

CALIFORNIA
INSTITUTE
OF
TECHNOLOGY

1933

Charles Jordan

E X L I B R I S



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ROBERT G. MACDONALD » BUSINESS MANAGER

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T H E B I G  O F 1 9 3 3

PUBLISHED BY THE ASSOCIATED

STUDENT BODY OF THE CALIFORNIA

INSTITUTE OF TECHNOLOGY

PASADENA • CALIFORNIA

P R O O L

● When a school year comes to a close, filled, as it has been, with individual experiences and triumphs, with class ambitions and plans, with organized play and work; no chronological history, no alphabetical index, no motion picture has been written or made which can adequately review the course of events. The past can only be pieced by still pictures and disconnected stories. The black and white of the photograph; the black and white of the printed page, recall the more pleasant aspects in an extremely rapid-moving panorama. The colored illustrations in this book are the reproductions of original

O G U E

Japanese block prints, each of which was more than a hundred years old. The photographs which precede and follow these old colored pieces are in color, too,—in a sense. Looking back over these pages many years from now, will the memory of the colors lost in the black and white refresh the almost forgotten faces and scenes—colors as bright and permanent as that which has endured on rice paper? Life is made up of a myriad of weird kaleidoscopic experiences. A complete experience includes color as well as design.

All else is ashes.

I N M E M O R I A M

T H O M A S J A C K S O N

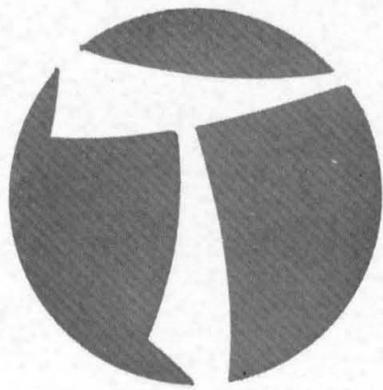
J O H N A M E S K I P L I N G E R

R U S S E L L H. B A L L A R D

J O S E P H B. D A B N E Y

C O N T E N T S

- STUDENTS
- FACULTY
- ATHLETICS
- ORGANIZATIONS
- FINE ARTS
- HUMOR



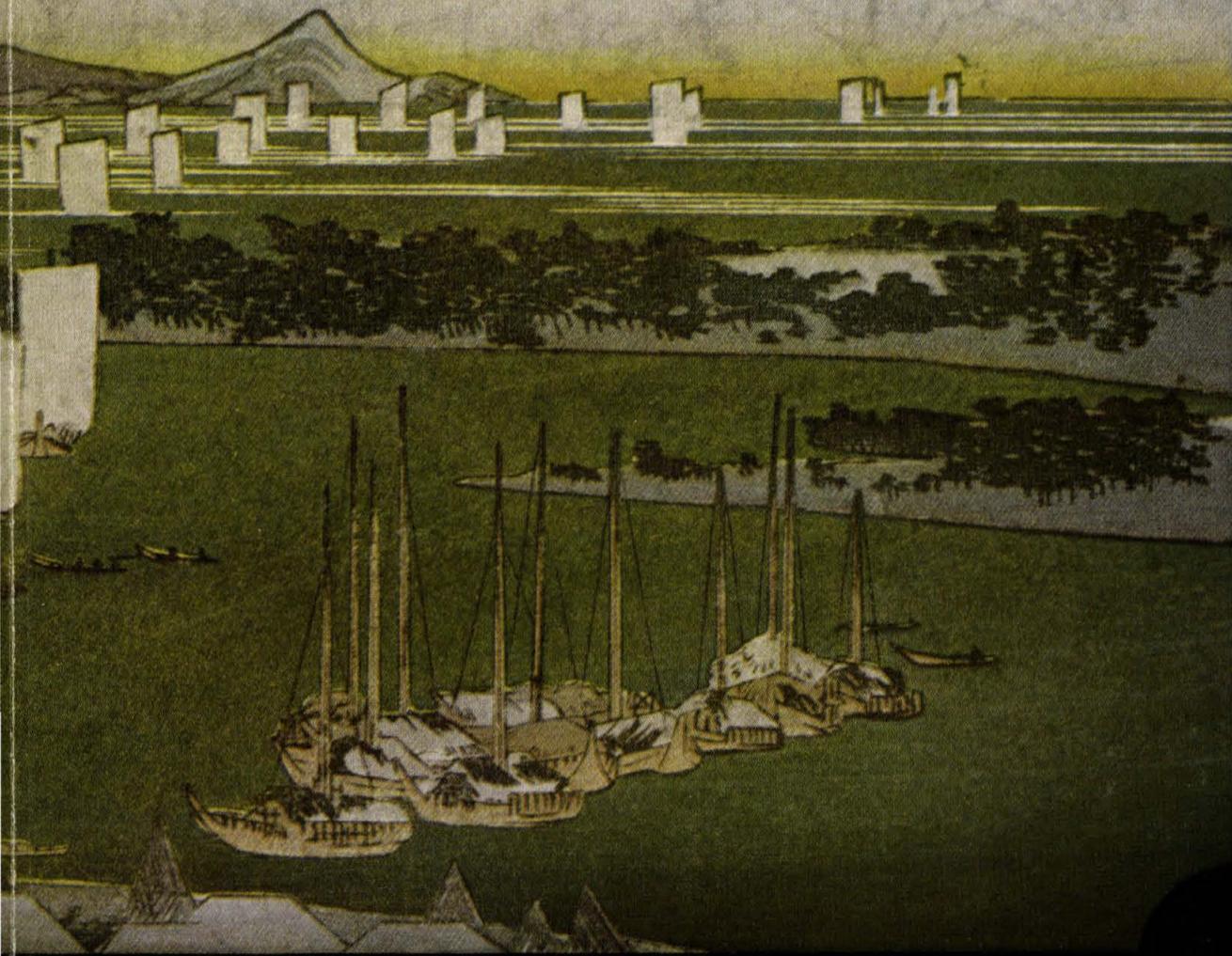
BEYOND THE HORIZON

江尻



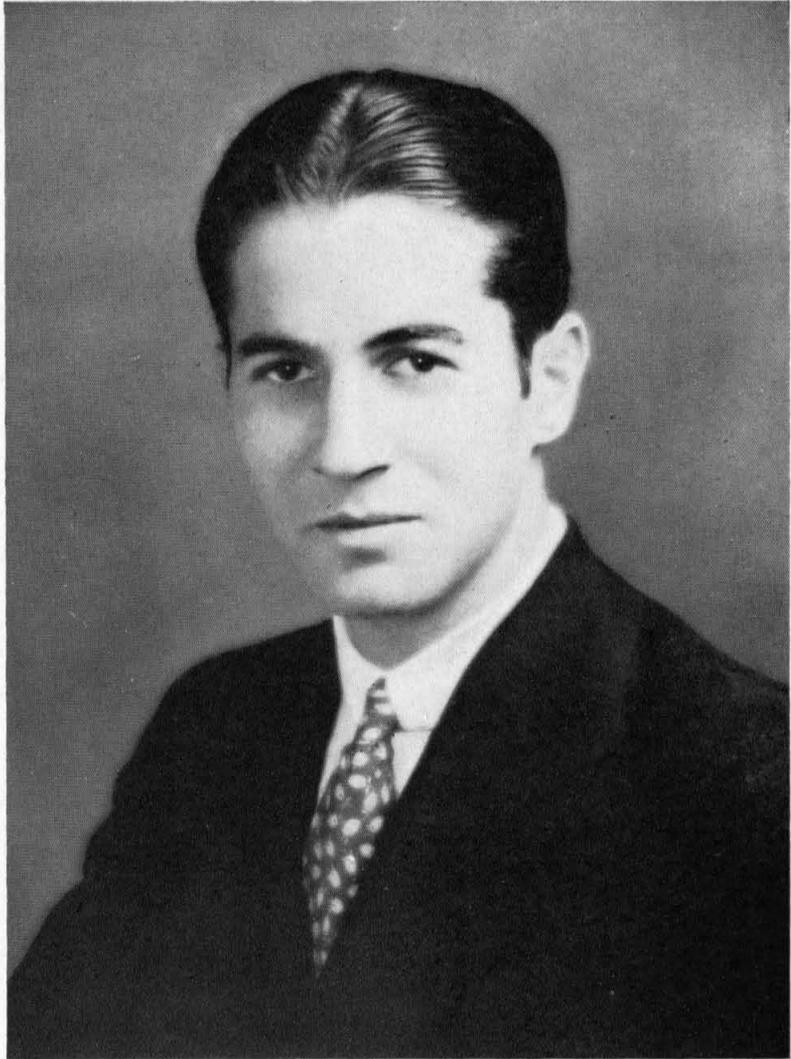
東海道

横倉



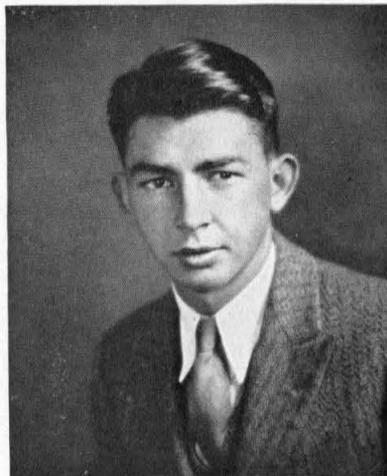
S E N I O R S

C L A S S E S



PRESIDENT OF THE ASSOCIATED STUDENT BODY • THOMAS S. TERRILL

MADISON T. DAVIS
VICE-PRESIDENT



THE ASSOCIATED STUDENT BODY

● The Associated Student Body, composed of all regularly enrolled undergraduate students, is the medium of self-government on the campus through which the demands and rights of its members are discussed and championed. Any undergraduate student has the power of nominating and electing candidates seeking offices in the governing body of the organization. At the close of the second quarter of each school year, elections are held for the replacement or reelection of student administrators. The newly elected administration assumes its duties in the third quarter of the current school year, continuing its functions throughout the first and second quarters of the succeeding school year.

● Under the efficient sway of T. S. Terrill, President of the Associated Student Body during the 1932-33 school season, the student government became instilled with renewed vigor and ambition. Consisting of several other capable officers, the past administration carried forward the policy and ideals of one of the most faculty-free student governments in Southern California. During the past year, Mr. Terrill was assisted by Madison T. Davis, Vice-President; Stanley Johnson, Secretary; and John Ayers, Treasurer. All of these men carried their part of the administrative burdens, exacting the praise due their ambitious and finished efforts.

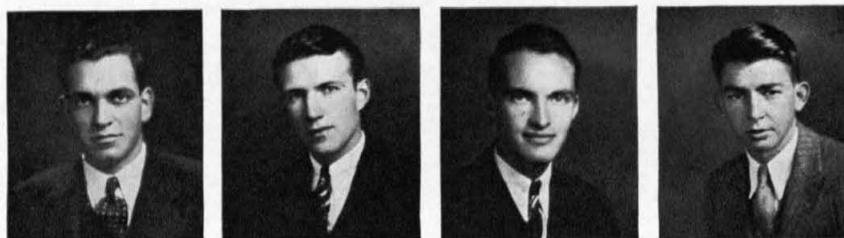
● As president, Mr. Terrill automatically assumed the Chairmanship of the Executive Committee, which is composed of all officers of the student body and through which all student body policy, not determined in the constitution, is set up. Mr. Davis, in his position of vice-president, also fills the office of Chairman of the Board of Control, in which is vested the judicial power of the government. In the succeeding pages these committees are treated with more detail, and the names and duties of other student functionaries are pointed out.



J. STANLEY JOHNSON
SECRETARY



JOHN K. AYERS
TREASURER



HARRIS

SHARP
SMITH

RUSSELL
HARTMANN

TERRILL
DAVIS

THE EXECUTIVE COMMITTEE, WITH THE PRESIDENT

● of the A. S. B. as its chairman, is composed of the Vice-President, Secretary, Treasurer, Representatives-at-Large, Athletic Manager, and Publicity Manager. This list forms the voting personnel of the committee. Of course, at all times, the weekly meetings of the body are open to the other officers of the student body, including the editors and managers of the publications, the yell leader, and the Rally Committee chairman.

- All student body expenditures, the awarding of athletic sweaters and letters, the awarding of honor keys, the managing of student publications—these duties are taken care of by individual officers in the organization; but the committee is a sort of governing body which oversees these branches of student activity and keeps them synchronized with the general forward sweep of the year's accomplishments.

- Managerial recommendations, appointments and details helpful in facilitating student body work are considered and passed on by this group. New policies which require the vote of the student body are discussed and formulated before presentation to the students.





JOHNSON
AYERS

BERKLEY
MACDONALD

CARLETON
MYERS

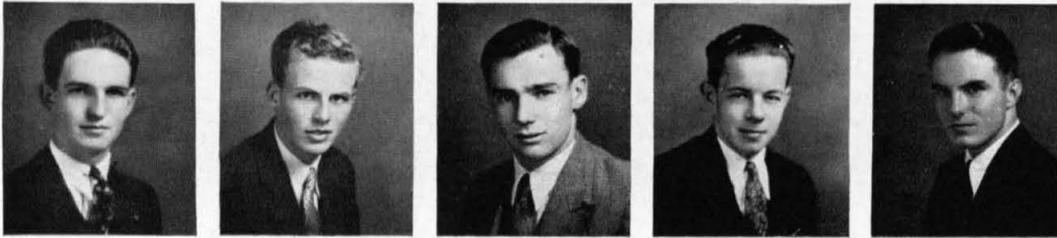
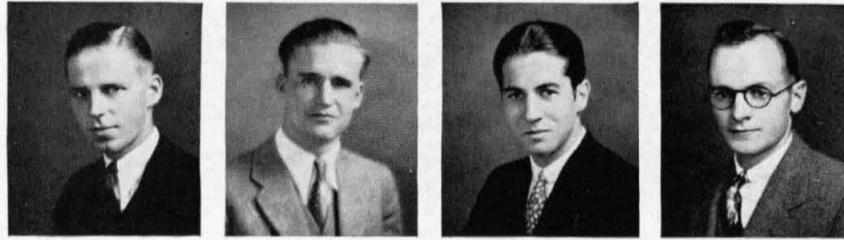
CLEVELAND

THE CHAIRMANSHIP OF THE EXECUTIVE COMMITTEE

was held, this year, by T. S. Terrill, president of the student body. Madison Davis was Vice-President; Stanley Johnson, Secretary; and John Ayers, Treasurer. Sidney Smith and Robert Sharp, as Representatives-at-Large, were primarily concerned with the awarding of honor keys. Gregory Hartmann, recent Rhodes Scholarship winner, served in the capacity of Publicity Manager. Richard Russell served as Athletic Manager and had his hands full making awards and giving out letters and parchments to athletic winners. Other officers include William Harris, Rally Committee Chairman; Don Cleveland, Yell Leader; Lee Carleton and Bryant Myers, Editor and Business Manager, respectively, of the "California Tech"; and Merrill Berkley and Robert Macdonald, Editor and Business Manager, respectively, of the Big "T."

- One of the most useful functions of the Executive Committee is its meetings with the Faculty Committee on Student Relations. Headed by Professor Franklin Thomas, this faculty committee meets about once every two months for the discussion and solution of problems which concern both groups.





BECKLEY

MONNING
PITZER

JOHNSON
SHARP

TERRILL
CLEVELAND

MORGAN
MYERS

THE BOARD OF CONTROL EXERCISES THE POWER

● with which it has been invested in fostering and supervising the enforcement of the Honor System, one of the most cherished and revered traditions of Tech men. Based on the ideal theory that every student is honest with himself and his fellow classmates, the Honor System has been carried forward with great success, proving to be the most satisfactory way of conducting our relations with one another and with the faculty.

● The duties of the ten student members of the Board of Control consist of investigating and judging any breaches in the Code of Honor. The power of the Board is limited in major cases to making a recommendation to the Faculty, whose actions are strongly influenced by the decisions of the court. The ten voting members of the Board include four seniors, one of whom is the president of the student body; three juniors; two sophomores; and one freshman. The vice-president of the student body acts as Chairman of the Board, and is assisted in the secretarial work by the secretary of the student body.



DAVIS



DAMES
BACKUS

GOULD
PERRINE

CLARK
EFROMSON

FLETCHER
BONILLAS

SCHRECK

EVERY YEAR THE EXHIBIT DAY COMMITTEE

organizes the engineering and science departments of the Institute for the staging of a great exhibition and the holding of open house. The doors of the campus buildings are thrown open to thousands of visitors and guests. A tremendous amount of labor is entailed in setting up exhibits, organizing student workers, and in directing the flow of a constant stream of people going to and coming from the several exhibition centers.

• This work was directed by Sidney Bamberger, Chairman of the Exhibit Day Committee. The success of his efforts was due to the cooperation of members of his committee whose names and the departments they directed are given as follows: Robert Fletcher, Aeronautics and Astrophysics; Trent Dames, Civil Engineering; David Clark, Mechanical Engineering; Lawrence Gould, Electrical Engineering; Robert Boche, Biology; Harrison Backus, Chemistry; Charles Perrine, Physics; Robert Schreck, Humanities; Phillip Efromson, Traffic; Ygnacio Bonillas, Geology and Paleontology.



BAMBERGER

SENIOR CLASS

● Nearly four years ago one hundred and sixty-one variously educated young men began their studies at the California Institute. The Class of 1933 was the first freshman group to escape military training, the corps having been abolished by student vote the year before. However, there seemed to be no escape from the indignities imposed upon these green, raw high school products by the upperclassmen. Those members of the Senior Class who can hearken back to their frolicsome days remember the green and yellow dinkies and the physics pool dunkings. One of the most notable progressive actions promulgated by this class was the renunciation of popular hazing which had previously been the privilege of all sophomore classes. This sacrifice helped in bringing about a more pleasant and congenial relationship between the uncomfortably conspicuous Frosh and the more experienced upperclassman.



SCHOLTZ



TILLMAN

● The entrance requirements four years ago included physical fitness as well as the usual mental qualities. The Class of 1933 was the first class to undergo a complete physical examination; groups of the freshmen were given a thorough going-over at the Pasadena Hospital. There were many pale-faced individuals during the examinations, especially after the blood-letting tests.

● As the years slipped by, the class lost many of its charter members in the readjustments which took place at regular intervals during these years. Many of the casualties resulted from a failure of the students to maintain a satisfactory scholastic standing, but the greater majority of students who were lost by the wayside could not continue their studies because of the "crash" of 1929 and the subsequent economic depression which undermined their sources

of revenue. With the rise of tuition to three hundred dollars a year and the failure of prosperity taking place in the Freshman year of the Class of 1933, it is surprising that such a great percentage of the original class is graduating.

- Seventy Seniors, or about 45% of the class of four years ago, have gone through four consecutive years at Cal Tech. New recruits from other classes and schools have brought the total number of the graduating class to about a hundred. Although the present class members were the last students to be initiated into the social fraternities which had existed prior to 1931 and were somewhat loath to disregard the social advantages which would accrue from their fraternal connections, they entered whole-heartedly in bringing about the success of the plans set up by the officers and faculty of the Institute. The success of the Undergraduate Houses is in no small measure due to the cooperation and intelligent views taken by the same students.

- The Class of 1933 was guided through its last year by a group of conscientious, hard-working officers. Walter Scholtz, President; Madison Davis, Vice-President; Charles Tillman, Secretary; and John Ayers, Treasurer, have earned the gratitude of the class for their consistent labors. Voting to give the school a set of flood lights which could be used on many occasions, the Seniors wisely chose a gift which the school was sadly in need of. Among the many novel features initiated by this class was the budgetting of the money for the Senior Gift in the Freshman year; the entire sum was collected and set aside at the time.

- Regretting the move which will take many of us away from the Institute and its environs and, at the same time, anxious to get out and work in a new world, one hundred Seniors with mixed feelings were graduated on June 9, 1933 A. D.



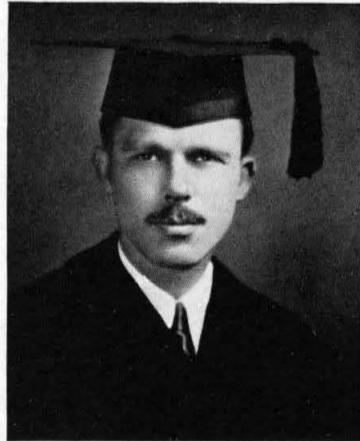
DAVIS



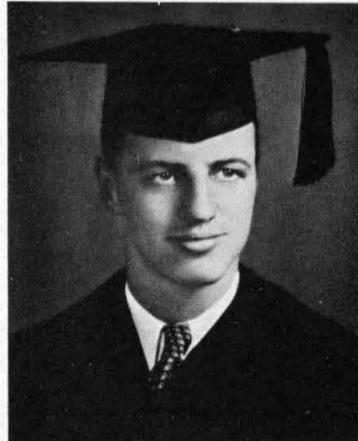
LEWIS



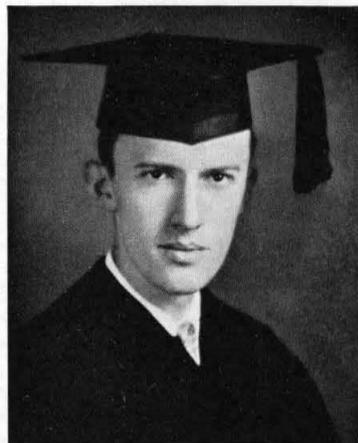
ENGINEERS



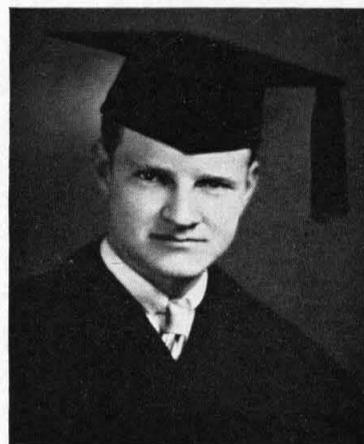
W. ANDREW ASHTON
SAN DIEGO
Mechanical Engineering
Non-Resident Club



JOHN K. AYERS
BOULDER CITY, NEVADA
Civil Engineering
Ricketts House
Treasurer 4
Class Treasurer 2
A. S. B. Treasurer 4
Honor Key 4 Varsity Club
California Tech 3
Football 1, 2, 3, 4
Track 1, 2, 3 A. S. C. E.



HARRISON S. BACKUS
PASADENA
Chemistry
Non-Resident Club
Class Secretary 1
Chem Club President 4
Tau Beta Pi Secretary 4
Exhibit Day Committee 4



SYDNEY F. BAMBERGER
VENICE
Civil Engineering
Dabney House Varsity Club
Secretary-Treasurer 4
Honor Key 4 Glee Club 1, 2
Exhibit Day Committee
Chairman 4
Football 1, 3, 4
Basketball 1, 2, 3, 4
A. S. C. E.



SCIENTISTS

EARL E. BARNETT
PASADENA

Electrical Engineering

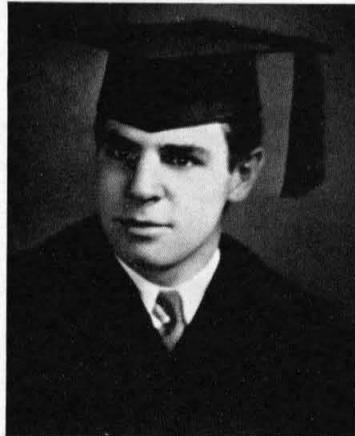
Non-Resident Club
Chem Club Radio Club
A. I. E. E.



DAVID F. BENDER
SPOKANE, WASHINGTON

Physics

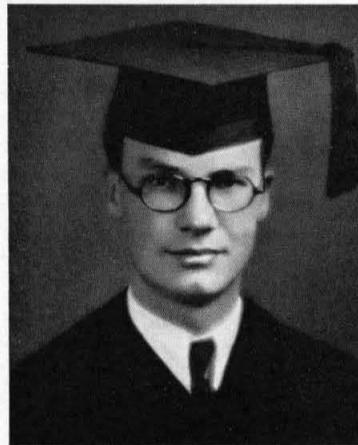
Blacker House
Tau Beta Pi Chem Club
Football 1, 2, 3, 4
Varsity Club Track 3, 4



MERRILL BERKLEY
PASADENA

Mechanical Engineering

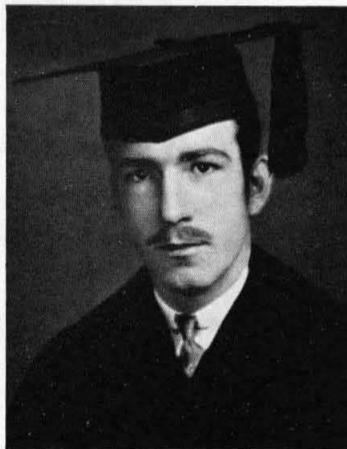
Non-Resident Club
Drama Club Treasurer 4
Press Club Secretary 4
Big "T" 1, 2, 3, 4
Editor 4
California Tech 1, 2, 3, 4
Pi Kappa Delta Play 2, 3, 4
Drama Club Play 2, 3, 4
Baseball 1



YGNACIO BONILLAS
HOLLYWOOD

Geology

Ricketts House
Tau Beta Pi
Geology-Paleontology Club
Secretary 4
Exhibit Day Committee 4
Football 1, 3, 4





SCIENTISTS



EVAN G. BOWER
LONG BEACH
Mechanical Engineering
Non-Resident Club



EUGENE M. BRUNNER
MONROVIA
Physics
Non-Resident Club
Radio Club Band 2
Exhibit Day Committee 3



RALPH BYRNE, JR.
KANSAS CITY, MISSOURI
Civil Engineering
Non-Resident Club
Tau Beta Pi
Baseball 1 A. S. C. E.



LEE T. CARLETON
LOS ANGELES
Physics
Blacker House Press Club
California Tech 1, 2, 3, 4
Editor 4
Track 1, 2, 3, 4 Boxing 2, 3

PHILIP H. CRAIG
BURBANK

Mechanical Engineering

Non-Resident Club
Varsity Club
Football 1, 2, 3, 4
Captain 4
Basketball 1, 3, 4
Baseball 1, 2, 4
Track 3, 4

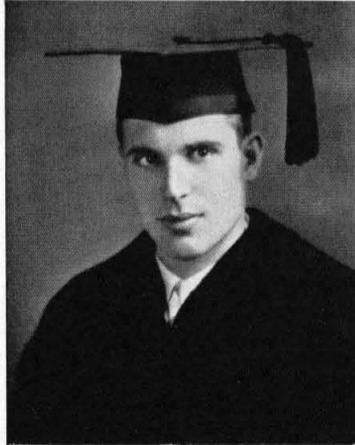


ENGINEERS

DAVID L. CLARK, JR.
NEWTON, IOWA

Mechanical Engineering

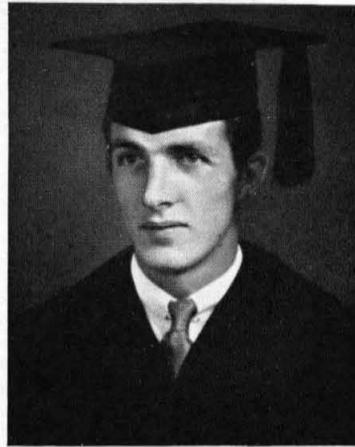
Fleming House
Vice-President 4
Drama Club Varsity Club
Board of Control 3
Exhibit Day Committee 3, 4
Big "T" 3 Drama Club Play 3
Football Manager 2, 3, 4
Basketball 1, 2, 3, 4
A. S. M. E.



EDGAR G. CRAWFORD
PASADENA

Civil Engineering

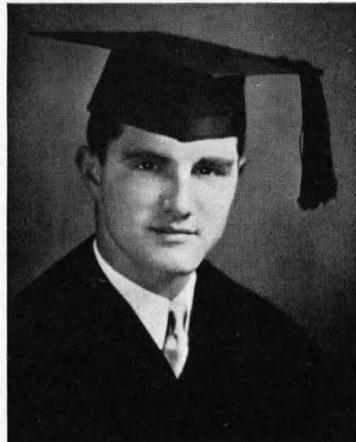
Non-Resident Club
Varsity Club Officer 3, 4
Y. M. C. A. Officer 3, 4
Board of Control 3
Football 1, 2, 3, 4
Basketball 2, 3, 4
A. S. C. E. Secretary 4



RAY H. CRIPPS
LOS ANGELES

Electrical Engineering

Fleming House
Orchestra Band
A. I. E. E.





ENGINEERS



BRUCE M. DACK
LOS ANGELES

Civil Engineering

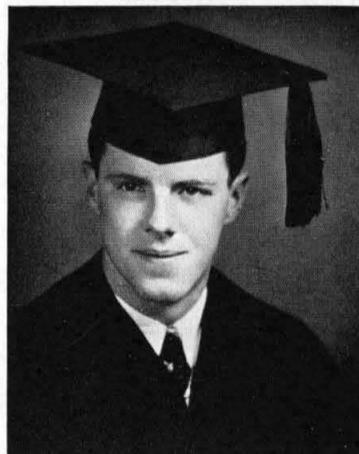
Non-Resident Club
Chem Club Rifle Club
A. S. M. E. A. S. C. E.



TRENT R. DAMES
SAN DIEGO

Civil Engineering

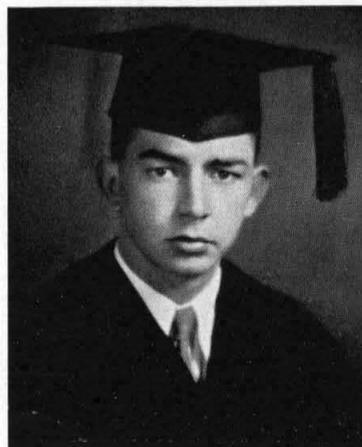
Dabney House Tau Beta Pi
Exhibit Day Committee 4
Debate 1, 2 Track 3, 4
Football 2
Cross Country 1, 4
A. S. C. E.



JAMES D. DAVIS
LOS ANGELES

Mechanical Engineering

Non-Resident Club
Transfer from Loyola
University



MADISON T. DAVIS
PASADENA

Mechanical Engineering

Non-Resident Club
President 3 Class Officer 3, 4
A. S. B. Vice-President 4
Pi Kappa Delta Throopers 2
Debate 2 Track 1, 2, 3, 4
Football 1

JOSEPH DE MILITA
LOS ANGELES

Civil Engineering

Non-Resident Club
Varsity Club
Football 1, 3, 4
Track 1, 2
A. S. C. E.



SCIENTISTS

FRED H. DETMERS
LOS ANGELES

Electrical Engineering

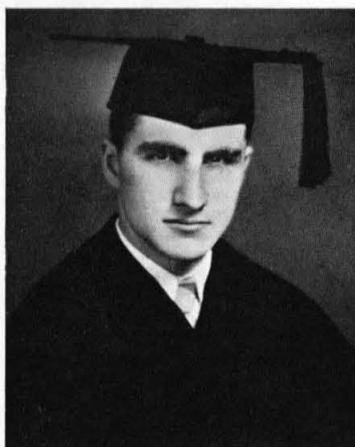
Non-Resident Club
Photo Club Press Club
Big "T" 3, 4 A. I. E. E.



RUSSELL DOESCHER
SANTA MONICA

Science

Non-Resident Club
Chem Club



PHILIP C. EFROMSON
LOS ANGELES

Mechanical Engineering

Dabney House Varsity Club
Big "T" 4 Tennis 1, 2, 3, 4
Basketball Manager 4
A. S. M. E.

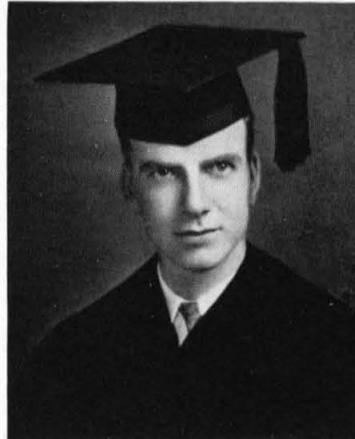




SCIENTISTS



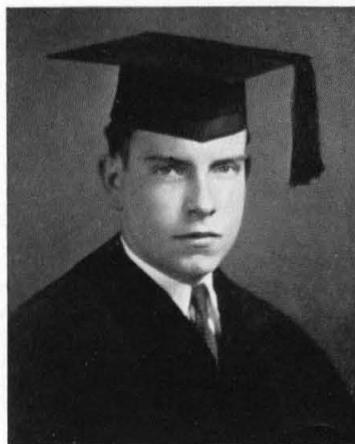
NATHAN EISEN
PASADENA
Physics
Non-Resident Club



KENNETH S. FITCH
LOS ANGELES
Mechanical Engineering
Non-Resident Club



ROBERT D. FLETCHER
HUNTINGTON PARK
Aeronautical Engineering
Dabney House Big "T" 3
Board of Control 3
Exhibit Day Committee 4
Tennis 1, 3, 4 Basketball 1
Manager 2 A. S. M. E.



ELMER S. FRANKLIN
LOS ANGELES
Geology
Non-Resident Club
Radio Club Chem Club
Geology Club
Exhibit Day Committee 2, 3, 4

RUBIN H. FRIEMAN
LOS ANGELES
Chemistry
Non-Resident Club
Chem Club

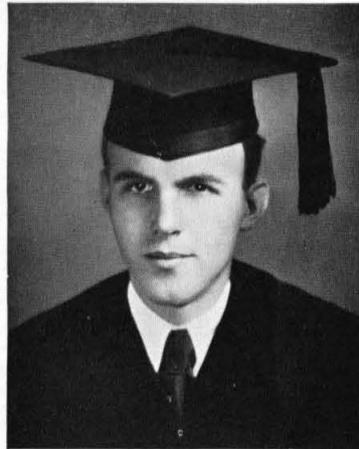


ENGINEERS

LOUIS H. GOSS
SAN GABRIEL
Civil Engineering
Non-Resident Club
Varsity Club Track 1, 2, 3
A. S. C. E.



LAURENCE GOULD
ALHAMBRA
Electrical Engineering
Non-Resident Club
Orchestra 1, 2, 3, 4
Band 3, 4
Exhibit Day Committee 2, 3, 4
Basketball 1 A. I. E. E.

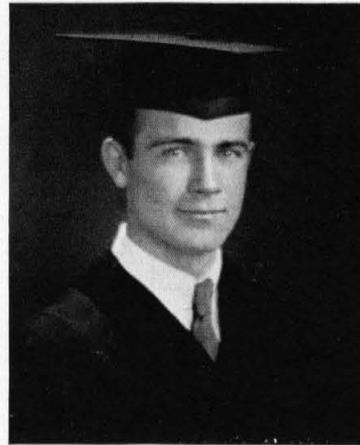


ROBERT B. GROSSMAN
BEVERLY HILLS
Mechanical Engineering
Fleming House
Athletic Manager 3, 4
Varsity Club Big "T" 3
Football 3, 4
Baseball Manager 2, 3, 4
A. S. M. E.





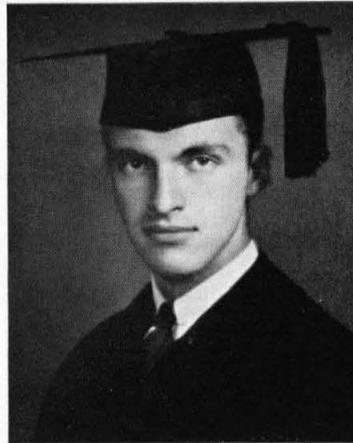
ENGINEERS



ED HAYES
EL MONTE

Electrical Engineering

Non-Resident Club
Radio Club Varsity Club
Football 1, 2, 3, 4
Track 1, 2, 3



GREGORY K. HARTMANN
NEW YORK

Theoretical Physics

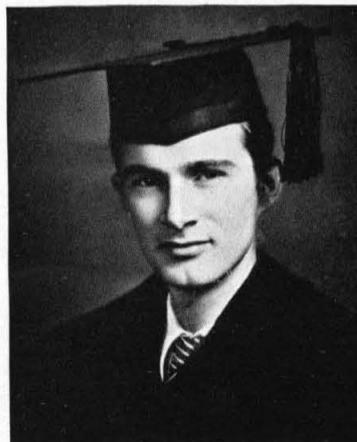
Dabney House President 4
Tau Beta Pi President 4
Honor Key 4
Publicity Manager 4
Debate 1
California Tech 1, 3, 4
Exhibit Day Committee 4
Band 1
Rhodes Scholarship 4



ROBERT G. HERLIN
EL PASO, TEXAS

Mechanical Engineering

Fleming House
A. S. M. E.



JAMES W. HILL
LOS ANGELES

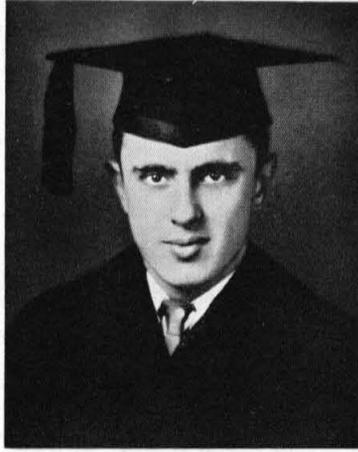
Electrical Engineering

Non-Resident Club

ROBERT C. HOGAN
DURANGO, COLORADO

Mechanical Engineering

Non-Resident Club
Newman Club Treasurer 4
Exhibit Day Committee 2
Football 1, 3, 4
Baseball Manager 2
A. S. M. E.

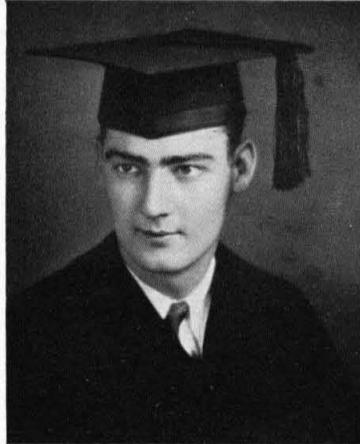


SCIENTISTS

OLIVER D. HOFMANN
HUNTINGTON PARK

Civil Engineering

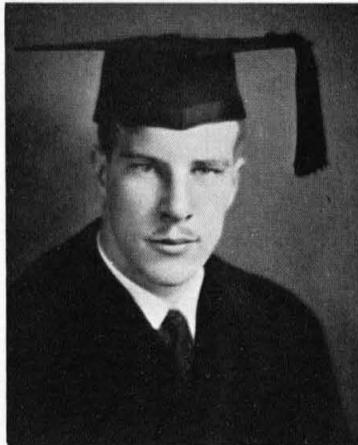
Non-Resident Club
Secretary 4
Varsity Club
Basketball 1, 2, 3, 4
Football 4 Baseball 1
A. S. C. E.



FRANCIS R. HUNTER
CLAREMONT

Biology

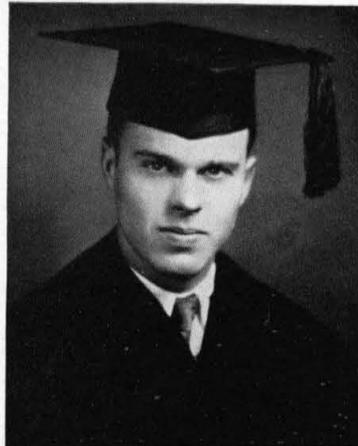
Blacker House
Varsity Club Vice-President 4
Glee Club 2, 3, 4
Football 2, 3, 4
Track 3, 4



J. STANLEY JOHNSON
PASADENA

Mechanical Engineering

Ricketts House Officer 3, 4
Pi Kappa Delta President 4
Tau Beta Pi
Y. M. C. A. Vice-President 3
A. S. B. Secretary 4
Debate 2, 3 Glee Club 1





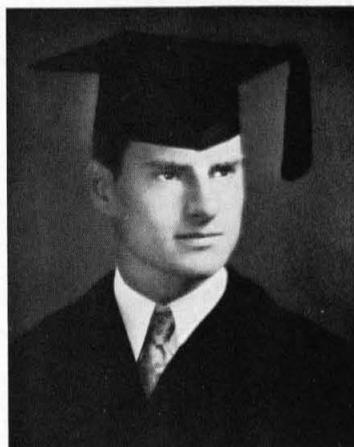
SCIENTISTS



SAMUEL Y. JOHNSON
PASADENA

Civil Engineering

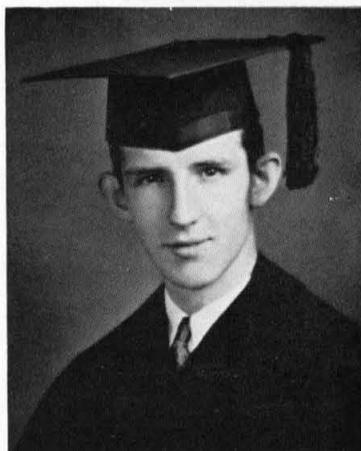
Non-Resident Club
Officer 3, 4
Class Vice-President 1
Tau Beta Pi Varsity Club
Honor Key 4
Board of Control 4
Football 1, 2, 3, 4
Track 1 A. S. C. E.



KEDRIC V. KEELEY
EL MONTE

Experimental Physics

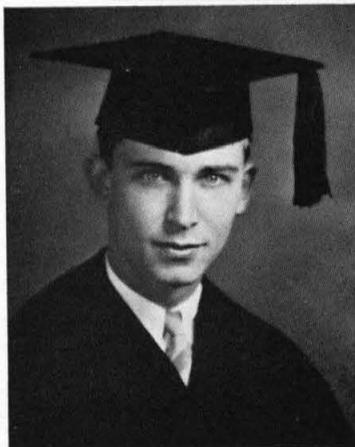
Non-Resident Club
Radio Club Varsity Club
Football 1, 2, 3



E. RUSSELL KENNEDY
LOS ANGELES

Chemistry

Non-Resident Club
Chem Club Vice-President 4
Orchestra 2, 3, 4
Band 1, 2, 3, 4 Track 1, 2
Cross Country 1, 2
Rifle Team 1, 2



ARTHUR LAMEL
LOS ANGELES

Electrical Engineering

Non-Resident Club
Transfer from U. C. L. A.

L. JACKSON LASLETT
PASADENA

Physics

Non-Resident Club
Chem Club Radio Club
Varsity Club Tau Beta Pi
Exhibit Day Committee 3
Track 3, 4
Cross Country 3

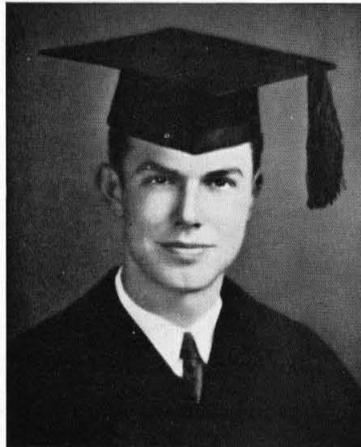


ENGINEERS

WYATT H. LEWIS
GLENDORA

Chemical Engineering

Dabney House Treasurer 4
Class Officer 2, 3, 4
Y. M. C. A. Vice-President 4
Chem Club Glee Club 1
Cross Country 1



ALEXANDER F. LIBBY
SAN BERNARDINO

Electrical Engineering

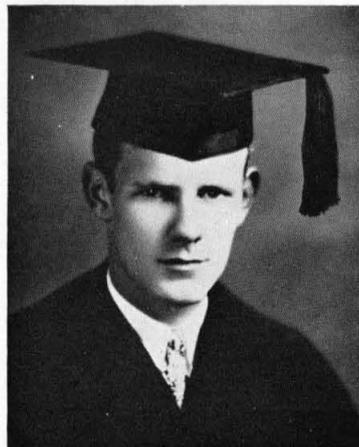
Fleming House Radio Club
Football 2, 3 A. I. E. E.



RAY LOCKHART
EL PASO, TEXAS

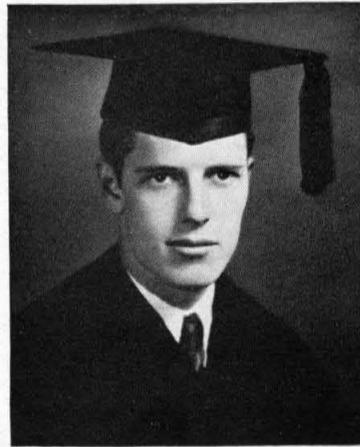
Mechanical Engineering

Fleming House President 4
A. S. M. E.





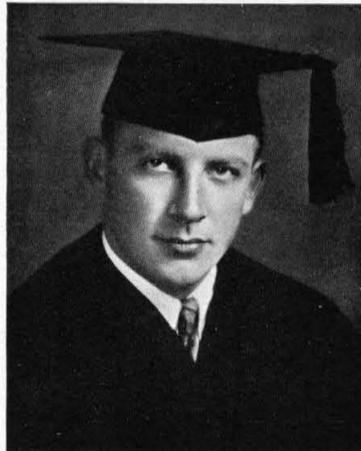
ENGINEERS



DOUGLAS G. MARLOW
NEWPORT BEACH

Physics

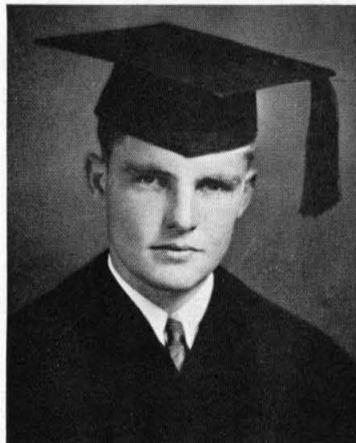
Non-Resident Club
Tau Beta Pi



ROBERT G. MACDONALD
HOLLYWOOD

Civil Engineering

Non-Resident Club
Chem Club Varsity Club
Big "T" 3, 4
Business Manager 4
Football 1, 4 Swimming 1
A. S. C. E.



ARTHUR A. MATHEWSON, JR.
CORONADO

Mechanical Engineering

Fleming House
A. S. B. Representative 3
Class President 2, 3
Varsity Club
Y. M. C. A. Cabinet 2, 3, 4
Football 1, 2, 3, 4
A. S. M. E. Vice-Chairman 4



EDWARD J. MATSON
ALTADENA

Mechanical Engineering

Non-Resident Club
Band 1, 4 Track 1, 2, 3, 4

W. LYDE McCLEERY
HONOLULU, HAWAII
Mechanical Engineering
Swimming 1, 2 A.S.M.E.
Fleming House
Big "T" 3, 4



SCIENTISTS

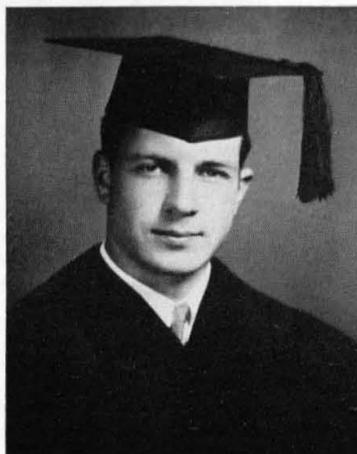
ROBERT R. MEAD
PASADENA
Mechanical Engineering
Non-Resident Club
Cosmopolitan Club
Y. M. C. A. Band 3, 4
Track 1, 2, 3, 4 Football 1
Conger Peace Prize 2
A. S. M. E.



JOSEPH A. MEHM
PASADENA
Mechanical Engineering
Non-Resident Club

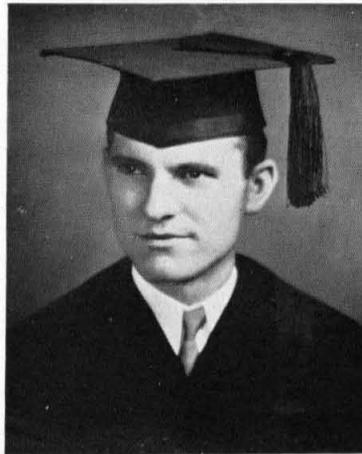


JOHN D. MENDENHALL
VAN NUYS
Civil Engineering
Non-Resident Club
Tau Beta Pi Secretary 4
Varsity Club Debate 1
Football 1, 2, 3, 4
Captain 1
A. S. C. E.

