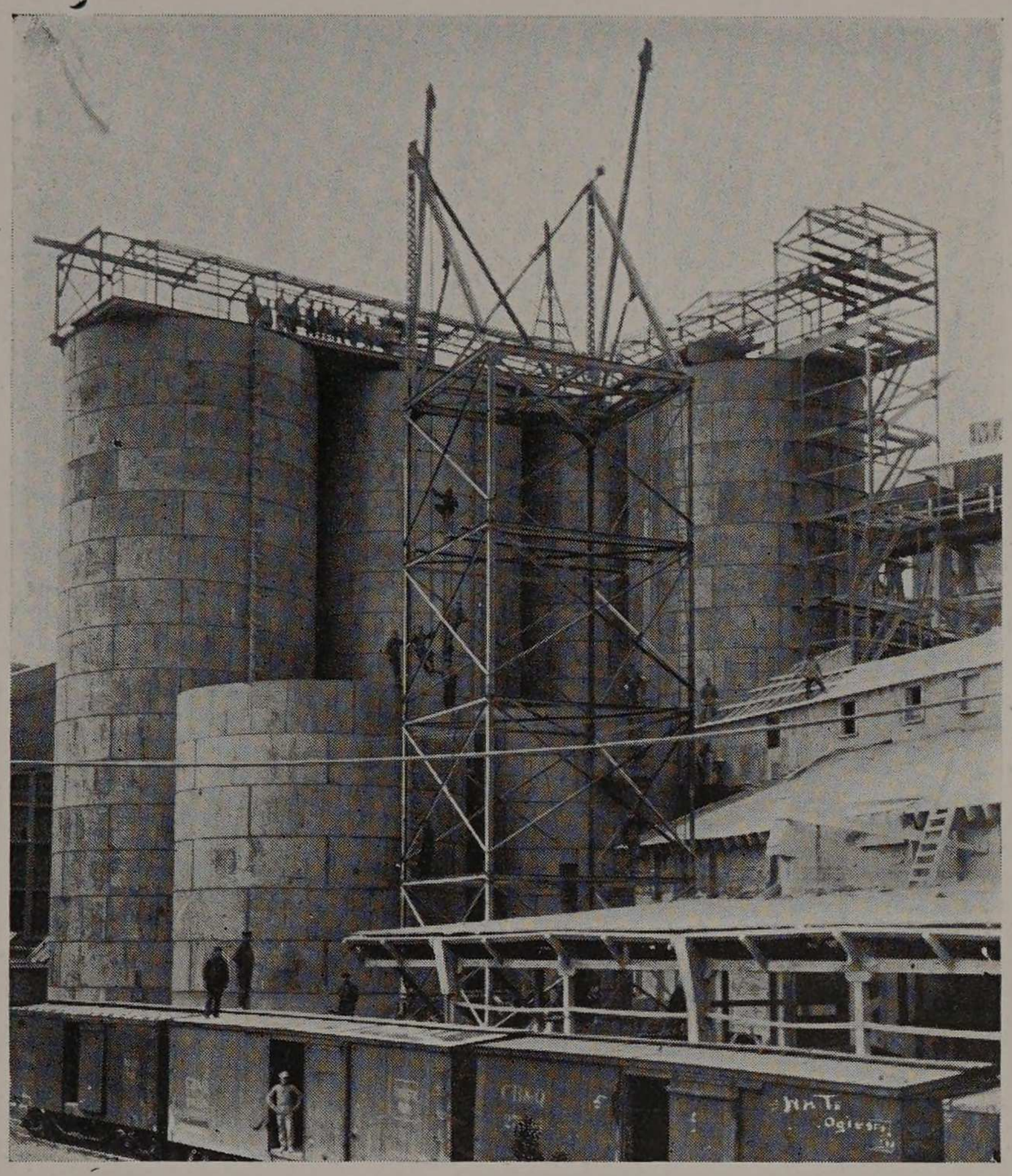
ARMOUR AND COMPANY

CHICAGO

Name	*Nickname*	*Hobby*
Hochriem	Hock	Calculus!!!
Holicek	Holy	Making noise
Holmes	Sherlock	Chicken Hunting
Hultgren	Hult	Shakespeare
Hyde	Hide	Luey Page Gaston
Isaacson	Sam	Bolshevism
Jenkins	Jenk	Chemistry
Jennings	Dave	Forge shop
Juraska	Jazz	Deleted by Censor
Keene	Kennee	Following George Crane
Ketley	Turk	Celestial mechanics
Kelner	Jake	Being adored
Kenwick	Gumgotz	Physics Lab.
Kimball	Betty	Wondering what "N's" attentions mean
Kingsley	Bill	Corn Center, Iowa
Kerkhuff	Cece	65th and Normal Blvd.
Kramer	John	Making a noise
Kuehn	Rough	Kidding Charlie
Lammert	Lamb	Being meek
Lewin	Al	The story "Goldilocks and the three Bears."
Loewe	Son	Answering "Here Sir"
McCaffrey	Mac	Quizzing Prof. Phalen on Calc.
McCormack	Mac	Mexican Athletics
Maguire	Mac	Giving heart to heart talks to the wayward Soph class
Manske	Fred	Ravenswood
Marine	Mex	African Golf
Mason	Elmer	Merry Gardens
Meyer	Dud	Combing his hair
Miles	Snowy	Prof. Nash
Miller	Doug	English I
Miller	Harold	Theology