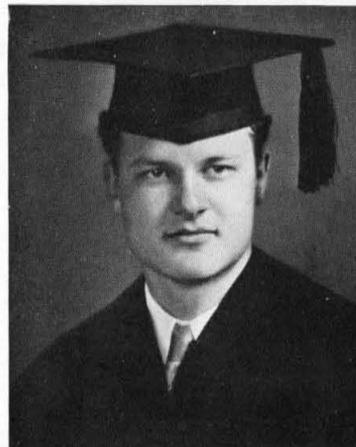




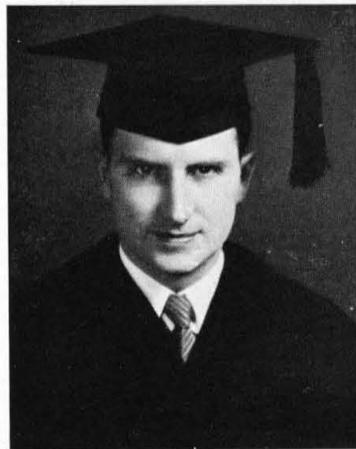
SCIENTISTS



JOHN E. MESKELL
ALTADENA
Mechanical Engineering
Non-Resident Club
Newman Club A. S. M. E.



WILLIAM A. MERSMAN
ALHAMBRA
Mathematics
Non-Resident Club
Tau Beta Pi Travel Prize 3



THEODORE S. MITCHEL
ALHAMBRA
Aeronautical Engineering
Non-Resident Club
Aero Club
Orchestra 1, 2, 3, 4
Band Manager 1, 2, 3, 4
Glee Club 3 Football 1, 3

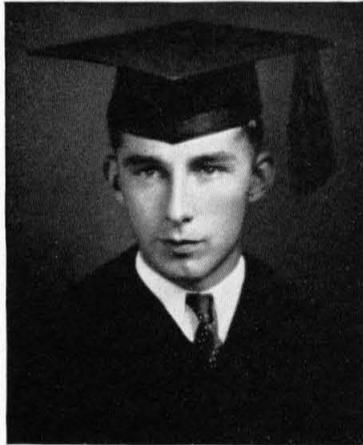


JOHN C. MONNING, JR.
LOS ANGELES
Civil Engineering
Ricketts House
Press Club
Freshman Chairman 1
N. S. F. A. President 3
Throopers 2, 3 Honor Key 4
Glee Club 2, 3
California Tech 1, 2, 3
Board of Control 1, 4
Baseball 1, 3, 4 A. S. C. E.

WILLIAM W. MOORE
PASADENA

Civil Engineering

Non-Resident Club
Varsity Club Tau Beta Pi
Y. M. C. A. Football 1, 2
Basketball 1, 2, 3, 4
A. S. C. E.
Vice-President 4



ENGINEERS

WENDAL A. MORGAN
LOS ANGELES

Electrical Engineering

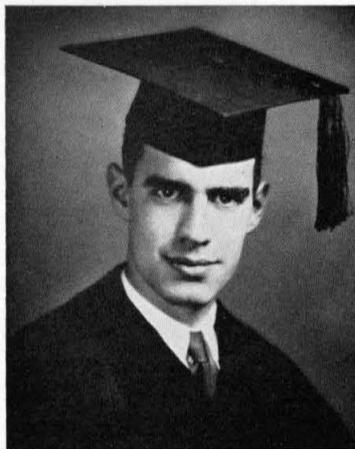
Dabney House Vice-President 3
Tau Beta Pi Vice-President 4
Throopers 2
Honor Key 2
Board of Control 2, 4
California Tech 3
Cheer Leader 2, 3
Cross Country 1
Track 1, 2 A. I. E. E.



HUNTER NICHOLSON, JR.
LOS ANGELES

Chemical Engineering

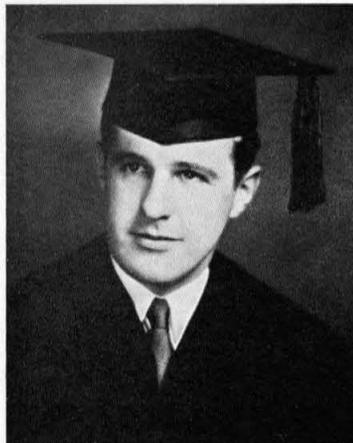
Non-Resident Club
Chem Club Band 1, 2, 3
Cross Country 1 Track 1, 2



EARL M. OLDS, JR.
LOS ANGELES

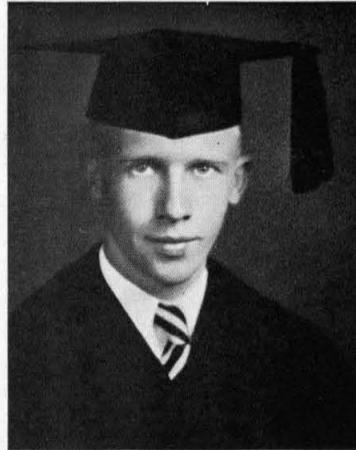
Chemistry

Non-Resident Club
Chem Club





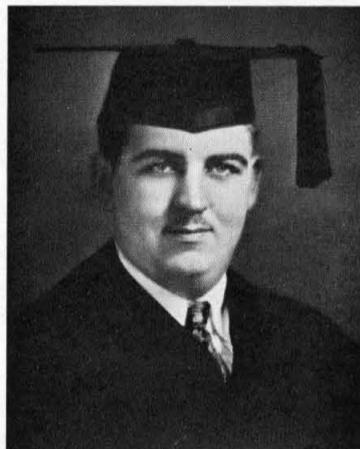
ENGINEERS



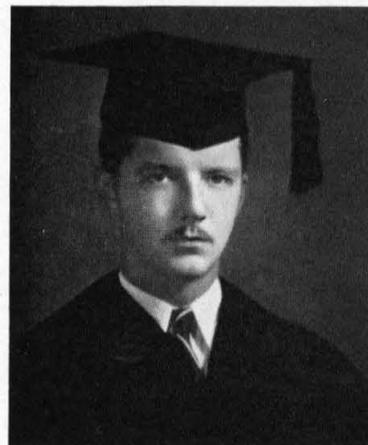
BERNHARD N. PALM
SOUTH PASADENA
Mechanical Engineering
Ricketts House
Vice-President 4
Football Manager 2, 3
Basketball Manager 1, 2
A. S. M. E.



DURWARD H. PALMER
FULLERTON
Mechanical Engineering
Blacker House



WILLIAM C. PAULY
LOS ANGELES
Mechanical Engineering
Non-Resident Club
Football 1, 2

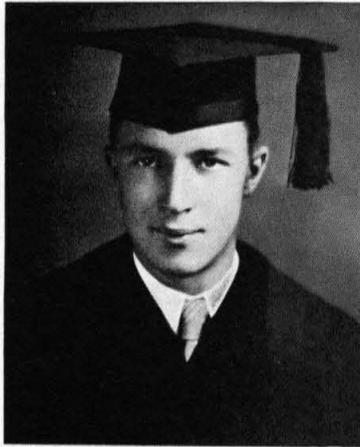


CHARLES D. PERRINE, JR.
PASADENA
Applied Physics
Non-Resident Club
Cosmopolitan Club
Radio Club
Exhibit Day Committee 4
Y. M. C. A.
Track 1, 2, 3, 4
Football 2, 3, 4
A. I. E. E.

GEORGE H. PICKETT
PASADENA

Civil Engineering

Non-Resident Club
Tau Beta Pi Varsity Club
Orchestra 1, 2 Band 1, 2
Football 1, 2, 3, 4
Track Manager 1
A. S. C. E. President 4

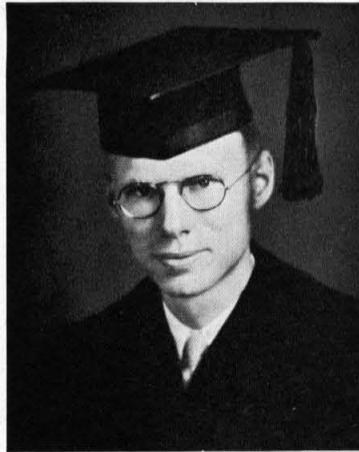


SCIENTISTS

JOHN R. PIERCE
PASADENA

Electrical Engineering

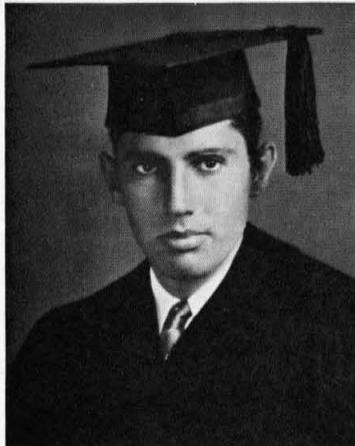
Non-Resident Club
Drama Club Vice-President 4
Press Club Tau Beta Pi
California Tech 4
Drama Club Play 3
A. I. E. E.



LOUIS A. PIPES
SOUTH PASADENA

Electrical Engineering

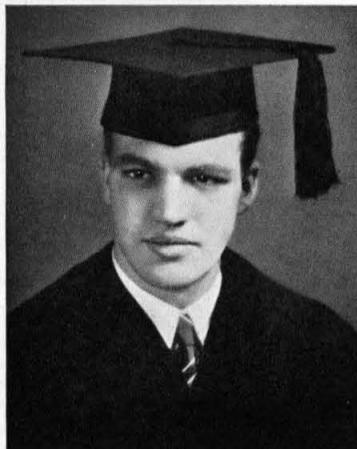
Non-Resident Club
Tau Beta Pi Big "T" 1
Cosmopolitan Club
Cross Country 1
Track 1 Tennis 2, 4



DICK A. PLANK
PASADENA

Aeronautical Engineering

Non-Resident Club





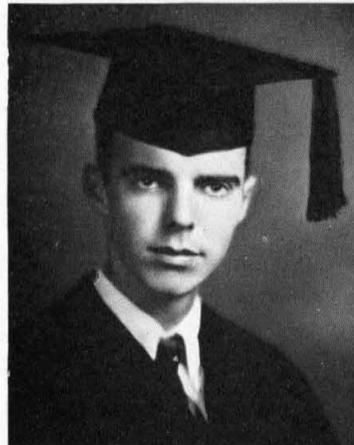
SCIENTISTS



DONALD F. POULSON
IDAHO FALLS, IDAHO

Biology

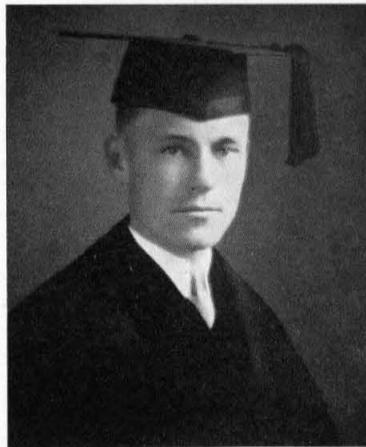
Blacker House
Press Club Treasurer 4
Chem Club
California Tech 2, 3
Exhibit Day Committee 3
Track 2, 3



CHRISTIAN H. PRIOR, JR.
SANTA MONICA

Chemistry

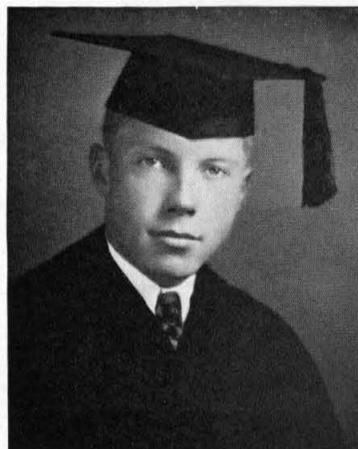
Non-Resident Club
Chem Club Varsity Club
Track 2, 3, 4 Captain 4
Basketball 2 Baseball 2



WINSTON R. RICE
HOLLYWOOD

Mechanical Engineering

Fleming House



WILLARD C. ROBINETTE
PRESCOTT, ARIZONA

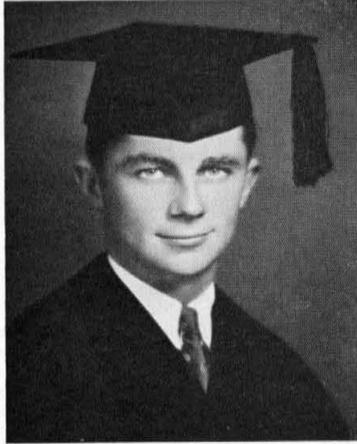
Mechanical Engineering

Non-Resident Club
Band Debate 2
Basketball 2 A. S. M. E.

RICHARD L. RUSSELL
LONG BEACH

Mechanical Engineering

Ricketts House Press Club
Varsity Club
A. S. B. Athletic Manager 4
Baseball 1, 2, 3, 4
Captain 3, 4
Football Manager 1, 2, 3
Rawlings Trophy Winner 3

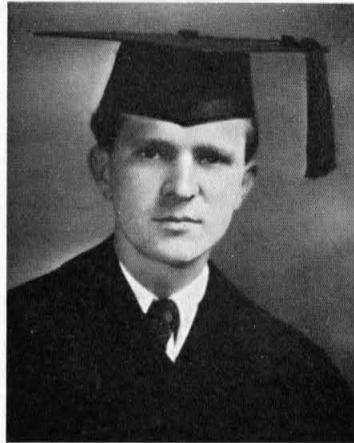


ENGINEERS

DEAN SAURENMAN
PASADENA

Mechanical Engineering

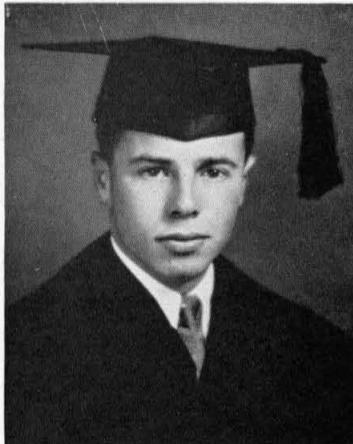
Non-Resident Club



WALTER SCHOLTZ
HOLLYWOOD

Civil Engineering

Blacker House Officer 3, 4
Class President 1, 4
Tau Beta Pi
Board of Control 2
Inter-house Committee 2, 4
Chairman 4
Executive Committee 3
Football 1



GROVER M. SECORD
ALHAMBRA

Mechanical Engineering

Fleming House Drama Club
Varsity Club Orchestra
Football 2, 3 Track Manager 2, 3, 4
Swimming 1, 2 A. S. M. E.





ENGINEERS



NICHOLAI SKAREDOFF
YOKOHAMA, JAPAN

Mechanical Engineering

Non-Resident Club
Aero Club Glee Club
Cosmopolitan Club



ROBERT L. SMALLMAN
LOS ANGELES

Electrical Engineering

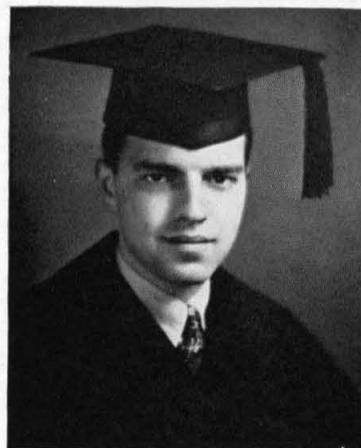
Non-Resident Club
Glee Club 1, 2
Track 1 Boxing 1



ALVIN J. SMITH
PASADENA

Electrical Engineering

Non-Resident Club
Glee Club 1, 2 A. I. E. E.



WARREN H. SMITH
PASADENA

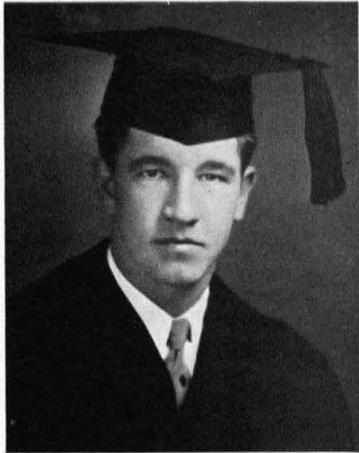
Electrical Engineering

Non-Resident Club
Band 1, 2, 3, 4
Glee Club 2 A. I. E. E.

J. CLIFTON SPADE
HUNTINGTON PARK

Mechanical Engineering

Non-Resident Club
Varsity Club
Baseball 1, 2, 3, 4
Boxing

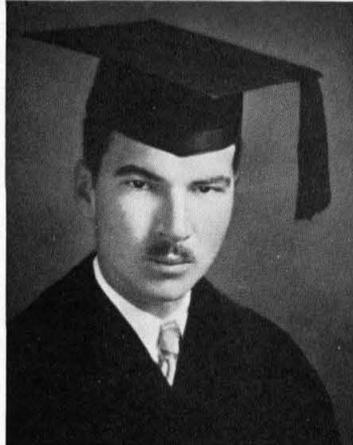


SCIENTISTS

JACK N. SPARLING
GLENDALE

Civil Engineering

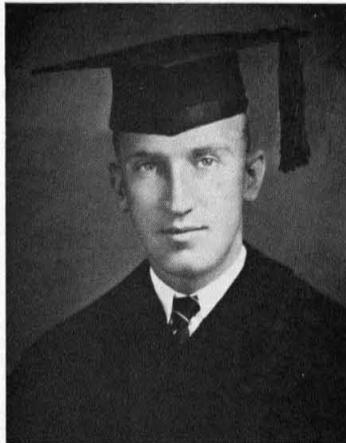
Non-Resident Club
Rifle Club 3 A. S. C. E.



CHARLES B. SPICER
PASADENA

Civil Engineering

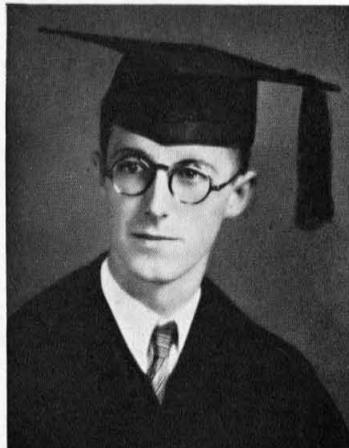
Non-Resident Club
Tau Beta Pi Varsity Club
Glee Club 2
Baseball 1, 2, 3, 4
Football 1, 2, 3 Track 1, 2
A. S. C. E.



WILLIAM E. STONE
COLTON

Chemistry

Ricketts House
Chem Club





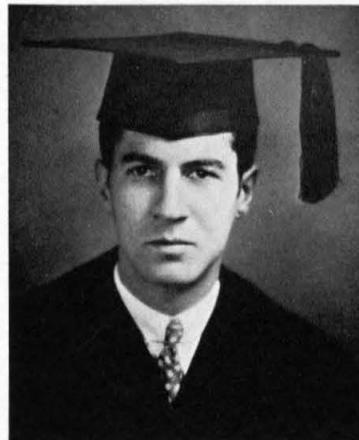
SCIENTISTS



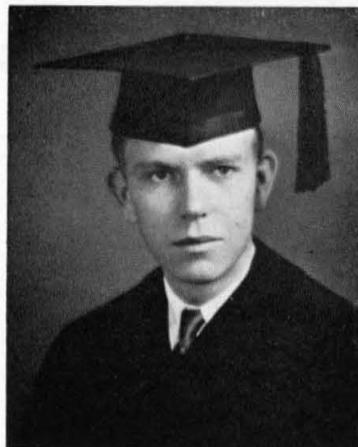
HENRY B. SUHR
HOLLYWOOD
Chemical Engineering
Ricketts House
Chem Club



FERDINAND E. STRAUSS
MOSIER, OREGON
Electrical Engineering
Non-Resident Club
Tau Beta Pi Drama Club
Pi Kappa Delta Play 1



THOMAS S. TERRILL
PASADENA
Aeronautical Engineering
Dabney House
A. S. B. President 4
Press Club Honor Key 3, 4
Y. M. C. A. Handbook Editor
California Tech 1, 2, 3
Editor 3
Big "T" 3 A. S. M. E.

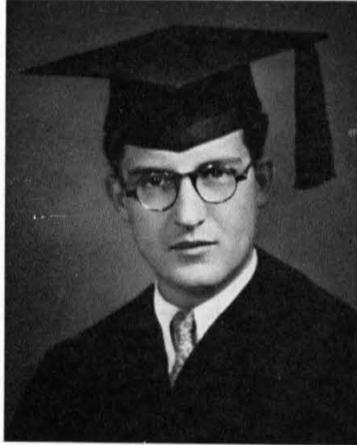


CHARLES E. TILLMAN
SAN PEDRO
Mechanical Engineering
Non-Resident Club
Tau Beta Pi
Drama Club Secretary 3
Class Secretary 4

NICO VAN WINGEN
PASADENA

Civil Engineering

Non-Resident Club
Cosmopolitan Club
Vice-President 4
Glee Club 1, 2, 3
Band 1 A. S. M. E.

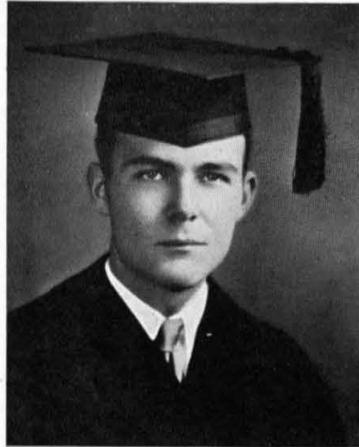


ENGINEERS

JOHN S. WARFEL
REDONDO BEACH

Mechanical Engineering

Blacker House A. S. M. E.



WILLIAM T. WHEELER
RICHGROVE

Civil Engineering

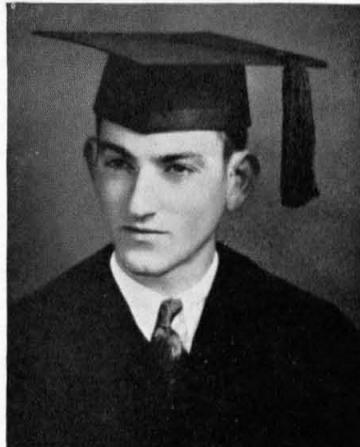
Blacker House
Tau Beta Pi Drama Club
Pi Kappa Delta Play 3
Tennis 1 A. S. C. E.



MOSES B. WIDESS
PASADENA

Electrical Engineering

Non-Resident Club
Tau Beta Pi Radio Club
Varsity Club N. S. F. A. 1
Track 1, 2, 3, 4
A. I. E. E. Secretary-Treasurer 4



BACHELOR OF SCIENCE

ELECTRICAL ENGINEERING

HYMAN Z. SOLOMON

CHEMISTRY

DELMAR H. LARSEN
ARNOLD P. WILKING

MATHEMATICS

VICTOR ELCONIN

HONORABLE MENTION

ROBERT J. ALLEN	GEORGE B. GORDY, Jr.	FRANK H. MUNSON
HENRY F. ANDERSON	ALEXANDER J. GRAHAM	WESLEY W. NELSON
THOMAS A. ANDREW	CLARENCE K. GREENE	DENNIS A. NEWCOMBE
NEAL D. BARKER	JOSEPH W. GRIMES	JOHN W. NIXON
WILSON H. BARLOW	LAWRENCE HALLINGER	LeROY R. OSBORNE
ELBERT H. BEACH	ALBERT HEINRICH	EUGENE V. PARKER
BERNARD D. BECKERLEGGE	MARION HESS	RICHARD T. PARKER
THEODORE I. BERNSTEIN	MERAL W. HINSHAW	HAROLD E. PEARSON
HOWARD C. BLOSSOM	WALLACE R. HOHNECK	ALFRED L. RANSOME
VICTOR E. BLYE	THOMAS W. HOOKS	HENRY W. ROBBINS
CARL A. BRAUN	JULIUS G. INGELS	FRED C. ROEDING
EVERETT F. BROWN	NORMAN S. JOHNSON	CLARENCE G. SCHULZ
NORMAN C. BUCKINGHAM	DAVID S. JUDD	REINHART SCHUHMAN
ALFONSO C. BULNES	JACK F. JUDSON	JOHN W. SHARP
KENYON C. BURCH	ALBERT P. KELSO	ROBERT C. SHARP
THOMAS C. BURKE	GORDON B. KEIM	WINCHELL H. SIMPSON
ROBERT W. COLE	ALLEN R. KENNEY	ARTHUR L. SMITH
MORTIMER D. COLODNY	JOHN E. KULLBERG	APOLLO M. SMITH
DAVID A. COOK	FRED KURATA	HARRY E. STEWART
EDWIN J. CORE	WATSON F. LAWTON	CEDRIC W. STIRLING
GORDON F. DeFOE	JOHN A. LENTZ	JOHN SULLWOLD
GERALD M. DESSERTY	ABNER B. LINDEBORG	KENNETH H. TUCKER
KENNETH E. DOOLITTLE	JAMES S. LLOYD	JOHN P. VOGT
ARTHUR J. DOWNIE	CHARLES G. LYON	RICHARD S. WATERHOUSE
HALFORD EARLE	FREDERICK W. LYON	JOHN T. WEBBER
ROBERT L. EMERICH	ROBERT W. MACKAY	NICHOLAS WEINSTEIN
ROBERT O. FORT	ALBERT S. MADDEN	FRANCIS G. WELTON
ROBERT W. FOSTER	LORING K. MARGIOT	GALT L. WHIPPLE
CORNELIUS A. GARDENER	CHARLES J. McCORD	WILLIAM R. WHITTAKER
EDWIN S. GETZMAN, Jr.	LON S. McGIRK	FRANKLIN R. WISHER
		NORMAN H. WRIGHT

MASTER OF SCIENCE

JUNE, 1933

AERONAUTICAL ENGINEERING

AMMON S. ANDES
ERNEST G. BRUCE

PAUL H. KEMMER
KANAME KITUSDA
CLARENCE R. de LAUBENFELS

JOHN L. MAGDEN
LEONARD E. ROOT

CIVIL ENGINEERING

FRED B. BOWMAN
CLIFFORD C. CAWLEY
ALBERT A. KOCH

WILLIAM A. LARSEN
HARALD OMSTED
ARZA F. PORTER

WORRELL F. PRUDEN
HAROLD ROACH
JOSEPH SHEFFET

HOWARD G. SMITS DAVID Y. WONG

ELECTRICAL ENGINEERING

LINDSAY M. APPLGATE
ALBERT W. ATWOOD
WILLIAM L. BERRY
FREDERICK W. BOWDEN
WILLIAM M. EVANS

RAYMOND H. GRIEST
PAUL F. HAWLEY
MILLS S. HODGE
SAMUEL E. HOWSE
CHUEN C. HSU
WILLIAM L. NEWMAYER

WILLIAM M. PICKLES, Jr.
ARTHUR H. SCHLECHTER
HYMAN Z. SOLOMON
ROBERT L. SUGGS
RUBIN WIDESS

MECHANICAL ENGINEERING

THOMAS W. BELL
RAYMOND C. BINDER
MILTON C. CZAMANSKE

EDWIN N. DAVIS
ROBERT B. FREEMAN
BENARTHUR C. HAYNES
FRANK J. HIBBS, Jr.

EDWIN B. MICHAL
KEITH MURDOCK
KENNETH H. SWART

ASTROPHYSICS

BRIAN O. SPARKS

CHEMISTRY

NORMAN ELLIOTT

GUSTAVE K. KOHN

ERNEST H. LYONS, Jr.

ARTHUR N. PRATER

CHESTER E. WILSON

CHEMICAL ENGINEERING

CHARLES E. KIRCHER, Jr.

JAN G. SCHAAFSMA

GEOLOGY

MAURICE G. DONNELLY

DAVID B. ERICSON

ELBERT N. HARSHMAN

BENJAMIN HOLZMAN

LOUIS E. KEMNITZER

PHYSICS

EDWARD D. ALCOCK

WILLIAM H. PICKERING

ERNEST A. von SEGGERN

ROBERT C. KENDALL

JOHN T. SINNETTE, Jr.

CARL L. THIELE

GEOLOGY AND PALEONTOLOGY

FRANK W. BELL

WILLIAM M. COGEN

HONOR KEYS

CLASS OF 1933

JOHN AYERS	PHILIP CRAIG	SAMUEL JOHNSON
SIDNEY BAMBERGER	EDGAR CRAWFORD	STANLEY JOHNSON
MERRILL BERKLEY	MADISON DAVIS	ROBERT MACDONALD
DAVID CLARK	GREGORY HARTMANN	RICHARD RUSSELL
THOMAS TERRILL	FRANCIS WYATT	

CLASS OF 1934

JAMES GREGORY	BRYANT MYERS	ROBERT SHARP
CHARLES THOMAS	ROBERT SCHRECK	

CLASS OF 1935

JACK BINKLEY	WILLIAM HARRIS	MAX MILLIKAN
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CLASS OF 1936

BRUCE BECKLEY

SCHOLARSHIPS

JUNIOR SCHOLARS

ROBERT ANDERSON	ERNEST HOWARD	NELSON NIES
ALEXANDER CHARTERS, Jr.	ROBERT HOWARD	HERBERT RIBNER
JACK CORTELYOU	LAWRENCE JOHNSON	DONALD ROOKE
EDWARD DOLL	PAUL KARTZKE	LOUIS SEXTON
HOWARD GULICK	VERNON NEWTON	GLENN WEAVER

SOPHOMORE SCHOLARS

WARD BEMAN	RICHARD JAHNS	JOHN LISOL
WYCHE CALDWELL	JAMES JENNISON	WILLIAM McLEAN
WILLIAM COX	WALLACE JOHNSON	KENNETH PITZER
CHARLES GIBBS	ROBERT KRAMER	LAURENCE STUPPY
THOMAS GRIFFITHS	HENRI LEVY	DONALD YOUNG

BLACKER FRESHMAN SCHOLARS

MAURICE SKLAR	THEODORE VERMEULEN	WILLIAM WOODBURY
TYLER THOMPSON	VOLLMER WOOD	

DRAKE FRESHMAN SCHOLARS

STANFORD BRIGGS	ROBERT HEITZ	THOMAS LAURITSEN
ALBERT CREAL	BRUCE HICKS	ROBERT McINTYRE
CLARENCE GOODHEART	ROBERT JANES	LEO MILAN
PAUL HAMMOND	ALEXANDER KOSSIAKOFF	EDWIN PAXTON



PEARNE



NICOLSON



CRAIG



ROMOLI

JUNIOR CLASS

As one of the first classes to enter the Institute freed from the pernicious system of hazing, the Junior Class debut in 1930 was especially significant. In the Sophomore year, however, the Class of 1934 deemed it fitting that it should take over the problem of disciplining the first crop of Freshmen to enter the student houses. The Physics pool responded coldly to the sacrificial offerings of ardent partisans of both the classes.

- Swept into office by a large majority, John Pearne took over the office of president of the Juniors. He was assisted in his duties by Garth Nicolson, Vice-President; Albert Romoli, Secretary; and Carroll Craig, Treasurer. Under the sway of this group of popular officers, the Junior Class played a prominent role in the year's program.
- The class distinguished itself by the presentation of one of the best of a series of student assembly programs. The members of the class have given much of their time to the support and furtherance of the plans of campus organizations, helping in the initiation of new policies.





JOHNSON



STUPPY



WEBSTER



MILLIKAN

SOPHOMORE CLASS

● Early in the school year two tragic events took place in which the Sophomore Class lost two of its members. Thomas Jackson, Pasadena, died suddenly at the end of a cross-country race and John Kiplinger, Casper, Wyoming, accidentally shot and killed himself while working with his gun. Outside of these two fatalities and a number of students who dropped out on account of grades or finances, the class pushed forward to new goals.

- The officers of the past year were Wallace Johnson, President; Laurence Stuppy, Vice-President; Max Millikan, Secretary; and Don Webster, Treasurer. They led their class to victory over the Frosh in the annual Rodeo meet and organized a highly successful Sophomore-Student Body Dance, held this year at the Hotel Vista del Arroyo.

- A relatively high percentage of the men in this year's Sophomore Class are making names for themselves in athletics and school activities; the members of the class showing up especially well in the fields of track, tennis, debate, dramatics, and the student publications.





DAVIS



MILAN



BRUCE



HART

FRESHMAN CLASS

About one-third of the members of the incoming class got an idea of Cal Tech up in the San Jacinto mountains, where the annual Freshman Conference was held a few days before school opened last year. It wasn't long before all of the Freshmen were on the same level under the watchful eye of the Sophomore Class. Dunkings in the Physics pool dampened the ardor of many a rambunctious Frosh.

- Bruce Beckley was appointed Class Chairman and presided over the Freshman Class during the first term. The Freshmen soon organized themselves and after much rioting, electing, nullifying, and re-electing, a set of officers was finally selected for the two succeeding terms. The elected men were Frank Davis, President; Leo Milan, Vice-President; Stephen Hart, Secretary; and Eugene Bruce, Treasurer.

- The highlights of their first year's activity on the campus included a big pajamarino, a Rodeo Dance for the benefit of the Sophomores, and the Freshman-Student Body Dance, a semi-formal affair which was held at the Oakmont Country Club.





WAIT



かみくさ道心

石童丸

子重齋
國士方通

石童丸

F A C U L T Y

C A M P U S

THE BOARD OF TRUSTEES

HIRAM W. WADSWORTH	ARTHUR H. FLEMING
GEORGE E. HALE	CHARLES W. GATES
HENRY M. ROBINSON	R. C. GILLIS
HARRY CHANDLER	HENRY W. O'MELVENY
ALLAN C. BALCH	LOUIS D. RICKETTS
WILLIAM L. HONNOLD	HARRY J. BAUER
BEN R. MEYER	HARVEY S. MUDD

JAMES R. PAGE



ADVISORY COUNCIL

JOHN J. CARTY

Vice-President, American Telephone and Telegraph Company

GANO DUNN

President, J. G. White Corporation

FRANK B. JEWETT

President, Bell Telephone Laboratories, Inc., and
Vice-President, American Telephone and Telegraph Company

JOHN C. MERRIAM

President, Carnegie Institution of Washington

CHARLES L. REESE

Chemical Director, E. I. du Pont de Nemours and Company

ADMINISTRATIVE OFFICERS OF THE INSTITUTE

EXECUTIVE COUNCIL

ROBERT A. MILLIKAN, CHAIRMAN	THOMAS H. MORGAN
ALLAN C. BALCH	WILLIAM B. MUNRO
ARTHUR H. FLEMING	ARTHUR A. NOYES
GEORGE E. HALE	HENRY M. ROBINSON

EDWARD C. BARRETT, SECRETARY

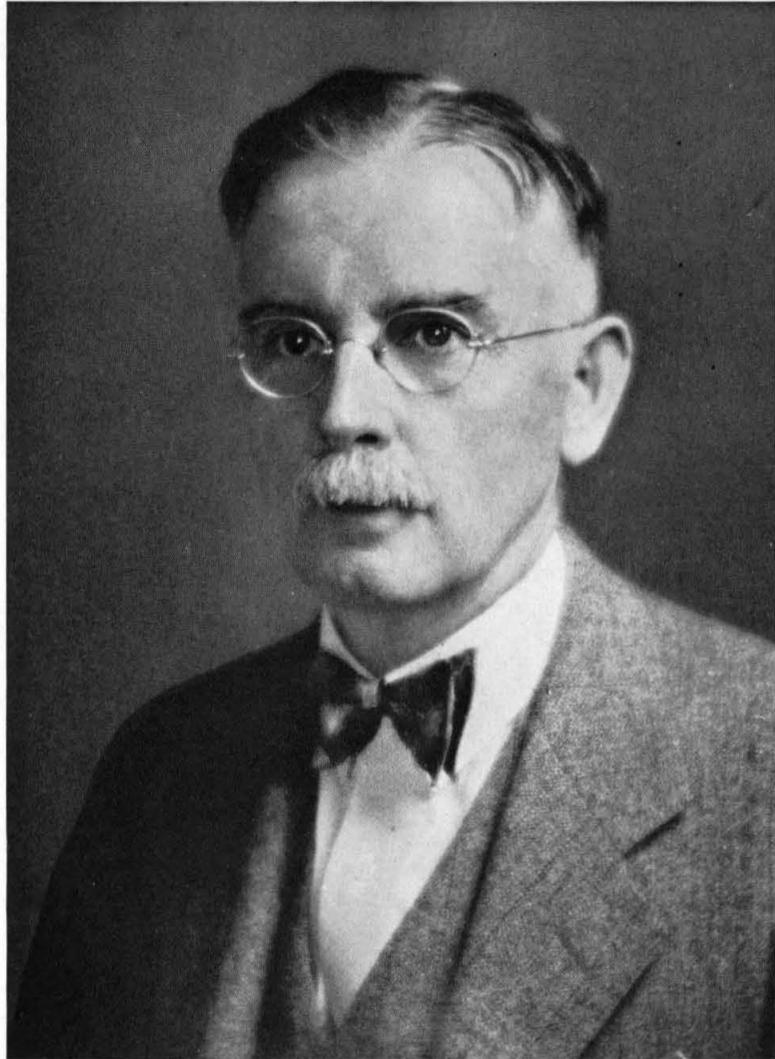


VISITING PROFESSORS 1932-1933

NIELS BOHR, Sc.D.
THEORETICAL PHYSICS

PETER DEBYE, Ph.D.
THEORETICAL PHYSICS

ALBERT EINSTEIN, Ph.D., Sc.D., LL.D.
THEORETICAL PHYSICS



DEAN OF FRESHMEN • JOHN R. MACARTHUR

HARRY C. VAN BUSKIRK
REGISTRAR

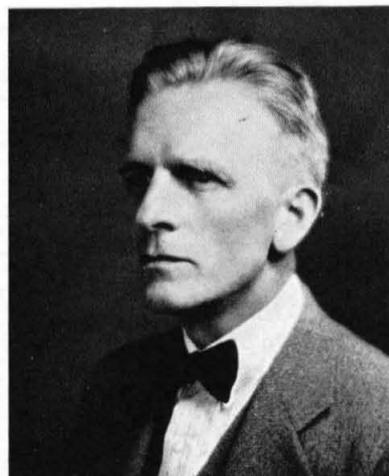


DEAN OF FRESHMEN AND THE REGISTRAR'S OFFICE

● In the capable hands of Dr. John R. Macarthur has been placed the work of getting an annual group of one hundred and sixty freshmen started on the right track. The position of Dean of Freshmen requires a man with a good deal of patience, a sense of humor, and an interesting personality. Dean Macarthur has a strong claim on each one of these virtues, evincing a likeable, genial nature in his becoming a friend of each first-year man; a friendship which extends throughout the college life of the student. Besides his duties as a dean, Dr. Macarthur is head of the Languages department in the Division of Humanities.

● Many times during the school year, Dean Macarthur has had recourse to the Registrar's Office, one of the most necessary adjuncts of a college. Dr. Harry Van Buskirk is the venerable gentleman who has directed the office staff for many years. Professor Van Buskirk, the Registrar, has served the Institute longer than any other member of the faculty. His sunburnt features, usually wreathed in a smile, mask the mind of one who knows his duties thoroughly. The Registrar is assisted in the variety and complexity of his duties by Professor William N. Birchby, Assistant Registrar.

● In a men's college it would be unique, if, out of more than a hundred professors and famous men, the most liked person on the campus should be a woman. At the California Institute it is only natural that Miss Theresa Dierkes, Secretary to the Registrar, should be the person upon whom the affection of the student body falls. Miss Dierkes, who is regarded by the students as the force behind the throne, knows the names of every undergraduate in school. Her pleasant manner and willingness to be of help to all of those who seek it has accounted for her popularity.



WILLIAM N. BIRCHBY
ASSISTANT REGISTRAR



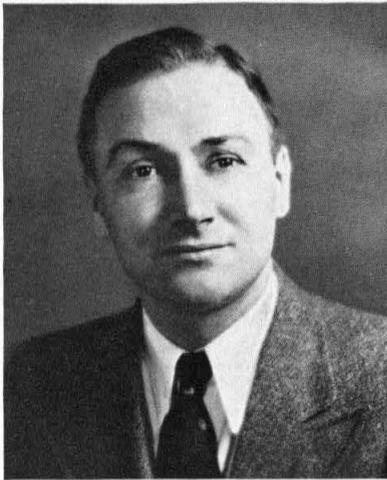
THERESA DIERKES
SECRETARY TO THE REGISTRAR

DEAN OF UPPERCLASSMEN AND THE BUSINESS OFFICE

● The military brusqueness of his speech, the frankness of his opinions, and the excellence of his advice have gained for Colonel Frederic W. Hinrichs, Jr., Dean of Upperclassmen, the respect and loyalty of every student who has had the pleasure of making his acquaintance. The personal interest taken by this man in the welfare of his charges has enabled him to gain the confidence of the upperclassmen. The emphasis laid upon strict observance of a man's scholastic standing would make any dean's position a difficult one, but the training of a man who has commanded and disciplined great numbers of men fits him for the sometimes unpleasant task of rendering a firm, yet impartial, judgment on the behavior of the students.

● The need of advice as to the feasibility of allowing students to defer payments on their tuition has brought Dean Hinrichs into closer touch with the Business Office of the Institute. Mr. Edward C. Barrett, Secretary and Assistant Treasurer of the Institute, has had his hands full for the past several years. At no time in his long connection with the college has Mr. Barrett carried so many burdens. With the assistance of Mr. Herbert G. Nash, accountant, Mr. Barrett has interviewed each student who has experienced financial difficulty. It is due to the efforts of these men that, in making it possible for many worthy students to continue their education, the California Institute is so highly regarded and its policies so fully appreciated by a grateful student body.

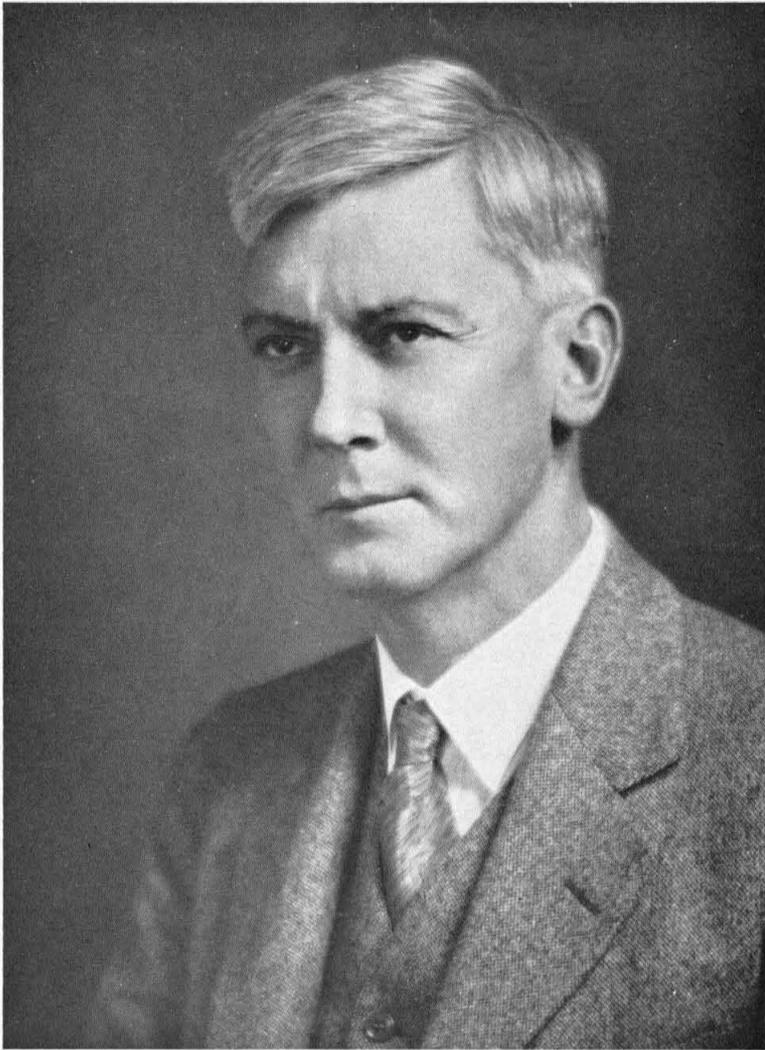
● In the office of Miss Inga Howard, Secretary to Dr. Robert A. Millikan, Chairman of the Executive Committee, most of the accounts of the experiments, results, and plans of the Institute are prepared for publication. Of an inestimable value to the seniors are the efforts put forward by Dr. Millikan to secure the cooperation of nation-wide business firms in placing members of the graduating class.



HERBERT G. NASH
ACCOUNTANT



MISS INGA HOWARD
SECRETARY TO THE CHAIRMAN
OF THE EXECUTIVE COMMITTEE



FREDERIC W. HINRICHS, JR. • DEAN OF UPPERCLASSMEN



EDWARD C. BARRETT
SECRETARY OF THE INSTITUTE



P H Y S I C S

DR. ROBERT A. MILLIKAN

● One of the factors contributing to the Institute's unpretentious bid for fame is the outstanding personnel of the Physics department. Along with the name of Dr. Robert A. Millikan, internationally known scientist, are to be found the names of such famous men as Dr. Alexander Goetz, Dr. Paul Epstein, Dr. Richard Tolman, Dr. Fritz Zwicky, as well as many prominent young scientists and visiting professors. All of these men have assisted in focussing the interest of the scientific world on the California Institute; the center of physics research and theory.

At the present moment, the prime position of interest is held by Dr. Millikan, who, with the aid of his two assistants, Drs. Carl Anderson and Victor Neher, has covered extensively the field of cosmic rays at various altitudes and latitudes and in different media. In photographing cosmic ray tracks, Dr. Anderson discovered a new particle which he has called the positron or positive electron. In another branch of physics research, Dr. Alexander Goetz has obtained apparatus from Germany for making liquid helium and he is testing the properties of metals at very low temperatures. Other interesting developments include the manufacture of a diffraction ruling machine capable of ruling 150,000 lines per inch, the successful substitution of aluminum for silver on mirrors, and the demonstration of the radio-activity of beryllium, heretofore unknown.

The recent creation of a Division of Astrophysics has not severed the many related connections with the Physics department. The new Optics building is the last of a group of three buildings which have been erected on the campus to supplement work on and with the intended 200-inch telescope.



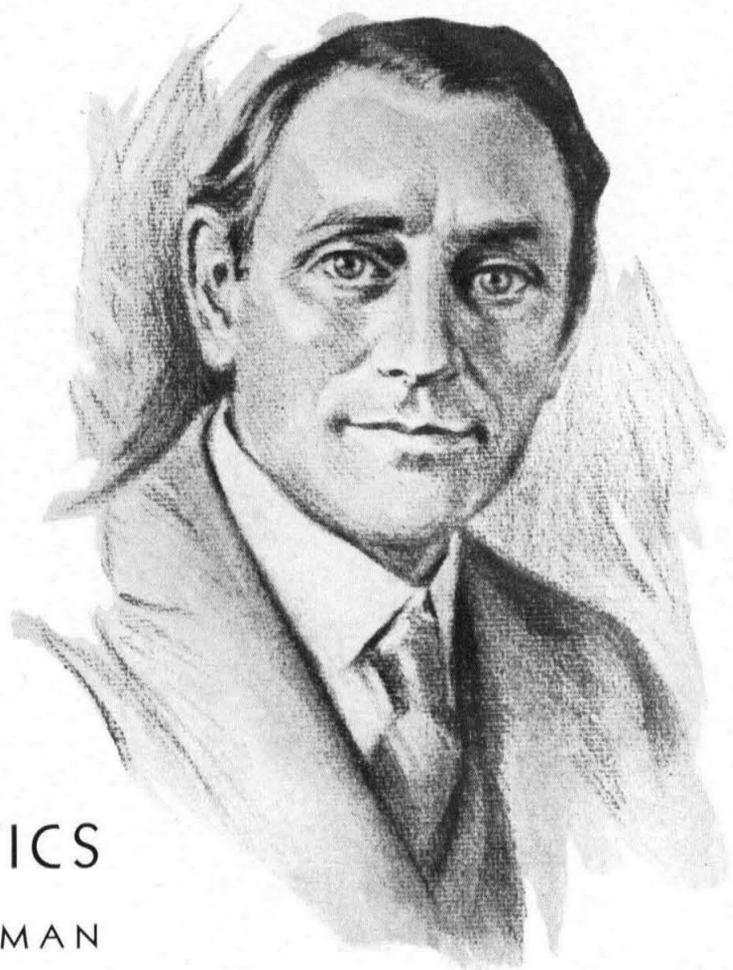
CHEMISTRY

DR. ARTHUR A. NOYES

● In this Division of the Institute, which includes Chemical Engineering as well as Chemistry, the most important development during the past year has been the great extension of graduate study and research in the field of the electronic structure of molecules, carried out under the direction of Professors Linus Pauling and Richard Badger by twelve research fellows and graduate students. This development has been made possible by funds given for the purpose by the Rockefeller foundation and by the temporary assignment to this work of many well-equipped research rooms in the recently completed Astrophysics Laboratory.

Dr. Arthur A. Noyes, Chairman of the Division of Chemistry and Chemical Engineering, is one of the outstanding chemists of the country and is a recognized authority on the subject of qualitative analysis, particularly of the rare elements. It has been through his efforts and ability that this department of the Institute has assumed a prominent position in the field of science. The renown of many of the staff members and the importance of research projects have made Gates Chemical Laboratory a center of chemical experimentation and study.

In the field of chemical engineering many researches in applied chemistry are being continued under the plan of industrial fellowships provided during recent years by various manufacturing corporations, thereby affording many graduate students opportunity for practical experience in solving the problems of chemical industry.



MATHEMATICS

DR. HARRY BATEMAN

● Some numbers have become celebrities now that Dr. Eric Bell has written their biographies in his fascinating book on numerology, "The Science of Number," in which he tells of their escapades and of the embarrassing situations into which scientists have led them. This does not mean that these numbers are dead; on the contrary, it means that they are so much alive that they are dying to know what Dr. Bell has to say about them. Other numbers may be regarded as still unborn, because, in spite of the huge mathematical activity of the last century, they have never been written down.

Both Dr. Bell and Dr. Morgan Ward are making progress in the solution of Diophantine equations, the solutions of which are rational numbers, or, in simplified cases, positive integers. This is a difficult branch of the analytical theory of numbers and has been studied only by experts in mathematical analysis. Dr. Arnold Ross also has been working in the theory of numbers, being interested in the problem of the representation of integers by quadratic forms.

Dr. A. D. Michal, who is not content with Euclidean space, has been studying, not only Einstein spaces, but also abstract spaces of various types and is developing a differential geometry of abstract space. Dr. Harry Bateman is studying the properties of solutions of linear functional differential equations and is connecting such equations with variational principles.

In addition to the work of the organization, which demands more and more attention, the work of the department includes the reviewing of books for mathematical journals and the preparation of reports on scientific papers.



AERONAUTICS

PROFESSOR T. VON KARMAN

● Although this division of the Institute is primarily concerned with the problems of theory and practice of flight, the research work is not confined within these limits. Through the influence of Dr. Theodor von Karman, head of the department, the work has been extended to cover problems of a broader scope, but the principles involved are applicable in a specific way to the field of aeronautics. The work has been divided into distinct groups under the headings of: Wind Tunnel, Aerodynamics, Structural Laboratory, and Photo-elasticity.

Wind tunnel experiments have been confined to the study of maximum lift effects and of lateral control. The investigations in the field of aerodynamics have been concerned with the flow of air in curved ducts, the characteristics of a low speed jet, and the effects of different surfaces on the flow. A smoke tunnel was installed as one means of physically representing the turbulence occasioned by the flow of a gas into different media.

The structural laboratories have been utilized in making studies of the strength of flat sheets in compression. Work is being carried out with plain and reinforced metal sheets. The effects of torsional stresses on thin walled tubes are being investigated, as well as a study of the compression and bending of tubes, plain and with longitudinal and circular reinforcements. Photo-elasticity, a special experimental method of study of the stresses occurring in various structures, makes use of polarized light. When forces are applied to bakelite, pyralin, or similar material, the stressed parts rotate the plane of the polarized light, passing through them, in proportion to the stress. The applicability of the results of this work to the field of aeronautics is obvious.



B I O L O G Y

DR. THOMAS H. MORGAN

● The study of the changes produced by treating plants and animals with X-rays is being extensively developed. It has been known for some years by geneticists that the action of X-rays increases the number of new types or mutants developed among the offspring. In the Plant Physiology Building, Dr. Frits Went has taken over the direction of work which had previously been in the hands of Prof. Dolk, who was killed in an accident. Dr. Went, prior to his connection with the Institute, was director of the Botanical Gardens in Java.

Possibility of keeping the Marine Station at Corona del Mar open throughout the year has been achieved through the installation of a salt water system which makes it practicable to maintain aquaria during the winter months. The Marine Station was ideally located for marine studies and, with the advent of a gift of a motor boat, the investigators are able to collect material off-shore, where a great abundance has been found.

Work in animal physiology under the direction of Dr. Henry Borsook is advancing steadily. The fundamental problem is concerned with the changes of protein after it passes from the intestine to the blood stream. Rats continue to be the martyrs of science, inasmuch as the effects of the liver and kidneys on the protein require thin slices of the organ for observation. The tissues of the 0.3 mm. thick slices are still alive and carry on the same processes as the entire living organ.

In another field Prof. Robert Emerson has been investigating the physical properties of chlorophyll, studying the action of intermittent light on energy changes. Under Dr. Ernest Anderson the Experimental Farm at Arcadia has been continuing the elaborate program connected with the genetics of corn.



GEOLOGY & PALEONTOLOGY

DR. JOHN P. BUWALDA

● Numerous investigations along all lines of geophysics research have brought this division of the Institute before the eyes of the scientific world. Under the direction of its chairman, Dr. John Peter Buwalda, and an able staff of associates, the practical work undertaken in geology and paleontology has progressed with favorable results.

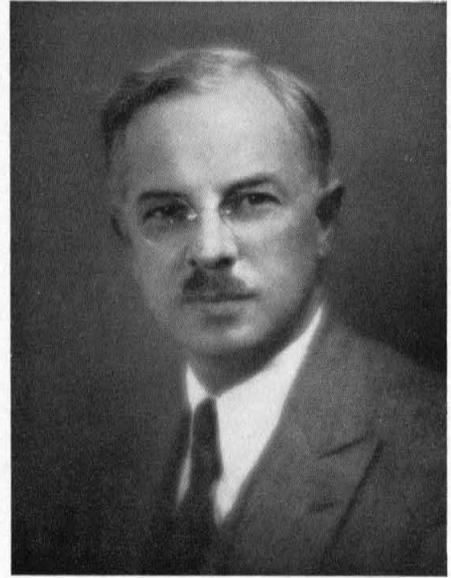
The Seismological Laboratory, operated jointly by the Carnegie Institute and the California Institute, has become the center of much interest, especially since the recent earthquake. Dr. Buwalda, Dr. Gutenberg and Mr. Harry O. Wood have been investigating the nature of earthquake waves which have been artificially manufactured by detonating explosives in the earth's crust at varying depths. In another field, Drs. Ian Campbell and John Maxson have been making a study of the rock formations in the Grand Canyon in order to throw new light on the little-known early history of the world. The old Archean rocks in the inner gorge of the canyon are as old as any on the face of the earth.

Dr. Frederick Ransome, economic geologist, has been concerned with the tracing of the route to be followed by the Metropolitan Water District. His survey constitutes an extremely important piece of economic work. Dr. Chester Stock, professor of paleontology, has been engaged in significant work which has entailed the investigation of a newly discovered lower Tertiary formation in Southern California, bringing to light many mammalian forms new to science.

Alone or in collaboration with other institutions, government surveys, and the like, many other members of the department are actively engaged in the working out of numerous projects, too many to name.



FRANKLIN THOMAS
CIVIL ENGINEERING



ROBERT L. DAUGHERTY
MECHANICAL ENGINEERING

CIVIL AND MECHANICAL ENGINEERING

● The research problems under way in the Engineering Division are usually related to the problems and needs of the community of which the Institute endeavors to be a useful part. The work of these investigations is being done by graduate students or research fellows under the direction of various members of the faculty. The departments of Civil and Mechanical Engineering are headed by Professors Franklin Thomas and Robert L. Daugherty, respectively.

● In a locality where several dams of notable height are being constructed, any additional knowledge concerning the forces and stresses which develop within these dams is of vital importance. Dr. John Brahtz has been making an investigation by the photo-elastic method upon a translucent bakelite model of the Pine Canyon Dam to determine the stresses in the dam resulting from the water loading.

● Mr. Clifford C. Cawley selected a research problem which subsequent events proved to be particularly timely. He has been using a shaking table for producing arbitrary motions to make tests upon the model of a ten-story building frame and to determine the behavior of the structure and the stresses developed when subjected to artificial earthquake vibrations. An experimental unit consisting of three aeration tanks of concrete has been constructed at the Pasadena Sewage Treatment Plant for research in treatment methods. The cooperation of City Engineer Hincks has made this possible and these facilities will offer useful opportunities for experimental work in this developing and increasingly important field of engineering.

- A cooperative investigation is being made at the Institute under the auspices of the Los Angeles Gas and Electric Corporation and the Los Angeles County Flood Control District to determine the effects of proposed changes in the channel of the San Gabriel River where it enters Alamitos Bay just west of Seal Beach. It is desirable to learn, in advance of making the changes, of the modifications which will occur both in the bay and at the inlet where the intake for cooling water to supply the Seal Beach steam power plant is located. The results obtained from the use of the model will indicate the most advantageous form of relocation or the form of channel which should be constructed. The model itself is constructed with a horizontal scale of 1:120.

- Through facilities made available by the Byron Jackson Company, several men have undertaken research to determine the complete operating characteristics of a high-efficiency centrifugal pump under normal and abnormal operating conditions in an attempt to predict the transient behavior under starting, stopping, and emergency operation.

ELECTRICAL ENGINEERING

- The past few years have seen the actual working of a much more unified Electrical Engineering department by the bringing into use of the Kellogg Radiation Laboratory. Professor Royal W. Sorensen is the very capable director of the activities and research of the group.

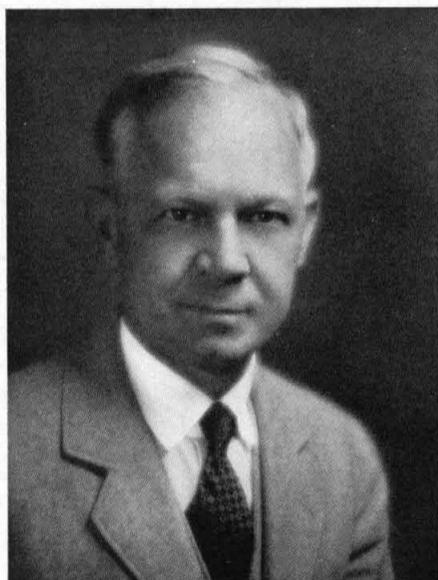
- Some of the problems being investigated at present by the staff are worthy of note. Studies are being made in ultra short-wave radio; the surface arc-over characteristics of insulators; the power factor measurements in dielectrics; and in the switching arcs in oil and in vacuum. An investigation of long line stability to small power loads is under way. Corona loss at high temperatures and protective systems for distributor networks are also being investigated. A cathode ray oscillograph with an outside film holder has been constructed.

- Along with the constant experimentation taking place in the High-Voltage Laboratory, a different phase of Electrical Engineering has been undertaken in the daily use of the giant X-ray tube for the treatment of cancer patients. This work is being carried on in the Kellogg Radiation Laboratory.



ROYAL W. SORENSEN
ELECTRICAL ENGINEERING

HUMANITIES



CLINTON K. JUDY
LITERATURE



GRAHAM A. LAING
ECONOMICS

● One of the distinctive features of the California Institute is its emphasis upon the humanistic side of the curriculum. Differentiating itself from other American schools of science and engineering, the administration has from the very outset recognized the desirability of making a place in its undergraduate curriculum for a generous amount of instruction in the humanities. The degree and genuineness of this emphasis on this side of an engineer's education has paralleled the scientific qualities for which the Institute is renowned.

● Dabney Hall, one of the largest and most attractive buildings on the campus, is devoted to the work in Literature, Languages, Philosophy, Economics, History, and Government. Although the work done in the Division of the Humanities is of a less spectacular nature than that of some of the science departments, a great deal of this year's work has been of considerable importance and interest. The sudden rise of popular interest in Technocracy enabled Professor Graham A. Laing, widely known economist and head of the Institute Department of Economics, to present his views on a subject he was greatly concerned with. Prof. Laing was called upon by many groups for lectures and gave a series of four lectures here at the Institute under the auspices of the Faculty Women's Club. His book, "Toward Technocracy," was published shortly after by the Angelus Press.

● Most of the younger members of the English staff are very popular among the stu-

dents and three of them, Professors Eagleson, Huse, and Jones, are editing a book, "These United States," for the use of the Freshman classes in English. The close connection which is maintained between the Institute and the Huntington Library has offered many opportunities for research work in the fields embraced by the wealth of material owned by the Library. Professors Stanton, MacMinn and Eagleson have been engaged in such work at this famous gallery. The subject of Professor George R. MacMinn's studies is entitled, "Cultural California in the 1850's."

- Dr. William B. Munro and Prof. Philip S. Fogg have made important appearances as speakers in the community this year. Dr. Munro, Dr. Einstein, and Mr. Henry W. Robinson presented a symposium at the Pasadena Civic Auditorium on "The World Situation"; and Prof. Fogg has presented to different groups the problems involved in the Veterans' Relief Legislation.

- Dr. Louis Wright, formerly of the University of North Carolina and now a research associate of the Huntington Library, and Prof. Howard Jones of the University of Michigan have been visiting associates of the Division of Humanities this year and have given several lectures at the Athenæum.

- Under the direction of Drs. Harvey Eagleson and Roger Stanton two plays have been produced and presented by the students of the Institute. The productions were the Pi Kappa Delta classical play, "Phormio," by Terence, and the Drama Club play, "George Barnwell, or The London Merchant," by George Lillo.



WILLIAM B. MUNRO
HISTORY AND GOVERNMENT



GRASS-CARPETED
AND TILED COURTS





MECCA OF SCIENCE • THE ATHENÆUM

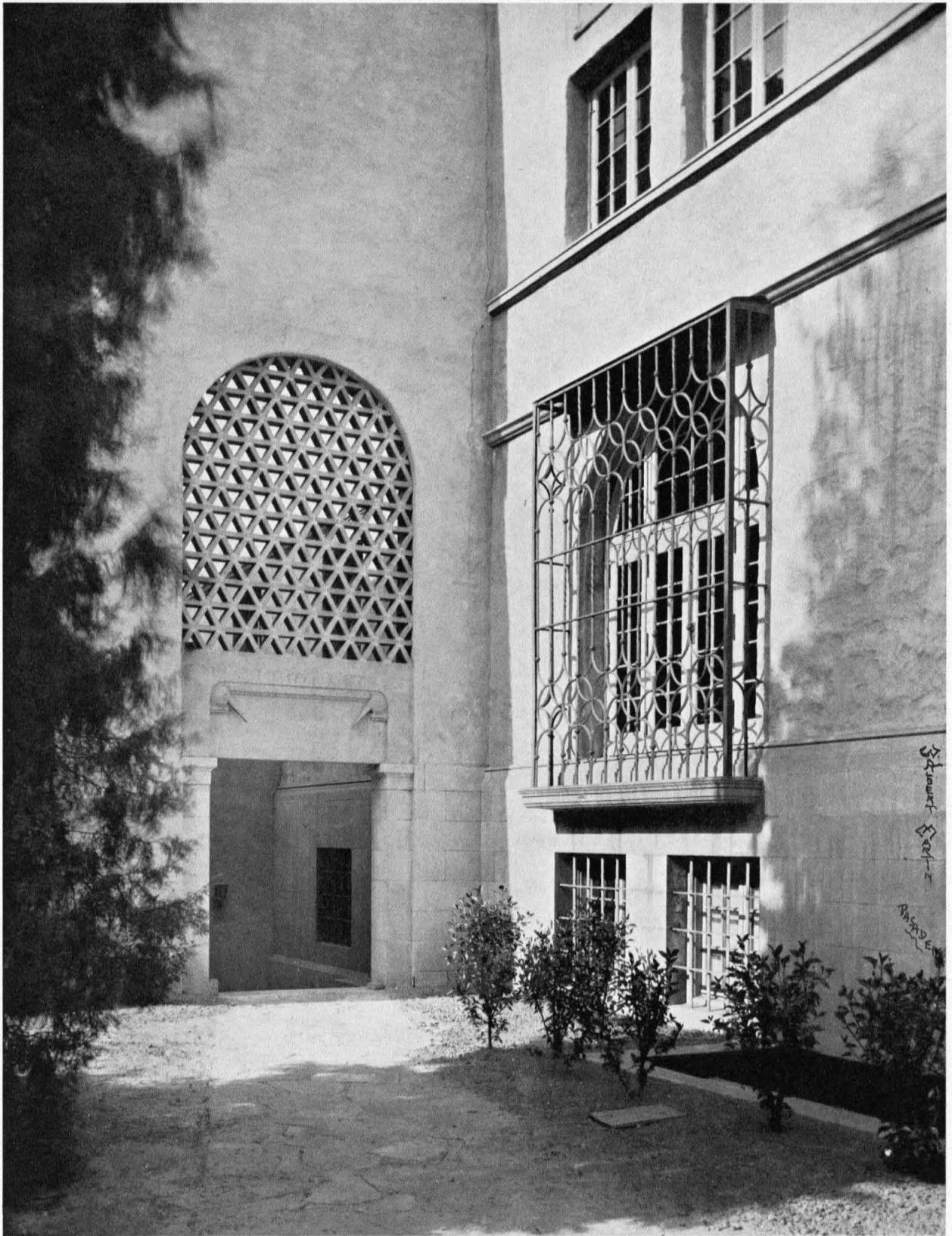
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REFLECTED SUNSHINE



SHADED CLOISTER



PATTERNS IN STONE AND IRON



CACTUS-CAPPED WALL



PATIO CORNER • BLACKER HOUSE



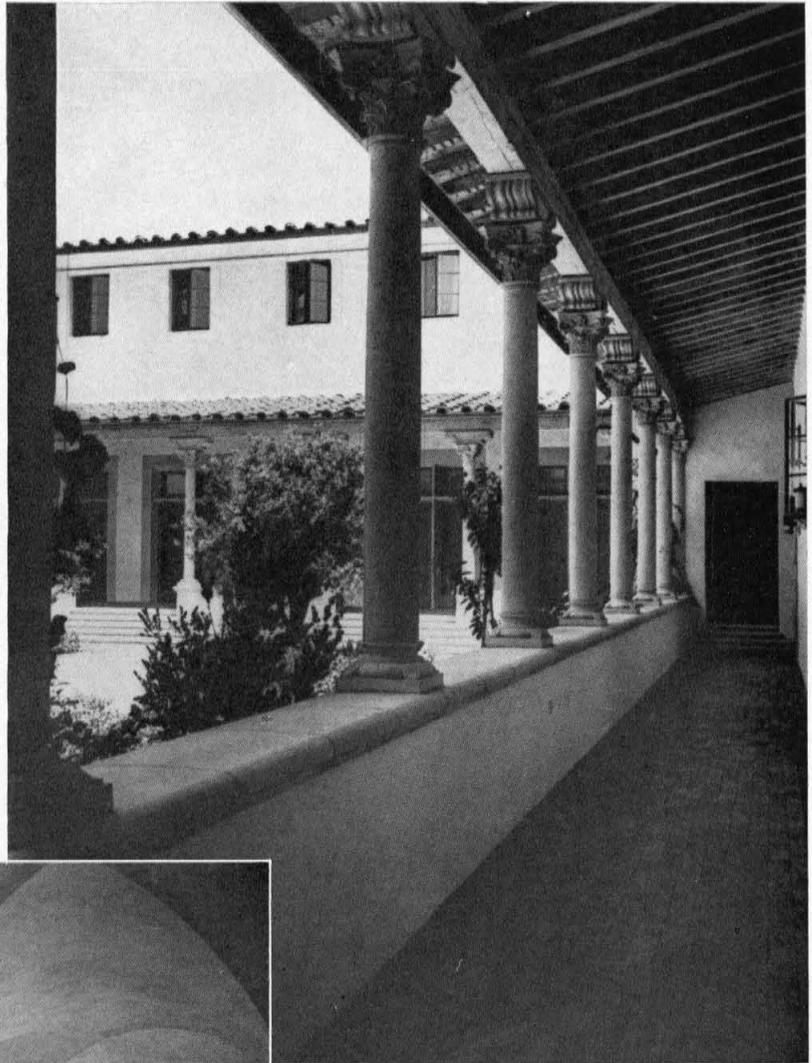
FACADE OF DABNEY HOUSE

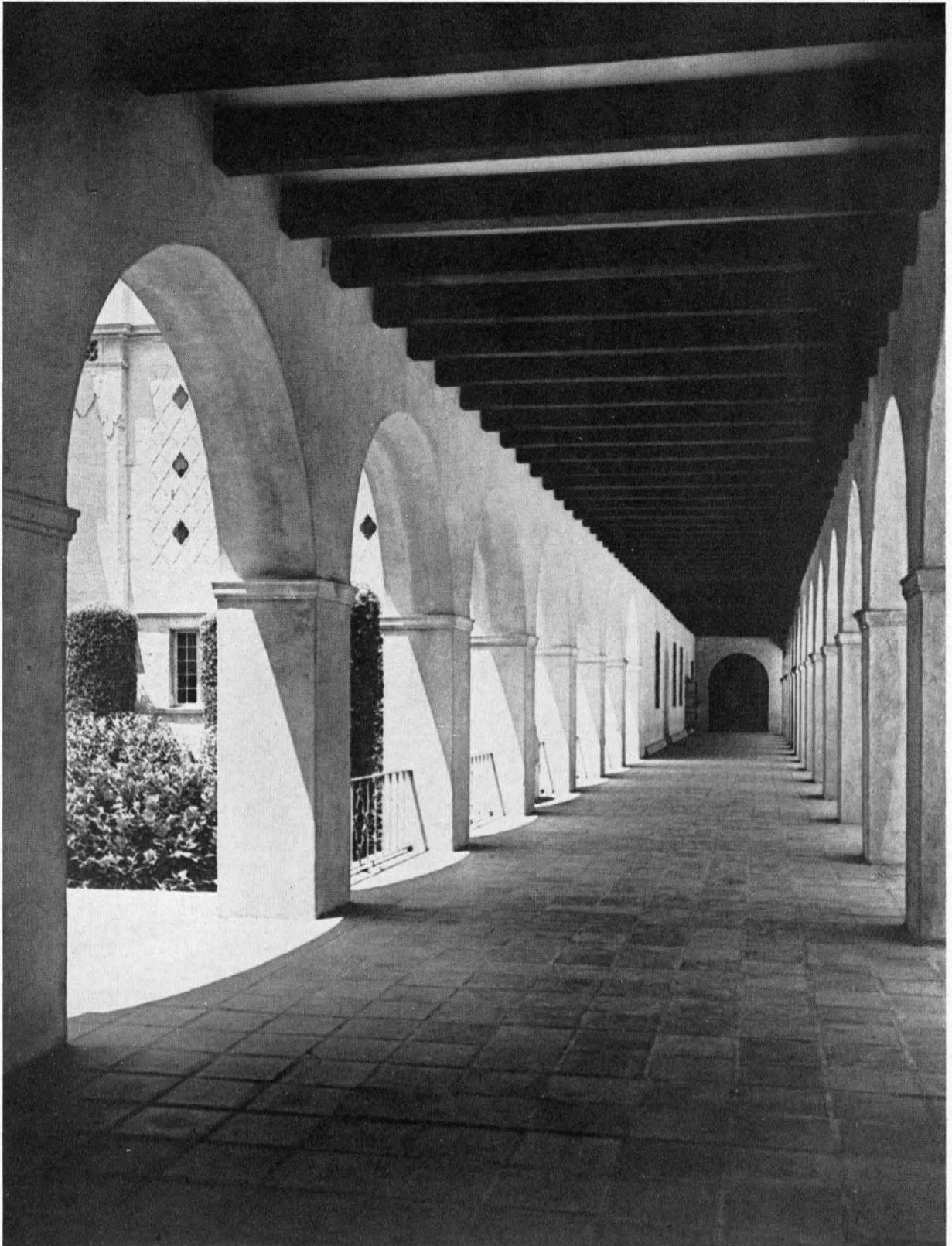


PATIO OF RICKETTS HOUSE



STUDENT HOUSE
PASSAGEWAYS



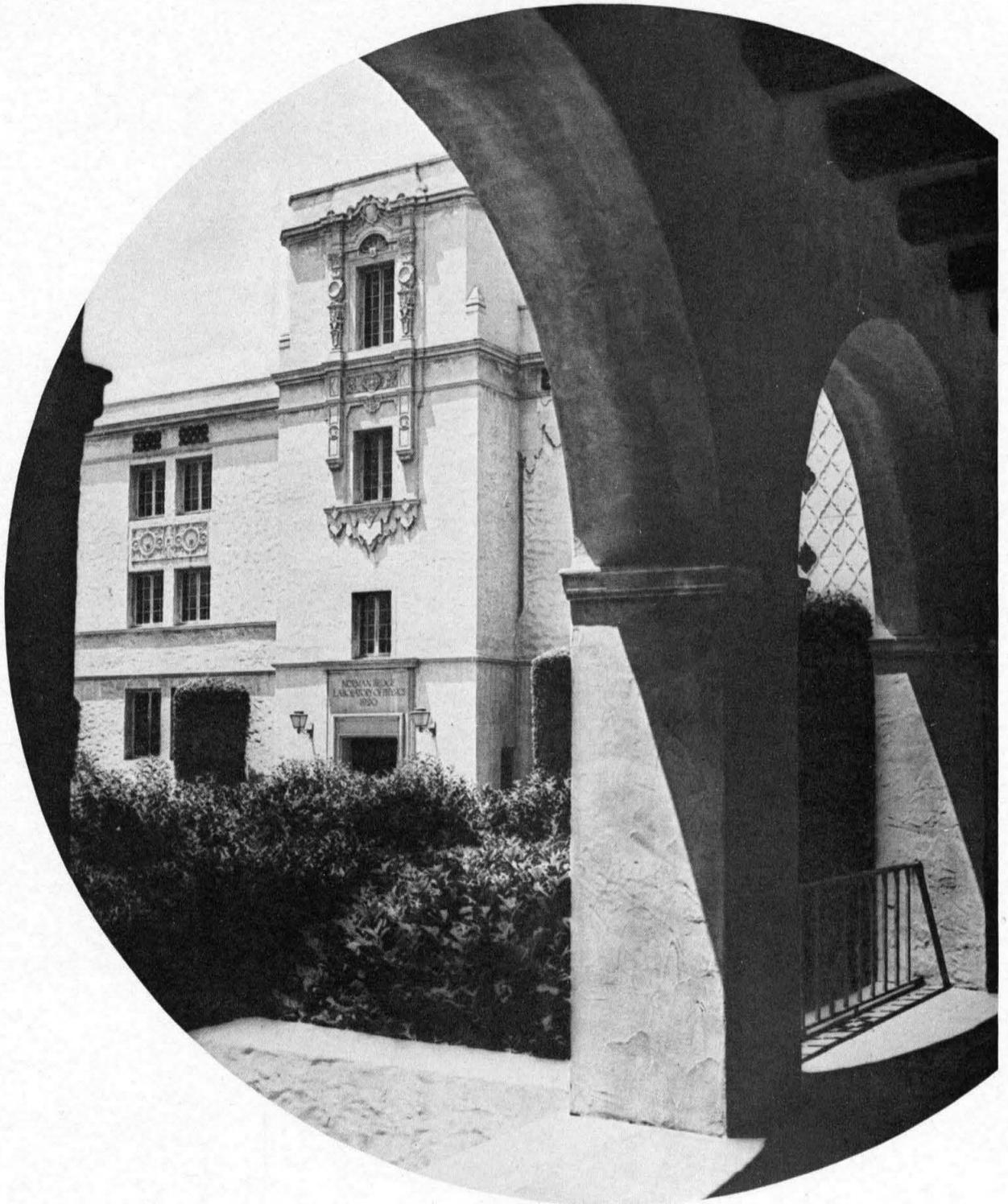


ARCHED WALK



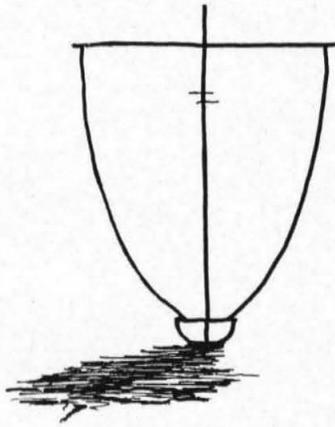
COLONNADE

NORMAN BRIDGE
LABORATORY OF PHYSICS



WILLIAM G. KERCKHOFF
LABORATORIES OF BIOLOGICAL SCIENCES





WRESTLING MATCH

永雨寺



鬼山

伊勢海

象鼻
大邊
高野

鬼崎
佐野山
荒馬
鬼面山
萬子濱

相山

須川
柳

松坂
松坂

寺
寺



亮上



玉垣

薩摩

岡山

山分

勝山

河國

愛知

磐石

羽白旗

白雲

舞

舞

A T H L E T I C S

I N T R A M U R A L S



COACH "FOX" STANTON

- One of America's foremost athletic mentors—a builder of healthy young men who are early imbued with the ideals of fair play and clean-cut rivalry so that they can play a game for the sake of the game: sensible in victory, unashamed in defeat.

COACHING STAFF

● A college has a right to be proud of its head coach when that man is one who is liked by every college student, critical or indifferent. When a coach represents a figure known to almost every official and coach in Pacific Coast athletic circles, not by reason of immoderate publicity, but rather by virtue of his outstanding ability, one may be certain that he is a Coach. The "Fox," a name by which Coach William L. Stanton is known, is one of the most important members of the Institute faculty.

● Athletics under Coach "Fox" Stanton have kept pace with the rapid growth of the California Institute. A Tech team earns its merits, not by victories or defeats, but by the successful and progressive improvement and the determined spirit of its individual members. The "Fox" does not have the chance of selecting the best athletes in the community, the county, or the state; he takes what he can get, and the results he achieves from new and inexperienced material are surprising.

● Coach Stanton is more fortunate in being able to secure coaching assistants worthy of enhancing and producing the results he strives to achieve. In Line Coach "Stew" Seymour, Stanton has found a capable man in whom he has entrusted the work of building up a strong and powerful line. Coach Howard Musselman, who is also the Graduate Manager of Athletics, instills the Scrub team with the ambition to show the Varsity squad a thing or two and sometimes manages to upset their plan of attack. Coach Musselman also coaches the baseball team.

● Under his son, Layton Stanton, the "Fox" has placed the direction of the Freshman football and baseball teams, and their successful efforts speak well for the coaching ability of the younger Stanton.



HOWARD F. MUSSELMAN
GRADUATE MANAGER

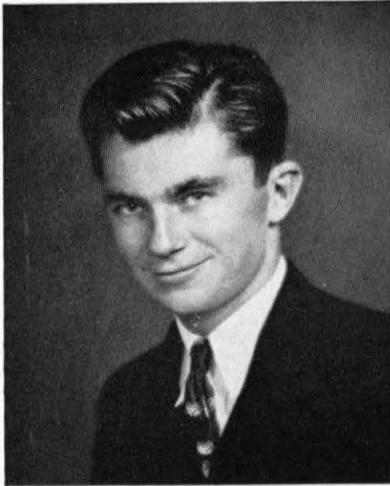


STUART L.
SEYMOUR



LAYTON
STANTON

F O O T B A L L



RICHARD RUSSELL
ATHLETIC MANAGER



ROBERT SHARP
CAPTAIN-ELECT

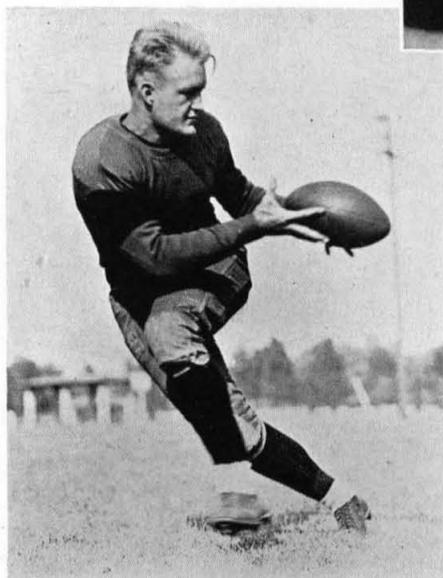
● Although only a relatively small but select group of gridiron aspirants answer Coach "Fox" Stanton's call for football recruits, this sport holds the spotlight as the King of Sports at the Institute. Inasmuch as the scholastic standing of every Tech student must be kept above a rigid minimum number of credits regardless of his physical efficiency and athletic value to the team or school, Cal Tech holds a unique position in the Southern California Intercollegiate Conference. That a team such as the Beavers can be maintained and brought within the limits of competitive strength is a feat which can only be credited to the sterling qualities of the "Fox" and to the conscientious work of the men on the varsity squad.

● This year's football team averaged in weight about 155 pounds per man in the line and about 146 pounds per man in the backfield. In competition with teams whose members were from twenty-five to fifty pounds heavier than Tech men, the Engineers were handicapped in their bid for gridiron honors. Failing to keep the conference trophy which the championship teams of the two previous seasons had earned, this year's Beaver eleven played its games with the usual fight and spirit. Only two conference victories brightened the depressing outlook of several defeats. The victories of rival schools were earned by teams which had to battle hard and long for the margin of their scores.

● The greatest game played during the season was the Rose Bowl encounter between Occidental and Cal Tech. It was not until the last few minutes of play that Tech gained a winning score which the Engineers richly deserved for their brilliant performance. It was due to Captain Phil Craig's toe that Tech was able to turn the trick and win by the close score of 6-9. Captain Craig was the outstanding player on the Beaver squad, playing regularly at guard, but stepping into a backfield position whenever a punt or drop kick signal was called. A forty-five yard field goal in the Santa Barbara game put the skids under the Roadrunners

and gave Tech its second win of the season. Bob Sharp, quarterback, also distinguished himself on the field and was rewarded for his football skill and experience by being elected captain of next season's team.

● Richard Russell, student athletic manager, on the recommendation of Coach Stanton handed out letters to sixteen varsity players, men who well deserved this time-honored means of recognizing extraordinary service on the athletic field. Under Dave Clark, senior football manager, the needs and wishes of coaches and players were well taken care of. His assistants in this work were Carroll Craig, Ed Core, Frazee, Muehlbach, Sheppard, Breen, and Gruenberg.



CAPTAIN PHILIP CRAIG

● A natural leader in games of skill, inspiring his team mates with a personality which finds its way through an unaffected modesty. His athletic prowess in all fields of sport has resulted in his being awarded the greatly-prized Wheaton trophy.



ED CRAWFORD, '33
CENTER



GEORGE PICKETT, '33
GUARD

LOYOLA 31
TECH 0

BOB MACDONALD, '33
TACKLE



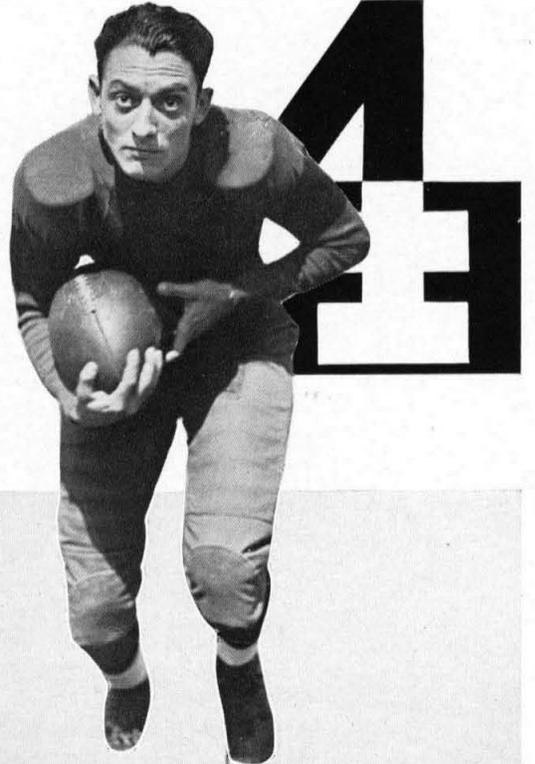
DAN MATHEWSON, '34
TACKLE

● A fumbled punt by Tech resulted in a lone score in the first half, during which period the light Engineers held at bay a considerably heavier Lion squad. The Beavers weakened in the latter half of the game as Coach Tom Lieb sent in wave after wave of fresh material to pile up points and a couple of hundred yards of penalties.



LA VERNE 21
TECH 0

JOE DE MILITA, '33
HALFBACK



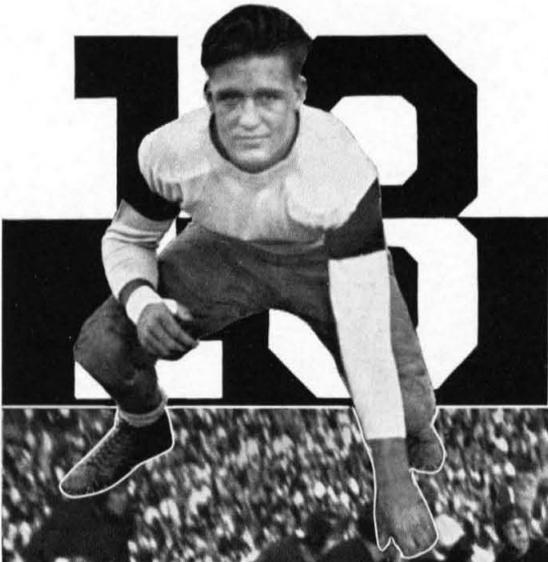
LEE MORRIS, '34
HALFBACK

● Low spirits and lack of punch proved to be the undoing of Tech's futile efforts to score. La Verne's flashy backs had a trick of twisting clear of the Engineers and rolling off ten and fifteen yard gains, which ultimately left Tech stranded.



SID BAMBERGER, '33
QUARTERBACK





SAM JOHNSON, '33
GUARD

WHITTIER 32 TECH 7



● Determined to upset their traditional gridiron rivals, the first quarter was played by a Beaver team fired with enthusiasm. A fresh Poet team of superior scoring strength withered Tech resistance, resulting in numerous Whittier touchdowns and scoring attacks. A beautiful forward pass from Sharp to Hunter in the fourth quarter netted Tech's only touchdown.

JIM GREGORY, '34
GUARD

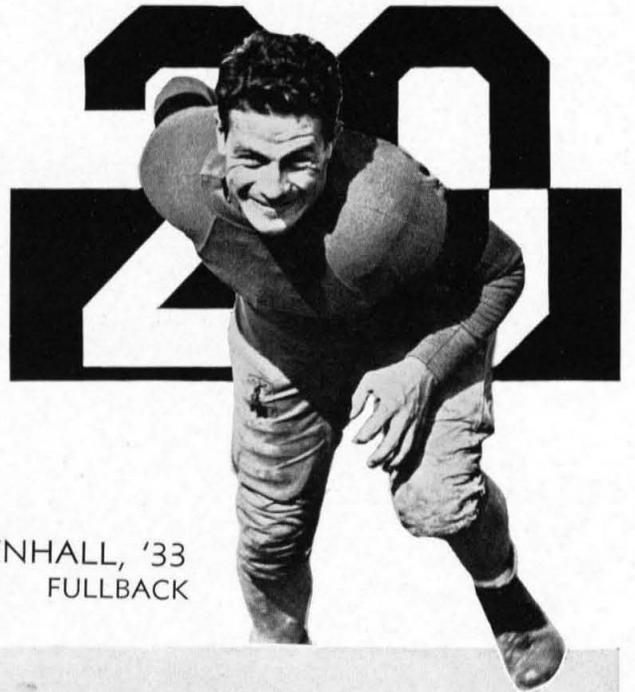


JOHN AYERS, '33
END

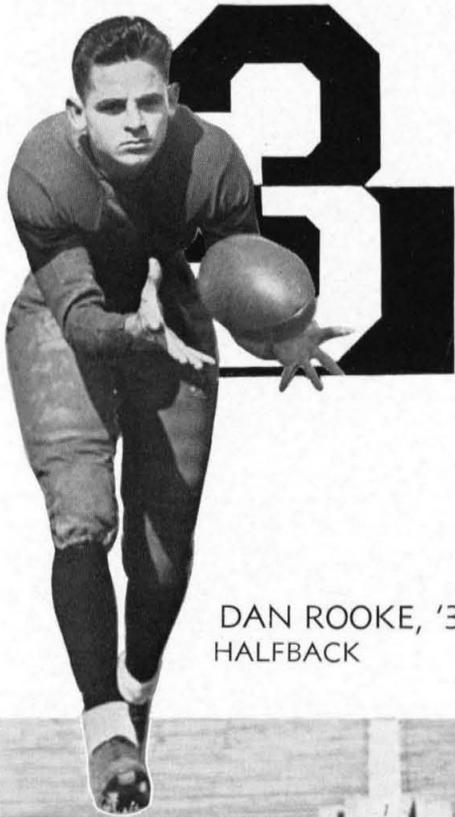


SANTA BARBARA 0 TECH 3

● A forty-yard field goal by Captain Craig accounted for this close but well-earned victory over the Roadrunners. Hunter and Bender showed up well at the ends, stopping the many attacks in these quarters. Tech played with a new vigor and spirit, lifting itself out of a no-win rut with determined effort.



JOHN MENDENHALL, '33
FULLBACK



DAN ROOKE, '34
HALFBACK



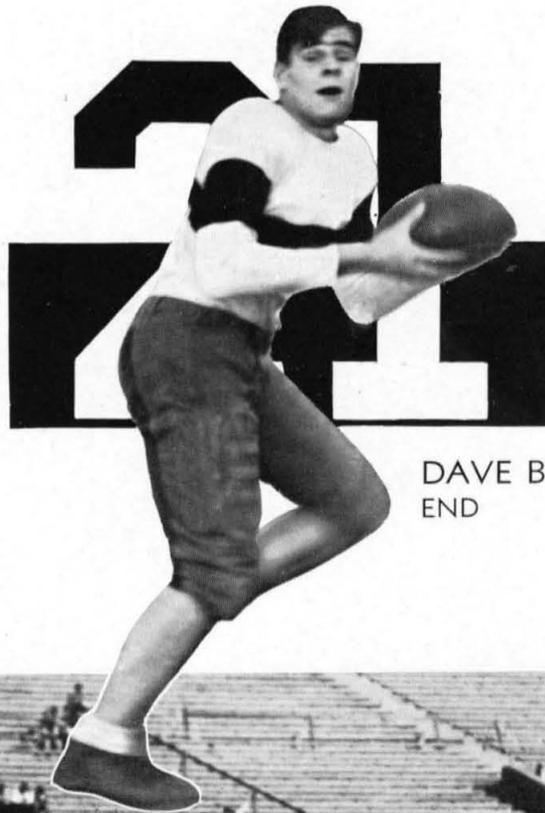


OCCIDENTAL 6 TECH 9

CAPT. PHIL CRAIG, '33
GUARD



● In the first few minutes of play, "Tuffy" Reed, Oxy all-conference full-back, took away the spirit of the Tech supporters as he made a sensational run for a touchdown, but impressed the whole team of Engineers so much that his importance waned as the game progressed. Bottled up, tackled, and out-maneuvered, Oxy failed with Reed, as the Beavers began rounding into offensive form. Catching one of Oxy's miscalculated laterals, Jim Gregory, Engineer tackle, ran thirty yards to even the score. With but a few minutes of play left in the last quarter, Craig relieved the tension of an over-wrought audience by cleaving the goal posts with the kick of the season. His educated toe punched the ball from the extreme left of the gridiron, twenty yards from the goal.



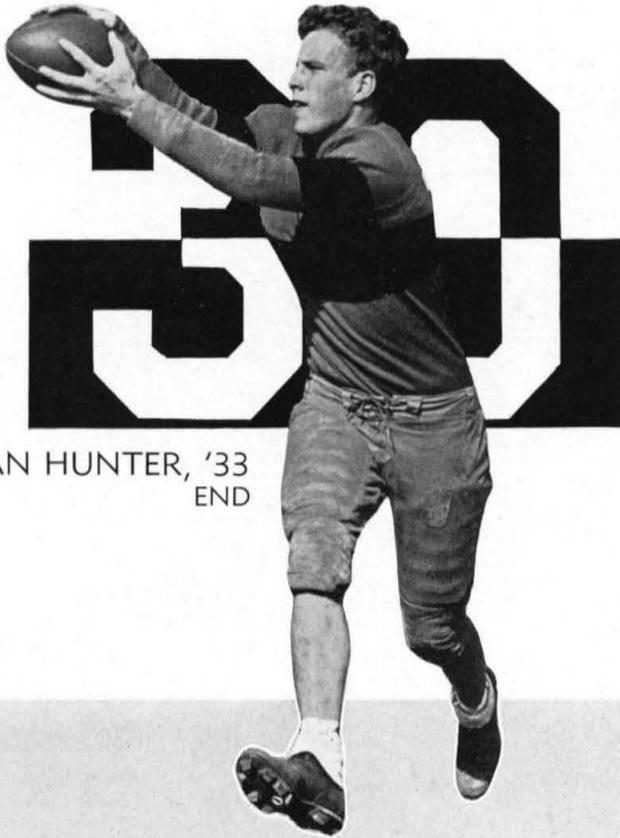
POMONA 6
TECH 3

DAVE BENDER, '33
END



• For the first time, Captain Craig's educated toe began to function with scientific precision, but his three points failed to ripen into a victory. The meager margin by which the Sagehens cinched their win is an indication of the nip-and-tuck battle which raged between the two teams. Sharp and Mendenhall played stellar roles in this hard-fought game.

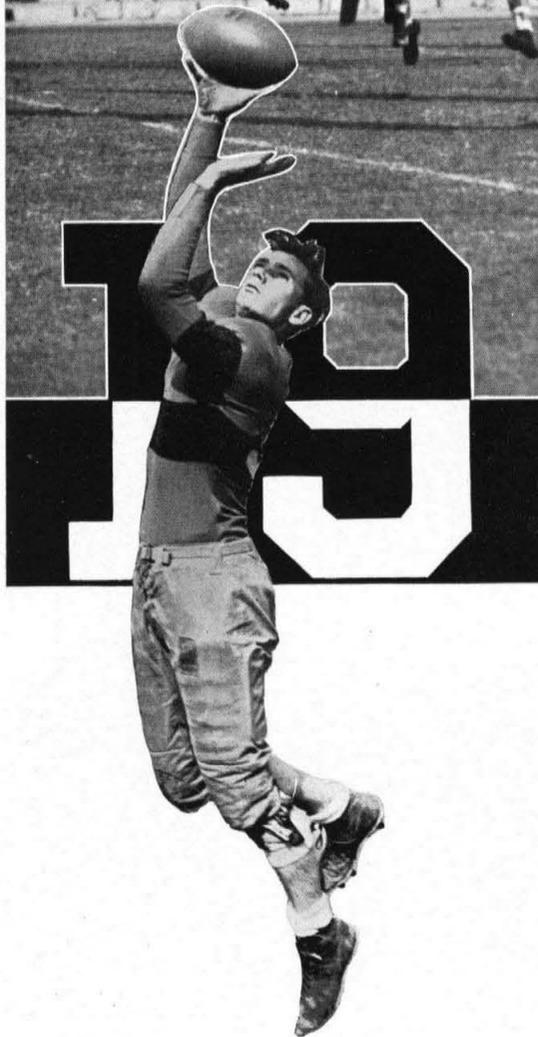
U. C. L. A. 51
TECH 0



FRAN HUNTER, '33
END



● Despite a brilliant and successful fake pass to De Milita, which promised a touchdown, Tech reluctantly accepted a goose egg as the Bruins swamped the Engineers with superior plays and heavier players. Failing to dent the Bruin line at any point, the Beaver backfield contented itself with making a display of fancy laterals and tricky reverses.