Muesser	Gene	Getting 100 in Physics exams
Mullaney	Mull	Roger Sullivan
Mullen	Whitey	Nebraska
Manske	Mex	Hypnotism
Nedved	Neddy	Trailing E. K.
Nicholson	Nick	Prof. Campbell!!!
Nowakowski	Noah	Trying for parts in the Junior play
Nutt	B. V.	Football
Oake	W. W.	El. Mach. Drawing
O'Connell	Connell	Steam engines
Olsen	Mar	Preaching to "Jazz"
Olson	Ole	Hudson Super and ——?
Paque	Pack	Physics
Pawlowski	Paul	Math
Peterson	Pete	Fussing
Rieger	Earl	Dropping 'em in
Roddick	Rod	Studying
Rodman	Murt	Chaucer
Rosenzweig	Rosey	Sobbing over his misfortunes
Rowe	Tommy	Passing Calc I
Rupprecht	P. J.	Working for "Dean" Kelly
Ruwaldt	Zenny	The metropolis of Beucher
Rudensky	Remo	Prof. Smart
Seaberg	Ed	Kenrick
Senelick	Sam	Burning the midnight oil
Sevin	Sam	Checkers
Shay	Sink	Wishing that he were big and strong
Skolnick	Manny	Discriptive Geometry
Sloan	Art	Asking Prof. Wilcox questions
Slobod	Slon	Discussions with "Noah"
Soltis	Johnny	Baseball
Sommer	Louie	Math
Spielman	Louie	Dressing up



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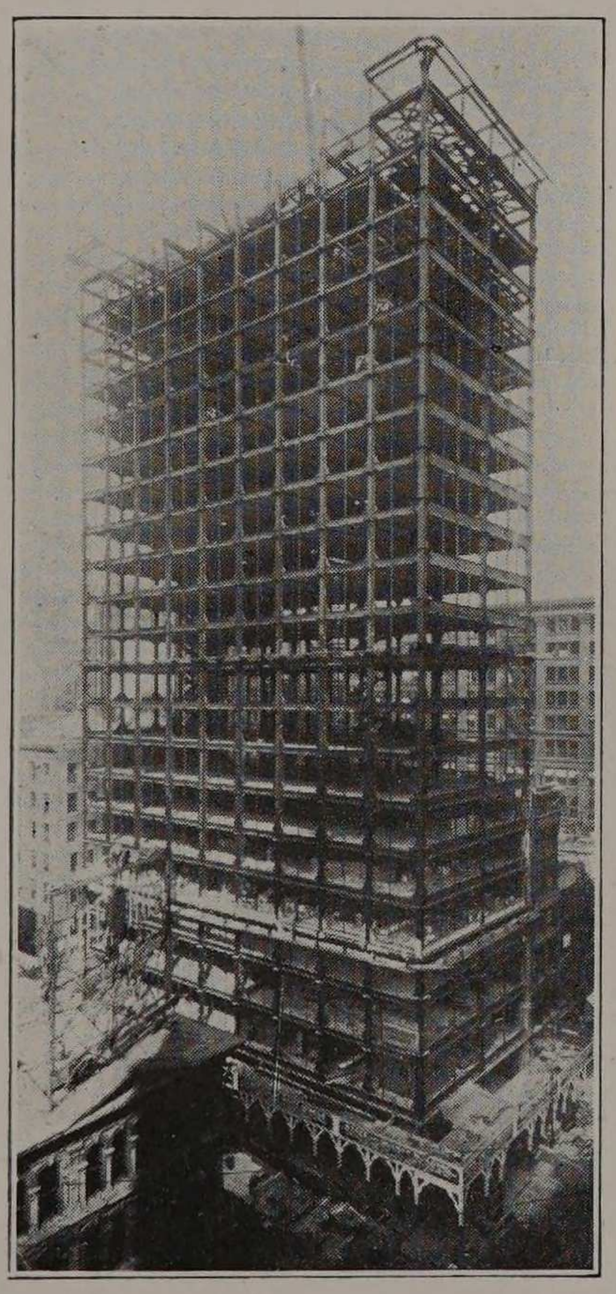