BOB SHARP, '34
QUARTERBACK

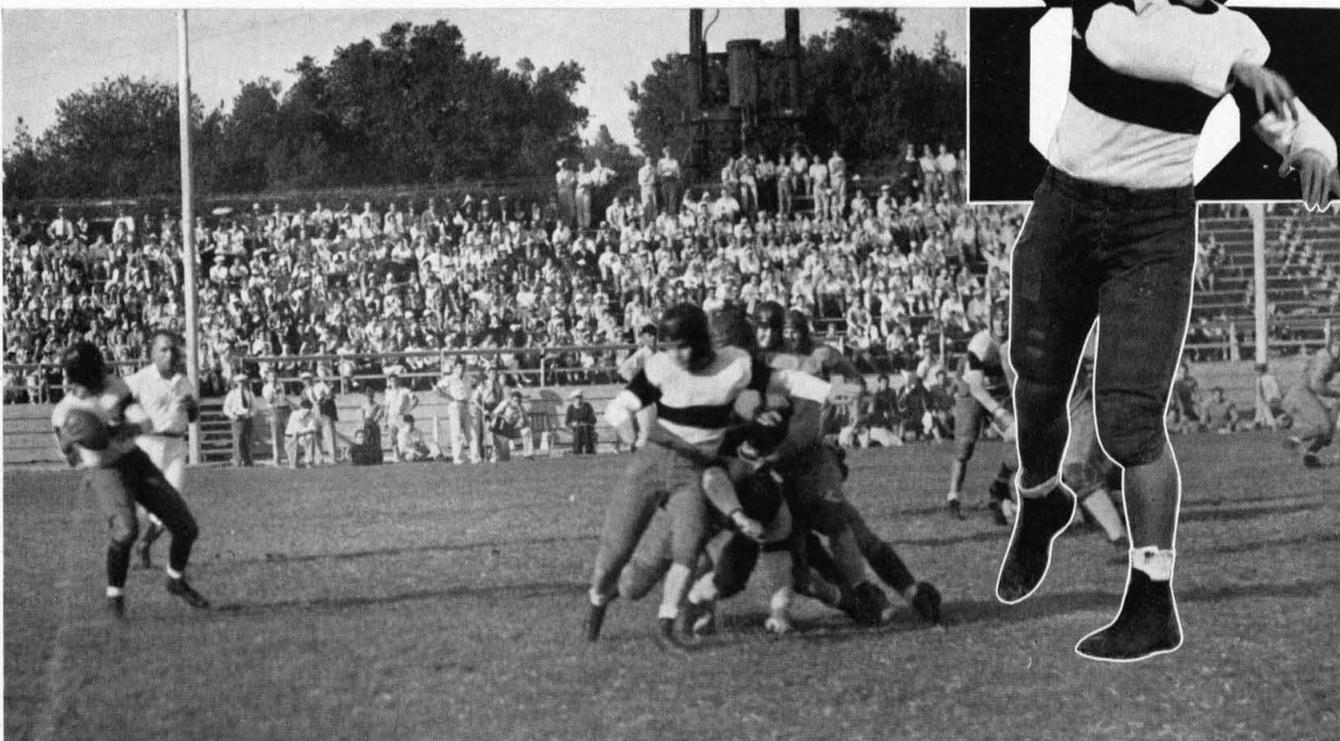




SAN DIEGO 20 TECH 0

● Playing a hard but fruitless game, Tech met defeat at the hands of a stellar Aztec passing combination. The Beavers made ten first downs to the Indians' six, but failed to make good their scoring threats. The final gun on the Border City's gridiron sounded the death-knell of the college football careers of many senior varsity players.

ART MATHEWSON, '33
HALFBACK





SECOND TEAM AND SCRUBS

Besides the varsity lettermen featured in the preceding section there remain to be mentioned the second string players and the scrubs. The former group of players merit honorable distinction by virtue of their admirable performances when called upon to participate in gridiron action. A second string player is by no means a second rate player; his inexperience, coupled with uncontrolled power and flash, has yet to be shaped under the watchful eye of the "Fox." Most of these men will take the places on the first string line-up which have been vacated by graduated seniors.

• Under the guidance of Coach Musselman, the scrubs quickly put the varsity squad on its toes, offering a strenuous resistance to their attacks. Most of the time the scrubs have had to hold the bag, permitting the varsity to run all over them without being able to retaliate. This year's scrub team played nobly, helping to strengthen the weaknesses which showed from time to time in the varsity's defense. Most all of these players were forced to play a hard and tough game, meriting the recognition of a grateful student body.

Second Varsity

JACK BINKLEY
 BILL HARRIS
 AL HEINRICH
 PAT HOGAN
 LAVERN HOWLAND
 WALLY JOHNSON

BOB JONES
 BOB KRAMER
 FRED KURATA
 DAN MILLER
 JOHN STICK
 HENRY STOLL

Scrubs

TOM ANDREW
 LEWIS BROWDER
 DEAN CALDWELL
 PAUL DANE
 EXLEY
 BOB GROSSMAN
 ED HAYES

KEDRIC KEELEY
 JIM RADFORD
 SCHULZ
 NEIL SNOW
 LAURENCE STUPPY
 JAY TAYLOR



FROSH FOOTBALL

Greeted by a turnout of thirty-five gridiron prospects, Layton Stanton, Frosh Coach, began work on Tech's 1932 Freshman football team. A rapid survey of his green material convinced Coach Stanton that there were some hopes of turning out a first-rate team. Although the Beaver Babes succumbed to the attacks of several opposing elevens early in the season, new combinations and familiarity with the plays brought about a great improvement in team work.

● On November 11, the orange-and-white sweated Babes turned the tables on the Oxy Bengal Pups, winning by the score of 20-0. This Frosh victory was the first of its kind in the history of the rivalry between the two schools. The smooth functioning of the backfield and the spirited resistance of the line climaxed the ambitious efforts of Coach Stanton and Stuart Seymour, Line Coach.

● Next season Coach "Fox" Stanton will be in line to take his pick of several of the most promising candidates for varsity berths. Moore, Smith, Thompson, Davis, McIntyre, Wilstam, and Parker are experienced players and should make first-class material.

Frosh Squad

SYDNEY BARNES*	JOHN GATES*	DON MAGRUDER	ROBERT SIMPSON
DONALD BLODGETT*	HENRY GOODWIN	ROBERT McINTYRE*	BILL SMITH*
STANLEY BROWN*	KARL GUENTHER	LEO MILAN*	JOHN STREIB
EUGENE BRUCE	STEPHEN HART*	JAMES MOORE (CAPT.)*	TYLER THOMPSON*
THOMAS BURNIGHT	RALPH HAVER	DEAN NICHOLS	DALE VAN RIPER
ELMER DAUBEN*	EDWARD HOLLAND	JOHN NOLLAN*	VICTOR VEYSEY
FRANK DAVIS*	JOSEPH HOLZMAN*	ROBERT PARKER*	EUCLID WATTS
ROBERT ELLIOT	RAY JENSEN	WILLIAM RICHEY	JAMES WILLIAMS*
STUART FERGUSON	FRANCIS KOSTOCH	DOUGLAS ROLLOW	ALFRED WILSTAM*

*Letter awards.

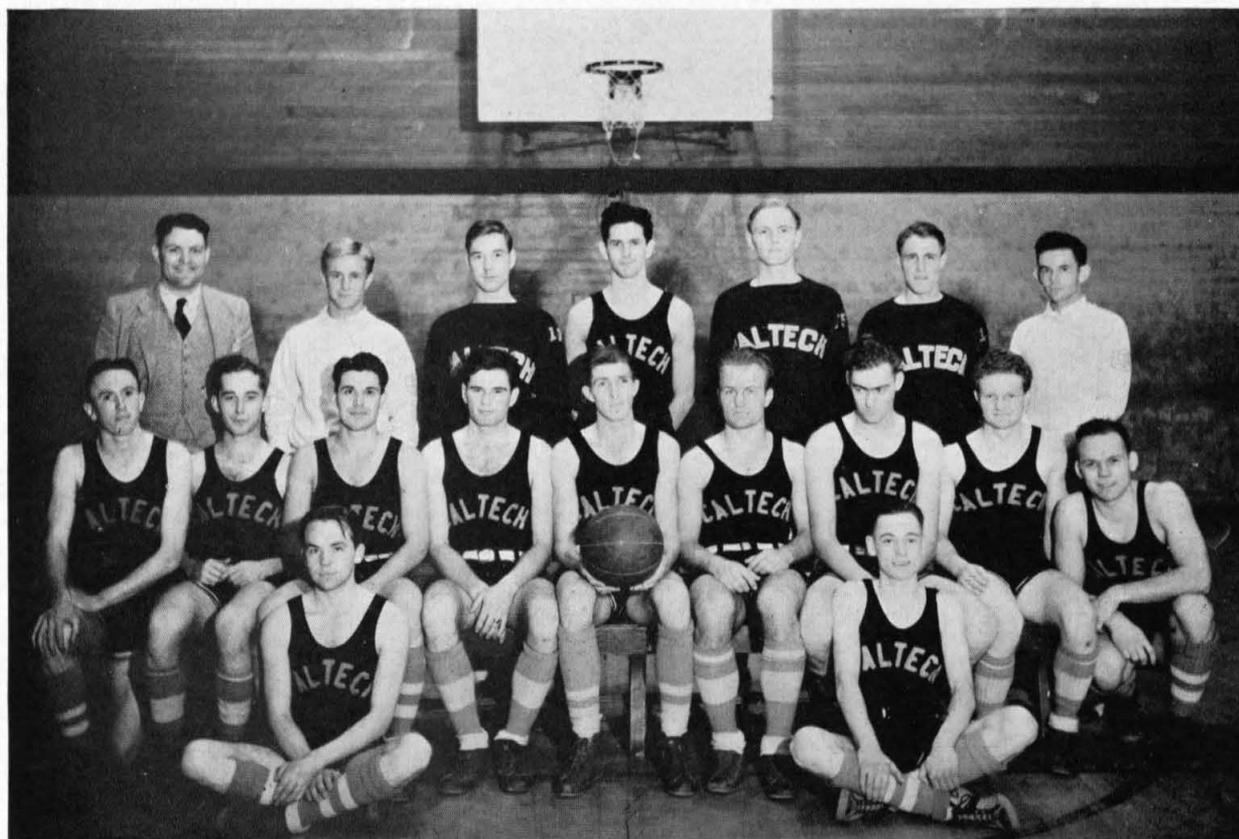
B A S K E T B A L L



COACH HIRAM CROSBY

● Once more the officials who have the say-so in the Southern California Intercollegiate Conference as far as athletic matters are concerned made another iron-clad ruling; and basketball, after a year's lapse, once more became a recognized conference sport.

● Although it was financially unable to assist or support a basketball team, the Institute sanctioned the desires of a group of Tech hoop enthusiasts to form an official team. Putting their heads together, several of the most ardent supporters of the idea found a good gym in which to practice, secured the services of Coach Hiram Crosby, and assessed



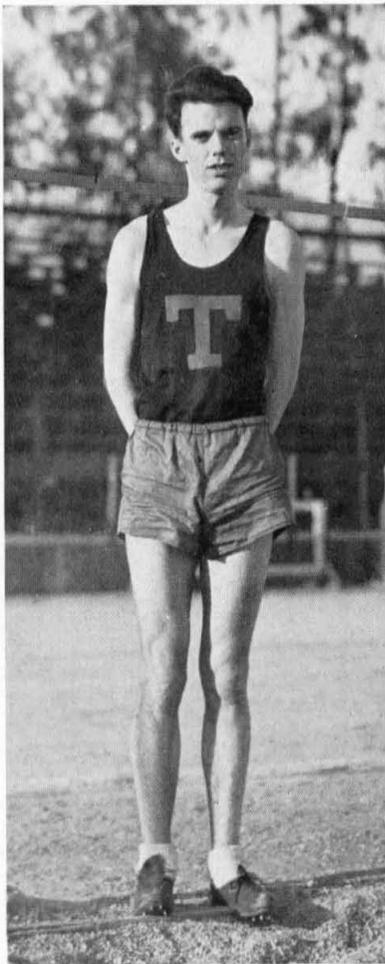
COACH CALLIS CROSBY MOORE GRIMES CLARK JOHNSON JOSEPH BIRDSEY WALLEY CRAWFORD NELSON CRAIG HALLANGER HOFMANN JAHNS MGR. EFROMSON VAN OSDEL

one another five dollars for the privilege of playing on the Engineer team. Coach Crosby, who is a very able instructor in the art of casaba tossing, dribbling, and playing, gave his time to the fellows gratis. The members of the basketball team paid for the gym out of their assessment funds.

- After several weeks of practice, which included many skirmishes with business league teams, the Engineers were ready to compete with the other conference teams. Unable to match the strength of Occidental, Whittier, and Redlands, the hard-fighting Engineers finally did put their shoulders to the plow and furrowed a good-sized rut through the middle of the Santa Barbara Roadrunners. With the exception of this single victory and a tie with San Diego (each team agreed on a tie as no meeting could be arranged), the Engineers were unfortunate in their loss of many hard-fought matches. The lack of student body support and spirit was in a great measure responsible for the failure of the team to pull through in even the closest contests. Many of the fracas were won by their opponents by the narrowest of margins.

- The most able players on the basketball squad were Ollie Hofmann, center; Ed Crawford, Bob Walley, and Bill Birdsey, guards; and Dave Clark, Phil Craig, and Sid Bamberger, forwards. Their experienced playing added much to the fury and zest of the contests. Credit is due Sid Bamberger, Oliver Hofmann, Bob Walley, and Ed Crawford for their untiring efforts to keep a Tech team in the field.





CAPT. CHRIS PRIOR

TRACK

● Captain Chris Prior and his 1933 track and field squad enjoyed a successful season in spite of several reverses and overwhelming odds. Doped to take only three points in the all-conference meet at Pomona which closed the track season, the Engineers unexpectedly pulled through with five and a half points to place ahead of La Verne and Santa Barbara. This achievement alone is worthy of much praise.

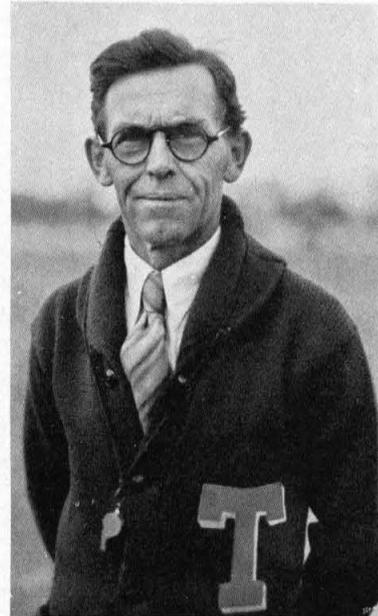
● Lacking experienced track and field men and with only a few lettermen as the nucleus of this year's cinder squad, Coach "Fox" Stanton was forced to depend almost entirely on a group of sophomores. On Bob Jones in the hammer, Frank Field in the dashes, Don Chamberlain in the low hurdles, Greer Ferver in the high jump, Dickson Sheppard in the 880, and Don Webster in the broad jump, were pinned the hopes of Tech's chances for success in the conference schedule. Transferring his coaching



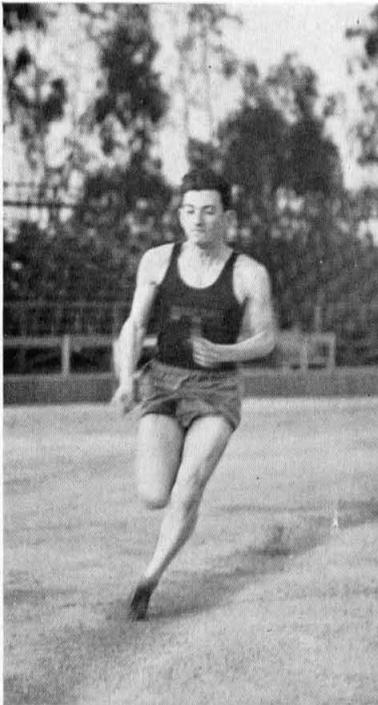
abilities from football to track is a move which the "Fox" can make without the slightest hesitation. Again Coach Stanton proved his extraordinary coaching qualifications by rounding the Beaver trackmen into a team which kept opposing teams worried to the last point.

- The Engineers started the season against Occidental and Pomona, two of the strongest teams in the conference, but were immediately relegated to the back row in the dual meet standings. Laslett, Sheppard, Chamberlain, and Ferver starred in their events. Against Whittier and Redlands, however, the Beavers were a little more fortunate, keeping the final result of the scores in doubt until after the relay. In the final dual meet of the season, San Diego came North to squelch the Engineers by a seventy-five-point margin.

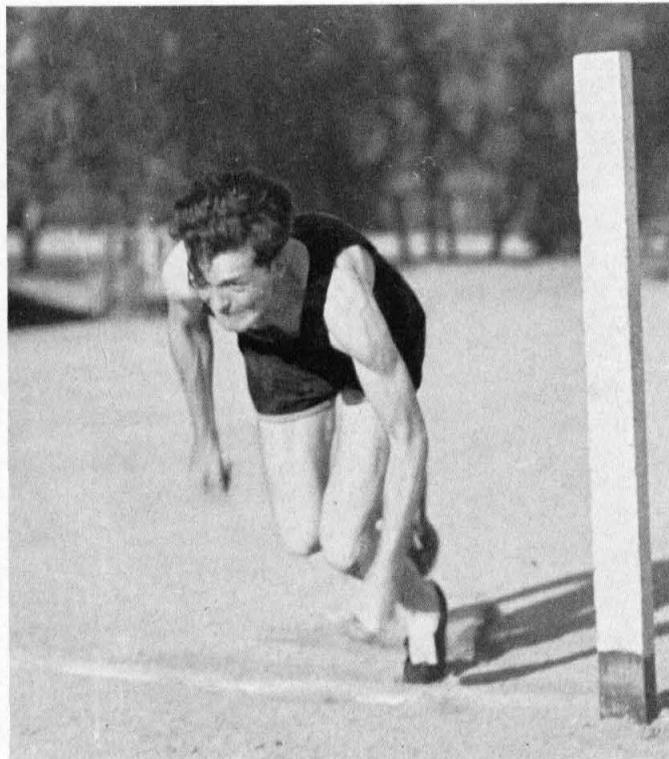
- When Tech's varsity relay teams, a few picked field men, and the frosh relay team took part in the



"FOX" STANTON



MOSES WIDESS
RIGHT—FRANK FIELD





DON CHAMBERLAIN



GREER FERVER



PAUL ROBERTS

Long Beach relays which drew the outstanding track athletes of several Southern California Conference colleges and minor schools, they returned to Pasadena with several places to their credit. Four sophomores: Bailey, Sheppard, Caldwell, and Chamberlain, distinguished themselves by finishing a close second to the Oxy relay team which established a new record for the four-man-mile relays. Likewise, the frosh relay team of Parker, Bosler, Creal, and Blodgett captured second place in their event. Mead, javelin thrower, was nosed out of second place in his event by less than two inches. Roberts took fifth in the same contest.

- In the all-conference meet at Pomona, marking the close of the track season, the highlight of the day for Tech partisans was the tie for first place in the high jump in which "Legs" Ferver was featured. Ferver won the medal for this event on a toss-up with



DON WEBSTER



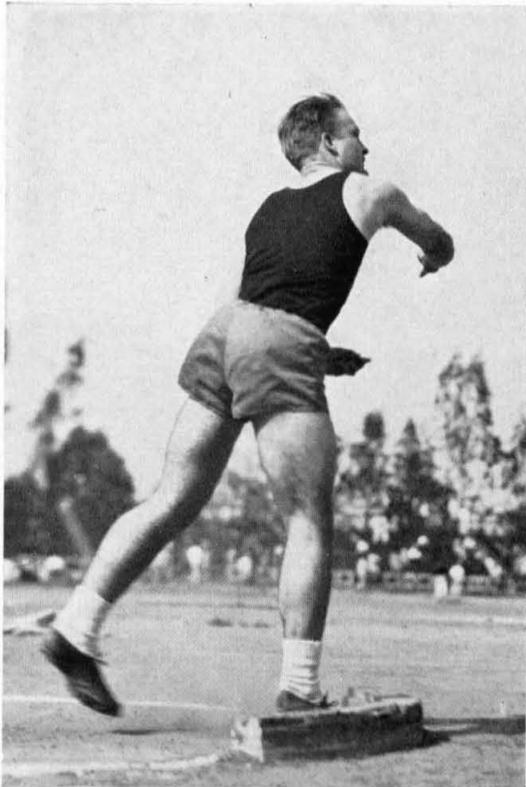
CARROLL CRAIG

Wykoff of Pomona. Captain Prior finished his last year of intercollegiate competition in a rather spectacular fashion by taking a fourth place in the broad jump, thereby annexing another point to Tech's score for the day. The half-digit which made up the five and a half points conned by the Engineers in the day's work was cinched by Frank Field, who tied for fourth place in the 100-yard dash.

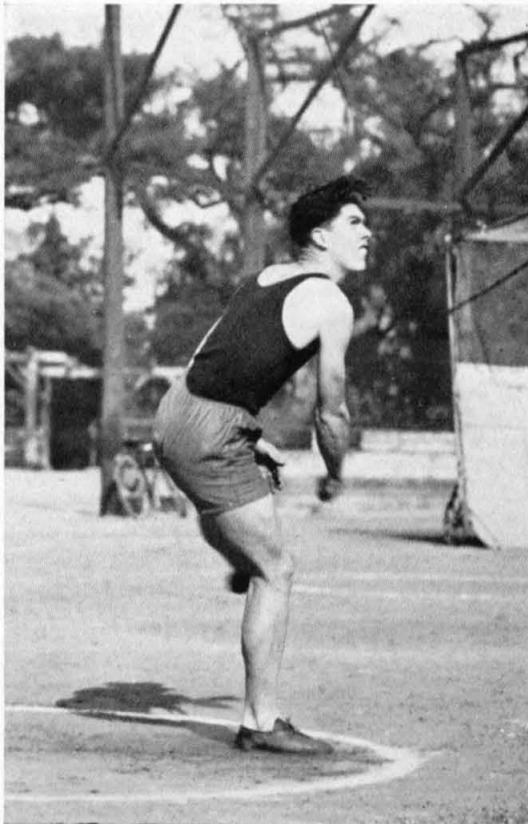
- With eleven out of this year's seventeen lettermen returning next year, Coach Stanton should be able to organize a formidable track aggregation. The strength of next season's varsity squad should be greatly enhanced by the additions of some of the stars of the 1933 Frosh track team. Francis Wyatt, captain-elect, will be at the helm of the 1934 track and field squad and should be prepared to lead his men to a high place in the conference meets.



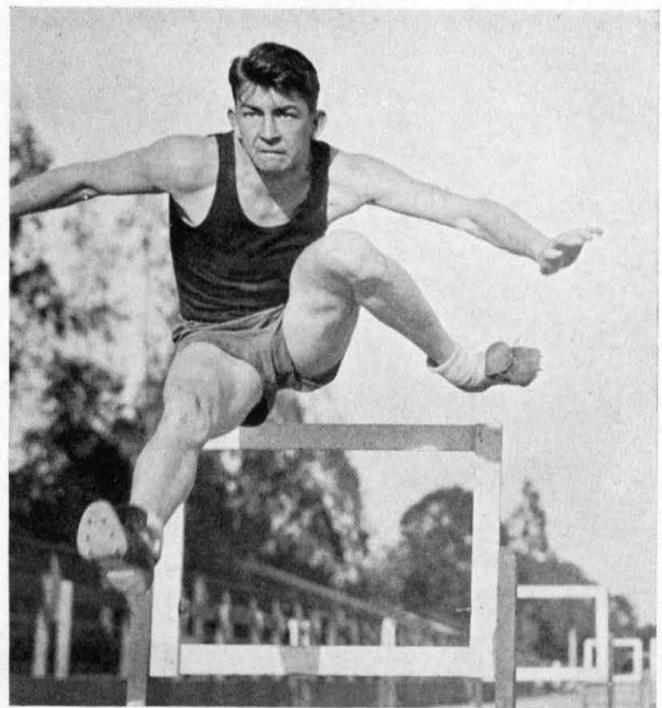
JACKSON LASLETT



CRAIG



JONES



MADISON DAVIS

LETTERMEN

- DON CHAMBERLAIN, '35
CARROLL CRAIG, '34
PHIL CRAIG, '33
MADISON DAVIS, '33
GREER FERVER, '35
FRANK FIELD, '35
JIM GREGORY, '34
BOB JONES, '35
JACKSON LASLETT, '33
BOB MEAD, '33
CHRIS PRIOR, CAPT., '33
PAUL ROBERTS, '34
ALBERT ROMOLI, '34
DICKSON SHEPPARD, '35
DON WEBSTER, '35
MOSES WIDESS, '33
FRANCIS WYATT, '34

VARSITY TRACK RECORDS

100-YARD DASH	9.7	SCHULTZ	1927
220-YARD DASH	21.3	SCHULTZ	1926
440-YARD DASH	51.5	LYNN	1926*
880-YARD DASH	1:58.7	SKOOG	1932
MILE	4:26.6	SKOOG	1932
2-MILE	9:52.2	KEECH	1924
MILE RELAY	3:25.0		1926
HIGH HURDLES	14.8	POMEROY	1926
LOW HURDLES	24.4	PERRY	1929
HIGH JUMP	6' 1"	PERRY	1929
BROAD JUMP	22' 4 $\frac{3}{4}$ "	KIRCHER	1928
HAMMER	146'	MOYSE	1925
SHOT PUT	47' $\frac{3}{8}$ "	SHULER	1932
POLE VAULT	13' 2 $\frac{7}{8}$ "	GRAHAM	1929
DISCUS	140' 1 $\frac{1}{2}$ "	SHULER	1931
JAVELIN	189' 11 $\frac{1}{2}$ "	HOOVER	1927

*Creal, a freshman, broke this college record in 1933, running the distance in 51.3.



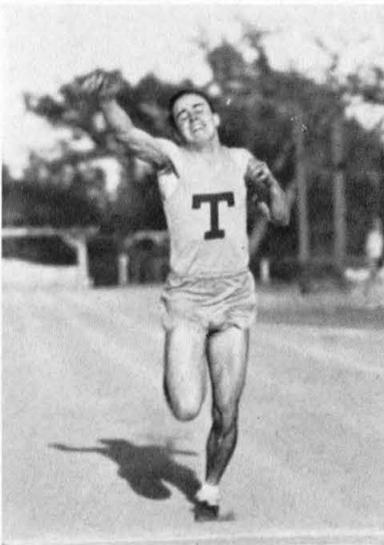
DR. HANES WIDESS CALLIS FIELD EVANS SHEPPARD GREGORY MEAD JONES MATSON EVERETT WARNE HOWLAND COACH STANTON
MGR. ALLARDT KIDD WYATT WEBSTER CRAIG CAPT. PRIOR FERVER DOUGLAS ROMOLI DAVIS ROBERTS MGR. SECORD



HARLAN BOSLER



ROBERT DILWORTH



ALBERT CREAL



DON BLODGETT

FROSH TRACK

● Breaking six Freshman track and field records, this year's Frosh cinder squad completed a very successful season. About thirty prospective trackmen reported to Coach Layton Stanton at the start of the season and soon proved themselves to be one of the best Freshman groups out for track that the school has seen in some time.

● The Frosh track team managed to humble most of their opponents, winning its meets through the efforts of Freshman star trackmen. In the Southern Conference relays held at Long Beach, Tech placed second to Pomona and broke the school record in the mile relay. The record-breaking team consisted of Bosler, Blodgett, Creal, and Veysey. Creal, in a later race, broke the school varsity and freshman record for the 440-yard dash. His record time was 51.3 seconds.

● Another record was broken by the half-mile relay team of which Bosler, Blodgett, Creal, and Douglass were members. At the Freshman intercollegiate meet held this year in Pomona the Engineer Babes took second place out of a field of seven or eight contestants. It was at this last meet of the season that Frank Davis, President of the Frosh Class and all-round athlete, let loose of the hammer to break his own and the school's record twice during the afternoon. The mark which Davis has set, 120' 3", is not likely to be broken for some time.

FRESHMAN TRACK RECORDS

100-YARD DASH	10.0	DARLING	1923
220-YARD DASH	22.6	COULTER	1925
440-YARD DASH	51.3	CREAL	1933
880-YARD DASH	2:5.6	GARNER	1923
MILE	4:44.0	SKOOG	1929
2-MILE	10:26.0	SKOOG	1929
120-YD. H. HURDLES	16.4	CHAMBERLAIN	1932
220-YD. L. HURDLES	26.0	PERRY	1926
HIGH JUMP	5' 11 1/2"	PERRY	1926
BROAD JUMP	21' 1/2"	AYRES	1927
POLE VAULT	11' 11"	GRAHAM	1923
HAMMER	120' 3"	DAVIS	1933
SHOT PUT	39' 1 5/8"	DOWNEY	1930
DISCUS	124' 4 1/2"	SHULER	1929
JAVELIN	165'	MAYHEW	1924
MILE RELAY	3:35.0	BOSLER	1933
		BLODGETT	
		VEYSEY	
		CREAL	
HALF-MILE RELAY	1:35.1	BOSLER	1933
		BLODGETT	
		DOUGLASS	
		CREAL	



DR. HANES STANTON ELLERY WATTS HEATH GATES DAVIS PARKER SCHNEIDER
MILAN STEVENSON BOSLER CREAL VEYSEY DOUGLASS SKLAR BLODGETT

B A S E B A L L

● After a year's respite from conference competition, during which time Tech's baseball players had to be content with an unofficial team, Coach Harold Musselman and his diamond proteges have again been drilling for coming conference games. A complete schedule has been arranged which includes games with Santa Barbara, La Verne, Redlands, Occidental, Whittier, and Pomona.

● To date the team has played in eleven practice games, and in spite of the dearth of experienced pitchers, has won four games, played one tie, and lost several others by narrow margins. Captain Dick Russell, Spicer, and Wheeler have been the men in the pitcher's box. The first practice game was with Pasadena Junior College and resulted in a 4-4 tie. In a later game, the J. C. Bulldogs defeated the Tech squad by a score of 7-4.

● Woodbury Business College took the Tech team for a ride when Cate, former Whittier College pitcher and member of the Tulsa team of the Western League, held the Engineers to one hit and struck out seventeen. The score was 9-1. Against Fullerton



PEARNE
GROSSMAN

CRAIG
MONNING

POTTER
JAHNS

WHEELER
RUSSELL

CHILDERS
SPADE

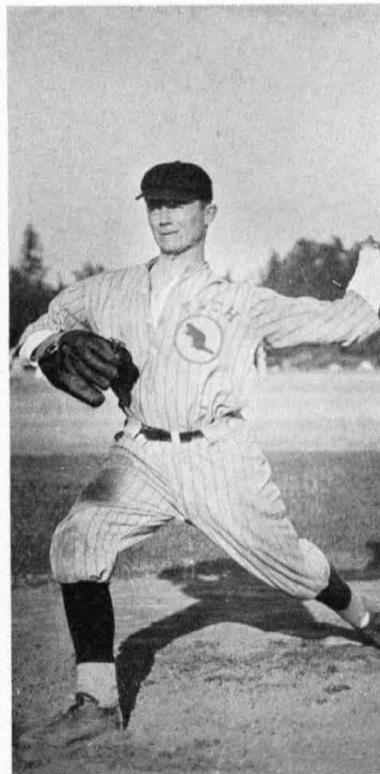
DOLL
CLEVELAND

COACH MUSSELMAN
SPICER

J. C., a school which has supplied the Pittsburgh Pirates with three players, Tech failed to hit very successfully, losing 14-4. On the next day, with Wilstam, a frosh and hence ineligible for varsity competition, pitching against Citrus J. C., Tech gained an easy 6-3 victory. Soon after this, Pomona J. C. succumbed to the Beavers in a game which featured 14 hits for Tech. The Engineers won by the score of 14-1.

- In two games with Glendale J. C., Tech won the first and lost the second, while in the next, and only other, pre-conference game, Compton J. C. also defeated the Engineers, winning 11-2. In spite of the number of defeats, Tech has hopes of winning a goodly share of the conference games. The success of the Engineers seems to depend on getting the right pitching and catching combination. Up to now, Varsity batteries have not been very effective. With Phil Craig, infielder, pitching and Spicer catching there is no reason why Tech shouldn't be able to master the baseball situation.

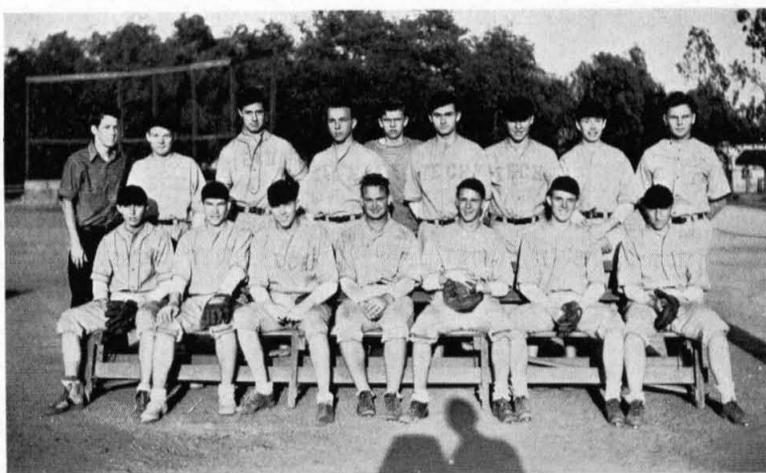
- Dick Russell, captain for his second year, heads the list of individual players, alternating between first base position and the pitcher's box. Spicer and Wheeler have been the other two pitchers for the team, while John Pearne has held down the other end of the battery. Also at first and in the outfield is Bill Shipley. Don Cleveland at second, John Morning at third, Phil Craig or Cliff Spade at short stop complete the infield. Outfielders are Childers, Doll, Potter, Wilson, and Jahns.



CAPT. RICHARD RUSSELL



COACH HAROLD MUSSELMAN



FROSH BASEBALL SQUAD

against the well-balanced Pasadena Junior College fifteen. The first, an unofficial practice affair, was easily won by Tech, 15-0. In view of the fact that the Engineers had been practicing two days and P. J. C. two weeks, this show of strength was surprising.

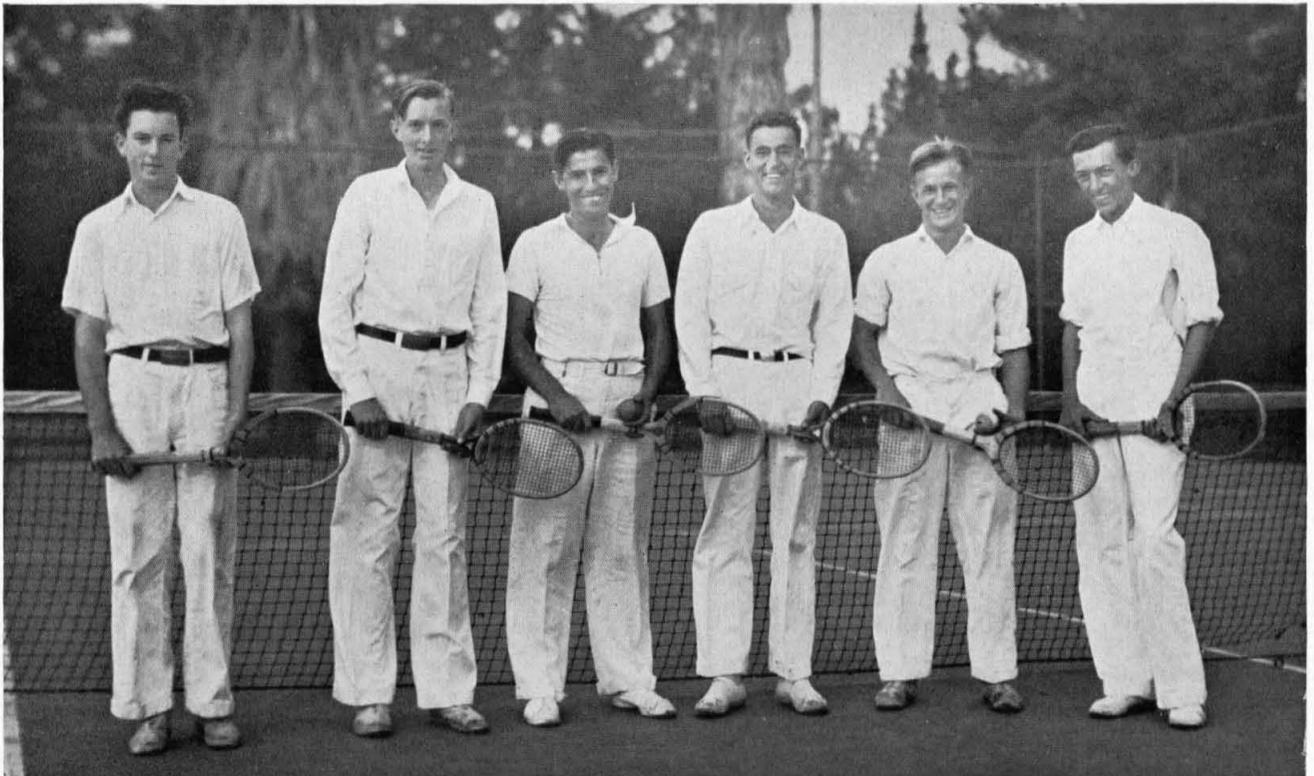
- The following week at Tournament Park a full-time, official game was played before a crowd of enthusiasts. The Pasadena Board of Education was also on hand to look into the new sport. With such men as John Mendenhall, Ed Crawford, Don Rooke, and Dan Mathewson on the Engineer team, there was little difficulty in once again downing the Junior College—this time 6-0.

- Much credit is due Mr. Harcourt Bull, Rugby coach, who donated his time in the interests of advancing this wholesome sport. Coach Bull is an experienced and skillful player and the success of the Tech team in its two matches is a fair indication of the profitable use of his instruction. At the present time negotiations are being made with Stanford and other Pacific Coast colleges for future matches. It is quite possible that Cal Tech will join the Pacific Coast Intercollegiate Rugby Conference in which U. S. C., U. C. L. A., California, and Stanford are already entered.



TENNIS

- Organized under the new conference policy ruling that a tennis team be composed of six men, playing six singles and three doubles matches, the Tech Varsity Tennis squad has just completed a highly successful season. Starting the season with only three Varsity players from last year's squad: Captain Joe Grimes, Bob Brown, and Phil Efromson, the team received new life and strength with the advent of Len Patterson, former Pacific Southwest Junior Champion, and Edward Patterson, the first two players of last season's Frosh squad. Francis Gay, Manager Walfred Swanson, Louis Pipes, and Hans Fuhrmann also proved to be worthy members of a well-balanced squad.
- The season opened on April 1st with Tech playing Redlands at Tech. Patterson, Gay, Reynolds, and Pipes turned in decisive singles victories, while the doubles



REYNOLDS

SWANSON

PIPES

GAY

GRIMES

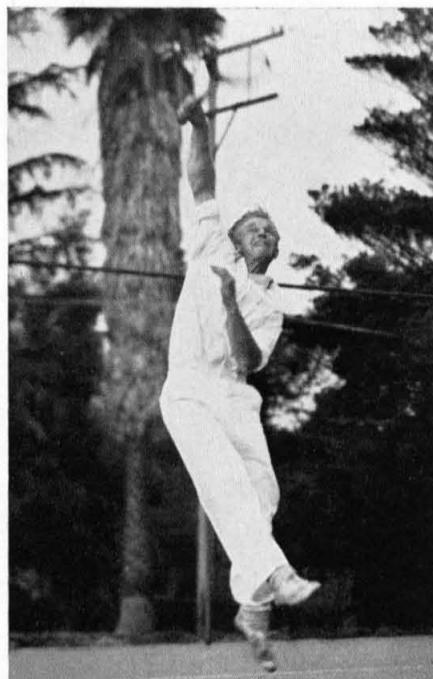
BROWN

were hotly contested, Patterson and Reynolds pulling a match out of the fire. On the following week Tech smothered Whittier completely. Only the third singles match, Gay vs. Bryson, went to three sets.

- A misunderstanding among the Occidental players resulted in their forfeiture of three matches. The match of the day between the two best racket-wielders in the conference, Patterson and Lusch, could not be played due to a recent illness of the Oxy player. The remainder of the play, however, was extremely close and exciting. Having won all of their conference games up to now, Tech journeyed to Pomona with high hopes of becoming conference champions. But here the tables were turned on them, Pomona winning six matches out of nine. Among the highlights of the day's play were Patterson's defeat of Alman and the second doubles defeat of the Reynolds-Gay combination by Malone and Shelton. Gay turned in his usual singles victory, while Patterson and Grimes also cinched their doubles match.

- The season closed with Tech and Pomona tied for first place in the conference schedule. Throughout the season Patterson and Gay were consistent winners, neither of them having lost a singles match. With the exception of Pipes and Efromson, the entire team will be back next year. This means that the first five men on this season's squad will be the backbone of next year's team, and with the addition of several players from the Frosh squad, the team should have no trouble in the conference in 1934.

- The Frosh team, composed of Griffith, Nichols, Cortelyou, Hayman, Webb, and Dauben, succeeded in winning the Frosh conference championship. After numerous practice tilts with various high school and junior college teams, the Frosh team easily won from their two scheduled opponents, Redlands and Pomona. The Frosh stars will have an opportunity of vying with members of the Varsity squad for team berths.



GRIMES
CAPTAIN



SWANSON
MANAGER



CROSS-COUNTRY

● On a cold winter's morning last December at the Pasadena Rose Bowl, Cal Tech's long-winded engineers joined the athletes from other colleges of the Southern Conference to determine the winners of the annual cross-country running event. After four miles of hay fields and defunct river bottoms, a half a hundred men, strung out in a line, finally finished at the south end of the Rose Bowl track.

● Not making their usual show of strength, the Beavers were fortunate enough to garner eighteenth and nineteenth places through the efforts of Bakeman and Keenan, respectively. Wyatt finished thirtieth and Sheppard thirty-second in the field of forty-five contestants. In the final analysis it was discovered that Tech had eased into fourth place behind Redlands, Pomona, and San Diego, respectively. Lettermen named as a result of their showings in the all-conference affair were Bakeman, Keenan, Wyatt, Sheppard, Douglas, Dourson, Gibbs, and Dames.

● In the Freshman all-conference meet, held as a preliminary to the Varsity meet, Waara and Hammond carried Tech into second place behind San Diego. Janes, Bucknell, White, and Kent were the other numeral winners on the 1933 yearling squad.

● No other meets were held during the season, but the runners enjoyed themselves immensely in jogging up and down the byways, waving their flashy shorts at innumerable "femmes" who had gathered on the curbs to watch their practice.

I N T R A M U R A L S P O R T S

● An increase in interest on the part of students in inter-house and inter-class sports was indicated by the great number of group partisans who turned out this year to participate in the various sports. Some of the finest games played and races run have taken place in intramural competition. Athletic talents, hitherto hidden, have been brought to light in the cases of several students who have taken part in intramural sports, not considering themselves of sufficient value for varsity competition. As a medium for training sport-minded students and for the development of pleasant relationships between the students and their respective houses and classes, intramural rivalry has been of significant importance and great value to the Institute.

● The organization of the student residents in each of the four houses, which were built two years ago, gave a great impetus to intramural activities. Some of the inter-class sports have even been placed in the list of inter-house sports. A statuette of the figure of a discobolus is the inter-house athletic trophy and is given to one or the other of the student houses as a result of the winning house's sport victories. Retention of the trophy by any one of the houses is usually temporary as the victorious house may be challenged by another house to compete in some sport of the season. As a result of this sort of round-robin competition, the trophy has exchanged hands a good many times in the last two years of inter-house rivalry.

● At the end of the school year the winning campus establishment is determined by totalling the number of points won by each organization in all of the sports. The Class of 1932 gave a bronze plaque to the Institute to be awarded to the winning house organization. The Non-Resident Club won the intramural trophy last year as a result of their great number of victories.

FOOTBALL—Two weeks after the conclusion of the varsity football season, some sixty inter-house grid enthusiasts began training for the coming intramural games. Five "amateur" campus teams practiced daily on the Tournament Park gridiron preparatory to the clashes which would determine whether or not Fleming, Ricketts, Dabney, Blacker, or the Club would be the victor.

● Although many of the men had never played football before, they picked up the fundamentals rapidly and were soon pushing and tackling one another with as much vigor and spirit as their more experienced classmates on the varsity squad. After witnessing the first few games, Coach "Fox" Stanton remarked, "If you men would give me the opportunity, I could develop a



MESKELL ESCHERICH THOMAS POTTER DANE PLANK PERRINE
 COACH ROOKE RAYA SPICER ELCONIN COACH GREGORY

varsity eleven out of these five teams that would be equal to the present 1932 varsity."

• With such men as Elconin and Potter frothing at the mouth, the Non-Residents had easy pickings at the expense of the student houses. They finished the season with a clean slate, their goal line never having been crossed. Dabney House cinched second place, while Ricketts, Fleming, and Blacker occupied cellar positions. At the close of this intramural sport, Coach Stanton chose the following all-interhouse football team:

TAYLOR	.....	Left End	.....	NON-RESIDENTS
SNOW	.....	Left Tackle	.....	NON-RESIDENTS
ISHAM	.....	Left Guard	.....	FLEMING
POTTER	.....	Center	.....	NON-RESIDENTS
LIBBY	.....	Right Guard	.....	FLEMING
EVERETT	.....	Right Tackle	.....	BLACKER
PEARNE	.....	Right End	.....	RICKETTS
SECORD	.....	Quarterback	.....	FLEMING
DIETRICH	.....	Left Half	.....	DABNEY
CALDWELL	.....	Right Half	.....	DABNEY
ELCONIN	.....	Fullback	.....	NON-RESIDENTS

TRACK—Led by Ferver, Chamberlain, and Webster, members of this year's Sophomore track squad copped the inter-class meet, leading their nearest opponents, the Seniors, by 1½ points. The outstanding performance of the day was the duel between Ferver and Prior, a Senior, for first place in the high jump. The two contestants tied, setting a new meet record of 5' 9½". The Frosh took the mile relay away from the upperclassmen in 3:42, another record. Creal, yearling sprint ace, won the century race in 10.2, outstripping his nearest rival, Frank Field.

- Captain Prior of the '33 varsity squad won high point honors with his first in the high hurdles and his tie for first in the high jump.

BASKETBALL—The second term intramural competition centered about basketball. This sport proved to be one of the most popular of the year; the courts were completely filled with casaba jugglers throughout the season.