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CHICAGO

Name	*Nickname*	*Hobby*
Starr	B.	Ahfernoon Teah
Sugarman	Morrie	Combing his hair
Swenson	Mel	Joliet, Ill.
Taffe	Taffey	U. of I.
Tarrant	Bill	Mechanics
Tichy	Tick	Calesthenics
Tobin	Zbuch	Physics
Trow	Bob	The Architects in general
Trowbridge	Strawbridge	Basketball
Vaaler	Jack	Sitting next to Hoibst in Physics
Van Ryn	Van	Studying physics
Vickers	Vick	Keeping "Jake" quiet
Walker	Ted	Selling dance tickets
Walker	Mack	Threatening to anihilate "handsome Charlie"
Wallace	Red	Drawing
Watt	Jimmy	Three Arts Club
Waver	Hank	Wireless
Welshon	Ray	Grinning
Wenclik	Wens	Fixing electric light bulbs
Weston	Galvonometer	Red Dag
Wetherbee	Weather	The "Junior M. E. Society"
Williams	Stew	Mechanics
Wing	Wheat cakes	China
Wittenmier	Witt	Competing with "U" boats
Yerkes	Wallie	Being the "brains of the corporation"
Zelenka	Zincati	Physics

Class of 1923

Name	*Nickname*	*Hobby*
Allen	Jim	Drawing live models
Arentz	Swede	Asking useless questions
Arkema	Ark	Bumming around
Baker	Bake	Descript drawing
Beilin	Ed.	Algebra
Bennett	Percy	Drawing salary
Bernstein	Nosy	Oratory
Biever	Beef	Eating
Blaufuss	Bill	"Pepology"
Block	Mose	Stalling
Boyd	Hash	"Laffing"
Bradley	Bob	Talking
Brand	Jake	Reading Alger
Brooke	Longbow	Christianson
Browne	Tom	Raising a rumpus
Brueckner	Brick	Sweeping the sidewalk
Bucksbaum	Ches	Mixing gunpowder
Burkey	Mack	Sleeping
Busch	Joe	Fishing
Butz	"Boots"	Country dames
Callard	Ed.	Dawncing
Carlson	Carl	Walking
Carr	Shrimp	Pickin' berries
Case	Jawn	Movies
Catlin	Cat	Tardiness
Chiappe	Ceasar	Yelping
Christianson	Cristy	Brooke
Citta	Jerry	Girls