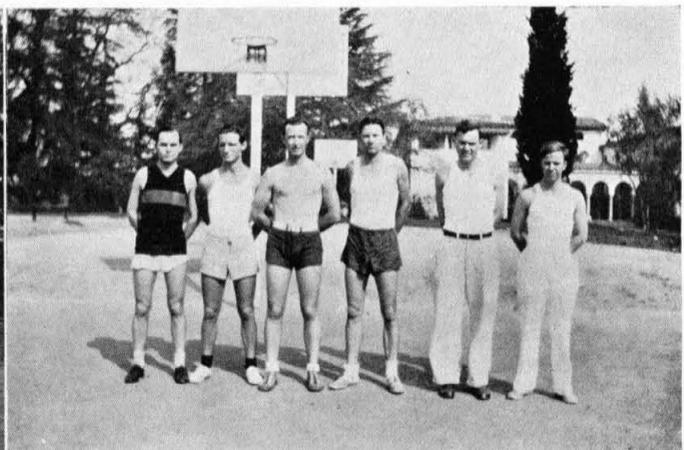
- Dabney and Ricketts vied for the inter-house basketball championship, while the other teams trailed in the order of Blacker, Fleming, and the Non-Resident Club. The close of the tournament did not put a stop to the playing, for five other teams were composed, mainly of students from Fleming or Dabney House. A group of Dabneyites, the Hell's Harlots, easily copped the independent league basketball championship by defeating the Red Dusters, the Alley Rats, the Goofs, and the Indians. Dietrich, Fletcher, Schreck, Alden, Little, and Cortelyou were the members of the winning team.

TENNIS—With Bob Fletcher at the helm, Dabney House racket-wielders nosed the inter-house net title out of the hands of Bull Drummond and his Ricketts team. Both teams caused Blacker, Fleming, and the Non-Resident Club to trail behind in the order named.

- Wheeler of Blacker and Drummond of Ricketts provided the biggest thriller of the season when the latter staged an "iron man" act to down his opponent (4-6) (7-5) (13-11).



INTERHOUSE BASKETBALL



HELL'S HARLOTS



THE PUPPET



おのゝる
沢村訥舟

市川播磨七

團扇
大影巳の

F I N E A R T S

P U B L I C A T I O N S

P H O R M I O

● If Terence could have been present at the Pi Kappa Delta production of his "Phormio" early last November, he most certainly would have felt flattered with the results achieved by the directors, Drs. Harvey Eagleson and Roger Stanton. The stage of Culbertson Hall was transformed into a palm-lined Roman via with our diamonds-in-the-rough actors playing the roles of inhabitants of the Eternal City.

● Once upon a time there was an aged, aged man well on toward that period of life in which one loves to tell of one's youthful escapades. So many wild oats had this aged, aged man sown that unknown to him the probability of least squares entered his life in the form of a daughter, the beautiful result of an affair which took place, unfortunately, some fifteen years before the first act. This aged, aged man has a brother, and this brother has a son whom he wishes to marry to the daughter of the aged, aged man; but it appears that our hero has already met and fallen in love with our heroine, not knowing, of course, her real identity.

● Not satisfied with a simple set-up like this, Terence continued to complicate matters by allowing the goodly wife of the aged, aged man to catch wind of her spouse's palmy days and by introducing a side plot in which a friend of the son of the old man involves himself with a beautiful slave and her tyrannical owner. But this is not all—the brother of the aged, aged man denies his son's request to marry the very girl he was intended to marry. It falls upon the shoulders of a clever slave belonging to the brother of the old man to straighten out the story. The slave's ingenious trickery is the thread of the plot. He applies for help to none other than Phormio, a puller of strings.

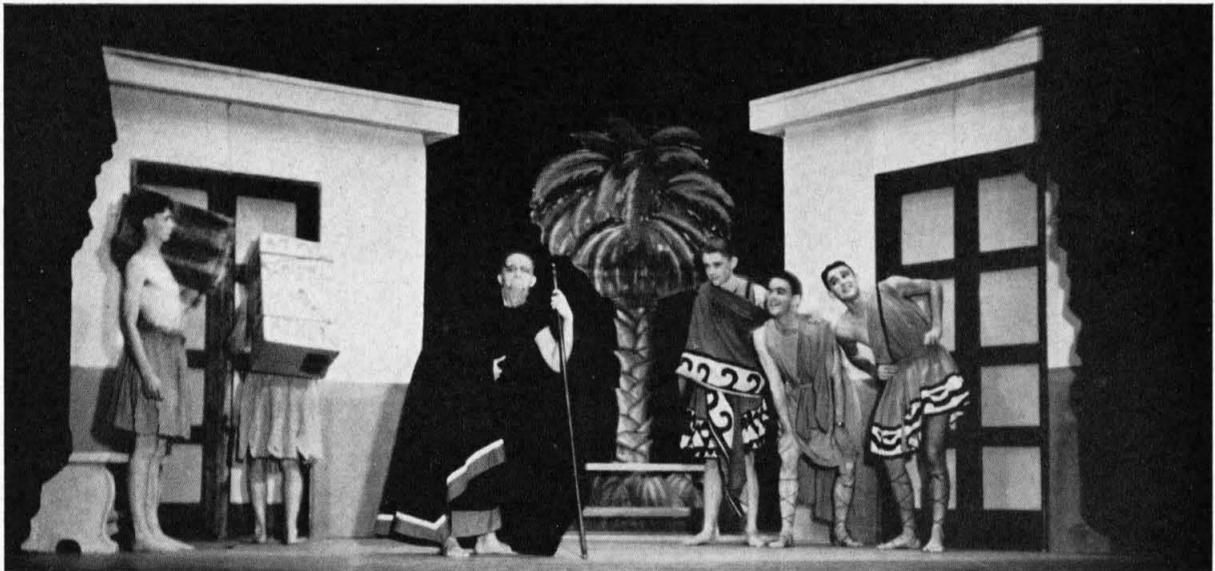
● As the slave, Geta, Max Millikan ably assumed the burden of the play, and by his mischievous cunning and subtle flattery, he brings the aged, aged man and all his agitated circle of relatives to a happy landing. Harold Schiller, after practicing for



DR. HARVEY EAGLESON

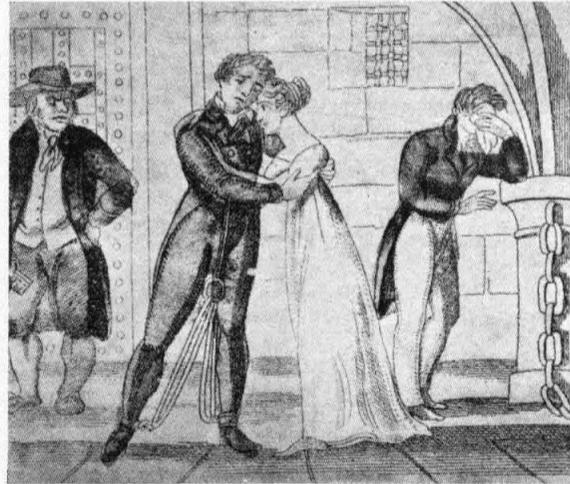


DR. ROGER STANTON



weeks and weeks, finally attained the facial expression of a man who had undergone all that Chremes, the aged, aged man, had undergone in his youth. With blue-jowled Henri Levi as Nausitrata, his wife, Chremes certainly deserved pity. The role of the brother of Chremes, Demipho, was played by Oliver Dunbar. Jack Breen played Antipho, the hero, and William Wilson played Phaedria, his friend, both of whom create no end of trouble by merely falling in love. Phormio, the villainous cheat, swindler and trickster, was portrayed by Bruce Beckley. Lawrence Fleming was the nameless horror, an old hag, who was the heroine's nurse and who snitched on Chremes. Rough, indeed, was Edward Kasnicka, the hard-hearted slave-trader, Dorio. A select assortment of slaves and flunkys completed the cast, which included Merrill Berkley, Francis Hebel, and Howard Hamacher.





THE HISTORY OF GEORGE BARNWELL or THE LONDON MERCHANT

● Scoring another triumph in its presentation of modern drama, the Drama Club successfully produced an 18th Century English tragedy called "The History of George Barnwell, or The London Merchant." The story of the amazing helplessness of a mere young man when in the clutches of a wicked woman held the Tech students spell-bound and drove the audience from one emotional extreme to the other. This play also marked the second success of the co-directors, Drs. Harvey Eagleson and Roger Stanton.

● "George Barnwell" was written and produced in the early part of the 18th Century by George Lillo, one of the fathers of modern drama. Lillo's play featured middle class society which was at that time a novel experiment in drama. As one of the first of the domestic tragedies, "George Barnwell" is now considered to have been the germ of modern drama.

● The plot of the play deals with the tale of a poor, innocent lad, a beardless youth of eighteen, by the name of George Barnwell, who was an apprentice in a small London mercantile concern. Trapped by a gold-digging, scheming siren called Millwood, young Barnwell becomes undone. Believing Mrs. Millwood to be passionately in love with him, Our Hero takes certain monies from his employer's funds and gives them to her so that she can pay her living expenses, as she calls them. Not contented with driving poor George to rob his master at least three times, Millwood prevails upon him to murder his aged uncle, which he does.

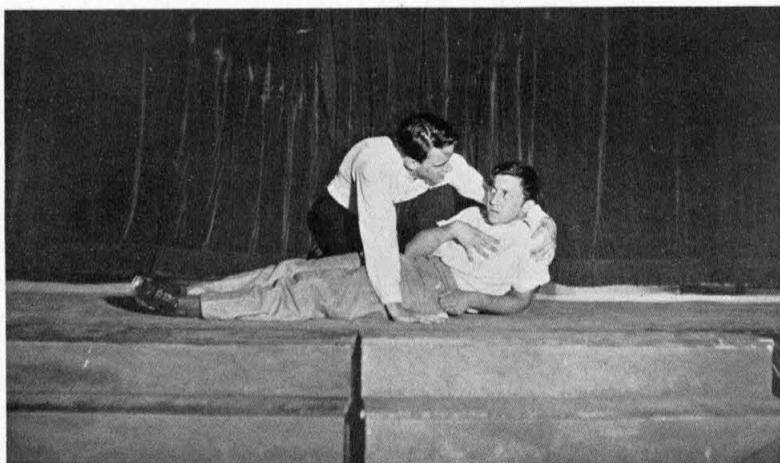


● Our Hero had a friend, Trueman, who would stand by him to the last ditch, since he believes in innocent George's virtuous character. Ah, but alas! Thoroughgood, the employer of the two young men, is a kindly old soul whose beautiful daughter finds happiness in her unrequited love for Georgie. Her love typified the chaste love which heroines experience for their heroes, but alas alack-a-day, it was not as powerful or seductive as Millwood's brand of love.

● Twisted entirely out of shape, George Barnwell's conscience cannot combat the evil designs of the vampire. His torture and remorse know no bounds, for he complies with every demand of his sorceress. The many acts and scenes of the play unfold the successive stages of Our Hero's torture, the struggles of love and pity that go on in the breast of Trueman, and the sacrifices of the all-forgiving, but foolish virgin, Maria. It is indeed a sad tale, for the audience unaffectedly blubbers in sympathy with the characters. And when Georgie's follies finally land him in prison and Our Hero slowly mounts the stairs of the dungeon with a shaft of the pale light of dawn shining brightly on his face to meet his doom, the audience fairly bursts into a flood of uncontrolled tears.



EAGLESON

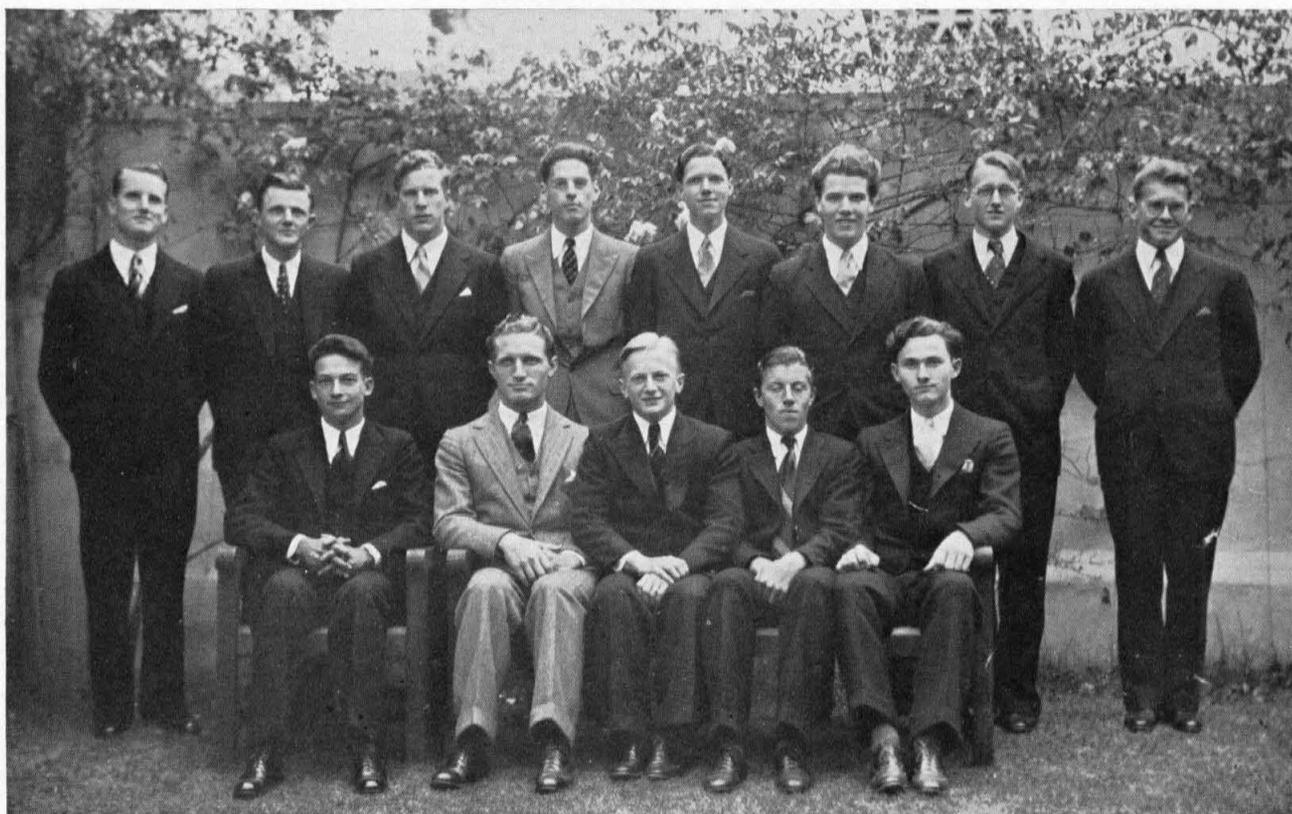


- Comprised of the foremost dramatic talent of the Institute, the cast also included three actresses of the Pasadena Community Playhouse. Millwood was played by Miss Mitzi Fox, who did very well in her cruel and seductive characterization of the siren. Miss Josephine Brimmer weeps, sighs and looks forlorn as the heroine, Maria; and Miss Camille du Barry flutters and hovers about in the role of Lucy, Millwood's maid.

- George Barnwell is superbly characterized by Max Millikan, who draws the sympathy and tears which the blighted innocence of a hero so well deserves. James Radford takes the part of Thorowgood, the father of Maria, who stands forth and denounces Millwood with all the fire and vigor of eighteenth century fathers of heroines; while Edward Kasnicka, as Trueman, calmly suggests that good business is the young man's preventative of indiscretion. Harold Schiller, who philosophizes about graves and horrible deaths, dies at the hands of his nephew by being stabbed through the heart. Under a tight-fitting monkey-jacket, Dave Clark flirts with Lucy whenever his duties as butler to Millwood are not required. Minor roles are played by Bruce Beckley, Lawrence Fleming, and Douglas Rollow.



STANTON



KING HOLT HUNTER JANES JENNISON STEVENSON BRIGGS DOURSON
 BECKER BECKER DIETRICH JOHNSON COX BISHOP

GLEE CLUB

Officers

CHARLES THOMAS..... PRESIDENT
 PAUL DANE..... MANAGER
 ROBERT SCHRECK.....TREASURER
 NELSON NIES.....LIBRARIAN
 ALLEN RAY CARPENTER..... DIRECTOR
 LEON BECKER..... ACCOMPANIST

Members

LAWRENCE BALDWIN
 LEON BECKER
 ARTHUR BISHOP
 STAMFORD BRIGGS
 GEORGE CARROLL
 WILLIAM COX
 PAUL DANE
 ELMER DAUBEN
 ROBERT DIETRICH
 ROBERT DOURSON
 VICTOR EMMEL
 ROLAND ESCHERICH

CHARLES GIBBS
 GRANT HOLT
 FRANCIS HUNTER
 ROBERT JANES
 JAMES JENNISON
 WALLACE JOHNSON
 FRED KING
 MARVIN LISSMAN
 FRANKLIN McCLAIN
 MAX MILLIKAN
 NELSON NIES
 WARREN PATTON

PAUL SCHNEIDER
 ROBERT SCHRECK
 JAMES SEAMAN
 NEIL SNOW
 WILLIAM STEVENSON
 CHARLES THOMAS
 ROBERT WARNER
 KENNETH WARREN
 WILLIAM WILSON
 REUBEN WOOD
 GLEN WOODWARD



CONCERT ORCHESTRA, 1932-1933

● New life has come into the Orchestra within the past year. The lack of a string section of sufficient size had caused difficulties for some time, but such a lack has not been the case recently.

● At the beginning of this year, Dixon Oulton, carrying on from the previous year, brought together a group of players. Reginald Bland, the conductor of Pasadena's Civic Symphony Orchestra, kindly contributed his services during the first term towards moulding a balanced orchestra out of the material at hand, and the success of the present group is due in no small part to him. The Orchestra played during the remainder of the year under the direction of Bill Bergren.



● A rehearsal has been held each week, and two concerts have been played in assembly. A more ambitious schedule of concerts is being planned for the coming season, for the practice and the experience of the past three terms have made such a policy possible.

Members

REGINALD BLAND.....MUSICAL DIRECTOR
WILLIAM BERGREN..... CONDUCTOR

Violin

NORMAN DEWEES
Concertmaster

RICHARD BRICE

ROBERT DOURSON

SHERWOOD HAYNES

ROBERT HEITZ

BRUCE HICKS

ROBERT KENT

TOM LAURITSEN

PHILIP EFROMSON

JOHN LISOL

ROBERT McRAE

HUGH McNEIL

String Bass

ROBERT DILWORTH
DIXON OULTON

Flute

DOUGLAS ROLLOW

Oboe

EVERETT HENDERSON

Piano

CARL THIELE
LEON BECKER

Clarinet

RALPH WHISTLER
RAY CRIPPS
WILLIAM ELLERY
VICTOR EMMEL

Bassoon

RUEBEN WOOD

Saxophone

RUSSELL KENNEDY

Trumpet

SAM BATDORF
JAMES HALLORAN

Trombone

TED MITCHEL
EARL ISHAM
GRANT HOLT

Horn

LAURENCE GOULD
FRANCIS WYATT

Percussion

JOHN CONDON
JOHN STICK



BAND

● Having played at all football games and student rallies, the California Institute Band has had a very active season during the past year. Under the directorship of Audre Stong, conductor of the famous Bulldog Band, the organization has proved to be a valuable asset to the student body. Drawing its members from each undergraduate class, the Band has been of beneficial aid in the spreading of good cheer in all student relations. It has been due to the efficient management of Ted Mitchel that this year's musical group proved to be such a great success.

● Besides the programs given at football games, the members of the Band have made student rallies possible by entering into the spirit and fun of the occasions. The night before the Oxy game the students marched up and down and around Pasadena to the music which the Band supplied, helping to put over one of the greatest pajamarinos ever held. Several Friday assembly programs were given as well as the annual concert on one of the Monday assemblies in the Spring term. The value of the Band's enter-

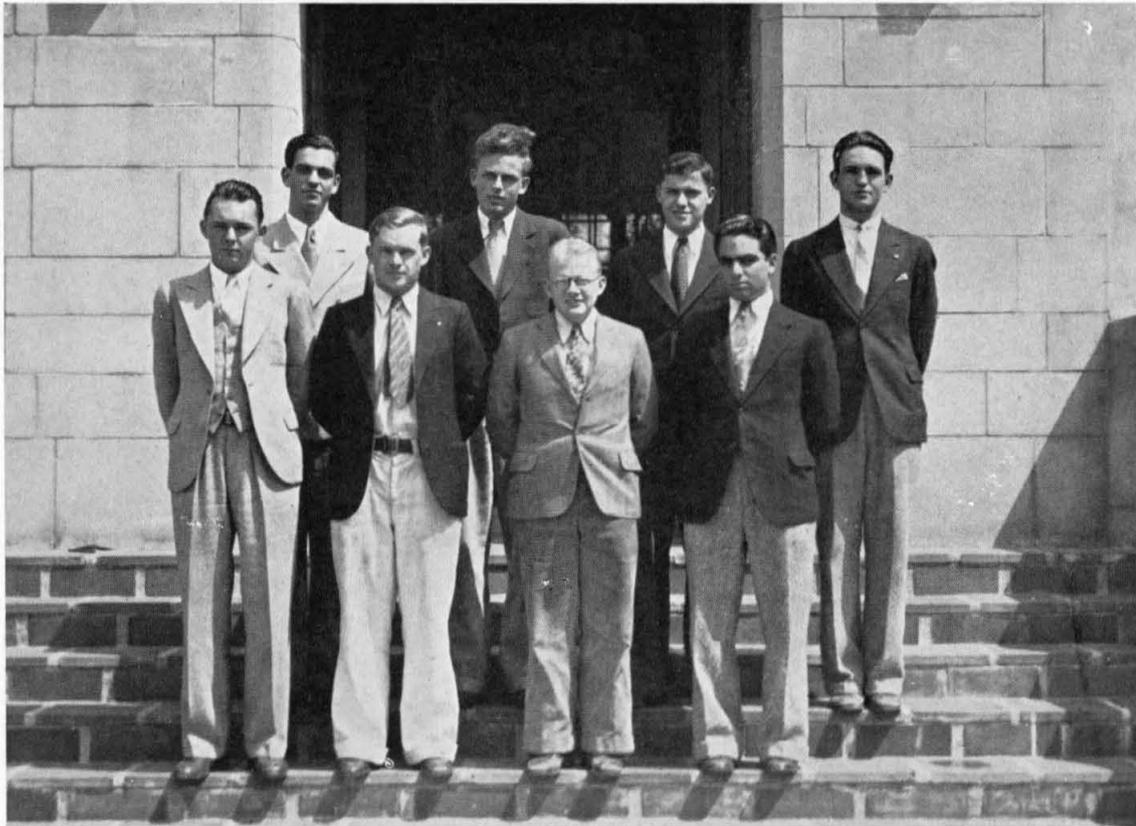
tainment has been fully appreciated at all times by an enthusiastic student body. Along with these activities the Band plays at the Flintridge Horse Show, an annual feature of the community.

AUDRE L. STONG..... DIRECTOR
TED S. MITCHELL..... MANAGER
WARREN H. SMITH..... LIBRARIAN

Members

HORACE BABCOCK	NATHANIEL GREEN	MAURICE MANNING
SAM BATDORF	ROBERT HALLANGER	HERBERT MORGAN
DALE CALLIS	JAMES HALLORAN	WILLARD ROBINETTE
WILLIAM COX	EVERETT HENDERSON	WARREN SMITH
RAY CRIPPS	GRANT HOLT	GLENN WEAVER
PAUL DANE	ARTHUR ISHAM, JR.	DAN WEBSTER
EDWARD DENNETT	RUSSELL KENNEDY	RALPH WHISTLER
WILLIS DONAHUE	ROBERT KING	REUBEN WOOD
VICTOR EMMEL	FRANKLIN LAWRENCE	GLEN WOODWARD
STUART FERGUSON	TED MITCHELL	FRANCIS WYATT



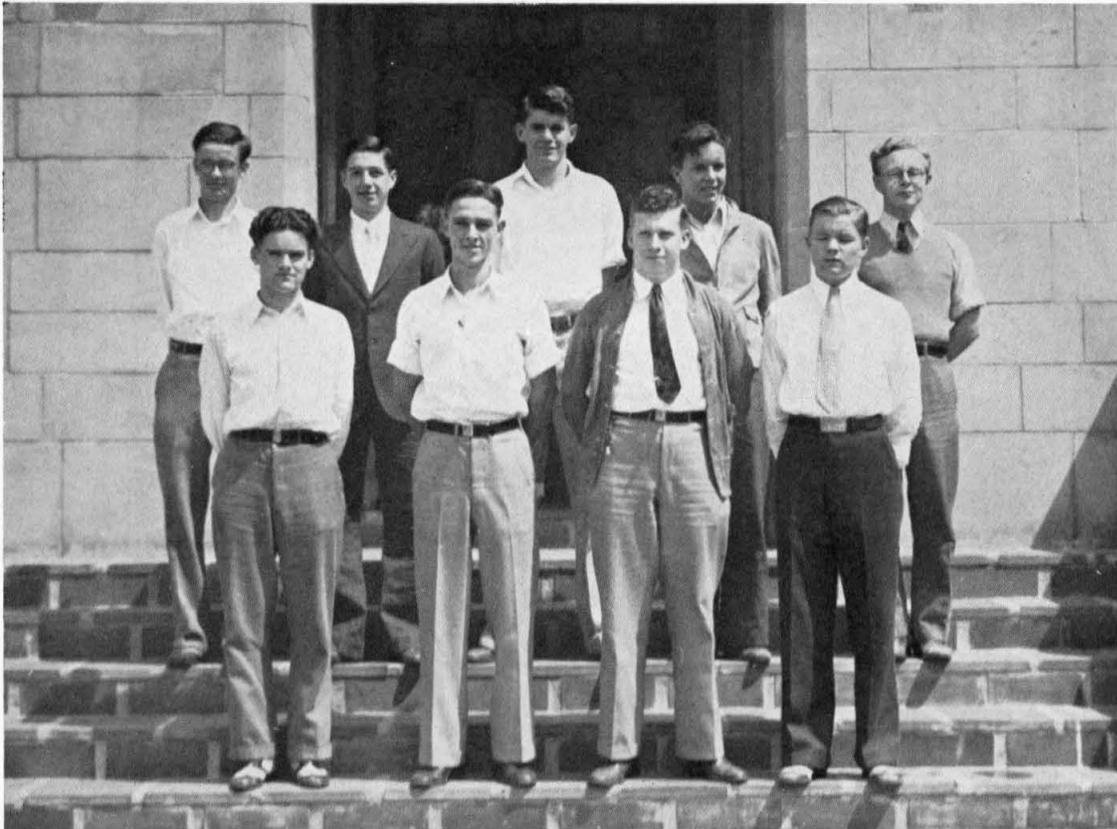


PEARNE HARRIS NIES PITZER LIEN WARNER LEVY BECKLEY

FORENSICS

● The training in public speaking offered to the students of the California Institute is an important item in their curricula. Its value to embryonic engineers and scientists is of an inestimable nature, affording them the opportunities open to men of good address and self-confidence. Courses in debating are given under the direction of Professor Ray E. Untereiner. This method of teaching and training public speakers achieves its manifold purposes in a better fashion than could be attained in any other branch of forensics.

● All the members of the varsity debate squad are agreed in crediting Professor Untereiner with the greater portion of their success in inter-collegiate debates. Almost every college in Southern California participated in the Southern Conference Tournament held on the Institute campus. The Tech debaters made a spirited showing in this early meet, gaining further information about the debate subject and profiting by the experience. The National Pi Kappa Delta question, "Resolved, That the United States should agree to the cancellation of all inter-allied war debts," was the subject of this year's inter-collegiate debating. Five men of the Institute, Pearne, Pitzer, Lien, Beckley, and Harris, took part in the annual Pacific Coast Tournament of Pi Kappa Delta held this year in Stockton. Winning four out of six debates, the Tech debaters made a presentable record in the midst of stiff competition.



FROST HAMMOND GRUENBERG MORRIS ELLERY WOODBURY CARROLL HAMACHER RICHEY

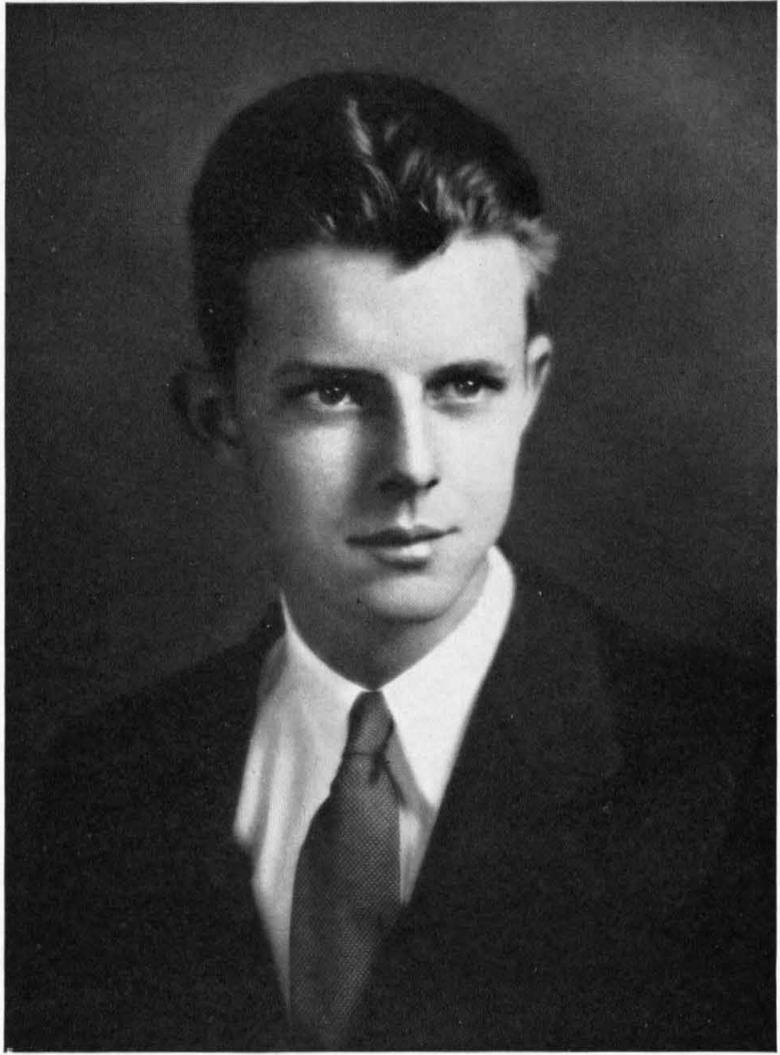
● Besides the men named, there were several other debaters on the squad, namely, Myers, Nies, Wilson, Warner, and Levy. Bill Harris held the post of manager and took part in the oratory tournament at Stockton. The season was a highly successful and profitable one, proving to be of great interest and experience to the debaters.

● Discontinuation of the Frosh debate conference, which had prior to this year been held annually, was regarded with disgust by the erstwhile freshmen debaters of the Institute. Debates between college freshmen teams had to be promoted by the debaters themselves, inasmuch as the failure of the conference meet disrupted direct contact with other debate teams.

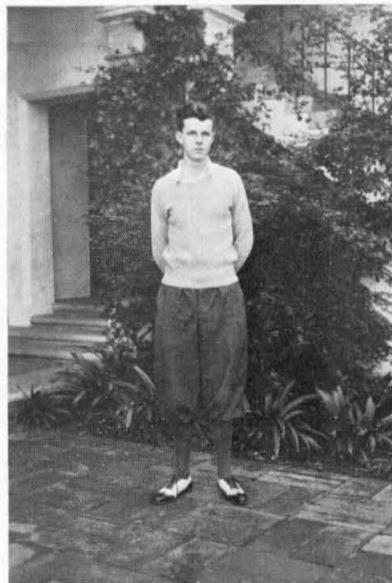
● Although many schools in the conference decided against holding freshmen debates for this season, the thirteen members of the Tech Frosh squad continued to study and prepare for possible outside encounters. The freshmen who have been studying under Professor Untereiner are Ellery, King, Carroll, Frost, Morris, Hamacher, Hammond, Wilstam, Davis, Richey, Woodbury, Gruenberg, and Blodgett. Several class discussions and practice debates were held concerning the pro and con of such subjects as the recognition of Russia by the United States, compulsory unemployment insurance, and the reduction of the protective tariff.



RAY E. UNTEREINER



EDITOR OF THE "CALIFORNIA TECH" • LEE T. CARLETON



THE CALIFORNIA TECH

● Aside from the Big "T," the California Tech, the weekly student newspaper, is the only campus publication. It must achieve a number of purposes: it must express comment on undergraduate affairs through its editorial columns and provide accounts of social affairs and sports; it must publish timely news on technical subjects for readers who, because of their training, are more critical and exacting than the subscribers of the ordinary newspapers, and must serve the purpose of a literary magazine in publishing original contributions—essays, stories, verse—of which a surprisingly large number are submitted.

● Work on the California Tech also provides valuable training. Members of the editorial staff are acquainted with the practices and ethics of newspaper work in the Tuesday evening journalism classes. Here, under the leadership of Professor George R. MacMinn, the previous week's issue of the Tech is critically discussed with regard to writing, make-up, and printing. Some of the staff members familiarize themselves with the mechanics of publication by helping in the print shop. Work on the business staff offers various kinds of experience, especially in soliciting advertisements and accounting.



SHERBORNE
MAKE-UP EDITOR
PATTON
FEATURE EDITOR

SCHILLER
NEWS EDITOR
BINKLEY
SPORTS EDITOR



CORTELYOU
ASST. NEWS EDITOR
CRUTCHFIELD
FEATURE WRITER

MILLIKAN
DRAMA EDITOR
FLEMING
REPORTER



PIERCE
FEATURES
BALDWIN
HEAD WRITER

TORBY
LITERARY EDITOR
HAMACHER
HEAD WRITER

SNOW
ASST. SPORTS EDITOR
KENT
HEAD WRITER

WILSON
PROOFREADER
NIES
REPORTER



- Since there was no great scarcity of contributors to fill the news columns, and since a sizable profit was made on the advertising, this year's California Tech was quite successful.

- A feature of the early years of the paper was the publication of The Hot Rivet, the campus humorous sheet, filled with much revilement of students and faculty, which came out once a year in the place of a regular issue of the Tech. It was sponsored by the Press Club. So reckless did the Rivet become in its criticisms of faculty members, that five years ago, following an especially flippant issue, it was suppressed; its staff narrowly escaping expulsion.



BRUCE
COLLECTION
BLODGETT
CIRCULATION

NEWTON
ACCOUNTING
PATTON
SECRETARY



BERKLEY
REPORTER
CLEVELAND
REPORTER

STEVENSON
REPORTER
HARTMANN
REPORTER



MILLER
REPORTER
ROMOLI
ACCOUNTING

BREEN
REPORTER
TYLER
COLLECTION

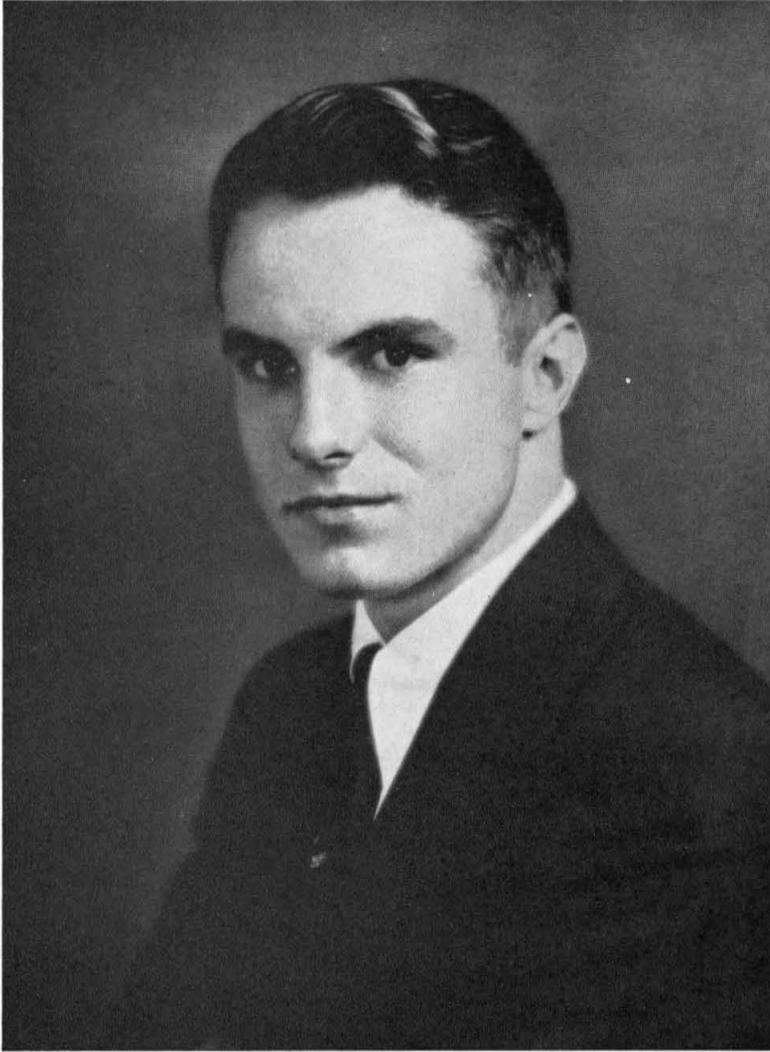
CREAL
REPORTER
HART
CIRCULATION

CARROLL
REPORTER
DAVENPORT
EDITORIAL

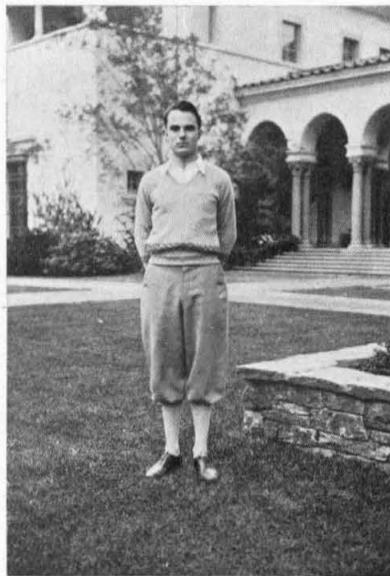
- The California Tech itself has experienced troubles, three editors being needed to fill out one term of office in 1930. The following year the business manager dropped out of college, and his departure nearly disrupted the business organization. During the past year, however, under Lee Carleton, Editor, and Bryant Myers, Business Manager, both branches of the enterprise have been well organized, a large number of students giving assistance. Myers and his predecessor have realized the first actual profits made on the newspaper's advertising in several years, in spite of the difficulties of the present hard times.

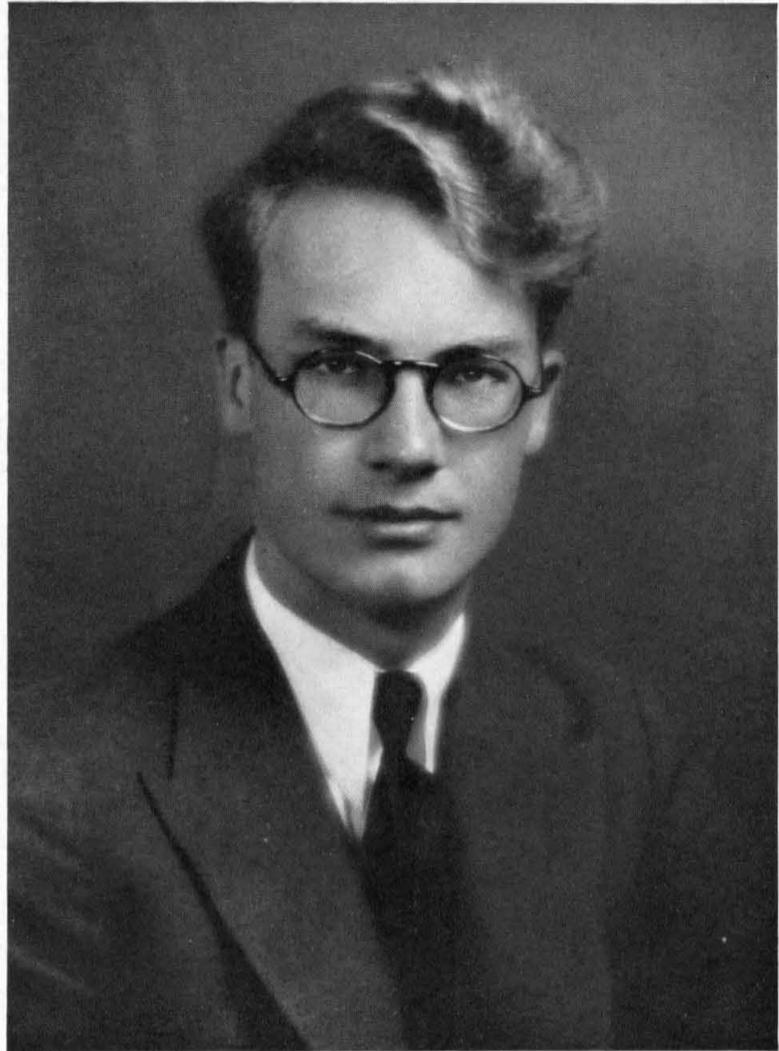
- Harold Schiller, who was formerly news editor, will edit the paper during the coming year, while Bryant Myers has been re-elected business manager.



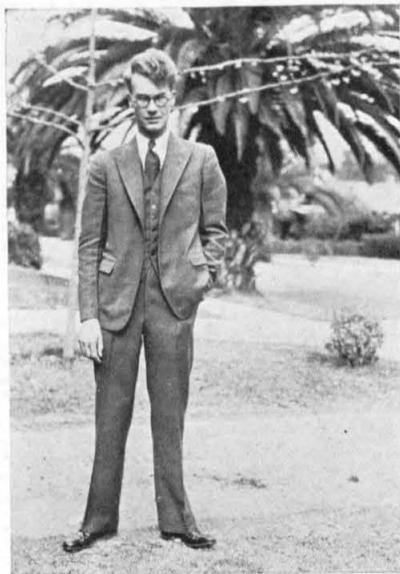


BRYANT MYERS • BUSINESS MANAGER OF THE "CALIFORNIA TECH"





EDITOR OF THE BIG "T" • MERRILL BERKLEY

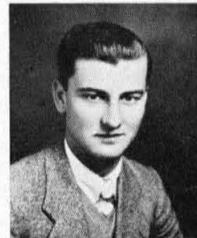


T H E B I G " T "

● In an effort to portray and describe the ever-varying current of events which have transpired during the school year, a wealth of material, gleaned from every available source, has been gathered between the covers of this year-book—the Big "T" of 1933. From the beginning of school last October and through the Fall, Winter, and Spring terms up to the very dead-line of publication, photographs, cuts, copy, pictures, ads, jokes, stories, and everything else which gives life to a struggling annual are either borrowed, bought, stolen, or sought after.

● A reputation for artistic design and progressive improvement, which preceding Big "T's" have gained for themselves, has driven each new year-book editor and business manager to work with greater efforts towards the consolidating of material, the balancing of a budget, and the creating of a new and interesting design. The success or failure of a book, editorially, pictorially, or financially, rests upon the shoulders of the editor and his associate, the business manager—and we are prepared to accept without comment the roses and brickbats sent our way.

● Three things are generally inscribed in this space: explanation of motif, alibis for imperfections, and credit-giving. Two of these are summarily omitted—simplicity of design needs no elucidation and, if our one attempt at explanation is inadequate, then no further effort would be worth our while; and we have



LANHAM
FACULTY EDITOR
BINKLEY
SPORTS EDITOR
NEWCOMBE
SENIORS

DETMERS
PHOTO EDITOR
BECKLEY
ORGANIZATIONS
EFROMSON
SENIORS



SCHILLER
 DRAMA
 HALLANGER
 ORGANIZATIONS
 TYLER
 ADVERTISING

PATTON
 SNAPSHOTS
 SNOW
 SPORTS
 HAVER
 ADVERTISING

no alibis. So these lines must constitute bouquets, tossed to those who have earned them.

● The Metropolitan Engravers, Ltd., and the Times-Mirror Printing and Binding House have corroborated their high standing by putting into perfect printing plates and typography a new and untried conception of figures and words. To their artists and sales representatives are accorded the life-long gratitude of a struggling, harassed editor. Keeping pace with them, Mr. W. Albert Martin has explained his top-notch rating by turning out work which has surpassed that of any or all previous school photographers employed by the Big "T." Mr. William M. Clark of Pasadena made it possible for this year-book to reproduce in the campus section some of the finest photographs ever taken of the Institute buildings—the editor is especially indebted to him for his cooperation.

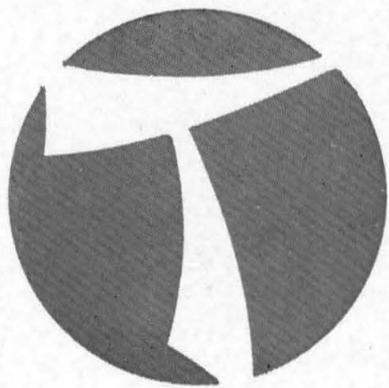
● Laboring day and night to assemble the material for experts to perfect, the editor owes unmeasured thanks to all of those staff and non-staff helpers who have given their much-needed literary aid to the development of a truly representative year-book.

● The lagging interest of business houses in year-book advertising has caused the business organization of the Big "T" many heartaches. With sales prices and profits hitting new lows during the past school year, many merchants have made no efforts to place ads in any publications, much less the Big "T." A great deal of credit is due to the few members of the advertising staff who have worked like madmen to insure the financial success of the book.



ROBERT G. MACDONALD • BUSINESS MANAGER OF THE BIG "T"





DESTINY

STUDENT HOUSES

ORGANIZATIONS

UNDERGRADUATE

- One of the most interesting results of scientific research has been the planning and construction of living quarters suitable for the housing of college undergraduates. After a thorough study and investigation of the housing plans and facilities of other colleges at home and abroad, conducted by a picked group of undergraduate students, the results of their research were applied in the design and furnishing of the rooms, lounges, dining rooms, and courts of the present student houses.

BLACKER HOUSE OFFICERS FOR THE PAST YEAR have led their house members in many successful ventures. A Pink Elephant Dance was a new social enterprise, going over with great success. A Scavenger Hunt designed by Dr. Harvey Eagleson, House Associate, was well attended, as was a novel Bicycle Party to Devil's Gate Dam. An annual formal dinner-dance was held in April, and the most enjoyable Blacker affair was the party staged at the Deauville Beach Club. Plans for third term diversions included ice-skating, bicycle, and horseback riding parties, indicating the out-of-door spirit with which Blacker House men have been imbued. The house officers were: Walter Scholtz, President; Orin Shoemaker, Vice-President; Willis Donahue, Secretary; and Kenneth Pitzer, Treasurer.

DABNEY HOUSE ACTIVITIES DURING THE PAST year have included many dinners and dances. Under the leadership of Gregory Hartmann, President, and his associate officers, Sidney Smith, Francis Wyatt, and Wyatt Lewis; the following events marked the successful social ventures of the house: a Hallowe'en Dance, featuring spooks, goblins, and colored lights; a formal dinner-dance on St. Valentine's Day; and a play-dance combination staged jointly with Ricketts House in the Spring term. The Dabneyites lost their House Associate, Mr. William Huse, Jr., when he married, but soon found another associate in the person of Gibson Pleasants, a graduate student. Popular subscription purchased a ping-pong table, which has been used daily in the patio. Doing well in all sports, Dabney House won the intramural basketball championship.

STUDENT HOUSES

The exquisite taste with which the undergraduate houses have been designed, coupled with the unanimous affirmation of the Associated Student Body, bear out the painstaking efforts of the Executive Council and Finance Committee of the California Institute to create a supreme edifice worthy of housing three hundred undergraduate students and of offering them a cultural background and social opportunities. All of the four houses comprising the unit have been named in honor of their donors: Fleming, Ricketts, Dabney, and Blacker.

THE STUDENT RESIDENTS OF FLEMING HOUSE

took part in an extensive social program; the list of activities included: a formal opening dance, a tea-dance for the Freshmen, a Hallowe'en Dance, a formal dinner-dance, and numerous other festive affairs and parties. The spirit of the house is reflected in the personality of Mr. Phillip Fogg, House Associate, who has offered valuable suggestions for entertainments and house plans. Fleming House officers included Ray Lockhart, President, and Dave Clark, Carroll Craig, and Laurence Stuppy, associate officers. These men have been responsible for the fine turnouts for intramural sports; the House winning the Discobolus Trophy three times during the course of the year. Fleming House also managed to retain the interhouse forensic trophy as its reward for the public speaking abilities of its residents.

ALL THE FRESHMEN OF RICKETTS HOUSE

were given an excellent start in the social life of the campus when a Get-Acquainted Dance was given at which attendance was compulsory. Along with most of the debate squad as residents of the house, Ricketts House has been honored with a great number of other members actively engaged in school affairs. Throughout the year many orchestra dances were held at regular intervals along with such successful affairs as the Hallowe'en Dance, the Beverly-Wilshire Dance, and the interhouse play and dance entertainment. An annual smoker, a scavenger hunt, and a bicycle party were distinguished features in the house plans. Professor Horace Gilbert proved a valuable asset to the house in his capacity as House Associate and was of great assistance to the officers, who were: Stanley Johnson, President; Bernard Palm, Vice-President; Bryant Myers, Secretary; and John Ayers, Treasurer.



ANDREWS



BENDER



BREEN



CARLETON



CLARK



COX



EVERETT



FRAZEE



HAMACKER



HAMMOND



HOWARD



HUNTER



JONES



KENT



KEYES



DONAHUE



SCHOLZ

BLACKER HOUSE





LEHMICKE



LEVI



McLEAN



McMAHON



PALMER



POULSON



SCAFFNER



SERRELL



STICK



TRAYNOR



WARFEL



WHEELER



WHISTLER



WOOD



WOODWARD



BLACKCKER HOUSE



SHOEMAKER



PITZER



BAMBERGER



BATDORF



BROWN



CARROLL



CORTELYOU



CREAL



DAMES



DOLL



DOUGLAS



EFROMSON



ELLIOT



ETTER



FLETCHER



GATES



HALLORAN



HEBEL



DABNEY HOUSE



LEWIS



WYATT



HARTMANN



SMITH



HOPKINS



JONES



KING



MANNING



MILLER



MORGAN



NEWCOMBE



RECTOR



RICHEY



SCHRECK



SHARP



STEVENSON



TERRILL



TEJADA



WILLIAMSON



WYATT

DABNEY HOUSE





ALLARDT



BAXTER



BISHOP



CRIPPS



BEAL



BROWNE



DOURSON



FLEMING



GARDNER



GELZER



GIBBS



GILBERT



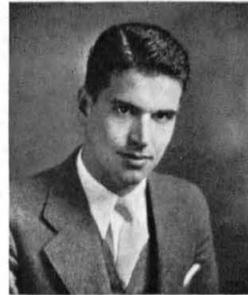
GROSSMAN



HAYER



HERLIN



CLARK



LOCKHART

FLEMING HOUSE





HOGAN



JORDAN



LIBBY



LINDSAY



MATHEWSON



MATHEWSON



M^cCLEERY



MERRALS



MUEHLBACK



RICE



SECORD



SCHILLER



SCHNEIDER



SKLAR



THOMPSON



FLEMING HOUSE



CRAIG



STUPPY



BECKLEY



BINKLEY



BLODGETT



BONILLAS



BRUCE



ELLERY



EMMEL



FERVER



GAY



GELDER



GOODWIN



HARRIS



HOLMES



JOHNSON



JOHNSON



LA RUE



LIEN



LONG



MARSH



MILLIKAN



RICKETTS HOUSE



AYERS



MYERS



JOHNSON



PALM



MONNING



MULLER



NEWTON



NICHOLS

RICKETTS HOUSE



NIES



OLIVER



PATTON



PEARNE



ROBERTS



RUSSELL



SALISBURY



SMITH



SUHR



TOOBY



TYLER



WARNE



WARNER



WILLIAMS



WOOD

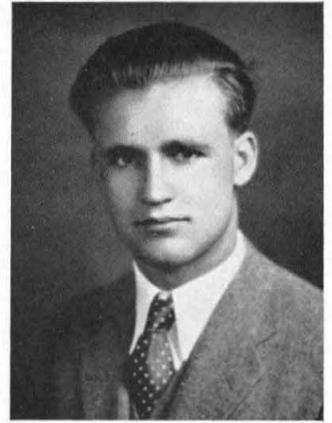


WORKS

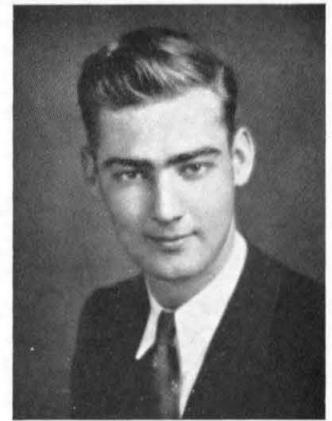
NON-RESIDENT CLUB

● Composed of all undergraduate students living off the campus, the Non-Resident Club is an organization founded with the purposes in mind of uniting the off-campus men and providing them with social activities comparable to those enjoyed by the men living in the student houses. The headquarters of the Club are located in the old Dorm, the lounge of which has been furnished and decorated as a comfortable club-room.

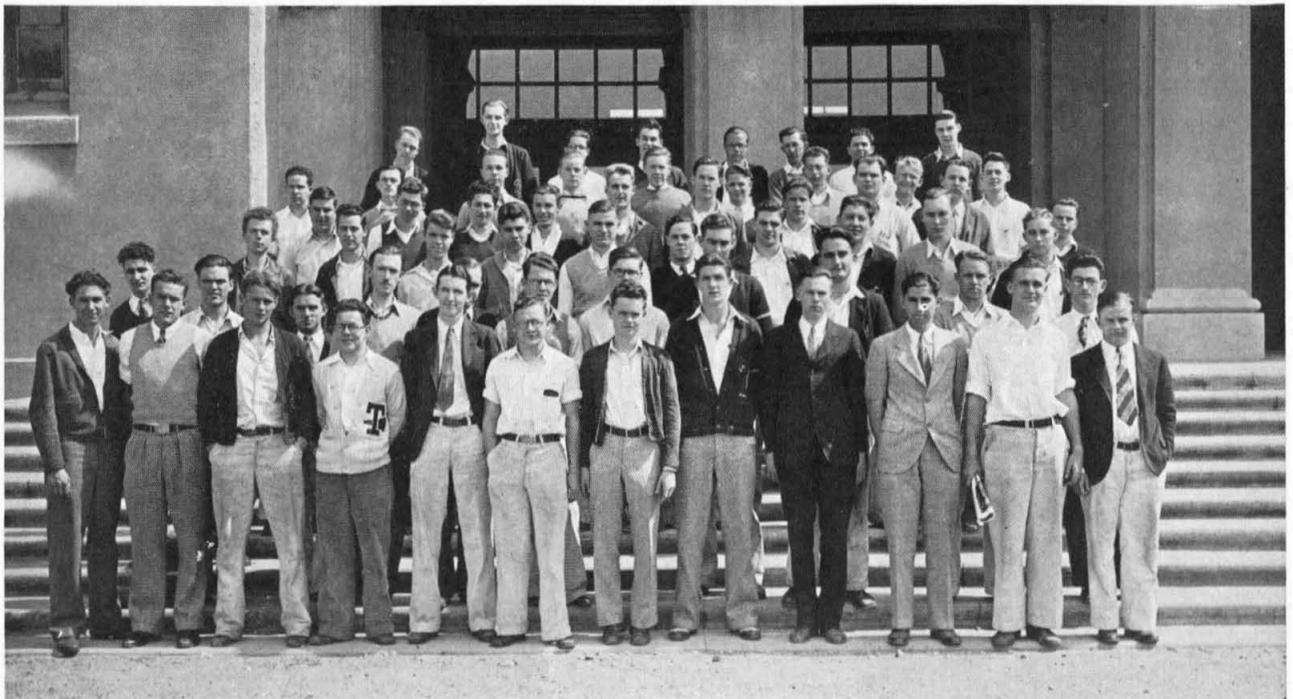
● Under the leadership of Samuel Johnson, President; James Gregory, Vice-President; Oliver Hofmann, Secretary; and Donald Rooke, Treasurer, the Non-Resident Club has had a very progressive and active year. When these men took office, they started an aggressive campaign to attract the attention of the administration to the needs of the Non-Residents; and, as a result of this agitation, a poolroom and two card rooms were added to the Club facilities during the summer months. These and sundry improvements were wel-



JOHNSON



HOFMANN





GREGORY



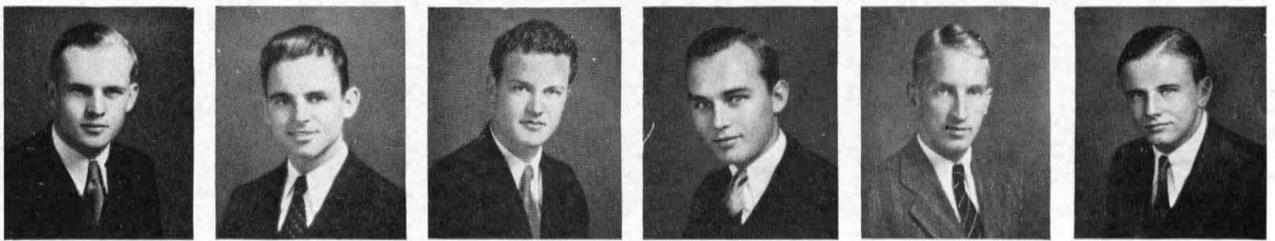
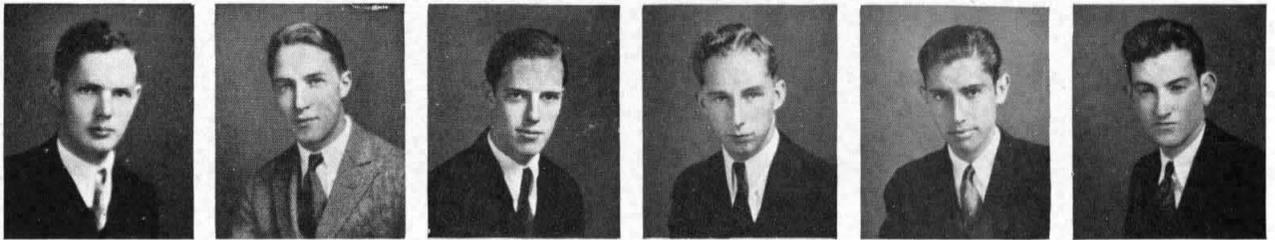
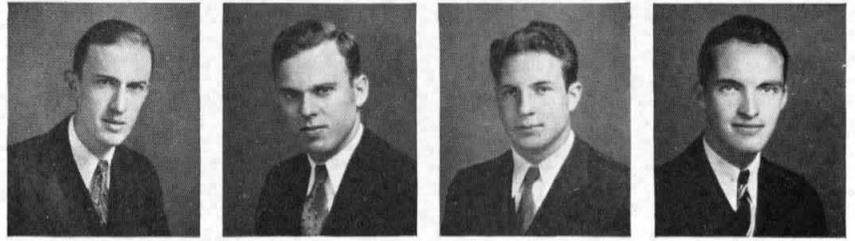
ROOKE

comed by the off-campus men, who have taken a sort of pride in their possessions.

● A great number of entertaining social events were sponsored by the Non-Residents during the course of the school year. The most prominent and well-attended affairs were the dances in Dabney Lounge, the Treasure Hunt, and the second annual Non-Resident Stag. This year, for the first time, the Club members were able to join in the weekly series of "Open House" dances given jointly by the five different campus establishments, each house taking the dance every fifth week.

● In the first assembly of the year, the Non-Residents were presented with the splendid new Interhouse Athletic Trophy which they had won as a result of last year's intramural victories. Throughout this season the Non-Resident Club has continued its policy of being an almost unconquerable nemesis to the living-house teams, having won, thus far this year, championships in football, tennis, track, baseball, and cross-country.





CORTELYOU
NIES

PICKETT
ROOKE

BACKUS
MARLOW
MERSMAN

JOHNSON
MOORE
SCHRECK

MENDENHALL
PIPES
SPICER

HARTMANN
WIDESS
BYRNE

TAU BETA PI, NATIONAL ENGINEERING FRATERNITY, IS REPRESENTED

● on the campus by an important and active chapter. Above all other engineering scholastic fraternities, membership in Tau Beta Pi is coveted. Accordingly, Tech men consider membership in their own Beta Chapter one of the most cherished honors that they may win.

● The main departure of Tau Beta Pi from its similarity with Phi Beta Kappa is the fact that it more closely resembles an active fraternity than does the latter. To be eligible for membership, a man must be more than just a student; he must take an active interest in various fields. The only rigid specification for membership is that a person must be in the highest fourth of his class, if a Senior, and in the highest eighth, if a Junior. After a test vote by the Chapter, those who are still eligible are subjected to individual quizzing. In order that the Senior members may take an active part in the work of the Chapter, they are elected in the Fall term, whereas the Juniors are not elected until Spring. As an indication that initiation is being carried out, a huge facsimile of the Fraternity emblem is hung in Throop Hall. The gold key, in the shape of the bent of a trestle, is given to each member.



MORGAN
PIERCE
WHEELER

TILLMAN
JOHNSON
DOLL

BONILLAS
LASLETT
SCHOLTZ

PICKERING
BENDER
COX

DAMES
STRAUSS

HOWARD
NEWTON

ALL OF THE MEMBERS OF THE BETA CHAPTER

enter whole-heartedly into the social activities of the organization. In addition to two dinners each year, many smokers are given for the purpose of bringing the members together and giving them an opportunity of meeting many of the Institute's outstanding visitors. The annual formal dance of Tau Beta Pi is an affair looked forward to by all the members.

TAU BETA PI OFFICERS

GREGORY K. HARTMANN	PRESIDENT
WENDAL A. MORGAN	VICE-PRESIDENT
JOHN D. MENDENHALL	CORRESPONDING SECRETARY
HARRISON S. BACKUS	RECORDING SECRETARY
CHARLES D. CORYELL	TREASURER
CHARLES E. TILLMAN	CATALOGUER
WILLIAM H. PICKERING	DELEGATE

CLASS OF 1933

HARRISON BACKUS	SAMUEL JOHNSON	WILLIAM MERSMAN	LOUIS PIPES
DAVID BENDER	STANLEY JOHNSON	WILLIAM MOORE	WALTER SCHOLTZ
YGNACIO BONILLAS	JACKSON LASLETT	WENDAL MORGAN	CHARLES SPICER
RALPH BYRNE	DOUGLAS MARLOW	GEORGE PICKETT	FERDINAND STRAUSS
TRENT DAMES	JOHN MENDENHALL	JOHN PIERCE	CHARLES TILLMAN
GREGORY HARTMANN			WILLIAM WHEELER

CLASS OF 1934

ROBERT ANDERSON	EDWARD DOLL	LAWRENCE JOHNSON	NELSON NIES
JACK CORTELYOU	HOWARD GULICK	PAUL KARTZKE	DONALD ROOKE
ORVILLE COX	ROBERT HOWARD	VERNON NEWTON	ROBERT SCHRECK
			GLENN WEAVER



BECKLEY

HARRIS
WILSON

LIEN
NIES

MACARTHUR
MYERS

PI KAPPA DELTA, NATIONAL FORENSIC FRATERNITY,

through its chapter at the California Institute, realizes the truth of the statement that "The ability to orally present ideas is as important as to have them." It is its avowed intention to sponsor and make opportunities for the development of this valuable ability. It was for this purpose that the Gamma chapter was organized in 1921 through the efforts of Dr. John Macarthur, present Dean of Freshmen, and for many years the National President of Pi Kappa Delta.

- Our modern prototypes of Demosthenes have done much to foster interest in debating, oratory, and public speaking at Cal Tech. By coming in contact with other colleges, the fraternity has exhibited an inter-collegiate friendship and a spirit of good-will with all the colleges with which it has been associated. The membership of Pi Kappa Delta is drawn principally from varsity debaters who have shown themselves to be proficient in the art of speech. New members are admitted by invitation from the chapter.

- The official Pi Kappa Delta question this year was "Resolved, That the United States should agree to the cancellation of War debts." Last year at the convention, Institute representatives ranked twelfth out of one hundred and two teams from all parts of the United States.



UNTEREINER



JOHNSON
WARNER

DAVIS
PEARNE

DESMOND
PITZER

LEVY

BESIDES ITS FORENSIC ACTIVITIES, GAMMA CHAPTER

enhances the prestige of the Institute by sponsoring the presentation of a classical play each Fall. The tenth production was presented early last November; it was Terence's "Phormio." The proceeds derived from the ticket sales help send delegates to take part in the bi-annual Pi Kappa Delta convention.

Faculty

DR. JOHN R. MACARTHUR

DR. RAY E. UNTEREINER

Officers

STANLEY JOHNSON, PRESIDENT

ELVIN LIEN, VICE-PRESIDENT

MADISON DAVIS, SECRETARY-TREASURER

JACK DESMOND, PUBLICITY MANAGER

Class of 1933

STANLEY JOHNSON

MADISON DAVIS

Class of 1934

JACK DESMOND

BRYANT MYERS

ELVIN LIEN

JOHN PEARNE

NELSON NIES

WILLIAM WILSON

Class of 1935

WILLIAM HARRIS

ROBERT WARNER

KENNETH PITZER

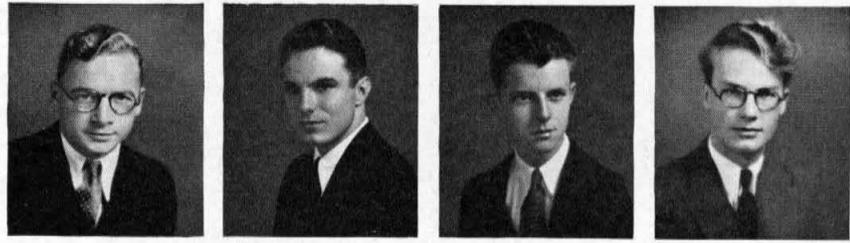
HENRI LEVY

Class of 1936

BRUCE BECKLEY



MACARTHUR



DAVENPORT

SHERBORNE
POULSON

MYERS
PIERCE

CARLETON
TOOBY

BERKLEY
MILLIKAN

THE PRESS CLUB EXISTS IN THE INTEREST OF BETTER

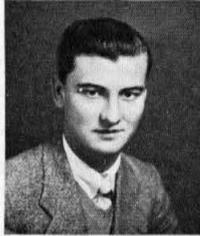


campus publications. Members of the business and editorial staffs of the two official student body publications are eligible to membership, which is by invitation only.

- In spite of its journalistic purposes the Club has, in the last few years, taken an active interest in literature and drama. Informal meetings at which members of the Humanities department give readings or reviews of current books and plays have proved to be popular with the members. Professor George R. MacMinn, faculty advisor to the Club, occasionally gives readings and reviews of latest books.

- With Richard Crutchfield as President, the Press Club has had a rather quiet year. Activity at the opening of the college year was at a high pitch, including several meetings and the adoption of a constitution which was well-executed by T. S. Terrill. Pledges from the Sophomore Class were initiated at a meeting which symbolized the departure of one of the Club's most ardent supporters, Nicholas Weinstein, who left college to join the U. S. S. R. Since the celebration of the spiritual demise of the worthy Nick, there has been little stirring in the realms of the organization.

- New life and hope will probably be injected into the veins of the contemplated merger of the Drama and Press



TERRILL
CRUTCHFIELD

FLEMING
PATTON

CORTELYOU
BINKLEY

SCHILLER
HARRIS

LIEN

Clubs. The joint reorganization of the clubs would be a practical arrangement and the plan has been favorably discussed by both groups.

Officers

RICHARD S. CRUTCHFIELD.....	PRESIDENT
JOHN E. SHERBORNE.....	VICE-PRESIDENT
MERRILL BERKLEY.....	SECRETARY
HAROLD SCHILLER.....	TREASURER

Honorary Members

DR. HARVEY EAGLESON	PROF. CLINTON K. JUDY
MR. WILLIAM HUSE, JR.	PROF. GEORGE R. MacMINN

Class of 1933

MERRILL BERKLEY	JOHN PIERCE
LEE CARLETON	DONALD POULSON
THOMAS TERRILL	

Class of 1934

JACK CORTELYOU	WARREN PATTON
RICHARD CRUTCHFIELD	HAROLD SCHILLER
ELVIN LIEN	JOHN SHERBORNE
BRYANT MYERS	SYDNEY SMITH

Class of 1935

JACK BINKLEY	WILLIAM HARRIS
HORACE DAVENPORT	MAX MILLIKAN
LAWRENCE FLEMING	GEORGE TOOBY



CLARK

BECKLEY
DAVIS

SCHILLER
KASNICKA

MILLIKAN
DAVENPORT

THE DRAMA CLUB AND ITS MEMBERS HAVE ENJOYED

● a successful, though quiet, year; the crowning achievement being the production of an 18th Century tragedy in the Spring term. All student-actors are eligible to membership in this organization provided they have participated in producing or acting in one of the two major plays staged at the Institute. Members are admitted by invitation only.

● Each year two full-length productions are presented on the stage in Culbertson Hall. One of these is a classical play sponsored by the Pi Kappa Delta and the other is a play along modern lines put on by the members of the Drama Club. Supplying most of the actors for the P. K. D. play and producing its own play have long been the primary considerations of the Club. The organization has also served as a medium whereby its members have an opportunity of listening to and taking part in the informal discussions and readings of new plays and books.

● The interests of the Drama Club are not limited to drama, but extend to the broad and more general field of literature. Dr. Harvey Eagleson and Dr. Roger Stanton, faculty advisors to the Club, have read plays at meetings and have also given short talks on subjects dealing with stage technicalities. Besides their connection with the Club in this wise, the two professors have directed both of the campus productions, making their successful runs possible.

● The play which was chosen for this year's opus was George Lillo's "George Barnwell, or The London Mer-



EAGLESON



BERKLEY
OLIVER

FLEMING
LEVY

PIERCE
WILSON

STRAUSS

chant," the play-germ of modern drama. Max Millikan, President of the Drama Club, played the role of George Barnwell, the hero of this comically tragic story of middle class English society. With his fingers about the purse strings, Merrill Berkley, Treasurer, assumed the position of business manager of the play in order to keep a close tab on expenditures.

Officers

- MAX F. MILLIKAN.....PRESIDENT
- JOHN R. PIERCE..... VICE-PRESIDENT
- HAROLD SCHILLER..... SECRETARY
- MERRILL BERKLEY..... TREASURER

Honorary Members

- DR. HARVEY EAGLESON
- MR. WILLIAM HUSE, JR.
- DR. ROGER STANTON
- PROF. GEORGE R. MacMINN

Class of 1933

- MERRILL BERKLEY
- JOHN PIERCE
- DAVE CLARK
- FERDINAND STRAUSS

Class of 1934

- HAROLD SCHILLER
- WILLIAM WILSON
- KENNETH WARREN

Class of 1935

- HORACE DAVENPORT
- HENRI LEVY
- JAMES DAVIES
- MAX MILLIKAN
- LAWRENCE FLEMING
- BERNARD OLIVER

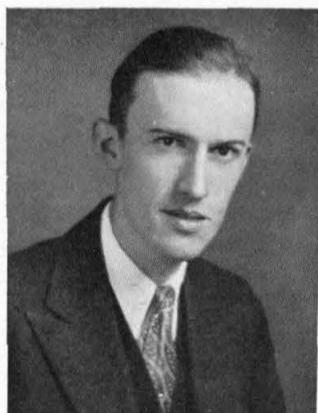
Class of 1936

- BRUCE BECKLEY
- EDWARD KASNICKA



STANTON

C H E M C L U B



BACKUS
PRESIDENT



SHERBORNE
VICE-PRESIDENT

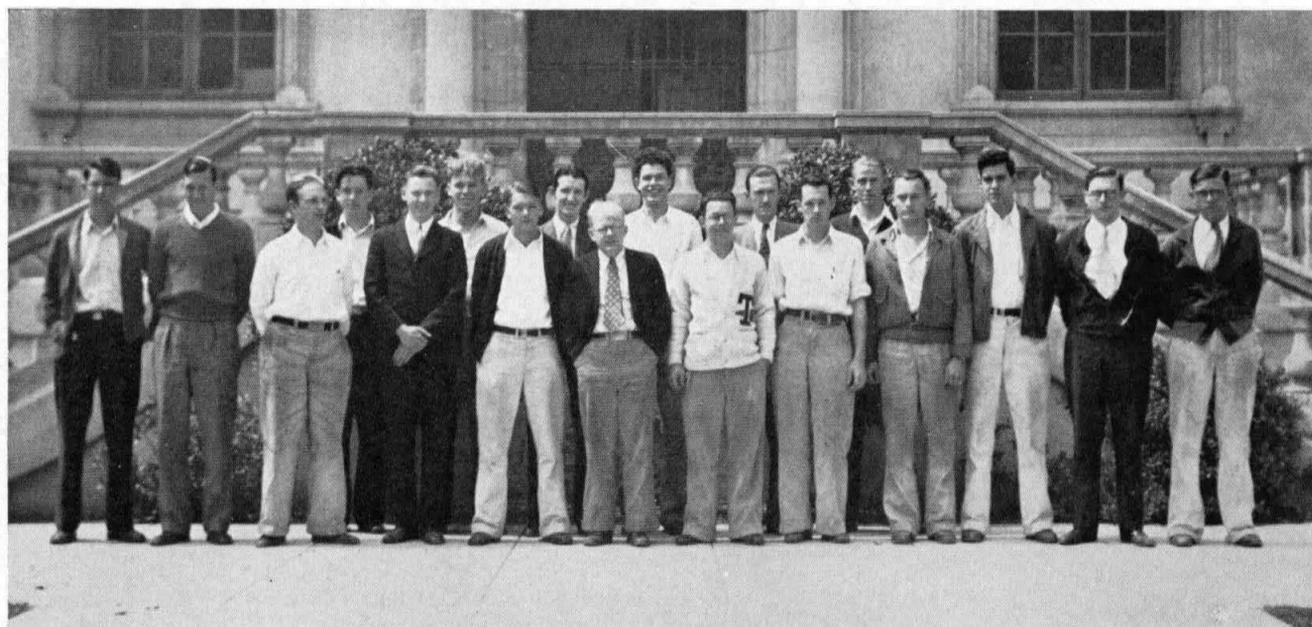


ESTES
TREASURER

● The Chem Club, one of the oldest professional organizations on the campus, has maintained, ever since its inception in 1917, a definite policy of bringing before its members various topics of current interest to chemists. In previous years the Club has made an earnest effort to bring the members of the different classes together and to promote a spirit of fellowship between them, but since the completion of the student houses, much of this work has been taken over by the house organizations. It has long been the tradition and the desire of the members to receive refreshments at their meetings and this policy has been continued, making a pleasant supplement to the informal discussions which follow the Club talks.

● The talks fall into three classes: those by members of the Institute staff, those by men from the industrial field, and those by members of the Club. The lectures given by the Institute faculty are usually surveys of modern developments in chemical theory, fact or technique. Speakers connected with outside industries are selected on the basis of subjects dealing with the fields in which chemical engineering finds application. Hearing about the difficulties arising in practical technology is of benefit to the students of theory, making them realize that practical considerations often break up the seemingly perfect plans developed from fundamental principles.

● One of the functions recently taken over by the Chem Club is the management of the Chemistry department displays for Exhibit day. Prior to 1932 the Department was directed by a volunteer who depended on his knowledge of previous exhibits for the formulation of his plans. At the present time there is a definite organization within the Club providing for reports on the various displays of each year. Usually the directors for each laboratory are chosen from among the Club members, because it has been found that these men are the ones most actively interested in the department.



CHEM CLUB MEMBERSHIP

Officers

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 JOHN SHERBORNE.....VICE-PRESIDENT
 RUSSELL KENNEDY..... SECRETARY
 HARRY ESTES..... TREASURER

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RALPH BROWN	ROBERT GELDER	HARRY NISSEN
DONALD CLEVELAND	ROBERT HEITZ	EDWARD REYNOLDS
JAMES DAVIES	RICHARD JAHNS	CARL SMITH
WILLIS DONAHUE	ROBERT JONES	WILLIAM STONE
VICTOR EMMEL	WYATT LEWIS	HENRY SUHR
ROBERT FELT	ELVIN LIEN	A. T. THOMPSON
RUBIN FRIEMAN	ROBERT LOGAN	TYLER THOMPSON

VARSITY CLUB



CRAWFORD
PRESIDENT



HUNTER
VICE-PRESIDENT



BAMBERGER
SEC.-TREAS.

● One of the most active and respected organizations on the Tech campus is the Varsity Club, the members of which have at some time or other performed useful services for their school on the athletic field. The members of this club are chosen from the varsity lettermen of the four major sports: football, basketball, track, and baseball, and from the minor sports lettermen who have earned their letters in two consecutive seasons. The winning of a letter, however, does not insure membership, inasmuch as a student's chances of being voted into the club depend also upon his social and scholastic abilities.

● Founded with the purpose in mind of furthering interest in athletics at Tech, the Varsity Club has played a significant part in the athletic history of the Institute. The ideals which the club seeks to promote are those fostered by Coach "Fox" Stanton and the Athletic Council. The Varsity Club key worn by every member of the organization is a small golden pendant shaped in the form of a "T" and is a miniature of the letter "T" worn on the sweaters of the lettermen.

● At the luncheon meetings, which are held each month, affairs of practical importance to the athletic situation are discussed and active work is promoted along the lines of getting more students to participate in the sports. Many of the meetings are attended by one or more of the coaches, whose short talks are of considerable interest and inspiration to the athletes.

● One of the outstanding social events of the year is the annual student body dance sponsored by the Varsity Club. This year's dance was held at the Pasadena Country Club and was a huge success. The large crowds which attended the affair attested the careful organization and excellent publicity of the club members.



VARSITY CLUB MEMBERSHIP

Officers

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 FRANCIS HUNTER, VICE-PRESIDENT
 SIDNEY BAMBERGER, SECRETARY-TREASURER

Honorary Members

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 HIRAM B. CROSBY

HOWARD Z. MUSSELMAN
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LAYTON STANTON
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Members

JOHN AYERS
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JAMES GREGORY
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 WILLIAM MOORE
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JOHN PEARNE
 GEORGE PICKETT
 CHRISTIAN PRIOR
 PAUL ROBERTS
 ALBERT ROMOLI
 DON ROOKE
 RICHARD RUSSELL
 ROBERT SHARP
 CLIFTON SPADE
 CHARLES SPICER
 MOSES WIDESS



NEWMAN CLUB

● A chapter of the Newman Club was organized a year and a half ago at the California Institute for the purpose of bringing the Catholic students together. The club's establishment was the outcome of a desire, expressed on several sides, for a wider knowledge of the logical foundation of the Roman Catholic faith, and of a wish that the non-Catholic students might at least have an appreciation of the Catholic position on such matters of interest to them.

● Father Clark of St. Phillip's Parish in Pasadena was appointed moderator of the club and has been instrumental in helping the members make their organization a success. The meetings, which are open to everyone, are conducted by means of bi-weekly dinners in lower Blacker House. Catholic philosophy and religious questions of importance are discussed in round table fashion with guest speakers of special training and distinction.

Officers

ROBERT D. BOCHE.....	PRESIDENT	ROBERT C. HOGAN.....	TREASURER
LAWRENCE STUPPY.....	SECRETARY	FATHER CLARK	MODERATOR

Members

ROBERT ANDERSON	MINOR FAHRMANN	CHARLES JORDAN	ALBERT ROMOLI
ROBERT BOCHE	JAMES HALLORAN	CHARLES KIRCHER	JAMES SALISBURY
GEORGE CARROLL	ROBERT HOGAN	CHESTER LINDSAY	IVAN SCHERB
EDMOND SHANAHAN	LAWRENCE STUPPY	LUIS TEJADA	



Y. M. C. A.

● Starting out with the annual Freshman Conference at Idyllwild last September, the Cal Tech Y. M. C. A. has enjoyed a very busy and successful year. The friendly feeling and spirit of fellowship which the Y. M. C. A. has successfully endeavored to engender in the relations between all students and classes has been achieved through the medium of lecture series, luncheons, Sunday morning breakfasts, and other organized group get-togethers.

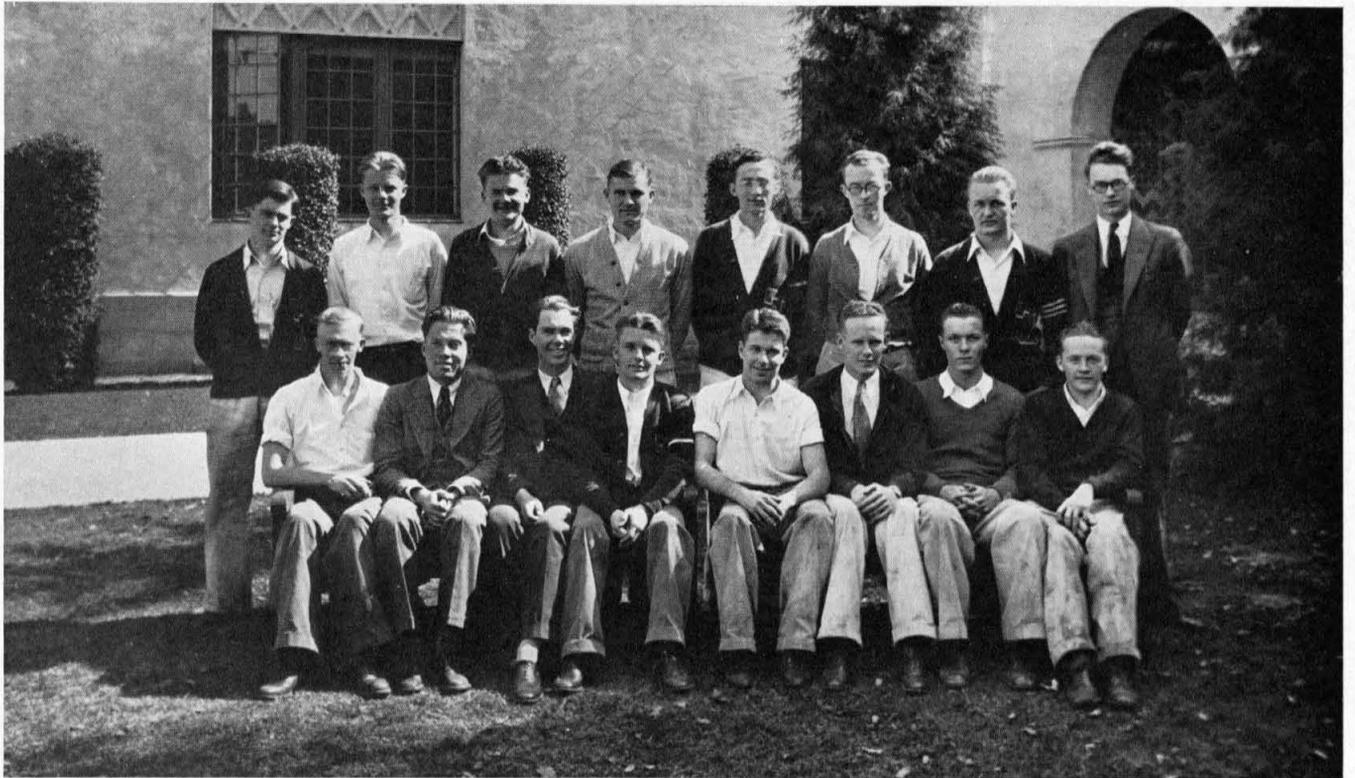
● Mr. Charles Schwieso, who has been in charge of the Institute branch of the Y. M. C. A. for several years, is one of the main reasons for the success of all activities which the organization sponsors. His personal interest in the welfare of all students, from the homesick to the unemployed, has placed him in an enviable position, for he is one of the best-liked "regular" fellows on the campus.

● The highlights of the year's program were the Sunday morning breakfasts, which were sponsored by the Breakfast Club, a part of the Y. M. C. A., and featured Dr. Henry Wieman of the University of Chicago; the Good Friday meeting at which Dr. Theodore G. Soares of the Institute spoke; and the series of lectures given by Dr. Paul Popenoe, eminent sexologist.

● No definite list of the members can be made since the Y. M. C. A. meetings do not exclude anyone; all students are therefore potential members of the organization.

Officers

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	ROBERT FORT.....	HANDBOOK EDITOR	



AMERICAN SOCIETY OF MECHANICAL ENGINEERS
CALIFORNIA INSTITUTE OF TECHNOLOGY BRANCH

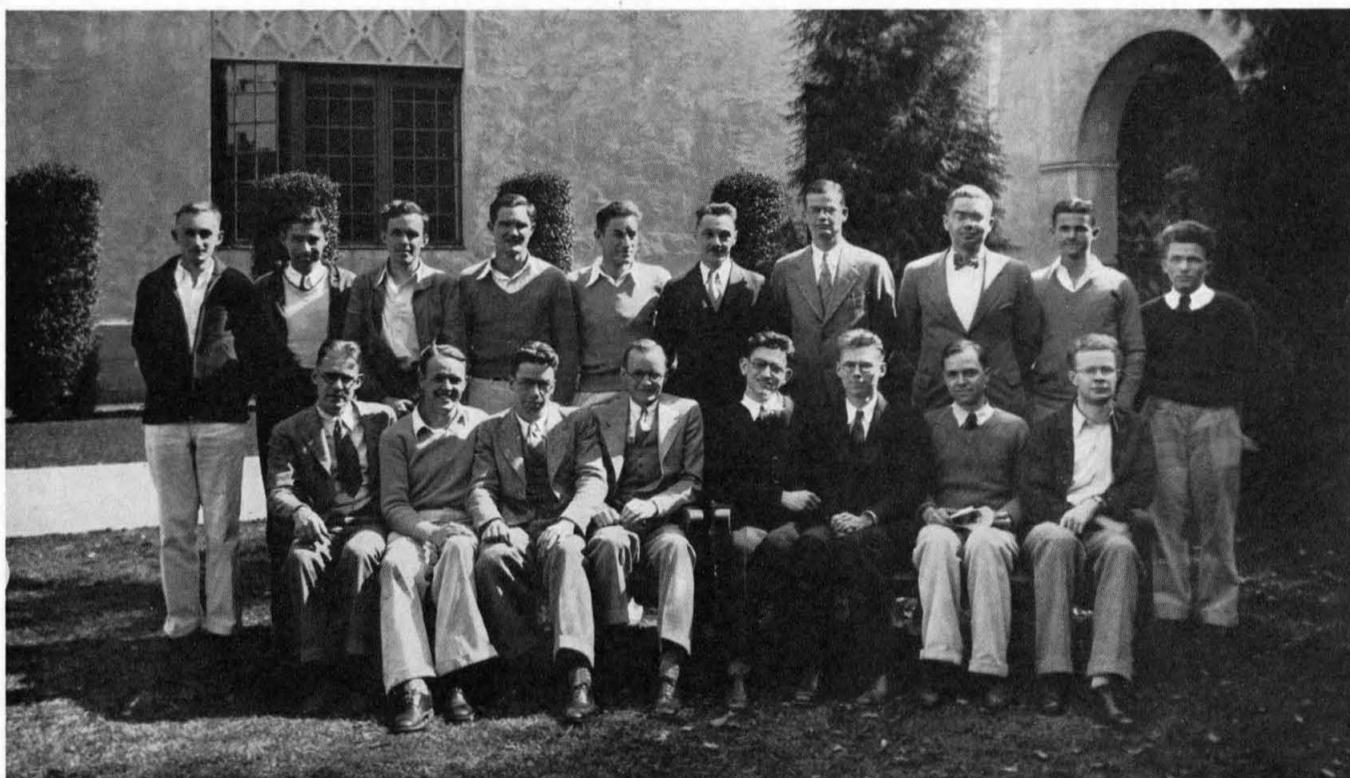
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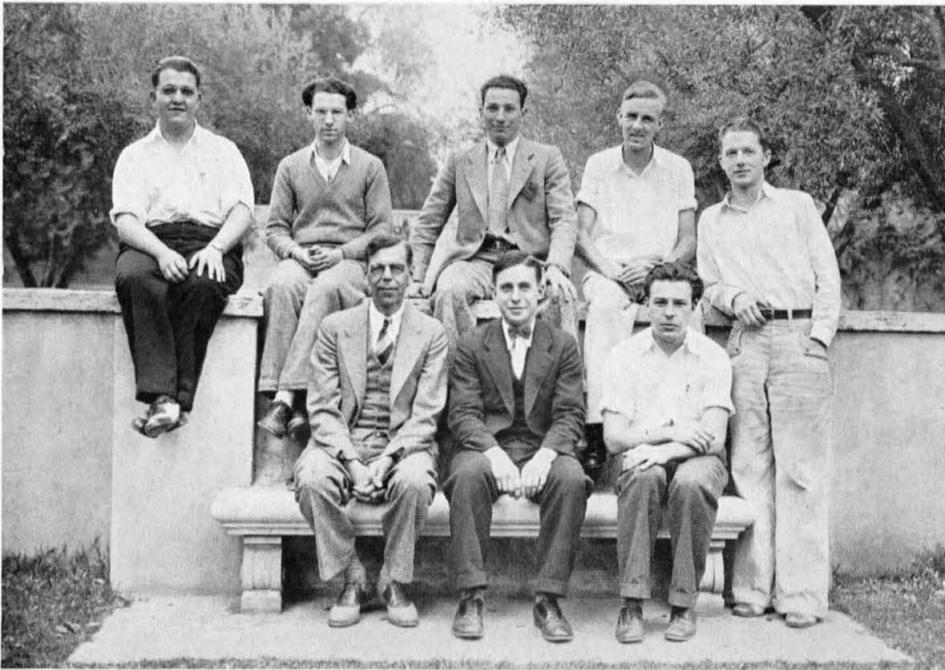
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FRANKLIN THOMAS
NICO VAN WINGEN

WILLIAM WHEELER



RADIO CLUB

• Reorganization of the Radio Club has effected a renewed interest in the plans of the club. Regular monthly technical meetings have been held at which new developments were presented and discussed by student speakers. Several radio amateurs actively engaged in operating stations, of which two are located on the campus, are members of the club. Of the off-campus stations, four are among the most powerful in the country, being 1000 watts each. These stations are in constant contact with foreign stations and are regularly heard around the world.