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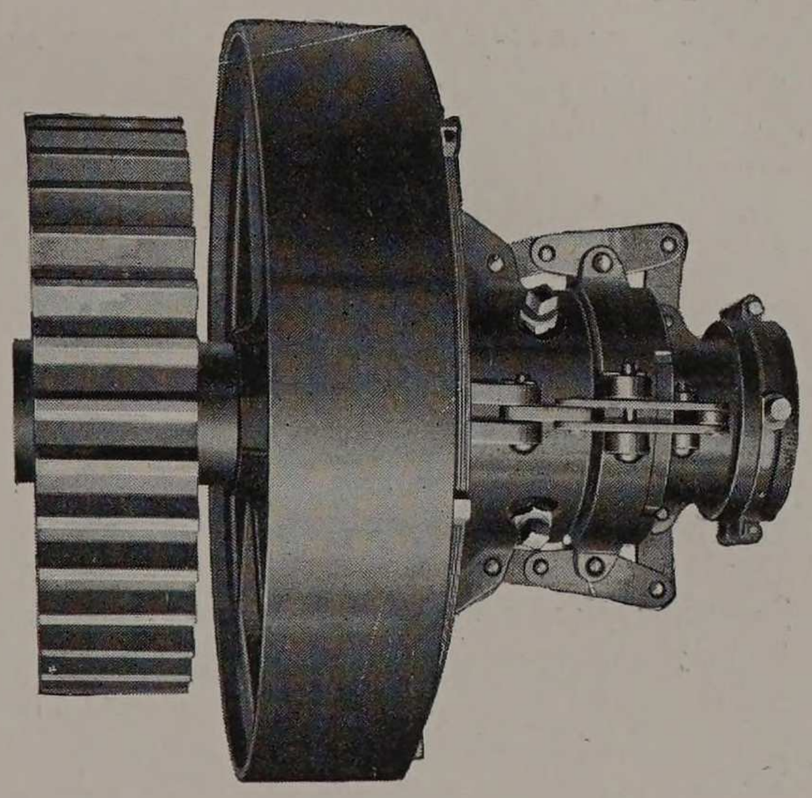

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Name	*Nickname*	*Hobby*
Clark	Andy	Drawing angles
Coatsworth	Al	Talking to (?) on telephone
Cohen	Morry	Crocheting
Colby	Husk	Football
Condee	Con	Looking for infinity
Conick	James	Asymtotes
Coultrip	Ray	Seen and not heard
Crane	Olvy	Music
Crowe	"Jawhn"	Salesmanship
Cunningham	Goof	Talking (oh so quiet)
Daniels	Babe	Sprinting
Darnell	Snookums	Ukelele
Decker	Bill	Nemoyer
Diogot	Dago	Shootin' baskets
Downs	Fred	7 come 11
Drapinski	Ady	Sweets
Duerinck	Pete	Names
Eagle	Useless	Ditching
Edidin	Ecky	Near Beer
Eckhardt	Lee	I. W. W. in class
Eickelberg	Hank	Loquacity
Eitel	Otto	Deutchland
Epstein	"Eppie"	A's.
Fabry	Ice-wagon	Advertising
Falconer	Jack	Library
Farrington	Ted	Settlement work
Farwell	Roy	Aviatoring
Feldon	Benny	Breaking Chem dishes
Fischer	Sloppy	Laziness
Ford	Curls	Ragtime
Friedman	We don't know	Ty Cobb
Fruik	Friuk	John Reid
Fuhreo	Gene	Hypnotising
Fulton	Jass	Ushering
Gamer	Kluk	Punctuality
Gapinski	Ski	Garlic
Garland, Benj.	Ben	Bell boy
Garland, Bernard	Shortness	Night clerking
Genet	Jake	Basketball
Ginsburg	Bob	Poker
Goldberg	Dave	Making faces
Goldman	Eddy	Loafing
Goldstein	Goldy	Going to Armour dances
Gordan	Sam	Shoe-shining
Hahn	Len	Feeding chickens
Hayes	Isenglass	'2 jody
Goldhardt	Happy	Fighting
Grube	Teamster	Driving coal wagons
Hammar	Nails	Carpentry
Harwood	Goggles	Singing in Chem. Lab.
Hauth	Peter	Visiting Senn
Hilliker	Handsome	Running dances
Hix	"Useless"	Jazzing 'em up
Isenberg	Shimmy	Dawncing
Johnson, E. A.	Swede	Double dribbling
Johnson, G. L.	John	Tickling the keys
Johnson, M. S.	Mel	Doing Algebra
Karstens	Harry	Ditching Chem. Lect.
Kanders	Brilliance	Soul-saving
Kensman	Kinnie	Bulling through English
Kline	Woodrow	Making toy automobiles
Lizars	Lizzie	Arguing
Mayo	Admeral	Sight-seeing
Mills	Semi-color	Smoking butts
Mooney	Detective	Shooting the bull
Nicklin	Nick	Railroading