Officers

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Members

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JOHN DICKSON	FORD JOHNSON
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EDWARD HAYES	WARREN SMITH



WILLIAM PICKERING



THE LANTERN

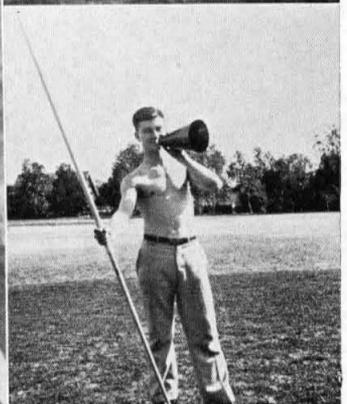
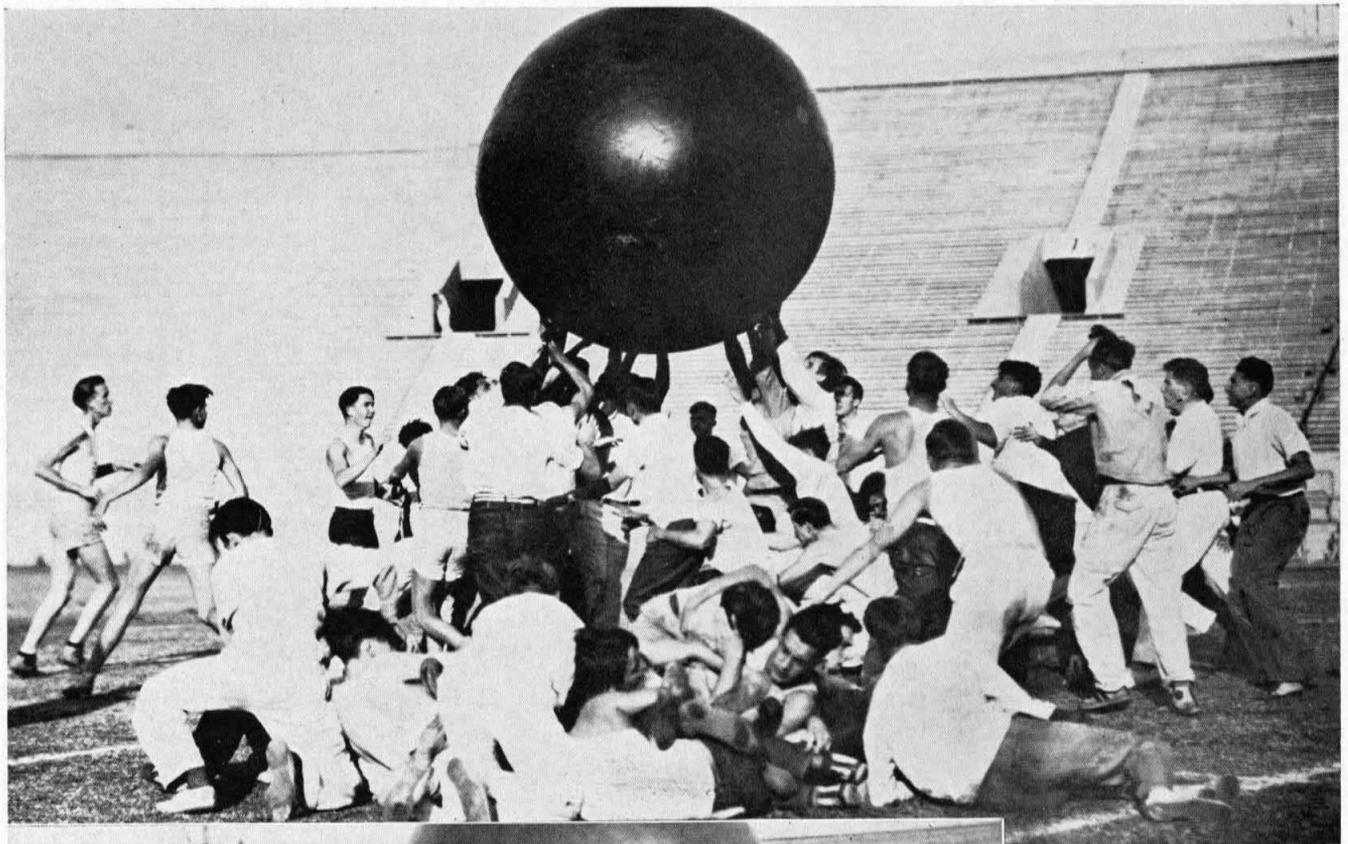
お岩さん
百物語
前北村
権左衛門



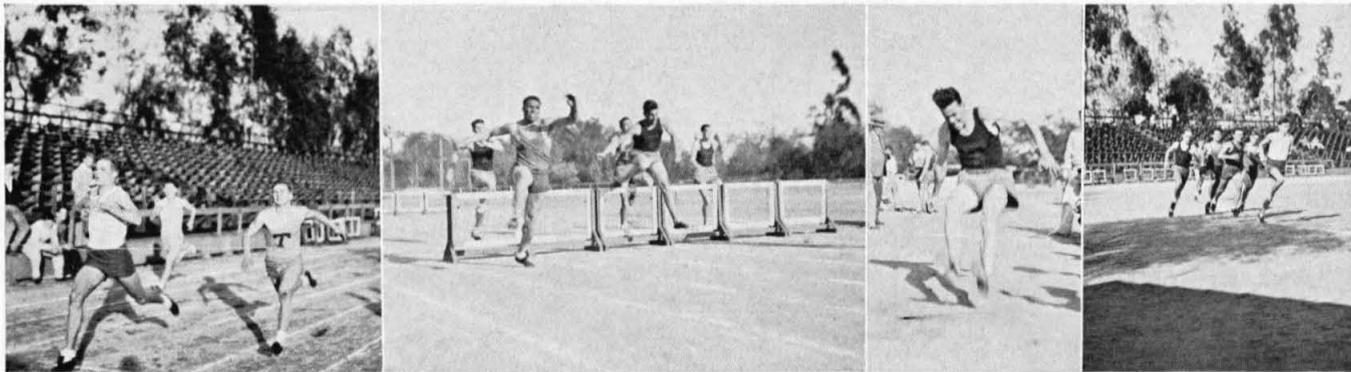
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権左衛門

S N A P - S H O T S

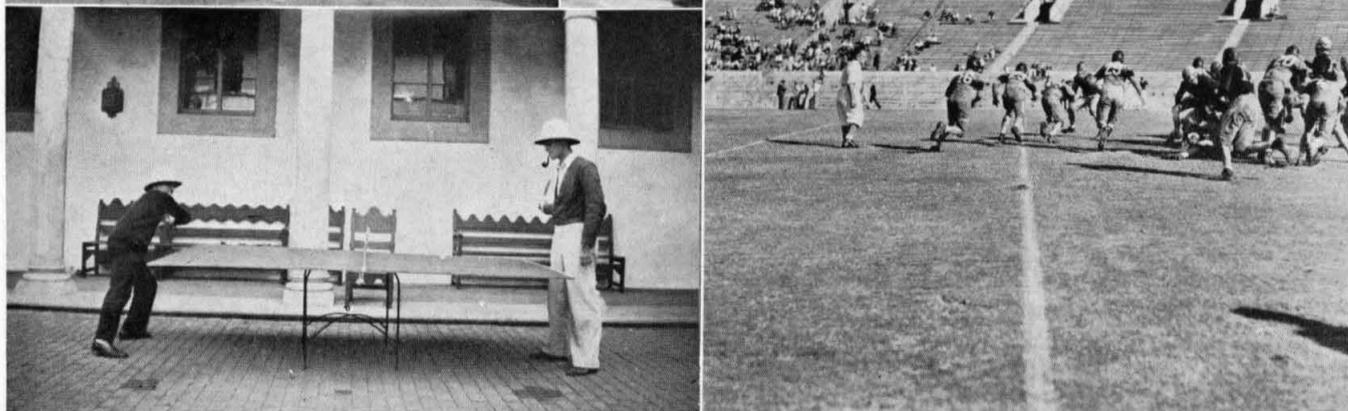
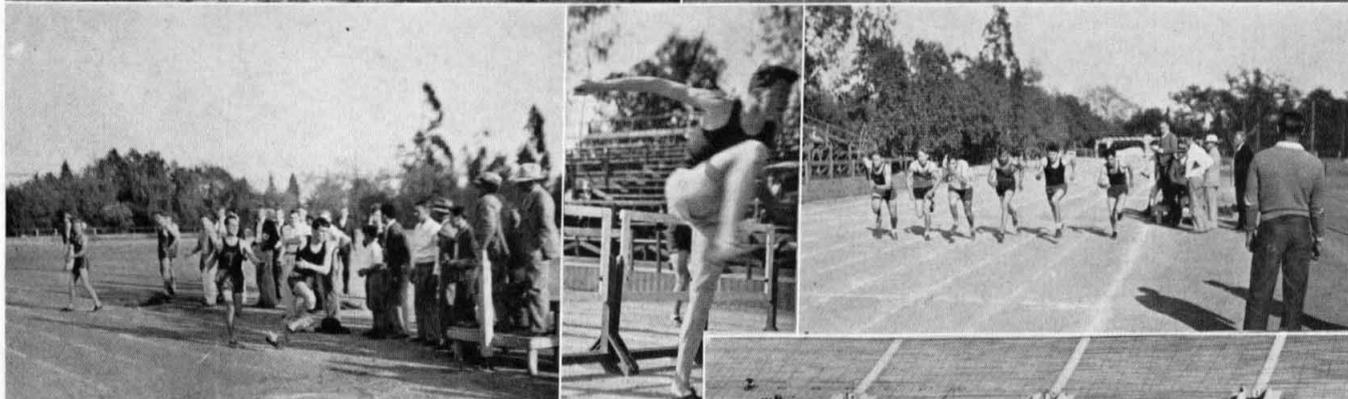
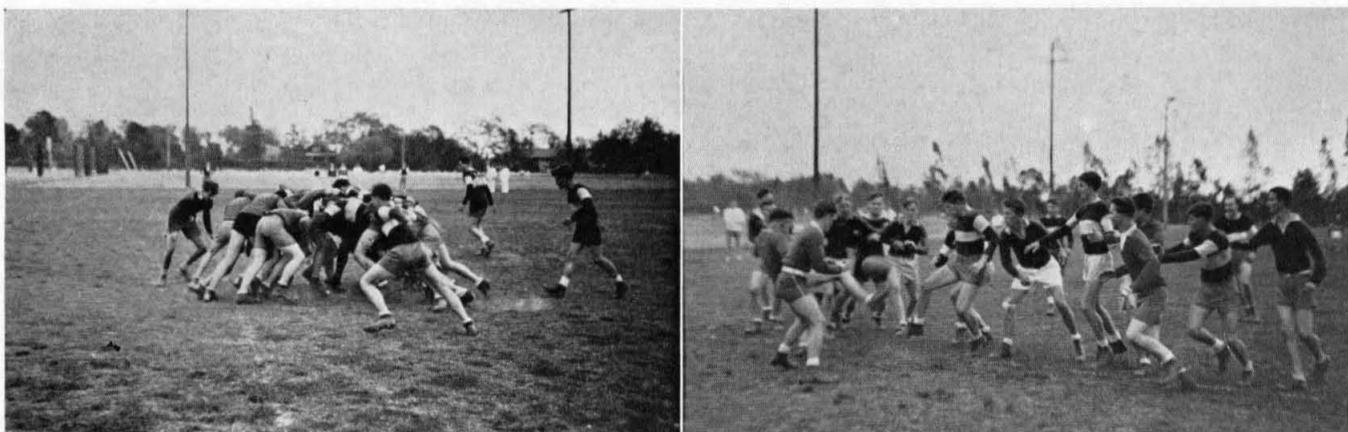
H U M O R



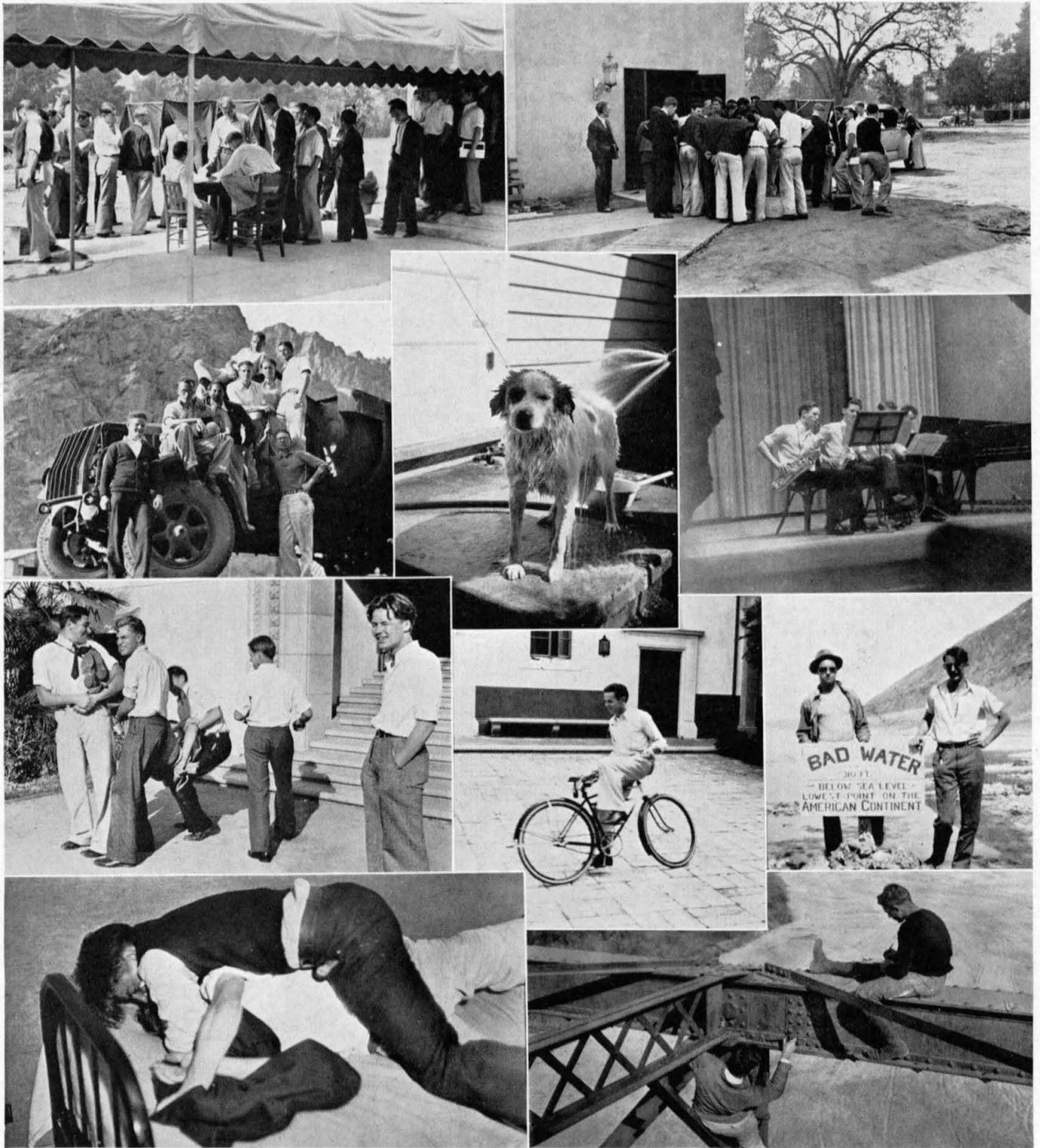
Pushball—a game the Freshmen have never won · Jack the Giant-Killer · The kicking fool Cleveland and his rah! rah! boys



Come on! · Hurdiums · Broadjumper · Laslett leads



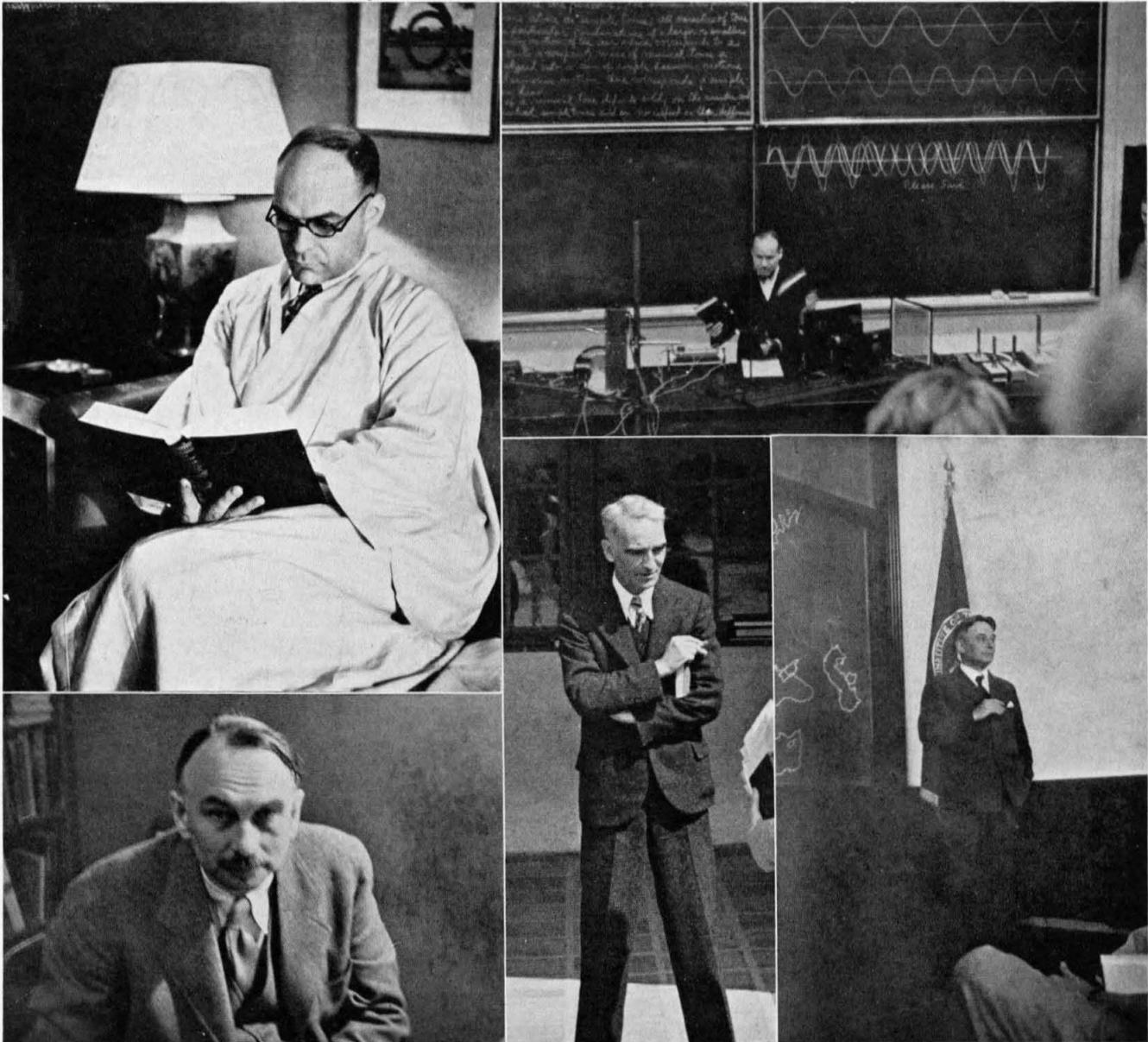
Rugby—an open and shut game · Relays · "Legs" Ferver · They're off · African game · Frosh football



Gravy "bowls" · Some of the Boulder boys · A Freshman's life · Saxophone trio · Victimized Show-off · Why not? · Brothers under the skin · Counting rivets



Library lizards · Two studies · An engineer's day off



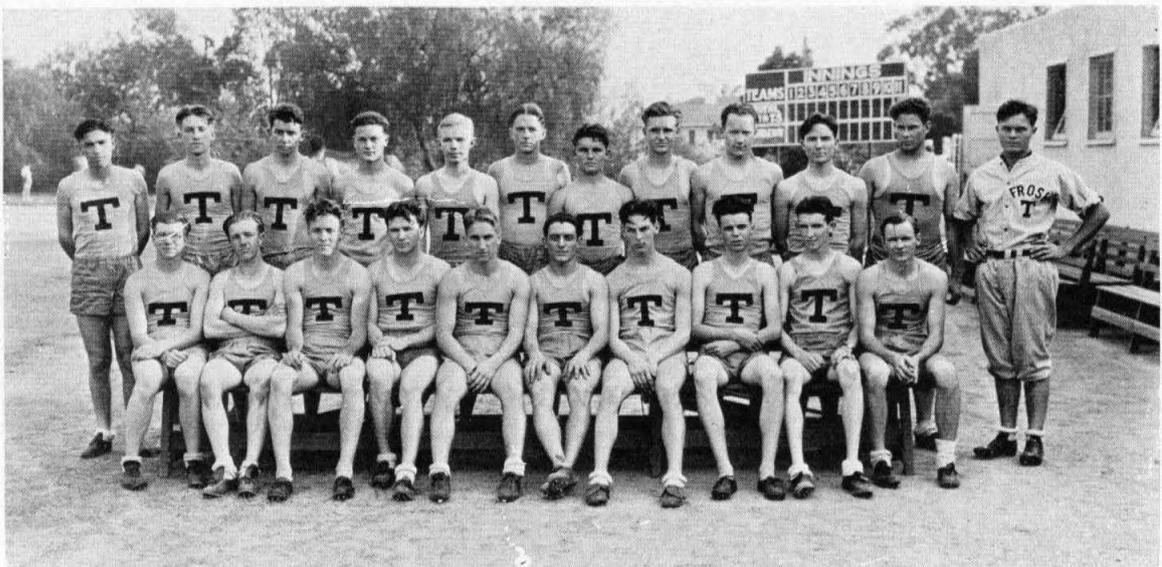
Our Budding philosopher · A Watsonian tradition · Tolman · One out of "137"
Munro doctrines



1933 FROSH BASEBALL SQUAD



1933 FROSH FOOTBALL SQUAD



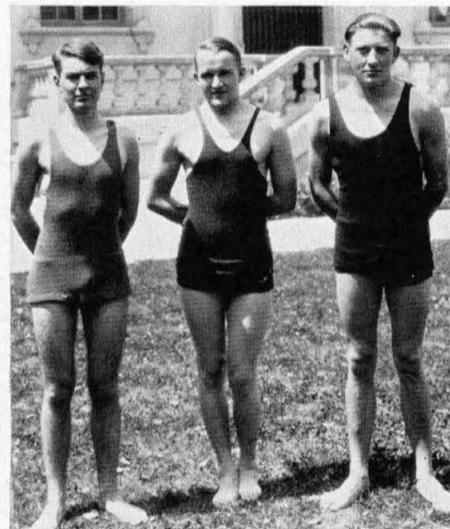
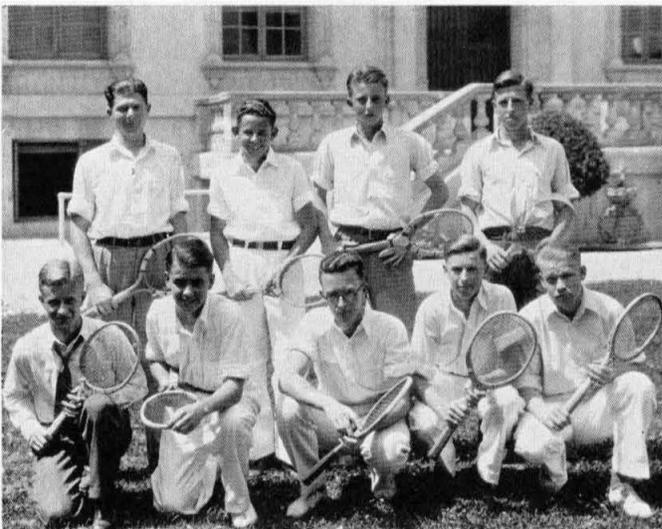
1933 FROSH TRACK SQUAD



1933 SOPH CLASS FOOTBALL TEAM



1933 FROSH BASKETBALL SQUAD



1933 FROSH TENNIS TEAM AND SWIMMING TEAM



What to do! · Patio portrait · After the "brawl" is over · A minor · Holiday packing
 Another rumor · The Big "T" himself · Woodbury · Tom Terrill, tissue tearer
 Meal-time · Sheppard, the gay dog

ADVANCE NOTICE: Don't miss "Lady Windymare's Fanny" by Wild Oscar, Esquirt—a hair-raising tale that will make your blood run hotter.



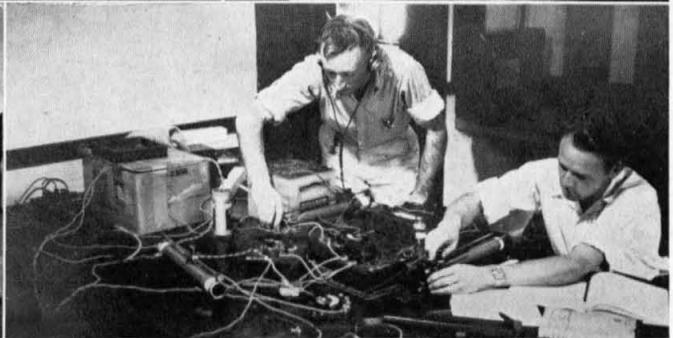
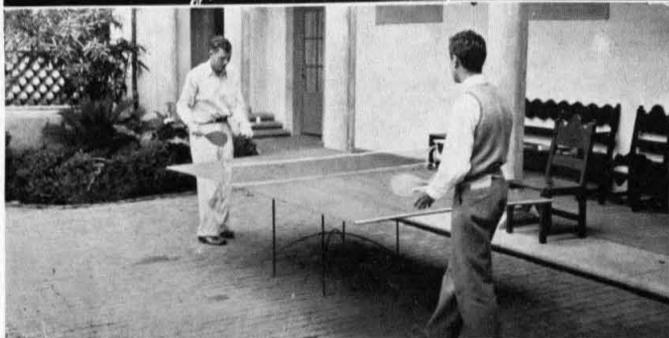
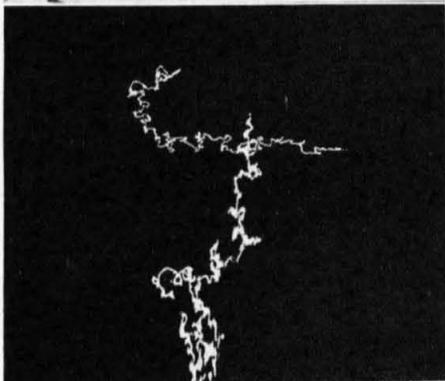
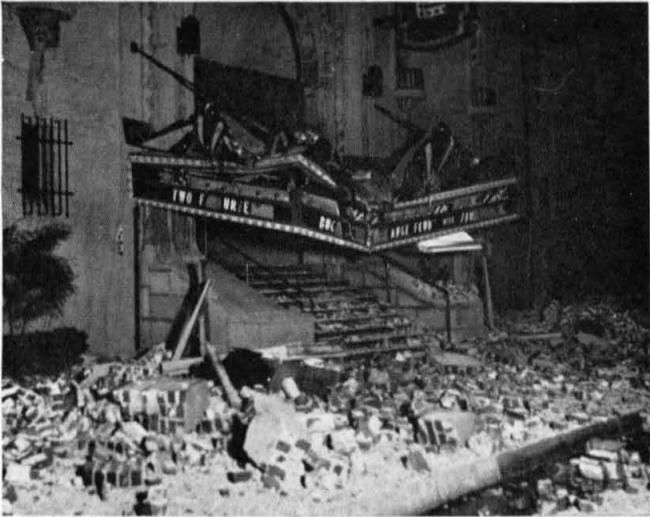
Politics · Children, children! · Several panthers · So what? · A shady racket
Pajamarino funsters



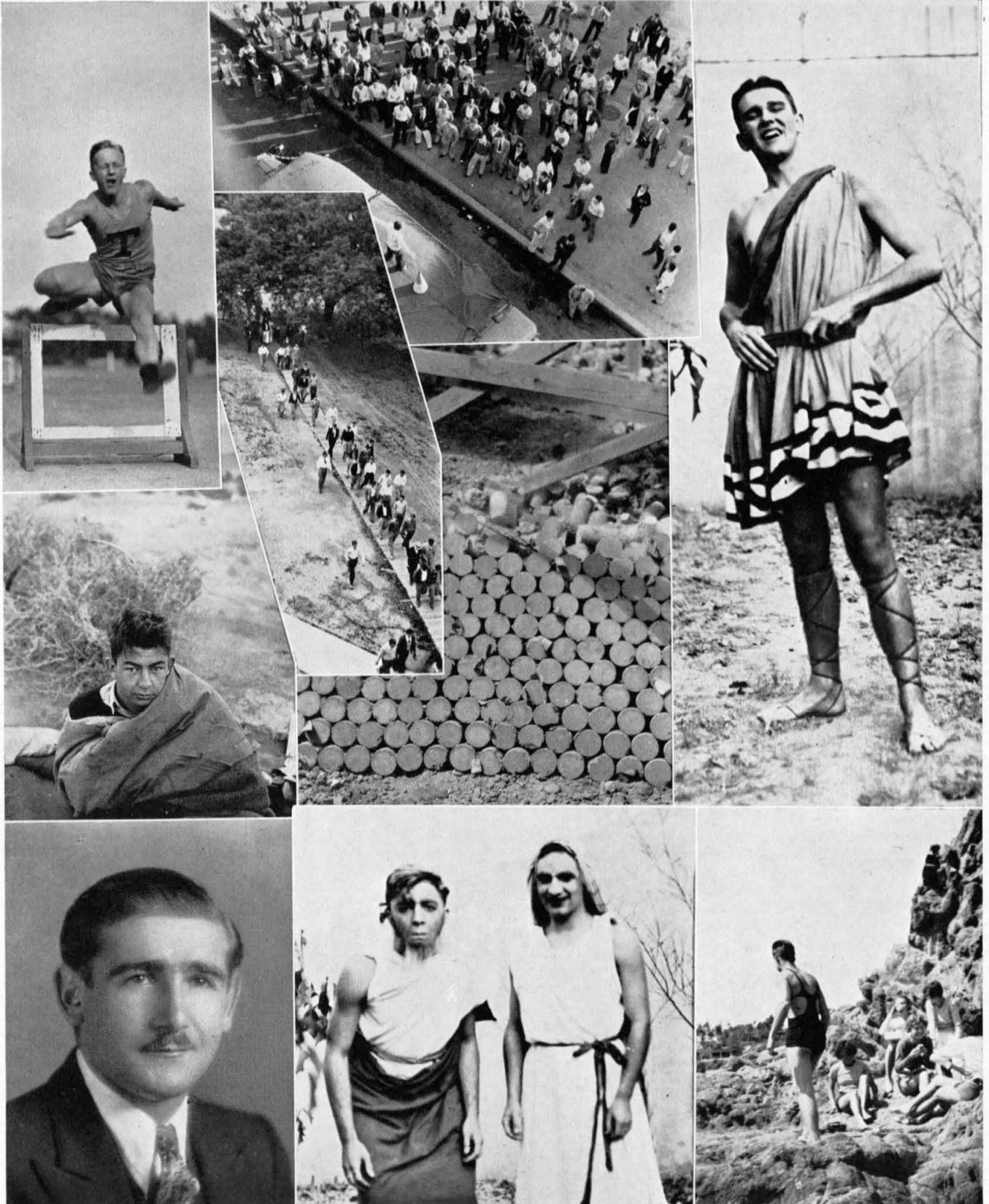
Half-shot · V. C. specials · Dreamy waltz · Explain yourself, Patton
Two highlights with one flash



Non-resident dance · Dabney House dinner · Inter-house dance · St. Valentine himself
Varsity Club dance



Elmendorf "rises" to the occasion · Applied electricity · High treason · Bike supporters
Ah! Hmm! Oh! Oh! · A pat-io game · Testing bugs



Last year's carry-over · Santa Barbara rally · Our Hero · Typically M. T. · Lunch hour
 A testing materials nightmare · Old Nick—Russian correspondent · A couple of Greek tragedies
 Reconnoitering



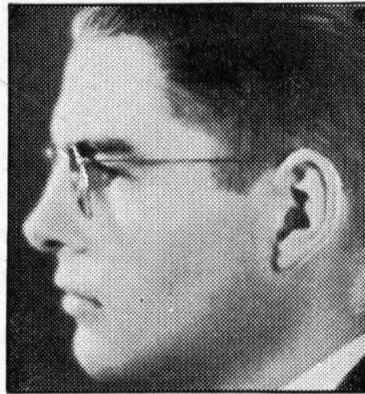
Associate's recess · New Optics building · Electric ears · Forest sprites · Intramural trophy and its sculptor · Sam no find · Drama Club play rehearsal



Newer Styles in Eyewear for Men

Now, more than ever, style and becomingness are featured in glasses.

Notice, in the accompanying illustration, the higher set of the bows, designed to eliminate the down-hill pitch characteristic of old style frames.



Expertly adjusted by GUILDCRAFT fitters, this straight line effect adds grace and dignity to modern eyewear.

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LADY WINDYMARÉ'S FANNY

OR, THE QUEEN OF ARTS*

By WILD OSCAR

PASSED BY THE BOARD OF BIRTH CONTROL**

Pint 1

Alimentary, my dear Matson, alimentary, I said as I unbuttoned the last button of my vest.

But I don't see how it will come out, continued Matson. The doctor said that—

Yes, I know he did, but I'll fix it. Did you ever find me at a loss to fill any breaches. I'll get that contract if I have to have appendicitis so that he'll have to take it out in trade. Turn on the radio.

Yes, sir. What'll you have?

Hand me my bathrobe.

I meant on the radio, sir, he explained as he went into the depths of my closet. I might say at this time—that is, while Matson was in the closet—that Matson was my silent partner in a quiet business venture I was engaged in.

By this time the radio, which Matson had snapped on, warmed to its subject just as my friend emerged from the depths with my robe across his arm and a moth perched on each of his two shoulders. I kept them, that is, the moths, for Matson; he was a great fancier of them, so much so that he was known to his fellow-classmates as "mother" Matson. The wistful strains of an oriental piece flowed through the loud speaker.

If that's Shampoo the Magician, turn it off! Those plunk artists fret my nerves more than they do their instruments.

Oh, but it couldn't be, sir. It sounds more like the opening bars of the Alexandria Barge and Canoe Company's theme song.

Well, I wish they'd snag on a sand bar. It's terrible. Matson helped me on with my robe. Can't you get something else on?

Yes, but this company's putting on a special program tonight. This, if I'm not mistaken, is the 2000th anniversary of the foundering of the company. Just imagine, sir, if you can, 2000 years ago today, Cleopatra opened the barge garbage and

disposal line between Alexandria and the sea. She bought the first barge.

I don't care if Oxford and Cambridge buy their rowing shells from the Remington Ammunition Company, that fiddle-doodle-daddling is terrible. Let's have a program with some strength and uplift to it. Matson went over to the radio, while I sat down and spread the evening papers before me. Now, what have you got on?

It's the Sanders Muscle and Bust Developer program.

Listen, Matson, I wish you'd learn to be more literary and less literal. Turn the damn thing off altogether.

Matson turned it off with a vicious snap. He knew I was irritable tonight, so we both tried to hold our tempers. It was easy for Matson, he had no temper—he was normalized in Clark's class. Then followed several deathless seconds of quiet of an extreme variety. I had had a little too much to drink; I knew that. The last case at the judge's shouldn't have been sampled; but a bootlegger must insure the quality of his goods from a social as well as a business-like standpoint. I felt that another shot would fix me up just right for the rest of the evening. I called out from the pages of newspaper spread before my eyes, Matson!

I heard Matson say, Oh! in a terrified voice and then I felt the room shake. I was all set to holler, Earthquake! when, as I looked over the top of the newspaper, I found Matson picking himself and the moths up from the carpet. He apologetically said, I stumbled over the carpet. Now, this was probably true, but I happened to realize the real cause. Whenever Matson wanted something very badly—something to do or say—he would edge up to me, tiptoe by tiptoe, with a sort of sheepish look on his face. I guessed that I had caught him in one of his trance-like approaches before he had a chance to tap me on the shoulder. It served him right—he made me jump out of my seat many a time with his

*Banned in Boston.
**The Truth Shall Make You Flee!

THE
UNDERGRADUATE
HOUSES
WERE DESIGNED
IN THE OFFICE OF
GORDON B. KAUFMAN
ARCHITECT

610 UNION BANK BUILDING
LOS ANGELES · CALIFORNIA

Mother: It's a good plan, my dear son, always to think before you speak.

Laslett: But mother, dear, when I do that the boys have changed the subject.

And then there was the mechanic's son who wanted to be an insulting engineer.

Tourist: What's the quickest way to Hollywood?
Native: Go to Pershing Square and take a fairy.

And then there's the story of the farmer who beggared himself to put his daughters through college—they came home after graduation and put the farm back on its feet in six months.

uncanny tapping. When I had called out to him, I must have spoiled his equilibrium (Matson could only do one thing at a time), and he gave a physical demonstration of the difference between the laws of gravity and relativity. As soon as he picked himself up, I questioned him before he forgot what he wanted.

What is it, Matson? There must be something on your mind. I can tell by the familiar look on your face.

There is, sir! he cried in relief, and then with admiration, How did you guess it, sir? You have such physic power, sir.

Alimentary, my dear Matson, alimentary, I said, flushing slightly and settling lower in my seat. Is there anything wrong? But before he could reply, I said, as I always did, to twit him about his virginity, Is it a woman?

Yes, sir, it is! came the astounding answer. As clam as an oyster, although it was hard, I carried on with a weak, Is that so?

You see, it's this way, sir, he said, grinning widely and blinking rapidly, as though he took a sort of pride in the situation, Don't you remember, sir? We were invited to attend the Senior Graduation party thrown by Lady Windymare.

I reprimanded him for this tactless admission by saying, Just because you were a discobolus in your time, Matson, don't use the term **thrown** in the same breath with Lady Windymare. She probably provoked a party on purely scientific grounds. What is it—a basket picnic?

No, sir, it's just a dance and buffet supper.

Oh, I see; one of those affairs—after sparring with your partner all evening on the dance floor, you have to buffet your way to the nearest sandwich. By the way, who is this Lady Windymare? Never heard of her.

Oh, she's one of the Heinz-Oldhams, Iowa pork people.

So what?

Well, I—er—well, that is, I asked a girl to go with me and so she said she would, anda—anda—anda—anda—

You'd be a stammering success, if you'd only remember to put in a few amperzandas. Frightfully monotonous the way you do it.

Yes, sir, but may I have the night off? I don't think there'll be any more customers tonight—so, is it all right, if I—. Matson began waving his arms around as though he were an International Harvester.

Just because it's an off-night, you want to get

off too, eh? All right, all right. Why didn't you ask me before? No, never mind. I knew why he didn't ask me; it was because we felt differently about Tech affairs. After having sat with, listened to and stared at Tech men for four years, even a farewell party seemed too much. Anyway the dances were usually overcrowded—a lot of good-looking fellows wasting their time on a lot of unattractive girls, the unsophisticated and the sophisticated, appalling. At any rate, I never believed in the mixing of classes—I even carried this to the extreme of frowning upon the relations between gentlemen and "snakes." But Matson was different—I liked him for it. His being different made life interesting for me. Of course, all this flashed through my pan in no time at all—none whatever.

I didn't think you'd care to go, although, if you don't mind my saying so, I think you ought to go, sir.

I don't mind your saying so, my dear Matson, I said, liking his personal attitude.

I think you ought to go too, sir, he repeated.

This was too much, but I attempted to ease my suffering by asking why he thought I should go too, sir.

Well, you see, sir, there's room in my coupe for another and, anyway, I don't know the girl so very well, so—

I knew it, I knew it. Matson was like that; a most disappointing fellow at times.

No, thanks, Matson; you take the young lady and enjoy yourself in my absence.

All right, if you say so, but do you think it will be all right?

What?

Oh, nothing, sir.

By the way, Matson, before you begin making a fuss over yourself mix me up a high-toned eggnog. And don't look at me as though I knew I had enough; I'm not going out.

A small kitchen lay on the other side of one of the walls, and thither Matson traced his steps. Not two seconds (or so it seemed) had passed before a racket found its way out of the kitchen, much resembling the noise made by stepping on full-grown peanut shells. The smallest noise irked me (I had a Schauptenaurian temperament), so I called out, What in hell are you doing in there? Frying fish? Just as I finished my remark, in fact, before I had finished it, Matson put his head through the door and dragged his body into the room.

I'm awfully sorry, sir, indeed I am. It was the last egg in the house anda—er—anda—

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Kramer (walking into Big "T" office one afternoon): Are you Macdonald?

Macdonald: Yes.

Kramer: Well, I've just been elected business manager of next year's Big "T." What do I have to do?

This question will be answered in the 1934 Big "T."

And then there was the Geometrician's daughter who thought the shape of a kiss was elliptical.

I didn't raise my daughter to be fiddled with, said the pussy-cat as she rescued her offspring from the violin factory.

—Kansas Sour Owl.

Miss 1933.—Darling, may I kiss your hand? asked the young man with old-fashioned ways.

Sure, kid, hop to it, said the Modern Jane, but be careful you don't burn your nose on my cigaret.

—Florida Times-Union.

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LOS ANGELES

Anda what?

And I dropped it, he blurted out. And then with a voice like Zasu Pitts and gestures like Slim Summerville, he moaned, Oh, woe is me. Oh, woe is me. What shall I do, sir? Oh, what shall I do?

Cackle! I retorted.

Yah, but—

But I don't know how, I suppose, finishing his sentence. Well, forget it and get me an aspirin and a whiskey instead. And don't bring me a jelly bean like you did the last time.

Matson left and returned with the stuff without much more ado.

Formal? I asked, as Matson changed his clothes. Yes.

I'm glad I'm not going then.

While Matson dressed he whistled the chorus of a song called, Horses, horses, horses—I'm crazy over horses, horses, etc. After whistling all of the same piece, or maybe it was the same bar over and over again, I began to suspect that he had gotten into a rut. My patience reached an end when he tried to whistle and put on his collar and bow tie at the same time. Apparently, whenever his Adam's apple got into his voice box, his whistle sounded like an exhausted calliope. Such persistence in the face of continual brow-raising on my part could only mean one thing, Matson might be trying to make a joke.

I get it, Matson; I get it, I said. Very funny, very funny. Ha! Ha! (Twice, like that.)

I thought Matson would die laughing, but he stopped once or twice to say, I knew you'd get it, sir, I knew you'd get it. But I didn't get it, and, as I didn't want to disillusion Matson about my powers of deduction, I squelched my curiosity and to this day I don't know what in hell he meant.

Matson had no sooner closed the front door, started his car, driven off, when, as I lipped the last sip of my whiskey, the telephone beside me rang. I was beside myself, too, but I hoped, as the sip slowly trickled down my esophagus, that with Matson away this wouldn't be a customer.

I picked up the receiver and heard someone heave at the other end of the line; I guess it was a sigh. I said, Well?

Are you the—a—person who handles er—a—A, G, and W.

Do you mean alcohol, gin and whiskey?

Yes, sir. That's it, the voice continued. It was a woman's voice, more than likely a maid's. She added, Can you deliver some of—er—it, right away?

It all depends on how much you want, I said. With Matson away I didn't feel like chasing all over the city for just a pint. Anyway, it was getting late.

Would asking for two quarts of—er—a—alcohol and one case of—a—how much is in a case?

Twenty-four pints.

That much? Better make it a gallon. Can you bring that right over?

I'll be right over—before you can pronounce C-h-i-h-u-a-h-u-a-h-u-a correctly, I said, feeling as though I had put too many hua-hua's in, as I used to do in banana. Where do you live?

222 Toodytitoot. You can't miss it, there are a lot of cars around the house, and anyway it's the only house in that block.

222 Toodytitoot? I repeated.

Yes, sir.

Well, toodilyoo.

Twa, twa, she said, with a slight twang, and hung up.

The deuce, I said, as I put the hook around the neck of the receiver. I then cried, Hell's bells! But there was nothing for it but for me to take Ambrosia II out of the garridge and drive over. Luckily, I remembered that I had reminded Matson to fill up the secret compartment of my car with about that much hooch. So all I had to do was to throw off my robe, put my coat on, cock my hat, brush my teeth, and take off, which I did without much more ado.

Quart 1

You can't park here, sir. It was a voice with a foreign accent.

Who said I can't? I'm the bootlegger.

Oh, I beg your pardon, sir. Quite all right, sir, quite all right.

As I picked the jug of whiskey out of the rumble seat and placed the two quarts of alcohol under my arm, I looked around at my accoster. He looked like a page from the New Yorker (or was he just one of Peter Arno's creations?)—a big, strapping, shiny brass-buttoned figure—with a Mexican waffle face (pock-marked). It was a bootlegger's privilege to park his car where he damned please or else—. So I leered pleasantly at him with a crinkled brow.

How shall I cause you to be announced, sir, he said in an off-hand manner.

Never mind that, I replied. I had learned my lesson before; coming in the front door after a party was in full swing was the last thing for a



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Molly says she's wildly in love with her new motor-car.

Yes! Another case where man is displaced by machinery.

—Brooklyn Eagle.

•

Jack, you didn't shave this evening.

No, dear. I shaved this morning and it makes my face sore to shave twice a day.

Well, it makes my face sore when you shave only once.

—Boston Transcript.

•

Girls who give advice to others
Go to Proms with their own brothers.

—Judge.

•

Both them Hula girls loved the same man, so they pulled straws for him.

—Oklahoma Whirlwind.

•

I wonder why Alice always gives me the same old stall?

Probably because you're the same old jackass.

—Wampus.

•

How did you find your date at the dance last night when the lights went out?

I picked her out by the Braille system.

—S. C. Wampus.

purveyor of spirits to do. From bootlegger to a fumbled football was a tacklish change, so I asked him, Where's the back door?

They're all front doors here, sir, he said with a sort of a note of pride showing through his naive reply.

What? And with those kind of windows?

I don't understand, sir.

You don't have to. Well, see if you can find an inconspicuous entrance—something which leads off of the kitchen or thereabouts.

Apparently he knew his ground, for after skirting a couple of wings, we finally landed outside a darkened entrance.

By the way, Donald, or whatever your name is, who runs this establishment?

The doorman smirked, or so it seemed in the murky darkness, and answered, If you mean my mistress (I didn't mean that exactly, but if she was it was all one with me), her name is Lady Windymare.

Many's the time I had nearly lost my liquor, but none approached the nearness that followed this startling revelation. My agitation was apparently noticed by the doorman, for when I regained my poise, he had the gallon of whiskey in his hands. I didn't know how to explain my reaction to his significant remark, so I burped out, Do you like that stuff?, indicating the jug.

What is it? Whiskey?

You ought to know, you whisked it away from me.

I was told never to accept anything that was offered to me unless the giver persisted.

Not liking his attitude, I rejoined, You meant resisted, didn't you? Well, come on, I'll take a snifter with you, thinking he'd just wash his gums inasmuch as he was still on duty. But when I took

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the jug from him, the contents had a drained look—his sipping bordered on supping. Before I swigged, I took off my glasses. Once while drinking some bathtub hooch out of a bottle, a few drops splashed on my spectacles and the panes fell out. Was I lost? After taking this precaution, I took a short swig—I knew my capacity and, anyway, I wanted to be able to count the change or, if it was a check, to be able to identify it.

When I finished I looked for the doorman, but couldn't see him at first. My first thought was that I had drunk too much, but dispelled this as I heard the sound of water, and in looking around the corner of the house, I found him standing over a lawn sprinkler. I merely commented on this dripping situation by saying, Personally, I never use a chaser. So long.

I turned on my heel and went back to the entrance. I rapped softly on the door, and when I was certain that no one had heard me, I opened it and went in. It smelt inside the room like any other respectable back-porch, but I couldn't make out much in the darkness which flooded the room. As I set the jug and the two quarts down so that I might be able to find my glasses, which I had slipped in one of my pockets, someone switched on a light in an adjacent room. By the light which fell through the glass of the door, I traced my steps towards it and discovered that behind it lay the kitchen. I opened the door, and as I did so, a young woman's voice said, Who's there?

Looking in the direction from whence the query had come, I saw a blurred picture of a young lady in a red evening dress which she barely had on. I hadn't as yet found my glasses; in fact, I almost had as great a difficulty in finding my tongue, but answered, A friend with a bottle.

I liked her reply as she said, Advance with the cork out.

Snakey Play

In one act, one time, and one opus.

Time: It is now 11:52.

PLACE: Call TE 6111 and ask for Sidney.

(Characters, in order of appearance)

E Pluribus Unum
A plumber
Mysterious man from Kokomo
A snake
Sidney
Sidney's right hand man
Helen of Troy
Father Time
Reaper Man (with scythe)
One grand piano (Chickering)

Act I

(Enter, Mysterious man from Kokomo, with a mop and a bucket hidden under a long black cloak. His shoes squeak as the clock ticks. On second thought, he is barefooted.)

Voice from grandfather clock: So I sez to Poil, Poil, ol' gal, bz-z-z—

Second voice from under the table: You goddam nitwit, whyinell didn't you return my heart finesse?

Curtain

•

He—Let's get married or something.

She—Let's get married or nothing.

—Chicago Phoenix.

•

If all the actors in Hollywood were laid end to end it would probably be because they were making scenes for gangster pictures.

—Judge.

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His Boss—Dodson, I found this long blonde hair on the back seat of my limousine. My wife's hair is black.

Chauffeur—I'll give you an explanation, sir.

Boss—Explanation nothing! What I want is an introduction.

—Montreal Star.

•
The most diverting sight of the cold months was a Boy Scout and a Camp Fire Girl who had grown up and married, arguing to determine which would go and build a fire in the furnace.

—Rose Technic.

•
Can you operate a typewriter?
Yes, sir, I use the Biblical system.
I never heard of it.
Seek and ye shall find.

—Widow.

•
Eliza, said a friend of the family to the old colored washwoman, Have you seen Miss Edith's fiance?

No, ma'am. It ain't been in the wash yet.

—Annapolis Log.

The girl had come over to me by this time—she was about twenty or twenty-two, blonde, extremely attractive, a figure like—I almost missed what she said, but for the fact that she smiled as she said it, We've been expecting you. Where is the liquor? Can I help you?

I just kept on looking at her as she brightened up, enlightening her on my condition by saying, What do you think?

I think you do, she said. Where is it?

Out here, I answered, pointing behind me. You carry the two quarts and I'll carry the jug. Howzat? She smiled at me and said, Fine.

I took her over to where the stuff lay on the floor and when she bent over to pick up the two quarts, I obeyed that impulse in the half-light by striking a match.

She said, Ouch! and stood up, looking indignantly at me with the two bottles in her hands.

I said, I'm sorry. I couldn't see in the dark. I needed a light to help myself.

She said, You certainly did.

You're wearing a girdle, I remarked.

You're tipsy, she retorted, adding, Do you always make light of funny positions?

Aw, but this was only a tail-light, I said, trying to mollify her scratched feelings.

My last remark at least modified her angered disposition, but I kept my distance, contenting myself with putting the lighted match behind me and throwing myself all over her—in silhouette.

You think you're clever, don't you, she remarked as she dropped her hands and the bottles to a less potentially harmful position.

Maybe, I grinned, picking up a little courage and not feeling so sorry for my indiscretion as I, at first, felt.

Well, next time, she said, smiling one of those smiles no man can trust, Don't make me the butt of your jokes.

Ho! Ho! I ho-hoed. You think you're a match for me.

She turned and went for the kitchen. I hastily looked for my specs, and finding them, put them

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on. I didn't want to go home and yet I was sober enough by this time to realize that this wasn't the opportune time to introduce myself to the young lady, whom I began to regard in a favorable light, so I did the next best thing. I found another door at the other side of the porch and hurriedly opened it and closed it behind me before she came out again.

Pint 3

I found myself in what I made out to be a hall; it was too dark to make sure. I tried a couple of doors to rooms which led off from the hall and at last found what I wanted. The bathroom was a beautifully tiled room fitted out with the best fittings, plumbing and all. There was even a radio in the room, and I wondered why it was there until I found a box of Exlax lying next to it on table cabinet. Suspecting that I was in a part of the house away from the party, I merely closed the door without locking it and walked over to the wash stand. I doused my face with cold water, borrowed an aspirin, combed my hair, and adjusted my tie and clothes. The cold water and thinking about the girl I had just met brought together the two extremes which helped to sober me up. I wanted to learn a little more about the young lady, for up until now I had only scratched the surface. After making myself as presentable and steady as possible, I left my hat in the relief station and went in search of the party.