Green River

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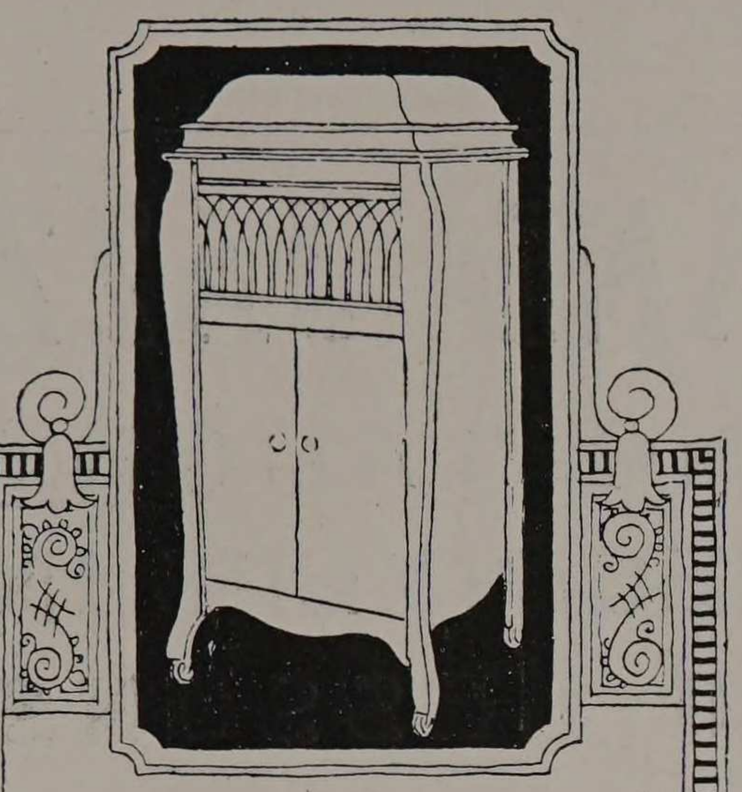
SCHOENHOFEN COMPANY
CHICAGO

Name	*Nickname*	*Hobby*
Nutt	Nut	Running from Squirrels
Oboler	"Hebe" (Soviet)	Spoiling the Annual
Overend	Overagain	Smoking
Payson	Ed.	Laying 'em low in gym
Pollan	Polly	Living in the gym
Walk	Red	Wisting
Wells	Gus	D's.
Werner	"Duke"	A horse
Pelta	Pelt	Doing Calc?
Wheeler	General	Loafing
Unger	Chink	Life-saving
Reihmer	"Leonore"	Killing Omars
Rotberg	Gold Dust	Henry Van Dyke
Sang	Phil	Banking
Schumacher	"Shuie"	Mary-ing
Sorensen	Swede	Signing his name
Spensley	Jim	Penmanship
Stangle	Jake	Sachs
Stantial	Red	Catherine N.
Tang	Chink	Cussing in Chinese
Temple	Bob	Blaufuss
Vater	Dizzie	Beauty shop
Verplank	Shrimp	Green socks
Prentiss	Prenty	Grinding
Price	Mike	5 and 10
Proetz	Priscilla	Ladies
Hedges	Small change	Pennies
Heller	Whitie	Toys
Henjum	Nels	Minding own business
Hess	Fred	Tennis
Hesson	Willie	Loud ties
Hill	Al	Whistling
Houlihan	Gyp-the-blood	Bluffing
Hurst	Gene	Rowing
Jacobs	Curls	Tiddley winks
Jacobzak	Sig	Indoor-B. B.
Jensen	Ray	Swedish dames
Judd	Earle	Mechano
Kaye	K—	Swimming
Keslensky	Manny	Talking to himself
Kilbey	Geo.	Flashy suits
Kilbourn	Fred	Playing soldier
Krebs	"Crab"	Pessimism
Lautenbach	Lout	Marbles
Lawson	Harry	Football
Lemm	Bill	Automobiles
Levin	Marvelous	Talkograph
Levy	Sig	Dances
Libman	Solly	Giving advice
Lindberg	Ferdy	Parkology
Linden	Jerry	Horticulture
Lindstrom	Wally	Skating
Lowden	Virgy	Church
Lucas	Joe	Zoology
Lueth	Abe	Debating
McCormick	Mae	Golden Rule
McFarlane	Polly	Poker
McHugh	Tom	Fancy Diving
McEachem	Stew	Milking cows
Maltsoff	Will	Beer
Mandil	Dave	Staying dirty
Marschale	Pete	A. I. T.
Martin	Shrimp	Swatting flies