I thought I had lost myself in a labyrinth, but after opening and closing innumerable doors and stopping every now and then to catch the direction from which the faint strains of a jazz orchestra's music came, I finally located the graduation party. All of the men were in tuxedos or wore dark suits, while the women sported smart evening dresses and crushed corsages. I made an interesting note of the fact that several of the seniors had improved their appearances by leaving their tux's and stiff shirts on the hangers in their closets. At any rate, I conjectured, they wouldn't bore their partners by telling them at odd intervals during the evening of how uncomfortable a dress-suit was. There they

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GASOLINE

A minister, holding services at a church in Southern Georgia, in making an announcement one Sunday morning said, Next Sunday, services will be held at 11 o'clock at the north end of the church, and at 3:30 o'clock at the south end. Infants will be baptized at both ends.

—Yellow Jacket.

Baldwin—Darling, I have been thinking of something for a long time. Something—it trembles on my lips.

She—How remarkable. Why don't you shave it off?

Shade—Say, boy, do you all know why dey calls dat town up north in Michigan, Battle Creek?

Shadow—Sho' Ah does; dat's de place where dey stahts so many breakfast feuds.

Agatha has the most exaggerated ideas of her abilities.

Why so, asked Mary.

Her mother wrote me that she had double pneumonia and was in bed with three doctors.

—Rice Owl.

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PAGE

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An old maid went to have her picture taken and the photographer noticed her tying a piece of clothes line around the bottom of her skirt.

What's the idea of that? he asked. I can't take your picture that way.

You can't fool me, young man, said the old girl. I know you can see me upside down in the camera.

•

Sweet Inquirer to Hotel Clerk: How much are your rooms?

Clerk: Five dollars up to twelve.

Same: How much for all night?

—Rose Technic.

•

Commander—Now, suppose you are on your post one dark night. Suddenly a person appears from behind and wraps two strong arms around you so that you can't use your rifle. What will you call then?

Cadet—Let go, Honey.

—Illinois Siren.

were—almost a hundred freshly graduated seniors; the future ingenues and sinecurists of the nation. Here were assembled in two large rooms, or rather halls, the mental czars in their scientific primes.

I began looking for my goddess. First, I wanted to apologize for my lightning gestures which I am sure she couldn't have followed, for as we all know, the hand is flicker than the eye or there's no bull like a bad bull. Secondly, I wanted to find out who she was. Most of the party was on its feet, twirling hither and yon, before, behind, and on all sides of the orchestra which was picturesquely located on a built-up stand in the center of the largest of the two halls. Noticing Mathewson and Clark coming out of a secluded spot, I went over to them and told them that the spirits had arrived. One of the two breathed, At last, and then they vanished.

I almost fell through the floor when, without warning, someone tapped me on the shoulder. I suspected Matson and, sure enough, it was he. I don't know how he did it, but Matson had a knack of getting the most attractive women to accept him as their escort. Of course, we all knew that most girls would have given their right breast to be asked to a Cal Tech dance, but I only knew of a few



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isolated cases where full advantage was taken of the bosom offer.

Mr. Oscar, it sounded so silly to me, I'd like you to meet Miss Asterisk.

How do you do?

I'm so glad to know you. Eddie (she called him Eddie) was telling me that he didn't think you would come this evening.

I changed my mind. Having a good time?

A very nice time.

You ought to meet Lady Windymare. She's priceless. And then Matson leaned over to my ear and whispered, She's as big as a horse—toboggan slide and everything.

Oh, that isn't fair, whispering in polite society.

You mustn't mind Matson, he's an idealist. He was telling me (looking Matson right in his left wince) what an awful bust this Lady Windymare is.

Oh, but she isn't. She's an awfully nice person to know. She's got the dignity and poise of a—er—a hospital matron.

You see, Matson, you are right and you are wrong. She can't help herself; this is just a hang-over from her nursing days.

Matson had already begun dragging Miss Asterisk away from me; he knew that my remarks got

(Continued col. 2—page 228)

Mother—You know, Geoffrey, Norma is nearly seventeen years old, so today I had a frank discussion with her about the facts of life.

Father—Ah! Did you learn anything new?

—Everybody's.

•

Girls who retire at half-past ten
Are loved by their parents and elderly men.

—Judge.

•

Visitor—Where does this lane lead to?

Native—Well, it's led half of the young folks around these parts into trouble.

—Annapolis Log.

•

Suitor—May I marry your daughter?

Stern Father—What is your vocation?

Suitor—I'm an actor.

Stern Father (angrily)—Then get out before the foot lights.

—Battalion.

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ROMEO AND JULIET

A PAIR OF SHAKESPEARE'S SHORTS

It was in ancient Italy a deadly hatred grew
Between old Caleb Capulet and Moses Montague.
Now Moses had an only son, a little dapper beau;
The pet of all the pretty girls, by name young
Romeo.

And Caleb owned a female girl, just home from
boarding school;

Miss Juliet was her Christian name—for short they
called her Jule.

To bring the lady out, he gave a ball at his planta-
tion,

And thither went young Romeo, without an invi-
tation.

One, Tybalt, kinsman to the host, began to growl
and pout,

And watched an opportunity to put the fellow out;
But Caleb saw the game, and said: "Now, cousin,
don't be cross;

Behave yourself, or leave the room. Are you or I
the boss?"

When Juliet saw Romeo, his beauty did enchant
her;

And Romeo, he fell in love with Juliet instanter.

Now, lest their dads should spoil their fun, but little
time they tarried;

Away to 'Squire Lawrence sped, and secretly were
married.

And Tybalt being very drunk, at Romeo did swear.
Then Romeo his weapon drew: a knife of seven
blades,

And made a gap in Tibbie's ribs, that sent him
to the shades.

The watchman came; he took to flight, down alley,
street, and square.

The Charlies ran, o'ertook their man, and took him
'fore the mayor.

Then spoke the worthy magistrate (and savagely
did frown):

"Young man, you'll have to lose your head, or else
vamose the town."

He chose the latter: left in solitude to pine;

"Ah, me! said he, "Our own honeymoon is nothing
but moonshine."

And then, to make the matter worse, her father did
embarrass

By saying she must give her hand to noble Comte
Paris.

"This suitor is a goodly lad; today he comes to woo;
If you refuse the gentleman's hand, I'll soundly
wallop you."

She went to 'Squire Lawrence's cell, to know what
must be done.

The 'Squire bade her go to bed and take some
laudanum;

" 'Twill make you sleep, and seem as dead; thus
canst thou dodge this blow;

A humbugged man your pa will be—a blest one
Romeo."

She drank, she slept, grew wan and cold; they bur-
ied her next day;

That she'd pooped out her lord got word, far off in
Mantua;

Quoth he, "Of life I've had enough; I'll hire Bluff-
kin's mule,

Lay in a pint of bald-face rum, and go tonight to
Jule."

Then rode he to the sepulcher, 'mong dead folks,
bats and creepers;

And swallowed down the burning dose—when Juliet
oped her peepers.

"Are you alive? or is't your ghost? Speak quick
before I go."

"Alive!" she cried, "and kicking, too; art thou my
Romeo?"

"It is your Romeo, my faded little blossom;

O, Juliet! is it possible that you were acting
'possum?"

"I was indeed; now let's go home; pa's spite will
have abated;

What ails you, love, you stagger so; are you intoxi-
cated?"

"No, no, my duck; I took some stuff that caused a
little fit."

He struggled hard to tell her all, but couldn't, so
he quit.

In shorter time than takes a lamb to wag his tail,
or jump,

Poor Romeo was stiff and pale as any white-washed
pump.

Then Juliet seized that awful knife, and in her
bosom stuck it,

Let out a most terrific yell, fell down, and kicked
the bucket.



Dear Mr. Martin:.....and in letting the photography contract for the Broadoaks School of Education to you, I am basing my choice of studio on the excellent work you did for my brother in his year-book.....
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I wonder how Thanksgiving originated?

It was probably instituted by parents whose sons had survived the football season.

—Boston Transcript.

•

Mother (severely)—Myra, did I see that young man stroking your hair on the piazza last night?

Daughter—It's a mere habit with him, Mother. He used to stroke on the varsity eight.

—Boston Transcript.

•

Fond Mother—How much do you charge for taking children's photographs?

Photographer—Five dollars a dozen.

Fond Mother—You'll have to give me more time, I have only ten now.

—Sniper.

•

He—Can't you see I want to be your little love bird?

She—Oh, yes, but you may be a little fly-by-night.

•

Doesn't that soprano have a large repertoire?

Yes, and that dress she has on makes it look worse.

—Capper's Weekly.

worse with conversation. However, she seemed to resist his efforts at rescue work and looked at him as though he had bumped her base. She had apparently initiated him into her code of signals, for he desisted and said to me, How about exchanging a dance, pal? I will, I said, as soon as I can find a girl. I'm looking for a girl about as short as I am tall. Do you think I'll be able to find her?

No doubt about it, he observed. I don't know how you do it; it must be the result of your phisic power.

Alimentary, my dear Matson, alimentary, I replied, flushing slightly. I bowed to the young lady and carried myself to another corner of the hall. This search seemed to me to be pretty much of a one-sided affair, as I figured that even if my goddess were looking for me, she couldn't possibly recognize me without my hat on and now that I was wearing my glasses. So in the hopes of meeting her sooner or later in the evening, I stopped and chatted with a small group of seniors and their companions. I had never mixed with scientists, they didn't speak my language, but when Brunner, Bender, Hunter, and Marlow got together there was always something of interest in the wind, not saying what it was. The topic of conversation was influenza. Bender was saying, According to the last analysis, that is, if we are to believe the source of my material as authentic, the best antidote for persons afflicted with the flu or the sniffles is to liquify the sneezes of persons who have contracted for common colds.

And then inject the paste into the body in the vicinity of the last vaccination mark which took? suggested the sage Hunter.

No, no. It is fed to the system with a spoon.

What a system, conjectured Marlow.

I suggested, An epidemic far more interesting to

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While the critics wax enthusiastic
And call him the sensation of the year.

One will weld together masses,
Scraps of iron and old brasses;
Modern sculpture won't be difficult to beat.
In fact, an old resistance
Well might come to his assistance
As, The Loss of Cosmic Energy in Heat.

As for poetry, to double
Human output is no trouble;
One can jumble words on mathematic plan.
The result will be profounder
Than the wit of the expounder,
Though the censors will find passages to ban.

Oh, the engineering training
Will distinctly help in gaining
Us a notice in the world of finer arts;
There's so much that is so easy
If you have a manner breezy
And a crafty knack of interchanging parts.

When the engineers go arty
You will find that every party
Will recite or paint or write a bit of verse.
Each will find his engineering
Forms a basis for his steering
In artistic fields towards things which fill the
purse.

The piece was well received by the assembly, who applauded with encoregging vigorousness. Two or three of the Seniors began shouting, Author! Author! After little pressure had been applied, Pierce was induced to make a short speech. John Pierce is an excited-looking person; his piercing eyes breaking the monotony of gold-rimmed glasses. His dithyrambic speech was punctuated with short, characteristic jerks of his head. He thanked the students as one does who knows his own worth and yet must pander to this balderdash. With genuine sincerity Pierce wondered if the company would mind hearing the Entry Boys give their interpretation of another part of the operetta. The loud applesauce which greeted this candid expression of Pierce's love for his first-born caused him to pick his nose with pleasure. The thought of the first night of "Bull Hangs High" success brought to my mind the artistic representation of this particular piece by five of Tech's most representative high point yearners. I can't remember their names, but they have already become part of the hiss-story of the Institute.

After motioning the assembly over to the sides of the room, Pierce stepped down from his perch and lost himself in the crowd. The orchestra began playing that tantalizing, scintillating, sensual oriental snake dance which characterized the aria. Beginning softly and increasing in volume, the orchestra gradually brought all of its pieces together and in full swing just as everyone's eyes turned in the direction from which the Entry Boys were scheduled to appear. The fellows had taken off their coats, dancing in their shirt sleeves. Each man carried a scarf in one hand and a big red apple in the other. As they sang and danced about the



hall, they stopped in front of all the faculty members and, executing very fancy steps, polished the apples with the scarves. The song is reprinted by special permission of the playwright owner:

The Song of the Snakes

Sinuous, subtle, and sneering are we,
Snakes of the bottommost serpent degree.
Weaving and writhing our devious way,
What matters honor if practices pay?

Treading our measure of consummate ease,
Effortless gestures are sure to please.
Polish the apples to open all doors;
Kowtow to powers for threes and for fours.

Toil not nor trouble, for labor is vain;
Polish the apple with infinite gain!
Polish it gracefully, polish with care,
While noble instructors are quite unaware.

Sinuous, subtle, and sneering are we,
Snakes of the bottommost serpent degree.
Weaving and writhing our devious way,
What matters honor if practices pay?

The specialty number was a huge success, a perfect riot; everyone wildly acclaiming the scintillating music and sinusoidal motions of the simple harmonic quartette. The snakes in the room applauded the loudest and persisted in their effusive demonstration like Fuller brush men. The orchestra drowned them out by striking up a lively tune, and pretty soon the floor was once more packed with a milling willy-nilly crowd.

Quart 2

While all this had been going on, I had noticed something red behind the posts of the marble balustrade of the marble staircase which wound up to the second floor from the side of the dance floor. Seeing red and remembering that my flame had a red dress on, I had edged over to the stairs while the program was in progress, so that when the "Snake Dance" was over, I found myself at the foot of the stairs.

Just as I was about to ascend the stairs Detmers grabbed my arm. Wait a minute, Wild. I've got some pictures you might use. I made a gesture of impatience, For what? For an answer, Detmers handed me four photos and then took two steps backwards and looked ga-ga. Apparently my advice as to the worth of these pictures was in demand, so I restrained my desire to climb the stairs



Sorry, Maritza!

•
She was only a garbage-man's daughter, but she wasn't to be sniffed at.

•
Rin-tin-tin's favorite actress must be Helen Twelvetrees.

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'32—What did you say to the girl-friend when she wouldn't let you hug her because of her sunburn?

'33—Darn your hide!

—Brown Jug.

Dr. Clyde Wolfe has recently plotted a graph, showing that if wishes were horses, approximately half the world's population would have to be street-sweepers.



Fiddle-Dee-Dee

for a moment while I looked through them. The photos were pictures of some girls in bathing suits; they were moving picture people. Although I knew that Detmers was a member of the Naval Reserve and was interested in boats and deep water, I didn't think that he went into things like this. What did you do, I asked, Dress 'em? No; I took their pictures.

Doubting this, I said, Who are they? Don't you know? They're Paramount stars. I scratched my jowl and said, All of them? Detmers nodded uneasily. I pointed to one of them and said, This one, too? Well—, Detmers began. I shook my head and said, She's no star; she hasn't even got an asterisk.

For some reason or other, Detmers wanted to uphold the honor of the girls and said, How do you know? Listen, Ga-Ga, I said, I get my first-hand information about stage and screen actresses from a guy named Brennan. What he doesn't know about them isn't fit to be printed. I could also have said that what he did know about them wasn't fit to be printed either, but there was no sense in complicating the situation.

Still holding his ground, Detmers pointed to one of the girls who was draped about the steering wheel and said, What about her? You'd better leave her alone; she's got a Russian complex and everybody's her second cossack. They're awfully expensive when they come like that.

Pocketing the four pictures which I returned to him, Detmers said, Ohhh. As for myself, well—

Yes, there she was; sitting at the top of the stairs where she could command a view of the entire room. Found, at last! Quickly mounting the stairs, I stood before her breathless. She looked up at me and then put her head in her hands as before—she looked as though she had a stomach-ache. She hadn't recognized me, so I said, May I have this dance? Without looking up she returned, I'm awfully sorry. I don't think I'd better; I'm about to become a mother.

That's too bad. I guess I'm a little late. She raised her brows when I said this so I continued by

saying, What do you think it will be, a boy or a girl?

I hope it's a boy; girls run in our family—I want something extraordinary.

If you want a boy real bad, I know what you can do.

What? I noticed a look of interest on her unblushed countenance.

Phone Western Union! I said, as I turned to go. I guessed right for she sat up and said, Do you really like to dance? Not particularly. Well, then, squatez-vous, indicating a seat next to her own. Come picacherry, I said in abortive Italian, and sat down beside her.

What's your name, I said, trying to be affable. Fanny. What's yours? Don't you know? I said with a quizzical frown. I'm Wild. I could have guessed that. And then something suddenly dawned upon her. Oh, I see, your last name is Oscar. Right, but how did you guess that? In looking through the Big "T," I saw by the pictures. You're a conceited brat, aren't you? Well, maybe. What's your definition of a conceited person? There are hundreds of accepted versions, but I think that an egoist who rests on his laurels is a good one.

Well, I said, I guess that leaves me out. I'm an egoist who is still weaving his wreath.

What are you going to do with it when you've finished? Oh, have someone print "Rest in Peace" on it, and then quietly pass away with the thing in my hands.

Very noble of you; I'm sure you won't. Probably not; someone will more than likely take it away from me and put it around the neck of some affectionate horse.

Well, what DO you owe your success to? My bows and errors, I said, with a slight quiver. Fanny made a face, but looked more beautiful than ever.

Have you met my aunt? Say, I haven't even met your escort yet.

Oh, look! There she is, Fanny said, pointing in the general direction of a milling group among groups. I'm sorry, but I can't make her out, I remarked after looking at the wrong group.



* * * *

A scientist says that in a hundred years there will be nothing in the world to laugh at. Won't there be any scientists?

A Fable

Under the swinging street-car strap
The homely co-ed stands,
And stands, and stands, and stands, and stands,
And stands, and stands, and stands.

—Ames Green Gander

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PAGE

233



PIA PICA
An Insulting Engineer in the Early Days
of California

•
A History Cram-p

Submerged in desperate thought
In hectic wandering
Thru battles long ago fought,
Or sadly wondering
If professors can be bought.
Can't get mad, I feel so bad;
Not a bit glad, while I'm so sad,
Thinking on what I'll be caught.

•
King Solomon once attended the opening night of a musical comedy and enjoyed himself immensely. The producer hurried up to him after the show and asked, "What did you think of the chorus, your majesty?"

"Great!" replied the potentate. "Send the first three rows up to the palace."

—Jack O'Lantern.

•
Prof.—Mr. Lanham, what do you know of this light theory?

Mr. Lanham—Well—uh—I don't think I'm so sure of it; what do you think of it?

Prof.—I don't think, I know!

Mr. Lanham—I don't think I know, either.

You've missed her then; she's just gone into the drawing room with a bald-headed man. I didn't think they allowed one to bring one's relations. Didn't you know? My aunt is the one who is giving this party. Not—you don't mean—is it possible that—Lady Windymare? Ten pounds, no more, no less.

Hm! I guess that makes you one of the Oldhams, or are you one of the Heinz? My dear boy, I'm one of the Oldhams; but don't try to make any puns or puny remarks about it. I know them all, and anyway I've already had my good name scratched once this evening. You don't say so! I said, affecting a dramatic alarm. Who did it? I'll protect your honor.

It doesn't need to be protected; it needs to be protested. Let's go downstairs and dance. Oke.

When we had gotten up from our seats, the good view of the room (of both rooms, in fact) made me pause before going downstairs. Wait just a minute, I said. I'd like to find out where all of the people I'd like to avoid are.

Is that good-looking blond over there a student? I've noticed him before, Fanny asked, pointing to a short, solid-looking person. No, he's one of the members of the English department. Not so long ago he lost one of his most distinguishing features. How was that? asked Fanny. He had a most annoying habit of clearing his throat, which wouldn't have been so bad, except for his putting his hand to his mouth and drawing his listeners' attention to it. He hasn't done it since his recent marriage. I guess his wife told him how huseless it was.

Fanny indicated a group of students standing about in a ring and said, Do you see that group over there? I nodded. Well, in the middle of that huddle is a little broad-nosed gentleman. Who is he and what is he saying that makes them all laugh every once in a while? If it's the person I think it is, he must be the professor who changed the name of our school to the California Institute of Technocracy. He's a Scotch economist.

Wasn't one of those enough? Not in his case. You see, he's one of the charter members of the Consumers' League: an organization which points out to American Scotchmen where they can get the best and the most for their money.

But that doesn't explain his amusing qualities; what else does he do? He indulges in pornography as a side-line; a much sought-after virtue by businessmen's luncheons. Pointing to another group, I said, Do you see that athletic-looking bunch of fellows on the far side of the room? Yes. Well, they're

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and for

DELICIOUS FOOD

the ones who control the sweater output of the Institute. They win all of the varsity letters. Why does that nice-looking blond keep kicking his foot up into the air? Oh, that's Phil Craig showing how he made the drop-kick which gave us a victory over Oxy.

Oxy? What's that? It's a matrimonial bureau on the other side of the Arroyo Seco. Who is that little fellow over there with the Don Novis ears? I laughed slightly, Oh, you mean Phil Efromson. Why did you ask? The reason I asked was to draw your attention to the fellow who is standing just in back of him, that awfully good-looking tall fellow. I looked. Wait until he turns around again. Now, do you see whom I mean? Yes, I said, but I can't tell—. There, he's turned around—why, Wild, what's the matter? I must have turned green around the gills; at any rate, I wanted to. I looked at her and then I looked—ye gods! It was Matson!

Tossling my locks, I said, Come on, let's go down and meet your aunt. But I like tall blonds, she said, slipping her arm in mine. Still baffled by this strange power Matson had over women or the strange odor he exuded which made women scents him from a distance, I skipped down the stairs with Fanny.

Pipe-Dreams

The smoky haze before my eyes
Is as languid as my sighs;
And while my dreams they fly apace
My thoughts move thru a vacuum space.

o

Could you tell me, plizz, mister, where is the rest room?

Escalator, Madam.

Esk you later? I gotta go now.

—Bean Pot.

•

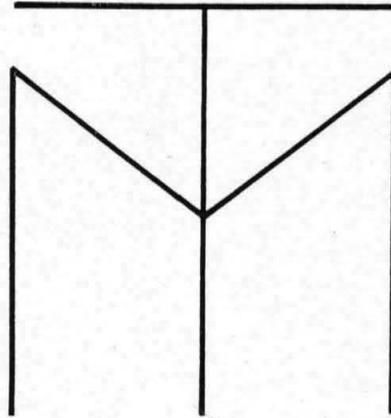
Proud Mother—Yes, he's a year old now and he's been walking since he was eight months old.

Bored Visitor—Really! He must be awfully tired.

—Yellow Crab.

•

Once there was a mean Army officer—he was rotten to the corps.



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When we had reached the bottom, I said, Where is the drawing room? Way over there. Let's dance over there, huh? Sure.

Beautiful piece of music they're playing, so soft and slow. After we had whirled about a couple of times, Fanny said, You're a smooth dancer. I smiled, Thanks, I want to be. These people who jump about as though they were churning butter or shuttling in a loom should be strapped in bed and their feet tickled.

Fanny sighed and said, apparently not having listened to me, I'm leaving for New York tomorrow. Did you know? Really. Is that why this party is being given? Yes, but nobody knows about it; I think auntie is trying to break into the scientific world. Is she after a scientist? I asked. Yes, sighed Fanny, She's never been married to one. Has she ever been married? Say, my aunt's been divorced more times than you've had evil thoughts. Is that so? I bet she's just a sailor girl.

What's that? A man in every court. Fanny smiled. I continued, She must be a regular sue-er. Ah, ah, said Fanny, shaking her finger at me, How do you get that way? Alimony, my dear Fanny, alimony, I said.

Pint 5

We approached the drawing room. Let's dance a little more, I said, liking the proximity of her form to mine. But I want to see auntie before she gets away again—anyway, I'd much prefer a Technocracy dance. What's that? A dance of staggering figures, darling. Yes, I said, with a sigh, Let's find your aunt.

By this time we had reached the entrance, the door of which was almost closed. Fanny looked up at me and said, Ssssh! This might prove to be interesting. With that Fanny quietly opened the door and we peered in. I spotted Lady Windymare immediately along with the bald-headed gentleman. Her form and the bald head rose above the back of a divan which faced a fireplace on the far wall. Lady Windymare had on a 3.2% dress (beer back) out of which she looked down upon the bald-headed victim.

At first I thought she was watching her reflection, but dispelled this thought as I glanced at the dull sheen of the full-grown bald spot. Fanny squeezed my arm as Lady Windymare began running her fingers over the bald head in a mysterious manner, as though she were crystal gazing. I squeezed Fanny back, whereupon she whispered, My aunt's favorite indoor sport, feeling heads and



Entrance Exams

Pater Pen

Long ago it was and far away
That on the hill there shone the sun's last ray
And crimson banners glorified the day.
That was past. Came evening soft and slow
And quenched the glow
And sweeping low
Caressed the soft brown meadows where I lay.

And peace came thru the landscape and the marsh
Where twittering frogs and twinkling fireflies
spread
Their shimmering starry-mantle o'er my head.
With reedy note the red-winged blackbird said
His evening song
And loud and long
Came hollowly the bittern-croaking harsh.

Then suddenly I heard a magic note
Now near at hand, now yonder, now remote,
Like fairy flutes it seemed and not the throat
Of mortal thing for mortal things to hear.
Now thin and clear,
Now wild and queer,
As though attuned alone for wood nymph's ear.

That night I dreamed that thru the rice there came
A funny misshaped man with horned brow
And hairy legs and cloven hoofs, the same
As one of old, and in his hands a pipe.
And merrily
He laughed in glee
And played a trill and went I know not where.



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Io—Football has done a great thing for this country.

Dine—In what way?

Io—Why, now you can walk down the street with a blanket on one side and a girl on the other and not be talked about.

—Wesleyan Wasp.

Father—Why were you so late last night?

Prodigal—After the dance Mary wanted some popcorn, and we had to drive all over town to find some.

Father—And I suppose you used the hairpins in the back seat to pick your teeth?

—Voo Doo.

A customer sat down to a table in a smart restaurant and tied a napkin around his neck. The manager, scandalized, called a waiter and said to him: "Try to make him understand as tactfully as possible that that's not done here!"

Waiter (seriously to customer): A shave or a haircut, sir?

—Log.

Rastus and Liza were roller skating when suddenly Liza fell, but flopped over and came up again with remarkable agility. "Did you see how quickly I recovered my equilibrium," she asked. "You sho did," Rastus answered, "almost before I noticed it was uncovered."

—Texas A. & M. Battalion.

bumps. At her age? I whispered querously. Fanny disregarded my remark, continuing, Bald heads are her specialty; she likes to think she can get to the roots of the individual's particular problem more easily.

Feeling like a North Pole rescuer, I suggested we spoil their fun. We both cleared our throats. Lady Windymare turned to us with nary a blush, while the bald head flushed like a toilet. Oh Fanny, dear, Lady Windymare said in a deep voice, I want you to meet Doctor Wocksie. Docksie Wocksie, my niece, Fanny. Docksie Wocksie's heavy black-rimmed glasses occupied the place previously held by the bald spot—he had turned around. There was a panned look of relief on his face as he grasped my hand and said, Hello, Wild, and then whispered fiercely, For Ford's sake, don't leave me! and then in a loud voice, Lady Windymare, I would like to present Wild Oscar, one of my students.

Oh, how do you do, Mr. Oats. Not Oats, Lady Windymare, Oscar, Oscar, like in Zilch. Yes, yes, of course—I see you've already met my Fanny. Yes, indeed, said Fanny, coming over towards me, What have you been doing auntie, we've been looking everywhere for you? Oh, I've been having the most wonderful time making a study of Docksie Wocksie's head. Curious, you know, that we should both be interested in the mind. I've been investigating the bumps on his head—and he has a most curious head, a most curious head. Docksie Wocksie, I noticed, was doing his damndest to assume an air of indifference with respect to this discussion about his pate, but he blushed to the roots and, as he had no hair to cover the roots, he looked unbecomingly sunburnt.

As I was saying to Docksie Wocksie (I noticed her familiar use of the word, Docksie, as though he were a small wharf to her), he has all of the normal proterberances, but there is one spot between the—what did you call it? Well, never mind (as Wocksie looked annoyed), it was just below the fringe. There is an embryo bump there, that is, it is still in the process of development, but a sudden change or shock will bring it out to full size.

By the time she had finished her speech, I had an uncomfortable feeling that she wasn't looking at me while she was speaking, but at my head. I hurriedly threw a glance at Fanny, but it glanced off. I was in a quandary as to what to do, for she now took a step in my direction. Before I'd let her make a monkey out of me I'd—. But just then I had a happy thought, a thought which prompted

my suggestion of playing a game in which all of the guests might join in. Lady Windymare said, Oh, joy. Let's play Reno. Fanny asked, What's that? Having played once before, I said, It's played like murder, except that the victim is kissed instead of slain.

Fanny seemed all hot for the idea and asked how it was played. I said that playing cards were distributed as in murder, except that the one doing the kissing must draw the Queen of Hearts. I'll have the orchestra leader announce you, said Lady Windymare, and you can tell our guests how to play it, and you can also be the attorney. But there won't be enough cards to go around, she said as an afterthought. Use two packs of cards and throw one of the Queen of Hearts in the discard, I said. Why, certainly, Auntie. You and I'll distribute the cards. Come on, let's announce it.

In no time at all I found myself talking to the multitude and explained, among other things, that the cards would be distributed among the women only. The seniors seemed to like the idea, while all the women began powdering their noses, as in Samoa. I told them that after being kissed the fellow would have to groan in a loud tone, and it was up to the attorney to find the girl who did him wrong. The kissing was to take place while the couples were dancing in the dark, the lights being switched on when the deed was done.

Lady Windymare and Fanny had meanwhile dispersed the cards and as soon as everything was understood and ready, the orchestra began to play as the room became gradually enveloped in darkness. It was a gorgeous sight: the musicians looked weird in the reflection of the dimmed lights on their music stands and there was the soft swishing of silk and satin, the tapping and sliding of many pairs of feet, and best of all, I was dancing with Fanny. I said to her, I'd like to flatter myself in thinking you were the Queen of Hearts. Listen, darling, I am the Queen of Hearts. I took the card out of the stack and kept it. But, Fanny dear, this would be like a bad mystery story; I'm the attorney. Oh, damn it, I forgot!

Hell's bells! I said, Who has the other Queen of Hearts? Auntie said she got rid of it. I have the only Queen of Hearts in existence. Well, damn it, we'll have to begin all over again. Tsk. Tsk. But just then both of us heard someone come down with a clump and groan, so Fanny and I quickly made our way in that direction.

Several couples had gathered around the spot, which proved to be the entrance to the drawing

Mark Antony—I want to see Cleopatra.
Servant—She's in bed with laryngitis.
Mark Antony—Damn those Greeks.

—Carolinian.

•

And there's the happy bounding flea—
You cannot tell the he from she.
The sexes look alike you see;
But she can tell, and so can he!

—Texas A. & M. Battalion.

•

I used to love my garden,
But now my love is dead;
For I found a bachelor button
In a black-eyed susan's bed.

—Carolinian.

•

Woman (aboard ship)—Oh, Captain, I'm so sick
I don't know what to do.

Captain—Don't worry, lady, you'll do it.

—Brown Jug.

•

The click of knitting needles, the creak of a rocker, and the tick-tock of a grandfather's clock were all that disturbed the soothing stillness of the room. With childish curiosity little Ellen sat watching the purls and stitches.

"Why do you knit, grandma?" she asked.

"Oh, just for the hell of it," the old lady replied.

—Princeton Tiger.

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Indian (in a grocery store) : Ugh! Ugh! Pepper!
Clerk: White or black?
Indian: Ugh! Ugh! Toilet pepper.

Lunarian Sagacity

Majestically swaying in the breeze,
A couple of South Sea island trees
Flitted their fans before the new moon
And shadowed his face in the lagoon;
But his mighty perspicacity
Saw thru their flippant audacity,
For he picked up his white flowing skirts
And sailed away from the two flirts.
Bla-ah!

She was only an optician's daughter, but she could take a couple of glasses and make a spectacle of herself.

room. I was horror-stricken to find Docksie Wocksie stretched across the threshold. Somebody tapped me on the shoulder, but I didn't bat an eye, for this was the one time in which Matson (it was Matson) caught me at the right time. Grab his feet! I whispered to him, I'll take hold of his neck and we'll haul him into this room. Before many people had a chance to gather round, Matson and I had carried Wocksie to the davenport, on which we laid him. Fanny and Miss Asterisk closed the door behind us, while I bent over the unconscious form of the poor man. Having made sure that Docksie was still breathing, I suggested that we act quickly, as there was no telling what the guests outside were thinking. I dispatched Fanny to find some smelling salts or her aunt, while I told Matson to take my place as attorney and explain or solve the mystery as best he could. Matson rushed to the door before I had time to finish my sentence and, with his hand on the door knob, said, in a melodramatic voice, I'll solve or dissolve. And then he was gone, with Miss Asterisk in his wake.

I began to breathe more easily and noticed that Docksie Wocksie seemed to be doing the same. There was a bump on the back of his head which any chicken would have been proud of. I couldn't tell at first whether someone had intentionally hit him from behind, or that he had stumbled backwards, or what, until, in loosening his vest, I found the missing Queen of Hearts. Fanny returned in a few minutes with some ammonia and her aunt, so I slipped the evidence in my pocket. Docksie Wocksie was still in a trance, but after plying the strong liquid to his mucous membranes, he slowly opened his eyes. Before he had fully opened them, he moved his lips and I heard him say, Where are my Freshmen? Just after this unintelligible query, he spotted Lady Windymare and the color ran back to his pallid face. Meanwhile, I was putting two and two together and getting all sorts of answers.

Oh, Docksie Wocksie, Lady Windymare said in a sympathetically hoarse voice, I'm so sorry. Are you hurt badly? I was in the kitchen at the time and I assure you—. Please, Lady Windymare, I think it

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would be a good idea to let him rest. I believe that you would be of great service to your guests by telling them that everything is on the up and down. Yes, I see your point. Very good, that's just what I'll do, and she went out, just as Matson came in.

Well? I said, noticing Matson's disgusted look. They spoiled it. When I went out there all I could hear was groans, and when I switched on the lights all I could see was a lot of handkerchiefs being waved around. The fellows were wiping the lipstick off their faces. Gruhhttes!

Did you say anything about him, I said, pointing to Wocksie. Several people asked me what happened at the door, and I said that Docksie Wocksie had a little too much to drink, and, in trying to open the door, it opened unexpectedly and threw him to the floor. I had raised my finger to my

mouth too late, for Wocksie had heard and he groaned, This will be the ruin of me. I attempted to relieve his alarm by saying, Would you rather be exposed as a "tight" person or as a loose one? pulling the card out of my sleeve.

A timid voice (it was Miss Asterisk's voice) asked, Isn't he the same man who was killed in the back of the Big "T" three years ago? Yes. He's a marked man, I solemnly re-marked. Now both of you run along, I'd like to ask Wocksie a couple of confidential questions. You stay here, Fanny. Try and get rid of me, Fanny said, coming over to the divan as Matson and his girl friend drifted out of the room. Just look at the size of that bump, and in the very place auntie said it would come. What a woman!

What a woman! is right. Say, Fanny, have you

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that I had been dreaming—that it was all bolony. I was in my room—there was the phone, the whiskey glass, everything. Ah, me!

Instead of putting Matson wise to my dream-inamorata, I said, I must have fallen asleep—those drinks at the judge's along with that last shot must have—. But I didn't finish that thought, I just shrugged my shoulders and said, Have a good time? Naw, it was a pretty punk party. Doubtful as to whether Lady Windymare really existed or was just part of my dream, I nevertheless took a chance and asked, Did you meet Lady Windymare? Yes. She's a peach; a little old but still pretty lively. Did she have a niece from New York there? No, not that I know of. Was there anybody there by the name of Fanny? No. Why?

Ohhhh—nothing. My disappointment at the realization that my delicious adventure was nothing more than a dream was overwhelming—and not only that, but to have Matson standing around for ten minutes, undressing and putting his pajamas on, listening to my incoherent mumblings!

My disgust having reached a climax and subsided in the short space of time required to rub my eyes, I turned back again to Matson, who was still sitting beside me holding the water tumbler. Tak-

ing the glass from him, I swallowed the rest of the water and lay back in the chair again, feeling immeasurably refreshed. Matson said, Aren't you coming to bed? Right now, Matson, I returned, jumping up from the chair.

I followed Matson up the stairs after making sure that everything was all right for the night.

Once in my room, I quickly disrobed and flung myself between the covers of the bed. The effects of my copious drinking during the early evening were still making themselves evident in a sort of groggy drowsiness. As soon as I had closed my eyes, Morpheus immediately took command and I disappeared from a conscious world, still thinking of Fanny.

One Gallon

As I lay in bed the next morning in a half-awake misty consciousness contemplating with closed eyes my previous night's dream-adventures which I had continued upon falling asleep, I recounted my exploits. My thoughts sped over the high spots such as the match episode, the snake dance, meeting Fanny, Lady Windymare and Docksie Wocksie; and I purposely jumped Matson's interruption to recall the pleasant vices I indulged with Fanny in a con-

(Concluded on Page 250)

THE LITTLE TICK

TRUE AND FALSE TEST

DIRECTIONS—First, eat a heavy meal. Then swallow two tablespoons of castor oil (if you think this won't do, try baking soda). After waiting a while take this book with you. When you are comfortable, open to this page and read the directions. Simple, isn't it?

ALSO READ THIS—There are a lot of statements below. Begin at the beginning (as in the game skillibutch), marking with an F or a T any or all sentences which in your opinion are false or true. Do not hurry, because, if you have followed the directions, there is plenty of time. Of course, your score depends upon how long you can hold out. On your mark, get set, go! No, wait a minute. If you are not sure of the correctness of any one of these statements, guess. Now go to it!

1. F Cal Tech students know what the food value of a waffle is.
2. Ricketts House is an insane asylum.
3. T An idealist thinks there is something more in love than the biological urge.
4. F Culbertson Hall is sometimes used as an incinerator.
5. F The Athenæum is a Greek handball court.
6. T Marriage is a moral victory by an unmoral woman over an immoral man.
7. T The major sport at Tech is tennis.
8. F Pi Kappa Delta is a pornographic society.
9. F Slip stick means hitting somebody in the face with a piece of pie.
10. F An apple polisher is an unemployed Tech alumnus.
11. F Beer-drinking is permitted in the student houses.
12. T Rape is something that canary birds eat.
13. Catalysis is another word meaning orgasm.
14. T Gravy is the liquid Tech politicians swim in.
15. T You can insult a woman by calling her a female.
16. F A rubber handbook is a birth control pamphlet.
17. F Dabney Lounge is a studio couch.
18. T Blacker House is a home for bridge fiends.
19. F The most intelligent students are snakes.

20. F The Big "T" is a fancy drink.
21. An efficiency expert is a man with a large family.
22. F An honor key is an award for virginity.
23. F A bull session is a barbecue picnic.
24. T The Press Club is a flop.
25. T Any Tech student can drive a girl crazy.
26. F A mechanical engineer is a robot.
27. T A snake is a person who studies all the time.
28. T A mustache helps to confirm a person's masculinity where other identifying features are absent.
29. F Y. M. C. A. is something one puts at the bottom of a social letter.
30. F A tertiary formation is an Engineer backfield combination.
31. F A Roman trireme is a triple goose.
32. F Tech campus buildings are heated by X-rays from the Radiation Lab.
33. T All optimists go to heaven.
34. T According to E. T. Bell's "The Science of Number," Nature's new favorite is 137.
35. F Broadoaks is a branch of the California Institute.
36. F The Old Dorm is a German castle on the Rhine.
37. F The Marine Station at Corona del Mar is a training school for ship engineers.
38. Student house hash is highly-seasoned food caught in the kitchen sink drain.
39. T An engineer is a person who has been out of work a long time.
40. F A discobolus is another word meaning foreigner.
41. T A whiskey straight is a college drink.
42. F Astrophysics is a new kind of laxative.
43. T The High-Tension Lab is a shocking mess.
44. F The Mt. Wilson Observatory is the largest hot-house in the world.
45. F A campus is a male wampus.
46. Most Cal Tech students wear cast-off clothing.
47. F Tau Beta Pi is an old formula for making beer.
48. F The Non-Resident Club is composed of homeless waifs.
49. T Cal Tech controls the world's supply of sloth dung.
50. The Institute band is a mark of mourning to be worn on the sleeve.

tinuation of the dream I had started in the arm-chair and had finished in bed.

The almost real and quite vivid recollection of our physical experimentation caused me to sort of sub-consciously reach out my arms to enfold my denuded dream, but instead of feeling the cold and delicious linen of a soft pillow, my fingers fondled warm flesh that was firm and plastic and round. I moved my hand and encountered the same thing and experienced the same feeling. I was just about to move my hand in another direction when a girl's voice said, Don't—it tickles.

I thought, How in Hell did Dottie get here, and I opened my eyes to find out . . . Good morning, Wild, said Fanny.

This was going too far—a dream was a dream and all o' that, but after all . . . I sat upright, noticing immediately that I was in a strange bed, in a strange room, and—, but my thoughts were interrupted as Fanny said, Come on; pull those covers down—it's chilly. Well, I thought to myself, if this is a dream I'm willing to play my part, so I obeyed, at the same time saying, Am I dreaming?

Have you forgotten last night, or are you still woozy? Don't you remember me or anything? I must admit that the blank look I returned in place of a sensible answer to these questions would have done justice to any half-wit—my mind was still in a state of befuddlement. Striving hard to get my brains to function, I said, Aren't you just part of a dream—an honest-to-God dream? Say, listen, If you're going to call me Matson like you did when you followed me upstairs last night, you can get out of bed and go home!

If I did that, I said, not caring now whether or not I was still dreaming, I must have been drunk or asleep. I'm afraid you were both, Fanny said. Making a suitable gesture, I suddenly said, Match? hoping by this means to show the dream up for what it was or something. Fanny immediately responded, Bootlegger!

You win, I said. When did you guess that I was the one who—? But my words were cut short by a loud, indignant voice which rang out in stentorian tones from the other end of the room, What are you doing in bed with my Fanny?!?!?

Ye gods—this was a nightmare; it was no longer a dream. For goodness sake, pinch me, Fanny, I implored. Pinch your own! Fanny retorted. I just

said to myself, Aw, hell! This is just a dream, and closed my eyes.

What are you doing in bed with my Fanny?!?!? the voice repeated with an alarming crescendo, signifying the speaker's approach. I opened my eyes and looked at Lady Windymare. My throat rattled as it made a vain effort to disentangle gulps, gasps, wind, words, and everything else which makes up a frozen vocabulary, but I heard myself saying, For Heaven's sake, Lady Windymare, this is a dream—have a heart! Lady Windymare paled, as both she and I looked into the faces of two cards which Fanny had thrust in my hand. Fanny must have taken them out of the pocket of my coat, which was lying on the floor next to her side of the bed; at any rate, I felt that I now held the trump cards. Fanny pointed with malicious and mischievous intent at the cards, looking at her aunt and saying, Docksie Wocksie, auntsie?? I had time to become myself again, and capped Fanny's incrimination by saying, as I held up the two Queens of Hearts, This is a horse on you, Lady Windymare—I guess, I guess!!!

Apparently Fanny held more trumps in her stack than I did for she shook her finger at Lady Windymare and said, And I'm going to tell grandpa. Her aunt couldn't have given it much thought, but in no time at all, Lady Windymare changed her belligerent attitude by taking a few steps backward and sweetly said, What'll you have for breakfast?

Putting my queens down, I looked at my Fanny and said, If it's all the same with you, Fanny, I'd like to have my breakfast in bed. So would I, replied Fanny, as her aunt discreetly beat a hasty retreat.

Last Drop

And so, with these words I close the tale of Lady Windymare's Fanny, based on a story which took place in King Arthur's time, but retold in modern English for the benefit of those who are not familiar with old English. Inasmuch as it was felt that mental temperaments varied between such silly limits, the translation was not expurgated on the ground that most people who could read could also afford to buy pencils and therefore could cross out or draw lines through those words or sentences which they might not be able to understand. The reading time of this narrative is about 21 years of age, and should not be attempted by Victorians or other old brooms.

APPRECIATION

To the few advertisers who have loyally stood behind the Big "T" in this trying year, I extend my sincere thanks. To my small staff which has helped carry part of the burden, and especially to John Tyler, I owe a debt of gratitude. To merely thank Merrill Berkley for the work which he has done falls short of its mark; it has been a pleasure to have worked with him this year.

May the friends I have made in this work be lasting.

ROBERT MACDONALD, Business Manager.

THE LAST WORD

It has been my ambition, in this interesting phase of extra-curriculum work, to present as faithful a picture of college life as it is possible to do with a camera and a typewriter.

This book has been an experiment: in its inception, in its design, in its art, and in itself. Year-book tradition proved more of a handicap than an aid: in its ostentation, in its mediocrity, in its conventionalism, and in its staccato.

From a Japanese block print to a poor pun, from the sublime to the ridiculous; so ranges the temper of this book. The only limits I set for myself were the limits of simplicity; all other effects come out of this.

Although I at first meant to, I shan't explain in English the Japanese interpretation of any one of the block prints used in this book; they were not chosen with this thought in mind, but rather for beauty in color and the visual connection each might have to the section it preceded. Referring to the English titles I have given these illustrations, the Japanese artists who have created them are as follows: "Beyond the Horizon," Hiroshigi; "Wait," Kuniyoshi; "The Lantern," Hokusai; "The Wrestling Match," Kuniteru; "Destiny," Toyokuni; "The Puppet," Kunisada. For the use of the last print named, I am indebted to Dr. Harvey Eagleson, from whose collection the original block print was borrowed.

Four years ago I asked if I might do some work on the annual staff; the editor was surprised. This year . . . Well, I wasn't surprised, but I was disappointed. It is with my friend and partner, Bob Macdonald, that I share this disappointment. He experienced as great a difficulty in securing competent and ambitious student workers as I did. Those who finally stuck with the work we treasured as rare human beings.

My pleasures in the editing of the Big "T" are measured by the acquaintances I have met and the friends I have made. To Mr. William M. Clark I am extremely grateful for the strikingly beautiful photographs he entrusted to me. I have considered myself fortunate in being able to reproduce a majority of them in the Campus Section. Mr. W. Albert Martin has set a high goal for other school photographers to meet; his consistently fine work in portraiture has had no parallel in previous annuals. Working with Mr. Martin has been a pleasure.

Tom Hill, representative of the Metropolitan Engravers, Ltd., is one of the reasons why the pictures in this book are such close reproductions of the original copy. It was through him that I had the pleasure of meeting and knowing the owners of this thoroughly reliable engraving establishment. Lots of success, Tom, and leave that girl in San Francisco alone.

My first acquaintance with "big business" came as a result of meeting a salesman in the person of Ralph Bergsten. Bergie was a real find, his printing contract turned out to be just what I wanted. His personal interest in the book, his constructive advice, and the sincerity of his friendship are attributes meriting enumeration.

After snubbing each other for two days, a damned Irishman and myself finally found out that we both agreed on certain trifles. Knowing Vince Meggher and watching him create and produce layouts and designs for the pages of this book inspired my flagging courage. And, anyway, we both thought Eastside was terrible.

The persons I have mentioned and expressed my liking for were directly concerned with the production and publication of the book. It is because of them that I might be tempted to do it all over again; however, once in a lifetime is enough, and I'm damned glad it's all over. As I prepare to pen my name to these closing words, I somehow want to look forward to as pleasant a holiday as Browning found for Herve Riel—nothing more.

MERRILL BERKLEY, Editor.