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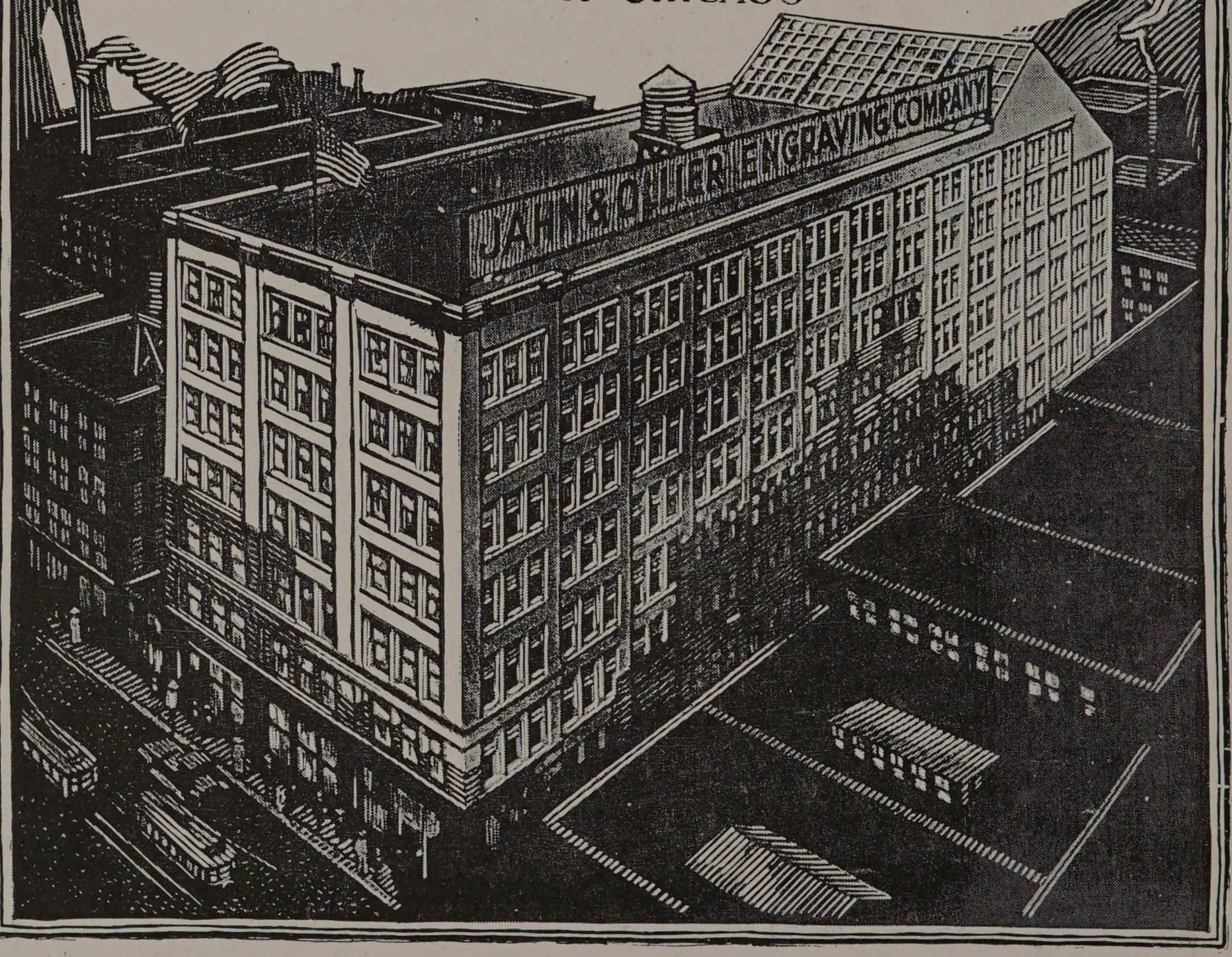

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